

The Impact of Special Economic Zones on the Level of Socio-Economic Changes of Polish Regions

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Abstract

Transition process in Poland involved the use of various tools to stimulate and increase the socio-economic development in new conditions of a market economy. A very important direction was implementation of network solutions in the form of Special Economic Zones (SEZs). The networking nature of the solution was to create a common framework for action: economic, legal and organizational, which would apply to companies already existing in the Zones, but would also set the standard for new SEZs and their actors. The idea of creating special zones offering new attractive and unique conditions for business was new a new phenomenon in Poland. Usually operations in SEZs involve preferential conditions, which should lead to improvement of financial performance of such companies. The paper aims to determine the impact of SEZs on socio-economic development of Polish regions, using regions under endogenous development and supported by the European Union (EU) as frames of reference. The paper also aims to determine the impact of SEZs on scope of new investments, especially, FDI and unemployment.

Key words: development on local and regional level, investments, network management, Special Economic Zones (SEZ)

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Introduction

Late 20th century and early 21st century in Europe was a period of profound political, social, and economic change. A significant acceleration of the pace of changes in Europe took place in the 80s of the 20th century. Various factors were at the heart of these transformations. The most profound changes occurred in countries with centrally administered economy. These changes were related to political transformations aimed at shaping the foundations of a democratic state and public administration, as well as to economic shifts towards a market economy.

Therefore, at that time in Poland, as well as in other counties of Central and Eastern Europe (CEE) there was need to carry out deep, far-reaching transformational changes in political, economic, and social areas. When it comes to political changes, problems of the shaping of new political elites which would be able to successfully implement unpopular systemic reforms, came to the fore. Creating a market economy in Poland and other CEE countries was connected with the concept of a new approach to social affairs in line with the requirements of a social market economy organized around private capital. That would be difficult to achieve for the society long deprived of the lawful rights, without a sufficient level of awareness of necessary changes, and without professional qualifications needed to become actively involved in the transition process into the new market conditions. In the period of systemic transformation in Poland, however, this has become possible. The processes of socio-economic development therefore proceeded in various ways. It also became clear that the achievement of foreseen social development goals would require longer time, and certainly could not be done in a short time. Some of the major obstacles to creation of a market economy in Poland included a relatively low level of socio-economic development in comparison with the countries of Western Europe, public debt to private and public creditors, lack of own capitals for the implementation of projects in the sphere of the real economy and projects aimed at improving technical and social infrastructure. While the construction of democratic state structures has been completed at relatively low cost, structural economic changes, particularly the privatization and restructuring process of businesses, required incorporation of significant initial capital expenditures. Faced with such conditions, Poland was forced to reach for different endogenous resources – remnants of the prior period – but also looked for external sources for co-financing economic development. It is highlighted by Litwack and Qian (1998). It concerned the part of state investment, which remained a very important part of expenditures

during the transition period, and an approach affecting the allocation of private domestic and private foreign investments.

It should be noted that the process of democratic change in Poland was met with great acceptance from Western European countries and United States. Favourable climate for the development in Poland was rooted in a great enthusiasm of various groups in the country, and it was supported by the Polish communities worldwide.. For these reasons, the democratic change in Poland proceeded quickly, and after 1989, in a relatively short time, it was possible to create a favourable environment for the development of entrepreneurship and for the good performance of new companies operating under market economy conditions. Greater difficulties stemmed from the need of restructuring and ownership transformation of state-owned enterprises. It is understandable that not all sectors of the economy could be subject to privatization. This process covered companies with neutral significance for the security of the state, but it could not relate to the sectors that played a key role in the economy, like mining and energy (Armstrong, Kervenodel 1997; Hillman 2003; Lin 2009).

The democratization of public life and systemic changes naturally led to the greater openness of the economy for various forms of cooperation with external environment. It was manifested i.a. by the interest of foreign capital in direct investments in Poland, in particular involving purchase of shares in privatized state enterprises and financing green-field investments. The point was to attract foreign capital into investing in Poland. Such solution seemed to be one of the most advantageous paths of financing the economic development in Poland on the basis of foreign capital, because it would bring about an opportunity to raise investment capital in a cost-free way. However, that solution had also negative consequences of foreign financial surpluses transfer. So there was a threat of not reinvesting surpluses and financing only current operations of Polish enterprises.

General social and economic conditions prevalent in the initial period of the transformation in Poland, in particular, low capital resources of enterprises and limited opportunities for reaching external financing, did not allow for wider use of self-financed investments by enterprises. Privatization of state enterprises with participation of foreign entities seemed to be one of the best paths of economic development (Grabowski, Self, Shields 2007). Privatization of state-owned enterprises, according to the new statutory regulations in force since 1990, was a logical consequence of the economic transformation and was associated with the need to impose competitiveness, which did not exist in the centrally administered system.

During the systemic change, numerous far-reaching transformations took place. The above-mentioned ownership change in state-owned enterprises, struggle

to improve efficiency of management processes, and creation of a competitive environment were often not seen in a positive way by the public opinion. The most painful new phenomenon, typical for the capitalist economy, was unemployment. Unemployment in Poland forced the initiation of multiple adaptive processes, which aimed at mitigating its negative effects.

The experiences of economic transition not only in Poland but also in the other former central-command economies prove that in the initial period of socio-economic development in new market conditions economy there was a significant increasing of investment capital needs. The capital should be allocated both in the socio-economic infrastructure as well as in the sector of enterprises that undertake an economic activity in the condition of market economy Litwack and Qian (1998).

