

Market assessment and outlook across Steel industry value chain

Final report

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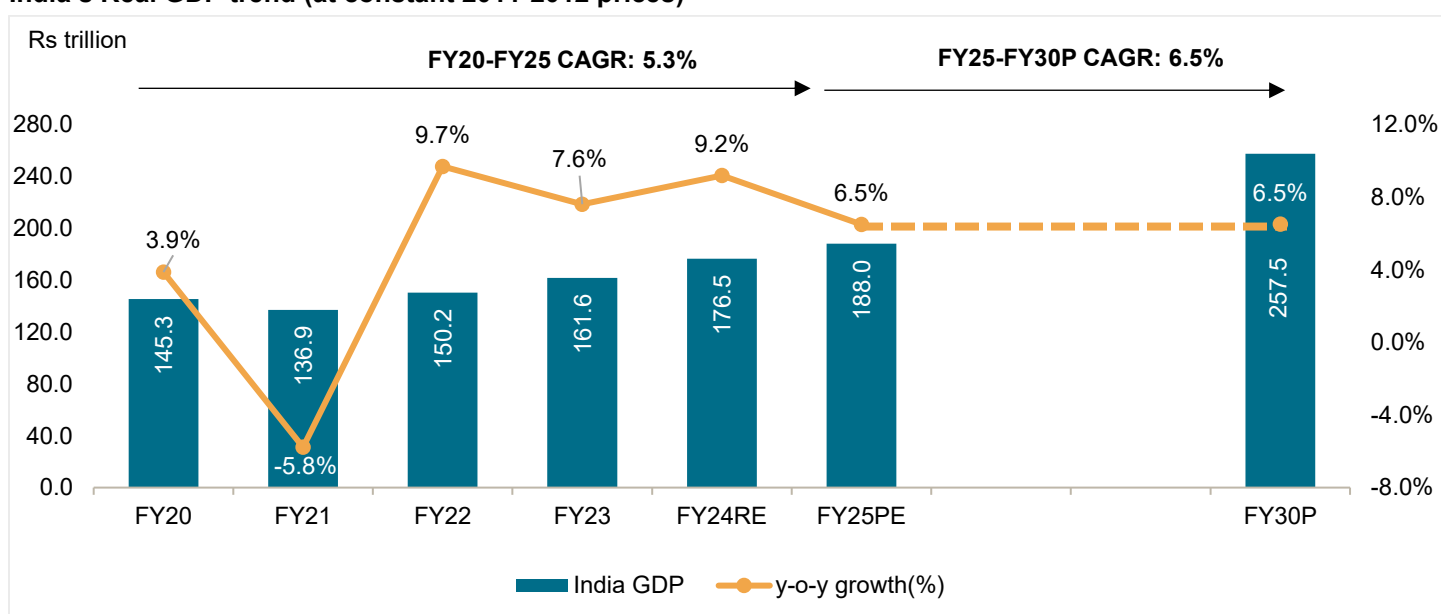
1 Indian and global macroeconomic review

1.1 GDP trend

India's GDP clocked a compound annual growth rate (CAGR) of 5.0% between fiscals 2019 and 2024 to Rs 176.5 trillion,¹ following the change in base year for calculation to fiscal 2012 from fiscal 2005 effected by the Ministry of Statistics and Programme Implementation in 2015.

The pandemic-induced lockdowns led to a 5.8% decline in GDP in fiscal 2021, but the post-pandemic scenario has been positive, starting with a 9.7% on-year growth in fiscal 2022 led by the manufacturing and construction sectors.

India's Real GDP trend (at constant 2011-2012 prices)



For FY24RE: Revised Estimate, FY25PE: Provisional Estimated; FY30P: Projected; FY: Fiscal year

Source: National Statistical Office (NSO), Crisil Intelligence

India's real GDP is estimated to have grown 9.2% on-year in fiscal 2024 compared with 7.6% the previous fiscal. Although there will be support from the demand side on account of a normal monsoon and easing inflation, the second advance estimate has projected growth to slow to 6.5% in fiscal 2025. Manufacturing is projected to experience the sharpest decline, with growth estimates dropping from 12.3% to 4.5%. Other major contributors to GDP, such as trade and hotels, and financial services and real estate, are also likely to grow slower.

On the demand side, investment (gross fixed capital formation) is expected to cool moderately this fiscal (7.1% on-year this fiscal vs 8.8% the previous fiscal). Private consumption is expected to increase. Private consumption expenditure is predicted to grow to 7.2% this fiscal vs 5.6% last fiscal. Government consumption expenditure is expected to grow slower this fiscal by 2.3% on-year compared with 8.1% last fiscal and punch below its weight in overall GDP.

India's net exports are poised to improve significantly compared with the previous fiscal. This optimism stems from a robust export growth forecast of 6.3%, a substantial increase from the 2.2% growth recorded last fiscal. On the other hand, imports are expected to contract in stark contrast to the 13.8% growth seen in the previous fiscal. This divergence in export and import trends is likely to boost India's net exports, thereby supporting the trade balance. The improvement in exports can be attributed to the government's efforts to enhance competitiveness and diversify export markets.

¹ Statistics from second advance estimates of gross domestic product 2024-25

Meanwhile, the decline in imports reflects its initiative to promote domestic production and reduce dependence on foreign goods.

Yearly demand-side real GDP growth

At constant 2011-12 prices	FY19	FY20	FY21	FY22	FY23	FY24RE	FY25PE
Private consumption	7.1%	5.2%	-5.3%	11.7%	7.5%	5.6%	7.2%
Government consumption	6.7%	3.9%	-0.8%	0.0%	4.3%	8.1%	2.3%
Gross fixed capital formation	11.2%	1.1%	-7.1%	17.5%	8.4%	8.8%	7.1%
Exports	11.9%	-3.4%	-7.0%	29.6%	10.3%	2.2%	6.3%
Imports	8.8%	-0.8%	-12.6%	22.1%	8.9%	13.8%	-3.7%

Source: Crisil Intelligence, National Statistical Office (NSO)

For FY24RE: Revised Estimate, FY25PE: Provisional Estimated; FY: Fiscal year

On-year supply-side gross value added by economic activity

At basic 2011-12 price	FY19	FY20	FY21	FY22	FY23	FY24P	FY25E
Agriculture and allied	2.1%	6.2%	4.0%	4.6%	6.3%	2.7%	4.6%
Mining and quarrying	-0.8%	-3.0%	-8.2%	6.3%	3.4%	3.2%	2.8%
Manufacturing	5.4%	-3.0%	3.1%	10.0%	-1.7%	12.3%	4.3%
Utilities*	7.9%	2.3%	-4.2%	10.3%	10.8%	8.6%	6.0%
Construction	6.5%	1.6%	-4.6%	19.9%	9.1%	10.4%	8.6%
Services^	7.2%	6.4%	-8.4%	9.2%	10.3%	9.0%	7.3%

*Utilities include electricity, gas, water supply and other utilities

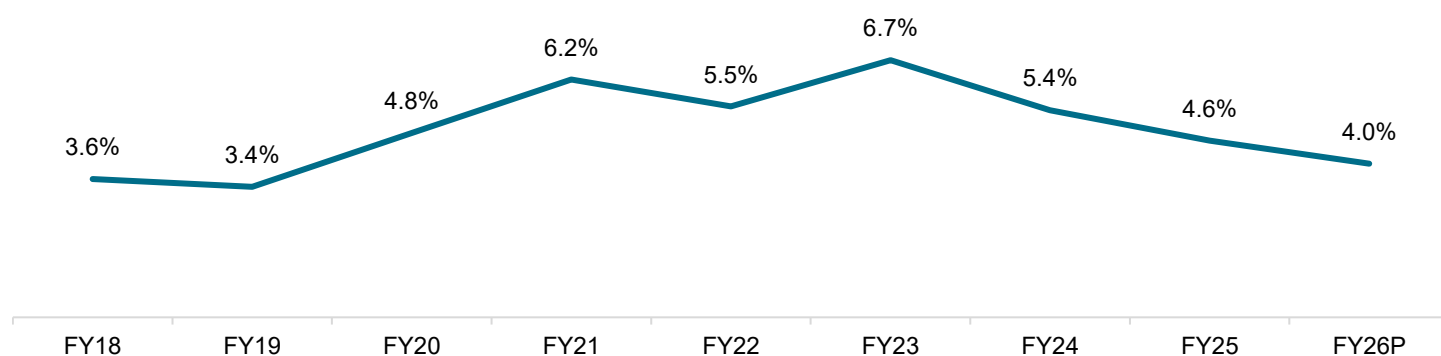
^Services include those related to trade, hotels, transport, communication, broadcasting, finance, real estate, public administration, defence, and professional and other services

Source: Crisil Intelligence, CSO

The primary sector, comprising agriculture and mining, shows moderate but stable growth, averaging 3-4%, with notable resilience during the pandemic period. The secondary sector, encompassing manufacturing, utilities and construction, demonstrates high volatility, swinging from a contraction of -1.3% in fiscal 2020 to a robust 12.7% growth in fiscal 2022, driven primarily by the post-pandemic manufacturing recovery and construction boom. The tertiary sector, dominated by services, has performed the most consistently, maintaining growth rates between 6-10% throughout the period, except for the pandemic-induced contraction in fiscal 2021

1.2 Performance of key macroeconomic indicators

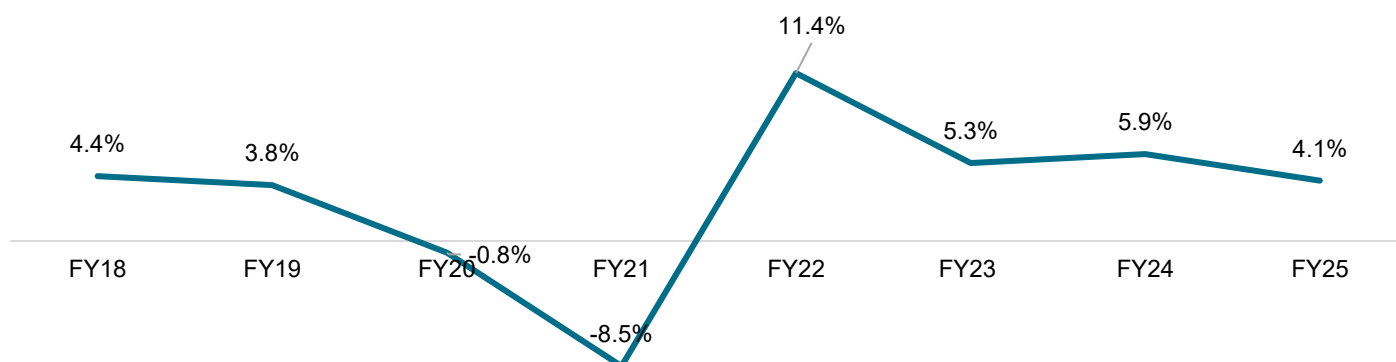
India's average Consumer Price Index (CPI) inflation rate remained ~4.70% between fiscals 2018 and 2022. However, in fiscal 2023, it increased to 6.70%, mainly led by surging food prices before moderating slightly to an average of 5.4% in fiscal 2024. Although core and fuel inflation numbers have remained low, the food inflation has been keeping CPI inflation above the Reserve Bank of India's medium-level target rate of 4%. For instance, according to the CPI figures for March 2024, food inflation stood at 8.5%, primarily due to strong accelerations in inflation in foodgrains, meat and fish and slower pace of deflation in edible oils during the month. India's retail inflation rate has more than halved over the past year, slipping even below the lower end of the Reserve Bank of India's tolerance band (2%). It slid to 1.6% in July from 2.1% in June. A year ago, it stood at 3.6%. Food saw steeper deflation, while core inflation recorded a sharp decline as the impact of mobile tariff revision wore out. Food inflation stood at -1.8%, the lowest since January 2019, further down from -1.1% in June. Healthy food production and ample foods stocks are aiding softer prices. Core inflation, too, lent support, sharply falling to 3.9% from 4.4%, led by a substantial decrease in transport and communication inflation. Fuel inflation rose to 2.7% from 2.6%. Crisil expects inflation to moderate to 4.0% in Fiscal 2026 on account of easing food inflation.



Source: National Statistical Office (NSO), Ministry of Industry and Commerce, Crisil Intelligence

P: Projected

India's Index of Industrial Production (IIP) had a moderate 3.8% growth in FY19, IIP contracted by 0.8% in FY20 and sharply declined by 8.5% in FY21 due to the pandemic. However, a strong recovery was seen in FY22 with 11.4% growth. The growth rate moderated to 5.3% in FY23 and improved to 5.9% in FY24. The uptick in the index was mainly led by strong pick-up in the manufacturing of electrical equipment and basic metals. Further, an uptick in consumer durables sector aided the IIP growth. IIP growth improved to a four-month high of 3.5% on-year in July from 1.5% in June. While output growth improved in the manufacturing sector (5.4% vs 3.7%), things looked up for the electricity sector for the first time in three months with positive growth (0.6% vs -1.2%). Output growth in consumer durables was at a seven-month high in July aided by softer food inflation and lower unemployment.



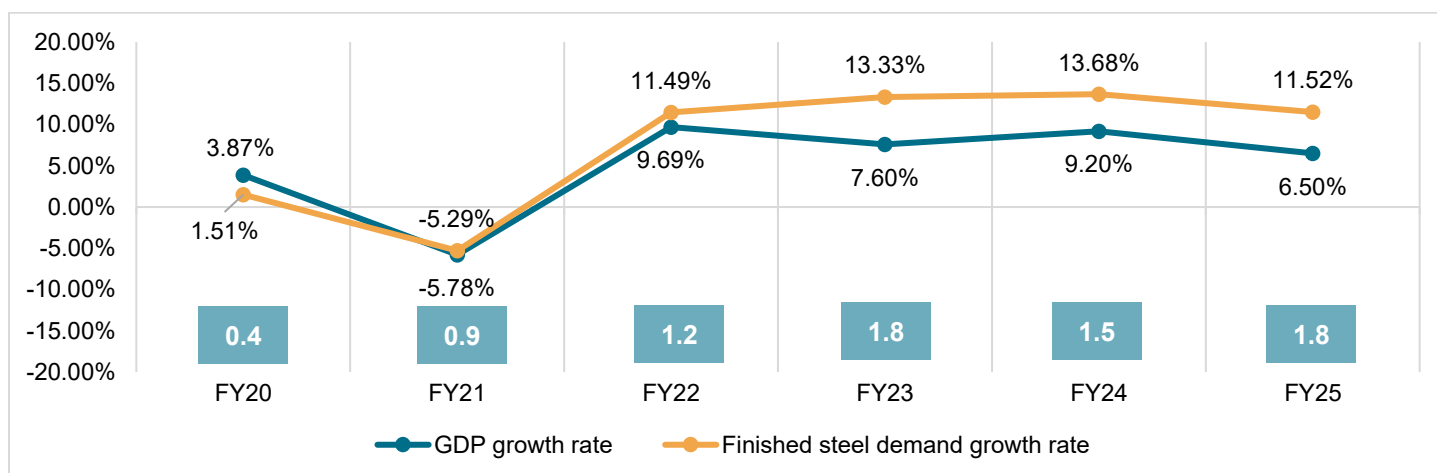
Source: NSO, Ministry of Industry and Commerce, Crisil Intelligence

1.3 Correlation of steel demand growth with GDP growth

Given the huge population and low level of per capita steel consumption in India, the steel industry has the potential to become a key economic growth driver. While fiscal 2020 saw a slowdown in major steel consuming sectors (automobile, construction and infrastructure), fiscal 2021 witnessed pandemic-led lockdowns, which kept the ratio of steel demand growth to GDP growth under 1.

As the economy started reopening in fiscal 2022, the ratio improved to 1.2. In fiscal 2023, the ratio of steel demand growth to GDP growth further grew to 1.8 owing to recovery in economic activity from the lows of the pandemic and a strong pent-up demand from key steel consuming sectors. Despite a reduction to 1.5 in fiscal 2024 and a subsequent rise to 1.8 in fiscal 2025, the ratio/GDP multiplier managed to remain higher than the pre-pandemic levels

Finished steel demand growth v/s GDP growth



Note: Figures in boxes represent steel demand growth to GDP growth multiplier.

Source: CRISIL MI&A Consulting, Industry

1.4 Key government schemes for industries

The Indian government has introduced several key schemes to support the growth of industries such as railways, defence and infrastructure.

Atmanirbhar Bharat Mission

Launched in 2020, the Atmanirbhar Bharat Mission aims to make India self-reliant in manufacturing, technology, and supply chains, and foster global competitiveness.

Key features:

- The PLI scheme, with an outlay of Rs 1.97 trillion till March 2025, offers financial incentives to manufacturers in 14 key sectors to reduce import dependence
- Railway modernisation and defence indigenisation
- Government procurement policies that prioritise domestically produced components
- Support to micro, small, and medium enterprises (MSMEs) through collateral-free loans and fund infusion
- Inclusive development initiatives to empower rural and urban economies, creating jobs and fostering entrepreneurship

Make in India

The Make in India initiative was launched in 2014 to revive the manufacturing sector and boost economic growth by creating jobs and reducing import dependence. The initiative focused on 25 key sectors, including automobiles and electronics, and simplified several regulations to promote a business-friendly environment. It also allowed up to 100% FDI in many sectors and provided incentives such as tax breaks and subsidies to encourage domestic manufacturing. This led to increased FDI inflows and export competitiveness.

The initiative has catalysed significant investment in electronic manufacturing, automotive and pharmaceuticals, with India becoming a hub for manufacturing FDI, which grew by 18% in fiscal 2025, reaching USD 19.04 billion compared to USD 16.12 billion in fiscal 2024. The overall FDI inflows increased to USD 81.04 billion in fiscal 2025, marking a 14% increase from USD 71.28 billion in fiscal 2024 and infrastructure projects such as industrial corridors and smart cities have been progressing to support manufacturing ecosystems.² Key indicators of the initiative's success include a growth in installed renewable capacity to 195 GW, GVA of the processed foods sector to \$28 billion and drug and pharmaceutical exports to \$27.9 billion.

Production-Linked Incentive scheme

The government has allocated Rs 1.97 trillion under the Production-Linked Incentive (PLI) scheme for 14 key sectors to enhance manufacturing capabilities and exports. The scheme aims to attract domestic and foreign investment, apply cutting-edge technology and boost exports. The objective is to make India an integral part of the global value chain, with a potential to generate significant investment and employment. The 14 sectors applicable under PLI are: (i) Mobile Manufacturing and Specified Electronic Components, (ii) Critical Key Starting Materials/Drug Intermediaries & Active Pharmaceutical Ingredients, (iii) Manufacturing of Medical Devices (iv) Automobiles and Auto Components, (v) Pharmaceuticals Drugs, (vi) Specialty Steel, (vii) Telecom & Networking Products, (viii) Electronic/Technology Products, (ix) White Goods (air conditioners and light emitting diodes), (x) Food Products, (xi) Textile Products: Man-Made Fibers (MMF) segment and technical textiles, (xii) High efficiency solar photo-voltaic (PV) modules, (xiii) Advanced Chemistry Cell (ACC) Battery, and (xiv) Drones and Drone Components.

The PLI scheme has witnessed investments worth Rs 1.76 trillion and employment generation, with an estimated 12 million direct and indirect jobs created. The scheme is expected to generate production/sales of Rs 16.5 trillion and exports of Rs 5.31 trillion. The scheme has benefited various sectors, including large-scale electronics manufacturing and specialty steel, with the production of mobile phones surging over 125% and exports increasing 4x since fiscal 2021.

² India records USD 81.04 billion FDI inflow in FY 2024–25, Ministry of Commerce & Industry

PM Gati Shakti National Master Plan

The PM Gati Shakti National Master Plan, launched in October 2021, is a Rs 100 trillion initiative aimed at transforming India's infrastructure and logistics landscape. The plan integrates the efforts of 44 central ministries and 36 states/UTs, leveraging a centralised digital platform to synchronise infrastructure planning and execution. This platform brings together over 1,600 data layers, enabling seamless multi-modal connectivity across seven core areas. The plan aims to create a holistic infrastructure ecosystem, supported by energy, information technology, water, and social infrastructure.

Key features of the PM Gati Shakti National Master Plan include digital integration through a geographic information system (GIS)-based platform, multi-modal connectivity, and the Unified Logistics Interface Platform for seamless cargo movement. A three-tier monitoring system ensures timely execution across ministries and states, while state governments integrate their projects into the Gati Shakti portal. The plan covers economic clusters such as textile, pharmaceuticals, and defence zones, improving connectivity and competitiveness for Indian businesses.

Railway infrastructure development initiatives

The National Rail Plan (NRP) 2030 is a comprehensive strategy to create a future-ready railway system by 2030, with the capacity to meet demand through 2050. The plan aims to increase the modal share of railways in freight to 45% by 2030, up from 27% in 2022. Key features of the plan include achieving 100% electrification of the railway network by 2030 and upgrading speeds to 160 km/h on major routes. The plan also involves identifying and implementing new dedicated freight corridors (DFCs) to support freight growth. This will help make railways the backbone of India's logistics network.

The DFCs are a crucial component of the National Rail Plan, designed to improve speed, efficiency, and capacity by separating cargo from passenger traffic. The western and eastern DFCs span over 2,800 km and are among the largest infrastructure projects in India. The DFCs are built to handle heavier and longer trains, with higher axle loads and advanced signalling, allowing freight trains to run at up to 100 km/h. This will free capacity for passenger trains on existing routes. It will include state-of-the-art freight terminals and logistics parks.

Energy sector initiatives

The Indian government has set ambitious targets for the energy sector, including 500 GW of non-fossil fuel capacity by 2030.³ Policies such as expanded tenders for solar, wind and hybrid projects and robust support for domestic manufacturing are driving growth. The 2025 budget introduced tariff reductions on renewable components and strengthened grid infrastructure.

The government has also introduced initiatives such as the PM Surya Ghar Muft Bijli Yojana, offering subsidies for residential rooftop solar, and PM KUSUM, empowering farmers with solar pumps and grid sales. These efforts aim to increase renewable energy capacity and reduce dependence on fossil fuels.

The government, in the 2025 budget, also announced the launch Nuclear Energy Mission, which is focused on research and development (R&D) of Small Modular Reactors (SMRs). The government has allocated Rs 20,000 crore for this initiative with an aim to develop at least five indigenously designed and operational SMRs by 2033.

Aerospace and defence sector initiatives

The government's Make in India and Atmanirbhar Bharat initiatives aim to boost domestic manufacturing and reduce import dependence in the aerospace and defence sectors. The 2025 Defence Vision prioritises modernisation, integration, and indigenous production, with a strong push for research and development and advanced military technology. The government has increased defence allocation 9.5% to Rs 6.81 trillion in the 2026 budget, with a focus on self-reliance and export growth.

The PLI scheme launched for specialty steel particularly focusses on boosting domestic production of specialty steel grades, which are high-value and have applications in niche sectors such as defence.

³ India's renewable energy capacity hits new milestone, Ministry of New and Renewable Energy

The government has also fostered global collaborations, technology transfers and investments, with over 111 foreign exhibitors at Aero India 2025. Defence corridors in Uttar Pradesh and Tamil Nadu support supply chains and manufacturing ecosystems, driving sectoral growth. With a target of Rs 50,000 crore in defence exports by 2029, India is transitioning from an importer to an exporter; over 606 industrial licences have been issued to 369 companies.

In May 2025, the government of India has approved a framework to build India's own fifth-generation stealth fighter jet - the advanced medium combat aircraft (AMCA).

Labour costs and participation in India

India's labour cost has steadily increased, with average hourly labour cost rising to \$3.0 per hour in fiscal 2025. The employment situation has improved notably, with the worker population ratio increasing from 46.8% to 56.0% between fiscals 2018 and 2023. The unemployment rate has declined steadily, recording a year-on-year decrease from 6.0% to 3.2% during the period.

Labour force participation has improved to 50.4% by end-2024 from 41% in 2014, with women's participation in the workforce increasing to nearly 37% from 23%. Employment has grown to over 64 crores in fiscal 2025 from 47 crore in fiscal 2015, with the national floor-level minimum wage rising to Rs 178 per day in 2024 from Rs 137 per day in 2014.

Ease of doing business in India

India has improved its ease of doing business rankings from 142 in 2014 to 63 in 2019, driven by extensive reforms to simplify procedures and improve infrastructure. Key reforms such as Goods and Services Tax implementation, insolvency code and digitalisation have contributed to regulatory simplification and faster clearances. This has boosted India's attractiveness for investment and business operations, enhancing its competitiveness as a destination for investment and manufacturing.

The improved business environment has offset the impact of rising labour costs, with India experiencing a steady increase in these costs over the past decade. Despite moderate inflation, labour force participation and employment levels have improved, with a notable rise in women's participation in the workforce, making India an attractive destination for investment and manufacturing.

Government's key initiatives to improve ease of doing business in key sectors are described below:

Energy sector: The government has taken steps such as streamlining regulatory processes, providing financial incentives, and setting-up dedicated investor facilitation channels to improve the ease of doing business in the energy sector. For example, for businesses in green hydrogen manufacturing, the government has drafted new rules that would result in a faster establishment of energy storage capacity.

Defence sector: The Defence Product List was streamlined in 2019 to reduce the number of items requiring a manufacturing licence. Further, parts and components of defence items were de-licensed in September 2019 to encourage investment in domestic defence industry. The validity of export authorisation for parts and components used in defence industry was also extended from two years to the completion of the order or component, whichever is later. Furthermore, the validity of defence licences under the Industries (Development and Regulation) Act, 1951, has been extended from 3 years to 15 years, with a further extension option of up to 18 years. As a result of these initiatives, over 700 industrial licences have been issued to 436 companies in the defence sector.

Further, with a growing focus on moving the manufacturing bases out of China to reduce the supply chain risks in light of the China-plus-one strategy, many original equipment manufacturers have chosen India as the preferred destination owing to its ease of doing business parameters. For example, automobile companies such as Toyota and Hyundai are looking to expand their production bases in India. As the overall manufacturing industry expands, the domestic demand for key input materials such as steel (including special steel/alloy steel) will also grow.

Budget 2026 announcements related to the steel industry

The government has taken several measures to support the steel sector, including⁴:

- Promoting Made in India steel through the Domestically Manufactured Iron & Steel Products (DMI&SP) Policy for government procurement
- Launching the PLI scheme for specialty steel to reduce imports and attract investment, with an expected additional investment of Rs 27,106 crore
 - Budget also announced an increase in the financial outlay for the Specialty steel PLI scheme from Rs 55 crores in fiscal 2025 to Rs 305 crores in fiscal 2026
- Improving raw material availability and reducing costs by reducing the basic customs duty on ferro nickel to zero and extending duty exemption on ferrous scrap up to March 31, 2026
- Enhancing steel scrap recycling through the Steel Scrap Recycling Policy to increase domestically generated ferrous scrap
- Implementing effective import monitoring and quality control measures, including revamping the Steel Import Monitoring System (SIMS) and introducing Steel Quality Control Orders to ban sub-standard steel products

Increasing infrastructure expansion through a capex of Rs 11 trillion, announced in the budget for fiscal 2025, to boost steel consumption.

1.5 Global macroeconomic review

The global economy is projected to grow 2.8% on-year in 2025 as per the International Monetary Fund (IMF), which is below the 3.5% average between 2000 and 2024, owing to challenges such as elevated inflation and geopolitical uncertainties⁵. The growth rate in 2020, wherein the global gross domestic product (GDP) contracted by 2.7% amid challenges heaped by the Covid-19 pandemic. While growth rebounded to 6.6% the following year with the easing of restrictions, it once again slowed to 3.3% and 3.5% in 2023 and 2024 respectively because of rising interest rates to combat inflation, the lingering effects of the COVID-19 pandemic, and increased global uncertainty and trade policy tensions.

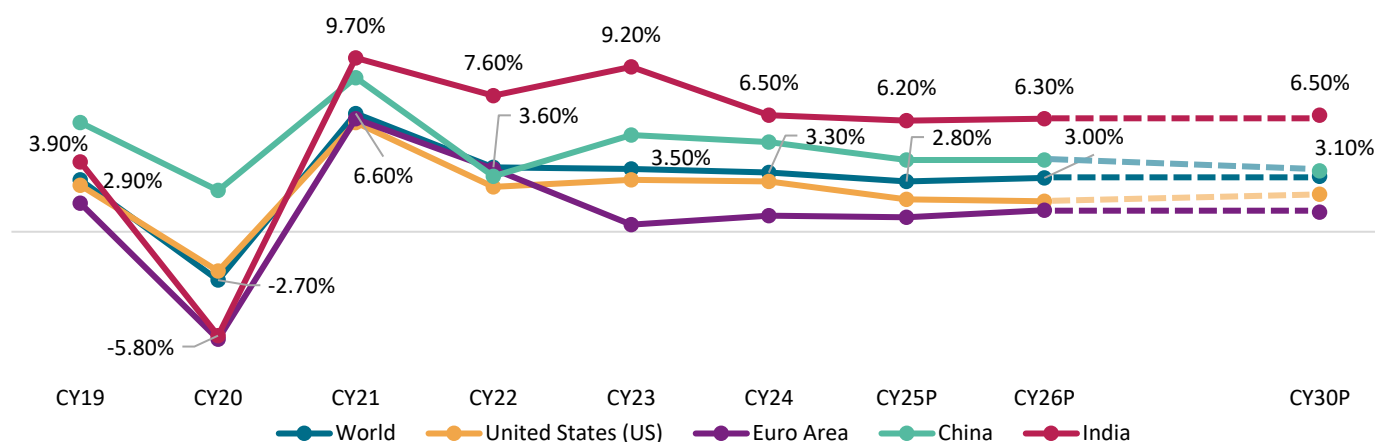
The IMF projects global GDP growth to remain subdued at 3% in 2026, due to ongoing geopolitical uncertainties, increasing geoeconomic fragmentation, and tighter inflation-tackling monetary policies. The slow growth will be across regions, including the US, euro area, and other regions, which will be buffeted by ongoing trade wars and heightened trade policy uncertainties. Coordinated policy responses are needed to address the short- and long-term fallout.

