Analysis of the global steel industry

Steel Industry is a booming industry in the whole world. The increasing demand for it was mainly generated by the development projects that have been going on along the world, especially the infrastructural works and real estate projects that has been on the boom around the developing countries. The Asian countries have their respective dominance in the production of the steel all over the world. India being one among the fastest growing economies of the world has been considered as one of the potential global steel hub internationally. Over the years, particularly after the adoption of the liberalization policies all over the world, the World steel industry is growing very fast.

Steel Industry was till recently dominated by the United Sates of America but this scenario is changing with a rapid pace with the Indian steel companies on an acquisition spree. In the last one year, the world has seen two big M&A deals to take place:-

The Mittal Steel, listed in Holland, has acquired the world’s largest steel company called Arcelor Steel to become the world’s largest producer of Steel named Arcelor-Mittal.

Tata Steel of India or TISCO (as listed in BSE) has acquired the world’s fifth largest steel company, Corus, with the highest ever stock price.

It has been observed that Steel Industry has grown tremendously in the last one and a half decade with a strong financial condition. The increasing need of steel by the developing countries for its infrastructural projects has pushed the companies in this industry near their operative capacity. The most significant growth that can be seen in the Steel Industry has been

observed during the period 1960 to 1974 when the consumption of steel around the whole world doubled. Between these years, the rate at which the Steel Industry grew has been recorded to be 5. 5 %. This roaring market saw a phase of deceleration from the year 1975 which continued till 1982. After this period, the continuous fall slowed down and again started its upward movement from the early 1990s. Steel Industry is becoming more and more competitive with every passing day. During the period 1960s to late 1980s, the steel market used to be dominated by OECD (Organization for Economic Cooperation and Development) countries. But with the fast emergence of developing countries like China, India and South Korea in this sector has led to slipping market share of OECD countries. The balance of trade line is also tilting towards these countries. The main demand creators for Steel Industry are Automobile industry, Construction Industry, Infrastructure Industry, Oil and Gas Industry, and Container Industry.

New innovations are also taking place in Steel Industry for cost minimization and at the same time production maximization. Some of the cutting edge technologies that are being implemented in this industry are thin-slab casting, making of steel through the use of electric furnace, vacuum degassing, etc.

The Steel Industry has enough potential to grow at a much accelerated pace in the coming future due to the continuity of the developmental projects around the world. This industry is at present working near its productive capacity which needs to be increased with increasing demand.

STEEL GLOBAL SCENARIO

The biggest boom in history of steel industry is that of the 1950s and 1960s, when the steel industry was driven by the post-War boom in the developed world. Where as the current boom is being led by growth in the developing world, particularly China, India and Brazil. Indeed, the China factor is huge and gives the impression that the boom has a broader basis than it actually has. In 2005, China produced 349 million tonnes of crude steel, accounting for almost one-third of the global steel output. Even this was not enough to feed the country’s appetite for growth. It was the biggest importer of steel and the sixth biggest exporter of steel in the world; in 2005, its net imports amounted to 12 million tonnes and its consumption of steel also amounted to a little less than one-third of the world consumption. China is clearly the engine that has driven steel consumption in the Asian region. Its consumption, as a percentage of the total consumption in Asia, increased from 41 per cent in 1999 to 57 per cent in 2005. Steel prices, primarily buoyed by the Chinese boom, hit their peak between 2002 and 2004. This ensured high profits from investments in steel.

Despite the moves towards consolidation, steel capacities are still fragmented. The gap between Arcelor-Mittal and Nippon Steel, the second biggest producer, highlights this. Nippon produced 32 million tonnes of steel in 2005 – less than one-third that of the industry leader. More significantly, although the Tata-Corus combine will be placed at number five in the global steel pecking order, its capacity would still not be very far ahead of most companies in the top 15. This implies that under the threat of further consolidation the Tata’s may well come under pressure to acquire more

capacities from rivals or expose themselves to attack from aggressive bidders.

The point about consolidation is that it is only happening at the top. The top 10 companies produce about 25 per cent of the global steel output. The rest of the steel – about 75 per cent of the global capacity – is still widely dispersed over 62 countries around the world, in plants with much smaller capacities. Industry sources say that consolidation needs to happen at the bottom end of the steel market. “ The smaller producers, rather than the bigger ones, affect the market more,” said a senior official in the Ministry of Steel and Mines. “ The pressure building up at the bottom can result in the bigger producers losing control of the market suddenly and quickly.”

