INDIA STEEL 2017



Global and Domestic Steel

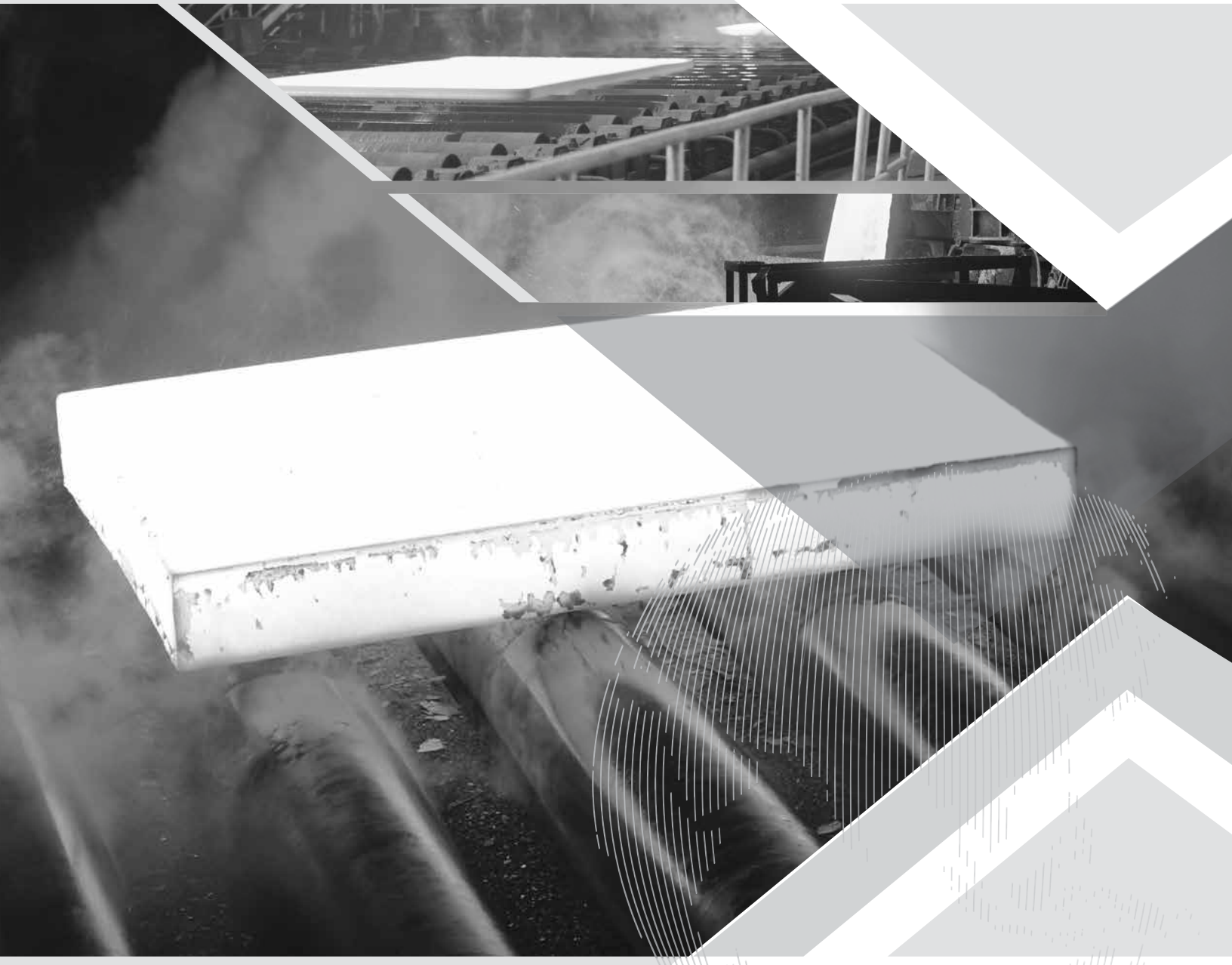
Pressing Issues and Way Ahead

Acknowledgement

FICCI acknowledges the support of KPMG in India in developing the report.

Copyright © 2017

All contents in this report is the property of the writers. Any other use, including the reproduction, modification, distribution, transmission, republication, display or performance, of the content in this report is strictly prohibited without written permission from them.



Global and Domestic Steel

Pressing Issues and Way Ahead

TABLE OF CONTENTS

1 Introduction 7

2 Mega Trends Impacting the Global Economies and Steel Sector 11

3 Global Steel Industry 15

3.1 Current Scenario – Capacity Overhang Clouding The Global Industry 16

3.2 Future scenario of global steel industry – sector approaching balance amidst fall in demand 22

4 Indian Steel Industry 25

4.1 Current scenario – Global Headwinds Impacting the Sector 26

4.2 Future Scenario of Indian Steel Industry – Sustained Growth 29

5 Way Ahead 31

5.1 Demand Stimulation 32

5.2 Steel Capacity & Production 33

5.3 Raw Materials 33

5.4 Energy Environment (land, water and power) 34

5.5 Infrastructure and Logistics 35

5.6 Secondary Steel Sector 35

5.7 Research & Technology Enablement 35

5.8 Future Steel Products 36

5.9 Trade 36

5.10 Financial Environment 36

1 | Introduction



Steel is one of the world's most essential materials. It is fundamental to every aspect of our lives, from infrastructure and transport to the tinplated steel can that preserves food. It is one of the most important products of the modern world and is of strategic importance to any industrial nation. From construction, industrial machinery and transportation to consumer products, steel finds a wide variety of applications. It is also an industry with diverse technologies based on the nature and extent of use of raw materials.

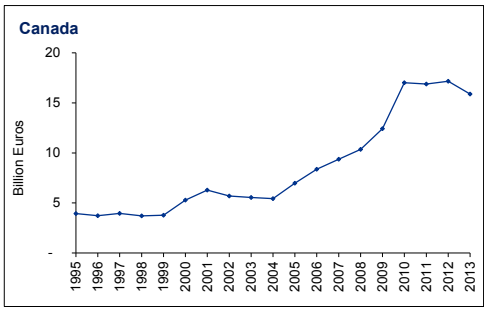
Since the introduction of Bessemer converter in 1856, an invention that ushered in the large scale production of steel, the steel industry has come a long way in terms of technology, input material, quality of end product, diversity in application of end product, and level of automation.

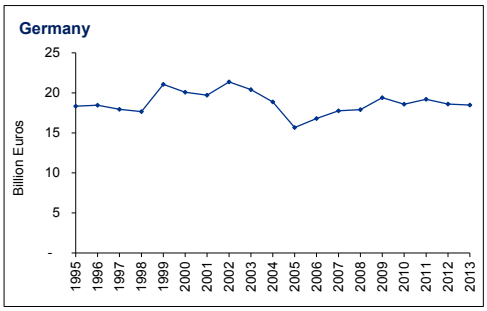
Global steel sector has seen significant growth after the turn of present century. The steel demand and the capacity has grown almost threefold over the last two decades. This rate of growth is unprecedented in the human history. Though it has started faltering with steel demand in China moderating, there are some bright spots in the World which raises possibility of revival of growth in the medium to long run. One of the key determinants of future growth will be the economic growth of India and related infrastructure spend. Similarly, Africa with its vast majority of population still devoid of access to basic infrastructure, is another potential growth driver. It may be said that any growth will be preceded by political and economic reforms. Another potential driver could be the revival of infrastructure spend in developed countries. This may be driven by increased urbanization/ migration of population, change in need due to demographics (e.g. ageing population), replacement etc. While it may not drive the global demand significantly, it may have the potential to arrest the decline in demand in these countries.

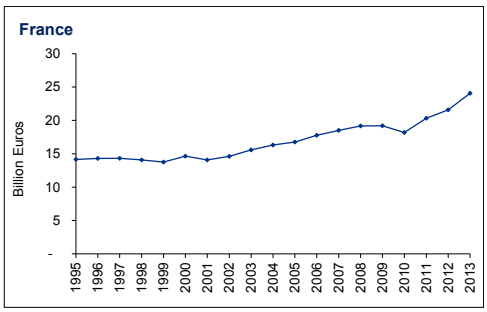
However, it will also be unfair to suggest that the sector does not face challenges going forward. Some of the key issues are, demand destruction due to increase in consumption efficiencies and substitution (by other commodities), impact on climate and its mitigation, skill availability (lack of), etc. Some of these factors have been discussed in the subsequent sections.

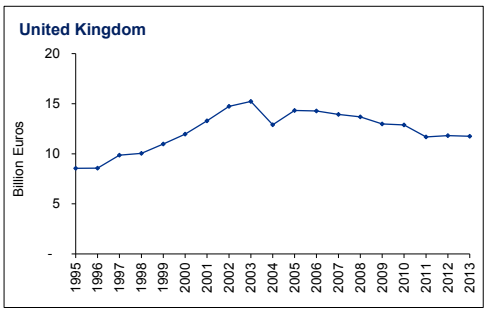
This reports presents the current and future scenario of Global and India steel sector, and the key enablers for sustained growth of Indian steel sector.

