



# Industry Report on TMT Bars Industry in India

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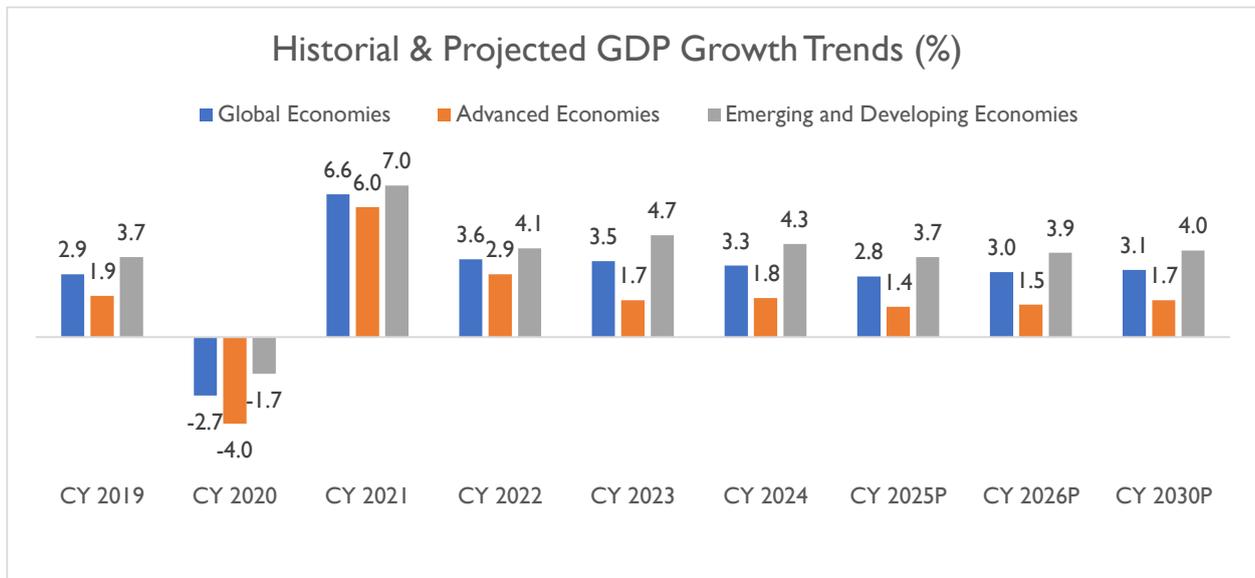
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## Global Economic Overview

The global economy, which recorded GDP growth at 3.3% in CY 2024, is expected to show resilience at 2.8% in CY 2025. This marks the slowest expansion since 2020 and reflects a -0.5%point downgrade from January 2025 forecast. Moreover, the projection for CY 2026 has also reduced to 3.0%. This slowdown is majorly attributed due to numerous factors such as high inflation in many economies despite central bank effort to curb inflation, continuing energy market volatility driven by geopolitical tensions particularly in Ukraine and Middle East, and the re-election of Donald Trump as US President extended uncertainty around the trade policies as well as overall global economic growth. High inflation and rising borrowing costs affected the private consumption on one hand while fiscal consolidation impacted the government consumption on the other hand. As a result, global GDP growth is estimated to moderation by 2.8% in CY 2025 as compared to 3.3% in CY 2024.



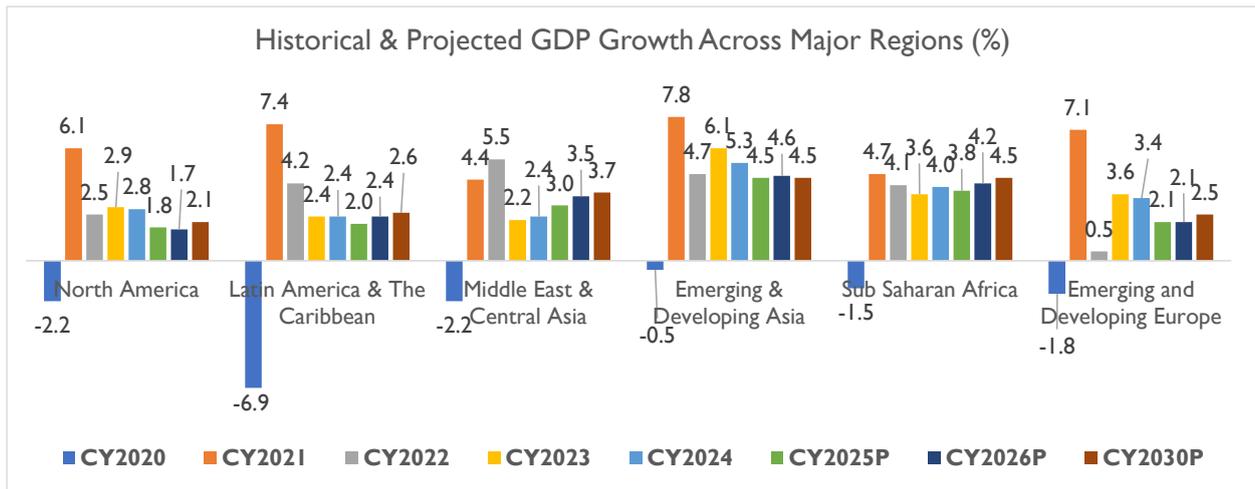
Source – IMF Global GDP Forecast Release April 2025

Note: Advanced Economies and Emerging & Developing Economies are as per the classification of the World Economic Outlook (WEO). This classification is not based on strict criteria, economic or otherwise, and it has evolved over time. It comprises of 40 countries under the Advanced Economies including the G7 (the United States, Japan, Germany, France, Italy, the United Kingdom, and Canada) and selected countries from the Euro Zone (Germany, Italy, France etc.). The group of emerging market and developing economies (156) includes all those that are not classified as Advanced Economies (India, China, Brazil, Malaysia etc.)

### Historical and Projected GDP Growth

GDP growth across major regions exhibited a mixed trend between 2022-23, with GDP growth in many regions including North America, Emerging and Developing Asia, and Emerging and Developing Europe slowing further in 2024. In 2025, GDP growth rate in Emerging and Developing Asia (India, China, Indonesia, Malaysia, etc.) is expected to moderate further to 4.5% from 5.3% in the previous year, while in the North America, it is expected to moderate to 1.8% in CY 2025 from 2.8% in CY 2024.





Source-IMF World Economic Outlook April 2025 update.

Except Middle East & Central Asia, all other regions like Emerging and Developing Asia, Emerging and Developing Europe, Latin America & The Caribbean, Sub Saharan Africa and North America, are expected to record a moderation in GDP growth rate in CY 2025 as compared to CY 2024. Further, growth in the United States is expected to come down at 2.71% in CY 2025 from 2.80% in CY 2024 due to lagged effects of monetary policy tightening, gradual fiscal tightening, and a softening in labour markets slowing aggregate demand.

### Global Economic Outlook

The global economy is navigating a period of exceptional uncertainty. Policy shifts, particularly those reshaping trade, have alarmed financial markets and bruised business sentiment. The U.S.'s reciprocal tariffs, which represent additional costs for businesses from almost all countries with which the U.S. trades, charge trade partners an import duty at a discounted rate of approximately half the rate that the trade partner currently imposes on the U.S. According to U.S. President Donald Trump, reciprocal tariffs, ranging from 10% to 50%, are meant to address trade barriers limiting U.S. exports. The *effective* tariff rate includes other tariffs imposed at an earlier date and cumulatively may now be higher than duties charged on U.S. imports. It is unclear whether the reciprocal tariffs represent a negotiating tool, and may therefore be temporary, or form part of broader long-term protectionist measures and industrial strategy.

Responses to reciprocal tariffs have been varied, with some economies promising swift countermeasures. More than 50 markets have sought negotiations with the US. While Malaysia is seeking a united response across ASEAN, the Chinese Mainland has retaliated with duties on all imports from the U.S., declaring it will "fight to the end". In early April 2025, the U.S. confirmed the most aggressive steps yet, with a cumulative 145% tariff on some products imported from the Chinese Mainland. Brazil has readied itself by passing a bill allowing for retaliation, Australia has ruled out retaliatory levies, and the EU remains open to negotiation while preparing a package of countermeasures.

Tariffs and their unpredictable application have weighed on consumer and business sentiment, sunk global stock markets, raised recession risks, and made a global slowdown more likely. Our latest Global Business Optimism Insights report indicates a further decline in business optimism as firms continue to grapple with trade-related policy uncertainty and its broader economic implications. Export-driven sectors reported sharp declines in optimism.



Financial risk perceptions remain elevated as businesses contend with high borrowing costs and persistent inflation expectations. More broadly, the uncertainty is reflected in delayed capital expenditure and a pullback in hiring.

Tariffs have begun to exert pressure on central banks by contributing to inflationary pressures and increasing financial market volatility. Central banks are adjusting forward guidance and policy frameworks and may begin to consider the likelihood of softer growth being a bigger priority than high inflation by starting to cut interest rates to support economies. For businesses, this uncertainty translates into unpredictable cost structures, fluctuating credit availability, and the management of operational costs through diversified supply networks.

We expect a further decline in business optimism, though at a more moderate pace than in the prior quarter, as businesses continued to grapple with trade-related policy uncertainty and its broader economic implications. Export-driven sectors such as automotives, electricals, and metals saw sharp declines in optimism, particularly in the U.S., Mexico, South Korea, and Japan, where rising tariffs and shifting trade policies have fueled cost pressures and demand volatility. Financial risk perceptions remain elevated.

### Global Growth Projection

At broader level, the global economy is expected to experience a slowdown in 2025, with GDP growth projected to decline to 2.8%, down from 3.3% in 2024. This deceleration reflects persistent inflationary pressure, geopolitical uncertainties and tightened monetary policies. However, a slight recovery is anticipated in 2026, with growth projected to improve to 3.0%. Global inflation is expected to decline steadily, to 4.3% in 2025 and to 3.6% in 2026. Inflation is projected to converge back to the target earlier in advanced economies, reaching 2.2% in 2026, whereas in emerging market and developing economies, it is anticipated to decrease to 4.6% during the same period. Trade tariffs function as a supply shock for the countries imposing them, leading to a decrease in productivity and an increase in unit costs. Countries subject to tariffs experience a negative demand shock as export demand declines, placing downward pressure on prices. In each scenario, trade uncertainty introduces an additional layer of demand shock since businesses and households react by delaying investment and spending, and this impact could be intensified by stricter financial conditions and heightened exchange rate volatility. Moreover, global trade growth is expected to slow down in 2025 to 1.7%. This forecast reflects increased tariff restrictions affecting trade flows and, to a lesser extent, the waning effects of cyclical factors that have underpinned the recent rise in goods trade. Geopolitical tensions as seen in the past such as the wars in Ukraine and the Middle East could exacerbate inflation volatility, particularly in energy and agricultural commodities.



## India Macroeconomic Analysis

India emerged as one of the fastest growth economies amongst the leading advanced economies and emerging economies. In CY 2024, even amidst geopolitical uncertainties, particularly those affecting global energy and commodity markets, India continues to remain one of the fastest growing economies in the world and is expected to grow by 6.2% in CY 2025 and 6.3% in CY 2026.

Country	CY 2020	CY 2021	CY 2022	CY 2023	CY 2024	CY 2025	CY 2026 P	CY 2030 P
India	-5.8%	9.7%	7.6%	9.2%	6.5%	6.2%	6.3%	6.5%
China	2.3%	8.6%	3.1%	5.4%	5.0%	4.0%	4.0%	3.4%
United States	-2.2%	6.1%	2.5%	2.9%	2.8%	1.8%	1.7%	2.1%
Japan	-4.2%	2.7%	0.9%	1.5%	0.1%	0.6%	0.6%	0.5%
United Kingdom	-10.3%	8.6%	4.8%	0.4%	1.1%	1.1%	1.4%	1.4%
Russia	-2.7%	5.9%	-1.4%	4.1%	4.1%	1.5%	0.9%	1.2%

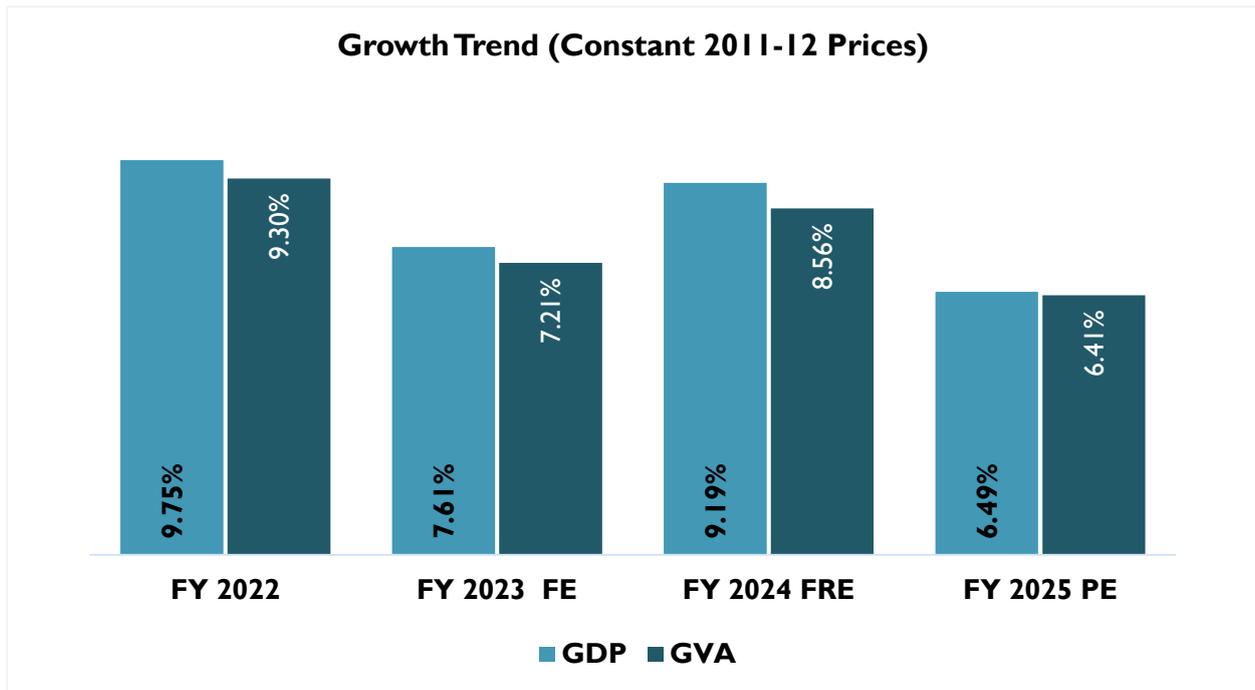
Source: World Economic Outlook, April 2025

The Government increasing spending on infrastructure projects is expected to have a positive impact on economic growth. The capital expenditure of the central government increased by average 26.52% during FY 2023-24 which slowed to 7.27% in FY 2025 which translated in a moderating GDP growth of 6.5% in 2024 against 9.2% observed in the previous year. In the latest Union Budget 2025-2026, the government announced INR 11.21 trillion capex on infrastructure (10.12% higher than previous year revised estimates) coupled with INR 1.5 trillion in interest-free loans to states. The higher budgetary allocation to infrastructure sector is expected to provide some support amidst multiple challenges which India is facing owing to global market conditions.

### Historical GDP and GVA Growth trend

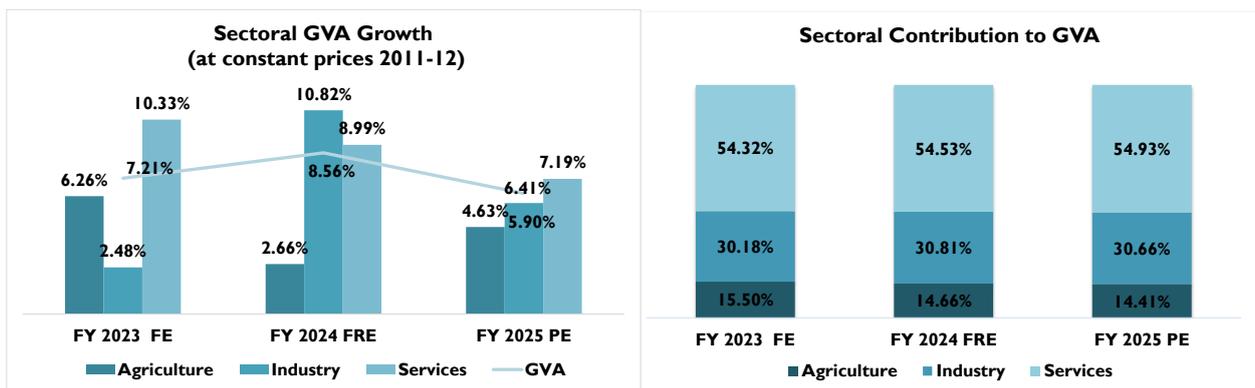
As per the latest estimates, India's GDP at constant prices is estimated to grow to INR 187.96 trillion in FY 2025 (Provisional Estimates) with the real GDP growth rates estimated to be 6.5% for FY 2025. Similarly, real Gross Value Added (GVA) growth stood is estimated to have moderated to 6.4% in FY 2025. Even amidst global economic uncertainties, India's economy exhibited resilience supported by robust consumption and government spending.





Source: Ministry of Statistics & Programme Implementation (MOSPI), National Account Statistics: FY2025. FE is Final Estimates, FRE is First Revised Estimate and PE is Provisional Estimates

### Sectoral Contribution to GVA and annual growth trend



Source: Ministry of Statistics & Programme Implementation (MOSPI) FE is Final Estimates, FRE is First Revised Estimate and PE is Provisional Estimates

Sectoral analysis of GVA reveals that the industrial sector experienced a moderation in FY 2025, recording a 5.90% y-o-y growth against 10.82% year-on-year growth in FY 2024. Within the industrial sector, growth moderated across sub sector with mining, manufacturing, and construction activities growing by 2.69%, 4.52%, and 9.35% respectively in FY 2025, compared to 3.21%, 12.30%, and 10.41% in FY 2024. Growth in the utilities sector too moderated to 6.03% in FY 2025 from 8.64% in the previous year. The industrial sector’s contribution to GVA moderated marginally from 30.81% in FY 2024 to 30.66% in FY 2025.

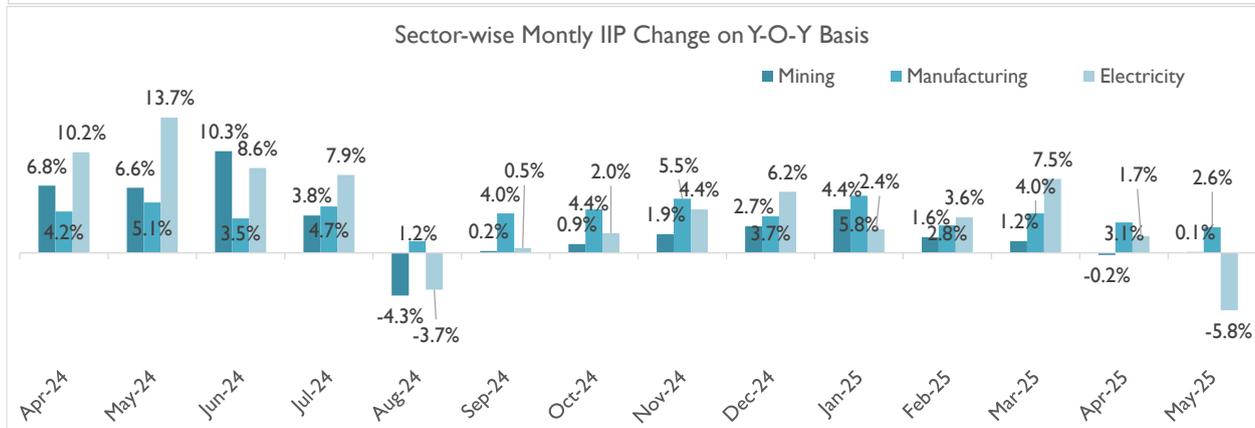
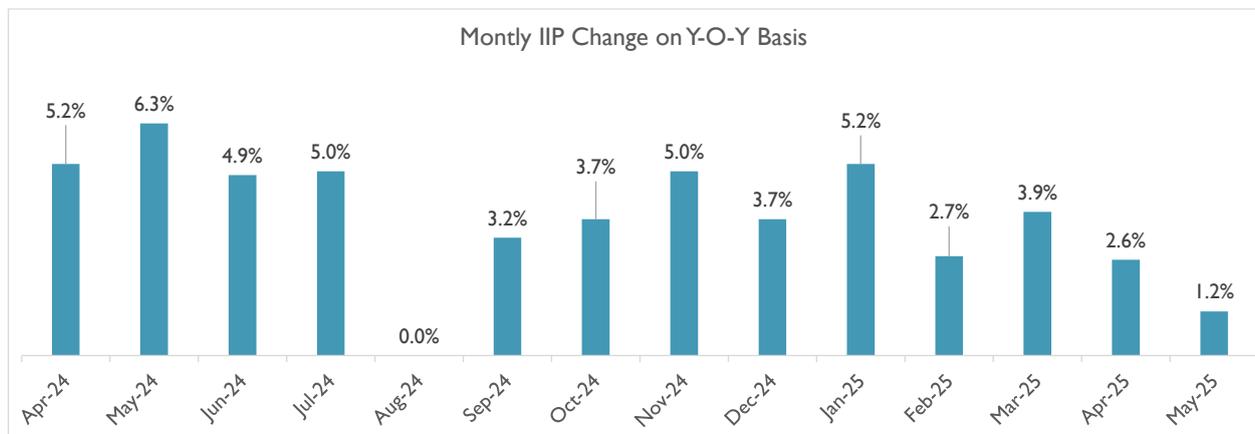
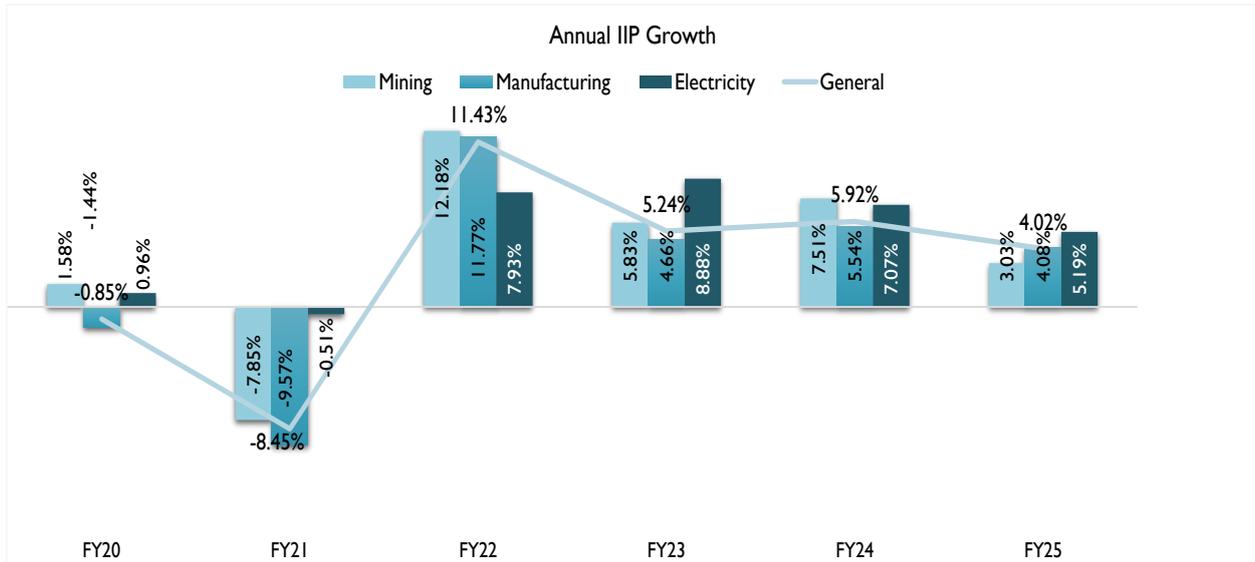
The services sector continued to be the main driver of economic growth, although its pace moderated. It expanded by 7.19% in FY 2025 from 8.99% in FY 2024. The services sector retained its position as the largest contributor to GVA, rising from 54.32% in FY 2023 to 54.53% in FY 2024, with a further increase to 54.93% in FY 2025.

