Industry Report

On

Indian Stainless Steel

04 June 2025

Disclaimer

*This study has been undertaken through extensive secondary research, which involves compiling inputs from publicly available sources, including official publications and research reports. Estimates provided by Dun & Bradstreet ("**Dun & Bradstreet**") and its assumptions are based on varying levels of quantitative and qualitative analysis including industry journals, company reports and information in the public domain.*

Dun & Bradstreet has prepared this study in an independent and objective manner, and it has taken all reasonable care to ensure its accuracy and completeness. We believe that this study presents a true and fair view of the industry within the limitations of, among others, secondary statistics, and research, and it does not purport to be exhaustive. The results that can be or are derived from these findings are based on certain assumptions and parameters/conditions. As such, a blanket, generic use of the derived results or the methodology is not encouraged.

Forecasts, estimates, predictions, and other forward-looking statements contained in this report are inherently uncertain because of changes in factors underlying their assumptions, or events or combinations of events that cannot be reasonably foreseen. Actual results and future events could differ materially from such forecasts, estimates, predictions, or such statements.

The recipient should conduct its own investigation and analysis of all facts and information contained in this report is a part and the recipient must rely on its own examination and the terms of the transaction, as and when discussed. The recipients should not construe any of the contents in this report as advice relating to business, financial, legal, taxation or investment matters and are advised to consult their own business, financial, legal, taxation, and other advisors concerning the transaction.

Contents

India Macroeconomic Analysis

GDP Growth Scenario

India's economy demonstrated resilience with an estimated GDP growth of 6.5% in FY2024, marking a return to pre-pandemic growth trajectories. Despite global geopolitical uncertainties impacting energy and commodity markets, India continues to be one of the fastest-growing major economies. Key factors contributing to this robust growth include resilience to external shocks and a significant rebound in private consumption. This resurgence in domestic demand, coupled with a revival in export demand, has led to increased industrial activity. Capacity utilization rates in the manufacturing sector are improving as industries scale up production, potentially ushering in a new capital expenditure (capex) cycle. The government's universal vaccination program has also played a pivotal role in restoring consumer confidence, thereby bolstering private consumption.

Country	Real GDP Growth (2023)	Real GDP Growth 2024	Projected GDP Growth 2025	Projected GDP Growth 2026
India	7.8%	6.5%	6.2 %	6.3%
China	5.2%	5%	4%	4%
Russia	3.6%	4.1%	1.5%	0.9%
Brazil	2.9%	-3%	2%	2%
United States	2.5%	2.8%	1.8%	1.7%
Japan	1.9%	0.1%	0.6%	0.6%
Canada	1.1%	1.5%	1.4%	1.6%
Italy	0.9%	0.7%	0.4%	0.8%
France	0.7%[1]	1.1%	0.6%	1%
South Africa	0.6%	0.6%	1%	1.3%
United Kingdom	0.1%	1.1%	1.1%	1.4%
Germany	-0.3%	-0.2%	0%	0.9%

Source: The International Monetary Fund

Countries considered include - Largest Developed Economies and BRICS (Brazil, Russia, India, China, and South)

Countries have been arranged in descending order of GDP growth in 2023).

[1] European Commission

Recognizing the need for external stimuli, the government has amplified its infrastructure spending, positively influencing economic growth. The central government's capital expenditure witnessed a 37.4% increase, reaching ₹10 trillion in the Union Budget 2023–24. Additionally, financial assistance to states for capex was raised by 30%, amounting to ₹1.3 trillion. The Interim Budget 2024–25 further announced an 11.1% increase in capital expenditure outlay, totalling ₹11.11 trillion, which constitutes 3.4% of GDP. These measures have instilled confidence in the private sector, attracting increased private investment.

On the financial front, the health of major banks has improved, enhancing credit supply. With rising capacity utilization, the corporate sector is expected to demand more credit to fund expansion plans. The banking industry is well-positioned to meet this demand. Notably, credit growth to the micro, small, and medium enterprise (MSME) sector saw a 12.3% increase, with outstanding credit reaching ₹22.6 trillion in FY2023 compared to FY2022. The extended Emergency Credit Linked Guarantee Scheme (ECLGS) by the Union Government has significantly contributed to this credit expansion.

According to the second advance estimates for 2023–24, India's GDP grew by 7.6%, up from 7.0% in the previous fiscal year, driven by strong performances in manufacturing, mining, and construction sectors. This year-on-year growth acceleration is also attributed to robust investment demand, primarily led by public capital expenditure.

As per International Monetary Fund's World Economic Outlook April 2025, India is set to become the world's fourth largest economy by end of 2025. This achievement is driven by the country's expanding services sector, a rapidly growing technology industry, and strong domestic demand factors that continue to fuel its economic rise. The International Monetary Fund (IMF) projects India's real GDP growth at 6.2% for both FY2025 and FY2026, highlighting the nation's sustained economic momentum despite global challenges.

There are few factors aiding India's economic recovery notably its resilience to external shocks which is supported by solid economic fundamentals, a stable and well-capitalized financial system, a consistent emphasis on sustainable, long-term development and rebound in private consumption. This rebound in private consumption is bringing back the focus on improvements in domestic demand, which together with revival in export demand is a precursor to higher industrial activity. Already the capacity utilization rates in Indian manufacturing sector are recovering as industries have stepped up their production volumes. As this momentum sustains, the country may enter a new capex cycle. The universal vaccination

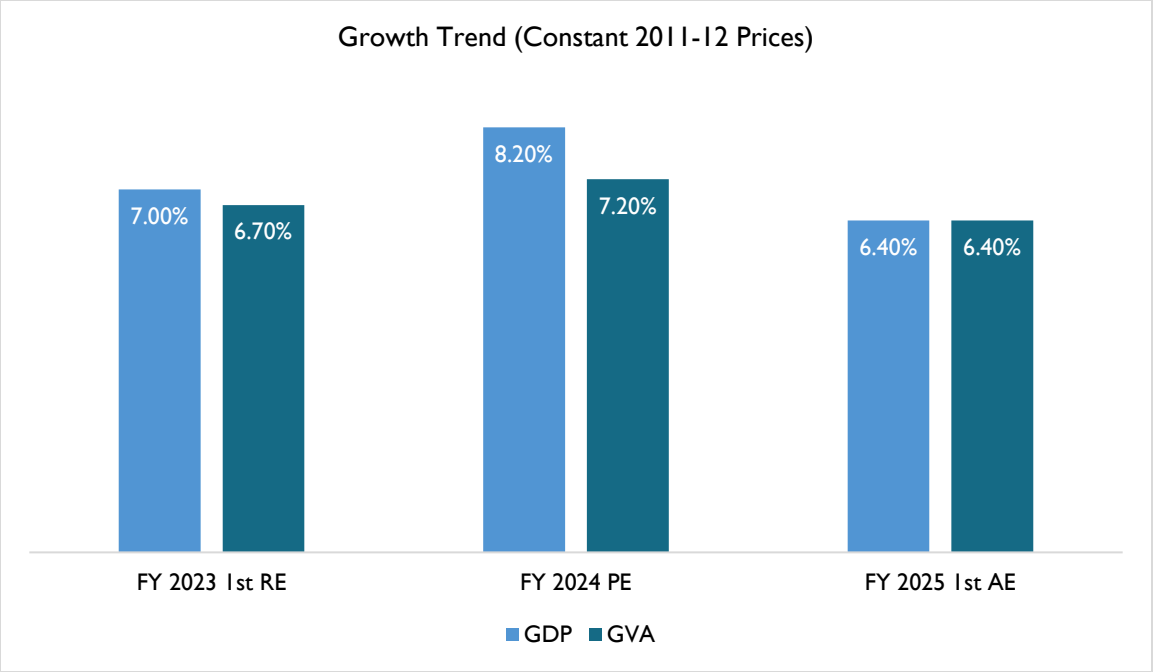
program by the Government has played a big part in reinstating confidence among the population, in turn helped to revive private consumption.

Recognizing the need for external stimuli, the Government of India significantly increased infrastructure spending, positively impacting economic growth. The central government's capital expenditure was raised by 37.4%, amounting to ₹10 trillion in the Union Budget 2023–24. Moreover, financial assistance to states for capex rose by 30%, totalling ₹1.3 trillion. The momentum continued with the Interim Budget 2024–25, which announced an 11.1% rise in capital expenditure to ₹11.11 trillion—equivalent to 3.4% of GDP—instilling greater confidence in the private sector and attracting additional private investment.

On the financial front, the health of major banks particularly Public Sector Banks (PSBs) has significantly improved, enabling a more efficient flow of credit into the economy. The Gross Non-Performing Assets (NPA) ratio of PSBs has declined sharply to 3.12% as of September 2024, down from a peak of 14.58% in March 2018, reflecting strengthened asset quality and effective resolution mechanisms. Also, corporate demand for credit to support expansion is expected to grow. The banking sector is well-prepared to meet this demand. A key indicator of this trend is the 12.3% growth in credit to the micro, small, and medium enterprise (MSME) sector in FY2023, with outstanding credit reaching ₹22.6 trillion. The government's extended Emergency Credit Linked Guarantee Scheme (ECLGS) played a crucial role in this expansion.

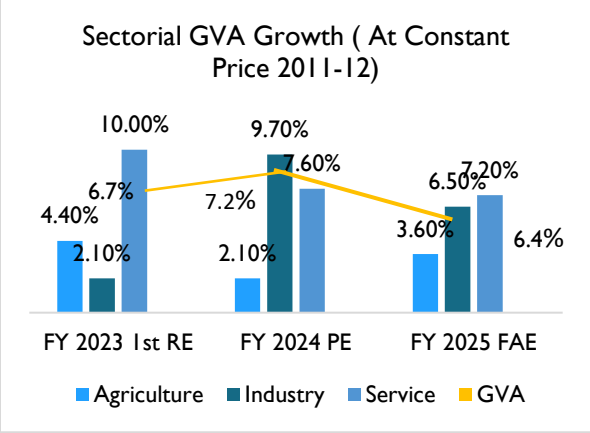
According to the Provisional Estimates for FY 2024[2], India's GDP grew by 8.2% and GVA by 7.2%, a significant rise compared to 7.0% GDP and 6.7% GVA in FY 2023 (1st Revised Estimates). This acceleration was primarily supported by robust performances in manufacturing, mining, and construction sectors. The increase also reflects strong investment demand led by public capex. As per the First Advance Estimates for FY 2025, GDP and GVA are both projected to grow at 6.4%, indicating sustained, albeit moderated, economic momentum going forward.

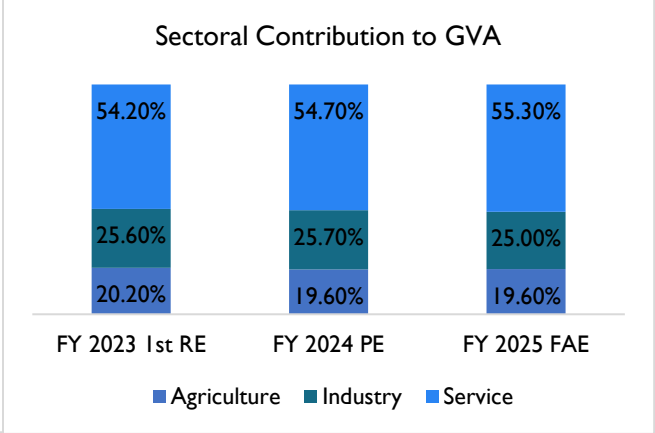
[2] As per MOSPI National Accounts Statistics 2024 – 25 (this is the latest report, and here it is given as provisional)



Source: Ministry of Statistics & Programme Implementation (MOSPI), National Account Statistics, 2024-25
RE stands for Revised Estimates, SAE stands for Second Advance Estimates
Note: The figures provided in the latest MOSPI 2025 report are provisional estimates for the year 2024

Sectoral Contribution to GVA and annual growth trend





Source: Ministry of Statistics & Programme Implementation (MOSPI)

Sectoral analysis of Gross Value Added (GVA) highlights a robust recovery in the industrial sector, which recorded a sharp year-on-year increase of 9% in FY 2024, significantly up from 2.1% in the previous fiscal. Within the industrial segment, key sub-sectors such as mining, manufacturing, and construction registered substantial growth of 8.1%, 8.5%, and 10.7% respectively in FY 2024, compared to 1.9%, -2.2%, and 9.44% in FY 2023. However, the utilities sector saw a slight moderation in its growth trajectory, with a 7.5% y-o-y increase in FY 2024 versus 10% in the previous year. As per the First Advance Estimates for FY 2025,

the industrial sector is expected to grow at a slower pace of 6.5%, indicating a possible normalization after a period of strong recovery.

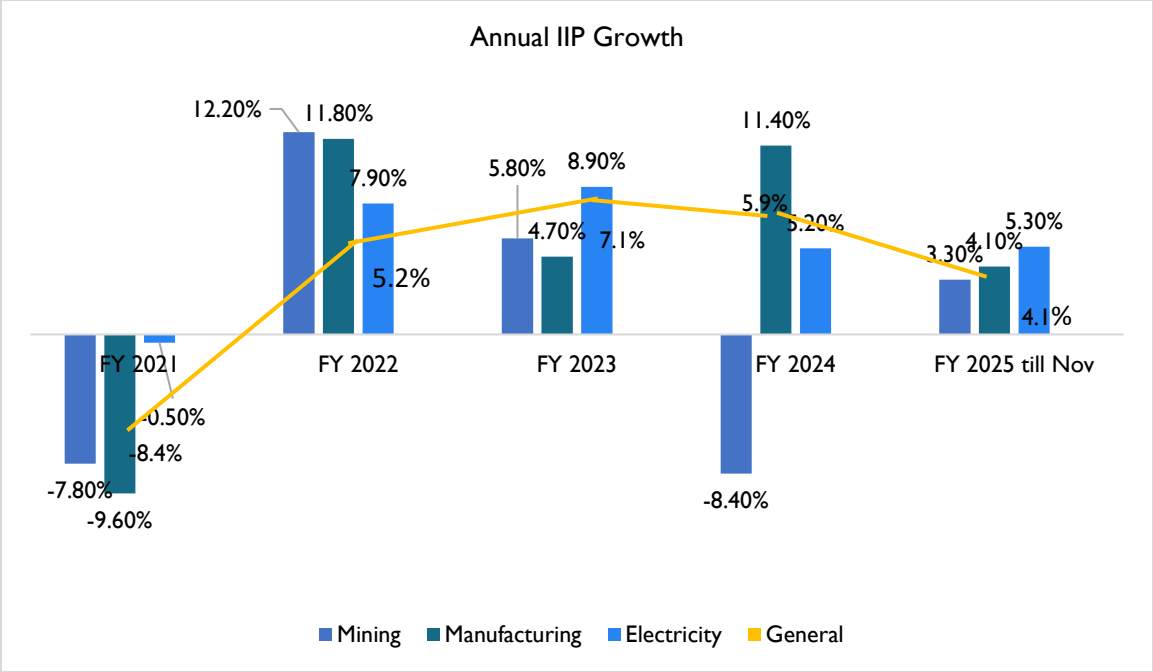
Turning to the services sector, FY 2023 marked a phase of normalization as businesses resumed operations following the easing of COVID-19 restrictions, progress in vaccination efforts, and broader public adaptation to the "living with the virus" approach. As mobility returned to pre-pandemic levels, the services sector provided strong support to economic recovery. The trade, hotel, transport, communication, and broadcasting subsector grew by 10% in FY 2023, up from 9% in FY 2022. However, the momentum slowed in FY 2024, with overall service sector growth moderating to 7.5%, down from 10% in FY 2023. This decline was primarily driven by a sharp deceleration in the Trade, Hotel, Transport, Communication, and Broadcasting segment, where growth fell from 12% in FY 2023 to 6.5% in FY 2024—likely influenced by the normalization of the base effect and reduced discretionary spending. Financial services, real estate, and professional services posted a y-o-y growth of 8.21% in FY 2024 compared to 9.05% in the prior year, while public administration and defense services grew by 7.75%, down from 8.92% in FY 2023. For FY 2025, the services sector is projected to maintain moderate momentum, with an estimated growth of 7.2% as per the advance estimates.

Meanwhile, the agriculture sector exhibited modest performance, recording 4.4% growth in FY 2023 before slipping to 2.1% in FY 2024. The sector is expected to see a slight recovery in FY 2025 with a growth estimate of 3.6%. Overall, the GVA growth rate stood at 6.7% in FY 2023, rose to 7.2% in FY 2024, and is anticipated to moderate to 6.4% in FY 2025 according to the latest estimates, suggesting a broadly balanced yet slightly decelerating growth trend across sectors.

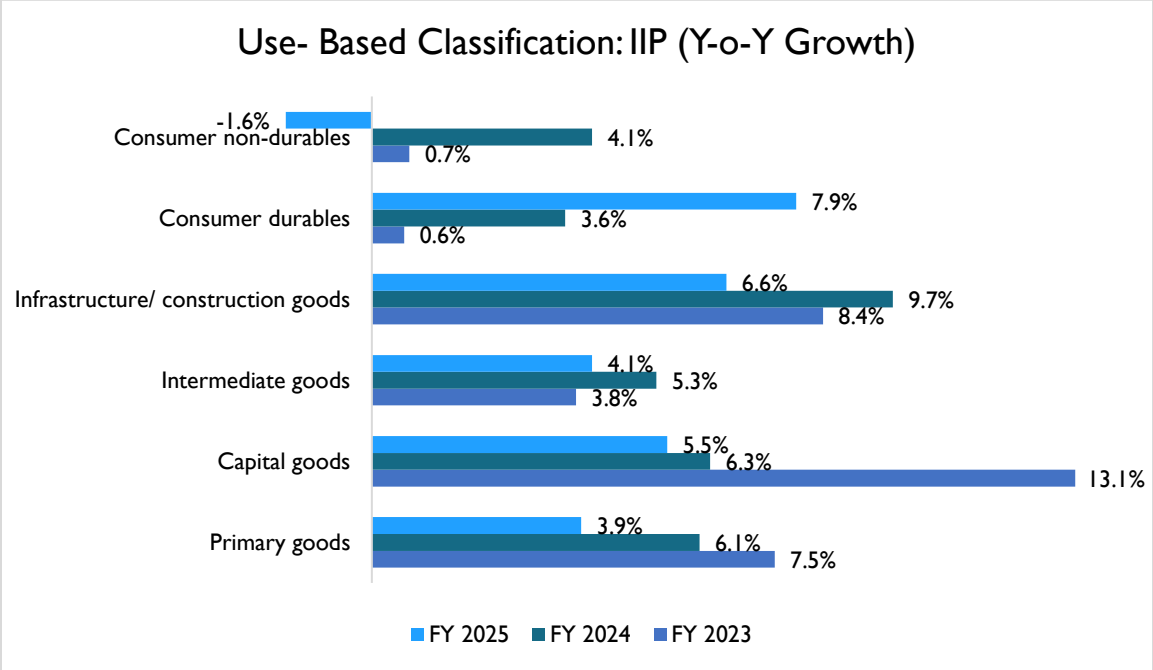
Index of Industrial Production

The performance of the industrial sector, as measured by the Index of Industrial Production (IIP), showed a mild improvement in FY 2024, growing by 5.8% compared to 5.2% in FY 2023. The manufacturing index, which holds a weightage of 77.6% in the overall index, expanded by 5.5% in FY 2024 against 4.7% in the previous fiscal year. The mining sector also recorded a notable uptick with a growth of 7.5% in FY 2024, up from 5.8% in FY 2023. Meanwhile, the electricity sector saw a slight moderation, growing at 7.15% in FY 2024 compared to a higher 8.9% growth in FY 2023.

As per the latest data available for FY 2025 (till November), the industrial sector's momentum has somewhat moderated. The mining, manufacturing, and electricity indices registered growth of 3.3%, 4.1%, and 5.3% respectively during this period, indicating a slowdown across key segments.



Source: Ministry of Statistics & Programme Implementation (MOSPI)



Sources: MOSPI

From a use-based classification perspective, FY 2024 saw mixed trends. Capital goods grew by 6.3% and primary goods by 6.1%, while intermediate goods and infrastructure/construction goods performed

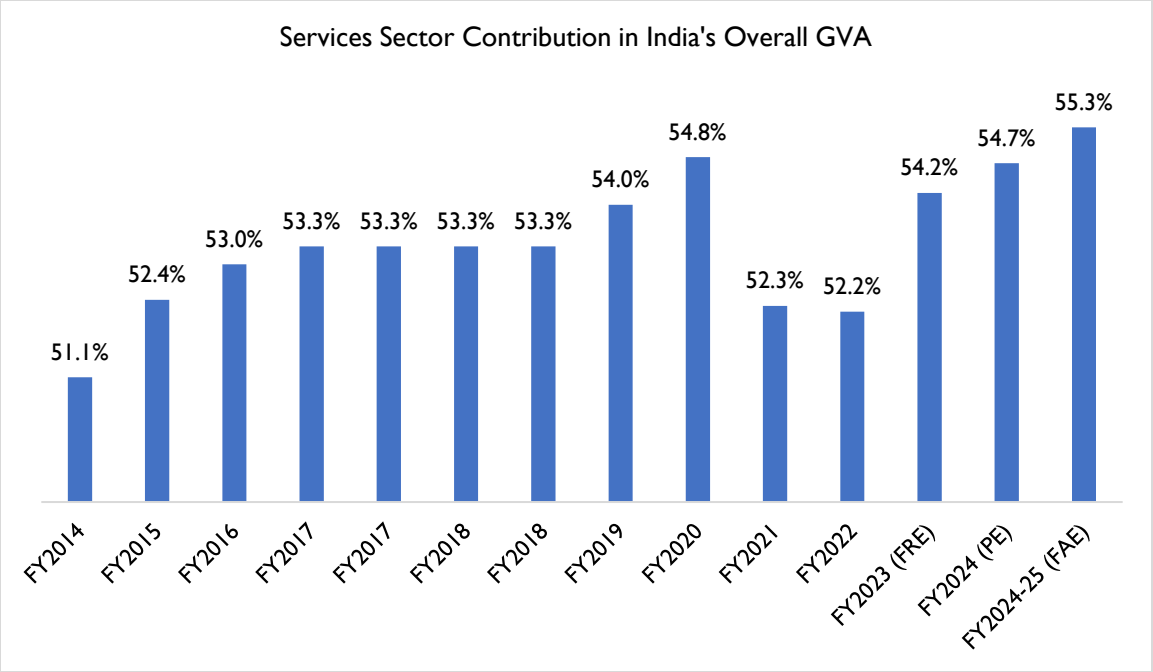
strongly at 5.3% and 9.7%, respectively. Consumer durables and non-durables registered growth rates of 3.6% and 4.1%, respectively, showing a marked recovery from near-stagnant levels in FY 2023.