With a growth rate of 6.50% in 2024, India's economic growth remains strong and is expected to be a bright spot with expected growth rates of 6.20% in 2025 and 6-7% in both 2026 and 2027.⁶ India's high growth rate can be attributed to its large and growing consumer market, investments in infrastructure, and government initiatives such as the "Make in India" program.

⁴ Budget 2026, Minister of State for Steel and Heavy Industries, PIB

⁵ IMF – *World Economic Outlook reports of April, July, October 2024 and January, April 2025*

⁶ All forecasts are by the IMF unless stated otherwise



Note: P - projected (years mentioned on the horizontal axis correspond to calendar years)

Source: Crisil Intelligence, IMF, World Bank, S&P Global

Region-wise and country-wise economic review and outlook⁷

Real GDP (on-year growth)	2019	2020	2021	2022	2023	2024	2025P	2026P	2030P
World	2.90%	-2.70%	6.60%	3.60%	3.50%	3.30%	2.80%	3.00%	3.10%
Key countries									
United States (US)	2.50%	-2.20%	5.80%	1.90%	2.90%	2.80%	2.70%	2.10%	2.10%
Euro area	1.60%	-6.10%	5.90%	3.40%	0.40%	0.80%	1.00%	1.40%	1.20%
Canada	1.90%	-5.00%	6.00%	4.20%	1.50%	1.50%	1.40%	1.60%	1.50%
Japan	-0.40%	-4.10%	2.60%	1.00%	1.50%	-0.20%	1.10%	0.80%	0.40%
United Kingdom (UK)	1.60%	-10.40%	8.70%	4.30%	0.30%	0.90%	1.60%	1.50%	1.40%
China	6.00%	2.20%	8.40%	3.00%	5.20%	4.80%	4.60%	4.50%	3.30%
Brazil	1.20%	-3.30%	4.80%	3.00%	3.20%	3.40%	2.00%	2.00%	2.50%
India	3.90%	-5.80%	9.70%	7.60%	9.20%	6.50%	6.50%	6.50%	6.50%
Key emerging and developing regions									
Asia	5.40%	-0.50%	7.80%	4.70%	6.10%	5.30%	4.50%	4.60%	4.50%
Europe	2.50%	-1.80%	7.10%	0.50%	3.60%	3.40%	2.10%	2.40%	2.60%
Latin America and the Caribbean	0.20%	-6.90%	7.40%	4.20%	2.40%	2.40%	2.00%	2.40%	2.60%
Middle east and central Asia	1.90%	-2.20%	4.40%	5.50%	2.20%	2.40%	3.00%	3.50%	3.70%
Sub-Saharan Africa	3.20%	-1.50%	4.70%	4.10%	3.60%	4.00%	3.80%	4.20%	4.50%

Note: P - projected (years mentioned on the horizontal axis correspond to calendar years for the world and countries except India. For India, year 2019 refers to fiscal 2020 and so on)

Source: Crisil Intelligence, industry, IMF

⁷ All classifications according to IMF

1.6 Global inflation moderates

Region-wise and country-wise inflationary review and outlook

Consumer prices (in % terms)	2019	2020	2021	2022	2023	2024	2025P	2026P	2030P
US	1.8	1.3	4.7	8.0	4.1	3.0	3.0	2.5	2.2
Euro area	1.2	0.3	2.6	8.4	5.4	2.4	2.1	1.9	2.0
Japan	0.5	0.0	-0.2	2.5	3.3	2.7	2.4	1.7	2.0
UK	1.8	0.9	2.6	9.1	7.3	2.5	3.1	2.2	2.0
India	4.8	6.2	5.5	6.7	5.4	4.7	4.2	4.1	4.0
Key emerging and developing regions									
Asia	3.3	3.2	2.3	3.9	2.4	2.0	1.7	2.0	2.7

P: Projected

Source: Crisil Intelligence, industry, IMF

Note: the values in the table represent annual percentage changes in consumer prices

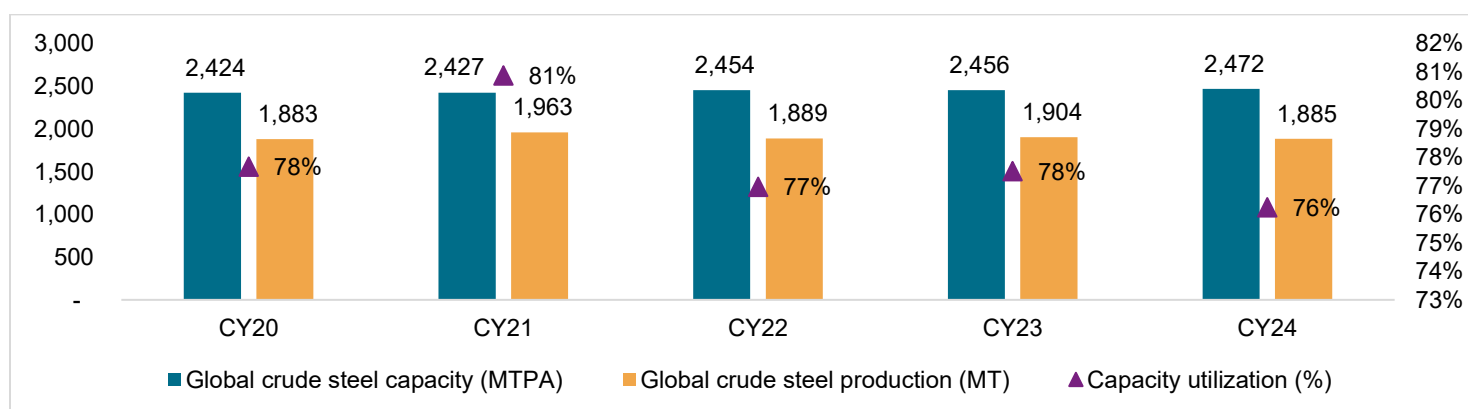
Global inflation peaked in 2022 due to post-pandemic disruptions and geopolitical shocks, before gradually moderating in 2024. While advanced economies such as the US, the EU, the UK, and Japan witnessed varying inflation trajectories, Asia was relatively stable. Forecasts suggest a return to central bank targets by 2026, through structural shifts in Japan and lingering risks in the rest of Asia may shape the longer-term dynamics.

2 Indian and global steel industry overview

Global steel industry overview

Global crude steel capacity and production

Global crude steel capacity and production levels largely remained rangebound between calendar years 2020 and 2024. This happened primarily on the account of production cut calls taken by China, the leading steel producer in the world during the period, owing to its weak internal demand amid profitability and tariff related concerns.



Note: CY24 values are provisional; CY: calendar year; MTPA: million tonnes per annum; MT: million tonnes

Source: Crisil Intelligence, World Steel Association

Further, an increase in global interest rates, declining manufacturing and construction activities (notably in China), and geopolitical tensions across the globe disrupting supplies of raw materials and energy (especially to and from Europe), contributed to a flat growth trend of crude steel production during the period.

Country-wise crude steel production trend (MT) and % share in global crude steel production

Country	CY20		CY21		CY22		CY23		CY24		CAGR (CY20-24)
	Prod. (MT)	Share (%)	Prod. (MT)	Share (%)	Prod. (MT)	Share (%)	Prod. (MT)	Share (%)	Prod. (MT)	Share (%)	
China	1,064.7	56.5%	1,035.2	52.7%	1,019.1	53.9%	1,028.8	54.0%	1,005.1	53.3%	-1.4%
India	100.3	5.3%	118.2	6.0%	125.4	6.6%	140.8	7.4%	149.4	7.9%	10.5%
Japan	83.2	4.4%	96.3	4.9%	89.2	4.7%	87.0	4.6%	84.0	4.5%	0.2%
US	72.7	3.9%	85.8	4.4%	80.5	4.3%	81.4	4.3%	79.5	4.2%	2.3%
Russia	71.6	3.8%	77.0	3.9%	71.7	3.8%	76.0	4.0%	71.0	3.8%	-0.2%
South Korea	67.1	3.6%	70.4	3.6%	65.8	3.5%	66.7	3.5%	63.6	3.4%	-1.3%

Source: Crisil Intelligence, World Steel Association

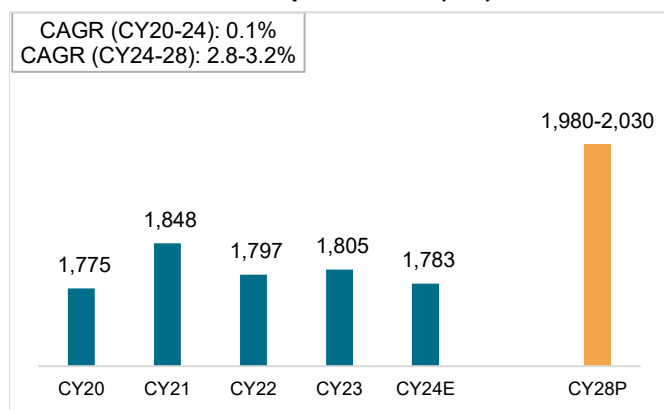
MT: million tonnes

Amid decreasing production levels in China, Russia, and South Korea and a near-flat production growth in Japan; India stood out by recording a crude steel production volume CAGR of over 10% between 2020 and 2024. This high growth in India's crude steel production volume is attributed to strong growth in domestic steel demand owing to Indian government's strong push for infrastructure development and an increased demand from housing, automobile, energy, research and development, and capital goods sectors.

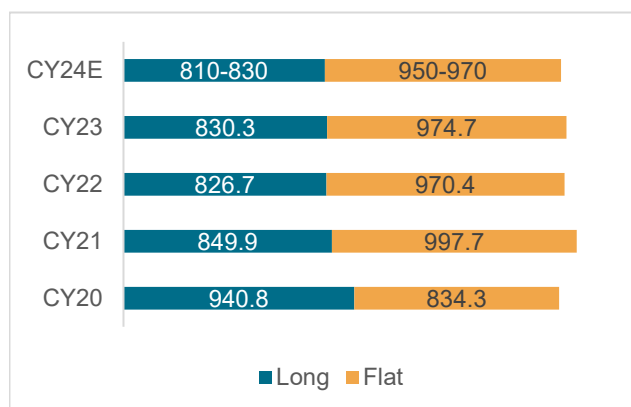
Global finished steel production (CY 2020-2030)

Global finished steel production remained rangebound during the period between CY 2020 and CY 2024, primarily owing to production cuts in steel mills in China, the single largest steel producer in the world. Going forward, the global finished steel production is expected to grow at a CAGR of 2.8-3.2% between 2024 and 2028 on account of an expected increase in demand from infrastructure, construction, energy, and automobile sectors in emerging as well as developed economies.

Global finished steel production (MT)



Global flat and long steel production (MT)

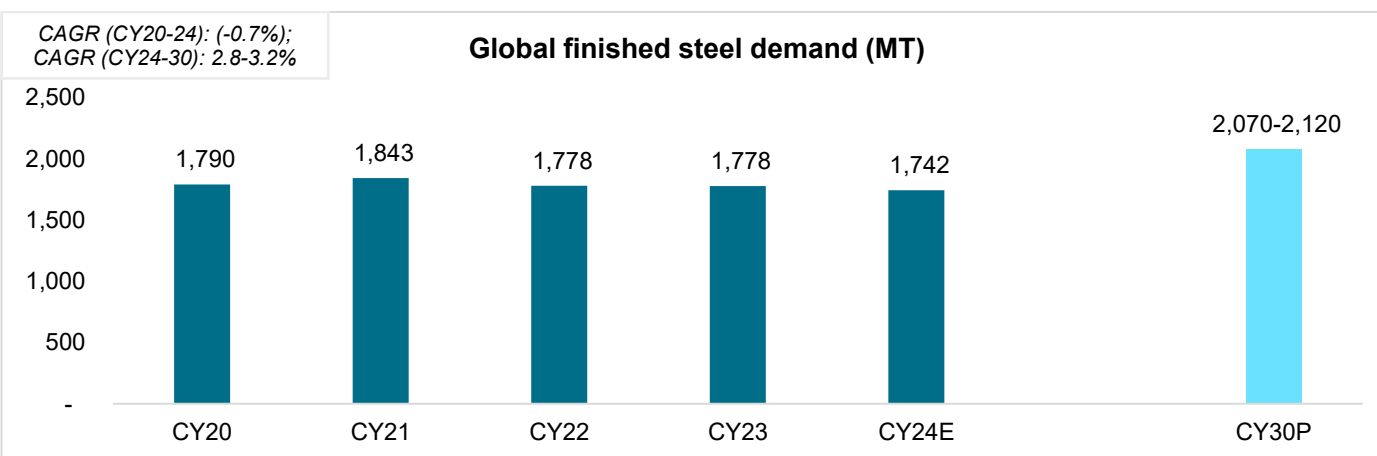


P – projected; E- Estimated; MT: million tonnes

Source: Crisil Intelligence, World Steel Association

Global finished steel demand (CY 2020-2030)

Global finished steel demand largely remained rangebound during the period between CY 2020 and CY 2024, primarily owing to lower demand from key steel consumer China considering its property sector downturn along with increased global interest rates amid escalating geopolitical tensions.

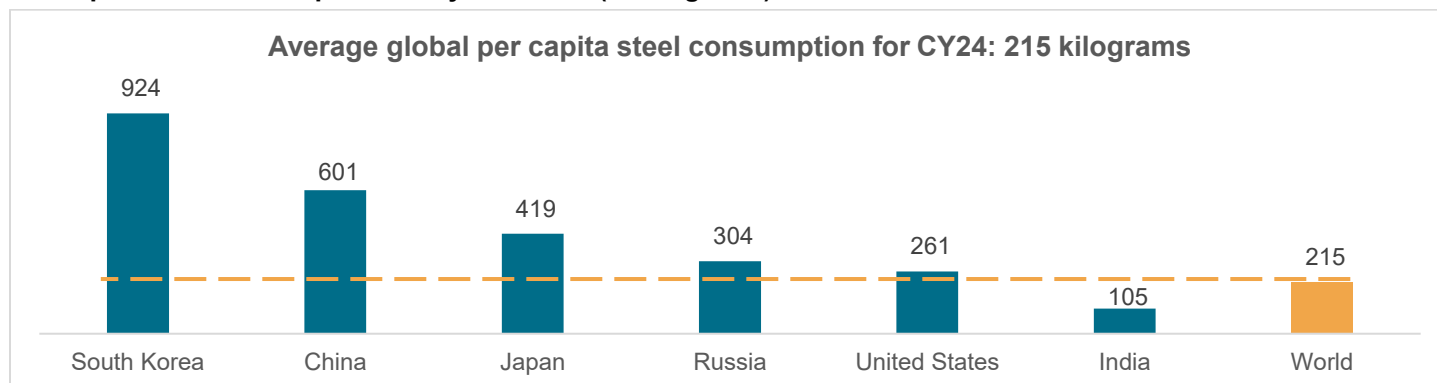


P – projected; E- Estimated; MT: million tonnes

Source: Crisil Intelligence, World Steel Association

Going forward, the global demand for finished steel is expected to log a CAGR of 2.8-3.2% between CY 2024-2030 on the account of an expected growth in demand from markets other than China. A positive industrial activities' outlook in the European union, an expected recovery in automobile and construction sectors in Japan, and an anticipated growth in sectors including building, construction, infrastructure, engineering, and packaging in India will drive the global steel demand in the next 5-6 years.

Per capita steel consumption in key countries (in kilograms)



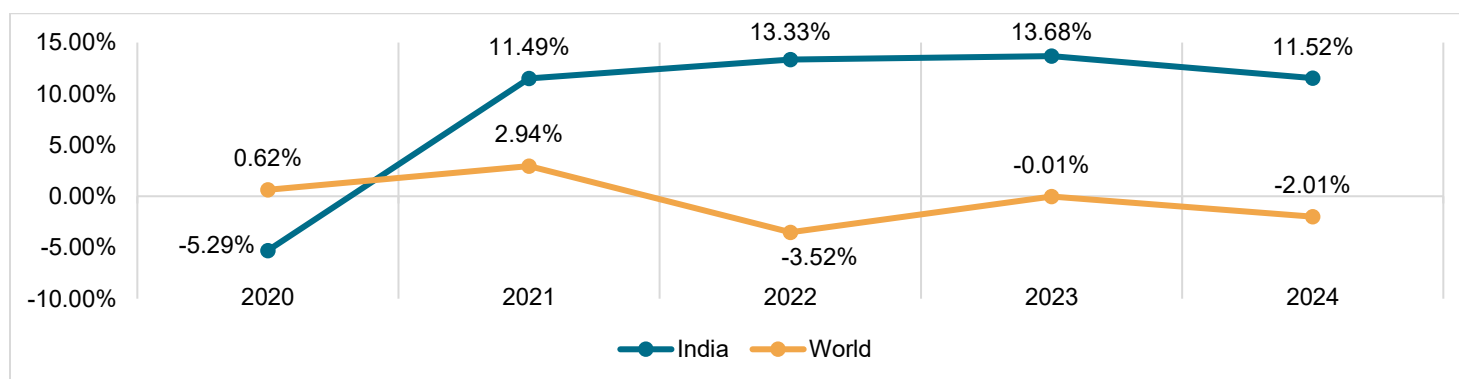
Note: For all countries except India, volume refers to 2024. For India, demand volume is based on fiscal 2025.

Source: World Steel Association, World Bank

The global average per capita steel consumption was 215 kg in 2024. However, since South Korea, China, Japan, Russia, and the US have higher steel usage owing to significantly higher investment in infrastructure projects, their per capita steel consumption stood above the world average.

In fiscal 2025, India's per capita steel consumption was 105 kg (corresponding to fiscal 2025), which was less than half of the global average per capita steel consumption. However, with increasing thrust on development of infrastructure, construction, and energy sectors, the underpenetrated Indian steel market holds considerable growth potential.

On-year demand % growth for Indian steel demand vis-à-vis global steel demand



Source: World Steel Association, JPC, Crisil Intelligence, industry

Note: Years mentioned on the horizontal axis correspond to calendar years for the world; for India, these correspond to nearest fiscals. For example, year 2019 corresponds to FY20 and so on

After the pandemic and subsequent lockdown impacted year of 2020, steel demand in India rebounded strongly. As a result, the on-year growth rates for Indian steel domestic demand remained well above near- and sub-zero global steel demand growth rates during the period between 2021 and 2024. This gap between steel demand for India and the rest of the world was fuelled by a strong recovery of economic activity post the pandemic and pent-up demand from major steel consuming sectors such as infrastructure, building and construction and automobile.

Impact of macro forces on global steel market

- Geopolitical uncertainties: The impact of geopolitical uncertainties on the steel industry is highly significant. For example, this can lead to supply chain disruptions, increased transportation risks and costs, volatility in raw material and consumable prices, uncertainty on the steel makers' and end-use industries' capital expenditure plans, reduction in demand from key end-use sectors, and energy price shocks.
- Inflation: Inflation can lead to increase in prices of raw materials (iron ore, coal, etc.) and energy costs, making steel production highly expensive. Inflation can also cause an increase in logistics and transportation costs. The inability of steel producers to pass-on the steel price increments to the consumers, especially in the event of weak demand, would harm their profitability. The capacity expansion plans would also slow-down in the high inflationary scenario on the account of higher interest rates.

For instance, as per the European Commission data, a whopping 68% on-year increase in average natural gas prices in 2022 from 4.75 euros per 100 kilowatt-hours in 2021 to approximately 8 euros per 100 kilowatt-hours in 2022 in Europe led to production cuts in many steel plants. On the other hand, energy rich countries such as those in the middle east were able to maintain stable industrial output.

- Trade policies and tariffs: Tariffs redirect steel trade from one country to another. For example, after the imposition of tariffs by the U.S. on steel in 2018, key exporters like China found new markets in Europe and South-East Asia. Further, the imposition of tariffs can lead to retaliatory tariffs, creating market uncertainty. The World Trade Organization (WTO) estimates that the US-China tariff dispute alone could cut trade between the two countries by 80% and reduce global growth by 7% in the long run. This impact on global growth can lead to a demand slowdown in core sectors such as steel.

The increase in tariffs on steel and related products by the U.S. to 50%, effective from June 2025, might also lead to a shift in global trade patterns and retaliatory tariffs.

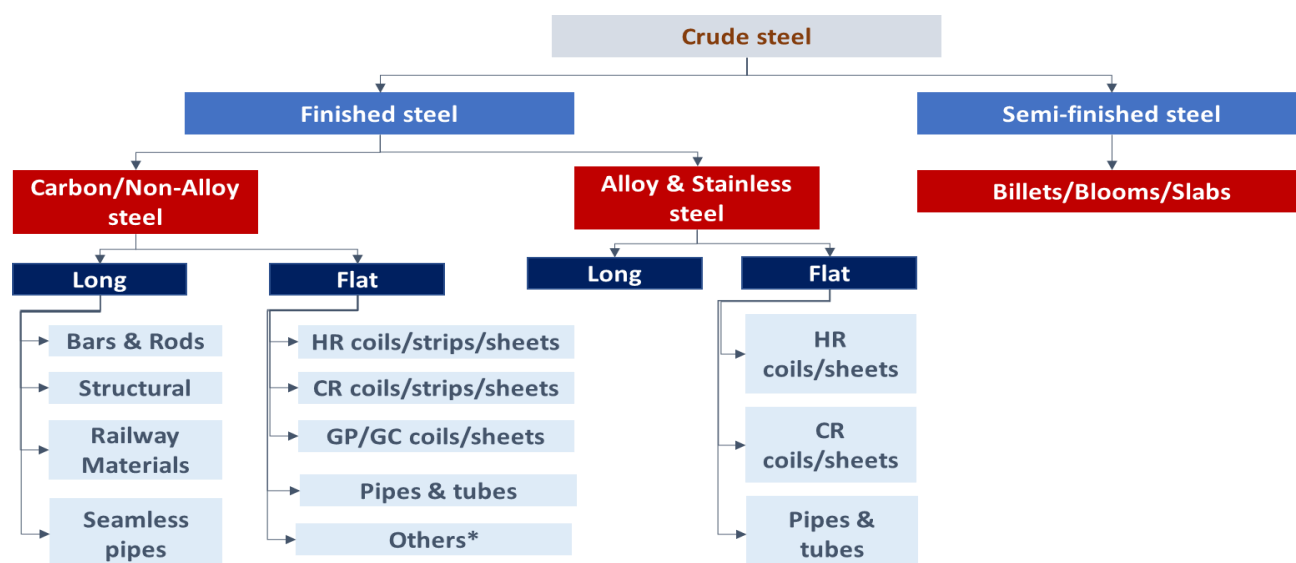
On the contrary, trade measures such as safeguard or anti-dumping duties help in curbing unfair trade (steel dumping) and in-turn help in development of domestic industry.

- Environmental regulations: Increasing focus on environmental regulations such as the regulations on carbon emissions, air pollution, water usage, etc, force steel makers to make investments in emission control equipment, green technologies, and monitoring systems. This in-turn leads to an increase in capital and operating costs for the companies.

In general, developed economies follow stricter environmental regulations making their steel more expensive, thus creating trade imbalances. Policies such as carbon border adjustment mechanism (CBAM) are promoting green steel manufacturing as the steel makers across the globe wish to remain competitive in export markets. CBAM, which will impose carbon tariffs on imported steel from 2026, will significantly impact the steel exporters from countries like China and India which majorly manufacture steel through coal-heavy processes. As per CBAM, considering a typical blast furnace – basic oxygen furnace route of hot-rolled (HR) coil manufacturing which emits approximately 2.1 tonnes of CO₂ per tonne of HR coil production and an average 80 euros of carbon tax per tonne of CO₂ emissions, exporting one tonne of HR coil to the Europe Union will attract a carbon tax of approximately 168 Euros.

Further, any policies aiming to control carbon emissions will help the steel producers gain market access in those geographies where there are strict compliance norms with respect to import and use of sustainable steel. For example, India's Carbon Credit Trading Scheme, which aims to reduce greenhouse gas (GHG) emissions through carbon pricing, will help Indian steel producers gain customers in CBAM compliant European Union countries

2.1 Structure of India's steel industry



* Others include Prime plate (PM) plates, Hot strip mill (HSM) plates, colour coated coils/sheets, electrical coils/sheets, tin plates, tin free steel, (Tin Mill black plate) TMBP, pipes etc.

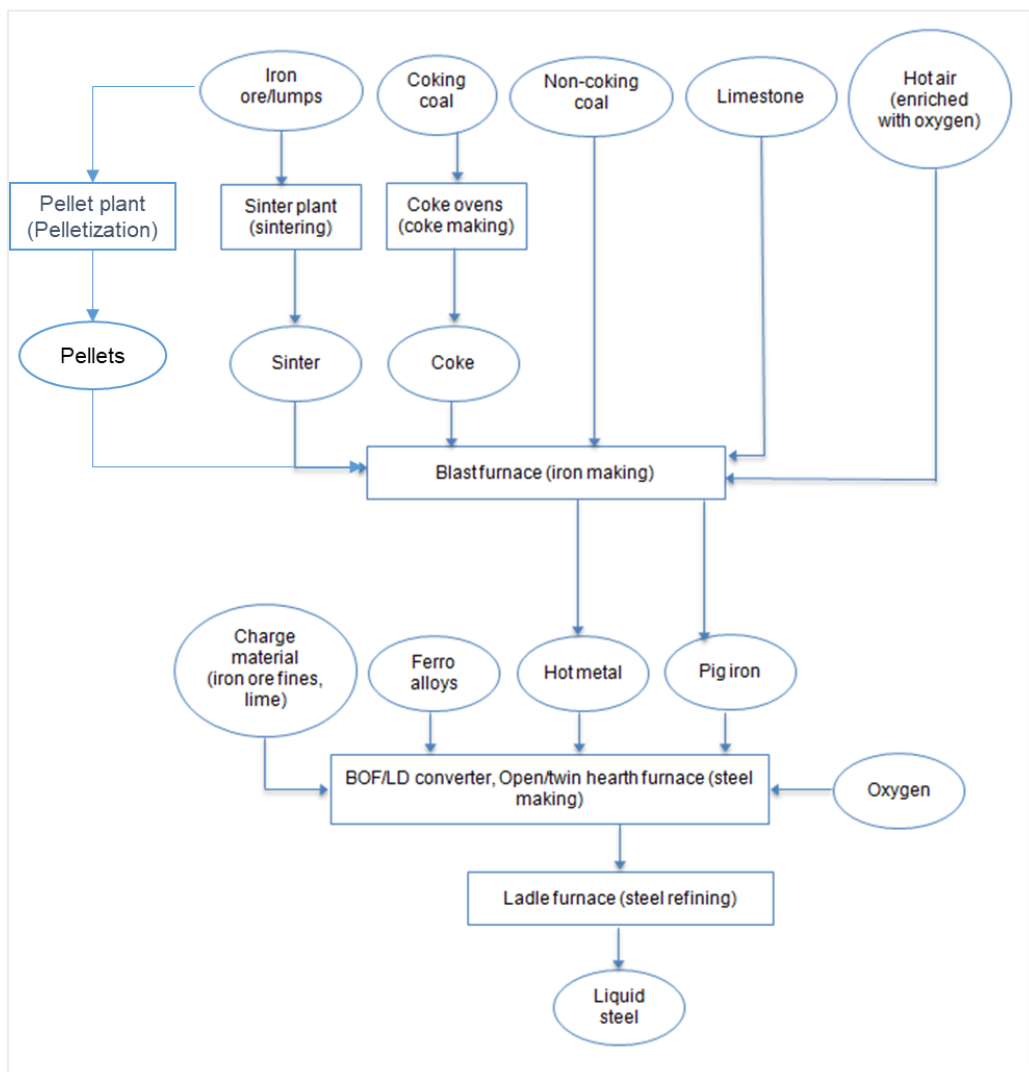
Source: CRISIL MI&A Consulting, Industry

Manufacturing process

There are three popular processes to produce crude steel from raw materials – basic oxygen furnace (BOF), electric arc furnace (EAF), and induction furnace (IF).

In BF/BOF, iron ore and coking coal are fed into a blast furnace (BF) to produce hot metal. The BOF converts the hot metal into crude steel.

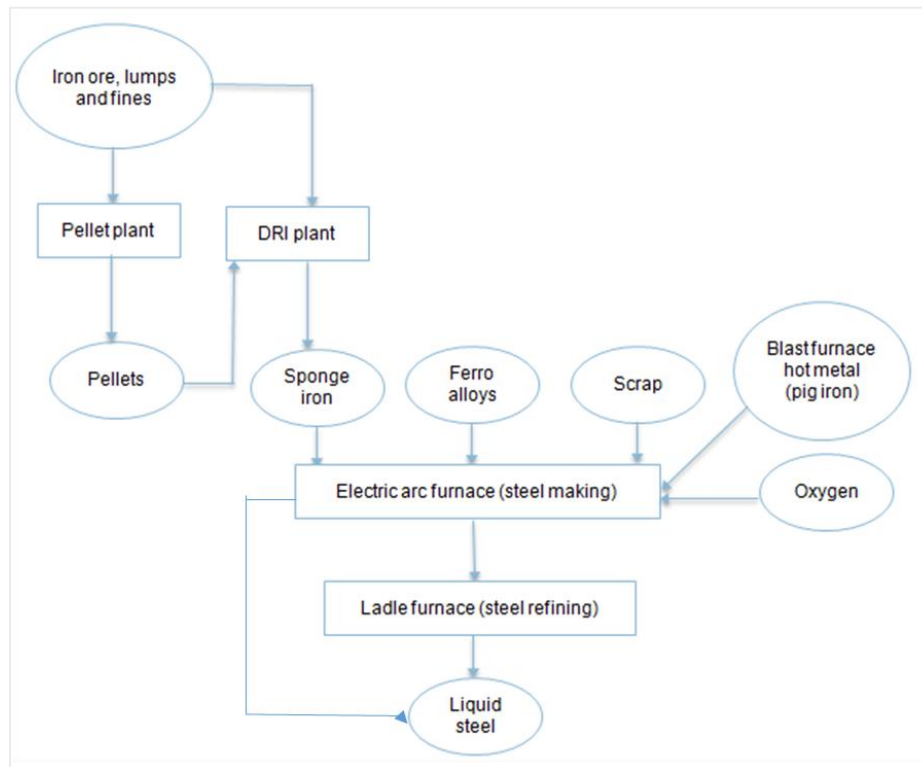
BF/BOF process



Source: CRISIL MI&A Consulting, Industry

Steel scrap, pig iron or sponge iron is used as raw material in an EAF and IF. The raw material is melted using heat generated with the aid of an electric arc produced by graphite electrodes.