In the early days of market economy in Poland, there was a search for various mechanisms stimulating entrepreneurship and new management solutions appropriate for competitive environment. Creation of SEZs was one of the most important and comprehensive ways of supporting entrepreneurship and the development of enterprises. Based on the experience of other countries, the idea of SEZs drew large support in early 1990s. Experience of SEZs abroad, as well as limited financial capabilities of state and new capitalist economy, prompted efforts leading to introduction of SEZs in Poland in 1994, after the adoption of the relevant legislative act by the Parliament (Klonowski 2011).

The purpose of this paper is to seek answer the question to what extent SEZs in Poland helped boosting the pace of regional development, and whether this form of economic stimulation ultimately allowed regions to achieve higher levels of economic development and improved the situation of the population in comparison to the external environment. Bearing in mind large and long-lasting disparities in the level of regional development in Poland, it is important to draw attention to the boosting factor of SEZs in terms of levelling disparities between regions. Reaching the estimated goal is relatively difficult due to a significant inflow of EU resources supporting Polish regions from 2004 onwards- the support covering wide range of tasks, both in the public sector, as well as those related to the implementation of many goals in the real economy. We had to deal with various overlapping forms of support, which makes it difficult to assess the impact of specific factors.

The first thesis of our paper is as follows: the internal relations within the SEZ are of network nature and allow for setting up business processes with relative ease as well as speeding up absorption of foreign capital (FDI). In the initial period of transformation development of SEZ clearly accelerated the pace of economic

development and strengthened internal links in networks, both within the zones, as well as with external environment.

The second thesis is as follows: the steady presence of SEZs in the economy leads to negative consequences such as distortion of normal competition conditions between companies. Due to strong network ties SEZ, there was a significant diversification in economic conditions within SEZs and the changes in management conditions in companies operating outside SEZs in Poland. SEZs in Poland contributed to mitigating the negative effects of social and economic transformation occurring on the local and regional labour markets.

According to Wang (2013), SEZ have meaningful effects on the local and regional economy. Earlier research on SEZ explain (on the basis of theoretical and practical studies) that i, SEZs play very important role in transition period of economy. In Poland over twenty years of transformation the development of SEZ was rapid, ultimately provoking – especially after the EU accession – a broad debate on public aid granted in various forms to selected companies in SEZs. The course of the debate has suggested that the Zones may be allowed to continue their operations until to 2020. However, due to good economic performance of the companies within the Zones and their often innovative nature, it could be expected that in more distant future, in the former SEZs there will still be positive economic effects as well as diffusion and multiplier effects in the use of new and technologies visible.

1. Conditions and Operational Scope of SEZs

The idea of creating offering attractive and unique conditions for businesses is not a novelty. Usually, business operations of in special economic zones take advantage of preferential conditions for enterprises, which should lead to improvement in their financial performance. In Poland Launching such incentives for business, meant stepping on the path offset by many other countries which had attempted to stimulate business activities in modern, technologically advanced sectors of economy.

In the modern form, it emerged it appeared in the 1960s, and their dynamic spread followed. The first SEZ started to operate in Ireland in 1959 (Moberg 2015). SEZ development has become a common feature in supporting socio-economic development in many developed and developing countries, for example China, India, African countries, and Lithuania, Russia, Germany, United Kingdom, Italy, Denmark, as well as the member states of the Visegrad Group (Auty 2011; Levien

2012; Mohiuddin, Regniere, Su, Su 2014). If we look at specific states that have decided to pursue this form of supporting business, as well as the nature of zones providing complex forms of support, it seems clear that activity of SEZs is strongly diversified

It is necessary to pay attention, to the issue of a state's ability to absorb capital in a form of FDI. In this regard, a large role is played by the size of the existing socio-economic potential. As emphasized by McGrattan and Prescott (2009), in the initial phase of the transformation of FDI invested in SEZs provide greater benefits to small countries, but as the development may be slowing investment and implementation of new technologies in SEZs and the overall economy.

In Poland, for example, the common forms of promoting economic activities within a Zone vary depending on the region, but always comprise income tax exemptions, real estate tax exemptions granted by municipalities, providing attractive investment sites within created industrial or technological park equipped with necessary economic infrastructure, as well as providing opportunities to purchase land at attractive prices. It should be noted that, in spite of diversity within SEZ, the general idea is to create separate areas, where entrepreneurs acquire preferential conditions for conducting businesses.

In principle, the key motives for creating SEZs, are economic, mainly shortage of domestic capital, which could be enhance development investments. But that form of encouragement is not offered only did not to foreign companies, for which SEZs used to be – to some extent – a guarantee of political and economic safety, but also to national companies as. From the point of view of the state, locating financial investments in FDI became a fast path of raising capital for investments in a cost-free way. Cheng and Kwan (2000) notice that from the theoretical point of view, the location choice of FDI in SEZs is determined by relative profitability.

In Poland SEZs, therefore, became a form of incentive for foreign investors to take up economic activities in Poland. Offered forms of encouragement and financial incentives created a 'package' for foreign capital, which welcomed it as a means for further development of parent companies in the Eastern markets (Borish, Noël 1996).

