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RESTRUCTURING OF THE METALLURGICAL INDUSTRY IN THE ASPECT OF ECONOMICS - SYSTEM CHANGES AND INTEGRATION WITH THE EUROPEAN UNION

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In this paper, the main elements of adjustment processes for the metallurgical industry in system, social and economic aspects are presented. Also, issues connected with the changes in the national economy in the aspects of integration with the European Union are discussed. The results reported in this paper are based on the analysis of the Polish metallurgical industry in the period from 1991 to 2005.

Key words: *restructuring, polish steel industry, European Union*

Restrukturiranje metalurške industrije u aspektu ekonomije - promjene sistema i integriranje u Europsku Uniju. U ovome su članku predstavljeni glavni elementi procesa prilagođavanja za metaluršku industriju u sustavu, društveni i ekonomski aspekti. Također, razmatraju se otvorena pitanja koja su povezana s promjenama u nacionalnoj ekonomiji u aspektima integriranja u Europsku Uniju. Rezultati koji su navedeni u ovom članku temelje se na analizi poljske metalurške industrije u periodu od 1991 do 2005. godine.

Ključne riječi: *restrukturiranje, poljska industrija proizvodnje čelika, Europska Unija*

INTRODUCTION

Over the last fifteen years, Poland has managed to solve numerous problems arising from the system transformation being carried out. The occurring processes, to a different extent and with a different dynamics, covered all areas of the national economy. Almost simultaneously with the start of system transformations, on 25 May, 1990 Poland submitted an official application for the commencement of negotiation of the Association Agreement with the European Communities [1]. Adjusting to the rules of the market economy and to the European Union's requirements occurred simultaneously in the case of many State-owned undertakings and forced far reaching changes in the spheres of organization, technology, ownership and economy. Those changes could be observed particularly clearly in the iron and steel metallurgy sector. On the one hand, this branch of industry, being of strategic importance, should contribute to the economic policy of a given country, and on the other hand, it is required to comply with the free market rules. These two, not always convergent requirements, in the initial period of transformations gave rise to the occurrence of several alternative concepts of restructuring the Polish metallurgical sector [2]. As a result, the process of adjusting the sector in question to the contemporary market reality continues, even though Poland has been a full member of the European Union since 1 May, 2004.

ANALYSIS OF SELECTED ELEMENTS OF THE RESTRUCTURING PROCESS

In the period of system transformations, i.e. in the early 90s, the Polish metallurgical industry had excessive production capacities, complicated organizational structures and it was also characterized by a high consumption of materials and energy. A SWOT analysis carried out for the purposes of the Ministry of the Economy, Labour and Social Policy prior to the restructuring indicated the following, among other things [3]:

- as strengths - very experienced academic centres and research institutes enabling the education of new personnel and qualified staff, and a modern raw-material side;
- as weaknesses - high energy costs, the imports of iron-bearing raw materials, the lack of financial resources for investment and modernization, a poorly developed processing part of steel mills, a high debt level, a restricted financial fluidity, a low efficiency and an overproduction of goods;
- as opportunities - Poland's integration with the European Union, a large and developing domestic market,

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carrying out steel mills consolidation, and the process of privatization;
- as threats - high sensibility to changes in demand, debt collections, bankruptcies and social pressures, lack of sufficient resources of production modernization, and the strong position of the world's corporations.

Currently, i.e. in the first quarter of 2006, Poland still continues the implementation of the objectives set out in the Government's programme "Restructuring and Development of the Iron and Steel Metallurgy Industry in Poland by 2006" adopted by the Council of Ministers on 10 January, 2003. This programme was drawn up in close cooperation with the European Commission, and its basic objective is the modernization of the Polish iron and steel metallurgy and acquiring the ability to function competitively in the conditions of Poland's membership of the European Union [3] Admission of Poland to the European Community did not result in any sudden changes in the sector in question, though the signature of the Accession Treaty was tantamount to the acceptance of the previously negotiated terms. The decisions contained in Protocol no. 8 obliged Poland to [4]:
- complete the restructuring process by the end of 2006;
- not to exceed the amount of PLN 3 387 070 000 (approx. EUR 846 767 500) that may be allocated for the purposes of restructuring in the period from 1997 to 2003. The above social aid should be granted to eight specified companies (see the Enclosure to the Protocol for their names);
- to reduce the net production capacities (through the permanent closure of plants) by a minimum of 1 232 000 Mg for finished products (a reduction by 715 000 Mg per year for hot rolled products, 716 000 Mg per year for cold rolled products, and a possibility of increasing capacities for other finished products by a maximum of 200 000 Mg per year);
- implement an employment restructuring programme (including service companies belonging in 100 % to the companies covered by the aid) and to achieve an efficiency comparable to that achieved by the groups of metallurgy industry manufacturers in the European Union.

