

# A NEW CHALLENGE FOR THE ROMANIAN COAL INDUSTRY: ELIMINATION OF THE STATE AID

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*According to the European Commission decision N 239/2007 the Romanian coal industry will receive state aid by the end of 2010. After this period public companies in this sector will finance the costs of current production and investment entirely by their revenue. This article presents a short literature review regarding the subsidization of coal industry, shows the evolution of the mining industry in Romania so far, and identifies opportunities for continuing coal production after December 31, 2010 without state aid. The paper concludes that the abolition of subsidies is a positive measure but it must be taken gradually and responsibly, in order to ameliorate the negative effects on social and natural environment.*

*Keywords: coal industry, state aid, National Hard Coal Company*

*JEL code: Q30, Q38*

## **1. Introduction**

Reorganization of the Romanian coal industry is a problem that caught the attention of Romanian Government the two decades. Given the fact that 2010 is the last year for coal production direct subsidization (EC Decision N 239/2007), all economic and social actors directly concerned about the future of mining worked together to try solving this problem. The results of the cooperation were materialized in the development and implementation of Mining Industry Strategies (MIS: 2004-2010, 2006-2020, 2008-2020) that led to an improved situation and decreasing losses. Despite these efforts 2011 will be a difficult year for the continuation of coal extraction, particularly for the National Hard Coal Company.

## **2. Coal subsidization: short literature review**

Coal subsidization is a well known government policy, used in many countries over time. Because of the geological conditions in most European countries the hard coal extraction costs are significantly higher than in other countries in the world. Subsidization is the only way to make domestic production competitive. Although it has been criticized for decades by many respectable economists the phenomenon hasn't completely disappeared but it has significantly reduced. One of the arguments against coal subsidizing refers to the fact that mining and the burning of coal is polluting and instead of paying subsidies the governments should apply taxes to coal production and consumption (Anderson, 1995).

Germany, for example, has been subsidizing the hard coal mining sector since 1958, spending about EUR 128 billion between 1958 and 2002 and is considered the largest supporter of hard coal subsidization (Storchmann, 2005). There is no other subsidy that has been granted so many years at such a high level in Germany. Other European countries where hard coal subsidization persisted are Spain and Poland- the biggest coal producer in Europe with 84 million tones in 2008 (IEA, 2009).

A more recent article (Frondel M. et al, 2007) analyses the most cited arguments written against the abolition of hard coal subsidies in European countries.

*The first argument* is the security of energy supply. The authors criticize this argument sustaining that, as a consequence of liberalization, ascertaining secure energy and raw material supplies has now become the responsibility of the *private industry*, and this problem can be easily solved

using long term contracts and other modern methods. The growing of international coal trading is another assuring argument in this matter.

*The second often used argument* is the employment effect generated by mine closure in some regions. Against this argument it is mentioned the fact that the number of employees in the mining industry is considerably smaller nowadays than it was decades ago. For example in the Romanian mining industry were employed more than 300,000 people in the 80' compared to the few tens of thousands presently.

*Other arguments* against subsidizing refer to the opportunity cost of subsidies, negative effects on the environment and others.

Elimination of coal subsidies is also an important objective of by the European Commission. According to UE non-renewable resource policy the last year for coal subsidization in member states is 2010.

### 3. Romanian mining sector development and government policy

During 1970-1980, the mining sector in Romania was in full ascension offering well paid jobs and boost for the economic activity in many regions of the country. Mining activities have expanded in six of the eight regions of the country but were concentrated in the west and northwest (Bastida and Yupari, 2008). Socialist period strategy had a great influence on the development of mining in Romania. This strategy was based on self-support in ensuring mineral resources for the Romanian economy in order to reduce and eliminate imports. However mining was also an industry that received substantial subsidies employing over 350,000 people directly and 700,000 indirectly. (MIS 2004-2010).

During 1990-2007, the state spent the amount of U.S. \$ 6,156.4 million to support the mining sector, as shown in Table. 1.

