

## Just coal transition in the Silesia Region. Implications for the labour market.

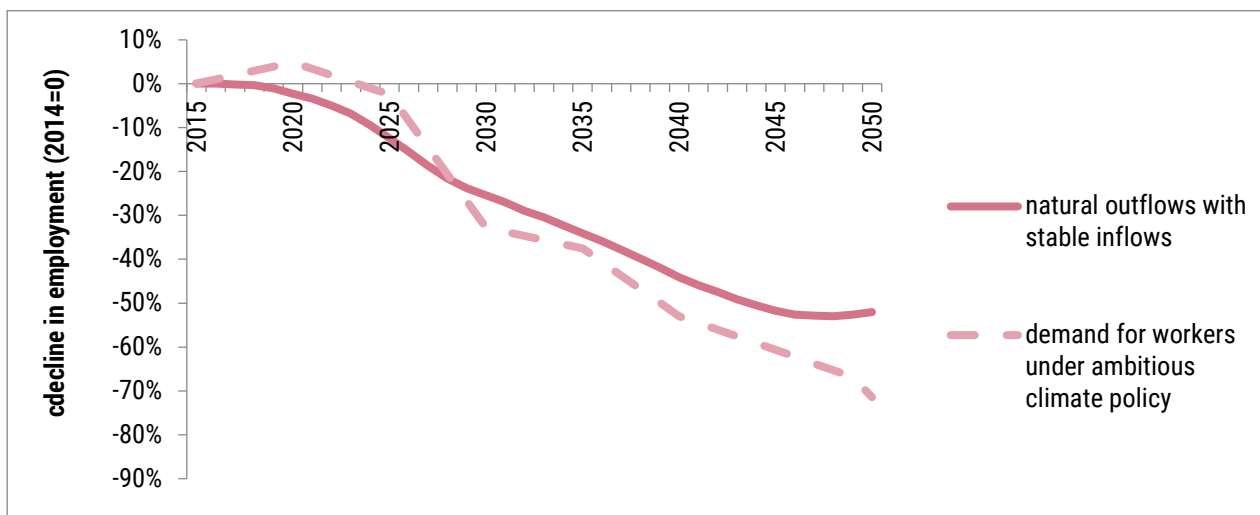
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The region of Silesia in Southern Poland is the largest producer of hard coal in European Union. Hard coal mining employs 80,000 workers, which constitute 5% of the total labour force in the region (and 8% among male workers). One must note, however, that the size of the sector today is much smaller than in the past. In 1990s the hard coal sector employed more than 380.000 workers.

The role of hard coal in the economy of the Silesian voivodship will continue to decrease. Transition to a low-carbon economy in the next few decades will be one of the main challenges of the region. Decarbonisation will entail far-reaching economic and social changes. Soon, this region will have to define its new future, based on new sectors in the economy and new fuels.

The coal transition will result in a profound transformation of the labour market, which will create both new opportunities and risks for workers. However, the social and economic challenges related to the phasing out of mining will be smaller than in the 1990s, when 236,000 people left mining. IBS research (Witajewski-Baltvilks et al. 2018) shows that according to the scenario of an ambitious climate policy, the number of miners will drop by about 50,000 in the years 2015-2040. Most of them will leave the sector by natural attrition, i.e. by retirement.