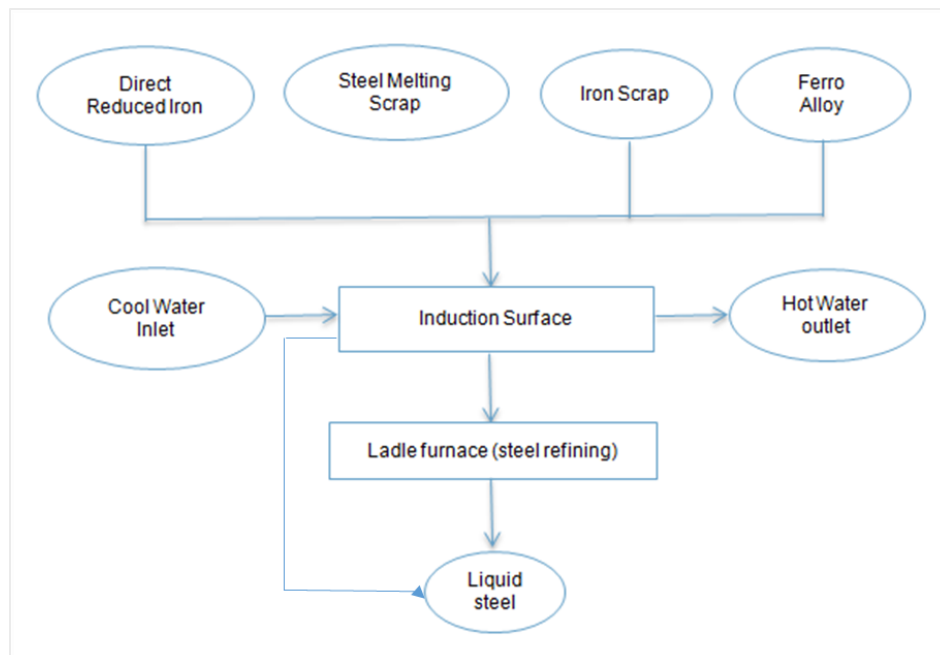
EAF process



Source: CRISIL MI&A Consulting, Industry

Further in the IF process, heat is generated through electromagnetic induction in an electrically conductive medium (usually a metal).

IF process

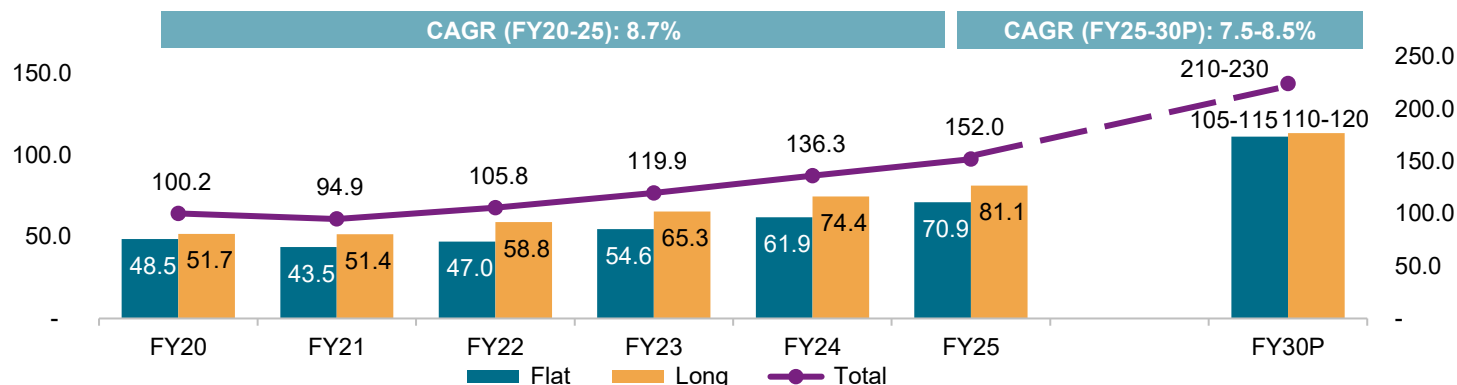


Source: CRISIL MI&A Consulting, Industry

2.2 Indian steel sector review and outlook

The domestic steel industry demand logged a CAGR of 8.7% between fiscals 2020 and 2025, reaching 152 million tonnes per annum (MTPA) in fiscal 2025 from 100.2 MTPA in fiscal 2020. The spurt in demand is attributable to the aggregate effect of growth in the automobile, infrastructure and construction sectors during the period.

Finished steel demand by product type (MTPA)



E: Estimated; P: Projected; MTPA: million tonnes per annum; MT: million tonnes

Source: JPC, Crisil Intelligence

Note: FY 2025 figures are as per provisional data released by JPC in its March 2025 report

In fiscal 2021, the domestic demand dipped 5% on-year to 94.9 MT owing to pandemic led disruptions. However, with the resumption of economic activities, the domestic finished steel demand grew on-year by 11% to 105.8 MT in fiscal 2022. In fiscal 2023, the recovery continued as domestic steel demand grew 13% on-year to 119.9 MTPA owing to a continuous pent-up demand in key end-use sectors and a revival of consumer sentiments post the pandemic.

In fiscal 2024, the domestic demand for finished steel further increased ~14% on-year, owing to higher demand from the automobile sector on account of higher disposable income; housing and construction sector, led by government's affordable housing schemes; and government-led capital expenditure in the infrastructure segment in the run-up to the 2024 general elections. Demand for domestic finished steel further increased by 12% on -year to 152 MT per annum in fiscal 2025, driven by strong demand from building and construction, infrastructure and capital goods sectors.

Demand for long and flat steel is estimated to have increased at a similar CAGR of 8-9% between fiscals 2020 and 2025. While demand growth for flat steel was supported by the automobile and construction segments, that for long steel was fuelled by the infrastructure development sector.

Demand for domestic steel is expected to log a CAGR of 7.5-8.5% over fiscals 2025-30, reaching 210-230 MT, led by healthy growth prospects in the building and construction, infrastructure, and automobile sectors, boosted by government's National Steel Policy, 2017.

• Building and construction

Steel demand from the building and construction sector accounts for 36-40% of aggregate finished steel demand as of fiscal 2025. Over fiscals 2025-30, demand for steel from the segment is expected to clock a CAGR of 7-9%, driven by:

- The government's focus on affordable housing
- Robust rural housing demand against the backdrop of the government's ongoing focus on rural development and higher minimum support prices

- Improvement in urban housing demand owing to increased commercialisation of tier-3 and tier-4 cities, led by better infrastructure connectivity

- **Infrastructure**

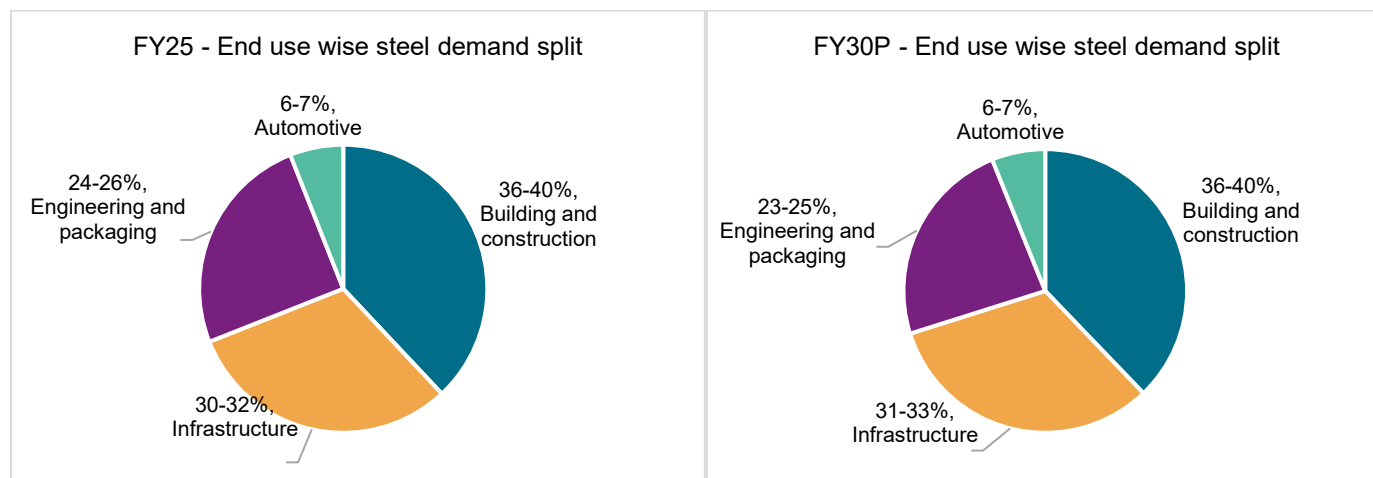
The infrastructure segment is the second-largest consumer of steel and accounts for 30-32% of the aggregate finished steel demand and is expected to grow at a CAGR of 8-10% between fiscals 2025-2030. The sub-segments of roads, highways, and railways (including metros) cumulatively contribute to 50-55% of domestic finished steel demand coming from the infrastructure segment. Healthy demand from the sector is expected to persist, driven by increasing developmental activities and the swift pace of execution in steel-intensive segments such as railways. Other significant contributors include the irrigation, dams, water supply and sanitation sectors.

- **Engineering and packaging**

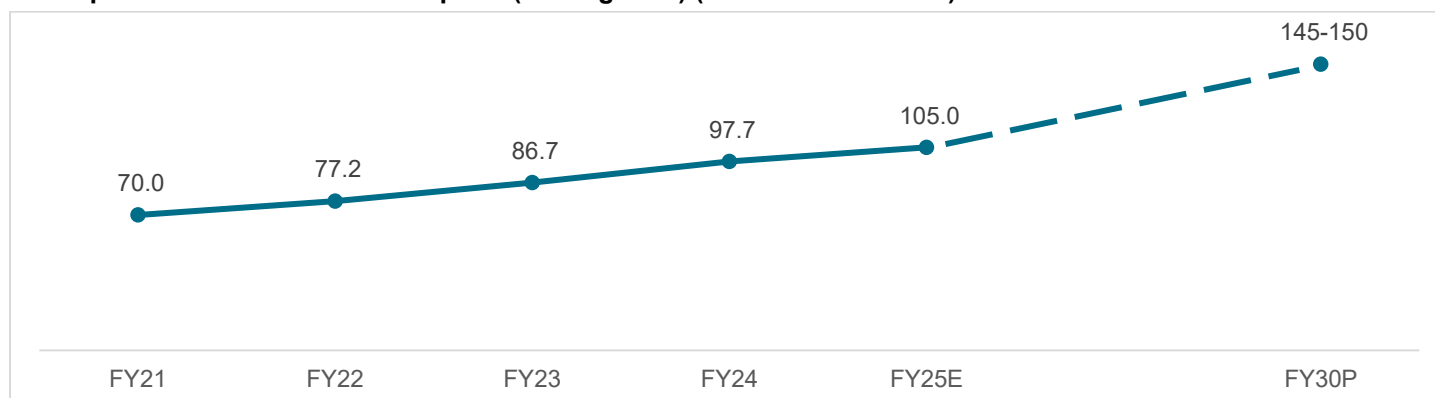
This sector accounts for 24-26% of aggregate finished steel demand. The engineering and packaging industry is expected to log a CAGR of 7-8% between fiscals 2025 and 2030 owing to increasing disposable income levels, expanding e-commerce, and a growing emphasis on sustainability.

- **Automotive**

The automotive sector accounts for 6-7% of aggregate finished steel demand. Despite a slowdown in fiscal 2022, the following fiscal witnessed resolution of supply-side issues and improved consumer sentiment, thereby fuelling growth in the sector. The industry is expected to log a CAGR of 8-9% between fiscals 2025 and 2030 owing to growing preference for personal vehicles, easy financing options, improving living standards and income levels of rural as well as urban population.



Per capita domestic steel consumption (in kilograms) (FY21-FY25E-FY30P)



E: estimated as per the provisional demand numbers released by JPC in its March 2025 report

P: projected based on the World Bank's population estimates for 2029 (corresponding to fiscal 2030)

Source: JPC, World Bank, Crisil Intelligence

The per capita steel consumption in India increased from 70 kg in fiscal 2021 to an estimated 105 kg in fiscal 2025, clocking an estimated CAGR of 11% between fiscals 2021 and 2025. Going forward, the per capita steel consumption is projected to rise to 145-150 kg in fiscal 2030 owing to a strong 7.5-8.5% growth expected in domestic steel consumption between fiscals 2025 and 2030 and a rangebound growth expected in India's population, as per World Bank.

Key government schemes supporting domestic steel sector

Atmanirbhar Bharat/Make in India/Ease of Doing Business initiative

The government's strong focus on transforming India into a global manufacturing hub through schemes such as Make in India and Atmanirbhar Bharat, along with the ongoing supply-chain derisking strategy of global companies, is expected to help India strengthen its domestic manufacturing sector including domestic steel sector.

The Government has also taken steps to improve India's parameters on ease of doing business, which also benefit overall manufacturing sector in India.

National Steel Policy 2017

The National Steel Policy (NSP), approved in May 2017 by the Union Cabinet, seeks to boost domestic steel consumption, ensure high-quality steel production and create a technologically advanced and globally competitive steel industry.

NSP's vision for demand, supply and trade:

- To increase steel consumption across the infrastructure, automotive and housing sectors, resulting in a potential rise in per capita steel consumption to 158 kg by fiscal 2030 from ~65 kg in fiscal 2017
- To achieve 300 MT of steelmaking capacity by 2030 through additional investments of Rs 10 lakh crores
- To produce steel domestically for high-end applications, such as electrical steel (cold-rolled grain-oriented), special steel and alloys for power equipment, aerospace, defence and nuclear applications
- To eliminate reliance on steel imports and increase exports to ~24 MT by 2030

Indian steel industry: Historical trend and vision under NSP

Parameter (MT)	NSP 2005	NSP 2017	FY23	FY24	FY25E	FY30P
	FY20	FY30				
	(Target)	(Target)				
Crude steel capacity		300	161.30	179.51	195-200	260-270
Crude steel production	110	255	127.20	144.30	152.0	210-230
Finished steel demand	90	230	119.89	136.29	152.0	210-230
Finished steel import	6	0	6.02	8.32	9.60	
Finished steel export	26	24	6.72	7.49	4.90	

Note: E – estimated as per provisional data

*FY25 estimates are based on April 2024-March 2025 provisional data released by JPC

Source: Crisil Intelligence, Joint Plant Committee (JPC) report, NSP 2005, NSP 2017

PLI scheme

Keeping in view India's vision of becoming 'Atmanirbhar', an incentive outlay of Rs 1.97 trillion (equivalent to over \$26 billion) under the PLI scheme for 14 key sectors is underway to enhance the country's manufacturing capabilities and exports. The scheme aims to attract investments (domestic and foreign) in the areas of core competency and apply cutting-edge technology; ensure efficiencies; create economies of scale; and boost exports to make India an integral part of the global value chain.

Particulars	Units	Amount
PLI scheme-led investment	Rs trillion	1.61
PLI scheme production/sales	Rs trillion	14.00
PLI scheme-led exports	Rs trillion	5.31
PLI-led employment generation	Million	1.15 (direct and indirect)

Note: All figures in the table are until March 2025

Source: Press Information Bureau

PLI for Specialty steel sector

- In January 2025, the Ministry of Steel launched the PLI Scheme 1.1 for specialty steel for five product categories: coated/plated steel products, high-strength/wear-resistant steel, specialty rails, alloy steel products and steel wires, and electrical steel. The scheme will be implemented during the production period of fiscal 2026 to fiscal 2030 and will operate within the funds originally allocated for the scheme (first round of the scheme launched originally in fiscal 2022), i.e., Rs 63.22 billion
- In the first round of this PLI scheme, 44 projects by 26 companies are active with a committed investment of about Rs 271.06 billion and 24 MT of downstream capacity creation. As of November 2024, the actual investment achieved was around Rs 183 billion with a direct employment generation of around 8,300

The PLI scheme is aimed at increasing domestic production in multiple industries, which will give a strong push to industrialisation and in turn support growth in the building, construction and infrastructure sectors.

Export friendly policies

The government of India, in order to promote finished steel exports and in turn boost domestic production, removed the export duties on multiple steel and related products including pig iron and flat rolled products in November 2022. For example, the export duty on the steel products specified under harmonized system of nomenclature (HSN) codes 7201, 7208, 7209, 7210, 7213, 7214, 7219, 7222, and 7227 was brought down to zero from 15%.

Green steel mission

Government of India is preparing 'Green Steel Mission' with an estimated cost of Rs 15,000 Crore for helping the Steel Industry reduce carbon emission and progress towards the Net Zero Target. The Mission includes: production linked incentive scheme for Green Steel, incentives for use of renewable energy, and mandates for Government agencies to buy Green Steel. This policy is expected to improve exports and global competitiveness of India-made steel. For instance, green steel, thus produced, will be able to meet European union's carbon border adjustment mechanism (CBAM) standards, shielding exports from any carbon tariffs and improving access in green markets. The government has also release green steel taxonomy which will certify and star-rate steel products as per its carbon emission level. This certification will help steel manufacturers have better access to markets which lay high importance to the sustainability standards.

National Green Hydrogen Mission

This mission, spearheaded by the Ministry of New and Renewable Energy, integrates the steel sector into the broader goal of producing and using green hydrogen, contributing to the decarbonisation of steel production. This will also assist in making India-made steel globally competitive, particularly in the regions which impose carbon tariffs.

Steel Scrap Recycling Policy

The Steel Scrap Recycling Policy was introduced in 2019, to ensure scientific processing, reuse, and efficient management of scrap, with the aim of reducing India's dependency on imported scrap. It promotes the creation of an organized and environmentally sustainable scrap eco-system by encouraging setting up of modern scrap processing centers. This initiative will help in lowering production costs and reducing CO₂ emissions. By enhancing scrap availability, the policy supports electric arc furnace (EAF) and induction furnace-based steel producers, which rely heavily on scrap. The policy, thus, aligns with the goal of resource efficiency and circular economy in the steel sector.

Domestically Manufactured Iron & Steel Products (DMI&SP) Policy

The DMI&SP Policy, implemented by the Ministry of Steel in 2017, mandates government procurement agencies to give preference to domestically manufactured iron and steel products in public projects. It aims to boost local manufacturing, improve capacity utilization, and reduce import dependency. The policy requires a minimum local content percentage in steel products used for government-funded projects (unless quality or availability constraints are proven). This initiative strengthens the domestic steel industry by creating assured demand and supporting Make in India objectives.

Investment scenario in domestic infrastructure

The government's focus on infrastructure development was evident in budget 2025-2026 allocations.

- The government allocated a capital expenditure of Rs 11.21 trillion for the infrastructure sector
- The government announced a capital outlay of Rs 0.2 trillion for the nuclear energy sector, under which five indigenously developed small modular reactors will be operational by 2033
- The government announced to set up a Rs 250 billion Maritime Development Fund

- The government announced opening greenfield airports in Bihar and unveiled a new UDAN (Ude Desh ka Aam Naagrik) scheme to enhance regional connectivity to 120 new destinations and carry 40 million passengers in the next 10 years
- The centre proposed an outlay of Rs 1.50 trillion for the 50-year interest-free loans to states for capital expenditure and incentives for reforms
- The government extended the Jal Jeevan Mission till 2028, focusing on quality infrastructure and rural piped water supply schemes
- The government announced the establishment of a Rs 1 trillion Urban Challenge Fund to implement proposals for 'Cities as Growth Hubs', 'Creative Redevelopment of Cities' and 'Water and Sanitation', as announced in Interim Budget 2024. Under this, an allocation of Rs 0.1 trillion has been proposed for fiscal 2026

Key government-led initiatives in domestic infrastructure space

- Transportation sector

Pradhan Mantri Gati Shakti: The PM Gati Shakti National Master Plan (NMP), launched in 2021 aims to provide seamless and efficient connectivity for the movement of people, goods, and services across various modes of transport, thereby enhancing last-mile connectivity and reducing travel time. A milestone of assessing a total of 208 big-ticket infrastructure projects worth Rs.15.39 trillion under PM Gati Shakti has been achieved.

- Highways and roads sector

Bharatmala Pariyojana: The Government of India has undertaken several initiatives to enhance and strengthen the National Highways network through flagship programmes such as the Bharatmala Pariyojana which includes the subsumed National Highway Development Project (NHDP), the Special Accelerated Road Development Programme for the North-East Region (SARDP-NE), and many more ongoing projects. As a result of these initiatives, national highway construction pace rose 2.8 times from 12.1 km/day in 2014-15 to 33.8 km/day in 2023-24. As on February 28, 2025, 26,425 km of projects awarded under the planned 34,800 km, with 19,826 km already constructed. The total Expenditure incurred under Bharatmala Pariyojana amounts to Rs. 4,92,562 crore. Till February 2025, 6,669 km of high-speed greenfield corridors awarded, of which 4,610 km have been completed.

Pradhan Mantri Grameen Sadak Yojana: This scheme aims to provide connectivity to unconnected habitations as part of a poverty reduction strategy. In 2006-2007, 1,07,370 km of roads were completed under the PMGSY, with a total expenditure of Rs 107.69 billion. In 2014-15, 4,19,358 km of roads were completed with a total expenditure of Rs 1,301.49 billion and in 2024-25, 7,71,950 km of roads were completed with a total expenditure of Rs 3,315.84 billion.

- Civil aviation

Ude Desh ka Aam Nagrik (UDAN): UDAN aims to bring essential air travel access to previously isolated communities and boost regional economic development. The number of operational airports in India in 2014 were 74, which by September 2024, had increased to 157.

- Shipping and ports sectors:

Approximately 95% of the country's trade by volume and 70% by value is moved through Maritime Transport. Cargo handling capacity has increased from 800.5 million tonnes per annum in 2014 to 1,630 million tonnes per annum in 2024.

- Railways sector

The manufacturing of Linke-Hofmann-Busch (LHB) coaches has increased from 2,209 coaches in year 2006-2014 to 31,956 coaches in year 2014-2023. During 2004-14, 14,985 route kilo meters (RKM) of rail track work was done whereas during 2014-23, 25,871 RKM of track laying work has been done. In the year 2022-23, per day 14 km track was laid. The railway industry witnessed significant growth in 2024-25, with notable increases in the production of coaches, wagons, and locomotives. A total of 7,134 coaches were produced, marking a 9% increase from the previous year's production of 6,541 coaches. Additionally, wagon production surged to 41,929 units, exceeding the 37,650 units produced in 2023-24. Furthermore, locomotive production saw a 19% rise, with 1,681 units manufactured in 2024-25, up from 1,412 units in the previous year.

- Urban affairs and housing sectors

Smart cities mission: Total projects amounting to Rs 1,647.06 billion have been planned, of which projects amounting to Rs 1,543.51 billion have been completed, as per the data provided by 100 Smart Cities as of January - February 2025.

Swachh Bharat Mission (SBM): Under SBM Urban 2.0, there has been a 97% increase in the urban waste collection from 2014-15 to 2024-25.

Pradhan Mantri Awas Yojana (PMAY): During 2004-14, 1.346 million houses were approved, which substantially increased in the 2015-2024 period, when 11.864 million houses were approved under PMAY-Urban.

- Metro rail sector

Average metro rail lines commissioned per month increased from 0.68 km before fiscal 2014 to 6 km per month between 2014-2024. As a result, the number of cities with operational metro rail increased from 5 till 2014 to 23 as of fiscal 2025

- Water supply and sanitation

Atal Mission for Rejuvenation and Urban Transformation (AMRUT): In last 10 years (2015-2025 period), 20.3 million tap connections and 15 million sewer connections have been provided under AMRUT & AMRUT 2.0. A total of Rs 2.73 trillion worth of projects were sanctioned during this period, out of which projects worth Rs 1.12 trillion have been completed.

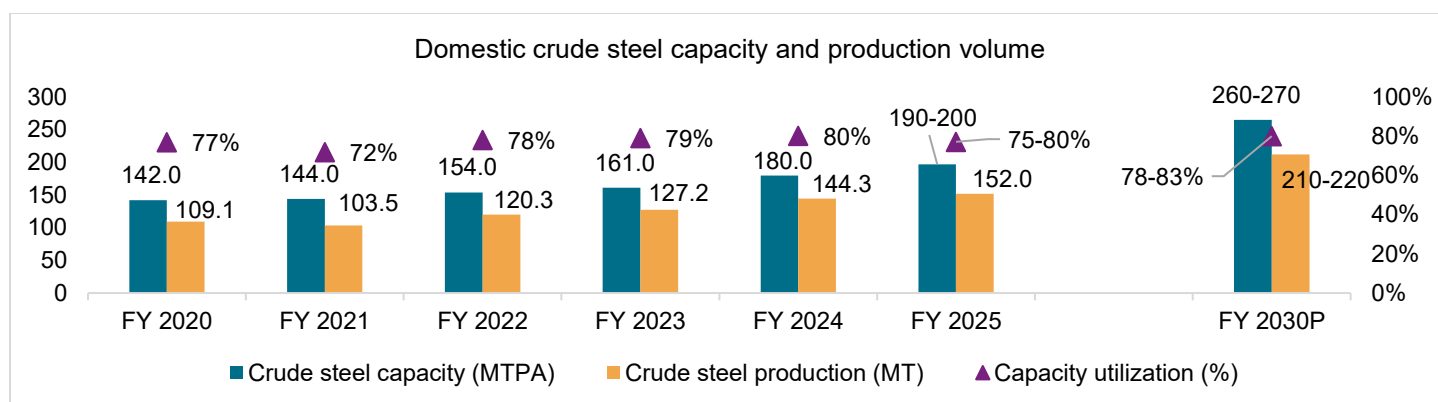
Jal Jeevan Mission (JJM): As of February 2025, this mission had provided 122 million tap-water connections, increasing the total tap-water connections in rural India to 154.4 million households. This scheme was launched in 2019, when only 17% of the rural households in India had access to tap-water connections. As of June 2025, the percentage coverage increased to close to 81%.

Har Ghar Nal Yojana is another government sponsored scheme which is drawing investments towards water supply and sanitation segment of infrastructure industry.

Note: Overall, the infrastructure segment accounts for 28-30% of the aggregate finished steel demand. Within the segment, roads and highways, and railways (including metros) account for 50-60% of segment's steel demand. Other significant contributors include sectors such as irrigation, dams, water supply and sanitation.

Domestic steel supply

Crude steel supply (capacity and production)



Source: Crisil Intelligence, industry, JPC; MT: million tonnes; MTPA: million tonnes per annum

India's supply side of steel (both crude and finished) has remained on a growth trend since fiscal 2021 when it declined on-year owing to pandemic led disruptions. Between fiscals 2020-2025, the crude steel production volume increased at a CAGR of 6.8% to 152 million tonnes in fiscal 2025. The growth in the production volume during the period came as a result of increase in domestic demand of steel primarily from infrastructure and construction segment. Going forward, the crude steel production is expected to reach 210-220 million tonnes by fiscal 2030 on the back of government's push for domestic steel production through Make In India, PLI, etc. and an expected reduction in dependence on imports simultaneously. To support the domestic steel manufacturing, the domestic crude steel capacity is also expected to increase from an estimated 190-200 million tonnes in fiscal 2025 to 260-270 million tonnes in fiscal 2030. As a result, the capacity utilization of the steel industry is expected to increase from 75-80% in fiscal 2025 to 78-83% in fiscal 2030.

Investment scenario in domestic steel manufacturing industry

As of fiscal 2024, India's crude steel capacity was ~179 MTPA, which is estimated to have grown to 195-200 MTPA in fiscal 2025. With the growing demand for steel in the domestic end-use industries such as infrastructure and automobile, domestic steel producers are planning to ramp up their production output by increasing their manufacturing capacities and improving capacity utilisation levels.

- Over the period between fiscals 2025-2027, India is expected to add a total of 30-35 million tonnes of annual crude steel manufacturing capacity, in lines with that planned by ASEAN⁸ countries during this period (30-35 million tonnes) and exceeding that planned by Middle Eastern countries (8-10 MT) during this period, which are also investing heavily in the steel sector
- Between fiscals 2025-2029, India is expected to add approximately 50 million tonnes of annual crude steel manufacturing capacity in total.

