

# Understanding the drivers of competitive potential of regions in Poland

—the role of clusters

Wroclaw University of Economics, Poland

Anna H. Jankowiak

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**[Abstract]** *In the article the author highlights the main factors of competitive potential of regions in Poland. The aim of the article is to present factors influencing the competitive potential of regions in Poland. The article introduces the four elements which are selected on the competitive potential and they are: foreign direct investments flowing into Poland, special economic zones, smart specialization of regions and sectors of the Polish economy and existing and potential clusters located in the regions.*

**[Keywords]** Competitive potential, clusters, Poland, smart specialization, special economic zones

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## Table

Introduction

1. Foreign direct investments in Poland
2. Special Economic Zones as a part of regional development policy
3. Smart specialization – strong sectors in Poland
4. Clusters in Poland as a source of regional competitiveness

Conclusions

## Introduction

In rapidly changing global economic conditions, competition is not only on the level of states and national economies but also on the regional level. The region's production factors, its attractiveness, the cost of labor force, foreign and domestic investors, the attractiveness of foreign capital and technology and innovation are the elements that create the competitive potential of particular regions in the country.

Poland has a tremendous competitive potential in comparison with other European and non-European countries. Poland, with its 38 million inhabitants, occupies 36th place in the world in terms of population (6th in Europe) and this is just one of many attractive factors for both foreign investors looking for workforce to produce their goods as well as for corporations looking for markets for their products and services. Many factors affect positively the competitive potential and consequently the competitive position of Poland.

Regions in Poland, as in most countries of the world, are diverse in terms of economic and social

development and therefore the regions should be analyzed, rather than the whole economy, as one organism. The aim of the article is to present factors influencing the competitive potential of regions in Poland. The article introduces the four elements which are selected on the competitive potential and they are: foreign direct investments flowing into Poland, special economic zones, smart specialization of regions and sectors of the Polish economy and existing and potential clusters located in the regions. The research method used in the article is a method of analysis of the cause - effect, which was used for the study of competitive potential of regions in Poland.

## 1 . Foreign direct investments in Poland

In the modern, world economy, foreign direct investments (FDI) are not only a flows of capital between countries, but also a form of international production. This type of foreign investment is a consequence of the decision to run a business and make a profit. Companies that through FDI become international companies, create branches in the host country and thereby expand their production or investment activities in more than one country.

FDI covers both the initial capital transaction between the direct investor and the direct investment enterprise (directly or through other related entities) as well as subsequent flows. The three elements that comprise the FDI can be indicated:

- equity capital incurred for the acquisition of shares in an enterprise outside the home country of the investor,
- reinvested profits that are not transferred by the investor outside the country of the investment,
- debt within the company in the form of short or long-term loans between the foreign investor and the direct investment enterprise<sup>1</sup>.

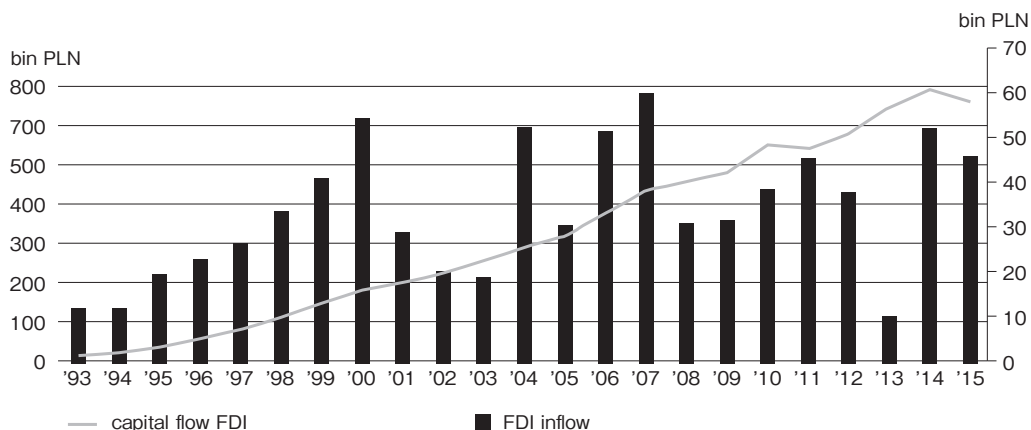
Poland is a constantly attractive destination for foreign investors who, in the context of globalization processes, move their production or services to countries that offer them better conditions. Undoubtedly, the accession to the European Union contributed to the improvement of the image of Poland in the eyes of foreign entities. Investors positively assess the Polish economic growth, the growing involvement of local authorities in attracting foreign capital, as well as qualified management and its commitment to work in foreign companies. The labor cost and its availability for foreign investors are also important. On the other hand, investors are disturbed by errors in the functioning of the state administration, often lack of transparency in the economic sphere and too weak fight against corruption in the country.