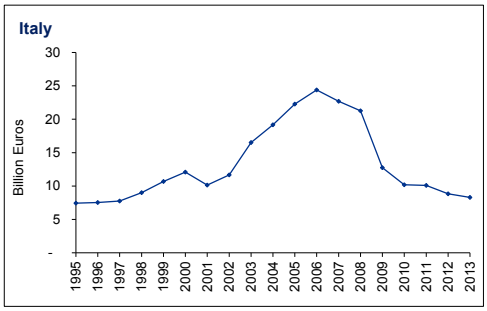
Infrastructure spend of some of the major economies

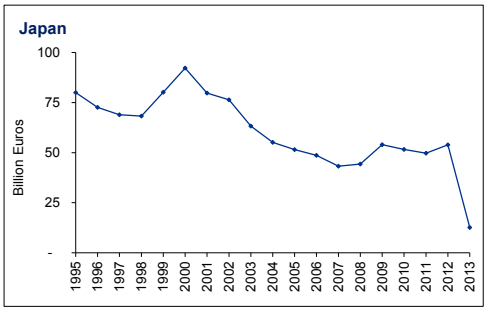


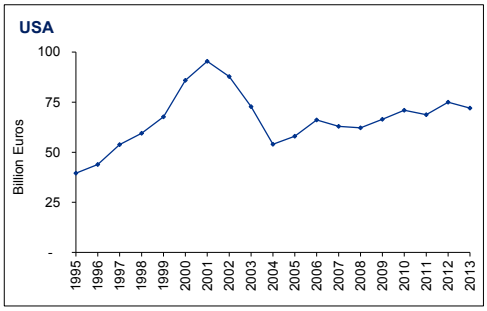








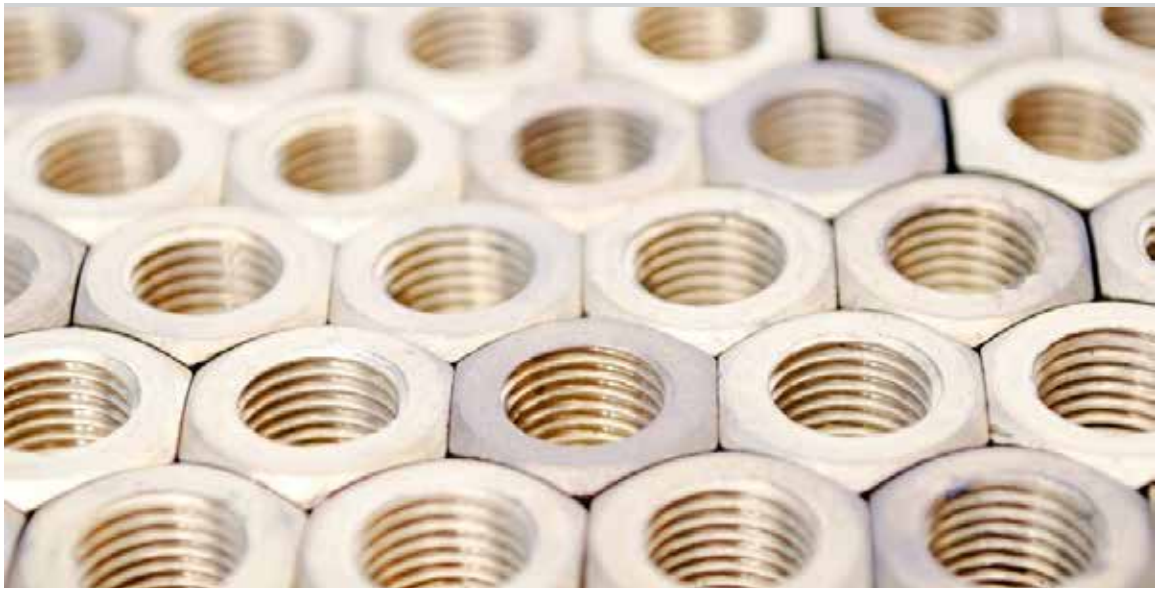




- With the exception of France, infrastructure spend in recent years in almost all large economies is significantly lower than the peak spend in the last two decades
- In case of Japan and Italy, the fall is to more than 60% and 85% respectively
- Overall, the trend in infrastructure spending is downward for some of the largest economies in the World

Note: The above seven countries are among the top 10 economies in the World

2 Mega trends impacting the global economies and steel sector



By now it is clear that several mega trends (Digital, Focus on Sustainability, Demand destruction) will affect business as usual in broad swathes of the economy. Business cycles are shortening dramatically, making recovery of investments more risky. In the case of steel companies, it will alter some of the basic premises that have shaped the existing structure and operations.

The global mega trends are inherently disruptive and demand existing order to innovate to stay relevant.

Figure 1: Global mega trends and sector trends



Globally steel companies will have to evolve, both from the perspective of business model and operating model, to create value in face of some of these disruptions. The broad themes may be,

1 **Sustainable business** – there has to be an acute focus on sustainability and minimizing the environmental impact of steel making along the entire value chain. In the times we live, this will be an important consideration for not just companies or nations but individuals and may emerge as a key differentiator amidst capacity overhang and falling demand. Steel companies will have to make conscious effort to incorporate sustainability in all aspects of their business. The focus on sustainability is not without economic rational. It will mitigate the regulatory, operating and reputation risk for the steel companies, thereby reducing the cost of operations and/or loss in production.

2 **Increased use of technology and big data, automation:** steel sector will have to invest in technology adoption in areas like demand forecasting, plant operations. Big data will be a key lever to drive efficiencies and overall productivity improvements. Automation will also be a key trend in steel sector like many other manufacturing set ups, reducing the need of human resources and improving safety.

3 **Operational excellence:** Amidst capacity overhang and closely inter-linked global markets, there will be continued pressure on steel prices. It will make it absolutely necessary for steel companies to focus on operational excellence to protect market share and margins. Use of technology will be a key lever to drive excellence.

4 **Greater collaboration within steel producers and other stakeholders:** companies will have to get over competition and identify opportunities where they can collaborate and create value for each other. Raw material sourcing, value added products, supply chain could be some of the areas where different companies can collaborate to create value and mitigate risks.

5 **Increased R&D:** the sector will have to invest significantly in R&D to identify new products, measures for energy efficiency and emission reduction, etc. They may facilitate development of innovation centres in their organisations to continuously research and explore application of new-age technologies in bringing disruption in their existing business and operating models. R&D is also one of the key areas where the larger sector can collaborate to develop solutions.

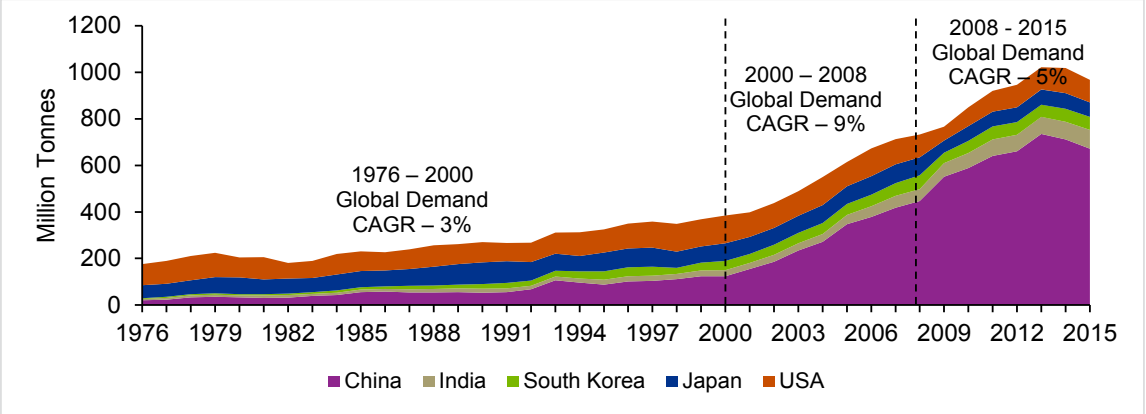
3 Global Steel Industry



3.1 Current Scenario – Capacity Overhang Clouding the Global Industry

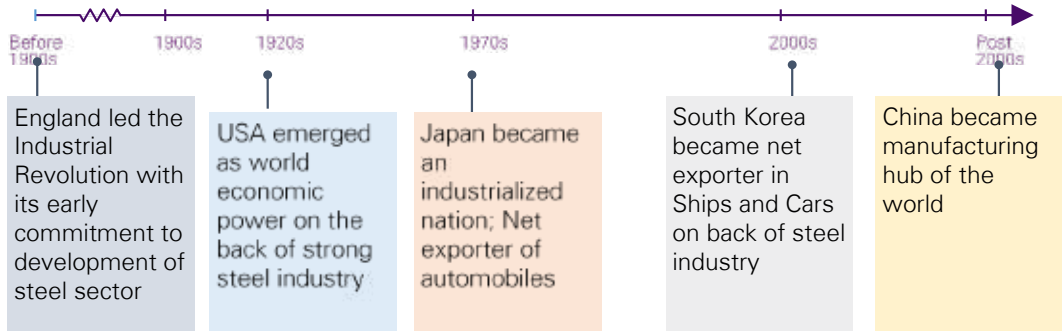
The demand for steel has grown over time with increasing industrialization, from 200 MT in 1976 to more than 1000 MT in 2015. However, it was only after the turn of the century that the global steel demand has increased rapidly. As evident from below, global steel demand increased at an accelerated rate of 9% CAGR during the period 2000 – 2008, effectively doubling in the short period.

