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Industry Research Report on Steel and Iron-based products

24th February 2026

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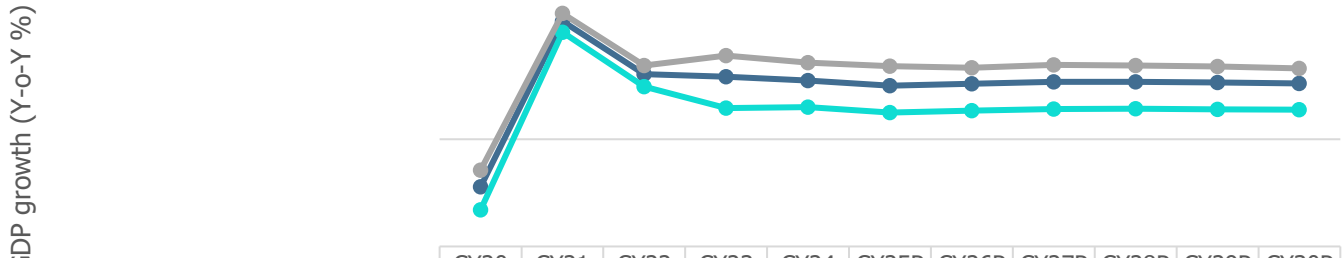
1 Economic Outlook

1.1 Global Economy

Global growth, after reaching 3.5% in CY23, moderated to 3.3% in CY24 and is projected to ease to 3.0% in CY25, reflecting a phase of normalization following recent volatility. While global trade may face short-term disruptions due to new US tariffs and potential countermeasures, these developments are also prompting economies to reassess supply chains and strengthen domestic capabilities.

The evolving global landscape is expected to encourage countries to recalibrate priorities and adopt more resilient and sustainable policy frameworks. Central banks are likely to focus on measured policy adjustments, while effective fiscal planning and structural reforms will play a crucial role in managing debt levels and fostering more balanced and inclusive global growth.

Chart 1: Global Growth Outlook Projections (Real GDP, Y-o-Y change in %)



	CY20	CY21	CY22	CY23	CY24	CY25P	CY26P	CY27P	CY28P	CY29P	CY30P
World	-2.7%	6.6%	3.6%	3.5%	3.3%	3.0%	3.1%	3.2%	3.2%	3.2%	3.1%
Advanced Economies	-4.0%	6.0%	2.9%	1.7%	1.8%	1.5%	1.6%	1.7%	1.7%	1.7%	1.7%
Emerging Market and Developing Economies	-1.7%	7.0%	4.1%	4.7%	4.3%	4.1%	4.0%	4.2%	4.1%	4.1%	4.0%

Source: IMF – World Economic Outlook, July 2025; Notes: P-Projection

Table 1: GDP growth trend comparison - India v/s Other Economies (Real GDP, Y-o-Y change in %)

	Real GDP (Y-o-Y change in %)										
	CY20	CY21	CY22	CY23	CY24	CY25P	CY26P	CY27P	CY28P	CY29P	CY30P
India	-5.8	9.7	7.6	9.2	6.5	6.4	6.4	6.5	6.5	6.5	6.5
China	2.3	8.6	3.1	5.4	5.0	4.8	4.2	4.2	4.1	3.7	3.4
Indonesia	-2.1	3.7	5.3	5.0	5.0	4.8	4.8	4.9	5.0	5.1	5.1
Saudi Arabia	-3.6	5.1	7.5	-0.8	1.3	3.6	3.9	3.6	3.2	3.2	3.3
Brazil	-3.3	4.8	3.0	3.2	3.4	2.3	2.1	2.2	2.3	2.4	2.5
Euro Area	-6.0	6.3	3.5	0.4	0.9	1.0	1.2	1.3	1.3	1.2	1.1
United States	-2.2	6.1	2.5	2.9	2.8	1.9	2.0	2.0	2.1	2.1	2.1
Middle East	-2.2	4.4	5.5	2.2	2.4	3.4	3.5	4.0	3.7	3.7	3.7
Latin America	-6.9	7.4	4.2	2.4	2.4	2.2	2.4	2.7	2.7	2.7	2.6

Source: IMF- World Economic Outlook Database (July 2025)

Note: P- Projections, E-Estimate; India's fiscal year (FY) aligns with the IMF's calendar year (CY). For instance, FY24 corresponds to CY23.

1.2 Indian Economic Outlook

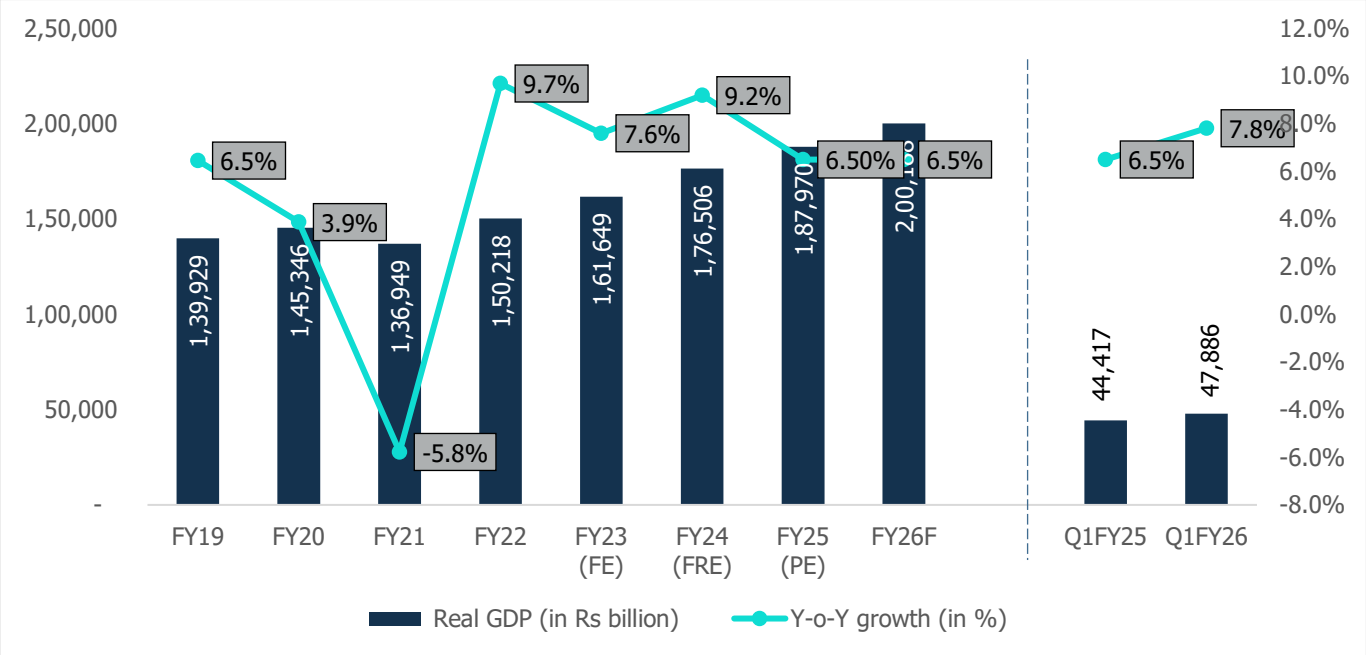
1.2.1 GDP Growth and Outlook

Resilience to External Shocks remains Critical for Near-Term Outlook

India's real GDP grew by 9.2% in FY24 (Rs. 176,506 billion) which is the highest in the previous 12 years (excluding FY22, on account of end of pandemic) and as per provisional estimates, it grew at 6.5% in FY25 (Rs. 187,970 billion), driven by double digit growth particularly in the Manufacturing sector, Construction sector and Financial, Real Estate & Professional Services. This growth is also led by private consumption increasing by 7.6% and government spending increasing by 3.8% Y-o-Y.

In Q1FY26, real GDP grew by 7.8% y-o-y as compared to 6.5% y-o-y in the previous year's quarter. Real GDP growth is projected at 6.5% in FY26 as well, driven by strong rural demand, improving employment, and robust business activity.

Chart 2: Trend in Real Indian GDP growth rate



Source: MOSPI, Reserve Bank of India; Note: FE – Final Estimates, FRE- First Revised Estimates, PE – Provisional Estimates, F - Forecasted

GDP Growth Outlook (August 2025)

FY26 GDP Outlook: The RBI projects real GDP growth at 6.5% for 2025–26, driven by strong private consumption, steady investment, and resilient rural and urban demand. A favourable monsoon, robust services sector, and improving corporate balance sheets support this outlook.

However, risks from prolonged geopolitical tensions, global trade disruptions, and weather-related uncertainties remain. Taking these into account, the RBI has reaffirmed its growth projections.

Table 2: RBI's GDP Growth Outlook (Y-o-Y %)

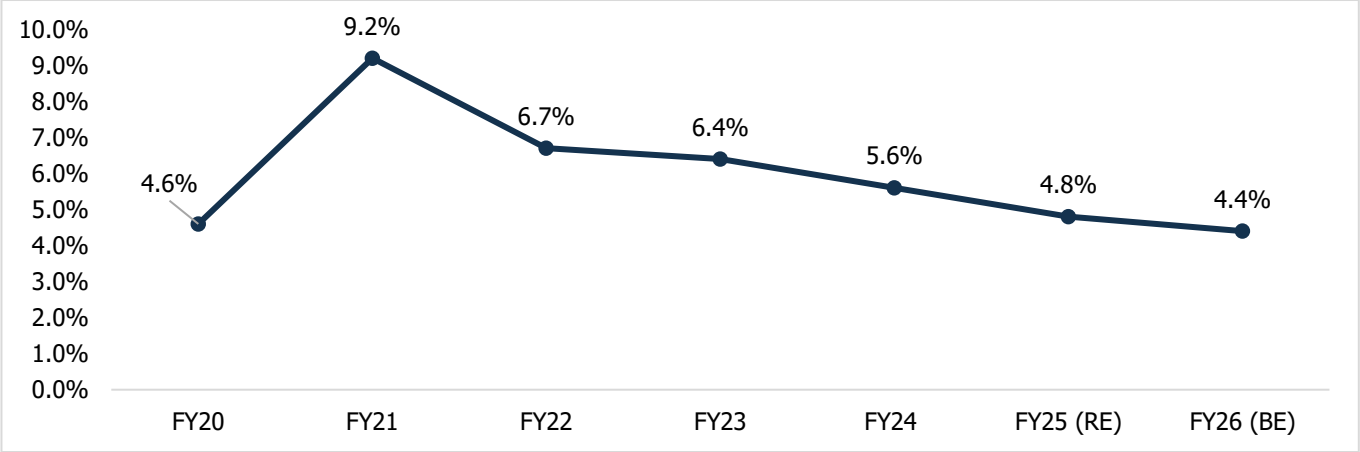
FY26P (complete year)	Q2FY26P	Q3FY26P	Q4FY26P	Q1FY27P
6.5%	6.7%	6.6%	6.3%	6.6%

Source: Reserve Bank of India; Note: P-Projected

1.2.2 Fiscal Deficit (as a % of GDP)

In FY21, India's fiscal deficit was 9.2% due to the impact of COVID-19, since then it has seen a steady improvement is expected to reduce to 4.8% of GDP FY25 (RE), driven by strong economic growth and higher tax and non-tax revenues. The government aims for further fiscal consolidation, setting a target of 4.4% of GDP for FY26 to maintain fiscal prudence.

Chart 3: Gross Fiscal Deficit (% of GDP)

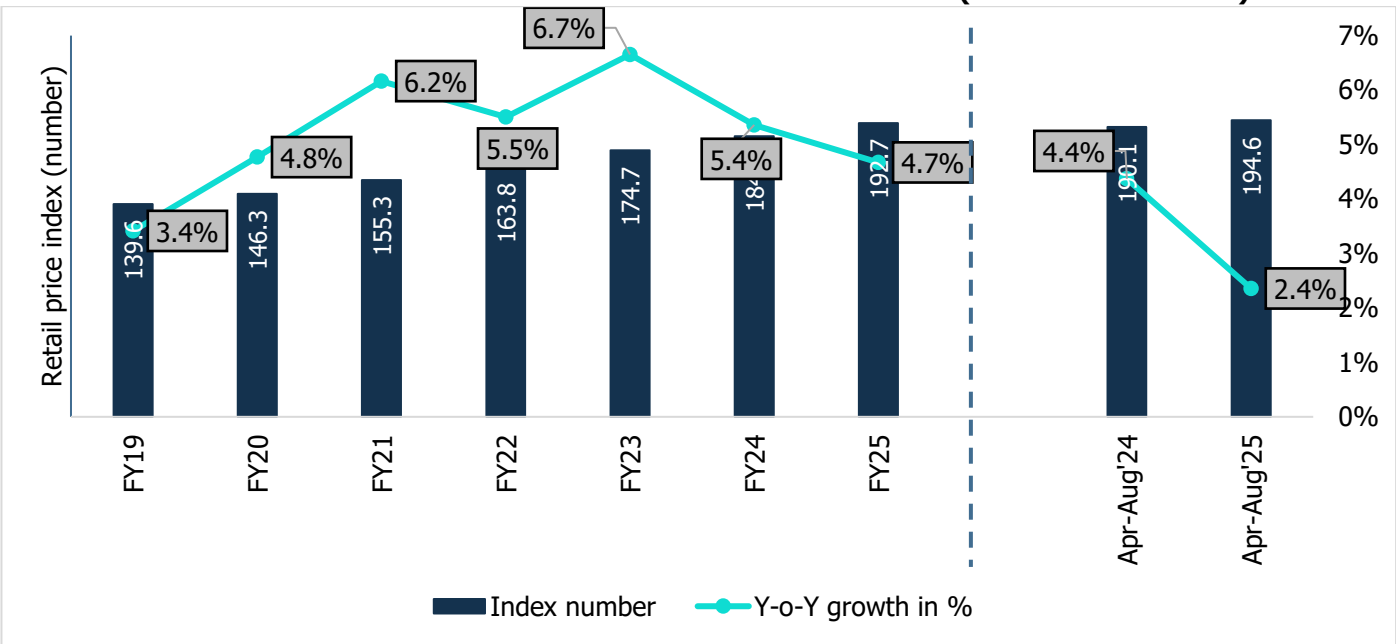


Source: RBI; Note: RE-Revised Estimates, BE-Budget Estimates

1.2.3 Consumer Price Index

The Consumer Price Index (CPI) for the April–Aug 2025 recorded a combined inflation rate of 2.1%, marking the lowest quarterly retail inflation in six years. The moderation was driven by continued declines in Pulses, Transport and communication, Vegetables, Cereal, Education, Egg and Sugar and confectionery.

Chart 4: Retail Price Inflation in terms of index and Y-o-Y Growth in % (Base: 2011-12=100)

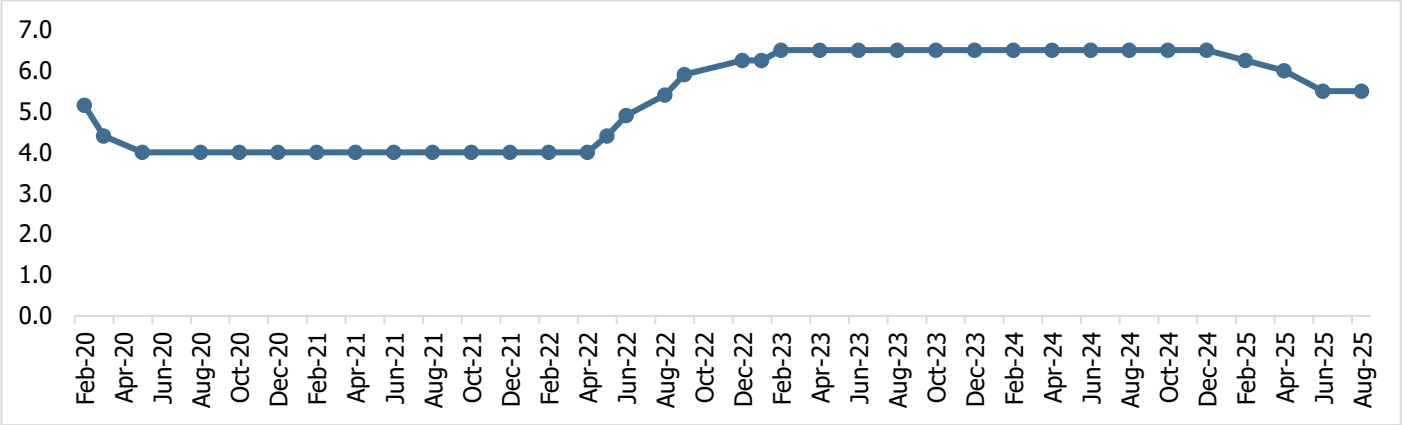


Source: MOSPI

The CPI is primarily factored in by RBI while preparing their bi-monthly monetary policy. At the bi-monthly meeting held in August 2025, RBI projected inflation at 3.1% for FY26 with inflation during Q2FY26 at 2.1% and Q3FY26 at 3.1%, Q4FY26 at 4.4% and Q1FY26 at 4.9%.

Considering the current inflation situation, RBI has maintained the repo rate to 5.5% in the August 2025 meeting of the Monetary Policy Committee.

Chart 5: RBI historical Repo Rate



Source: RBI

Further, the central bank continued it's stance as 'accommodative'. With a decline in food inflation, the headline inflation moderated to 1.55% in July 2025.

The economic growth outlook for India is expected to maintain momentum, supported by private consumption and continued growth in fixed capital formation. The uncertainty regarding the global outlook has reduced given the temporary tariff stay and optimism with trade negotiations. However, global growth and trade has been revised downward due to weakened sentiments and lower growth prospects.

The RBI has adopted for a non-inflationary growth with the foundations of strong demand and supply with a good macroeconomic balance. The domestic growth and inflation curve require the policies to be supportive with the volatile trade conditions.

1.2.4 GVA in the Industrial Sector

India's industrial sector is expected to grow by 10.8% in FY24, reaching Rs. 31.56 trillion, supported by positive business sentiment, falling commodity prices, and government initiatives like production-linked incentives. In FY25, growth is expected to slow down to 5.9% y-o-y, down from 10.8% in FY24. The growth is driven primarily by manufacturing, construction, and utility services. The slowdown can be attributed to the manufacturing segment likely to grow at 4.5%, lower than the previous year's 12.3%.

In Q1FY26, most sectors showed a slowdown in growth, with Industry declining from 8.5% to 6.3% and Mining & Quarrying dropping sharply from 6.6% to -3.1%. However, Manufacturing and Construction maintained robust growth, slightly improving to 7.7% and 7.6%, respectively.

Table 3: Industrial sector growth (Y-o-Y growth) -at Constant Prices

At constant Prices	FY19	FY20	FY21	FY22	FY23 (FE)	FY24 (FRE)	FY25 (PE)	Q1FY25	Q1FY26
Industry	**5.3**	**-1.4**	**-0.9**	**11.6**	**2.0**	**10.8**	**5.9**	**8.5**	**6.3**
Mining & Quarrying	-0.9	-3.0	-8.6	7.1	2.8	3.2	2.7	6.6	-3.1

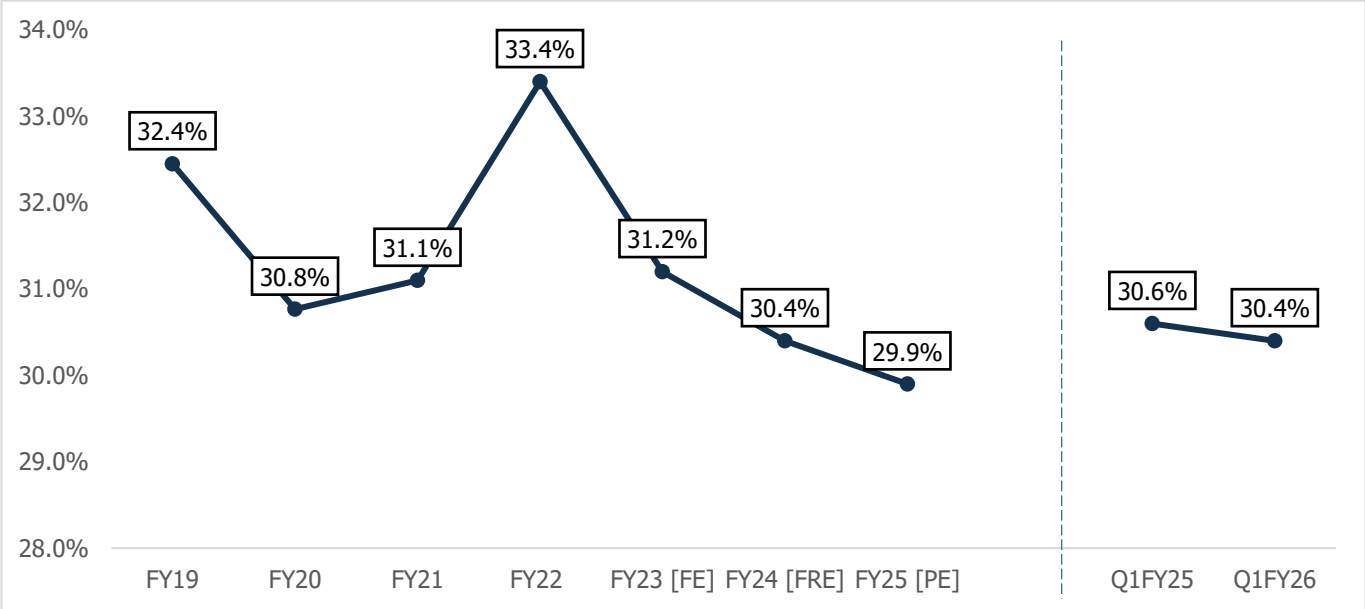
Manufacturing	5.4	-3.0	2.9	11.1	-3.0	12.3	4.5	7.6	7.7
Electricity, Gas, Water Supply & Other Utility Services	7.9	2.3	-4.3	9.9	11.5	8.6	5.9	10.2	0.5
Construction	6.5	1.6	-5.7	14.8	10.0	10.4	9.4	10.1	7.6
GVA at Basic Price	**5.8**	**3.9**	**-4.2**	**8.8**	**7.4**	**8.6**	**6.4**	**6.5**	**7.6**

Source: MOSPI; Note: FRE – First Revised Estimates, FE – Final Estimates, PE- Provisional Estimates

1.2.5 Investment Trend in Infrastructure

Gross Fixed Capital Formation (GFCF) is a measure of net increase in physical assets. In FY23, the ratio of investment (GFCF) to GDP remained flat, as compared to FY22 which was at 33.4%. The growth stabilized at 30.4% in FY24 before falling to 29.9% in FY25. The moderation reflects cautious capital spending by both government and private corporations, which has persistently lagged overall GDP growth. In Q1FY26, GFCF as a proportion in GDP, marginally declined to 30.4% as compared to 30.6% in Q1FY25.

