



institute
for structural
research

Author

Aleksander Szpor

Coal Transition in POLAND

*An historical case study for the project "Coal Transitions:
Research and Dialogue on the Future of Coal"*

2017



IDDRI

www.coaltransitions.org



Coal Transition in POLAND

*An historical case study for the project "Coal Transitions:
Research and Dialogue on the Future of Coal"*

*This is one of the 6 country case-studies commissioned to collect experience on past coal transitions.
The 6 countries are: Czech Republic, the Netherlands, Poland, Spain, UK, USA. Their role in the Coal Transitions
project was to provide background information for a Synthesis Report for decision makers, and provide general
lessons for national project teams to take into account in developing their coal transitions pathways for the future.*

A project funded by the KR Foundation

Author

Aleksander Szpor

Cite this report as

Aleksander Szpor (2017), Coal Transition in Poland, IDDRI and Climate Strategies.

Introduction	3
Historical background	3
Structure of the coal and energy sector	4
Policies for the restructuring of the coal sector	8
Main actors in the process.....	8
Governmental programs.....	9
Instruments for easing the restructuring processes.....	11
Conclusions and lessons learnt	12
References	14

Contact information

Oliver Sartor, IDDRI, oliver.sartor@iddri.org

Thomas Spencer, IDDRI, thomas.spencer@iddri.org

Andrzej Błachowicz, Climate Strategies, andrzej.blachowicz@climatestrategies.org

Copyright © 2017 IDDRI and Climate Strategies

IDDRI and Climate Strategie encourages reproduction and communication of their copyrighted materials to the public, with proper credit (bibliographical reference and/or corresponding URL), for personal, corporate or public policy research, or educational purposes. However, IDDRI and Climate Strategies copyrighted materials are not for commercial use or dissemination (print or electronic). Unless expressly stated otherwise, the findings, interpretations, and conclusions expressed in the materials are those of the various authors and are not necessarily those of IDDRI's board or Climate Strategies Board/Secretariat.

Publishers: IDDRI and Climate Strategies

Editors: Pierre Barthélemy, Andrzej Błachowicz, Germana Canzi, Alexandra Carr, Oliver Sartor, Thomas Spencer

Graphic design: Ivan Pharabod

Introduction

The restructuring of the Polish coal sector is inextricably related to the democratic transformation which began in 1989. The economic dimension of the transformation is manifested in the shift from central planning to the free market. Although this process brought economic growth, it has had severe social costs.

The main goals of the coal sector restructuring were to achieve its profitability and competitiveness on the global market. However, even with a very quick downsizing of production and employment, which positively affected the mines' productivity, these goals were not achieved. Neither the profitability of the sector nor the sustainability of the labour restructuring were achieved.

There were three main reasons for lack of success in this process. Firstly, the rapid changes of governments making impossible implementation of long term strategies and ensure implementation of market rules in the sector. Secondly, the pressure from trade unions on sustaining the status quo – state owed structure of mining companies, professional privileges and increasing salaries. Thirdly, the lack of sufficient incentives for retraining the miners and revitalising the areas exposed the most on the coal sector restructuring.

Historical background

This chapter provides a short overview of the Polish coal sector history. It shows how coal mining was, for many decades, a driver of faster economic, social and regional development. It also explains why this development lasted only until the communist period (1945-1989) when the financial viability of the sector was gradually lost.

Coal mining has a long tradition in Poland, especially in two southern regions. Coal mines were first mentioned in Poland in the 14th century (Lower Silesia region) and 16th century (Upper Silesia region). However, the true growth of the sector took place in the 18th and 19th centuries when new industries, urban centres and transport lines developed around three major coal fields – Upper Silesia, Dąbrowskie and Krakowskie. Two regions were particularly affected by the fast development of mining – Upper Silesia and Małopolskie – both in the south of Poland.¹ Coal mining triggered progress in the regions thanks to the rich coal reserves. The development of mining and

related industries (particularly metallurgy) was followed by demographic, social, economic and cultural changes. Mining speeded up technological progress, i.e. the use of steam engines, railroads electrification etc. It triggered the development of the education system (especially engineering) and speeded up urbanization. Mining was also the first sector where a modern social security system was developed. Social rights and their awareness led, in turn, to faster socio-political changes and the formation of workers' movements.

At the end of the 19th and the beginning of the 20th century, hard coal became the main resource of the mining sector in Poland, ahead of ore, gas and petrol. In 1929 the production of coal, over 70% of which came from the Upper Silesia region, reached over 46 million tonnes and accounted for 4% of Polish GDP.

During the communist regime, the new model of a centrally-planned economy was introduced, in which coal played a prominent role. In this model, inputs were

¹ In the 1980s the Lubelskie region became a third important centre of coal exploration.

directly allocated based on multi-annual plans prepared by the central administration. As private property was considered a source of inequality, it was almost entirely abolished. For that reason, the government nationalised (i.e. acquired from domestic and foreign private owners) all large and medium-sized companies, including all companies in the mining and electricity sector.

The empowerment of the working class, which was at the heart of the communist system, as well as the emphasis on the development of heavy industry and large-scale projects laid the ground for the rapid growth of the mining regions. During this time coal production reached its peak.²

The choice of coal as the backbone of the economy was not random. Because of the composition of its natural coal reserves, Poland was assigned by the USSR to play the role of coal and steel supplier within the Eastern

Bloc. This economic direction had a negative effect on the production of consumer goods. The scarcity of the latter is considered to be one of the economic reasons for the fall of the communist regime in Poland.