The agriculture sector saw an acceleration, with growth increasing from 2.66% in FY 2024 to 4.63% in FY 2025. However, its contribution to GVA declined marginally from 14.66% in FY 2024 to 14.41% in FY 2025. Overall, Gross Value Added (GVA) growth moderated to 6.41% in FY 2025 from 8.56% in FY 2024.



### Annual & Monthly IIP Growth

Industrial sector performance as measured by IIP index exhibited moderation in FY 2025, recording a 4.02% y-o-y growth against 5.92% increase in the previous year. The manufacturing index showed moderation and grew by 4.08% in FY 2025 against 5.54% in FY 2024. Mining sector index too moderated and exhibited a growth of 3.03% in FY 2025 against 7.51% in the previous years while the Electricity sector Index, also witnessed moderation of 5.19% in FY 2025 against 7.07% in the previous year.



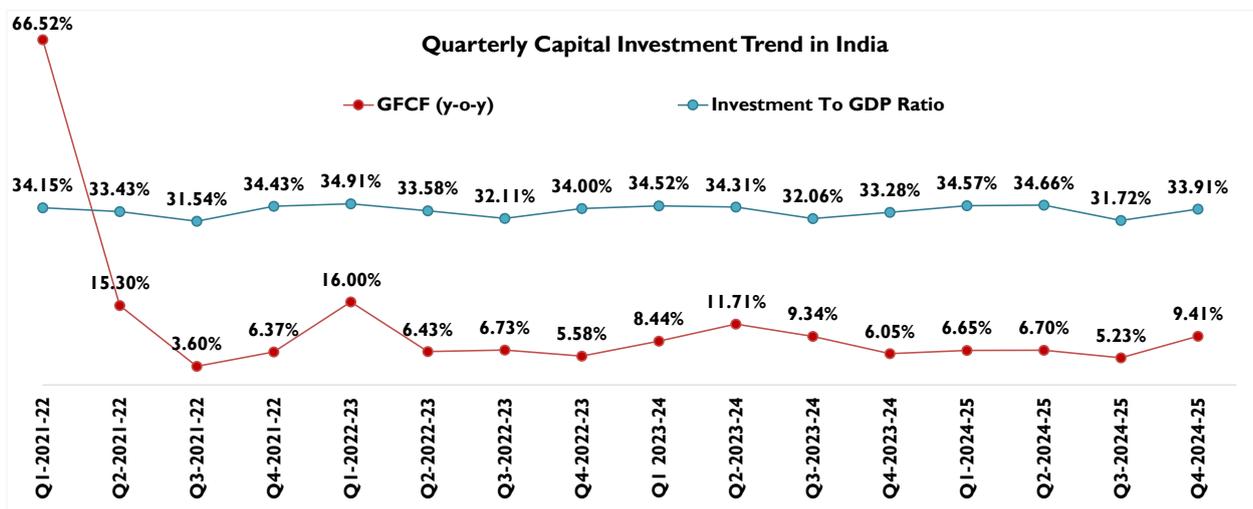
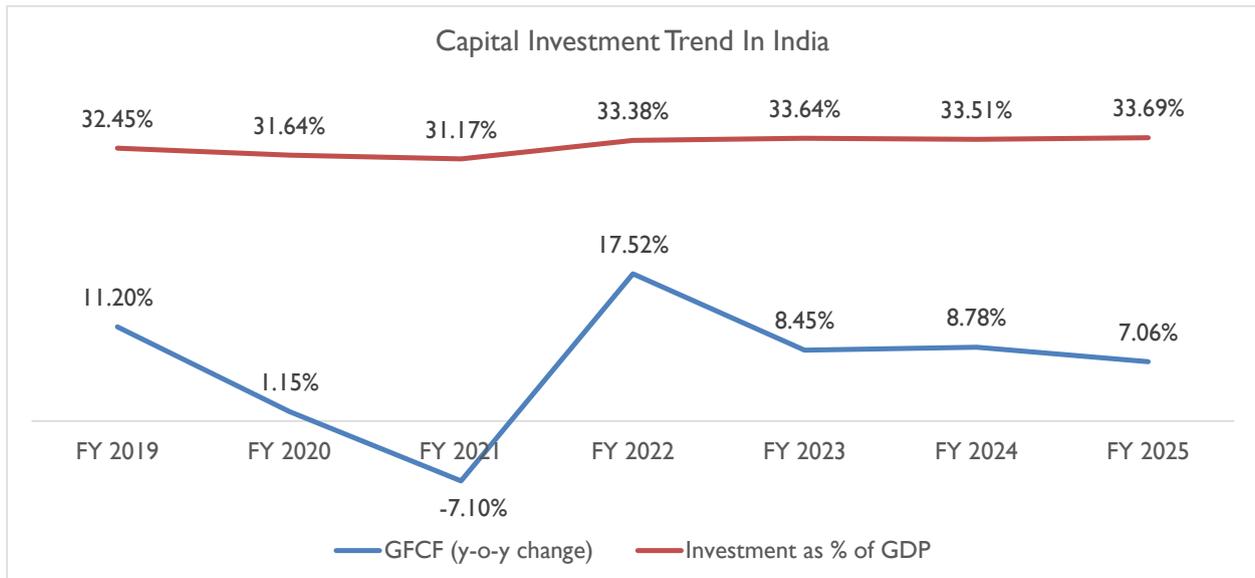
Source: Ministry of Statistics & Programme Implementation (MOSPI)



The IIP growth rate for the month of May 2025 is 1.2% which was 2.6% in the month of April 2025. The growth rates of the three sectors, Mining, Manufacturing and Electricity for the month of May 2025 are -0.1%, 2.6% and -5.8% respectively.

**Annual and Quarterly: Investment & Consumption Scenario**

Other major indicators such as Gross fixed capital formation (GFCF), a measure of investments, has shown fluctuation during FY 2025 as it registered 7.06% year-on-year growth against 8.78% yearly growth in FY 2024, taking the GFCF to GDP ratio measured to 33.69%.



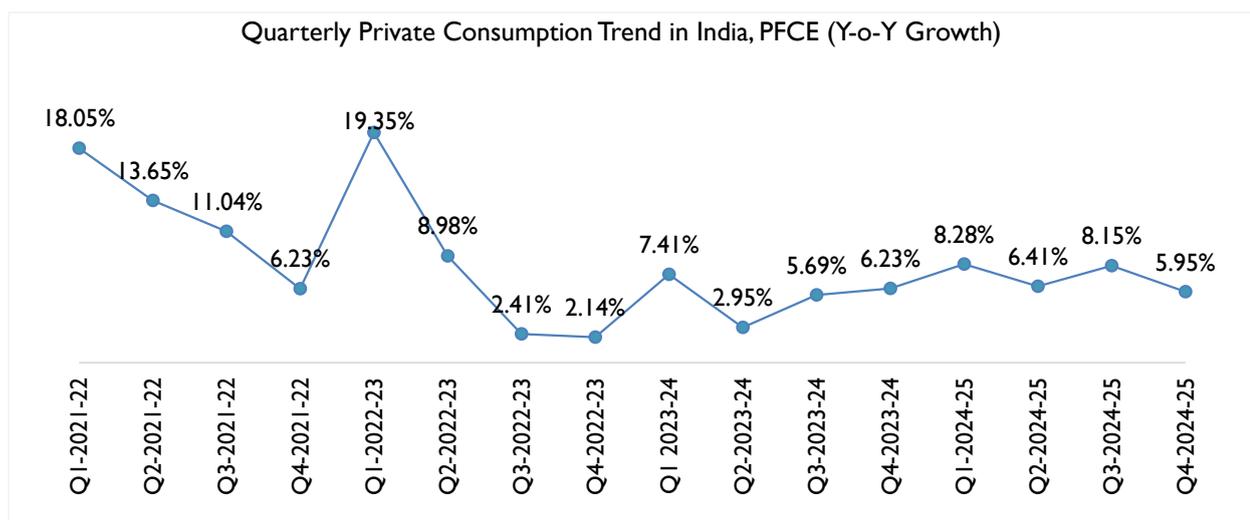
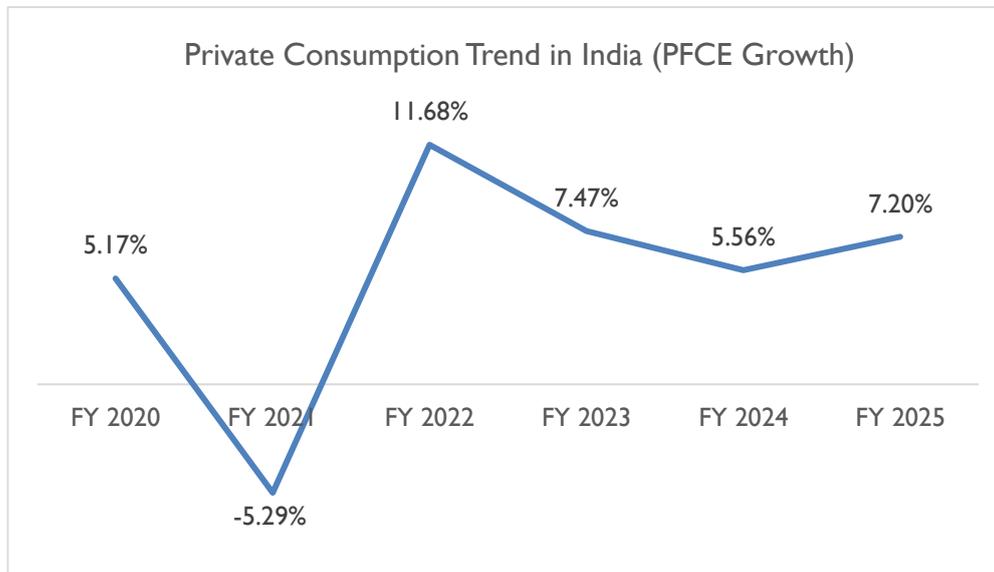
Source: Ministry of Statistics & Programme Implementation (MOSPI)

On quarterly basis, GFCF exhibited a fluctuating trend in quarterly growth over the previous year same quarter. In FY 2024, the growth rate moderated to 6.05% in March quarter against the previous two quarter as government went slow on capital spending amidst the 2024 general election while it observed an improvement in Q1 FY 2025 by growing at 6.65% against 6.05% in the previous quarter and moderated in the subsequent two quarter. On yearly



basis, the growth rate remained lower compared to the same quarter in the previous year during FY 2025. The GFCF to GDP ratio measured 33.91% in Q4 FY 2025.

Private Consumption Scenario



Sources: MOSPI

Private Final Expenditure (PFCE) a realistic proxy to gauge household spending, observed growth in FY 2025 as compared to FY 2024. However, quarterly data indicated some improvement in the current fiscal as the growth rate improved over the corresponding period in the last fiscal.

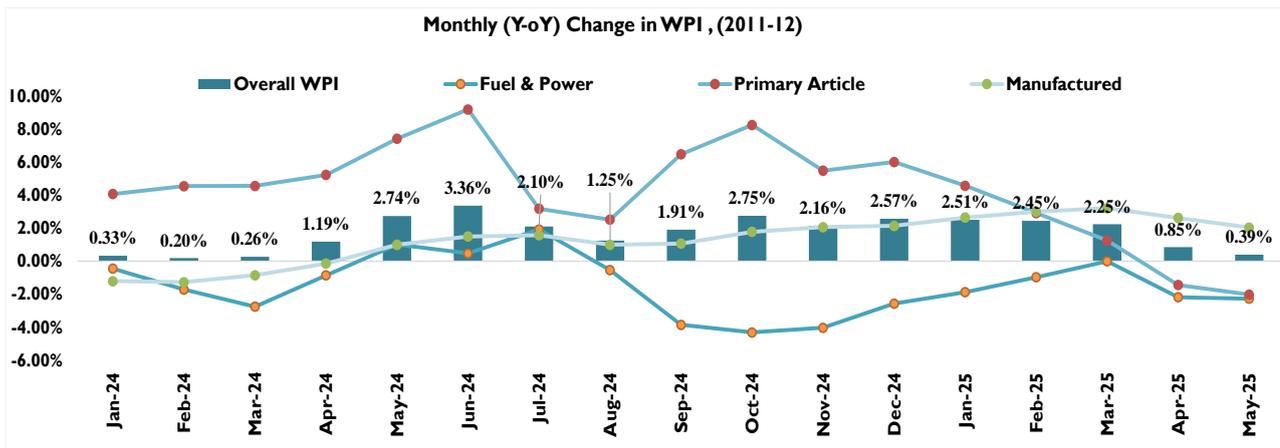
Inflation Scenario

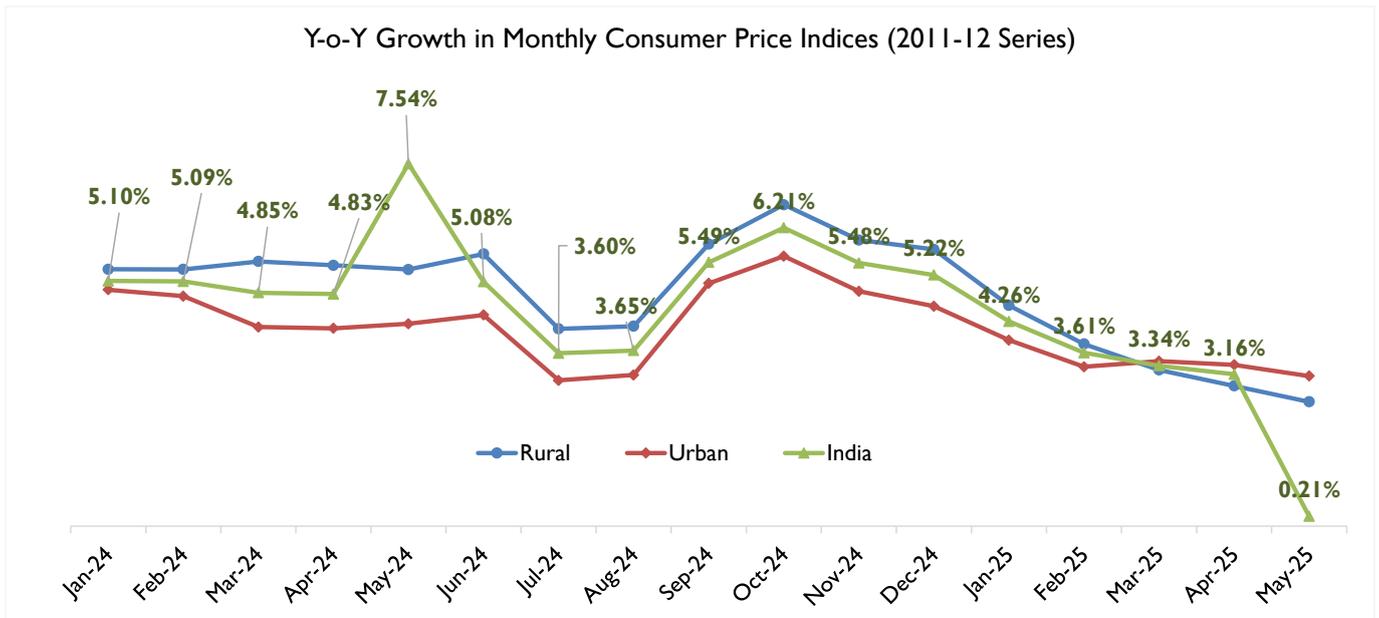
The inflation rate based on India's Wholesale Price Index (WPI) exhibited significant fluctuations across different sectors from January 2024 to May 2025. The annual rate of inflation based on All India Wholesale Price Index (WPI) number is 0.39% (provisional) for the month of May 2025 (over May 2024). Positive rate of inflation in May 2025 is primarily due to increase in prices of manufacture of food products, electricity, other manufacturing, chemicals and chemical products, manufacture of other transport equipment and non-food articles etc.



By May 2025, Primary Articles (Weight 22.62%), The index for this major group decreased by 0.05 % to 184.3 (provisional) in May 2025 from 184.4 (provisional) for the month of April 2025. Price of minerals (-7.16%) and non-food articles (-0.63%) decreased in May 2025 as compared to April 2025. The price of food articles (0.56%) increased in May 2025 as compared to April 2025.

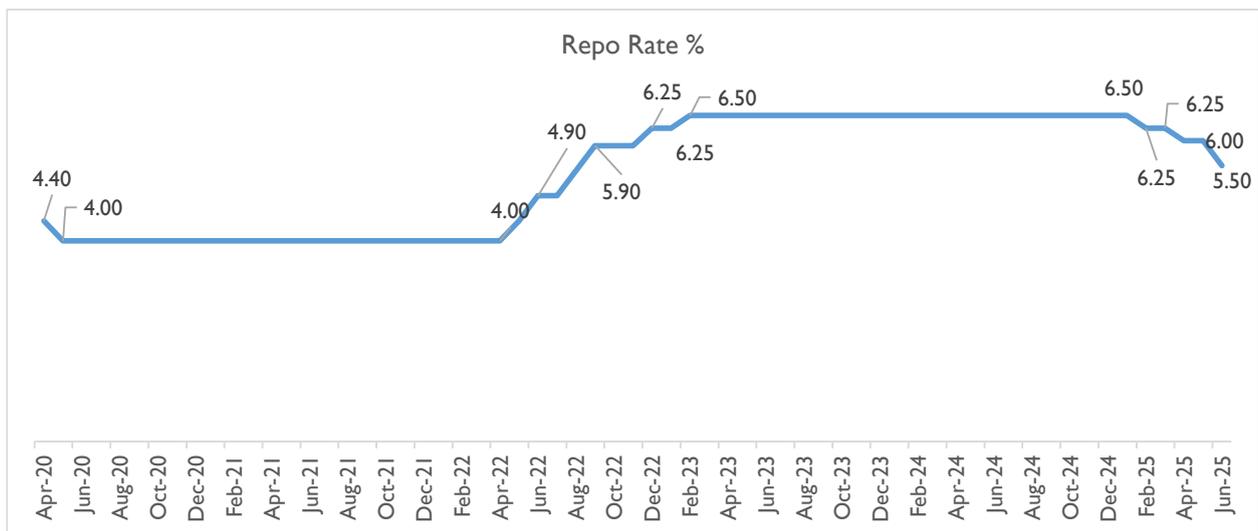
Moreover, power & fuel, the index for this major group declined by 0.95% to 146.7 (provisional) in May 2025 from 148.1 (provisional) for the month of April 2025. Price of mineral oils (-2.06%) decreased in May 2025 as compared to April 2025. The price of coal (0.81%) and electricity (0.80%) increased in May 2025 as compared to April 2025. Furthermore, Manufactured Products (Weight 64.23%), The index for this major group remained unchanged at 144.9 (Provisional) in May 2025. Out of the 22 NIC two-digit groups for manufactured products, 10 groups witnessed an increase in prices, 9 groups witnessed a decrease in prices and 3 groups witnessed no change in prices. Some of the important groups that showed month-over-month increase in prices were other manufacturing; manufacture of other non-metallic mineral products; computer, electronic and optical products; pharmaceuticals, medicinal chemical and botanical products and textiles etc. Some of the groups that witnessed a decrease in prices were manufacture of food products, basic metals; rubber and plastics products, chemical and chemical products and electrical equipment etc. in May 2025 as compared to April 2025.





Source: MOSPI, Office of Economic Advisor

Retail inflation rate (as measured by the Consumer Price Index) in India showed notable fluctuations between January 2024 and May 2025. Overall, the national CPI inflation rate moderated to 0.21% by May 2025, indicating a gradual easing of inflationary pressures across both rural and urban areas. Rural CPI inflation peaked at 6.68% in October 2024, declining to 2.59% in May 2025. Urban CPI inflation followed a similar trend, rising to 5.62% in October 2024 and then dropping to 3.12% in May 2025. CPI measured above 6.00% tolerance limit of the central bank since July 2023. As a part of an anti-inflationary measure, the RBI has hiked the repo rate by 250 bps since May 2022 and 8 Feb 2023 while it held the rate steady at 6.50 % till January 2025. On 6<sup>th</sup> June 2025, RBI reduced the repo rate by 50 basis points which currently stands at 5.50%.



Sources: CMIE Economic Outlook

### Growth Outlook

The Union Budget 2025-26 has laid the foundation for sustained growth by balancing demand stimulation, investment promotion and inclusive development. Inflation level is reaching within the central bank's target; the RBI may pursue further monetary easing that will support growth. The medium-term outlook is bright, fueled by the emphasis on physical and digital infrastructure spending. With a focus on stimulating demand, driving investment and ensuring



inclusive development, the budget introduces measures such as tax relief, increased infrastructure spending and incentives for manufacturing and clean energy. These initiatives aim to accelerate growth while maintaining fiscal discipline, reinforcing India's long-term economic resilience. The expansion of tax relief i.e zero tax liability for individuals earning up to INR 12 lacs annually under the new tax regime is expected to strengthen household finances and, consequently, boost consumption.

The external sector remains resilient, and key external vulnerability indicators continue to improve. However, tariff-related uncertainty is likely to weigh on exports and investment, prompting us to cut our FY26 GDP growth forecast to 6.3%.



## Product Profile

TMT (Thermo-Mechanically Treated) bars are high-strength reinforcement steel used widely in construction industry due to their exceptional strength, ductility, and corrosion resistance. Manufactured through a process of quenching, self-tempering, and atmospheric cooling, TMT bars feature a tough outer surface and a ductile core, making them ideal for earthquake-resistant structures. They offer superior weldability and cost-effectiveness by reducing the amount of steel needed. Commonly used in building frameworks, infrastructure projects, and reinforced concrete structures, TMT bars come in various grades (like Fe-415D, Fe-500D, Fe-550D, Fe-600D) and sizes (6mm to 50mm in diameter), catering to diverse construction requirements.

TMT Grade	Product Feature
Fe 415D	Have Lower Strength and High Flexibility
Fe 500D	Moderately High Strength with High Flexibility /Elongation
Fe 550	Higher Strength with Low Flexibility/Elongation
Fe 600	Even Higher Strength with Very Low Flexibility/Elongation

Amongst all, TMT grade 500D is the is the most preferred TMT bars because it has the accurate balance of strength and flexibility to remain structurally stable and strengthen.

### Manufacturing Process

- Raw Material Selection and Preparation:** The manufacturing of TMT bars begins with the selection and preparation of high-quality raw materials. The primary materials include iron ore, coke, and limestone. Iron ore is the fundamental component, while coke acts as a reducing agent, and limestone helps in removing impurities. These raw materials are sourced meticulously and blended in precise proportions to achieve the desired chemical composition necessary for producing high-strength steel.
- Iron Making:** The next step involves converting these raw materials into molten iron. This can be achieved through a blast furnace process or a direct reduced iron (DRI) process. In the blast furnace process, iron ore, coke, and limestone are charged into the furnace, where coke reduces the iron ore to molten iron, and limestone forms slag by combining with impurities. Alternatively, in the DRI process, iron ore is directly reduced using natural gas or coal gas, producing iron without melting it.
- Steel Making:** The molten iron is then converted into steel through processes such as the Basic Oxygen Furnace (BOF) or Electric Arc Furnace (EAF). In the BOF method, oxygen is blown through the molten iron to lower the carbon content and remove impurities, while the EAF method involves melting recycled steel scrap using electric arcs, followed by refining to achieve the desired chemical composition.