Chart 6: Gross Fixed Capital Formation (GFCF) as % of GDP (At current prices)



Source: MOSPI; Note: FRE- First Revised Estimates, FE – Final Estimates, PE- Provisional Estimates

Overall, the support of public investment in infrastructure is likely to gain traction due to initiatives such as Atmanirbhar Bharat, Make in India, and Production-linked Incentive (PLI) scheme announced across various sectors.

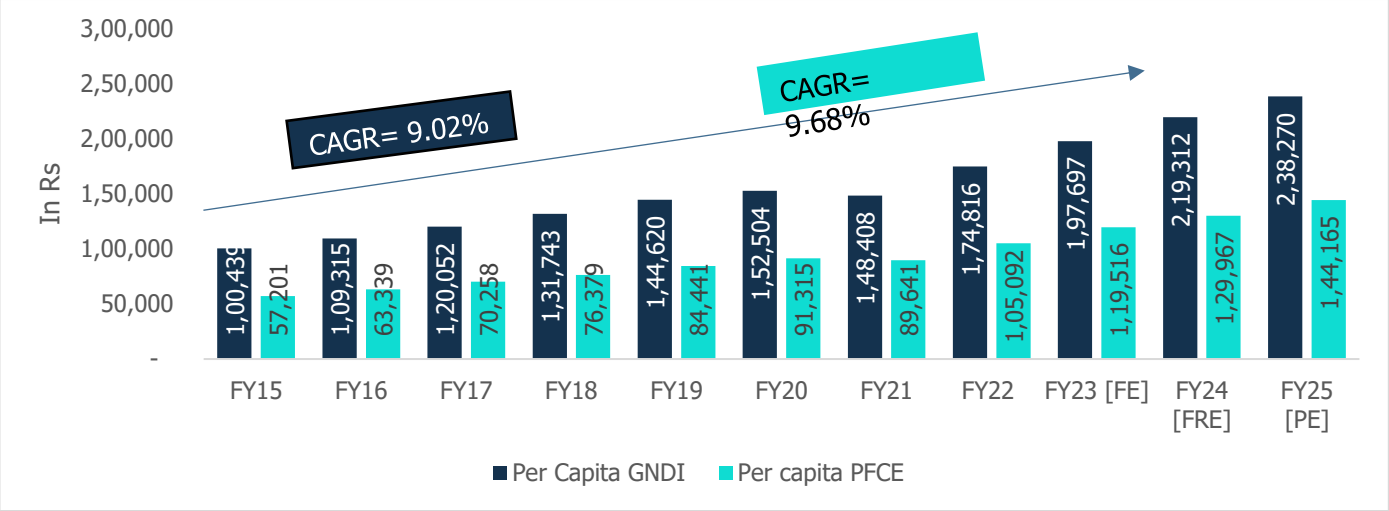
1.2.6 Per capita PFCE and GNDI

- **Increasing Disposable Income and Consumer Spending**

Gross National Disposable Income (GNDI) is a measure of the income available to the nation for final consumption and gross savings. Between the period FY15 to FY25, per capita GNDI at current prices registered a CAGR of 9.02%. More disposable income drives more consumption, thereby driving economic growth.

With increase in disposable income, there has been a gradual change in consumer spending behaviour as well. Per capita Private Final Consumption Expenditure (PFCE) which is measure of consumer spending has also showcased significant growth from FY15 to FY25 at a CAGR of 9.68%.

Chart 7: Trend of Per Capita GNDI and Per Capita PFCE (Current Price)



Source: MOSPI; Note: FRE – First Revised Estimates, FE – Final Estimates, PE- Provisional Estimates

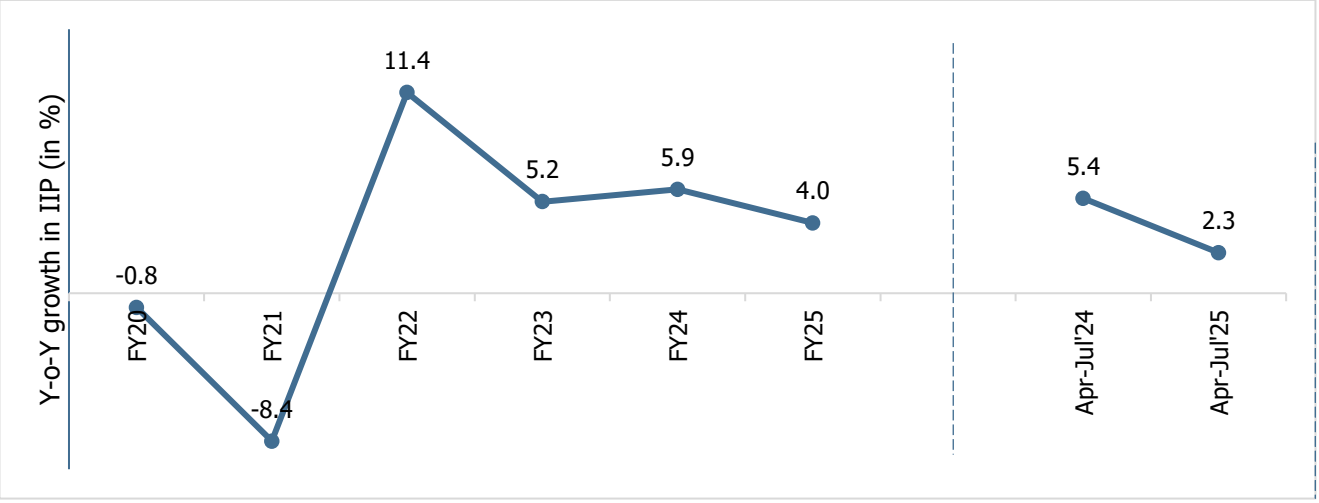
1.2.7 Industrial Growth

The Quick Estimates of the Index of Industrial Production (IIP) for July 2025 shows a growth of 3.5%, compared to 4.9% in June 2025. The year-on-year moderation reflects weakness across major segments, primarily due to contractions in electricity, mining, and consumer non-durables.

In July 2025, industrial growth was supported by Manufacturing (5.4%), while Electricity declined by 1.2% and Mining contracted to -7.2%. Within manufacturing, notable growth was recorded in basic metals, machinery and equipment, and non-metallic mineral products. Specifically, these segments helped offset broader weakness.
Use-based indices reflect mixed trends, with strong growth in Infrastructure Goods (11.9%),but declines in Consumer Durables and Non-Durables indicating subdued consumption and Capital goods.

Manufacturing output grew by 5.4%, contributing significantly to overall industrial growth. This was primarily driven by strong performance in segments such as pharmaceuticals, motor vehicles, beverages, and electrical equipment.

Chart 7: Y-o-Y growth in IIP (in %)

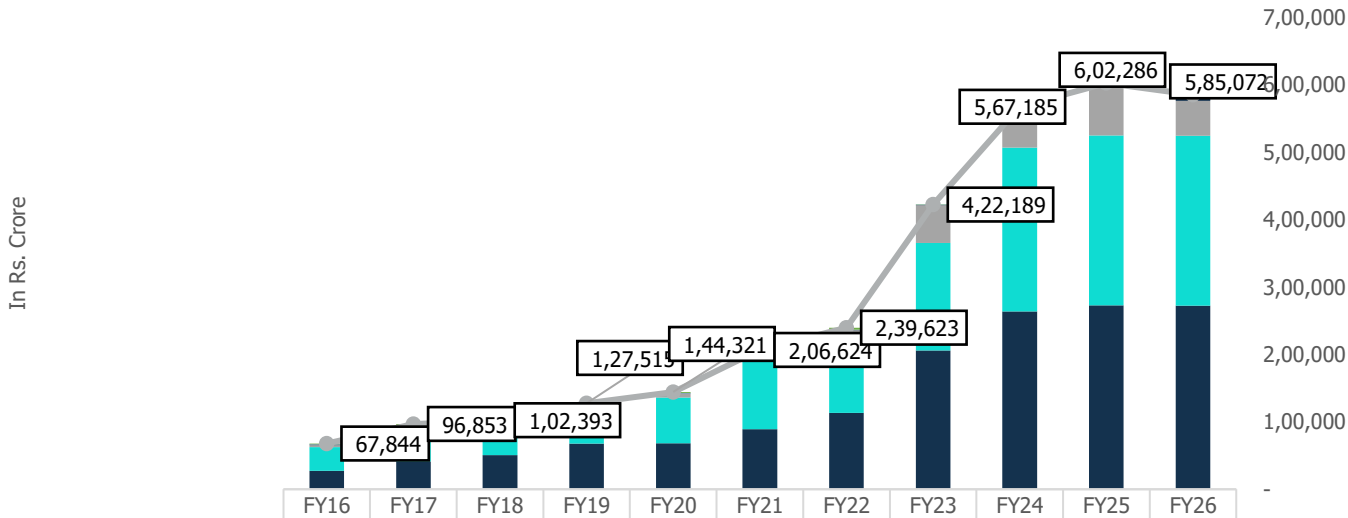


Source: MOSPI

1.2.8 Budgetary expenditure on Infrastructure

With the growing population, the long-term need for robust infrastructure is necessary for economic development. This generates the need for massive investments in the development and modernization of infrastructure facilities, which will not only cater to the growing demand but will also ensure competitiveness in the global market.

Chart 8: Budgetary outlay towards infrastructure



	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26
Power	1,276	3,816	1,941	2,043	1,615	370	2,827	23	125	1,127	658
Ports	218	330	182	154	259	169	614	678	1,149	1,342	1,761
Oil & Gas	1,153	2,451	1,131	1,908	572	2,313	347	40	41	341	6,626
Telecom	2,657	3,832	4,969	2,926	5,660	5,254	5,254	56,205	59,380	74,995	51,785
Railways	35,008	45,232	43,418	52,838	67,842	1,09,324	1,17,271	1,59,256	2,42,579	2,52,000	2,52,000
Roads and Highways	27,533	41,193	50,752	67,646	68,374	89,195	1,13,312	2,05,986	2,63,912	2,72,481	2,72,241
Total	67,844	96,853	1,02,393	1,27,515	1,44,321	2,06,624	2,39,623	4,22,189	5,67,185	6,02,286	5,85,072

Source: Union Budget FY26 document

Some of the key government infrastructure schemes include:

- The government has announced plans for the National Monetization Pipeline (NMP) and Development Finance Institution (DFI) to improve the financing of infrastructure projects
- The government has helped the growth of urbanization through a number of schemes and projects, including the **Smart Cities Mission,** the **Atal Mission for Rejuvenation and Urban Transformation (AMRUT),** and the **Pradhan Mantri Awas Yojana (Urban).**

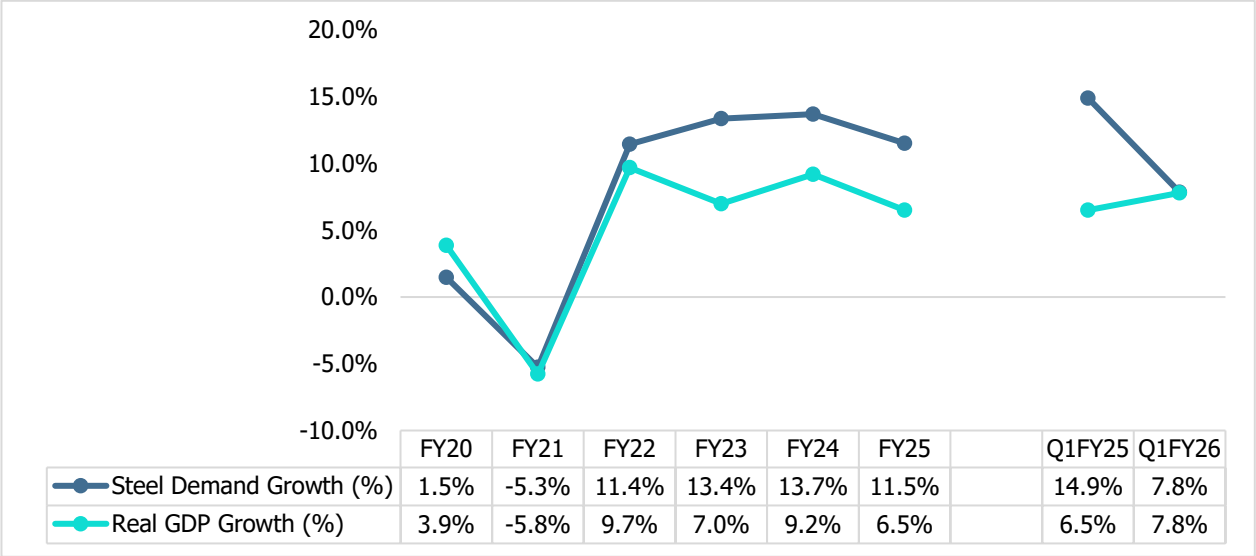
1.2.9 Correlation of Steel Demand with GDP Growth

The growth in India's steel demand closely mirrors the country's real GDP performance, underscoring the strong connection between these sectors. Additionally, increased investments in infrastructure and manufacturing play a crucial role in increasing demand of capital-intensive industries like steel. Domestic finished steel consumption has surged, driven by infrastructure investments and a recovery in the automotive sector, particularly with the rise of electric vehicles. This growing demand reflects broader economic recovery and expansion. Despite challenges from the pandemic, government support, coupled with a rebound in real estate activity, has spurred significant steel consumption.

Robust GDP growth, fuelled by investments in construction and manufacturing, supports the rising demand for steel. The construction, automotive, and infrastructure sectors are key drivers, with government initiatives like Make in India

and the PM Gati Shakti plan propelling steel demand. Investments in railways, airports, and metro rail projects, with allocations of Rs. 2.87 lakh crore for the Ministry of Road Transport and Highways and Rs. 2.52 lakh crore for Indian Railways, further strengthen this trend. Additionally, the automotive sector, driven by strong support for electric vehicles, and the growing two-wheeler and three-wheeler markets, fuel ongoing steel demand. As these sectors continue to expand, the demand for steel will remain tightly aligned with India's economic growth, fostering long-term, sustainable growth in steel consumption.

Chart 9: Growth in Steel Demand Vs Real GDP Growth



	FY20	FY21	FY22	FY23	FY24	FY25		Q1FY25	Q1FY26
Steel Demand Growth (%)	1.5%	-5.3%	11.4%	13.4%	13.7%	11.5%		14.9%	7.8%
Real GDP Growth (%)	3.9%	-5.8%	9.7%	7.0%	9.2%	6.5%		6.5%	7.8%

Source: MOSPI, CareEdge Research

1.3 Concluding Remarks

Global economic growth faces headwinds from geopolitical tensions, volatile commodity prices, high interest rates, inflation, financial market volatility, climate change, and rising public debt. However, India's economy remains relatively strong, with an IMF forecast of 6.4% GDP growth in CY25 (FY26 according to the fiscal year), compared to the global projection of 3.0%. Key drivers include strong domestic demand, government capital expenditure and moderating inflation.

Public investment is expected to exhibit healthy growth as the government has allocated a strong capital expenditure of about Rs. 11.21 lakh crores for FY26. The private sector's intent to invest is also showing improvement as per the data announced on new project investments and resilience shown by the import of capital goods. Additionally, improvement in rural demand owing to healthy sowing, improving reservoir levels, and progress in south-west monsoon along with government's thrust on capex and other policy support will aid the investment cycle in gaining further traction.

The recent 56th meeting of the Goods and Services Tax (GST) Council announced some major changes in the existing GST structure. The focus is majorly on simplifying it to a two-tiered GST tax structure of 5% and 18%, phasing out the currently existing 12% and 28% slabs. There is also a de-merit tax rate for luxury and 'sin' goods at a 40% tax slab. These changes are typically aimed at increasing the disposable income and in turn boosting consumption, as well as promoting the ease of doing business. The GST rationalization is expected to be a positive step towards economic growth, stimulating private consumption and ease inflationary pressures. The recent revisions in income tax rates, coupled with the reduction in GST, are expected to result in savings of over Rs 2.5 lakh crore, which is likely to further boost the consumption.

2 Global Steel Industry

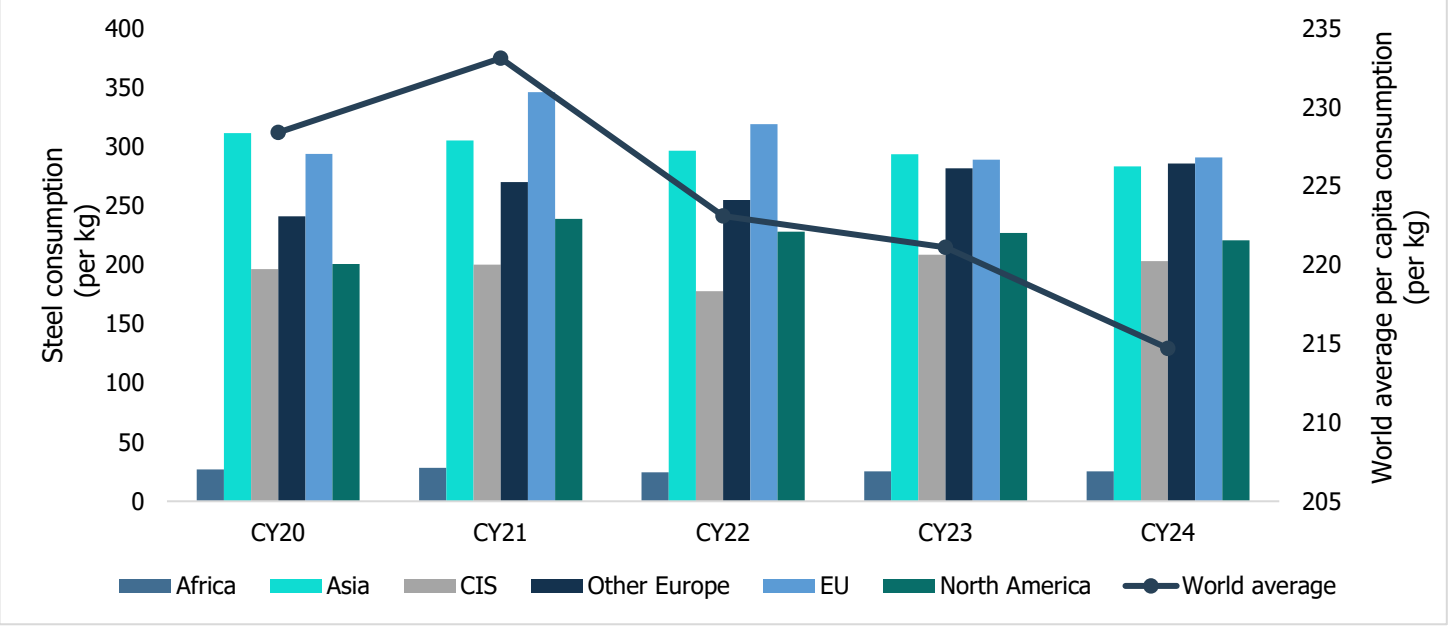
2.1 Overview of the Global Steel Industry

Steel plays a pivotal role in construction and engineering, serving a wide range of industries including automotive, infrastructure, consumer goods, mechanical and medical equipment, packaging, and household utensils. Industry professionals consistently prefer steel as a building material due to its widespread availability, cost-effectiveness, strength, durability, ductility, and recyclability. According to the World Steel Association, manufacturers across the globe produce over 3,500 grades of steel, each offering distinct physical, chemical, and environmental properties tailored to specific applications.

Global per capita steel consumption has moderated steadily since calendar year 2021 (CY21). By CY24, consumption stood at 215 kg, slightly lower than 221 kg in CY23, reflecting a period of adjustment in global demand. This trend mirrors temporary softness in construction activity, moderation in China's real estate sector, and a slower global manufacturing cycle. At the same time, demographic transitions and tighter economic conditions have encouraged more efficient use of steel across infrastructure and consumer durable segments. In CY23, global per capita consumption eased to 219 kg from 233 kg in CY21, highlighting the impact of recent geopolitical and macroeconomic challenges; however, these adjustments are laying the groundwork for more stable demand patterns as economic conditions gradually normalise and investment cycles revive.