*Table No. 1: Public expenditures for the mining industry subsidization 1990-2007*

Specification	Value (million U.S. dollars)
Subsides	4,125.20
Social transfers	316.9
Capital allowances	1,714.30
Total	6,156.40

*Source: MIS 2008-2010*

In addition, for the same period mining operating companies recorded a loss of U.S. \$ 1,729.4 million (MIS 2008-2010). For reducing the enormous public expenditures in this sector reorganization was impetuously necessary.

Closure of unviable mines was done in two stages. The first stage representing the period before the year 2000 was rather chaotic, paying more attention to economic issues and less responsibility for social and environmental impact. In the second stage, during 2001-2003, about 75 mines were closed and state support was given for protecting the environment and economy. In figures, by 2004, production was halted in 344 mines of which 82 were completely closed and the closure of 191 mines was outsourced to companies. The remaining 71 were preserved to be closed permanently later. (MIS 2004-2010). In early 2004 the number of people employed in mining reached 61,700.

However, subsidies to mining companies continued to be supported through two projects funded by loans from the World Bank:

1. "Draft Mine Closure and Social Impact Mitigation Project" worth U.S. \$ 44.5 million, financed by International Bank for Reconstruction and Development (IBRD) loan.

2. "Mine Closure Project, environmental restoration and Socio-Economic Regeneration, worth 120 million dollars, was financed by IBRD loan and approved by Law no. 167/2005 and extended over a period of 5 years. The project was divided into two components: component of mine closure and environmental and social regeneration. (Bastida and Yupari, 2008).

In 2004, employment in hard coal and lignite mining was approximately 60% of the entire workforce in the mining industry, of which 16,000 were employed in 12 underground hard coal mines, on the site of Jiu Valley and organized as the National Hard Coal Company (CNH). These mines have been continually receiving consistent subsidies from the government because their income was always below their expenditures.

Extraction of lignite and brown coal has proven to be more viable despite the fact that these types of coal have a lower calorific value than hard coal. Extraction was done by two public companies, the National Society of Lignite Oltenia (SNLO) and National Coal Company Ploiesti (SNCP).

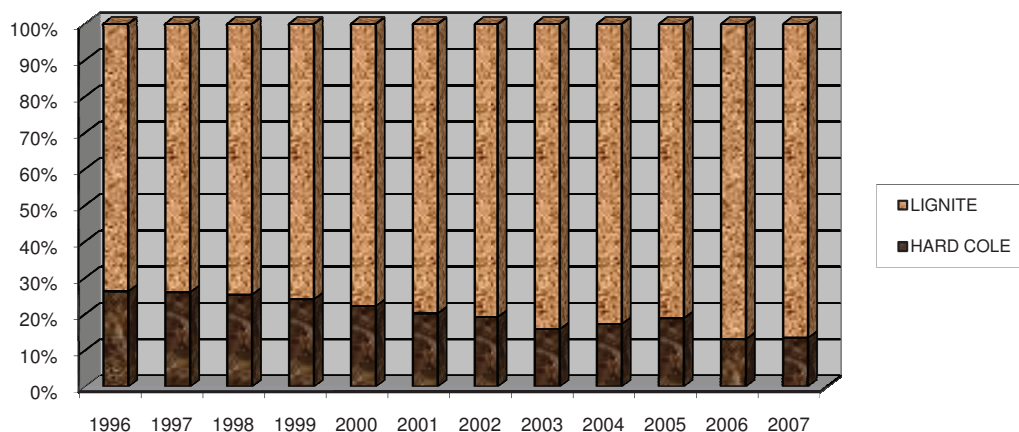
*Table No. 2 – The evolution of coal production in Romania*