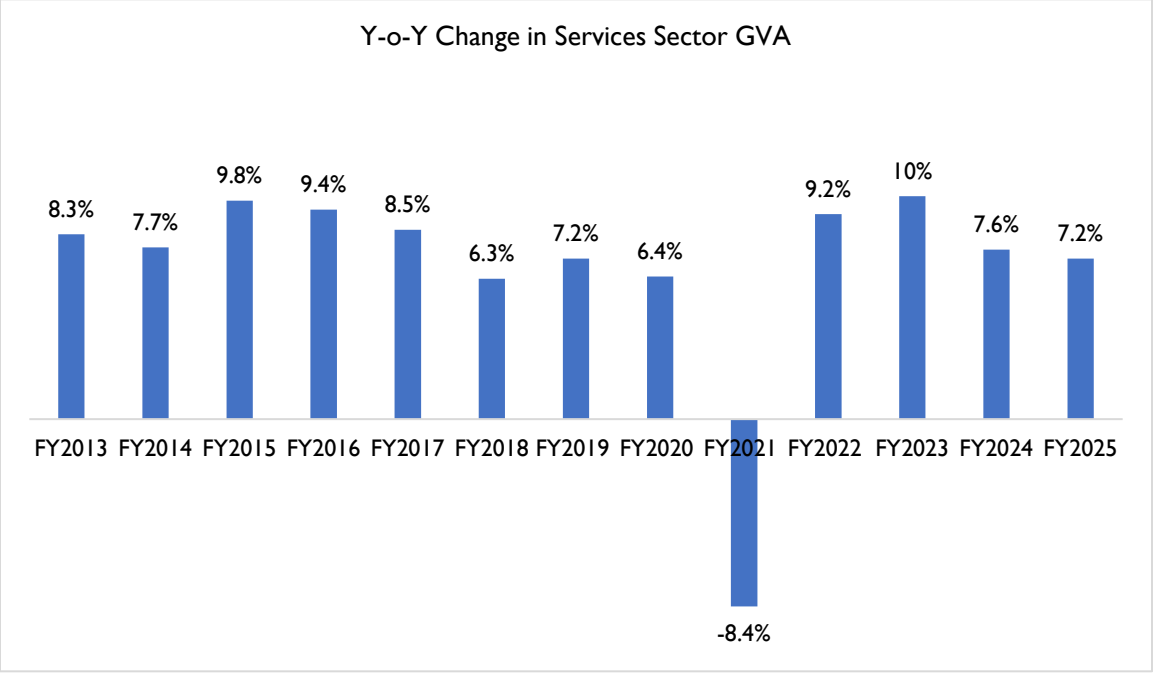
In FY 2025 (till November), trends have diverged across segments. Primary goods grew by 3.9%, capital goods by 5.5%, and intermediate goods by 4.1%. Infrastructure/construction goods maintained relative strength with 6.6% growth. Notably, consumer durables surged to 7.9%, reflecting strong discretionary demand, while consumer non-durables contracted by 1.6%, pointing to subdued rural or essential consumption demand.

Despite some segments registering decent growth, the overall mild increase in IIP underscores persistent challenges in the industrial operating environment. Global headwinds, high inflation, and a tight monetary policy framework appear to have constrained broader industrial momentum. Nonetheless, improvements in infrastructure-linked and investment-driven goods offer some optimism for a more resilient industrial recovery going forward.

Expansion in Service Sector

The services sector continues to be a major pillar of India's economic growth. Since 2012, its contribution to India's Gross Value Added (GVA) has risen significantly—from 49% to 55.3% as per the First Advance Estimates for FY 2024–25, highlighting its growing dominance. Excluding the pandemic-induced contraction of 8.4% in FY 2021, the services sector has recorded an average annual growth of 8.2% between FY 2013 and FY 2024. Moreover, it has demonstrated a stronger post-pandemic recovery with an average growth of 8.8% during FY 2022–24. Although the growth rate moderated slightly to 7.6% in FY 2024 and further to 7.2% in FY 2025 (as per the latest provisional data), the sector's momentum remains resilient.





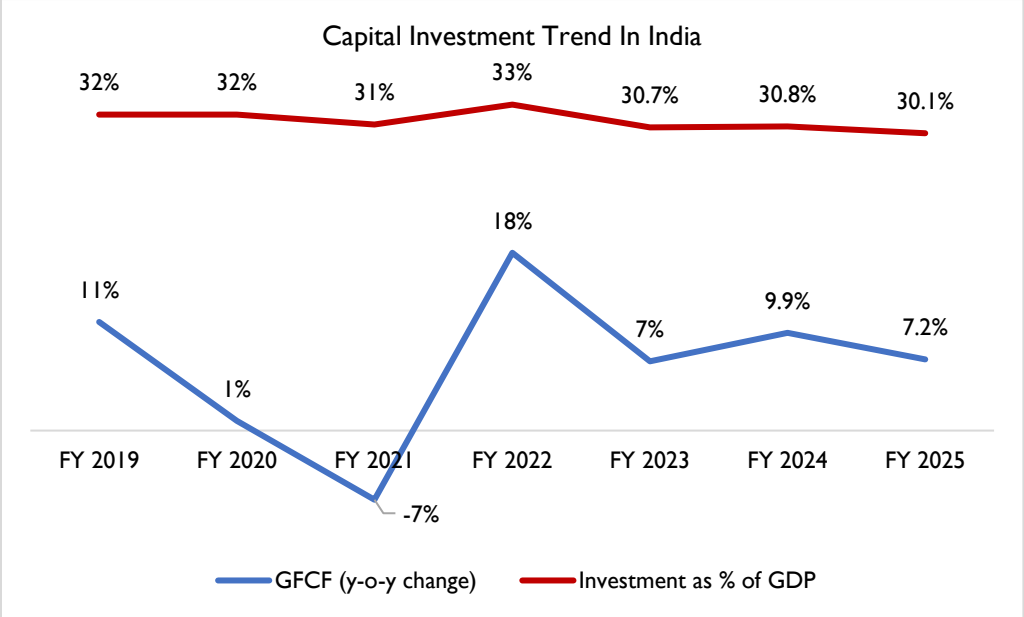
Source: Ministry of Statistics & Programme Implementation (MOSPI)

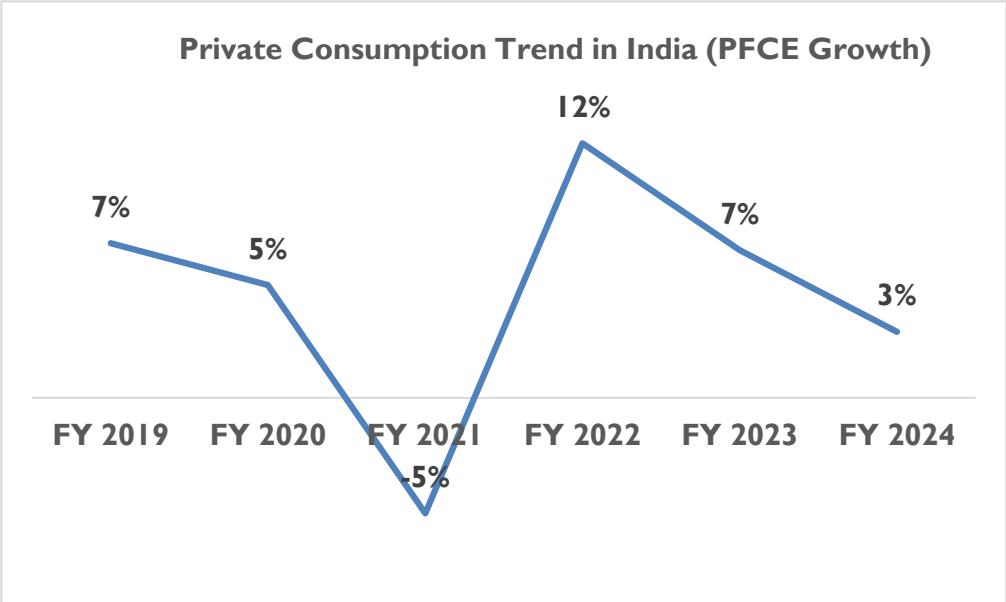
The expansion of this sector has catalysed the development of several high-growth industries such as information technology, healthcare, tourism, transport, and financial services. Notably, HSBC India Services Purchasing Managers' Index (PMI), a key barometer for service sector activity, rose to 61.4 in

May 2024, up from 60.8 in April 2024, indicating strong growth. The index has consistently remained above the 50-mark since August 2021, underscoring sustained expansion in the sector.

Investment & Consumption Scenario

Other major indicators such as Gross Fixed Capital Formation (GFCF), a key measure of investment activity, gained further strength in FY 2024, registering a 9.9% year-on-year growth compared to 7% in FY 2023. However, the momentum slightly moderated in FY 2025, with GFCF growing at 7.2% y-o-y. Despite this deceleration, investment activity remained relatively robust. The investment-to-GDP ratio, which had touched a high of 34% in FY 2022, stood at 30.8% in FY 2024 and slightly softened to 30.1% in FY 2025, indicating sustained but cautious investment sentiment.



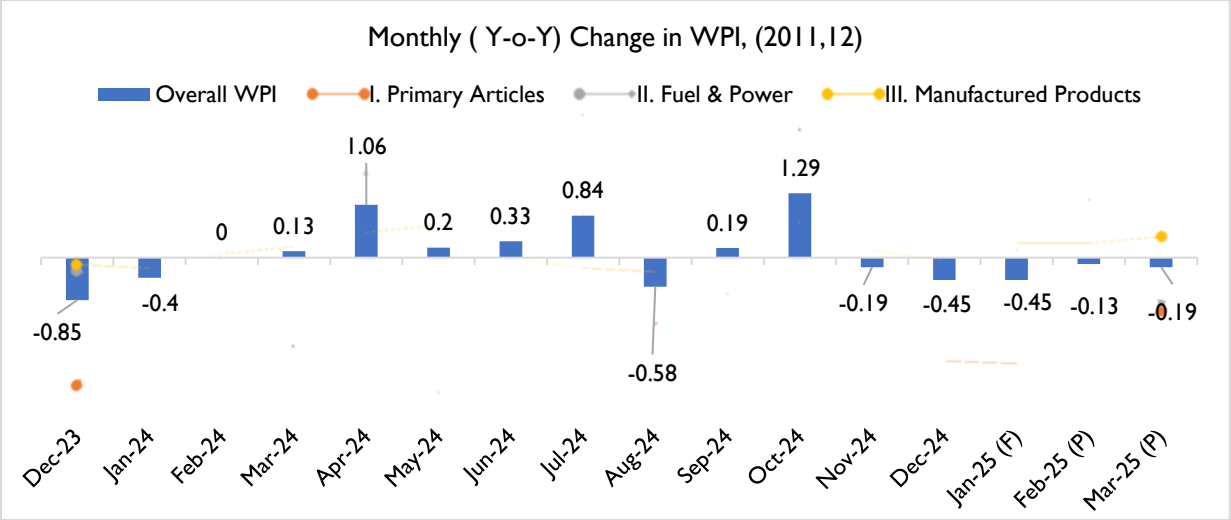


Sources: MOSPI

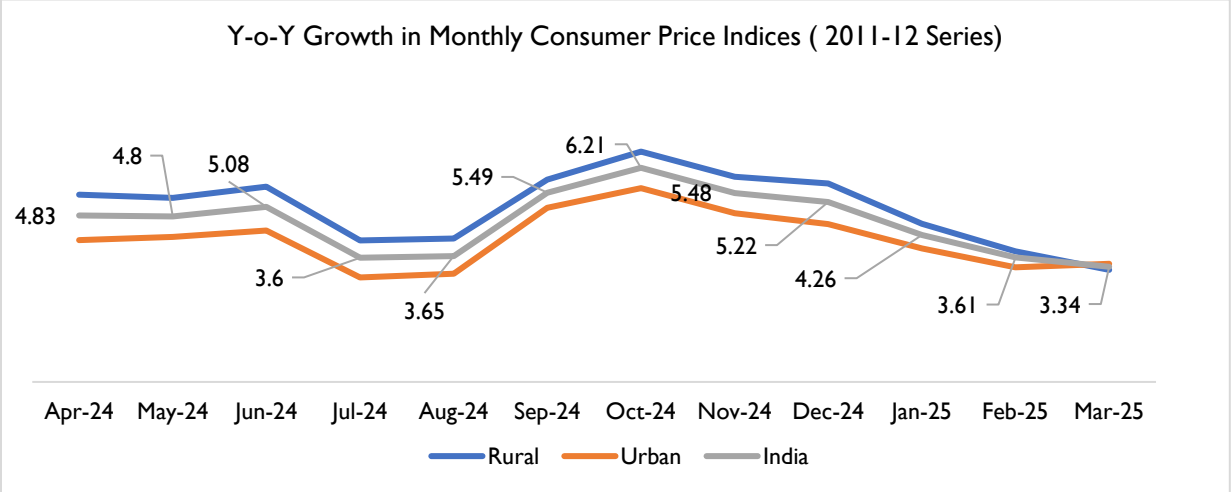
Private Final Expenditure (PFCE) a realistic proxy to gauge household spending, observed decelerated and registered 3.1% y-o-y growth in FY 2024 which is less than half of the previous year indicating sustained weakness in consumer spending.

Inflation Scenario

The inflation rate based on Wholesale Price Index (WPI) exhibited a rise to 1.3% in the month of April 2024 on the back of steady growth in the prices of primary articles which grew by 5% in April 2024 on y-o-y basis. Increasing prices of food articles and energy prices contributed to increasing inflation. WPI inflation remained volatile in the following month, moderating to 0.2% in May 2024, then rising to 0.84% in July, before slipping into deflation again at -0.58% in August 2024. It rebounded to 1.29% in October but turned negative again by March 2025 at -0.19%. Retail inflation rate (as measured by Consumer Price Index) eased to 4.83% in April 2024 as compared to 4.85% in March 2024.



Source: MOSPI, Office of Economic Advisor.

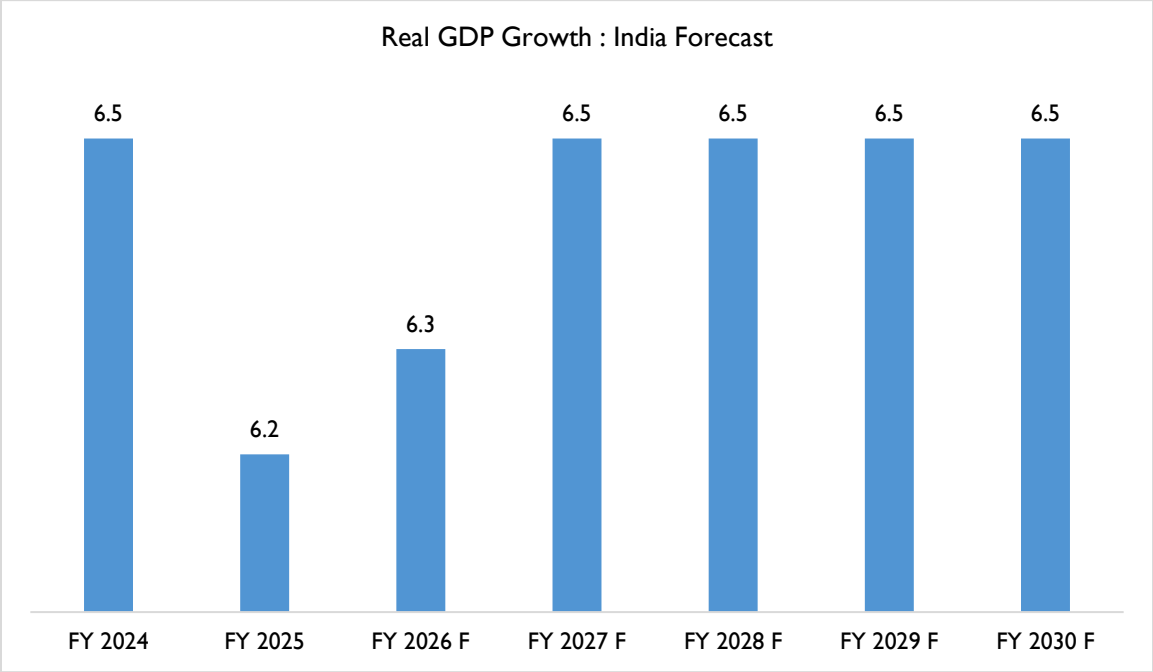


Source: Ministry of Statistics & Programme Implementation (MOSPI)

The CPI inflation for rural and urban for the month of April 2024 was 5.43% and 4.11% against 5.51% and 4.14% respectively in March 2024. Retail inflation moderated during FY 2024 after the peak of 7.4% in July 2023 and it fluctuated between 4.85%-6.83%. CPI measured below 6% tolerance limit of the central bank since September 2023 and continued to remain within the limit till March 2025, with the headline inflation easing further to 3.34% in March 2025 (3.25% rural and 3.43% urban). As a part of anti-inflationary measure, the RBI has hiked the repo rate by 250 bps since May 2022 to the current level of 6.0% while it has been holding the rate at 6.5% since 8 Feb 2023.

India's Economic Growth Outlook

Looking ahead to 2024, India's projected GDP growth of 6.8% in 2024 stands out as the fastest among major emerging markets, significantly outpacing China's 4.6% and Brazil's 2.2%. However, the actual GDP growth for FY2024 stood at 6.5%, as per latest estimates. This robust growth trajectory is expected to sustain at 6.2% in FY2025, followed by a steady 6.3% in FY2026, and return to 6.5% annually from FY2027 to FY2030, reflecting strong economic fundamentals and continued momentum.



Source: IMF

This decent growth momentum in near term (2024) is accompanied by a slowdown in inflation, as well as various other factors in the medium to long term that will support the economy. These include enhancements in physical infrastructure, advancements in digital and payment technology, improvements in the ease of doing business and a higher quality of fiscal expenditure to foster sustained growth. On the demand side, improving employment conditions and moderating inflation are expected to stimulate household consumption. Further, the investment cycle is gaining traction, propelled by sustained government capital expenditure, increased capacity utilisation and rising credit flow. Additionally, there are positive signs of improvement in net external demand, as reflected in the narrowing merchandise trade deficit. Despite the supply disruptions, exports clocked positive y-o-y growth in December 2023 and January 2024.

From uplifting the underprivileged to energizing the nation's infrastructure development, the Government has outlined its vision to propel India's advancement and achieve a 'Viksit Bharat' by 2047

in the interim budget announced on 1st Feb 2024. Noteworthy positives in the budget include achieving a lower-than-targeted fiscal deficit for FY24 and setting a lower-than expected fiscal deficit target for FY25, proposing dedicated commodity corridors and port connectivity corridors, providing long-term financing at low or nil interest rates to the private sector to step up R&D in the sunrise sectors. Achieving a reduced fiscal deficit of 5.8% in FY24 and projecting a lower-than-anticipated fiscal deficit of 5.1% for FY25 are positive credit outcomes for India. This showcases the country's capability to pursue a high-growth trajectory while adhering to the fiscal glide path. There has been a significant boost to capital expenditure for two consecutive years; capital expenditure – which is budgeted at 3.4% of GDP (INR 11.1 trillion/USD 134 bn) for 2024/25 – is at a 21-year high (3.3% of GDP in 2023/24). The enhancement of port connectivity, coupled with the establishment of dedicated commodity corridors (energy, mineral and cement), is poised to enhance manufacturing competitiveness. This strategic move aims to fulfil India's export targets and reduce logistics costs.

However, headwinds to external demand emanate from recession in key exporting partners - the UK and Germany (which collectively account for over 5% of India's export portfolio in FY 2024) - and the spiralling effect it will have on other European countries. Supply disruptions posed by the conflict in the Red Sea, leading to rerouting of shipments through Africa, are impacting sectors exposed to exports to Europe, running on thin margins, especially small businesses. Although headline inflation moderated to 5.1% in January 2024, a three-month low, volatility in crude prices and uncertainties about food inflation are likely to keep the central bank cautious in the near term.

India's optimistic economic outlook is underpinned by its demographic dividend, which brings a substantial workforce that boosts labor participation and productivity. The burgeoning middle class and urbanization contribute to increased domestic consumption, driven by rising incomes and purchasing power. Extensive investments in infrastructure, encompassing roads, railways, ports, and digital connectivity, are enhancing productivity and efficiency, with government initiatives like the Smart Cities Mission and PM Gati Shakti creating a conducive growth environment. This digital transformation, catalyzed by initiatives such as Digital India, is fostering a tech-driven economy marked by enhanced internet penetration, digital payments, and e-governance, thereby fueling growth in sectors like fintech, e-commerce, and digital services. The push to position India as a global manufacturing hub through Make in India and PLI schemes is further boosting industrial output, exports, and domestic production capabilities. Compared to other major emerging markets facing demographic and economic challenges, India's combination of demographic strengths, policy reforms, and strategic initiatives positions it as a standout performer and a significant driver of global economic growth in the foreseeable future.

Some of the key factors that would propel India's economic growth.

Government focus on infrastructure development & Road Infrastructure Improvement

Infrastructure development has remained recurring theme in India's economic development. The launch of flagship policies like National Infrastructure Pipeline (NIP), and PM Gati Shakti plan have provided the coordination & collaboration that was lacking earlier. Both NIP and PM Gati Shakti are ambitious billion-dollar plans that aim to transform India's infrastructure, elevating it to the next level. These projects are expected to improve freight movement, debottleneck the logistics sector, and improve the industrial production landscape, which would provide the incremental growth in GDP India's growing economic activities are propelling the development and expansion of road infrastructure across the nation. As the Indian economy continues its robust growth trajectory, it relies heavily on the presence of efficient transportation networks to facilitate the movement of goods and people. Roads play a vital role in opening areas and stimulating economic and social development and growth of several allied industries including lithium-ion batteries application in several sector.

