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## SPECIAL ECONOMIC ZONES IN THE LOWER SILESIA REGION AS A REGIONAL DEVELOPMENT STIMULATOR DURING THE CRISIS

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**Summary:** The special economic zones in Lower Silesia were established over 15 years ago. Over this period, the zones of investment privilege entered comfortably into the landscape of economic activity. The popularity of special economic zones involves the simplicity and effectiveness of the tool of tax exemption for entrepreneurs. Special attention in this article was focused on the effects of the special economic zones functioning in the Lower Silesia Voivodeship, starting from 2008, i.e. the year considered to be the beginning of the global financial and economic crisis. Also, verification of the thesis of the effectiveness of special economic zones as a tool aimed at social-economic development, especially in the context of lowering unemployment and improving the investment attractiveness of some of the more poorly developed regions, was considered a significant issue.

**Keywords:** special economic zone, financial and economic crisis, effects of the functioning of SEZ.

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### 1. Introduction

Special economic zones (SEZ) have a specified aim, which is to stimulate the development of industry and services in some sectors, as well as to create new working areas and incomes for the citizens and territorial government units in specified places. This aim is very significant for the harmonious development of the Polish economy. However, it may sometimes appear that we have forgotten the purpose of the existence of these regions privileged with investment, and one can encounter situations in which the zones – like any institution void of context – are perceived as incomprehensible and absurd [*Parki przemysłowe, technologiczne...* 2011, p. 45].

Special economic zones are an important tax optimization tool for enterprises, allowing them to save millions. The suitably reinvested amounts contribute to these enterprises obtaining and maintaining a competitive dominance. However, like every business solution, it must be used in a skilled and reasonable manner in order to

bring about the expected effects, or should possibly be taken into account at the stage of the enterprise business model creation. “Entering” the economically privileged zone itself is not enough. It very often occurs that the expected tax exemptions are never realized due to a lack of profitability. The most recent financial and economic crisis only enhanced this problem. It also made investors aware of how important it is to take due care when making use of this form of public aid. The complexity of the regulations concerning the SEZ, and the existence of numerous legal regimes, means that the complete utilization of the privileges vested in the zones is a difficult task. An interesting tendency has been observed in recent years among companies functioning in the investment privileged areas. It involves the occurrence of enterprises active in more than one economic area in the special economic zone. On the one hand, this results from the consolidation of activity performed so far by separate entities, and on the other hand, from the realization of subsequent investment in the zone by previous enterprises. This means that zone units are often included in the capital groups or multi-branch enterprises cooperating on many levels. In such cases, it is especially important to manage the fiscal risk, and its omission – in a situation of public aid use – may bring about additional consequences [*Parki przemysłowe, technologiczne...* 2011, p. 45].

The aim of this article is to analyse the functioning effects of the special economic zones located in the Lower Silesia Voivodeship, starting from 2008, i.e. the year considered by many scientists as the beginning of the global financial and economic crisis, as well as their effect on the economic activity in the region. The sources of numerical data were the reports of the Ministry of Economy.

## **2. Spatial structure of special economic zones in the Lower Silesia region**

Currently, three special economic zones are operating in the Lower Silesia Voivodeship, and due to the economic history of the sub-regions, they exhibit a strong spatial-locational relationship. The Kamienna Góra SEZ for Medium Business, the Legnica SEZ and the Walbrzych SEZ “Invest-Park” refer in their characteristics to other privileged areas located in Poland. It is worth emphasizing that a sub-zone of the Tarnobrzeg SEZ “EURO-PARK WISŁOSAN”, located in Biskupice Podgórne, Kobierzyce municipality, Wrocław district, is also operating in the Lower Silesia region<sup>1</sup>. It was created near Wrocław and is one of the biggest direct foreign investments in Poland in the last few years, being a factory of liquid crystal displays (LCD) of the global corporation LG Philips. However, due to the fact that this research concerns special economic zones (not sub-zones), it shall be

<sup>1</sup> The establishment of the sub-zone of the Tarnobrzeg SEZ “EURO-PARK WISŁOSAN” in Biskupice Podgórne resulted from the lack of suitable capitalization of the zones located initially in the area of the Lower Silesia Voivodeship with a view to new investment of considerable capital engagement.

omitted from further discussion. Moreover, gaining complete and reliable information concerning the Wrocław-Kobierzyce sub-zone is simply impossible.