Figure 2: Growth in global steel demand



Source: World Steel Association, Ministry of Steel

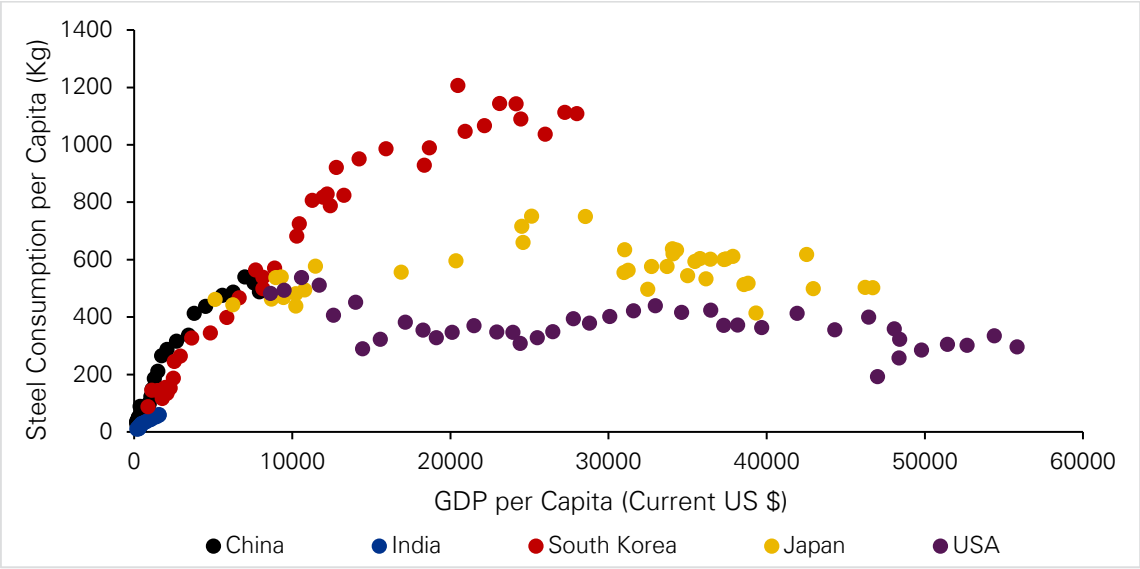
The global steel demand has been fueled by different countries at different points in time. While steel demand in 20th century was dominated by Western Europe and USA, the turn of the century saw the shifting of demand to Asian countries namely Japan and South Korea, and lately, China.



Typically, as the countries have entered into the industrialization phase, the steel demand has consequently increased.

Steel consumption also shows strong link with the economic growth. It is understandable since the economic growth will drive the infrastructure spend and housing. With respect to retail consumers, economic growth will drive the consumption leading to increased spending on automobiles, white goods, etc. All drivers of steel demand. However, over the long run, growth in steel consumption will also depend on the structure of economy and not just growth. For instance, countries with significant proportion of service industry will see steel demand plateauing (e.g. US) whereas manufacturing focused economies will see steel demand growing with economic growth (e.g. South Korea, China).

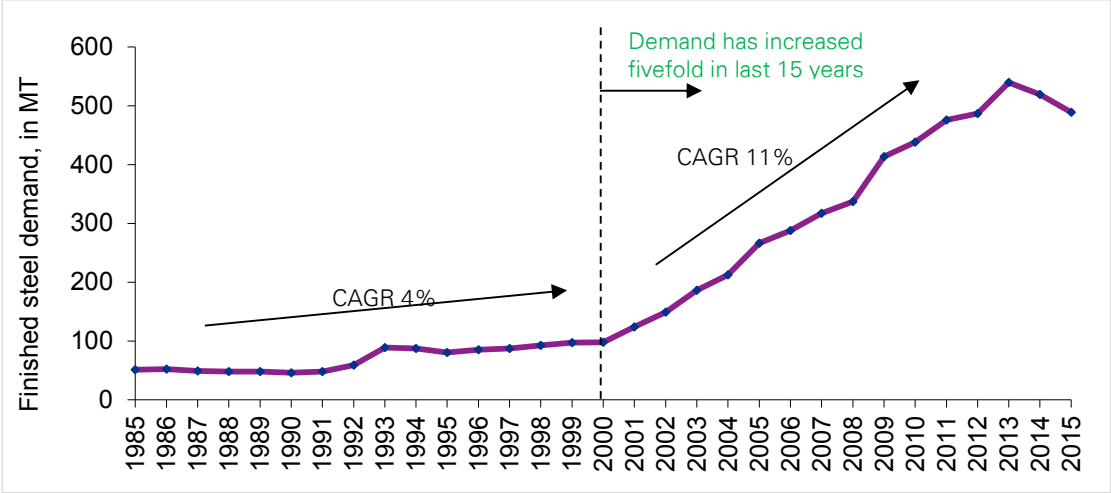
Figure 3: Steel Demand Growth vs GDP Growth



Source: World Bank, World Steel Association

In the current century, China has been the key driver of global steel demand. At the beginning of the 21st century, the Chinese government eased its economic policy as it set out to make China a global hub for manufacturing, decrease dependence on imports, and overall make it one of the world's largest economies. In the following decade, as the Chinese economy grew at an unprecedented pace, Chinese demand for steel also grew rapidly. China's steel demand has been driven by significant investment in infrastructure, e.g. infrastructure build out for 2008 Beijing Olympics, rapid urbanization and manufacturing sector.

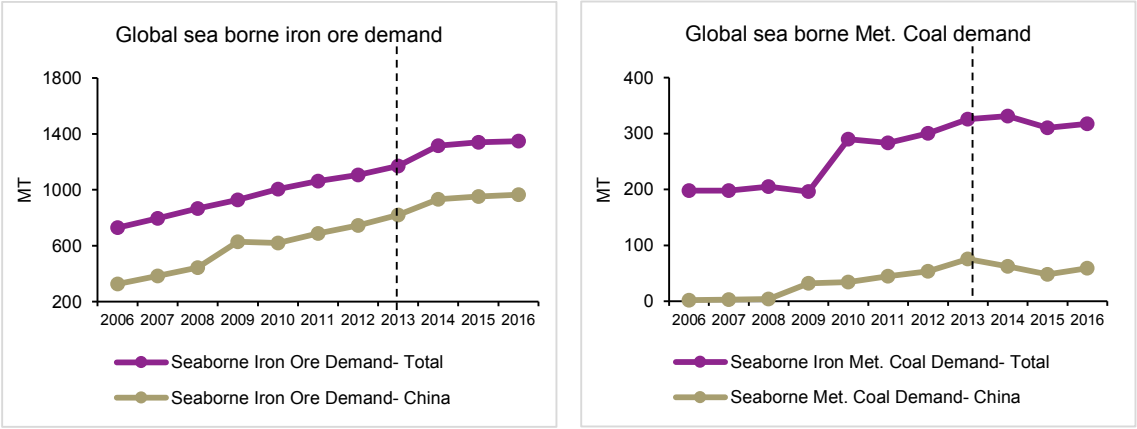
Figure 4: Growth in steel demand in China, in MT



Source: World Steel Association, KPMG

The rising demand for steel also led to rising demand for raw materials and their prices

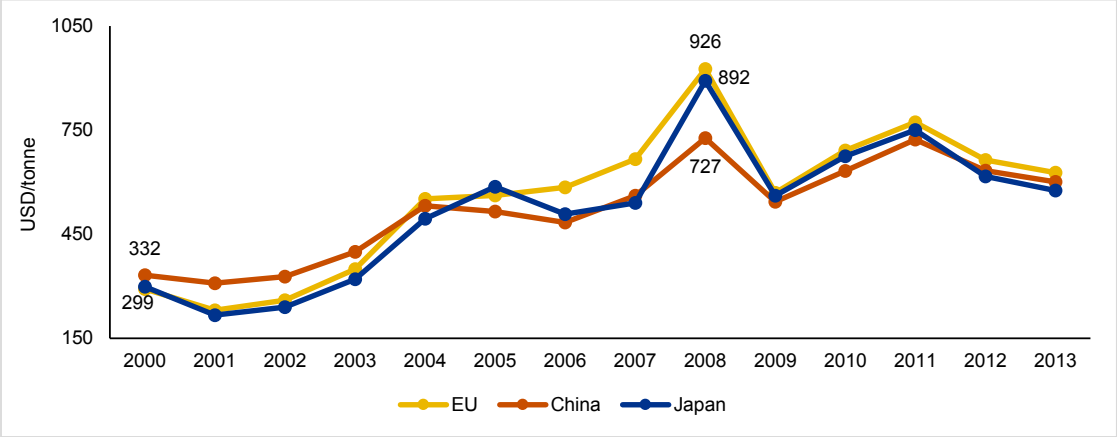
Figure 5: Growth in raw material demand, iron ore and metallurgical coal, in MT



Source: Morgan Stanley Commodity Forecasts

The increasing demand from China led to sharp rise in global steel prices. From a level of USD 290-332/ton in 2000, HRC prices increased to a maximum of USD 926/tonne in 2008.