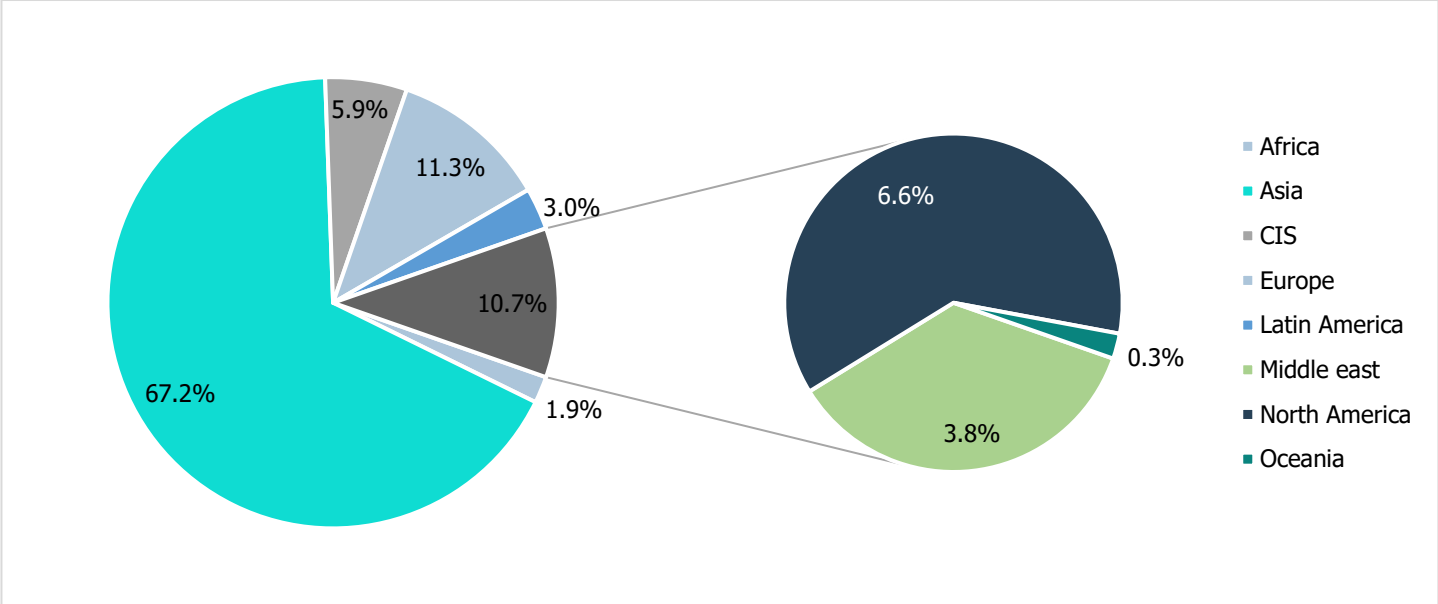
Regionally, the European Union led global per capita steel consumption in CY24 at 291 kg, driven primarily by high usage in countries such as Czechia and Italy. Other Europe followed at 286 kg, with Asia close behind at 283 kg.

Chart 10: Global Per capita consumption (in kg)



Source: World Steel Association

Chart 11: Breakup of region-wise global production capacity in CY24



Source: Organisation for Economic Co-operation and Development (OECD)

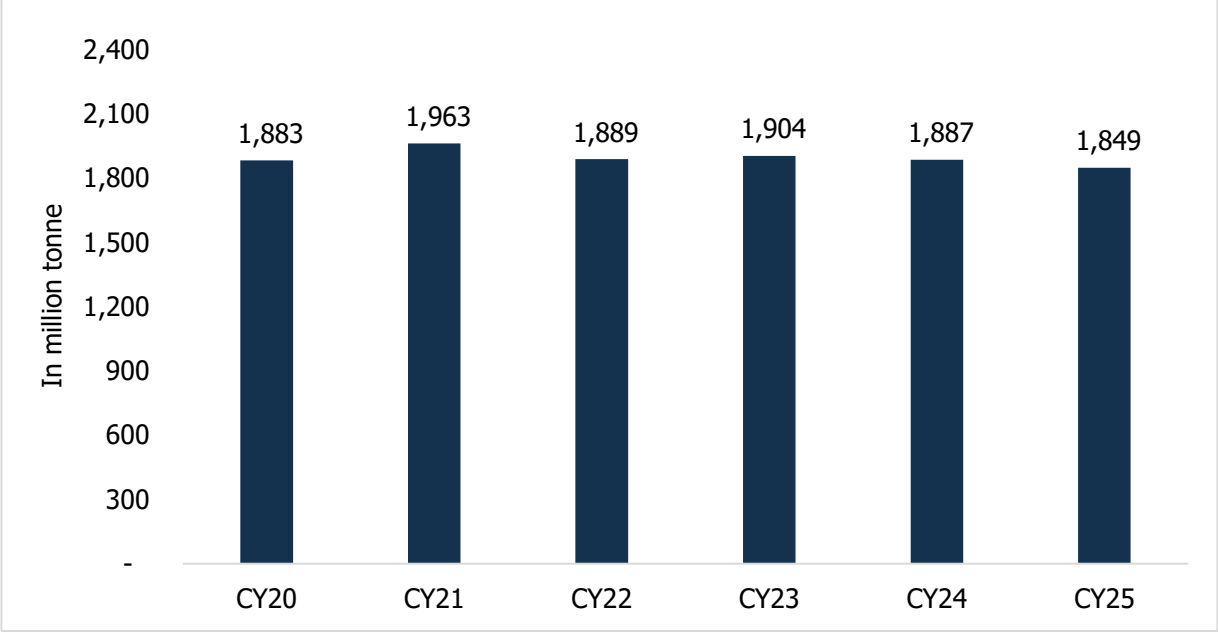
In 2024, global steel producers operated with a combined production capacity of 2,472.1 million metric tonnes (MT), with Asia accounting for the largest share at 67%. China led the global steel industry, dominating capacity, production, and consumption. It maintained the highest steel production capacity worldwide, followed by India, Japan, and South Korea. Producers in the European Union, North America, the Commonwealth of Independent States (CIS), Latin America, and the Middle East also contributed significantly to global steel production capacity.

2.2 Global Production of Steel

Global crude steel production grew at a compound annual growth rate (CAGR) of 0.03% over the past five years, rising from 1,883 million tonnes (MT) in CY20 to 1,885 MT in CY24. However, in the first seven months of CY25 (January–July), producers reduced output by 1.9% compared to the same period in CY24, continuing the downward trend observed in CY24 when production fell by 1%. This decline stemmed from a weakening global economy and persistent geopolitical tensions. China's ongoing economic slowdown driven by reduced steel demand in the real estate sector and delays in infrastructure projects also significantly weighed down global output.

Global crude steel output experienced a brief rebound in CY23, rising by 0.8% compared to the previous year. That was after a steep 4% decline in CY22, during which time output declined from 1,963 MT in CY21. That decline was powered by China's slowdown, US and European monetary tightening, through-the-roof input prices due to inflation, and general supply chain disruptions resulting from the Russia-Ukraine war.

Chart 12: Global Crude Steel Production



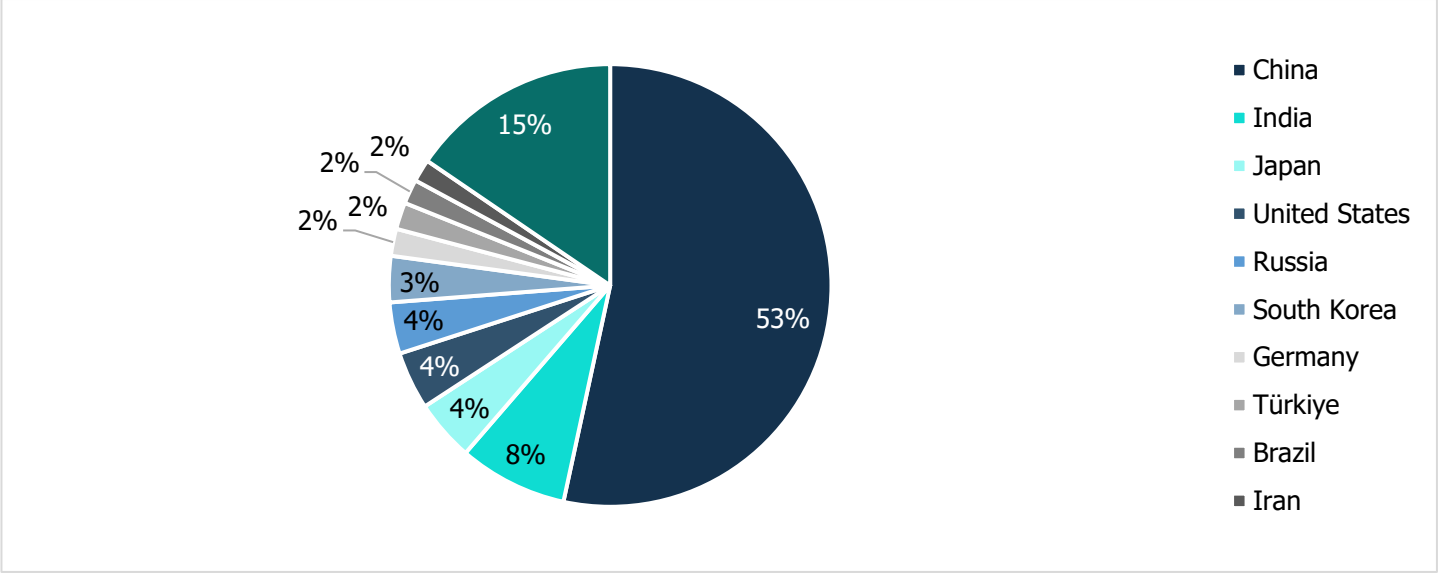
Source: World Steel Association
Note: YTD CY24 refers to the period from January 2024 - July 2024
YTD CY25 refers to the period from January 2025 - July 2025

In CY24, global crude steel production totalled 1,885 MT. China retained its position as the largest producer, contributing 53% of the total output. However, Chinese production declined by 1.7% year-on-year to 1,005 MT, down from 1,023 MT in CY23. This reduction resulted from COVID-19-related lockdowns, a slowdown in the real estate market, and deliberate production cuts aimed at addressing environmental concerns.

India ranked as the second-largest producer in CY24, accounting for 8% of global output. Japan, the United States, and Russia followed, each contributing approximately 4% to total production.

Global crude steel production is likely to see modest growth in the next few years due to economic uncertainty and geopolitical risks. China's output may remain muted due to its real estate slowdown and environmental policies, while India is expected to drive growth, backed by rising infrastructure and construction demand. Longer-term, green steel initiatives and decarbonisation efforts could reshape the industry, particularly in advanced economies. While short-term headwinds persist, a demand recovery in emerging markets and global infrastructure spending may support gradual production growth.

Chart 13: Steel Production Geographical Region in CY24 – 1,885 MT



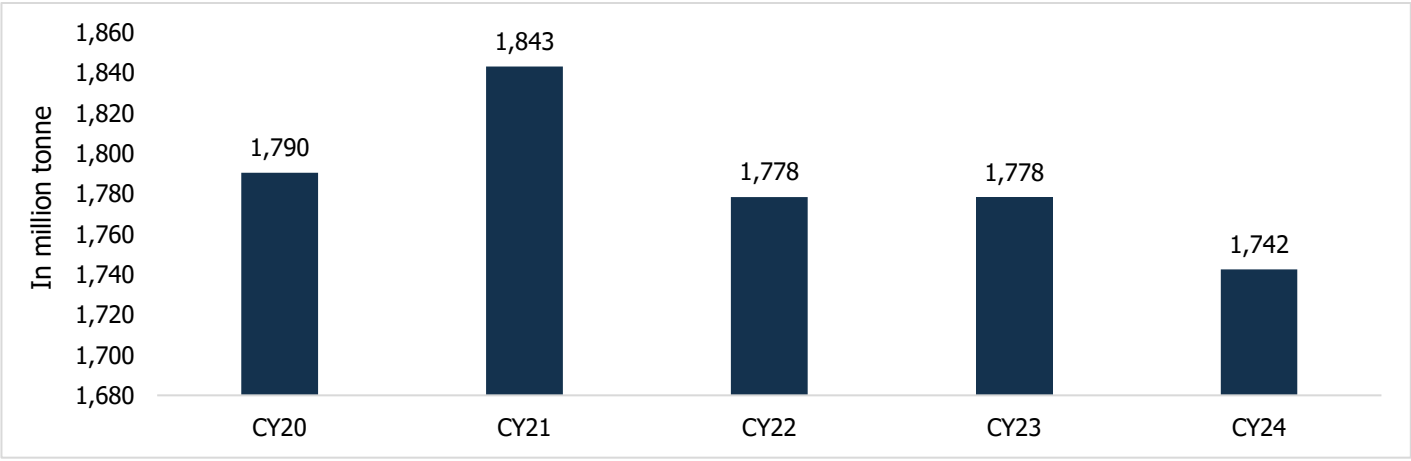
Source: World Steel Association

2.3 Global Steel Demand

Industries such as energy, construction, automotive, transportation, infrastructure, packaging, and machinery rely heavily on steel for their operations. In CY24, global finished steel consumption declined by 2% year-on-year to 1,742 million tonnes (MT), as macroeconomic uncertainties and weak demand across key regions including the European Union, the United States, and China continued to weigh on the market. In contrast, India sustained strong demand, with finished steel consumption remaining robust due to infrastructure investments and supportive government policies. Key sectors such as automobiles, consumer durables, capital goods, and real estate contributed significantly to India's resilience.

In CY23, global finished steel consumption remained flat at 1,778 MT. The consumption declined by 3.5% year-on-year in CY22, mainly due to China's economic slowdown, monetary tightening in the U.S. and Europe, inflation-driven cost escalations, and supply chain disruptions linked to the Russia-Ukraine war.

Chart 14: Global Steel Demand (in million tonnes)



Source: World Steel Association

Global finished steel consumption is expected to recover gradually over the next few years, driven by infrastructure spending, energy transition projects, and automotive recovery in several regions. While China's demand outlook remains cautious due to real estate headwinds and environmental constraints, India is positioned for strong growth, supported by government's infrastructure programs and industrial expansion. Additionally, green technologies, renewable energy projects, and electric vehicles (EVs) are likely to create new avenues for steel demand globally. However, near-term growth may remain moderate given geopolitical tensions and persistent economic uncertainty in developed markets.

2.4 Global Steel Prices Trend

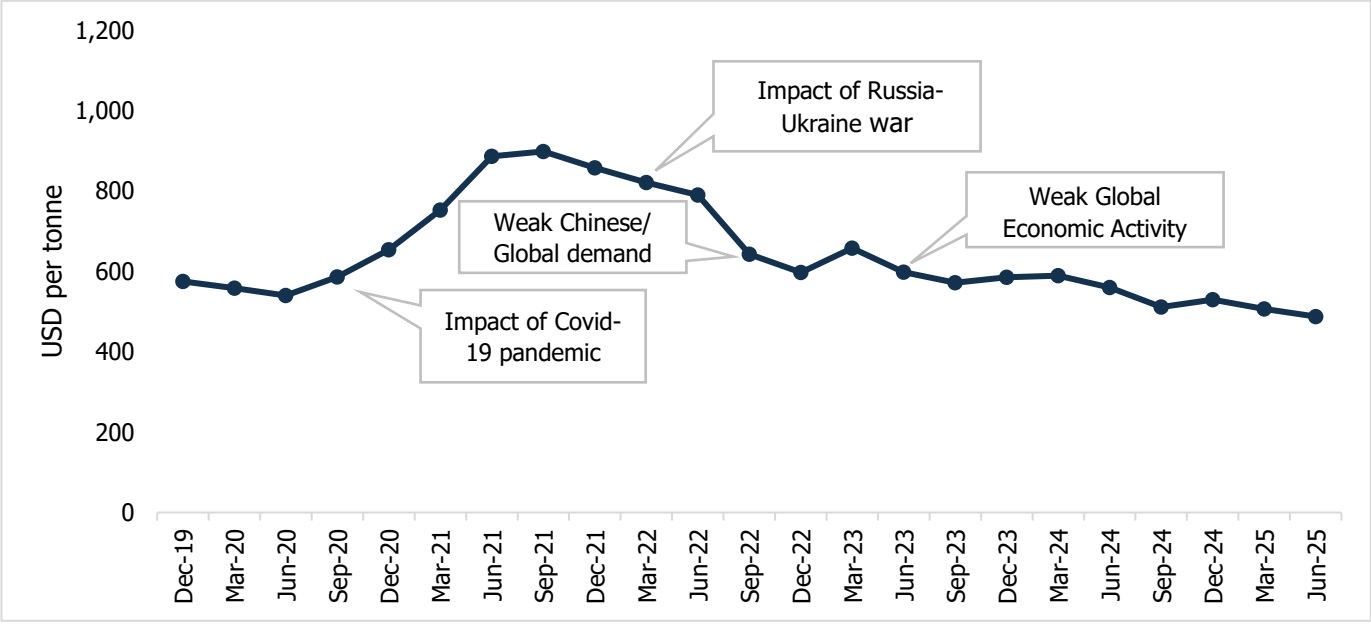
International steel prices extended their decline in the quarter ending June 2025, weighed down by weakening demand across key markets. Manufacturing activity slowed in Europe and the US, while both spot and export prices in China came under pressure. During the quarter, prices averaged USD 488 per tonne, reflecting a decline of 3.7% q-o-q and 12.9% y-o-y. In the quarter ending March 2025, global steel producers saw prices decline by 3.4% quarter-on-quarter (q-o-q), bringing the average to Yuan 3,680 per tonne. Oversupply, weak global demand, reduced exports, and falling raw material costs primarily led to this decline. This followed a brief 4% q-o-q rebound in Q4 CY24, when prices had climbed to Yuan 3,833 per tonne.

In Q3 CY24, prices dropped sharply by 9.2% to Yuan 3,660 per tonne, after falling 4.4% in Q2 CY24 to Yuan 4,033 per tonne. Chinese steelmakers increased supply during this period, despite sluggish domestic consumption and weak economic activity across major steel-consuming regions, which triggered the decline.

Steel prices had shown a marginal rise of 0.2% in Q1 CY24, reaching Yuan 4,218 per tonne, before the downward trend resumed. By the end of CY23 (December quarter), prices stood at Yuan 4,211 per tonne. Between March and September 2023, global steel prices corrected due to subdued demand in China. Although COVID-19 restrictions had eased, the anticipated demand rebound failed to materialize, even as iron ore and steel prices briefly rose on market optimism.

Steel prices are expected to remain soft through CY25 due to weak global demand and persistent oversupply, especially from China. Low raw material costs and sluggish consumption in key markets will keep prices under pressure. While India may support some regional demand, a broad price recovery is unlikely unless there is a major supply adjustment or stronger economic rebound, particularly in China.

Chart 15: Trend in International Steel Prices



Source: CMIE

3 Indian Steel Industry

3.1 Overview of the Indian Steel Industry

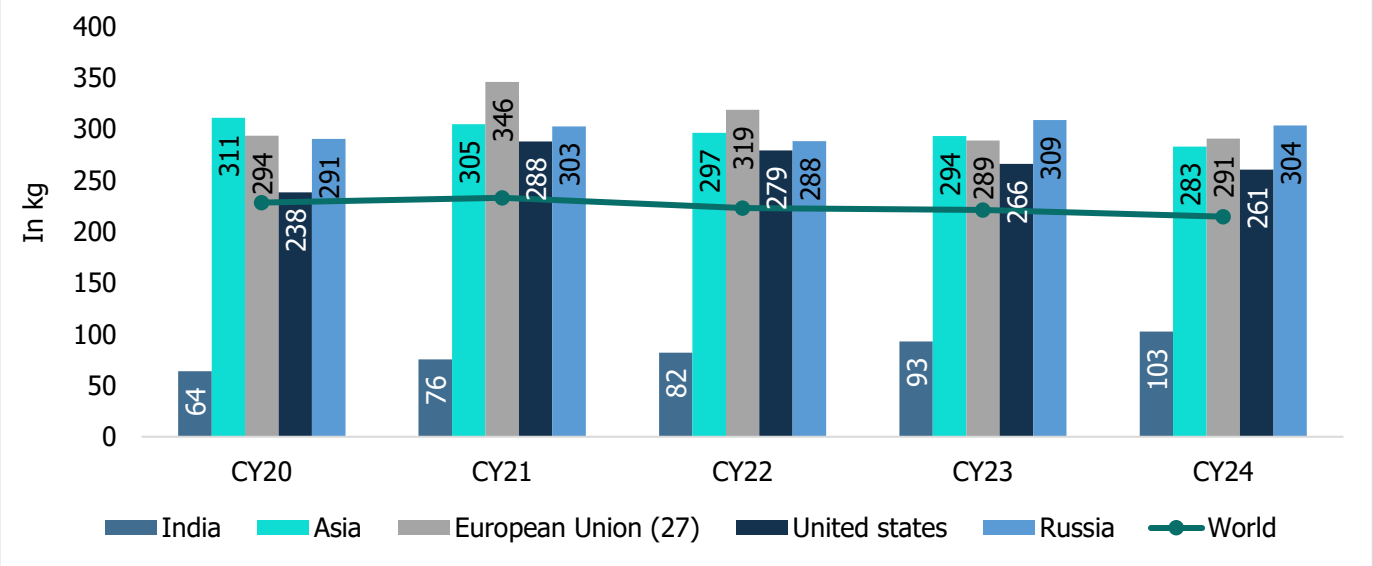
As of FY25 (April-December 2024, (P)), India has installed a steel production capacity of 196.6 million tonnes (MT). The country ranks as the second-largest consumer of finished steel, with consumption reaching 152 MT in FY25. This growth stems from the domestic availability of key raw materials such as iron ore, cost-effective labour, and strong demand from sectors like construction, consumer durables, capital goods, railways, real estate, and automobiles. Additionally, India's extensive coastline has facilitated both exports and imports, positioning the country as a major player in the global steel industry.

In CY24, India's per capita finished steel consumption stood at 102.6 kg, well below the global average of 214.7 kg. To address this gap, the Government of India, under its Atmanirbhar Bharat vision, introduced the National Steel Policy 2017. The policy targets a steel-making capacity of 300 MT by CY30 and aims to raise per capita steel consumption to 160 kg. These goals highlight the sector's untapped domestic potential and its critical role in driving India's future economic growth.
India has attracted substantial investment into its steel sector through initiatives such as joint ventures and 100% foreign direct investment (FDI). These efforts have accelerated the industry's expansion and integration into global value chains.

The steel industry contributes meaningfully to all facets of the economy including GDP growth, industrial output, and infrastructure development. It generates a strong economic ripple effect, with an output multiplier of 1.4x on GDP and an employment multiplier of 6.8x.