Current and planned crude steel manufacturing capacities at key Indian steel producers

Steel producer	FY24 capacity (MTPA)	FY25E capacity (MTPA)	FY29 projected capacity (MTPA)
SAIL	20	20	23
RINL	7	7	7
Tata Steel Ltd	21	26	30
AMNS	10	10	15
JSW Ltd	28	34	41
JSPL	10	10	16

⁸ The Association of Southeast Asian Nations comprising 10 countries in Southeast Asia

NMDC	3	3	3
Others	81	88	112
Total	179	195-200	240-250

SAIL: Steel Authority of India Ltd, RINL: Rashtriya Ispat Nigam Ltd, JSPL: Jindal Steel and Power Ltd

Note: Tata Steel Ltd includes capacities of Bhushan Steel Ltd (BSL) and Neelachal Ispat Nigam Ltd. (NINL); JSW Ltd includes capacities of Bhushan Power & Steel Ltd (BPSL) and Monnet Ispat & Energy Ltd

Source: Crisil Intelligence, industry

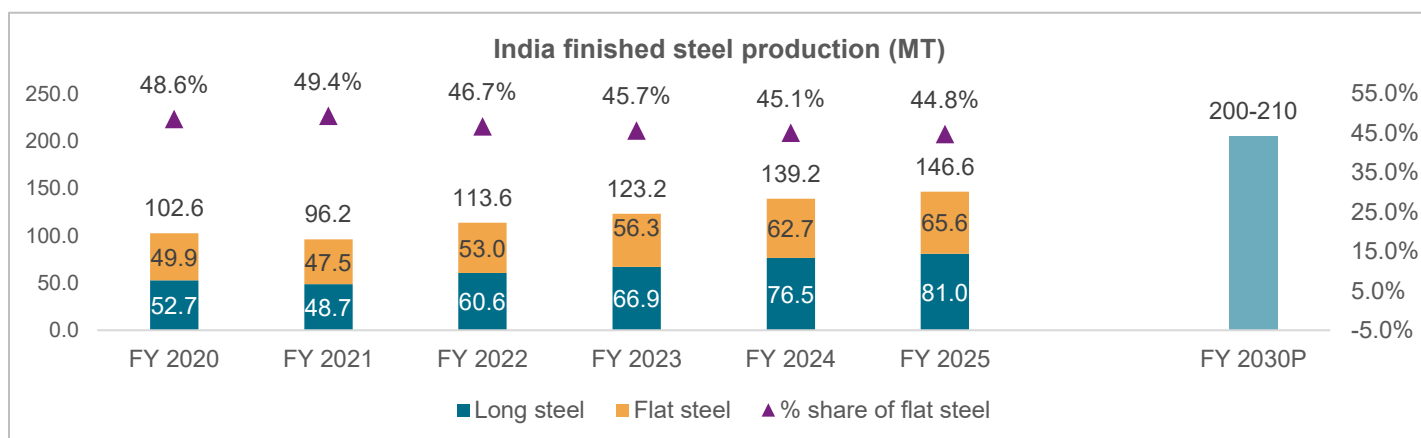
Finished steel supply by type of steel: By product type



Long products: Finished long steel products are typically produced by hot-rolling/forging of blooms/billets/ingots into useable shape/sizes. These are generally supplied in straight length/cut length, except wire rods, which are supplied in wound coils. The different types of long products include bars and rods (thermo-mechanically treated bars, wire rods, round bars, etc.), structural steel (angles, channels, beams, fabricated sections, girders, etc.), and railway materials.



Flat products: Flat products are produced from slabs/thin slabs in rolling mills using flat rolls and comprise HR and CR coils, coated products, etc. HR flat products are produced by re-rolling slabs/thin slabs at high temperatures (above 1,000°C) in plate mills or hot strip mills. CR coils/strips are produced by cold-rolling HR coils/strips in cold-rolling mills (generally at room temperature). CR coils/strips/sheets have lower thickness, better/bright finish and specific mechanical/metallurgical properties.



Source: Crisil Intelligence, industry, Joint Plant Committee (JPC)

Note: FY 2025 figures are as per provisional data released by JPC in its March 2025 report

The share of flat steel in the domestic finished steel production decreased from over 49% in fiscal 2021 to 45% in fiscal 2025, owing to an increased competition from low-priced flat steel produced in south Asian countries, in domestic as well as export markets.

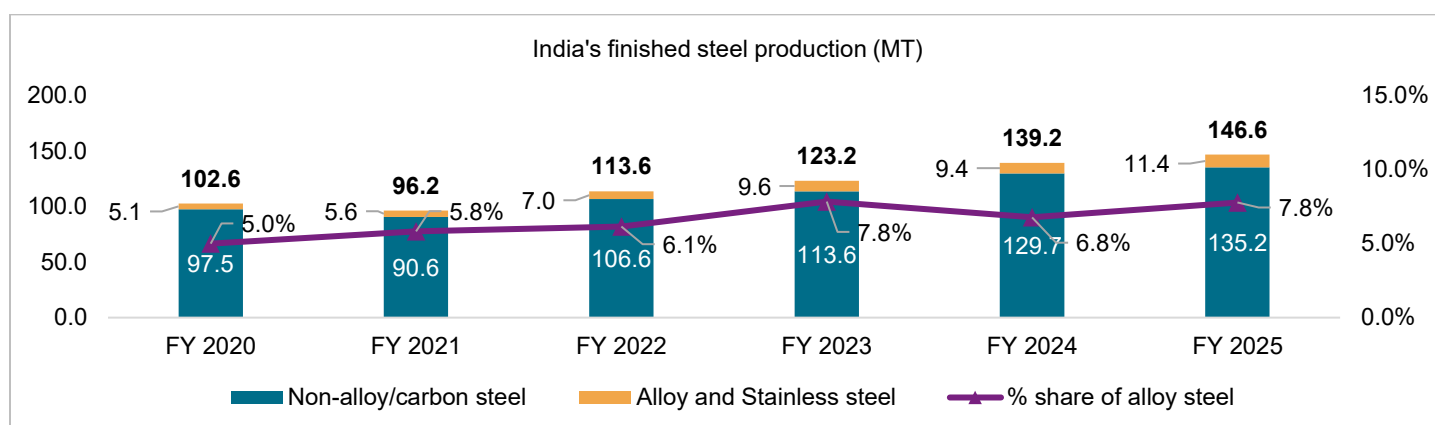
The production volume of finished steel, which increased at a CAGR of 7.4 between fiscals 2020-2025, is expected to increase at a CAGR of 6.5-7.5% between fiscals 2025-2030 to clock 200-210 million tonnes in fiscal 2030.

Finished steel supply by type of steel: By composition

Alloy and stainless steel: Alloy and stainless steel are manufactured in various grades and produced with one or more elements of carbon, manganese, silicon, nickel, copper, lead, chromium, tungsten, molybdenum, niobium and vanadium in specified proportions to impart specific physical, mechanical, metallurgical and electrical properties

Alloy and stainless steel are used in forgings, tools and dies, bearings and fasteners, which are used by the automobiles, power, oil and gas, industrial machines, railways/ mass rapid transport systems and defence sectors to manufacture crankshafts, connecting rods, camshafts, bearings, fasteners, railway carriage wheels, bombshells, cutting tools, surgical instruments and utensils.

Non-alloy steel: Non-alloy or carbon steel comprises iron and carbon. It is the most produced variant of steel. In the past five years, non-alloy steel constituted 93-95% of India's finished steel production. The main components of non-alloy steel are carbon, manganese and silicon in proportions of up to 1.70%, 0.90% and 0.30%, respectively. A change in the composition of carbon affects the properties of carbon steel. Steel does not contain any alloying element. Non-alloy steel is used in the construction, infrastructure, automobiles and consumer durables sectors. Popular applications include buildings, bridges, rails, pipelines, body panels for cars, refrigerators and washing machines.



Source: Crisil Intelligence, Industry, JPC

Similar to crude steel production growth, the finished steel production also grew at a CAGR of 7.4% between fiscals 2020 and 2025 to clock 146.6 million tonnes in fiscal 2025, up from 102.6 million tonnes in fiscal 2020. The share of alloy and stainless steel in total finished steel production grew from 5% in fiscal 2020 to 7.8% in fiscal 2025 owing to a stronger increase in demand of steel from sectors such as infrastructure, automobile, defence, renewable energy, aerospace, etc., which prefer consumption of stronger and more durable alloy and stainless-steel grades over carbon steel grades.

Emerging trends on supply side

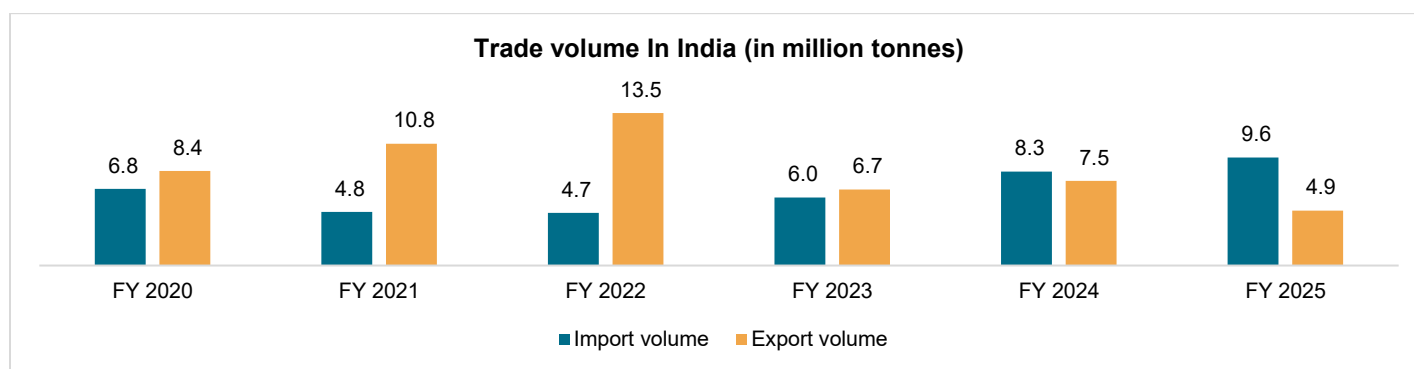
As per the National Steel Policy, the government aims to achieve 300 million tonnes of crude steel manufacturing capacity with a contribution of 35-40% from electric arc furnace / induction furnace (EAF/IF) route of manufacturing, implying that the share of EAF/IF route of steel manufacturing will increase in domestic steel manufacturing industry. Further, multiple initiatives such as Green steel mission, National Green Hydrogen Mission, and Steel Scrap Recycling Policy are expected to change the dynamics of supply side in the domestic steel industry.

Further, Quality Control Order of 2024 has provided guidelines aimed at protecting consumer's interests. Originally introduced in February 2016 by the Ministry of Steel, the Quality Control Order (QCO) was implemented for stainless steel flat products to safeguard consumer interest, by banning substandard or defective steel products (both domestic and imports). Under subsequent revisions to the Quality control Order, the stainless steel products were merged into Steel and Steel products QCO, 2024. This order captured standards for stainless steel bars, flats, blooms, billets, slab, plate, sheet, tubes, pipes, wire and strip. However, the domestic manufactured steel and steel products conforming to any other

specification required by foreign buyers for export are exempted. Each product specified under this Order must adhere to the corresponding Indian Standards, effective immediately upon implementation, and be accompanied by a Test Certificate with the Standard Mark issued by a certified manufacturer under the Bureau of Indian Standards. Such measures and standards continue to promote quality supply and access to stainless steel products in domestic markets. QCO prohibits manufacturing, import, storage, sale and distribution of stainless steel products by trade and industry without BIS registration. The government will continue to further strengthen the standards through subsequent revisions to the standards.

Finished steel trade

Import/export volume of finished steel to/from India (FY 2020 – FY 2025)



Source: Crisil Intelligence, industry, JPC

The import volume of finished steel in India decreased at a CAGR of 17% between fiscals 2020 and 2022 owing to a low growth in demand for finished steel during the period, which was largely fulfilled by a strong rise in domestic production during the period. However, between fiscals 2022 and 2025, the imports rebounded and surged robustly at a CAGR of 27% primarily due to a strong rise in domestic demand and an increase in availability of low-priced steel imports manufactured in south-Asian and south-east Asian countries.

The export volume during fiscal 2020-2022 period increased at a strong CAGR of 27% to clock 13.5 million tonnes in fiscal 2022 on the account of diversion of domestically produced finished steel to export destinations in the absence of a robust demand domestically. However, in the period between fiscals 2022 and 2025, the export volume declined at a CAGR of 29% owing to an increase in competition in the export markets from lower priced finished steel supplied from the other south-Asian countries.

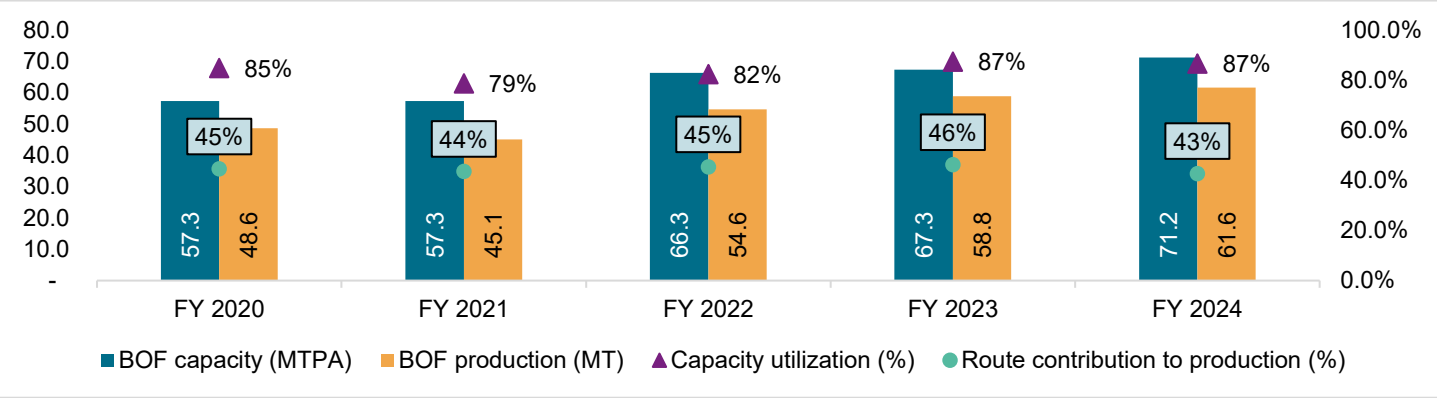
Key certifications required in the Indian steel industry

Certification category	Details
ISO 9001:2015	Quality Management System (QMS) certification
ISO 14001:2015	Environmental Management System (EMS) certification
ISO 45001:2018	Occupational Health and Safety Management System (OHSMS) certification
BIS Certification (Bureau of Indian Standards)	This certificate ensures that products adhere to national standards and specifications. For example, for TMT bars, IS 1786 and for hot rolled steel, IS 2062 standards are followed
Import export code (IEC)	The approving authority is Directorate General of Foreign Trade (DGFT). The certificate is mandatory in case a company plans to export its products or import any raw materials

Source: Crisil Intelligence, industry

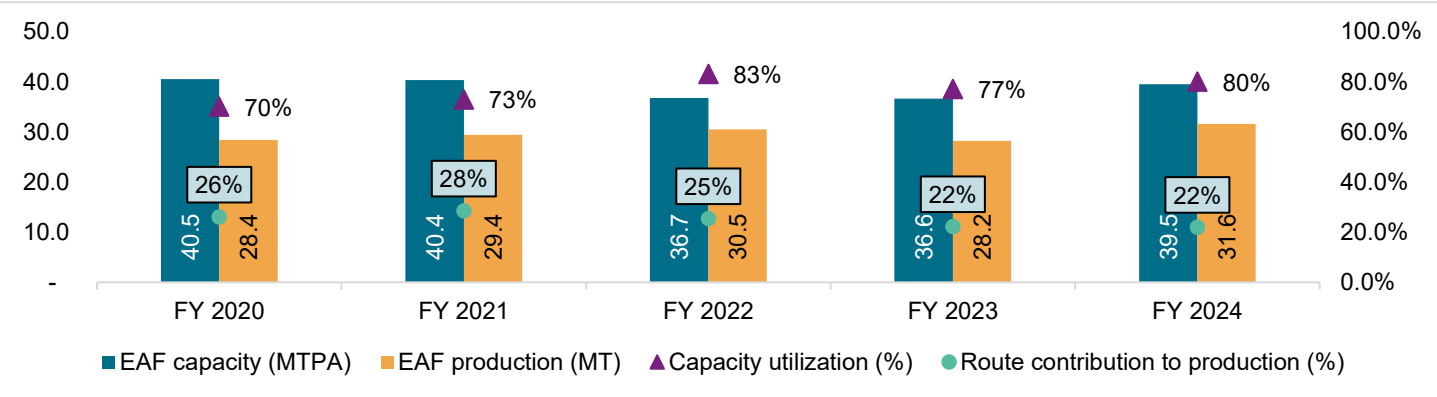
Route wise capacity and production trend

Basic oxygen furnace (BOF) route



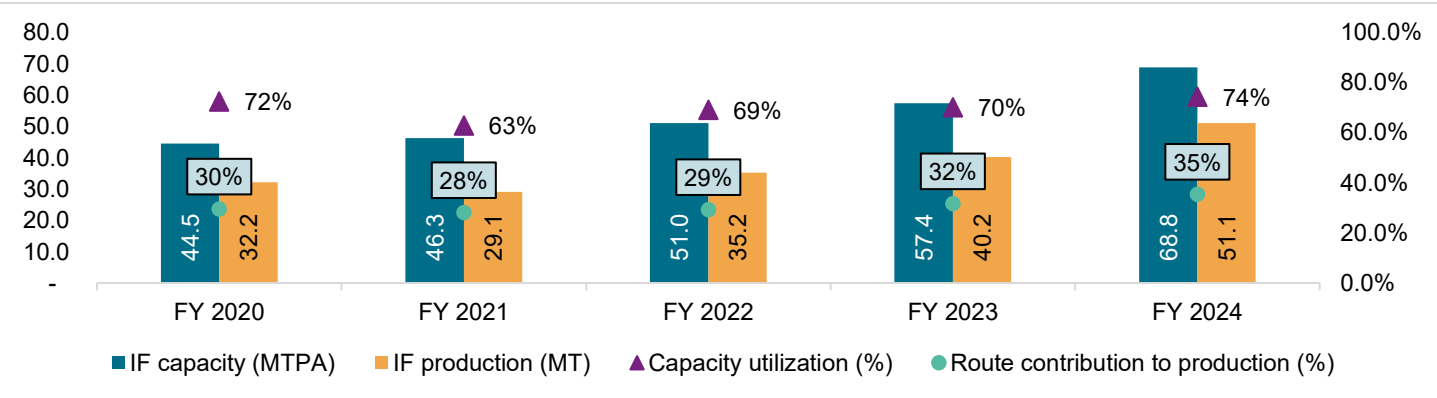
Source: Crisil Intelligence, industry, Joint Plant Committee (JPC)

Electric arc furnace (EAF) route



Source: Crisil Intelligence, industry, Joint Plant Committee (JPC)

Induction Furnace (IF) route

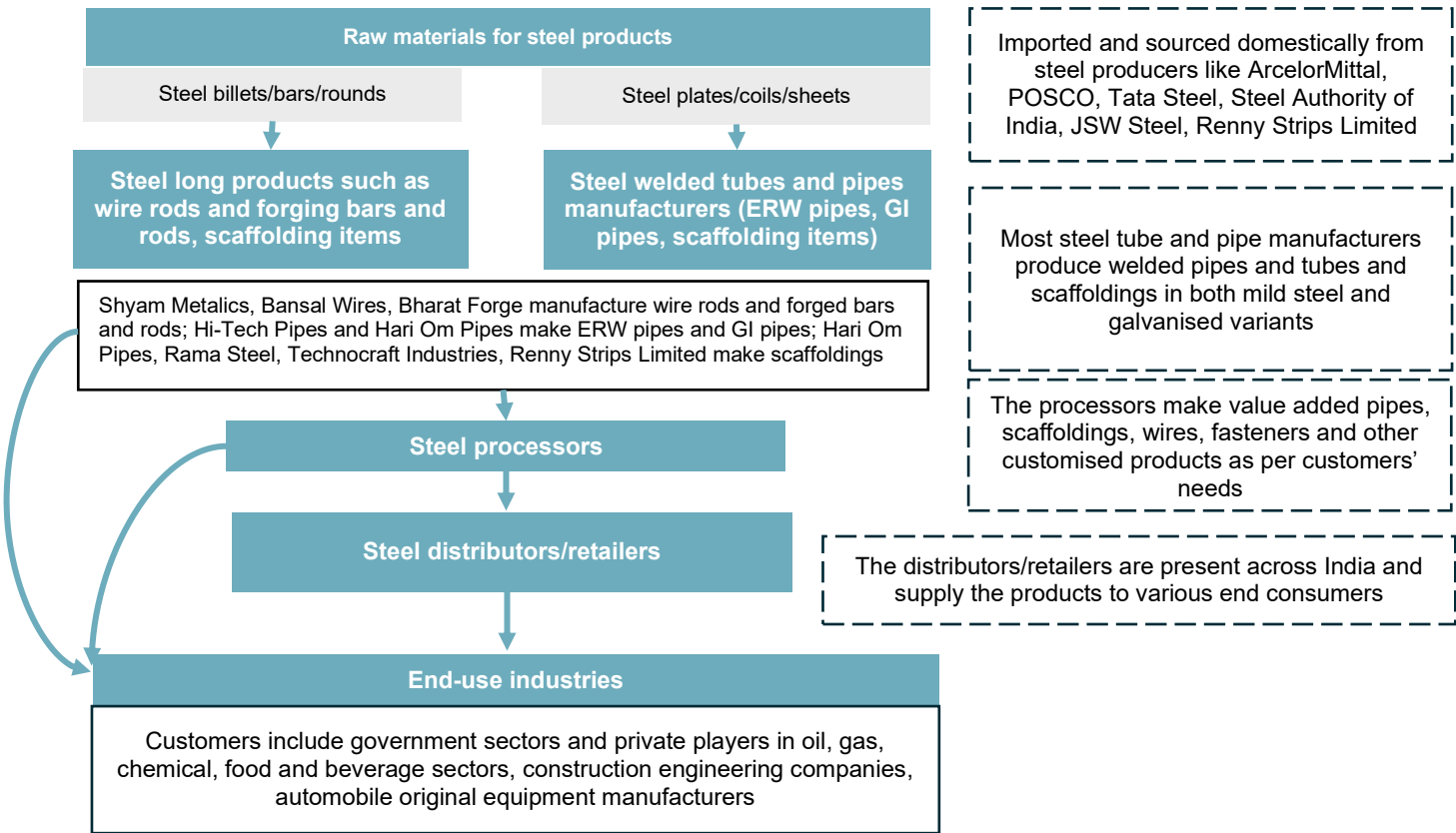


Source: Crisil Intelligence, industry, Joint Plant Committee (JPC)

The Indian crude steel production landscape has exhibited a notable trend over the fiscal years 2020 to 2024. The overall capacity utilization has consistently improved, reaching 80.4% in FY24, indicating a steady increase in production

efficiency. The Basic Oxygen Furnace (BOF) route has maintained a significant share of production, with its contribution ranging between 43% to 46% during the period. The Electric Arc Furnace (EAF) route, on the other hand, has seen a decline in its share, from 26% in FY20 to 22% in FY24, despite an increase in production. The Induction Furnace (IF) route has been gaining traction, with its contribution increasing from 30% in FY20 to 35% in FY24, driven by a significant rise in production.

2.3 Steel industry products value chain analysis



Source: Industry, Crisil Intelligence
GI: Galvanized iron, ERW: Electric resistance welded

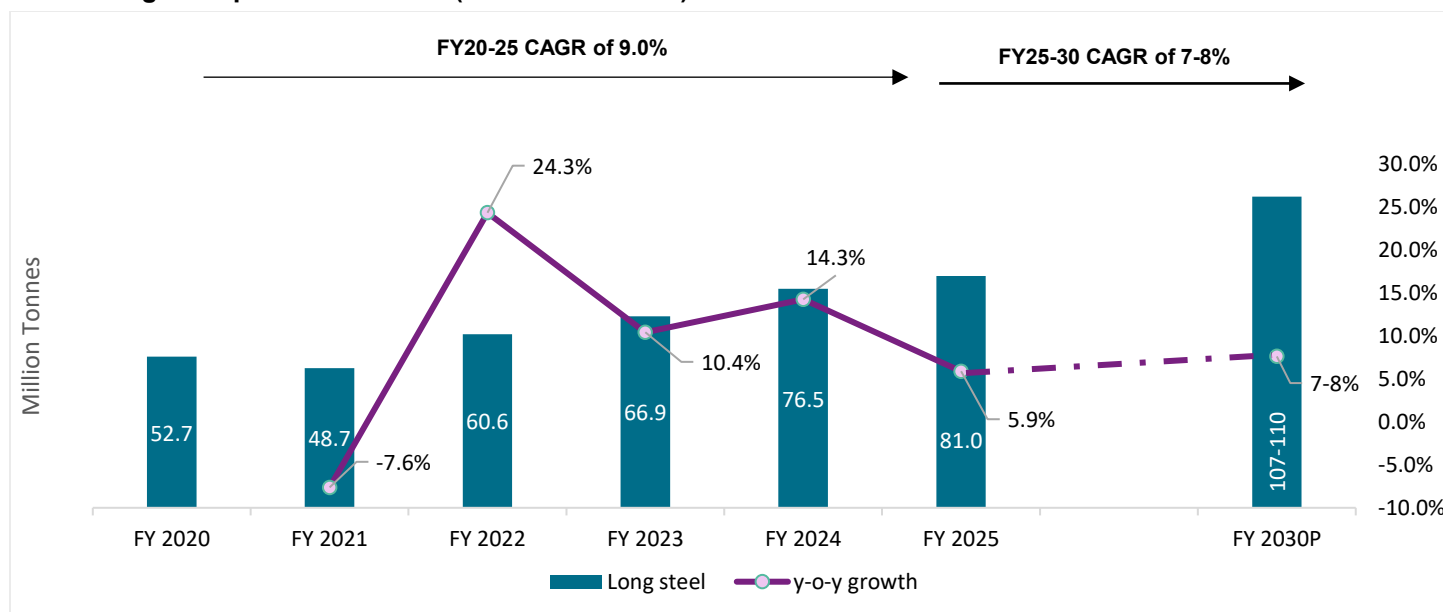
3 Steel market value chain assessment

3.1 Demand review and outlook: Long steel products

Long products: Finished long steel products are typically produced by hot rolling/forging of bloom/billets/ingots into useable shape/sizes. These are normally supplied in straight length/cut length, except wire rods, which are supplied in wound coils. The types of long products include bar and rods (thermo-mechanically treated (TMT) bars, wire rods, round bars, etc), structural steel (angles, channels, beams, fabricated sections, girders, etc), and railway materials.

India's finished steel production saw robust growth from FY20 to FY25 — from 102.6 MT to 146.6 MT — driven by a higher growth rate in the production of long steel production than flat steel. Long steel output increased from 52.7 MT to 81.0 MT, a CAGR of 9.0%. Output of flat steel grew from 49.9 MT to 65.6 MT, a CAGR of 5.6%. The share of long steel in overall steel production rose from 51.4% in FY20 to 55.2% in FY25, due to demand from the infrastructure and construction sectors.

India's long steel production trend (in Million Tonnes)



Source: JPC, Crisil Intelligence

India's flat steel market is fairly organized with top 7 players such as Tata Steel Limited, JSW Steel, SAIL, ArcelorMittal and Nippon Steel (AM/NS), JSPL, RINL and NSL producing 87% of the total flat steel produced in the country while the rest being distributed between smaller players and re-rollers.

Unlike flat steel, long steel market is fragmented with top 7 players producing around ~28% of the total long steel produced while the rest are being distributed amongst more than 1032 IF units and 1207 re-rolling units present in India till Fiscal 2024. The share of key ISPs producing long steel increased from 23% in Fiscal 2018 to 28% in Fiscal 2025 on back of following reasons:

- With rise in infrastructure demand, and increased spendings made by Government in the past few years, long steel demand has registered a strong growth of CAGR 9.7% during Fiscals 2020-24. The rising demand has attracted investments from key ISPs towards expanding their footprint in long steel-making thus leading to increased share

- Over the past few years, steel industry has witnessed market consolidation in both long steel and flat steel segment due to the secondary players facing operational and liquidity issues
- With changing construction practices of using high strength products, ISPs have managed to capture the trend and service the needs of consumers with their higher quality products, thus leading to increased share

Industry structure in long steel production



Note: Key ISPs include Tata Steel, SAIL, JSW, JSPL, AMNS, NSL and RINL. Rest all are secondary players

Source: JPC, Crisil Intelligence

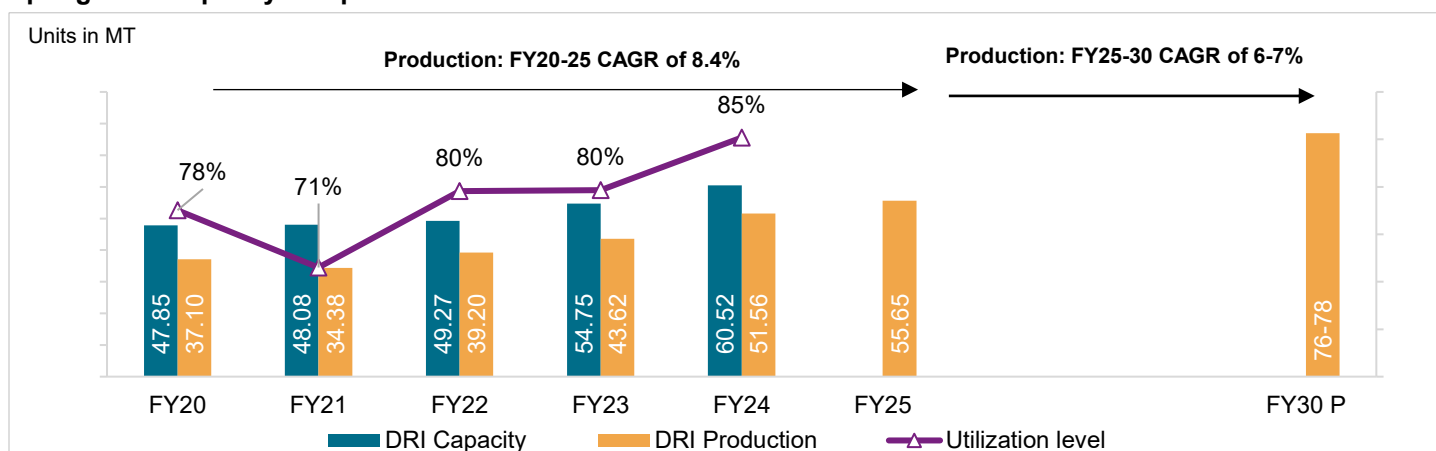
3.2 Demand review and outlook: sponge iron

Sponge iron, also termed direct-reduced iron (DRI), is produced by reducing (removing oxygen) iron ore to increase free iron content. This also makes the ore porous. Sponge iron is popularly used as a feed in electric/induction furnaces and as a substitute for steel scrap because high-quality scrap is costly and scarcely available.