Taking into account SEZs technological potential as well as preferential treatment they receive, it should be noted that, quickly gain e competitive edge against companies operating in Poland and abroad. The Zones have thus become one of the features of the regional policy and the measure for manner economic activation of underinvested regions. The emergence of SEZs produced external and multiplier effects in such fields as employment, improvement of household income situation, improvement of economic conditions of enterprises outside the zone, and the extension of the scope of investments according to the formula of investment multiplier, also in enterprises

operating outside the zones. It must, therefore, be concluded that the legal basis for the creation of SEZs in Poland triggered non-investment development impulses in many regions from 1994 onwards.

A broader analysis of the activities of SEZs, faces significant methodological difficulties. Wide variety of the rules of creating an operating the zones, as well as greatly diversified economic profile, make international comparisons particularly challenging, but even when we take national systems into consideration, such comparisons may pose t difficulties. The first step is to recount the main reasons for creating SEZs, which are to become a permanent fixture of the economic structure of in countries experiencing accelerated socio-economic development. As a general rule, the macroeconomic character of SEZs and the pursuit to progressively obtain substantial economic effects shall be assumed. In countries where investment capital deficiencies occur, the goal of SEZs it to create good conditions for foreign direct investment. There is no doubt that SEZs focused on offering incentives to direct foreign investments, is a source of obtaining no-cost investment capital. Such investments may, therefore, induce certain socio-economic effects, with employment growth in the firsts place. Along with foreign direct investments, indirect effects should must appear, as well as multiplier effects in foreign direct investment, which can be noticed both inside the zones, as well as in relation to companies operating outside the zones.

The essence of SEZs, therefore, becomes the possibility to link future benefits of direct investor, mainly foreign investors with the potential to maximize financial resources, with future beneficiaries involved in the zones and beyond. The expected effects may include implementation of new technologies, implementation and dissemination of new methods of daily and strategic management at the level of enterprises and the entire zone, as well as the aforementioned increase in employment and skills.

Bearing in mind the planned acceleration of socio-economic development in Poland, attention should be paid to the possible significant impact on this development of jaws occurring in SEZs. At the moment we can refer to past data on the scope and impact of SEZs in, as well as to the anticipated continuity and change and of SEZs in the future. In retrospective, the impact of SEZs on socio-economic development can be relatively easily quantified and evaluated. When it comes future of SEZs in Poland, it is believed that, in accordance with the applicable provisions of law, they will continue to exist, although some economists notice negative effects of operations in market economic conditions (Chông-dong Pak 1997; Gopalakrishnan2007; Verma, Kumar 2012). The basic condition for effective implementation of SEZs in the given country is interdependence

and convergence of interests of initiators and creators of zones, domestic entrepreneurs, and foreign entrepreneurs, whom the location of SEZs must bring certain measurable results. The success of SEZs becomes depends on the consensus between two parties who control specific resources: preferences, incentives, changes of the rules of operation, labour force supply, social and technical infrastructure, as well capital resources, production technologies, and new methods of management. Concentration of these resources in SEZs leads to rapid business development, and results in the achievement of predefined goals for all participating parties.

SEZs in Poland have had a relatively long history, as their development began shortly after the launch of political and socio-economic transformation. SEZs were created in 1994, by virtue of Art. 3 of the Act of 20 October 1994 on SEZs, according to which “a zone can be established in order to accelerate economic development of the part of the country’s territory...”. In line with the intentions of the lawmaker, SEZs in Poland would have a general economic nature with focus on achieve macroeconomic and macrosocial goals. Therefore, the following a priorities were set:

- to support certain ranges of economic activities,
- to support new techniques and technologies with a view to use them in the economy,
- to intensify development of export,
- to increase competitiveness of products and services on domestic and third markets,
- to ensure the continuation of business and to develop existing assets of enterprises and economic infrastructure,
- to support processes to speed up the creation of jobs,
- and actions aimed at better use of natural resources in accordance with the principle of sustainable development.

Looking at the aforementioned provisions, it is clear that the model of SEZs adopted in Poland was to some extent similar to the solutions used earlier in developing countries. This conclusion can be drawn from the macroeconomic nature of actions taken in the zones and from the orientation on the objectives listed above, of which the most important at that time were fighting significant unemployment and saving production in the enterprises quickly losing their competitiveness under market economy conditions (Bazydło, Smętowski 2000). At the time in Poland, such a tool as SEZ was a completely new phenomenon, even though it had been used before in many countries, both developed and developing. Examples illustrating this are the countries of Western Europe, USA, or Asia (Tiefenbrun 2012). In Poland, SEZs were an economic experiment aiming at relieving the negative effects of transformation from central-command economy to a free market economy. It should be noted that cost-related factors were at the root of many difficulties in the transformation

process in Poland/Especially, lack of economic rationality allowing to balance costs and revenues was a problem. In the initial period of the transformation in Poland poor technological and technical equipment, as well as too high labour costs were essential feature of the companies. In terms of transformational processes, the main two objectives were to obtain effective sources of financing investment, which would provide investment capital, and counterbalance the negative effects of growing unemployment (Buettner 2012).

There is no doubt that the transformational processes involved the need to seek and implement various tools that would give a chance to effectively counteract the negative effects accompanying these processes. The lessons learned from economic practice of countries which had a longer history of SEZs, as well as and theoretical models developed on such basis, clearly show that SEZs, despite the negative effects related to their operation, bring many measurable benefits for the regions and countries using them. At this point it is worth to mention the general conditions for creation of SEZs described by Farole and Akinci (2011). These authors point, first and foremost, to growing attractiveness of a country or a region for foreign direct investments, reduction in significant unemployment, support of economic reforms in a broader sense, and adoption of the principle declaring SEZs as testing spaces for the implementation of new technical and technological solutions and their further transfer to the economy (Balcerowicz 1995).

