Resurgence through Consolidation: A spurt in steel Industry

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Abstract : *The resurgence of steel industry has created a revolution and diverted the attention of burgeoning steel industry business tycoons. The consolidation is imminent in the steel industry. It is no more a domestic issue rather an international agenda hovering in the entire globe with Mittals being the frontrunner. The key drivers for this behavior of steel industry are highly concentrated upstream and downstream industries, cyclicality, competitive structure, price volatility and expected synergies in procurement and logistics. The accelerated pace of consolidation is taking not necessarily because companies are willing for it but because they are left with no other alternative for survival. World Steel Dynamics expert Peter F Marcus puts it as "the mania to merge". The research paper analyses and emphasize the various issues of consolidation, key driving factors, dynamics of global steel market structure, future trends and consequences of consolidation. The global demand is led by China followed by India which are on robust growth path. China Steel Industry has now entered into the consolidation phase after huge capacity building over the past few years. The Indian Steel Industry has now matured and is responding to the challenge of global competition with hostile takeover by Tata Steel of Corus. In spite of huge advantage of consolidation, the possibility of global steel cartels can not be ruled out. It is imperative to design some independent regulatory framework in order to restrict monopolization in the steel industry in future. Finally, the consolidation in the steel industry will create an attractive investment opportunity which will hold sustainability. It will provide more consistent offerings around the globe and supply chain efficiencies that could be capitalized for longer period. The frequent restructuring in the corporate steel world is an inevitable fact and the need of the hour.*

INTRODUCTION

The global steel industry has been going through major shifts in their objectivity and goal. The foremost reason for this strategy is to secure precious raw materials and increase commercial production capacity within the stipulated time period with minimum investment. It is worthwhile to deal with the issue of steel industry consolidation over the recent past and future. On this backdrop, the paper is directed towards the following objectives:-

- To explore how the consolidation trend began
- To analyse the various dimensions of consolidation
- To analyse the factors driving the consolidation
- To assess the reason for urge to consolidate
- To assess consolidation in Chinese and Indian context
- To assess the implications of the consolidation on competition and performance
- To assess the possible emerging scenario of any further expected consolidation in future

The Journey of Steel Industry Consolidation

Global steel production grew enormously in the 20th century in Western Europe and the USA followed by the Soviet Union, Eastern Europe and Japan. Steel consumption in these regions has reached at saturation level. Meanwhile steel demand has shifted to the developing world. Upstream and downstream industries of steel industry have consolidated. Hence the focus of steel makers shifted to consolidation and productivity. The trend began in the United States whereby few firms snapped up companies that were either in or had just emerged from bankruptcy protection. In fact many Steel industry analysts foresee global consolidation in European, United States and South American market. The Russian steel industry, which has some

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of the world's most efficient and profitable steelmakers is gripped in the wave of internal consolidation.

Towards the end of the last century focus for growth of steel production shifted to developing countries such as China, South Korea, Brazil and India and is still continuing. At present, China is the driving force of the global steel industry. China has also reached a level of production saturation and its steel industry is more likely to witness more of consolidation in coming years rather than any major expansion of its assets. The Chinese government is encouraging internal consolidation.

TYPES OF CONSOLIDATION

Consolidation can be at various levels and of different types as shown in Figure -1 below:-

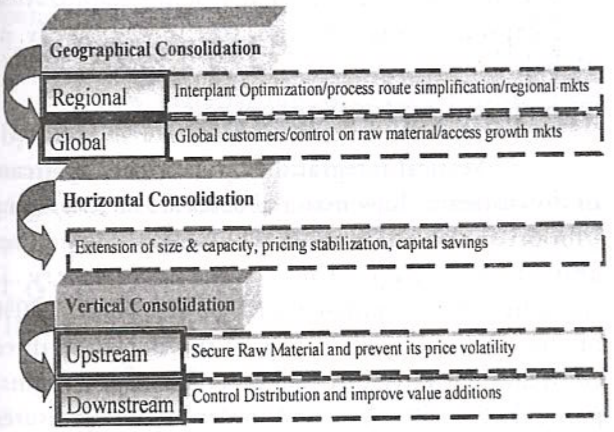


Figure-1 Types of Consolidation

REGIONAL CONSOLIDATION

One steel company takes over another or two steel companies merge to create a larger total steel company operating at a larger volume. In India Steel Authority of India limited (SAIL) has been the consolidator at the regional level. SAIL has already merged IISCO Steel Plant (ISP) and is in the process of taking over Neelanchal Ispat Nigam Limited (NINL) and Rashtriya Ispat Nigam Limited (RINL). The German steel producers Thyssen and Krupp/Hoesch merged into ThyssenKrupp after the prior absorption of some smaller companies. The major regional consolidation in China are creation of Anben Steel Group by merging Anshan Iron & Steel Group Corp. & Benxi Iron & Steel (Group) Co., Ltd., creation of New Tangshan Iron & Steel Group by merging Tangshan Iron & Steel Group Co. (Tanggang), Xuanhua Iron & Steel Group Co. (Xuangang) & Chengde Iron & Steel Group Co.(Chenggang) and creation of Wugang Liugang (Group) United by merging Wuhan Iron & Steel Group Co. (Wugang) & Liuzhou Iron & Steel (Group) Ltd. (Liugang).