- **Secondary Refining:** The molten steel undergoes secondary refining in a Ladle Refining Furnace (LRF). During this stage, deoxidation, desulfurization, and alloying take place. Excess oxygen is removed, sulphur content is reduced, and elements like chromium, nickel, and vanadium are added to refine the steel and ensure it possesses the required properties for high-strength applications.
- **Casting:** The refined steel is then cast into semi-finished forms such as billets, blooms, or slabs through a continuous casting process. The molten steel is transferred to a tundish and poured into a water-cooled Mold, where it solidifies into the desired shape. Rapid cooling in the Mold ensures the steel retains its structural integrity.
- **Rolling:** The semi-finished steel is reheated in a reheating furnace to a temperature suitable for rolling. It then passes through a series of rolling mills, starting with the roughing mill for initial shaping, followed by the intermediate mill for further reduction in thickness, and finally the finishing mill to achieve the precise size and shape of the TMT bars.
- **Quenching:** After rolling, the bars undergo a rapid cooling process known as quenching. They are passed through a series of water jets that rapidly cool the outer surface, creating a hardened martensitic layer while the core remains hot and relatively soft.
- **Self-Tempering:** The self-tempering process involves the transfer of residual heat from the core to the surface, tempering the hardened outer layer. This results in a tough outer surface that is less brittle, enhancing the overall strength and durability of the TMT bars.
- **Atmospheric Cooling:** The bars are then laid on a cooling bed for atmospheric cooling. This step allows the core to cool down slowly, forming a ductile ferrite-pearlite structure. The combination of a tough exterior and a ductile core gives TMT bars their characteristic strength and flexibility.
- **Cutting and Quality Control:** Once cooled, the bars are cut into specified lengths using shearing machines. Rigorous quality control tests are conducted to ensure the bars meet the required mechanical and chemical standards. These tests include tensile tests for strength, bend tests for ductility, and chemical analyses to verify composition.

TMX (THERMEX), from HSE Germany and TEMPCORE from CRM Belgium are the two patented technologies to manufacture thermo processed bars globally. THERMAX and TEMPCORE technologies were developed in mid-eighties to produce re-bar that had far superior properties against the sub-standards TMT Bars. TMT bars manufacturing using Thermex technologies is widely preferred.

### Key Attributes

Attribute	Description
Strength	The bars' high yield strength, resulting from thermomechanical treatment, ensures they can withstand significant stress.
Ductility	TMT bars have good elongation properties, allowing them to bend without breaking, which is essential in earthquake zones.



Corrosion Resistance	TMT bars have enhanced resistance due to the absence of torsional stress and reduced carbon content.
Weldability	Low carbon content ensures that the bars can be easily welded without losing strength.
Bond Strength	The ribbed surface ensures better bonding with concrete, preventing slippage.
Earthquake Resistance	Their high fatigue resistance makes them well-suited for structures in seismic zones.

### Application Process

Application Area	Details
Residential Buildings	Reinforcement in columns, beams, slabs, and foundations, ensuring stability and strength
Commercial Buildings	Used in high-rise buildings, shopping malls, and office complexes, requiring robust structural support.
Infrastructure Projects	Bridges, dams, highways, and flyovers, where high tensile strength is crucial.
Industrial Structures	Reinforcement in factories and warehouses, supporting heavy machinery and equipment.

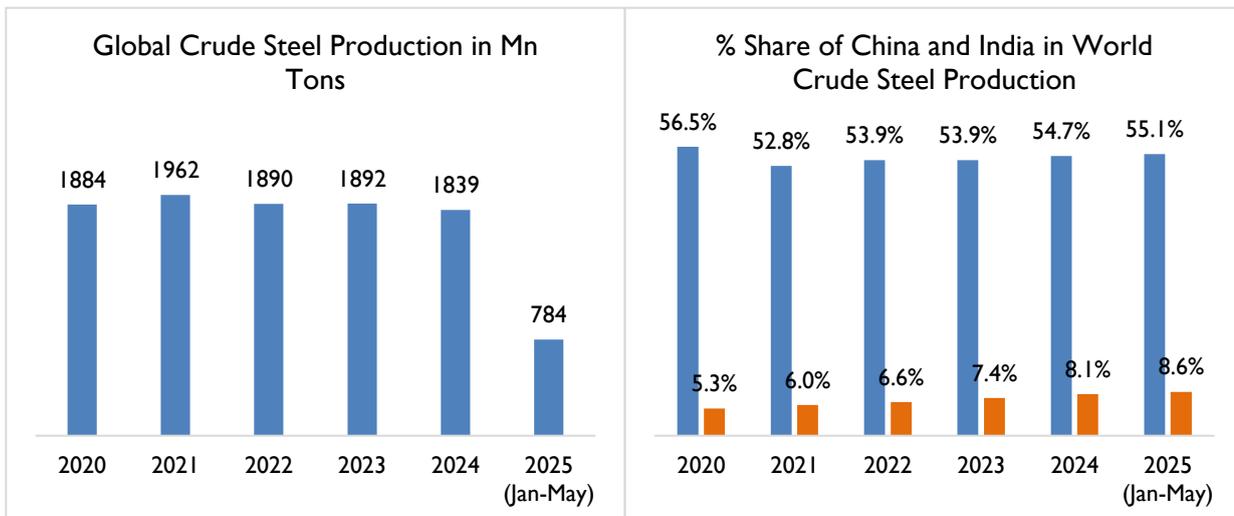


## Global Steel Industry

From 2020 to 2024, the global crude steel industry experienced a tumultuous period characterized by significant fluctuations. The compound annual growth rate (CAGR) during this period stood at a (-0.6%), underscoring the volatility and challenges faced by the sector. The COVID-19 pandemic in 2020 was a major disruptor, causing a notable decline in steel production as industries worldwide grappled with lockdowns and reduced economic activity. However, the industry demonstrated resilience with a sharp rebound of 4.1% in 2021 as economies began to recover. This recovery was short-lived, as 2022 saw a steep decline of -3.7%, indicating a persistent and underlying slowdown in the industry. In 2024, the global crude steel product again contracted by 2.8% after experiencing a flat 0.1% growth in the previous year.

### Global Steel Production Trends

China, the world's largest producer of crude steel, has played a pivotal role in shaping global production trends. China's steel industry benefits from abundant iron ore reserves and favorable labor policies, which provide a significant cost advantage. Despite facing tighter environmental regulations and policies aimed at reducing carbon emissions, China's share in global crude steel production remains around 54.7% in 2024 and in 2025, from Jan-May it has contributed 55.1%. This dominance is bolstered by the country's extensive industrial base and continuous investments in infrastructure development.



Source: World Steel Association

India, the second-largest producer, has also been a key player in the global steel industry. According to the World Steel Association, India's crude steel production reached **67.2 million tonnes during January-May 2025**, with the country's share in global crude steel production rising from **8.1% in 2024** to **8.6% during January-May 2025**. The country leverages its rich iron ore reserves and supportive government initiatives, such as the National Steel Policy 2017, to enhance its production capabilities. 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.



## Challenges Impacting Global Steel Production

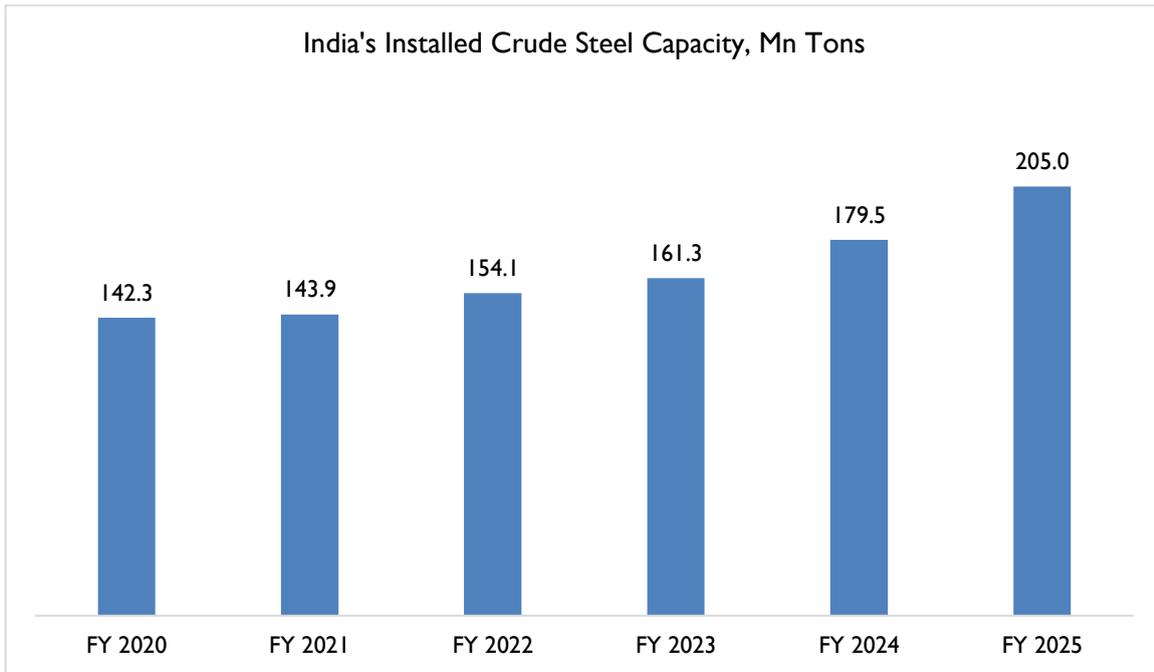
Despite the leadership of major producers like China and India, several factors have contributed to the global slowdown in steel production. These include:

- **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.

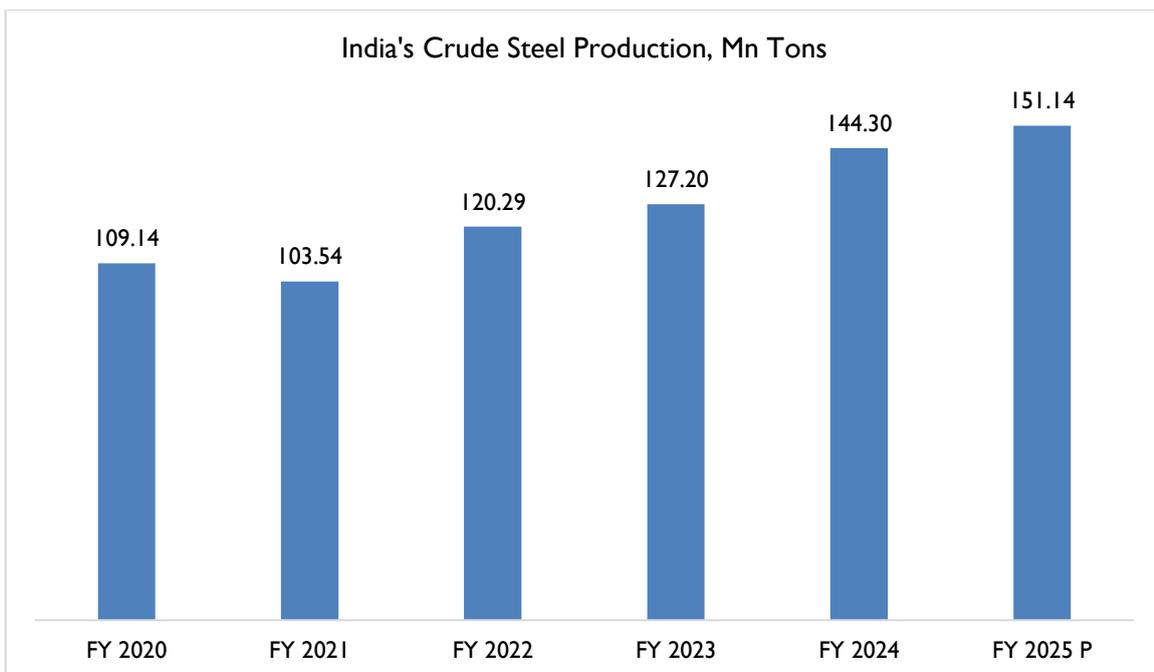


## Current Overview of Indian Steel Industry

India, the world's second-largest producer of crude steel, has seen significant expansion in its steel-making capacity over recent years. The country's installed crude steel capacity increased from 142.3 Mn tons in FY 2020 to 179.5 Mn tons in FY 2024, and further to 205.0 Mn tons in FY 2025, registering a healthy CAGR of around 7.6% during this period. This consistent growth reflects large-scale investments, policy support under the National Steel Policy, and rising demand from sectors such as infrastructure, construction, automobiles, and capital goods.



Source: Ministry of Steel



Source: Ministry of Steel

On the production front, India's crude steel output stood at 109.14 Mn tons in FY 2020, before dipping to 103.54 Mn tons in FY 2021 due to the pandemic's impact on industrial activity. Production rebounded sharply thereafter,



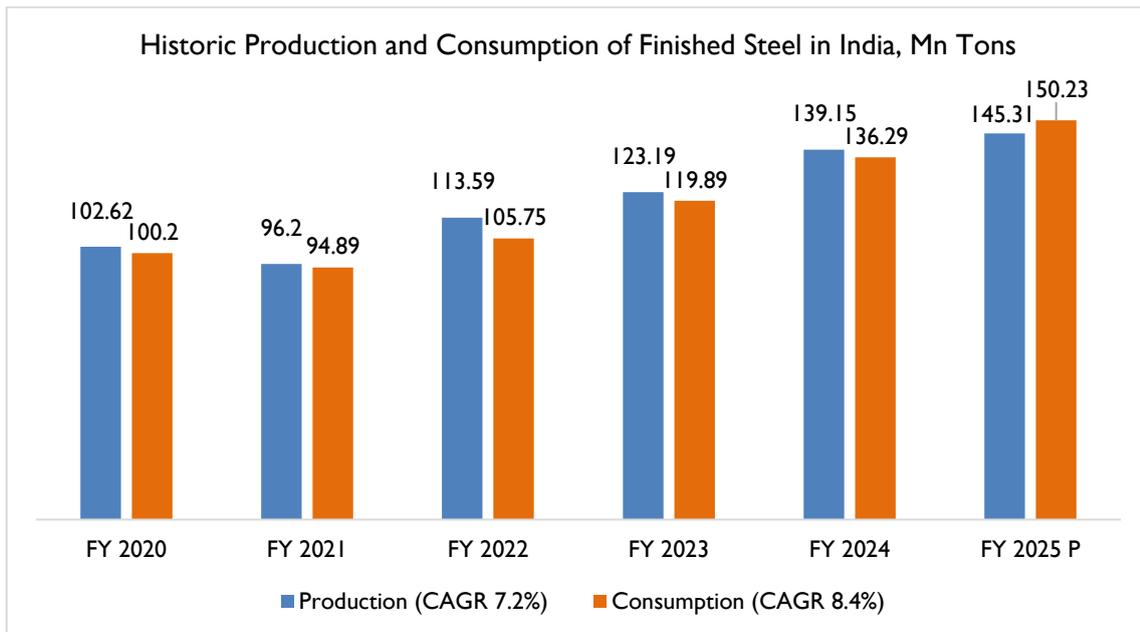
reaching 120.29 Mn tons in FY 2022, 127.20 Mn tons in FY 2023, and 144.30 Mn tons in FY 2024. Provisional data for FY 2025 indicates output at 151.14 Mn tons, translating into a CAGR of approximately 6.7% between FY 2020 and FY 2025. This upward trajectory in both capacity and production underscores India’s strengthening position in the global steel market, driven by robust domestic consumption and export potential.

**Historical Production & Consumption of Finished Steel in India**

**Production:** India’s finished steel production has maintained a steady upward trajectory over the last five years, increasing from 102.6 million tons in FY 2020 to a provisional estimate of 145.3 million tons in FY 2025. This represents a compound annual growth rate (CAGR) of approximately 7%, driven by sustained capacity additions, improved plant utilization rates, and the commissioning of new greenfield and brownfield projects by major integrated producers.

The growth momentum was supported by a revival in industrial activity post-pandemic, higher infrastructure spending under government schemes such as the National Infrastructure Pipeline and Gati Shakti, and steady demand from core consuming sectors. FY 2025 alone is expected to record a 7.2% year-on-year rise in production, reflecting both organic growth in domestic mills and improved operational efficiency. Furthermore, India’s position as the world’s second-largest steel producer has been reinforced by strategic investments in energy-efficient technologies and backward integration for raw material security, which have collectively bolstered output stability even amid global market fluctuations.

In FY 2025, India’s finished steel production mix was led by non-flat products, primarily long steel used in the construction sector, which accounted for 55% of total production and grew by 5.9% year-on-year. Flat products, serving key segments such as automotive, appliances, and industrial manufacturing, made up the remaining 45% of production, posting a 4.6% increase compared with the previous year.



Source: Ministry of Steel



## 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 finished steel consumption trends over recent fiscal years shows a mixed pattern influenced by global economic shifts and industrial demand cycles. Consumption rose steadily until FY 2020, before declining by around 5% in FY 2021 due to the severe disruptions caused by the COVID-19 pandemic, including nationwide lockdowns, supply chain interruptions, and a slowdown in key consuming sectors. However, the sector rebounded swiftly, with consumption surging from 94.89 million tons in FY 2021 to 150.23 million tons in FY 2025 (provisional), reflecting an impressive recovery. From FY 2022 to FY 2024, finished steel consumption recorded a robust average annual growth rate of 12.83%, driven by post-pandemic revival in construction, automotive, and capital goods sectors, alongside accelerated infrastructure spending and favorable policy measures.

In FY 2024, consumption grew by 13.68% year-on-year, following 13.37% growth in FY 2023. This momentum carried into FY 2025 (provisional), with consumption up 8.4% compared to the previous year. The consumption mix was led by non-flat steel products, primarily long steel used in construction, which held a 53% share of total consumption and grew by 8.9% year-on-year. Flat steel products, used in automotive, appliances, and industrial manufacturing, accounted for the remaining 47%, registering a sharper 14.6% growth.

These dynamics underscore the strong and diversified demand base for steel in India, highlighting its ability to sustain growth through economic cycles while catering to both infrastructure-led and manufacturing-driven consumption.



## 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. Government has imposed no 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 brought 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.<sup>1</sup>

- **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.

<sup>1</sup> Ministry of Finance, Gol



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.

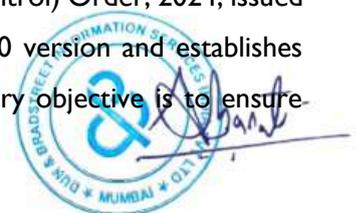
**Objective:** The goal of the National Steel Policy is to foster a steel industry that can compete on a global scale. By 2030-31, it aims to boost per capita steel consumption to 160 kgs from the current level of about 61 kgs. Additionally, the policy seeks to fulfill all domestic demands for high-grade 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:

- **Steel Demand:** The current GDP growth rate suggests that steel demand is projected to triple over the next 15 years, 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.
- **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.
- **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.
- **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 I. 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, 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 22<sup>nd</sup> 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.

### Union Budget 2025-26 Announcement & Steel

- The customs duty waiver on ferrous scrap and raw materials used in CRGO steel production has been extended till 31 March 2026, which will help reduce input costs for domestic steelmakers.
- The basic customs duty (BCD) on ferro-nickel and molybdenum ores has been reduced from 2.5% to Nil, making these essential raw materials cheaper for alloy and stainless-steel producers.
- The PLI scheme for specialty steel continues, with the budget allocation significantly increased to INR 3,050 million in FY 2025-26 (up from INR 550 million last year), aiming to boost domestic value-added steel manufacturing.
- The government has retained anti-dumping and countervailing duties on select steel products imported from countries such as China, Korea, Japan, and Vietnam to safeguard domestic producers from unfair trade practices.
- A 12% provisional safeguard duty has been imposed for 200 days on imports of certain non-alloy and alloy flat steel products, providing temporary protection to Indian manufacturers against import surges.
- A new Steel Quality Control Order (SQCO) has been introduced, restricting substandard and defective steel products in both domestic supply and imports, thereby ensuring higher product quality standards.
- The government launched SIMS 2.0 (Steel Import Monitoring System) in July 2024 to strengthen monitoring of steel imports and improve transparency in trade flows.

### Union Budget 2025-26 & Infrastructure Sector Announcement

#### Roads and Highways

- The capital expenditure allocation for the Ministry of Road Transport and Highways remains unchanged at INR 2.72 trillion for FY26, compared with FY25.
- The allocation towards the National Highways Authority of India remains almost flat at INR 1.7 trillion for FY26, compared with FY25.
- The allocation towards Pradhan Mantri Gram Sadak Yojna has been raised to INR 190 bn for FY26, from INR 145 bn in FY25.



- The top 50 tourist destinations sites in the country will be promoted and connectivity to these destinations will be facilitated, including land acquisition for building key infrastructure such as roads.

### Railways

- Capital expenditure for Indian Railways remains unchanged at INR 2.52 trillion for FY26, compared with FY25.
- The allocation towards new railway lines has been set at INR 322 billion for FY26, from INR 315 billion in FY25.

### Urban Infrastructure

- In the Union Budget 2025-26, the government announced the setting up of an Urban Challenge Fund worth INR 1 trillion to implement the proposals for "cities as growth hubs", "creative redevelopment of cities", and "water and sanitation". For this, the budget allocated has proposed an allocation of INR 100 billion for the year FY 2026.
- The allocation towards Pradhan Mantri Awas Yojna (PMAY) - Urban has been raised to INR 198 billion for FY26 (BE), from INR 137 billion in FY25 (RE)
- The allocation towards Pradhan Mantri Awas Yojana - Urban 2.0 (PMAY-U 2.0) has been increased to INR 35 billion for FY26 (BE), from INR 15 billion in FY25 (RE).

### River and Water Infrastructure

- The total allocation for the Ministry of Jal Shakti was set at INR 253 billion for FY26, compared with INR 216 billion in FY25.
- The allocation towards Interlinking of Rivers was raised to INR 24 billion for FY26, from INR 20 billion in FY25. The Union Budget has announced support for the Western Koshi Canal Project in the Mithilanchal region of Bihar. This is expected to benefit farmers cultivating over 50,000 hectares of land.
- The Union Budget has announced the promotion of infrastructure facilities for the creation of shipbuilding clusters to increase the range, categories and capacity of ships.

### Digital Infrastructure

- The Union Budget has announced a substantial increase in allocation towards National Urban Digital Mission (NUDM) to INR 13 billion for FY26, from just INR 1 billion in FY25.
- The allocation towards New ITI Upgradation Scheme has been increased to INR 30 billion for FY26, from just INR 3 billion in FY25.
- The Union Budget has announced the launch of a digital public infrastructure called 'BharatTradeNet' to complement the Unified Logistics Interface Platform. This will act as a unified platform for trade documentation and financing solutions.
- The Union Budget has also committed to provide broadband connectivity to all government secondary schools and primary health centres in rural areas under the 'Bharatnet' project.



## Infrastructure Financing

- The allocation towards National Investment and Infrastructure Fund (NIIF) has been doubled to INR 30 billion for FY26, from INR 15 billion in FY25.
- Public-Private partnerships for infrastructure will be encouraged, and each infrastructure-related ministry is expected to come up with a 3-year pipeline of projects. States can seek support from the India Infrastructure Project Development Fund (IIPDF) to this end.
- The Union Budget has announced continued support to states for capital expenditure related to infrastructure via an outlay of INR 1.5 trillion on 50-year interest free loans.
- The Union Budget has given a five-year extension (till 31 March 2030) for infrastructure investments made by Sovereign Wealth Funds and Pension Funds in the infrastructure sector.