The best implemented, though still ongoing (since 2003 in the framework of the Metallurgy Motivating Package) employment restructuring programme has been the one that provides for, e.g., a reduction in employment from 123 000 to 43 000 jobs in the years from 1992 to 2003 [5]. As shown by the data in Figure 1., this figure has been exceeded as a result of the clear acceleration that commenced in 1999. In that year, the implementation of the Metallurgy Social Package (MSP) took place, within which [3]:
- the period entitling an employee to pre-retirement benefit was shortened, and the benefit amount was increased;
- a system of unconditional gratuities and vocational consultancy and retraining for employees covered by redundancy was put in place;
- steel mills were assured to have part of their outlays on social protections reimbursed from the budgetary resources and the PHARE fund (the European Union's structural fund);
- instruments motivating the labour market, as financed from the PHARE fund, were implemented.

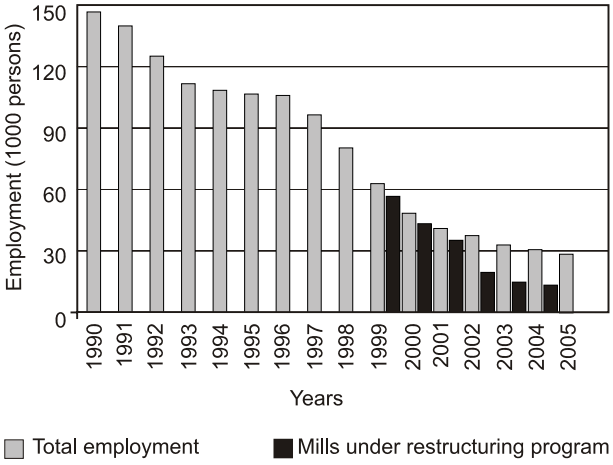

Figure 1. **Employed by iron and steel industry in Poland in 1990 through 2005 [5 - 8]**
Slika 1. **Zaposleni u industriji prerade željeza i čelika u Poljskoj od 1990. do 2005. godine [5 - 8]**

Finally, the main forms of redundancy were: displacements to subsidiaries, retirements, layoffs and the restriction on employing new staff. In the period under discussion, change in the employment structure also occurred, as a result of which the number of workers in production departments gradually increased (the number of individuals employed on blue collar posts and white collar posts increased by, respectively, 77,7 % and 22,3 % - according to the data as of May, 2005 [6]). These activi-

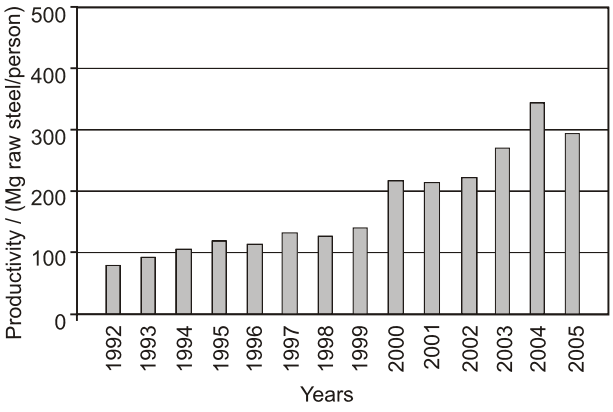

Figure 2. **Productivity by iron and steel industry in Poland in 1992 through 2005 [5 - 8]**
Slika 2. **Proizvodnost industrije prerade željeza i čelika u Poljskoj od 1992. do 2005. godine [5 - 8]**

ties inevitably influenced the index of productivity. Figure 2. show productivity, as calculated for the whole sector in relation to the annual production of crude steel and as predicted for particular steel mills covered by public aid. It shown, the productivity exhibits clear growing trends, but still remains smaller by approx. 30 % compared to the West European metallurgical industry [9].