The Indian sponge iron industry witnessed significant growth, driven by robust demand for long steel and a slower ramp-up by major players, resulting in increased blending of sponge iron. Consequently, production of sponge iron expanded at a compound annual growth rate (CAGR) of 8.4% from FY20 to FY25.

In FY25, sponge iron production recorded a moderate year-on-year growth of 8%, primarily fueled by the rising demand for long steel. The estimated production volume for FY25 stands at 55.5 million tons. This growth is largely attributed to an 8-9% increase in secondary long steel production via the Electric Arc Furnace (EAF) and Induction Furnace (IF) routes, primarily driven by mid-sized and small industry players.

Sponge iron capacity and production review

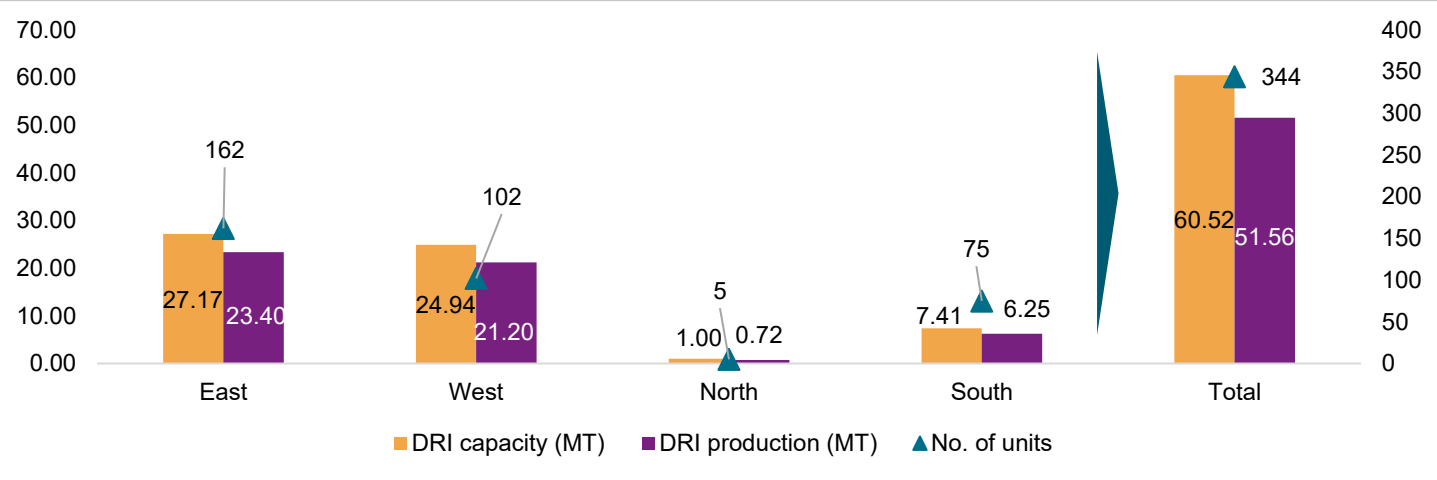


E: Estimated, P: Projected

Source: JPC, Crisil Intelligence

Sponge iron industry is fragmented in India with around 344 units with an operational capacity of 60.52 MT as of Fiscal 2024. These units had a gross production of around 51.56 MT as of Fiscal 2024 thereby yielding a utilization level of around 85%. The capacity increased from 47.85 MT in Fiscal 2020 to 60.52 MT in Fiscal 2024.

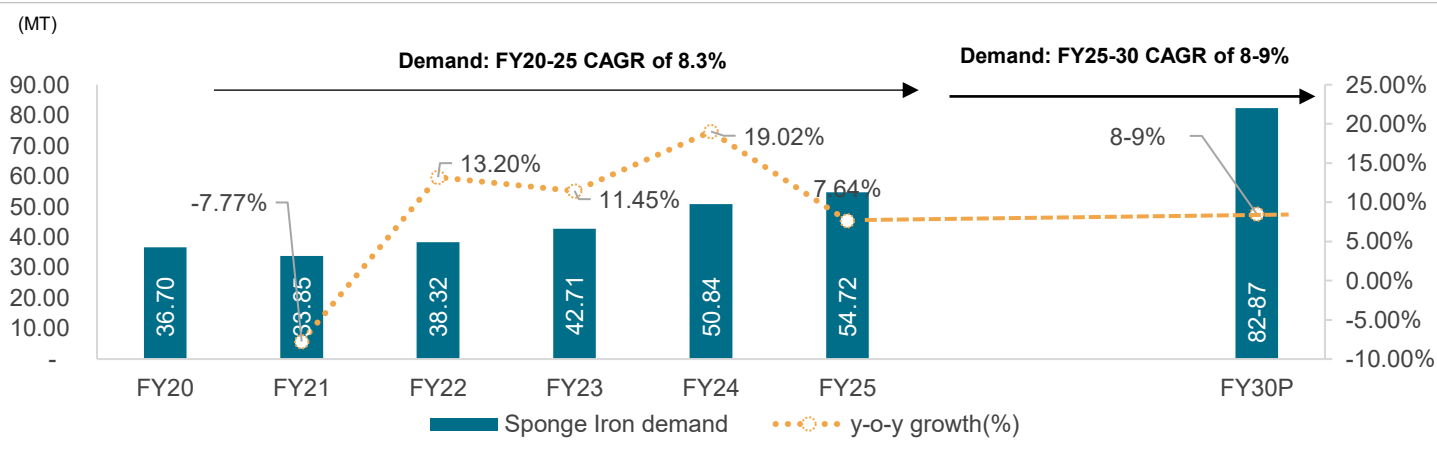
Spread of DRI units and production done across regions in Fiscal 2024



Source: JPC, Crisil Intelligence

The majority of medium and small iron and steel producers are not integrated, and hence, they import scrap at high prices. These producers used scrap to manufacture long products as an input in the electric arc furnace (EAF) or induction furnace (IF). Sponge iron can substitute scrap while manufacturing crude steel through the EAF/IF route. As a result, the scarcity in scrap supplies and a rise in its prices led to higher domestic demand for sponge iron.

Sponge iron demand review and outlook



P: Projected

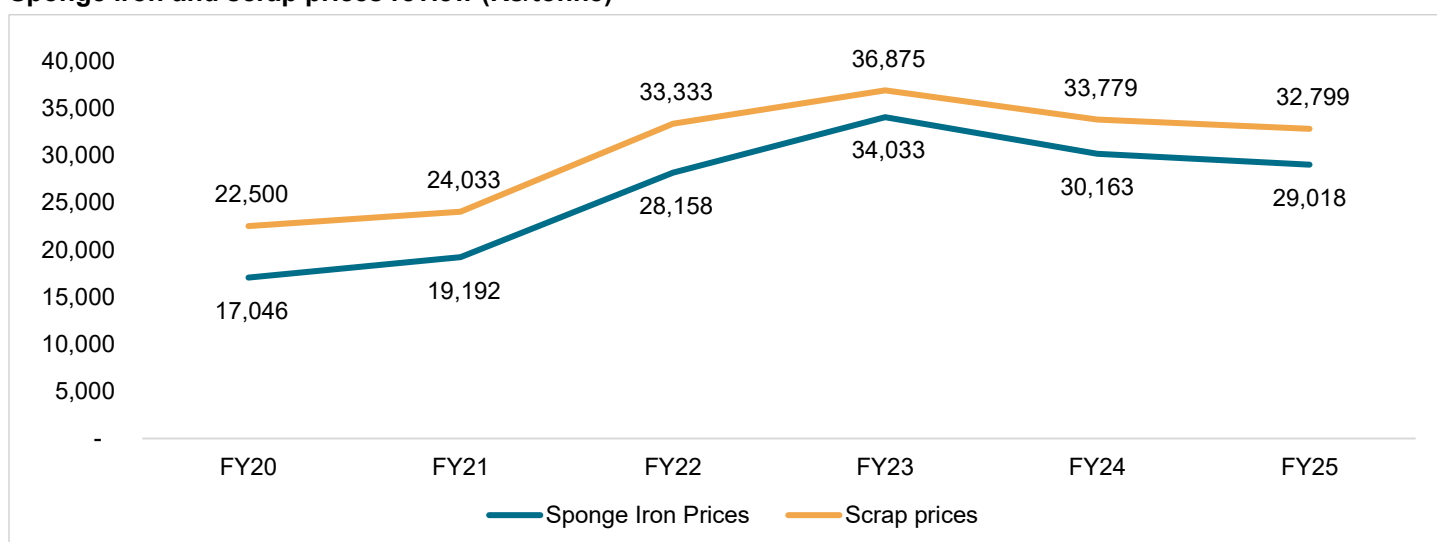
Source: JPC, Crisil Intelligence

Sponge iron is a vital raw material, alongside pig iron and scrap, utilized in the production of steel through induction furnaces and electric arc furnaces. The majority of steel produced via these furnaces is subsequently converted into long products. The sponge iron sector is predominantly driven by domestic demand, with international trade playing a relatively minor role, accounting for a mere 2-4% of total production through exports and imports. As a result, the sector's performance is closely tied to the domestic steel industry's demand for long products.

The following factors are expected to continue to influence sponge iron production:

1. **Increasing competition from large players:** The market share of large players utilizing the Blast Furnace/Basic Oxygen Furnace (BF/BOF) route in long steel production has expanded from approximately 24% in fiscal 2014 to 28% in fiscal 2025 (31% in fiscal 2024). Steel manufactured using the BF/BOF route is considered to have superior tensile strength due to lower sulfur and phosphorus content. With no new steel capacities expected in the long steel sector, increasing demand is likely to support the growth of the long steel industry.
2. **Price differential with substitutes (scrap):** Scrap is a direct alternative to sponge iron in the steel production process, offering a higher conversion yield. In fiscal 2025, scrap prices faced downward pressure due to weak EU steel production and declining global steel prices. However, with the EU and US likely to increase their domestic steel output following amended tariff-rate quotas and import duty/tariffs, scrap availability is expected to decrease in trade markets, potentially leading to a price increase in fiscal 2026. This development would have a positive impact on sponge iron blending and is a key factor to monitor. Additionally, regulatory changes in China, such as production cuts, and scrap export policies in developed economies are crucial to watch, as they could potentially lead to an upside in the forecast. The interplay between scrap prices, steel production, and regulatory changes will be pivotal in determining the outlook for the sponge iron industry.

Sponge iron and scrap prices review (Rs/tonne)



Note: Scrap prices are excluding GST

Source: Crisil Intelligence

Conventionally, sponge iron prices move in tandem with scrap prices, after correcting for quality differences (the metallic yield in scrap is >90% as compared to ~85% in sponge iron).

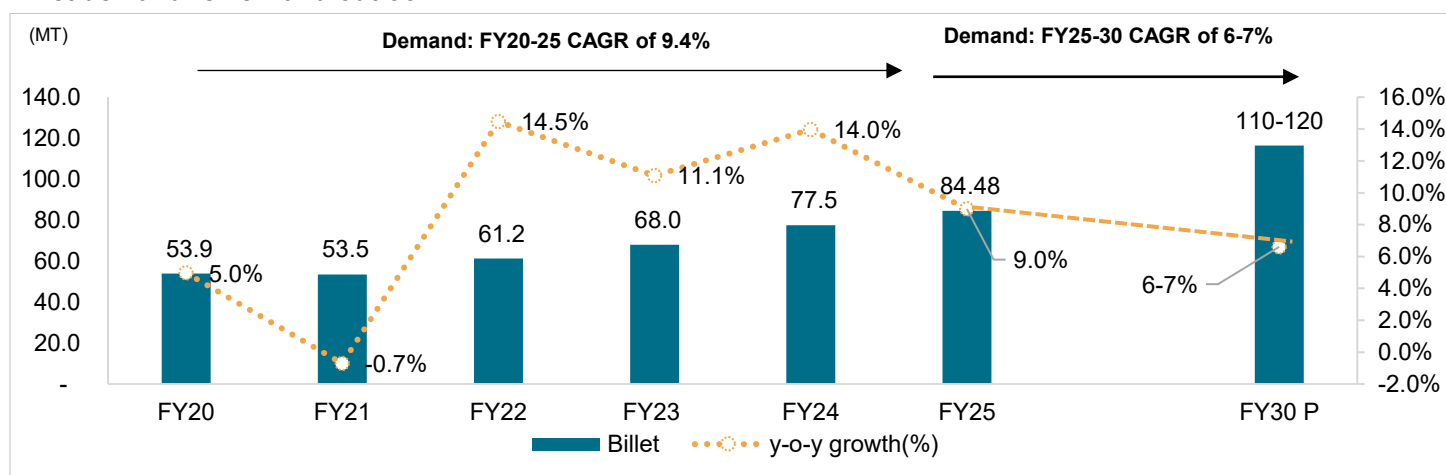
The sponge iron industry has experienced significant price fluctuations in recent years, driven by various factors. In Fiscal 2022, prices rallied by 46% year-on-year due to increased iron ore and pellet prices, as well as shortages of thermal coal and gas, which led to lower utilization rates at plants. The Russia-Ukraine crisis further exacerbated the situation, resulting in a 25% quarter-on-quarter price spike in the fourth quarter. In Fiscal 2023, prices rose by 21% year-on-year, despite low iron ore costs, as non-integrated players had procured inventory at elevated costs. However, prices corrected sharply from September to December 2022 due to cooling global demand and easing thermal coal and scrap prices. The trend reversed in January 2023, with prices gradually rising due to supply shortages caused by plant shutdowns in Odisha, a major DRI manufacturing region. Furthermore, the rollback of export duties on iron ore and pellets in November 2022 led to an increase in prices of these raw materials. Looking ahead, the industry's outlook is closely tied to the dynamics of scrap prices, which are currently under pressure due to weak EU steel production, but are likely to increase in Fiscal 2026 as the EU and US boost domestic steel output, leading to decreased scrap availability in trade markets, and potentially positively impacting sponge iron blending. Regulatory changes in China and scrap export policies in developed

economies will also be crucial in determining the industry's trajectory. For fiscal 2026, prices are projected to decline to a range of Rs 27,000 to Rs 29,000 per tonne, driven by an expected 8-10% increase in supply and 8% fall in thermal coal costs.

3.3 Demand review and outlook: Billets

Billets consumption has largely moved in conjunction with long steel production at 7.5% CAGR during Fiscal period 2020-24. The growth in production of long steel slowed in Fiscal 2021 amid the pandemic, as construction and infrastructure activities were halted due to multiple lockdowns, leading to sluggish demand.

Billet demand review and outlook



P: Projected

Source: JPC, Crisil Intelligence

We anticipate that India's billet consumption will experience a 6-7% compound annual growth rate (CAGR) between Fiscals 2025 and 2030, driven by the following key sectors:

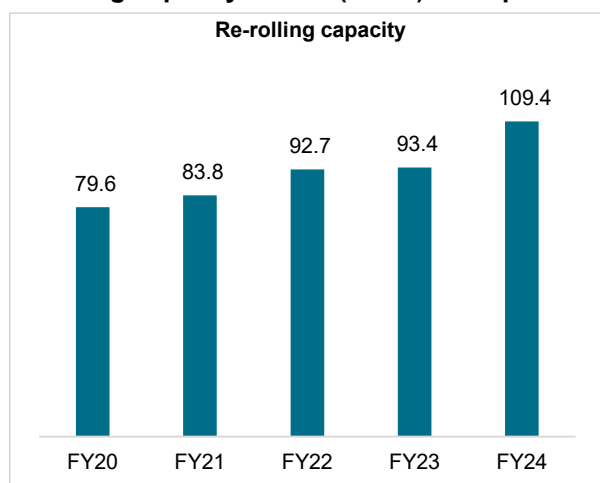
- Building and Construction:** This segment, accounting for 35-40% of steel demand, is expected to grow at 9-11% year-on-year, driven by government investments in affordable housing, rural development, and commercialization of Tier III and IV cities. Over the next five years, steel demand from this segment is expected to log a CAGR of approximately 6%.
- Infrastructure:** The infrastructure sector, accounting for 30-32% of steel demand, is expected to grow at 10-12% year-on-year, driven by the execution of national highway and high-value expressway projects, investments in dedicated freight corridors, network decongestion, and bullet train projects. The National Infrastructure Pipeline spend of Rs 111 lakh crore by Fiscal 2025 is a key driver of growth in this sector.
- Automobile:** The automobile sector, accounting for 5-7% of steel demand, is expected to grow at 3-5% year-on-year, driven by rising population, increased disposable incomes, and ease of availability of credit and financing. The market is expected to see higher demand for commercial vehicles from the flourishing logistics and passenger transport sectors.

These sectors are expected to drive growth in India's billet consumption over the next six years, with the building and construction segment and infrastructure sector being the primary drivers of demand.

3.4 Demand review and outlook: TMT bars

India houses 1,224 re-rolling units in Fiscal 2024 which produced a total of 81.23 MT of finished steel products. During the Fiscal period 2020-24, India has seen an increase of ~33 MT capacity addition. India has witnessed high infrastructure growth in the past few years with increased investments from Central and State Government. This drives the demand for long steel products thus attracting investments from primary and secondary players in the re-rolling segment. With these new capacities becoming operational, the re-rolling production has registered an increase of CAGR 8.3% during the Fiscal period 2020-24.

Re-rolling capacity review (in MT) and spread across India in Fiscal 2024

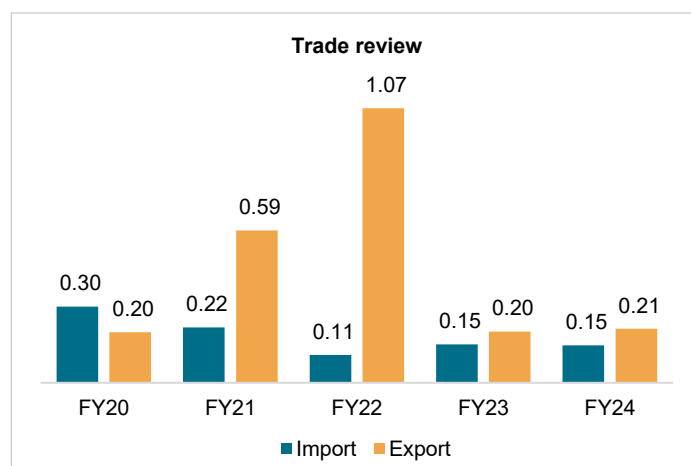
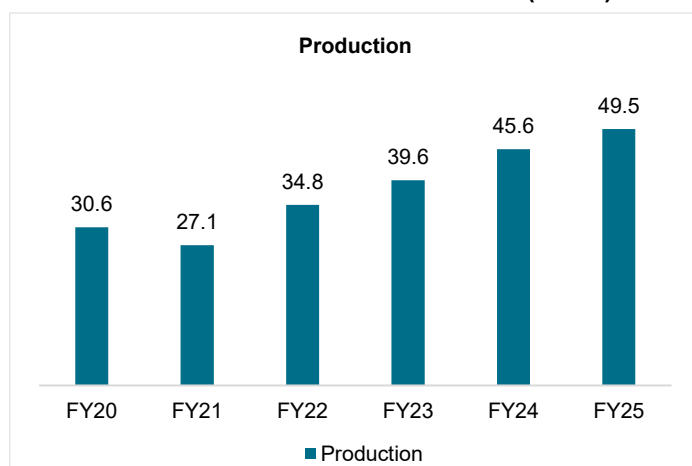


Region	No. of Units	Total capacity
East	148	27.15
West	411	39.05
North	442	21.77
South	223	21.45
Total	1224	109.41

Source: JPC, Crisil Intelligence

Out of the total re-rolling production done in India, TMT constitutes nearly 50-55% of it.

Production and trade review of TMT bars (in MT)

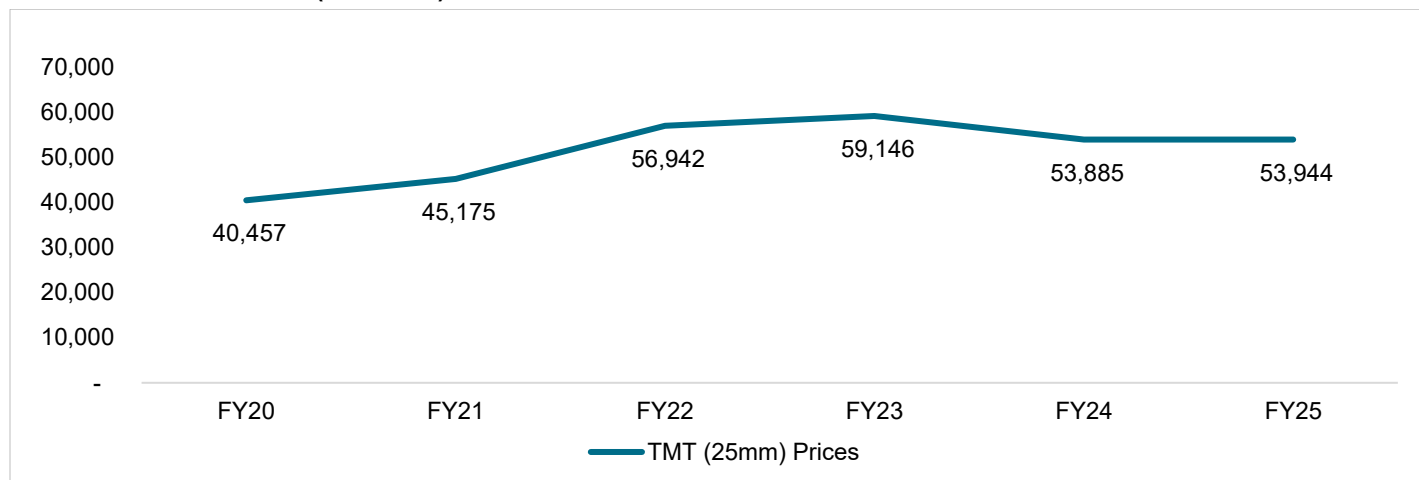


Source: JPC, Crisil Intelligence

India's TMT market has grown from Rs. 1,101 billion in Fiscal 2019 to Rs. 2,342 billion in Fiscal 2023, a CAGR growth of 20.76% with the rise in TMT prices from Rs. 40,050 per ton to Rs. 59,146 per ton during the same period. The demand for TMT reinforcement bars registered 9.5% CAGR between Fiscals 2019 and 2023, growing to 39.60 MT, owing to an uptick in housing and infrastructure development activities across the country. In Fiscal 2025, production stood at 49.5 million tons, with prices moderating to Rs. 53,885 and Rs. 53,944 in Fiscals 2024 and 2025, respectively. The demand in Fiscal

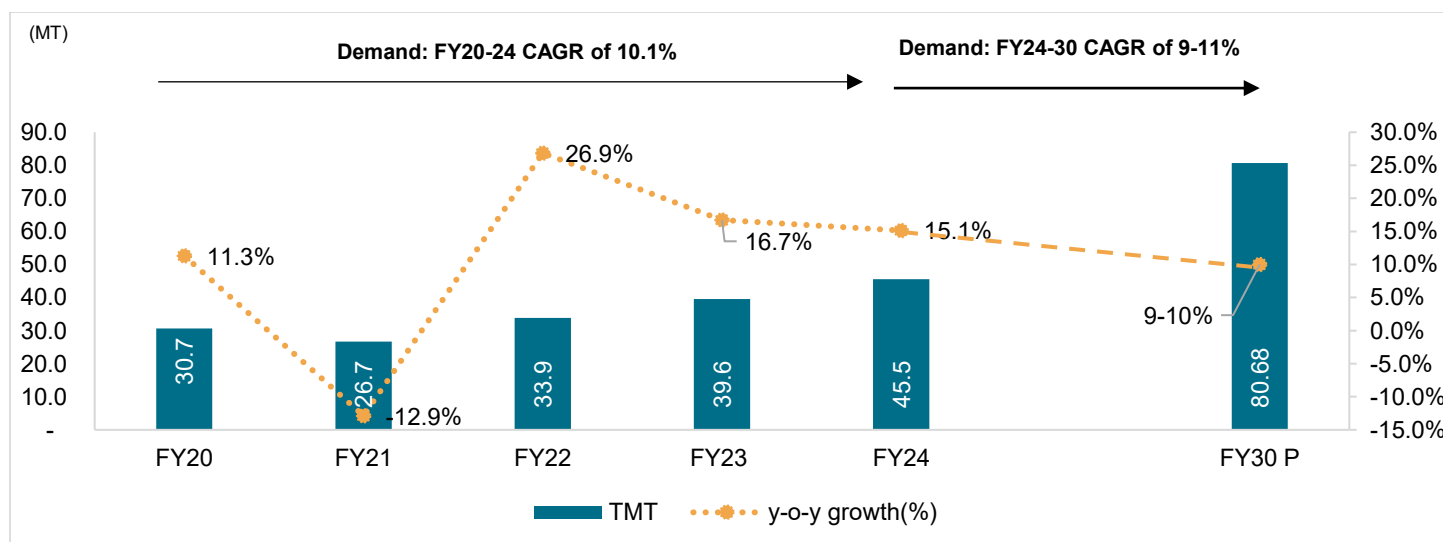
2024 was 45.5 million tons, representing a CAGR of 10.1% between Fiscals 2020 and 2025. Going forward, the demand is projected to grow at a CAGR of 9-10% between Fiscals 2024 and 2030, driven by growth in allied sectors.

Price trend of TMT bars (Rs/tonne)



Source: Crisil Intelligence

TMT Demand review and outlook



P: Projected

Source: JPC, Crisil Intelligence

3.5 Ferro-alloys market assessment

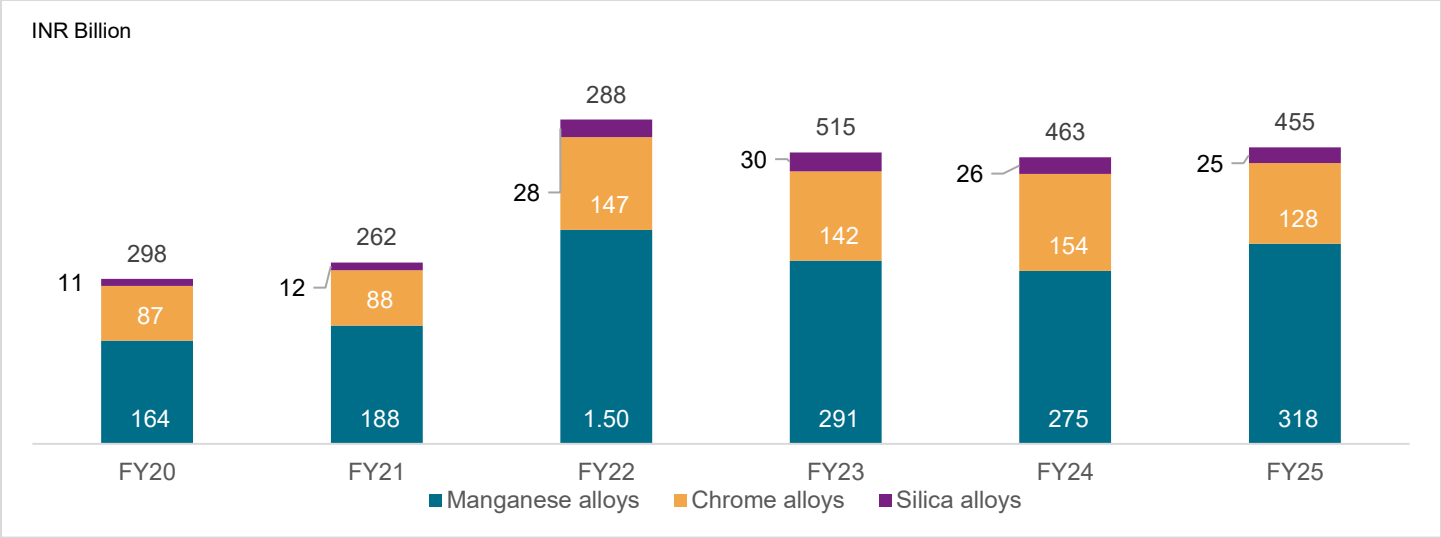
Ferroalloys are a group of alloys of iron containing one or more additional elements other than carbon. They have a high percentage of elements such as manganese, silicon, chromium, and aluminium etc. They are mainly used as master alloys in the iron and steel industry. These alloys are incorporated into the molten stage of the steelmaking process for the purpose of producing specific properties in the steel.