**Table 1.** Size and location of Lower Silesian special economic zones in the period 2008-2012

Zone	Zone area (state at the end of the year, hectares)					Zone location 31.12.2012
	2008	2009	2010	2011	2012	
Kamienna Góra	338.70	368.78	367.14	367.14	367.14	cities: Jawor, Jelenia Góra, Kamienna Góra, Lubań, Ostrów Wielkopolski, Piechowice, Zgorzelec municipalities: Dobroszyce, Gryfów Śląski, Janowice Wielkie, Kamienna Góra, Lubawka, Nowogrodzic, Prusice, Żmigród
Legnica	457.49	457.49	1,041.84	1,041.84	1,059.26	cities: Chojnów, Głogów, Legnica, Lubin, Złotoryja municipalities: Chojnów, Gromadka, Legnickie Pole, Miękinia, Polkowice, Prochowice, Przemków, Środa Śląska
Wałbrzych	1,544.68	1,651.52	1,685.13	2,073.72	2,212.20	cities: Bielawa, Bolesławiec, Dzierżoniów, Kalisz, Kłodzko, Kudowa-Zdrój, Leszno, Nowa Ruda, Oleśnica, Oława, Opole, Piława Górna, Świdnica, Świebodzice, Wałbrzych, Wrocław municipalities: Brzeg Dolny, Bystrzyca Kłodzka, Długołęka, Góra, Jarocin, Jelcz-Laskowice, Kluczbork, Kłodzko, Kobierzyce, Kościan, Krotoszyn, Namysłów, Nowa Ruda, Nysa, Oława, Praszka, Prudnik, Rawicz, Skarbimierz, Strzegom, Strzelin, Syców, Szprotawa, Śrem, Świdnica, Twardogóra, Wiązów, Wołów, Września, Ząbkowice Śląskie, Żarów
Lower Silesian zones in total	2,340.87	2,477.79	3,094.11	3,482.70	3,638.60	
Zones in Poland in total	11,845.11	12,632.87	14,106.82	15,045.79	15,829.33	

Source: own elaboration based on data from the Ministry of Economy.

The constant development of economically privileged zone activity, increasing the interest of particular municipalities and economic entities, as well as amending the regulations concerning the investments, have led to the successive growth of the Lower Silesian SEZs area (compare Table 1). This process has resulted mainly from the depletion of land regarded as attractive in terms of investment in the initially determined area. Territorial development was conducted based on two complementary processes which were based on suitable legal regulations. The first involved establishing new privileged areas, while the second concerned the exchange of areas already incorporated into the zone but currently unattractive to the investor, in the areas adjusted to potential entrepreneur requirements [Broszkiewicz 2006, pp. 86-88].

It may be concluded by analyzing the data contained in Table 1, that at the end of 2012, the special economic zones operating in the Lower Silesia region occupied an area of 3,638.60 hectares, which constituted 23% of the total area of all the zones in Poland. During 2008-2012, the total area of Lower Silesian SEZs increased by 1,297.73 hectares, reaching a dynamic range of 155.4%.

### **3. Effects of the functioning of the Lower Silesian special economic zones in the period 2008-2012**

An analysis of the functioning of the special economic zones and their impact on the surrounding area constitutes a very complicated task. This is related to the numerous problems precluding a synthetic evaluation of the privileged areas. The first group of problems concerns the space in which the research is conducted. Changes in the country's administrative division seriously disturb the possibility of data aggregation continuity maintenance. The next obstacle is the absence of suitable documentation that would prove an occurrence of the regularities sought. Therefore, a complete analysis is not possible, and some of its elements may be based only on immeasurable opinions concerning the occurrence of the given phenomenon. The next group of problems results directly from the character of the research object, i.e. the special economic zone. Its variability over time and space causes numerous "imperfections" which lead to complications in the dynamic analysis of the phenomenon. On the one hand, we are not able to determine whether the transformations observed in the last few years are a result of the applied tools of activity, or if they only constitute the result of time delays in an "outlay-effects" relation, concurrent with the solutions used previously [Broszkiewicz 2006, p. 210]. The determination of the significance and the effect of an SEZ on regional development requires an examination of the investment processes in a sub-zone arrangement. However, obtaining complete and reliable data, e.g. of the value of capital invested or employment size in particular sub-zones, is sometimes simply impossible.