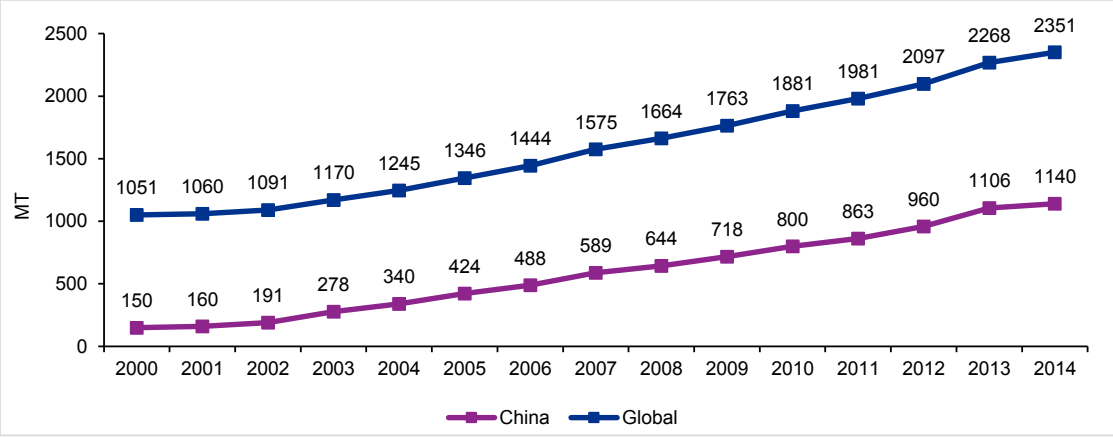
Figure 6: Global HRC Prices, in USD/ tonne



Source: Bloomberg

As a result of the rising steel prices, steel companies across the globe enjoyed excellent operating margins, with some even attaining >40% profitability at the peak of price cycle before the global economic crisis of 2008-09 set in. This drove a capacity addition super cycle which saw almost 1.3 BT of steelmaking capacity being added worldwide in the period 2000 – 2014, more than doubling the global capacity. Of it, China accounted for more than three-forth share, with capacity addition of 0.99 BT. Correspondingly, share of China in the global steel capacity also increased from~15% in 2000 to ~50% in 2015.

Figure 7: Steelmaking capacity additions, Globally and in China, in MT



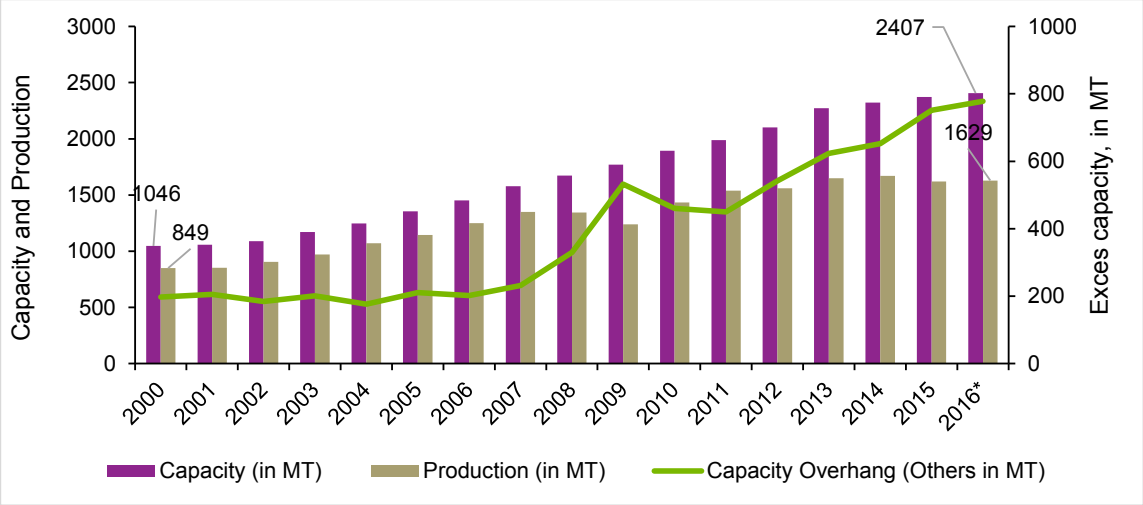
Source: World Steel Association

However, since 2013, the Chinese economy has slowed down. The double digit growth in economy, experienced by China in the past decade seems no more in sight now. With the slowdown in

economic growth, investments in infrastructure sector have also diminished. This has led to a significant drop in the growth of steel demand across the world. After a peak in 2013, the demand for steel decreased by 3.3% in 2014 with further decline in 2015, mainly driven by a deflationary construction industry (10% reduction of building sales in the construction market) and a drop in infrastructure requirements. Though part of it was partially offset by increase in the steel demand from automo¬tive industry.

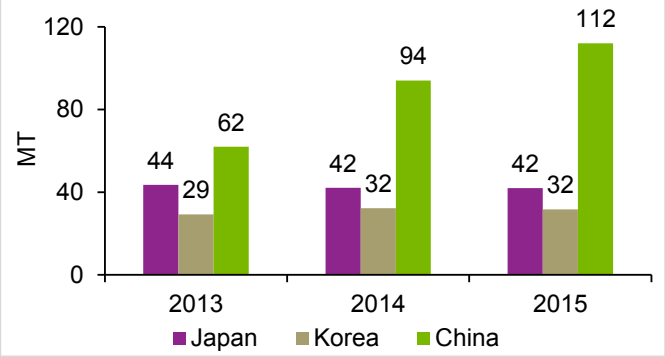
However, as the demand slowed down, the capacities have idled, leading to an overcapacity of 400-450 MT in the country. Similar overcapacity scenario has been observed in other major producers such as Japan and South Korea as well. Put together, the global excess capacity is estimated at ~800 MT, one third of the installed base.

Figure 7: Global steelmaking capacity, production and capacity overhang, in MT



Source: World Steel Association

Figure 8: Steel export from China, Japan and South Korea, in MT

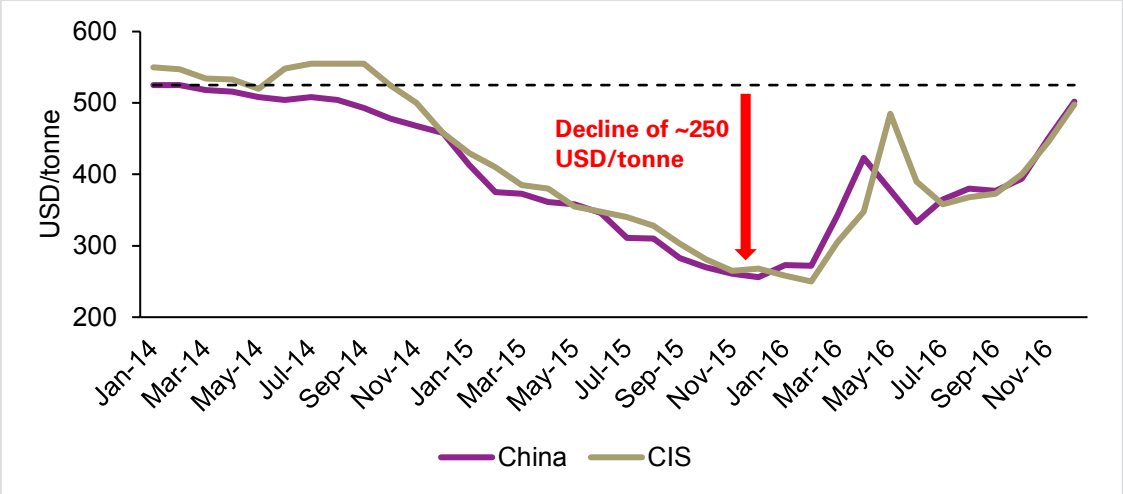


Source: "Asian Steel Watch"- POSRI

In order to at least recover the cost of setting up the steel plants, steelmakers in these countries have continued to operate, though at a lower utilization rate. As the domestic demand has stagnated or declined, the exports from these countries have increased or remained constant.

