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***Oddziaływanie specjalnych stref ekonomicznych na rozwój
społeczno-ekonomiczny województwa podkarpackiego***

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Special Economic Zones (SEZ) belong to a large group of privileged zones. The dynamic development of such areas took place at the turn of the 20th and 21st centuries and contributed to the increase in the flow of foreign direct investment, capital transfer, and the acceleration of the globalization process. At the end of the 1990s, there were less than a thousand so-called privileged zones, but only 10 years later their number would exceed 3,000. The rapid development of privileged areas, including, in particular, special economic zones, is proof of their great importance in local and regional development, by increasing the competitiveness of regions, reducing the scale of unemployment, increasing innovation, and the influx of new technologies. The existence of special economic zones strengthens the cooperation of economic entities, and also improves the life of the local community and reduces barriers to the development of less developed regions.

Special economic zones were established in Poland in the 1990s. The Act, introduced in 1994, provided the legal basis for establishing such areas of action. The oldest SEZ was established in 1995 in Mielec in the Subcarpathian province. Its establishment gave rise to the creation of further zones in this regard. Currently, 14 SEZs operate in Poland and their significant development took place only after 2000.

In the doctoral dissertation, an attempt was made to assess the impact of special economic zones located in the Podkarpackie Voivodeship on the socio-economic development of the region. The research covered two zones: SEZ Euro-Park Mielec and SEZ Wisłosan Tarnobrzeg.

The purpose of the study is to assess the functioning of special economic zones in terms of the economic results obtained and also the social effects of the regions in which they are located. The choice of both zones was dictated, *inter alia*, by the fact that in the Podkarpackie Voivodeship it is the Mielec and Tarnobrzeg zones that manage all subzones after the entry into force of the Act on supporting new investments. Furthermore, before entering the above mentioned of the Act, the areas belonging to the Mielec and Tarnobrzeg zones constituted more than 90% of the SEZ areas in Podkarpacie (several subzones were managed by the Krakow economic zone).

The dissertation takes into account two aspects of the research: both theoretical and cognitive as well as empirical. Both research planes are integrally linked.

The main aim of the dissertation was to comprehensively assess the impact of the activities of special economic zones on the socioeconomic development of the

Podkarpackie Voivodeship. To fully implement the assumed research program, it was necessary to verify the following auxiliary objectives:

1. Evaluation of the economic efficiency of enterprises operating in special economic zones in the Podkarpackie province.

2. Analyzing the benefits and expenditures related to the creation of the zone on the national and regional scale.

3. Assessment of the impact of the economic crisis on the financial results of zone enterprises and the effects on the state budget and local government units

4. Assessment of the role of special economic zones in the transfer of foreign direct investment to Poland.

5. Providing answers to what extent the special economic zones have contributed to the creation of new innovative ventures for the region.

6. Undertaking an attempt to identify the impact of special economic zones on local labor markets and the regional labor market.

In order to achieve reliable research results for such goals, it was necessary in the doctoral dissertation to formulate a research hypothesis and partial hypotheses, which provided substantive support in obtaining the intended cognitive and application effects. The main hypothesis of the work states that: special economic zones have a positive effect on the socio-economic development of the areas in which they are located. This impact is socio-economic. In the course of the research, an attempt was also made to verify the following auxiliary hypotheses:

1. Special economic zones are the main entity creating new jobs in the areas where they were created.

2. Special economic zones ensure an increase in the income of the budgets of local government units.

3. The financial efficiency of special economic zones depends on the economic and financial situation of enterprises operating in them.

The main sources of data analyzed were the following resources: data from financial statements of enterprises operating in the SEZ, statistical data, information published by the

Ministry of Economy and the Ministry of Development, as well as the Office of Customer and Consumer Protection. Moreover, data provided by the managers of the SEZ: Euro-Park Mielec and the SEZ Euro-Park Wisłosan Tarnobrzeg, reports of public institutions (including the Supreme Audit Office and the Central Statistical Office) were used, websites and periodicals were researched. The time scope of the study mainly concerned the years 2006-2019. The planned study focused on the impact of special economic zones at the regional, poviast and commune level.