In the year 2004, the global steel production has made a record level by crossing the 1000 million tones. Among the top producers in the steel production, China ranked 1 in the world. Production of steel in the 25 European Union countries was at 16. 3 mmt in January 2005. Production in Italy increased by 11. 5 per cent in comparison to the same month in 2004. Italy produced 2. 5 mmt of crude steel in January 2005. Austria produced 646, 000 metric tones. In Russia it increased by 4. 0 per cent to reach at 5. 5 mmt in January. In case of the North America region particularly in Mexico it was 1. 5 mmt of crude steel in January 2005, up by 8. 0 per cent compared to the same month in 2004. Production in the United States was 8. 3 mmt. Brazil had produced 2. 6 mmt of crude steel in January 2005. In South America region it was 3. 7 mmt for January 2005

INDIAN STEEL INDUSTRY

Post liberalisation

Steel industry reforms – particularly in 1991 and 1992 – have led to strong and sustainable growth in India's steel industry. Since its independence, India has experienced steady growth in the steel industry, successive governments that have supported the industry and pushed for its robust development. Further illustrating this plan is the fact that a number of steel plants were established in India, with technological assistance and investments by foreign countries.

In 1991, a substantial number of economic reforms were introduced by the Indian government. These reforms boosted the development process of a number of industries – the steel industry in India in particular – which has subsequently developed quite rapidly. The 1991 reforms allowed for no licenses to be required for capacity creation, except for some locations. Also, once India's steel industry was moved from the listing of the industries that were reserved exclusively for the public sector, huge foreign investments were made in this industry.

Yet another reform for India's steel industry came in 1992, when every type of control over the pricing and distribution system was removed, making the modern Indian Steel Industry extremely efficient, as well as competitive. Additionally, a number of other government measures have stimulated the growth of the steel industry, coming in the form of an unrestricted external trade, low import duties, and an easy tax structure.

India continually posts phenomenal growth records in steel production. In 1992, India produced 14. 33 million tones of finished carbon steels and 1. 59 million tones of pig iron. Furthermore, the steel production capacity of the country has increased rapidly since 1991. In 2008, India produced nearly 46. 575 million tones of finished steels and 4. 393 million tones of pig iron. Both primary and secondary producers contributed their share to this phenomenal development, while these increases have pushed up the demand for finished steel at a very stable rate.

In 1992, the total consumption of finished steel was 14. 84 million tones. In 2008, the total amount of domestic steel consumption was 43. 925 million tones. With the increased demand in the national market, a huge part of the international market is also served by this industry. Today, India is in seventh position among all the crude steel producing countries.

THE Indian steel industry, in line with global trends, is at a crossroads, witnessing a resurgent phase of modernisation, expansion and consolidation, mainly through mergers and acquisitions.

A sector that was moribund just about five years ago because of a worldwide slump in steel prices, the industry has turned the corner and has in fact been vibrant over the past two years. Domestic steel companies, both public and private, are surging ahead on the strength of an unprecedented buoyancy in the economy and the resultant boom in real estate and various infrastructure sectors such as roads and highways, ports and airports. The official figures speak for themselves. Powered by an increased demand for steel from neighbouring China, which has been clocking a 15 per cent sectoral growth

annually on account of construction projects in preparation for the Olympics, the steel industry in India has grown by about 10 per cent in the past two years, compared with the global growth rate of about 6 per cent a year.

The country’s production of crude steel in 2005-06 stood at 42. 1 million tonnes, reflecting an increase of 7. 1 per cent over the previous fiscal. On the other hand, the consumption of steel during the year was pegged at 41. 43 million tonnes, a massive growth of 13. 88 per cent when compared with the 2004-05 figures. Likewise, the production of sponge iron also increased sharply by 25 per cent, from about 10. 3 million tonnes in 2004-05 to 12. 9 million tonnes in 2005-06. Currently, India is the largest sponge iron producer in the world and ranks seventh among steel-producing countries.