This has led to a supply glut in global steel market, which in turn has led to a sharp decline in the prices of steel products. In between Jan'14 to Dec'15, international HRC prices declined by ~51%. Though a brief recovery in prices was observed from Feb'16 to Apr'16, the prices again declined from May'16 to Jun'16. The prices have again recovered since on the back of increase in raw material prices and other factors. It also highlights the extreme volatility in steel prices.

Figure 9: Global HRC Prices, in USD/tonne

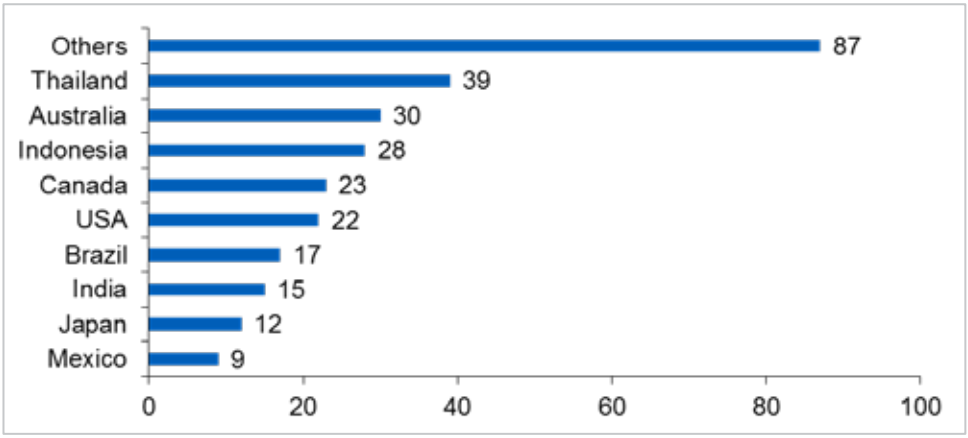


Source: SBB

Declining prices have caused severe erosion in profitability of steel companies across the globe. ArcelorMittal, Tata Steel Group and US Steel have posted losses of USD 8 Billion, USD 0.6 Billion and USD 1.5 Billion respectively in the last year. Chinese steel industry's net losses are estimated to be more than USD 15 Billion.

In order to protect their domestic steel industries from the onslaught of cheap imports, several countries across the globe have implemented trade remedial measures against steel majors, especially China. As per WTO, About 31% of the steel Anti-Dumping measures currently in force target China, with the second leading target, South Korea, facing around 11%.

Figure 10: Trade protection measures (nos.) against various countries



Source: OECD

3.2 Future Scenario of Global Steel Industry – Sector Approaching Balance Amidst fall in Demand

3.2.1 Demand side outlook

In near term, limited upside to the global demand is estimated. One of the key reasons is continued underperformance of China, particularly in comparison to historical context. Other geographies are unlikely to fill in the space created by China's receding demand. Demand outlook for key geographies is discussed herein below,

1 **China:** China's economy is slowing due to lower investment and exports. IMF has forecasted the Chinese economy to grow at only 6.5% and 6.0% in 2017 and 2018 respectively. China's internal estimate also seems to be in line with the global figures. As per the 13th Five Year Plan for its steel industry released by the Chinese government, by 2020, the government expects apparent demand in China to decline to 650-700 MT vs production of 750-800 MT. This suggests the government expects steel exports to remain flat at current levels of about 100 MTPA.

   The outlook for the construction and industrial sectors, two major contributors to steel demand in the country, remain subdued. Though the government's stimulus measures in early 2016 have helped to bring valuable investment into the infrastructure sector and led to increment in domestic demand of steel, effects of such measures are expected to wane in future as the current level of investment growth is unsustainable. A shift in policy aimed at reining in debt accumulation is expected to curtail investment in infrastructure sector (including construction) and industrial production growth. A reduction in tax break for new-vehicle sales in 2017 will mean substantially slower growth for automobile sector and, in turn, weaker demand for steel.

2 **Japan and South Korea:** Demand in Japan and South Korea is expected to remain stable in the near future with limited upside by FY 2020 (+5% from the current levels)[2].

3 **US:** In US, proposals are in pipeline to boost infrastructure spend which will help boost construction related steel demand. In the automotive sector, monetary policy tightening, rising oil prices, and substitution by aluminium is expected to subdue the steel demand.

4 **EU:** In the EU steel-consuming sectors are still benefiting from the unconventional monetary policy measures of the European Central Bank (ECB), which have eased credit conditions and, by reducing upward pressure on the currency, are helping producers to maintain competitiveness. These factors will persist into 2017-18, as the ECB is set to continue its asset-purchase programme until December 2017 and beyond if necessary.

[2]*Source: www.tradingeconomics.com*

3.2.2 Supply side outlook

In the near term, it is estimated that correction in supply side will lag behind the fall in demand leading to sustained oversupply and hence, potentially, stress on steel prices.

1 **China:** In the 13th Five Year Plan, the Chinese government has outlined its target to reduce the steel capacity in the country from 1130 MTPA in 2015 to <1000 MT by 2020 i.e. a cut of 100-150 MT at CAGR of 1.8 - 2.8%. Correspondingly, the Chinese government expects the industry's capacity utilization rate to increase from 70% in 2015 to 80% in 2020.

   In fact, capacity cuts are already under way. In 2016, China exceeded its capacity cut target by ~100%. The country decommissioned 87 MT of steel capacity as against the original target of 45 MT. However, so far capacity eliminations have been obtained by focusing on easier targets, such as previously idled facilities. Rather than government mandated closures, the shutdowns have been the result of unilateral decisions by steel companies to close down unprofitable mills. Now, a strong focus is on capacity elimination in the induction furnace sector.

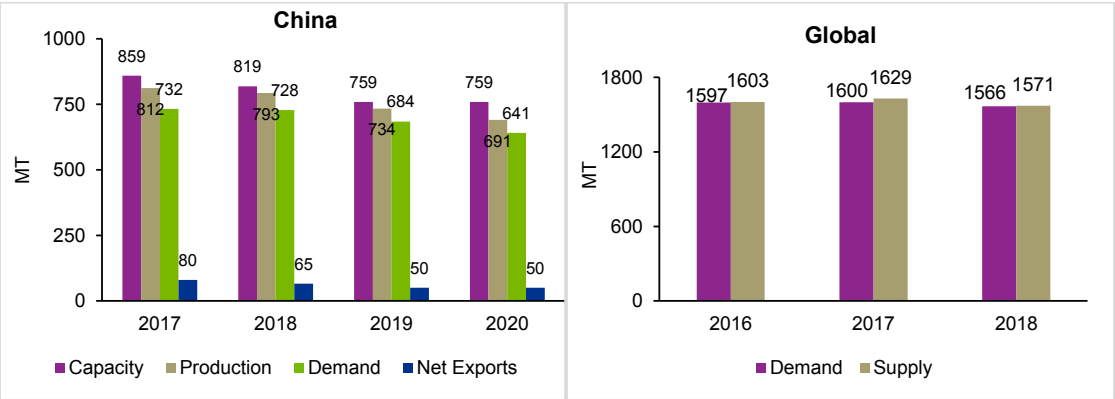
2 **Japan and South Korea:** Steel output in Japan and South Korea fell in 2016. Output is expected to further decline in near future as China's slowdown weighs on regional production.

3 **US:** Though US steel output in 2016 was down by 0.3% year on year, higher steel prices are expected to restart some of the idled capacities leading to increment in output.

4 **EU:** As for EU, low prices, high costs and competition from cheap imports are taking toll on their steel sector. Production declined by 2.3% in 2016. However, as the European Commission has started pursuing cheap dumping of steel products more aggressively, EU steel production may increase in near future.

To summarize, while the global demand and supply both, are estimated to fall in the near term. It is expected that the supply will fall with a lag leading to oversupply scenario in the near future.