There is a strong rationale for these consolidation moves. The possible benefits are:-

- Better operational efficiency.
- Reduction in central overhead cost.
- Interplant optimization and process route simplification for merging steel companies having complimentary products and manufacturing processes.
- Best practices can be transferred between assets and management systems.
- Price stabilization as steel market has been quite volatile in terms of prices and tonnage
- Better access to regional markets.

A Hatch Associates study (2006) indicates that in general a 3 – 4% change in demand in a finished steel market can result in a 15% change in steel demand ex works over the short run.

GLOBAL CONSOLIDATION

Of late, Global consolidation is rapidly taking place in the steel industry. British Steel and Hoogovens of the Netherlands merged into Corus, and France's Usinor – after taking over Cockerill-Sambre from Belgium, Arbed of Luxemburg and Spain's Aceralia –which was already the result of the consolidation in Spain – merged into Arcelor. Latest has been Mittal Arcelor and TATA Corus deal. The steel industry is changing fast and we can expect to see a number of truly global steel companies to emerge over the next few years. This may happen sooner rather than later. Hence, we can expect to see a number of truly global steel companies with 50-100 million tonnes capacity. Within about five years there will be five to six steel giants – larger, more powerful companies with enough scale and resources to bring a new dimension of success to the industry [Miller,2006]. In time, the Mittal Arcelor deal may not loom as large. Some major consolidation of recent times is shown in Table-1 below:-

Table-1: Transactions in major consolidation of recent times

Consolidator	Year	Target name	Value of tran-saction (US $ m)
Mittal Steel	2005	International Steel Group	4,500
Severstal	2005	Lucchini	2,337
Techint	2005	Hylsamex	2,711
Evraz Holding	2005	Vitkovice Steel	295
Arcelor	2005	Acesita	122
Mittal Steel	2005	KryvorizhStal	4,611
Orudu Yardimlasma Kurumu (OYAK)	2005	Eregil Demir Celik Fabrikalari T.A.S (Erdemir)	2,960
Wuhan Iron & Steel	2005	Liuzhou Iron & Steel	805
Arcelor	2006	Dofasco	5,220
Mittal Steel	2006	Arcelor-Mittal	35,000
TATA Steel	2007	TATA-Corus	12,100

Sources: PricewaterhouseCoopers and Jha

Other than Mittal emerging key players are Severstal and Evraz in Russia, US Steel and Nucor in North America, Nippon Steel and JFE in Japan, Posco in South Korea, ThyssenKrupp in western Europe, Tata Steel and SAIL in India and Ternium, Gerdau, Usiminas and CSN in Latin America. China will almost certainly be home to one big producer [Miller,2006]. Any or all of these companies could become a consolidator and create a formidable counterweight to Arcelor Mittal.

There are a number of drivers for this behaviour such as:-

- Achieve coverage of global customers
- Averaging overheads and research and development costs across a higher volume than can be achieved on a regional basis.
- Exert some pressure on raw material costs and on the purchasing of consumables and other supplies.
- Gain access to high growth markets and low cost manufacturing
- Balancing of spread of risks whether they are currency, political or general market volatility risks
- Gain ownership of steelmakers captive raw material facilities. Mittal Steel's purchase of KryvorizhStal, Ukraine, is a glaring example. The company has over a billion tonnes of iron ore reserves.

HORIZONTAL CONSOLIDATION

As of now, steel consolidation is horizontal in nature. Horizontal Consolidation is done for extension of size & capacity, pricing stabilization and capital savings. It can spread regionally or global.

VERTICAL CONSOLIDATION

Vertical integration can be either upstream or downstream. Raw material costs are an increasing proportion of crude steel making cost structures and in particular the iron ore industry is substantially consolidated with approximately 80% of the seaborne trade being in the hands of three companies. This has led to enhanced margins, particularly in iron ore, and increased cost pressures on steel companies. In Russia all the major steel groups are heavily backward integrated and essentially self sufficient in coal and iron ore. Those companies who are backward integrated hold a competitive advantage in the consolidation process as access to iron ore at cost is an advantage both in terms of cash generation capability and in terms of pricing flexibility. Therefore, consolidation is likely to be intensified upstream.