The growth in domestic steel consumption is, by and large, in keeping with the International Iron and Steel Institute (IISI) forecast of a 10 per cent increase in steel use in 2006. While the IISI has projected the global demand for steel to grow by 4. 9 per cent in the medium term up to 2010, it has pegged its forecast for the 2010-15 period at 4. 2 per cent annually for the entire world. The IISI says India will lead the consumption growth story with an annual demand of 7. 7 per cent, followed by China with 6. 2 per cent.

More heartening is the indication that the exciting phase in the domestic steel industry is expected to continue for the next five to seven years at the least, in terms of both consumption and production. Already, the growth in steel consumption, as projected by the United Progressive Alliance (UPA) government in the National Steel Policy (NSP) formulated in 2005, stands exceeded by a huge margin.

The NSP had conservatively estimated the country’s steel production to grow by 7. 3 per cent, with an annual consumption growth of 6. 9 per cent. Considering that the past two years have already witnessed a demand growth of over 10 per cent, the government expects the healthy trend to continue during the Eleventh Plan period (2007-12), provided an annual gross domestic product (GDP) growth of 9 per cent is achieved during the period as projected by the Planning Commission. Clearly, for primary steel producers, India is the place to be in as it has the greatest growth potential. There are two other major factors. One, India is bestowed with the largest reserves of high-quality iron ore in the world. Secondly, the annual per capita consumption of steel in the country is still one of the lowest in the world, at 35 kilograms against the global benchmark of 250-400 kg. In effect, the growth story in India is here to stay for quite a few decades in view of the sheer disparity in consumption levels.

The three ore-rich States – Jharkhand, Orissa and Chhattisgarh – threw open their doors, steel-makers of all hues jumped into the fray to sign memoranda of understanding (MoUs) with more than one State government. In all, more than 116 MoUs have already been inked, pledging a total investment of a whopping Rs. 3, 57, 344 crores in the coming years.

If all the pledges materialise, the country’s installed steel production capacity will surge to anywhere between 150 million and 180 million tonnes by 2014-15, compared with the conservative NSP target of 110 million tonnes by 2019-20. Orissa signed 43 MoUs to hike its production capacity to 58. 04 million tonnes. Not to be left behind, Chhattisgarh entered into 42 MoUs to augment its steel capacity to 19. 32 million tonnes, while Jharkhand

signed 31 MoUs to increase its capacity to 68. 67 million tonnes. The extensive availability of rich iron ore – the basic raw material for steel-making – in the three States has attracted big global names too who, at the outset, made it clear that they would require captive iron ore mines to feed their greenfield steel projects.

Initially, it was the home-grown Tata Steel that signed a MoU with the Orissa government, in November 2004 for setting up a six-million-tonne plant at an estimated cost of Rs. 15, 400 crores after the government made a commitment that its ore requirement of 250 million tonnes for a period of 25 years would be met. Pohang Iron and Steel Company (POSCO), the South Korean major and the third largest global steel producer, approached the Orissa government, the terms turned out to be far sweeter. Under the MoU signed in June 2005, POSCO plans to set up a 12-million-tonne plant at Paradeep, with an investment of Rs. 51, 000 crores. The initial proposal was for a 10-million-tonne plant, but there is a catch here. The government has committed itself not only to providing 600 million tonnes of ore on a captive basis for a period of 30 years but also allowing POSCO to export the quality domestic ore for use in its steel plants in Korea. It has demanded the raw material from mines in Sundergarh and Keonjhar districts.

Lakshmi N. Mittal, the non-resident Indian (NRI) tycoon and the world’s biggest steel-maker following the merger of Mittal Steels with the Luxembourg-based Arcelor in June last year, did still better. He put Jharkhand and Orissa in competition by proposing a steel venture in either State, depending upon the terms and incentives and the swiftness in approvals. Jharkhand lost out – owing to litigation over its Chiria ore mines and for other

reasons – to Orissa, which signed an MoU with Mittal-Arcelor in December last year for a 12-million-tonne steel plant at Keonjhar.

The state-owned Steel Authority of India Limited (SAIL) also undertook a major exercise to retain its position as the leading integrated steel producer in the country. The steel behemoth announced its `Corporate Plan-2012′, envisaging an outlay of Rs. 37, 000 crores to upgrade its plants and modernise its operations. Under the plan, expansion programmes are under way in various SAIL units to enhance the total production capacity to 22. 9 million tonnes of hot metal from the present 12. 5 million tonnes by 2011-12.

