

Steel and capital
goods: journey
map for future
growth



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Steel and capital goods have a strong interrelation as the demand in one sector implies the growth in demand for the other. To achieve aggressive economic growth, the expansion of manufacturing sector requires competitive capital goods, which in turn reinforces the need for steel as a crucial raw material. This symbiosis provides significant opportunity for both steel and capital goods industry to leverage the growing domestic demand and improve capabilities in production.

India is aiming to double its installed capacity of crude steel in the next 10 years to 300 million tonnes (mt). To achieve these numbers, it requires capital goods worth US\$136b¹. India currently imports a major portion of capital goods required for steel projects. Indigenous production of capital goods for steel projects is likely to bring down steel companies' capital expenditure, aiding growth and global competitiveness in the steel industry in long term.

Enhancement of steel consumption for capital goods is a business of factor productivity. It requires a combination of specialized sector knowledge, technical inputs and cross value chain partnerships to succeed. The Indian steel producers need the required technology, product profile and scale to cater to the demands of the capital goods manufacturing industry, who in turn need to invest collaboratively with the end users of capital goods. There is a strong requirement of advanced high-strength steel (AHSS), electrical and cold-rolled grain-oriented (CRGO) steel in the capital goods sector. The Indian steel sector is looking for ways to invest profitably in the manufacturing of these products to reduce its dependence on import of such high-grade steel.

To fulfil 'Atmanirbhar Bharat Abhiyan', it is essential for India to cut down its dependence on capital goods imports and start fulfilling the domestic demand by producing high quality of these goods at competitive prices. To accomplish this, India should produce premium capital goods from high quality steel. This requires an increased collaboration of steel manufacturers, sector original equipment manufacturers (OEMs) and users of capital goods to co-innovate, gauge deficiencies, identify gaps and address them in a rapid, proactive and sustainable manner. This process can also help India to achieve sustainable cross sector economic growth over the next decade.

¹. "Pradhan asks global capital goods manufacturers to set up units in India", *Economic Times*, <https://auto.economictimes.indiatimes.com/news/auto-components/pradhan-asks-global-capital-goods-manufacturers-to-set-up-units-in-india/72767978>, accessed in September 2020

Capital goods industry: current status in India

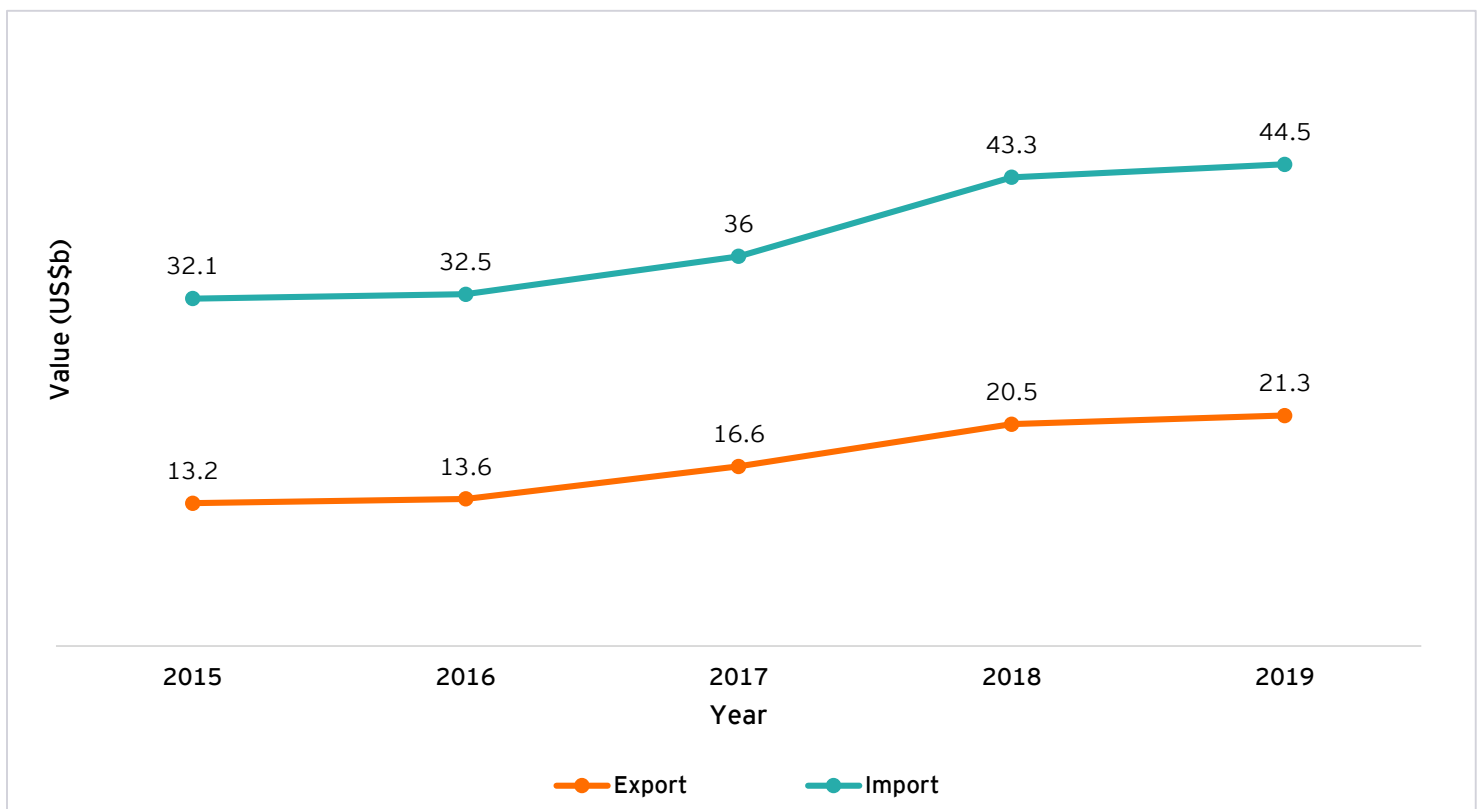
The capital goods sector is of strategic importance as it provides critical inputs necessary for the growth of secondary sector. The capital goods industry in India is currently valued at US\$70b², contributing about 2% to the country's GDP. It is likely to cross US\$100b by 2025³, in line with the growth of the Indian manufacturing sector. The growth of the capital goods sector is critically dependent on the central government's initiatives towards infrastructure development. Additionally, investments, power, oil and gas extraction, mining and petrochemicals is likely to provide a boost to the industry.