Development of Domestic Manufacturing Capability

The Government launched Production Linked Incentive (PLI) scheme in early 2020, initially aimed at improving domestic manufacturing capability in large scale electronic manufacturing and gradually extended to other sectors. At present it covers 14 sectors, ranging from medical devices to solar PV modules. The PLI scheme provides incentives to companies on incremental sales of products manufactured in India. This incentive structure is aimed to attracting private investment into setting up manufacturing units and thereby beef up the domestic production capabilities. The overall incentives earmarked for PLI scheme is estimated to be INR 2 lakh crore. If fully realized, the PLI scheme would have the ability to add nearly 4% to annual GDP growth, by way of incremental revenue generated from the newly formed manufacturing units.

Strong Domestic Demand

Domestic demand has traditionally been one of the strong drivers of Indian economy. After a brief lull caused by Covid-19 pandemic, the domestic demand is recovering. Consumer confidence surveys by Reserve Bank / other institutions are points to an improvement in consumer confidence index, which is a precursor of improving demand. India has a strong middle-class segment which has been the major driver of domestic demand. Factors like fast paced urbanization and improving income scenario in rural markets are expected to accelerate domestic demand further. This revival is perfectly captured by the private final consumption expenditure (PFCE) metric. PFCE as a percentage of GDP increased to nearly

59.2% during the first half of FY 2023F[3], which is the highest level it has achieved during the past few years. Although pent-up demand has played a part in this surge, this is an indication of normalization of demand. There are two factors that are driving this domestic demand: One the large pool of consumers and second the improvement in purchasing power. As per National Statistics Office (NSO) India's per capita income (in current prices) stood at INR 1.72 lakhs in FY 2023 which is nearly double of what it was in FY 2015. This increase in per capita income has impacted the purchasing pattern as well as disposable spending pattern in the country. Consumer driven domestic demand is majorly fueled by this growth in per capita income.

Digitization Reforms

Ongoing digitization reforms and the resultant efficiency gains accrued would be a key economic growth driver in India in the medium to long term. Development of digital platforms has helped in the seamless roll out of initiatives like UPI, Aadhaar based benefit transfer programs, and streamlining of GST collections. All of these have contributed to improving the economic output in the country. Some of the key factors that have supported the digitization reforms include – the growth in internet penetration in India together with drop in data tariffs, growth in smartphone penetration, favourable demographic pattern (with higher percentage of tech savvy youth population) and India's strong IT sector which was leveraged to put in place the digital ecosystem. All these factors are expected to remain supportive and continue to propel the digitization reforms in India.

Increased adoption of digital technology and innovation, inclusive and sustainable practices, business-friendly and transparent regulations, and heightened corporate research and development (R&D) investments will further bolster the country's growth. These factors will collectively support employment growth across both private and public sectors, including micro, small, and medium enterprises (MSMEs).

Product Overview Steel & Stainless Steel

Steel is an alloy of iron and carbon, containing less than 2% carbon, 1% manganese, and small amounts of silicon, phosphorus, Sulphur, and oxygen. Steel is the most important engineering and construction material in the world on account of its functionality and adaptability. Steel is manufactured through to the following two processes:

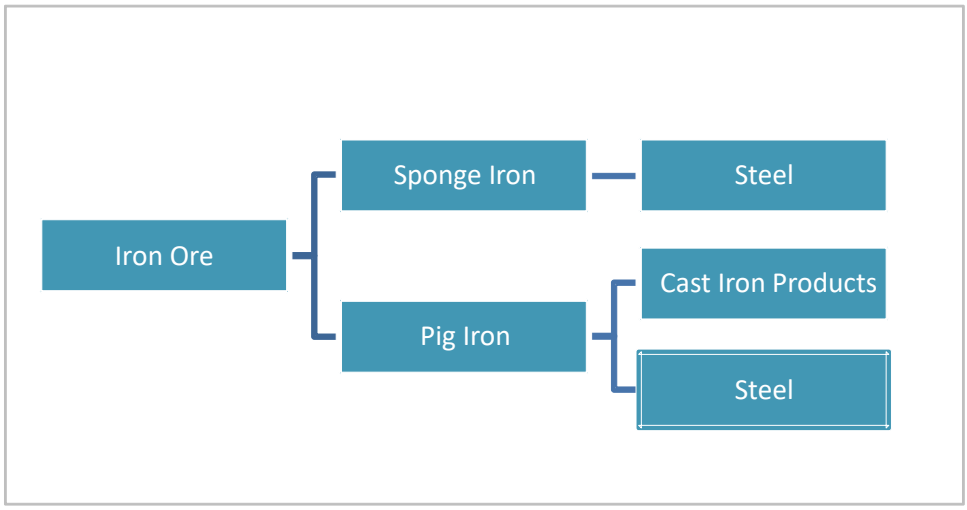
[3] India Economic Survey FY 2023, Full year data is yet to be released.

- **Conventional method: Blast furnace (BF) and basic oxygen furnace (BOF)**

  (Input: Iron ore + coke+ limestone) ==> Blast furnace ==> Basic oxygen furnace ==> (Crude steel) ====> continuous caster

- **New Method: Electric Arc Furnace (EAF)**

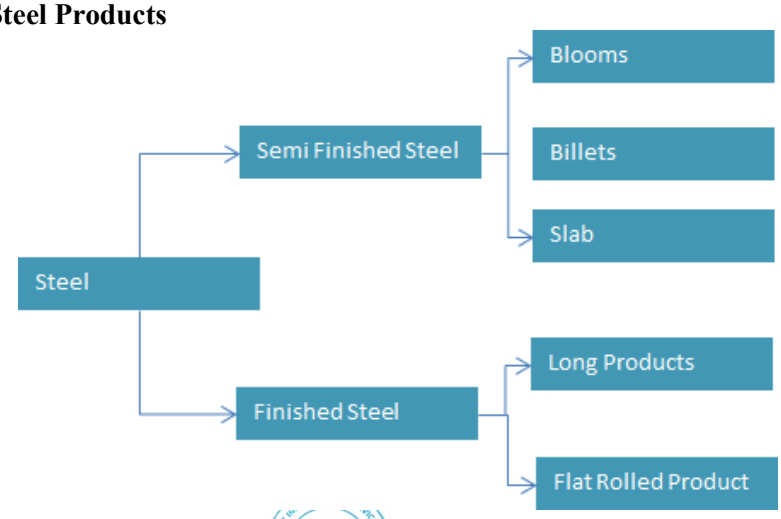
  Iron ore pellets ===> DRI/Sponge /Scrap/Pig Iron ===> EAF===> (Crude steel) ===> continuous caster



Source: Dun & Bradstreet Research

BF and BOF method on an average involves the use of 1,400 kg iron ore (use to produce "pig iron" which is one of the major raw materials to produce steel), 770 kg of coal, 150 kg of limestone, and 120 kg of recycled steel to produce a tonnes of crude steel while EAF route uses 880 kg of recycled steel or DRI, 150 kg of coal and 43 kg of limestone to produce a tonnes of crude steel.

Classification of Steel Products



Semi-finished steel products: These are intermediary products manufactured by continuous casting of liquid steel, which is further subjected to further processing to manufacture finished steel products.

Finished steel products: Include two broad category of products – long and flat steel products. Long steel products are made from blooms and ingots while flat rolled steel products are made from slabs.

Finished Steel Products Steel Products		
Long Steel Products	**Flat Steel Products**	**Construction Products**
Bars & Rods (Billets, TMT Bar, Rebar etc.); Specialty Steels and Bar	Hot Rolled, Cold Rolled	• Structural Steel
Wire Rod, Wire	Pre-finished Steels	• Floors
Special Profiles	Strips – Wide and Narrow Strips	• Walls
Angles, Shapes and Sections	Electro Plated Steels	• Roofs
Rail Material	Electrical Steels	• Modular
Wires	Tubes	•

Steel is mainly of two types – alloy and non-alloy (carbon steel). Alloy steel is divided into low alloy steel and high alloy steel where stainless steel is a type of high alloy steel. Alloy steel includes stainless steel and other steel types such as tool steel and heat resistant steel.

Stainless Steel

Stainless Steel is a value-added product with high corrosion resistant properties. For steel to have properties generally referred to as "stainless", it must have over 10.5% Chromium content. Other notable elements that are included in stainless-steel include nickel, molybdenum, and titanium. Higher levels of Chromium and additions of other alloy elements (Nickel, Molybdenum, etc.) enhance the corrosion resistance. Compared to traditional steel, stainless-steel has higher resistance to corrosion, superior aesthetic finish and higher life span. These features have helped in increasing the popularity of stainless-steel across the world. High recyclability, resistance to corrosion and low maintenance properties has made stainless steel a preferred metal for application in diverse sectors railway, metro project, process industries, bridges, nuclear, airport, transportation, kitchenware etc.

The different types of stainless steel are as follows:

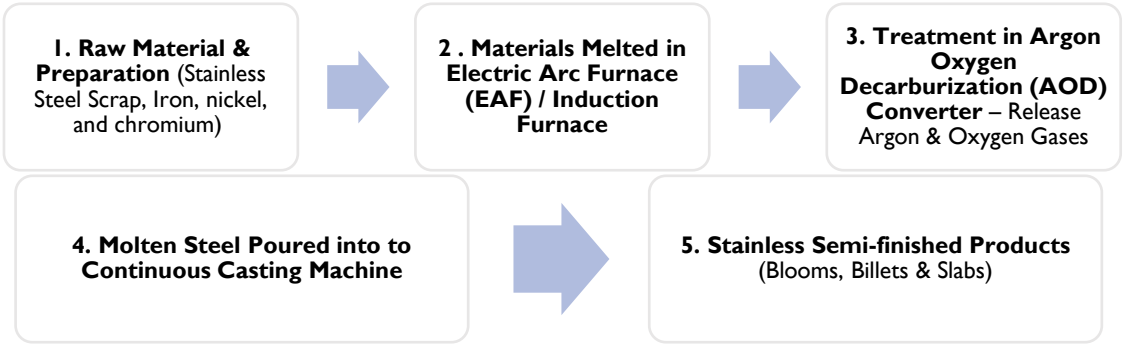
Three Distinct Series of Stainless Steel & their composition			
	200 series	300 series	400 series
Manganese	5.5 - 12%	2% maximum	1% maximum
Nickel	1 - 6%	6 - 22%	0.75% maximum
Chromium	10.5 - 20%	15 - 25%	10.5% minimum
Copper	1.5 - 2.5%	None	None
Iron	Balance	Balance	Balance

Source: D&B India Research

With nearly 55% share, Cr-Ni grade (300-series) account for majority share in overall SS production.

Process for Semi-finished Stainless-Steel Products

The manufacturing process for Stainless steel production involves melting raw materials in an electric or induction furnace, followed by refining in an AOD converter to remove impurities. The molten steel is then continuously cast into semi-finished forms like blooms, billets, and slabs.



1. Raw Material & Preparation: The process begins with the collection and preparation of raw materials, which primarily include stainless steel scrap, iron, nickel, and chromium. These elements are essential for achieving the desired chemical composition of stainless steel.

2. Melting in Furnace: The prepared raw materials are melted in either an Electric Arc Furnace (EAF) or an Induction Furnace. This step is critical to converting solid metallic inputs into a molten state, allowing for further refinement and alloying.

3. Argon Oxygen Decarburization (AOD) Treatment: The molten steel undergoes treatment in an AOD converter, where argon and oxygen gases are injected to reduce carbon content and remove unwanted impurities. This process ensures enhanced purity and corrosion resistance of stainless steel.

4. Continuous Casting: The refined molten steel is then poured into a continuous casting machine. This equipment shapes the molten steel into solid forms in a continuous process, improving efficiency and consistency.

5. Stainless Semi-finished Products: The final output of the process includes semi-finished stainless-steel products such as blooms, billets, and slabs. These intermediate forms are used as inputs for further processing into finished goods like tubes, sheets, and bars.

Product mapping of various finished and semi-finished Stainless-Steel product

Like steel, Semi-finished steel products are manufactured and made available in several format to meet the different end-use demand.

Product Type	Product Brief and Specification	Product Application
Round Bright Bar	Comprehensive range of grades and sizes, corrosion resistance, high tensile strength, improved machining properties, high ductility. Sizes range from various diameters.	Railways, electric motors and pumps, agriculture, automobiles, hoses and fittings, mining, shaft making, and miscellaneous fabrication jobs.
Square Bar	Stainless steel, robust, strength, wear resistance, sizes from 16 mm to 55 mm, tolerance standards DIN 671 and ASTM A484. Lengths from 1 meter to 6 meters.	Agriculture, oil and gas, construction, mining, transportation, and storage sectors.
Hexagonal Bright Bar	Durable, strength, corrosion resistance, sizes from 6 mm to 100 mm, lengths from 3 to 9 meters, strict tolerance standards such as DIN 671 and ASTM A484. Bright finish.	Construction, manufacturing, chemical, and pharmaceutical sectors.
HRAP Flat Bar	Hot rolled, annealed, pickled. Sizes from 22 mm to 150 mm in width, 5 mm to 50 mm in thickness. Lengths from 3.00 meters to 6.70 meters, straightness tolerance of 1 mm per meter.	Construction, fabrication, architectural sectors, and engineering applications.
Round Corner Squares	Stainless steel with curved corners, sizes from 18 mm to 100 mm, ASTM A484 size	Construction, fabrication, and architectural sectors.

	tolerances. Lengths from 3.00 meters to 6.70 meters, bright or polished finishes.	
Hot Rolled Round Bars	Diameters from 16 mm to 125 mm (5/8" to 5"), ASTM A484 size tolerances, lengths from 3.00 meters to 6.70 meters (10 feet to 22 feet). Hot rolled finish.	Construction, engineering, automotive industries, manufacturing shafts, gears, and axles.
Wire Rods	Sizes from 5.5 mm to 39.5 mm, lengths from 3.00 to 6.70 meters (10 to 22 feet). Various finishes including hot rolled, annealed and pickled, bright drawn, made from grades - 304, 316, 316L, 410, and 430.	Shipbuilding, agriculture, petroleum, automobile, welding electrode manufacturing, bright bars.
Cold Drawn Flat Bars	Produced by drawing a metal bar through a die. Widths from 40 mm to 100 mm, thicknesses from 4.76 mm to 25.4 mm. Lengths from 2 meters to 6 meters (8 to 20 feet). Cold drawn and belt polished.	Construction, engineering, and manufacturing industries, screw machines, CNC lathes, hydraulic fittings.
Precision Shaft Quality Bars	Specialized for high-precision applications. Diameters from 6 mm to 75 mm. Ground and polished surfaces, high diametrical tolerances.	Pump shafting, cylinder shafts, boat shafts, piston shafts, valve shafts, bearing bars.
Forged & Proof Machined Bars	Forged and machined for precise dimensions and smooth surface finish. Diameters up to 170 mm, lengths from 3 meters to 6 meters, various surface finishes.	Construction, engineering, manufacturing industries, shafts, axles, gears, and bearings.
Threaded Bars	Long metal rods threaded on both ends or along their entire length. Diameters up to 170 mm, lengths from 1 meter to 6 meters, various surface finishes.	Construction, plumbing, electrical, automotive industries, fastening and securing materials.
Continuous Cast Billets	Semi-finished products made from liquid steel solidified into a continuous strand. Sizes up to 170 mm in diameter, lengths	Construction, plumbing, electrical, automotive industries.

	from 1 meter to 6 meters, various surface finishes.	

Seamless Pipes

Steel pipes are of two types namely - welded pipes or seamless pipes. For manufacturing of both types of pipes, raw material is first cast into ingots and then made into a pipe by stretching the steel out into a seamless tube or forcing the edges together and sealing them with a weld.

Seamless pipes are without a seam or a weld-joint and made from a solid round steel billet which is heated and pushed or pulled over a form until the steel is shaped into a hollow pipe. The common methods of manufacturing include the Mandrel Mill process and the Mannesmann Plug Mill Process. In both the methods, raw steel is first cast into a more workable starting form such as hot billet or flat strip. It is then made into a pipe by stretching the hot steel billet out into a seamless pipe or forcing the edges of flat steel strip together.

Seamless pipes are manufactured through a process where a solid cylindrical billet is heated and pierced to create a hollow tube. Seamless piping fabrication involves cutting and fitting these seamless pipes into the required configuration, often using fittings for specific bends or connections.

The demand for seamless pipes and tubes in India remains robust due to their vital role in industries like oil and gas, petrochemicals, infrastructure, and automotive. Economic growth, urbanization, and government infrastructure initiatives further fuel this demand, along with rising investments in renewable energy and other growth sectors, solidifying their essential position in India's industrial landscape.

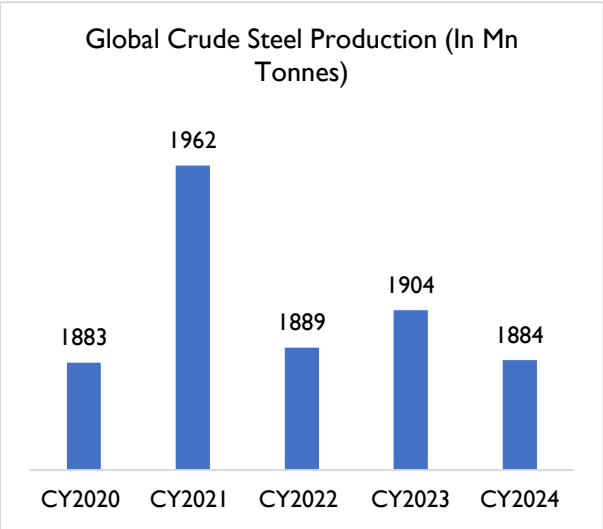
Globally, 10%[4] of the steel produced is estimated to be converted to tubes. Higher demand for oil & gas and chemical & petrochemical industry – two of the largest consumers of steel pipes and tubes – is driving the demand across the world.

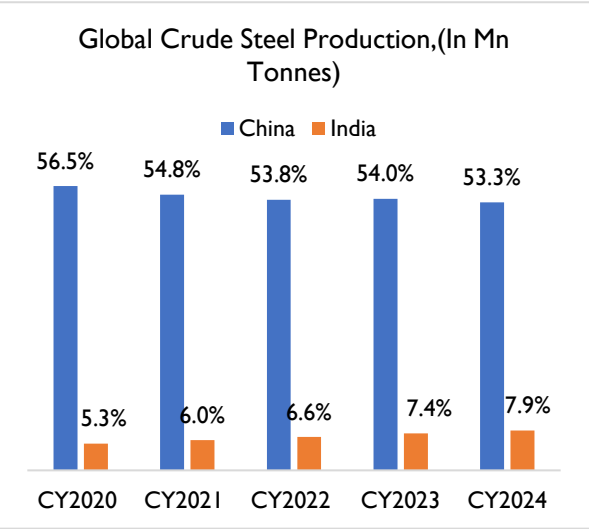
[4] The estimate that approximately 10% of total steel production is converted into tubes is based on insights compiled from multiple industry sources. The sources refer to an approximation as correct data is not collected at a global level.

Global Steel Production Trends

From CY2020 to CY2024, the global crude steel industry witnessed a period of volatility and subdued growth, with production figures fluctuating between 1,883 million tonnes and 1,962 million tonnes. The compound annual growth rate (CAGR) over this five-year span was approximately 0.1%, reflecting the industry's sluggish expansion amid numerous global challenges. The COVID-19 pandemic in CY2020 triggered a sharp decline in output to 1,883 million tonnes as global lockdowns and economic slowdowns disrupted industrial activity. This was followed by a strong rebound in CY2021, when production peaked at 1,962 million tonnes, registering a year-on-year growth of 4.2%. However, the recovery momentum was short-lived, with output declining to 1,889 million tonnes in CY2022 and fluctuating slightly thereafter, settling at 1,884 million tonnes in CY2024.

China continued to dominate the global steel landscape, although its crude steel output declined from 1,064 million tonnes in CY2020 to 1,005 million tonnes in CY2024. Despite this decrease, China's share in global crude steel production remained significant, averaging around 53.3% in CY2024, down from 56.5% in CY2020, due to its robust industrial ecosystem, competitive cost structure, and sustained investments in infrastructure. However, its leadership is increasingly influenced by domestic policy shifts, including stricter environmental regulations and carbon reduction targets. India, meanwhile, solidified its position as the world's second-largest crude steel producer, with production rising steadily from 100 million tonnes in CY2020 to 149 million tonnes in CY2024. Correspondingly, India's share of global production grew from 5.3% to 7.9% during this period. This upward trajectory highlights India's growing role in the global steel industry, supported by a surge in domestic demand, capacity expansions, and government initiatives aimed at boosting industrial and infrastructure development.





Source: World Steel Association
As the current year is ongoing (CY 2025), the latest data for 2025 is not yet available

Challenges Impacting Global Steel Production

Despite the leadership of major producers like China and India, several factors have contributed to the global slowdown in steel production. These include:

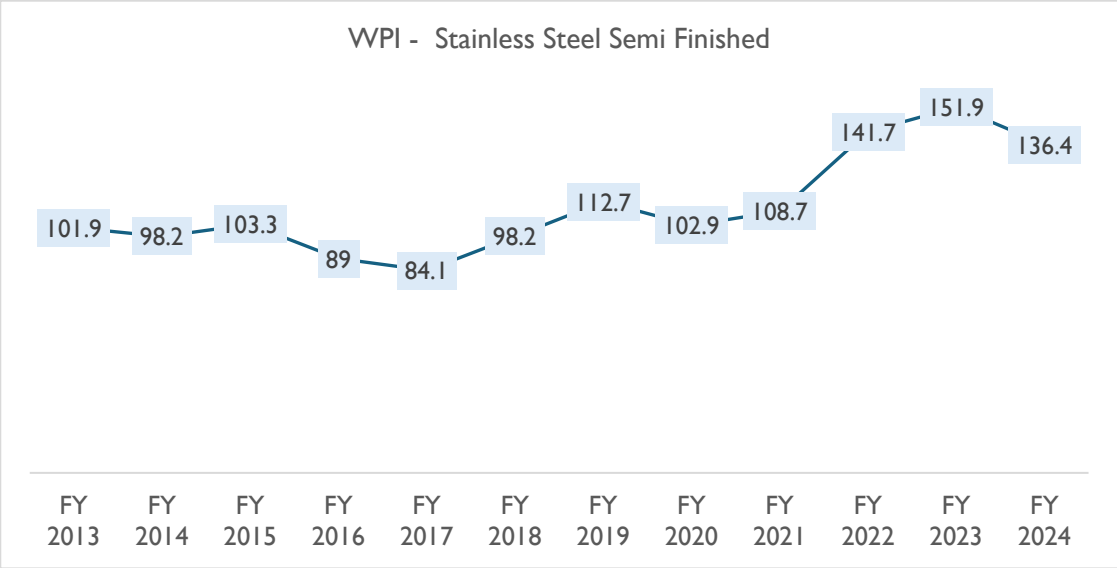
- **Weakening Demand:** High interest rates and inflation have dampened demand for steel across various industries. Sectors like construction and manufacturing, which are significant consumers of steel, have scaled back operations due to increased borrowing costs and economic uncertainty.
- **Rising Production Costs:** The cost of raw materials and energy required for steel production has risen significantly. Prices of iron ore, coal, and other essential inputs have been volatile, impacting the profitability and production levels of steel manufacturers.
- **Supply Chain Disruptions:** The lingering effects of the COVID-19 pandemic continue to affect global supply chains. Disruptions in the supply of raw materials and logistical challenges have led to delays and increased costs, hindering production efficiency.
- **Environmental Regulations:** Stricter environmental regulations aimed at reducing carbon emissions have put additional pressure on the steel industry. Compliance with these regulations often requires significant investments in technology and infrastructure, increasing production costs.
- **Shifting Demand Patterns:** Industries such as automotive manufacturing are increasingly shifting towards lighter materials like aluminum, which impacts the demand for steel. This transition is driven by the need for fuel efficiency and reduced emissions, further challenging the steel industry.