In Poland, mining became a model sector of the socialist economy. It was presented as a guarantee of development and progress. This was manifested by the allocation of various benefits (privileges) for miners, such as two additional monthly salaries (each year), an allowance for school accessories for workers with children or a one-time travel subsidy for miners and their families (Szpak, 2012). Part of this legacy was also the involvement of mines in social activities such as running hospitals, schools, kindergartens, sport clubs etc. (Kaczorowski and Gajewski, 2008). This involvement created a vicious circle in which the side activity of coal mines and their political importance became the reason for bigger subsidies from the state budget.

² The production of coal reached its peak in 1979 at 201 million tonnes, of which 42 million were exported. In the 1980s, production dropped, mostly due to the economic recession in Poland.

Structure of the coal and energy sector

In this chapter, the role of coal in the Polish economy and energy system is described. It explains why, despite the downsizing of production and employment in the sector over the first decade of the restructuring (1990-1999), the role of coal still remained important.

The share of coal in the total primary energy supply has traditionally dominated other fuels. Coal production (including lignite) covered both the domestic demand and was also an important part of Polish exports, balancing the almost complete reliance on oil supplies from abroad. This balance reduced, for instance, the impact of the oil crises in the 1970s on the Polish economy and triggered the construction of new mines.

Since 1980s, however, and through the following decade, the role of coal has decreased. In the 1980s the major factor of this trend was mainly external. In the 1990s the decisive role was played by two internal factors, related to the overall economic transformation. The first was the downsizing of the industrial sector, in many cases due to

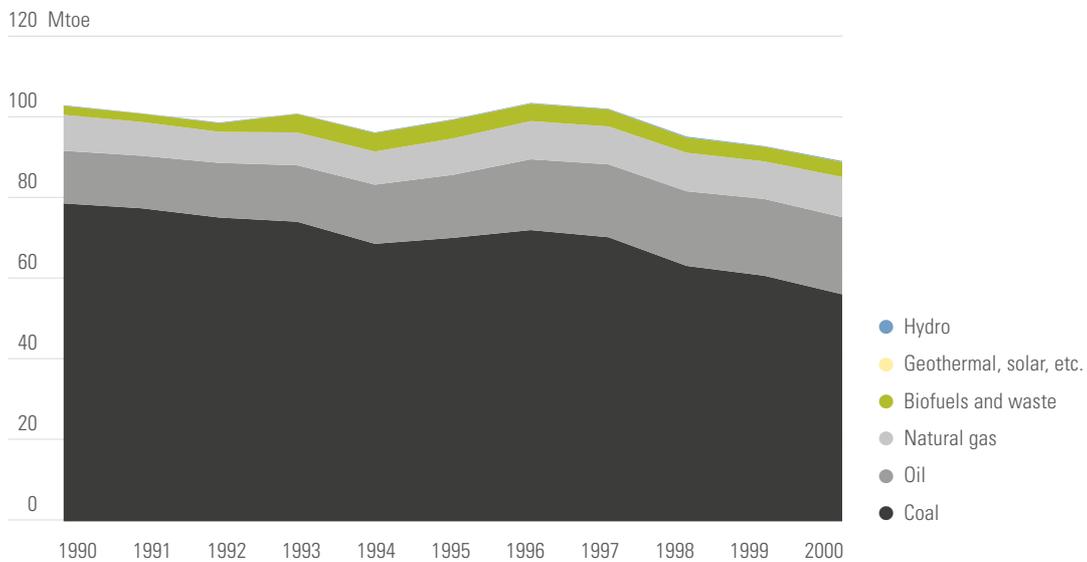
the collapse of large, unprofitable companies. The second was related to the general improvement of energy efficiency. Both factors moderated the demand for primary energy, particularly for coal and lignite. The relative growth of other fuels in the primary energy supply, especially gas and oil, was in nominal terms rather insignificant, as the total primary energy supply dropped, in particular due to lower coal production (**Figure 1**).

Compared to the primary energy supply, coal played an even more important role in electricity production. Between 1990 and 2000 it delivered 95-96% of power, whereas the second and third biggest sources - hydro and oil - provided just 2-3% and 1% respectively (**Figure 2**). It is also important to note that hydro power in Poland is largely pumped-storage electricity. In practice, it is used by coal-fired power plants for daily load balancing. The share of hydro, oil, gas and waste in the energy mix has remained steady, whereas coal has been the main fuel to adapt to the fluctuating demand.

Electricity production in Poland was linked to the country's economic growth. Despite the initial downturn in 1990-92, the economy started to grow substantially from 1992 to 1996 when another drop (albeit rather smooth) occurred between 1996 and 1999. Overall, during the 1990s the annual electricity production ranged from 133 to 145 TWh.

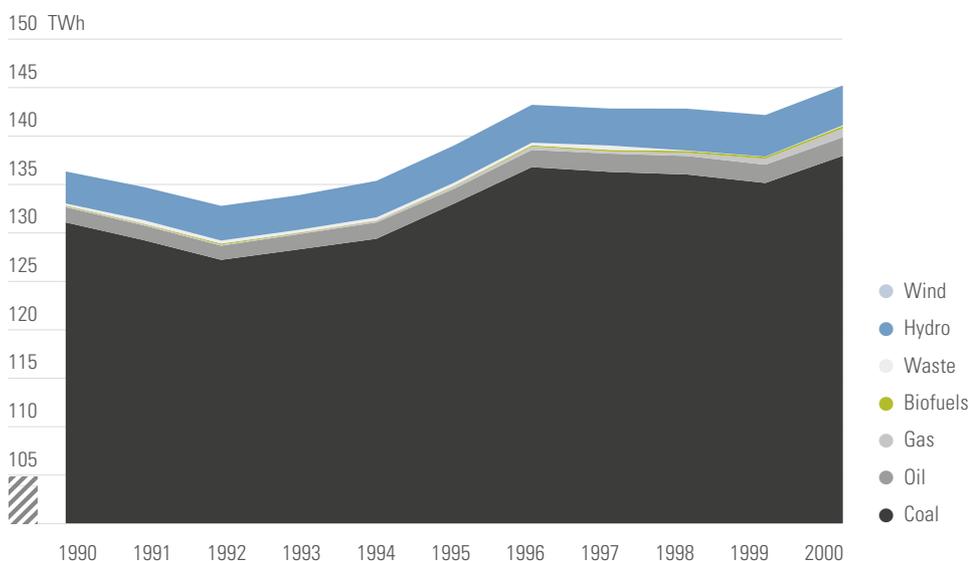
In this decade, employment and production in the hard coal mining sector dropped drastically. Employment fell from almost 388,000 to 155,000 workers. Also, the production of coal fell, but at a substantially slower pace which gave positive results in terms of the sector's productivity (**Figure 3** and **Figure 4**).

