

Management Discussion and Analysis

Economic Overview

Global Economy¹

The global economy experienced a turbulent economic landscape in Calendar Year 2024 and grew at an estimated 3.3%. This steady pace despite various headwinds, such as geo-political unrest, shifting trade dynamics and elevated geo-economic fragmentation highlights the exceptional resilience of economies worldwide. The Eurozone faced stagnation as major economies such as Germany experiencing challenges in the manufacturing sector. Conversely, the US economy projected steady growth owing to healthy corporate profitability and strong consumption. China's economy witnessed subdued and weaker than expected growth as it drove through challenges in its property sector. Geopolitical upheavals, volatile commodity prices and extreme weather patterns while posing challenges in many regions, have also spurred adaptation and innovation.

Asia's emerging markets exhibited robust growth due to its high demand in various sectors. These areas are expected to continue driving growth, creating new opportunities across the globe. While economic headwinds persist in regions like the Middle East, Central Asia and Sub-Saharan Africa, the allure of emerging markets is also increasingly attracting capital inflows adding dynamism to the global economy.

After climbing 6.7% in CY 2023, global inflation is evidently on a downward trend, projected at 5.8% for CY 2024. This positive shift is a sign of progress as central banks across major economies continue to manage inflationary pressures. Leading countries are driving growth in defiance of structural challenges like demographic shifts and productivity gaps by leveraging digitalisation and sustainable investments. However, the imposition of reciprocal tariffs by the United States is anticipated to exert upward pressure on inflation through higher import costs. From March, the US expanded tariffs on steel and aluminium to 25%, removing all exemptions from the tariffs.²



¹<https://www.imf.org/en/Publications/WEO/Issues/2024/10/22/world-economic-outlook-october-2024>

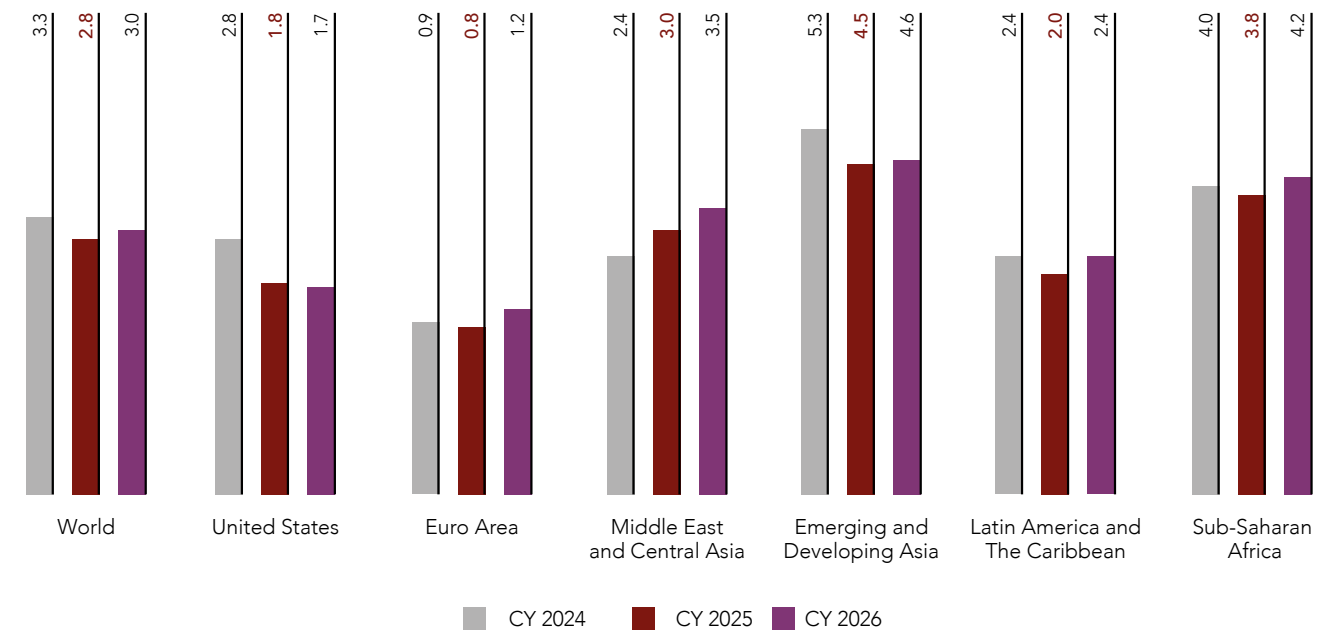
²<https://www.pwc.com/ca/en/services/tax/publications/tax-insights/us-impose-tariffs-steel-aluminum-imports-2025.html>