The process of socio-economic transformation in Poland, launched in 1989, was wide-ranging. The scope of necessary changes must have raised doubts, but it could have also been associated with the real threat for both businesses and citizens. On the one hand, in the period of transformation in Poland of crises occurred, in particular, decline in production, appearance of the emergence of unemployment and many difficulties in the functioning of the state. On the other hand, crisis in the transition is a common problem but it is always temporary (Loorbach, Hufenreuter 2013).

However, that process was not entirely autonomous, and, therefore, was not accomplished by Polish political elites on their own. It is worth to mention macroeconomists from Western Europe and the USA, in particular: J. Sachs, S. Fisher, L. Summers, and D. Lipton, who greatly supported the necessary reforms not only in Poland, but also more widely in the CEE countries. We should also mention academic centres and international organizations, especially Harvard University, The Massachusetts Institute of Technology, London Schools of Economics, International Monetary Fund (IMF), and the World Bank, which also were involved in the process of creating and promoting radical reforms. We should not forget about the new

political elites and economists from various CEE countries who greatly contributed to the reforms (Åslund 2013; Sachs 1994).

Faced with the necessary socio-economic transformation, SEZs in Poland fairly quickly rose to play a significant role in the structure of the economy, mainly because of their predisposition to absorb foreign direct investment and create employment opportunities, therefore counteracting excessive unemployment. The operating conditions of SEZs had to be revised upon the Polish accession to the EU. In particular, there were new legal and economic constraints resulting from the Treaty establishing the European Union, under which it was not possible to provide excessive public support for some enterprises, because it could interfere with the operation of enterprises in the EU. As of Poland, the EU accession marks a caesura dividing functioning of SEZs into two periods. The first period covers the years from 1994 to 2004, and the second period spans from 2004 on. In the first period, enterprises in SEZs were not subject to the abovementioned restrictions resulting from the membership in the EU. The transformation and the objectives of macroeconomic and social nature mentioned earlier justified the creation of SEZs, as well as allowing businesses operations on preferential terms. The period from May 2004 on has been characterized by a greater interest of the European Commission in the businesses activities in SEZs. We should mention the provisions of Article 87(1) of the Treaty on public aid, according to which "... any aid granted by a Member State or through State resources in any form whatsoever which distorts or threatens to distort competition by favouring certain undertakings or the production of certain goods shall, in so far as it affects trade between Member States, be incompatible with the common market". It means that the authorities of the Member States have a limited influence on shaping the conditions of enterprises' performance and on granting public aid, including liberalization of the rules of operation in SEZs. Article 87 (1) of the Treaty directly corresponds to Article 3 (3), according to which it is possible, during a transformational period, to grant "... the aid to promote economic development of regions where the standard of living is abnormally low, or where there is excessive unemployment". Since May 2005, SEZs have been operating of in new legal conditions. Apart from the provisions of the aforementioned Act on SEZs, the provisions contained in the Art. 87 of the Treaty should also be taken into account.

Polish accession to the EU had a significant impact on the scope of SEZs operations. In accordance with the abovementioned provisions of the Treaty, a basic unit, when it comes to the functioning of SEZs in Poland, was region. The new approach to the principles of SEZs functioning meant that the managing entities started putting a greater emphasis on regional aspects of operations. After the EU

accession, SEZs in Poland retained high status among foreign investors, who were still interested in direct investments in the zones, while also gaining recognition among domestic business, for whom investments in SEZs and privileges thus entailed created good prospects for development.

2. Characteristics of Activities in SEZs in Poland from 2004 to 2013

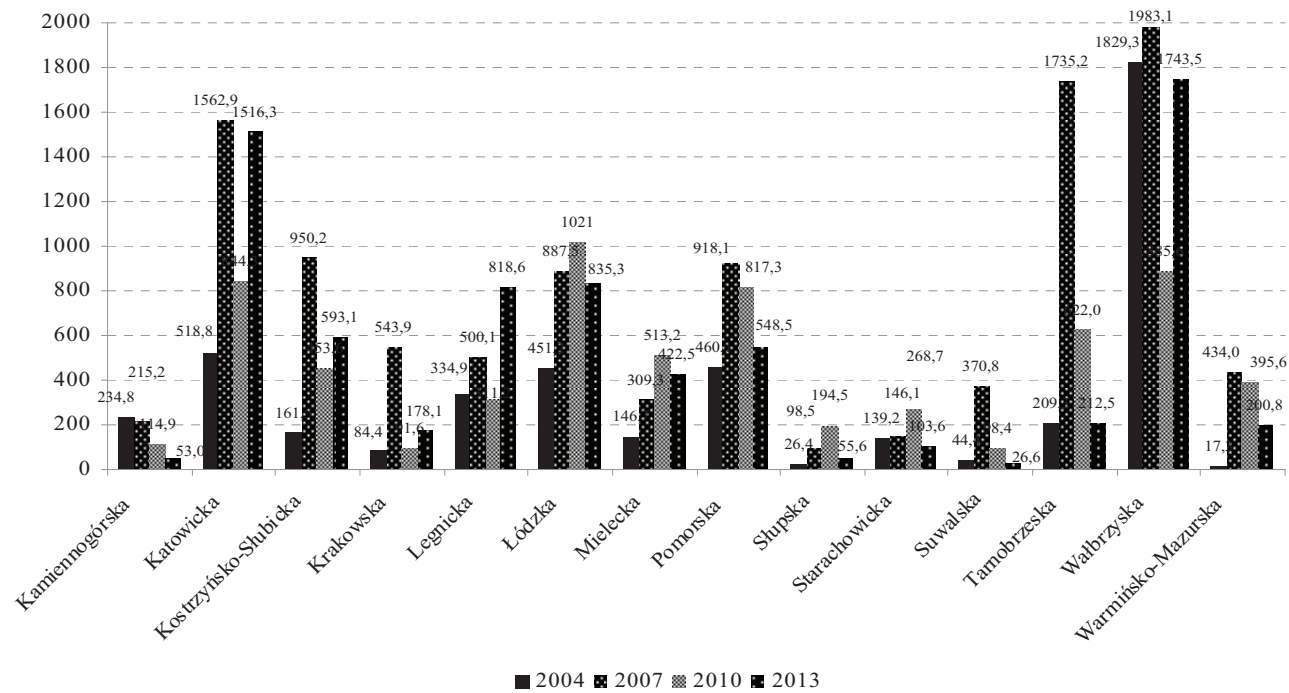
One of the most important measures of assessment SEZs activities are investment expenditures borne by the investors in the zones. In the recent study, the authors were able to obtain complete data illustrating investment expenditures between 2004 and 2013. Due to a very high volume of statistical data, the paper reports only figures from 2004, 2007, 2010, and 2013, yet the analysis relies on complete dataset for 2004-2013 figures. Table 1 and Figure 1 provide data illustrating investment expenditures for the abovementioned periods.