Late last year, following the merger of IISCO with SAIL, Prime Minister Manmohan Singh laid the foundation stone for the modernisation and expansion of ISP (IISCO steel plant) with an investment of Rs. 9, 592 crores. Mergers of a few more state-owned units with SAIL are on the cards with a view to consolidating public sector share in the steel market. The other public sector steel enterprise, Rashtriya Ispat Nigam Ltd. (RINL), is already in the process of implementing an ambitious expansion programme for increasing its liquid steel capacity from the current three million tonnes to 6. 3 million tonnes at an estimated cost of Rs. 8, 692 crores. Launched on May 20, 2006, the project is scheduled for completion by 2008-09. Needless to say, the demand for iron ore has surged in view of the long-term supply commitments being given by the State governments at a time when the international market prices for the raw material are at a high.

The government set up a committee under the Planning Commission, headed by Anwarul Hoda, to recommend changes in the National Mineral

Policy. The existing policy permits free exports of iron ore with a ferrous content of less than 64 per cent. For exports of high-grade ore with higher ferrous content, a license is required and is currently canalised through the Minerals and Metals Trading Corporation (MMTC). The Hoda Committee recommended free exports of iron ore with a ferrous content of less than 65 per cent but advocated discontinuation of the existing regime of canalisation and export licensing for the high-grade ore. Instead, the panel suggested free exports of quality ore lumps with ferrous content of more than 65 per cent on payment of an export duty.

TATA STEEL

Tata Steel, formerly known as TISCO (Tata Iron and Steel Company Limited), is the world's fifth largest and India's largest steel company, with an annual crude steel capacity of 28 million tonnes. Ranked 315th on Fortune Global 500, it is based in Jamshedpur, Jharkhand, India. It is part of Tata Group of companies. Tata Steel is also India's second-largest and second-most profitable company in private sector with consolidated revenues of Rs 1, 32, 110 crores and net profit of over Rs 12, 350 crores during the year ended March 31, 2008. Its main plant is located in Jamshedpur, Jharkhand, with its recent acquisitions; the company has become a multinational with operations in various countries. In 2000, the company was recognised as the world's lowest-cost producer of steel. The company was also recognized as the world's best steel producer by World Steel Dynamics in 2005. The company is listed on Bombay Stock Exchange and National Stock Exchange of India, and employs about 82, 700 people (as of 2008).

On 2nd April, 2007, the Company completed the acquisition of Corus Group plc, Steel Company headquartered at UK for an Enterprise Value of USD 14. 7 billion. Post the acquisition of Corus, Tata Steel Group is now the world's 6th largest steel company with current steel deliveries of 32 million tonnes. Set up as Asia's first integrated steel plant and India's largest integrated private sector steel company, a century ago, it is now the world's second most geographically diversified steel producer, with operations in 24 countries and commercial presence in over 50 countries. The Jamshedpur operations in India is increasing its capacity from 5 mtpa to 10 mtpa by end 2010 and the Company has also signed MoUs to set up four greenfield steel projects in the states of Jharkhand, Orissa and Chhattisgarh in India and one in Vietnam.

Few years back, Tata Steel embarked on a journey to pursue Growth and Globalisation through organic and inorganic strategy to increase its capacity in excess of 50 mtpa by 2015. The Company identified several strategic levers including building a stronger base in India, acquisitions in both growing and developed markets, strategic investments in raw material assets and focus on branding.

TATA STEEL VISION& MISSION STATEMENT

Vision

" We aspire to be the global steel industry benchmark for Value Creation and Corporate Citizenship"

We make the difference through:

Our people, by fostering team work, nurturing talent, enhancing leadership capability and acting with pace, pride and passion.

Our offer, by becoming the supplier of choice, delivering premium products and services, and creating value with our customers.

Our innovative approach, by developing leading edge solutions in technology, processes and products.

Our conduct, by providing a safe working place, respecting the environment, caring for our communities and demonstrating high ethical standards.

Mission statement

Achieve sustainable, profitable growth in steel and related businesses.

Create differential value for our customers through innovative offerings.

Continuous improvement of business processes and technologies.

Foster partnership with key stake holders.

Enhance employees' competencies to create a high performing and innovative organization. Be a responsible corporate citizen and enhance the quality of life of employees and key community.