The manufacturing of crude steel and steel products, including castings, alloy steel, and stainless steel, both depend heavily on ferroalloys. With its many applications, stainless steel adoption is especially buoyant and is becoming widely accepted in the consumer goods, process industries, and other infra and transport categories. The Indian ferro-alloys industry includes chrome alloys, manganese alloys, silica alloys, etc.

Steel sector drives the ferro-alloy market. In fiscal 2024, prices corrected by 11% for manganese alloy and rose by 1% for chrome alloys amid lower input costs and a volatile steel market. Total ferro alloy production increased by 6% in fiscal 2024. Hence, the market size contracted by 2% to touch Rs ~455 billion.

In fiscal 2025 , the alloy market size is touched Rs 470 billion, a rise of 3.5% on year driven by healthy mangnaese alloy production and increased manganese alloy realisations on account of ore supply shortage pushing alloy prices up.

Market composition



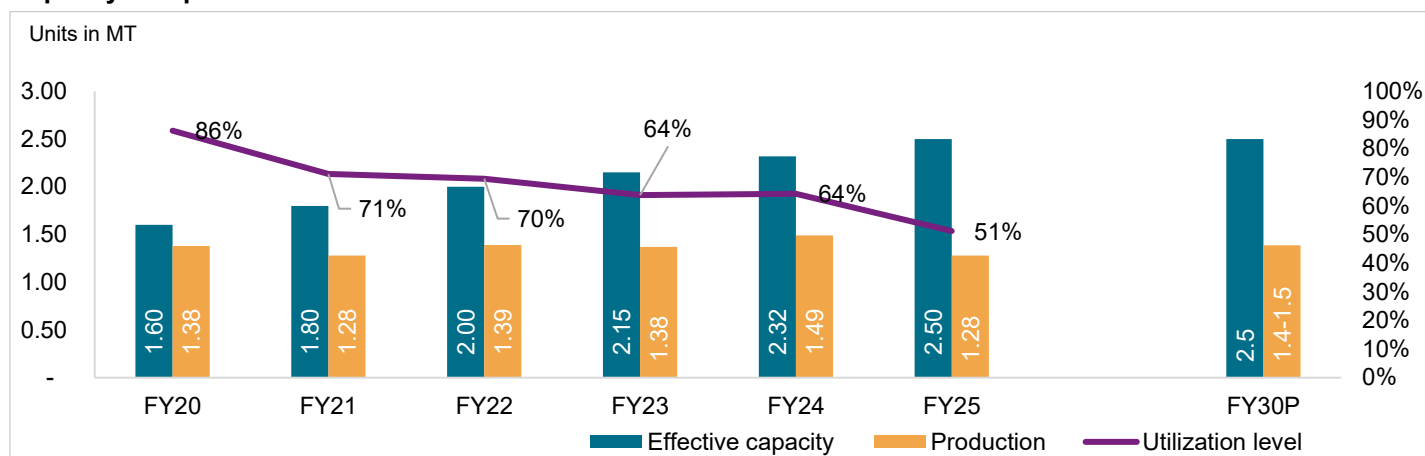
Source: Crisil Intelligence

Ferrochrome market assessment

Ferro chrome demand saw a robust growth of 15.5% to 864 KT due to strong stainless steel production of 18% in fiscal 2025. However, recent trade uncertainties remain a key monitorible in fiscal 2026 as 15-20% of stainless steel output is exported. However, US constitute a minimal share of 2-5%. The stainless steel industry, which accounts for 70-72% of ferrochrome demand, serves various sectors including consumer durables, automotive, railways, transport, airport, building, and construction.

However, ferrochrome production declined by 13% to 1.28 MT due to an estimated 30-35% drop in chrome alloy exports, which negatively impacted production levels. Additionally, weak prices and rising chrome ore costs further reduced output, as high input costs eroded margins for producers. With an effective capacity of 2.5 MT, ferrochrome production utilization rates stood at 51% in fiscal 2025.

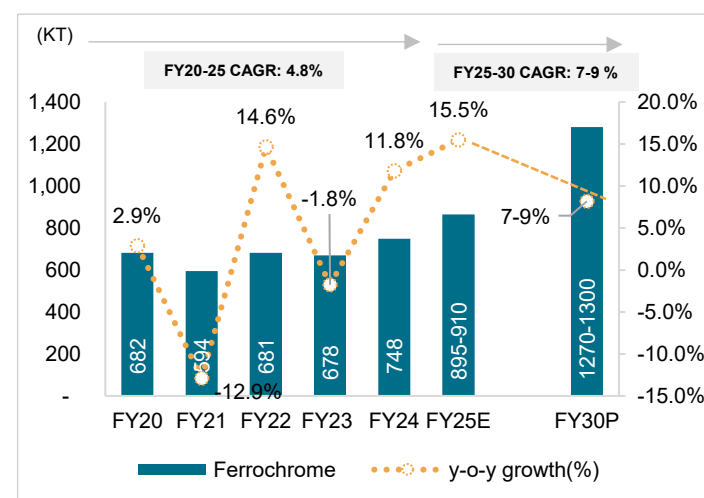
Capacity and production review and outlook of ferrochrome



Source: Crisil Intelligence

The demand for castings, which accounts for 8% of ferrochrome demand, is forecast to rise by 4-6% this fiscal year, driven by slow growth in the automotive manufacturing sector. The production of other alloys, which meets 20-22% of demand, is also expected to experience a 5-7% growth. Looking ahead, the ferrochrome market is projected to expand over the next five years, reaching 1270-1300 kilotons by fiscal 2030, driven by the expected commissioning of new stainless steel capacity expansions in the coming years.

Demand review and outlook of ferrochrome

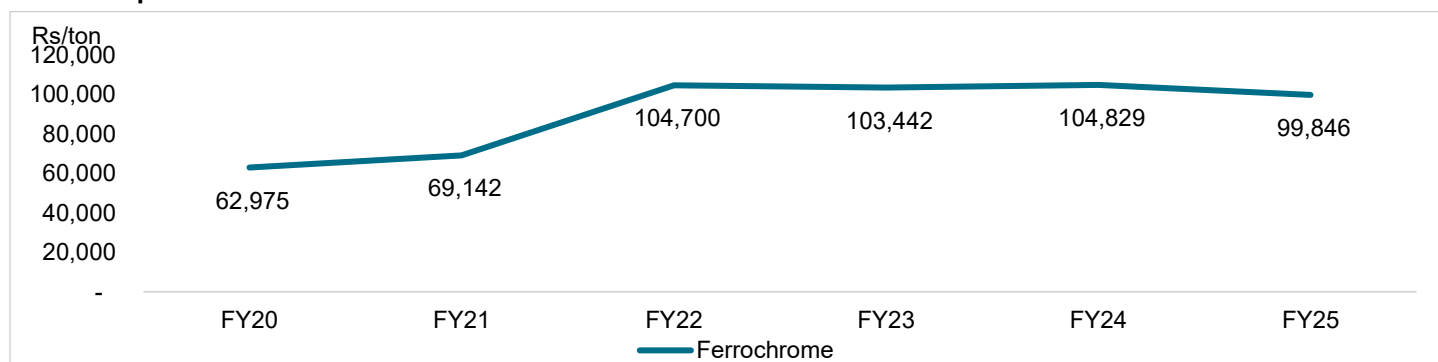


Source: Crisil Intelligence

End-use sector	% share in demand	CAGR FY2025-30
Stainless steel	70-72%	8-10%
Other alloys	20-22%	5-7%
Castings	7-9%	4-6%

Ferro chrome prices experienced a 4.7% year-on-year decline in fiscal 2025 to Rs 99,846 per tonne, primarily due to weak global prices and increased domestic supply (amid fall in exports by 30-35%). The decrease in coking coal costs by 27% also played a significant role in the price correction. Despite the decline in coal costs, the overall cost structure of ferro chrome producers remains under pressure due to an 18% year-on-year increase in chrome ore costs, driven by demand growth and stable supply from India. This rise in chrome ore costs is hindering the competitiveness of Indian players in export markets. The decline in input costs, particularly coal costs, is being offset by the increase in chrome ore costs and healthy demand. Specifically, coking coal costs have fallen to \$210 per tonne, a 27% decrease from \$286 per tonne in fiscal 2025, driven by improved supply from Australia and reduced demand from Asian countries.

Domestic price trend

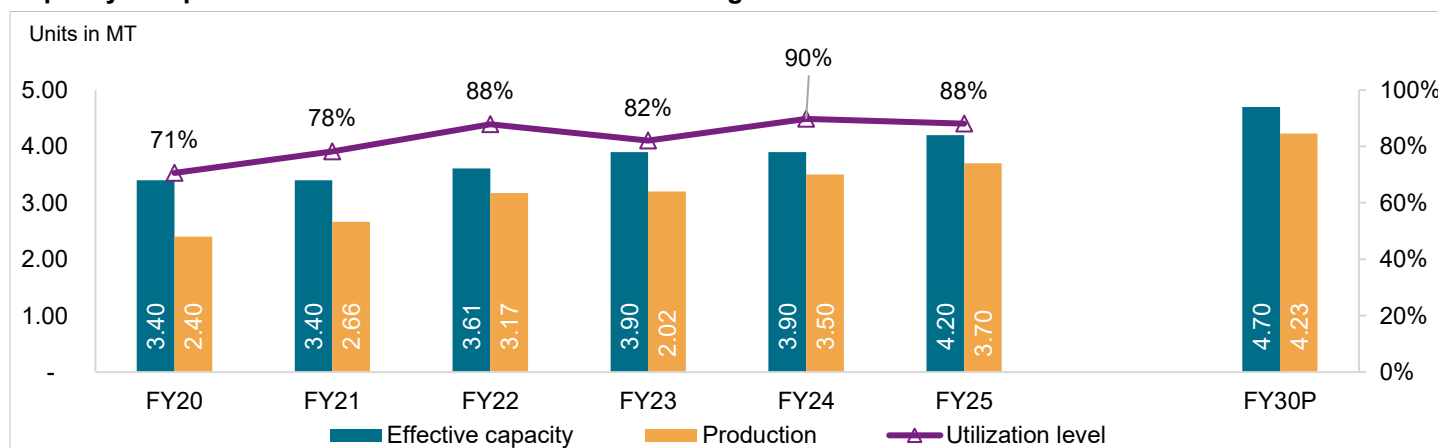


Source: Crisil Intelligence

Ferromanganese market assessment

The demand for manganese alloy is closely tied to the carbon steel and stainless steel industries. In fiscal 2025, the moderate 5% growth in the crude steel sector led to a 5.8% increase in manganese alloy demand. Domestic demand was the primary driver of growth in the crude steel sector during fiscal 2025. Overall, the ferroalloy industry is expected to experience growth driven by the increasing demand for stainless steel and crude steel, with ferrochrome and manganese alloy playing critical roles in meeting this demand. Ferromanganese production, which accounts for ~65-70% of the total ferro-alloy industry, is likely to grow marginally by 1-3% driven by volumes. Prices to inch down on lower manganese-ore costs.

Capacity and production review and outlook of ferromanganese



Source: Crisil Intelligence

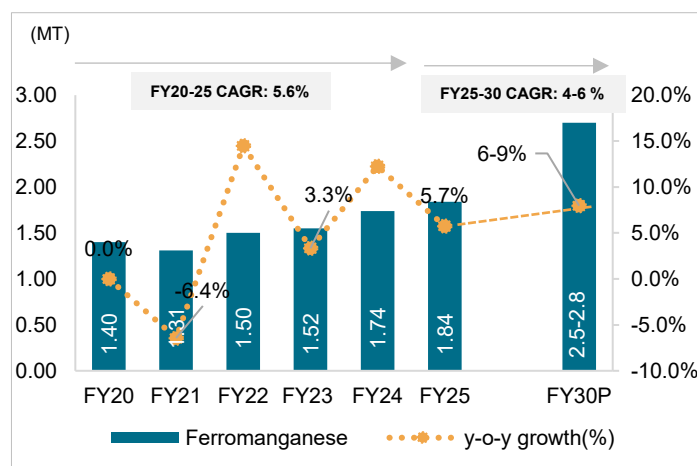
The manganese alloy market is primarily driven by the carbon steel and stainless steel industries, which account for 75% and 5-6% of total demand, respectively. In fiscal 2026, with demand remaining robust and new capacity coming on stream, crude steel production is expected to increase by 10-12% year-on-year, from a relatively low base, resulting in a slight uptick in utilisation rates, albeit with levels remaining high at 81-83%.

Fiscal 2024 saw a 6% increase in ferromanganese production, reaching 3.5 MT, driven by a 12.6% surge in crude steel production and robust stainless steel production. Despite this, exports remained stagnant. With an effective production capacity of 3.91 MT, the utilization rate for ferromanganese stood at 89%, as 3.5 MT of manganese alloy was produced. In fiscal 2025, ferromanganese production grew by 6.6% to 3.7 MT, driven by a moderate 5.3% increase in crude steel production. Cheaper imports and weak export demand led to moderate crude steel production growth. Manganese alloy

exports are estimated to have grown by 5-7%, contributing to the 3.7 MT of ferromanganese output. With a production capacity of 4.2 MT, the utilization rate for manganese alloy reached 87% in fiscal 2025.

Steel output is majorly driven by construction, automobile and infrastructure activities, etc. Domestically, a large part of the stainless demand will be from the consumer durables, ABC (Architecture, Building and Construction) sector, and ATR (Automotive, Railway and Transport sector) categories. Healthy growth from these end-user segments to boost stainless steel output growth by 8-10% in fiscal 2026. Domestic demand is expected to be healthy with infrastructure policies driving growth. Rising disposable income and healthy GDP growth.

Demand review and outlook



Source: Crisil Intelligence

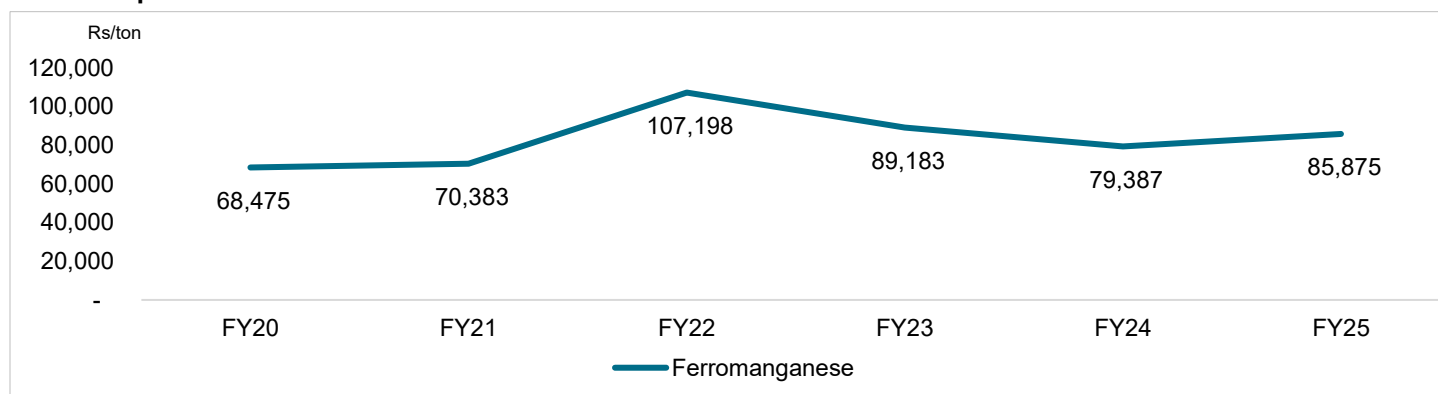
End-use sector	% share in demand	CAGR FY2025-30
Carbon steel	74-76%	7-9%
Stainless steel	4-6%	8-10%
Others	19-21%	3-5%

The main raw materials used to make manganese alloys are manganese ore and coking coal. Coking coal prices are expected to fall marginally to \$200-220 per tonne on year with improved supply and moderate demand. For fiscal 2026, ferro chrome prices are expected to undergo a slight correction from their current high levels, as ore prices normalize and fall. Nevertheless, the domestic steel sector is anticipated to witness a growth in demand, which is likely to drive up the demand for ferro chrome alloys.

Global steel output looks flattish. As a result, the average price of ferro manganese is expected to settle in the range of Rs. 80,000 to Rs. 85,000 per tonne in fiscal 2026, reflecting a balance between stable export demand and growing domestic steel sector demand amid anticipated fall in manganese ore prices.

In H1FY25, average alloy prices saw a uptick in first quarter amid stronger ore costs and then started falling with weak demand at higher quotes. Average price touched Rs 90,165 per tonne. Prices again rose in Q3FY25 and fell in subsequent quarter in line with global prices. Average price touched Rs 85,875 per tonne. Supply disruption from Australia is expected to pick up in Q1FY26 supporting ore prices to come to normal.

Domestic price trend



Source: Crisil Intelligence

Ferrosilicon market assessment

India had a ferrosilicon capacity of 0.25 MT in Fiscal 2023. The production is dependent on high power requirements which limits the utilization levels of the players. Despite being highly mineral rich, the ferrosilicon production capacities in India operated at low utilization levels of 39% in Fiscal years 2018 & 2019 and then stopped production in subsequent years. While the domestic installed capacity for ferrosilicon is 250 KT, various players have scaled down their production in Fiscal 2019 and continued with zero production thereafter till Fiscal 2022. They are interchangeably producing other forms of ferro alloy like ferro manganese or ferro chromium.

With steel production expected to grow at 10-12% this fiscal, demand of silica alloys is also expected to remain healthy. However, weak export markets to weigh on silicon alloy output. However, the price is expected to correct by 1-2% amid low input costs.

3.6 Demand overview across focus hinterland

India is the largest sponge iron producer in the world with 344 operational units spread across the nation, having a total capacity of 60.52 MT in Fiscal 2024. The DRI capacity of the country stood at 49.62 MT in Fiscal 2018 which declined to 46.56 MT in Fiscal 2019 with closure of 31 units. The DRI producer started increasing their capacity slowly and reached 60.52 MT in Fiscal 2024.

These units supply DRI within and outside their state to crude steel producing EAF and IF units. Since there are not enough DRI-producing units in the central region of India, it creates a demand-supply gap in the state. The state meets its demand for DRI through interstate transfers, from neighbouring states in the eastern and western regions of India.

Sky Alloys, an eastern region-based DRI and crude steel producing company, caters to the demand for DRI from states such as Uttar Pradesh and Madhya Pradesh in the central region. Uttar Pradesh and Madhya Pradesh are the focus hinterland market for the company, forming nearly 88% of its total revenue in Fiscal 2025. In their focus hinterland, both the states didn't have any DRI producing units installed in the state during Fiscal years 2018-19. In Fiscal 2020, UP then installed 4 units with total capacity of 0.54 MT which increased to 5 units and 1.00 MT capacity in Fiscal 2024. Madhya Pradesh also installed a unit in Fiscal 2024 with capacity of 0.21 MT.

DRI supply overview in focus hinterland market (Fiscal 2020-24)

Particulars	FY20	FY21	FY22	FY23	FY24
UP					
No. of units	4	4	4	4	5

Capacity (in MT)	0.54	0.54	0.54	0.78	1.00
MP	No capacity				1 (0.21 MT)

Source: JPC, Crisil Intelligence

DRI demand review and outlook in focus hinterland market

Particulars	FY22	FY23	FY24	FY30 P
India's demand	36.29 MT	42.71 MT	50.84 MT	82-87 MT
Demand in hinterland markets	0.80-0.85 MT	0.95-1.05 MT	1.28-1.41 MT	1.58-1.75MT
% of India's demand	2.20-2.30%	2.23-2.46%	2.52-2.78%	2.00-2.20%

Assumptions taken for DRI demand outlook in hinterland:

1. The state capacity of DRI and steel manufacturing through IF route is assumed constant as of Fiscal 2024
2. The proportion of DRI used in blend mix for steel manufacturing is expected to increase going forward. With increasing focus of national players to increase scrap in steelmaking, scrap availability for small players will be a barrier

Source: Crisil Intelligence

The central region has a significant presence of crude steel making IF units that either sell their cast output or have rolling facilities to manufacture finished steel products. These IF units cater to billet demand for their in-house finished steel production, as well as supply to re-rolling units in the state. Uttar Pradesh and Madhya Pradesh in the central region held a total crude steel making capacity of 3.9 MT and a total re-rolling capacity of 6.18 MT in Fiscal 2024; increased from 1.41 MT of crude steelmaking and 3.42 MT of re-rolling in Fiscal 2018.

Demand for billets in the above-mentioned states stood at 1.60-1.90 MT in Fiscal 2022, forming 3-3.6% of total billet demand in India, i.e., 52.70 MT and at 1.95-2.15 MT in Fiscal 2023, forming 3-3.30% of total billet demand in India. Uttar Pradesh and Madhya Pradesh houses nearly 130 re-rolling units and 72 IF units in Fiscal 2024. The billet demand in the hinterland is expected to increase to 2.85-3.15 MT in Fiscal 2030P with improvements expected in utilization levels of existing IF units.

Demand for billets and TMT bars (in MT)

Particulars	Billets				TMT bars			
	FY22	FY23	FY24	FY30 P	FY22	FY23	FY24	FY30P
India's demand	52.70	65.20	77.5	110-120	33.89	39.55	45.4	79-82
Demand in hinterland markets	1.60-1.90	1.95-2.15	2.49-2.76	2.85-3.15	4.40-4.80	4.05-4.55	4.2-4.7	6-8
% of India's demand	3-3.60%	3-3.30%	3.2-3.6%	2.59-2.63	13-14%	10-11%	~10%	9-11%

Source: Crisil Intelligence

4 Competition benchmarking across key players

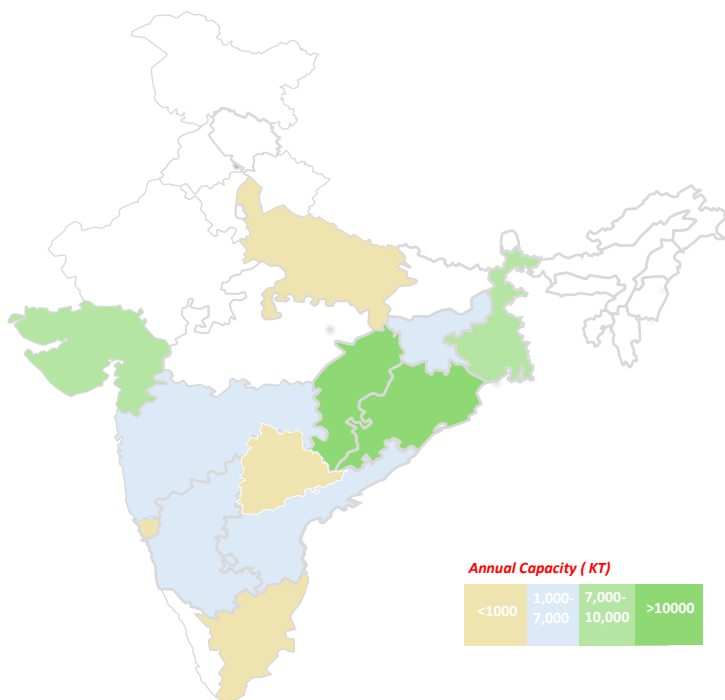
4.1 Operational benchmarking

Chhattisgarh-based Sky Alloys & Power Limited is a manufacturer of sponge iron and billets. It produces steel through the induction furnace route. Its products are sold majorly in central region of India in the states such as Madhya Pradesh and Uttar Pradesh.

Benchmarking for sponge iron unit

India is the highest sponge iron producer with an annual capacity of 60.52MT as of Fiscal 2024 with 344 units producing sponge iron in the country. Of these, nearly 62%, or 191 units, have capacity in the range of 60-200 KT, which are in the comparable range to that of Sky Alloys.

DRI units across states



States	Working units	Annual capacity (KT)
Andhra Pradesh	13	1349
Chhattisgarh	75	12,378
Goa	3	234
Gujarat	10	8,330
Jharkhand	26	4,779
Karnataka	42	4,809
Madhya Pradesh	1	210
Maharashtra	13	3,785
Odisha	91	15,303
Tamil Nadu	7	564
Telangana	13	692
Uttar Pradesh	5	997
West Bengal	45	7,091
Total	344	60,520

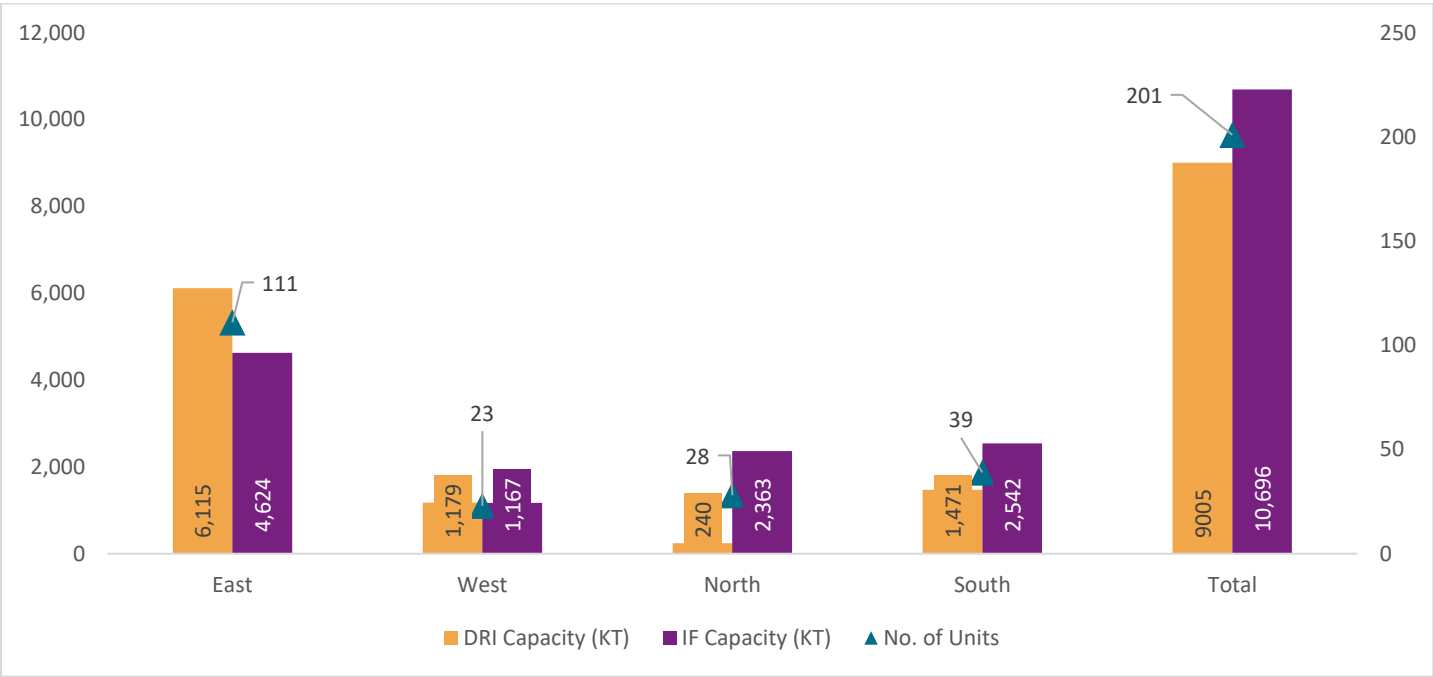
Source: JPC, Crisil Intelligence

Sky Alloys currently operates a sponge iron unit of annual capacity of 120 KT and plans to expand its capacity to 180 KT. Its integrated plant, situated in Chhattisgarh, has an induction furnace and billet caster of 100 KT capacity each.

Currently in Fiscal 2024, there are 201 integrated units having DRI + IF plants with similar capacity range of Sky Alloys installed across the country.

Units with capabilities similar to Sky Alloys

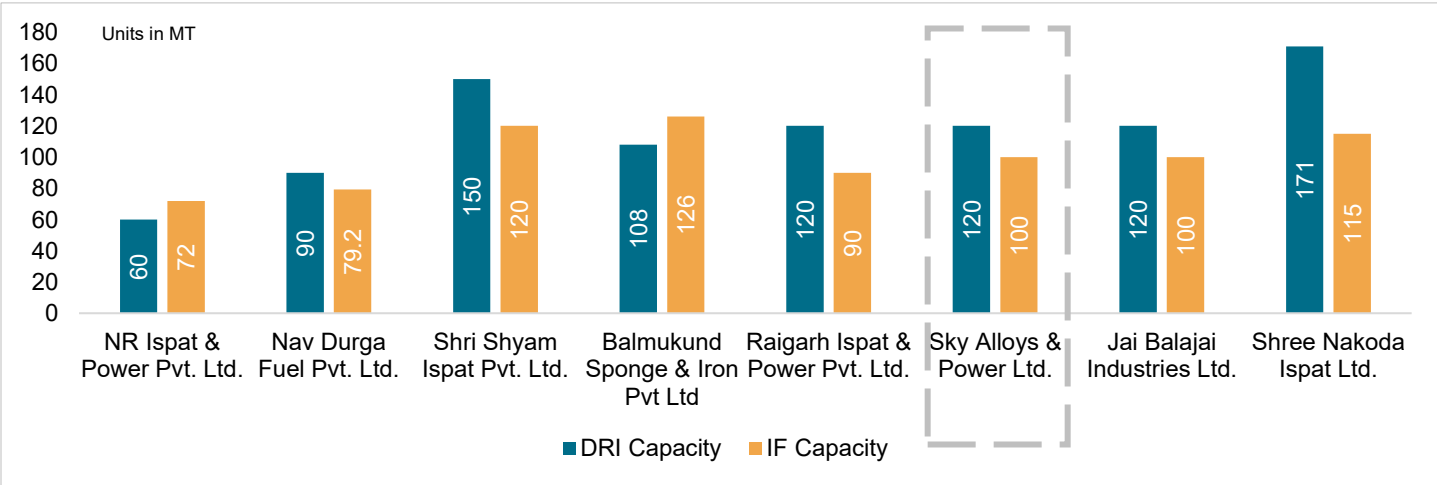
The units with DRI capacities in the 60-200 KTPA range and induction furnace capacities in the 70-130KT range are Sky Alloys’ competitors. As many as 201 units in the above range have integrated operations of DRI making and induction furnaces in India as of Fiscal 2024 (see the graphic below).