Steel plays a vital and versatile role in modern life, significantly enhancing convenience and serving as a foundational material across manufacturing sectors. As a core input for infrastructure and industrial development, steel underpins national economic growth and often acts as a barometer of economic progress.

Chart 16: Finished steel use per capita (Kg)



Source: World steel association

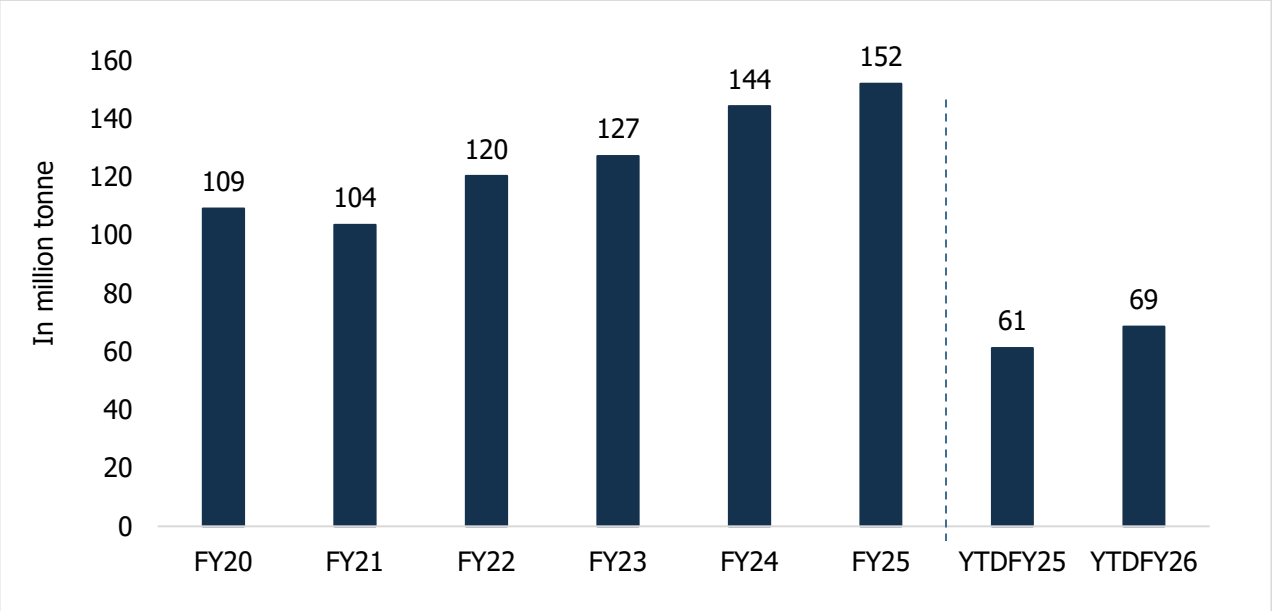
3.2 Indian Crude Steel Production

India's domestic crude steel producers expanded output at a compound annual growth rate (CAGR) of 6.8% over the past six years, increasing production from 109 million tonnes (MT) in FY20 to 152 MT in FY25. During the YTDFY26 (April–August 2025), producers further accelerated growth, recording an 12% year-on-year increase. In FY25, crude steel production rose by 5.3% to reach 152 MT, supported by sustained infrastructure development, industrial expansion, and rising manufacturing activity.

Government-led initiatives including capacity-enhancement schemes and policy incentives played a key role in driving output growth. Steel manufacturers also expanded plant capacities, with large players achieving 81% capacity utilisation in FY24. Most major producers have announced plans to further increase crude steel capacity, backed by improved financial health across the industry. This financial stability has positioned companies to comfortably undertake capital expenditure for future expansion.

Under the National Steel Policy 2017, the government aims to scale production capacity from 179.5 MT in FY24 to 300 MT by FY31, to meet the projected steel demand of 230 MT. This ambitious target reflects the sector's strategic importance in supporting India's long-term economic growth.

Chart 17: Domestic Crude Steel Production

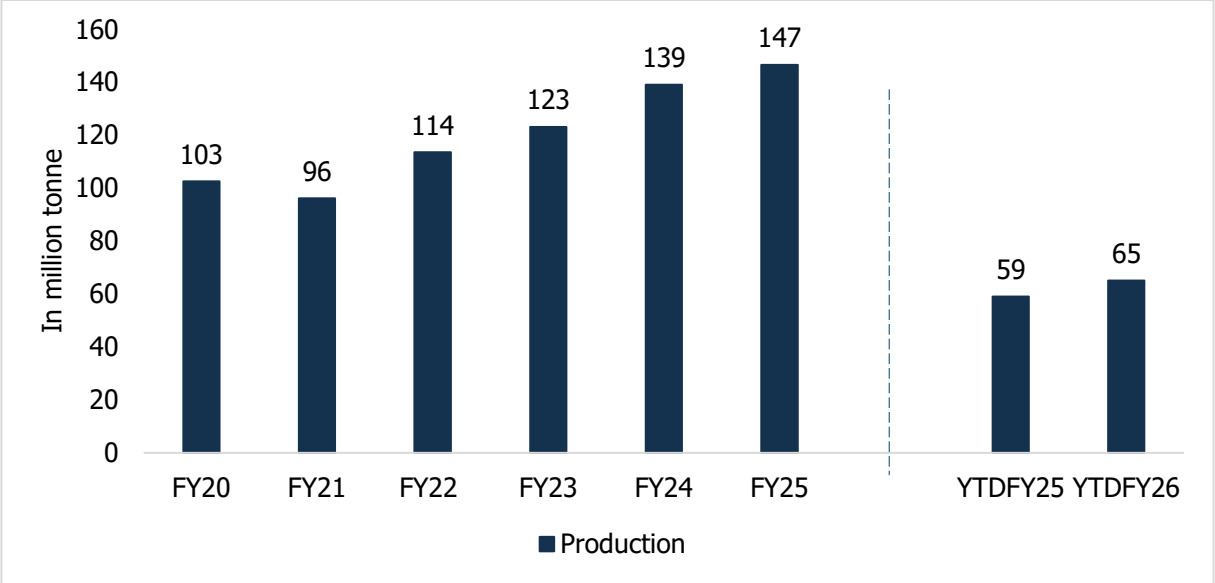


Source: CMIE
Note: YTDFY25 refers to April 2024-August 2024
YTDFY26 refers to April 2025-August 2025

3.3 Indian Finished Steel Production and Consumption

India's finished steel producers expanded output at a compound annual growth rate (CAGR) of 7.4% over the past six years, increasing production from 103 million tonnes (MT) in FY20 to 147 MT in FY25. This growth momentum continued into YTDFY26 (April–August 2025), with producers registering a 10.2% year-on-year growth in finished steel production. Rising domestic consumption, fuelled by increasing economic activity, supported this growth. Government-led investments in infrastructure and construction, along with growing demand from the automotive and consumer durables sectors, further bolstered production.

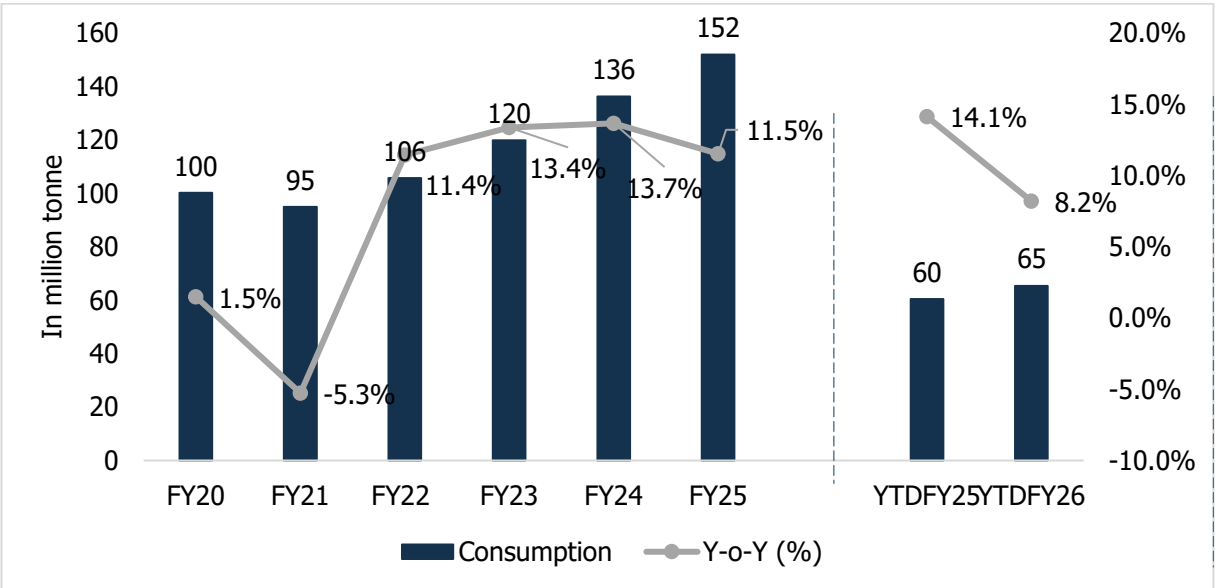
Chart 18: Finished Steel Production in India



Source: CMIE
Note: YTDFY25 refers to April 2024-August 2024
YTDFY26 refers to April 2025-August 2025

Finished steel consumption also surged, growing at a CAGR of 8.7% to reach 152 MT in FY25 from 100 MT in FY20. In FY25 alone, consumption rose by 11.5% year-on-year, driven primarily by a surge in infrastructure investment ahead of the General Elections. This spending stimulated demand in construction and related sectors. Additional contributions came from general engineering, automotive, consumer goods, and railways, all of which played a significant role in driving steel consumption.

Chart 19: Finished Steel Consumption in India



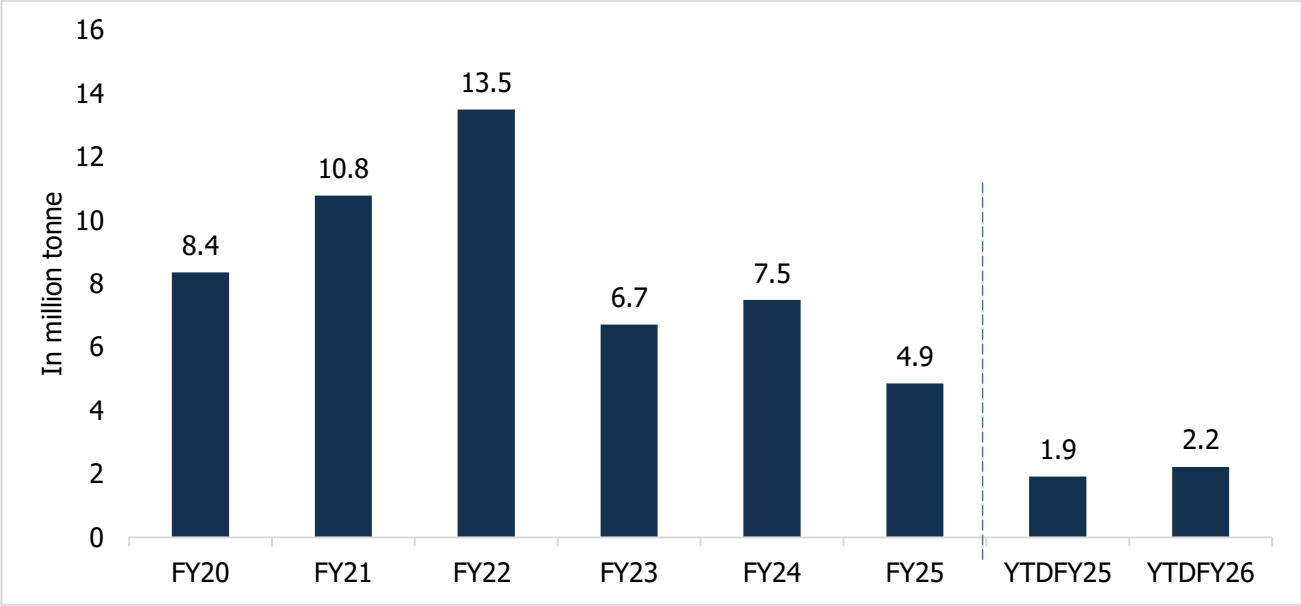
Source: CMIE
Note: YTDFY25 refers to April 2024-August 2024
YTDFY26 refers to April 2025-August 2025

3.4 Trend in Steel Trade

Exports:

India's steel trade dynamics have shifted significantly in recent years. During YTDFY26 (April–August 2025), Indian steel exporters increased shipments by 16.2% y-o-y. In FY25, exports fell sharply by 35.1% year-on-year, continuing the downward trend that began in FY23. Weak foreign demand, intensified competition from low-priced Chinese steel particularly in the Middle East and Vietnam and declining shipments to key markets like Italy drove this decline. Despite the overall contraction, Italy, Belgium, and the UAE remained India's top export destinations in FY25. However, exports to these three countries collectively declined by 38.6% year-on-year, with shipments to Italy alone plunging by 55.8%.

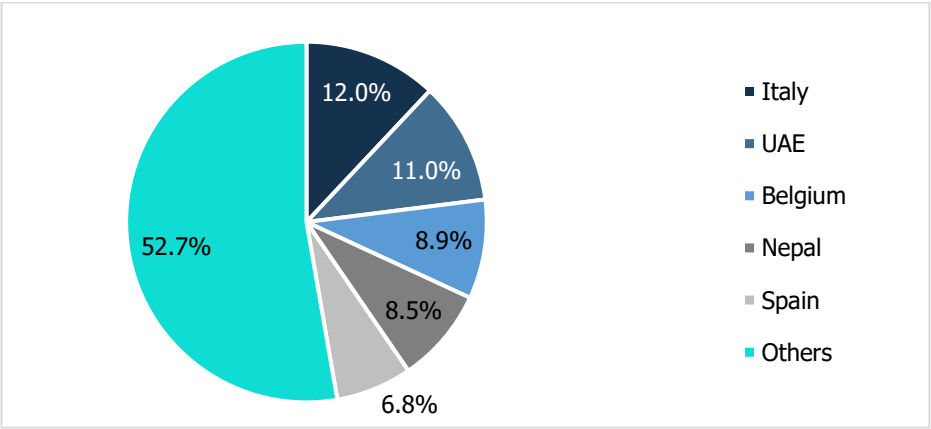
Chart 20: India's finished Steel exports



Source: CMIE
Note: YTDFY25 refers to April 2024-August 2024
YTDFY26 refers to April 2025-August 2025

The exports to top 5 countries (Italy, UAE, Belgium, Nepal, and Spain) accounted to 47% of the total outbound shipments from India during FY25.

Chart 21: Country wise exports of finished Steel during FY25



Source: CMIE

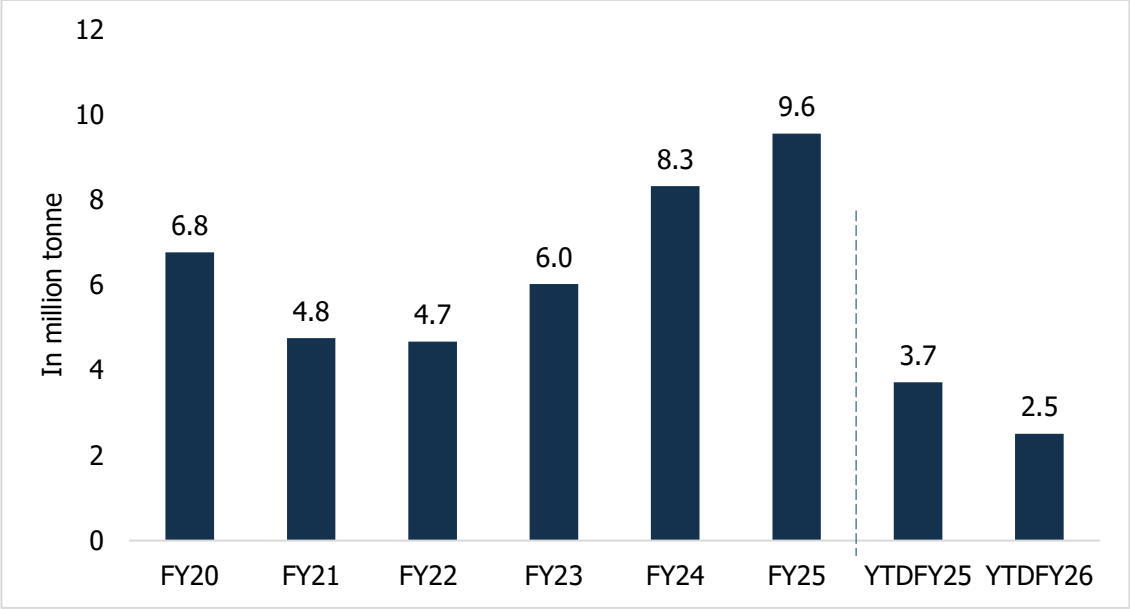
Imports:

During YTDFY26 (April–August 2025), import volumes fell by 32.6% y-o-y, largely due to lower shipments from China and Japan. The decline was influenced by India's temporary 12% safeguard duty, along with stronger domestic production and consumption that reduced dependence on imported steel. Despite this, China, South Korea, and Japan remained India's top steel suppliers, collectively accounting for 75% of total imports in FY25. Imports from these three countries grew by 12% y-o-y, underscoring their continued dominance in India's steel sourcing landscape.

In FY25, Indian importers increased steel imports by 14.8% y-o-y, supported by a surge in low-cost flat steel products and specialty grades. This followed a sharp 38.2% rise in FY24, when imports jumped from 6 million tonnes (MT) in FY23 to 8.3 MT. The spike was largely attributed to low-cost shipments from Russia and increased volumes from China. After four consecutive years as a net exporter, India became a net importer of steel in FY24.

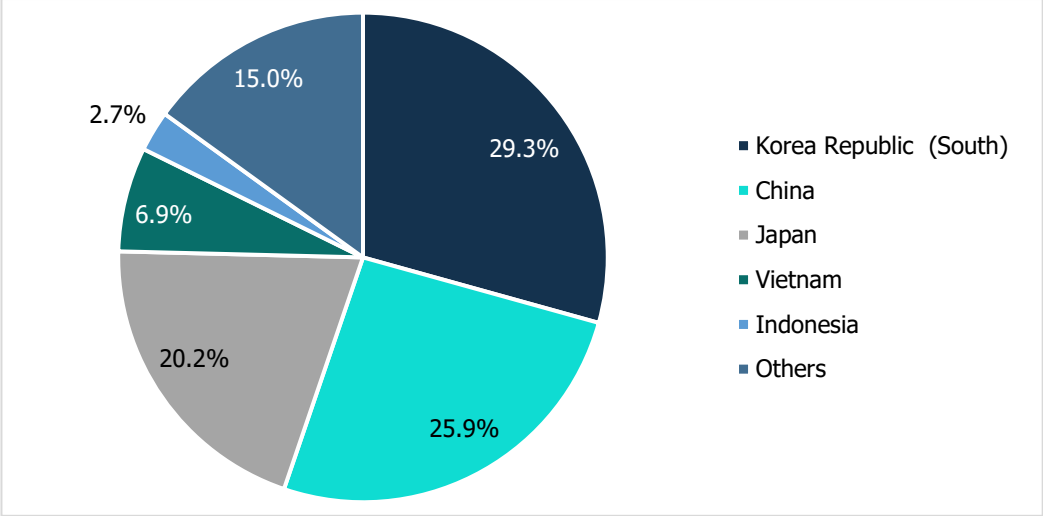
India's steel import patterns have evolved significantly in recent years, primarily driven by rising domestic demand for special-grade steel used in end-user segments such as automobiles, defence, shipbuilding, power, and railways. Domestic manufacturers continued to rely on imports to meet the growing need for high-grade materials that were either unavailable or in short supply locally.

Chart 22: India's finished Steel imports



Source: CMIE
Note: YTDFY25 refers to April 2024-July 2024
YTDFY26 refers to April 2025-July 2025

Chart 23: Country wise imports of finished Steel during FY25



Source: CMIE

3.5 Domestic Price Trends

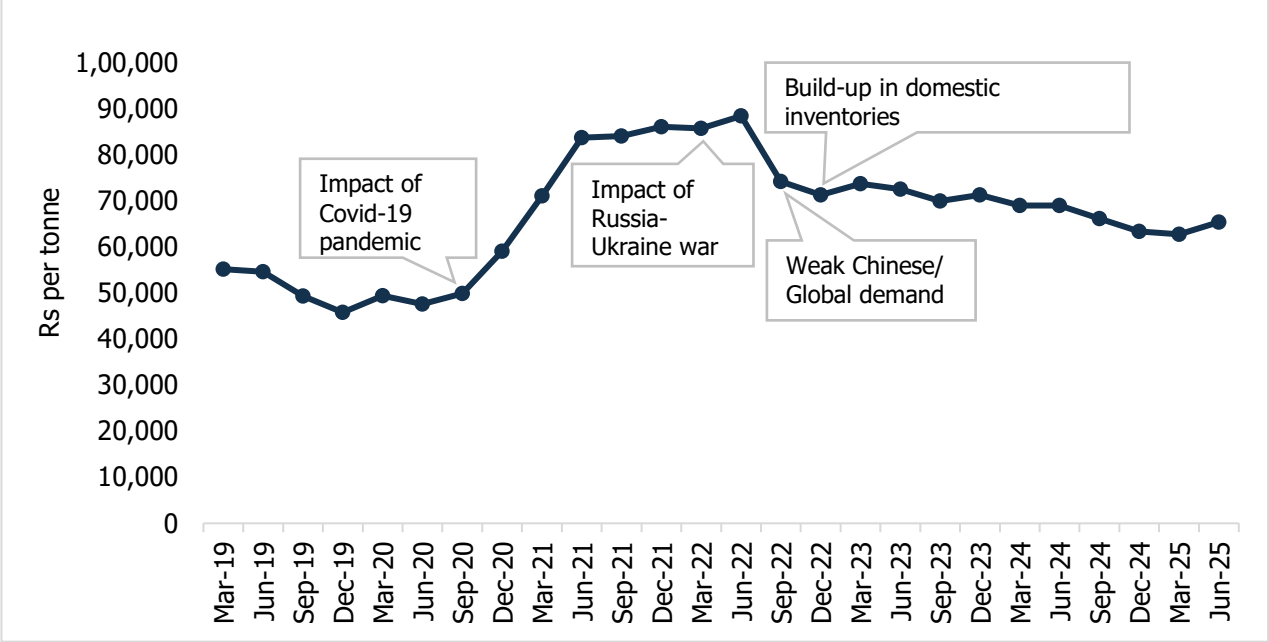
In the quarter ending June 2025, average domestic finished steel prices rose 4.1% q-o-q to Rs 65,413 per tonne, supported by the 12% temporary safeguard duty on select imports that strengthened domestic pricing power. In comparison, prices in March 2025 stood at Rs 62,811 per tonne, marking a 1% q-o-q decline. This downward trend continued from September 2024, when prices had already dropped by 4.18% q-o-q to Rs. 66,195 per tonne. The sustained decline since the June 2022 peak of Rs. 88,498 per tonne has been driven by several factors, including weak global demand, a fall in international prices, a surge in low-cost imports, and reduced export volumes.