Downstream integration has been a constant theme in the steel sector for the last two or three decades. Indeed downstream integration has taken place into the simpler manufacturing process steps such as distribution, pipe and tube, roll forming etc. The drivers for downstream integration were particularly intense when the steel industry was heavily regulated, predominantly state owned, and there were substantial trade barriers to the global consolidation process. Then downstream integration offered one of the few growth avenues which appeared to be attractive.

RAW MATERIAL CONSOLIDATION

Nevertheless the steel industry is still fragmented and the top 5 producers in the world account for fewer than 20% of global steel production. By contrast, the top 5 iron ore producers account for about 90% of the global iron ore market. This means that negotiating power is in the hands of the producers of raw material i.e. coking coal, coke, iron ore & scrap (rather than the manufacturers). Greater concentration in this sector, would lead to a reduction of mining costs from the viewpoint of the companies; increased investment capacity; and greater profitability. From the viewpoint of the market, it can mean a greater concentration of power, and can lead to greater control of raw material prices in the marketplace.

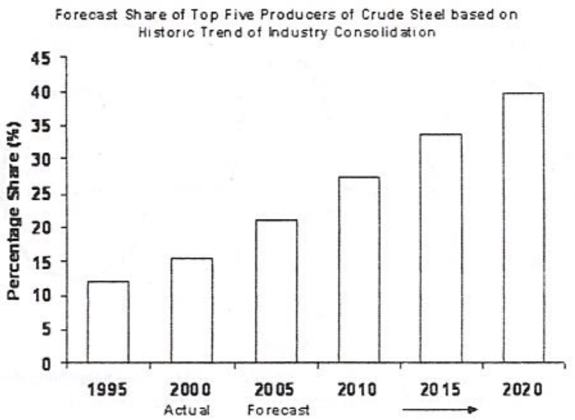
Raw material supply crunch is being eased by capacity expansions. Out of the four major raw materials, only scrap is a constraining factor of high degree as steel demand is growing faster than scrap pool [McKinsey Steel Demand and Supply Model].

CONSOLIDATION OF CRUDE STEEL INDUSTRY

Over the last 15 years consolidation in crude steel production has progressed at the rate of approximately 7% per annum [Hatch Associates]. In other words the percentage of crude steel production under the control of the largest five producers of such product has increased not by 7 percentage points per year, but by 7% from its base starting point, this is shown in Table 2. This should be contrasted with growth in total steel production on a per annum basis over these 15 years of about 3% per annum.

There is a progressive consolidation of crude steel production. If this trend line is carried forward over the next 15 years to the year 2020, approximately 40% of crude steel production will be in the hands of five companies.

Table 2 – Crude Steel Production: Consolidation



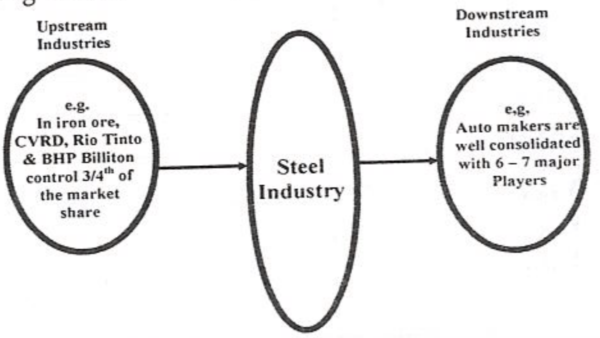
Source: Hatch Associates Ltd. Joint India/OECD/IISI Workshop, May 2006

Consolidation in end product markets

Whilst crude steel production is essentially still very fragmented, there are individual product market segments where consolidation has progressed very significantly. And in fact it is in some cases more consolidated than the customer segments such as automotive industry.

WHY URGE FOR CONSOLIDATION

The eventual winners will surely compete on a global stage. The industry leaders will also be more self-sufficient. It is still cheaper to buy than to build a steel plant. Fewer funds will be spent to create excess capacity. Steel manufacturers suffer from volatile markets in key raw materials. By 2015, demand for materials such as iron ore and coking coal is estimated to rise by 40 per cent, driven by the needs of India and China. As a result, shortages may develop. Supplying these materials could be lucrative. Also, the upstream industries are highly concentrated and consolidated and have greater control of raw material prices in the marketplace [Bhattacharya 2007]. Iron ore/ steel scrap prices are on the rise. Consolidation in steel industry will certainly improve bargaining power with concentrated supply industries. In addition, there has been substantial consolidation of major steel consuming industries over the years. In automotive industry, which is one of the major steel consuming industries, major players control about 65% of the market share at present. This is evident as shown in Figure -02



This left steel industry on the disadvantageous side of the bargaining table, affecting earnings. Consolidation seemed as the key ....

Figure-2 Highly Concentrated Upstream & Downstream Industries

Thus, only consolidated steel industry can have greater ability to flex production with fluctuations in demand, better manage vulnerability in supply market and can optimize product mix and shift to high value added products [Mukherjee, 2005].