Outlook

The global economy is expected to exhibit moderate growth in the year ahead with IMF projecting a growth of 2.8% in CY 2025 and 3% in CY 2026 (According to April 2025 issue of IMF WEO). Advanced economies are envisioned to grow at 1.4% in CY 2025 while EDMs are expected to exhibit a growth of 3.7% and 3.9% in CY 2025 and CY 2026 respectively. The easing of inflation to 4.3% by CY 2025 heralds a stable global economy, with recovery potential across emerging markets.

Despite ongoing geopolitical strife in Europe and West Asia, a rebound in global economy is anticipated. A sustained economic momentum is expected as governments around the world seek to resolve tariff-related uncertainties through dialogue and mutual understanding. However, potential disruptions such as abrupt commodity price increase, intensified trade barriers and instability in China's financial markets present substantial risks to the global outlook.

Contributions to Global Growth³



Indian Economy⁴

During the year under review, India's GDP growth is projected at an estimated 6.5%. The economy handled global economic shocks driven by sustained private consumption and rural demand and strong performance across sectors, such as manufacturing, services and trade. Although investment growth experienced a temporary slowdown due to external factors, increased rural consumption was driven by better agricultural output. This augmented private consumption growth to 7.6% and added 4.3% to the overall GDP growth.⁵ Additionally, India's Foreign Direct Investment (FDI) exceeded the threshold of USD 1 trillion, reinforcing the nation's reputation as a secure and attractive global investment hub. The government's ongoing investments in infrastructure, logistics and digital connectivity have been crucial in maintaining economic stability. For Financial Year 2024-25, the government allocated INR 11.11 lakh crore

towards capital expenditure, accounting for around 3.4% of the country's GDP.⁶



³<https://blogs.worldbank.org/en/developmenttalk/the-global-economy-in-five-charts>

⁴https://dea.gov.in/sites/default/files/Monthly%20Economic%20Review_November%202024.pdf

⁵<https://www.adb.org/sites/default/files/publication/1044336/asian-development-outlook-april-2025.pdf>

⁶<https://pib.gov.in/PressReleasePage.aspx?PRID=2035558>

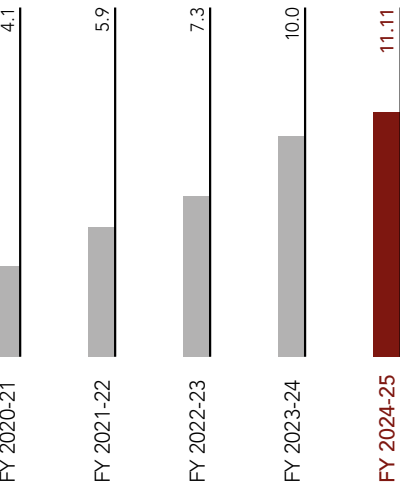
Outlook

The outlook for India's economy remains promising and is expected to sustain its trajectory of growth. India's GDP is expected to grow by an estimated 6.5% in both FY 2025-26 and FY 2026-27⁷. This positions India as one of the world's fastest-growing economies in the coming years. India's economic growth is likely to pick up pace favoured by easing inflation and favourable weather conditions accelerating agricultural outputs and an uptick in rural consumer spending. Further, the recent tax slab revision for salaried individuals implemented by the government is expected to augment discretionary spending among the urban populace. The cuts in repo rate implemented by the Reserve Bank of India is expected enhance credit flow and augment liquidity in the market. These steps by the government and the RBI is expected to bolster the overall economic activity.