Previously, during March 2024, prices dropped to Rs. 69,051 per tonne from Rs. 71,320 per tonne in December 2023, indicating a brief price surge that fizzled out. During FY24, domestic steel prices continued to flounder in catching the upward movement on account of global and domestic tailwinds.

In September 2023, prices fell to Rs. 70,001 per tonne, a 5% decline since March 2023 and a 6% year-on-year plunge. The price softness during this time was in line with international market trends and mirrored ongoing downward pressure in raw material prices and demand.

The trend started earlier in FY23, when prices declined precipitously from Rs. 88,498 a tonne in June 2022 to Rs. 71,326 a tonne in December 2022. The decline was mostly due to the imposition of export duties (May–Nov 2022) on some finished steel items. The policy action resulted in a drop in exports, a build-up of domestic stocks, and aggregate pressure on pricing. At the same time, iron ore and coking coal prices eased, more pulling down domestic steel prices.

Chart 24: Domestic Average Finished Steel Prices



Source: CMIE

3.6 Raw Materials Price Trend

3.6.1 Iron Ore

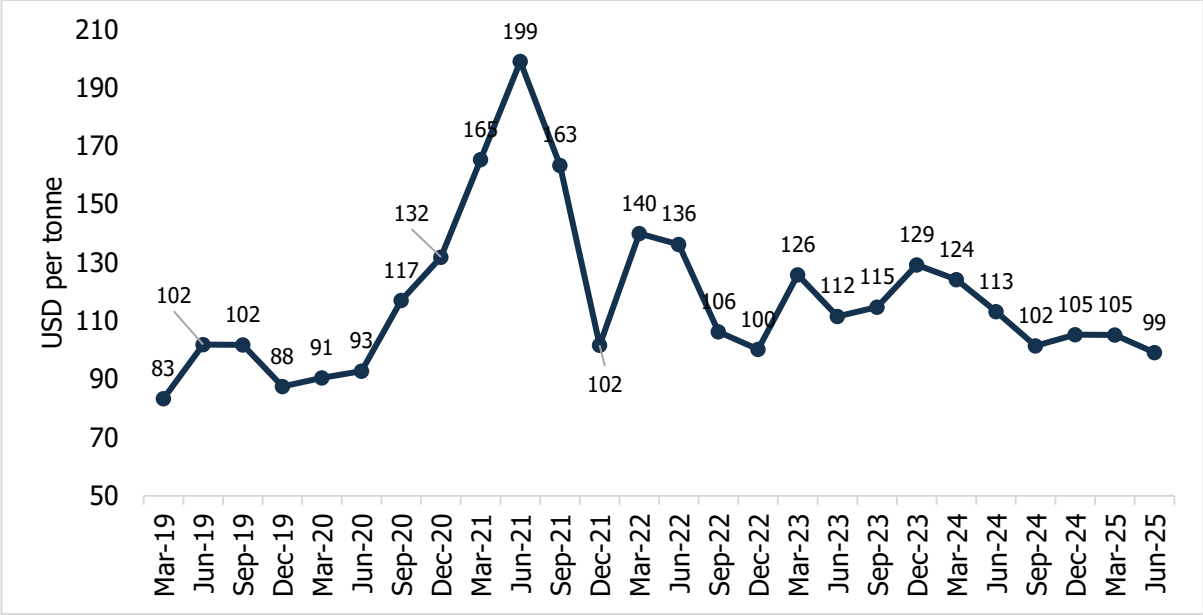
Iron ore prices recorded a sharp decline in the quarter ending June 2025, falling 12.5% y-o-y and 5.8% q-o-q, to settle at USD 99 per tonne. This decline was driven by increase in global supply especially from major exporters like Australia and Brazil and softening of demand from China during the seasonal off-season and structural slowdown in steel output. Oversupply met softer buying, particularly amid reduced construction activity and production cuts by Chinese mills, pressuring prices downward. Additionally, a weaker US dollar further dented producer profits. These combined factors led to a significant drop in benchmark iron-ore pricing by mid-2025.

Prices declined marginally by 0.1% for the quarter ended March 2025. This was after global iron ore prices inched up slightly by 3.7% quarter-on-quarter (q-o-q) to USD 105 per tonne, for the quarter ended December 2024. This came after a steady fall for much of the year, with prices dropping to USD 102 per tonne during Q3 2024. The drop was primarily fuelled by an economic downturn in China then the world's biggest iron ore consumer and oversupply from leading global producers, including Australia, which holds the largest iron ore reserves globally.

As of the end of CY23 (Q4), iron ore prices were at USD 129 per tonne. Prices had increased by 3% q-o-q and 9% y-o-y in the last quarter (Q3 2023), driven by indications of rebounding demand in China. This followed a significant decline in Q2 2023, when prices fell 11.2% q-o-q and 18.7% y-o-y to USD 112 per tonne.

Considering the crucial position iron ore occupies in steel production, such price volatility has had direct implications on world steel prices emphasizing the raw material's significance in the overall supply chain dynamics of the steel sector.

Chart 25: Trend in International Iron ore Prices



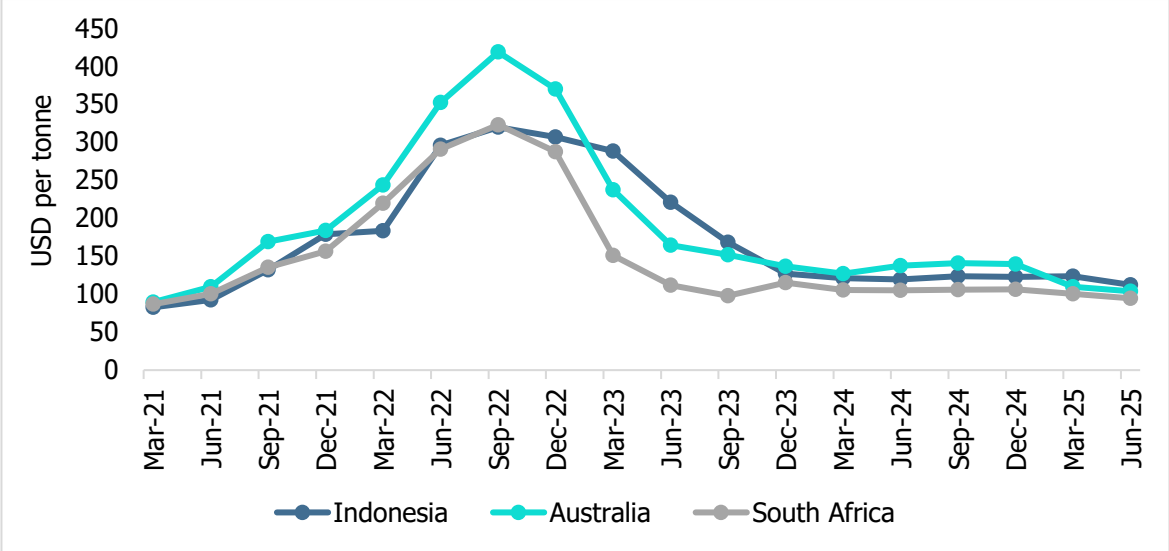
Source: CMIE

3.6.2 Coal

As of June 2025, international coal prices stood at USD 112 per tonne for Indonesia, USD 104 per tonne for Australia, and USD 95 per tonne for South Africa. All three prices have seen drastic decline of 9.2%, 5.3%, and 6% q-o-q, respectively. This was due to a persistent supply surplus amid softening demand. Global coal consumption is now plateauing, with demand from major markets like China and India easing as renewables and hydropower absorb a larger share of energy generation. At the same time, producers maintained high output, bolstering inventories and easing price pressures. This convergence of steady supply and wavering import appetite has driven prices down across key exporting markets.

During the quarter ended March 2025, international coal prices eased from previous highs, averaging USD 123.8 per tonne for Indonesia, USD 109.8 per tonne for Australia, and USD 100.6 per tonne for South Africa. Although still higher than pre-COVID levels, prices were lower than in FY23, reflecting a softening trend driven by improved global supply. This decline became evident by Q4 CY23, when coal prices recorded steep year-on-year drops 59% for Indonesian, 63% for South African, and 40% for Australian coal largely due to increased shipments from South Africa and Colombia that eased tightness in European markets. Despite the correction, sustained demand from China and India is expected to keep prices elevated relative to historical norms in FY24.

Chart 26: Trend in International Coal Prices



Source: CMIE

3.7 Key Government Policies/Regulations for the Steel Industry

National Steel Policy, 2017

NSP was introduced in 2017 with the objective to increase domestic steel production and consumption, produce high-quality steel, and increase India's competitiveness globally. It also focuses on cost efficiency, raw material availability, and research & development to achieve the overall objectives laid out under the policy.

The mission defined under NSP, 2017 is as below:

- Self-sufficiency in steel production by providing policy support & guidance to private manufacturers, MSME steel producers, and CPSEs and encouraging adequate capacity additions
- Development of globally competitive steel manufacturing capabilities
- Cost-efficient production and domestic availability of iron ore, coking coal, and natural gas
- Facilitate investment in overseas asset acquisitions of raw materials
- Enhance domestic steel demand

Table 4: Target Set Under the NSP, 2017

Parameter	Projections (FY31)
Total crude steel capacity (in MTPA)	300 (200.33 MTPA in FY25)
Total crude steel demand/production (in MTPA)	255
Total finished steel demand/production (in MTPA)	230
Sponge iron demand/production (in MTPA)	80
Pig iron demand/ production (in MTPA)	17
Per Capita Finished Steel Consumption (in kg)	158

Source: Ministry of Steel, PIB

AtmaNirbhar Bharat Policy

- Government initiatives such as Make in India and AtmaNirbhar Bharat which consist of 5 pillars (Economy, Infrastructure, System, Vibrant Demography, and Demand) have been playing a significant role in economic development.

- In the steel tubes and pipes sector, the demand for seamless and ERW pipe sectors is increasing due to these policies. According to this policy, any purchases made by PSUs must include at least 35% local value addition in the supply of pipes. This will eventually support domestic manufacturers in the country.

Under this policy, a stimulus of Rs 20 lakh crores were announced by the government to aid the country's fight against COVID-19.

Production Linked Incentive (PLI) Scheme

- To enhance the manufacturing capabilities and export market, the government launched the Production Linked Incentive (PLI) Scheme for specialty steel under the Ministry of Steel in July 2021 with a budgetary outlay of Rs 6,322 crores.
- India is dependent on specialty steel as it is used in automobiles, defence, railways, space, power, and renewable energy. The usage of this steel goes into the manufacturing of tubes and pipes, due to its properties such as heat resistance and corrosion resistance.

- The scheme covering specialty steel grades is applicable for the following product segments below:
  a. Coated/Plated Steel Products
  b. High Strength/ Wear-resistant Steel
  c. Specialty Rails
  d. Alloy Steel Products and Steel wires
  e. Electrical Steel

- PLI is expected to boost the production of the above products in domestic industry and reduce the dependency on imports. This will not only ensure import substitution of goods but also encourage a growth in the exports.

- Through this scheme, the production of specialty steel grade is estimated to grow more than double by FY27 to 42.2 MT from 17.6 MT in FY20, an increase of 140%.
- This incentive scheme is also expected to attract investments of about Rs39,625 crore by FY30 in specialty steel.

On January 6, 2025, Union Minister Shri H.D. Kumaraswamy launched PLI Scheme 1.1 for specialty steel, aimed at strengthening domestic steel production and reducing imports. This scheme covers five product categories: coated/plated steel, high-strength/wear-resistant steel, specialty rails, alloy steel, and electrical steel, with an allocation of Rs 6,322 crore. The scheme will run from FY 2025-26 to FY 2029-30. Changes based on industry feedback include relaxed investment thresholds, capacity creation adjustments, and the ability to carry forward excess production for incentives. The CRGO sub-category saw reduced investment and capacity thresholds to encourage participation. The scheme, which builds on the first round of PLI launched in 2021, focuses on increasing self-reliance in specialty steel production and creating jobs, aiming to boost India's position as a global steel hub. The application window for PLI Scheme 1.1 is open until January 31, 2025.

Schemes like the Production Linked Incentive (PLI) have significantly impacted India's steel industry by fostering innovation, enhancing competitiveness, and increasing production capacities. The PLI scheme, introduced to boost

specialty steel production, has attracted substantial investments, with companies committing to expand their manufacturing capabilities in critical sectors like defence, automobiles, and renewable energy. By offering incentives to companies that enhance their production capacity, the PLI scheme encourages technological advancements and process improvements, particularly in high-quality steel grades essential for sectors such as infrastructure and electrical goods. The revised PLI scheme, with relaxed norms, has broadened industry participation, making it easier for a wider range of companies to invest and expand. This shift reduces India's reliance on specialty steel imports, aiming to position the country as a global leader in steel production. Moreover, specific incentives for high-demand products, such as cold-rolled grain-oriented (CRGO) steel, reflect the government's strategic focus on improving critical domestic production. As the steel sector continues to grow, these policies play a vital role in ensuring that India remains competitive on the global stage while meeting domestic demand for high-quality specialty steel. This drive for self-reliance supports sustained growth in the industry, benefiting both businesses and the broader economy.

Domestically Manufactured Iron & Steel Products (DMI&SP)

- Domestically Manufactured Iron & Steel Products (DMI&SP) are those iron and steel products manufactured by entities registered and established in India, including in Special Economic Zones (SEZs). In addition, such products shall meet the criteria of domestic minimum value-addition.

- On 8th May 2017, the policy was approved by the government which mandates to provide preference to DMI&SP, in Government Procurement in which a minimum value addition of 15% - 50% has taken place domestically. This has been revised to 20% - 50% in the revised policy dated 31 December 2020.

- As on March 2024, The Union Cabinet has extended the policy by 6 months with effect from May 29, 2024.

The policy is intended to encourage domestic production and consumption of steel and import substitution and promote growth in the industry.

Quality Control Order on Steel

- The Ministry of Steel has introduced a Steel Quality Control Order (QCO), thereby banning sub-standard/defective steel products from the domestic market alongside imports to ensure the availability of quality steel to the industry, users, and the public at large.

- This measure is taken to enhance the availability of quality steel to the users. According to the Order, it is ensured that only quality steel conforming to the relevant BIS standards is made available to the end users. BIS (Bureau of Indian Standards) Certification is a quality assurance process that ensures products meet Indian standards, verifying their quality, safety, and reliability. While BIS certification is voluntary for many products, it is mandatory for specific items, including certain steel products like TMT bars, to ensure public safety and compliance with Indian Standards. Certified products bear the ISI mark, indicating adherence to prescribed quality standards. The certification is typically valid for one to two years and can be renewed if the product and standards remain unchanged.

As of August 2024, the QCO covers 151 categories of steel and steel products including carbon steel, alloy steel, and stainless steel. In addition, goods & articles made up of steel such as stainless-steel pipe & tubes, laminations/ cores of transformers, products of tin plate & tin-free steel, etc., have been notified to prevent circumvention of the Steel Quality Control Order.

India's Carbon Emission Reduction Targets:

During COP29, India reaffirmed its strong commitment to tackling climate change, balancing rapid development with the need for sustainability. The country emphasized the critical role of climate finance in supporting its ambitious targets, while highlighting the significant challenges posed by its growing population and dependence on coal. India's climate

commitments focus on both enhancing renewable energy capacity and reducing emissions intensity, demonstrating a comprehensive approach to climate resilience.

India's major climate commitments include:

a. Achieving 500 GW of non-fossil energy capacity by 2030, a major step toward reducing reliance on fossil fuels.
b. Reducing carbon emissions intensity by 33-35% from 2005 levels by 2030, aligning with the country's goal of decoupling economic growth from environmental degradation.
c. Targeting net-zero emissions by 2070, emphasising long-term commitment despite immediate financial and technological challenges.

These commitments showcase India's determination to transition to a cleaner economy, while also underscoring the need for international support to meet these ambitious targets.

Anti-Dumping and Import Duties

The Government of India has actively deployed anti-dumping duties (ADD), safeguard duties, and calibrated import tariffs on steel products as part of an evolving trade-remedy framework designed to protect domestic steel manufacturers from unfairly priced foreign competition and market disruptions. According to official PIB disclosures, ADD measures are currently in place on several categories of imported steel — including seamless tubes, pipes, hollow profiles of iron and steel from China, electro-galvanized steel from Korea, Japan and Singapore, and welded stainless steel pipes and tubes from Vietnam and Thailand — to counteract dumped imports that can erode domestic market share and profitability for Indian producers. Countervailing duties (CVD) also apply to similar products from specific countries as a response to subsidised imports.

Beyond traditional anti-dumping remedies, India has also introduced safeguard duties on select steel imports to address broader surges in shipments. In April 2025, the Government imposed a 12% provisional safeguard duty on certain non-alloy and alloy steel flat products for 200 days following a Directorate General of Trade Remedies (DGTR) investigation that found increased import volumes threatening serious injury to domestic manufacturers. This temporary tariff aimed to provide immediate relief to domestic firms facing competitive pressure from low-priced imports, particularly from China, South Korea and Vietnam.

More recently, authorities extended this approach by prolonging safeguard duties for a three-year period, with a structured decline from 12% in the first year to 11.5% and 11% in subsequent years, effectively building longer-term stability for domestic supply chains and encouraging capacity utilisation in India's steel sector. Analysts and industry associations such as the Indian Steel Association have welcomed this step as a well-calibrated policy measure that stabilises the domestic market while still allowing essential imports not covered by the duty.

These protective instruments sit alongside other supportive policies — including exemptions on customs duties for critical raw materials and enhancements to the Steel Import Monitoring System — reflecting a broader strategy to strengthen India's steel industry competitiveness, address boom-and-bust import cycles, and promote sustainable domestic growth.

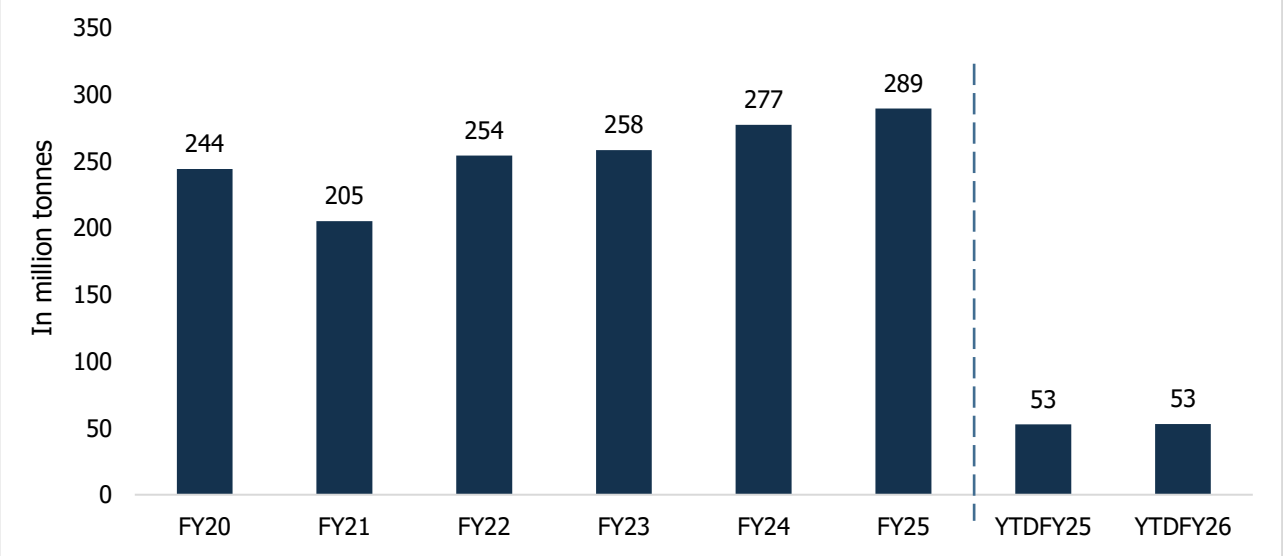
4 Iron Ore Mining

The major iron ore mines are in Odisha, Karnataka, Chhattisgarh, and Jharkhand. Iron ore production in India grew at a compound annual growth rate (CAGR) of 3.5% over FY20–FY25. In FY25, India produced 289 million tonnes (MT) of iron ore, reflecting a year-on-year growth of 4.6%. This production output surged on the back of sturdy steel-sector demand. Market signals and policy stability encouraged miners to boost extraction efforts. Expansion of capacities by state and private firms underpinned higher yields. Accelerated auctions of mine blocks unlocked new sources of raw material, while improvements in transportation infrastructure facilitated smoother movement from mines to ports. The sustained growth in allied mineral sectors further underscored the economy's resilience. Strategic initiatives to secure overseas ore reserves provided long-term supply security. Additionally, increased mechanisation and the adoption of digital monitoring systems enhanced operational efficiency. During YTDFY26 (April 2025-May 2025), production increased marginally by 0.6%, reaching 53 million tonnes.