Stainless Steel Price Trends in India

Stainless steel prices in India have been fluctuating in 2024, influenced by a variety of global and domestic factors. As of October, the prices for Grade 304 (Hot Rolled Coil - HRC) are ranging between INR 215,000 to INR 220,000 per tonne, while Grade 316 (HRC) prices are between INR 280,000 to INR 290,000 per tonne. These prices are reflective of the broader market dynamics and are largely driven by raw material costs, supply chain disruptions, and energy price increases.

The Stainless Steel Semi-Finished Index from FY 2012-13 to FY 2023-24 reveals a clear trend of volatility, with significant rises and falls over the years. From FY 2012-13 to FY 2016-17, the index remained relatively stable, fluctuating between 101.9 and a low of 84.1 in FY 2016-17. This period reflects a steady

market with mild price variations, influenced by balanced demand and supply in the domestic stainless-steel industry. However, starting in FY 2017-18, the index began to climb again, reaching 112.7 in FY 2018-19, driven by increasing demand from sectors such as construction and automotive, as well as the growing impact of global raw material price trends.



Source: Office of the Economic Advisor

From **FY 2019-20 onwards**, the index showed sharper movements, indicating rising volatility. It climbed from **102.9** in **2019-20** to **108.7** in **2020-21**, and then experienced a sharp jump to **141.7** in **2021-22**. This spike can be attributed to the post-pandemic recovery, with rising commodity prices, supply chain disruptions, and surging demand globally. The index peaked at **151.9** in **2022-23**, reflecting continued supply constraints and high energy costs, before declining slightly to **136.4** in **2023-24** as the market began to stabilize. This trend highlights how external factors, such as global raw material price fluctuations and energy costs, have had an increasing impact on the stainless steel market in India over the last decade.

One of the key factors affecting stainless steel prices is the volatility in nickel prices. Nickel is a crucial component in stainless steel production, and geopolitical tensions have impacted its supply, particularly in regions like Indonesia and Russia. This has resulted in a steady rise in stainless steel prices. Additionally, the surge in energy prices, especially electricity and fuel, has increased operational costs for manufacturers, further contributing to price hikes. Another factor is the Indian government's imposition of import tariffs, aimed at boosting domestic production, which has led to a restriction on imports and put additional upward pressure on local prices.

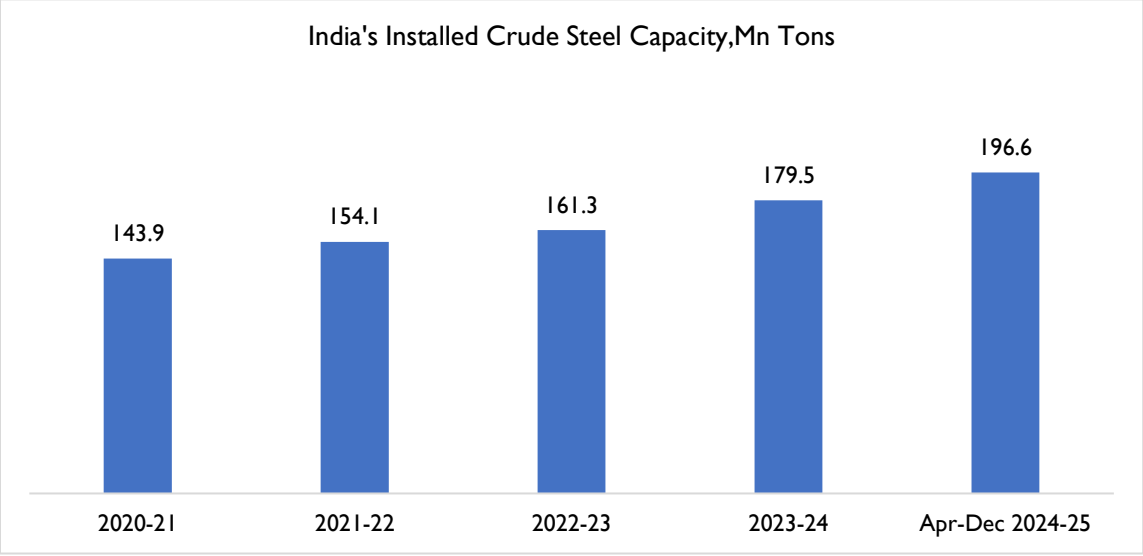
In terms of demand-supply dynamics, domestic demand for stainless steel remains strong, driven by sectors such as construction, infrastructure, and automotive manufacturing. However, supply constraints, partly

due to limited production capacity and reduced imports, have resulted in price increases. Additionally, Indian stainless-steel producers have been focusing on exports, taking advantage of competitive pricing in international markets. This shift has led to further tightening of the domestic supply, pushing prices upward.

Looking ahead, stainless steel prices are expected to remain volatile in the short term, with a potential for further increases due to ongoing supply chain issues and the elevated cost of raw materials like nickel. However, over the medium term, prices may soften as domestic production ramps up and raw material prices stabilize, though global uncertainties may continue to influence the market. Overall, the outlook for stainless steel pricing in India will depend on the balance between supply-side improvements and persistent global economic challenges.

Current Overview of Indian Steel Industry

India, the world's second-largest crude steel producer, continues to strengthen its position in the global steel industry. Backed by abundant iron ore reserves and strategic policy support such as the National Steel Policy 2017, the country has steadily expanded its production capabilities. According to the Ministry of Steel, India's crude steel production capacity has grown from 143.9 million tonnes (MT) in FY 2021 to a provisional 196.6 MT during April–December of FY 2025. This reflects a robust compounded annual growth rate (CAGR) of approximately 6%.

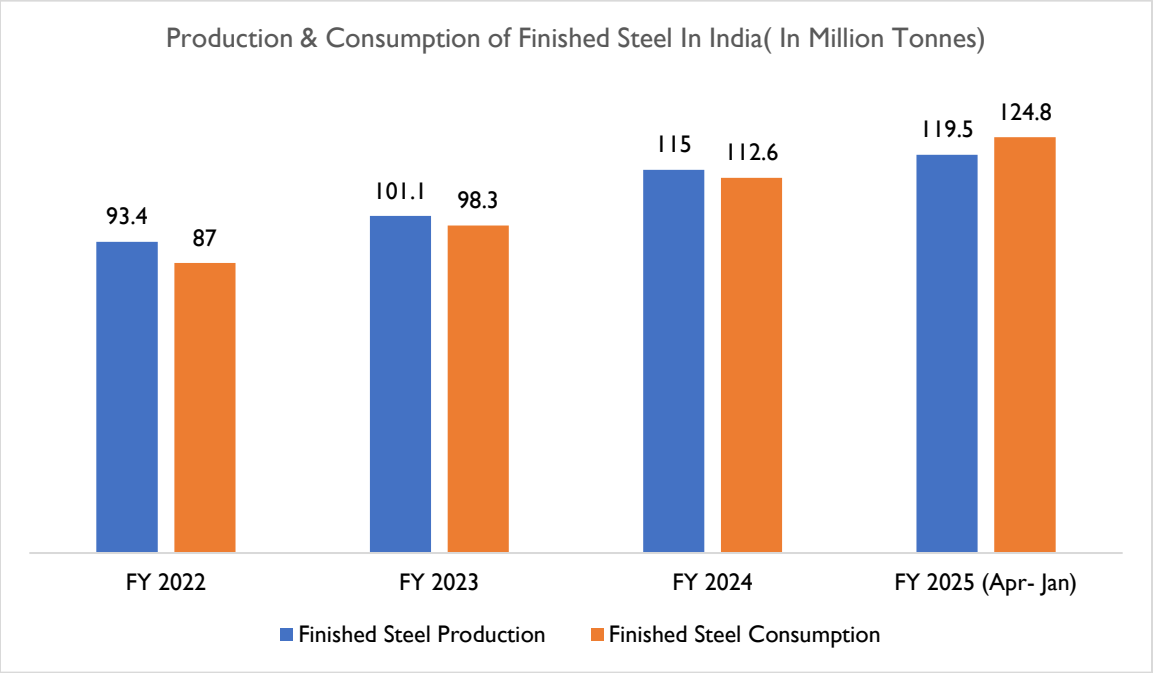


Source: Ministry of Steel

Historical Production & Consumption of Finished steel in India

Production: India's production of finished steel stood at 139.4 million tonnes in FY 2024, marking a 12.7% increase over FY 2023. The private sector played a dominant role in this growth, contributing 85% (118.31 million tonnes) and witnessing a 13.5% rise in production, compared to an 8.4% increase from the public sector units (PSUs), which accounted for 15% of the total production. Non-flat products, which include long steel used primarily in construction, comprised 55% of the total output, growing by 13.8%, while flat products, used in automotive and appliance manufacturing, made up the remaining 45%, increasing by 11.3%.

During FY2025 (Apr–Jan), finished steel production stood at 119.5 million tonnes, while consumption reached 124.8 million tonnes, indicating sustained demand momentum into the current fiscal year. This builds upon the trend from FY2024, where finished steel production was 115 million tonnes and consumption were 112.6 million tonnes. Over recent years, the compound annual growth rate (CAGR) for finished steel production stands at 4%, while consumption has grown at a significantly higher CAGR of 10.7%, reflecting strong and accelerating demand, particularly from construction, infrastructure, and manufacturing sectors.



Sources: Economic Survey FY 2025

Consumption Growth

India's booming economy, with growing demand from sectors like construction, automobile

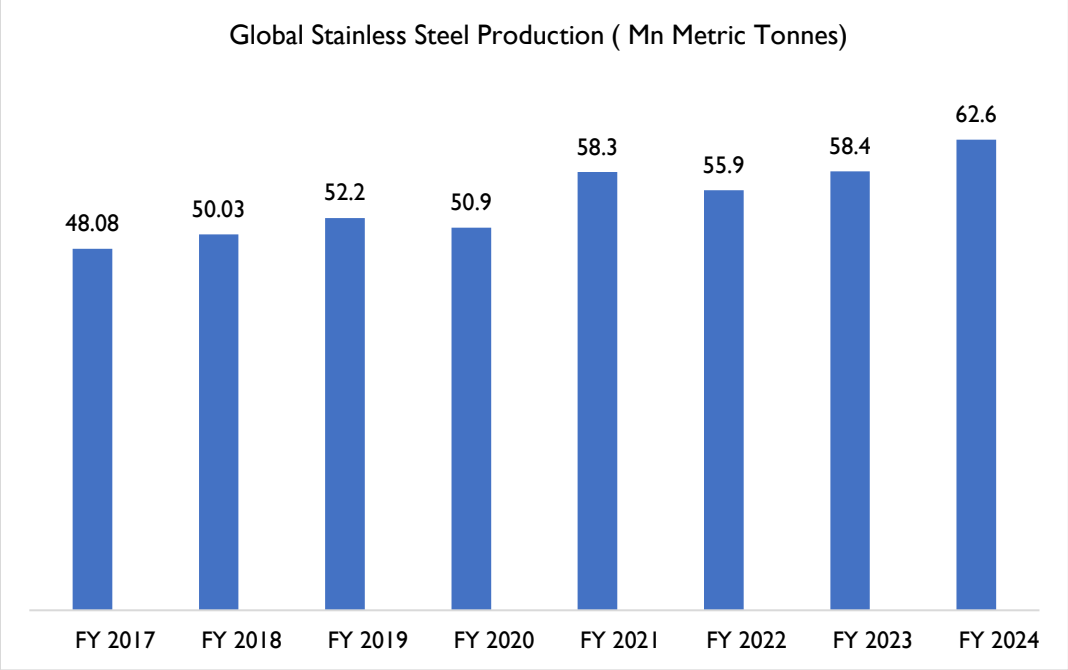
manufacturing, and white goods production, further fuels its steel industry. The government's focus on infrastructure development and the 'Make in India' initiative has also contributed to increased domestic steel consumption.

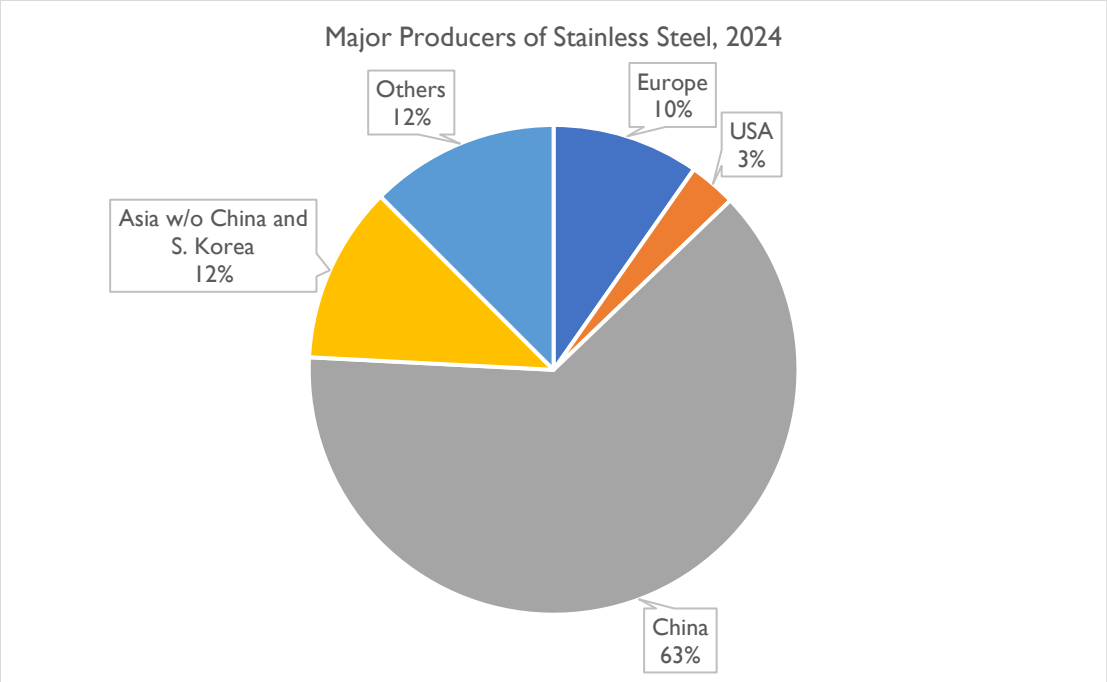
Several factors have driven the increase in crude steel production. The surge in demand from construction and infrastructure projects, fueled by government initiatives like 'Make in India' and the National Infrastructure Pipeline, has significantly boosted production. The automotive sector's recovery and expansion also played a critical role. Furthermore, technological advancements and modernization of steel manufacturing processes have improved efficiency and output. Investments in expanding steel plant capacities, alongside a focus on sustainable practices such as the use of scrap steel and energy-efficient technologies, have enhanced production capabilities. Additionally, the global market's growing appetite for steel has spurred Indian producers to increase their output to meet both domestic and international demands. The favorable economic environment and strategic policy support have thus cemented India's position as a leading crude steel producer on the global stage.

Analyzing the trends in crude steel consumption over recent fiscal years reveals a pattern marked by fluctuations influenced by global economic shifts and industrial trends. Until FY2020, there was a consistent increase in crude finished consumption. However, the arrival of the COVID-19 pandemic in 2020 led to a significant downturn, with consumption dropping by 5% in FY 2021. This decline was mainly driven by the disruptions caused by the pandemic, including widespread lockdowns, supply chain interruptions, and decreased economic activity across key sectors. Despite these challenges, the steel industry recovered swiftly from the pandemic-induced slump. In the subsequent recovery phase from FY 2022 to FY 2024, there was a notable resurgence in consumption, with a robust average growth rate of approximately 14%. This rebound was fueled by various factors, including increased investments in global infrastructure projects, the revival of the automotive and construction sectors post-pandemic, and the expansion of industrial sectors like machinery and equipment manufacturing. Additionally, governments worldwide implemented supportive policies and incentives to revitalize manufacturing and construction, further driving the demand for steel. In FY 2024, the industry witnessed 14%, yearly growth against 13% in the previous fiscal. Overall, these dynamics highlight the complex relationship between crude steel consumption patterns and broader economic trends, showcasing the industry's ability to adapt and innovate amidst challenges while paving the way for continued growth.

Global Stainless-Steel Industry: Historical Growth Trend.

As per the International Stainless-Steel Forum, the global stainless-steel melt shop production grew by 4.6% to 58.4 Mn Tonnes in 2023 compared to ~55.9 Mn Tonnes in 2022. Between 2018-2023, the industry witnessed declines on two occasions, i.e., in 2020 due to the Covid-induced slowdown and 2022 due to adverse operating conditions. At a broader level, production increased from 45.78 Mn tonnes in 2016 to 58.4 Mn tonnes in 2023, growing at a CAGR of 3.6%. Between 2019-2024, the industry has observed a ~3% CAGR. In 2024, production is projected to increase to 62.6 Mn Tonnes.





Source: World Steel Association

Talking about major producers, China remains the largest stainless-steel producer, accounting for 63% of the world's stainless-steel production in 2024, with production reaching 36.68 Mn Metric Tonnes. China saw a 12.6% yearly growth over the previous year, which supported the overall production growth in 2023. From 2016 to 2024, China's stainless-steel production has increased from 24.9 Mn Metric Tonnes to 36.7 Mn Metric Tonnes. However, besides China, the US and all other regions represented in the graph experienced a decline in production volume during 2023. Production in the US fell by 9.6%, production in Europe declined by 6.2%, Asia without China and South Korea dropped by 7.2%, and production in other countries saw a 5.2% decline.

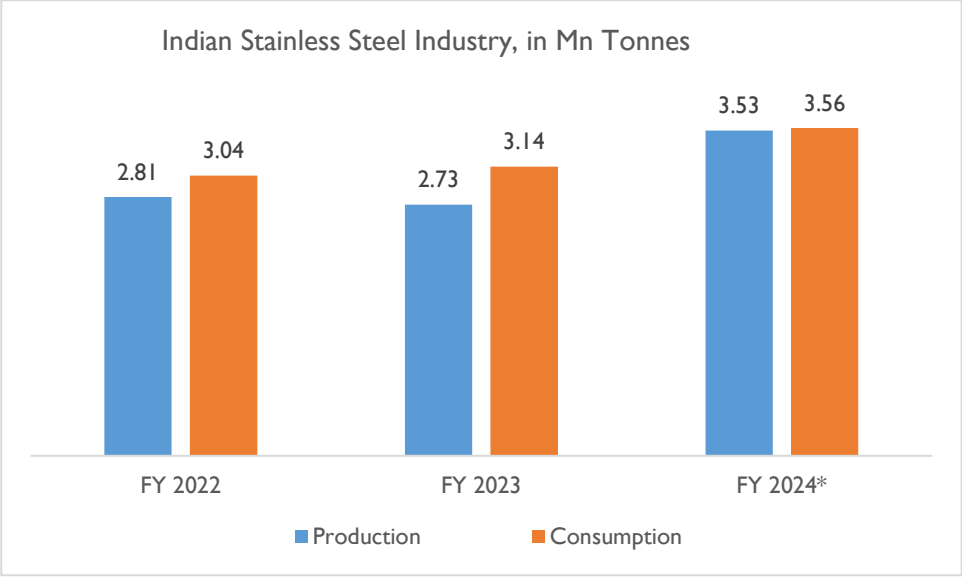
Cold rolled flat products is the largest produced stainless-steel product in the world, followed by hot rolled coils, and steel wire rods & bars. According to International Stainless-Steel Forum, cold rolled flat products accounts for approximately 47% of total stainless-steel trade in the world in 2020. Hot coils, Semis-flat, Semis Long, Hot Bar/Wire rod, Cold Bar/Wire, Hot Plate & Sheet are another SS intermediary product traded globally. Metal products – manufacturing of kitchen utensils and home ware – is the largest end use of stainless-steel, both globally as well as in India. While in India more than 50% of consumption goes towards metal products segment, globally it stood at 37.7%. Process industry & engineering, architecture, building & construction, automotive, railway & transportation, and electro-mechanical industries are the other major consumers of stainless-steel products.

Indian Stainless-Steel Industry

India is the second largest consumer and the third largest producer of stainless steel globally, With estimated installed capacity 6.6-6.8 Mn Tons[5], the country has the capability to manufacture a wide range of steel grades and products, including stainless-steel and special steel for diversified application. India's finished stainless steel production has hovered in the range of 3.2-3.7 Mn tonnes between 2016-2023.

Talking about India's position in the global stainless-steel market, India with average 7% share in global SS steel output (during 2016-20), remained the second largest stainless-steel producer behind China till 2020. In 2021, the global SS production composition got changed as Indonesia, the fourth largest SS producer replace Japan and India to become the second largest SS producer globally. Industry Sources suggest, Indonesia with estimated SS output of 4.2 Mn tonnes in 2021 observed nearly 75% annual growth against 5.7% increase in 2020 while India's SS output was estimated to be 3.5 Mn Tonnes. With 3.5 Mn tonnes SS output, India's share in world SS output is estimated to have gradually reduced from 7.3% in 2016 to 6.2% in 2021.