Figure 11: China and Global steel demand-supply scenario



Source: Credit Suisse, The Economist

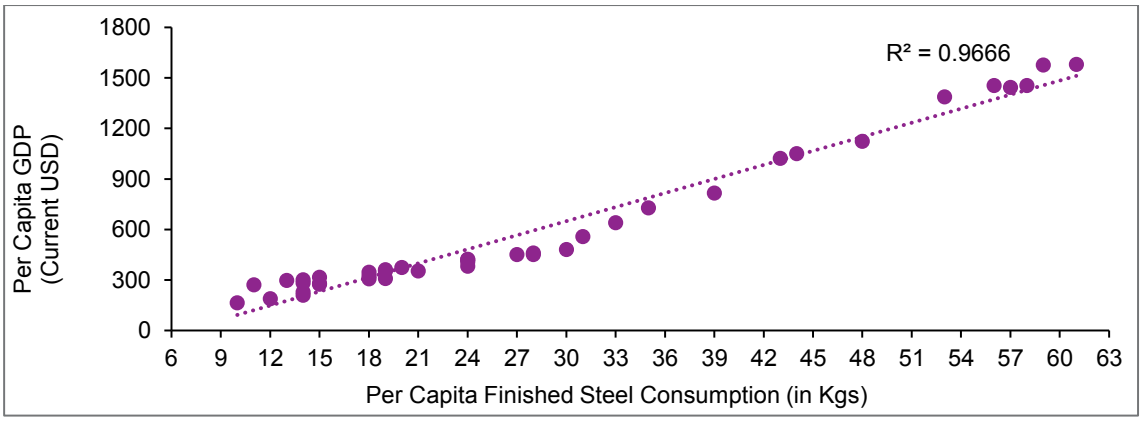
4 Indian Steel Industry



4.1 Current Scenario – Global Headwinds Impacting the Sector

Post liberalization of the steel sector in 1991-92, the Indian steel industry has witnessed unprecedented growth. The steel sector in India, like any major steel producing country, shows a strong co-relation with growth in domestic economy.

Figure 12: Correlation of steel demand with GDP (1976-2015)

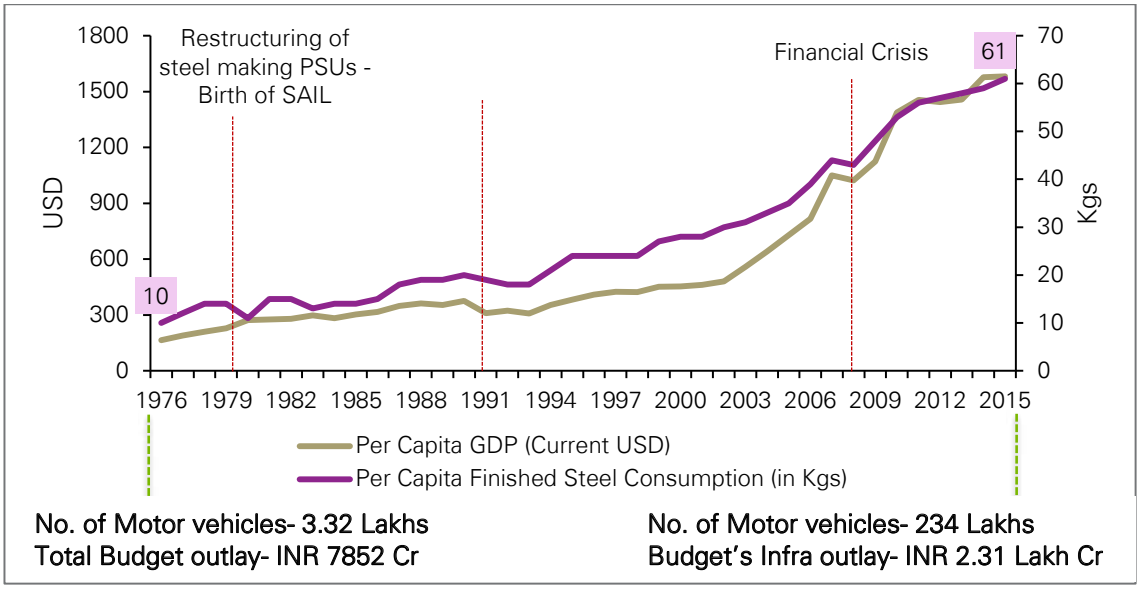


Source: KPMG

The growth in Indian economy has fueled the infrastructure and industrial manufacturing sectors in the country which have in turn led to significant increase in steel demand. The domestic steel industry has in turn grown in line to meet the steel demand. From a modest capacity of 22 MT and production of 17 million tonnes of crude steel in 1991-92, it has grown by over 400% to reach a capacity of 122 MT and a production level of ~89 million tonnes in 2015-16. In fact, in 2015, India overtook the United States to become the third largest steel producer and is well on course to become the second largest producer soon. Even during the global economic downturn of 2008-09, when the steel industries of rest of the major producing countries faltered, Indian steel industry stood resilient.

The Indian steel industry also enjoys inherent advantages in terms of availability of high grade iron ore and non-coking coal – the two critical inputs of steel production. In addition, it also has a vast and rapidly growing market for steel, strong MSME sector and a relatively young work force with competitive labour costs. These factors have so far ably supported the growth of steel industry in the country.

Figure 13: Per Capita Finished Steel Consumption vis-à-vis Per Capita GDP



Source: WSA

4.1.1 2003-08- Major growth; 2009- onwards- Slowdown

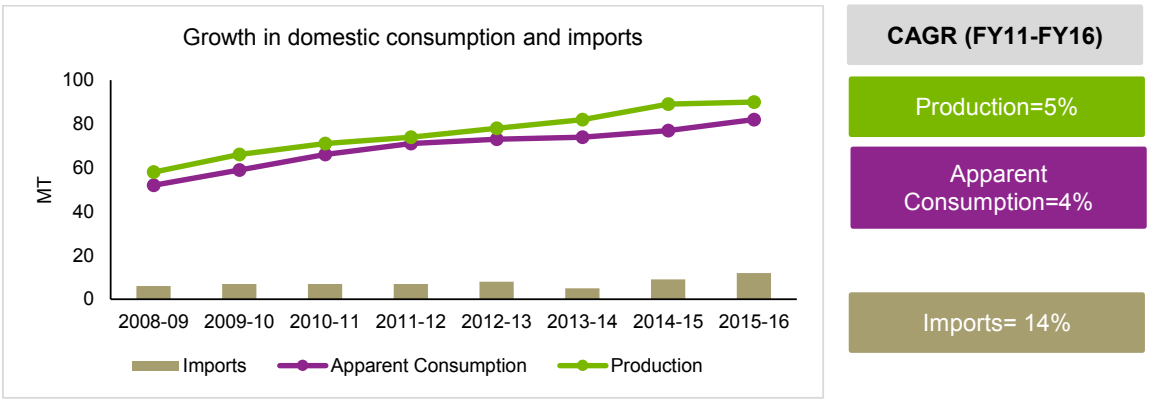
During 2003–2008, the Indian economy experienced soaring growth in income and investment. During this period of boom in the economy and rapidly rising profits, many steel companies (both big and small) embarked on large expansion plans to fulfill the domestic demand which was growing at a rate of 11%. Since then, India has constantly built up its capacity and added on average ~7 MTPA of capacity each year.

During this period of growth, the structure of Indian Iron and Steel Industry underwent rapid change in terms of scale of operation/size, integration levels, process routes and levels of technological sophistication. The advent of new production technologies brought about a significant change in the composition of the Indian steel industry. Capacities created post deregulation were based on technologies as diverse as COREX, large-scale hybrid technologies combining Electric Steel making with BF hot metal and with downstream rolling of flat products and large-scale integrated DRI-EAF-Flat products rolling capacities.

During FY 2009 to FY 2011, the production was growing in tandem with capacity growth However, the decline in demand in China and the subsequent supply glut in the international market since 2013, has led to dumping of steel products at low prices in India. India's FTAs with Japan and South

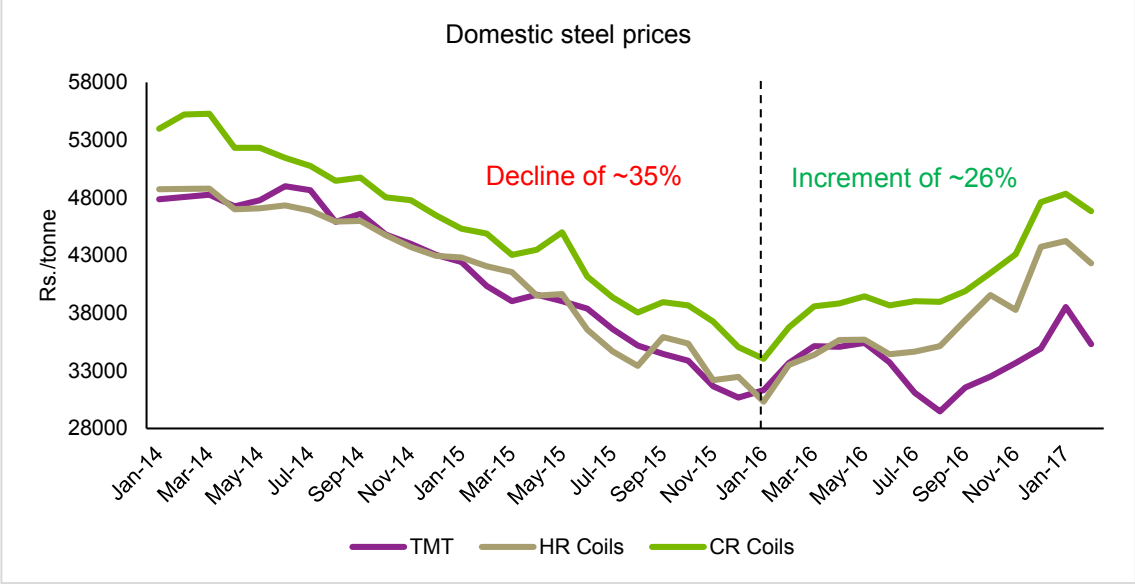
Korea, under the provisions of which, import duty on several steel products has been gradually decreased to nil, further aggravated the situation.