However, the current tariff scenario continues to pose threats to trade stability. The Government continues to assess the tariff environment and is calibrating its response. The inflation is expected to ease further to around 4% in FY 2025-26⁸. Additionally, as multinational corporations aim to optimise costs and expand their operations, India will benefit from higher capital inflows, fuelling long-term investment and employment growth. With strong foreign reserves and accommodative government policies, the nation is expected to witness steady growth in the years ahead.

Capital Expenditure of the Central Government⁹

(INR in lakh crores)



Industry Overview

Aluminium Industry

Global Scenario

The global aluminium market was valued at 249.83 billion in CY 2024. The market is further estimated to grow at a Compound Annual Growth Rate (CAGR) of 6.2% and reach USD 403.29 billion by 2032.¹⁰ Elevation in demand spanning industries, such as aerospace, automotive and construction is foreseen to be the key driver of this growth. The global consumption of the aluminium was around 73,237 thousand tonnes in the period of April-2024 to March-2025 which was at 71,174 thousand tonnes in the same time period of last year.¹¹



In recent years, there has been a surge in demand for lightweight materials especially for improving efficiency. This has made aluminium increasingly favourable for leading Electric Vehicle (EV) manufacturers, significantly augmenting its demand in the automotive sector. Further, Original equipment manufacturers (O.E.M.s) are gradually phasing out traditional materials like stainless steel and replacing it with aluminium for enhanced efficiency and better emission standards. The construction industry of emerging economies like China and India are further augmenting market growth with their heightened use of aluminium for rapid urbanisation and infrastructure expansion.

⁷<https://www.imf.org/en/Publications/WEO/Issues/2025/01/17/world-economic-outlook-update-january-2025>

⁸<https://pib.gov.in/PressReleaseIframePage.aspx?PRID=2120509>

⁹<https://www.bbc.com/news/world-asia-india-68823827>

¹⁰<https://www.fortunebusinessinsights.com/industry-reports/aluminium-market-100233>

¹¹<https://www.crugroup.com/en/commodities/aluminium/>

With the production of 72,938 thousand tonnes of aluminium in the period of April-2024 to March-2025, China continues to dominate the market, positioning itself as a leader in global supply with 43,275 thousand tonnes.¹² The North American market experienced high demand from the automotive and transportation industries, with EV adoption serving as a major growth driver. Europe's aluminium market is also being swayed by the demand from the automotive industry with the region focusing on reducing its carbon emissions and promoting electric vehicles. The aluminium market in developing countries are also witnessing a steady rise in demand due to the expansion of the packaging industry and heightened emphasis on the incorporation of sustainable recycling practises. The rise in construction activities in regions like the Middle East and Africa are expected drive market growth modestly, while Latin America experiences a surge in aluminium consumption due to its increasing emphasis on infrastructure development.

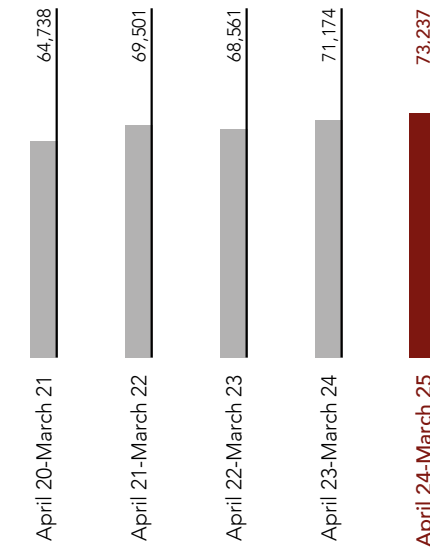
The global aluminium market is on track to see an uptick in growth due to recycling advancements, along with a focus on sustainability and lightweight and durable materials across industries. As key economies continue to integrate aluminium in innovative applications, the market is well-positioned for sustained expansion. The market is further driven by its versatility and crucial its role in helping industries reach global industrial and environmental goals.