With this in mind, the proposition of a dynamic analysis of the special economic zones located in the Lower Silesia Voivodeship, complete with elements of multidimensional comparative analysis, seems to be reasonable. For the purposes of a clear observation of zonal differentiation, special attention was paid to basic indices characterizing the areas examined, i.e. the number of valid permissions, investment expenditure borne, working areas created, total area of the zone, and the outlays on infrastructure construction and financial results of the enterprises managing the economically privileged zones. However, this article only presents an analysis of the size of investment expenditure and employment.

### 3.1. Investment expenditure borne by the enterprises

Investment expenditure realized in the special economic zones in Lower Silesia were borne by domestic and foreign enterprises. Table 2 presents the size of realized investment expenditure (in an increasing order), in particular zones operating in the Lower Silesia Voivodeship in the period 2008-2012.

The data concerning total investment expenditure in the Walbrzych SEZ “Invest-Park” are impressive. Over the period analyzed, it increased each year by 1,182 mln PLN on average, compared to the national average of 509.54 mln PLN. Unfortunately, the expenditure in the Legnica and Kamienna Góra zones is not as impressive. The annual average increases there were 355 mln PLN and 128 mln PLN, respectively.

**Table 2.** Size of investment expenditure in the Lower Silesian special economic zones in the period 2008-2012

Zone	Investment expenditure (state at the end of the year, mln PLN)					Growth <sup>a</sup>
	2008	2009	2010	2011	2012	
Kamienna Góra	1,332.90	1,436.20	1,551.10	1,667.20	1,856.10	128.00
Legnica	4,024.00	4,257.60	4,568.80	4,889.00	5,483.80	355.00
Walbrzych	9,626.70	11,219.80	12,105.40	13,095.00	14,599.30	1,182.00
National average	4,050.41	4,756.41	5,230.11	5,690.72	6,130.94	509.54

<sup>a</sup> – the values of average annual growth were calculated based on trend line regression equations.

Source: own elaboration based on data from the Ministry of Economy.

The size of investment borne in the Walbrzych SEZ “Invest-Park” in the period 2008-2012 always exceeded the average level for all the zones functioning in Poland. Moreover, the difference between the average level and the size of investment expenditure borne in the Walbrzych privileged zone is constantly growing. It may thus be concluded that the quality of management in the Walbrzych SEZ “Invest-Park” diverges considerably from the national average. This means that the Walbrzych zone is highly suitable for stable investment. Therefore the tools and manners of investment acquisition observed there should be applied to other privileged areas [Fiedor (ed.) 2007, pp. 100-103]. The situation in the Legnica SEZ and Kamienna

Góra SEZ for Medium Business is quite different: in the period analyzed, the volume of investment was lower than the average for all the special economic zones functioning in Poland.

Up to the end of 2012, the entrepreneurs leading the economic activity in the Lower Silesian SEZs generated investment expenditure of 21,939.20 mln PLN, which, compared to 2008, constituted a growth of 6,955.60 mln PLN, i.e. 46.4%. It is also worth emphasizing that the growth rate of the accumulated investment size was subject to a decrease up until 2011, which was partially caused by the financial and economic crisis (Table 3).

**Table 3. Dynamics** of investment expenditure in the Lower Silesian special economic zones in the period 2008-2012

Zone	Dynamics of investment expenditure (previous year = 100%)				
	2008	2009	2010	2011	2012
Kamienna Góra	109.6	107.8	108.0	107.5	111.3
Legnica	111.0	105.8	107.3	107.0	112.2
Walbrzych	122.6	116.5	107.9	108.2	111.5
Lower Silesian zones in total	118.0	112.9	107.8	107.8	111.6
Zones in Poland in total	123.0	117.4	110.0	108.8	107.7

Source: own elaboration based on data from the Ministry of Economy.

Considerable growth in the dynamics of investment expenditure in 2012 compared to 2008 was noted in the Walbrzych SEZ “Invest-Park” (51.7%). In turn, the value of investment in the Kamienna Góra zone increased by 39.3% compared to 2008, while in the Legnica zone by 36.3%. The dynamics of investment expenditure in those particular years and the zones operating in the Lower Silesia Voivodeship were differentiated and conditioned by numerous factors, both from the side of the enterprises managing investment acquisition and possibility from the entrepreneurs themselves. However it is difficult to expect a regular growth tendency, since investor inflow is not systematic – one big investment is enough to significantly increase the dynamics of investment expenditure in a given year.