Apparently, SEZs attracted significant investment expenditures. In 2004, the total value of investment expenditures in all four zones amounted to 4,658.3 million PLN. The highest expenditures at that time were reported in Wałbrzych SEZ, 1,892.30 million PLN. In other zones, investment expenditures were at much lower level. However, here we should mention Łódź SEZ and Pomeranian SEZ, where investment expenditures amounted to 460.1 million PLN and 451.2 million PLN.

According to the collected data, in terms of the annual volume of investment, Wałbrzych SEZ and Katowice SEZ occupied two dominant positions in Poland in the years 2004–2013. In Katowice SEZ, investment expenditures, apart from 2004 and 2010, amounted to more than 1 billion PLN. And in the years 2006, 2008, and 2009 they exceeded 2 million PLN. In Wałbrzych SEZ, investment expenditures in given years covered by the study were slightly lower, but also exceeded 1 million PLN, with the exception of 2010 and 2011.

Łódź SEZ also deserves attention, where investment expenditures amounted to 870.1 million PLN. Relatively high investment expenditures were reported in Warmia and Mazury SEZ – 477.2 million PLN. In the analysed period, it is difficult to identify a general pattern that would determine the volume of investment expenditures in the zones. Investment expenditures were closely linked to the investment programmes in the zones, and those programmes determined the final volume of investment expenditures recognized in statistical reports. This explains the situation in

Figure 1. Investment expenditures in 2004, 2007, 2010, and 2013



Source: Information on the implementation of the law on special economic zones (2007; 2008; 2011; 2013; 2014), Warsaw: Ministry of Economy.

Tarnobrzeg SEZ, where in 2006 the total value of investment expenditures amounted to 1,323.7 million PLN, while in the previous years these expenditures had been much lower. Such situation took place in all zones, although the relative increase in total investment expenditures remained stable in the zones in 2007 and 2008. Łódź SEZ showed the highest stability when it comes to investment expenditures. They were kept at a relatively high level, and from 2006 they hovered around 1 trillion PLN. The exception was 2008, when investments expenditures in the zone amounted to 1,905.1 million PLN. Kostrzyńsko-Słubicka SEZ should also be mentioned. During the period in focus, capital expenditures in that zone were stable and hovered around 500 million PLN per year. The exception was 2008, when 950.2 million PLN was spent in this zone (Information 2007; 2008; 2011; 2013; 2014).

Table 1. Investment expenditures, millions PLN

Name of the zone	2004	2007	2010	2013
Kamiennogórska	234.8	215.2	114.9	53.0
Katowicka	518.8	1,562.9	844.3	1,516.3
Kostrzyńsko-Słubicka	161.5	950.2	453.6	593.1
Krakowska	84.4	543.9	91.6	178.1
Legnicka	334.9	500.1	311.2	818.6
Łódzka	451.2	887.5	1,021.0	835.3
Mielecka	146.7	309.3	513.2	422.5
Pomorska	460.1	918.1	817.3	548.5
Słupska	26.4	98.5	194.5	55.6
Starachowicka	139.2	146.1	268.7	103.6
Suwalska	44.4	370.8	98.4	26.6
Tarnobrzaska	209.3	1,735.2	622.0	212.5
Wałbrzyska	1,829.3	1,983.1	885.6	1,743.5
Warmińsko-Mazurska	17.3	434.0	395.6	200.8
Total	4,658.3	10,654.9	6,631.9	7,308.0

Source: Information on the implementation of the law on special economic zones (2007; 2008; 2011; 2013; 2014).

Warsaw: Ministry of Economy.