India has large resources of iron ore and concentrates (includes both hematite and magnetite) estimated at 35,286 MT in FY20 with 6,412 MT classified as reserves. Although India has sufficient iron ore reserves, the availability of high-grade iron ore is limited as they are being depleted because of their usage in blast furnace and direct reduced iron (DRI) plants. As a result, it has become important to utilize low-grade deposits (45% Fe), which require beneficiation to make them suitable for use in steel plants.

The National Mineral Development Corporation (NMDC), Steel Authority of India Ltd (SAIL), and Odisha Mining Corporation Ltd in the public sector and JSW Steel Ltd and Tata Steel Ltd in the private sector are the major producers of iron ore in India.

Chart 27: Iron Ore Production in India



Source: CMIE
Note: YTDFY25 refers to the period between April 2024-May 2024
YTDFY26 refers to the period between April 2025-May 2025

Iron Ore Trade

Exports:

Iron ore production in India caters to the domestic demand alongside contributing a significant volume of exports from India. In FY25, India's iron ore exports declined by 35.3% y-o-y. This drop was primarily due to weak demand from China, India's largest trading partner, amid high port inventories and subdued steel consumption. Slower construction activity in China further depressed prices, making Indian exports less attractive. At the same time, rising domestic demand especially for direct reduced iron (DRI) production redirected iron ore to Indian steelmakers. As a result, shipments through India's major ports decreased, reflecting a broader slowdown in export activity.

In FY24, exports rebounded, rising by around 119% y-o-y due to the low base effect and recovery in demand following the rollback of export duties in November 2022. China continued to dominate as the key export destination.

In contrast, FY23 saw a 20.1% y-o-y decline in exports, with the sharpest drop occurring between June and November 2022 after the government increased export duties in May 2022:

- Iron ore lumps (Fe >58%): duty raised from 30% to 50%
- Low-grade iron ore (Fe <58%): 50% duty imposed
- Pellets: 45% duty imposed

These duties heavily impacted shipments until they were removed in late 2022, setting the stage for the rebound seen in FY24.

Chart 28: Exports and Imports of Iron Ore

Source: CMIE

Imports:

Imports, on the other hand, hold relatively a lesser share in steel production. India majorly imports high-grade iron ore (used in special steel), finding use among end-users such as automotive, defence, space, shipping, etc.

India's iron ore imports increased by 29.2% y-o-y during FY25, driven by a mix of domestic supply challenges and attractive global prices. Lower dispatches from Indian mines, logistical bottlenecks, and regulatory delays contributed to constrained local availability. At the same time, a decline in international prices made imports economically viable for steelmakers. With rising crude steel production increasing raw material demand, many producers turned to overseas markets to secure consistent supply and maintain output levels.

Supreme Court Ruling on mining of Iron ore dumps in Goa

The Government of Goa notified the Policy for Regulating Iron Ore Dump Handling in September 2023 to establish a comprehensive framework for managing iron ore dumps across the State, in line with Supreme Court judgments and expert recommendations. The policy stems from the Supreme Court's 2014 ruling in Goa Foundation vs Union of India, which declared mining beyond lease validity and dumping of minerals outside lease areas as illegal. Subsequent directions led to the formation of an Expert Committee, whose reports highlighted that many dumps classified as waste may still contain recoverable iron ore and other minerals.

The policy applies to all iron ore dumps in Goa, whether inventoried or not, and whether located within or outside lease areas, except dumps located within successfully auctioned mining leases. Dumps are broadly defined to include ore, sub-grade ore, low-grade ore, waste and tailings accumulated during mining operations.

A key feature of the policy is the classification of dumps based on location and legality. Dumps outside lease areas that are not depicted in approved mining plans are deemed illegal and must be compulsorily auctioned by the State. Even dumps located on private land or government land outside lease areas are largely to be auctioned, unless specific conversion fees, fines and statutory compliances have already been fulfilled by erstwhile leaseholders, in which case limited rights to remove dumps may be granted with prior approval.

The policy mandates that dump mining will be conducted through a transparent e-auction process, with priority given to unstable and environmentally sensitive dumps. Before auctioning, each dump must undergo a technical dump profile study. Successful bidders must obtain all statutory approvals, including environmental clearances, and are required to pay royalties and statutory levies such as DMF, NMET and other applicable charges. Importantly, all proceeds from dump mining accrue entirely to the Government treasury.

Environmental protection and safety form a critical component of the policy. Special approvals are required for dumps located in forest or wildlife areas, and strict precautions must be taken to prevent pollution, runoff, siltation and safety hazards. The policy also provides for compensation to private landowners where dump activities infringe surface rights.

Finally, the policy supersedes earlier provisions related to dump handling under the Goa Mineral Policy 2013 and grants the State Government powers to amend or withdraw provisions as necessary, ensuring regulatory flexibility going forward.

5 Mild Steel Wires

5.1 Overview of Mild Steel Wires Market in India

Introduction

Mild Steel (MS) wires are low-carbon steel products manufactured through wire drawing processes, wherein hot-rolled steel rods are reduced in diameter and elongated to form wires of various gauges. These wires are further processed into annealed, galvanised, or coated forms depending on end-use requirements. The MS wire industry in India plays a foundational role in supporting downstream sectors such as construction, agriculture, automotive, power transmission, and general engineering.

Manufacturing Process

The production of MS wires involves:

- **Wire Rod Sourcing**: Typically from integrated steel plants.
- **Wire Drawing**: Cold drawing through dies to achieve desired thickness.
- **Heat Treatment**: Annealing to improve ductility and tensile strength.
- **Surface Treatment**: Galvanising, oiling, or coating for corrosion resistance.

Regulatory and Policy Framework

- **BIS Standards**: Compliance with IS 280 (mild steel wire for general engineering) and IS 4826 (galvanised coating) is mandatory.
- **Environmental Regulations**: Wire drawing and galvanising units are subject to air and water pollution control norms under the Central Pollution Control Board (CPCB).
- **Trade Policy**: Import duties on wire rods and finished wires, as well as anti-dumping measures, influence domestic competitiveness.
- **PLI Scheme for Specialty Steel**: While not directly targeting MS wires, the scheme encourages backward integration and quality enhancement in the broader steel value chain.

Market Structure

The MS wire industry is fragmented, with a mix of:

- **Integrated Steel Producers**: Supply wire rods and sometimes operate captive wire drawing units.
- **Mid-sized Wire Manufacturers**: Focus on specific product categories such as binding wire, fencing wire, or barbed wire.
- **Unorganised Sector**: Numerous small-scale units cater to local markets, often with limited quality control.

Key Drivers

- **Shift Towards Value-Added Products**: Increasing demand for coated, galvanised, and high-tensile wires.
- **Infrastructure and Rural Electrification Push**: Driving demand for binding wire, stay wire, and earth wire.

- **Automation and Quality Control**: Adoption of inline testing and surface treatment technologies among organised players.
- **Sustainability Focus**: Growing emphasis on recyclable materials and environmentally compliant galvanising processes.

Key Challenges

- **Raw Material Dependency**: Reliance on wire rod availability and pricing from large steel producers.
- **Quality Standardisation**: Variability in product quality, especially in the unorganised sector.
- **Environmental Compliance Costs**: Galvanising units face increasing regulatory scrutiny and capex requirements.

5.2 End User Application

A. Construction and Infrastructure

- **Applications**: Binding wire for RCC structures, fencing wire for site demarcation, and stay wire for utility poles.
- **Demand Outlook**: Strong and sustained, driven by urbanisation, real estate development, and public infrastructure projects.
- **Investor Relevance**: High-volume segment with recurring demand and potential for institutional sales.

B. Agriculture and Rural Development

- **Applications**: Barbed wire, fencing wire, and baling wire for crop protection, livestock enclosures, and irrigation systems.
- **Demand Outlook**: Stable and resilient, supported by government schemes such as PM-KUSUM and rural electrification.
- **Investor Relevance**: Low-cyclicality segment with wide geographic reach and subsidy-linked demand.

C. Power Transmission and Utilities

- **Applications**: Earth wire, stay wire, and messenger wire in overhead transmission and distribution systems.
- **Demand Outlook**: Expanding, aligned with investments in grid modernisation and rural electrification.
- **Investor Relevance**: Strategic segment with public procurement opportunities and long-term visibility.

D. Automotive and Engineering

- **Applications**: Spring wire, fasteners, control cables, and reinforcement in tyres and seats.
- **Demand Outlook**: Moderate to high, linked to automotive production cycles and component exports.
- **Investor Relevance**: Premium segment with scope for high-tensile and precision wire products.

E. General Fabrication and Consumer Goods

- **Applications**: Wire mesh, nails, hangers, and household items.
- **Demand Outlook**: Fragmented but steady, driven by MSME activity and domestic consumption.

- **Investor Relevance**: Volume-driven segment with potential for branded and packaged offerings.

6 Bright Bars

6.1 Overview of Bright Bars Market in India

Introduction

Bright bars are cold-finished steel bars with a smooth surface finish, precise dimensional tolerance, and enhanced mechanical properties. Manufactured through processes such as cold drawing, peeling, grinding, and polishing, bright bars are used extensively in applications requiring high dimensional accuracy and surface quality. These include automotive components, industrial machinery, construction hardware, and consumer durables.

Bright bars are typically produced from carbon steel, alloy steel, stainless steel, and mild steel. The industry forms a critical link in the steel value chain, serving as a key input for precision engineering and fabrication sectors.

Manufacturing Process

The production of bright bars involves the following stages:

- **Raw Material Sourcing**: Typically hot-rolled steel bars or wire rods.
- **Cold Drawing or Peeling**: Reduces diameter and improves surface finish.
- **Straightening and Polishing**: Ensures dimensional accuracy and aesthetic appeal.
- **Heat Treatment (optional)**: Enhances mechanical properties such as tensile strength and hardness.

Regulatory and Policy Framework

- **Bureau of Indian Standards (BIS)**: Bright bars must comply with relevant IS standards depending on the steel grade and application (e.g., IS 9550 for carbon steel bars).
- **Environmental Regulations**: Manufacturing units are subject to air and water pollution control norms under the Central Pollution Control Board (CPCB).
- **Trade Policy**: Import duties on alloy steel and stainless steel bars, as well as anti-dumping measures, influence domestic competitiveness.
- **PLI Scheme for Specialty Steel**: Encourages domestic production of high-grade alloy and stainless steel bars, indirectly supporting the bright bar segment.

Market Structure

The Indian bright bar industry is moderately fragmented, comprising:

- **Integrated Steel Producers**: Operate captive bright bar units for internal consumption and select external sales.
- **Specialty Steel Manufacturers**: Focus on alloy and stainless steel bright bars for high-performance applications.
- **Mid-sized and Regional Players**: Cater to local markets and general engineering applications.

Key Drivers

- **Precision Engineering Growth**: Rising demand from automotive, aerospace, and capital goods sectors.
- **Import Substitution**: Increasing domestic production of high-grade alloy and stainless steel bars.
- **Quality and Certification Focus**: Emphasis on ISO, IATF, and BIS certifications to meet OEM and export requirements.
- **Sustainability and Compliance**: Adoption of cleaner production technologies and waste recycling practices.

Key Challenges

- **Raw Material Dependency**: Reliance on quality billets and wire rods from integrated steel plants.
- **Price Volatility**: Fluctuations in alloying elements (e.g., nickel, chromium) impact cost structures.
- **Technology Gaps**: Limited domestic capacity for ultra-precision bars and specialty grades.
- **Fragmentation**: Presence of unorganised players with inconsistent quality standards.

6.2 End User Application

A. Automotive and Auto Components

- **Applications**: Shafts, axles, fasteners, steering components, and transmission parts.
- **Demand Outlook**: Strong and sustained, driven by domestic vehicle production and export of auto components.
- **Investor Relevance**: High-volume, high-precision segment with potential for long-term OEM contracts.

B. Industrial Machinery and Capital Goods

- **Applications**: Spindles, gears, hydraulic components, and machine shafts.
- **Demand Outlook**: Expanding, aligned with growth in manufacturing, infrastructure, and process industries.
- **Investor Relevance**: Premium segment with scope for alloy and heat-treated bright bars.

C. Construction and Infrastructure

- **Applications**: Fasteners, anchor bolts, and structural connectors.
- **Demand Outlook**: Stable, supported by real estate, metro rail, and industrial park development.
- **Investor Relevance**: Volume-driven segment with potential for standardised product offerings.

D. Consumer Durables and Appliances

- **Applications**: Shafts, rods, and structural parts in washing machines, refrigerators, and fans.
- **Demand Outlook**: Moderate to high, linked to rising disposable incomes and urbanisation.
- **Investor Relevance**: High-margin niche with potential for branded and customised solutions.

E. Defence, Aerospace, and Railways

- **Applications**: Precision shafts, couplings, and structural components.
- **Demand Outlook**: Emerging and strategic, supported by indigenisation and Make in India initiatives.
- **Investor Relevance**: Long-term growth potential with high entry barriers and quality requirements.

7 Welding Electrodes

7.1 Overview of Welding Electrodes Market in India

Welding electrodes are consumables used in various welding processes to join metal components. They serve as a filler material and conductor of electric current, enabling the fusion of metals. The Indian welding electrodes industry is a critical component of the broader fabrication and metalworking ecosystem, supporting sectors such as infrastructure, automotive, shipbuilding, heavy engineering, and oil & gas.

Electrodes are broadly classified into:

- **Shielded Metal Arc Welding (SMAW) Electrodes**: Also known as stick electrodes, widely used in manual welding.
- **Gas Metal Arc Welding (GMAW) and Flux-Cored Arc Welding (FCAW) Electrodes**: Used in semi-automatic and automatic welding processes.
- **Submerged Arc Welding (SAW) Electrodes**: Used in high-deposition rate applications such as pipelines and pressure vessels.

Manufacturing Process

The production of welding electrodes involves:

- **Core Wire Preparation**: Typically made from mild steel or alloy steel.
- **Flux Coating**: Application of a chemical mixture that stabilizes the arc and protects the weld pool.
- **Baking and Packaging**: Electrodes are baked to remove moisture and packed to prevent contamination.

Regulatory and Policy Framework

- **Bureau of Indian Standards (BIS)**: Welding electrodes must comply with IS 814, IS 1395, and other relevant standards depending on the type and application.
- **Environmental Regulations**: Manufacturing units are subject to air and waste management norms under the Central Pollution Control Board (CPCB).
- **Trade Policy**: Import duties on welding consumables and raw materials (e.g., rutile, ferro alloys) influence domestic competitiveness.
- **Skill Development Initiatives**: Government programs such as PMKVY (Pradhan Mantri Kaushal Vikas Yojana) promote welding training, indirectly supporting demand.

Market Structure

The Indian welding electrodes market is moderately fragmented, comprising:

- **Large Industrial Manufacturers**: Operate integrated facilities with R&D and export capabilities.
- **Mid-Sized Regional Players**: Serve local fabrication and construction markets.
- **Unorganised Sector**: Numerous small-scale units cater to price-sensitive segments with limited quality control.

Key Drivers

- **Infrastructure Push**: Government-led investments in roads, railways, and industrial corridors drive demand for welding consumables.
- **Automation in Fabrication**: Increasing adoption of robotic and automated welding systems in automotive and heavy engineering.
- **Quality and Certification Focus**: Growing emphasis on ISO, AWS, and BIS certifications for institutional and export markets.
- **Sustainability and Safety**: Shift towards low-fume, low-hydrogen, and environmentally compliant electrode formulations.

Key Challenges

- **Raw Material Volatility**: Prices of rutile, ferro alloys, and steel wire affect cost structures.
- **Technology Gaps**: Limited domestic capacity for advanced welding consumables such as low-hydrogen and alloy-specific electrodes.
- **Fragmentation and Quality Variability**: Presence of non-standardised products from unorganised players affects industry reputation.

7.2 End User Application

A. Infrastructure and Construction

- **Applications**: Structural welding in bridges, flyovers, metro rail, and industrial buildings.
- **Demand Outlook**: Strong and sustained, driven by national infrastructure programs and real estate expansion.
- **Investor Relevance**: High-volume segment with recurring demand and institutional procurement.

B. Automotive and Auto Components

- **Applications**: Welding of chassis, body panels, exhaust systems, and sub-assemblies.
- **Demand Outlook**: Moderate to high, linked to domestic vehicle production and export of auto components.
- **Investor Relevance**: Premium segment with scope for automation-compatible electrodes.

C. Oil & Gas and Petrochemicals

- **Applications**: Pipeline welding, pressure vessels, and refinery structures.
- **Demand Outlook**: Strategic and growing, aligned with energy infrastructure investments.
- **Investor Relevance**: High-specification segment with long-term visibility and quality requirements.

D. Shipbuilding and Marine Engineering

- **Applications**: Hull fabrication, deck structures, and underwater welding.
- **Demand Outlook**: Emerging, supported by defence indigenisation and commercial shipbuilding.
- **Investor Relevance**: Niche segment with high entry barriers and export potential.

E. General Fabrication and MSMEs

- **Applications**: Welding in gates, grills, furniture, and small machinery.
- **Demand Outlook**: Stable and widespread, driven by domestic consumption and rural construction.
- **Investor Relevance**: Volume-driven segment with potential for branded and packaged offerings.

8 Roofing Sheets

8.1 Overview of Roofing Sheet Market in India

Introduction

The Pre-Painted Galvanised Iron (PPGI) and Pre-Coated Galvanised Iron (PCGI) roofing sheets industry in India forms a critical segment of the downstream steel value chain. These products are manufactured by applying organic coatings over galvanised steel substrates, offering enhanced corrosion resistance, aesthetic appeal, and structural durability. The roofing sheets are profiled from coated coils and are widely used in industrial, commercial, agricultural, and residential applications.

The sector has gained prominence due to its alignment with infrastructure development, affordable housing, and climate-resilient construction practices. It supports national objectives such as urbanisation, rural development, and sustainable building technologies.

Manufacturing Process

The production of PPGI and PCGI roofing sheets involves:

- **Base Material Preparation**: Hot-dip galvanised steel coils serve as the substrate.
- **Coating Application**: Organic coatings (e.g., polyester, PVDF, SMP) are applied using continuous coil coating lines.
- **Profiling**: Coated coils are roll-formed into roofing profiles such as trapezoidal, corrugated, or standing seam sheets.

Regulatory Framework

- **Bureau of Indian Standards (BIS)**: Roofing sheets must comply with IS 14246 and IS 15961 for coated steel products.
- **National Building Code (NBC)**: Provides structural and fire safety guidelines for roofing systems.
- **Environmental Norms**: Manufacturing units are subject to pollution control regulations under the Central Pollution Control Board (CPCB).
- **Trade Policy**: Import duties and anti-dumping measures on coated steel products influence domestic competitiveness.

Key Drivers

- **Government Infrastructure Programs**: Initiatives such as PM Gati Shakti, Smart Cities Mission, and Bharatmala drive demand for durable roofing solutions.
- **Affordable Housing and Rural Development**: Schemes like PMAY (Pradhan Mantri Awas Yojana) promote adoption of cost-effective roofing materials in low-income housing.
- **Industrial Expansion**: Growth in warehousing, logistics parks, and manufacturing units increases demand for high-performance roofing systems.

- **Climate Resilience and Sustainability**: Preference for corrosion-resistant, recyclable, and thermally efficient materials in green buildings and disaster-resilient structures.
- **Urbanisation and Real Estate Growth**: Rising demand for commercial and institutional buildings supports premium roofing applications.

Key Challenges

- **Raw Material Price Volatility**: Fluctuations in zinc and steel prices affect input costs and margins.
- **Import Competition**: Low-cost imports from East and Southeast Asia pose pricing pressures.
- **Quality Standardisation**: Variability in coating thickness and substrate quality among unorganised players affects product reliability.
- **Logistics and Distribution**: Roofing sheets require efficient handling and delivery infrastructure, especially in remote regions.

8.2 End User Application

A. Industrial and Commercial Infrastructure

- **Applications**: Warehouses, logistics hubs, manufacturing plants, cold storage units, and commercial sheds.
- **Demand Outlook**: Strong and sustained, driven by industrial corridor development and e-commerce logistics growth.
- **Investor Relevance**: High-volume segment with potential for long-term contracts and institutional sales.

B. Residential and Affordable Housing

- **Applications**: Roofing for low-cost housing, rural homes, and semi-urban dwellings.
- **Demand Outlook**: Expanding due to government housing schemes and rising rural incomes.
- **Investor Relevance**: Price-sensitive segment with scope for scale and distribution efficiency.

C. Agricultural and Allied Sectors

- **Applications**: Roofing for poultry farms, dairy units, grain storage, and rural utility structures.
- **Demand Outlook**: Stable and growing, supported by agri-infrastructure investments.
- **Investor Relevance**: Niche but resilient segment with low cyclicality.

D. Institutional and Public Infrastructure

- **Applications**: Schools, hospitals, community centres, and railway stations.

- **Demand Outlook**: Increasing due to government-led infrastructure upgrades.
- **Investor Relevance**: Strategic segment with ESG alignment and public procurement opportunities.

E. Retail and Urban Commercial Spaces

- **Applications**: Roofing for malls, showrooms, petrol pumps, and urban kiosks.
- **Demand Outlook**: Moderate, linked to urban expansion and retail footprint growth.
- **Investor Relevance**: Premium segment with potential for branded and aesthetic product offerings.

