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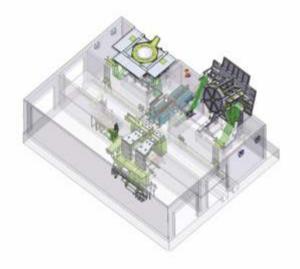






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FOREWARD

SAKUNTALA CHANDAEditor, SERC Industry Scenario

Steel Industry at the Crossroads: Drivers, Disruptors, and Indias 2030 Vision

The global steel industry enters 2025 at a defining moment. Demand continues to rise, fuelled by urbanisation, infrastructure expansion, mobility innovations, and sustainability imperatives. Yet, volatility in raw material prices, geopolitical headwinds, energy transitions, and competition from alternative materials create a complex and uncertain environment. For India, the world's second-largest steel producer, the challenge is not the lack of demand but the ability to manage growth strategically, sustainably, and competitively.

Growth Drivers with Momentum

Infrastructure remains the bedrock of global steel demand, and India's ongoing "nation-building phase" is uniquely positioned to drive sustained consumption. From highways and railways to housing and renewable energy, every sector requires steel. With steel demand to GDP elasticity at 1.55x over FY21–FY24, India mirrors the sharp demand phases once seen in Japan (1950–1973) and China (2000–2013). At 98 kg per capita consumption in FY24, India is poised to cross the 100 kg threshold-historically the marker of steep, sustained growth curves.

The automotive revolution, led by electric vehicles, further amplifies demand for advanced high-strength steels, lightweight alloys, and specialised products. Aerospace applications and next-generation mobility systems reaffirm steel's indispensability. At the same time, technological advances-hydrogen-based steelmaking, electric arc furnaces (EAFs), AI-led automation, and even 3D printing-are reshaping production efficiency, sustainability, and competitiveness.

Disruptors That Cannot Be Ignored

Despite strong tailwinds, risks are mounting. India's steelmakers remain dependent on imported coking coal, exposing them to global supply shocks and price volatility. Rising energy costs and increasingly stringent carbon regulations are squeezing margins. Overcapacity risks-amplified during global slowdownsthreaten to erode profitability, while competition from aluminium, composites, and carbon fiber continues to nibble at steel's market share.

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