Year		1996	2000	2001	2002	2003	2004	2005	2006	2007
TOTAL COAL	million tones of oil equivalent*	8.065	5.601	6.239	6.117	6.536	6.192	5.793	6.477	6.858
LIGNITE	million tones	36.5	26	29.7	29.3	30	29.1	28.1	32.4	32.7
	million tones of oil equivalent*	5.944	4.354	4.979	4.942	5.499	5.12	4.698	5.628	5.933
	% in total (oil equivalent)	74%	78%	80%	81%	84%	83%	81%	87%	87%
HARD COAL	million tones	5.3	3	3.5	3.7	3.0	3.1	2.7	2.6	2.6
	million tones of oil equivalent*	2.121	1.247	1.26	1.175	1.037	1.072	1.095	0.849	0.925
	% in total (oil equivalent)	26%	22%	20%	19%	16%	17%	19%	13%	13%
* Oil equivalent (10.000 kcal/kg)										

Source: MIS 2008-2010

The competitive advantages of lignite are the lower exploiting costs, smaller risks involved with the extraction process (especially in surface quarries) and the existence of higher technology and reserves. These advantages influenced the annual growth of the quantity of lignite extracted.

*Figure No. 1 - Evolution of the ratio between the lignite and hard coal extracted (Both expressed in tones of oil equivalent – data from Table No.2)*



#### 4. The coal industry in the last period of state aid: 2007-2010

Starting January 1, 2007 the only coal producing company in Romania which has received state aid is the National Hard Coal Company (CNH). The objectives of this measure are to finance the company's current production and cover the costs of maintaining access to coal reserves underground Jiu Valley. European Commission notes that, in terms of financial restructuring, CNH will provide increased productivity by 2010, up to reaching a level that will ensure its operation without state aid (EC Decision 239/2007). Romanian authorities have indicated that they used some technical and economic criteria for establishing a list of units within the company to be included in the restructuring plan and, therefore, receive this support to continue their activity.

The total budget of this measure is Romanian LEI (ROL) 1,289,562,000, which is distributed in the period 2007-2010 as we can see in Table No. 3.

Table No. 3. Distribution of state aid during 2007-2010

	2007	2008	2009	2010	TOTAL
TOTAL state aid (ROL -thousands )	401,440	338,940	293,160	256,022	1,289,562

Source: EC Decision N239/2007

For better understanding the importance of state aid in the proper functioning of CNH we will continue by presenting the company's estimated income and expense during period 2007-2010. We will also present the evolution of one of the most relevant efficiency indicator often used in the mining industry: Expenses at ROL 1000 of goods production (Table No. 4).

Table No. 4 CNH main indicators 2007-2010

National Hard Coal Company	2007	2008	2009	2010
Estimated production costs (ROL / tone of coal extracted - tec)	642.2	617	595.4	582
Income (ROL/tec)	320	343.8	361	379
Differences=costs – income (ROL/tec)	322.2	273.2	234.4	203
State aid (ROL/tec)	289.4	243.7	204.6	173.1
Expenses at ROL 1000 of goods production (ROL)	2006.88	1794.65	1649.31	1535.62

State aid weight in Total production costs	45.1%	39.5%	34.4%	29.7%
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Source: EC Decision N239/2007, author's calculations

By reading the table data we can observe a gradual reduction of the expenses to ROL 1,000 of goods production, from ROL 2006.88 in 2007 to ROL 1535.62 in 2010. Estimates of the decreasing evolution of this indicator in CNH are confirmed by other recent studies (Csiminga, 2009). This indicator's reduction of approximately 25% is achieved through a significant restructuring process in the fields of human resources and equipment. Although indicators evolution in Table. No. 4 is positive, there is a significant gap between last year's (2010) revenues and expenditures which makes it very difficult for the Company to continue production in 2011 without subsidies.

### 5. Perspectives of the Romanian coal industry after the year 2010

National Planning states that by 2020, electricity production based on coal should remain at 33% - 35% of the total production capacity. Therefore, a strong domestic market is available for hard coal and lignite.

