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Research Article

Steel Industries Approches Towards Make In India Vis-A-Vis South East Asia

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Abstract

The rapid growth in the field of communication, IT and other sector has created a major upheaval in the Indian Engineering Industry by imparting the importance of modernization and meeting the ever changing requirements of the world at large. The importance of productivity linked to quality has never been felt more. The automobile needs were addressed in the early 80's which has more or less revolutionized our thinking to produce materials and finished products of reasonable standards. Quality conscious professionals had since been constantly upgrading our technological process to meet the challenges.

Dating back to early 70's, when it was felt Aluminium and its alloys would dominate the scene in the years to come due to their excellent Specific Tenacity. Also, it was felt that Iron and Steel could well take a secondary stage to Aluminium; however, the scenario did not alter greatly even today. The need therefore was to modernize the steel industry by altering the process route to produce quality Iron and Steel. The world has since seen sea changes to the process and process controls of the modern Steel making process. India has been blessed with rich deposits of Iron ore as compared to most economically developed/developing countries. The dearth of quality coal and refractory dampens our zeal to be stiff competitors of the developed world. Our efforts need to be channelized and utilizing our main natural resources with respect to Iron ore and human resources should be our focus in order to be an economic power in the world.

Keywords: Steel, Production, Consumption, India, Asia

Introduction

Current SCENARIO of Indian steel industry

It is widely accepted that consumption of Iron and steel per capita is an important gauge to assess the economic development of a country and the following facts needs serious consideration to our zeal to be an economic power in the world.

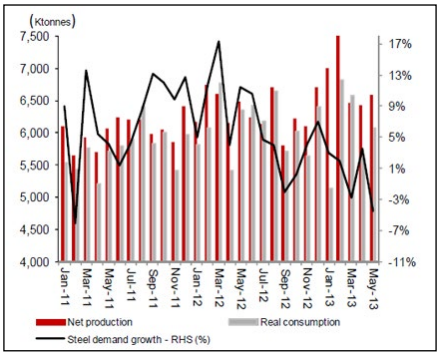

Figure 1.Steel consumption and growth: India (May 2013)

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India's growth in steel industry has not been as impressive as its growth in service industries. While India's overall GDP has been growing at 9% annually since 2011, steel consumption has grown at 12% an year. In the wake of India's current level of development and the need to augment the infrastructure and broader supply side of the country, the growth in steel looks insufficient. This can be one of the significant reasons behind the by-now widely known phenomenon of infrastructure deficit in the country. India consumed about 63 million tons of steel in the year 2011, compared with the total global consumption of slightly below 1,400 million tons, thereby accounting for less than 5% of the global steel market. The total global steel consumption has risen at 5.0% annually from 2011 to 2013, while that in India has witnessed 8.7% growth per year. The share of India in global steel consumption has risen from 3.7% to 4.8% over this period. China's steel consumption has grown at 15% annually between 2001 and 2013, and it came to represent 45.5% of the world's steel consumption in 2013, up from about 20% in 2001. Despite having comparable, albeit slightly lower growth rates India has lagged in steel consumption by a huge margin. It might be interesting to note that the world consumption of steel, excluding China, has actually grown at just 1.1% over this period, so in absence of China's rapid stride India's growth in steel making would have looked better in relative terms. The exhibit below shows how India and China have grown their share in the world steel market.

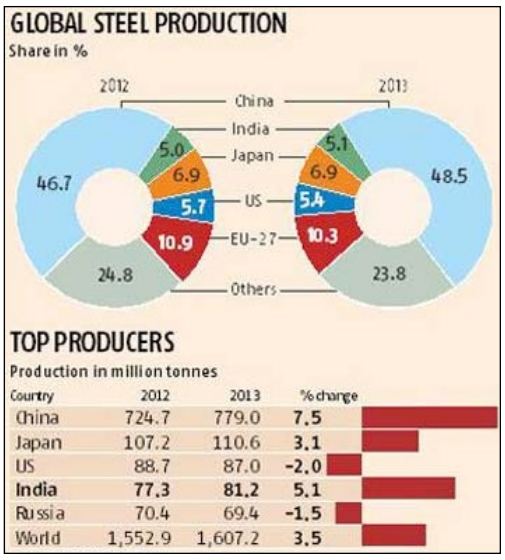

Figure 2.Steel consumption: India, China and World

It is true that India doesn't need to compare itself with China on every parameter, because the growth engines of these two countries are structurally different. India steers ahead in a more entrepreneurial environment, depending more on the services sector. On the other hand, China is cruising ahead on state owned enterprises and a highly regulated and planned economy. However, being two of the fastest large economies in the world and each representing about one fifth of the total world population, the comparison certainly puts the Indian steel industry in perspective.