Figure 1. Total primary energy supply (Mtoe)*



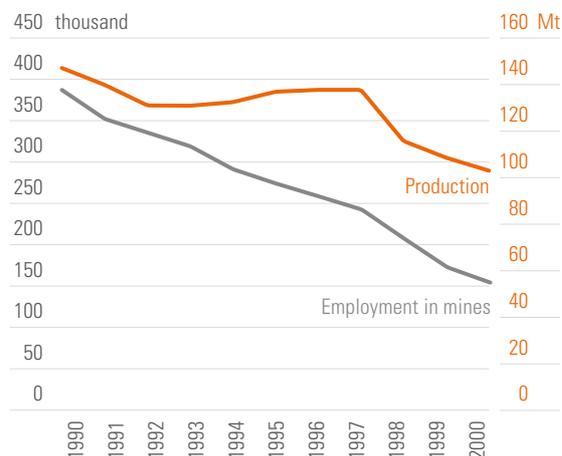
*Without electricity; crude oil and oil products combined. Source: Own representation based on IEA.

Figure 2. Production of electricity (TWh)



Source: Own representation based on IEA.

Figures 3. Employment and production in mines

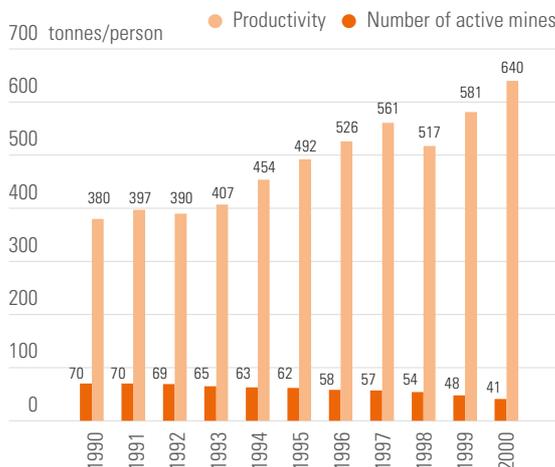


Source: Own representation based on Kaczorowski and Gajewski (2008).

Almost half of the existing mines were closed during the first decade of restructuring. Out of the 70 mines which existed in 1991, 30 were closed and only one was opened (in 1994) (Figure 4). It is important, however, to stress that due to the territorial concentration of mines in Poland, their closure was often in fact an acquisition or merger with other mines. In such cases, connections between their excavations were built or expanded. These operations allowed to reallocate resources – people, machinery, etc. The liquidation of these mines after the depletion of resources was also cheaper. The total sale of hard coal between 1990 and 1999 declined from 147 to 106 million tons (Figure 4). Apart from the year 1993, production of coal was constantly exceeding its sales by around 3–4 million tons. The difference between average cost and average price of sales was (except in 1994) always negative. (Karbownik and Bijańska, 2000) It was an undesirable phenomenon, although in case of the rapidly shrinking sectors such as mining and with relatively high fixed costs, sales below costs of production can be a justifiable strategy.

In the early 1990s the sales of Polish coal experienced a major slump (Figure 5). One of the reasons was decreasing demand on the domestic market related to the general fall in production. The other reason was the dismantling of the Eastern Block (the Council for Mutual Economic Assistance) whose member countries were the main receivers of exported Polish coal. The adjustment process to new markets was difficult as the quality of coal was low and its improvement

Figures 4. Number of active mines and their productivity



Source: Own representation based on Kaczorowski and Gajewski (2008).

required new investments in processing technology, namely coal beneficiation. (Lorenz, 2011)

For that reason, in 1990 a system of coal prices and limits for emissions was introduced.³ Special price formulas, based on the coal quality (its calorific value and content of ash and sulphur) were designed to stimulate technological investment. Along with the price mechanism, a cap for emissions was introduced in the energy sector. In this system, all the emissions were paid for by a polluter, and any emission above the fixed level was penalised with additional financial fines. Both mechanisms led to a quick improvement in coal quality and a decrease in pollution. (Lorenz 2011)

The fixing of coal prices also played the role of an “inflation anchor” as a part of the broader economic transformation in the early 1990s. This step consisted of fixing the coal price on the wholesale market at a steady level. Although the system remained obligatory for only one year, it...

On the retail market the price of coal rose nine-fold in the 90s, which was mainly borne by individual households. Between 1995 and 2000 the economy grew by 26% and the sector shrank by 12% (in fixed prices).

³ In the previous system, the maximisation of coal production and surplus electricity created an opportunity for agreement from the central planner (USSR) to develop new factories and thus improve the domestic economic situation. Trade was the principal reason for further growth (Blaschke, 2002). The price of coal was set centrally, on the basis of average price production and transport costs. However, it played a secondary role in production.