72,938 Thousand Tonnes

Aluminium Produced from April-2024 to March-2025

Global Primary Aluminium Consumption

(in thousand tonnes)



Source: CRU International Limited

¹²<https://www.crugroup.com/en/commodities/aluminium/>

¹³<https://www.techsciresearch.com/report/india-aluminum-market/15108.html#collapseOne>

¹⁴<https://www.crugroup.com/en/commodities/aluminium/>

Indian Scenario

In FY 2025, the Indian aluminium market was valued at USD 13.77 billion and is projected to expand at a CAGR of 6.27% until 2030.¹³ The total consumption of the primary aluminium in the country was 2,650 thousand tonnes from April-2024 to March-2025 compared to the 2,365 thousand tonnes in previous year in the same time period. The nation's aluminium production witnessed a rise to 4,221 thousand tonnes in the period of April-2024 to March-2025 from 4,169 thousand tonnes in the previous year. India remains the key driver in wire rod production in year 2024 and it is expected to remain so for year 2025.¹⁴

India continues to dominate the non-ferrous metals industry as the second-largest aluminium producer globally. This dominance can be attributed to the country's copious bauxite deposits, cutting-edge mining technology and government-led initiatives designed to stimulate industrial development. Initiatives such as 'Make in India', Housing for All, the Smart Cities Mission, the INR 100 lakh crore National Infrastructure Pipeline and ambitious renewable energy projects have provided strong impetus to India's aluminium sector. Besides, initiatives aimed at promoting electric mobility such as Faster Adoption and Manufacturing of Hybrid and Electric Vehicles (FAME) coupled with rising Foreign Direct Investment (FDI) have further propelled demand and production capacity.

2,650 Thousand Tonnes

Primary Aluminium Consumed from April-2024 to March-2025

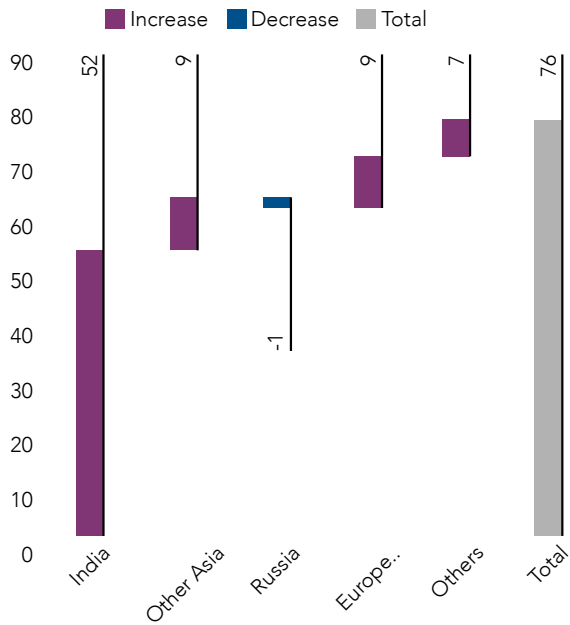


4,221 Thousand Tonnes

Primary Aluminium Produced from April-2024 to March-2025

India the key driver in rod output in 2024

(in thousand tonnes)