9 Prefabricated and Pre-Engineered Construction Industry in India

9.1 Overview of Prefabricated and Pre-Engineering Industry in India

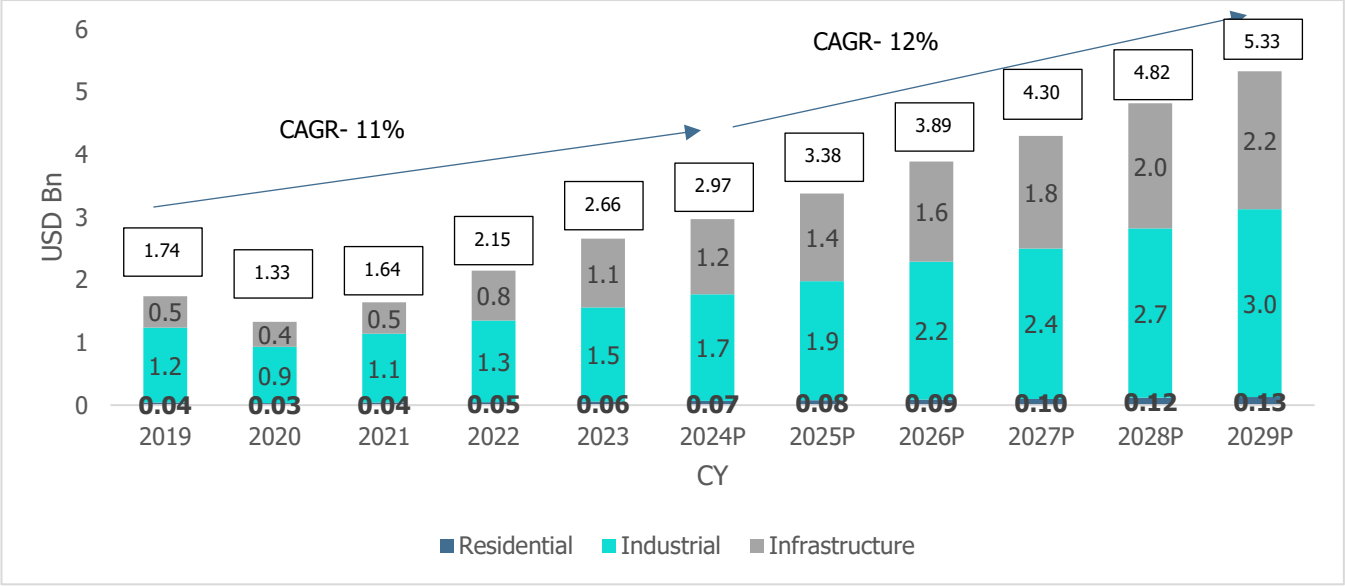
9.1.1 Trend in Industry size of Pre-Fabricated and Pre-Engineering Industry -by types

The Construction industry is broadly divided into residential, industrial and infrastructure construction. Pre- Engineering Industry can also be divided into the above categories.

Pre-Engineering Construction Market

The PEB market is expected to grow at a CAGR of 12% from CY24 to CY29 driven by the growth in the construction sector and demand for quick construction and sustainable buildings, with the highest growth anticipated in warehouses, cold storage, and data centres. The market is majorly dominated by industrial construction.

Chart 29: Market Size of PEB in various construction sector



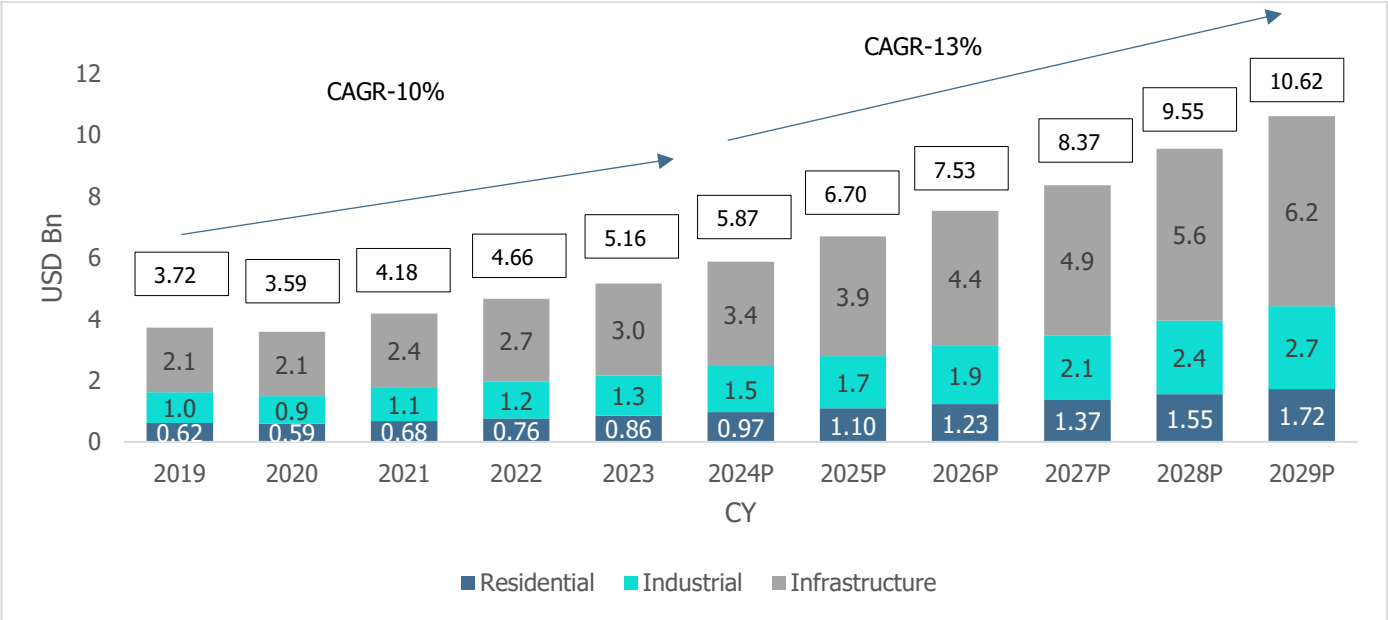
Source: Maia Research, CareEdge Research

Onsite project management capabilities are a pivotal factor in the evaluation of pre-engineered steel building suppliers as construction industry is usually riddled by long projects. Hence, project management expertise becomes extremely important to ensure timely completion and avoid costs overrun as it helps in the adherence to timelines, budget constraints, and high-quality standard.

Pre- fabricated Construction Market

The Pre- fabricated construction market is expected to grow at a CAGR of 13% from CY24 to CY29 driven by the overall demand in the construction sector. The market is dominated by infrastructure sector because it is convenient to construct large constructions using Pre-fabricated methods.

Chart 30: Market Size of Pre- Fabricated in various construction sector



Source: Maia Research, CareEdge Research

9.2 Structure of the Industry

The structure of the prefabricated and pre-engineered (PEB) industry is organized into several segments that cater to diverse types of construction and industrial needs. This industry primarily revolves around the manufacturing of components (like walls, floors, roofs, etc.) in a factory, which are then transported to the construction site for assembly. It is widely used in sectors like commercial, industrial, residential, and infrastructure projects.

The PEB and prefabricated building markets have both organized and unorganized segments, with the organized sector being dominated by large players that adhere to industry standards and regulations. Here is a breakdown of the market:

a. Organized Sector consisting Key Players

- **Large EPC Companies**: These companies manage large projects and often lead the market in terms of volume. They have established relationships with clients across sectors like infrastructure, industrial, commercial, and residential. They take the EPC contract and outsource the PEB parts.
    - Example: Larsen &Turbo, Tata Projects ,etc.
- **Manufacturers of Prefabricated Systems and Components**: These are large firms that design, manufacture, supply, and erect prefabricated components such as steel frames, walls, roof panels, and modular structures.
    - Examples: Ardee Engineering, Tata BlueScope Steel, Zamil Steel, Interarch, Everest Industries, and Kirby Building Systems.
- **Project Management and Construction Firms**: These firms provide end-to-end solutions and manage large prefabricated or pre-engineered building projects. They offer services from design to construction.

b. Unorganized Sector

- **Small & Medium Enterprises (SMEs)**: This segment consists of smaller, regional players that may lack the technological sophistication and larger-scale manufacturing capabilities of the organized sector. They typically cater to local markets or small-scale projects.
- **Local Fabricators**: Smaller companies often handle only specific components like steel frames, panels, or roofing systems, serving niche markets.
- **Contractors**: There are many local or regional contractors who deal with smaller scale prefabrication projects, and they may not follow the same industry standards as the larger companies.

9.3 Regulatory Framework for the Industry

Key Regulatory Aspects Governing the Prefabricated and Pre-Engineered Building Industry in India

1. Building Codes and Standards

The Bureau of Indian Standards (BIS) is responsible for formulating and enforcing technical standards for construction materials and practices, including for prefabricated and pre-engineered buildings.

- IS 800: 2007 – General Construction in Steel - Code of Practice
- IS 875 (Part 2) – Code of Practice for Design Loads
- IS 2062: 2011 – Steel for General Structural Purposes

2. National Building Code of India (NBC) 2016

The National Building Code (NBC) of India provides a comprehensive set of guidelines and standards for building design, construction, and safety. It covers all aspects of construction, including prefabricated and pre-engineered buildings, and establishes minimum standards for building safety, including:

- **Structural Safety**
- **Fire and Safety Regulations**
- **Energy Efficiency**

3. Environmental Regulations

India's regulatory landscape also includes specific environmental and sustainability standards to promote green and energy-efficient buildings.

- **Environmental Impact Assessment (EIA):**
  Under the Environment Protection Act, 1986, the EIA Notification (2006) requires an environmental impact assessment for certain construction and infrastructure projects.
- **Green Building Certifications:**
  LEED India (Leadership in Energy and Environmental Design) certification is a globally recognized standard for green buildings. BREEAM (Building Research Establishment Environmental Assessment Method) and IGBC (Indian Green Building Council) certifications are also popular in India and encourage the adoption of eco-friendly building materials and technologies.

9.4 Key Demand Drivers for the Industry

Demand Drivers	Description
Technical Factors	The integration of automation and digital technologies in the design and manufacturing of prefabricated components has significantly improved construction efficiency. These technologies enable faster assembly, better quality control, and reduced material waste. Additionally, modular construction techniques allow for quick assembly of pre-designed units, reducing on-site time and labor costs, making prefabricated buildings ideal for affordable housing and industrial uses.
Time and Cost Factors	With components like steel, panels, and roofing pre-manufactured in factories, on-site assembly is much faster than traditional methods, leading to quicker project completion. This is especially valuable for large-scale infrastructure, commercial buildings, and affordable housing projects. Prefabricated buildings (PEBs) also offer cost savings through economies of scale, better cost control, less waste, and more efficient use of materials.
Environmental Impact and Benefits	The PEB industry in India contributes to sustainable construction by reducing carbon emissions compared to traditional methods. Off-site manufacturing minimizes material waste, energy consumption, and emissions. The use of recyclable materials, like steel and aluminium, supports a circular economy, reducing the need for raw resources.
Growth in Demand for Industrial Structures	India's push to become a global manufacturing hub is increasing demand for cost-effective, scalable industrial buildings such as warehouses, factories, and logistics hubs. The growth of e-commerce, retail, and logistics further fuels the need for large, modern warehousing facilities that can be quickly constructed.

Key Pros in Pre-Fabricated and Pre- Engineering Construction Industry

Pros	Description
Faster Time of construction	Prefabricated and pre-engineered buildings (PEBs) significantly reduce the time required for construction. With components manufactured off-site in controlled factory conditions, on-site assembly is faster and more streamlined. This accelerated construction process helps developers meet tight deadlines and reduces disruptions, making PEBs an attractive solution for both residential and commercial projects.
Cost-Effectiveness	Prefabricated construction offers substantial cost savings compared to traditional methods. The use of standardized components and mass production in factories allows for better economies of scale, lower material costs, and reduced Labour expenses. Additionally, the shorter construction time leads to lower overheads and operational costs, making PEBs a cost-effective alternative for developers and end-users.

Pros	Description
Control over quality	With pre-fabrication taking place in factory-controlled environments, there is a higher level of consistency and quality in the production of components. Stringent quality checks and automated processes reduce the chances of errors or defects that are more common in on-site construction. This leads to better structural integrity, enhanced safety, and more durable buildings.
Sustainability of the buildings	PEBs are typically more sustainable than traditional buildings due to their efficient use of materials, reduced waste, and the ability to incorporate energy-efficient solutions such as solar panels or insulated walls. The use of recyclable materials, like steel and aluminium, and the potential for disassembly and reuse at the end of a building's life cycle further contribute to the environmental benefits of prefabricated construction.
Design Flexibility and Customization	Modern prefabricated buildings offer a high degree of design flexibility. Advanced manufacturing technologies, like BIM (Building Information Modelling), allow for precise customization of buildings to suit specific needs and preferences. PEBs can be adapted for a wide range of applications, from residential homes to industrial warehouses, providing developers with a tailored solution to meet the unique demands of each project.

- **Key Challenges of Pre-Fabricated and Pre- Engineering Construction Industry**

Challenges	Description
High Initial Investment	While the long-term cost benefits of PEBs are significant, the initial investment required for setting up manufacturing facilities and acquiring advanced construction technologies can be quite high. This capital expenditure may be a barrier for smaller players or new entrants in the market. Additionally, factory setup costs, training, and supply chain establishment can delay returns on investment.
Logistical and Transportation Challenges	The transportation of prefabricated components from manufacturing facilities to construction sites can be challenging, particularly in remote or rural areas. Large, bulky items require specialized transportation, which can increase costs and lead to potential delays. Moreover, the prohibitive cost of logistics can be a barrier for projects in geographically challenging locations or those with limited infrastructure.
Design and Engineering Limitations	Despite technological advancements, there are still certain design limitations when using prefabricated elements. While customization is possible, prefabricated components must adhere to standardized manufacturing processes, which can limit architectural flexibility. Complex or highly innovative designs that do not align with standard pre-fabrication methods may face challenges in terms of structural integrity or cost-effectiveness.
Dependency on Supplier Reliability	The success of prefabricated construction depends heavily on the timely delivery and quality of components from suppliers. Delays in the manufacturing process, transportation issues, or supply chain disruptions can significantly impact project timelines and budgets. Therefore, strong relationships with reliable suppliers and effective supply chain management are essential for minimizing risks and ensuring smooth project execution.

10 Mild Steel ERW and GP Pipes

10.1 Overview of Steel Pipes and Tubes Market in India

Introduction

The Mild Steel (MS) ERW and Galvanised Plain (GP) Pipes industry in India forms a critical part of the country's steel downstream sector. These pipes are manufactured using low-carbon steel and are widely used in structural, industrial, and fluid conveyance applications. ERW pipes are produced through high-frequency welding of steel coils, while GP pipes are ERW pipes further coated with zinc to enhance corrosion resistance.

Manufacturing Process

- **ERW Pipes**: Produced by cold-forming steel coils into cylindrical shapes and welding the seam using high-frequency electric resistance.
- **GP Pipes**: ERW pipes are subjected to hot-dip galvanisation or electro-galvanisation to form a protective zinc layer.

Regulatory Framework

- **Bureau of Indian Standards (BIS)**: Products must comply with IS 1239 and IS 3589 standards for ERW and GP pipes.
- **Environmental Norms**: Manufacturing units are regulated under the Central Pollution Control Board (CPCB) and respective State Pollution Control Boards.
- **Trade Policy**: Import duties and anti-dumping measures on steel pipes and coils influence domestic competitiveness.

Market Structure

The industry comprises integrated steel producers, standalone pipe manufacturers, and galvanising units. It is moderately fragmented, with regional clusters in Maharashtra, Gujarat, Punjab, and Tamil Nadu.

Key Drivers

- **Infrastructure Development**: Government-led initiatives in roads, railways, and urban infrastructure drive demand for structural and conduit pipes.
- **Water and Sanitation Projects**: Programs like Jal Jeevan Mission and AMRUT fuel demand for fluid conveyance pipes.
- **Industrial Expansion**: Growth in oil & gas, power, and manufacturing sectors supports usage in process piping and structural applications.
- **Affordable Housing and Real Estate**: Rising construction activity boosts demand for scaffolding and plumbing pipes.

Key Challenges

- **Raw Material Volatility**: Prices of hot-rolled coils and zinc fluctuate based on global commodity trends.
- **Unorganised Sector Competition**: Presence of non-standardised products from small-scale units affects pricing and quality perception.
- **Logistics and Distribution**: Pipes are bulky and require efficient transport and warehousing infrastructure.

10.2 End User Application

A. Water Supply and Sanitation

- **Applications**: Conveyance of potable water, sewage, and drainage systems.
- **Demand Outlook**: Strong and sustained, driven by government schemes and urban expansion.
- **Investor Relevance**: High-volume segment with long-term visibility and public procurement opportunities.

B. Infrastructure and Construction

- **Applications**: Structural supports, scaffolding, fencing, and conduits in bridges, flyovers, and buildings.
- **Demand Outlook**: Expanding due to national infrastructure programs and private real estate growth.
- **Investor Relevance**: Stable demand with potential for institutional contracts and project-based sales.

C. Industrial and Process Engineering

- **Applications**: Piping systems in oil & gas, power plants, chemical factories, and manufacturing units.
- **Demand Outlook**: Cyclical but growing, aligned with industrial capex cycles.
- **Investor Relevance**: Premium segment with scope for value-added products and OEM partnerships.

D. Agriculture and Rural Utilities

- **Applications**: Irrigation systems, borewell casings, and rural water supply.
- **Demand Outlook**: Resilient, supported by agri-infrastructure investments and rural development programs.
- **Investor Relevance**: Niche but consistent segment with low cyclicality.

E. Automotive and Fabrication

- **Applications**: Chassis components, exhaust systems, and fabricated structures.
- **Demand Outlook**: Moderate, linked to automotive production and aftermarket demand.
- **Investor Relevance**: Opportunity for precision tubes and customised profiles.

11 High Carbon Steel Products

Overview of High Carbon Wire

High carbon steel wires are manufactured from steel containing a higher proportion of carbon, which imparts exceptional strength, hardness, and wear resistance. These wires are produced through processes such as hot rolling, pickling, and multiple stages of cold drawing to achieve the desired diameter and mechanical properties. The final product is often heat-treated through patenting or annealing to enhance ductility and fatigue resistance.

High carbon steel wires find extensive applications across industrial, construction, and engineering sectors. They are widely used in the production of springs, high-tensile fasteners, wire ropes, music wire, tyre bead wire, and pre-stressed concrete (PC) strands. In the automotive industry, they are used for clutch wires, control cables, and suspension springs. The ability to retain strength and elasticity under stress makes them ideal for dynamic load applications.

Surface quality, tensile strength, and consistent mechanical performance are key parameters determining wire quality. Manufacturers focus on precise drawing techniques, controlled cooling, and surface finishing to ensure durability and uniformity. Moreover, alloying elements such as chromium, vanadium, or silicon are sometimes added to improve corrosion resistance and fatigue life.

With growing demand from infrastructure, automotive, and industrial machinery sectors, the high carbon steel wire market continues to expand. The increasing use of advanced wire drawing and coating technologies, such as galvanization and phosphating, further enhances the product's performance and lifespan, making it indispensable for high-strength and precision engineering applications.

Overview of High Carbon Bars

High carbon steel bars are long, solid products known for their superior hardness, wear resistance, and strength, owing to a carbon content typically between 0.60% and 1.00%. These bars are produced through controlled hot rolling or forging processes, followed by heat treatment such as quenching and tempering to refine the microstructure and achieve the desired mechanical properties. The result is a material that combines toughness with the ability to maintain a sharp edge and resist deformation under heavy loads.

Due to their hardness and strength, high carbon steel bars are extensively used in the manufacture of cutting tools, dies, springs, automotive components, rail tracks, and heavy-duty machinery parts. In construction and engineering applications, they are employed where wear resistance and load-bearing capacity are critical. Bars are available in various shapes such as round, square, and flat, depending on end-use requirements.

The machinability of high carbon steel bars is moderate; however, their performance improves significantly after proper heat treatment. Controlled alloying with elements such as manganese, chromium, or vanadium enhances tensile strength, impact resistance, and dimensional stability. Surface quality and internal soundness are ensured through processes like ultrasonic testing and defect inspection.

With industrial modernization and rising infrastructure development, the demand for high-performance steel materials is increasing, driving the use of high carbon steel bars in precision-engineered applications. Technological advancements in rolling mills and thermal treatment processes are further improving bar quality, uniformity, and mechanical performance, reinforcing their position as a vital material for manufacturing and heavy engineering industries.

12 Stainless Steel Products

Overview of Stainless Steel Wire

Stainless steel wires are high-performance metallic products made from corrosion-resistant steel grades containing chromium, nickel, and other alloying elements. These wires are produced through precise processes involving hot rolling, pickling, cold drawing, and heat treatment to achieve the desired mechanical strength, surface finish, and dimensional accuracy. The inherent corrosion and oxidation resistance of stainless steel makes these wires suitable for demanding environments where both durability and aesthetic appeal are essential.

Stainless steel wires are widely used across diverse industries, including automotive, construction, medical, marine, and consumer goods. Common applications include wire ropes, springs, fasteners, sieves, welding electrodes, and reinforcement in chemical and food processing equipment. In architecture and infrastructure, stainless steel wires are used for cable railings, suspension bridges, and decorative meshes due to their long life and low maintenance needs.

Different stainless steel grades, such as AISI 304, 316, and 410, are chosen based on end-use requirements. For instance, 316-grade wires offer enhanced resistance to chloride corrosion, making them ideal for marine and chemical industries, while 304-grade wires balance strength and cost for general applications. Manufacturers emphasize uniform microstructure, high ductility, and consistent tensile strength to ensure superior performance.

Technological advancements in wire drawing, annealing, and coating have further improved the mechanical and surface properties of stainless steel wires. With rising demand from infrastructure, renewable energy, and medical sectors, stainless steel wire production is expected to grow steadily, driven by the material's combination of strength, cleanliness, and sustainability.

Overview of Stainless Steel Bars

Stainless steel bars are long, solid metal products valued for their exceptional corrosion resistance, mechanical strength, and aesthetic appearance. Composed primarily of iron, chromium, and nickel, these bars are produced through hot rolling, forging, or extrusion processes, followed by annealing and straightening to achieve uniformity and dimensional accuracy. Depending on the grade and treatment, stainless steel bars exhibit excellent resistance to rust, scaling, and chemical attack, making them suitable for harsh and corrosive environments.