At this point, we should also report on the total investment expenditures carried out in the zones in the following years. In the year 2013, Katowice SEZ had the highest cumulative investment expenditures – 21,109.5 million PLN. The second was Wałbrzych SEZ, where investment spending amounted to 16,342.80 million PLN. In terms of cumulative investment expenditures, Łódź SEZ ranked the third. The

total value of cumulative investment expenditures in the zones was 7,558.2 million PLN in 2004, while in 2013 it was 16,203.7 million PLN. This means that during the period of reference, the value of expenditures increased by 114.4%. In the same period, capital expenditure in the total economy amounted to 91.9%, therefore more than 20 percentage points higher than in the SEZs. However, in some SEZs, according to the empirical data contained in the Table 1, capital expenditure in the reporting period was very significant, especially for 2010.

The value structure of the of investment expenditures in specific zones, to some extent reflects the past economic situation. That is why, new investments in SEZs were made with regard to the existing course of development. It was a completely different situation in the zones located in less developed regions such as Suwałki SEZ, Słupsk SEZ, or Warmińsko-Mazurska SEZ. In those regions, development of SEZs undoubtedly became an important stimulating factor for development, although aggregate investment expenditures were at a much lower level there than in the biggest zones. However, the changes should still be considered beneficial.

At this point, we should mention the change in the number of companies operating in the zones. Detailed data illustrating the situation in 2004, 2007, 2010, and 2013 is shown in Table 2. All SEZs in Poland attracted great interest of foreign investors. While in 2004 the total number of business entities operating in the zones amounted to 679, in 2013 this number stood at 1,709. This means an increase in the number of business entities by 151.7%. For comparison, we should look at the data regarding changes in the number of business entities in the national economy from 2004 to 2013. At that time, the total number of business entities rose by only 56.5% (Local Data Bank 2015). This took place in a situation of rapid development and establishment of a large number of micro and small enterprises. When comparing the situation in terms of changes in the number of business entities in the years 2004–2013 in the regions and zones operating in their territory, it should be noted that the dynamics in the number of business entities was much higher in the zones than in the regions. For example, in Wałbrzych SEZ, functioning in four regions (dolnośląskie, opolskie, wielkopolskie, and lubuskie), the growth rate was 397.6%, while the aggregated value of the four listed regions change indicator was 57.2%. Similar situation took place in all other SEZs.

Table 2. Number of decisions

Name of the zone	2004	2007	2010	2013
Kamiennogórska	24	39	46	59
Katowicka	106	170	201	250
Kostrzyńsko-Słubicka	50	101	112	140
Krakowska	18	38	58	101
Legnicka	39	53	53	65
Łódzka	47	91	142	173
Mielecka	71	88	150	183
Pomorska	47	65	75	111
Słupska	21	41	45	58
Starachowicka	39	67	70	71
Suwalska	67	52	56	71
Tarnobrzeska	70	102	121	151
Wałbrzyska	41	100	159	204
Warmińsko-Mazurska	39	52	66	72
Total	679	1,059	1,354	1,709

Source: Information on the implementation of the law on special economic zones (2007; 2008; 2011; 2013; 2014). Warsaw: Ministry of Economy.

According to the figures in the Table 2, SEZs have been an attractive place for investments in Poland for a long time. Economic mechanisms in SEZs in Poland resulted in an increased interest on the part of many entrepreneurs willing to do business in the zones. During the period in focus, the number of entities increased significantly in all SEZs in Poland. In addition it must be remembered that very often large foreign international companies established their businesses in the zones too, including General Motors Manufacturing Sp. z o. o. and Toyota Motor Manufacturing Poland Sp. z o.o. operating in Katowice SEZ, but also Michelin Polska S.A. operating in Warmińsko-Mazurska SEZ, and many other well-known companies operating in Poland. On the one hand, quick growth in the number of companies operating in the zones is noticeable due to incentives for investors who conduct businesses in the zones, but also macroeconomic factors, including relatively easily accessible and cheap human resources, relatively good infrastructure, and generally favourable environment for enterprise development in Poland.

In the years 2004–2013, in SEZs there was a dynamic increase in the number of employees (see Table 3). While in 2004 the total volume of employment in the zones amounted to 74,554, in 2013 the number stood at 266,700. The highest number of

employees in 2013 was reported in Katowice SEZ – 52,575, and in Wałbrzych SEZ – 36,164. These two zones, as in the case of investment expenditures, play a key role in the structure of the Polish economy. In other SEZs, dynamic changes in terms of the number of employees were observed too. This relates to the zones that have existed for a relatively short time such as Kostrzyńsko-Słubicka SEZ, where the number of employees was 1,753 in 2004, while in the year 2013 this number amounted to 22,630, Słupsk SEZ, where in 2004 the number of employees was 973, while this number amounted to 3,515 in 2013, and Warmińsko-Mazurska SEZ, where the number of employees was 1,606 in 2014, and in 2013 this number amounted to 13,063. On the basis of data on employment, and number of companies operating or carrying out economic activities in the zones, it is possible to write the scenarios of development of the zones. The first is the rapid quantitative and qualitative development of the SEZs on the basis of the structure of local economy shaped in the past in the spatial layout. The second is economic development carried out in areas not yet developed, where qualitative and material effects in the operations of the zones are clearly visible. The social dimension of the zones, which evidently contribute to occupational activation, unemployment reduction, improvement in the situation of workers' families, reduction of socio-economic disparities between regions should be mentioned.