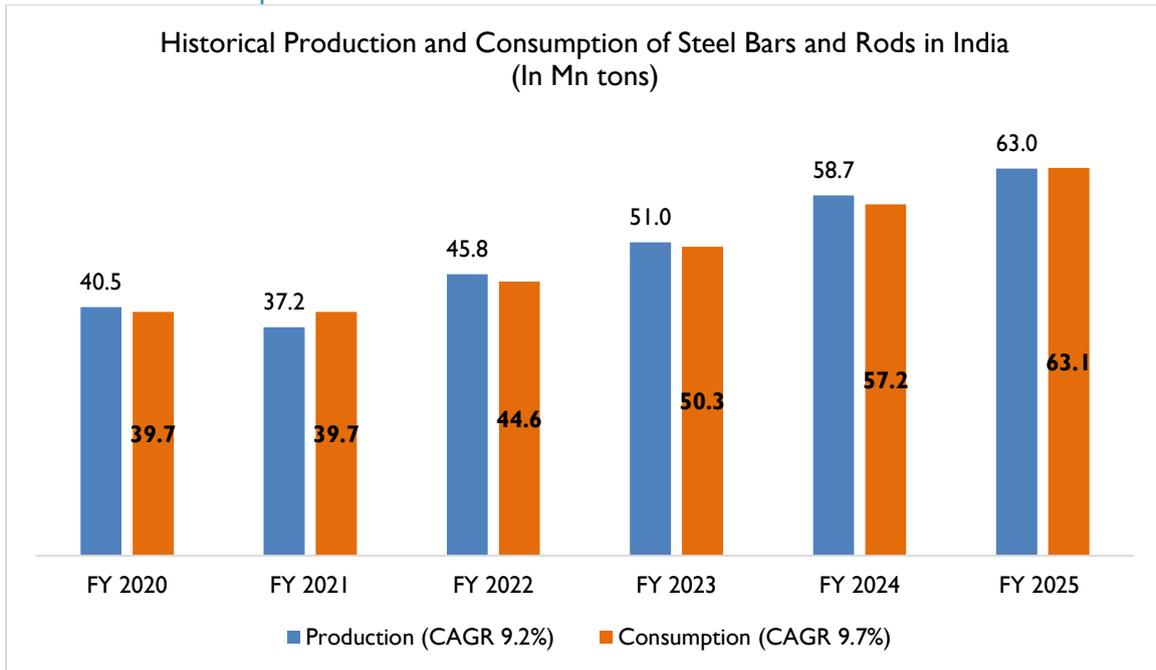
While the 10% increase in infrastructure might seem modest but it reflects a deliberate push to incentivize public-private partnership (PPP) models, particularly at the state level through the Infrastructure Investment Development Fund (IIDF), aimed at improving the speed and efficiency of infrastructure projects. On the physical infrastructure front, the Ministry of Roads and Highways has shifted its focus from a project-based to a corridor-based approach, aligning with the government's tourism promotion strategy. The second asset monetization plan, which spans from 2025 to 2030, further supports this effort by reinvesting proceeds from up to INR 10 trillion worth of government-owned assets into new infrastructure projects.

Additionally, significant strides are being made in digital infrastructure, with increased allocations complementing advancements from initiatives such as the Bharat Net Project. As India taps into its unique cost advantages in the growing data centre market, the government's emphasis on digital modernization is set to keep the country competitive in the global digital landscape.



## Current Market Scenario

### Annual Production & Consumption of Steel bars & rods



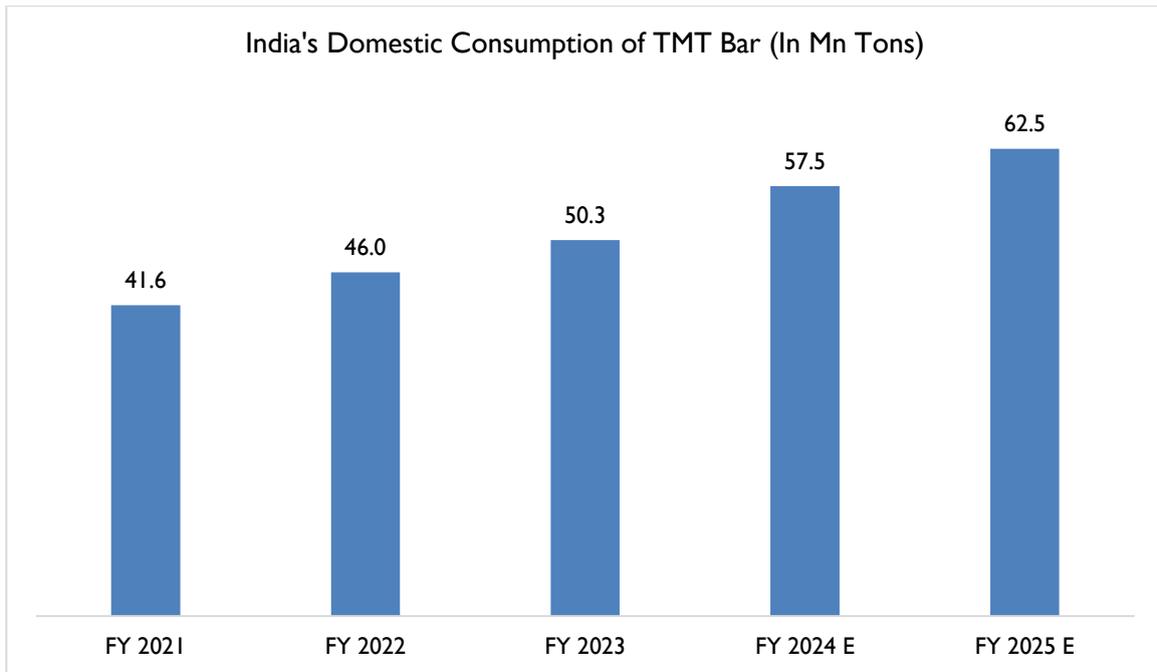
Sources: CMIE Industry Outlook, Indian Steel Industry

Over the past six years, the production and consumption of steel bars and rods in India have maintained a close correlation, reflecting steady expansion with production growing at a CAGR of 9.2% and consumption at a slightly higher CAGR of 9.7%. In FY 2022, both indicators witnessed notable surges, with production rising sharply by 23.1% and consumption increasing by 12.3%, marking a pivotal year for the segment. This momentum carried through to FY 2025, with production reaching 63.0 million tons and consumption marginally exceeding it at 63.1 million tons, underscoring the sustained and balanced demand-supply dynamics. The robust growth over the last three years has been fueled by thriving end-use industries such as construction, infrastructure development, automotive, and machinery manufacturing. This consistent alignment between output and demand highlights efficient production planning, responsive market strategies, and favorable conditions, creating a solid foundation for stable growth opportunities in the steel bars and rods market.

### Consumption of TMT Bars

India's domestic consumption of TMT bars has been rising steadily, reflecting the strong momentum in the construction and infrastructure sectors. Consumption has expanded from about 41.6 million tons in FY 2021 to an estimated 62.5 million tons by FY 2025, registering a healthy CAGR of around 10.7% during this period. This sharp rise underscores the critical role of TMT bars in meeting the demand generated by large-scale infrastructure investments, rapid urbanization, and sustained growth in residential as well as commercial real estate projects.





Source: D&B Research Estimates<sup>2</sup>

The trend also highlights the increasing dependence of India’s steel ecosystem on the long-products category, with TMT bars emerging as a cornerstone material in both public and private construction activity. Government initiatives such as the National Infrastructure Pipeline (NIP), focus on housing for all, and rapid expansion in urban transit networks have been key demand drivers, ensuring that consumption levels have grown consistently over the last few years.

By FY 2025, the scale of consumption clearly reflects a market that is not only expanding in volume but also becoming more structured and responsive to quality standards, given the increasing preference for high-strength and earthquake-resistant grades. Overall, this period signifies a phase of robust consolidation for TMT bar consumption in India, aligned with the country’s ambitious infrastructure and urban development agenda.

### Demand Scenario

Domestic demand for TMT bars is anticipated to rise significantly, driven by the government's focused efforts on enhancing the nation's infrastructure. The construction industry's growth in India is on an upward trajectory, increasingly favoring TMT bars due to their superior qualities. These bars are known for their exceptional strength, durability, and ability to withstand seismic activities, making them indispensable in modern construction. As the government continues to prioritize the development of quality and sustainable infrastructure, TMT bars are set to play a crucial role. Their widespread adoption is not just a trend but a necessity, given the evolving structural requirements of contemporary construction projects. Engineers and builders across the country are increasingly turning to TMT bars to meet these demands, owing to their numerous advantages over traditional reinforcement materials. One of the most significant benefits of TMT

<sup>2</sup> FY 2024 and 2025 are estimated based on assumption like historical share of TMT in finished steel



bars is their earthquake-resistant properties. India, being prone to seismic activities, requires construction materials that can ensure the safety and stability of buildings. TMT bars are designed to absorb and dissipate seismic energy, which is essential for maintaining the structural integrity of buildings during earthquakes. This characteristic makes them a critical component in construction projects, especially in earthquake-prone areas. Moreover, the use of TMT bars aligns with the broader goals of sustainable development. They contribute to building resilient infrastructure that can withstand natural disasters, thus reducing the need for frequent repairs and reconstructions. This not only ensures the safety of residents but also supports long-term economic stability by minimizing the costs associated with rebuilding after seismic events. In addition to their functional benefits, TMT bars also promote advancements in building technology. Their integration into construction practices encourages innovation and the adoption of new techniques that enhance overall building quality. As a result, the construction industry in India is becoming more efficient and capable of delivering high-standard projects.

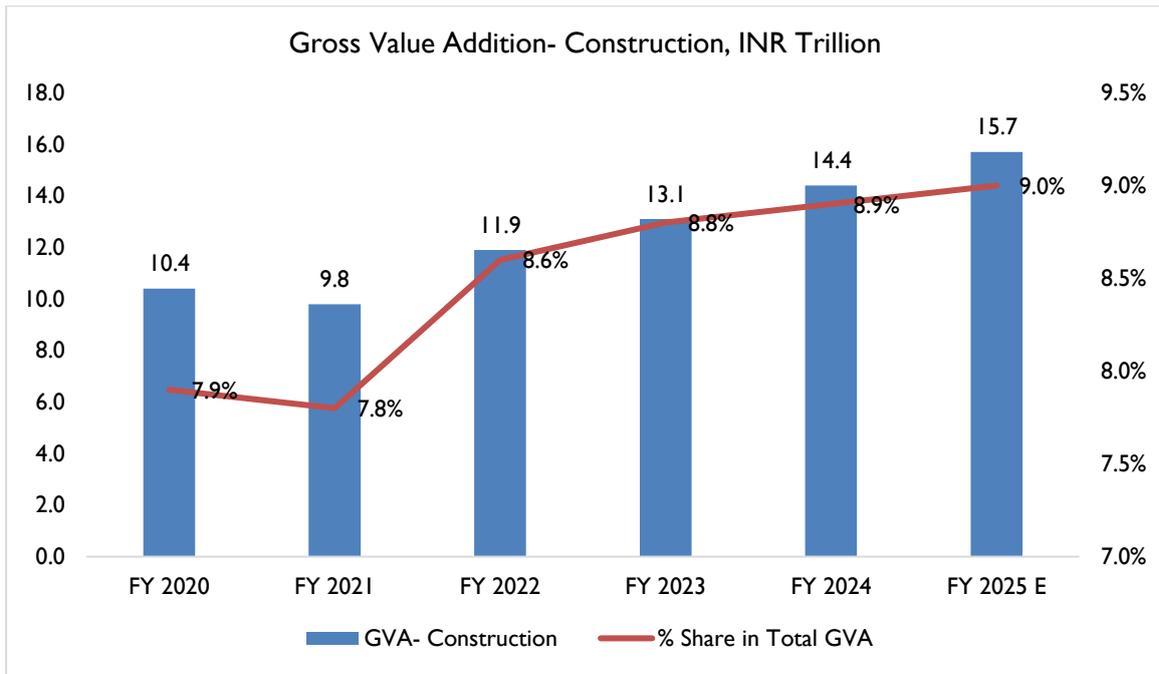
### Construction Sector Performance

The construction sector is a key component of the Indian economy with linkages across more than 250+ sub sectors. Construction, the second largest economic activity in India (after agriculture) contributes around ~9.1% to the national GDP. Further, India is poised to become the third largest construction market in the next 2-3 years on the back of stable economic growth as the real estate sector has emerged to be a critical engine in the country's growth story. The construction sector, along with the output generated from real estate services and ownership of dwellings, contributes nearly 14.3% to the economy's total output (at constant prices) in FY 2023. It is the second largest employment generator in India with nearly 71 million people in 2023 which is expected to cross 100 million by 2030. The booming construction industry is a significant job creator, directly employing millions of workers across various disciplines like engineering, construction, architecture, and skilled labor. Additionally, the sector indirectly supports numerous job opportunities in associated industries like manufacturing, transportation, and logistics. High employability of the sector is due to chain of backward and forward linkages that the sector has with other sectors of the economy.

### Historical Growth Performance

The construction sector contribution to national economy has steady improved over the years and by FY 2025 it is estimated to account for nearly 9.0% of national Gross Value Added (GVA). In actual terms, the GVA by construction sector reached approximately INR 15.7 trillion in FY 2025, registering.





Source: Ministry of Statistics & Programme Implementation (base year 2011-12)

Increasing construction output is based on increased government spending on infrastructure, The government has identified infrastructure as a priority sector to bolster GDP growth. Various reforms have been introduced from time to time to attract investment in infrastructure. Infrastructure sector was opened to private participation post-liberalization in 1991 and currently up to 100% FDI under automatic route is allowed in most sectors/activities. Under this route, no permission from the Central Government is required for FDI inflow in the construction sector, but the same is subject to applicable laws/regulations, security, and other conditions.

India has emerged as a safe investment destination in the last decade. The construction (infrastructure) activities and construction development (townships, housing, built-up infrastructure, and construction-development projects) were amongst the ten largest FDI recipient sector ranking at 6<sup>th</sup> and 7<sup>th</sup> position. Between from Apr 2000 – March 2025, they cumulatively received INR 3,943.40 billion, and their share in total FDI inflows stood at nearly 9% in the total cumulative FDI inflow in India (INR 49,292.50 billion).

Segment	FY 2022 INR Bn	FY 2023 INR Bn	FY 2024 INR Bn	FY 2025 INR Bn	Cumulative FDI From April 2000 to March 2025 INR Bn
<i>Construction Townships, housing, built-up infrastructure, and construction-development projects</i>	9.32	11.96	21.13	45.03	1,358.24
<b>Construction (Infrastructure) Activities</b>	241.78	135.88	350.76	189.62	2,585.16
<b>Total</b>	251.10	147.84	371.89	234.65	3943.40

Source: Department for Promotion of Industry and Internal Trade



### Infrastructure Construction in India

The infrastructure construction segment in India is a key driver of economic growth and national development. It encompasses the development and maintenance of essential infrastructure like roads, highways, railways, airports, ports, waterways, power plants, and irrigation systems. This segment plays a crucial role in:

- Connecting people and places: Efficient transportation networks facilitate movement of goods and people, boosting trade and commerce.
- Stimulating economic activity: Infrastructure projects create jobs, attract investments, and spur development across various sectors.
- Improving quality of life: Access to clean water, sanitation, and reliable electricity enhances living standards and promotes overall well-being.

### Major Government Scheme driving demand generating Initiative in Infrastructure sector

Multiple flagship scheme focusing the development of infrastructure construction creates immense good demand growth potential for TMT bars. These are discussed below:

#### National Infrastructure Pipeline (NIP)

- If India is to become a USD 5 Trillion economy by 2027-28, as well as continue its 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.
- In December 2019, an investment worth INR 102 trillion was announced by the government on infrastructure projects over the next five years under the National Infrastructure Pipeline (NIP). The task force on NIP increased this amount to INR 111 trillion in May 2020 from its initial projection of INR 102 trillion which translates in per year spending of around INR 22 trillion. The National Infrastructure Pipeline aims to improve the ease of living for its citizen. National Infrastructure Pipeline will include projects in various sectors such as housing, safe drinking water, access to clean and affordable energy, world-class educational institutes, healthcare for all, modern railway stations, airports, bus terminals, metro and railway transportation, logistics and warehousing, irrigation projects, etc.
- The projects under NIP are classified as per their size and stage of development. The Centre (39%) and state (40%) are expected to have almost equal share in implementing the NIP in India, followed by the private sector (21%). The amount allocated under NIP will be spent on building highways, railway lines, ports and airports and other social and economic infrastructure.

Sub Sector	Amount to be invested between 2020-25 in INR Bn	% Share in Total Investment
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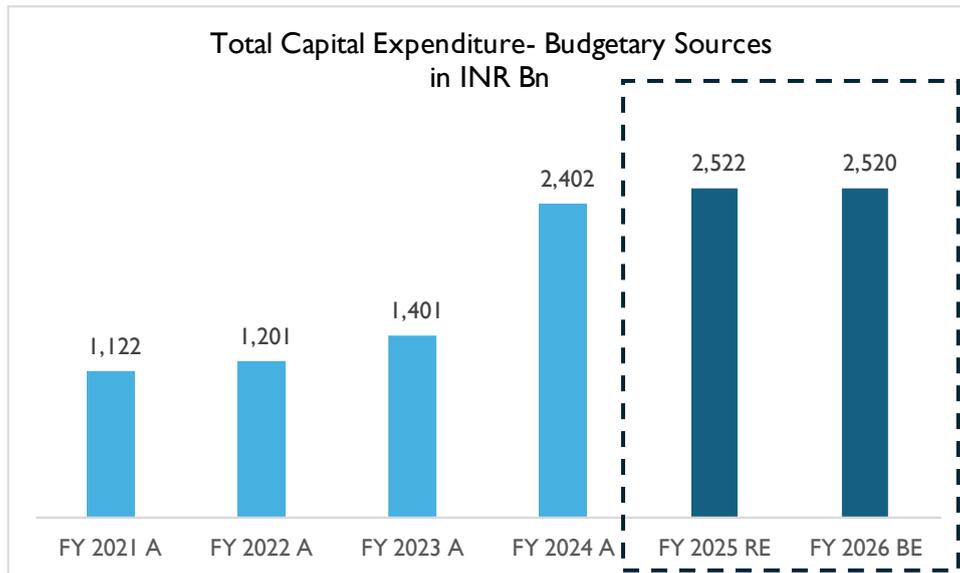


Road	20,338	18.3%
Railway	13,676	12.3%
Aviation	1,434	1.3%
Urban Infrastructure	19,193	17.2%
Industrial Infrastructure	3,150	2.8%
Others	53,514	48.1%
<b>Total</b>	<b>1,11,304</b>	<b>100%</b>

Sources: NIP Presentation<sup>3</sup>

### Increase in Railway Construction and Its Impact on TMT Bar Demand

From FY 2021 to FY 2026, the union budget has significantly ramped up its allocation toward railway sector. The total outlay provided for Capital Expenditure in Budget Estimate 2025-26 of INR 2,652 billion. The Gross Budgetary Support for Railways in FY 2025-26 stands at INR 2,520 billion, which has reduced in compare of previous year, however the budget has significantly rise from the level of INR 1,122 billion in FY 2021. The railway will continue to utilize the money in essential infrastructure projects like rail track expansion, rolling stock procurement, electrification, signalling improvements, and station modernisation. The Government also provided for INR 100 billion from extra budgetary resource to meet its expenses & modernize. The total outlay also includes Nirbhaya fund of INR 2 billion and INR 30 billion for internal resources.



Source: Union Budget, Expenditure Profile  
 Note: A – Actual Capex over the years and BE – Budgeted figures

Railway sector improvement is a major driver of TMT bar demand. The expansion of railway networks increases the need TMT bars as railway bridges and stations require substantial amounts of TMT bars for reinforcing concrete beams, columns, and slabs to ensure stability and earthquake resistance. Indirectly, the growth in railway projects stimulates related sectors like logistics, warehousing, and manufacturing hubs near railway stations,

<sup>3</sup>[https://dea.gov.in/sites/default/files/Report%20of%20the%20Task%20Force%20National%20Infrastructure%20Pipeline%20%28NIP%29%20-%20volume-i\\_1.pdf](https://dea.gov.in/sites/default/files/Report%20of%20the%20Task%20Force%20National%20Infrastructure%20Pipeline%20%28NIP%29%20-%20volume-i_1.pdf)



further boosting the demand for TMT bars. Urbanization along railway lines also leads to the development of commercial buildings, residential complexes, and public infrastructure, all of which depend on TMT bars for reinforcement. Furthermore, specific types of railway projects, such as high-speed rail or dedicated freight corridors, may necessitate specialized TMT bars with higher strength or corrosion resistance, influencing the demand within the TMT bar market.

### Airport Infrastructure in India

In India, airports are managed either through the Public-Private Partnership (PPP) model or solely by government authorities like the Airport Authority of India (AAI). PPP airports involve collaborations between the government and private firms, where private entities invest in, develop, and operate the airports to improve efficiency and service quality while sharing operational risks. Conversely, non-PPP airports are fully managed and funded by the government, with AAI overseeing development, operations, and maintenance. As of Airport Authority Dec 2024 report<sup>4</sup>, India boasts 159 airports that include international, domestic, civil enclaves, heliports and water aerodromes. Of these, 8 are under private management. Among private control, 2 airports i.e . Delhi International Airport (DIAL) and Mumbai International Airport (MIAL), operate by Joint Venture Companies (JVCs), while 6 airports that include Ahmedabad, Jaipur, Lucknow, Guwahati, Thiruvananthapuram, and Mangalore are managed under the PPP model.

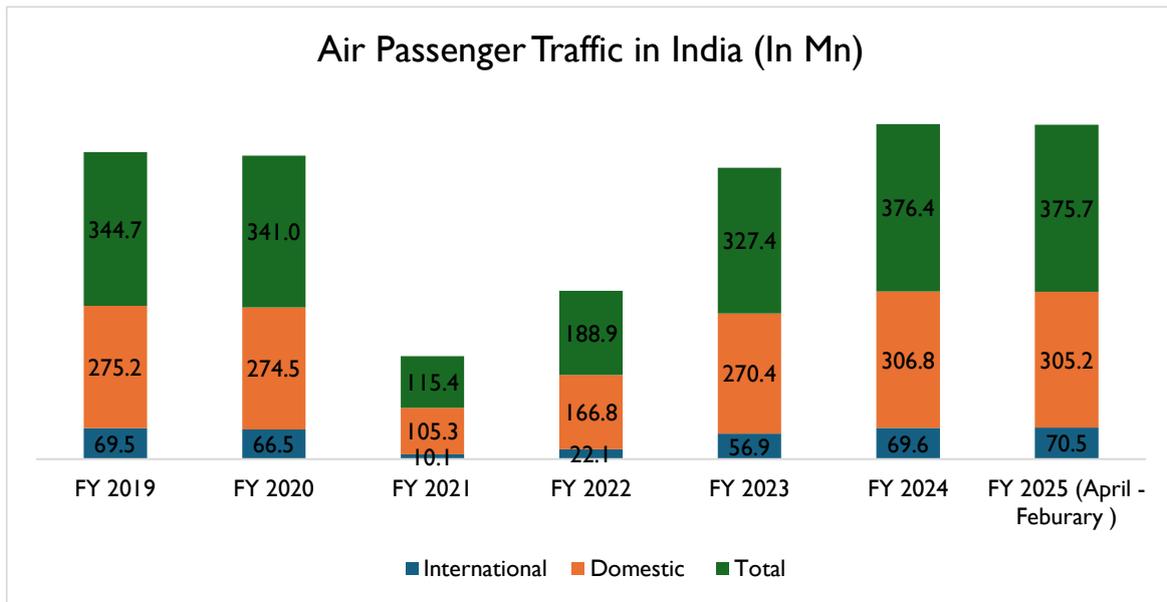
India is expected to have 480 million air passengers, by 2036, surpassing the combined number of flyers in Japan (around 225 million) and Germany (just over 200 million). The growth is on the back of growing economy and expanding middle class. This has put pressure on the existing civil aviation infrastructure in the country.

India's air passenger traffic has shown a strong recovery following the significant decline during the COVID-19 pandemic. In FY 2019, total traffic stood at 344.7 million, with domestic travel contributing the majority. The pandemic caused a sharp drop in FY 2021, with total traffic falling to just 115.4 million. However, since then, both international and domestic segments have steadily rebounded. By FY 2023, traffic had reached 327.4 million, nearing pre-pandemic levels, and in FY 2024 it surpassed them, reaching 376.4 million. As of April to February in FY 2025, the momentum continues with 375.7 million passengers, indicating sustained growth in India's aviation sector.

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<sup>4</sup> The most recent available in public domain





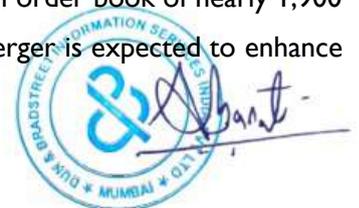
In addition, the Indian government is investing heavily in the aviation sector. The government is building new airports, expanding existing airports, and improving air traffic management systems. According to the Airports Authority of India (AAI), the number of airports in the country has **increased from 74 in 2015 to 159 in 2024**.