The inflow of FDI to Poland was initiated after the period of political transformation and reached the highest level in the years 2000 and 2007 (Figure 1). It should be remembered that the structure of the Polish investment flows reflects the situation on the international market and is identical to

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1 UNCTAD, World Investment Report 2008, *Transnational Corporations and the Infrastructure Challenge*, New York and Geneva 2008, p. 249.

Figure 1. Foreign direct investment flow to Poland in year 1993–2015 [in bln PLN]



Source: A. Czerniak, K. Blauth, *Co przyniosły inwestycje zagraniczne, Wpływ na gospodarkę Polski w ostatnim ćwierćwieczu*, Polityka Insight Research, p. 11.

the trends in global FDI flows. The weakest year for the Polish economy was 2013, when the value of inflows of foreign investments reached a level unmatched since the beginning of changes in the economic system of the state.

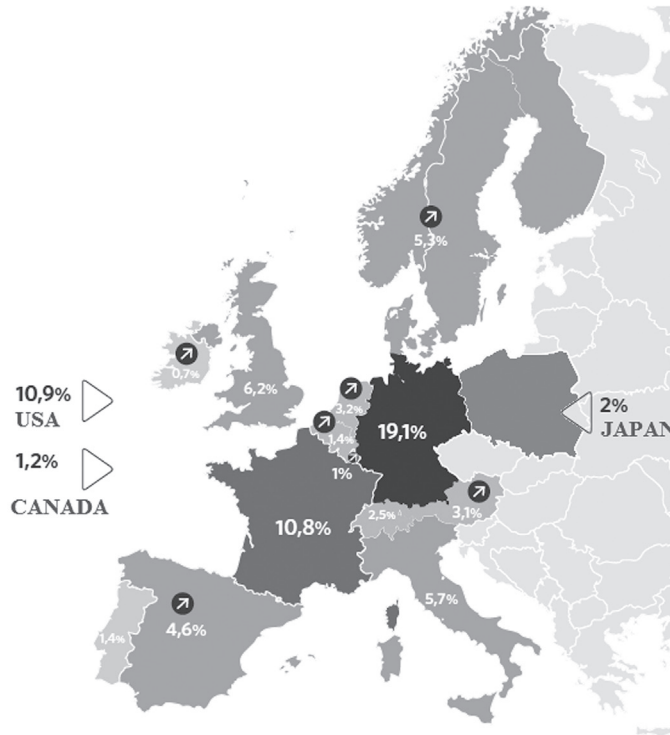
In the 1990s, the inflow of FDI into Poland was mainly related to the privatization process of national enterprises and to the dynamically growing domestic demand. Another acceleration occurred after the accession of Poland to the EU, which has greatly increased the attractiveness of the country. The profile of the activity of foreign companies that have passed from production investment to service has also changed. Nowadays, more and more investors are choosing to invest in telecom and IT services and create their research and development centers in Poland. What is important for Poland is the successive investments of corporations already present in the country, which shows the stability of the Polish economy and the constant level of attractiveness and competitiveness distinguishing the country from other countries in the region.

Considering the home country of foreign investors (Figure 2) it should be noted that the majority of investments in Poland were from the European Union countries including primarily from Germany (19.1%) and France (10.8%). American companies also made active investments, which accounted for almost 11% of all foreign investments in Poland. According to the data only 2% of investors in Poland are from Japan<sup>2</sup>, but there is a strong, regional concentration of investments in some regions of a country and also what is worth mentioning is the sectorial concentration (to be analyze later in the article).