In addition to the above-mentioned changes in the status and structure of employment, another, equally important factor influencing the productivity index is the technological and engineering progress. Poland's production of crude steel amounts presently to around 8,4 million Mg (Figure 3.), o which 88,5 % are produced in steel mills covered by

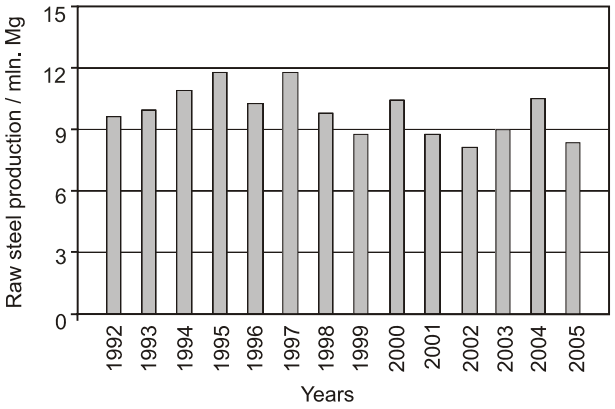

Figure 3. **Raw steel production in polish steel and iron industry in 1992 through 2005 [5 - 8]**
Slika 3. **Proizvodnja sirovog čelika u poljskoj industriji prerade čelika i željeza od 1992. do 2005. godine [5 - 8]**

public aid. The structure of crude steel production meets already European standards - the share of steel smelted by converting is 64,8 %, the remaining 35,2 % accruing to the steel from the electric smelting process (the production of semi-finished products from the continuous steel casting process is reaching now 77 %, compared to a mere 7,7 % in 1992. In terms of grades produced, on the other hand, crude steel is very poor, as the majority of production, i.e. as much as 95,3 %, accrue to non-alloys steels and 4,7 % to alloy steels, of which corrosion-resistant steels account for only 0,05 % [6]. For a full viability of undertakings (i.e. the values of indices assumed in the restructuring plans - [3]), it is necessary to carry out indispensable investment and modernization in the processing side, particularly within the manufacture of thin flat products. In modern economies, the use of flat products accounts for over 60 % in the structure of metallurgical product consumption, while in Poland this figure being around 52 %. In addition, the general consumption of steel products is equal to 65 % of the EU's average consumption level, with nearly 50 % of this consumption being fulfilled by imports [9].

The increase in imports grew significantly in the last decade, and in 2004 it was by as much as ten times higher than in 1994 (an increase from 0,4 millions Mg to 4 millions Mg). In the import structure, 66 % accrue to high added value products, chiefly flat ones (85 % of finished steel products are imported by Poland from European Union countries). In turn, the Polish exports oscillates around the level of 4 million Mg in recent years (in 2004 it exceptionally reached 4,7 million Mg). The data quoted above indicate that in the trade in metallurgical products, as expressed by amount, Poland is a net exporter (Figure 4.),

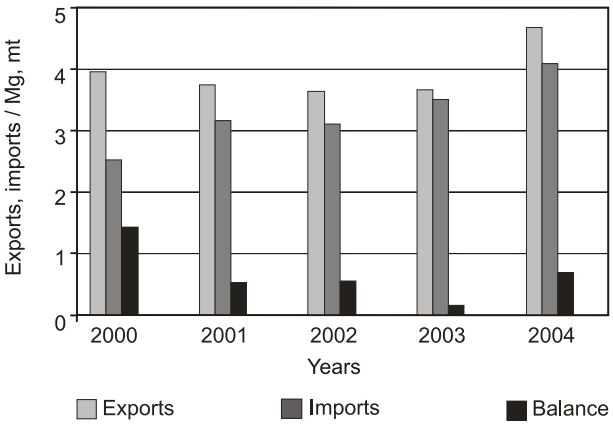

Figure 4. **Exports, imports [million mt] and imports to finished product apparent consumption [%] in 2000 through 2004 [6]**
Slika 4. **Izvozi, uvozi [u milijunima mt] i uvozi za potrošnju gotovih proizvoda [%] od 2000. do 2004. godine [6]**

while in terms of value - a net importer. The trade balance is therefore unfavourable, amounting to almost 1,5 billion EUR in 2005. Indeed, in the first quarter of 2006, the share of imports in the domestic consumption of steel products declined, but in order that this trend strengthen permanently, the most important investments should be finished as soon as possible. Presently, the cost of investments being carried out in the Polish sector exceeds 700 million EUR, of which almost 500 million EUR accrue to the steel mills belonging to the Mittal Steel Poland group. The investments planned by this company - a continuous steel casting line and a plate rolling mill - will enable the manufacture of products that are presently imported [9 - 11].

