



Reasons of problems of the polish hard coal mining in connection with restructuring changes in the period 1988–2014

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ABSTRACT

The paper analyses the process of adapting Polish hard coal mining for steady safe functioning in the conditions of a market economy. The process of structural restructuring of the trade finished between 2006–2007 and had at its first stage (between 1993–2000) a character of crisis management. The situation could be a result of external causes, independent from Polish mining companies, as well as internal causes. In the paper the Authors review selected technical indexes of hard coal production in Poland between 1988–2014. The conducted analyses form a basis to evaluate the ongoing changes in competitiveness of Polish hard coal mining companies on the national and global scale. The Authors show external and internal strategic causes of the current crisis in Polish hard coal mining. They carry out an analysis on a micro and macro scale. In the summary they show that the current crisis in Polish hard coal mining is a resultant of many factors. Despite the fact, however, that coal will be a basic carrier in producing electrical energy in Poland for many years, the demand of Polish economy for Polish hard coal will decrease quickly.

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1. Introduction

The process which began in Poland in 1989 of transforming the economy from command-distribution economy into market economy (social market economy) (Borowiecki, 2003; Dorozik, 2006) posed huge challenges in front of Polish hard coal mining resulting from a sudden change in functioning conditions (Szlązak, 2004; Suwala and Labys, 2002; Domański, 2002; Karbownik et al., 2001). Polish mining faced a challenge what type of restructuring to choose (Dźwigoł, 2007; Fornalczyk et al., 2008). There are two main directions of restructuring processes: one directed at growth of the company's value and competitiveness (Romanowska, 2001) or concentrating on survival (Cyfert, 2006; Brandenburg, 1998) and choosing a defensive strategy (Yannopoulos, 2011).

Polish hard coal mining entered the period of economic transformation (Slay, 2014) as a centralised industry, to a large degree self-sufficient economically (many needs, including periodic services, were rendered by organizational units in mines or specialised companies included in the organizational structure of the trade).

The beginning of the transformation period in Polish economy

means a significant decrease in industrial production, gross national product and a sudden drop in demand for hard coal. Hard coal, being a basic fuel for Polish power industry, heat engineering, industry and economic purposes, was also a product exported to countries-members of the Council for Mutual Economic Assistance as well as countries with market economy.

Polish hard coal mining entered the economic transformation period operating in three coal basins:

- Upper-Silesia Coal Basin – the largest Polish basin in terms of resources as well as the amount of output, where a well-developed surface infrastructure and numerous towns as well as housing estates reduce the possibility of conducting mining activities,
- Lower-Silesia Coal Basin – the oldest one of active coal basins in Poland, with high-quality coking and anthracite coal but occurring in very difficult mining and geological conditions. Scarce coal resources and the deposit conditions caused that the basin, situated until 1945 within the borders of Germany, was treated as a fading one. After World War II attempts were made to develop mining capacity, but without any effect.
- Lubelskie Coal Basin – before 1989 one mine and the framework of another one were built there.

Especially mines of the Upper-Silesia Coal Basin, situated in the area of mining and heavy industries domination, were exposed in the crisis situation to a combination of economic and social

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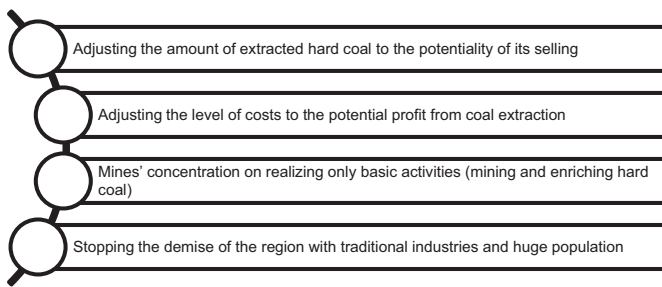


Fig. 1. Basic restructuring goals of Polish hard coal mining after 1989.
Source: individual study.

problems on a large scale (Arabia et al., 2014; Bathelt and Kappes, 2009; Balogun, 2007). For this reason, almost from the beginning of the economic transformation period there were attempts made to adapt the industry/business to functioning in the market economy conditions (Karbownik and Stachowicz, 1994; Blaschke and Gawlik, 1999; Turek, 2007; Turek, 2003; Eckart et al., 2003; Hayo, 2004).

The current situation of Polish hard coal mining – a deep crisis (Korski, 2010a; 2010b) – makes it necessary to evaluate the current state and the effectiveness of activities, mistakes and failures in restructuring processes in the context of real conditions of functioning.