During FY 2023, India's stainless-steel production was estimated to have declined by 3% which consumption observed about 3% y-o-y growth and stood at 2.73 Mn tonnes and 3.14 Mn Tonnes. During FY 2022 and FY 2023, stainless steel accounted for average 33% in total alloy steel production and 38% share in total alloy steel consumption.



Sources: Ministry of Steel,
Note: FY 2023 data is annualized based on actual 11-month data April-Feb 2023, while FY 2024 Data is estimated by Dun & Bradstreet Based on Assumption

[5] As of March 2022

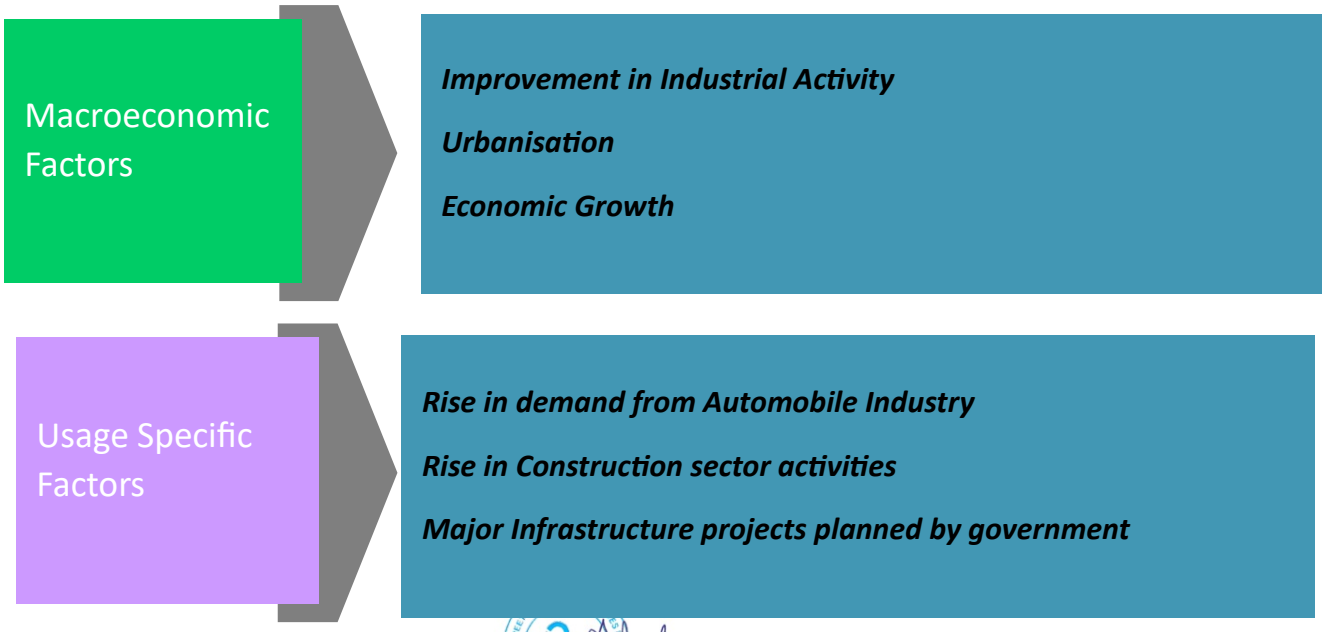
For FY 2024, India's production, and consumption of alloy steel segment (including stainless steel), stood at 9.35 MT and 10.71 MT, respectively. Consequently, the production and consumption of stainless steel in India is estimated to 3.53 Mn tonnes and 3.56 Mn tonnes, respectively.

On consumption side, India despite being one of the largest consumers of stainless-steel, the per capita stainless-steel consumption remains low. India's per capital stainless steel consumption has increased from 1.2 Kg in 2010 to 2.8 Kg in FY 2023, however its consumption is comparatively lower compared to world average of 6 Kg per capita, This low consumption pattern is an indication of the inherent opportunities existing in the sector.

Metal products – manufacturing of kitchen utensils and home ware – is the largest end use of stainless-steel, both globally as well as in India. In India, 12% of the stainless steel is used in construction and infrastructure, 13% in automobiles, railways and transport (ART), 30 % in capital goods and 44% in durables and household utensils and 1% in others.

Demand Scenario

Stainless steel is used to produce a wide range of products, from Automotive, Railways & Transportation; heavy machinery, to engineering products, especially in the infrastructure sector. Due to this wide end consumer base, demand for long and flat steel products is closely linked to the overall all economic growth industrial as well as consumer demand scenario.



Innovations / Emerging Uses

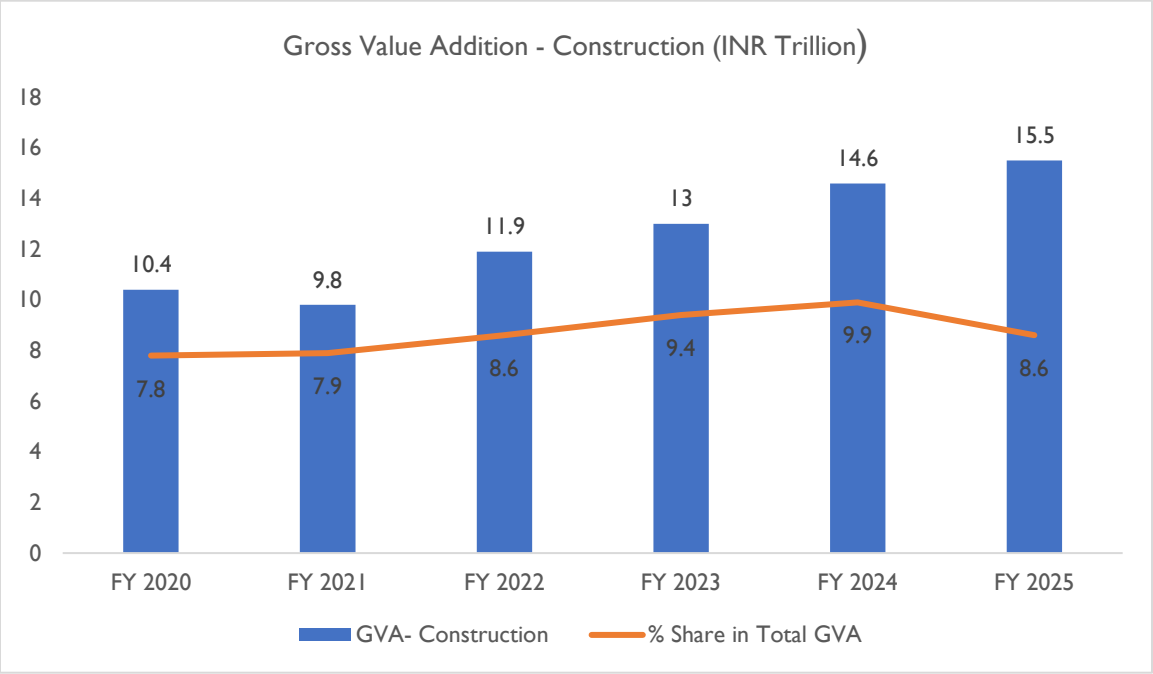
Renewable energy infrastructure

EV battery & charging infrastructure

Additive Manufacturing

Demand From Architecture, Building & Construction

Superior aesthetics, corrosion resistance, and long lifespan have all led to wide acceptance of SS tubes for architecture, building & construction application. Infrastructure development, and a surge in real estate construction (residential & commercial) have created a high demand for stainless steel, along with other building & construction materials. In past, the boom in construction which accompanied the strong economic growth in the country have resulted in higher consumption of stainless steel. Construction sector Contribution to national economy has steadily improved over the years and it account for 9.1% share in FY 2024 as per the MOSPI's second advance estimates.



Sources: MOSPI

India's construction industry is on a phenomenal growth trajectory, projected to reach a staggering USD 1.5 trillion by 2025, accounting for 8%-10% of India's GDP. This represents a significant leap from its

current size of approximately USD 820 billion, showcasing the dynamism and potential of this sector and creating a favorable demand scenario for stainless steel products.

Demand from kitchenware segment

Stainless steel is a vital raw material in kitchenware due to its durability and versatility, making it the preferred material for utensils and cookware. In India, the stainless-steel utensil market is a significant segment of the broader cookware industry. The sector continues to dominate consumer choices in utensils, surpassing glass and plastic due to the growing awareness of health risks associated with plastic, driving demand for stainless-steel alternatives.

The steel kitchenware market in India is currently experiencing robust growth, valued at INR 15,000 crore with an annual growth rate projected between 10% to 15% This expansion is fueled by a rising consumer inclination towards premium products. Jindal Lifestyle (part of the OP Jindal Group) recently introduced its Arttdinox cookware brand, targeting the INR 3,500 crore premium segment.

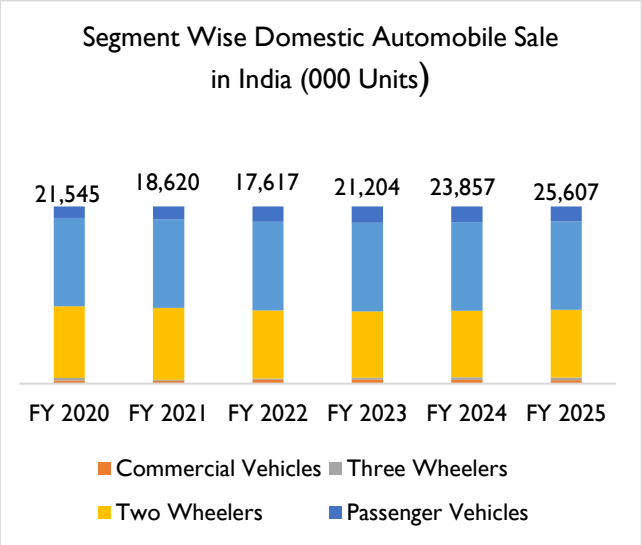
Technological advancements are reshaping the landscape of kitchenware, with companies like Geek Technology India integrating smart home appliances and IoT-enabled products into their portfolios, reflecting a broader trend towards modernization and convenience. The shift towards online retail platforms such as Flipkart and Amazon signify increasing consumer preference for accessibility and convenience in urban markets. Additionally, sustainability remains a key focus area with the adoption of green steel, meeting both consumer preferences for eco-friendly products and regulatory requirements for sustainable manufacturing practices.

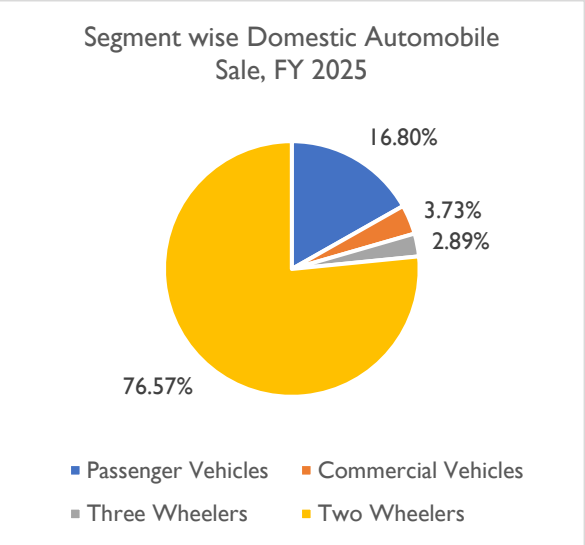
Looking ahead, the demand for kitchen utensils and cookware is expected to remain robust, driven by increasing household numbers, rising disposable incomes, and aspirational shifts in consumer preferences. Stainless steel will continue to play a significant role in Indian kitchens, sustaining strong demand for stainless-steel flat products and reinforcing its position as a cornerstone of the kitchenware industry.

Demand from Automotive, Railways & Transportation

The metalworking industry encompasses forging, casting, and machining processes, playing a pivotal role in manufacturing diverse components across various sectors. Casting, a key method within this industry, involves molding molten metal into complex shapes through dies, offering flexibility in material choice to meet specific application requirements. Foundries, integral to casting, contribute significantly to manufacturing activities, serving industries such as automotive, aerospace, and infrastructure development. Meanwhile, forging utilizes compressive forces to shape metals, catering extensively to automotive and non-automotive sectors with applications ranging from drive shafts to industrial machinery components.

Precision engineering, characterized by high accuracy and low tolerances, finds widespread use in aerospace, defense, and energy sectors, driving demand for custom-manufactured components. The increasing production and sales of automobiles in India have further spurred demand for stainless-steel products, underscoring ongoing growth opportunities within the sector. Overall domestic sales grew to 23.9 million units in FY 2025, registering a year-on-year growth of 8.5% compared to FY 2024. Passenger vehicle (PV) sales reached an all-time high in FY 2025, with an 8.45% year-on-year growth.





Source: Society of Indian Automobile Manufacturers (SIAM)

Source: Dun & Bradstreet Research, Society of Indian Automobile Manufacturers (SIAM)

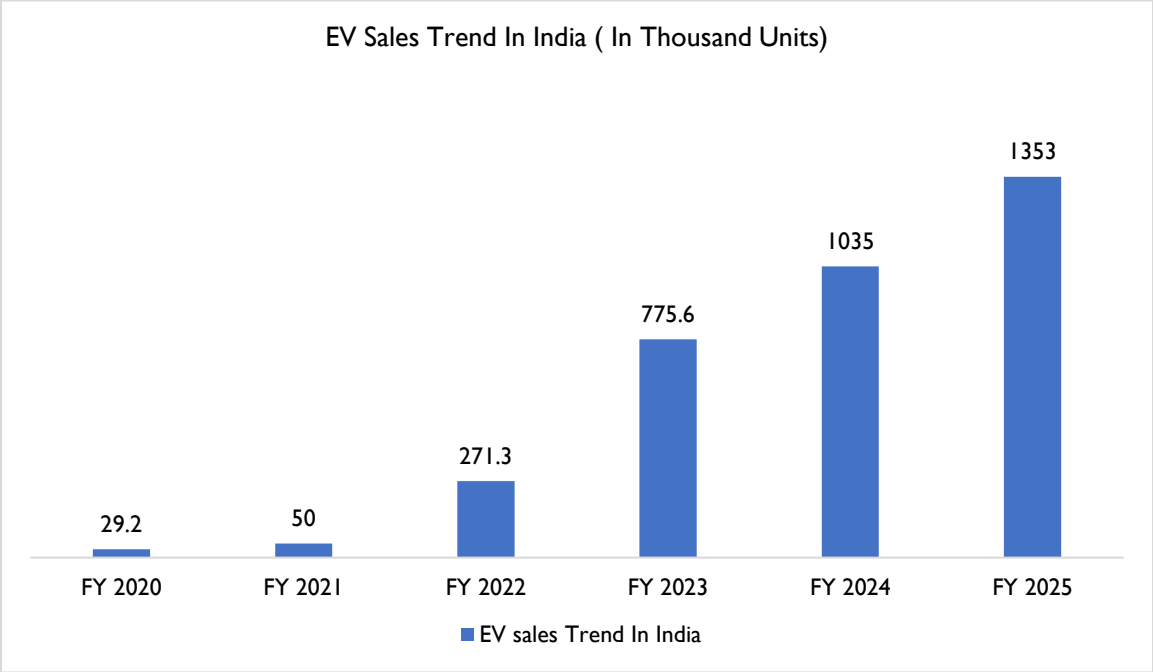
Note: Segment-wise summation of domestic sales will not add to 100% total as Quadricycle data has not been included for analysis purpose

Segment Wise Sales	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025
Passenger Vehicles	2,774	2,711	3,070	3,890	4,219	4,302
Commercial Vehicles	718	569	717	962	968	9,567
Three Wheelers	637	219	261	489	692	7,414
Two Wheelers	17416	15121	13570	15862	17,974	19,607
Total	**21,545**	**18,620**	**17,617**	**21,203**	**23,853**	**25,607**

Transforming Automobile Landscape

Increasing fuel prices and concerns about emission related pollution have increased the interest in electric vehicles among consumers. In recent years, the electric vehicle industry has witnessed rapid technological change which has brought down the price. Although still priced higher than conventional Internal

Combustion Engine (ICE) vehicles, the price gap has come down. Together, these factors have contributed to the growing market for electric vehicles. Consolidated sales of electric vehicles (e-2W and e-4W) reached 1,395 thousand units in FY 2025, reflecting a 34.8% increase compared to 1,035 thousand units in FY 2024. This growth follows the significant 185.9% surge observed in FY 2024, which was largely due to the lower volume base in FY 2023.



Vahan Parivahan, Ministry of Road Transport & Highways (MoRTH), e-2W & e-4W

Impact of transport sector on Steel Sector

Stainless-steel is used in railway wagons, metro rail coaches, exhaust system & catalytic converters of automobiles, bus bodies, and body of goods container vehicles, among others. Apart from the natural growth in demand due to a rise in automobile production, the regulatory changes that are happening across the global automobile industry too have positive implications on stainless-steel sector. The stringent emission norms and efficiency standards are forcing automobile manufacturers to increase the proportion of special stainless-steel used in vehicles. Apart from regulatory factors, the extended lifecycle and corrosion resistance attributes have also contributed to increasing usage of stainless-steel in automobiles.

In mass transport segments, such as buses and metro coaches, stainless steel is used to make body panels. Urban mass transport segment in India is witnessing rapid changes, in response to Government programs to improve living standards in urban centers. Smart city initiatives, Green Urban Transport Scheme, and other mass rapid transport schemes are ushering changes in urban transport segment. Implementation of

metro rail transport infrastructure in all major cities is one such initiative. These developments have led to an increase in production of buses as well as metro coaches, resulting in higher consumer of stainless-steel products used in their manufacture.

The focus on urban transport infrastructure development in India is expected to continue, as urbanization, population density and vehicle density is putting pressure on existing urban transport infrastructure. Expansion of Bus Mass Rapid Transit Systems and urban metro systems is expected to continue, which in turn would result in a stable demand for stainless-steel panels and other flat products used.

Demand from Process Industry

Stainless-steel is crucial in India's process industries such as chemicals and oil & gas due to its corrosion resistance and durability in tanks, pipes, pumps, and valves. The sector saw process plant equipment valued at INR 209 Bn in FY 2022, driven by industrial growth and government support. Despite current challenges, economic reforms are expected to spur demand, leading to renewed investments in manufacturing and a subsequent rise in demand for stainless-steel equipment.

Oil & Gas sector is one of the largest end user industries for steel pipes and tubes including SS pipes and tubes with pipelines being the major mode of transport for petroleum, oil, and lubricants. Accordingly, the oil & gas industry has a close linkage with steel pipes and tube demand in the country. Stainless steel resists high-pressure and hot temperature, which makes it a widely used material in refineries, pipelines, storage capacity, gas terminals, and retail outlets. As per IEA's report (under the stated policy scenario), India's oil consumption is projected to rise by 50% by 2030 in comparison to the global demand which is growing by 7%. India's oil consumption is expected to grow by 4.8 million barrels per day (mbd) in 2019 to 7.2 mbd in 2030 and 9.2 mbd in 2050. India will continue to remain the third largest consumer of oil in 2030. For Natural gas, the country's consumption is projected to double to 133 billion cubic meters in 2030 from 64 BCM in 2019 as against a 12% rise in global gas demand. Currently, India is also the 4th largest refining capacity globally after US, China, Russia, having total refining capacity of 257 Mn Metric Tons per annum (MMTPA) as on year ending on 1.04.2024 while per day refining capacity stood at 5 Mn barrels. As per IOC, a leading Indian Refiner, the country needs to add 2 Mn barrels per day by 2030 to support the country's economic expansion.

	Crude Oil Average price (India basket) USD/bbl.	Total Imports (MMT)	Domestic Production (MMT)	Total	% share of Imports	% share of Domestic Production

2019-20	60.47	226.95	32.20	259.12	87.59%	12.14%
2020-21	44.82	198.11	30.5	228.61	86.7%	13.34%
2021-22	75.78	212.4	29.7	242.1	85.5%	14.60%
2022-23	90.23	232.7	29.2	261.9	87.4%	11.15%
April-Mar 2023-24(P)	90.23	232.5	29.4	261.9	87.7%	11.15%

Sources: Ministry Snapshot of India's Oil & Gas data

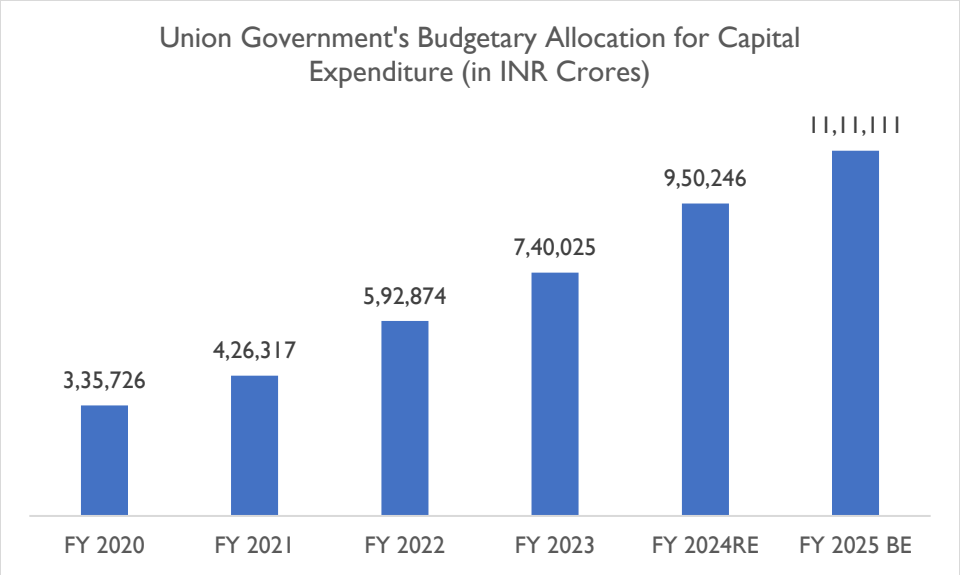
India's crude oil import volume observed 8.9% increase during 11M FY 2022 while crude oil import bill surged sharply by USD 105.9 Bn amidst rising oil prices in global market, registering y-o-y growth of 96.8%. Such high import dependency renders the country's economy vulnerable to international crude oil market dynamics. Consequently, to insulate the domestic economy from external shocks and conserve forex reserves, the government is working towards increasing domestic E&P (Exploration & Production), to reduce imports gradually. The government envisages to cut India's oil import dependence by 50% by 2030. Expansion in oil and gas sector is expected to support overall stainless-steel demand in India.