Foreign direct investment in Poland has greatly influenced the development of the Polish economy and has translated directly into the country's economic growth. Successive manufacturing and

<sup>2</sup> A. Czerniak, K. Blauth, *Co przyniosły inwestycje zagraniczne, Wpływ na gospodarkę Polski w ostatnim ćwierćwieczu*, Polityka Insight Research, p.10.

Figure 2. FDI flow to Poland – countries of origin



Source: A. Czerniak, K. Blauth, *Co przyniosły inwestycje zagraniczne, Wpływ na gospodarkę Polski w ostatnim ćwierćwieczu*, Polityka Insight Research, p. 10

service establishments have influenced the labor market by lowering the unemployment rate in the country. Foreign companies are also largely responsible for exports in foreign trade and the place of Poland in the international division of labor. Investors located in the regions increase local attractiveness and influence the positive image of the region in the eyes of further investors. FDIs already located in the regions are an important element of the competitive potential of Poland.

## 2 . Special Economic Zones as a part of regional development policy

Special economic zones have permanently integrated into the economic landscape of both developed and developing countries. Currently there are more than 4,000 SEZ of different character that operate in the world. The process of creating new and developing existing ones will take place, although it should be noted that with the changing conditions in the world economy, the scope of activities and activities types undertaken by the zone will change. At present, for example China is creating dedicated zones for non-production, but financial services (such as the Shanghai area created in 2013), which shows that new zones are facing challenges. One of the solutions is to deepen sector specialization and develop cluster and cluster initiatives in the regions.

The Special Economic Zones operate in Poland on the basis of the Act of October 20, 1994. There

are 14 SEZs in Poland which are supposed to be closed in the year 2026<sup>3</sup>. However, there is an issue of extending the time of activity of the zones, giving the most appropriate timeliness for their operation. According to the resolution, "A zone may be established to accelerate the economic development of a part of the territory of a country, in particular by:

- 1) development of specific areas of economic activity;
- 2) development of new technical and technological solutions and their use in the national economy;
- 3) export development;
- 4) increasing the competitiveness of manufactured goods and services;
- 5) the development of existing industrial assets and economic infrastructure;
- 6) creation of new jobs;
- 7) development of unused natural resources with the principles of sustainability."<sup>4</sup>

At the end of 2016, total area of the zones in Poland amounted to 21 462 ha, and the average degree of their utilization amounted to 59.6%. The cumulative value of the investment exceeded 112 bln PLN (an increase of only 1% compared to the previous year). Investors employed in the SEZ a total number of employees of almost 332 thousand people and have 2263 business licenses<sup>5</sup>.

On the basis of data on dominant investors located in the zones, it is possible to see the sectoral specialization of particular zones, which is crucial for clustering and cluster initiatives within the SEZ. Out of the fifteen leading investors in the special economic zones, ten investors have been involved in the automotive industry (mainly automotive parts and car tire manufacturers). The automotive sector is definitely the dominant industry in most areas in Poland. The share of total automotive investment alone amounted to 24% of total in 2016<sup>6</sup>. Investors involved in the automotive industry are located in the zone of Legnica (Volkswagen) Walbrzych (Toyota), Warmia - Mazury, Pomerania, Kamienna, Krakow (Man Trucks), Katowice (General Motors and Fiat) and Kostrzyn - Slubice (Faurecia and Volkswagen).

Similar industry specialization can be observed in the production of rubber and plastics. Production of this type dominated in the Warminsko - Mazurian zone (thanks to location of Michelin company), Mielec, Lodz and Kamienna Gora. Due to the activity of major ceramics manufacturers (Paradyz and Tubadzin), branch specialization also occurs in the Lodz, Starachowice and Katowice areas, where the dominant sector is the producer of non-metallic mineral products. Manufacturers of metal products dominated the structure of Suwalki, Legnica, Slupsk and Katowice areas, while the paper industry dominates the Pomeranian, Kostrzyn-Slubice and Lodz regions. Production of wood products was dominant in the Suwalki, Slupsk, Mielec and Kostrzyn-Slubice areas.

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3 On 23 July 2013, the Council of Ministers issued 14 regulations introducing changes to the regulations on the functioning of individual SEZs in Poland (Dz.U. z 2013 r. poz. 968-981).