Figure 1. Expected decline in employment in mining in the years 2015 – 2050



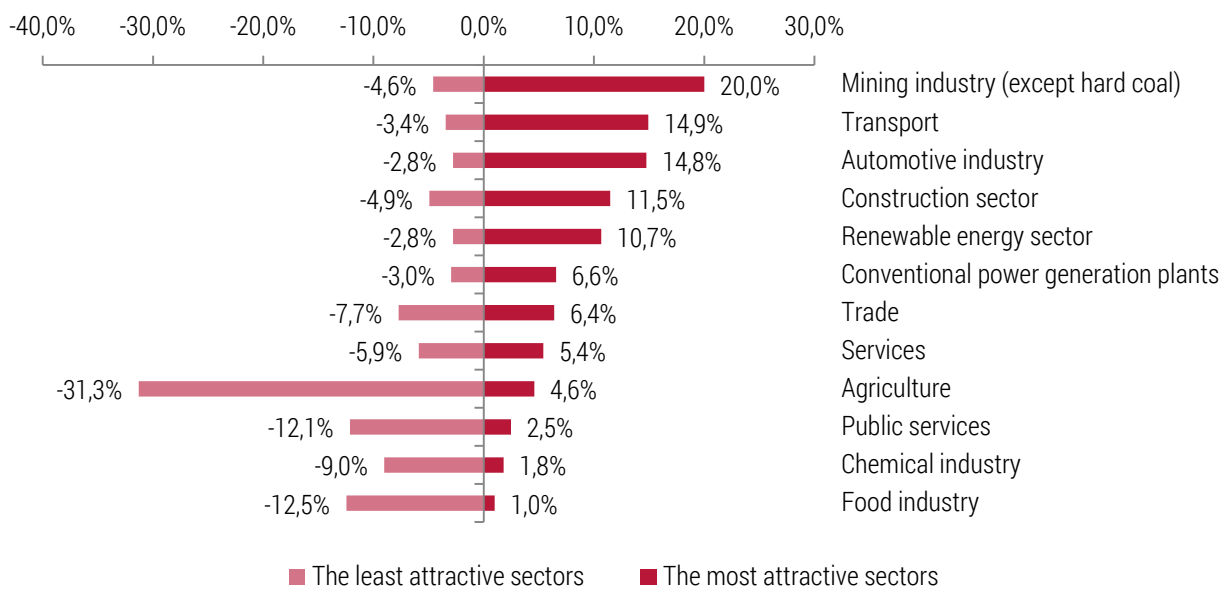
Source: Witajewski-Baltvilks et al. (2018).

Those miners whose mines will be closed before they reach retirement age have a good chance of finding a job in industrial processing, transport, or construction. Each of these sectors is similar in its structure of education and age of employees to mining. Moreover, each is relatively large, so the number of jobs they can offer will be significant. The

situation of the miners with lower education may be more complicated. They may need to obtain additional qualifications to find an attractive job outside mining.

Miners themselves see employment opportunities in these sectors. When asked about the possible direction of looking for another job, they first indicate mining not related to hard-coal (20% of the respondents named it as the most attractive sector), which, given their professional experience, is not surprising. However, bearing in mind that the mining sector in the region does not offer many alternatives, miners see transport (14.9%), the automotive sector (14.8%), or the construction business as their new workplaces. The automotive sector seems to be the most promising in terms of creating new jobs. Since the beginning of the 21st century, industrial processing (to which the automotive industry belongs) has been developing rapidly in the region, and although its growth may slow down somewhat in the future, it is likely to continue. At the same time, as the least attractive sectors to work in after a possible end to their mining carriers, miners pointed out agriculture (over 31% of the respondents indicated it as the least attractive), food industry (12.5% of responses), and public services (a little over 12% of responses).

