



## FERROUS METALS SECTOR

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## OVERVIEW

- **Given the swings in supply vs. demand, the steel industry is inherently cyclical, and follows the typical “boom-bust” commodity cycle.** As steel is a globally traded commodity, the industry has strong linkages with the health of the global and domestic economies. Therefore, domestic steel demand and net steel exports play a crucial role in balancing demand with supply. In periods when domestic demand is lacklustre, if export markets remain very attractive, then it can push domestic steel prices higher as domestic supplies get diverted to export markets. Similarly, even in periods when domestic demand remains robust, if the external environment remains highly challenging, then it may lead to an influx of cheap imports, in turn exerting pressure on domestic steel prices.
- **The share of leading seven producing hubs of China, Europe, India, USA, Japan, South-Korea and the CIS countries accounted almost 87% of world’s total crude steel production.** China is the largest producer as well as the consumer of steel, and, therefore, the country plays an important role in the global demand-supply balance and determining steel price trends. EU, as a block, is the 2<sup>nd</sup> largest consumer of steel, while India holds the 3<sup>rd</sup> position, having 6% share of the total global steel demand.
- **Steelmaking has high material intensity of production.** Almost 4 metric tonne (MT) of material movement required for 1 MT of steel production. Along with raw materials, logistics also remain an important cost driver.
- **In terms of chemical composition, the industry is broadly classified as carbon steel vs. alloy steel.** Non-alloy/carbon steel has a visibly larger share with 92% of the total domestic finished steel production. Unlike carbon steel, alloy steel contains additional elements, such as nickel, chromium, or molybdenum, that are not naturally present in non-alloy steel. These additional elements are added to improve the properties of the steel, such as strength, hardness, and toughness.
- **In terms of physical shape of the finished steel product, the industry can be broadly classified into flats and longs.** The flat product market has majority share, accounting for ~54% of the domestic demand. The bigger producers in the steel industry dominate the flat products market as it requires substantial capital investment and has high technology entry barriers. On the other hand, the long product market is dominated by the unorganised players.
- **There are typically three types of furnaces being used in the steel-making process:** Blast Furnace (BF)-Basic Oxygen Furnace (BoF), Electric Arc Furnace (EAF), and Induction Furnace (IF). Out of these, BF remains more cost competitive. Therefore, companies that had adopted the BF process tend to have higher EBITDA margins as they typically fall into the first quartile of the cost curve. The margin profile of IF players remain much lower as operating costs are much higher than BF-BoF players, and they tend to cater to a segment where competitive pressures remain high due to lower entry barriers. However, given the industry’s focus on ESG, there has been increasing interest in setting up scrap based EAF facilities in India.



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