According to the statistics of 31 December 2012, the highest share in the total sum of investment was held by the Walbrzych SEZ “Invest-Park” – 66.5%. The next highest was the Legnica zone with a share of 25%. The share of investment borne in the Kamienna Góra SEZ for Medium Business compared to the total size of investment expenditure in all the Lower Silesian zones at the end of 2012 was 8.5%. The development of special economic zones in Lower Silesia may also be characterized by the branch structure of the investment and the structure of the capital invested. Analysis of the branch structure of the investment points toward some diversification of economic activity. This may provide stimulating activity in the zones in the regional economy, and create a basis for the expected structural transformations in

the areas in which they were established. In 2012, entrepreneurs functioning in the areas of Lower Silesian SEZs represented the following branches: building, ceramics, electronics, electrotechnical, pharmaceutical, machinery, furniture, metal, motor vehicles, clothing, lighting, stationery and printing, food, household appliances, plastic materials, textiles and others. The motor vehicles branch was predominant in the Legnica and Walbrzych zones<sup>2</sup>, and stationery in the Kamienna Góra zone<sup>3</sup>.

The highest investment expenditures in the Kamienna Góra and Legnica zones were borne by German enterprises<sup>4</sup>. In turn, Japanese capital was predominant in the Walbrzych SEZ “Invest-Park”<sup>5</sup>.

### 3.2. Working areas created

The working areas created are one of the criteria describing the enterprises operating in the special economic zones. Since the enterprises conduct business in an economically separated enclave, it is relatively easy to determine all the economic parameters of this group of investors and establish whether they are distinguishable from other companies in the region [Pastusiak 2011, p. 228].

The changes in the size of employment (in an increasing order) in the particular zones located in the Lower Silesia Voivodeship in the period 2008-2012 are presented in Table 4.

**Table 4.** Employment size in the Lower Silesian special economic zones in the period 2008-2012

Zone	Employment (state at the end of the year, persons)					Growth <sup>a</sup>
	2008	2009	2010	2011	2012	
Kamienna Góra	4,469	4,087	4,349	4,618	4,790	117
Legnica	8,698	8,079	8,803	9,300	9,565	296
Walbrzych	30,924	28,473	30,057	31,276	32,392	574
National average	15,039	14,894	16,092	17,257	17,746	778

<sup>a</sup> – the values of average annual growth were calculated based on trend line regression equations.

Source: own elaboration based on data from the Ministry of Economy.

During 2008-2012, the Walbrzych SEZ “Invest-Park” received, on average, 574 new working areas, the Legnica SEZ 296, while the Kamienna Góra SEZ for Medium Business 117, which considerably diverged from the average for all the economically privileged zones functioning in Poland.

<sup>2</sup> In the Legnica zone, the motor industry is represented inter alia by companies like Volkswagen, Sitech and Sanden, while in the Walbrzych zone, by Toyota.

<sup>3</sup> In the Kamienna Góra zone, the stationery industry is mainly represented by the BDN company.

<sup>4</sup> The biggest German investor in the Kamienna Góra zone is the printing company BDN sp. z o.o., a limited partnership belonging to the Bauer Group, while in the Legnica zone, the motor company Volkswagen Motor Poland Sp. z o.o.

<sup>5</sup> The biggest Japanese investor is the company Toyota Motor Manufacturing Poland sp. z o.o.

Up to the end of 2012, the entrepreneurs conducting economic activity in the area of the Lower Silesia special economic zones employed 46,747 people in total. In the period 2008-2012, total employment increased by 2,656 jobs, reaching a dynamics range of 106% (Table 5). This was subject to a decrease in the period 2008-2009, when the number of working persons dropped from 44,091 at the end of 2008 to 40,639 at the end of 2009, i.e. by 7.8%. 2008 brought the highest decrease in total employment compared to the previous year in the Kamienna Góra SEZ for Medium Business (11.2%), which was related to a reduction of employment in many economic entities operating in this zone. A decrease in total employment in 2009 compared to 2008 was noted in all the Lower Silesian areas of investment privilege: in Kamienna Góra, 8.5%; Walbrzych, 7.9%; Legnica, 7.1%. It may be thus accepted that this was a general tendency caused by the slump in the economic situation. An equally significant factor contributing to the total employment decrease was the increase in the number of innovative investment projects, where technology, to a high degree, replaced human labor.

