# CONSOLIDATION IN WORLD STEEL INDUSTRY -IMPLICATIONS FOR POLAND

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**ABSTRACT:** Consolidation of enterprises has intensified with the growth of global competition. In the nineties of the past century, these processes became a conventional way for market expansion, leading to establishment of huge international companies with biggest influence on world economy. In steel industry, processes of consolidation have also been the leading processes in management, particularly during a time of prosperity for steel products that have taken place in recent years. The global consolidation has influenced the steel industry in Poland as well.

KEY WORDS: steel industry, consolidation, globalisation

### **1. INTRODUCTION**

Operation of steel companies under conditions of globalization requires regular changes which allow for increased competitiveness in the market.

This rise is aimed at improvement in steel companies' financial standing and comprises a response to changeable environment. Environment resulting from the processes of globalization is characterized by a variety of features, which include [1, 9]:

- structure of production and services
- technological innovation
- nature of relations in terms of suppliers and consumers
- customers' requirements and competitors' behaviour
- principles of economic policies in the countries and supranational organizations.

Each of the listed elements requires regular analysis, as a result of which some complex decisions in relation to the operational strategies are made. Taking these elements into consideration, with reference to steel companies, causes that processes of consolidation can be observed.

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Main factors which caused huge number of mergers throughout Europe and worldwide in recent years include general privatization and restructuring of companies, liberalization of regulations conducive to market competitions, steelworks' investment needs and tendencies to develop free markets in biggest world economies. As a result of restructuring and privatization processes in steel industry in EU countries which occurred in the seventies and eighties of the past century, several steelworks group appeared and dominated European steel industry with its control over the steel manufacturers' markets.

These groups were created as a result of numerous mergers and horizontal acquisitions. The goal of the processes was to take advantage of the highest share in the market and the influence on its formation, appearance of the opportunities of complementary sourcing, to adapt production capabilities to demand for steelworks products and to obtain synergy effect, mainly in terms of cost reduction. These mergers were accepted by the European Union and the European Coal and Steel Community since, in consequence, they led to rationalization of production [8].

Phenomenon of mergers and acquisitions intensified with the development of global competition. These processes became, in the nineties of the 20th century, a fundamental method of market expansion in companies, leading to appearance of huge international businesses with the strongest impact on world economy and playing significant role in politics and social life. There are several motives to undertake consolidation efforts in iron and steel industry. Undoubtedly, most significant ones include: universal nature of steel products with their demand anywhere in the world, fast development of metallurgical technologies through global learning and fast transfer of the processes and know-how implemented in steelwork companies or the need for huge capital expenses to cover new and modernization-related investment projects.

Through consolidation of the producers, consumers can have an access not only to local market but also to global ones. Moreover, integration processes are forced by the necessity to meet financial expectations of the owners of privatized steelwork companies and also the need for demonstration of financially efficient strategies to international financial organizations in the case of acquisition of capital from these entities. Weakening of commercial barriers resulting from the end of the era of local companies also comprises a stimulus to create supranational companies.

Undoubtedly strongest arguments for mergers or strategic alliances include enhanced competition caused by excessive production capabilities. Competition is bigger in the case of division of the industry. Monopolistic and oligopolistic structures limit competitiveness and allow for reaching higher profits [5].

A very important factor in consolidation processes in recent years is growth in global economy and consistent urbanization and development of the Chinese infrastructure, which contributes to growing demand for steel.

The listed factors force creation of strong economic entities which are able to compete in difficult domestic and world markets. Operation of steelwork companies is currently becoming possible for economic entities with considerably high level of capital [7]. These features are typical of the global companies that appeared in the

nineties of the past century, which had strategic position based not only on geographical premises but also on other reasons which determine competitiveness.

However, a key reason for consolidation of the sector indicated by many experts was fast progressing globalization of the customers for steel products, including, in particular, automotive industry and the industry of packages and household goods. In the case of slower, as compared to non-steel branches, rate of consolidation in steel metallurgy sector this area will be in a very difficult position. If the steel industry is to be divided, a situation is very probable where this sector will be forced to compete for procurement to e.g. strongly consolidated automotive industry.

Therefore, structural changes in steel industry are highly desirable or even necessary. They can lead to tightening partnership with other steel manufacturers as well as to limitation of susceptibility to unexpected market cycles.