## India's Aviation Sector Poised for Robust Growth in 2025

India's air passenger traffic is expected to surge by 7% in 2025, driven by a rising middle class and increasing affordability of air travel, according to Joshua Ng, Director at Alton Aviation Consultancy. With India now accounting for 10% of Asia-Pacific's domestic and international air traffic, the country has not only rebounded to pre-pandemic levels but is also laying the groundwork for future expansion.

The government's ambitious aviation infrastructure plan, which includes the development of 150 new airports nationwide, is further propelling this momentum. Indian airlines, collectively holding an order book of nearly 1,900 aircraft, are preparing to meet growing demand. Additionally, the Air India-Vistara merger is expected to enhance



market stability, positioning Air India as a leading player in the full-service segment and IndiGo as a leading player in the low-cost segment.

## Global Outlook: Industry Rebounds, Faces New Challenges

On a global scale, the aviation industry has returned to pre-COVID passenger traffic levels and is projected to grow at an average annual rate of 4% from 2024 to 2034, underpinned by a 2.7% annual increase in global GDP. The Asia-Pacific region, led by China and India, is expected to remain the world's largest aviation market, with an estimated annual growth rate of 5.1%.

However, this growth comes with headwinds. The industry faces a significant aircraft delivery backlog of 9.7 years, as reported by CAPA and Alton's research. Despite record passenger numbers and revenues forecasted for 2025, challenges such as normalizing ticket yields, inflation, and geopolitical tensions remain.

Additionally, post-pandemic supply chain disruptions and labor shortages continue to pressure airline operations. To adapt, airlines must focus on improving aircraft utilisation, reducing turnaround times, and leveraging strategic wet leasing to maintain flexibility and competitiveness in a dynamic market environment.

## Government Initiatives for expanding airport infrastructure.

To address the growing demand for air travel, the Government of India is significantly expanding the nation's airport infrastructure. The vision is to increase the number of operational airports from 158 in FY 2023 to 220 by 2025. This ambitious goal is supported by the 'NABH Nirman' scheme, introduced in the 2018 Budget, which aims to quintuple airport capacity to handle up to a billion trips annually. The scheme includes plans for constructing 100 new airports over the next decade with an investment of INR 2,000 billion. Complementing this, airport operators and developers have outlined a Capital Expenditure (CAPEX) plan exceeding INR 900 billion, with the Airport Authority of India (AAI) contributing over INR 260 billion towards modernization and development by 2025.

Additionally, the government has approved INR 45 billion for reviving and developing un-served and under-served airports, heliports, and water aerodromes under the Regional Connectivity Scheme (RCS) - UDAN (Ude Desh ka Aam Naagrik). Launched in October 2016, UDAN aims to enhance regional air connectivity by making air travel more affordable and accessible in underserved areas. For the fiscal year 2023-24, the Ministry of Civil Aviation has been allocated INR 32.24 billion (USD 440.36 million), with plans to revitalize 50 landing sites and an allocation of INR 60 billion (USD 77.52 million) specifically for the RCS-UDAN scheme.

Since its inception, the scheme has benefited over 136 lakh passengers and 559 routes have been operationalized under the scheme, connecting 84 airports including 13 heliports and 2 water aerodromes. The government aims to operationalize 1,000 UDAN routes by 2025 and develop 100 unserved airports, heliports, and water aerodromes. The scheme also promotes affordability by providing concessions to airlines through Viability Gap Funding (VGF). The ongoing initiatives are expected to significantly boost airport infrastructure by increasing capacity, improving regional connectivity, and accelerating the development of new and existing airports.

Some of the major expansion plans proposed to expand the airport infrastructure in India:



## Twin City Airport Project

The Ministry of Civil Aviation is proposing to develop “Twin City Airports” aimed to decongest existing major airports. True to its name, these airports would be constructed keeping in mind its ability to serve two cities / urban areas. The Ministry is proposing to develop six such twin city airports by 2030, expand it to 15 by 2040 and to 30 by 2047.

So far three locations have been identified for developing such airports – namely development of Noida International Airport at Greater Nodia (to alleviate / decongest Delhi International Airport), DB Patil International Airport in Navi Mumbai (to decongest Mumbai International Airport), and development of Manohar International Airport (to complement Dabolim airport in Goa). In addition several state Governments has approached the central Government to develop greenfield airports that fits into this programme.

## Airport infrastructure construction and Its Impact on TMT Bar Demand

The construction of new terminals, runways, taxiways, and cargo facilities within airport infrastructure projects significantly increases the demand for TMT bars. These bars are preferred for concrete reinforcement due to their exceptional strength, ductility, and weldability, making them ideal for the robust construction required in aviation infrastructure. As airports expand, the need for substantial concrete structures grows, further driving up the demand for TMT bars. Additionally, the size and scale of these projects play a crucial role; larger projects with extensive new construction require far more TMT bars than smaller renovation efforts. Local infrastructure needs, such as the construction of access roads, bridges, and parking lots around airports, also contribute to this demand, as these structures utilize TMT bar-reinforced concrete for added durability. Government regulations and building codes that specify certain concrete strength requirements can further influence the type and quantity of TMT bars used in these projects.

However, the emergence of alternative construction materials, such as fiber-reinforced polymers and pre-stressed concrete, presents potential competition and may affect the future demand for TMT bars in some specific applications, though their current dominance remains significant.

### Real Estate Construction impact on TMT bars demand

Real estate construction is one of the key economic sectors in the country driving the demand for various building materials including TMT. The residential market continues to strengthen, with sales volumes at a ten-year high, unaffected by underlying fundamentals. Sales levels remained resilient despite concerns over growing inflation, high interest costs, and slowing economic growth. The industry is consolidating, with residential developments increasingly being managed by stronger developers who have weathered the economic challenges posed by the pandemic.

## Residential Real Estate

The residential real estate market is a vital sector within the broader real estate industry that revolves around the desire for home ownership. Residential real estate markets are influenced by a range of factors such as job

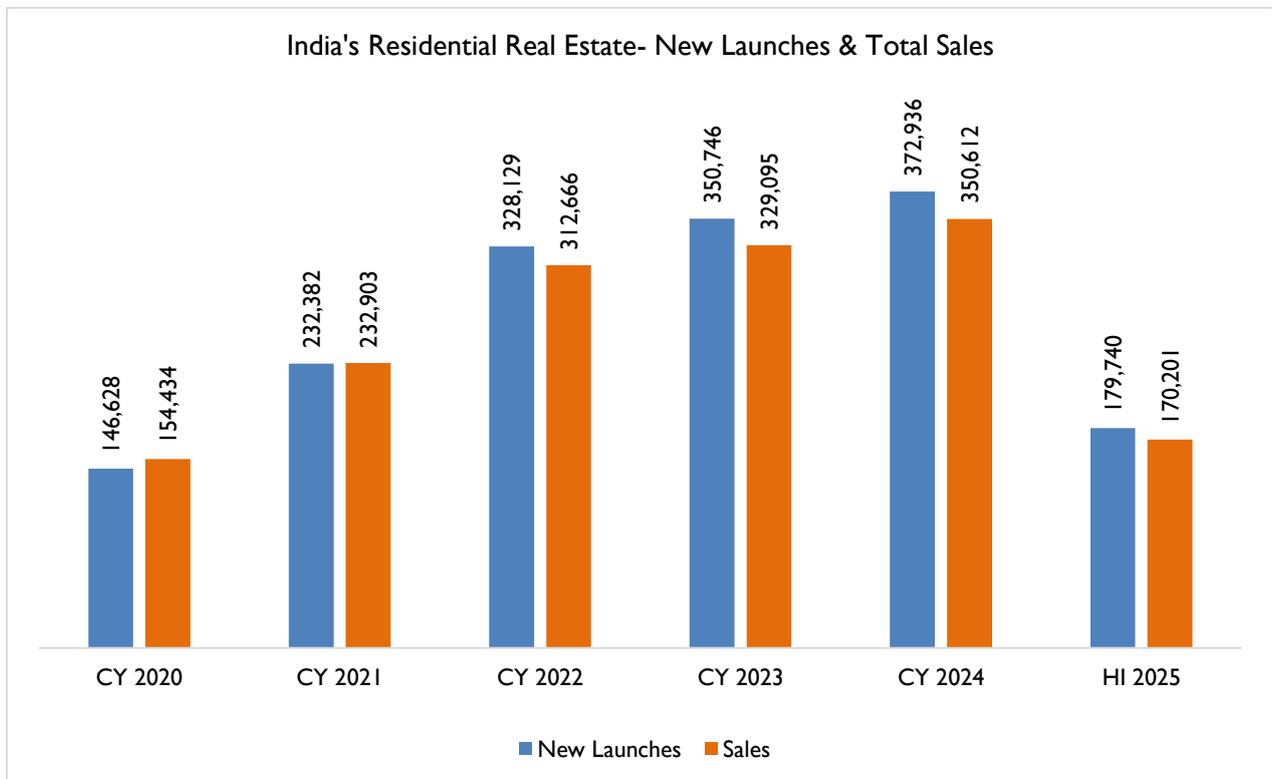


stability, income growth, and favorable interest rates which can create an environment where people feel confident to invest in their homes. Location also plays a significant role, as buyers seek neighborhoods that offer convenience, safety, and access to essential amenities that enhance their quality of life.

Government policies and regulations also impact residential real estate markets. Housing policies, tax incentives, and mortgage regulations can affect affordability, accessibility, and investment potential. Additionally, demographic trends, such as population growth, changes in household sizes, and shifts in lifestyle preferences, contribute to the demand and preferences within the market. As per industry sources, the Indian real estate market is projected to reach the value of USD 1 Trillion by 2030, with affordable housing segment playing an important role. Supply of houses and new launches are also expected to accelerate the growth of residential real estate sector.

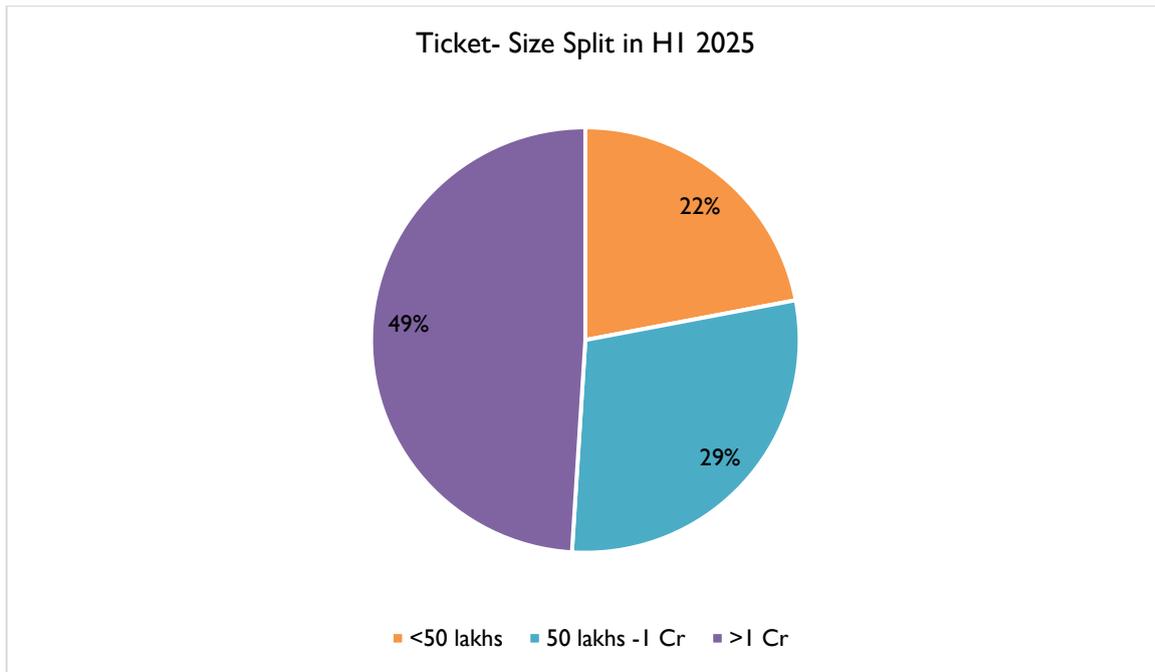
**Annual Sales & Launches**

The Indian residential real estate sector has been witnessing sustained growth since 2021. In CY 2024, a total of 372,936 new residential units were launched across the top 8 cities, marking a y-o-y growth of 6.3% over CY 2023. Sales volume also continued to rise, reaching 350,612 units, an increase of 6.5% from the previous year. The sector’s momentum in 2024 was driven by strong end-user demand, improved affordability, and continued economic stability. In the first half of CY 2025, 179,740 new units were launched while sales stood at 170,201 units, reflecting healthy market activity despite evolving macroeconomic conditions. Between CY 2020 and CY 2024, new launches registered a CAGR of 26.5%, while sales volumes grew at a CAGR of 22.8%, underscoring the sector’s robust recovery trajectory and sustained buyer confidence.



Source: Knight Frank Report on Indian Real Estate Sector (Statistics for Top 8 Cities in India)





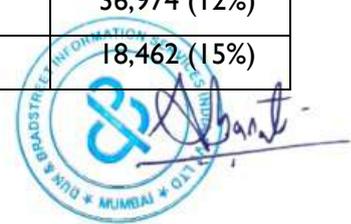
Source: Knight Frank Report on Indian Real Estate Sector (Statistics for Top 8 Cities in India)

In HI 2025, the distribution of ticket sizes in India’s residential real estate market reflects stable yet subtly shifting buyer dynamics. The affordable housing segment (below ₹50 lakhs) accounts for 22% of sales, indicating sustained demand from cost-conscious buyers, supported by government incentives and improving affordability in non-metro cities. The mid-range category (₹50 lakh – ₹1 crore) holds a 29% share, maintaining its strong presence as a preferred choice for urban middle-class households. Meanwhile, the premium and luxury segment (above ₹1 crore) constitutes 49% of the market, reflecting a steady interest in high-value properties, driven by rising disposable incomes, consistent NRI participation, and robust demand in metropolitan hubs.

**Sales & Launches by Cities**

Among the top 8 markets, Mumbai accounted for 25.3% of the total sales, which is the highest among all the markets. Kolkata, Ahmedabad, and Pune displayed robust growth with a strong uptick in both sales and launches. Increased hiring and steady income growth dominated the new-age markets such as Ahmedabad and Pune, also buoyed homebuyer demand.

City	Launches		Sales	
	HI 2025 (YoY change)	2024 (YoY change)	HI 2025 (YoY change)	2024 (YoY change)
Mumbai	45,451 (-3%)	96,470 (4%)	47,035 (0%)	96,187 (11%)
NCR	25,233 (-17%)	60,699 (-3%)	26,795 (-8%)	57,654 (-4%)
Bengaluru	33,498 (31%)	56,014 (10%)	26,599 (-3%)	55,362 (2%)
Pune	26,559 (-5%)	59,548 (40%)	24,329 (-1%)	52,346 (6%)
Hyderabad	20,962 (-6%)	44,013 (-6%)	19,048 (3%)	36,974 (12%)
Ahmedabad	10,734 (5%)	22,043 (-2%)	9,370 (0%)	18,462 (15%)

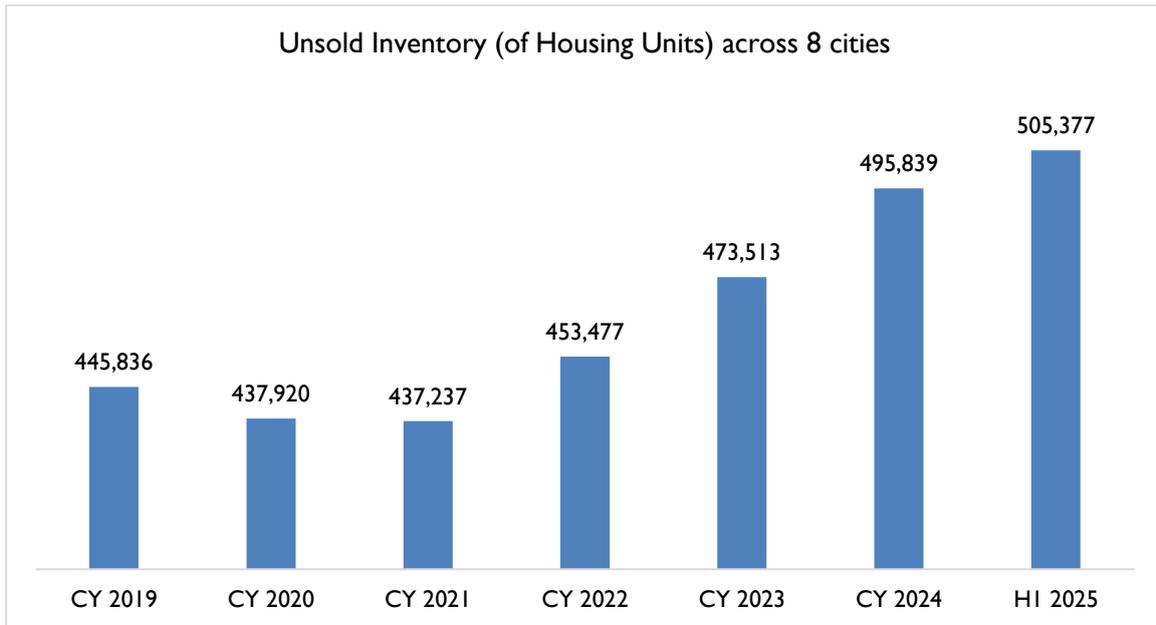


Chennai	9,621 (9%)	17,431 (7%)	8,935 (12%)	16,238 (9%)
Kolkata	7,682 (-29%)	16,718 (6%)	8,090 (-11%)	17,389 (16%)
All India	179,740 (-2%)	372,936 (6%)	170,201 (-2%)	350,612 (7%)

Source: Knight Frank Report on Indian Real Estate Sector (Statistics for Top 8 Cities in India)

### Inventory Scenario

As mentioned earlier, while sales have been increasing, the volume of launches has exceeded that of sales. This has caused the unsold inventory levels to rise by 6% YoY by CY 2024.



Source: Knight Frank Report on Indian Real Estate Sector (Statistics for Top 8 Cities in India)

In HI 2025, the unsold housing inventory across the top 8 cities has increased to 5,05,377 units from 4,95,839 units in CY 2024. Despite the rising inventory levels, the Quarters to Sell (QTS) metric continues to show an improving trend, indicating steady absorption rates.

### Impact on TMT bar demand

The increase in new construction projects significantly boosts the demand for TMT bars. Thriving real estate markets often trigger a surge in residential developments, including single-family homes, apartments, and high-rise buildings, which are major consumers of TMT bars for concrete reinforcement. Similarly, commercial construction projects, such as office buildings, shopping malls, and hotels, also require substantial amounts of TMT bars for their steel frameworks and concrete reinforcements. Urbanization and infrastructure development further fuel this demand. The influx of populations into urban areas necessitates new housing and infrastructure, including roads, bridges, and public amenities, all of which rely heavily on TMT bars. Additionally, large-scale urban development projects, like smart city initiatives, focus on creating sustainable and efficient urban environments, using extensive TMT bars in residential, commercial, and public infrastructure. Increased renovation and remodeling activities during periods of real estate growth also contribute to the demand for TMT bars, as homeowners and businesses invest in structural modifications

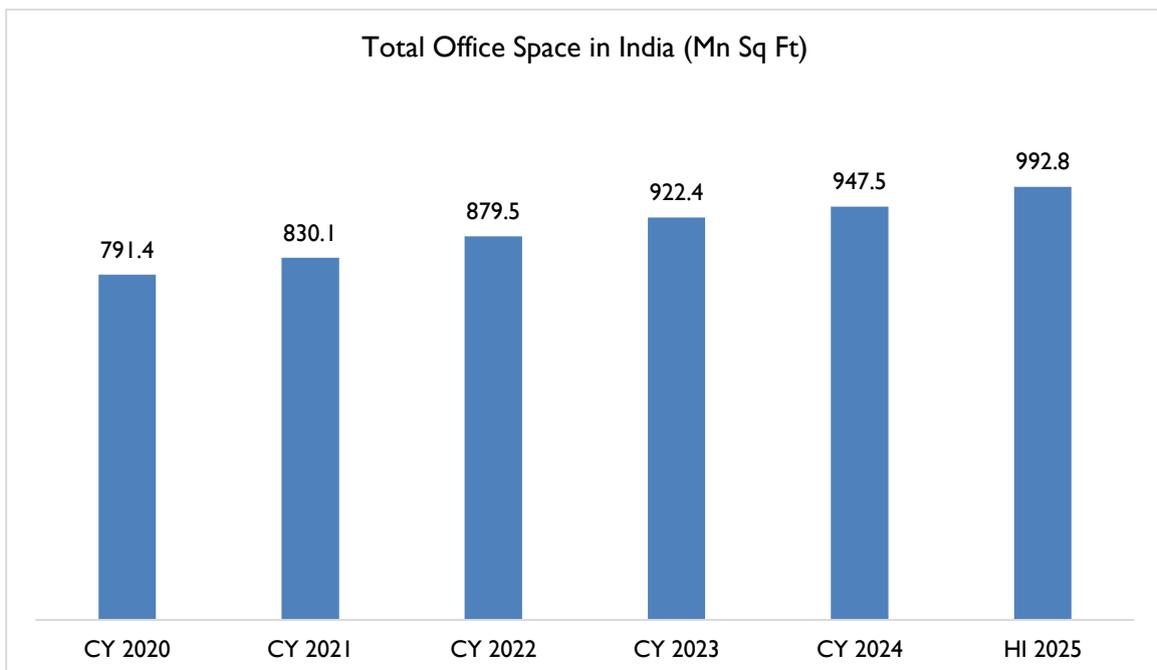


and property upgrades.

Conversely, a reduction in new construction projects leads to a decrease in TMT bar demand. A slowdown in the real estate market results in fewer residential projects, with developers becoming cautious and delaying or canceling plans. Commercial real estate projects are similarly affected, often put on hold during market downturns, further reducing the need for TMT bars. Decreased infrastructure development due to economic uncertainty can cause delays or reductions in urban projects, lowering TMT bar consumption. Cutbacks in government spending during economic downturns also impacts the demand for TMT bars used in public construction projects. Additionally, oversupply and market saturation can lead to an inventory backlog, prompting developers to halt new projects until existing units are sold, thereby decreasing the need for TMT bars. Price reductions to clear unsold inventory can further reduce the initiation of new projects, diminishing the overall demand for TMT bars.

**Commercial Real Estate:**

India's emergence as the world's largest democracy, coupled with its promising long-term growth potential and stable market conditions across various sectors, positions it as an extremely appealing location for establishing businesses. The total office space stock in India grew by 4.6% CAGR between 2020-24 and in H1 it is expanded to 992.8 Mn sq. ft. This indicates a consistent rise in demand for office space, potentially driven by factors like economic expansion and increasing urbanization. Interestingly, the latest growth rate in 2024 (2.27%) is slightly lower compared to the average annual growth. The growing acceptance of hybrid work arrangements, where employees split their work time between home and office, could potentially lead to a reduced need for traditional office space requirements coupled with shifting interest of developers in residential market due to booming opportunities in this sector.