4 Dz.U. z 2007 r. Nr 42, poz. 274.

5 *Informacja o realizacji ustawy o specjalnych strefach ekonomicznych. As of 31 December 2016 r.*, Ministry of Economy, Warsaw, May 2017, p. 3.

6 *Informacja o realizacji ustawy o specjalnych strefach ekonomicznych. As of 31 December 2016 r.*, Ministry of Economy, Warsaw, May 2017, p. 18 and 25.

From the point of view of the innovativeness of the Polish economy, it is necessary to emphasize the specialization of the industry in the Tarnobrzeg SEZ, mainly through LG Electronics and LG Display. Investors in this industry are also present in the Warmińsko - Mazurian zone (the second unit of LG Electronics in Poland) and Pomeranian.

### 3 . Smart specialization of production in Poland

Smart specialization can be understood as an innovative approach that aims to boost growth and jobs in Europe, by enabling each region to identify and develop its own competitive advantages. Smart specialization brings together local authorities, academia, business spheres and the civil society, working for the implementation of long-term growth strategies, through its partnership and bottom-up approach<sup>7</sup>. In Poland the specialization of region in some sort of production can be clearly visible. This may be the consequences of foreign direct investments and special economic zones that exist in Poland. The specialization can be seen in household appliance production, where many foreign companies (like LG, Samsung or Bosh) cooperate with a lot of Polish firm, creating strong household appliance sector in Poland. The second example can be seen in electronics and food – related companies, which makes six regions food production oriented with a high number of related enterprises. The worth mention is the aviation sector in Poland, especially in the context of clusters. The aviation production is very well developed on the east part of Poland, where almost 100 companies produce airplanes and part to the final aviation product.

One of the most important specialization in Poland is the automotive industry, that is strong in many regions in the country. There are almost 3 thousand companies – Polish and foreign – that operate in this sector, what makes Poland a strong player on the international market. Mostly those companies produce semi-finished good and parts, that are being exported to the other countries to be assembled into the final products. The profile of automotive companies in Poland is very interesting – there are not only subsidiaries of transnational companies but also small and medium entities or even micro companies with less than 10 employees.

Poland is more and more popular not only for production but services as well. Foreign companies that started their activities in Poland from the production, now invest more capital in the service sector, mostly in the research and development (R&D). R&D centers are in such sectors like automotive, electronic, metal, IT, machinery, nanotechnology, biotechnology and pharmacy. Because of very well educated labor force in Poland with relatively low salaries per hour, Poland have a potential to be a research center in Europe.

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7 What is Smart Specialisation? European Commission, Joint Research Centre  
[http://ec.europa.eu/regional\\_policy/sources/docgener/guides/smart\\_spec/strength\\_innov\\_regions\\_en.pdf](http://ec.europa.eu/regional_policy/sources/docgener/guides/smart_spec/strength_innov_regions_en.pdf)

## 4. Clusters in Poland as a source of regional competitiveness

Relatively few companies in Poland are clustered or are a part of some cluster initiatives. Only 4% of Polish companies use this form of cooperation. However, it can be assumed that like companies of Western Europe and the USA, also Polish entrepreneurs will see the benefits of clustering. Among the reasons for the emergence and development of clusters in Poland are:

- tradition (eg Calvinarian furniture, Police fertilizers, Zakopane oscypek, education from Cracow, Warsaw, etc.)
- geographic conditions (fish processing in the Coast, IT technology in Małopolska, ceramics in Boleslawiec),
- demographic conditions - access to a relatively cheap and skilled workforce<sup>8</sup>.

The phenomenon of clustering in Poland is a relatively new, though the country has several strong regional clusters and sub-regional. Currently in Poland there are 134 clusters (and 104 entities of a cluster character or a potential clusters), which is not a significant achievement compared to most European countries. However, worth mentioning is the age of the Polish clusters. More than 60% are young clusters that developed in the years 2011 -2015. The average age of the cluster in Poland is four years. Based on these data it can be concluded that the clusters in Poland are only in the initial phase of development.

The existence of clusters in Poland and their future is closely linked to the three elements discussed earlier - with foreign direct investments, special economic zones and smart specialization. The specialization of zones in the production of components and subassemblies for the production of automobiles can be the beginning of the process of creating automotive clusters in Poland, and consequently the chance to integrate local clusters in the industry into the European automotive cluster. Within a short distance from the Polish border, there are many factories of final products, ie cars and trucks, which in their production use elements produced in Poland. The creation of strong local automotive clusters should take place in cooperation with clusters management and cluster initiatives from Germany, the Czech Republic and Slovakia.