Over the last decade, the capital goods production has trailed domestic demand. Due to its capital-intensive nature and high competition, the Indian capital goods industry has a very few domestic players. Despite ease of Foreign Direct Investment (FDI) norms and policies such as National Capital Goods Policy and Make in India initiative, India heavily depends on imports to fulfil its demand for large machinery, especially heavy electrical equipment, process plant equipment, earthmoving and mining equipment.

In 2019, the total import of capital goods amounted to US\$44.5b, almost twice that of the export, rising 11 times over the last decade and 16% higher year-on-year (y-o-y). Overall, the sector contributed 8.5% to the total import bills, adding US\$23b to the country's current account deficit during the year⁴.

China is a key trading partner for India for capital goods. From China alone, India imported US\$12.78b of capital goods in FY20, second to imports of electronics and electrical appliances worth US\$18.12b⁵. India's dependence on China for its capital goods requirements has also significantly increased owing to cost effectiveness. It currently accounts for around 35% of our total capital goods imports in the country.

Currently, the demand of capital goods is also experiencing a slump due to limited capex growth in both the government and private space. While the government is finding it difficult to boost infrastructure spend due to tight fiscal scenario, private players are more focused on cash conservation. Most of the ongoing projects are postponed, with some being scrapped completely. The ongoing pandemic has impacted both the order inflow and execution for capital goods firms.



Source: International Trade Statistics

Note: the data represented in the chart represents machinery, mechanical appliances, nuclear reactors, boilers and parts thereof.

² "Indian Engineering and Capital Goods Industry Report," IBEF, accessed in September 2020