Cheap imports started substituting the domestic demand and led to slowdown in growth of domestic production. In between FY12 to FY16, apparent steel consumption grew at a CAGR of only 4% and production at CAGR of only 5% while imports grew at a CAGR of 14%.



Source: JPC

Cheap imports not only caused demand substitution but also drastic decline in domestic steel products as consumers within the country preferred to use these cheap imported steel rather than the domestically produced steel. In between Jan'14 to Jan'16, domestic steel prices declined by ~35%.



Source: JPC

As steel prices decline, steel producing companies' margins eroded. Majority of capacities in the previous decade were set up through debt financing by banks, this severely impacted the steel producers' debt servicing capabilities. As of March 2016, the total exposure of the steel sector to banks was over Rs. 3.1 lakh crores. Of this, 48% is estimated to be in the stressed category as per RBI data (37% classified as NPAs & 11% as restructured). It is notable that the steel industry advances currently accounts for 10% of the total industry advances and its share in total industry GNPAs is 29%.

Finally, in order to check the unabated import of steel products, the government had to take harsh measures in the form of notification of MIP in Feb'16 and various safeguard and anti-dumping duties in the succeeding months. These trade remedial measures have had a positive impact on the domestic steel industry in terms of putting a check on the quantum of imports and improving price realizations.

Country Wise Import of Steel Products in India (in '000 tonnes)

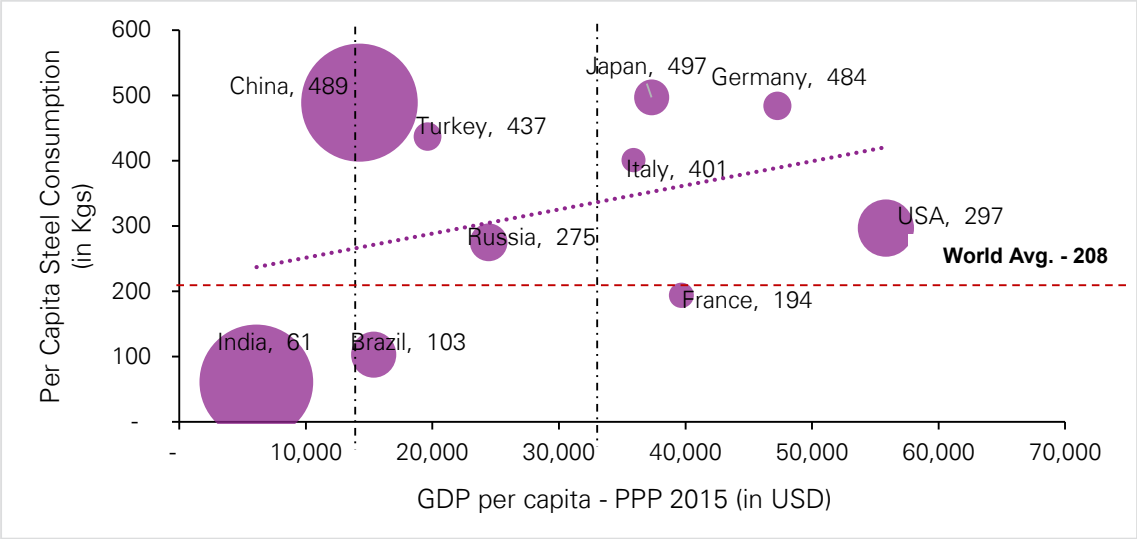
Country Name	Apr-Feb 17(P)	Apr-Feb 16	% Reduction
China	2072.67	3757.47	-45%
South Korea	1993.02	2870.51	-31%
Japan	995.54	2039.32	-51%
Russia	275.63	317.94	-13%
Indonesia	250.98	463.41	-46%
Others	1651.45	2178.02	-24%
Total	7239.29	11626.67	-38%

While, the overall imports have declined, the downturn in the global steel sector is far from over and the domestic sector continues to remain vulnerable.

4.2 Future scenario of Indian Steel Industry – Sustained Growth

Many economists and economic bodies have cited India as the only bright spot in a declining global economy. And the same can be said about the Indian steel industry. The fact that per capita steel consumption of India at 61 kg is less than one third of the world average (208 kg), underlines the huge potential for long term growth of the sector, notwithstanding improving efficiencies and change in steel usage patterns.

Current Steel Intensity



Source: World Bank, WSA
Note: Size of bubble indicate the population of the country

Overall economic growth, and more specifically accelerated spend in infrastructure sector including roads, railways and ship building, anticipated growth in defence sector and the automobile sector are expected to create significant demand for steel in the country. In addition to this, favourable demographics, improvement in various socio-economic indicators, increasing penetration of steel in rural areas, and increased usage of steel in bridges, crash barriers are also expected to contribute positively to steel demand. The focus on the Make in India initiative is overall expected to give a fresh boost to steel consumption through defence and shipbuilding.

Although Chinese growth story has created benchmarks in consumption levels, based on the present scenario, India achieving same growth path as China seems unlikely. While the above mentioned initiatives of Government of India may make it possible, India emulating China will require significant efforts. The Government of India, has rightly recognized this and has set pragmatic target of achieving per capita steel consumption of 160 kgs by 2030-31 requiring a crude steel production of 255 MT and capacity of 300 MT. Achievement of this target will, though, require the Government and the Industry to work together, especially on the areas discussed in the succeeding section.

5 Way Ahead



5.1 Demand Stimulation

What differentiates the Indian steel industry from the other major producers of steel is the fact that the growth in the domestic steel industry has been driven by increase in domestic consumption of steel rather than increase in exports. Given, the overcapacity in the global markets, dependence on exports may not be such a good idea.

As per Draft National Steel Policy 2017, at the current rate of GDP growth, the steel demand will grow threefold in next 15 years to reach a demand of 230 - 240 MT by 2030-31. However, stimulation of domestic demand will require adequate policy measures by the government and active participation by the steel industry.

The Ministry of Steel has identified construction and manufacturing sectors such as rural development, urban infrastructure, Roads & Highways, Railways etc. as the key focus areas for demand growth. For demand growth in these sectors, following measures need to be taken up-

i. Usage of steel in all buildings and structures needs to be encouraged. The overall cement: steel ratio in construction of buildings in the country needs to be reduced. The government has to take active steps towards this. The first step would be to mandate greater use of steel in government projects. Increased usage of steel intensive structures/designs should be promoted in various housing programs of the government such as Pradhan Mantri Awas Yojna, Saansad Adarsh Gram Yojna etc.

ii. Currently, usage of steel in railways is limited to laying of railway tracks, rolling stocks, wagons, platforms and coaches. The government needs to increase steel usage in making railway station, foot over bridges, rail coaches, construction of steel based railway colony buildings especially in earthquake prone areas, construction of dedicated freight corridors & superfast rail corridors and construction of more steel bridges for saving time & capital expenditure.

iii. Steel consumption in rural areas remains an area of concern. The current per capita steel consumption in rural areas is only 10 kgs as compared to India's overall per capita steel

consumption of 61 kgs. However, there is a large scope for increment in steel usage in rural areas. Government needs to take special steps to sensitize the rural population about advantages of using steel in construction and create necessary infrastructure to ensure steel products reach them.

5.2 Steel Capacity & Production

It is anticipated that a crude steel capacity of 300 MT will be required by 2030-31, based on the demand projections. However, achieving crude steel capacity up to 300 MT will require extensive mobilization of natural resources, finances, manpower and infrastructure including land.

Government will need to create necessary environment for improving investor sentiment and greater investment in the steel sector. For this, the various projects in the private and public sector that have been delayed due to various reasons need to be brought back on track by clearing hurdles in financing, land acquisition, raw material linkage etc.

The various UMSPs that the government has envisioned to establish in different states through SPV route and then allocate to a private player through auction route needs to be established on a mission mode.