Source: JPC

The graph and table below offer a comparison between the peer set of seven companies having product range and plant capabilities similar to that of Sky Alloys:

Competitors of Sky Alloys



Note: Capacity numbers for FY24
Sources: JPC, Crisil Intelligence

SL No	Company name	Location	State	Product range
1.	Sky Alloys and Power Limited.	Raigarh	Chhattisgarh	Sponge Iron, billets, ferro silico manganese, TMT bars
2	Shree Nakoda Ispat Limited	Shankar Nagar	Chhattisgarh	Sponge iron, billets, TMT bars, binding wires, silico manganese, Magnesium sulphate
3	Jai Balaji Industries Limited	Rasmada	Chhattisgarh	Sponge iron, pig iron, ferro alloys, alloy carbon & mild steel billets, alloy carbon & mild rounds, TMT bars, DI pipes, Power
4	Raigarh Ispat & Power Pvt Limited	Raigarh	Chhattisgarh	Ingots, cold twisted bar, mild steel strips, TMT bars, channels, power plants, sponge iron, ferro alloys
5	Balmukund Sponge And Iron Pvt Limited	Srirampur	Jharkhand	Billets, HR coils, TMT bars, Pig Iron, Sponge Iron, Fibre Cement Sheets
6	Shri Shyam Ispat (India) Pvt Limited	Raigarh	Chhattisgarh	Sponge iron, MS ingots & billets, ferroalloys, Iron ore pellets, stainless steel ingots
7	Nav Durga Fuel Pvt Limited	Raigarh	Chhattisgarh	Sponge iron, ingots, TMT bars, wire rods, billets, structural iron
8	NR Ispat and Power Pvt Limited	Raigarh	Chhattisgarh	Sponge iron, billets, TMT bars, Bricks

Sources: Company websites, Crisil Intelligence

Benchmarking for billet manufacturing units

India had a total crude steel making capacity of 179.52 MT in Fiscal 2024 out of which IF units constituted 69.80 MT with a total of 1032 units. Out of these 1032 IF units in the country, around 462 units had downstream facilities for rolling and the remaining 570 units were operating as standalone IF units selling their cast output in the open market.

Standalone IF units across the country

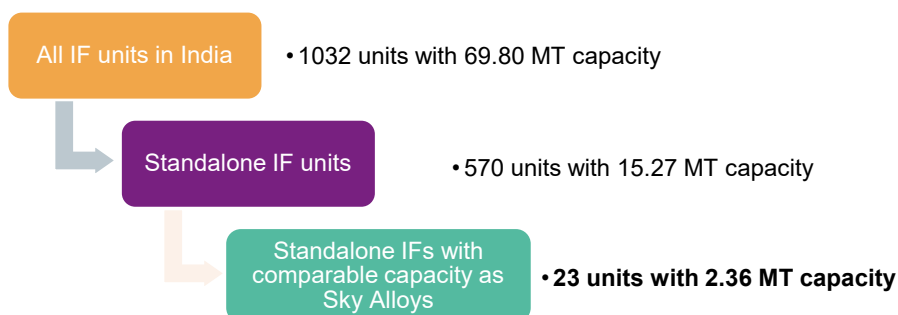
Region	States	Working units	Annual capacity (MT)
East	West Bengal	18	1.54
	Chhattisgarh	26	0.86
	Bihar	4	0.32
	Odisha	17	0.29
	Jharkhand	9	0.20
	Assam	10	0.14
	Meghalaya	4	0.12
	Tripura	1	0.03
	Arunachal Pradesh	1	0.03
North	Punjab	86	2.73
	Uttar Pradesh	30	0.98
	Uttarakhand	33	0.86
	MP	9	0.42
	J&K	8	0.21
	Haryana	14	0.15

Region	States	Working units	Annual capacity (MT)
	Himachal Pradesh	6	0.12
	Delhi	1	0.01
South	Tamil Nadu	77	0.81
	Telangana	8	0.34
	Andhra Pradesh	7	0.27
	Kerala	17	0.26
	Karnataka	12	0.10
	Puducherry	2	0.04
West	Gujarat	94	2.09
	Maharashtra	28	1.05
	Rajasthan	23	0.64
	Dadra & Nagar Haveli, Daman & Diu	18	0.36
	Goa	7	0.30
	Total	570	15.27

Sources: JPC, Crisil Intelligence

Sky Alloys which currently manufactures billets among other products has a steel melting capacity of 100KT in Fiscal 2024 and sells their produce in more than 12 states across India. Its primary markets include Andhra Pradesh, Delhi, Gujarat, Haryana, Jharkhand, Maharashtra, Punjab, and Odisha. Out of above mentioned 570 standalones IF units, 23 players across the country have capacities in the comparable range of Sky Alloys, i.e., 80-150 KT of steelmaking facility.

IF Capacity overview of India



Sources: JPC, Crisil Intelligence

Out of these 23 players, those situated in the states of Bihar, Jharkhand, and Chhattisgarh would be direct competitors for Sky Alloys for their product billets. The list entails those 6 players with capacity in the range of 80-150 KT and situated close to Sky Alloy's focus hinterland markets are:

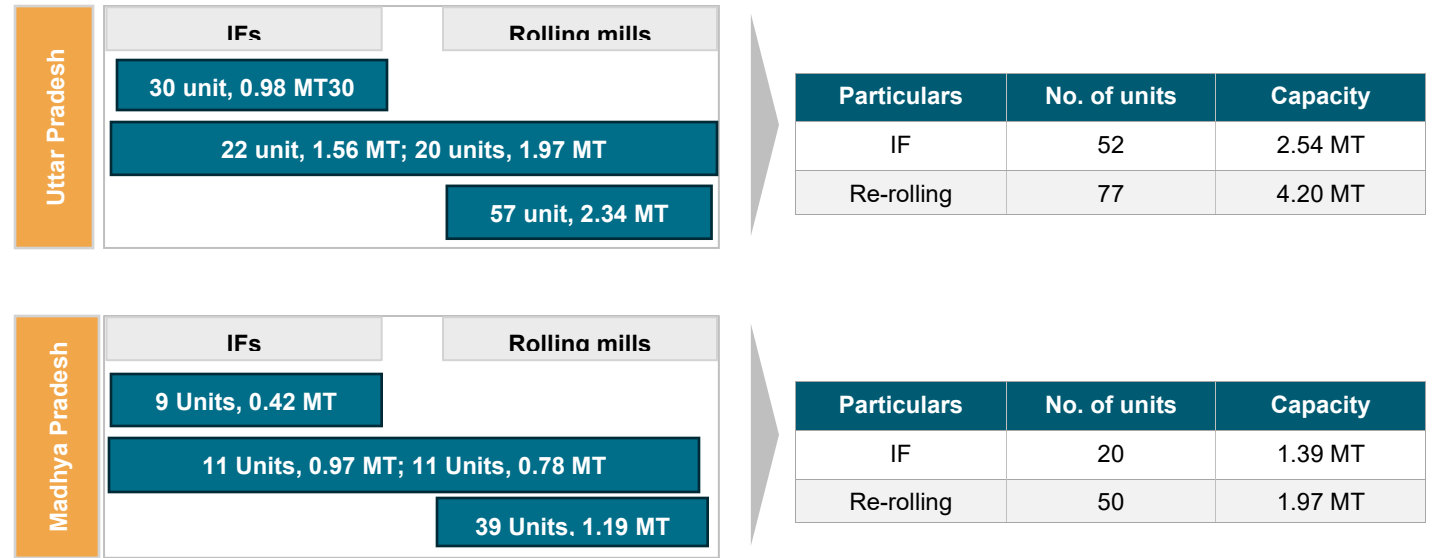
SL. No.	Company Name	Location	IF Capacity (in KT)	Product portfolio
1	Dina Metals Ltd	Patna, Bihar	115.2	DRI, Billets
2	JG Foundry Ltd	Patna, Bihar	91.2	DRI, Billets
3	Maa Banjari Ispat Pvt Ltd	Raigarh, Chhattisgarh	80	DRI, Ingots & billets

Sources: JPC, Crisil Intelligence

Benchmarking of TMT manufacturing companies

As of Fiscal 2024, the focus hinterland market for Sky Alloys, i.e., the states Madhya Pradesh and Uttar Pradesh had 72 steel producing units using induction furnace whose total capacity stood at 3.94 MT. Out of these 72 units, 33 units had their own rolling mill set up which aggregates to a total capacity of 2.65 MT. The states have a significant presence of independent re-rolling units — 96 units with a total capacity of 3.53 MT — with varied finished steel products in their portfolio. The product range for these induction furnace and re-rolling units include TMT bars, structural, round bars, wire rods, etc.

Capacity overview of Uttar Pradesh and Madhya Pradesh



Source: JPC, Crisil Intelligence

Out of the total IF and re-rolling units present in the states of MP and UP, IFs who are in the capacity range of 70-130 KT and units with a re-rolling capacity of 70-150 KT comes under the comparable range of Sky Alloys.

Particulars	Uttar Pradesh	Madhya Pradesh
Induction furnace units with 70-130 KT capacity	7	3
• Integrated IFs with own rolling mills	4	2
• Others	3	1
Independent re-rollers with 70-150 KT capacity	11	4

Source: JPC

Out of the above-mentioned units who have capacities in the comparable range of Sky Alloys, the companies which have their product portfolio and capacity both similar to Sky Alloys would be the key competitors.

Companies with similar capacity

Sl No	Company name	Category	Location	State	Crude steel capacity	TMT mill capacity	Product portfolio other than TMT
Players with integrated rolling mill for only TMT bars							
1	Shivangi Rolling Mills Pvt Limited	Steel manufacturer	Pithampur	MP	100	100	-
2	Sarvottam Rolling Mills Pvt Limited	Steel manufacturer	Meerut	UP	115	110	-
3	Amba Shakti Steel Limited	Steel manufacturer	Meerut	UP	90	98	-
Independent re-rollers							
4	Shri Rath Steel	Re-roller	Noida	UP	-	120	-
5	Shri Jai Balaji Steel Rolling Mills Pvt Limited	Re-roller	Meerut	UP	-	86	-
6	KL Rath Steel Limited	Re-roller	Noida	UP	-	100	-
Players with integrated rolling mills for multiple finished steel products							
7	Rathi Iron Steel Industries Limited	Steel manufacturer	Pithampur	MP	60	125	Bright bars, rebars, wire rods, wires, bars
8	Shri Satguru Metals and Alloys Pvt Limited	Steel manufacturer	Muzaffarnagar	UP	100	100^^	Structural, Pipes

Notes: Units in KT; value are for Fiscal 2024

^^ The re-rolling capacity includes mill capacity for structural and pipes along with TMT

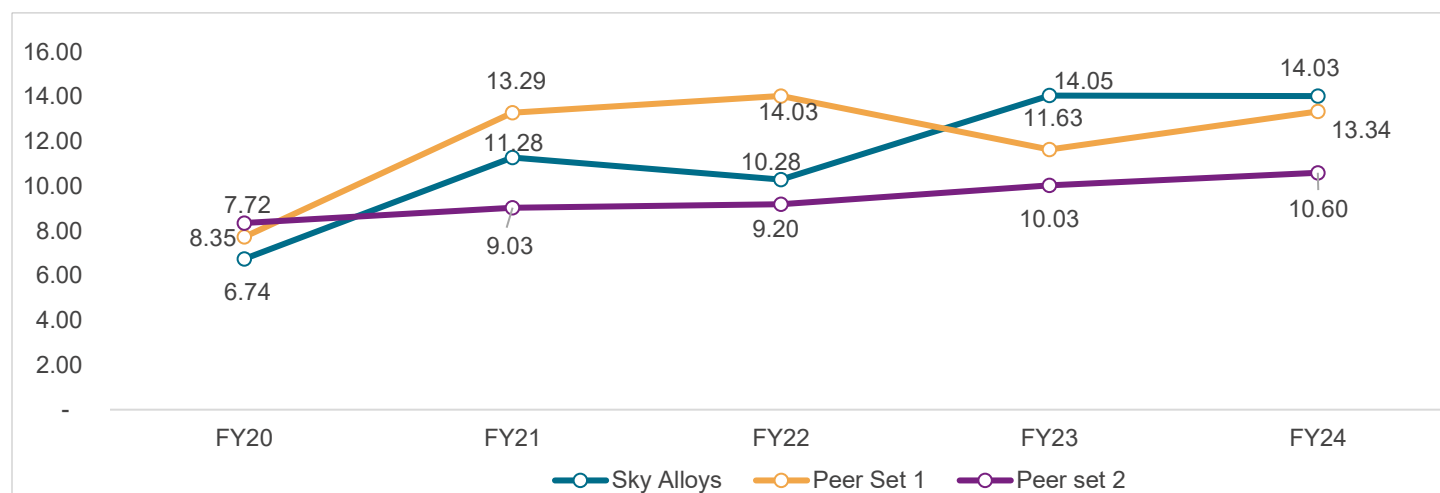
Sources: JPC, Crisil Intelligence

4.2 Financial benchmarking

To benchmark the performance of Sky Alloys with its competitors, a comparison has been drawn across profitability, liquidity and leverage parameters across 2 peer sets. The peer set 1 includes companies with operational capabilities in the comparable range of Sky Alloys while the peer set 2 includes listed companies with similar product offerings.

Profitability parameters

Comparison of operating profit margin (in %)



Notes:

1. The peer set 1 includes the following 8 listed companies: Electrotherm India Limited, Gallant Ispat Limited, Godawari Power and Ispat Limited, JSW Ispat Special Products Limited, MSP Steel and Power Limited, Sarda Energy & Minerals Limited, Prakash Industries Limited, Jai Balaji Industries Limited
2. The peer set 2 includes the following 7 un-listed companies: BS Sponge Pvt Limited, Balmukund Sponge And Iron Pvt Limited, Shree Nakoda Ispat Limited, Raigarh Ispat & Power Pvt Limited, Nav Durga Fuel Pvt Limited, NR Ispat and Power Pvt Limited, and Shri Shyam Ispat (India) Pvt Limited.
3. The peer set 1 average for Fiscal 2023 and 2024 excludes JSW Ispat Special Products Limited due to non-availability of their Fiscal 2023 and 2024 financials
4. The peer 2 average for Fiscal 2023 and 2024 excludes NR Ispat and Power private ltd due to non-availability of data.
5. The peer 2 average for fiscal 2024 excludes Shree Nakoda Ispat Limited due to non-availability of data.
6. The peer 2 and peer 1 average for Fiscal 2025 is not included in analysis due to non-availability of annual statements

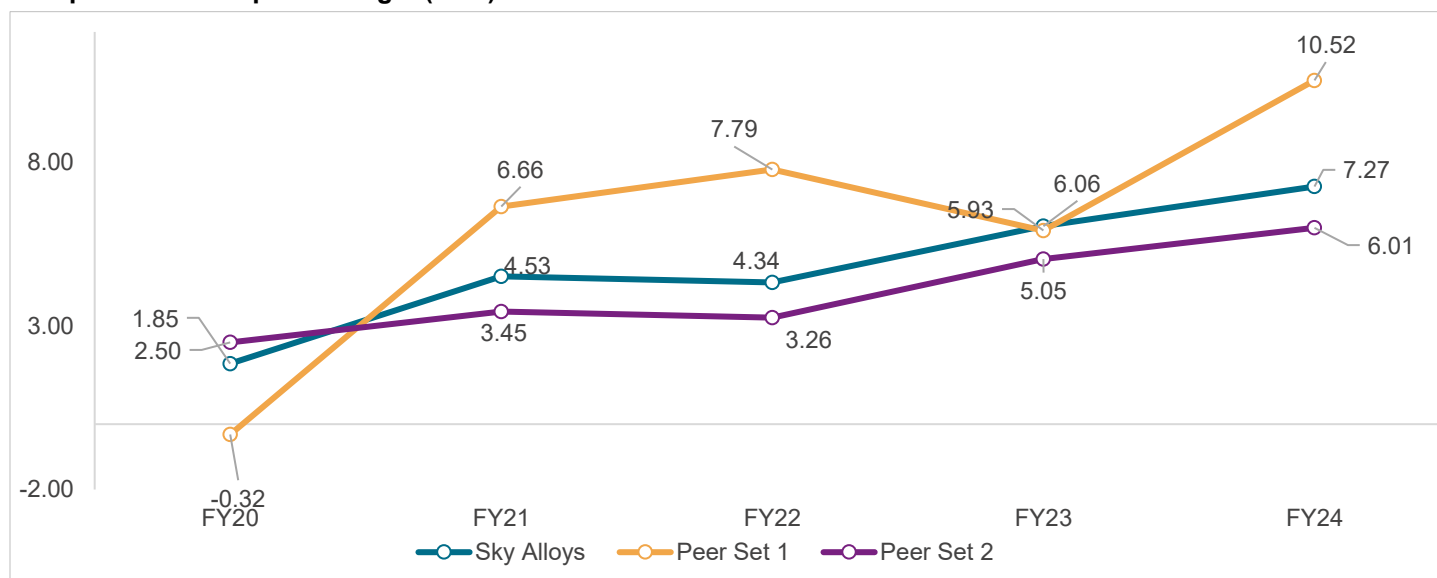
Source: Company financials, Crisil Intelligence

Sky Alloys began outperforming its competitor peer set 2 from Fiscal 2021 after it shifted from ingot casting to continuous casting. After Fiscal 2021, Sky Alloys maintained its operating margin above 10%, which is higher than its peer set 2 whose margin continued to be in the range of 8-10%.

In comparison to listed peers, i.e., peer set 1, Sky Alloys recorded lesser operating margins till Fiscal 2022. However, with improved efficiency of operations, the operating margin for Sky Alloys was higher than the average of its peer set by ~2%.

Sky Alloys logged a CAGR of ~25% in its operating profits during Fiscals 2018-2024 while its peer set 1 & 2 grew at a CAGR of 27 and 18% respectively. Therefore, the growth registered by Sky Alloys in its operating profit during the Fiscals 2020-24 was higher than its peer set 2.

Comparison of net profit margin (in %)



Notes:

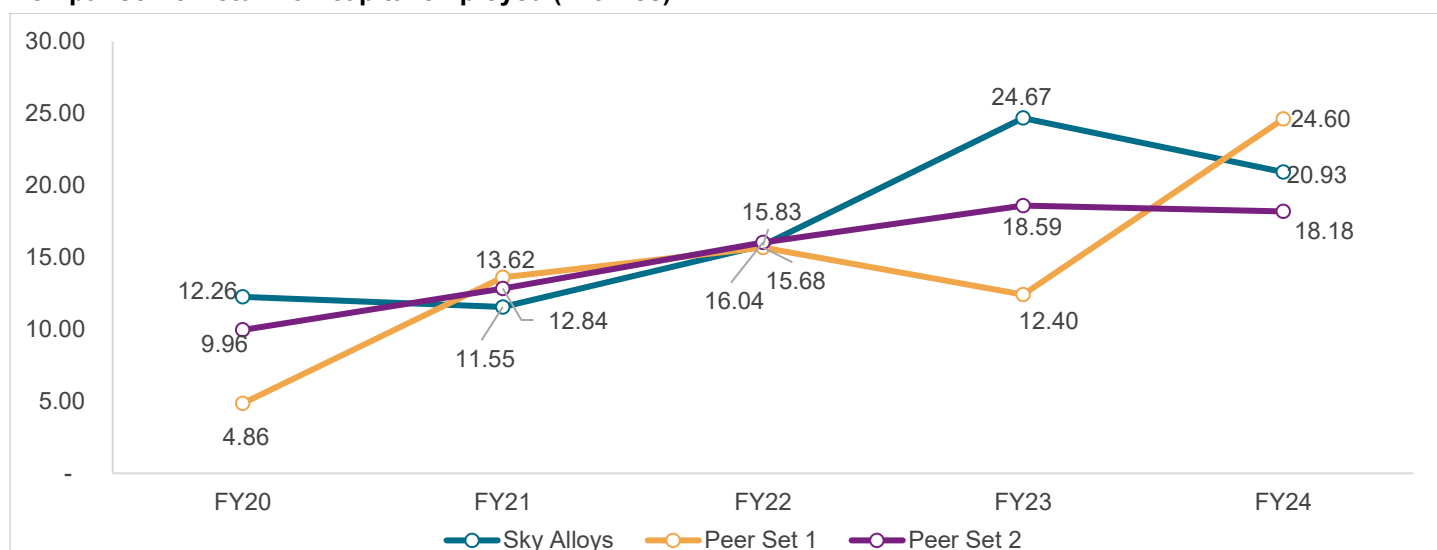
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4. The peer 2 average for Fiscal 2024 excludes Shree Nakoda Ispat Limited due to non-availability of annual statements

Sources: Company financials, Crisil Intelligence

Net profit margin of the peer set 1 remained negative till Fiscal 2020 which then increased and maintained an average of 7.7% during the period Fiscal 2021-24. On the other hand, the average for peer set 2 stood at ~4% during Fiscals 2020-2024.

Sky Alloys reported a margin of 1.9% in FY20, which steadily improved over the years to reach 7.3% in FY24. Its performance consistently tracked above Peer Set 2 by ~2% after FY20.

Comparison of return on capital employed (in times)



Notes:

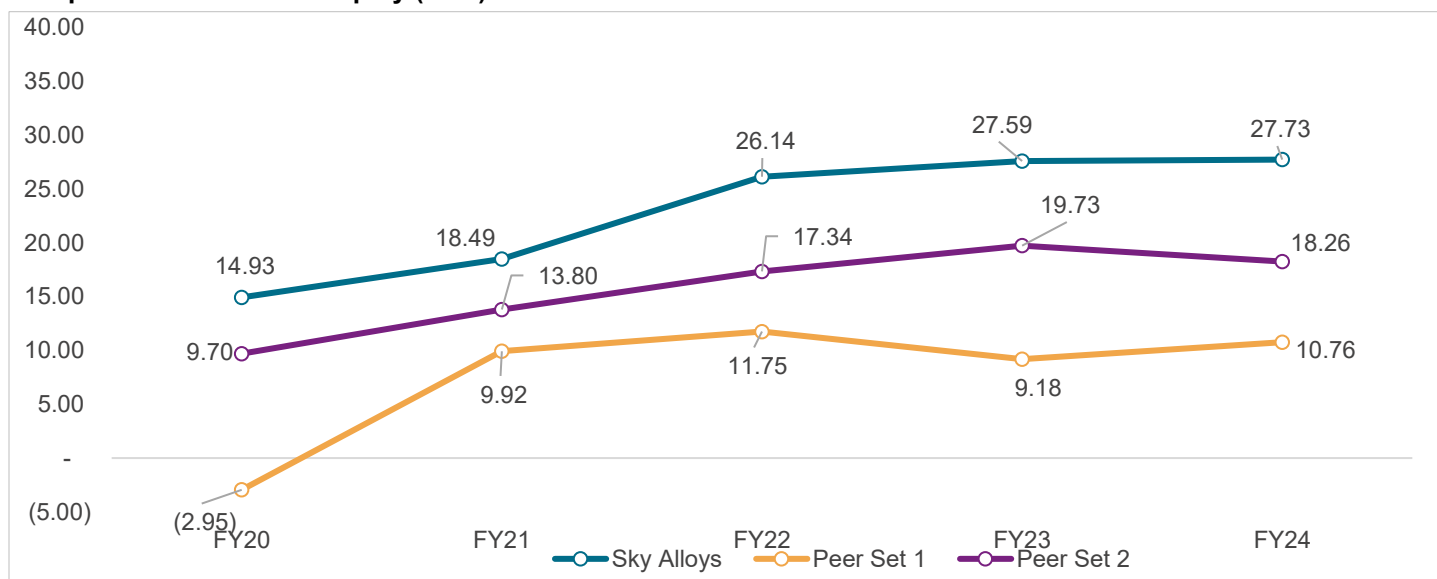
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Sources: Company financials, Crisil Intelligence

Return on capital employed (ROCE) for Sky Alloys was maintained at an average of 17.1% during the Fiscal period 2020-24. Conversely, its peer set 1 stood at 14.2% for the same period and peer set 2 stood at 15.1% during the Fiscal period 2020-24. Therefore, Sky Alloys recorded a higher average of RoCE during the Fiscal period 2020-24 than their peer set.

Sky Alloys saw a dip in RoCE Fiscal 2021 with introduction of new debt, however they recovered strongly, peaking at 24.7% in Fiscal 2023. Sky Alloys on an average provided better returns to its shareholders than its peers.

Comparison of return on equity (in %)



Notes:

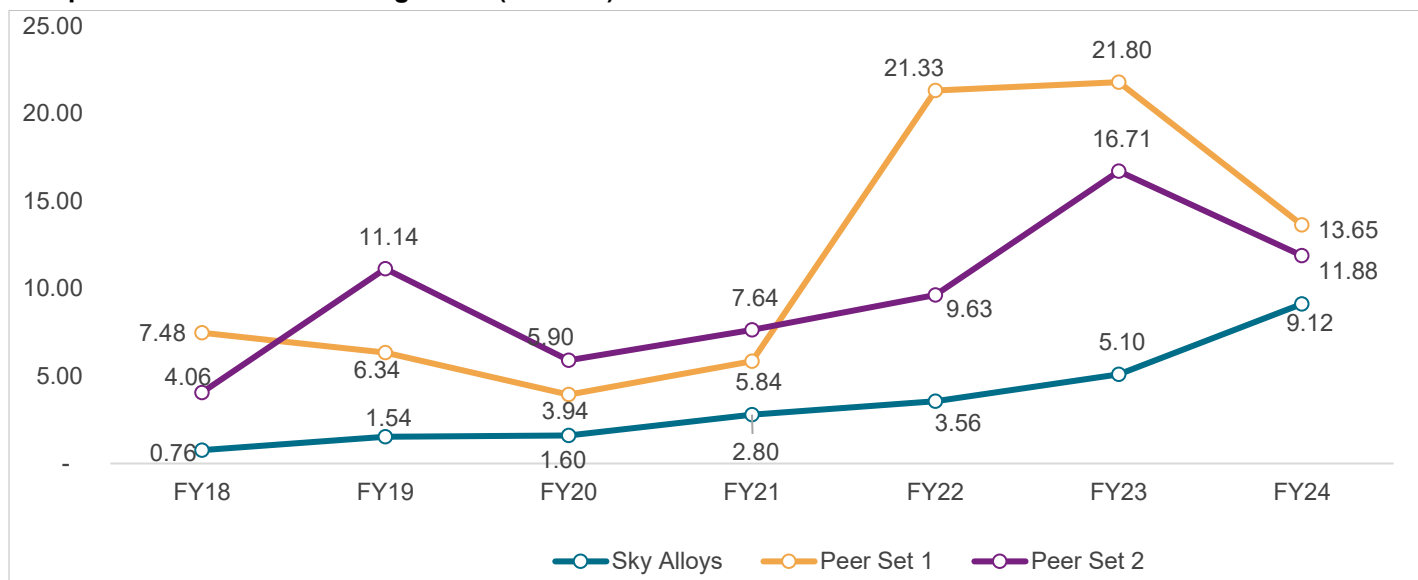
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Sources: Company financials, Crisil Intelligence

Sky Alloys continued to maintain positive return on equity (RoE) since Fiscal 2020. Sky Alloys maintained an average of 22.9% during the Fiscal period 2020-24 indicating strong performance and returns derived on shareholder's equities. Sky Alloys recorded a better RoE than its peer set for all Fiscal years since 2020.

Leverage parameters

Comparison of interest coverage ratio (in times)



Notes:

1. The peer set 1 includes the following 8 listed companies: Electrotherm India Limited, Gallant Ispat Limited, Godawari Power and Ispat Limited, JSW Ispat Special Products Limited, MSP Steel and Power Limited, Sarda Energy & Minerals Limited, Prakash Industries Limited, Jai Balaji Industries Limited
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Sources: Company financials, Crisil Intelligence

Interest coverage ratio for the peer set 1 stood at an average of ~13 times during the Fiscals 2020-2024, and for peer set 2 it stood at ~10 times during the Fiscals 2020-2024.

On the other hand, Sky Alloys hovered at a lower average of ~4 times during the Fiscals 2020-2024. With its profit on the rise, Sky Alloys is recording a sharp increase of its interest coverage, which rose to 9.1 times in Fiscal 2024, thus improving its potential to service their loan with ease.

5 Company profile

5.1 Business profile of Sky Alloys and Power Limited

Incorporated in 2009, Sky Alloys and Power Limited is a steel manufacturing company producing a range of products, including sponge iron, mild steel billets, ferro-alloys, and TMT bars based out of Raipur, Chhattisgarh. The company commenced operations in 2011 with the installation of its first DRI plant in Raigarh, Chhattisgarh and has since undertaken expansion and capital investments to enhance its manufacturing capacity, including the installation of a rolling mill for TMT bar production in March 2024. Its product portfolio includes Sponge Iron, MS Billets, TMT Bars, and Ferro Alloys, such as Silico Manganese and Pig Iron, with sponge iron from its DRI plant used for crude steel production through the IF route. Sky Alloys' manufacturing units hold certifications, including ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018.