TATA STEEL FUTURE STRATEGIES

Currently, the global steel industry is going through unprecedented times. The steel demand is strong with over 6% growth year on year over the last seven years – unseen in the last several decades, primarily driven by robust growth in China, India, South East Asia, Middle East, Russia and Brazil. The iron ore and coking coal prices are at a record high both due to insufficient capacity creation for these and the heavy consolidation of minerals companies. Oil prices and ocean freight rates are at an all time high. The

combined effect of all these have driven steel prices to a level higher than ever before – though there is increasing pressure on margins of steel companies due to very high input costs.

The new scenario – both external, due to high raw material and freight costs and internal, called for a new Vision, strategies and action plans. The Company has co-created a shared Vision with its employees of becoming a global benchmark in Value Creation and Corporate Citizenship. Company has set goals for 2012 in terms of Returns on Invested Capital, Safety, Carbon dioxide emissions and of becoming the employer of choice in the industry. The integration with Corus is proceeding smoothly and is yielding better than the predicted results. Continuous improvement projects are being given focus in all companies' sites and businesses. Greenfield projects in India are progressing, though somewhat slower than planned. Company's effort to enhance their raw material security has yielded positive results in Ivory Coast for iron ore, in Mozambique for coal and in Oman for limestone. There is greater emphasis on safety. They have well laid out plans to reduce CO2 emissions to benchmark levels.

The Tata Steel Group will pursue strategic growth through capacity expansions and securing access to raw materials. The Group is expanding its capacity in India through the expansion of its operations in Jamshedpur to 10 million tonnes per annum and through the construction of a 6 million tonnes per annum ' greenfield' site in Orissa. Other Greenfield opportunities in India and across Asia are being assessed. The Group is also looking at further integration upstream in raw materials with an ambition to achieve 100% self-sufficiency in India and around 50% self-sufficiency in Europe over time.

Agreements for the exploration of iron ore in the Ivory Coast, coal in Mozambique and limestone in Oman have already been signed and opportunities are under review in India to support the Indian Greenfield projects; and in Africa and South America, primarily to support its European steelmaking assets

Climate change is probably the biggest challenge ever to confront the steel industry. In response to this challenge, the Tata Steel Group will be part of the solution and is committed to minimising the environmental impact of its operations and its products. It has a goal to reduce its CO2 footprint by at least 20% by 2020 compared to 1990. To meet this objective, the Group will, for example, continue to improve its current processes, invest in breakthrough technologies and develop new products and services that reduce the environmental impact over the product lifecycle. To improve its processes, priority is given to energy conservation schemes; in technology break-through such as Ultra Low Carbon Steel making and in other innovative projects where the Group has proprietary technology.

TATA STEEL SWOT ANALYSIS

STRENGTHS

Tata Steel’s Indian operations are self-sufficient in the case of its major raw material iron ore through its captive mines.

Very advanced Research and Development wing which is carrying out researches and experiments in the areas of raw materials, blast furnace productivity, steel making, product development, process improvement etc. Several thrust area projects were taken up

Tata had a strong retail and distribution network in India and SE Asia. Tata was a major supplier to the Indian auto industry and the demand for value added steel products was growing in this market.

The Company is on its way to reach a crude steel capacity of 10 million tonnes per annum by FY 2011. The first phase of reaching the crude steel capacity of 6. 8 million tonnes per annum, Brown field projects, is nearing completion

The Company has in place adequate internal control systems and procedures commensurate with the size and nature of its business. The effectiveness of the internal controls is continuously monitored by the Corporate Audit Division of the Company. Corporate Audit's main objective is to provide to the Audit Committee and the Board of Directors, an independent, objective and reasonable assurance of the adequacy and effectiveness of the organisation's risk management, control and governance processes. Corporate Audit also assesses opportunities for improvement in business processes, systems & controls and may provide recommendations, designed to add-value to the organisation. It also follows up on the implementation of corrective actions and improvements in business processes after review by the Audit Committee and Senior Management

Tata Steel has been on a path of accelerated growth with foray into several geographies and markets through aggressive mergers and acquisitions.

Tata Steel now is in the process of implementing a structured approach in risk management called Enterprise Risk Management (ERM). The key objectives of the Company through ERM are :

To enshrine the process of ERM as a usual Business Process and integrate into all decision making and planning processes.