Extraction of the latter is carried out since 2009 without subsidies, and the amount extracted has increased from year to year. The lignite quantity scheduled to be extracted annually is about 32 million tones per year and the reserves in the Oltenia region will ensure production at present capacities for the next 47 years (ESR 2007-2020)

The future production of hard coal is uncertain because of the bad financial results of the National Hard Coal Company, the only hard coal producer in Romania. The two major obstacles of this structure are:

- accumulated historic debt;
- low efficiency of business operation;

*The historic debt* of CNH is currently about EUR 1 billion of which 70% are penalties. This value represents about four times the value of the company's assets and it is impossible to be paid. The solution found by the Government for this problem is simply deleting these debts. Representatives of the Ministry of Economy, Commerce, and Business Environment are currently following the appropriate procedure to obtain a favorable notice from the European Commission in this issue.

*The low production efficiency* is influenced by the bad geological conditions and lack of modern extraction technologies (Ilias et al, 2008).

In order to increase the activity efficiency action is taken in the following directions:

1. *Reducing personnel costs*, which are approximately 70% of total expenditure by layoffs, the number of employees who left the system in April 2010, is 1420. This represents about 15% of CNH staff..

2. *Increasing productivity by investments in efficient equipment*. A recent literature study (Ilias et al., 2008) shows us that the mining activity could be viable in some of the units constituting the CNH by using modern mining methods and equipment. But the new technologies can not be adapted to all mines and therefore 4 of them would be closed after the year 2010 if there are no subsidies. Even for the 3 remaining mines installation and utilization of mining units is difficult and problems that occur can temporarily interrupt production and create fluctuations to the coal quantity delivered.

3. *CNH vertical integration* with the main clients: Electrocentrale Deva, Termoelectrica Paroseni, and a part of Hidroelectrica Society divided to create two large energy companies that will provide heat and electricity required throughout the country.

The third measure, the current government initiative, is criticized by the World Bank because of the coal-hydro-nuclear energy mix, saying that companies generating losses like some of the mines composing CNH will be in advantage on the behalf of profitable ones.

## 6. Conclusions and recommendations

Eliminating state aid in the Romanian coal industry will adversely affect the activity of the National Coal Company, customers and suppliers, as well as the economic and social environment of the Jiu Valley. The lack of a clear plan of activity after the end of 2010 generates concerns among CNH employees, small and medium enterprises in the area, local authorities and other economic and social actors.

The current situation in the Jiu Valley is difficult because of the lack of certitude. The activity is conducted “by inertia” and the measures taken to make coal exploitation more viable were only partially successful. This statement is reinforced by the lack of action in recent years for solving historical debts problem (so obviously necessary, regardless of the future), lack of a new collective labor agreement for the years 2009 and 2010, and no realistic business plan for the coming years.

Measures to be further taken will have to consider the following aspects:

1. *Strategic*: by considering the importance of energy independence of the country on long terms. This can be achieved in part through continued domestic production of hard coal. According to Romania's Energy Strategy for 2007-2020 coal reserves in the Jiu Valley region can ensure continuity of energy production at present capacities for at least 30 years.

2. *Economic*: by considering the impact of mining activity on other economic sectors. Because of the strong local impact, mining has the potential to promote complementary activities in other economic sectors in the region.

3. *Social* aspects require a special attention. Restructuring the mining industry involves reducing personnel. This measure affects the populations' current quality of life and the opportunities of future generations. The social aspect also includes health, education and training programs for former employees.

4. *Environmental*. Mine closure requires protection of public health and safety, alleviating or eliminating environmental damage and achieving a productive use of the land, a return to its original condition or an acceptable alternative. It is a complex procedure that requires planning and following specific steps.

Given the changes in key indicators of the CNH, presented in Table No. 4, in particular the expenses at ROL 1,000 of goods production for year 2010 that overcome revenues with about 50%, the company could encounter a financial jam during 2011 in the case of a complete elimination of subsidies.

Therefore I consider that the abolition of subsidies should be made gradually in the following years and combined with a restructuring and closing program. In addition to these measures the government should make parallel investments in the Jiu Valley infrastructure (especially for finishing construction of the road between Uricani city and Herculane resort) and stimulate private initiative in production activities and tourism.

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