**Figure 2. Attractiveness of particular sectors as a possible workplace not related to hard coal mining**

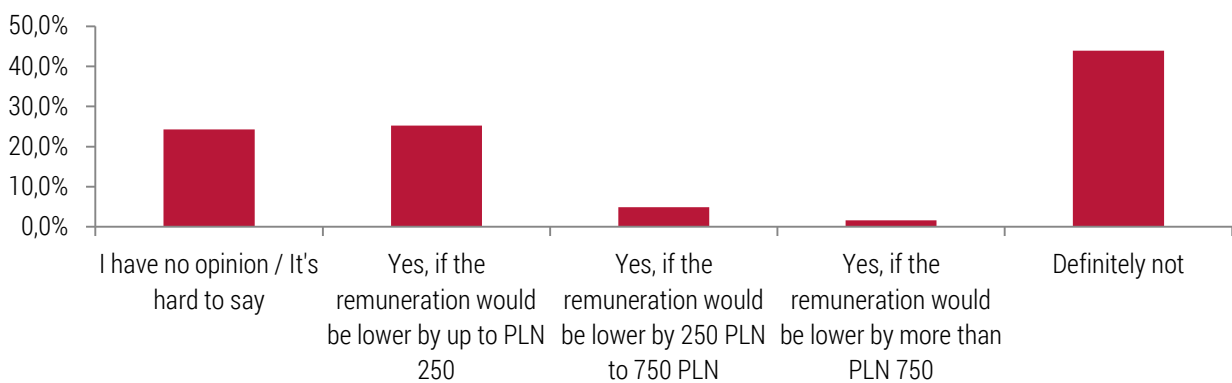


Source: our own elaboration

The most important criteria that would guide those leaving mining when choosing a potential job are the salary level and the stability of the employment. While industry can offer stable employment, wage expectations in new jobs can be quite a challenge. Remuneration in the sectors indicated by miners as an alternative is much lower than in mining. Of course,

some miners are ready to accept lower wages, but only to a small extent. Slightly more than 24% of the respondents would be willing to take up employment outside of hard coal mining with remuneration lower by about PLN 250 (EUR 60), and only less than 5% would be willing to reduce their remuneration by PLN 750 (EUR 175) maximum. For comparison, the average salary in the mining sector is PLN 8000 (EUR 1860). However, about 44% of the respondents definitely do not agree to work for lower remuneration than the one currently received in the mine. Although miners are open to work in other sectors, the wage expectations of most of them are unlikely to be met outside mining, which creates a challenge for social dialogue and policies supporting the transition.

**Figure 3. If you had to work outside the mining industry, would you agree to work for a lower salary than at present?**



Source: our own elaboration

The coal transition in the Silesia Region will also affect employment in industries that provide the goods and services necessary for the operation of mines. However, the scale of the problem will be moderate. Our estimates indicate that the number of employees whose jobs are directly related to mining activity is only 57,000, i.e. around 0.4% of the total number of employees in Poland. In the Silesia Region it accounts for about 35,000 jobs, i.e. 2% of employment in the voivodship. The expected gradual decrease in jobs dependent on mining will be spread over several decades. As in the case of miners, some of these employees will retire. Moreover, in the future, companies dependent on mining will look for new markets and switch their production to goods used in other sectors of the economy. However, for this process to work smoothly, a clear transition strategy is needed that will enable these companies to plan changes and entry into new markets.

Low-carbon transition with regard to hard coal mining in the Silesia Region requires the use of specific support instruments. (Tab. 1) The traditional instruments which are still being applied currently for that purpose are backward oriented (compensations and exemptions). The newer type of instruments, looking forward, (structural adjustment assistance and holistic adaptive support) are stimulated by EU funds. Lack of public debate on efficiency and fairness of these instruments resulted so far from a clash between mining trade unions, defending mostly monetary compensations and "green-oriented" forces looking for holistic adaptive support for the coal phase-out. Popularisation of just transition concept in Poland, which began with preparations to the COP-24 opens new ground for the discussion.

**Table 1. The main instruments of low-emission transition available in Silesia region based on Green's typology**

	Compensation	Exemption	Structural adjustment assistance	Holistic adaptive support
<b>Consumers / households</b>	Compensation for mining damages	No instruments	Support for the investment in RES; replacement of old, coal fired boilers; exemption from real estate tax for ecologically heated houses	No instruments
<b>Firms</b>	Capitalisation of the coal sector by state controlled companies; tax debt write-offs; cancelation of the insurance and health premiums for miners; compensation for mining damages.	State aid for the mines in liquidation; free allocation of emission allowances for energy companies	Financing R&D programs in coal mining and RES	n/a
<b>Workers and their families</b>	Co-financing pensions of miners; redundancy payment and early retirement for miners in liquidated mines	<i>Indirect effect of exemptions to companies employing the workers</i>	No instruments	Professional activation of miners' wives
<b>Communities and local governments</b>	Compensation for mining damages	Zwolnienia z podatków centralnych dla firm działających na terenach stref ekonomicznych (w KSSE).	Energy counselling; thermal retrofitting premiums; free land transfer in post-mining areas to local governments for future revitalisation or re-cultivation investments.	European and domestic funds for revitalisation or re-cultivation projects