Source: Knight Frank Report on Indian Real Estate Sector

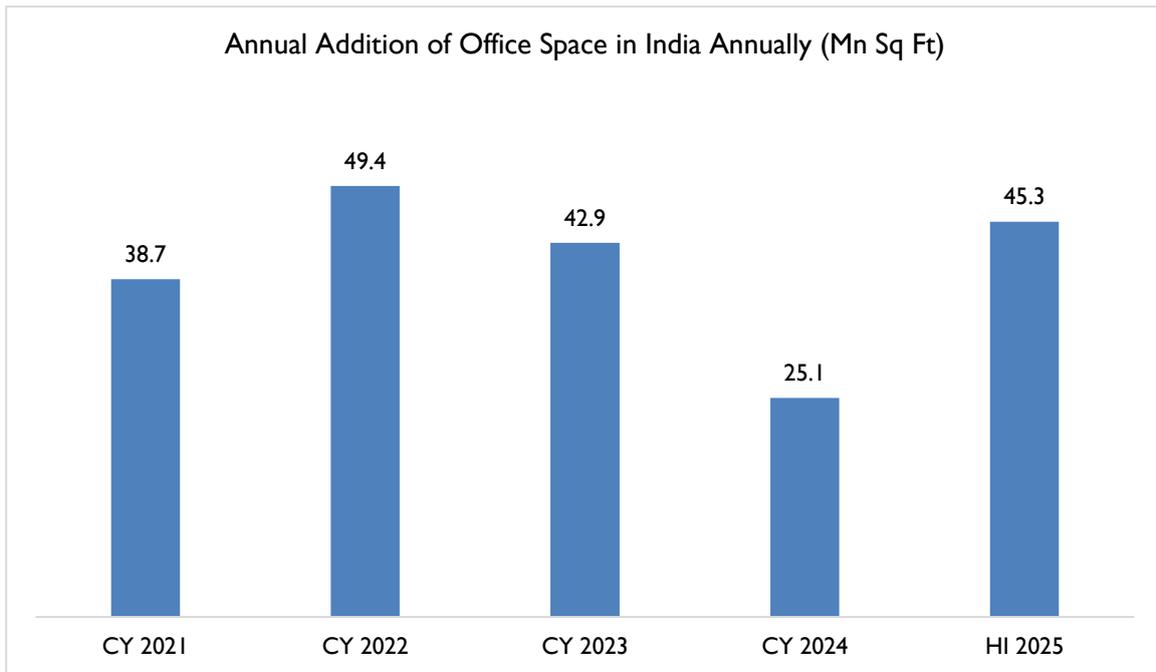


### Demand Supply Scenario

India’s commercial office space segment has traversed a highly dynamic phase over the past few years, shaped by cyclical shifts in demand and developer strategies. Between 2021 and 2024, new supply broadly fluctuated in the range of 38-49 million sq. ft during the stronger years, before contracting sharply to just 25.1 million sq. ft in 2024. This decline reflected a combination of factors, including project deferments, cautious pipeline recalibration, and a strategic pivot by developers toward the high-margin residential segment.

This period of moderation has now been followed by a striking turnaround. In the first half of 2025 alone (HI 2025), new office completions have already reached 45.3 million sq. ft, a volume higher than the full-year supply of most of the preceding years. This unprecedented surge has been supported by the delivery of long-delayed projects, healthy levels of pre-commitments in both established and emerging business districts, and rising demand from global capability centers (GCCs), technology enterprises, and flex-space operators.

If this momentum sustains through the second half of the year, 2025 is set to become one of the strongest years in India’s office real estate history, marking a decisive shift from the subdued supply trends of the recent past and underscoring renewed confidence in the long-term growth of the commercial office segment.



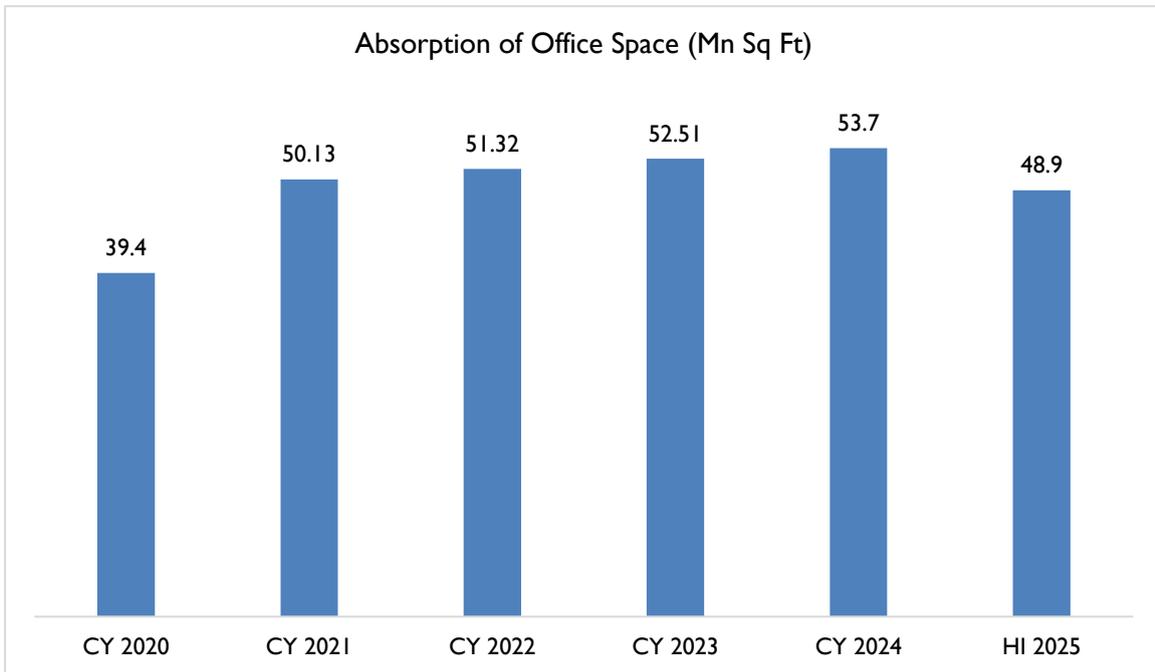
Source: Knight Frank Report on Indian Real Estate Sector

Indian commercial real estate continues to be anchored by the performance of the office segment, with absorption levels acting as a key barometer for overall demand. Over the past five years, leasing activity has displayed resilience and a consistent upward trajectory, from 39.4 million sq. ft. in 2020 to 53.7 million sq. ft. in 2024. The year 2024 was particularly strong, with total leased space across the eight major markets touching 71.9 million sq. ft., the highest on record, driven by large-scale expansions from global capability centers, IT/ITES firms, and the BFSI sector. The second half of 2024 saw a remarkable 20.1% year-on-year surge in leasing, marking the strongest half-year performance since 2012.

The momentum has carried forward into 2025, with HI alone witnessing absorption of 48.9 million sq. ft., already surpassing two-thirds of the previous year’s total. This robust first-half performance has led market analysts to



project gross leasing for the full year to touch between 80–90 million sq. ft., setting the stage for yet another record-breaking year for India’s office space market. The surge reflects a combination of sustained occupier confidence, healthy pre-commitments in upcoming supply, and continued preference for high-quality, Grade A office spaces across key urban hubs.



Source: Knight Frank Report, Industry Sources

Increasing transaction in 2025 points towards improving demand presenting a favorable demand scenario for TMT bar consumption in office space segment.

**Indian Retail Sector**



Source:<sup>5</sup> Dun & Bradstreet Desk Research

<sup>5</sup> Market Size number based on report published by AT Kearney a global competitive intelligence company tracking retail sector.



The organized retail is gaining ground at a brisk pace in India where a balance is emerging across shopping format that include hypermarkets, supermarket, and other large retail format like specialty store. Major retail chains are expanding their presence beyond metros and Tier-I cities to tier-2, tier-3 cities and even in tier-4 cities owing to lower rental rates and operating costs. This is translating into overall increase in nation's consumer power and benefitting the growth of organized retail in India. As per AT Kearney report, the organized retailing segment was estimated to value at USD 120 Bn in FY 2025 and is projected to grow to USD 230 Bn by 2030,

Malls are the largest format of organized retail available today. Since it is equipped with presence of dedicated multi-level parking, multi-brand retail outlet and exclusive retail outlet, hypermarket/supermarket, large food courts, restaurants, entertainment zone and many more, it precisely offers multiple convenience to consumer all under common roof. Beyond their retail offerings, malls and high streets provide safe and secure environments for social interaction and quality time with loved ones.

India ranks among one of the best countries to invest in the retail space. Since 2020, retail demand has increased regularly across investment grade malls, well-known high streets, and independent developments. With 275 to 300 million square feet already operational in the country, the retail sector witnessed all time high leasing activity taking total leased space to 7.1 million square feet<sup>6</sup> during 2023, registering a year-on-year rise of 47%<sup>7</sup>. The report further highlighted that recently completed mall contributed towards 30% share in total lease space absorption in 2023. On supply side, the sector witnessed a peak retail supply of 6 Mn sq feet, witnessing 316% y-o-y growth on the back of commencement of supply of 12 investment grade mall across the 8 cities.

As per, Deloitte India and the Shopping Centre Association of India (SCAI), malls and shopping centres play is projected to grow at 17% CAGR from 2022 to 2028, which present a conducive demand scenario for TMT bar consumption growth in India.

### Indian Hotel Industry

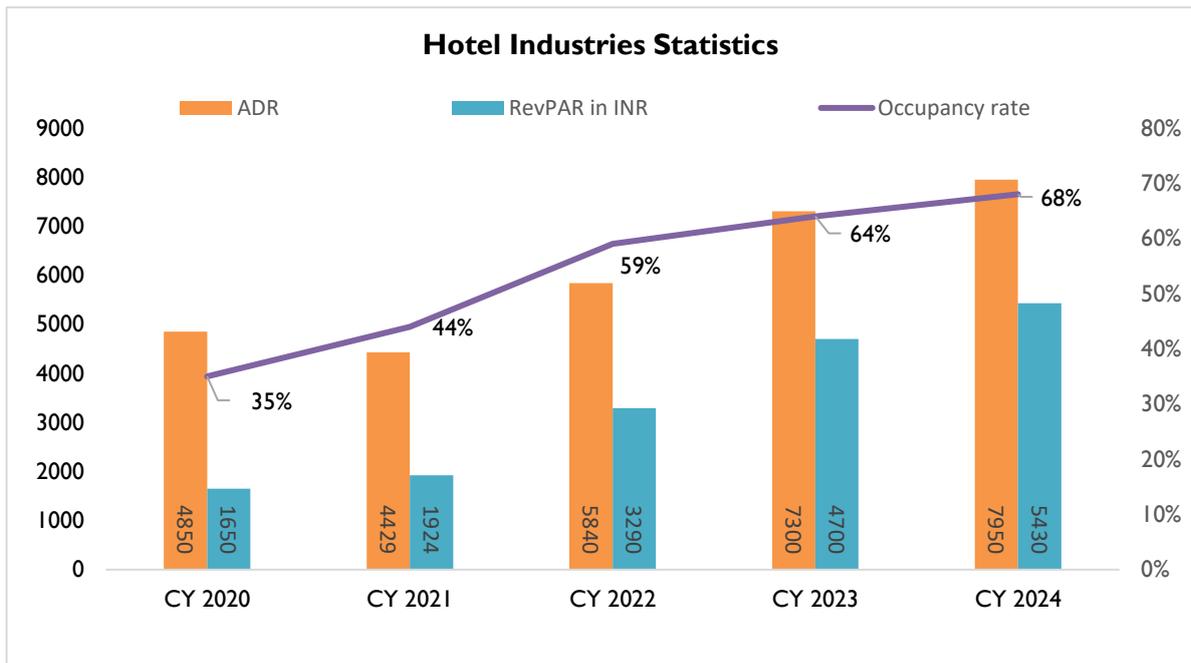
As on 31<sup>st</sup> December 2024, there are nearly 2,175 hotels operating in India which together accounted for nearly 200k affiliated rooms. The Indian hotel industry in 2024 marked a significant chapter, witnessing a robust recovery post the challenges imposed by the Covid-19 pandemic. The Economic Survey 2024 highlighted the sector's resurgence, emphasizing improvements in key metrics such as occupancy rate, Average Daily Rate (ADR), and Revenue Per Available Room (RevPAR), which had returned to pre-pandemic levels.

The Economic Survey also pointed out that the hotel industry had overcome a two-year hiatus, with a positive outlook for the future. The resumption of regular international flights, coupled with the successful hosting of various international events like the ICC Men's World Cup, contributed to the positive momentum. The survey anticipated a continued positive trend, forecasting an improvement in occupancy to 68 percent in 2024, accompanied increase in ADR, resulting in a RevPAR of INR 5,430, which is much higher than the pre-pandemic RevPAR recorded in 2019.

In line with this, according to HVS Anarock, hotel occupancy rates in 2024 witnessed a notable rebound, reaching



67-68% in the first half of 2024. This surge, approximately 3-4% percentage point increase from the same period in 2023, was propelled by a resurgence in domestic demand and a gradual return of international travelers.



Source: Industry Sources

CY 2024 is estimated to have reached an occupancy rate of 68%, up from 35% observed in 2020. Other key metrics such as ADR and RevPAR witnessed positive trends as well. India’s average hotel rates saw a strong increase of 8-9% in HI 2024 compared to HI 2023 and were 36% higher than in HI 2022. This steady rise in average rates helped the nationwide RevPAR to reach INR 5430 in 2024. ADR increased from INR 4,850 in 2020 to INR 7950 in 2024, with an anticipated further increase to over INR 8,500 in 2030. Similarly, RevPAR was expected to rise from approximately INR 3,300 in FY22 to Rs 6,500 in FY30. The recovery in these metrics signaled the industry's ability to adapt and thrive in the post-Covid landscape.

### Hotel Industry growth and Its Impact on TMT Bar Demand

The rise in construction activity, particularly in commercial properties such as office buildings, shopping malls, and warehouses, leads to an increased number of construction projects. This surge directly boosts the demand for TMT bars, a key reinforcement material in these structures. Urban areas, in particular, often feature many high-rise buildings. TMT bars are ideal for these multi-story structures due to their superior strength and ability to withstand heavy loads. Additionally, TMT bars facilitate faster construction thanks to their excellent weldability, which allows for the rapid creation of strong joints, and their ductility, which minimizes the risk of cracks and reduces potential delays. Furthermore, TMT bars are renowned for their outstanding earthquake resistance and overall structural stability, enhancing the safety and durability of commercial properties. This increased safety and durability make TMT bars a significant selling point for developers and construction companies.



## Impact of Government initiatives and programs on TMT bars

### Direct Impact:

- **Infrastructure Development:**

- **Project Specificity:** Under the Bharatmala Pariyojana, as of 28 February 2025, projects spanning 26,425 km have been awarded, with 19,826 km completed. Based on estimated steel usage, this translates to approximately 7.9 million tonnes for awarded works and 5.9 million tonnes for completed stretches.
- **Public-Private Partnerships (PPP):** Till June 2025, the Indian government approved PPP projects worth ₹86,000 crore across sectors. The choice of TMT bars in these projects can be influenced by a mix of government specifications and private partner preferences, impacting demand for different TMT bar qualities.

- **Housing Programs:** As of early 2025, under the Pradhan Mantri Awas Yojana–Urban (PMAY-U), about 119.31 lakh houses have been sanctioned, 112.98 lakh have been grounded for construction, and 93.81 lakh have been completed. The scheme, launched on June 25, 2015, to provide affordable housing for all in urban areas, was initially targeted for completion by 2022 but has now been extended to December 31, 2025. Launched in November 2016, the Pradhan Mantri Awas Yojana–Gramin (PMAY-G) aimed to achieve “Housing for All” in rural areas by constructing 2.95 crore houses for the rural poor by 2022. The scheme has now been extended until March 31, 2029, with an additional target of 2 crore pucca houses. As of February 2025, 3.34 crore houses have been sanctioned under PMAY-G, and 2.69 crore have been completed.

### Updates on PMAY:

Aspect	As of September 2024,
Houses Sanctioned	119.31 Lakhs
Houses Grounded	112.98 Lakhs
Houses Completed	93.81 Lakhs
Central Assistance Committed	INR 2.01 lakh Cr
Central Assistance Released	INR 173292 Cr
Total Investment	INR 8.16 Lakh Cr

In union budget 2024, the government announced to address the housing needs of 1 crore urban poor and middle-class families in the next 5 years under the PMAY-U 2.0. Under PMAY-U 2.0, 2.95 crores more houses will be constructed. A provision of INR 35 billion towards the same in the union budget 2025-26.

While the program promotes cost-effectiveness, compromising on TMT bar quality can be risky. A 2021 study by the Bureau of Indian Standards (BIS) found that 42% of TMT bar samples from affordable housing projects failed quality checks. This highlights the need for a balance between affordability and safety in PMAY, impacting the TMT bar market.



**Regional Variations:** PMAY caters to various income segments. A 2020 report by the National Institute of Housing and Urban Development (NIHUD) suggests that low-income category houses under PMAY typically use around 1.2 tonnes of TMT bars per unit, while the high-income category might use 1.5 tonnes or more. This showcases the variation in TMT bar demand based on housing type within the program.

**Indirect Impact:**

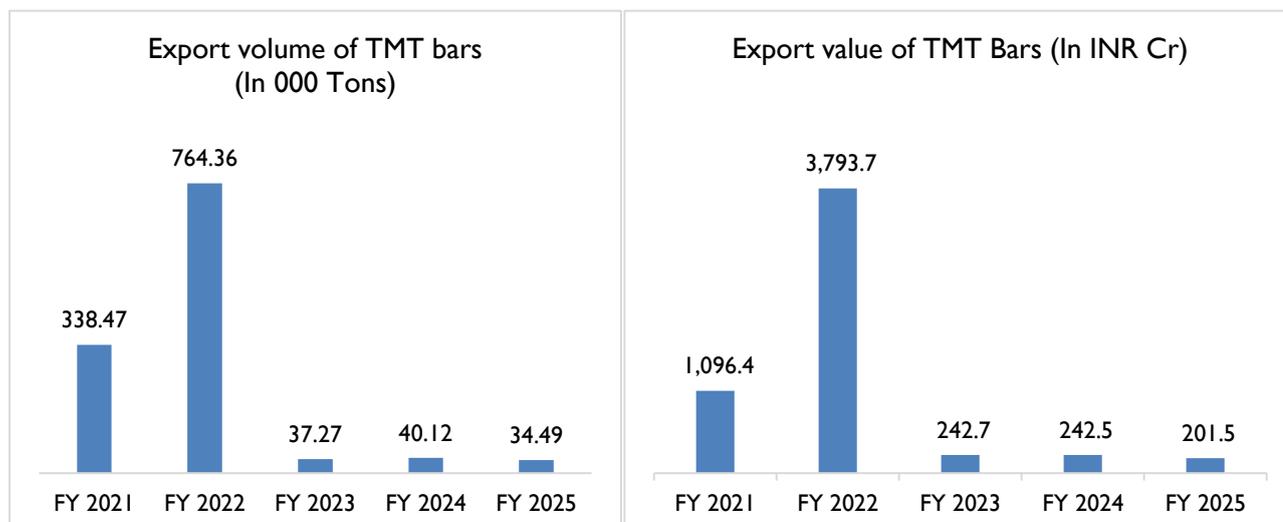
- **Urbanization:**

- **Slum Redevelopment Projects:** According to the Ministry of Housing and Urban Affairs (MoHUA), India has over 63 lakh slum households. Slum redevelopment projects often involve high-rise buildings, which can use up to 30% more TMT bars per square meter compared to single-story houses. This significantly impacts TMT bar demand in these projects.
- **Focus on Public Transport:** The Delhi Metro Phase 4 project, under construction, is estimated to require over 1 lakh tons of steel. This exemplifies how government investment in metro rails and similar public transport systems indirectly boosts TMT bar demand for stations, bridges, and elevated tracks.
- **Green Building Certification:** The Indian Green Building Council (IGBC) reported over 7.8 billion square feet of green building footprint in India by 2022. Since green building projects often prioritize recycled steel content, this indirectly benefits TMT bar manufacturers producing such bars. The growing green building movement can lead to a shift in TMT bar demand towards sustainable options.
- **Atal Mission for Rejuvenation and Urban Transformation (AMRUT scheme):** The AMRUT scheme was launched in selected 500 cities — covering around 60% of the urban population — and towns in June 2015, to provide basic civic amenities and urban transport to improve the quality of life, especially for the poor and the disadvantaged. The scheme has been earmarked with INR 100 billion in the Union Budget 2025-26 against the previous budgetary allocation of INR 80 billion.



## Export Scenario<sup>8</sup>

### Analysis of export of TMT bars from India



Sources: Department of Commerce, Trade Statistics, HS Code: 72142090

The export of TMT bars from India surged sharply in FY 2022, recording a substantial growth of around 126% in volume and 246% in value compared to FY 2021. However, post-FY 2022, exports have experienced a sustained decline, with both volume and value showing a downward trajectory through FY 2025. This drop can be attributed to a combination of global market headwinds and specific regional shifts.

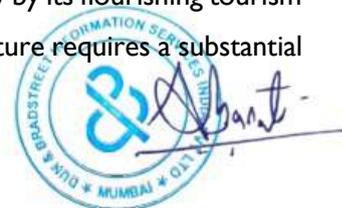
The global economic recovery from the COVID-19 pandemic has been uneven while some regions rebounded strongly, others, particularly many European economies, have witnessed a slowdown in construction activities. Given that construction is a key consumer of steel, reduced building activity has directly impacted demand for TMT bars in these markets.

Rising global inflation has also played a role, prompting central banks to hike interest rates. Higher borrowing costs tend to dampen economic growth, discouraging infrastructure investments and slowing steel demand. On top of this, India's TMT bar exports face intense competition from China. With slowing domestic demand, Chinese steel producers have been aggressively targeting export markets, supported by subsidies that enable them to undercut prices, especially in price-sensitive regions.

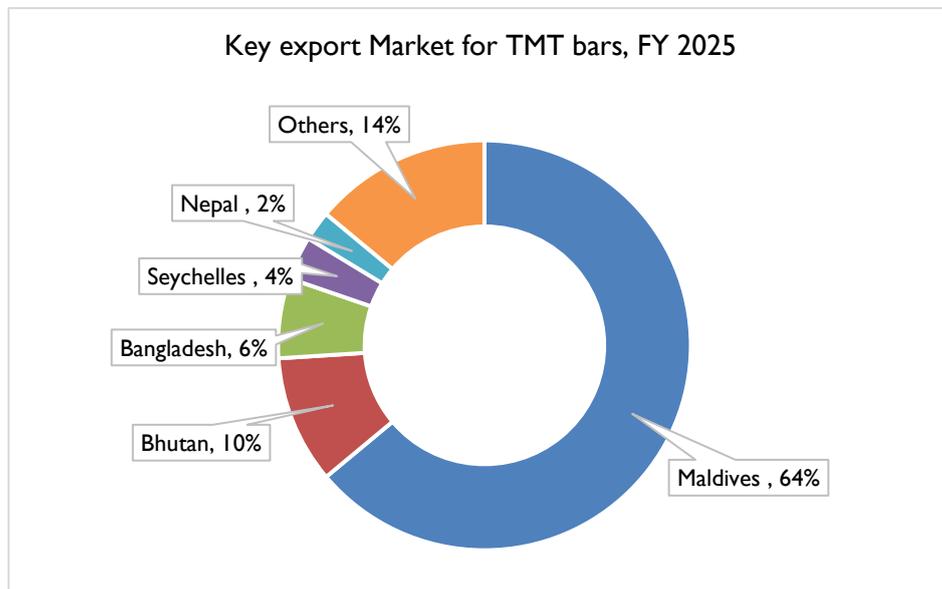
Another challenge is the increasing trend toward nearshoring, where developed countries prefer sourcing steel from geographically closer and politically stable suppliers to mitigate supply chain disruptions and geopolitical risks. This shift further reduces reliance on long-distance imports from countries like India. Together, these factors have weighed on India's TMT bar exports, leading to a consistent fall in both shipment volumes and export values from FY 2023 through FY 2025.

### Key Export Market for India

Maldives is the highest importer of TMT bars from India with around 64%. The Maldives has emerged as the highest importer of TMT bars due to its booming construction industry, driven primarily by its flourishing tourism sector. The need to build and maintain numerous hotels, resorts, and related infrastructure requires a substantial



amount of construction materials, with TMT bars being essential for reinforcing concrete structures. Additionally, the geographic proximity of India, a leading producer of steel, to the Maldives significantly reduces shipping costs and logistical complexities, making it more economical to source these materials from India rather than other distant steel-producing nations. This combination of high construction demand and cost-effective sourcing from a nearby supplier explains the Maldives' position as a top importer of TMT bars.