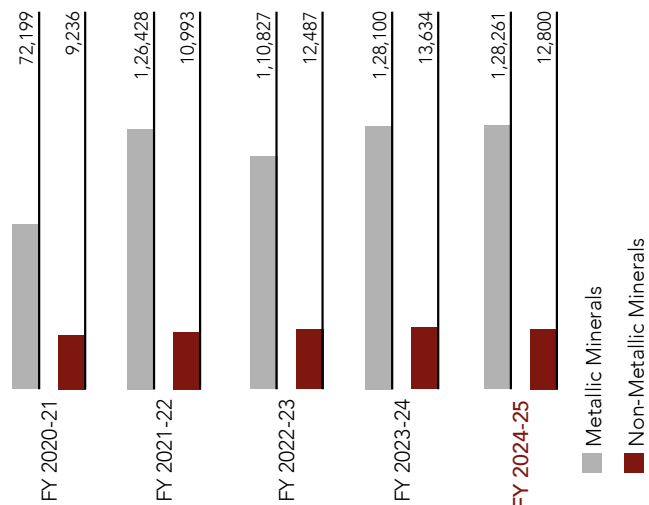
Source: CRU International Limited

DATA: CRU *Regional disruption adjustments excluded

Key sectors such as, construction automotive, infrastructure and machinery and energy are increasingly preferring aluminium owing to its durability and versatility. This shift is further augmenting the consumption and demand of aluminium. India's rising GDP growth coupled with rapid industrialisation and urbanisation are set to further elevate the aluminium demand.

Value of Mineral Production

(INR in crore)



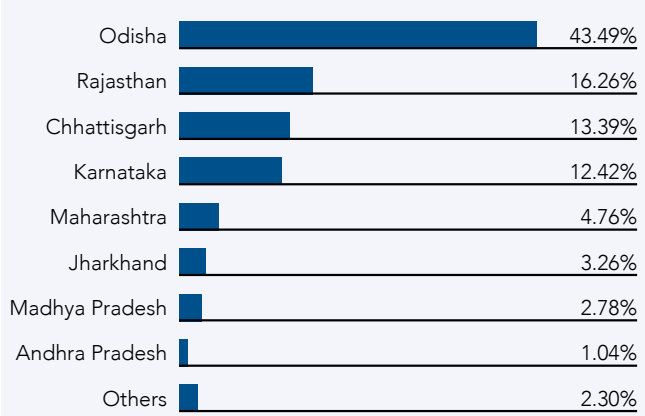
Despite China's dominance in global production, India is strategically positioned to play a vital role in shaping the future of the industry. Augmented production of aluminium has helped the country to outperform many established players and has solidified the nation's position as a key player in the global aluminium market.

Mining Industry

The Mining sector is an integral component of the Indian economy. India has abundant natural resources, especially minerals, which serve as key raw materials across various industries. The total value of mineral production (excluding atomic, fuel minerals and minor minerals) during FY 2024-25 was estimated to be INR 1,41,061 crores. The total value of metallic minerals was INR 1,28,261 crore which accounts for 91% of the total mineral production. In addition, non-metallic minerals production was valued at INR 12,800 crore. Odisha commands highest share in the mineral production with 43.49%, followed by Rajasthan (16.26%), Chhattisgarh (13.68%) and Karnataka (12.42%). India remains largely self-sufficient in key minerals that serve as primary raw materials for industries like iron and steel and cement. It is self-reliant or close to being self-reliant in minerals such as bauxite, chromite, iron ore, kyanite, limestone and sillimanite.¹⁵

The mining and metals sector is witnessing notable progress, driven by expedited urbanisation and infrastructure development. This is boosting demand for core metals like steel and aluminium. Government initiatives such as 'Make in India' are bolstering industrial growth and increasing the need for key minerals. The global shift toward clean energy and electric vehicles is accelerating demand for critical minerals like lithium, cobalt and aluminium. Supportive policies, faster clearances and transparent mineral auctions are promoting domestic production and exploration.

Percentage Shares of States in Minerals Production in FY 2024-25



¹⁵<https://mines.gov.in/admin/download/67b42e623b87e1739861602.pdf>



Overview of Related Industries

Automobile

India is the world's fourth-largest automobile market. The market contributes 7.1% to the nation's GDP.¹⁶ The auto industry utilises 27% of the country's aluminium, a share which expected to grow as the demand for lightweight materials increases to enhance fuel efficiency and reduce emissions.¹⁷

The combination of ascending disposable income, aspirational spending of the rising middle class, heightened urbanisation and an enhanced network of roadways has fuelled a surge in personal vehicle demand, driving automotive sales. Capitalising on this opportunity, leading automakers are expanding their production and building a strong supply chain for aluminium components in India.

With consistent economic growth, supportive policies and technological advancements shaping the industry, the Indian automotive sector continues to drive aluminium demand. This trend positions the automotive industry as a key pillar of the aluminium market's growth.