The significantly improving competitiveness of the Polish metallurgical industry has its bases in the consolidation and privatization of this sector of industry. In the 90s, the metallurgical production was conducted by over 60 metallurgical undertakings, as classified into the following groups according to the European Business Activity Classification: the manufacture of cast iron and steel and iron alloys, the manufacture of tubes, and the remaining pre-treatment of cast iron and steel. 25 steel mills had a dominant position in the whole industry, in terms of both manufacturing potential, the volume of income (80 %) and the level of employment (70 %). 15 steel mills conducted activity within the production of cast iron and steel, as well

as metallurgical products, 4 steel mills had tubes as their basic product, 3 steel mills manufactured machinery and equipment, and the remaining 3 manufactured products, such as ferroalloys, foundry and steelmaking pig irons, and railway assemblies). The process of ownership transformation was commenced in 1991 with the transformation of Huta Katowice into a single-entity State-owned company and the privatization of Huta Warszawa in 1992. In the years from 1992 to 2000, 16 steel mills were privatized. In the meantime, of the 25 steel mills that had adopted the Iron and Steel Metallurgy Industry Restructuring Programme were put in a state of bankruptcy, one in a state of liquidation, and one was sold to a private investor and has not run metallurgical activity since then. As for now, only Huta Łąbędy and Huta Kościuszko have retained the status of a single-entity company. Huta Warszawa has been totally privatized (becoming Arcelor Huta Warszawa, in which the Treasury has only one, so called "golden share"); in the remaining steel mills, the Treasury has retained, directly or indirectly, either majority or minority share packages [5, 11].

The restructuring programme assumed that the privatization of the Polish metallurgical industry should be carried out with participation of those investors, whose privatization interest would cover the largest extent of the sector. The consolidation was to proceed based chiefly on the criterion of products - tubes, quality steels and products for the purposes of the building industry. This concept had been partially implemented, when the holding Polish Steel Mills (PSM), established in 2002, was taken over by the Mittal Steel Poland group. The group included: Huta Katowice, Huta im. T. Sędzimira, Huta Florian, Huta Cedler and Huta Bankowa, the Batory Plate Rolling Mill (Walcownia Blach Grubych Batory) and Huta Królewska. An attempt to consolidate a few companies was also made, aimed at the establishment of a tube concern. This intention, according to many persons associated with the Polish metallurgical industry, appears little feasible, as the companies that were to merge have different owners [3, 8, 11, 12].

CONCLUSION

The Polish metallurgical industry has undergone huge transformations over the last fifteen years. The effects of the changes introduced only start to be visible now, as the first activities within this sector were sluggish and inconsistent. The process of Poland's accession to the European Union has to a certain extent accelerated and consolidated the occurring transformations. Practically, the privatization and redundancy processes are drawing to an end. Further activities in the sphere of human resources should be rather targeted at improving the age structure and professional education of the metallurgical staff.Only the technological and engineering restructuring has in many cases remained in the sphere of planning. A particular backlog in this respect occurs in the processing side, but is should be borne in mind that investment in the metallurgical industry are long-lasting and costly and the strategic investors has been operating in the market in question for too short a time to be able to make such far-reaching changes.

The polish metallurgical industry (with 1 % of the world's production and 7 % of EU's production) is currently functioning in the European Union's single market (with, e.g., a common customs policy, environmental protection, etc.) and has been compelled to adapt itself to the standards prevailing there. The free market rules targeted to economic effects rather than to the amount of steel produced is a factor determining the directions of development of this industry. The present trends (e.g. the attempts to make a merger of Mittal Steel - Arcelor, Arcelor - Siewierstal) indicate that the improvement of competitiveness in this industry will be achieved as a result of consolidation, and any activities in this field will certainly apply to the Polish steel mills as well.

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