Sources: Department of Commerce, Trade Statistics, HS Code: 72142090

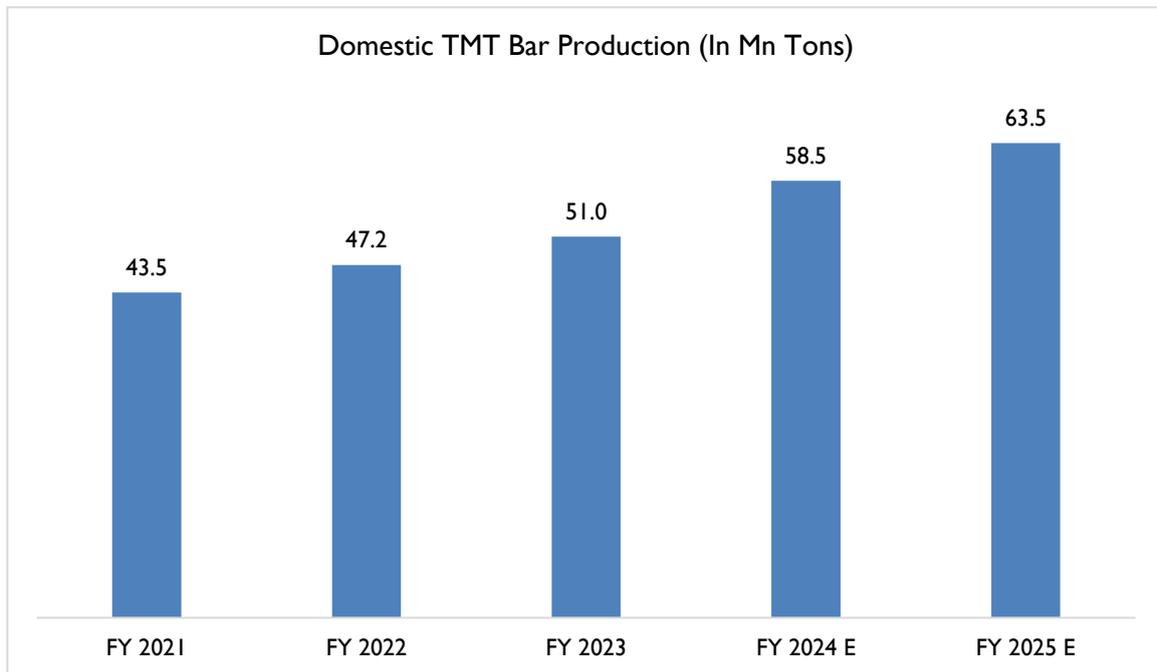
Bhutan ranked second, with around 10% of India's TMT bar exports in FY 2025. The country's ongoing infrastructure projects, particularly in hydropower, urban development, and road construction, are key drivers of demand. Its land connectivity with India allows for quick, low-cost transportation, and strong bilateral trade relations further streamline the procurement process. Other notable importers include Bangladesh (6%), Seychelles (4%), and Nepal (2%), each driven by specific infrastructure needs and geographical proximity to India. The remaining 14% of exports are distributed across various other countries, reflecting a diversified but regionally concentrated export market for Indian TMT bars.

#### Supply of TMT bars in India:

##### Domestic Production



India's domestic TMT bar production has witnessed a strong upward trajectory in line with the rapid pace of construction and infrastructure development across the country. Over the period from FY 2021 to FY 2025, output has expanded from around 43.5 million tons to nearly 63.5 million tons, translating into a solid CAGR of close to 10%. This expansion underscores the increasing role of TMT bars as a backbone material for housing, commercial projects, industrial structures, and large-scale public infrastructure.



Source: D&B Research Estimates<sup>6</sup>

The steady growth reflects multiple underlying factors. On one hand, government-led infrastructure initiatives, including highways, metro rail projects, and urban redevelopment schemes, have consistently spurred demand for long steel products. On the other, rising urbanization and greater emphasis on affordable housing have further strengthened consumption patterns in the residential construction segment. Importantly, the industry's ability to align production capacity with this demand growth has ensured sustained availability in the domestic market.

Looking ahead, the performance between FY 2021 and FY 2025 highlights how the TMT bar sector has firmly consolidated its position within India's steel value chain. With structural demand drivers firmly in place, the industry is expected to not only maintain this growth pace but also evolve through technological upgrades and capacity enhancements to cater to an even larger market in the coming decade.

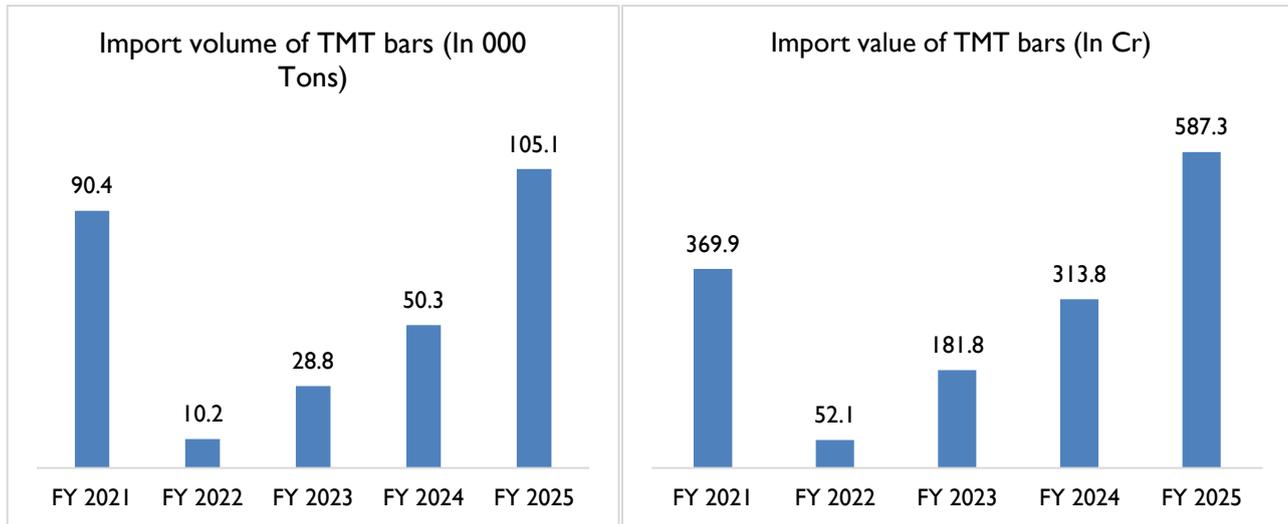
### Imports of TMT bars in India and impact on domestic industry

Import share in total India's total TMT supply is negligible. The country is predominantly an exporter of a

<sup>6</sup> Due to unavailability of actual data in public sources, the FY 24 and FY 25 data is estimated based on assumption.



product.



Sources: Department of Commerce, Trade Statistics, HS Code: 72142090

Between FY 2021 and FY 2025, India's TMT bar imports showed sharp fluctuations, plunging from 90.4 (000 tons) in FY 2021 to just 10.2 (000 tons) in FY 2022, before steadily rising to a peak of 105.1 (000 tons) in FY 2025. The fluctuations in India's import of TMT bars can be attributed to several interlinked global and regional economic factors:

- **Global Growth Outlook:** The global economy is anticipated to slow slightly in 2024, according to the OECD. However, the risk of a severe economic downturn has decreased despite high levels of debt and uncertainties over interest rates. This global economic deceleration can impact demand for infrastructure projects, which in turn affects the demand for steel and TMT bars. Slower global growth can lead to reduced production and export capacities in steel-producing countries, influencing import volumes in India.
- **China's Property Slump:** China, a major player in the global steel market, is experiencing a significant property downturn. The Chinese government's stimulus measures to revive the sector introduce risk and uncertainty into the economy. Additionally, China's proposed production cuts and an increase in domestic demand for steel could lead to higher steel prices globally. As India imports a substantial portion of its TMT bars from China, fluctuations in Chinese steel prices and production levels directly impact the cost and availability of imports.
- **Stagnation in Euro Zone:** The euro zone's economy stagnated in 2023, heavily impacted by industrial struggles in Germany. The outlook for 2024 remains challenging, with expectations of continued stagnation due to weak demand and rising geopolitical tensions. This stagnation affects the steel industry in Europe, potentially leading to decreased exports to markets like India. The reduced economic activity in the euro zone may result in lesser availability of TMT bars for import, affecting the supply chain in India.
- **Volatile Trade Flows:** Global trade flows are predicted to remain volatile due to ongoing geopolitical tensions and protectionist policies. Conflicts, such as the war between Russia and Ukraine and unrest in disrupt normal trade routes and increase transportation costs, which in turn can cause fluctuations in the import of TMT bars into India. Volatile trade flows make it difficult for Indian importers to secure consistent supplies at stable prices.
- **Rising Raw Material Prices:** The prices of essential raw materials like iron ore and coking coal have



been rising over the past few months. These materials are crucial for steel production, and their increased costs lead to higher steel prices. As TMT bars are a derivative of steel, any fluctuation in raw material prices directly impacts the cost of TMT bars. Higher raw material costs can lead to increased prices for imported TMT bars, affecting the volume and frequency of imports as buyers adjust to changing price levels.

## Major Trend

The industry is witnessing a shift towards the production of **green steel**, which represents a shift towards more sustainable steel production by focusing on reducing carbon emissions through innovative practices and technologies. Key methods include recycling scrap steel, using hydrogen-based reduction processes instead of coke, employing electric arc furnaces, and implementing carbon capture and storage techniques. These approaches aim to address the environmental impact of traditional steelmaking, which is known for its high greenhouse gas emissions.

- **India's Steel Production Expansion:** India is set to increase its steel production capacity from 160 million tonnes to 300 million tonnes by 2030. Despite this ambitious expansion, the country's steel industry continues to rely predominantly on traditional coal-burning methods. In contrast, global demand for green steel is rising, driven by environmental regulations and shifts in the automotive sector towards electric vehicles. The Indian Steel Association (ISA) projects that global green steel demand will surge from 50-60 million tonnes in the near term to 450-475 million tonnes by 2040, highlighting a significant shift towards more sustainable steelmaking practices.
- **Challenges in Transitioning to Green Steel:** India's steel sector, which contributes 12% of the country's CO<sub>2</sub> emissions, faces a challenge in transitioning to greener technologies. The country is still in the early stages of adopting expensive green technologies like gas-based Direct Reduced Iron (DRI) and Electric Arc Furnaces (EAF). Most current production relies on fossil fuels and coal, with the high costs of green steel technology and limited access to natural gas and hydrogen posing substantial barriers.
- **Government Initiatives:** To address these challenges, the Indian government is promoting green steel through initiatives such as the National Green Hydrogen Mission, aiming to increase the use of hydrogen and improve the adoption of cleaner technologies. The Government of India has introduced new guidelines for pilot projects focused on incorporating green hydrogen into the steel sector. These guidelines, titled "Scheme Guidelines for Implementation of Pilot Projects for Use of Green Hydrogen in the Steel Sector under the National Green Hydrogen Mission," were issued by the Ministry of New & Renewable Energy (MNRE).
  - Key Aspects of the Guidelines: The guidelines outline key strategies for integrating green hydrogen into steel production, emphasizing three main thrust areas: utilizing hydrogen in Direct Reduced Ironmaking processes, incorporating hydrogen into traditional blast furnaces, and gradually replacing fossil fuels with green hydrogen. Existing steel plants are encouraged to start with a small blend of green hydrogen, gradually increasing it as technology and cost-effectiveness improve, while new plants should be designed to operate fully with green hydrogen. Additionally, greenfield projects aiming for 100% green steel will be considered.
  - Financial and Strategic Support: The scheme is supported by a budget of INR 4.55 billion, allocated



until FY 2029-30, with the objective of developing the infrastructure needed for green hydrogen in the steel sector and establishing a green hydrogen ecosystem. The initiative aligns with the broader goals of the National Green Hydrogen Mission, which was launched on January 4, 2023, with a substantial budget of INR 197.44 billion up to FY 2029-30. This mission aims to enhance India's self-reliance through clean energy, reduce dependence on fossil fuels, and position the country as a global leader in green hydrogen technology. As production costs for green hydrogen decrease, its utilization in the steel industry is expected to become more widespread.

While the shift to green steel is crucial for long-term sustainability, the transition is likely to be gradual. India's existing infrastructure, heavily invested in coal-based methods, complicates the move towards greener practices. In the short term, India's steel exports, predominantly to developing nations, might not face significant impact due to cost considerations. However, in the long term, global trade barriers and carbon taxes could affect India's export competitiveness. Overall, substantial policy support and technological advancements will be necessary for India to successfully transition to green steel.

## Major Threat & Challenges

The Indian steel industry is facing a multitude of challenges that could significantly affect the TMT bar segment, which is a crucial component of the construction and infrastructure sectors. These challenges include:

- **Geopolitical Crises and High Energy Costs:** Global geopolitical tensions have led to spikes in energy prices, directly impacting the cost structure of steel production. High energy costs make it difficult for steel manufacturers, including those producing TMT bars, to maintain profitability without passing on the increased costs to consumers, which could reduce demand.
- **High Cost of Finance:** The steel industry in India requires significant capital investment, especially for greenfield projects. The high cost of borrowing in India, compared to other countries like China, Japan, and Korea, adds to the final cost of steel production. For the TMT bar industry, this means higher production costs, which can make Indian TMT bars less competitive in both domestic and international markets.
- **Logistics Challenges:** The bulk nature of raw materials like iron ore and coal, necessary for steel production, poses significant logistical challenges. Transporting these materials across the country is costly and time-consuming. As India looks to double its steel production, the existing logistical infrastructure, particularly by Indian Railways, may struggle to keep up. For the TMT bar industry, poor logistics can lead to delays in production and increased costs, affecting supply chains and market availability.
- **Raw Material Availability and Price Volatility:** While India has abundant iron ore and coal reserves, it lacks sufficient domestic coking coal, which is essential for steel production. The reliance on imports, primarily from Australia, makes the industry vulnerable to supply disruptions and price volatility. This uncertainty in raw material supply can lead to fluctuations in the availability and pricing of TMT bars, making it difficult for manufacturers to maintain stable operations and meet market demands.
- **Environmental and Energy Efficiency Pressures:** The steel industry is one of the largest consumers of energy and a significant contributor to carbon emissions. The need to adopt energy-efficient technologies and reduce the carbon footprint is becoming increasingly important. However, these investments are costly



and may not immediately translate into profitability. For the TMT bar industry, this adds pressure to adopt cleaner technologies while remaining competitive, especially in a market where cost sensitivity is high.

- **Global Trade Dynamics and Protectionism:** The global steel trade is heavily influenced by China, the largest producer of steel. Protectionist measures by various countries could lead to an influx of cheap steel into India, increasing competition for domestic producers. For the TMT bar industry, this could result in lower prices and tighter margins, challenging the ability of Indian manufacturers to maintain market share.
- **Digital Disruption:** The rise of digital technologies poses both opportunities and threats to the steel industry. Traditional business models may be disrupted, and companies will need to adapt to changing customer expectations and technological advancements. For the TMT bar sector, embracing digital transformation is crucial for staying competitive, but the transition could be challenging for smaller players.

In summary, the Indian steel industry, and by extension the TMT bar sector, is navigating a complex environment of geopolitical, financial, logistical, and environmental challenges. These factors collectively impact the cost, availability, and competitiveness of TMT bars, making it essential for manufacturers to innovate, invest in efficient technologies, and develop strategies to mitigate risks to thrive in a dynamic market.

## Competitive landscape

India's TMT bar industry is a flourishing market, anticipated for significant growth. However, this boom is accompanied by fierce competition. Established giants like Tata Steel hold a major share, while regional players and new entrants fight for their piece. The competition revolves around factors like price wars, product innovation with features like earthquake resistance, and building strong distribution networks. Government policies and raw material costs also play a crucial role. This dynamic landscape demands a well-rounded strategy from players, focusing on cost control, innovation, efficient distribution, and brand building to secure their position in the ever-growing Indian TMT bar market.

- **Entry Barriers:** Entering the TMT bar industry in India is challenging due to high capital investment



requirements. Establishing a manufacturing unit demands substantial funding for land acquisition, machinery procurement, and technological integration. Additionally, stringent government regulations, including the need to secure various licenses and adhere to environmental guidelines, further complicate the entry process for new players. These hurdles create a significant barrier, limiting the influx of new competitors and thus stabilizing the existing market players.

- **Switching Costs:** Switching costs in the TMT bar market vary significantly based on the nature of the buyer. For small-scale construction projects or price-sensitive buyers, switching between brands is relatively low-cost and common, driven primarily by cost considerations. Conversely, for larger projects or buyers who prioritize quality, switching can be costly and risky. This is due to several factors: the potential reputational risk associated with using an untested brand, engineering specifications that are tailored to the properties of a specific TMT bar brand, and the logistical challenge of finding a new supplier who can meet project timelines without causing delays.
- **Bargaining Power of Customers:** The bargaining power of customers in the TMT bar industry is influenced by their size and purchasing volume. The market is fragmented with many small and medium-sized construction companies, which dilutes individual bargaining power. However, large-scale projects, especially those funded by the government or major developers, can exert significant bargaining power due to their high-volume requirements. Additionally, the rise of organized retail chains in building materials enables bulk purchasing, giving these retailers leverage to negotiate better prices.
- **Price:** Price remains a critical competitive factor in the TMT bar industry, largely due to the price sensitivity of a considerable portion of the market. Manufacturers engage in intense price competition to attract these cost-conscious buyers. To remain profitable, companies must focus on cost optimization, leveraging efficient manufacturing processes and economies of scale.
- **Quality of Product:** Quality differentiation is a strategic avenue for TMT bar manufacturers. While all TMT bars must comply with Bureau of Indian Standards (BIS), some manufacturers go beyond these basic requirements to offer superior strength, ductility, and corrosion resistance. These enhanced quality features can serve as a basis for differentiating their products in the market, allowing them to justify premium pricing and appeal to quality-conscious customers.
- **Distribution Network:** An extensive and efficient distribution network is vital for success in the TMT bar industry. Ensuring that products reach retailers and construction sites promptly and cost-effectively is a key competitive advantage. Companies must balance the need for wide market reach with the efficiency of their logistics operations to minimize distribution costs.
- **Relationship with Construction Players:** Building strong relationships with architects, engineers, and contractors is crucial in the TMT bar industry. Such relationships can lead to specifications in construction projects that favor a particular brand. Additionally, providing technical support and guidance to construction companies can foster brand loyalty, further solidifying a manufacturer's market position.

### Major TMT bars Brands in India:

Company Name	Overview
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Tata Tiscon	Launched In 2000, Tata Tiscon, a brand of Tata Steel, a global leader in steel production, stands out in the TMT rebar market. They provide a comprehensive range of TMT bars to suit various construction needs. From the high-strength Tata Tiscon 550 for consistent performance to the super ductile Tata Tiscon SD designed for earthquake zones, Tata Tiscon offers solutions for every project. Their prefabricated Tata Tiscon EZ option further streamlines construction by minimizing errors and saving time.
Jindal Panther TMT	Launched in 2013, Jindal Panther TMT Rebars surpass industry standards by employing cutting-edge manufacturing technologies, ensuring superior quality rebars that enhance the performance of construction projects. Utilizing advanced HYQST Technology and QST Technology, these rebars offer exceptional strength, exceeding the specifications of Fe500D, Fe550D, and Fe600CRS standards. Adhering to stringent quality control measures, Jindal Panther TMT Rebars deliver reliable and consistent quality. They also provide the essential tensile strength needed for Reinforced Cement Concrete (RCC) structures, making them an ideal complement to concrete.
JSW Neosteel	JSW Neosteel, launched in 2009 as JSW TMT Plus and later rebranded in 2015, is a high-quality TMT bar known for its superior strength and flexibility. Made using a primary production process for enhanced purity, JSW Neosteel is manufactured with virgin iron ore, resulting in a superior product. They come in various grades, including Fe 500, Fe 550D (known for its enhanced strength and cost savings), and Fe 600, catering to different construction needs. JSW Neosteel bars are also known for their better weldability, bendability, and corrosion resistance, making them a reliable choice for construction projects.
Kamdhenu Nxt	Kamdhenu Nxt, a product of Kamdhenu Limited, is a next-generation TMT bar designed for modern construction needs. Made using a thermo-mechanically treated process, Kamdhenu Nxt boasts features like a unique double-rib design for a stronger concrete bond, superior earthquake resistance due to its high tensile strength and flexibility, and better fire resistance. It's also claimed to be lighter than regular TMT bars, reducing overall material consumption, and bond more strongly with cement for a robust structure.

Source: Company Websites

### Major Gujarat TMT bars Companies in India:

Company Name	Overview
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German TMX	<p>German TMX, a top TMT bar manufacturer in Gujarat, India, is known for its quality and adherence to global standards. With manufacturing facilities producing 1.2 lakh Metric Tonnes Per Annum (MTPA) of TMT bars, they cater to various sectors nationwide. Specializing in Fe-550 grade TMT bars, ideal for critical structures in earthquake-prone regions, German TMX offers bars with high strength, ductility, and corrosion resistance, making them ideal for demanding construction projects.</p>
Electrotherm Steel	<p>Established in 2005 in Kutch, Gujarat, Electrotherm Steel Division produces TMT bars &amp; ductile iron pipes with a manufacturing capacity of 0.7 million tons per annum. The state-of-the-art steel plant includes Blast furnaces, Sponge Iron Kilns, Induction Furnaces, Rolling Mills, Ladle Refining Furnace, and Pipe Making Facilities. Known for its superior manufacturing process, ET TMT bars are favored for critical infrastructures and construction projects, making it Western India's first fully integrated manufacturing facility. Electrotherm (India) Limited also produces BIS approved Epoxy Coated TMT Bars at a single location.</p>
ASR Multimetals Private Limited	<p>ASR Multimetals Private Limited is a leading manufacturer of TMT bars in Gujarat, India. They specialize in high-strength, deformed steel bars used in construction projects. Their state-of-the-art facilities and rigorous quality checks ensure the production of top-quality TMT bars known for their durability and resistance to harsh conditions. ASR offers TMT bars in various sizes and grades to meet specific client requirements.</p>



## Financial Analysis

Operating Cost and Profitability as a Percentage of Revenue							
Year	Raw Material	Power & Fuel	Salary & Wage	SGA Expenses	Interest Expense	PBDIT Margin	PAT
FY 2020	62.6%	2.3%	3.1%	3.0%	1.6%	4.6%	1.1%
FY 2021	70.5%	2.2%	3.4%	2.5%	2.4%	21.0%	5.0%
FY 2022	76.0%	1.8%	2.9%	2.3%	2.3%	11.6%	6.7%
FY 2023	78.6%	1.5%	2.3%	1.7%	1.9%	8.0%	2.0%
FY 2024	77.4%	1.7%	2.7%	1.7%	1.5%	9.4%	4.3%

Source: CMIE Prowess, D&B Research, Sample –7 Companies

In fiscal years 2023 and 2022, the industry showed a significant recovery, with net sales increasing by 27% in FY 2023 and an impressive 32.7% in FY 2022. This indicates strong demand and improved operations after the pandemic. However, on the back of the subdued demand, the consolidated net sales of sample companies moderated and registered a tepid growth of just 2% in FY 2024 on yearly basis. Reflecting a tepid demand, prices of TMT bars declined across all the variety during the year FY 2024 as indicated in the below table while it continued to grow at healthy rate during FY 2021 to FY 2023, supporting the healthy growth in net sale during the same period. During the last 5-year, net sale of the sample companies grew at 19% CAGR, reflecting a healthy demand growth scenario backed by improving construction activities over the last 5 years.