While doing this, the government needs to closely monitor the capacity additions in order to ensure optimal growth of the industry and to avoid situations of over or under capacity. The focus should be to create capacity for value added steel products. Similarly, quality of products and safety at workplace should be other focus areas while adding further capacity.

For ensuring production and imports of quality steel products, the government has introduced Steel and Steel Products (Quality Control) Order and Stainless Steel (Quality Control) Order that mandates Bureau of Indian Standards certification for certain products. Further products need to be brought under the ambit of these orders. For efficient implementation of this order, the government needs to set up quality testing facilities in steel hubs and strengthen already established facilities.

5.3 Raw Materials

Availability of raw materials at competitive rates is imperative for the growth of the steel industry. A major reason for the growth of steel industry in the past two decades was the availability major steel making raw materials at adequate costs. Given that the demand for raw materials to going to increase several folds in future as the steel demand and production increase, availability of raw materials will be crucial for growth of the steel industry. The following measures are necessary to ensure that raw materials are available to steel industry at competitive costs-

i. While the government has mandated allocation of captive iron ore mines through auction method, the process of auction has been slow. Since the announcement of this method in the MMDR Act of Jan'15, only 8 iron ore mines have been auctioned till date. The government needs to fasten the process of auction of iron ore mines in future to cater to the industry's demands.

ii. A large quantity of low grade fines are lying unutilized at captive mines of SAIL and Tata Steel. These are not only causing environmental degradation but also financial loss to the

steel producers. The government should allow for sale of such low grade fines by facilitating necessary changes in the MMDR Act and relevant rules.

iii. Necessary support needs to be provided to the domestic pellet industry which has been ailing in recent times due to low capacity utilization rates.

iv. Availability of coking coal at optimum price remains a challenge for the steel sector. In the absence of sufficient supply of quality coking coal from domestic market, industry has so far depended on imports. However, the global coking coal market has been facing volatility in prices ever since the end of commodity supercycle. Government needs to increase domestic supply of coking coal by facilitating setting up of new washeries through proper fiscal incentives. Besides, more coking coal blocks need to be put up for auction for captive use.

v. Currently part of the coking coal produced by CIL is being diverted to power sector. Such misutilisation of valuable coking coal resources need to be prevented by mandating CIL to sell coking coal only to iron and steel companies.

vi. A special window needs to be created in spot and forward e-auction for selling of non-coking coal to iron and steel sector.

vii. In case of gas based steel plants which have been stranded due to lack of supply of natural gas from domestic sources, government needs to take necessary steps for restoration of domestic gas supply to steel sector.

viii. NMET funds need to be mobilized to increase mineral exploration activity within the country, especially for coking coal.

5.4 Energy Environment (land, water and power)

Many projects have been facing delays in acquisition of adequate land at the preferred locations due to policy and procedural issues. As per Draft National Steel Policy 2017, in order to reach crude steel capacity of about 300 MT, additional land requirement is estimated to be ~91,000 acres considering green field expansion. Ministry of Steel needs to actively coordinate with the State Governments to ensure that the bottlenecks being faced in land acquisition are resolved and the establishment of steel projects is back on track.

It is forecast that by 2030-31, the steel industry will annually require approximately 1500 million cu. meter of water. Ministry of Steel should coordinate with the State governments to ensure that adequate quantity of water is allocated to steel plants on priority basis.

Similarly, the power required by the industry is estimated to increase to 27,717 MW by 2030-31. Post de-allocation of coal blocks, various units in steel sector, especially the sponge iron plants, have been procuring power at high cost. The government should ensure that adequate supply of electricity is provided to steel plants at optimum cost.

5.5 Infrastructure and Logistics

With the increase in steel demand and production, the requirement of adequate infrastructure will further increase. The government needs to ensure adequate and timely infrastructure growth in these regions to address the increased industry requirement in areas such as railways, roadways, power generation and distribution etc.

Evacuation infrastructure at mine locations need to be strengthened considerably. Steel producers, especially in MSME sector, should be provided priority by Indian Railways in rake allocation.

Apart from railways, alternate modes of transportation such as slurry pipelines and conveyors need to be promoted through appropriate fiscal incentives.

Transportation of raw materials and finished goods through inland waterways and coastal shipping needs to be promoted. The government needs to make necessary efforts in conjunction with Inland Waterways Authority of India to facilitate debottlenecking of inland waterways transportation.

The port infrastructure in the country, especially at coking coal importing ports needs to be significantly strengthened.

5.6 Secondary Steel Sector

The secondary sector, including sponge iron industry, plays an important role in providing employment, meeting local demand of steel, and meeting the country's demand of some special products required in small volumes. The sector will continue to play an important role even in future. For continued growth of this sector, following measures need to be initiated-

i. Adequate supply of iron ore and non-coking coal should be provided to the companies operating in the secondary steel sector. The government's initiatives to conduct auction of linkages separately for sponge iron sector must be lauded in this regard. However, similar sector wise appropriation in the spot and forward e-auctions conducted by CIL will go a long way in helping the secondary steel producers and keeping their production costs at check.

ii. Use of energy efficient technologies in secondary steel sector need to be promoted by the government through suitable fiscal measures.

5.7 Research & Technology Enablement

In India, substantial R&D in Iron and Steel sector is currently being carried out by the leading steel companies like SAIL, Tata Steel, JSW Steel, etc. who have accomplished some significant work in the areas of raw material beneficiation, agglomeration and product development.

Since Indian steel industry is currently importing technology & critical equipment and systems for steel plants, necessary efforts need to be made under the aegis of government initiated Steel Research & Technology Mission of India (SRTMI) to raise the level of R&D and acquire best in class manufacturing capabilities to develop all these equipment and systems within the country.

5.8 Future Steel Products

Even though India has become the 3rd largest producer of steel globally, it still needs to imports certain value added steel products due to insufficient production/ lack of production capacity within the country. Automotive steel for high end applications, electrical steel such as CRGO & amorphous steel as well as special steel and alloys for the Power Equipment, Aerospace, Defense and Nuclear applications are few of them. The government needs to help import technologies for such products by facilitating JVs of Indian companies with global leaders of such products.

Further, steel is facing competition from materials such as aluminium, magnesium, Carbon Fibre Reinforced Plastics (CFRP), etc. especially in construction and automotive sectors. It is therefore necessary to evolve new specialized steel products to meet consumers' demands. For this, R&D in technological institutes within the country and at INSDAG need to be promoted through adequate funding by the government.

5.9 Trade

Overcapacity and supply glut is expected to persist in future in global market. In such a scenario, dumping of steel products at low cost in India can be expected to continue. Therefore, it is necessary that suitable trade remedial measures are in place to protect the domestic steel industry.

In addition, certain trade restrictions have been imposed on Indian steel products by other countries. The government needs to take up this issue at WTO level and help remove these restrictions as none of the Indian steel companies are dumping their products in the export markets.

The FTAs India has with South Korea and Japan have almost nullified the import duty on several steel products and have contributed to dumping of steel products at low price from these countries. It will be in the interest of the country as well as the steel industry if the provisions relating to steel imports in these FTAs are reviewed.

Even without FTA, imports from China had increased in the pre-MIP period. If the steel products are included in the positive list of RCEP[3] Agreement that India plans to sign with China, there will be further influx of steel in the country. Therefore, it will be prudent not to include steel products in the positive list of the RCEP agreement with China.

5.10 Financial Environment

Setting up of steel plant is a capital intensive process with long gestation periods. Given that crude steel capacity in the country is envisaged to reach 300 MT by 2030-31 from the current level of 122 MT, capital requirement will be of gargantuan proportions. Given the current conditions of steel industry, mobilizing adequate capital for the industry will be a challenging task in future.

Government's intervention will be required here to ensure capital lending to steel industry at competitive rates by banks. Besides, to further help the financing of steel projects, the government may look to create a Steel Finance Fund.

[3] *Regional Comprehensive Economic Partnership (RCEP)*

Many of the accounts in steel sector are facing financial stress and are on the verge of being classified as Non-Performing Assets (NPAs) by the banks. However, not all accounts may be unviable. The Reserve Bank of India has issued guidelines aimed at revitalizing the stressed assets including 'Strategic Debt Restructuring Scheme', 'Flexible structuring of Long Term Project Loans (5/25)' and 'Scheme for Sustainable Structuring of Stressed Assets (S4A)'. These are welcome steps by the RBI. However, further steps are needed on part of the government for relieving the financial stress in the steel sector.

NOTES



Arpan Gupta
Deputy Director & Head, Mines & Metals, FICCI
T: +91-11-23487536 | **M**: +91-9810572331 | **E**: arpan.gupta@ficci.com
Federation of Indian Chambers of Commerce & Industry (FICCI)
Federation House, Tansen Marg, New Delhi - 110001
Website: www.ficci.in