CONSOLIDATION IN CHINESE AND INDIAN CONTEXT

CHINA

China Steel industry has witnessed phenomenal growth in the last five years emerging as a major growth driver in the global steel industry. China's production share in the world increased to 31% with total steel production of about 349.5 million tons in 2005 [RNCOS, 2006]. Government support & economic growth is propelling growth in the Chinese steel industry. Although, with some recent mergers & acquisitions, Chinese steel industry consolidated, but with a total of 871 global steel producers, it remains largely fragmented as shown in Table-3 below.

Table – 3: Structure of Chinese Steel sector in 2005

Scale of crude steel production	The number of steel makers	Crude steel Produc-tion total (million tonnes)	produc-tion share (%)
20"24 million tonnes	1	22.7	6.5
15"19 million tonnes	3	51.9	14.9
10"14 million tonnes	4	43.7	12.5
5"9 million tonnes	7	50.1	14.3
1"4 million tonnes	44	107.7	30.8
Less than 1 million tonnes	205	73.3	21.0
Total	**264**	**349.4**	**100.0**

Source: National Statistics Bureau, CISA (China Iron and Steel Association)

The steel sector's fragmentation is the main obstacle to co-operative production cuts and price stabilization and it has been one of the main causes of irrational expansion by steelmakers competing for a larger market share. The New Steel Policy provides that the top ten steel-makers production share should be over 50% of the total in 2010 and 70% in 2020. Overcapacity & structural problem are other big challenges that Chinese steel industry needs to tackle for future growth.

INDIA

Spearheaded by TATA Steel, now world's sixth largest steel firm aspires to become the second largest firm in the world by 2012 with 40 million tonnes production capacity as against 25.6 million tonnes now. SAIL may also take the lead in consolidation by merging with other state-owned integrated steel-makers like the RINL and NINL to jump into the ranks of the top ten companies in the world. Jindal Vijayanagar Steel limited (JVSL), the country's third largest integrated steel plant, acquired Euro Coke and Energy Pvt Ltd, Euro Ikon Iron & Steel Pvt Ltd and JSW Power Ltd by way of a merger between the company [Steelworld, 2007]. Presently, the degree of consolidation for the Indian steel Industry is quite high compared to China. India is now ready to exploit the full potential of its available iron ore reserves as use as leverage to position itself very smartly on the world's Industrial map and thereby in the global economy.

POSSIBLE CHANGE IN GLOBAL STEEL DYNAMICS DUE TO CONSOLIDATION

What are the implications of consolidation? For consumers, raw material suppliers, steel manufacturers and investors, the outlook is mixed. On the darker side, the price of steel will probably rise with consolidation. Consumers will ultimately pay more. After intensive consolidation, steel-makers may collude by forming cartels to set prices at or near the monopoly level [Bhattacharya 2007]. Exact nature of collusion will be determined by specific global and regional market characteristics and the constraints imposed by government regulations. Such cartels can manipulate the market even at the time when steel market is competitive.

On the brighter side, consolidated steel industry will spend more on research and development and embrace new technologies to make better quality steel, faster and cheaper. Producers will focus on higher grades, high quality products to support the container, packaging, construction and motor industries.The victors in this process of consolidation will be far more efficient companies that are better able to control pricing. This will help to temper severe performance cycles the industry has traditionally experienced. Financial markets will see a more stable sector as a better investment.

Arcelor-Mittal is likely to go in a big way for further consolidation. It is envisaged that in the medium-term there will be handful of companies that will control 1/3 of global steel production [Anwar, 2006]. According to Marcus [2006], the phrase once used in World Steel Dynamics as "The Urge to Merge" has now should be replaced by "The Mania to Merge"

CONCLUSION

Highly concentrated upstream and downstream industries, cyclicality, competitive structure, price volatility, financial constraints of the steel-makers led the steel industry to disadvantageous side of the bargaining table. Consolidation seemed as the key for the good and stable health of the steel industry. It is allowing valuations and profits to spiral and the top five steel companies now account for more than 20 percent of the 1.2 billion tones of steel produced worldwide. The result will be better management – managing for value, not production. The speed of consolidation is increasing where the Mittals is the biggest player. On the other hand, the possibility of global steel cartels can not be ruled out. This will reduce the competition to few players. Strong initiatives are required to design some independent regulatory framework so that steel industry monopolization does not take place in future.

China is consuming huge amount of steel and global demand has shifted from the developed world to the developing world. In the last 18 months there has been series of mergers but steel industry in China is still fragmented. The degree of consolidation for the Indian steel industry is better as compared to China. Indian steel industries have matured and are expanding globally. Finally, the consolidation in the steel industry will create an attractive industry that will drive sustainability. It will provide more consistent offerings around the globe and supply chain efficiencies that we can both share.

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