Hence the share of the mining sector in the economy during the same period fell from 4.1% to 2.6% (Table 1). Together with the inefficiency of the sector, it was the reason why coal exports were unprofitable throughout the whole decade as the price was lower than the cost of production (Czerwińska, 2002). The inflation anchor issue still remains one of the most controversial decisions, criticised especially by the representatives of the coal sector (Blaschke, 2002; Paszcza, 2010).

In the whole of the 1990s, the profitability of the hard coal sector remained negative and sector debt quadrupled. In 1993, the debt was 5.45 billion PLN, by the end of 1997 it was already 13.35 billion PLN and in 2000 it reached 22 billion PLN.

From 1990 to 2000, mining companies went through two major legal transformations, taking on different forms of business entities. In 1990, they were transformed from public utility companies into individual state enterprises. Due to their underperformance and the critical situ-

ation of the sector in 1993, the existing enterprises were grouped into 7 joint stock companies (Tkocz, 2006). In the late 1990s, the privatisation of mines was planned but realised only in some cases within the next decade.

Substitution of coal in Polish energy mix with any other fuel was not an option. Lack of sufficient domestic gas reserves or technological know-how in nuclear or renewable energy, combined with the lack of investment capital made it impossible. Also, the import of energy, due to economic, infrastructural or geopolitical reasons was hardly realistic.

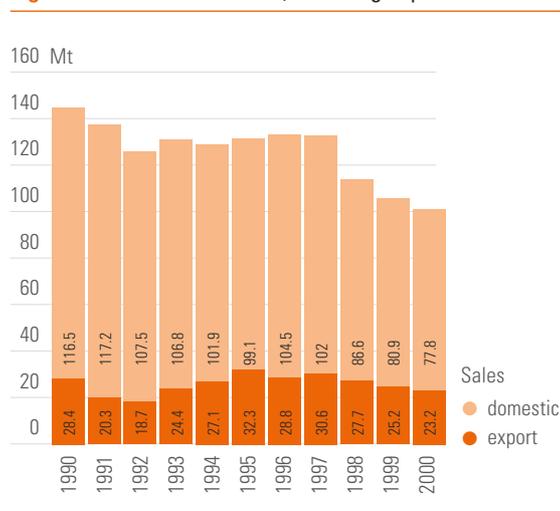
The major decline in production and employment in the coal mining sector, as well as the closing of a large share of the mines, did not reduce the essential role of coal in the energy mix for both primary energy supply and electricity production. Two trends had a major impact. On the one hand, it was economic growth correlated with the growth in electricity demand. On the other hand, there was the growing economic efficiency in coal production.

Table 1. Nominal and real added value of the economy and the mining sector [bn PLN]

	Gross added value			
	Current price		Fixed price (1995)	
	Total economy	Mining	Total economy	Mining
1995	268.3	11.1	268.3	11.1
1996	336.8	12.8	282.5	11.6
1997	412.9	14.6	300.6	11.1
1998	485.2	13.3	314.8	9.8
1999	535.7	14.2	327.0	9.7
2000	623.9	16.1	339.1	9.8

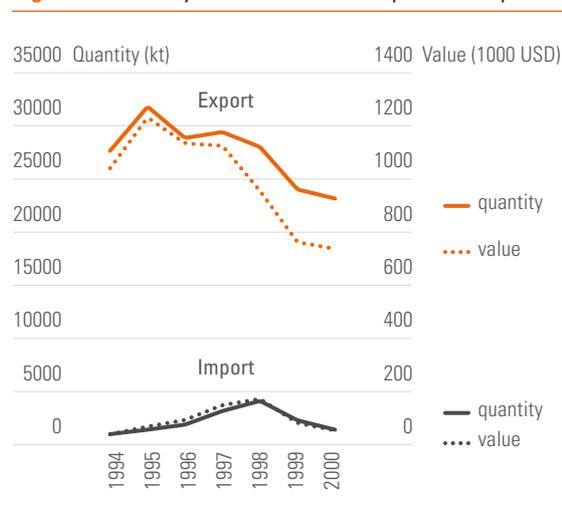
Source: Own representation based on Franik (2010).

Figures 5. Total sales of coal, including exports



Source: Own representation based on Kaczorowski and Gajewski, 2008.

Figures 6. Quantity and value of coal export and import



Source: Own representation based on Comtrade.

3. Policies for the restructuring of the coal sector

This chapter describes the main actors and programs together with the most important instruments of restructuring. The main reasons why the coal sector remained unprofitable despite various actions, and supported by financial efforts, were established.

The *Balcerowicz plan*, implemented in 1990, also known as *shock therapy*, was particularly difficult for low-skilled workers employed in state-owned companies. Solidarity, the trade union which was the main opposition

force triggering the fall of communism in Poland, was dramatically torn between proponents and opponents of this plan based on three main goals - privatisation, deregulation and limiting hyperinflation. The most controversial, however, was the pace of reforms, the role of foreign investment capital and the choice of coal as the inflation anchor.

Main actors in the process

Since the early 1990s, the discord between proponents of liberal reforms and their opponents has become more pronounced. Although all subsequent governments supported the liberal direction, they did so to varying degrees. It is sufficient here to mention that in this period, eight governmental coalitions were formed ranging from the right wing⁴, originating in the Solidarity movement, to the left wing with their roots in communism.

Throughout the whole period of transformation, the role of trade unions was crucial. Although the average rate of unionisation in Poland in 2003 was around 15%, in the numerous mines coal sector it reached between 75% and 113% (one miner often belonged to more than one trade union) (Kaczorowski and Gajewski, 2008). This was possible thanks to the regulations, for instance separate job positions with a full salary, paid by the coal companies to the trade union leaders, which led to a multiplication of new (even very small) trade unions.