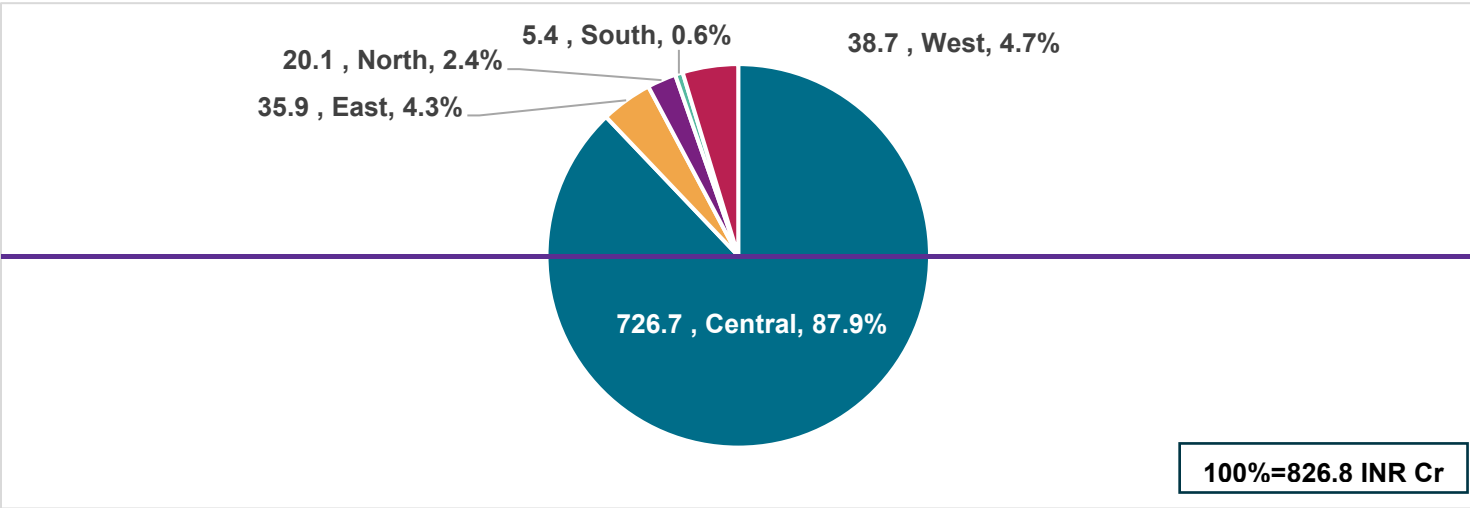
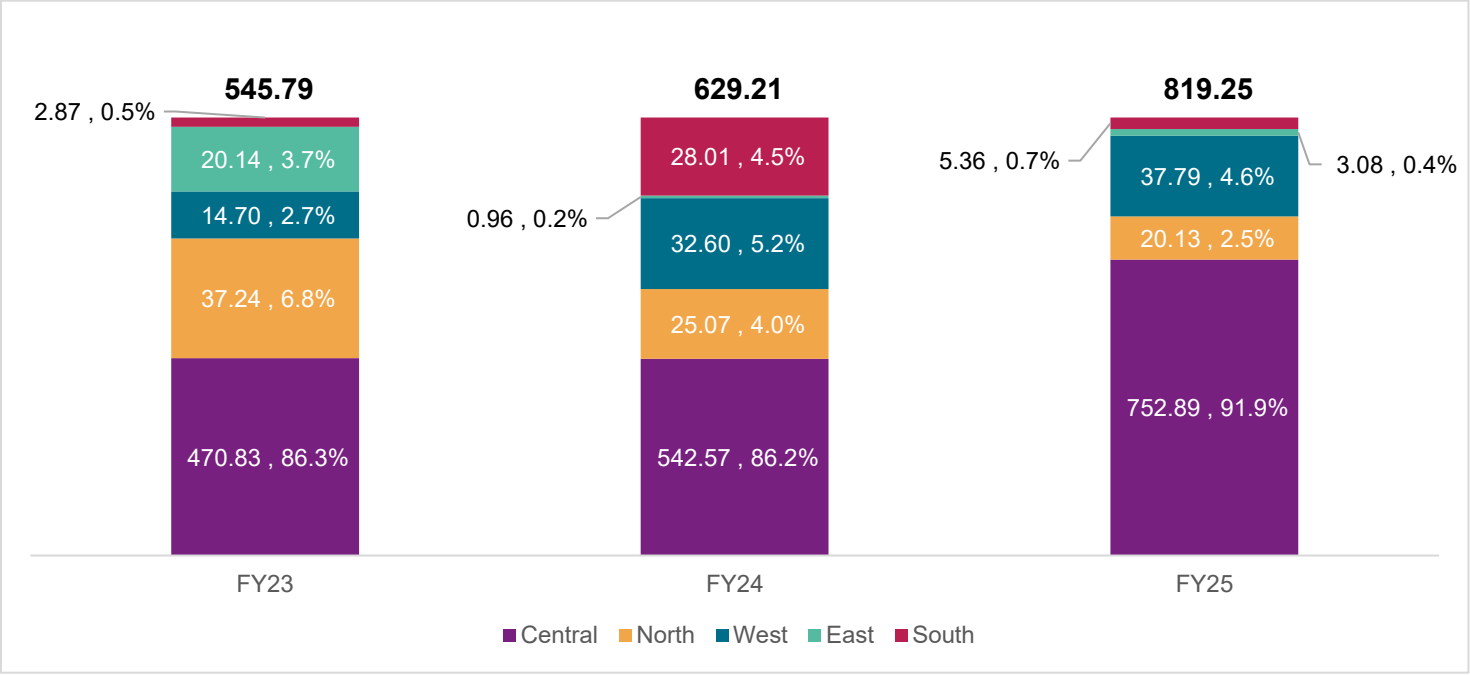
5.2 Existing footprint across the Indian steel market

Sky Alloys offers products such as sponge iron, billets and ferro alloys for sale in the open market in nearby states to Chhattisgarh. They market sponge iron as an intermediate product, with a presence in Chhattisgarh, Odisha, and West Bengal. Sky Alloys supplies mild steel billets, including customized variants, as an intermediate product to more than 12 states across India. Its primary markets include Andhra Pradesh, Delhi, Gujarat, Haryana, Jharkhand, Maharashtra, Punjab, and Odisha. Their plant in Raigarh has the following capability:

Particulars	Units	Capacity	Specifications
DRI unit	KT	120	4*100 TPD kilns
Induction furnace	KT	100	3*10 tonne
Continuous billet caster	KT	100	
Ferro alloys unit	KT	30	2*9 MVA
Rolling mill plant	KT	95	
Waste heat recovery boilers	MW	8	2 watt each
FBC boiler	MW	12	

Source: Company reports

Regional sales split (Fiscal 2023-2025) (Value in INR Cr, % share)



Note: Sales for all the products and the service income considered

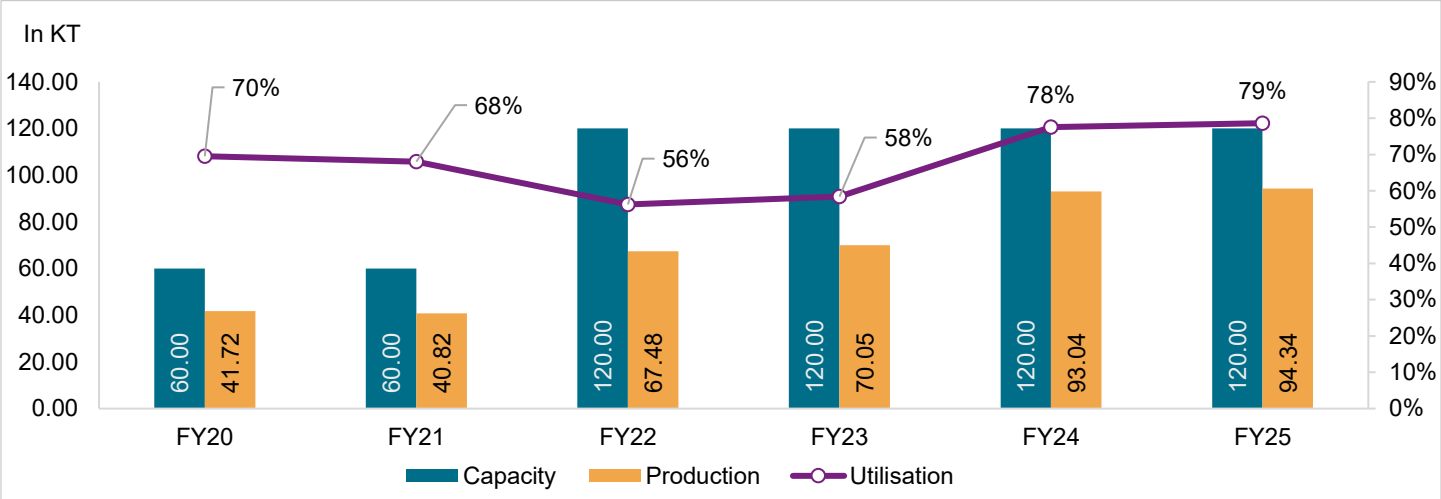
Central: Chhattisgarh, Madhya Pradesh, Odisha, Rajasthan; **North:** Uttar Pradesh, Haryana, Himachal Pradesh, Punjab, Delhi; **West:** Maharashtra, Gujarat; **East:** West Bengal; **South:** Telangana, Andhra Pradesh, Kerala, Karnataka

Source: Company reports

5.3 Operational performance review

Sky Alloys mainly sells sponge iron, mild steel billets, TMT bars and ferro alloys in the market. Its sponge iron production grew from 41.72 KT in Fiscal 2020 to 94.34 KT in Fiscal 2025, at a ~18% CAGR, with addition of 60 KT capacity in Fiscal 2022. There was an increase in its utilisation level from 70% in Fiscal 2020 to 79% in Fiscal 2025.

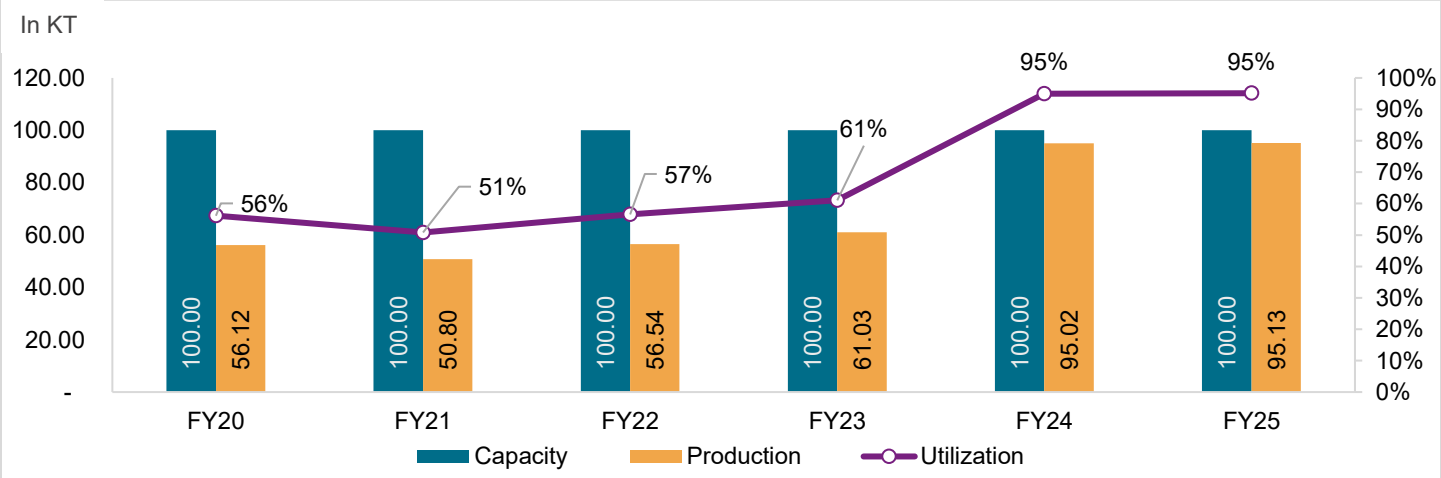
Performance of DRI plant



Source: Company reports

With the rise in production volume, a significant portion of the sponge iron produced has been sold in the open market in recent years. The steel produced is used inhouse for billet casting, which is sold to re-rollers and other customers in the open market. Crude steel production increased at a CAGR of ~11% between Fiscal 2020-25.

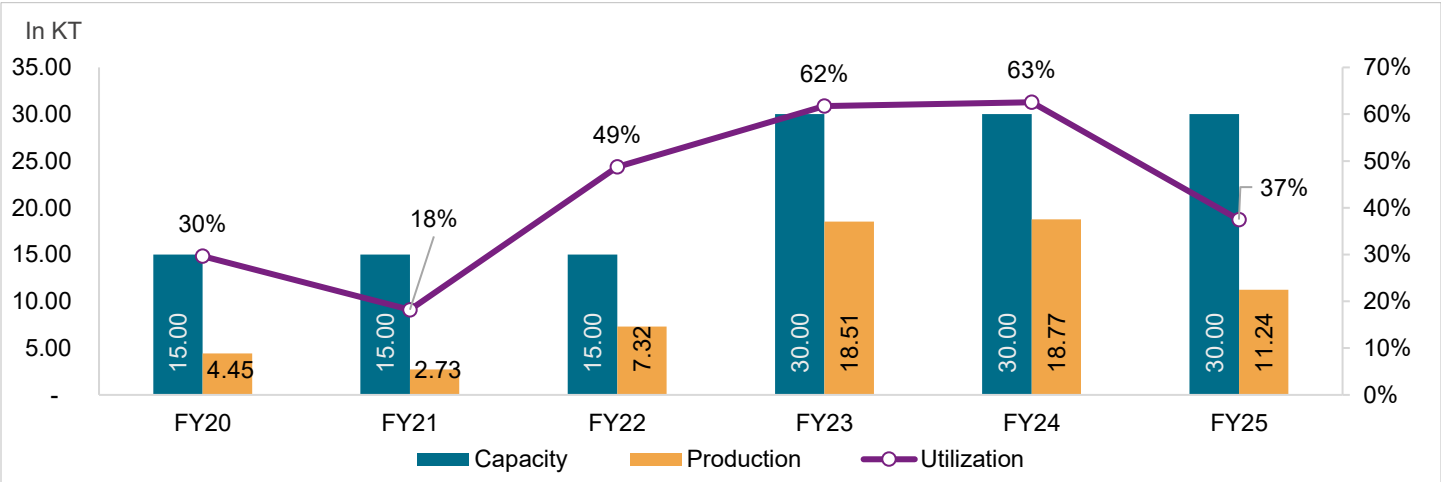
Performance of induction furnace



Source: Company reports

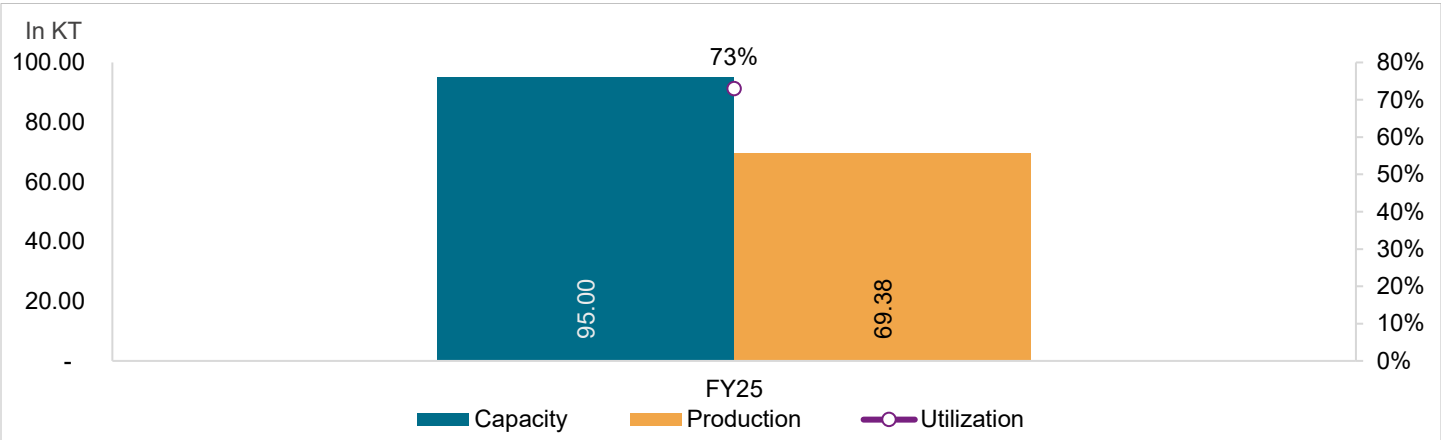
Sky Alloy’s ferro alloys production logged a CAGR of ~20% over Fiscals 2020-25. Production started in Fiscal 2018 with a capacity of 15 KTPA, and the output utilized for both captive consumption and open market sales. In 2022 the capacity of the unit was enhanced to 30KTPA

Performance of ferro alloy unit



Source: Company reports

Performance of TMT bar rolling mill

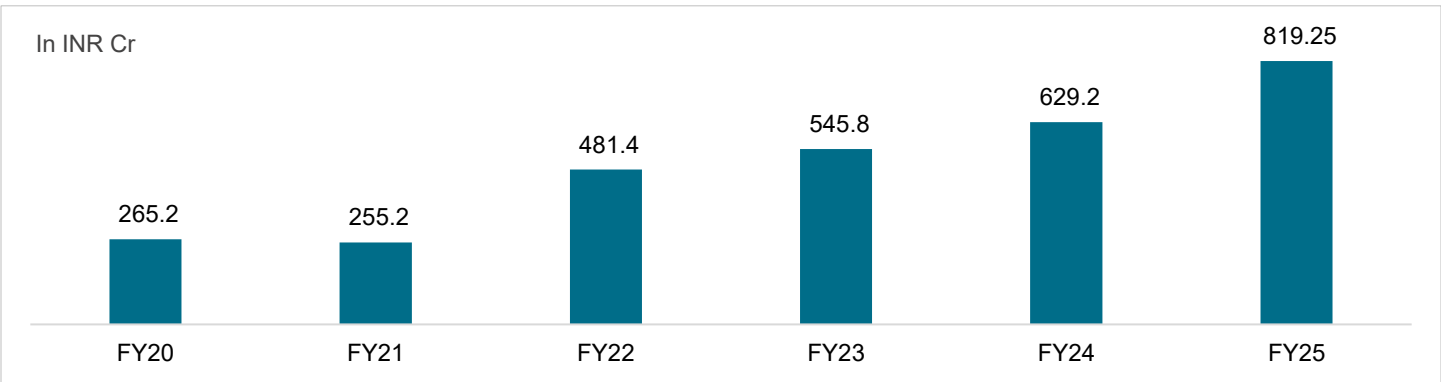


Source: Company reports

Financial performance review

The total revenue earned by Sky Alloys increased at a CAGR of 25% over Fiscals 2020-2025, to Rs 819.25 crore in Fiscal 2025. They were engaged in ingot casting until Fiscal 2019 and shifted to billet casting from Fiscal 2020 onwards.

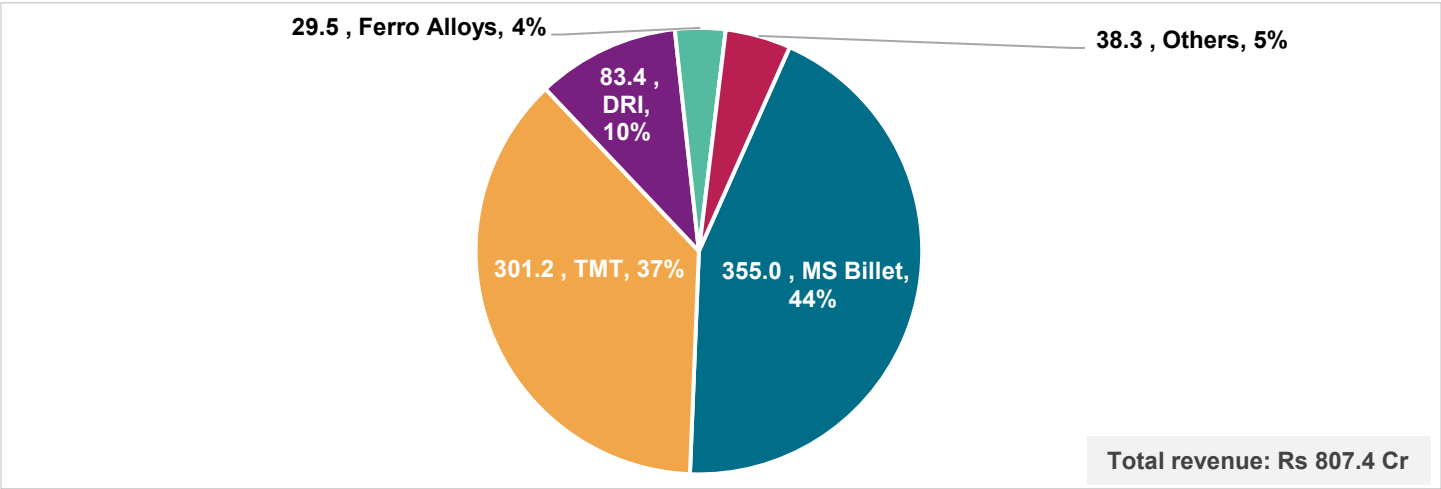
Revenue (Fiscal 2020-2025)



Source: Company reports

Note: Sales for all the products and the service income considered

Revenue split by products sold (Fiscal 2025)(INR Cr, % share)

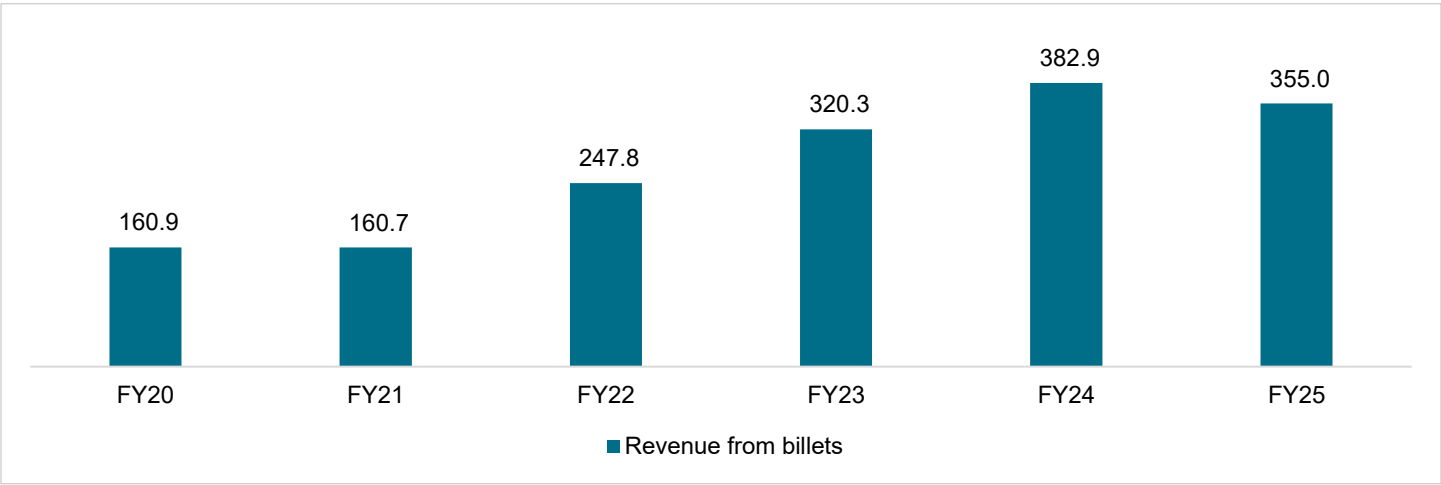


Note: Ferro alloys include Silicon Manganese and pig iron, Others include coal, Mg ore and Iron Ore

Sales value does not include the sale of byproduct and other small sales.

Source: Company reports

Revenue generated from selling billets (Rs crore)



Source: Company reports

The revenue from selling billets accounted for 44% of the revenue in fiscal 2025. The sales value increased at a CAGR of ~17% between Fiscal 2020-2025 and the average realization for billets increased from INR 27,829 per tonne in Fiscal 2020 to INR 40,257 per tonne in Fiscal 2025.

Some of the major customers of Sky Alloys for the products sold include companies such as Madhav Iron and Steels, Shree Subhash Steels, Shree Khatudham Ispat & Power Private Limited, Shree Dadi Kripa Ispat and Power Private Limited, Agroha Steel and Power Private Limited, Chandrahasni Ispat Private Limited, Shri Bajrang Power and Ispat Ltd , Anup Steel, Steel Mart, and Rama Power and Steel Private Limited.

5.4 Future expansion plans and strategies for business growth

Sky Alloys has outlined its plans to enhance its manufacturing capabilities and increase efficiency. The company has set up a rolling mill with a production capacity of 95,000 TPA for in-house TMT bar manufacturing. It also plans to expand its DRI unit by an additional 60,000 MTPA and increase its captive power generation capacity by 50MW Solar Power plant and 4MW Thermal Power. The company holds 19.11% stake in its associate company, Sky Steel and Power Private Limited, which is currently under CAPEX stage. Additionally, Sky Alloys has upgraded its captive power infrastructure, including the installation of a 2022MW turbine, to improve operational efficiency and reduce costs. These plans aim to support the company's growth and operations.

In terms of cost optimization, Sky Alloys has recently upgraded its captive turbine from 16MW to 2022MW, which is expected to result in a gross monthly savings of approximately ₹12 crore. The company benefits from a coal linkage agreement at subsidized rates, making its captive power generation more cost-effective than conventional sources. The cost of captive power generation is approximately ₹3.50 to ₹3.60 per unit, whereas electricity procured from the grid costs ₹7.00 to ₹7.20 per unit.

Solar Power Plant Project

In 2025, the company plans to install a 50 MW Solar plant to reduce its electricity load from the state government company, CSPDCL. The capital expenditure for this project is estimated to be ₹150 crores. Upon commissioning, the company expects to save approximately ₹30 crores yearly. The project will be completed in three phases, with the first phase involving the installation of 9MW, expected to be commissioned by the end of December 2025.

5.5 SWOT analysis of Indian steel industry

India is the 2nd largest steel producing country with a rich mineral base with abundant iron ore reserves and other raw materials required for iron & steelmaking. It enjoys certain strengths and weaknesses as detailed below:

Strengths

- India is a mineral rich country with abundant reserves of iron ore and other raw materials required for steel making
- India has skilled manpower base commensurate with skill which comes at low unit labour costs
- India has maintained global trade relations with different countries and has emerged as top global competitor in steel industry
- Globally, the countries are shifting towards modern steelmaking technologies facilitating the country to meet its decarbonization targets. Indian steelmakers are also adapting to the changing technology to keep up with global competitors.

Weaknesses

- High dependence on imports for a major raw material- coking coal required in steelmaking which is majorly sourced through Australia
- Steel is a capital-intensive industry, which requires funding the expansion through borrowings; India has higher cost of finance as compared to other countries such as China, Japan, and Korea
- High cost of energy coupled with higher duties and taxes eats into the margins of players
- Dependence on modernized technologies for steel manufacturing equipment's being imported from other countries
- High social costs, slow statutory clearances for plant set up and other activities creates a barrier while attracting investments from foreign players to expand in India

Opportunities

- India being a developing economy has enormous scope for increasing per capita steel consumption in its end-use sectors such as building & construction, infrastructure, automobile, packaging, engineering industries, irrigation, consumer goods, etc
- Huge infrastructure demand arising due to continued Government investments and rapid urbanization
- Indian rural sector is fairly untapped of multi-faceted uses of steel
- Rising steel demand in the country leading to increased investments from foreign players to set up steel-making facilities in India

Threats

- Global economic slowdown to impact steel consumption across the globe, subdued demand and weak international prices of steel will impact Indian commodity market
- India must keep up with the technological change adopted globally to remain globally competitive
- Substitution by Aluminium, plastics, etc in some end-use applications
- Government regulations and policies imposed by individual nations to create barriers to trade

5.6 SWOT analysis of Sky Alloys

Strengths

- Sky Alloys has operations beginning from DRI making to steel manufacturing through IF which supports in reducing the cost of production
- They have established raw material linkage ensuring steady availability of raw materials for continuous production
- Availability of land presents potential to expand their facility in future
- Sky Alloys has developed strong skilled manpower base to manage plant operations smoothly
- The location of plant present opportunity to source cheap labour from nearby villages
- They experience strong support from the local government
- Efficient working capital cycle with reduced debtor days and optimized payable days

Weaknesses

- With changing rules and regulations imposed by Central Government, the operations and business of Sky Alloys is affected similar to other players in the industry
- The infrastructure set up by them is inadequate in comparison to other integrated national players
- Sky Alloys bears a high social cost in addition to the CSR activities executed by them as it is the only plant present in the village location
- Expansion of DRI & Power Plant capacity depends on regulatory approvals, licenses and timely execution, which could delay benefits realization.

Opportunities

- India being a developing economy has high infrastructure demand driving the demand for steel products.

- Sky Alloys is in the expansion phase in which they can adopt modern technologies to carry out sustainable operations
- Sky Alloys has opportunities to grow its business by tapping the rural demand
- Captive power cost advantage through [2022](#)MW turbine upgrade
- Direct access to the TMT Bar retail market opens avenues for additional sales

Threats

- With global economy facing slowdowns and heading towards recession, Indian steel sector would face irregularities in terms of prices and might face trade tension
- Presence of national players such as JSW, SAIL, JSPL, etc in the state of Chhattisgarh along with regional players creates intense competition for Sky Alloys
- Imposition of Government and environmental regulations in domestic and international markets poses a threat to the players in the industry
- Trade tensions and geopolitical risks affecting steel demand

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