The work was carried out on the basis of research methods and techniques commonly used in socio-economic sciences, in particular:

- analysis of stagnant data;
- a critical review of the literature on the subject;
- research methods (descriptive statistics, comparative analysis, synthetic models for assessing the company's financial situation, scoring methods, P. Warr's enclave model).

The layout of the work was subordinated to the previously presented goals and research hypotheses of the work. The material scope of the dissertation has been included in six chapters divided into a dozen or so subsections preceded by the introduction. The final part is the end of which the obtained research results are summarized.

The first chapter presents the most important aspects related to the involvement of the state in the processes creating special economic zones through the use of tools of relief and preferences for investors. Then, the most important legal acts regulating the creation and operation of special economic zones in Poland are characterized. Basic information related to the location of SEZs, the number of enterprises operating in them, and the level of development of individual areas, reflected in the degree of development of investment areas, is presented. The second chapter describes the research tools used to achieve objectives and tasks. This part presents the statistical methods used, as well as the applied criteria for selecting enterprises for the study. The third chapter contains an analysis of the benefits obtained, which are related to the operation of special economic zones for the Podkarpackie Voivodeship. Tax revenues at the national, regional, provincial, and commune level were assessed. Additional benefits related to the presence of SEZ-type areas in a given area for the local community were presented. The chapter ends with a presentation of the most important activities in the area of corporate social responsibility that are undertaken by zone managers. The fourth chapter presents the costs

associated with the operation of special economic zones. The most important expenditures incurred by the state and local governments in connection with the application of various types of reliefs and exemptions were presented. Social costs related to the functioning of special economic zones in a given area were also analyzed. In the final part, an attempt was made to answer the question of what the main barriers are to the further development of the zones. The fifth chapter contains an assessment of the financial efficiency of companies managing special economic zones, as well as a diagnosis of the effectiveness of the financial condition of selected companies operating in special economic zones in the Podkarpackie Voivodeship. This part also deals with aspects related to the 2008 economic crisis and its impact on the development of the SEZ. The evaluation of the effectiveness of the SEZ Euro-Park Mielec and the SEZ Euro-Park Wisłosan Tarnobrzeg at the voivodeship, powiat, and commune level is presented in chapter six. This chapter also assesses the effectiveness of special economic zones through the balance of related benefits and costs. Possible directions of development of special economic zones of Podkarpackie were also indicated.

The end of the dissertation is a synthetic assessment of the functioning of special economic zones. It relates to the set goals and to determining the truthfulness of the research hypotheses. The dissertation is part of the knowledge gap related to the attempt to assess the effectiveness of special economic zones in Poland and their importance in economic and social development. The analyzes carried out in the work allowed for a positive verification of the main hypothesis. In the case of the Podkarpackie Voivodeship, the operation of special economic zones brings significant benefits to the region. Through a series of analyzes, it has been proved that special economic zones are of great importance for the local community, increasing their standard of living, influencing the development of road infrastructure, and are also one of the most important entities creating jobs or influencing the growth of local entrepreneurship. The performed balance of benefits and costs also allowed to obtain results which allow to conclude that the operation of special economic zones, despite the related outlays in the form of reliefs and exemptions, brings more benefits.

The first auxiliary hypothesis was verified positively. Special economic zones in the Podkarpackie Voivodeship are entities that play a very important role in creating jobs. The research carried out in this area showed a huge impact of enterprises located in the zones, among others, on the level of employment in poviats and communes where subzones operate. Moreover, their activity reduces the unemployment rate. Special economic zones are also an

impulse to create new jobs outside of them. The impact of employment in SEZ on the level of wages in a given region was also found.

The hypothesis assuming that special economic zones ensure an increase in budget revenues of local government units has been positively verified. Through their activities, special economic zones generate budgetary income to local government units. In many local government units, these revenues constitute an important item and improve the financial situation of a budgetary unit.

The third auxiliary hypothesis was also positively verified. On this basis, it can be concluded that the financial situation of companies managing special economic zones depends on the financial situation of enterprises operating in these zones. In the period of economic crisis or worse economic conditions, when some enterprises record worse financial results, also the managers of the zones are characterized by a weaker financial situation. This has a direct and direct impact on the socio-economic development of the region in which they operate.