TMT Bar Prices (In Gobindgarh Market) (INR per tonnes)						
	8 mm	10 mm	12 mm	16/18 mm	20/25 mm	28/32 mm
FY 2020	47,216.40	47,151.40	47,151.40	47,412.20	47,393.10	48,181.40
FY 2021	57,022.60	48,677.10	48,744.40	48,777.10	48,877.10	50,877.10
FY 2022	63,711.30	63,711.30	63,811.30	63,811.30	65,711.30	65,027.90
FY 2023	66,064.20	62,064.20	66,065.80	66,065.80	68,165.80	67,161.00
FY 2024	62,200.40	58,200.40	62,200.40	62,200.40	64,300.40	63,300.40

Source: CMIE Industry Outlook, \*ISI

Y-o-Y Change in TMT Bar Prices (In Gobindgarh Market) (INR per tonnes)						
	8 mm	10 mm	12 mm	16/18 mm	20/25 mm	28/32 mm
FY 2020	-3%	-3%	-4%	-3%	-3%	-2%
FY 2021	21%	3%	3%	3%	3%	6%
FY 2022	12%	31%	31%	31%	34%	28%
FY 2023	4%	-3%	4%	4%	4%	3%
FY 2024	-6%	-6%	-6%	-6%	-6%	-6%

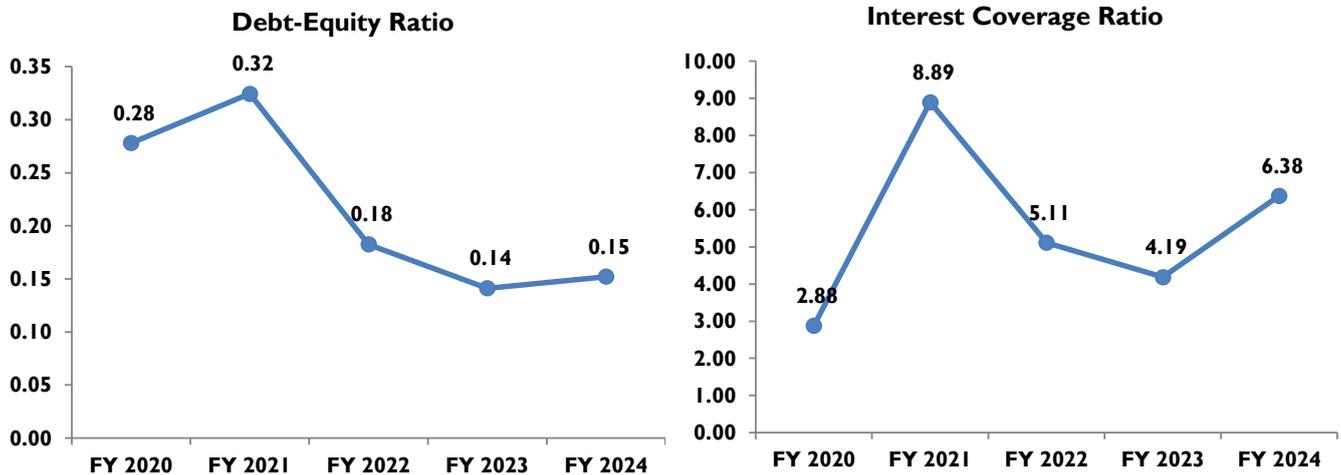
Raw material constitutes as the maximum expense in terms of sales for the TMT bar industry, and averaged 73% of net sales, during FY 2020-24. The fluctuations in raw material prices, especially iron ore, played a big role in this. Iron ore, essential for steel production, became more expensive because major suppliers like Australia, Brazil, and Canada reduced exports after the pandemic. This reduced supply and high demand drove up prices, significantly affecting the industry's costs.

Healthy demand for steel rods & bars due to recovering construction activity supported sales growth in the sector during FY 2021-FY 2023. Consequently, manufacturers increased their production volume and in turn their raw material intake. Increase in raw material consumption along with increasing steel prices resulted in



rising raw material expense as a proportion of sales between FY 2021 and FY 2023. Raw material expenses, as a percentage of net sales, increased from 70.5% in FY 2021 to 78.6% in FY 2023. Other direct costs, like power and fuel, and salaries, have also been rising, but the fluctuation in the raw material prices has had the most significant impact on profits. The flat growth in raw material expenses in FY 2024 due to moderating demand translated in reducing raw material to sale margin and contributing towards improving operating expenses during FY 2024 while sharp reduction in interest expenses translated in healthy recovery in net profit margin to 4.3% in FY 2024 against FY 2% in FY 2024.

### Debt Equity Ratio



Source: CMIE Prowess, D&B Research, Sample -7 Companies

Sample companies have experienced notable fluctuations in their debt-to-equity ratio over the past several years, reflecting changes in their financial strategy and market conditions. Key challenges included rising raw material prices, which would increase production costs and squeeze profit margins, and intensified competition from cheaper Chinese TMT products, which could erode market share and pricing power. In response to these pressures, the companies likely chose to reduce their reliance on debt, thereby lowering financial risk and focusing on maintaining stability in a turbulent market environment.

Between FY 2020-24, the companies maintained a comfortable average debt-to-equity ratio of 0.22. This stable ratio indicates a conservative approach, suggesting that the companies were cautious about taking on debt and preferred to finance their growth through equity. This strategy typically aims to minimize financial risk and ensure stability, especially in uncertain economic conditions. Meanwhile, networth of the sample companies improved at healthy CAGR of 43% backed by healthy net sales growth of the 19% CAGR.

Sample companies interest coverage ratio too indicated fluctuation in response to variation in operating profits and interest outgo expense. During FY 2024, decline in the interest expense by 21% and improvement in the operating profit by 20% contributed toward improving interest coverage ratio which measured at 6.38 times.



## Interim Performance

Key Indicators	Q1 FY 2025	Q2 FY 2025	Q3 FY 2025	Q4 FY 2025	12M FY'25
Net Sales (y-o-y Growth %)	4.20%	-3.00%	7.30%	-1.80%	1.60%
Margin (As % of the Net Sales)	Q1 FY 2025	Q2 FY 2025	Q3 FY 2025	Q4 FY 2025	12M FY'25
Raw materials	85.30%	81.20%	82.80%	76.00%	76.70%
Salaries and wages	2.70%	3.00%	3.00%	2.70%	3.10%
Total Other Expenses	7.40%	8.10%	7.70%	7.90%	8.30%
Interest expenses	1.60%	1.60%	1.70%	1.40%	1.40%
PBDIT	6.80%	7.90%	9.40%	13.10%	13.50%
Net Profit	2.30%	3.40%	4.00%	7.00%	7.00%
Long Term Borrowing	0.00%	18.70%	0.10%	22.60%	10.80%

Source: CMIE Prowess, D&B Research, Sample- 6 Companies

The financial performance of the TMT bar industry during FY 2025 reflected a mixed trend, with net sales registering a modest year-on-year growth of 1.6%. Quarterly performance remained volatile, with positive growth in Q1 (4.2%) and Q3 (7.3%), while Q2 and Q4 recorded contractions of 3.0% and 1.8%, respectively.

On the cost front, raw material expenses continued to dominate, averaging 76.7% of net sales for the full year, though gradually declining from 85.3% in Q1 to 76.0% in Q4, indicating some relief in input costs. Salaries and wages remained stable throughout the year, hovering around 2.7%–3.1%, while other operating expenses stood at an average of 8.3%, reflecting a consistent cost structure.

Interest expenses were stable at around 1.4%-1.7%, with the full-year average at 1.4%. Despite challenges in sales growth, profitability improved steadily, as PBDIT margins increased to 13.5% for FY 2025, up from 6.8% in Q1 to 13.1% in Q4. Net profit margins followed a similar upward trajectory, reaching 7.0% by Q4, supported by improved operational efficiency and lower input cost pressures.

However, the long-term borrowing pattern exhibited fluctuations, with no additions in Q1, a significant spike of 18.7% in Q2, marginal movement in Q3, and a further increase of 22.6% in Q4, resulting in an average rise of 10.8% over the full year, suggesting increased debt reliance in the latter half, possibly to support capacity expansion or working capital needs.

Overall, the TMT bar industry displayed resilience in margins despite sales volatility, underpinned by better cost management and a shift toward improved profitability in the second half of FY 2025.

### TMT infrastructure in Gujarat:

Gujarat is a significant hub for TMT steel production in India, with a robust network of rolling mills spread across various districts. The state's strategic location, availability of raw materials, and well-developed infrastructure make it an ideal region for steel manufacturing. Here are some key insights from the data:

- **Installed Capacity!:**

- The total installed capacity for TMT production across the mills listed is approximately 7 million



tons per annum (TPA).

- The estimated production from these mills is around 3.88 million tons, indicating an average capacity utilization of about 56%.

- **Production and Utilization:**

- Many mills operate at different levels of capacity utilization, with some achieving over 80% efficiency, while others are significantly lower, indicating potential for increased production if demand rises or operational efficiencies improve.

- **Technology and Expansion:**

- A number of mills use hot charging technology, which is more energy-efficient and reduces production costs.
- There is ongoing expansion and modernization in the industry, with several mills installing new machinery or expanding their production capabilities to meet growing demand.

- **Geographic Distribution:**

- Key locations for TMT mills in Gujarat include Ahmedabad, Kutch, Bhavnagar, and Surat, which are well-connected through road and rail networks, facilitating smooth supply chain operations.

- **Market Dynamics:**

- The TMT industry in Gujarat is competitive, with several players having significant production capacities. However, market share is influenced by factors such as brand reputation, quality of products, and distribution networks.

### Top 15 TMT Players in Gujarat by Installed Capacity

Name	Location	Brand	Installed Capacity (TPA)	Features
Welspun	Kutch	WelSpun TMT	450,000	Uses hot charging technology
Gallent TMT	Kutch	Gallent	300,000	High-capacity utilization of 80%
Vinayak	Dhegham	Vinayak	288,000	Utilizes hot charging technology
Shriyam Power & Steel Ltd	Kutch	National	240,000	High-capacity utilization with hot charging
<b>VMS TMT Ltd</b>	<b>Ahmedabad</b>	<b>Kamdhenu</b>	<b>200,000</b>	<b>New installation of hot charging from Sep 2024</b>
Bandan TMT	Bhavnagar	Bandan	200,000	Uses hot charging
Haq Steel P Ltd	Kutch	German TMX	200,000	Efficient production with hot charging
Jai Bharat Steel Ind- Mill-1	Kutch	Mono	200,000	Just started operations
Jai Bharat Steel Ind- Mill-2	Kutch	Mono	200,000	Just started operations
Steefo	Ahmedabad	Steefo	200,000	Achieving 60% capacity utilization
Varmora	Vakaneer	N/A	200,000	Under installation
ET TMT	Kutch	ET TMT	360,000	Utilizes hot charging with moderate capacity utilization



Mono Steel	Kutch	Mono	150,000	Uses hot charging technology
H K Ispat	Godhra	Kothi	150,000	Employs hot charging technology
Agarwal TMT	Ahmedabad	Vibrant	150,000	High production efficiency with 80% utilization

Source: D&B Research, Industry Sources

Gujarat's TMT industry is characterized by a mix of established and emerging players, each contributing to the state's significant output. The presence of advanced technologies such as hot charging and ongoing capacity expansions highlight the dynamic nature of this sector. Companies like VMS TMT Ltd and others are well-positioned to capitalize on the growing demand for construction materials driven by infrastructure development and urbanization in India.





## Company Profile

VMS TMT Limited is a prominent manufacturer of Thermo Mechanically Treated Bars (TMT Bars), operates its manufacturing facility in Bhayla Village, near Ahmedabad, Gujarat. In Fiscal 2024, VMS TMT generated over 98% of its revenue from operations within Gujarat, highlighting its strong regional focus. The company has a manufacturing capacity of 200,000 Metric Tons per annum and achieved a production output of 160,321 Metric Tons, in FY 2024, resulting in a capacity utilization rate of 80.16%. The company generated a revenue of INR 7,702.0 million but registered a negative CAGR of 7% during FY 2023- FY 2025, indicating a contraction in its revenue growth trajectory.

To support its sales efforts, VMS TMT has established distribution network that includes 3 distributors and 227 dealers. This network is strategically shared with Kamdhenu Limited, under a Retail License Agreement allowing VMS TMT to market its TMT Bars in specific regions of Gujarat.

## SWOT analysis for VMS TMT Limited<sup>7</sup>

### Strengths

- **Established Infrastructure and Backward Integration:**
  - **Infrastructure:** VMS TMT Limited has a well-equipped manufacturing facility near Ahmedabad, which is crucial for maintaining product quality and production efficiency. This facility enables the company to have control over the production process and ensures timely delivery of products.
  - **Backward Integration:** The ongoing project to produce billets in-house through an induction furnace is a significant advantage. By manufacturing billets internally, the company can reduce its reliance on external suppliers, potentially lowering costs and improving supply chain reliability. This move also positions the company to better handle fluctuations in raw material availability and pricing.
- **Strong Supply Chain and Logistics:**
  - **Supply Chain Relationships:** The company's established relationships with suppliers and logistics providers in Gujarat result in reduced transportation costs and improved delivery times. This network allows VMS TMT to efficiently serve its primary market and ensure product availability.
  - **Logistics Infrastructure:** With a dedicated fleet of leased trucks and partnerships with third-party logistics providers, VMS TMT can ensure timely delivery to customers, enhancing customer satisfaction and loyalty.
- **Experienced Leadership:**
  - **Promoters and Management Team:** The leadership team's experience in the steel industry helps the company navigate market challenges and capitalize on opportunities. Their understanding of market trends and operational expertise is a critical factor in the company's growth and stability.
- **Financial Growth and Stability:**
  - **Consistent Financial Growth:** VMS TMT has shown strong financial performance, with increasing revenues and profits over recent years. This growth reflects the company's ability to capture market demand effectively.

<sup>7</sup> Based on secondary research and insights on business / operation of the VMS shared by the Company



- Strong Cash Flows: The company's healthy operating cash flows indicate efficient operations and the ability to reinvest in business expansion and innovation. Strong financial ratios, such as profitability and liquidity ratios, further reinforce financial stability.

## Weaknesses

- Geographic Concentration:
  - Market Dependency: With over 98% of its revenue coming from Gujarat, VMS TMT is highly dependent on a single geographic market. This concentration makes the company vulnerable to regional economic downturns or market saturation.
- Limited Brand Recognition Beyond Gujarat:
  - Brand Presence: While the "Kamdhenu NXT" brand is well-recognized in Gujarat, its awareness and market penetration outside the state might be limited. This could hinder the company's ability to expand into new regions where competitors may already have a strong presence.
- Debt Levels:
  - Financial Leverage: The company's debt-to-equity ratio suggests reliance on borrowed funds, which could pose financial risks, especially if interest rates rise or if the company faces cash flow challenges. Managing debt levels is crucial for maintaining financial flexibility.

## Opportunities

- Expansion in Emerging Markets:
  - Geographic Diversification: There is significant potential for VMS TMT to expand its sales and distribution networks beyond Gujarat into other states and regions. By entering new markets, the company can diversify its revenue streams and reduce geographic dependency.
- Growing Demand for Construction Materials:
  - Infrastructure Growth: As urbanization and infrastructure development projects increase, there is a growing demand for construction materials like TMT Bars. VMS TMT is well-positioned to benefit from this trend by expanding its market presence and product offerings.
- Technological Advancements:
  - Innovation: By adopting new technologies in production and logistics, VMS TMT can enhance operational efficiency and product quality. Investing in technology can also lead to cost savings and improved competitiveness in the market.

## Threats

- Market Competition:
  - Competitive Pressure: The TMT Bar industry is highly competitive, with many manufacturers vying for market share. Intense competition can lead to pricing pressures and impact profitability. VMS TMT must continuously innovate and maintain high-quality standards to stay competitive.
- Raw Material Price Volatility:
  - Cost Fluctuations: The prices of raw materials like MS scrap and sponge iron are subject to market volatility, which can affect production costs and profit margins. VMS TMT needs effective procurement strategies and cost management practices to mitigate these risks.



- Regulatory Changes:

- Compliance and Costs: Changes in industry regulations and environmental policies may require the company to adjust its operations and incur additional compliance costs. Staying ahead of regulatory changes and ensuring compliance is essential for minimizing operational disruptions.

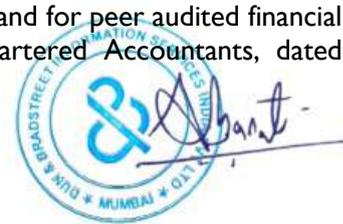
Overall, VMS TMT Limited has several strengths and opportunities to leverage for future growth, while also needing to address its weaknesses and mitigate external threats to ensure continued success in the market.



## Financial Benchmarking of VMS with Peers<sup>8</sup>

Particulars	As on 30 <sup>th</sup> June 2025 (₹ in Lakhs)				
	VMS TMT Limited	Kamdhenu Limited	Vraj Iron and Steel Limited	BMW Industries Limited	Electrotherm (India) Limited
	Standalone				
Total Income	21,339.35	20,439.61	14,033.80	13,498.93	83,482.00
Revenue from Operations	21,225.92	19,577.81	13,830.80	13,036.58	83,405.00
Growth in Revenue from Operations (%)	NA	NA	NA	NA	NA
Gross Profit	5,987.44	6,377.89	3,167.60	7,452.37	25,770.00
Gross Profit Margin (%)	28.21%	32.58%	22.90%	57.17%	30.90%
EBITDA	1,948.33	2,131.74	1,322.6	2,364.82	5,174.00
EBITDA Margin (%)	9.18%	10.89%	9.56%	18.14%	6.20%
Profit After Tax	857.64	2,142.39	732.60	1,064.32	2,767.00
PAT Margin (%)	4.02%	10.48%	5.22%	7.88%	3.31%
Debt Equity Ratio	3.78	NA	NA	NA	NA
RoE (%)	11.07%	NA	NA	NA	NA
RoCE (%)	4.52%	NA	NA	NA	NA
Net Fixed Asset Turnover (In Times)	1.21	NA	NA	NA	NA
Net Working Capital Days	56	NA	NA	NA	NA
Operating Cash Flows	-2,230.85	NA	NA	NA	NA
Debt to EBITDA	15.87	NA	NA	NA	NA

<sup>8</sup> Financial for VMS TMT Limited is sourced from information shared by the company and for peer audited financial statement-based on certificate issued by M/s. Suresh Chandra & Associates, Chartered Accountants, dated September 19, 2024.)



Particulars	Fiscal 2025 (₹ in Lakhs)				
	VMS TMT Limited	Kamdhenu Limited	Vraj Iron and Steel Limited	BMW Industries Limited	Electrotherm (India) Limited
	Standalone				
Total Income	77,140.76	75,794.51	47,886.00	56,643.22	4,12,292.00
Revenue from Operations	77,019.10	74,748.87	47,503.10	55,708.36	4,11,537.00
Growth in Revenue from Operations (%)	-11.77	3.14	13.14	4.06	-3.66
Gross Profit	13,864.27	22,502.95	13,169.30	33,245.56	1,30,814.00
Gross Profit Margin (%)	18.00%	30.10%	27.72%	59.68%	31.79%
EBITDA	4,552.62	7,541.60	6,221.8	11,828.67	47,882.00
EBITDA Margin (%)	5.91%	10.09%	13.10%	21.23%	11.63%
Profit After Tax	1,473.70	6,086.74	4,183.10	6,359.51	42,860.00
PAT Margin (%)	1.91%	8.03%	8.74%	11.23%	10.40%
Debt Equity Ratio	3.77	0	0.00	0.15	-10.75
RoE (%)	24.62%	21.71%	14.61%	9.57%	-102.58%
RoCE (%)	12.79%	24.56%	16.98%	9.95%	43.01%
Net Fixed Asset Turnover (In Times)	6.22	17.51	4.02	1.11	6.93
Net Working Capital Days	12	117	97	99	-47
Operating Cash Flows	-1,736.70	6,886.78	1,363.50	11,245.78	32,838.00
Debt to EBITDA	6.06	0	0.01	0.90	2.55

Particulars	Fiscal 2024 (₹ in Lakhs)				
	VMS TMT Limited	Kamdhenu Limited	Vraj Iron and Steel Limited	BMW Industries Limited	Electrotherm (India) Limited
	Standalone				
Total Income	87,316.86	73,829.48	42,427.00	53,943.12	4,27,584.00
Revenue from Operations	87,295.77	72,470.69	41,985.70	53,533.05	4,27,150.00
Growth in Revenue from Operations (%)	-1.03	-1.01	-18.58	5.45	38.95
Gross Profit	10,483.40	19,826.12	13,710.10	34,731.79	29,812.00



Gross Profit Margin (%)	12.01%	27.36%	32.65%	64.88%	30.39%
EBITDA	4,120.29	5,896.51	7,647.8	13,365.17	42,014.00
EBITDA Margin (%)	4.72%	8.14%	18.22%	24.97%	9.84%
Profit After Tax	1,346.84	5,013.35	5,411.70	5,906.15	31,943.00
PAT Margin (%)	1.54%	6.79%	12.76%	10.95%	7.47%
Debt Equity Ratio	4.25	0	0.33	0.13	-2.32
RoE (%)	34.82%	24.81%	33.51%	9.71%	-36.27%
RoCE (%)	16.70%	26.24%	34.47%	11.76%	41.81%
Net Fixed Asset Turnover (In Times)	11.74	16.36	8.91	1.25	7.07
Net Working Capital Days	7	90	76	92	-70
Operating Cash Flows	3,734.37	10,211.99	1,922.00	24,359.97	35,134.00
Debt to EBITDA	4.80	0	0.81	0.63	3.98

Particulars	Fiscal 2023 (₹ in Lakhs)				
	VMS TMT Limited	Kamdhenu Limited	Vraj Iron and Steel Limited	BMW Industries Limited	Electrotherm (India) Limited
	Standalone				
Total Income	88,205.61	73,367.00	51,742.10	51,643.27	3,08,074.00
Revenue from Operations	88,201.35	73,208.26	51,567.10	50,768.00	3,07,405.00
Growth in Revenue from Operations (%)	NA	22.10	28.25	24.99	8.61
Gross Profit	8,670.15	18,198.61	13,310.90	28,601.53	77,898.00
Gross Profit Margin (%)	9.83%	24.86%	25.81%	56.34%	25.34%
EBITDA	2,190.77	5,996.30	7,667.8	10,980.79	2,980.00
EBITDA Margin (%)	2.48%	8.19%	14.87%	21.63%	0.97%
Profit After Tax	419.53	4,102.38	5,111.10	4,414.65	-7,666.00
PAT Margin (%)	0.48%	5.59%	9.88%	8.55%	-2.49%
Debt Equity Ratio	5.27	0	0.17	0.37	-1.82
RoE (%)	16.94%	20.98%	46.93%	7.86%	7.67%



RoCE (%)	10.94%	22.50%	48.92%	9.16%	-1.85%
Net Fixed Asset Turnover (In Times)	12.04	10.55	9.72	1.30	4.92
Net Working Capital Days	14	57	51	128	-174
Operating Cash Flows	-1,134.76	6,675.77	6,287.30	10,302.10	10,599.00
Debt to EBITDA	7.43	0	0.30	1.98	63.38

Notes:

- i. Gross Profit= Revenue from Operations- Cost of Materials Consumed- Purchase of Stock in Trade- Changes in inventories of finished goods and work-in-progress
- ii. Gross Profit Margin (%)= Gross Profit/ Revenue from Operations
- iii. EBITDA= Finance Cost+ Amortization and Depreciation+ Profit before tax- Other Income
- iv. EBITDA Margin= EBITDA/ Revenue from Operations
- v. PAT Margin (%)= PAT/ Total Income
- vi. Debt Equity Ratio %= (Long Term Borrowing+ Short Term Borrowing)/ Total Equity
- vii. RoE (%) = PAT/ Average Shareholder Equity
- viii. RoCE (%)= EBIT/ Average Capital Employed
- ix. Net Fixed Asset Turnover (In Times)= Net Turnover/ Average Fixed Assets
- x. Net Working Capital Days= Working Capital/ Revenue from Operations\* number of days in a year
- xi. Debt to EBITDA= (Long Term Borrowing+ Short Term Borrowing)/ EBITDA