As a result of the multiplicity of unions, reaching an agreement between them was already very difficult, making any agreement in the social dialogue format even more difficult. As study of Zientara (2009) shows, another important problem was a confrontational attitude of trade unions in the 1990s. Their

demands traditionally focussed on three aspects: wage increases, sustaining jobs (blocking the liquidation of mines) and defending their special professional benefits (privileges).

The view of the government and employers was supported by international organisations (the World Bank, European Bank for Reconstruction and Development and the European Union) and countries providing financial support for the transition process in Poland – USA, UK, Germany, Denmark, Switzerland and Canada.

In a centralised unitary political system, which was the direct heritage of the communist regime, the role of regional and local authorities and stakeholders was rather weak. The first significant impact came in 1995 when major local communities and organisations signed a regional contract for the Katowickie region with the government through its regional representative. Although the document was not a legislative act but a strategic document, it formed the basis for the future cooperation of the signatories – the government and its social partners. The role of local and regional authorities and grew substantially after the introduction of territorial reform in 1999 which re-established the decentralisation principle along with an additional, third level of territorial division, which existed before World War II.

⁴ Essentially, all the political parties in Poland after 1989 agreed on the liberal market economy as a general economic direction for the country. The right wing refers to conservative (Christian democratic) values as opposed to socialist (liberal). Solidarity as a trade union was closer to the conservative parties, whereas OPZZ, the second biggest trade union, was closer to the post-communist political parties.

Table 2. Territorial division of Poland before and after the administrative reform of 1999

Before 1999	After 1999
49 regions (voivodships)	16 regions (voivodships)
2129 communes (gminas)	379 districts (powiats)
	2478 communes (gminas)

Source: Own representation.

Table 3. Programs for restructuring the hard coal mining sector – a summary

	Title of the document	Nature of the document
1993	Program for restructuring the hard coal sector	Designed as the first of three phases of the restructuring process, orientated to the profitability of the sector. It was implemented just a few months before the basic assumptions related to coal production and exports were shown to be too optimistic.
1993-1994	Program for staving off bankruptcy in the hard coal sector	In the context of the rapidly deteriorating situation in the sector, it was necessary to correct the previous program. Although officially it was never adopted by the government, it was used as the basis for further actions. This plan laid the grounds for instrument to ensure social protection for early retirements in mining.
1994-1995	Restructuring the hard coal sector. Program for the accomplishment of phase II in 1994-1995	In the second phase of the restructuring process, ecological and social aspects were included. The third phase was never implemented due to the growth in wages and slower than expected reduction of employment.
1996-1998	The hard coal mining sector – public and sector policy for 1996-2000. Program for adapting hard coal mining to the market economy and international competition	This program only accomplished the technical part of the restructuring process. It failed to deliver positive results in all other areas, namely in ownership, employment finance and organisation. The increase in production without sufficient demand, and the lack of decision-making about the closure of mines were some of the reasons why the EBRD and WB refused to financially support the sector.
1998-2002	Reform of the hard coal mining sector in Poland in 1998-2002	The most complex and ambitious program, which extended the number of available instruments and introduced a new broader framework of support.

Source: Makiela (2002), Paszcza (2010), Przybyłka (2013).

Governmental programs

In early 90s, the coal restructuring began with the management and organisation system. The central supervisory and controlling institutions of the sector, five state companies and the Hard Coal Community, were dissolved. 70 mines which existed at the time in Poland, although state owned, were given autonomy for management and financial issues. A new government agency was established but its competences were rather of a supportive character, which soon turned out to be insufficient.

A vast majority of mines got heavily indebted. The main reasons for that was the lack of competition among external producers, the disentanglement of mines from their side activities (schools, hospitals etc.), the lack of alternative fuel on the energy market and very limited investment capital quickly. These four reasons led the mines into high levels of debt. Despite the principles of the restructuring program, and with a lack of proper controlling in-

stitutions, the mines responded by maximising coal production without any regards for demand. Granting this autonomy to mines at this very early stage of the coal market, turned out to worsen the situation. (Blaschke, 2002; Krowiak, 2002).

The insufficient results of the general economic transformation between 1989 and 1992 forced the government to take a more sectoral approach and implement tailor-made solutions for coal mining. Between 1993 and 1998, four governmental programs for restructuring the coal mining sector were adopted (Table 3). Their main goal was to restore the profitability of the sector by increasing its labour productivity and reduction of production costs. These goals were mainly to be achieved by:

- Separation from the non-production sphere and outsourcing.
- Reduction of employment.

- Adjustment of supply to the decreasing demand.
- Decrease of production capacity.

In 1992 the government outlined the first program for restructuring the sector. It decided to close the least competitive mines and grouped the remaining mines into several companies. The government planned to close 18 mines between 1993 until 2000 and the remaining mines were earmarked for commercialisation and then privatisation. (Paszczka, 2010)

In the first governmental program adopted early in 1993, several specific goals were mentioned: a) adjusting production capacity to domestic demand, b) achieving financial liquidity, c) disposal of non-production capital and redundant production capital and d) organisational restructuring. The worsening situation in the coal sector led the government to set up another program only a few months after the adoption of the first (Paszczka, 2010). During the implementation, which began in 1993, the restructuring process also incorporated employment and offered two instruments: an early retirement - preferential leave for miners and a voluntary redundancy for employees working underground who were to be laid off due to the liquidation of mines or parts thereof. (Karbownik and Bijanska, 2000)