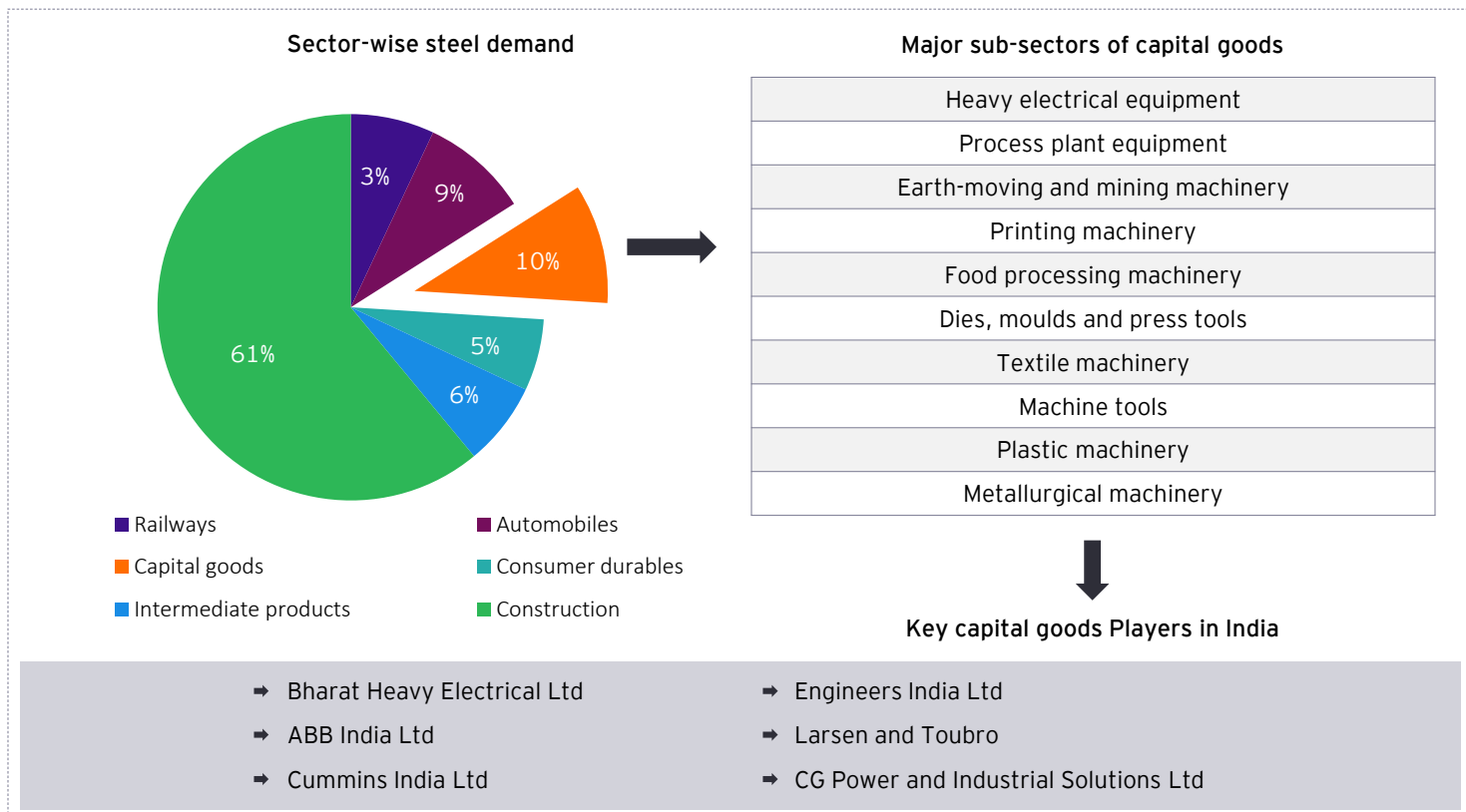
³ "Indigenous Design & Development to Seize India's Capital Goods Opportunity", CII, <https://www.cii.in/PressreleasesDetail.aspx?enc=Zbatg/JOtYsHOeHm2jWIOCINTEhQTRrCQxRx/shK+wEISJQ9CCGy0QCXwzHewmnTzillk+5t823LwqknhWiGxw>, accessed in September 2020

⁴ "How to achieve self-reliance in the capital goods sector", Business Line, <https://www.thehindubusinessline.com/opinion/how-to-achieve-self-reliance-in-the-capital-goods-sector/article31622710.ece>, accessed in September 2020

⁵ "India's capital goods imports from China to shrink as tensions rise", Mint, <https://www.livemint.com/news/india/india-s-capital-goods-imports-from-china-to-shrink-as-tensions-rise-11592493233101.html>, accessed September in 2020

Capital goods manufacturing: a high potential sector for growth in domestic steel demand

Capital goods currently account for around 15%⁶ of the domestic steel demand, equivalent to around 15mt. With India's steel demand expected to grow to 230mt by 2030, demand of steel from capital goods is projected at 35mt. This showcases a growth of more than 100% compared to its current usage.