In the light of the survey results, wage subsidies and guarantees of priority in employment may be the most attractive instruments for changes in the area of employment. These instruments are most relevant to the preferences of those miners who say that maintaining current wage levels and stable employment are the most important factors motivating them to remain in the sector. However, it should be borne in mind that in the long-term both instruments have a negative impact on the labour market and workers' productivity. Therefore, their application requires additional constraints, including granting them for a fixed period of time, making them conditional on taking up courses and training, and on the acquisition of professional qualifications. These solutions may be included collectively in one package offered to employees leaving mining. However, in order to implement the concept of fair transition, they cannot contribute to sustaining a coal-based economy.

### Box 1. Suggested public policy instruments that support the transition.

Phasing out of hard coal mining should be based primarily on the **natural attrition of workers**, i.e. on their moving to other sectors of the economy, retiring, including early retirement, but also on **halting the inflow of new workers**;

The miners who leave for other sectors of the economy should be encouraged to gain new qualifications. For the retraining to be effective, it should be preceded by the **identification of gaps in the skills of the workers and their strengths**. Such activities should be carried out in close cooperation with mining companies, with the support of public employment services and potential new employers, to facilitate the transition to new jobs. On the basis of this assessment, **comprehensive retraining programmes** should be developed, including the **adaptation of qualification standards and the development of the process of vocational education and training (VET)**, so as to provide those leaving mining with **tailored retraining** adopted to the needs of their potential employers;

The **miners** who take up new, lower-paid jobs outside of mining may be offered **temporary wage subsidies and social packages**. However, the introduction of such instruments should be preceded by an analysis of potential costs and should be the subject of social dialogue taking into account all the stakeholders of the regional labour market;

Social policy instruments in the form of **one-off severance payments** should be offered **only to workers approaching retirement age**. Former miners receiving such benefits have little incentive to acquire new skills on their own and are exposed to a relatively high risk of long-term unemployment, which in turn can develop into discouragement (inactivity due to inability to find a job) and can cause a premature exit from the labour market.

Public authorities (including local authorities) should consider measures **supporting the industry existing in the region (selective<sup>1</sup> industrial policy in the areas of employment, R&D, or production)**, especially those branches of industry that can offer the most jobs for miners (automotive industry, transport, construction).

The **persons who leave mining** should be provided with a **comprehensive instrument package** which offers, among other things, the **priority employment guarantees** described in the report, **periodical wage subsidies, as well as a social and educational package covering also the families of miners**. Their aim would be to compensate over a certain period of time for part of the lost income and, possibly, to cover the costs of additional courses and training.

The **diversification of the activities of mining companies** should be supported, so that they can move to other sectors of the economy, characterised mainly by a mining-like structure of skills and competences, high profitability and external financing opportunities, and, possibly, belonging to the so-called green sectors. This direction will guarantee stability of mining companies in periods of economic downturn for coal, although it should simultaneously ensure gradual reduction of production and employment in the area of coal extraction and processing.

Choosing optimal instruments requires streamlining the consultation processes that ensure the legitimacy of actions in the region and their effective promotion outside the region. This may require a new distribution of tasks among the institutions playing a key role in the transition, or the establishment of new ones. It is essential to go beyond tripartite

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<sup>1</sup> Selective industrial policy promotes and/or supports chosen industries or enterprises. Its essence is the differential approach to the development of particular industries and the application of specific development preferences.

dialogue and to open up more to local authorities and NGOs. This will allow the region to better cooperate and take advantage of the opportunities offered by the Coal Regions in Transition Platform, as well as to develop its own, unique transition model, and thus to fill in the content of the Katowice Just Transition Declaration. Global demand for such models provides a unique opportunity to share the vision of a modern region.

**Full version of the article in Polish:**

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