Main condition which determines profitability of iron and steel production is to participate in adequately big market segment. In relation to a number of steel products, it is necessary to encompass market segments bigger than local markets, which makes the manufacturers compete in regional and world markets. This leads to market globalization while competition in global market calls for consolidation of producers. Individual manufacturers do not stand the chances with regional or global organizations of manufacturers in a longer time horizon.

Individual producers can find conditions conducive to functioning only in market segments characterized by special features, used in relatively small amounts. Another opportunity is to operate as partners supplying semi-finished goods to bigger steel consortiums. In world market of iron ore, 75% is controlled by three companies, 75% of aluminium market by five companies, however, 75% of steel market demand is satisfied by 102 businesses. Such a division leads to constant excess of poorly used production capacities, low steel prices and constant destruction of capital [11].

Big concentration of production within regional and global organizations with high-end technologies which function according to the most rational economic principles means that, under conditions of open market, their offer is becoming more and more available and competitive.

Consolidation, which adopted international tendencies in the nineties of the past centuries, known as globalization, defined by OECD as 'a process where markets and production in different countries are becoming more dependent, which results from dynamics of commerce, services and transfer of capital and technologies'. Melting barriers in commerce in all markets, availability of capital and mobility of know-how at higher uniformity of products impact on growth in competitiveness and appearance of supranational companies which seek their opportunities in investments in different industry branches in different countries in order to create new markets [7].

#### 2. CONSOLIDATION IN STEEL INDUSTRY

Driven by globalization, future of iron and steel industry depends on: production cost reduction, strengthening of research and development, intensification of dialogue between companies that process steel and their end consumers, opening of

new areas of application for steel and self-awareness of the employees' steelwork companies.

Among biggest mergers and acquisitions in the European iron and steel industry since mid nineties of the 20th century, the following companies should be listed [5]:

- (1995) Cockerill Sambre (Belgium) Eko Stahl (former GDR);
- (1997) Thyssen (Germany) Krupp (Germany);
- (1997) Arbed (Luxemburg) Accelaria (Spain);
- (1998) Usinor (France) Cockerill Sambre (Belgium);
- (1999) British Steel (UK) Hoogvens (the Netherlands); Corus was established;
- (2001) Arbed SA (Luxemburg) Usinor SA (France) Aceralia Corporacion Siderurgica SA (Spain). Arcelor group was established in effect. At the initial moment the company employed over 110,000 employees worldwide. Steel production amounted to ca. 46 million tonnes while a consolidated turnover reached ca. 30 billion Euro [6, 16];
- (2006) merger of Mittal Steel Company with Arcelor Group;
- (2007) Indian Tata Steel took over Corus Group, which placed it seventh in the list of biggest steel producers, with annual production capacity of 23 million tonnes [3].

A shining example of consolidation in steel industry on a global scale is development of LNM Group (later Mittal Steel Company) through right investments and acquisitions [18]. Mittal Steel Company is the most dynamically developing steel consortium worldwide. It encompasses all the aspects of modern steel industry while offering a wide assortment of flat and long products in order to meet the demand among their customers. However, the most essential actions, according to the company's owner, is to find synergy between a variety of the Group's divisions and to determine the leading product [15].

As a global company, the Group has advantage over its competitors. It can make use of the experience of its steelworks located all over the world. This concerns e.g. production technologies, sales of marketing. Undoubtedly, additional asset is the staff employed for Mittal Steel - it comprises the representatives of forty five nationalities [14]. In 2006, a spectacular merger of Mittal Steel Company with another steel tycoon, Arcelor, took place. The resultant entity, Arcelor Mittal, employs 320,000 of workers in over 60 countries in the world. Its production capacity reaches over 10% of world steel production [17].

Undoubted benefits for new companies that were established after mergers and acquisition included: strengthening of position in the market of steel products, enhanced geographical range through complementary market positions of the merged companies, strengthening and improvement in the system of distribution, cost effectiveness, elimination of the conflicting programs and functions concerning administration, sales, marketing and IT systems, optimization of production and logistics, widening of the range of products.