To ensure that all levels of Management identify and monitor risks through a properly defined framework.

To provide periodic information and updates to the Board and the Shareholders on the significant risks and the ways of mitigating the same.

Tata Steel addresses the risk of cyclicality of the Steel industry by marinating rich product mix and higher value added products whose volatility is lower. Moreover, the industry itself has been undergoing some structural changes with Consolidations. These changes are expected to bring in greater stability to prices.

Tata Steel with its modernisation plans has ensured that it deploys the best technologies to ensure quality, cost-efficiency and environment-friendly processes. Through acquisition of Corus and with new Greenfield ventures, Tata Steel has ensured that it has diversified the concentration risk in single technology of Iron & Steel making

WEAKNESS

Endemic Deficiencies

These are inherent in the quality and availability of some of the essential raw materials available in India, eg, high ash content of indigenous coking coal adversely affecting the productive efficiency of iron-making and is generally imported. Advantages of high Fe content of indigenous ore are often

neutralized by high basicity index. Besides, certain key ingredients of steel making, eg, nickel, Ferro-molybdenum are also unavailable indigenously.

India is deficient in raw materials required by the steel industry. Iron ore deposits are finite and there are problems in mining sufficient amounts of it. India’s hard coal deposits are of low quality and the prices of coking and non-coking coal are ever increasing

Raw materials for steel production are rapidly depleting and are non renewable, company has to come up with sustainable methods in steel production.

Steel production in India is also hampered by power shortages.

Insufficient freight capacity and transport infrastructure impediments too hamper the growth of Indian steel industry.

Low Labour Productivity

In India the advantages of cheap labour get offset by low labour productivity; eg, at comparable capacities labour productivity of SAIL and TISCO are 75 t/manyear and 100 t/manyear, for POSCO, Korea and NIPPON, Japan the values are 1345 t/man year and 980 t/manyear.

High Cost of Basic Inputs and Services

High administered price of essential inputs like electricity puts Indian steel industry at a disadvantage; about 45% of the input costs can be attributed to the administered costs of coal, fuel and electricity, eg, cost of electricity is 3 cents in the USA as compared to 10 cents in India; and freight cost from

Jamshedpur to Mumbai is $50/tonne compared to only $34 from Rotterdam to Mumbai.

OPPORTUNITIES

The biggest opportunity before Indian steel sector is that there is enormous scope for increasing consumption of steel in almost all sectors in India.

Unexplored Rural Market

The Indian rural sector remains fairly unexposed to their multi-faceted use of steel. The rural market was identified as a potential area of significant steel consumption way back in the year 1976 itself. However, forceful steps were not taken to penetrate this segment. Enhancing applications in rural areas assumes a much greater significance now for increasing per capital consumption of steel. The usage of steel in cost effective manner is possible in the area of housing, fencing, structures and other possible applications where steel can substitute other materials which not only could bring about advantages to users but is also desirable for conservation of forest resources.

Excellent potential exist for enhancing steel consumption in other sectors such as automobiles, packaging, engineering industries, irrigation and water supply in India. New steel products developed to improve performance simplify manufacturing/installation and reliability is needed to enhance steel consumption in these sectors

It is estimated that world steel consumption will double in next 25 years. Quality improvement of Indian steel combined with its low cost advantages will definitely help in substantial gain in export market.

The Tata Steel Group is leveraging the Group’s collective Research and Development experience in the Group’s various geographies to further enhance the Group’s performance and also the integration process.

Corus acquisition bring in a tremendous technological advantage by access to best practices in global steel industry

Global M&A brought in following synergies

Greater productivity leading to increased output and market size.

Greater economies of scale leading to cost reduction through combined buying

Cross fertilisation of Research and Development capabilities and operational best practices, leading to greater innovation and operational efficiencies.

Booming infrastructure has opened up high demand for steel worldwide

THREATS

In the developed world, industries have been facing rising environmental costs due to the increased concerns on Global Warming. It is, therefore, a challenge and responsibility for the Steel industry to be the trustee in conservation of nature for future generations

It is recognised that the steel and aluminium industries are significant contributors to man-made greenhouse gas emissions as the manufacture of steel produces carbon dioxide (CO2), and th