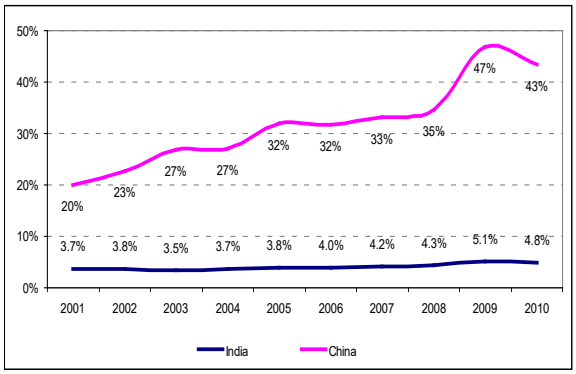

Figure 3.Steel consumption share: India and China

The picture becomes clearer once we take a close look at the per capita figures. India's per capita steel consumption has risen from 30.5 kg in 2001 to 66.3 kg in 2013, at constant annual growth rate of 8%. The world average stood at a much higher 320.8 kg per year in 2013. The global average rise in per capita steel consumption stood at 4.4% annually from 2001 to 2013.

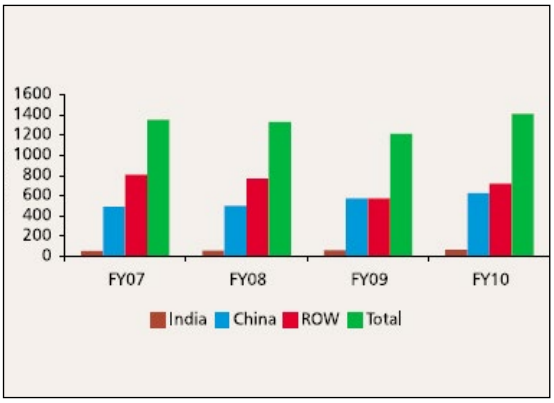

Figure 4.Per capita steel consumption: India

Figure 5.Per capita steel consumption: World

India's Steel Industries Current Production And Consumption

There needs a lot to be done in the Indian steel industry, to attain respectable per capita production and consumption numbers. However, the current picture of deficit is only half the story.

Steel is a very mature industry and has a high degree of global integration. The top ten global players account for about a quarter of the total steel production. Also, the concept of self sufficiency in steel production is no longer on the agenda of most countries as the Ricardian principle is widely held in this industry assuring that the producer who can do it for a lesser cost is beneficial for both buyers and sellers. It can be seen in the fact that although the global steel consumption has grown at 5.5% per annum since 2001, the total production excluding India and China has been merely 0.8%. If we look at the production trends in the entire world, the balance seems to be tilting in favour of the Chinese producers. Essentially producers in most of the countries are finding the Chinese counterparts to be difficult to compete with and therefore are relying more and more on imports for steel products. India, on the other hand, has risen to the challenge. Steel production in India has been rising faster than steel consumption thereby signifying the ability of India to not just repel the threats of global competition, but to be a major supplier itself. India has quickly raised the ranks among global steel producers and is currently the fourth largest producer of the alloy, behind only China, Japan and the US. India ranked fifth in 2009 and it crossed Russia in 2013 to continue its rise up the steel producers chart.

