

THE GLOBAL CRISIS IMPLICATIONS ON STEEL PRODUCTION. ROMANIA'S CASE

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Iron and steel industry is an important sector of the real Romanian economy, knowing the fact that, generally, the metallurgy is a very important indicator of internal consumption. The most important companies in this sector are part of international groups (Arcelor Mittal, Mechel, TMK and Tenaris), which ensure an acceptable security standard regarding raw materials acquisitions, sales markets and treasury. However, the global crisis (2008-2010) has shown the Romanian metallurgy's vulnerability. Steel production has been reduced by almost a half, the global turnover of the Romanian iron and steel sector has dropped by more than 40% and the personnel was also reduced by a fifth.

Key-words: metallurgical sector, economic recession, steel production, technological investment

Implikacije globalne krize glede proizvodnje čelika, slučaj Rumunjske. Industrija željeza i čelika važan je sektor realnog gospodarstva Rumunjske s obzirom na činjenicu da je metalurgija općenito značajan pokazatelj unutarnje potrošnje. Najznačajnije tvrtke u ovoj grani dio su međunarodnih grupacija (Arcelor Mittal, Mechel, TMK i Tenaris) koje pružaju prihvatljiv standard sigurnosti glede sirovina, akvizicija, prodajnog tržišta i financija. Međutim, globalna kriza (2008-2010) razotkrila je ranjivost rumunjske metalurgije. Proizvodnja čelika se smanjila za skoro polovicu, globalni plasman rumunjskog sektora željeza i čelika pao je za više od 40%, a radna snaga smanjena je za petinu.

Ključne riječi: metalurški sektor, proizvodnja čelika, gospodarska recesija, tehnološka ulaganja

INTRODUCTION

The global economy has faced starting from 2007 the biggest economic crisis since the Great Depression (1929-1933). Most states were affected due to the world economies' high level of interdependence, as well as to several other motivations [1,2].

However, the crude steel world production has reached 1,414 million metric tons (MMT) in 2010. This represents an increase of 15 % compared to 2009 and a new world record for the crude steel production [3].

The major steel producing countries and regions have recorded a double-digit growth in 2010. The EU and North America had higher rates of growth due to the lower base effect from 2009, while Asia and CIS countries recorded a relatively smaller increase.

In December 2010, the world crude steel production recorded by the 66 members of the World Steel Association reached 116,2 MMT, an increase by 7,8 % compared to December 2009.

Referring to the European Union, we note that it has also recorded an increase of 24,5 % compared to 2009, producing 172,9 MMT of crude steel during 2010. The general outlook for steel producers in Europe is a stable one, considering that most plants operate at full capacity [4].

C. Roman, "Stefan cel Mare" University, Faculty of Economics, Suceava, Romania.

THE ECONOMIC CONTEXT OF RECENT DEVELOPMENTS IN THE ROMANIAN SECTOR OF STEEL PRODUCTION

In Romania, the effects of the global economic and financial crisis were strongly felt in 2009, when gross domestic product (GDP) contracted by 7,1 % in the context of a significant current account deficit adjustment (4,2 % of GDP from 11,6 % in 2008) and an increasing budget deficit [5].

Figure 1 reflects the trajectory of GDP, in Romania and – as an average – in the EU, during the crisis period (2007-2010).

Following the trend of reducing domestic demand, the economic decline continued, but within manageable limits [2].

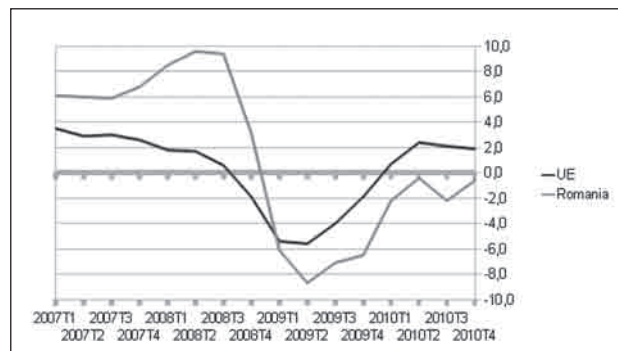


Figure 1 GDP's evolution, in Romania and – as an average – in EU (2007-2010) [10]

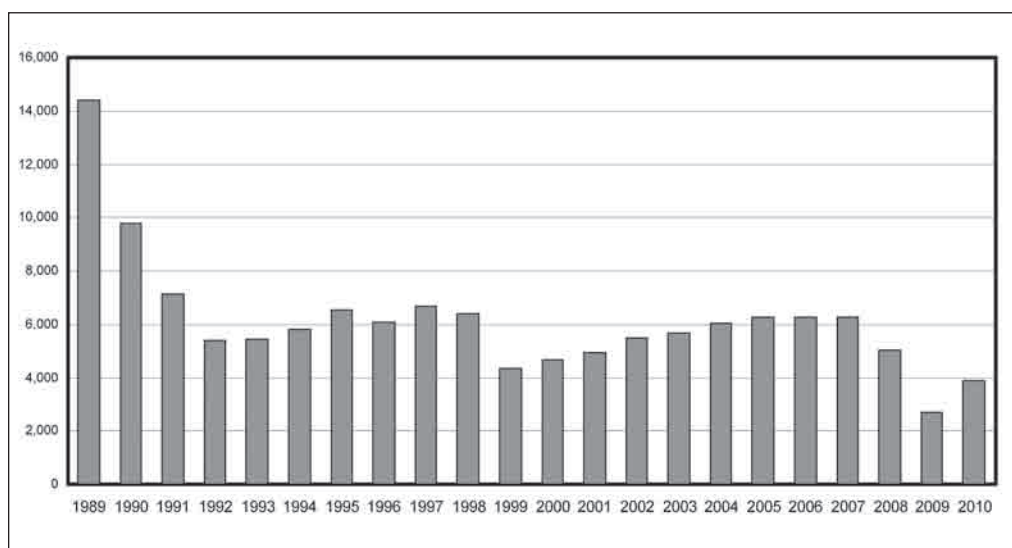


Figure 2 The evolution of Romania's steel Production 1989-2010 (thousand tones) [6]

For example, in 2010 the industrial production recovers its losses from 2009, increasing by 5,5 %, but presents a different structure, directly related to the demands of the external and internal markets.