Building Construction

In FY 2024-25, the Indian government has raised its capital expenditure by 11.1% to USD 133 billion, representing 3.4% of GDP.¹⁸ This significant investment aims to accelerate growth in the construction sector and pave the way for nationwide infrastructure development. This surge in construction has

¹⁶<https://pib.gov.in/PressReleasePage.aspx?PRID=2121826>

¹⁷<https://www.manufacturingtodayindia.com/the-essential-role-of-engineered-aluminium-in-modern-vehicles>

¹⁸<https://www.investindia.gov.in/sector/construction>

¹⁹<https://www.mordorintelligence.com/industry-reports/india-residential-construction-market>

²⁰<https://mines.gov.in/webportal/internationalmineralsscenario>

augmented the demand for aluminium, a preferred material for its durability and sustainability.

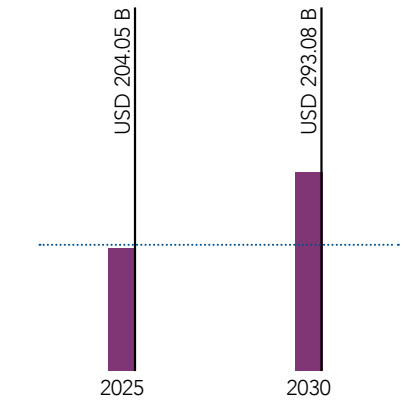
The shift towards green and sustainable buildings has further enhanced aluminium's appeal, as it is 100% recyclable and has a lower environmental impact compared to other materials. Affordable housing initiatives like the Pradhan Mantri Awas Yojana (PMAY) have also contributed to a steady rise in construction activities, ensuring continuous demand for aluminium.

Technological advancements in aluminium manufacturing now enable the production of high-quality materials that meet the strict standards of modern construction. With the ongoing construction boom, aluminium remains a critical component in India's building sector.

Indian Residential Construction Market Size¹⁹

Market Size in USD Billion

CAGR 7.51%



Source: Mordor Intelligence

Power Infrastructure

India's cable and conductor manufacturing industry comprises nearly 600 units with a combined production capacity of approximately 4,00,000 tonnes per year.²⁰ Aluminium plays a crucial role in this sector, serving as the most widely used material for electricity transmission and distribution. Aluminium conductors are extensively utilised for transmitting power across long distances and as connecting conductors in power system equipment such as transformers.

With the nation aiming to generate 50% of its electricity from renewable sources by 2030, aluminium has become an important element in India's evolving energy landscape. The country has been at the forefront of replacing copper with aluminium in power transmission and distribution leading to a significant surge in aluminium demand.

Food Packaging

The Aluminium Foil Packaging Market is projected to grow from USD 29.25 billion in year 2025 to USD 37.22 billion by year 2030, registering a CAGR of 4.94%.²¹ This growth is expected to be driven by the ascending demand of sustainable packaging solutions in the food and beverage industry and the implementation of strict government regulations aimed at reducing plastic waste.

Aluminium foil is preferred in food packaging due to its shielding property against light, oxygen, moisture and bacteria, ensuring product freshness and safety. Its use in aseptic packaging further enhances its appeal, allowing perishable goods to be stored without refrigeration.

With the food packaging industry increasingly prioritising eco-conscious practices, aluminium’s inherent properties make it a preferred option for achieving sustainability goals. This growing focus on sustainable packaging is expected to further fuel the demand for aluminium foil in the years ahead.

Company Overview

Bharat Aluminium Company Limited (BALCO) was established in 1965 and has since played a crucial role in shaping the nation’s industrial landscape. In 2001, the Government of India strategically divested 51% of its shares in BALCO to Vedanta

Limited (erstwhile Sterlite Industries (India) Limited). This move marked a significant shift in the Company’s trajectory, allowing it to expand further under private ownership while continuing to contribute to India’s industrial growth.