Table 3. Number of workplaces

Name of the zone	2004	2007	2010	2013
Kamiennogórska	1,930	5,033	4,349	4,864
Katowicka	17,374	35,285	43,473	52,575
Kostrzyńsko-Słubicka	1,753	12,891	17,252	22,630
Krakowska	1,479	5,566	8,936	16,779
Legnicka	4,843	8,104	8,803	10,237
Łódzka	3,061	14,756	23,248	28,882
Mielecka	9,166	13,104	16,516	23,562
Pomorska	8,291	17,493	19,275	15,394
Słupska	973	2,180	2,683	3,515
Starachowicka	2,290	6,970	6,349	6,380
Suwalska	3,235	5,096	5,471	5,425
Tarnobrzaska	7,769	18,799	27,832	27,230
Wałbrzyska	10,786	28,673	30,057	36,164
Warmińsko-Mazurska	1,604	8,415	10,558	13,063
Total	74,554	182,365	224,802	266,700

Source: Information on the implementation of the law on special economic zones (2007; 2008; 2011; 2013; 2014).
Warsaw: Ministry of Economy.

While carrying out the analysis of the economic situation of the zones, their spatial development should be mentioned too. In the years 2004–2013, the area of SEZs in Poland increased to 16,2013.68 ha. Territorial development of SEZs in Poland is obviously a consequence of the interest in locating economic activities in the zones. According to the data in Table 4, the pace of change in the area of the zones varied. The fastest developing zones in terms of territory were: Słupsk SEZ (292.5% growth), Pomeranian SEZ (260.6% growth), and Łódź SEZ (237.0% growth). In the analysed period, employment in SEZs increased by 257.7%, while at the same time, employment in the Polish economy grew by 11.9%. Taking into account changes in the level of employment, the SEZs characterized by greater absorption of labour market than was the case in the economy as a whole. Unemployment in areas where observed SEZs impact on the labour market was relatively lower.

In accordance with the specific statutory regulations in force, SEZs in Poland, still have further possibilities of territorial expansion. According to the laws on the functioning of SEZs until the year 2026, there is the possibility to increase their territory to 20,000 ha (Regulations of the Council of Ministers 2008).

Table 4. Territory of SEZs (in ha)

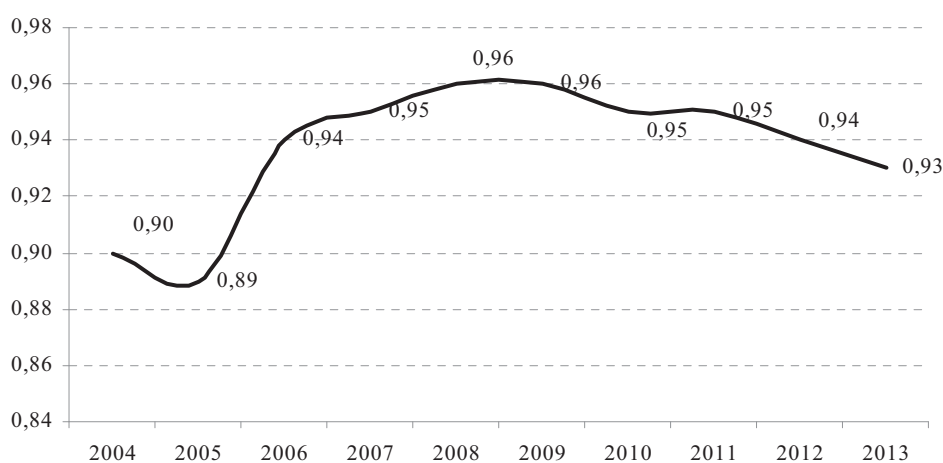
Name of the zone	2005	2007	2010	2013	2013/2005(in%)
Kamiennogórska	241.1	338.7	367.1	367.1	52.3
Katowicka	1,156.2	1,299.6	1,917.7	2,004.8	73.4
Kostrzyńsko-Słubicka	804.5	1,005.5	1,267.5	1,563.9	94.4
Krakowska	262.8	298.9	523.4	628.5	139.2
Legnicka	416.7	416.8	1,041.8	1,059.3	154.2
Łódzka	383.0	897.4	1,198.7	1,290.8	237.0
Mielecka	707.1	925.7	1,135.0	1,299.4	83.8
Pomorska	382.8	1,054.4	1,240.0	1,380.6	260.6
Słupska	210.0	376.5	401.1	824.4	292.5
Starachowicka	329.8	566.4	595.8	612.9	85.9
Suwalska	288.9	312.9	342.8	342.8	18.6
Tarnobrzaska	1,105.2	1,335.6	1,551.9	1,632.3	47.7
Wałbrzyska	745.9	1,434.6	1,685.1	2,212.2	196.6
Warmińsko-Mazurska	524.1	700.2	838.9	984.8	87.9
Total	7,558.2	10,963.1	14,106.8	16,203.7	114.4

Source: Information on the implementation of the law on special economic zones (2007; 2008; 2011; 2013; 2014). Warsaw: Ministry of Economy.

In the study, causes and effects of capital expenditures and were analysed, as well as their benefits for employment, all in relation to the support mechanism within the zones. There is a high correlation in SEZs when it comes to capital expenditures and employment. Employment growth in conjunction with investment expenditures is not a relationship based on the impact of just one factor. Alongside investment there is large group of factors, which more or less impact on the level of employment in the area.