In recent years, state authorities in most of the world's economies have seen the importance of an effective clustering policy that can affect the country's economic development. So many different policies have been launched to create favorable conditions for clustering initiatives and the creation of new clusters, and to ensure the further development of existing clusters. There is no single model of cluster policy, each country adapts it to its own needs and political, economic and social environment. Both in the United States and Europe, and in Asia, cluster support programs are being developed, demonstrating that cluster policy is a key component of local, regional and national economic policies. Especially the cluster policy in Japan can be seen as a model cluster policy for many countries in the world. Politics, despite having a broad spectrum of tools to create clusters, can't be responsible for creating clusters, but are only parts of the complicated process. Even the

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8 J. Hołub-Iwan, M. Małachowska, *Rozwój klastrów w Polsce. Raport z badań*, Szczecin 2008 p. 4

most effective clustering policy will not develop an effective cluster if the other necessary conditions do not apply. Its task is to help, create and support current activities and participate in the life of the cluster.

The aim of the cluster policy pursued within the framework of regional policy will be an impact on strengthening of competitive potential and transforming group of companies into dynamic clusters with high level of competitiveness and cooperation. These actions will be based in particular on:

- research and development,
- support for international expansion of enterprises,
- development of the quality of human capital in enterprises,
- stimulating industry cooperation,
- the creation of new businesses.

In the new economic strategy adopted by the Polish government in February 2016, clusters, classified as reindustrialization, are to be one of the five pillars of Poland's economic development. As announced by the government, the aim is to make greater use of regional and sectoral specializations, to encourage entrepreneurs to work more closely, thus creating clusters<sup>9</sup>. The dominance of selected industries and the specialization of individual zones can become the basis for natural cluster creation in regions. The directions of cluster policy in Poland are part of the EU 2020 strategy, and especially the part of the "smart specialization" concept, which assumes a concentration of activities on economic specialization with an innovative potential, which will increase the level of competitiveness of individual countries. The following tasks face cluster policy in Poland:

- Support for existing clusters and the selection of key clusters;
- Support investment in companies that create clusters and networks;
- Support for bottom-up cluster initiatives, including professional advisory services;
- Reinforcement of export - oriented clusters;
- Support for research projects in already existing clusters (enhancing the innovativeness of cluster companies).

## Conclusions

Poland is a country with high competitive potential, which can be attributed to many different economic factors. Undoubtedly one of such elements is investment attractiveness and capital inflows in the form of direct foreign investments, which each year flow into the Polish economy. Investors are transferring new production and management methods and business operations in their immediate surroundings, which may translate into an increase in the number of clusters in the regions. The factors discussed in the article complement each other and shape the investment potential and competitiveness of the regions in Poland.

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9 *Podstawy rozwoju polskiej gospodarki*, Ministry of Development, <https://www.mr.gov.pl/>.



The special economic zones have enjoyed enormous success and have attracted foreign capital of an unprecedented level. The initial objectives of the zone, ie the leveling of the economic level between regions and the creation of new jobs, have been largely achieved. Acquiring additional investors in the region contributes to increased business concentration, which is the first step in the process of cluster development. Poland should now focus its efforts on attracting high-tech manufacturing or service providers who offer higher wages to their employees and at the same time seek out qualified professionals. Creating a specialized workforce market is another phenomenon that facilitates clustering between companies.

Clear branch specialization in zones is a convenient starting point for building strong relationships between companies and consequently industry clusters. In the SEZ, where many foreign investors are located, the process of creating clusters may be easier than in other conditions. Foreign investors often operate in clusters on their home markets, so they are aware of the benefits that can be gained from cooperation. Involving the zones in the development of clustering in Poland combined with the amenities offered by the zones may solve the problem of relatively weak attachment of investors to the country. A conscious and purposeful cluster policy with active SEZs (cluster support and management) and progressive smart specialization can contribute to the creation of well-functioning regional clusters, which will affect regional competitiveness level and regional development potential.

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