Despite obvious benefits resulting from the processes of consolidation, the theses are formulated that mergers rarely succeed since merger of two companies

destroys share value. Despite shareholders being convinced to synergy effect and cost effectiveness, it would be good to have shares located in two separate companies. The scale and scope of risk of consolidation depends on a variety of factors: the type of the adopted strategy, position of the local currency, country of origin of the partners etc. These problems typically result from [10]:

- improperly formulated expectations, resulting from ill-considered strategy and overestimation of the synergy effect,
- overpaying due to incompetent negotiations and overestimation of the effects of transactions,
- difficulties in integration of the two organizations due to cultural and language barriers as well as styles of management.

However, despite strong arguments against the phenomenon of consolidation, the practice of European and world iron and steel industry indicates the necessity of intensification of integration processes.

The process of globalization in iron and steel industry is constantly developing. In 2005-2007 annual global production of steel production was rising (Table 1). However, as a result of the global recession, the value of the steel manufactured in 2008 decreased by nearly 2%. According to many experts, the process of globalization will be ended or nearly ended when a few biggest producers manufacture 40-50% of world steel production. During the analysed period, only six steel giants were able to produce 20% of these products. On the other hand, production capacity in twenty biggest steel producers accounted for ca. 40% (2005 - 38.5%; 2006 - 38.4%; 2007 - 40.1%; 2008 - 41.2%).

ArcelorMittal was the world biggest steel manufacturer in 2006-2008. However, its share in production of steel decreased gradually from 9.36% in 2006 to 7.65% in 2008. According to the newest ranking by Word Steel Dynamics in 2009, ArcelorMittal is losing its leading position in world steel production. First place was taken by Russian Siewierstal, second one by the Korean Posco while third – by Chinese Baosteel. ArcelorMittal is located as fourth and the first five places are ended with Russian Novolipetsk Steel. This ranking, however, is not developed on the basis of current results in the companies, but also on the basis of the prognoses based on the contracts of supply and production capacities.

In early nineties of the 20th century in Polish iron and steel industry, during making decisions on restructuring of Polish steel sector, a necessity of consolidation of domestic steelwork companies was emphasised. Positive experience of world iron and steel industry in this area was a great argument for integration in steel sector. Merger of Huta Katowice and Huta Sendzimira steelworks was an integration project suggested a few times in Polish steel industry. However, no action was undertaken towards realization of these projects, neither in the beginning of steel sector restructuring nor later.

In 1999, when rapid privatization of Polish steelworks was expected, integration of two biggest Polish steelwork companies was found to be seriously delayed [13]. However, despite direct indications to the need of integration of Polish steel sector, no substantial consolidation activities were undertaken during ten years of the process of steel industry restructuring. Consolidation would also allow for concentration of the selected production capacities and the capital under uniform management in order to enhance efficiency of

restructuring process in the sector, leading to reaching competitive position in the open market (viability).

No.	2006			2007			2008		
	Position in the ranking	Produc- tion level in million tonnes	Share in world productio n in %	Position in the ranking	Produc- tion level in million tonnes	Share in world produc- tion in %	Position in the ranking	Produc- tion level in million tonnes	Share in world produc- tion in %
1	Arcelor Mittal	117.2	9.36%	Arcelor Mittal	116.4	8.61%	Arcelor Mittal	101.6	7.65%
2	Nippon Steel	32.7	2.61%	Nippon Steel <sup>1</sup>	35.7	2.64%	Nippon Steel <sup>1</sup>	37.5	2.82%
3	JFE	32.0	2.55%	JFE	34.0	2.51%	Baoseel Group	35.4	2.66%
4	POSCO	30.1	2.40%	Hebei Steel Group	31.1	2.3%	Hebei Steel Group	33.3	2.51%
5	Baosteel	22.5	1.79%	POSCO	31.1	2.3%	JFE	32.4	2.44%
6	U.S.Steel	21.2	1.69%	Baosteel Group	28.6	2.11%	POSCO	31.7	2.38%
7	Nucor	20.3	1.62%	Tata Steel <sup>2</sup>	26.5	1.96%	Wuhan Steel Group	27.7	2.08%
8	Tangshan	19.1	1.52%	Shangdon g Steel Group	23.8	1.76%	Tata Steel <sup>2</sup>	24.4	1.83%
9	Corus Group	18.3	1.46%	Jiangsu Shagang Group	22.9	1.69%	Jiangsu Shagang Group	23.3	1.75%
10	Riva Group	18.2	1.45%	U.S.Steel	21.5	1.59%	U.S.Steel	23.2	1.74%
11	Severstal	17.5	1.39%	Wuhan Steel Group	20.2	1.49%	Shangdon g Steel Group	21.8	1.64%
12	Thyssen Krupp <sup>3</sup>	16.8	1.34%	Nucor	20.0	1.48%	Nucor	20.4	1.53%
13	Evraz Group	16.1	1.28%	Gerdau	18.6	1.37%	Gerdau	20.4	1.53%
14	Gerdau	15.6	1.24%	Riva	17.9	1.32%	Severstal	19.2	1.44%
15	Anshan	15.3	1.22%	Severstal	17.3	1.28%	Evraz	17.7	1.33%
16	Jiangsu Shagang Group	14.6	1.16%	ThyssenK rupp <sup>3</sup>	17.0	1.25%	Riva	16.9	1.27%
17	Wuhan	13.8	1.10%	Evraz	16.2	1.19%	Anshan Steel	16.0	1.20%
18	Sumitomo	13.6	1.08%	Anshan Steel	16.2	1.19%	ThyssenK rupp <sup>3</sup>	15.9	1.19%
19	SAIL	13.5	1.07%	Maanshan Steel	14.2	1.05%	Maanshan Steel	15.0	1.13%
20	Techint	12.8	1.02%	SAIL	13.9	1.02%	Surnitomo Metal Ind	14.1	1.06%
	World	1 251.0	100.00%	World	1 351.3	100.00%	World	1 326.5	100.00%