All the components of domestic demand have dropped compared to 2009, especially gross fixed capital formation, which was affected by the lack of financial resources and the private sector's distrust in the economic development. Domestic supply was sustained by the gross value added by industry, which increased by 5,1 % [5].

Regarding steel production, in 2010 Romania produced 3,9 million tons of steel, with 1,1 million tons (41 %) more than in 2009.

Figure 2 presents the evolution of Romania's steel production for a longer period of time (1989-2010).

The recorded production growth (1,1 million tons) was due, to some extent, to the implementation of the Romanian metallurgy's restructuring programmes according to the European Union's requirements. Thus several steel companies in Romania were modernized and made viable.

An important part was played by the investment policy of the large steel groups present in Romania: Ar-

cellor Mittal, Mechel, TMK and Tenaris – which adds almost 87 % to the sector's turnover, employing 82 % of the workforce [7]. Their investment program is presented in Table 1.

We must mention the fact that, on a national level, compared to 2008, the production is 22 % lower, and compared to 2007 the decrease reaches 38 % [3].

Worldwide, in 2010 there were produced 1,4 billion tons of steel, first being China with a share of 44 % in the total production, followed by Japan with a share of 7,8 %, USA with 5,7 % and Russia with 4,7 % [6]. Romania ranks 34 the among producing countries.

Trends in labour productivity

Employee productivity has been growing until 2007, when the highest level after 1990 was recorded. In 2007 an employee in the steel industry has returned an average of 165,1 tons of crude steel and 197 tons of semi-finished and finished products. In 2009, due to reduced orders, employee productivity dropped to 95,9 tons of crude steel per employee (42 % less compared to 2007) and 144,1 tons of semi-finished and finished products (27 % less compared to 2007). Once the production is revived, after overcoming the crisis, this indicator will certainly grow, but it will remain well below EU average in developed countries. This will bring companies face to face with a fundamental choice – to invest in technologies and skills or to further cut down jobs [7].

ROMANIA'S IRON AND STEEL EXPORTS

In 2010 Romania exported iron and steel worth around 1,9 billion euros [6], while imports totaled 2.1 billion euros (Figure 3), hence a 200 million euros deficit.

We note that, although they increased by 62 % compared to 2009, exports in 2010 were 24 % lower than in 2008 [4].

Table 1. Investments of large steel (Romania, 2004-2008) [8]

- Million USD -

Company	Investments total	Tehnological investments	Environment investments
Arcelor Mittal GL	525,730	411,210	114,520
Arcelor Mittal HD	29,494	26,118	3,376
Mechel Targ.	38,894	27,544	11,350
Mechel C. Turzii	36,324	27,670	8,654
TMK Resita	52,439	41,978	10,461
Tenaris Donasid Calarasi	74,800	73,350	1,450
Total	757,681	607,870	149,811

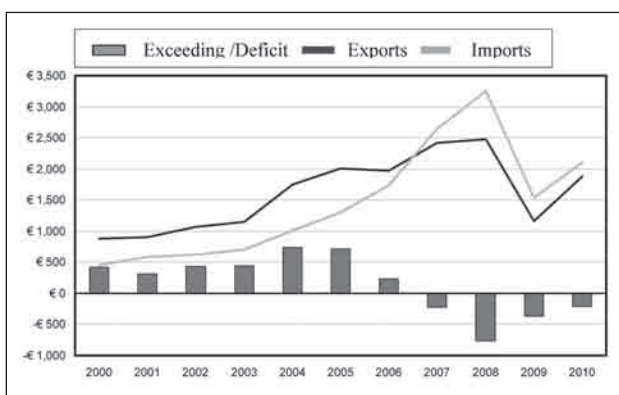


Figure 3 Romania's iron and steel foreign trade (2000-2010) [6]

In fact, during the last four years, Romania has recorded a trade deficit in this sector, after the period of 2000-2006 totaled a 3,3 billion euros surplus.

What needs to be done [9] is processing the metals towards a greater specialization and a downstream effect for other industrial exporters, aiming at making exportable goods with a high added value, such as railroad tracks, stainless steel heat-resistant strips and plates or steel coated products.

Also, the capacity to adapt to consumers demands must increase for better individualized orders.

Equally important are: creating a new value chain as a strong industry producing exportable metal equipments for environmental protection; increasing contribution to the local chain of other strategic sectors, such as: engineering or making parts for vehicle industries, through production specialization in niche areas (pressed/welded automotive parts, etc.).

CONCLUSIONS

In recent years, iron and steel industry in Romania has undergone a major restructuring and preparation process for the European and world steel markets competition.

In this context, there was an attempt to proportion production capacities to market needs, to close overcapacities, to modernize the making and rolling facilities that were still functioning, to optimize the number of

personnel in accordance with the level and technicality of production capacities and to privatize iron and steel companies (process ended in 2004).

After a period in which the analyzed sector showed certain performances, the global crisis turned 2010 into a year of relatively low results in terms of steel production in Romania.

There were produced 3,9 million tons of steel, with just 1,1 million tons (41 %) more than in 2009. Compared to 2008, the production is 22 % lower, and compared to 2007 the decrease reaches 38 %.

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Note: The responsible for English language on the lectures from Faculty of Economics, Suceava, Romania