BALCO has been at the forefront of promoting aluminium as a viable alternative to other metals. Aluminium can serve as an alternative to steel in construction and copper in the power transmission industry. This has had a significant impact on sectors like infrastructure and energy, where aluminium’s lightweight, corrosion-resistant properties offer distinct advantages over traditional materials.

The Company’s primary operations are located in Korba, Chhattisgarh, with a smelter capacity of 580,000 tonnes. At this facility, the Company produces a range of high-quality products, including ingots, wire rods, busbars and rolled products, which are used in various industries such as construction, automotive and electrical, this allows BALCO to maintain a strong position in both domestic and international aluminium market.


580,000 Tonnes

Smelter Capacity



²¹<https://www.mordorintelligence.com/industry-reports/aluminum-foil-packaging-market>

Business Portfolio




Wire Rods

BALCO is one of the leading wire rod manufacturers in the world. Our mills are fully equipped with in-line degassing and filtration systems to ensure good internal metal quality and cleanliness. Other aligned products in the same segment includes Alloy Wire Rods.

217 KT

Production of Wire Rods in FY 2024-25



Ingots

BALCO produces Primary Aluminium ingots that are re-melted to produce a variety of end products covering the entire spectrum of aluminium applications using state-of-the-art technology.

250 KT

Production of EC Ingots in FY 2024-25



Rolled Products

BALCO is equipped to deliver high quality rolled products with application in automobiles, insulations, bus bars, power projects, electrical, packaging etc. Other aligned products in the same segment include Hot rolled coil, Cold rolled coils and trips, Hot rolled plates, Cold rolled sheets.

29.64 KT

Production of Rolled Products in FY 2024-25



Alloy Ingots

BALCO supplies Alloy Ingots in many industry segments. The casting facility has metal treatment facilities of Degassing & Metal Filtration Unit and Vertical Chill Casting Technology for AISi.

89.56 KT

Production of Alloy Ingots in FY 2024-25

Company Outlook

Looking forward, Bharat Aluminium Company Limited (BALCO) is poised to embark on a strategic roadmap to achieve its growth objectives across short, medium and long term horizons. The Company’s future strategy incorporates sustainable and inclusive growth, underpinned by a commitment to operational excellence, environmental stewardship and social responsibility.

The Company plans to enhance its smelting capacity from 0.58 MTPA to 1.1 MTPA, focusing on the growth project that includes a 435 KTPA smelter with a 180 KTPA Rolled Products facility. This expansion is expected to fortify the Company’s position within the ‘1 MnT club’, ensuring the Company remains at the forefront of the aluminium industry globally. Additionally, BALCO is set to strengthen its green initiatives, with a target to achieve 500 MW by FY30.

As part of its long-term vision, the Company is focused on leveraging advanced technologies such as AI driven process optimization, predictive analytics and digital monitoring to improve real-time operational efficiency and reduce energy consumption intensity. Future smelter lines are expected to incorporate RCC or Recoverable Copper Cathode in collector bars, designs with full copper collector bars. This first-in-India innovation is aimed at setting global benchmarks in energy efficiency.

Furthermore, BALCO plans to explore alternative anode coating materials to reduce carbon emissions while scaling up automation to enhance data-driven decision-making and process stability.

SWOT Analysis



Strengths

Capacity Expansion

BALCO's smelter expansion project witnessing steady progress, with equipment installation approaching final stages. The commissioning is targeted for H1FY26. The commissioning will significantly enhance the Company's overall capacity.

Value-Added Product Portfolio

The Company offers a diverse portfolio of products which spans aluminium ingots, wire rods, rolled products and alloy rods. This diversification enhances the Company's market reach and profitability.

Technology Innovation and Digital Transformation

BALCO has embraced advanced technologies, including AI, IoT and digital twins, to drive operational excellence. These innovations enable the Company to simulate scenarios, identify inefficiencies and optimise processes efficiently. This is leading to improved product quality and cost reductions.



Weakness

Environmental Compliance Challenge

With environmental regulations becoming more stringent, ensuring compliance may require significant investments in technology and processes. Issues like smelter expansion clearances, environmental scrutiny over bauxite mining practices may increase operating costs, delay projects and may pose threats to the Company's reputation.