Basic restructuring goals are shown in (Fig. 1).

The goals have been realized by:

- Beginning the process of liquidation of constantly unprofitable mines and/or those with the depleted coal reserves.
- Reducing employment in mines by introducing a ban on employing new workers, introducing several subsequent packages of workers' voluntary resignations as well as outsourcing of services provided in mines and not connected with the main area of activity.
- Reducing the internal price competition of Polish mines.

Several European countries helped to adapt Polish hard coal mining to the reality of market economy by organizing trainings for management staff in mines or groups of mines. However, no trainings were organized to change the attitude of lower management staff towards a business approach (Mutti et al., 2012; Hilson, 2012).

At the same time there occurred changes in the macro-environment of coal mining which concerned law (among others, regulations on trade unions and related ones) which made it difficult to adapt Polish hard coal mining to the reality of market economy (Kern and Smith, 2008; Gurgul and Lach, 2011; Peters and Hertwich, 2008).

The realization of restructuring programs was de facto finished between 2006–2007, when the Council of Ministers adopted a document named 'A Strategy of Operations in Polish Hard Coal Mining between 2007–2015' (Ministry of Economy, 2007), which actually indicated basic goals of actions taken within managing hard coal mining companies in Poland. The document showed that the role of Polish hard coal mining in the European Union would depend on Polish producers and only maintaining an appropriate level of costs would allow us to compete at the common European market with the coal imported from outside the Union. The strategy included the following goals:

- Searching for new possibilities of using coal and for new consumers;
- Adapting mining production capacity to a possibility of hard coal sale at the market (Kamiński and Kudełko, 2010);
- Maintaining the costs of coal production in mines on the competitive level in comparison to the coal prices (Sun et al., 2013)

and at the same time maintaining economic effectiveness of coal companies;

- Maintaining the satisfactory level of financial fluency and credit rating by coal companies;
- Providing stable and economically safe workplaces in hard coal mines as well as rational management of workplaces;
- Coal companies boards following an effective policy of managing extra-production permanent assets and long-term financial assets;
- Coal companies taking actions connected with increasing profits through rational management of by-products and wastes (e.g. methane, gangue, water, scrap) (Galos and Szlugaj, 2014);
- Coal companies taking actions aimed at maximum reduction of costs arising between a producer and the final consumer;
- Adapting the investment and purchase policy to the market reality in the world (Korski et al., 2015a).

The goals were formulated assuming that in 2015 the national hard coal consumption would decrease slightly below 79 million Mg, with the national hard coal output of about 90 million Mg and the sale of hard coal by Polish mines on the level of about 73 million Mg. At the same time, the crisis at the international and national coal markets between 2009–2012 and lasting up till now was not taken into account. The result was a fall in the sale of power coal in Poland in 2014 by about 4 million Mg less than it was assumed in 'The Strategy...'.

The worsening situation of Polish hard coal mining is a result of abandoning the goals included in the strategy mentioned above and a lack of reaction to the bad situation in the local and global environment (Turek, 2011; Dubiński and Turek, 2014).

2. Methodology

The paper takes advantage of a three-area strategic analysis (Gierszewska and Romanowska, 1997).

The strategic analysis (Tyrańska and Walas-Trębacz, 2010) was conducted for three areas, i.e. the interior of hard coal mining industry in Poland, the close (competitive) environment and macro environment (Fig. 2).

The analysis of the interior of hard coal mining industry in Poland was conducted by means of a long-term analysis of changes in a selected group of technical parameters taking into account potential factors causing single, abrupt changes in these indexes (parameters). The method was applied due to a large technical and technological homogeneity of Polish hard coal mining (deep-underground mines, almost exclusively longwall systems with fall of roof, the same legal regulations, similar traditions and local factors). As a support, there were shown trends of changes in individual indexes, but it is worth noticing that during the analysed period there occurred abrupt changes (described in the text) in law or general conditions of realizing mining and economic activities.

The situation in the local and strategic environment was analysed precisely in a descriptive form showing key changes influencing the current situation of Polish coal mining as well as essential macroeconomic, or speaking more widely, strategic changes and factors affecting the current state of Polish hard coal mining and future conditions of its functioning.

3. The study results

3.1. The course of technical restructuring processes in mines in the light of statistical data from years 1988–2014

The restructuring process of Polish hard coal mining between 1990–2014 included organizational changes but also technical and

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