India had a production deficit in 2001, with total crude steel consumption at 31.2 million tons and total production at 27.3 million tons, However, over the past decade India grew its production at 10.7% annually as opposed to the consumption rising at 8.7% to become a net crude steel surplus country. This growth has actually accelerated since economic liberalization of India. Total production in India stood at about 14 million tonnes in 1991, and had grown at little over 7% to reach 27 million tonnes in 2001. This acceleration is expected to continue further as India steps up efforts to bridge the infrastructure gap. In the 11th five-year-plan India targeted over $500 billion worth of infrastructure spending and according to estimates of the government the actual spend was well within 1% deviation from the plan. India's target infrastructure expenditure for the 12th five-year-plan stands at an ambitious $1 trillion, doubling the last five-year-plan outlay. Such a high infrastructure spend will push the steel consumption to much higher levels in the country. Powered by the strong infrastructure spend in this decade, it is very likely that India will emerge overtake Japan and US to emerge as the second largest worldwide producer of steel by the year 2020.

A look at the trade pattern of finished and semi-finished in India shows that the consumption of these is rising faster than the production in India. India imported 1.8 million tonnes of semi-finished and finished steel in 2001, while it exported 3.2 million tonnes thereby implying a net export surplus of 1.4 million tonnes. India remained a net exporter of semi-finished and finished goods before 2007 and has turned into a net importer since, with an exception of 2008. In 2010 India imported 9.1 million tonnes of semi-finished and finished steel, while its exports amounted to only 5.9 million tonnes. The imports have thus clocked a growth rate of 20% while exports have risen at 7% per year. The export growth is healthy, however, the import growth seems to be suggesting rising appetite of India for finished goods which are of superior quality compared to what we are churning out from our production facilities within the country. Transportation costs in steel are not insignificant and therefore it is unlikely that the import and export of semi-finished and finished goods could rise strongly simultaneously without any difference in the quality of goods being traded.

Figure 6.Semi- finished steel imports: India

The trend in iron ore production and export also indicates that our current focus is lower in the value chain. Iron ore production in India has risen at a rapid rate of 15.9% per annum, while our exports of iron ore have been rising at 12% per annum over the period 2001-2010. India used to export 46% of all the iron ore produced in the country in 2001; however, this ratio has fallen to 35%.

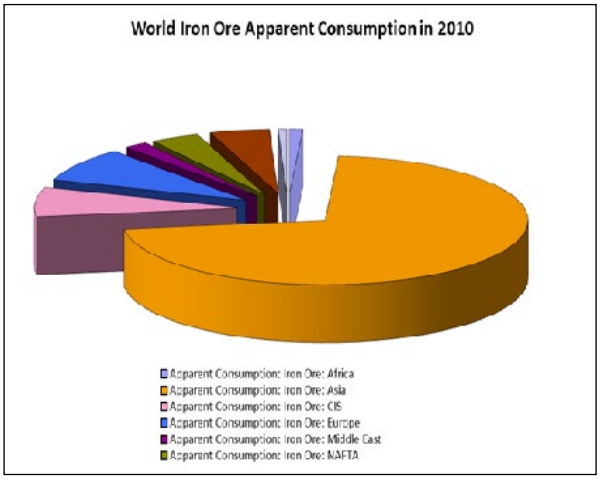

Figure 7.Iron ore Consumption: World

The Needs of India for Better Tomorrow

It is becoming an increasingly wide belief that the two powerhouses of the developing world have different focus – India focuses on services and China focuses on industry. However, it needs to be understood that India has an

inherent advantage over many countries of the world in the industry segment. And the advantage comes from the natural resources that the country possesses. Unlike the scenario in early decades post independence, when the priorities were more basic in nature, India has a world of opportunities in front of it today. India's skill based industries have created an unparalleled upward spiral of wealth in the country, which had never been witnessed in our history. India boasts of being the world leader in IT and its share in the global IT expenditure has still been rising. India has one of the cheapest of voice communication services and a rapidly rising mobile telephony market. India is emerging as an important player in engineering services, as can be seen in the past success of the auto components segment. The services growth in India, or for that matter any form of growth in a country, has a textbook economic multiplier effect on economic growth.