 Table 1. Production level and share in world production for twenty biggest steel

 manufacturers in 2005-2008

<sup>1</sup> includes part of Usiminas; <sup>2</sup> includes Corus; <sup>3</sup> 50% of HKM included in ThyssenKrupp Source: self study on the basis of: Steel in Figures IISI (2006, 2007, 2008, 2009)

Finally, first process of consolidation encompassed: Katowice, Sendzimir, Florian and Cedler steelworks. Strong cooperation dependencies between Sendzimir and Florian steelworks in terms of cold-rolled plates and Katowice and Cedler steelworks in terms of supply of furnace charge were taken into consideration.

Moreover, the expected cooperation-related bonds were considered; they consisted in supplies of furnace charge from Huta Katowice to Huta Sendzimira for manufacturing of hot-rolled sheet metals. Polskie Huty Stali S.A. (PHS S.A.) were established in 2002. This holding included the four abovementioned entities. Production capacity of the consolidated steelworks was formed at the level of 60% of domestic production [2].

The PHS S.A. was intended to adopt a form of a consortium (departure from legal independence of each steelworks). After its establishment, the consortium was privatized. Inclusion of LNM Group (later Mittal Steel Company, then Arcelor Mittal) to Polskie Huty Stali caused that the consortium became a part of global structure. This allows for reduction of costs through common purchase of raw materials. Undoubtedly, a beneficial aspect is to make use of the international network of distribution owned by the new investor. The consortium also included the former Huta LW, which in 2005 was taken over by Arcelor.

World tendencies in organization and management in iron and steel industry confirm the need for consolidation of this sector in Poland. Thus the processes of mergers were intensified in recent years. Złomrex, which combines purchase of scrap metal, production and distribution of steel, took over, in 2006, Voestalpine Stahlhandel from Austria. This transaction allowed for reaching revenues of 400 million Euro and the access to distribution in over ten East and Central European countries. This year, Złomrex overtook a controlling block of shares from another steel operator - Centrostal Gdansk [13]. Moreover, Złomrex also includes e.g.: Ferrostal Łabędy sp. z o.o., HSW Huta Stali Jakościowych sp. z o.o. and HSW Walcownię Blach sp. z o.o. Another company which intensively operates in steel market is Alchemia S.A., who is the owner of Huta Batory and Huta Bankowa.

### **3. SUMMARY**

According to the experts, the process of consolidation will encompass not only the steelworks themselves, but the vertical consolidation will also take place. Mergers will be carried out by the producers with ore suppliers or operators. Some structures, very profitable for the market, ensuring energy and raw material safety, will be created in this way.

Globalization of the industry observed in world iron and steel industry is a process which, through synergy effects, brings great benefits while it strengthens and extends the processes of consolidations.

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