The key conclusions from the presented research include that the impact of the 2008 crisis left its mark mainly on the negative impact on jobs and the number of business permits issued in the zone. The crisis was also visible in the negative impact on the financial results of almost half of the analyzed SEZ enterprises. When assessing the role of special economic zones in the transfer of Foreign Direct Investments to Poland, it should be stated that more than half of the invested capital is still domestic. In this respect, there is room for improving the effectiveness of special economic zones through the transfer of capital from abroad.

Taking into account the special economic zones, it occurs primarily in the Aviation Valley cluster in the Mielec zone in the creation of new innovative ventures in the region. The aviation sector is at a high level in this area. Unfortunately, companies from other industries are much less likely to create innovative projects. In the Tarnobrzeg zone, the automotive industry is the most active in the creation of innovative projects. Other industries create new innovative ventures to a lesser extent. Thus, similarly to the transfer of Foreign Direct Investments, this is an area to increase its effectiveness in attracting new investors.

On the other hand, positive conclusions can be drawn from the multi-layered analysis of the impact of special economic zones on local labor markets and the regional labor market. Comparing the unemployment level to the areas where individual subzones are located, a downward trend in the unemployment rate can be noticed. In 2019, the unemployment rate in the Podkarpackie Province was 7.9%. This rate would have been higher by 0.7 pp if not for the

new jobs generated by enterprises operating in special economic zones. Subtracting an additional 30% of maintained jobs, then the unemployment rate rises to the level of 9.2% (an increase by 1.3 percentage points). Moreover, the level of entrepreneurship among the inhabitants is growing, who often decide to start a business consisting in providing services to enterprises in the zone. In terms of regions, an increase in the income of the population was also observed, which is also indirectly an effect of the presence of SEZ in a given area. Every year, special economic zones create several dozen new jobs. The dynamics of jobs in the areas of the Mielec and Tarnobrzeg zones is positive. Moreover, areas such as SEZs contribute to the creation of new jobs outside their areas. The analyzes show that each two places in the zone create one new job outside it. It is also worth emphasizing that the enterprises that have decided to start operating in the SEZ are in many cases one of the largest employers in the region in which they operate.

As at the end of 2019, employment in two economic zones in Podkarpacie was 65,363 people, including in the Euro-Park Mielec zone 39 157, and in the Wisłosan Tarnobrzeg zone 26,206 people. The share of the Mielec zone in the amount of employment in all zones was 10.09%, while the Wisłosan Tarnobrzeg zone was 6.75%, respectively. By the end of 2019, 22,763 new jobs were created in the Mielec zone, while 16,394 jobs were maintained, while in the Tarnobrzeg area 19,192 jobs were created and 7,014 jobs were maintained.

The degree of development in the Mielec zone at the end of 2019 was 80.46%, and for the Tarnobrzeg zone - 78.10%. Both zones have a higher level of development than the rate for 14 SEZ in Poland (64.75%). The capital expenditure incurred (cumulatively) at the end of 2019 in the Mielec zone amounted to PLN 11,069.14 million, and in the Tarnobrzeg zone - PLN 7,839.52 million. The share of both zones in the investment outlays of all SEZs amounted to 14.33% - respectively: 8.39% of the Mielec zone and 5.94% of the Tarnobrzeg zone.

The total financial benefits for the Podkarpackie Voivodeship generated by both zones at the end of 2019 amounted to PLN 16,888 million. In the case of all 14 SEZs in Poland, their operations will generate a total financial benefit of PLN 127,601 million for the entire country. The estimated benefits for the year when the zones are closed (2026) will amount to PLN 16 727 million for the Podkarpackie Voivodeship, respectively. On the other hand, all SEZs will generate benefits worth PLN 390,291 million. The operation of special economic zones is also associated with the expenditure incurred. The operating costs of the Mielec and Tarnobrzeg zones until the end of 2019 amounted to PLN 1,775.01 million. At the end of 2019, all 14 SEZs incurred costs in the amount of PLN 8,534.11 million. The estimated costs by the end of 2026

will amount to PLN 2,662.515 million for the Podkarpackie zones and PLN 12,801.17 million for 14 special economic zones.