Source: Indian Steel Association, Invest India

Incremental focus on increasing the domestic production of capital goods is likely to push for higher demand of domestic steel. Policies such as National Manufacturing Plan (2012), Make in India (2014) and the National Capital Goods Policy (2016) have increased productivity and competitiveness of the capital goods industry, which is likely to benefit domestic steel producers. The following are the other initiatives that are likely to increase the usage of steel in India:

- ▶ Under the National Capital Goods Policy, the government plans to implement various programs to increase production of capital goods from US\$31.44b in FY15 to US\$102.53b in FY25⁷.
- ▶ The government is also mandated to give preference to domestically-manufactured steel in government projects under the National Steel Policy (2017).
- ▶ The expansion targets of the Indian steel capacity are also expected to ramp up the demand for capital goods⁸.

These initiatives advocate the increased traction towards indigenous production, driven by growing infrastructural needs of the country.

The Union Cabinet has also approved the policy for providing preference to domestically-manufactured iron and steel products for government procurement. The policy provides preference to domestically-manufactured iron and steel products (DM1&SP). It supports government procurement for specified steel products having minimum value addition of 15%. In a recent revision gazetted on 29 May 2019, the policy has been enlarged to cover the entire range of iron and steel products and capital goods for manufacturing iron and steel products. Further, value addition has been changed from 15% to a range 15%-50%, depending upon the indigenous capability and capacity of steel producers to manufacture a particular product. This shall give impetus to indigenous manufacturing through widening of manufacturing base, sharing of know-how, product development as well as technological transfer by way of multi-lateral collaboration. This will also encourage foreign technology providers and critical steel plant manufacturers to set up manufacturing facilities in India.

⁶. Indian Steel Association

⁷. "Government approves Capital Goods Policy, aims 21-million new jobs", *Economic Times*, <https://economictimes.indiatimes.com/news/economy/policy/government-approves-capital-goods-policy-aims-21-million-new-jobs/articleshow/52433592.cms>, accessed in September 2020

⁸. "Pradhan asks global capital goods manufacturers to set up units in India", *Economic Times*, <https://auto.economictimes.indiatimes.com/news/auto-components/pradhan-asks-global-capital-goods-manufacturers-to-set-up-units-in-india/72767978>, accessed in September 2020

Challenges pertaining to higher usage of domestic steel in capital goods manufacturing

1

Scale of domestic capital goods market: the current size of domestic capital goods market is small as compared to its global competitors. It requires customized products. Lack of economies of scale makes it economically unviable for domestic steel producers to invest specifically in related technologies and train their workforce to produce customized products for all categories of capital goods. China, Japan and South Korea enjoy first mover advantage and have superior technologies, making it difficult for any new player to commit a huge capital required to set up new facilities. The average cost of producing capital goods is significantly lower in China and the Indian market has the potential to find it difficult to grow without government's strong support.

2

Technological capabilities: Despite the capital intensive nature of the domestic steel and capital goods industry, the players are ready to invest, if a level playing field is ensured by the Government of India. This will in real sense, help the Atmanirbhar Bharat Abhiyan and discourage the end users to import. Barring a few initiatives by some companies, there has not been a major breakthrough in reducing the import dependence. Another factor that hinders the growth of indigenous technology is that majority of the Indian manufacturing capabilities are SMEs, having limited financial power to back these initiatives. Lack of capital limits R&D investments and reduces the scope of work for such manufacturers to limited value adds for most small players.

3

Manufacturing supply chains: the inherent construct of supply chains of steel for capital goods creates a base inefficiency for the Indian capital goods manufacturers. Setting up a capital goods hub or building capabilities around specialty steel has inbound cost challenges. The advantage of cheap labor gets negated with lack of skilled workers. Moreover, lack of continuous electricity supply, last mile connectivity and high cost of transportation of material are additional challenges for companies operating with very thin margins. Inadequate Intellectual Property (IP) protection laws and tedious process of achieving licensing permits discourage foreign investments in capital goods and speciality steel segments.

4

Capital investment viz.-à-viz. used machinery: decarbonization push across the developed countries is forcing large players towards carbon-efficient products. Machines with older technologies and processes are now available to the Indian manufacturers at very competitive rates. Relatively relaxed environmental norms and immediate availability of used machinery are restricting new investments in domestic capital goods sector. Most products are available at 30%-40% discount.

5

Trade partnerships: India exports most of its machinery with high-steel components to the US, the UK, Germany, Mexico and the UAE. However, it imports the majority of capital goods from South Korea, Japan, China, Hong Kong China and Vietnam. Given India's prior experience with Free Trade Agreements (FTAs) and balance of trade positions achieved thereafter, India has decided not to join Regional Comprehensive Economic Partnership (RCEP) since it was against India's economic interests and national priorities, and it would undermine *Make in India*.