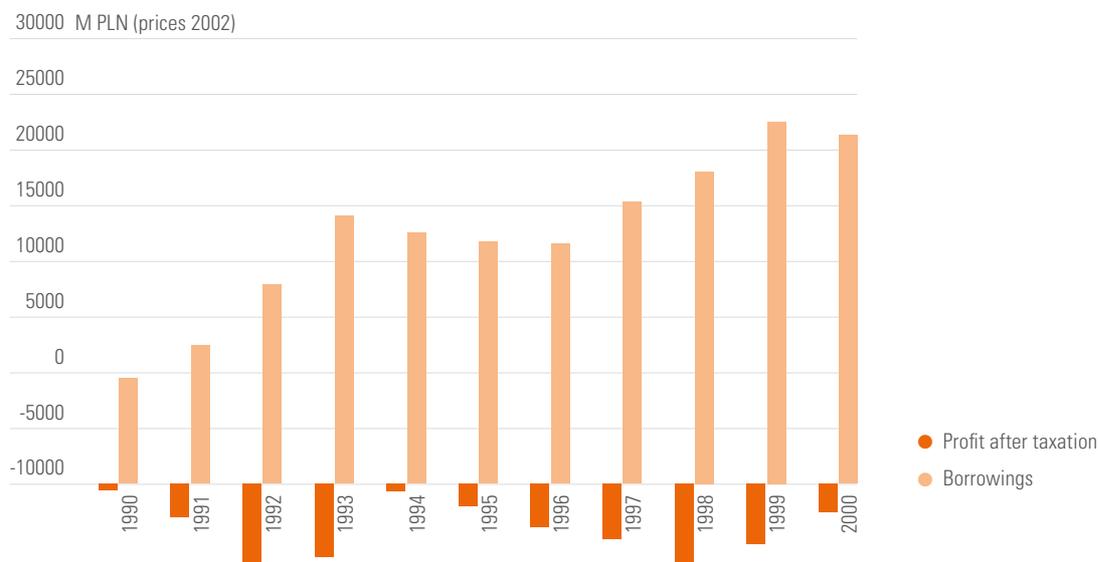
In 1994, the second phase of the restructuring process was initiated with a new program aimed at making the

sector profitable. In 1994 this goal was achieved in gross terms and partially also in net terms thanks to settlements between the mining companies and their business partners (banks and suppliers), the state budget, local government budgets and state institutions. These rather positive results were, however, lost in the following year mainly due the growing wages of miners and slower than expected reduction in employment **Figure 7**).

In 1996-1997, the situation was serious enough to make it impossible to implement the third phase of the restructuring process. Instead, a new program was implemented but the production of coal still grew, despite plans to reduce output to adjust it to the demand. It significantly increased the reserves of unsold coal. During that period, no mines were closed. As a result, only 10% of the planned production capacity reduction was achieved. As the European Bank of Reconstruction and Development and World Bank did not grant their support, the coal sector could not avoid further sizeable financial losses. (Paszczka, 2010)

In 1998 a new reform program for the coal sector was adopted. Compared to the previous programs, it was broader and also stricter. In addition to the main goals mentioned in earlier programs, it also comprised other priorities such as environment protection, cooperation with mining communes and regions and the adaptation

Figure 7. Total borrowings and profit after taxation in the sector



Source: Own representation based on Kaczorowski and Gajewski, 2008.

to EU standards in view of the prospect of Polish accession to the EU. Despite the fall in world coal prices, the program was relatively successful mainly due to radical cuts in employment. The Miners' Social Package was the main tool for realising this program. The financial

component of the restructuring plan was unsuccessful. Mining companies did not reach an agreement with their creditors. Consequently, the debt increased further. (Paszczka, 2010)

Instruments for easing the restructuring processes

The whole first decade of the transition in Poland after 1989 can be seen as a large-scale experiment. The political elite lacked experience with a free market economy or even comparable best practices, as it was the first country within the ex-communist block to make the transition from a centrally-planned economy. In that process, managed by subsequent governments, various instruments were tested.

One of the objectives of the main international programs was to improve the competitiveness of small and medium-sized companies. Although the overall influence of these programs was rather positive, there were many problems and dysfunctionalities. The most important

were the dispersion of financial support (especially of the EU funds) and problems with proper targeting of beneficiaries, due to the limited competences of the managing administration. It often led to the preservation of the status quo rather than intended structural change. (Kamińska, 2006)

The first two social protection instruments, introduced in 1993, were the early retirement, called "leave for miners") and the voluntary redundancy, so called "welfare allowance". The early retirement was offered to employees working underground who were to be laid off due to the liquidation of mines or parts thereof. Early retirement applied to all miners who would be eligible

Table 4. Transition strategies — Typology (Poland)

Support	Compensation or grandfathering (backward-looking)	Structural adjustment assistance (forward-looking, narrow)	Adaptive support (forward-looking, broad)
Consumers/ households			
No support	-	Allowance for school accessories for miners' children. One-time travel subsidy for miners and their families (Szpak, 2012).	-
Workers			
No support	-	Leave for miners for early retirement. Welfare allowances for miners who take voluntary redundancy. Golden handshakes. (Bijańska and Karbownik 2000). Right to one free retraining course.	-
Communities			
No support	Exemption for mining communes (gminas) from ecological payments and penalties for pollution and damages from mines.	"Mining communes" could, in return for presenting a program of local economic activation: a) retain an additional share of personal income tax, b) obtain preferential credits for investment in labour market restructuring, c) obtain exemption from selected obligatory payments to the state budget (Faliszek, 2011)	Provision of equipment at public administration units responsible for retraining in new educational aids and tools. Creation of special economic activity zones (creation or modernisation of necessary infrastructure)
Corporations			
No support	-	Debt relief or the postponement of debt repayments for companies in the mining sector. Refunding of pension premiums for companies employing former miners. Preferential credits and loans for companies employing former miners. (Bijańska and Karbownik, 2000)	Since 1998, mining companies have been able to establish stock-offering companies or limited liability companies with other companies or mining communes, to encourage local labour activation. They could also renounce rights to any part of property in favour of mining communities (Faliszek, 2011).