At the end of 2019, the two examined zones from their activities in the Podkarpackie Voivodeship achieved a surplus of financial benefits over the costs incurred in the amount of 15 113 million, which means that the operation of special economic zones brings measurable benefits in the economic sphere. In the case of the estimated balance of benefits and costs at the end of 2026, both examined zones should generate a positive difference of PLN 119,067 million. A similar situation occurs in the case of 14 special economic zones in Poland. Their activities at the end of 2019 brought a positive difference in the amount of PLN 119,067 million, while at the end of 2026 the surplus of financial benefits in 14 SEZ in Poland is estimated at PLN 377,490 million.

The research shows that the activity of special economic zones not only positively influences the economic sphere of the areas in which they are located. The presence of zones also has an impact on the social sphere. Despite some negative incentives, such as environmental nuisance, in most cases special economic zones allow the local community to have easier access to various types of services. In the areas where SEZs are located, one can observe an increase in new companies opened outside the zone, better communication connections, or a greater number of investments in road and technical infrastructure (e.g. sewage treatment plants, heating plants), which serve not only zone entrepreneurs, but also the local community.

Special economic zones also have a positive impact on the state budget revenues and the budgets of local self-governments. Despite the applied income tax exemptions (PIT and CIT) and real estate tax, the presence of special economic zones allows to increase revenues to the state budget and the budgets of local government units. An additional benefit of the presence of SEZ is the proceeds to the National Health Fund from the health contribution or savings due to the payment of smaller benefits for the unemployed.

The receipts that should be noted are primarily VAT receipts, which at the end of 2012 from the Mielec and Tarnobrzeg zones amounted to PLN 8,984 million. Projected VAT receipts at the end of 2026 are to total PLN 38,347 million. Until the end of 2012, revenues from real estate tax paid by zone enterprises amounted to PLN 1,359 million (SEZ Mielec and SEZ Tarnobrzeg). At the end of 2026, the budgets of communes due to revenues from property taxes will be provided with the amount of PLN 22.208 million. From the Mielec zone alone, the

municipalities will receive the amount of PLN 1.857 million. On the other hand, the Tarnobrzeg zone will generate revenues worth PLN 2.357 million.

The total revenues to municipal budgets from corporate income tax paid by enterprises located in the Euro-Park Mielec zone amounted to PLN 145.34 million for the period 2006-2019. On the other hand, from the Euro-Park Wisłosan Tarnobrzeg zone, in the same period PLN 24.61 million was transferred to municipal budgets. The budgets of the poviats were supplied with the amount of PLN 30.32 million (companies from the Mielec SEZ) and PLN 5.14 million (companies from the Tarnobrzeg SEZ), respectively. The budgets of voivodeships, in turn, were supplied with the amounts of PLN 319.48 million (enterprises from the Mielec zone) and PLN 54.11 million (enterprises operating in the Wisłosan Tarnobrzeg zone). From the Mielec and Tarnobrzeg zones, revenues from personal income tax to the state budget by the end of 2012 amounted to PLN 379 million, while the forecast revenues at the end of 2026 were PLN 1,014 million. Both zones generated PLN 366 million for municipal budgets (at the end of 2012), and by the end of 2026 they will generate PLN 978 million (forecast of the Ministry of Finance). The balance of incurred expenditures in relation to the benefits achieved is definitely positive and proves the positive impact of SEZ.

The key conclusions from the presented research include that despite many limitations, special economic zones are still one of the most effective tools of the State in attracting investments to a given area. The use of preferential conditions, despite the related costs, in the overall assessment contributes to the effective development of the area in which they are located. A kind of confirmation is the fact that on May 10, 2018, the Act on Supporting New Investments entered into force, which makes the entire territory of the country one large economic zone. Special economic zones are an effective tool in the development of less developed regions, and the applied reliefs are still attractive to potential investors. The costs associated with the use of preferences and reliefs are definitely lower than the benefits achieved thanks to this.