Opportunities for steel and capital goods manufactures

Capturing import share: one of the reasons to import certain capital goods is due to limited availability of an equivalent grade and dimension of steel, namely CRGO steel, auto grade/special alloys/stainless steel (SS) sheets and API (>x 70) grades hot rolled coil (HRC), plates and pipes. India currently imports around 7-8mt steel per annum, where a significant share consists of electrical and high tensile strength steel products⁹.

The government's push to incentivize new manufacturing facilities on import substitution for domestic manufacturers such as Bharat Heavy Electricals Limited (BHEL), Bharat Forge and Larsen & Toubro Limited (L&T) through productivity link incentive is likely to push domestic production of at least some steel products which are currently imported. Moreover, under its National Steel Policy 2017, the government's aim is to be self-reliant on the entire demand of high-grade automotive steel, electrical steel, special steels and alloys for strategic applications¹⁰.

ThyssenKrupp developed India's first CRGO plant in 2018 with a capacity to produce 35,000 tonnes per annum¹¹. More such initiatives from top steel producers are required to bridge to gap for imported steel.

Increasing reliance on domestic supply: one of the major impacts of the pandemic was on logistics and movement of goods across the world. Several manufacturers are now adopting a more holistic approach in their procurement policy. Manufacturers intend to expand their supplier network and consider local sourcing with long-term contracts with domestic manufacturer to avoid dependence on any particular country. This new normal is likely to increase collaborations between domestic steel and capital goods manufacturers.

Atmanirbhar Bharat initiative: as per the National Capital Goods Policy 2016, the production of the capital goods is expected to increase from US\$31.4 to US\$102.5 by 2025. The policy aims to increase its export share from 27% to 40% of the production while increasing the share of domestic market share from 60% to 80%¹². This multi-fold increase will require significantly incremental steel. It also has the potential to open an opportunity for steel players to increase their market share in the overall steel consumption from 15% to 25% in the future, in line with global average.



⁹. "Atmanirbhar way of steel availability", *Financial Express*, <https://www.financialexpress.com/economy/atmanirbhar-way-of-steel-availability/2093864/>, accessed in September 2020

¹⁰. "Indian Engineering and Capital Goods Industry Report," *IBEF*, accessed in September 2020

¹¹. "ThyssenKrupp to manufacture cold rolled grain oriented (CRGO) electrical steel in India", <https://www.thyssenkrupp-india.com/en/media/news/news-detailpage-10240.html>, accessed in September 2020

¹². "Government approves Capital Goods Policy, aims 21-million new jobs", *Economic Times*, <https://economictimes.indiatimes.com/news/economy/policy/government-approves-capital-goods-policy-aims-21-million-new-jobs/articleshow/52433592.cms>, accessed in September 2020

Actions required from stakeholders for a robust industrial growth

Establishment of a nodal body: India currently lacks a platform which can act as a collaborator or an intermediary between domestic capital goods manufacturers and steel producers. Capital goods manufacturers and steel companies need to work in tandem to develop customized solutions to manufacture products with domestic steel.

Investment in R&D facilities: there is a need for the government to incentivize steel producers by providing them tax holidays so as to encourage investments in different steel grades. The sector is currently dominated by small and medium entrepreneurs (SMEs) with limited research and development (R&D) spend. The government needs to collaborate with these enterprises to set up a combined R&D facility to move up the value chain and manufacture equipment rather than just assembling them.

Incentivizing foreign players to set up special steel facilities in India: bringing in specialty steel producers has the potential to improve the production quality and quantity of capital goods in the country. They can also provide opportunities for domestic steel players to collaborate and replicate solutions in their ongoing operations.

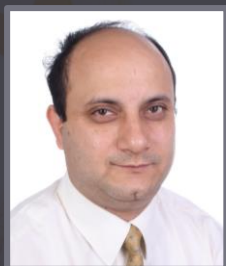
Though the demand for capital goods is increasing in India, its future growth is dependent on higher production of value-added goods, implying higher demand for quality steel. Ease of financing for SMEs, increased investments in R&D, encouraging collaboration across the value chain and strong policy implementation in specific sectors of steel consumption can aid steel producers in achieving economies of scale. They can in turn help in reducing the share of imports and increasing competitiveness in domestic industry.





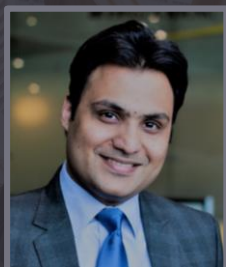
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