Demand Generation from Government Initiatives

Government Budgetary Allocation to Infrastructure Sector

Growing infrastructure spending is vital for overall infrastructure development as it has a multiplier effect on overall economic growth. By allocating substantial funds to the development of roads, railways, airports, and urban infrastructure, the government stimulates economic growth and improves public facilities. This investment not only enhances connectivity and logistics but also creates a ripple effect, driving demand for EPC services.

Large-scale projects such as highway expansions, and smart city initiatives necessitate the expertise of EPC companies, fostering innovation and efficiency in project execution. Consequently, the government's focus on capex not only accelerates infrastructure development but also opens up a plethora of opportunities for the EPC sector, contributing to job creation, technological advancements, and overall economic development. Consequently, the government with stepped up public spending over the last few years has been providing support to the sector.



Union Budget, Government of India

National Infrastructure Pipeline (NIP)

If India is to become a USD 5 Trillion economy by 2025, as well as continue it strong economic growth, the country will have to spend close to USD 4.5 trillion on infrastructure construction by 2030. National Infrastructure Pipeline is the consolidated platform that captures the multiple infrastructure investment projects planned by the Government to propel Indian economy to USD 5 trillion mark.

NIP comprise of nearly 9,736 projects which is together worth nearly USD 1.82 billion covering 56 diverse industry segments. Of this nearly 2,014 projects are under various stages of development. With NIP spanning FY 2019 – 25 period, the remaining projects are expected to be developed in the next couple of years. This points to a flurry of infrastructure construction activity in the country, which in turn would create numerous opportunities for the EPC segment.

PM Gati Shakti

PM Gati Shakti plan – National Master Plant for Multi Modal Connectivity – launched in October 2021 is a digital platform that is aimed at improving the coordination among multiple ministries and departments involved in infrastructure development in the country. The program covers all the infrastructure initiatives outlined under Bharatmala & Sagarmala initiatives, port development, dedicated freight corridor program of railways as well as development of special economic zones.

India Infrastructure Project Development Fund Scheme (IIPDF Scheme)

The Department of Economic Affairs (DEA) introduced the India Infrastructure Project Development Fund (IIPDF) Scheme on November 3, 2022, to enhance infrastructure development through Public-Private Partnerships (PPPs). This scheme aims to improve the quality and speed of infrastructure projects by encouraging private sector participation. The DEA focuses on creating a conducive policy framework for private investment in infrastructure.

The IIPDF Scheme provides financial support to Project Sponsoring Authorities (PSAs) at both Central and State Government levels, covering expenses for transaction advisors and consultants in PPP project development. This funding ensures the development of viable and bankable PPP projects, promoting modern infrastructure across the country. Complementing the IIPDF Scheme is the Viability Gap Funding (VGF) Scheme, which supports economically justified but commercially unviable PPP projects. Together, these schemes facilitate the development of quality infrastructure projects, enhancing efficiency and private capital infusion.

The DEA's initiatives streamline the procurement of advisory services, addressing delays and suboptimal structuring of PPP projects. By providing necessary funding and technical support, these schemes boost the EPC sector, fostering innovation, efficiency, and sustainable infrastructure growth in India.

National Infrastructure Pipeline and PM Gati Shatkti program two of the flagship government programs that would herald the next phase of growth in infrastructure development in India. Both the flagship policies outline ambitious programs that entails investments of billons of dollar, and construction projects of the scale that has never been attempted before. Apart from the mega projects, the focus on improving coordination between implementing agencies and steps to remove project delays are also noteworthy. Together these two flagship policies provide favourable demand scenario for the stainless-steel consumption in infrastructure construction segment.

Industrial Construction in India

After the implementation of economic liberalization policies in early 1990s, the industrial investment scenario in India has largely been shaped by market forces. Government's role was mostly related to designing and implementing policies that would at best improve the investment landscape and attract private investment. Rapid economic growth and rise in demand saw an influx of private investment which was directed towards improving the industrial base of India. As a result, several industrial sectors in India went on to add capacity to become amongst largest in the world.

However, the launch of Production Linked Incentive (PLI) scheme by the Government in 2020 to improve domestic manufacturing capability of India is different from policies launched before. For one, the scheme

offers direct incentives on incremental sales from products manufactured in domestic units – thereby promoting domestic production. At present PLI scheme is active in 14 industrial sectors, manufacturing products ranging from electronics to medical devices.

Of the approximately Rs. 4 trillion in expected capital expenditure by corporates under the PLI scheme over five to six years, Rs. 1 trillion had been invested by November 2023, representing around 25% of the total estimated capex. The current capex deployment has generated approximately Rs. 9 trillion in incremental sales, which is 20-25% of the total projected incremental sales of Rs. 35-40 trillion from the PLI scheme as of November 2023.

As of November 2023, eight sectors, including phone/electronics, pharma, and food products, have received disbursements under the PLI scheme for FY2024. Additionally, two more sectors, textiles and white goods, are expected to claim PLI incentives for FY 2024. Increasing industrial construction is likely to augment the demand of stainless-steel industry.

Regulatory Scenario

Iron and steel industry play a strategic position in the overall economic development. Therefore, the government has been taking sustained initiative on yearly basis towards the development of the industry. There is no government imposed a restriction on production and sale of steel products and this has immensely helped in the development of domestic manufacturing sector. Foreign investment norms have helped the country attract global steel manufacturers who bought in improved manufacturing technology and processes. This move played significant role in assisting steel companies to widen their product portfolio from basic steel products like hot rolled & cold rolled steel to manufacturing of steel rebars and TMT bars. Currently 100% FDI under automatic route is allowed in the steel sector.

Proposal to provide additional depreciation of 20% against 10% on new plant and machinery installed by a manufacturing unit if the asset is installed after 30th Sep 2015 is a favorable move to boost investment in new plant and machinery in steel industry.

- **Mines and Minerals (Development and Regulation) Act, 1957:** This act is pivotal in regulating the mining of raw materials such as iron ore and coal, which are essential for steel production. It establishes rules for the allocation of mining leases, ensures sustainable extraction practices, and aims to prevent illegal mining activities. The act also outlines guidelines for environmental protection and rehabilitation of mined areas.
- **Indian Steel Policy of 2017:** This policy is a comprehensive roadmap for the development of the steel industry in India. It focuses on increasing the domestic production of steel, reducing

imports, and enhancing the sector's global competitiveness. The policy aims to achieve these goals by promoting investment in infrastructure, technology modernization, and research and development. It also emphasizes the importance of skill development and job creation in the sector.

- **Environmental Regulations:** Environmental protection is a crucial aspect of the regulatory framework for the iron and steel industry. The Environment Protection Act, 1986, along with other environmental laws and regulations, sets stringent standards for air and water pollution control, waste management, and conservation of natural resources. Steel plants are required to obtain environmental clearances and comply with emission norms to minimize their environmental footprint.
- **Quality Standards and Certification:** The Bureau of Indian Standards (BIS) is responsible for setting quality standards for steel products in India. These standards cover various parameters such as composition, strength, and durability to ensure the safety and reliability of steel used in construction, manufacturing, and infrastructure projects. Compliance with BIS standards is mandatory for steel manufacturers, and certification is often required for products to enter the market.
- **Government Oversight and Support:** The Ministry of Steel plays a central role in coordinating and implementing policies and programs for the steel industry. It collaborates with other government agencies, industry associations, and stakeholders to address challenges and promote growth. Additionally, the government provides various incentives, subsidies, and tax benefits to encourage investment, innovation, and technology adoption in the sector.

National Steel Policy 2017

This policy was initiated with the intention to create a technologically advanced and globally competitive steel industry that promotes economic growth. Its mission is to provide environment for attaining self-sufficiency in steel production in India. It is an updated version of National Steel Policy 2005.

Objective: The goal of the National Steel Policy is to foster a steel industry that can compete on a global scale. By 2030-31, it aims to boost per capita steel consumption to 160 kgs from the current level of about 63 kgs. Additionally, the policy seeks to fulfill all domestic demands for high-grade automotive steel, electrical steel, special steels, and alloys for strategic purposes by 2030-31. It also aims to enhance the availability of domestically washed coking coal to decrease reliance on imported coking coal from 85% to 65% by 2030-31.

Key Features of National Steel Policy:

1. **Steel Demand:** The current GDP growth rate suggests that steel demand is projected to accelerate, reaching 230 million metric tons by 2030-31. To boost this demand, the Ministry has pinpointed construction and manufacturing sectors such as rural development, urban infrastructure, roads & highways, and railways as the primary areas of focus.
2. **Steel Capacity:** It is anticipated that a crude steel capacity of 300 million metric tons will be needed by 2030. Achieving this will require a substantial capital investment of approximately Rs. 10 lakh crores by 2030-31 and is expected to generate significant employment, increasing from the current 2.5 million jobs to around 3.6 million jobs by 2030-31, depending on the level of automation and the adoption of various technologies.
3. **Raw Material, Land, Water and Power:** The Policy outlines several measures to ensure the availability of raw materials such as iron ore, coking coal, non-coking coal, natural gas, ferro-alloys, and nickel at competitive rates. To achieve the target, an estimated 91,000 acres of additional land will be required for greenfield expansion. The Ministry will ensure the timely provision of litigation-free land, water, and power to the industries. Additionally, water conservation at all levels will be promoted, and the industry's efforts in this area will be supported.
4. **Infrastructure and Logistics:** To meet the growing industry needs, adequate and timely infrastructure development must be pursued in Odisha, Chhattisgarh, and Jharkhand. This includes enhancing railways, roadways, power generation and distribution, evacuation infrastructure, slurry pipelines, and conveyors. To foster export opportunities and enhance competitiveness, the Government of India is also considering port-led development of steel clusters under the Sagarmala program**.**

Steel Quality Order Control

The quality of steel in India is regulated by the Steel and Steel Products (Quality Control) Order, 2024, issued by the Ministry of Steel in February 2024. This order replaces the previous 2020 version and establishes updated standards for steel production, certification, and distribution. The primary objective is to ensure high-quality steel products in the Indian market, in line with international standards, and to protect public safety. By emphasizing quality control, this order prevents substandard steel from entering the market, thereby promoting public safety, and ensuring the reliable performance of steel products in infrastructure, construction, and various industrial applications. The order achieves this through:

- **Specified Steel Products:** The order applies to a specific list of steel products outlined in Schedule 1. These products must comply with the relevant Indian Standards for composition, mechanical properties, and dimensions.
- **BIS Certification:** The Bureau of Indian Standards (BIS) is responsible for certification under the order. Steel products must be manufactured by a BIS-certified producer and accompanied by a Test Certificate with the Standard Mark. This ensures traceability and adherence to quality standards throughout the supply chain.
- **Certification Schemes:** The order outlines various certification schemes depending on the steel product category. Some products require mandatory Standard Marks from BIS, while others might have alternative assessment procedures.

Domestically Manufactured Iron and Steel Policy

The Domestically Manufactured Iron & Steel Products (DMISP) Policy, launched by the Indian government on 8th May 2017, prefer the domestically manufactured iron & steel products in Government procurement. To align with the Government "Atmanirbhar Bharat" scheme, prioritizes the use of Indian-made iron and steel products in government projects. The Ministry of Steel has extended the DMISP policy by six months, going beyond the previous deadline which was 22nd May 2024.

Objective:

- **Aligning with Make in India:** The policy falls under the umbrella of the "Make in India" initiative, aiming to reduce dependence on imported steel and stimulate domestic manufacturing. This fosters self-reliance and boosts the Indian economy.
- **Enhancing Quality Standards:** By mandating a minimum 15% value addition in procured steel, the policy encourages the use of superior quality products. This value addition could involve processing, further manufacturing, or specific treatments to enhance the steel's properties. The Ministry of Steel holds the discretion to review this criterion for better flexibility.
- **Nation Building Through Steel**: A robust domestic steel sector contributes significantly to India's infrastructure development and overall economic growth. DMISP aims to create a thriving steel ecosystem that supports nation-building efforts.

Waivers and Exceptions:

The policy acknowledges situations where domestic production might not fulfill project requirements. Here's when waivers can be granted:

- **Unavailability of Specific Steel Grades:** If a project necessitates a particular steel grade not currently manufactured domestically, a waiver can be obtained to procure it from international sources.
- **Production Shortfalls:** When domestic steel production capacity cannot meet the project's specific quantity needs, a waiver allows for import to bridge the gap.

Implementation and Oversight:

- **Ministry of Steel's Role:** The Ministry of Steel shoulders the responsibility of overseeing the policy's effective implementation. They may issue clarifications, revise criteria, and ensure compliance across government agencies.
- **Obligations of Government Agencies:** Every government department and PSU involved in procurement is mandated to adhere to the DMISP guidelines. This ensures that preference is given to qualifying domestic steel products in their tenders**.**

Trade Barriers / Protective Measures

The Indian government has implemented several trade barriers and protective measures to support the domestic steel industry. One such measure is the Steel Import Monitoring System (SIMS), which requires importers to provide advance information about intended steel imports. This system helps gather detailed data on end-use, grade, and technical specifications. Additionally, the government has increased import duties on most steel items by 2.5% on two occasions. Furthermore, anti-dumping and safeguard duties have been imposed on steel items to protect the domestic industry from unfair trade practices. These trade barriers aim to safeguard and promote the domestic steel sector in India.

Other Government Policies & Initiatives

Government schemes and initiatives such as National Infrastructure Pipeline (NIP), Atmanirbhar Bharat, Production Linked Incentives (PLI), PM Gati Shakti - National Master Plan, and National Manufacturing Policy are creating a substantial demand for steel and steel products in the country. Moreover, current government's emphasis on infrastructure through Atal Mission for Rejuvenation and Urban Transformation, Smart Cities, Mass Rapid Transport System, Affordable Housing, Jal Jeevan Mission etc. and increasing budgetary allocation towards infrastructure are also creating a significant demand for steel and stainless-steel products in the country.

Union Budget 2023-24 Announcement & Steel

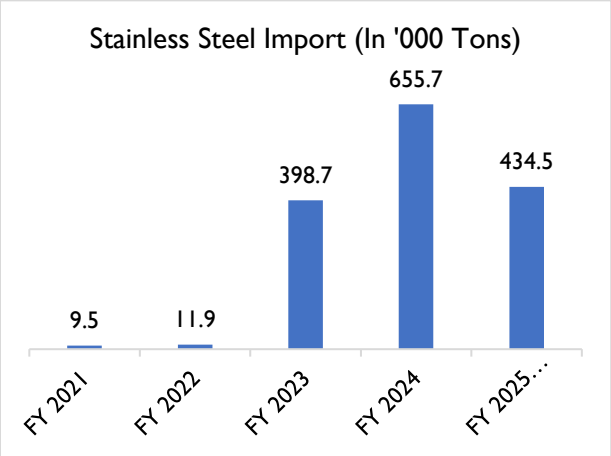
- The budget included a continuation of the waiver on customs duty for ferrous scrap, raw materials used in manufacturing Cold Rolled Grain Oriented (CRGO) steel, and nickel cathode. This is seen as a positive step for steel manufacturers.
- The inclusion of "specialty steel" under the Production Linked Incentive (PLI) scheme was announced as a positive development for the industry. This scheme aims to provide financial incentives for domestic manufacturing of these specific steel products.
- Tariff rate of scrap of iron or steel is reduced to 2.5% from 5%. Therefore, once the exemption from duty on these scraps expire, the BCD rate shall operate through tariff.
- Rescinds anti-dumping or countervailing duty on following products of steel are revoked with effect from February 1, 2022:
  - Straight length Bars and Rod of alloy Steel from China PR,
  - High Speed Steel of Non-Cobalt Grade from China PR, Brazil, Germany.
  - Flat rolled products of steel (Al or Zinc coated) from China PR, Vietnam, and Korea RP.
  - Hot rolled and cold rolled stainless steel flat products (from China PR).

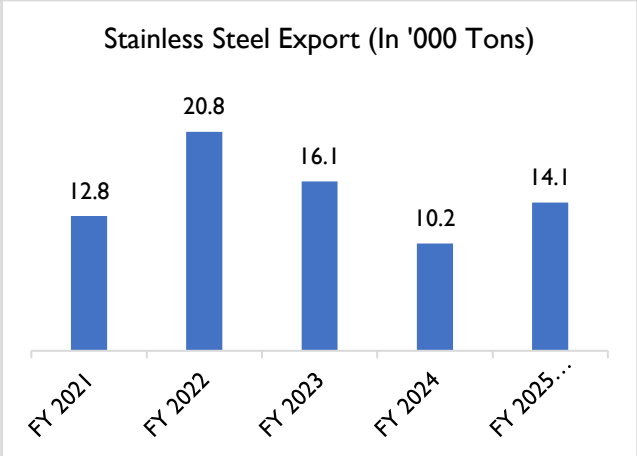
Foreign Trade Scenario in Stainless Steel

India's stainless-steel sector is a vital part of its industrial economy, experiencing substantial growth in production and evolving trade dynamics. The sector has benefited from technological advancements and expanded capacities, supporting key industries such as construction and automotive. As a result, the stainless-steel industry has witnessed notable trends and shifts in recent years.

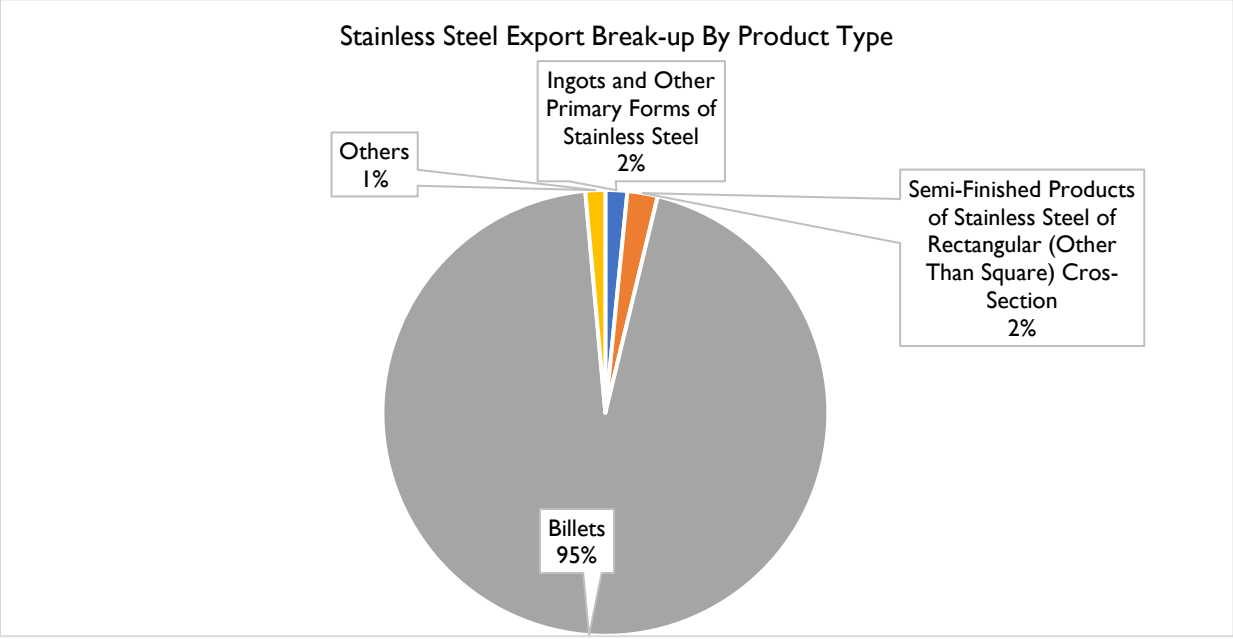
Steel import, which was subject to import duty until 2021, saw a major policy shift in the Union Budget 2022 with the revocation of this duty. This led to a sharp increase in steel imports in India. Stainless steel imports, in particular, rose significantly—from 11.9 thousand tons in FY 2022 to 398.7 thousand tons in FY 2023—and further surged to 655.7 thousand tons in FY 2024. In FY 2025 (April–February), imports have already reached 434.5 thousand tons, indicating continued momentum. This sharp rise is driven by heightened domestic demand and the removal of countervailing duties (CVD) on imports from China and Indonesia, which has led to an influx of cheaper Chinese stainless steel products into the Indian market.

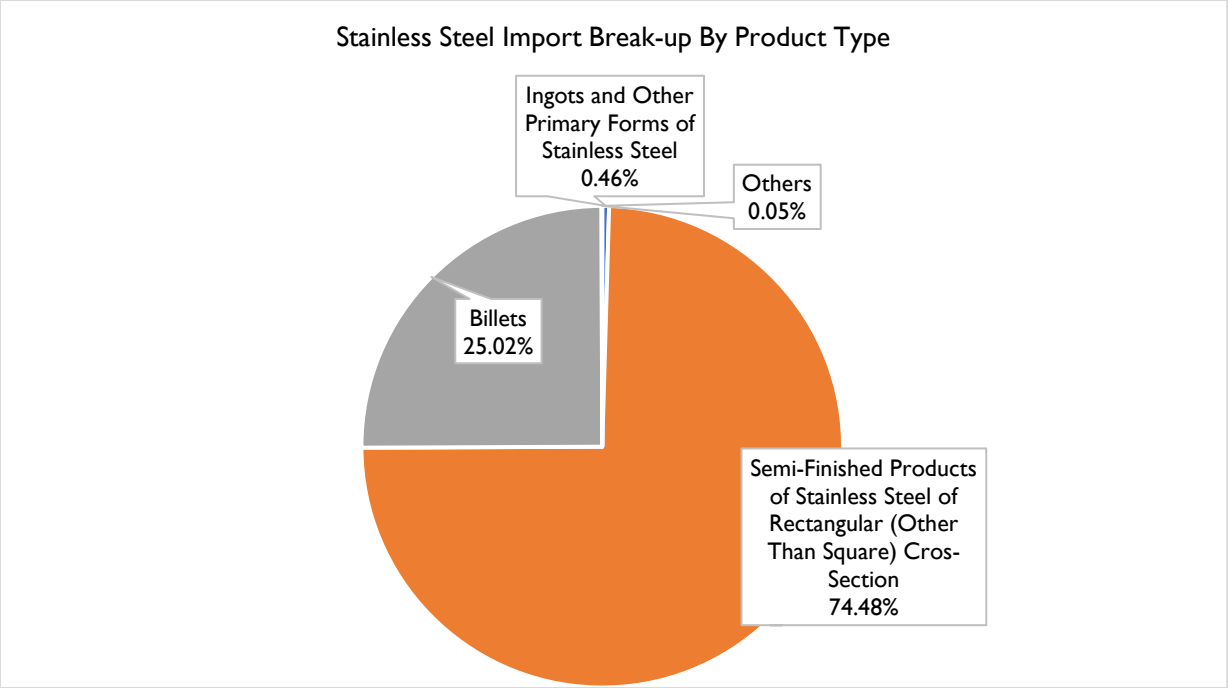
Breaking down the imports by product type, it is evident that the vast majority—92%—consists of semi-finished rectangular sections, with billets and ingots accounting for 7% and 1%, respectively.