Indirect factors such as the level of development of technical infrastructure, the level of social infrastructure, availability and quality of public services, public safety, housing, as well as factors related to the quality of human capital. These factors altogether impact the employment situation, however, the decisive factor in zones are investments leading to increase in the value of fixed assets related to the use of new production technologies, and this in turn leads to an increase in the number of employees. The highest power of correlation was observed with respect to the investment. Changes in this regard is shown in Figure 2.

Figure 2. Investment expenditures and number of workplaces (the Pearson correlation)



Source: Information on the implementation of the law on special economic zones (2007; 2008; 2011; 2013; 2014). Warsaw: Ministry of Economy.

There is a strong correlation between investment and the level of employment. It is understood that the new investment must always result in employment growth. Hence, a causal link is obvious, however, investments in new technologies could lead to a relatively lower employment in SEZs than average for the enterprises in the region.

Conclusions

In Poland SEZs development has had a long history. The zones were established in Poland at the beginning of the process of political and socio-economic transformation. We can assume that the SEZs have won a permanent place in the economy and that their development in the Polish market economy meets with interest of both the business and public authorities. The latter see the point in supporting development, enhancing capacity to coordinate and support the activities of many innovative sectors of the economy, creating and maintaining jobs, generating additional cash flow effects, and causing additional demand for differentiated market products. It also important to see the zones as a channel for cost-free raising of capital for investment in the form of foreign direct investment in the zones in Poland.

In the period under consideration the SEZs in Poland functioned in quite specific conditions. Upon accession to the European Union, the zones, in essence, have become organizations which, under EU rules, might violate the principle of free competition by creating preferential tax exemptions for companies operating in the zones. Polish membership in the EU has had a significant impact on the continued operation of the zones in Poland. They can no longer function indefinitely, their activity must be agreed and discussed with the European Commission and requires determining of the real reasons for doing business in areas, especially in of low development cases at the regional level. Such disparities still exist in Poland, and therefore the ability to operate on a preferential basis in SEZs can be continued through 2026.

In the period 2004–2013 the cumulative volume of investment has increased significantly in value. In 2003, the cumulative capital expenditure amounted to PLN 19,927.2 million, it's 2013, the cumulative value of investments amounted to PLN 93,141.2. This means that changes in the value of the cumulative capital expenditure exceeded 370.0%. This indicator in comparison with the results of the industry as a whole and in comparison to other industries in companies outside the zones was significantly high.

It is also necessary to pay attention to the increase in the number of entities undertaking business activity in SEZs. It is clear all SEZs in Poland were characterized by a growing interest from of the national operators, as well as foreign investors. In 2004, the number of entities operating in zones was 679, while in 2013 the figure

was 1,709, which meant increase in their number in the period by 151.7%. It should be noted that not only small and medium-sized companies but also transnational companies with an established global market position expressed interest in doing business in zones. Quite frequently entering zones by enterprises was prompted by their earlier privatization.

In the years 2004–2013 there was a dynamic increase in the number of employees in SEZs. While in 2004 the number of employees in zones amounted to a total of 74,554 employees, already in 2013 the number of employees stood at 266,700 people and, therefore, over the period considered absolute increase in the number of employees in the amount of 192,146, an increase of 257.7%. When it comes to the number of employees, the situation differed across the zones. The greatest number of employees in 2013 was recorded in Katowice SEZ and it was also high in Wałbrzych SEZ 52,575 and 36,164 employees, respectively.

In the analysed period there was a significant spatial development of SEZs in Poland. While in 2003 the total area of the zones was 7,558.2 ha, by 2013, it grew by 114.4% and amounted to a total of 16,203.7 hectares. Spatial development of specific SEZs largely depended on current activities and development plans of enterprises operating in the zones. In some of them was observed significantly more faster than the average for the total development of spatial zones, by contrast in many other parts, spatial development was relatively slow. This does not mean increasing disparities. As the area of the zone's operations should correspond accordance with the aims and objectives the region, the performance of the zone could be looked at through the lens the economic and social results achieved. Spatial development is the only additional information and shall be complementary.

Empirical material collected allows for assessment of the impact of SEZs in Poland on socio-economic development and regional changes. In the period under consideration, as well previously, has been noted a strong influence of the companies operating of SEZs on the economy of the state and the individual regions. In the first period of SEZs activity 1994–2003, development of SEZs proceeded quite rapidly and substantially not encountered limitations. It should be recognized that this period has significantly contributed to the inflow of Foreign Direct Investments to Polish economy, has accelerated the process of privatization of state enterprises and contributed to mitigating the effects of unemployment occurring. SEZs activity at that time and the use of other mechanisms in the economy, has significantly contributed to shaping the process of socio-economic transformation in Poland.

In the second period, from 2004 on, and especially after the Polish accession to the EU, the functioning of SEZs proceeded under slightly different conditions. Important in supporting regional development took EU regional policy and the policies associated with the support of the Structural Funds and the Cohesion Fund. EU budgetary measures would therefore contribute to reducing disparities in regional development Poland and in relation to the EU regions. SEZs have therefore become an additional tool stimulating economic development, parallel to the instruments of EU support.

Under the new conditions SEZs have come to be seen as a source of disrupting competition, thus could be perceived with lack of enthusiasm by the European Commission. Bearing in mind the provisions of the Treaty, it should be noted that the functioning of the SEZs is still acceptable, provided that they operate in seriously underdeveloped regions. So SEZs will continue to operate in Poland for a limited period of time, which is to be determined depending on changes in the socio-economic situation. The conclusion is that the currently established horizon for SEZs gives them the opportunity for further development.

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