Exposure to Energy Price Volatility

Energy price fluctuations pose threats to the Company's energy-intensive operations. Such volatility can impact production costs and profitability, especially in the absence of energy cost hedging mechanisms.



Opportunities

Expansion into Value-Added Products

There's potential to further develop and market high-margin value-added products, catering to specialized industries and increasing profitability.

Growth in Renewable Energy Sector

The rising demand for aluminium in renewable energy applications, such as solar panels and wind turbines, presents growth opportunities.

Strategic Partnerships and Collaborations

Establishing partnerships and collaborations with global players can open new markets and bring in technological expertise.

Domestic Sale Mix

We are pursuing opportunities within the domestic market to unlock growth and increase our proportion of domestic sales, which command higher margins.



Threats

Volatility in Global Aluminium Prices

Due to the commodity nature of aluminium, fluctuations in global aluminium prices can considerably impact the revenue and profitability of the Company.

Competition from International and Domestic Players

The presence of strong competitors in both domestic and international markets can affect market share and pricing strategies.

Financial Results

Particulars	(₹ in Crores)	
	FY 2024-25	FY 2023-24
Revenue from operations	15,807.97	13,140.73
Other Operating Income	100.95	141.56
Other income	559.24	274.6
Total income	16,468.16	13,556.89
EBITDA	4,533.76	2669.52
Profit before tax	3,931.27	1,862.06
Profit after tax	2,968.92	1,384.93
Cash flow from operations	3,334.93	1,603.39

Key Financial Ratios

Particulars	(₹ in Crores)	
	FY 2024-25	FY 2023-24
EBITDA margin (%)	28.68	20.31
Debt-equity ratio	0.28	0.22
Return on equity (%)	27.91	16.42
Return on capital employed	24.78	17.04
Book value per share (INR)	550.99	413.38
Earnings per share (INR)	134.57	62.77
Interest service coverage ratio	2.88	5.27
Current ratio	0.74	0.56
Net profit margin (%)	18.78	10.54

Risk Management

The Company's risk management framework is an integral component of its operations. The framework enables the Company to identify, assess and address potential risks effectively. The Risk Management Committee regularly reviews the framework to maintain its alignment with the Company's mission and vision.

BALCO's risk management framework encompasses areas, such as environment, raw materials, manufacturing, finances, technology, safety and regulations. It considers the scope and severity of risks, while understanding the complexity of its business operations.

For a detailed note on the Company's risk management, refer to page 32.

Human Resources

Balco immensely values its employees and believes that its success is rooted in the strengths and loyalty of its workforce. The Company is focused on empowering its human resources by recognising their potential and aligning their talent with its mission.

The Company focused on building a supportive, inclusive and engaging workplace where every employee feels valued and empowered. Key efforts were made to attract and retain talent, promote diversity, enhance learning opportunities and ensure employee well-being. Through leadership development programmes, digital learning tools and meaningful engagement initiatives, BALCO made concerted efforts towards creating a future-ready workforce that is aligned with its values and vision.

7,430

Total Workforce

For a detailed note on the Company's human resources, refer to page 70.

Internal Control Systems and Their Adequacy

The Company has a strong internal audit system that is regularly reviewed and updated to protect its assets, meet regulations and quickly resolve any issues. The audit committee actively reviews internal audit reports, takes necessary actions and works closely with statutory and internal auditors to keep the internal controls effective. This solid audit framework helps the Company operate with honesty, transparency and responsibility while managing risks and protecting stakeholder interests.

Cautionary Statement

The Management Discussion and Analysis section may include 'forward looking statements' about the future, as outlined under applicable securities laws and regulations. These statements reflect the Company's plans, predictions and expectations about what could happen. However, there's no guarantee that these will turn out as expected, as actual results may vary significantly due to factors outside the Company's control. The Company is not obligated to publicly amend, modify or revise any forward-looking statements based on subsequent developments.