Source: Department of Commerce, Trade Statistics
Note: The data collaborated above is of HS Code: 72181000, 72189100, 72189910 and 72189990





Source: Department of Commerce, Trade Statistics
Note: The data collaborated above is of HS Code: 72189100, 72189910 and 72189990

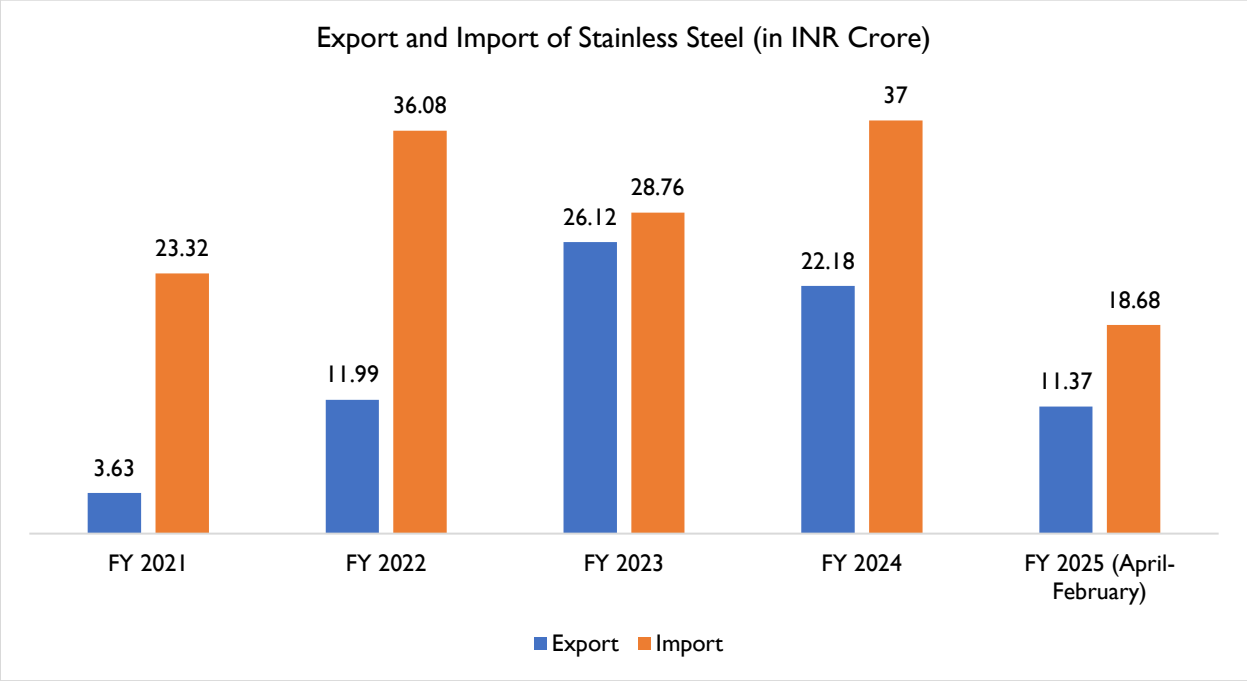
Breaking down the trade data by product type reveals distinct patterns in India's stainless-steel imports and exports. On the export front, billets dominate the outbound shipments, accounting for 94.8% of total stainless-steel exports. Semi-finished products of rectangular (other than square) cross-section represent 2.2%, ingots and other primary forms make up 1.6%, and the remaining 1.4% falls under other product categories.

In terms of imports, semi-finished stainless-steel products of rectangular (other than square) cross-section constitute the bulk of inbound shipments at 74.48%. Billets follow with a 25.02% share, while ingots and other primary forms represent just 0.46%. Other miscellaneous stainless-steel products account for a marginal 0.05%. This composition highlights India's growing reliance on specific intermediate products to meet domestic demand and support downstream processing.

Value Analysis:

Exports of stainless steel rose steadily from INR 1.18 billion in FY2020 to a peak of INR 4.53 billion in FY2023, before declining to INR 2.46 billion in FY2024. In FY2025 (April–February), exports stood at INR 1.37 billion, indicating a moderate pace compared to previous years. This substantial growth up to FY2023 highlights India's expanding footprint in the global stainless-steel market, driven by enhanced production capacities and strategic positioning. However, the decline in FY2024 and the relatively modest

performance in FY2025 so far suggest emerging challenges, such as global market volatility and increasing international competition, potentially influencing export dynamics.



Source: Department of Commerce, Trade Statistics

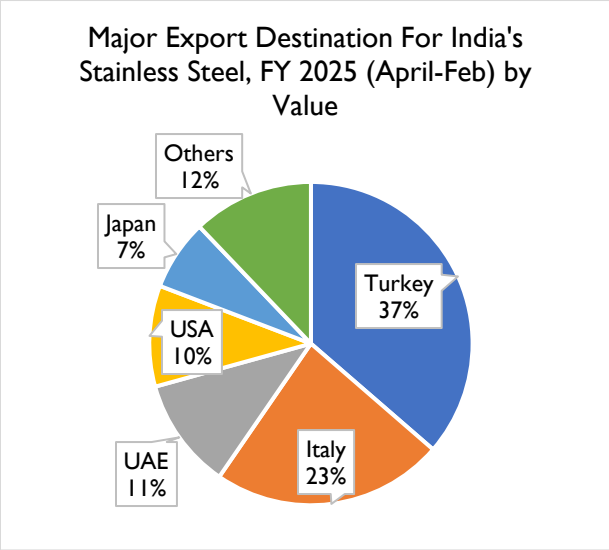
Note: The data collaborated above is of HS Code: 72181000

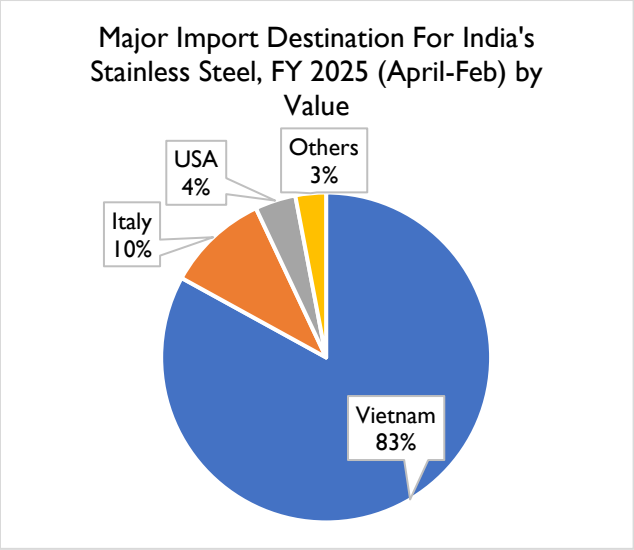
On the import side, the value of stainless-steel imports surged from INR 3.56 billion in FY2020 to a significant INR 117.0 billion in FY2024. As of FY2025 (April–February), import values reached INR 68.8 billion, reflecting continued dependence on external sources to meet domestic demand. The sharp rise, particularly from INR 82.6 billion in FY2023 to INR 117.0 billion in FY2024, underscores the impact of factors such as robust domestic consumption, supply chain constraints, and elevated global steel prices. The persistently high import values highlight India's increasing reliance on imported stainless steel to bridge the supply-demand gap across various industrial sectors.

Trading Partners:

In FY2025 (April–February), Turkey emerged as the largest export destination for India's stainless steel, accounting for 36% of the total export value. Italy followed with a 23% share, while the UAE and the USA contributed 11% and 10%, respectively. Japan accounted for 7%, and the remaining 12% was distributed among other countries. This export distribution reflects a shift in trade patterns and indicates a relatively

diverse export portfolio, underlining India's expanding trade relationships across key international markets.





Source: Department of Commerce

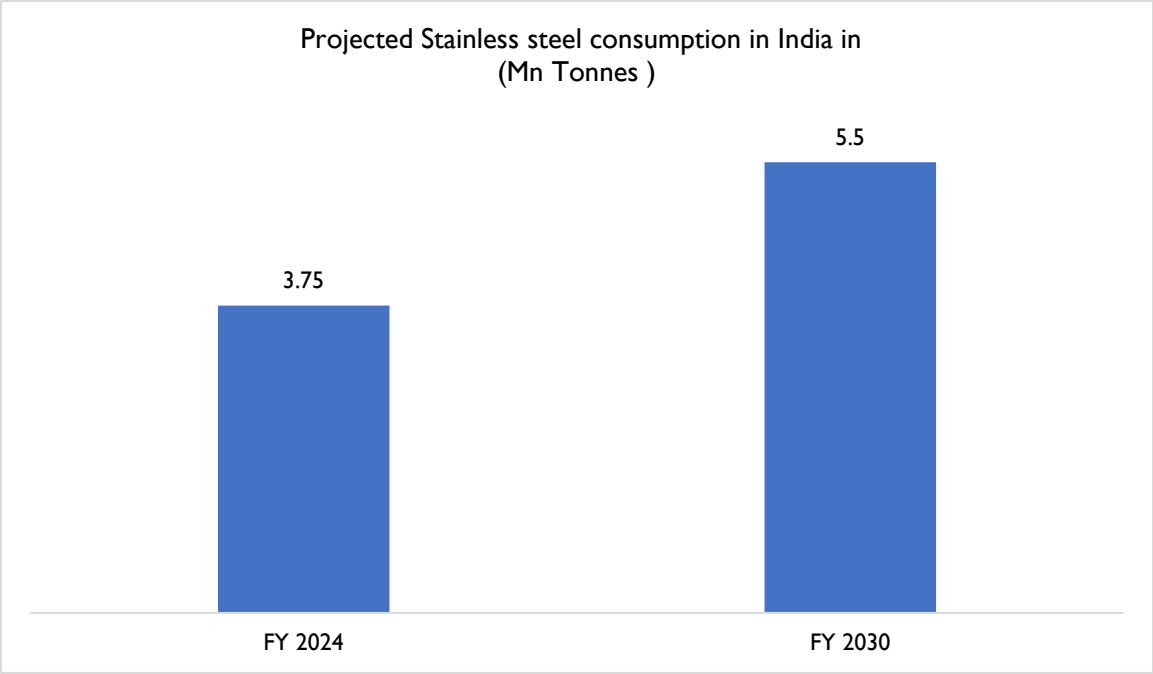
Note: The data collaborated above is of HS Code: 72181000

On the import front, Vietnam dominated as the primary source of India's stainless-steel imports in FY2025 (April–February), contributing a substantial 83% of the total import value. Italy and the USA followed distantly with 10% and 4%, respectively, while other countries made up the remaining 3%. This data highlights a significant shift from the previous year, where Indonesia was the major import source. The growing reliance on Vietnam for stainless steel imports points to evolving supply chain preferences, but it also underscores India's continued dependency on a limited number of countries for meeting domestic stainless-steel demand.

Growth Forecast

With India being one of the fastest growing economies amongst the global peer, the country's stainless-steel demand in India is expected to witness steady growth as projected under the 'Stainless Steel Vision Document 2047' by CRISIL and the Indian Stainless Steel Development Association. The vision projects India's per capita stainless-steel consumption to grow to 8-9 Kg by 2040 and further to 11-12 Kg by 2047 while the domestic consumption is expected to grow to 12.7 MTPA and 20 MTPA by fiscals 2040 and 2047, indicating promising growth trajectory.

In near term, India's growth scenario for stainless steel consumption remains intact on the back of substantial government expenditure planned in major end user industries under National Infrastructure Pipeline and recently announced PM gati Shakti project. Higher capital expenditure planned towards sectors with higher metals consumption intensity such as Railway, Road and Bridges, Water infrastructure and Affordable Housing is positive as this will support demand for metal. We expect domestic stainless-steel industry to grow from approximately 3.75 million tonnes in FY 2024 to 5.5 million tonnes by 2030, at a compound annual growth rate (CAGR) of 6.59%



Sources: Dun & Bradstreet Research Estimates

This couple with supportive policy reform through scheme like Atmanirbhar Bharat, PLI, amended DMISP policy and make in India will give push to domestic manufacturing and strengthen the supply side dynamics. However, domestic SS face a major downside risk from rising imports, mainly from low-cost destination

like China which is creating material harm to the domestic industry. Given the higher input cost and other overheads, domestic manufacturers find it difficult to compete with Chinese imports based on price. Only government level initiatives, to create a level playing field would help in nullifying this challenge.

Competitive Landscape

The industry can be categorized in – main producer of steel and the secondary producer. The secondary producer includes producer of sponge iron, furnaces for induction or energy optimization, re-rolling firms etc. Jindal Stainless Limited, Viraj Profiles Limited and Salem Steel Plant (Part of Steel Authority of India Limited) are the notable companies in the organized segment of Indian stainless-steel industry which are engaged in the manufacturing of semi-finished and finished steel product while several small companies operating as secondary producer. The Indian steel industry is fairly consolidated in finished steel production. One of the key success factors in this sector is the ability to be integrated across the value chain right from upstream raw material production (nickel, ferro chrome) to downstream manufacture of finished steel products. Consequently, the players are in a better position to pass on raw material price hikes to the end-users. The stainless-steel sector in India is characterized by high-quality production standards, a wide range of product offerings, strong domestic demand, growing export potential, and a well-established manufacturing base. It benefits from the country's abundant raw material availability, skilled workforce, and supportive government policies. The Indian stainless-steel sector stands out due to its diverse product portfolio, catering to various industries. It boasts a robust distribution network, efficient supply chain management, competitive pricing, and strong customer relationships. Continuous innovation, R&D efforts, and sustainability initiatives further differentiate Indian stainless-steel manufacturers.

Key Factors Shaping the competition in the Stainless-Steel Sector

The evolution of the Indian steel market has been intricately linked to global economic trends and geopolitical shifts. Several key factors have exerted influence on the trajectory of the Indian steel plants.

Globalization and Trade Liberalization

The process of globalization has facilitated the integration of Indian steel producers into the global market, enabling access to new technologies, markets, and capital. Trade liberalization measures have opened avenues for export-oriented growth, allowing steel plants to tap into international demand. Globalization has enabled Indian steel producers to integrate into the international market, offering opportunities to export their products and boost revenue. By establishing strong international networks and partnerships, these companies gain a competitive edge. Trade liberalization has facilitated the flow of advanced technologies and best practices from developed markets, allowing Indian steel companies to enhance operational efficiency and product quality, thus staying ahead of domestic and international competitors. Additionally, the influx of foreign investments has provided capital for expansion,

modernization, and innovation, enabling firms to upgrade infrastructure and increase production capabilities, further strengthening their competitiveness.

Technological Advancements

Rapid technological innovations have transformed the steel industry, leading to increased efficiency, productivity, and sustainability. The adoption of advanced processes such as electric arc furnaces, continuous casting, and automation has enhanced the competitiveness of Indian steel producers. The adoption of cutting-edge technologies such as electric arc furnaces, continuous casting, and automation has significantly enhanced efficiency and productivity in the steel industry, enabling companies to produce higher volumes at lower costs and outcompete those with outdated processes. The integration of IoT and AI in manufacturing allows for real-time monitoring and predictive maintenance, reducing downtime and improving production efficiency. This smart manufacturing approach helps firms maintain high operational standards and deliver products more reliably. Robotics automates repetitive tasks such as material handling, welding, and quality inspection, reducing reliance on manual labor and boosting process efficiency. Drones have become valuable for monitoring production facilities, conducting aerial surveys, identifying safety hazards, and facilitating maintenance inspections, thereby enhancing safety, reducing inspection times, and enabling proactive maintenance planning. This technological innovation facilitates the development of specialized steel grades for specific applications like automotive and aerospace, allowing companies to tap into niche markets and command higher prices.

Shifts in Global Demand

Changing consumption patterns, urbanization trends, and infrastructure development have influenced global steel demand. Emerging economies have emerged as key drivers of steel consumption, presenting opportunities for Indian steel producers to cater to these growing market segments. Growing demand in emerging economies presents significant opportunities for steel companies that can address specific needs such as infrastructure development and urbanization, enabling them to expand their customer base and increase market share. Adapting to changing consumer trends, like the rising demand for sustainable and high-strength steel, positions producers to attract and retain customers. Additionally, firms that diversify their product portfolios to include both traditional and high-tech steel products can better withstand demand fluctuations and maintain a competitive edge.

Resource Constraints and Environmental Pressures

Challenges related to raw material availability, energy consumption, and sustainability have shaped the strategic priorities of steel companies. Efforts to diversify sourcing, optimise resource utilisation, and adopt cleaner technologies reflect a broader commitment to sustainable development. Companies that adopt

sustainable practices and technologies reduce their environmental impact, comply with stringent regulations, and enhance their corporate image, attracting environmentally conscious customers and investors. Efficient use of raw materials and energy leads to significant cost savings, with optimized resource utilization through recycling and waste minimization reducing production costs and improving profitability. Innovating in sustainability, such as developing low-carbon steelmaking processes using hydrogen instead of coal, positions firms as leaders in sustainability and provides a competitive advantage by meeting the growing demand for eco-friendly products.

Sustainability and Environmental Regulations

Steel manufacturers are increasingly adopting sustainable practices and technologies to mitigate environmental impacts and enhance long-term viability. Companies adopting sustainable practices and technologies reduce their environmental impact, comply with stringent regulations, and enhance their corporate image, attracting environmentally conscious customers and investors. Efficient use of raw materials and energy leads to significant cost savings, with resource optimization through recycling and waste minimization reducing production costs and improving profitability. Developing low-carbon steelmaking processes, like using hydrogen instead of coal, positions companies as sustainability leaders, providing a competitive advantage by meeting the growing demand for eco-friendly products.

Major Entry Barriers

High initial investment, raw material availability (mostly nickel, chromium, and other non-ferrous metals), and economies of scale have created entry barriers, providing existing players a competitive advantage.

Global Economic Uncertainties: The steel industry is highly sensitive to global economic conditions, including trade tensions, geopolitical conflicts, and currency fluctuations. Uncertainties in global markets can impact steel prices, demand-supply dynamics, and investment sentiments, posing challenges for manufacturers.

Raw Material Procurement: Securing a cost-effective supply of raw materials, such as iron ore, coal, and scrap metal, remains a significant challenge. Dependency on imports, volatile commodity prices, and logistical constraints can disrupt production schedules and affect profitability.

Technological Disruptions: Technological advancements in steel offer efficiency gains and innovation opportunities, yet they require substantial capital investment, workforce training, and cybersecurity measures. Successful adaptation hinges on strategic planning and continuous research and development investment.

Global Competition: The Indian steel industry faces intense competition from domestic players as well as international giants in the global market. Competing on price, quality, and innovation requires continuous improvement in productivity, supply chain efficiency, and customer service.

Capital Intensive: Establishing modern steel plants in India demands substantial investments, typically around Rs 7,000 crores for a plant with a capacity of 1 million tonnes. This financial barrier poses considerable challenges for domestic entities aiming to expand or establish new facilities.

Infrastructure challenges: India faces severe logistics challenges affecting both raw materials and finished steel transport. Despite needing 3-3.5 tonnes of raw materials per tonne of steel, India grapples with exorbitant freight costs, especially for iron ore, which are 500% higher than Australia's due to inadequate inland road and rail infrastructure.

Taxation burden: Indian steel manufacturers face a burdensome tax regime, with royalty on iron ore set at 15%, significantly above the global average of 3%-7%. Additionally, clean production costs.

Seasonal Demand: India's reliance on imported coking coal raises costs for steel manufacturers, while cyclical demand, worsened by monsoon slowdowns, causes financial strains during low demand periods.

Major Challenges

Increasing import from is cited as major threat to stainless steel product manufacturer. In Union-Budget 2021-22, the government announced revocation of CVD on imports of certain hot rolled and cold rolled stainless steel flat products originating or exported from China (uptill 30th September 2021) and subsequently extended it upto 31st Jan 2022. Moreover, the budget also announced the revocation of the provisional CVD on import of flat products of stainless steel, originating or exported from Indonesia.

The detail review of the industry development over the last two three years also suggests a large part of import from Indonesia are being driven by the Chinese companies operating from Indonesia. China has been investing aggressively in Indonesia to scale up SS capacity and displace India as a second largest SS player in world. Indonesia total installed capacity stood at 5.5Mn tonnes, which was higher than India (5 Mn tonnes in 2021) and the country replaced India to become the second largest SS producer globally in 2021.

In addition, Indonesia's SS capacity is also 25 times more than their total annual domestic consumption requirement of just 0.2 MTPA which serve India as a fertile dumping ground for Indonesian SS flat product exports as Indonesia is a part of India's free trade agreement (FTA) with the Association of Southeast Asian Nations (ASEAN).

This surge in cheaper import is severely hurting the supply dynamics of domestic SS industry with underutilized domestic capacity which is dwindling somewhere near 60%. Majority of underutilized capacity is concentrated in MSME segment which contributes about 28% share (1.4 Mn Tonnes) in total SS capacity of India. Under-utilization of domestic capacity are adding its resulting woes to the domestic SS industry such as falling revenue, declining profitability, significant unemployment, bringing fresh investment at halt, turning many companies out of business, and converting many manufacturers into trader. As per recent insight from the President of Indian Stainless Steel Development Association (ISSDA), about 30-35% of medium and small businesses in the stainless-steel industry in Gujarat state which represents 80% of the MSMEs in the sector ceased their operation in Q2 FY 2024 due to heavy influx of cheaper Chinese imports.