Source: Table content by the author(s). Table concept by Fergus Green.

for pension within 3 years based on age or job seniority. It was paid for a maximum of 3 years, amounting to 50% of the salary. It could be paid in one upfront payment or monthly. Eligible miners would also receive the standard privilege for active miners, i.e. the right to annual benefits (two extra monthly payments and coal allowance). The voluntary redundancy on the other hand, was aimed at miners with more than three years left until retirement and could be paid over a maximum of two years, in monthly payments. Both instruments were reduced to the level of 50% if the beneficiary was able to find a job during that period. In 1994, both early retirement and voluntary redundancy were increased by five percentage points. (Karbownik and Bijańska, 2000) In 1998, within the framework of the Miners' Social Package the existing instruments were further enhanced and one new instrument was created. Firstly, the early retirement was increased, from 55% to 75% of the wage. Secondly, the voluntary redundancy was raised from 55% to 65% and the possible payment period was extended from a maximum of 2 years to 5 years. Additionally, the so-called golden handshakes - a single lump-sum payment with the only requirement of 5 years' seniority were offered in two variants. A higher amount (equivalent of up to 24 monthly payments) was proposed for unconditional leave or a smaller amount (14.4 monthly payments) was proposed with a right to a free re-training. (Karbownik and Bijańska, 2000)

The Miners' Social Package resulted in a substantial drop in employment. The research conducted in 2005 (Turek and Karbownik) indicates that around 67,000 miners left the sector thanks to the Miners' Social Package. Of them, almost 37,000 profited from early retirement and almost 30,000 (7,000 more than expected) used the unconditional golden handshakes. Less than 500 benefited from the voluntary redundancy (compared to the 11,000 expected). These results showed that miners generally preferred a higher cash payment, which was usually spent on current consumption and the repayment of debts. By the end of the 1990s. the employment became the main focus of the sector's restructuring. The total cost of sectoral reforms over 5 years (1998-2002) was estimated at 7,2 bil. (Karbownik and Bijańska ,2000) of which employment restructuring cost was 5.4 bil. PLN. The majority of this amount was covered by the state budget – 3.7 bil., while 1 bil. PLN came from mining companies, 500 mil. from the Labour Fund , 125 mil. from the Guaranteed Employment Benefit Fund and 13 mil. from pre-accession funds (PHARE). (Turek and Karbownik, 2005) The remaining costs of the sector restructuring, almost 1,5 bil. was mostly related to the liquidation of mines.

-
- 5 Re-established in 1989 to alleviate the consequences of unemployment and conduct active employment policies.
 - 6 The fund was established in 1994 to protect workers from the loss of remuneration caused by the insolvency of their employer.

Conclusions and lessons learnt

The restructuring of the Polish coal sector in the 1990s was strongly related to the general economic transition from central planning (command and control) to a free-market economy. This rather successful process also had its costs, which were particularly evident in the coal sector. Several circumstances influenced the course of this process:

- Eight government coalitions were formed during the first decade of the transition in Poland. During that period, four different government programs for the coal sector were implemented. The turbulent nature of this period was an important obstacle that reduced the coherence and sustainability of policies.
- The narrow, sectoral approach to the restructuring process primarily involved social partners – trade unions,

companies and the government. Weak local governments and their limited capacity in managing public policies were strengthened only in 1999, in result of the territorial reform implementation (Faliszek, 2011). Lack of the local government able to look more broadly on the restructuring challenge was certainly an obstacle to implementation of long-term policies.

- The territorial concentration of the hard coal mining sector in the Lower Silesia and Małopolskie regions inhibited the restructuring effort and extended it over a long period of time. Unlike in United Kingdom where the mining sector was more dispersed, the Polish case was more similar to the situation of the German Ruhrgebiet area (Walewski 1999).

The restructuring achieved some of its goals, i.e. a reduction of employment and production and therefore a greater adjustment of demand to supply. Closing inefficient mines and modernising the profitable ones could be seen, in most of the cases, as another success. The process also, unfortunately, had its failures and costs – unemployment or lack of professional activity among ex-miners, the constant lack of profitability of the sector despite different forms of public financial support, the unfinished process of uncoupling the private and public sphere and ecological problems such as the contamination of surface water, air pollution and soil degradation. There are three main lessons that can be learnt from the restructuring of the Polish hard coal sector, which could be interesting from the perspective of today's transition economies.

1. Improvement of the coal sector efficiency is the second best option for the emission reduction.

Some of transition economies, which as Poland are based on coal, are not able to replace it in a short period of time with another less emitting fuel. In that case, they should focus on improvement of sector's efficiency. In the first years of restructuring, reducing unnecessary costs of production, adapting supply to demand and increasing energy efficiency may be the cheapest option to reduce the emissions. Economic growth of this country may after some time allow to adopt or develop alternative technologies based on less emitting fuels.

2. Involvement of a broad spectrum of stakeholders is necessary.

The transition process in countries where the coal mining sector has to be restricted to regain economic viability, requires broad support of stakeholders. Centralised regimes like Poland in the early 1990s., would tend to restrict the decision-making to social partners, that is government, private sector and trade unions, while ignoring local governments and communities. Yet successful restructuring can be guaranteed only by a complex revitalisation which includes such issues as transport, environment, health or social protection. This revitalisation, in ideal conditions, is a bottom-up process, shaped by local communities and their leaders with in-depth knowledge of local specificities. Such approach is a key to creating tailor-made policies. Empowerment of local communities with regards to their competences for

self-organisation, management and financial support should be considered at the very beginning of the process.