These bars are available in various forms — round, square, hexagonal, and flat — to cater to diverse industrial requirements. They are extensively used in the manufacture of shafts, fasteners, valves, pump components, surgical instruments, and structural parts. In sectors such as automotive, petrochemical, construction, and food processing, stainless steel bars are preferred for their strength, durability, and hygiene.

Grades such as 304, 316, and 410 are most commonly used. Grade 316, with its molybdenum content, offers superior resistance to pitting and is used in marine and chemical industries, while 304-grade bars are widely utilized for general engineering and architectural purposes. The bars can be further processed through machining, polishing, or centerless grinding to achieve the desired surface quality and tolerance.

With increasing emphasis on corrosion-resistant and sustainable materials, stainless steel bars continue to gain importance in modern engineering applications. Advancements in melting and rolling technology, along with stringent quality control measures, have enhanced product reliability and consistency, ensuring that stainless steel bars remain integral to industrial manufacturing and infrastructure development worldwide.

13 Threats and Challenges for the Company and its Products

Raw material cost and supply volatility

The business depends heavily on inputs such as iron ore, steel coils/plates, and in some cases coking coal or scrap steel. Prices of these raw materials are volatile and can significantly impact margins. Dependence on imports or external suppliers also exposes the company to risks related to foreign exchange, shipping, customs, and tariffs. When raw material prices rise sharply, either profitability is affected or the higher cost has to be passed on to customers, which could reduce demand or competitiveness. Additionally, use of lower-quality raw materials can increase waste and rejections, impacting efficiency. The steel sector in India has historically faced such volatility.

Regulatory, environmental, and land/mining clearances

Operations in mining, steel manufacturing, and pre-engineered building (PEB) segments are subject to multiple regulations, including mining leases, environmental approvals, land acquisition, pollution control, and labour and safety laws. Delays or non-compliance can result in penalties, higher costs, or project delays. Approvals, especially for forest or environmental clearances, are time-consuming, and regulatory differences across states add complexity. Stricter environmental norms in India and globally, such as those relating to emissions, waste management, and mine rehabilitation, can also increase operating costs.

Competitive pressure and import risks

The business faces competition from both domestic producers and lower-cost imports of steel and steel products. While duties or safeguard measures may provide some relief, they can also create trade tensions and may not fully address all competitive pressures. Customers may prefer lower-cost substitutes or shift to imports if price and quality are attractive. In addition, downstream industries are sensitive to price fluctuations; when finished steel prices fall or input costs rise, demand can weaken. In the PEB segment, competition may also arise from conventional construction methods or alternative materials.

Demand cyclicality and macroeconomic risks

Demand for steel and related products is cyclical and linked to sectors such as construction, real estate, infrastructure, and industrial activity. Economic slowdowns, higher interest rates, inflation, or reduced investment can negatively affect demand for steel, iron ore, and PEB products. In downturns, the company may face intensified competition, price reductions, or underutilization of capacity. Servicing of debt also becomes more challenging when revenues decline.

Operational and capacity expansion risks

Capacity expansions involve risks such as cost overruns, project delays, underutilization, quality control, and supply chain challenges. There is also the risk of technology obsolescence if investments are not made in efficient or environmentally sustainable production methods. Scaling up increases exposure to safety, operational, and logistical risks. Managing multiple product lines across steel, mining, and PEBs adds to operational complexity in areas such as production planning, inventory, and distribution.

14 Brief Profile of the Company and its Products

RKB Global Limited is a public limited company incorporated under the Companies Act, 2013. The company is engaged in the manufacturing, trading, and export of steel and iron-based products. It operates from its registered office located in Palghar, Maharashtra, and its corporate office in Mumbai, Maharashtra. The company has transitioned from a trading-focused entity to a manufacturing-led business model and has commenced commercial production at its facilities in Maharashtra and Gujarat .

Business Model and Dynamics of the Company

The company operates across the following business segments:

- **Manufacturing**: Production of steel products including wire rods, bright bars, MIG wires, welding electrodes, roofing sheets, and pre-engineered buildings (PEBs). Manufacturing activities are carried out at facilities located in Wada, Maharashtra and Talod, Gujarat .
- **Trading**: Procurement and sale of steel plates, coils, and structural steel in domestic markets.
- **Export**: Export of iron ore and steel products to international buyers.
- **Leasing**: Rental of mining machinery and warehousing assets.

The company has obtained registrations with various government and institutional clients and is involved in infrastructure-related supply and fabrication projects .

Service and Product Mix with End-Use Application Areas

Product Category	Description	End-Use Applications
Wire Products	MS wires, HB wires, annealed wires, high carbon wires, boron steel wires	Fasteners, springs, fencing, automotive, agriculture, construction
Bright Bars	Round, square, hexagonal, flat bars in EN and carbon grades	Engineering, automotive components, infrastructure
MIG Wires	Mild steel, stainless steel, aluminium wires	Welding in automotive, shipbuilding, fabrication
Roofing Sheets	Trapezoidal, box profile, corrugated, liner, crimped sheets	Industrial roofing, wall cladding, architectural facades
Iron Ore	Exported raw material	Steel manufacturing
PEB Structures	Bolt-together steel buildings	Warehouses, logistics hubs, industrial sheds
Machinery Leasing	Rental of mining and fabrication equipment	Mining and infrastructure operations
Welding Rod	Flux-coated mild steel and alloy electrodes	Structural fabrication, construction, repair & maintenance, shipbuilding

Geographic Presence and Operational Footprint

- **Manufacturing Units**: Located in Wada (Maharashtra) and Talod (Gujarat).
- **Warehousing Facilities**: Situated in Navi Mumbai (Kalamboli and Taloja).
- **Mining Operations**: Conducted in Maharashtra, Goa, and Karnataka.
- **Client Registrations**: Includes Indian Railways, Mazgaon Dock, Cochin Shipyard, and state warehousing corporations.

SWOT Analysis of the Company

Strengths

- Long-standing presence in the steel and iron industry.

- Diversified operations across manufacturing, trading, export, and leasing.

- Presence in multiple product categories including wires, bars, roofing sheets, and PEBs.

- Established relationships with institutional clients and OEMs.

Weaknesses

- Exposure to operational risks associated with receivables and compliance.

- Dependence on external certifications and approvals for certain export activities.

Opportunities

- Expansion of manufacturing capabilities through capital investment.

- Entry into new product segments such as spring wires and plated bright bars.

- Participation in government tenders and infrastructure projects.

Threats

- Competitive pressure from listed and unlisted players in steel and fabrication sectors.

- Regulatory and compliance risks in domestic and international operations.

Future Expansion Plans

- The company plans to expand its manufacturing capabilities through the addition of new processes such as pickling and plating in the bright bar segment.
- It intends to increase its presence in the spring wire segment for automotive and aerospace applications.
- The company has submitted bids for government-owned mining assets and is pursuing infrastructure projects in collaboration with public and private entities.

15 Competitive Benchmarking Players in the Industry

Operational Parameter Benchmarking

Table 5: Peer Benchmarking across Operational Parameters

Parameter	RKB Global		Excellent Wires and Packaging Ltd		Classic Electrodes Limited		NewMalayalam Steel Ltd.		Tamilnadu Steel Tubes Ltd.		Bansal Wire Industries Ltd.		Sarthak Metals Ltd.		Bansal Roofing Products Ltd.		Jayaswal Neco Industries Ltd.		Lloyds Metals & Energy Ltd.	
	FY24	FY25	FY 24	FY 25	FY 24	FY 25	FY 24	FY 25	FY24	FY25	FY24	FY25	FY 24	FY 25	FY 24	FY 25	FY 24	FY 25	FY 24	FY25
Annual Production (In MT)	16695	33420	NA	NA	NA	NA	NA	NA	8,666.15	10,770.15	206466	5,59,000	11701	NA	NA	NA	NA	NA	NA	NA
Annual Trading Volume (In MT)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Installed Capacity (MTPA)	18530	53990	NA	NA	NA	NA	NA	NA	NA	NA	262000	NA	26200	28600	NA	NA	NA	NA	NA	1000000
Capacity Utilisation (In %)	90%	62%	NA	NA	NA	NA	NA	NA	NA	NA	78.8%	69	44.7%	NA	NA	NA	NA	NA	NA	NA
Total Product Types/SKUs	NA	80+	NA	15	NA	13	NA	3	NA	4	3000+	3000+	14	4	NA	9	NA	NA	NA	4

Source: Company Documents

Financial Parameter Benchmarking

Welding Companies

Table 6: Financial Benchmarking across Welding Companies

Parameter	RKB Global			Excellent Wires and Packaging Ltd			Classic Electrodes Limited		
	FY23	FY24	FY25	FY23	FY24	FY25	FY23	FY24	FY25
Sales (In Rs Crore)	360	432.8	411.1	14.5	15.4	22.2	150.9	193.8	205.8
Sales Growth (%)	-2.3	20.2	-5.0	98.7	6.4	44.0	12.7	28.5	6.2
EBITDA (In Rs Crore)	16.2	30.8	30.4	0.4	1.5	2.0	8.7	21.3	22.3
EBITDA Margin (%)	5.6	7.7	8.0	2.9	9.4	9.1	5.8	11.0	10.8
PAT (In Rs Crore)	5.4	7.9	11.1	0.1	0.8	1.1	2.1	9.6	11.6
PAT Margin (%)	1.5	1.8	2.7	0.7	5.3	5.0	1.4	4.9	5.6
Interest Coverage Ratio	1.7	1.4	1.98	1.6	5.1	17.4	1.8	4.2	3.9
Debt Equity Ratio	1.9	0.3	0.3	13.1	0.6	0.0	2.0	1.4	1.2

Source: AceEquity, CareEdge Research

Scale and Revenue Growth

- RKB Global is the largest among peers, with revenues of Rs 360–433 crore during FY23–FY25, significantly higher than Excellent Wires and Classic Electrodes.
- Revenue growth for RKB remained volatile, with a strong rebound in FY24 followed by moderation in FY25.
- In comparison, Classic Electrodes reported steadier growth, while Excellent Wires recorded sharp growth on a low base.

Operating Profitability

- RKB's EBITDA improved materially, with margins expanding from 5.6% in FY23 to 8.0% in FY25, reflecting better operating leverage.
- However, margins remain lower than Classic Electrodes, which consistently reported EBITDA margins above 10%.
- Excellent Wires showed significant margin expansion post FY23, aided by improved scale, though margins stabilised thereafter.

Net Profitability

- RKB's PAT increased steadily to Rs 11.1 crore in FY25, with PAT margins improving to 2.7%.
- Despite improvement, net margins remain modest compared to peers, particularly Classic Electrodes, which reported PAT margins above 5% in FY24–FY25.

Debt Profile and Interest Coverage

- RKB's leverage profile strengthened significantly, with debt-equity reducing from 1.9x in FY23 to 0.3x in FY24–FY25.
- Interest coverage remains moderate at ~2.0x, lower than peers.
- Excellent Wires reported a sharp improvement in debt protection metrics, while Classic Electrodes maintained comfortable leverage and coverage levels.

ERW Pipes Companies

Table 7: Financial Benchmarking across ERW Pipes Companies

Parameter	RKB Global			NewMalayalam Steel Ltd.			Tamilnadu Steel Tubes Ltd.		
	FY23	FY24	FY25	FY23	FY24	FY25	FY23	FY24	FY25
Sales (In Rs Crore)	360	432.8	411.1	354.8	300.2	304.2	92.1	71.5	73.9
Sales Growth (%)	-2.3	20.2	-5.0	11.6	-15.4	1.3	19.0	-22.3	3.3
EBITDA (In Rs Crore)	16.2	30.8	30.4	12.6	10.5	11.1	1.2	1.0	1.1
EBITDA Margin (%)	5.6	7.7	8.0	3.5	3.5	3.6	1.3	1.4	1.5
PAT (In Rs Crore)	5.4	7.9	11.1	6.0	4.3	4.4	0.6	0.3	0.1
PAT Margin (%)	1.5	1.8	2.7	1.7	1.4	1.4	0.6	0.4	0.1
Interest Coverage Ratio	1.7	1.4	1.98	3.6	2.7	2.7	1.7	1.1	1.2
Debt Equity Ratio	1.9	0.3	0.3	0.8	1.5	0.2	0.7	0.7	0.9

Source: AceEquity, CareEdge Research

Scale and Revenue Growth

- RKB Global and NewMalayalam Steel Ltd. operate at comparable scale, with revenues in the Rs 300–430 crore range, while Tamilnadu Steel Tubes Ltd. remains significantly smaller.
- RKB reported strong revenue growth in FY24, followed by moderation in FY25, indicating some volatility in demand conditions.

- NewMalayalam Steel witnessed a contraction in FY24 with marginal recovery in FY25, while Tamilnadu Steel Tubes experienced sharp volatility due to its smaller scale.

Operating Profitability

- RKB's operating performance strengthened steadily, with EBITDA margins improving from 5.6% in FY23 to 8.0% in FY25, reflecting better operating leverage.
- In contrast, NewMalayalam Steel reported lower and largely stable EBITDA margins of around 3.5–3.6%.
- Tamilnadu Steel Tubes reported weak operating profitability, with EBITDA margins remaining below 2% across the period.

Net Profitability

- RKB's PAT improved consistently, with margins increasing to 2.7% in FY25, higher than both peers.
- NewMalayalam Steel reported stable but lower PAT margins of ~1.4–1.7%, while Tamilnadu Steel Tubes' net profitability remained muted and volatile.

Debt Profile and Interest Coverage

- RKB's leverage profile improved materially, with debt-equity reducing from 1.9x in FY23 to 0.3x in FY24–FY25.
- Interest coverage for RKB remained moderate at ~2.0x, lower than NewMalayalam Steel, which reported relatively stronger coverage despite margin pressure.
- Tamilnadu Steel Tubes reported weak debt protection metrics, with interest coverage remaining close to 1x.

Wire Companies

Table 8: Financial Benchmarking across Wire Companies

Parameter	RKB Global			Bansal Wire Industries Ltd.			Sarthak Metals Ltd.		
	FY23	FY24	FY25	FY23	FY24	FY25	FY23	FY24	FY25
Sales (In Rs Crore)	360	432.8	411.1	2413.0	2284.4	3203.2	408.4	305.2	178.4
Sales Growth (%)	-2.3	20.2	-5.0	9.8	-5.3	40.2	-10.7	-25.3	-41.5
EBITDA (In Rs Crore)	16.2	30.8	30.4	114.7	128.8	219.5	43.9	21.8	9.7
EBITDA Margin (%)	5.6	7.7	8.0	4.8	5.6	6.9	10.7	7.1	5.4
PAT (In Rs Crore)	5.4	7.9	11.1	59.9	68.4	125.2	29.8	13.8	4.1
PAT Margin (%)	1.5	1.8	2.7	2.5	3.0	3.9	7.2	4.5	2.3
Interest Coverage Ratio	1.7	1.4	1.98	4.4	4.8	6.7	31.0	25.2	10.9
Debt Equity Ratio	1.9	0.3	0.3	1.5	1.7	0.5	0.0	0.0	0.0

Source: AceEquity, CareEdge Research

Scale and Revenue Growth

- Bansal Wire Industries Ltd. is significantly larger than RKB Global, with revenues exceeding Rs 2,200–3,200 crore during FY23–FY25, while RKB operated in the Rs 360–433 crore range.
- RKB reported strong growth in FY24 followed by moderation in FY25, indicating demand volatility.
- Bansal Wire recorded a sharp rebound in FY25 after a muted FY24, while Sarthak Metals witnessed a continuous and steep decline in revenues over the period.

Operating Profitability

- RKB's EBITDA margins improved steadily from 5.6% in FY23 to 8.0% in FY25, reflecting better operating leverage.
- Bansal Wire reported lower but improving margins, rising to 6.9% in FY25, supported by scale benefits.
- Sarthak Metals' EBITDA margins declined materially from 10.7% in FY23 to 5.4% in FY25, in line with revenue contraction and weaker cost absorption.

Net Profitability

- RKB's PAT increased consistently, with margins improving to 2.7% in FY25.
- Bansal Wire reported stronger absolute and relative profitability, with PAT margins improving to 3.9% in FY25.
- Sarthak Metals saw a sharp deterioration in net profitability, with PAT margins declining to 2.3% by FY25.

Debt Profile and Interest Coverage

- RKB materially strengthened its capital structure, with debt-equity reducing from 1.9x in FY23 to 0.3x in FY24–FY25, though interest coverage remained moderate at ~2.0x.
- Bansal Wire maintained moderate leverage, with improving interest coverage reaching 6.7x in FY25.
- Sarthak Metals remained debt-free across the period, reflected in very strong interest coverage, despite weakening earnings.

Roofing Companies

Table 9: Financial Benchmarking across Roofing Companies

Parameter	RKB Global			Bansal Roofing Products Ltd.		
	FY23	FY24	FY25	FY23	FY24	FY25
Sales (In Rs Crore)	360	432.8	411.1	93.3	105.7	96.6
Sales Growth (%)	-2.3	20.2	-5.0	28.5	13.3	-8.6
EBITDA (In Rs Crore)	16.2	30.8	30.4	7.1	6.7	9.3
EBITDA Margin (%)	5.6	7.7	8.0	7.6	6.3	9.6
PAT (In Rs Crore)	5.4	7.9	11.1	4.2	3.5	5.5
PAT Margin (%)	1.5	1.8	2.7	4.5	3.4	5.7
Interest Coverage Ratio	1.7	1.4	1.98	11.0	9.2	19.8
Debt Equity Ratio	1.9	0.3	0.3	0.3	0.2	0.1

Source: AceEquity, CareEdge Research

Scale and Revenue Growth

- RKB Global operates at a significantly larger scale, with revenues in the Rs 360–433 crore range during FY23–FY25, compared to Bansal Roofing Products Ltd.'s ₹93–106 crore.
- RKB reported strong growth in FY24 followed by moderation in FY25, reflecting demand volatility.
- Bansal Roofing recorded steady growth in FY23–FY24, with a decline in FY25, broadly mirroring industry cyclicality.

Operating Profitability

- RKB's EBITDA margins improved steadily from 5.6% in FY23 to 8.0% in FY25, supported by better operating leverage.
- Bansal Roofing reported relatively higher and stable EBITDA margins, reaching 9.6% in FY25, indicating stronger pricing and cost efficiency despite smaller scale.

Net Profitability

- RKB's PAT increased consistently, with margins improving to 2.7% in FY25.
- Bansal Roofing maintained superior net profitability, with PAT margins in the 3.4–5.7% range, outperforming RKB across the period.

Debt Profile and Interest Coverage

- RKB's leverage reduced sharply from 1.9x in FY23 to 0.3x in FY24–FY25; however, interest coverage remained moderate at ~2.0x.
- Bansal Roofing maintained a conservative capital structure, with debt-equity declining to 0.1x and strong interest coverage exceeding 9x across the period.

Mining and Iron Ore Extraction Companies

Table 10: Financial Benchmarking across Mining and Iron Ore Extraction Companies

Parameter	RKB Global			Jayaswal Neco Industries Ltd.			Lloyds Metals & Energy Ltd.		
	FY23	FY24	FY25	FY23	FY24	FY25	FY23	FY24	FY25
Sales (In Rs Crore)	360	432.8	411.1	6342.9	5933.6	5999.7	3392.3	6524.7	6721.4
Sales Growth (%)	-2.3	20.2	-5.0	6.4	-6.5	1.1	386.4	92.3	3.0
EBITDA (In Rs Crore)	16.2	30.8	30.4	804.2	1046.2	953.4	884.8	1781.2	2004.1
EBITDA Margin (%)	5.6	7.7	8.0	12.7	17.6	15.9	26.1	27.3	29.8
PAT (In Rs Crore)	5.4	7.9	11.1	226.9	210.0	112.7	-288.5	1242.9	1449.9
PAT Margin (%)	1.5	1.8	2.7	3.6	3.5	1.9	-8.3	18.9	21.4
Interest Coverage Ratio	1.7	1.4	1.98	1.1	1.6	1.2	-5.1	305.0	70.7
Debt Equity Ratio	1.9	0.3	0.3	1.7	1.4	1.2	0.0	0.0	0.1

Source: AceEquity, CareEdge Research

Scale and Revenue Growth

- RKB Global operates at a significantly smaller scale compared to Jayaswal Neco Industries Ltd. and Lloyds Metals & Energy Ltd., which reported multi-thousand-crore revenues during FY23–FY25.
- RKB's revenue growth remained volatile, with a strong rebound in FY24 followed by moderation in FY25.
- Jayaswal Neco reported relatively stable revenues with modest growth, while Lloyds Metals witnessed a sharp expansion in FY24, followed by growth stabilisation in FY25.

Operating Profitability

- RKB's EBITDA margins improved steadily from 5.6% in FY23 to 8.0% in FY25, reflecting better operating leverage.
- Jayaswal Neco reported materially stronger margins in the range of 13–18%, supported by scale and integration benefits.
- Lloyds Metals demonstrated superior operating profitability, with EBITDA margins improving sharply to nearly 30% by FY25, reflecting strong cost efficiencies and favourable commodity cycles.

Net Profitability

- RKB's PAT increased steadily, with margins improving to 2.7% in FY25, though remaining modest.
- Jayaswal Neco's net profitability moderated over the period, with PAT margins declining to 1.9% in FY25.
- Lloyds Metals reported a sharp turnaround from losses in FY23 to strong profitability in FY24–FY25, with PAT margins exceeding 20%.

Debt Profile and Interest Coverage

- RKB's leverage reduced significantly from 1.9x in FY23 to 0.3x in FY24–FY25; however, interest coverage remains moderate at ~2.0x.
- Jayaswal Neco continued to operate with relatively high leverage and weak interest coverage, indicating tighter debt protection metrics.
- Lloyds Metals remained virtually debt-free, reflected in extremely strong interest coverage levels.

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