Profiling of Key Players

Company	Jindal Stainless Limited	Viraj Profiles Limited	Salem Steel Plant	Avtar Steel Limited
Brief Profile	Established in 1970, leading stainless-steel producer in India. Specializes in flat and long products for various industries.	Founded in 1992, specializes in stainless steel long products. Produces over 50,000 SKUs.	Part of SAIL, established in 1970. Leading stainless steel producer in Tamil Nadu, India.	Incorporated in 1996, the company is a player in the industry, specializing in a variety of long products for diverse applications.
Services Offered / Features & Attributes	Produces coils, sheets, plates, and strips. High-quality products with extensive R&D facilities.	Produces wires, bars, fasteners, flanges, and profiles. Global presence with diversified product range and advanced	Produces flat stainless-steel products such as coils, sheets, and plates. State-of-the-art facilities.	Produces round bright bars, hexagonal bars, square bars and hot rolled and cold finished products.

		manufacturing facilities.		
Manufacturing Capacity	2.1 million tons per annum	528,000 tons per annum	434,000 tons per annum	72,000 MT per annum for specialty Stainless steel
Other Factors	Strong domestic and international market presence. Commitment to sustainability.	Serves oil and gas, automotive, and construction industries. Focus on high-quality standards.	Serves railways, power, and architecture industries.	Modern facilities for melting, hot rolling, heat treatment, and cold finishing. Strict quality control.

Note: The peer companies have been selected based on their operations in the stainless steel industry with product portfolio similar to the subject entity These companies share comparable manufacturing processes, end-user segments, and market presence.

Financial Performance

Backed by strong domestic demand, particularly from infrastructure and industrial sectors, along with a substantial increase in export demand, the stainless-steel industry has witnessed robust sales growth in recent years. Between FY 2020 and FY 2024, total sales have grown at a CAGR of 20%.

Expense Snapshot

	Raw Material	Power & Fuel	Salary & Wage	SG&A	Interest
FY 2020	74.5%	7.9%	3.5%	1.9%	1.7%
FY 2021	76.6%	7.4%	3.5%	1.5%	1.5%
FY 2022	81.9%	5.4%	2.4%	1.9%	0.9%
FY 2023	77.5%	5.4%	2.7%	1.7%	0.8%
FY 2024	84.9%	6.1%	1.4%	1.4%	1.5%

Source: CMIE Prowess IQ, Dun & Bradstreet Research, Based on a Sample of 4 Companies (Avtar Steel Ltd, Maa Mahamaya Alloys Pvt. Ltd, Rajputana Stainless Ltd, and Surya Alloy Industries Ltd.)

India remains a significant consumer and producer of stainless steel, but the industry continues to depend heavily on imported raw materials especially ferrochrome and nickel, both critical inputs for stainless steel production. This dependence on global markets exposes manufacturers to price fluctuations and supply

chain uncertainties, resulting in elevated and volatile raw material costs. Raw material expenses have consistently been the largest cost component, ranging between 74.5% in FY 2020 to a peak of 84.9% in FY 2024, averaging around 79% over the five-year period. This sharp increase in FY 2024 underscores the intensified cost pressure due to global commodity price volatility. The second major cost heads are power & fuel and salaries & wages, which together accounted for an average of approximately 6.5% of total revenue over the years. Power & fuel costs, stemming from the energy-intensive nature of stainless-steel manufacturing and the logistics of bulk raw material movement, have ranged between 5.4% and 7.9%, with FY 2024 witnessing a rise to 6.1%, up from 5.4% in the previous two fiscal years.

Salaries & wages, while relatively stable in percentage terms between 1.4% and 3.5% have grown at a CAGR of 19% during this period, reflecting increased labour costs amid rising production and operational scales. Selling, General & Administrative (SG&A) expenses have remained within a narrow band of 1.4% to 1.9% of sales, recording a CAGR of 23% from FY 2020 to FY 2024. Despite their relatively small share, the consistent growth in SG&A reflects increased investments in distribution, marketing, and administrative functions to support industry expansion. Interest expenses have gradually declined from 1.7% in FY 2020 to 0.8% in FY 2023, before rising slightly to 1.5% in FY 2024, potentially indicating a shift in capital structure or rising borrowing costs in recent periods.

Profitability Margins

	Operating Profit Margin	Net Profit Margin
FY 2020	8.1%	3.9%
FY 2021	7.8%	3.5%
FY 2022	8.3%	5.1%
FY 2023	7.0%	3.9%
FY 2024	3.8%	1.3%

Source: CMIE Prowess IQ, Dun & Bradstreet Research, Based on a Sample of 4 Companies

Between FY 2020 and FY 2022, the domestic stainless-steel industry maintained healthy profitability, with operating profit margins ranging from 7.8% to 8.3% and net profit margins improving from 3.9% to 5.1%, supported by strong revenue growth and stable cost structures. However, starting FY 2023, the industry began to experience margin pressure due to rising operating expenses, including an increase in SG&A, power & fuel costs, and a 10% year-on-year rise in interest expenses. This trend worsened in FY 2024, where operating profit margin declined sharply to 3.8% and net profit margin fell to 1.3% the lowest in

the five-year period. The sharp deterioration in margins was largely driven by a steep rise in raw material costs, which surged to 84.9% of revenue, along with increased energy and financing costs. While both operating and net profits recorded strong CAGR growth of 18% and 27%, respectively, over FY 2020 to FY 2024, the recent margin compression underscores mounting cost pressures and the growing need for efficiency improvements, cost control measures, and reduced dependence on imported raw materials.

Key Ratios

Indicators	Average FY 2021, 2022, 2023, 2024
Return on Assets	14.9%
Return on Capital Employed	21%
Return on Networth	23.1%
Debt Equity Ratio	0.39
Interest Coverage Ratio	6.62
Current Ratio	1.77
Asset Turnover Ratio	2.25
Working Capital Turnover Ratio	8.11

Source: CMIE, Dun & Bradstreet Research, based on a Sample of 4 Companies

Key Standalone Financial Indicators of Key Players: FY 2021

Indicators (In Crores)	Panchmahal Steel Ltd	Manglam Worldwide Ltd	Mukand Ltd	Electrotherm India Ltd	Rajputana Stainless Ltd
Total Income	343.32	303.31	3,347.38	2530.59	429.83
Revenue from Operations	338.98	303.16	2,680.70	2526.79	427.70
EBITDA	27.44	5.87	463.33	230.04	23.77
EBITDA Margin	7.99%	1.94%	13.84%	9.09%	5.53%
PAT	9.81	2.70	46.00	63.30	2.23
PAT Margin	2.86%	0.89%	1.37%	2.50%	0.52%
Operating Cash Flow	29.33	5.60	-262.14	224.98	15.17
Net Worth	101.66	12.83	897.33	-906.79	62.39
Long Term Borrowing	54.63	0.00	1,735.41	2,121.40	19.73
Debt Equity Ratio	0.54	0	1.93	-2.34	0.32
Return on Capital Employed	12.79%	45.66%	15.00%	9.32%	23.89%
Return on Equity	9.65%	21.06%	5.13%	-6.98%	3.58%

Key Standalone Financial Indicators of Key Players: FY 2022

Indicators (In Crore)	Panchmahal Steel Ltd	Manglam Worldwide Ltd	Mukand Ltd	Electrotherm India Ltd	Rajputana Stainless Ltd
Total Income	577.61	523.32	4676.02	2834.04	771.70
Revenue from Operations	573.60	523.03	4642.93	2830.28	770.19
EBITDA	80.04	21.96	272.29	76.81	32.04
EBITDA Margin	13.86%	4.20%	5.82%	2.71%	4.15%

PAT	58.5822	12.39	91.62	-54.32	8.32
PAT Margin	10.14%	2.37%	1.96%	-1.92%	1.08%
Operating Cash Flow	37.86	1.58	-104.92	179.25	-2.19
Net Worth	159.96	45.48	740.47	-960.72	57.76
Long Term Borrowing	28.21	0.00	885.70	1973.85	33.89
Debt Equity Ratio	0.18	0	1.20	-2.05	0.59
Return on Capital Employed	38.50%	45.65%	13.96%	-0.89%	30%
Return on Equity	36.62%	27.24%	12.37%	*	14%

***PAT & equity both negative**

Key Standalone Financial Indicators of Key Players: FY 2023

Indicators (In Crore)	Panchmahal Steel Ltd	Manglam Worldwide Ltd	Mukand Ltd	Electrotherm India Ltd	Rajputana Stainless Ltd[6]
Total Income	490.05	645.92	6203.47	3080.74	950.69
Revenue from Operations	488.64	644.48	5618.36	3074.05	947.67
EBITDA	16.94	22.76	420.63	36.49	46.86
EBITDA Margin	3.46%	3.52%	6.78%	1.18%	4.93%
PAT	1.3783	15.75	185.48	-76.66	24.04
PAT Margin	0.28%	2.44%	2.99%	-2.49%	2.53%
Operating Cash Flow	-30.09	-70.48	173.85	105.99	31.77
Net Worth	153.83	127.70	881.48	-1039.41	81.16
Long Term Borrowing	76.44	16.17	1448.39	1,874.12	24.81

[6] Rajputana Financial for FY 2023, has been revised basis Financial provided by the company.

Debt Equity Ratio	0.50	0.13	1.64	-1.80	0.31
Return on Capital Employed	3.90%	12.59%	15.86%	-1.27%	37.7%
Return on Equity	0.90%	12.33%	21.04%	*	30%

***PAT & equity both negative**

Key Standalone Financial Indicators of Key Players: FY 2024

Indicators (In Crore)	Panchmahal Steel Ltd	Manglam Worldwide Ltd	Mukand Ltd	Electrotherm India Ltd	Rajputana Stainless Ltd
Total Income	431.86	822.46	5233.13	4275.84	915.5
Revenue from Operations	427.61	818.1	5217.53	4271.5	909.8
EBITDA	19.94	41.52	307.82	424.48	65.09
EBITDA Margin	4.66%	5.08%	5.90%	9.94%	7.15%
PAT	2.96	20.1	103.67	319.43	31.62
PAT Margin	0.69%	2.44%	1.98%	7.47%	3.45%
Operating Cash Flow	39.69	-11.09	76.61	354.61	43.51
Net Worth	156.88	172.15	946.32	-722.22	112.26
Long Term Borrowing	–	17.75	1433.09	–	19.48
Debt Equity Ratio	0.25	0.10	1.51	-3.49	0.17
Return on Capital Employed	5.31%	12.39%	10.66%	39.46%	43.10%
Return on Equity	1.89%	11.68%	10.96%	-44.23%	28%

Source: four peers financials has been retrieved from their respective Annual reports expect Rajputana Stainless Ltd which is provided by the company itself.

Formula Used:

EBITDA - PBT + Finance Cost + D&A
EBITDA Margins- EBITDA/Total Income

PAT Margins - PAT/Total Income
Networth – Total Shareholder's Equity
Debt-Equity Ratio – Long term Borrowing / Total Shareholder's Equity
Return on Capital Employed – EBIT/(Long term borrowing+ shareholder's fund)
Return on Equity - PAT/Total Equity

Key Consolidated Financial Indicators of Key Players: FY 2021

Indicators (in INR Cr)	Mukand Limited	Panchamahal	Mangalam Worldwide Ltd	Electrotherm Limited
Revenue from Operations	2,725.99	338.98	303.16	2,518.06
Total Income	3,474.40	343.32	303.31	2,522.28
EBITDA	246.22	27.44	5.88	224.04
EBITDA Margin	7.09%	8.09%	1.94%	8.90%
PAT	-203.78	9.81	2.70	49.49
PAT Margin	-5.87%	2.89%	0.89%	1.97%
Operating Cash Flow	-328.46	29.24	5.57	224.97
Net Worth	462.54	101.66	12.83	-1,042.38
Net Debt	1,763.49	8.55	0.00	1,012.73
Debt Equity Ratio	3.81	0.08	0.00	NA
Return on Capital Employed	7.98%	18.14%	45.66%	NA
Retun on Equity	-44.06%	9.65%	21.07%	NA
Return on Networth	-44.06%	9.65%	21.07%	NA

Source: Annual Reports of respective companies

Key Consolidated Financial Indicators of Key Players: FY 2022

Indicators (in INR Cr)	Mukand Limited	Panchamahal	Mangalam Worldwide Ltd	Electrotherm Limited
Revenue from Operations	4,642.97	573.60	523.03	2,831.31
Total Income	4,752.58	577.61	533.48	2,837.85
EBITDA	357.56	80.04	21.97	92.98
EBITDA Margin	7.52%	13.95%	4.20%	3.28%
PAT	176.31	58.58	12.39	-40.36
PAT Margin	3.71%	10.21%	2.37%	-1.43%
Operating Cash Flow	-101.81	37.86	1.59	179.24
Net Worth	666.46	159.96	45.46	-1,082.36
Net Debt	885.69	0.00	0.00	362.29
Debt Equity Ratio	1.33	0.00	0.00	NA
Return on Capital Employed	20.11%	45.29%	45.69%	NA
Retun on Equity	26.45%	36.62%	27.26%	NA

Return on Networth	26.45%	36.62%	27.26%	NA

Source: Annual Reports of respective companies

Key Consolidated Financial Indicators of Key Players: FY 2023

Indicators (in INR Cr)	Mukand Limited	Panchamahal	Mangalam Worldwide Ltd	Electrotherm Limited
Revenue from Operations	5,567.60	488.64	644.49	3,074.05
Total Income	6,152.79	490.05	646.55	3,080.74
EBITDA	401.62	16.94	24.44	104.54
EBITDA Margin	6.53%	3.47%	3.79%	3.40%
PAT	171.78	1.38	17.58	-11.82
PAT Margin	2.79%	0.28%	2.73%	-0.38%
Operating Cash Flow	105.91	-30.11	-61.31	107.08
Net Worth	853.78	153.83	139.65	-1,096.21
Net Debt	1,448.39	0.00	15.93	244.92
Debt Equity Ratio	1.70	0.00	0.11	NA
Return on Capital Employed	15.17%	5.84%	12.22%	NA
Retun on Equity	20.12%	0.90%	12.59%	NA
Return on Networth	20.12%	0.90%	12.59%	NA

Source: Annual Reports of respective companies

Key Consolidated Financial Indicators of Key Players: FY 2024

Indicators (in INR Cr)	Mukand Limited	Panchamahal	Mangalam Worldwide Ltd	Electrotherm Limited
Revenue from Operations	5,174.81	427.62	818.11	4,271.50
Total Income	5,190.84	431.86	822.47	4,276.15
EBITDA	308.02	19.95	42.52	424.14
EBITDA Margin	5.93%	4.67%	5.20%	9.93%
PAT	102.70	2.97	22.98	317.33
PAT Margin	1.98%	0.69%	2.81%	7.43%
Operating Cash Flow	64.94	39.70	-9.77	351.34
Net Worth	921.10	156.89	186.08	-781.12
Net Debt	1,433.09	0.00	17.76	606.59
Debt Equity Ratio	1.56	0.00	0.10	NA
Return on Capital Employed	10.97%	7.56%	17.30%	NA
Retun on Equity	11.15%	1.89%	12.35%	NA
Return on Networth	11.15%	1.89%	12.35%	NA

Source: Annual Reports of respective companies

Key Consolidated Financial Indicators of Key Players: FY 2025

Indicators (in INR Cr)	Mukand Limited	Panchamahal	Mangalam Worldwide Ltd	Electrotherm Limited
Revenue from Operations	4,889.99	383.1	1060.7	4,115.37
Total Income	4,904.42	385.81	1066.03	4,123.66
EBITDA	143.7893	6.17	27.00	53.39
EBITDA Margin	2.93%	1.60%	2.53%	1.29%
PAT	75.89	3.32	29.52	442.15
PAT Margin	1.55%	0.86%	2.77%	10.72%
Operating Cash Flow	172.95	1.38	-86.79	331.71
Net Worth	904.78	160.29	261.66	-158.78
Net Debt	1,435.84	48.34	185.26	1210.65
Debt Equity Ratio	1.645759	0.31	0.73	-8.0798
Return on Capital Employed	0.24%	0.51%	0.44%	0.05
Retun on Equity	8.39%	2.07%	11.28%	-278%
Return on Networth	8.39%	2.07%	11.28%	-278%

Source: Annual Reports of respective companies

Note: Panchamahal Steel Limited does not have any subsidiaries, associate companies, or joint ventures. Therefore, the financial information and analysis presented herein pertains solely to the company's Standalone Financial Statements, which have been considered equivalent to consolidated figures for the purpose of this assessment.

Company Profiling: Rajputana Stainless Limited[7]

Background

Rajputana Stainless Limited (RSL), established in 1991, has been engaged in the steel manufacturing business for over three decades. Throughout the years, RSL has expanded its production. The manufacturing facility is located in Panchmahal district, Gujarat, and is equipped to produce a diverse range of products, including of billets, forging ingots, rolled black bar, rolled bright bar, flat & patti and other ancillary product.

During the year 1999, RSL was declared a Non-BIFR Sick Industrial Unit vide Government of Gujarat, Industries and Mines Department Resolution No. SIU-1098-668-CH under Scheme for Rehabilitation of Small Scale and Non-BIFR Sick Viable Industries. Subsequently RSL was removed from list of Non-BIFR Sick Unit and became viable as per the then norms of Government of Gujarat.

Manufacturing Infrastructure

RSL's Manufacturing Facility is strategically located with the availability of transportation ensuring convenient transportation of our products. RSL's Manufacturing Facility is equipped with an induction furnace, Argon Oxygen Decarborizer ("**AOD**"), Continuous Casting Machine ("**CCM**"), heat treatment facilities, Oxygen and Nitrogen Plant, rolling mill and bright bar shop.

RSL as on 31st December, 2024, had an installed melting capacity of 48,000 MTPA, rolling capacity of 36,000 MTPA and bright bar capacity of 6,000 MTPA, heat treatment facility of 25 tonnes/batch size and Oxygen and Nitrogen plants having installed capacity of 350 scm/hour and 250 scm/hour respectively.

Key Customer Segment

The Company's key customers include Venus Pipes and Tubes Limited, Hindustan Inox Limited, Aamor Inox Limited, D H Exports Private Limited, Maximum Tubes Company Pvt Limited, Suraj Limited, and Sieves Manufacturer (I) Pvt. Ltd.. This diverse customer base indicates the capability of RSL to meet demand emerging from sectors including infrastructure, automotive, engineering, oil manufacturing, and utensil manufacturing. The top 5 customers are Aamor Inox Limited, Hindustan Inox Limited, Maxim

[7] The Company profile section has been compiled basis information collected from public domain (company website / other publicly available information) as well as information (if any) shared by the Company. D&B has not independently verified the claims made by the Company.

Tubes Company Pvt. Ltd, Suraj Limited, and Sieves Manufacturer (India) Pvt. Ltd contributed approximately 30–35% of RSL's total sales in FY 2024.

Key Achievements:

Rajputana Stainless Limited's dedication to quality and innovation has earned significant industry recognition through awards and certifications. Key achievements include the IBR 2022 – 2024 certification, highlighting compliance with Indian Boiler Regulations, and the PED Certificate from TUV Nord, indicating adherence to the Pressure Equipment Directive. Additionally, the company holds an ISO 9001:2015 Certificate for its quality management systems, demonstrating its commitment to maintaining high standards across its operations. These accolades affirm Rajputana Stainless Limited's position as a company that consistently meets industry expectations.

Financial Analysis:

Rajputana Stainless Limited has demonstrated substantial financial growth and resilience, supported by the extensive industry experience of its promoters. Having worked in the steel industry for over thirty years, the promoters have a deep understanding of sector dynamics and are adept at navigating business cycles. The company's total revenue has shown significant growth, increasing to INR 950.7 crores in fiscal 2023 from INR 770.2 crores in fiscal 2022. This increase is attributed to higher product prices and better volume sales, driven by growing demand from end-user industries. However, there was a drop in domestic sales in FY 2024, leading to a drop in sales by nearly 4% over previous year. This downturn is largely due to a surge in imports of finished stainless steel products into India.

	Total Income	Income from Operations	Expense (INR Cr.)	PBDITA (INR Cr.)	PAT (INR Cr.)
FY 2021	429.8	427.7	422.44	23.77	2.23
FY 2022	771.7	770.2	755.5	32.04	8.32
FY 2023	950.7	947.7	922.11	46.86	24.04
FY 2024	915.5	909.8	873.18	65.09	31.63

The business is susceptible to fluctuations in raw material prices, such as scraps, ferrous alloys, and base metals, influenced by the demand-supply scenario.

The strong sales growth experienced by RSL has helped the company improve its profitability. From INR 23.77 Crore in FY 2021, the PBDITA of the Company improved to nearly INR 65.09 Crore in FY 2024. During the same period, the Profit After Tax improved from INR 2.23 Crore to INR 31.63 Crore. RSL has managed to improve its profitability despite the steady growth in expenses, driven by strong growth in raw material cost across the industry. This points to streamlining of operations and improvement in operational efficiencies.

	PBDITA Margin	PAT Margin
FY 2021	5.5%	0.5%
FY 2022	4.2%	1.1%
FY 2023	4.9%	2.5%
FY 2024	7.1%	3.5%

Note: PBDITA & PAT margin, as a percentage of total income

The key financial ratios for Rajputana Stainless Limited, averaged over FY 2022, 2023 and 2024, indicate a robust financial performance. The company achieved a Return on Assets of 3.70%, reflecting efficient asset utilization. A Return on Capital Employed of 28.48% demonstrates effective use of capital in generating profits. The Return on Net Worth stood at 13.21%, highlighting the company's ability to generate returns for its shareholders. Debt Equity Ratio of company stood at 0.21. An Interest Coverage Ratio of 3.04 signifies the company's capacity to meet its interest obligations, while a Current Ratio of 1.23 indicates good short-term liquidity.

Key Ratio	Average FY 2022, 23 & 24
Return on Assets	14.10%
Return on Capital Employed	38%
Return on Networth	25%
Debt Equity Ratio	0.31
Interest Coverage Ratio	3.36
Current Ratio	1.32