3. Golden handshakes are the least sustainable instruments.

There is a trade-off between speed and sustainability of employment reduction. Stopping new employments is politically the least controversial instrument of employment reduction. Yet, in case of Poland, it was not sufficient to achieve the quantitative goals in planned timeframe and thus required additional instruments. For that reason, redundancy schemes with different forms of instruments were implemented. Studies show, that in the presence of two options – higher but unconditional golden handshake or lower golden handshake but matched with the right to retraining, the former instrument will be more attractive to miners. At the same time, after the money is spent, miners who took the unconditional golden handshake are less satisfied from quitting the mining sector and more often remain unemployed or professionally inactive. Such experiences are affecting the readiness of the remaining miners to leave their work. Although the unconditional golden handshakes helped greatly to reduce the number of miners in a relatively short period, they also undermined the sustainability of the process in longer term.

References

- Blaschke, W. (2002) Problematyka cen węgla kamiennego w polskim kompleksie paliwowo-energetycznym, *Przegląd Energetyczny*, No 6(945) Czerwiec, Vol. 58(XCVIII).
- Czerwińska, E. (2002) Restrukturyzacja górnictwa węgla kamiennego w Polsce, Informacja Nr 891, Wydział analiz ekonomicznych i społecznych, Kancelaria Sejmu, Biuro Studiów i Ekspertyz, Warsaw, April.
- Faliszek, K. (2011) Gmina górnicza jako podmiot polityki społecznej, *Górnośląskie Studia Socjologiczne. Seria Nowa 2*, 164-176.
- Franik, T. (2010) Analiza zmian udziału przemysłu wydobywczego w osiągniętych wynikach makroekonomicznych gospodarki w okresie przemian ustrojowych w Polsce.
- Kaczorowski, P., Gajewski, P. (2008) Górnictwo węgla kamiennego w Polsce w okresie transformacji, *Acta Universitatis Lodzensis, Folia Oeconomica* 219.
- Kamińska, W., (2006) Pozarolnicza indywidualna działalność gospodarcza w Polsce w latach 1988-2003, Instytut Geografii i Przestrzennego Zagospodarowania PAN im. Stanisława Leszczyńskiego.
- Karbownik A., Bijańska, J. (2000) Restrukturyzacja polskiego górnictwa węgla kamiennego w latach 1990 – 1999, Wydawnictwo Politechniki Śląskiej, Gliwice.
- Krowiak, A. (2002) Rola państwa w procesach restrukturyzacji górnictwa węgla kamiennego w Polsce w latach 1990-2000, Główny Instytut Górnictwa, Katowice.
- Lorenz, U. (2011) Ewolucja podejścia do cen węgla energetycznego w Polsce w latach 1989-2010, No 6(945) June, Vol. 58(XCVIII)
- Makiela, Z. (2002) Wyniki realizacji programów restrukturyzacji górnictwa węgla kamiennego po 1989 r., *Prace Komisji Geografii Przemysłu PTG, Warszawa- Kraków-Rzeszów*.
- Paszcza, H. (2010) Procesy restrukturyzacyjne w polskim górnictwie węgla kamiennego w aspekcie zrealizowanych przemian i zmiany bazy zasobowej, *Górnictwo i Geoinżynieria*, 34(3), 2010.
- Soliński, J. (2012) sektor energii Świata i Polski początki, rozwój, stan obecny *Instytut Gospodarki Surowcami Mineralnymi i Energi PAN – Wydawnictwo, Kraków*.
- Szpak K. (2012) The unfinished restructuring of the coal industry in Poland, *Kultura i Polityka : zeszyty naukowe Wyższej Szkoły Europejskiej im. ks. Józefa Tischnera w Krakowie*, No 12, 13-29. Kamińska 2006.
- Tkocz, M. (2006) Efekty restrukturyzacji górnictwa węgla kamiennego w Polsce, *Prace Komisji Geografii Przemysłu, Warsaw-Kraków*.
- Turek, M. Karbownik, A., (2005) Ocena skuteczności górniczego pakietu socjalnego w restrukturyzacji zatrudnienia w górnictwie. *Zeszyty Naukowe Politechniki Śląskiej, seria: organizacja i zarządzanie. z. 27*.
- Walewski, M. (1999) Restrukturyzacja tradycyjnych branż przemysłowych w krajach Europy Zachodniej – wybrane przykłady, *CASE – Centrum Analiz Społeczno-Ekonomicznych, Warszawa*.
- Zientara, P. (2009) Restructuring the Coal Mining Industry: Unionism, Conflict, and Cooperation: Evidence from Poland. *Eastern European Economics*, 47:1, 41-59.

COAL TRANSITIONS: RESEARCH AND DIALOGUE ON THE FUTURE OF COAL

COAL TRANSITIONS is a large-scale research project led by Climate Strategies and The Institute for Sustainable Development and International Relations (IDDRI) and funded by the KR Foundation.

The project's main objective is to conduct research and policy dialogue on the issue of managing the transition within the coal sector in major coal using economies, as is required if climate change is to be successfully limited to 2°C.

THIS PROJECT BRINGS TOGETHER RESEARCHERS FROM AROUND THE GLOBE, INCLUDING AUSTRALIA, SOUTH AFRICA, GERMANY, POLAND, INDIA AND CHINA.

www.coaltransitions.org



IDDRI