**Table 5.** Dynamics of working areas in the Lower Silesian special economic zones in the period 2008-2012

Zone	Dynamics of working areas (previous year = 100%)				
	2008	2009	2010	2011	2012
Kamienna Góra	88.8	91.5	106.4	106.2	103.7
Legnica	107.3	92.9	109.0	105.6	102.8
Walbrzych	107.9	92.1	105.6	104.1	103.6
Lower Silesian zones in total	105.5	92.2	106.3	104.6	103.4
Zones in Poland in total	115.5	98.8	108.1	107.5	102.8

Source: own elaboration based on data from the Ministry of Economy.

According to the statistics of 31 December 2012, the highest share in total employment was in the Walbrzych SEZ “Invest-Park” – 69.3%. Next was the Legnica zone with a share of 20.5%. The share of employment in the Kamienna Góra SEZ for Medium Business compared to total employment in all the Lower Silesian zones amounted to 10.2%.

## 4. Conclusions

An evaluation of the functioning of economically privileged zones and their impact on the surrounding areas is a task requiring a widened and detailed study on each of them separately. Such an assessment is concurrently a difficult task, since numerous factors should be taken into account while it is being formulated, and it should also be remembered that the same facts may be evaluated differently by various entities or groups of interest [Kubin 2010, p. 32].

Special economic zones in the Lower Silesia Voivodeship are successful. They have contributed to the creation of many new working areas in the regions with structural unemployment, and to the revitalization of numerous industrial areas. However, these goals are no longer sufficient. It may be noticed nowadays that by attracting investment through low labor costs alone in the regions of the economically privileged zones, we are not creating a basis for long-term development. Therefore, the SEZs in Lower Silesia should change, and they are subject to changes. Distinct evidence of these transformations is the possibility of reinvestment in the zones, making the zones available for specified service investment and the formation of sub-zones in the areas selected by the investor. The next step towards the changes should be to support the investment directly aimed at maintaining the existing working areas. On the other hand, the changes in the functioning of the SEZs, also determined by the European Union rules of public aid, often involve changes in regulations and the possibility of tax exemption in the zones. More than ten amendments to the Act of special economic zones, over 20 amendments to secondary legislation, a few dozen significant judgments and a few hundred fiscal organ interpretations constitute really good “output” [*Parki przemysłowe, technologiczne...* 2011, p. 46].

Special economic zones are stably settled in the economic space of Lower Silesia, and constitute an important factor in creating innovation in the enterprises located in them. They are also a significant element in stimulating competitiveness, in particular in sub-regions as parts of the Voivodeship economic space.

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## **SPECJALNE STREFY EKONOMICZNE NA DOLNYM ŚLĄSKU JAKO STYMULATOR ROZWOJU REGIONALNEGO W DOBIE KRYZYSU**

**Streszczenie:** Od chwili powołania do życia specjalnych stref ekonomicznych na Dolnym Śląsku minęło już ponad 15 lat. W tym okresie obszary uprzywilejowania inwestycyjnego na dobre wpisały się w krajobraz prowadzonej działalności gospodarczej. Popularność specjalnych stref ekonomicznych polega na prostocie i efektywności narzędzia, jakim jest zwolnienie podatkowe dla przedsiębiorców. W niniejszym artykule szczególną uwagę poświęcono efektom funkcjonowania specjalnych stref ekonomicznych w województwie dolnośląskim, począwszy od 2008 r., czyli roku uznawanego za początek globalnego kryzysu finansowego i gospodarczego. Za istotną uznano również weryfikację tezy o skuteczności specjalnych stref ekonomicznych jako narzędzia służącego rozwojowi społeczno-gospodarczemu, szczególnie w kontekście zmniejszania bezrobocia oraz poprawy atrakcyjności inwestycyjnej terenów słabiej rozwiniętych.

**Słowa kluczowe:** specjalna strefa ekonomiczna, kryzys finansowy i gospodarczy, efekty funkcjonowania SSE.