Rising incomes in India are creating higher demand for housing and automobiles among everything. The pent-up demand for steel, as one of the prime underlying materials, cannot be overstated. This part of the story is not new. However the approach that India takes towards these goals may be new. On the one hand India can continue the way it is going, clocking the good growth it is seeing in steel consumption and production. If we assume that the likely scenario – that India is importing more and more of higher quality steel while it exports relatively lower quality – continues, the country can wait till the economic benefits of the movement up the value chain becomes evident enough in the wake of substantial costs and risks of research and development. Essentially, the first avenue in front of India is do what it is doing already and hope for the natural advantages to work for it. However, recognising that hope is not a strategy, India can also choose to proactively influence the way its iron and steel industry

Having raw material sources easily available to them, Indian iron and steel players need to embark on more aggressive expansion. The government needs to make efforts to iron out the issues around expansion of such players. Conducive environment for expansion of iron and steel industry would lead to swift and significant job creation – something that the economic growth of India post liberalization hasn't been able to bring strongly with it. This will lead to a more inclusive growth, which by its very nature comes along with a high multiplier effect. In other words, steps in the direction of facilitating setup of iron and steel industries will create jobs providing the underemployed rural population of India a channel towards urbanization. The major beneficiaries of these jobs usually belong to the economic section of society which has high marginal propensity to consume. Therefore, it will have a high multiplier effect. In reality this will manifest through the demand for more housing, automobiles and everything else that is required for a normal household. This will further push up the demand for iron and steel giving rise to the virtuous cycle of demand. At the current 50kg per capita consumption level of the country even a small push will have a strong impact.

At the same time it has to be borne in mind that the steel industry, which is a highly unified industry globally, is not an easy arena to compete. There are hardly any tariffs or barriers that can protect players who cannot produce good quality at low costs. Therefore the ability to stay competitive by adopting industry's best practices, in addition to state-of-the-art technologies, will be the biggest deciding factor about the success or failure of such moves. Backward integrated firms with assured raw material supplies can find it easier to compete in the global marketplace than players who do not have this advantage. India's low cost structure is expected to work in favour of the equation. At the risk of sounding simplistic, it has to be understood that even in a world with a very complex value delivery mechanism, the export of raw materials ensures that we miss out on the possible economic value addition in the next step of producing iron and steel. It remains true that if there are certain countries which have the technological capability to add significantly more value to the iron ore than India, they will actually provide a means for India to sell the iron ore for more price than what India can generate by processing the ore itself. However, the quest for better technologies is not a contradictory strategy to quick expansion in the low cost expansion. India needs to make serious efforts on both fronts expanding the production of existing quality and stepping up the research and development efforts to move up the value chain.

The reason why efforts to move up the value chain are necessary do not lie entirely in the value that can be unlocked in the higher part of the value chain. In addition, it is important to understand that lower part of the value chain is a crowded part of the marketplace and it doesn't take too much for a low income country to try competing in it. Over time rising surplus capacities in low value-add product lines can put downward pressure on the prices of the commodity and in extreme scenarios even cause sick industries. Expansion, therefore, is the first step in the right direction and it will actually follow investments in research and development and ultimately moving on to higher value-add part of the iron and steel value chain.

Conclusion

Despite the fact that surplus iron ore had resorted to exports, Constrained iron ore availability impacted capacity utilization.

Integrated as well as standalone steel majors have dominance in market share. A depreciating currency has supported margins through a surge in exports. Industry margins generally are healthier than global peers.

Urbanization and demographic changes will support long-term steel demand.

Substantial capacity additions are planned. Many global steel players have formed joint ventures with domestic steel companies in India. While as China moves toward a consumer-led economy, steel demand will stabilize at about 4% per annum. The Chinese Government is focusing on removing excess capacity. Low utilization of just about 75% will remain a concern. Steel margins will remain under pressure due to overcapacity and weak demand. The steel margins with particular reference to low value steels is likely to decline due to demand and supply ratio. Hence at least to nullify this ill effect, it is pertinent to initiate steps rapidly to produce high end steels to cater to our domestic as well as export oriented products, rather than importing high end steels such as high speed, die-steels and also huge castings of alloy steels.

Our emphasis for mass scale production to increase two to three fold levels also improves our overall economic growth which is also the need of the hour, which is evident from our almost negligible change in per capita consumption of steel. Apart from economic development, the potential to absorb the enormous wealth of other technical fields such as all other core branches and the related fields such as IT, telecommunication and instrumentation.

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