

**ECONOMIC GROWTH IN THE WARMIA AND MAZURY  
VOIVODSHIP COMPARED TO SELECTED COUNTRIES  
AND REGIONS OF THE EUROPEAN UNION\***

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**Key words:** economic growth, regional policy, Warmia and Mazury voivodship.

**A b s t r a c t**

The aim of the research was to evaluate the level and the dynamics of the economic growth of Warmia and Mazury voivodship compared to the rest of the country and the average economic performance of selected countries and regions of the European Union to determine if the Polish economic gap is decreasing. The obtained results could contribute to the discussion on the efficiency and reasonability of regional policy towards achieving economic cohesion.

The analysis indicated that regions of the so-called "eastern wall" of Poland (including Warmia and Mazury voivodship) have a low rate of economic growth. This may suggest that the process of economic divergence has a permanent and objective nature.

**WZROST GOSPODARCZY W WOJEWÓDZTWIE WARMIŃSKO-MAZURSKIM  
NA TLE WYBRANYCH PAŃSTW I REGIONÓW UNII EUROPEJSKIEJ\***

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### Abstrakt

Celem badań była ocena poziomu oraz dynamiki zmian wzrostu gospodarczego województwa warmińsko-mazurskiego na tle całego kraju oraz przeciętnych wyników osiąganych w wybranych grupach państw i regionów Unii Europejskiej. Podjęto się także oceny, na ile obserwowane dysproporcje rozwojowe mają charakter trwały, czy w długim okresie się zmniejszają, czy wręcz przeciwnie – się powiększają. Uzyskane wyniki mogą stanowić pewną przesłankę do dyskusji nad skutecznością i zasadnością polityki regionalnej ukierunkowanej na osiągnięcie spójności gospodarczej.

Wyniki przeprowadzonych analiz pozwalają stwierdzić, że regiony tzw. ściany wschodniej Polski charakteryzowały się względnie niskim tempem wzrostu gospodarczego. To może wskazywać, że procesy regionalnej dywergencji mają trwały i obiektywny charakter.

## Introduction

Contemporary processes of economic globalization and economic liberalization are accompanied by an increase in the level of competition. Competition is a fundamental factor in the functioning of big companies, small and medium-sized enterprises, national governments and, recently, also between regions. The essence of economic competition between different actors is to achieve advantage in accumulating capital, in the application of modern technologies and innovations, as well as to gain access to labour, sales and supply markets. In general, countries and regions which are richer and better located have the natural conditions allowing them to achieve an advantage in these economic activities. As a consequence, the distance separating them from regions and countries with worse locations (and thus poorer regions and countries) is growing. This thesis, which is often used in discussing the application of regional policy aimed at economic convergence (including the European Union's Cohesion Policy) has many supporters. They emphasize that under conditions of free competition, investors will always choose those locations that provide the highest return rate per unit of invested capital. This condition is fulfilled mainly by highly developed regions with high levels of agglomeration effects (BOGDAŃSKI 2012, p. 27).

The aim of the research was to evaluate the level and rate of economic growth of the Warmia and Mazury voivodship compared to the whole country and average economic performance of selected groups of countries and regions of the European Union. Juxtaposition of data on the economic growth of the Warmia and Mazury voivodship, which can be defined as a peripheral region, with the economic growth dynamics of selected groups of regions (both, highly and low developed), will allow to verify the thesis that the process of economic divergence is inevitable and natural. Its confirmation or rejection may also serve to assess the effectiveness of regional policy, taken within the framework of European Union's Cohesion Policy at the beginning of a new financial perspective for 2014–2020.

## **Research methods and the time range of the analysis**

Studies on the economic growth of countries and regions are often relative. Whether the economic growth level is high or low, or its rate is fast or slow, depends on the comparison with other objects. In the presented analysis, it was done with a similar approach.

The use of comparative analysis delivers desired and valuable results only if it is conducted properly, with an adequate selection of reference objects. Entities selected for this purpose may have very different relations with a studied region. S. Korenik, for example, believes that a key factor that determines the dynamics of the economic development is the overall macro-economic situation of the country and the world. Since economic activity is increasingly a subject of the globalization, the diagnosis of its condition and dynamics in a regional dimension is not possible without taking into account the processes occurring in its national and international surroundings (KORNIK 2003, p. 106).

An assumption was therefore adopted that the analysis should have a comprehensive character. It requires careful selection of studied objects so the obtained results could be presented in a diverse context. The main part of the empirical research is presented compared to the rest of the country and selected groups of Polish voivodships, as designated on January 1, 1999. The basis for the selection was data on the level of economic growth achieved by the voivodships at the time of their designation. The first group consisted of four voivodships with the highest level of economic growth, namely: Dolnośląskie, Mazowieckie, Śląskie and Wielkopolskie. This group is briefly defined as “leaders”. The second control group also had four elements. It consisted of four voivodships which, together with the Warmia and Mazury voivodship, form the so-called “eastern wall” of Poland. These include: Podlaskie, Podkarpackie, Lubelskie and Świętokrzyskie voivodships. As it is known, this group forms a macro-region of Poland which is characterized by the lowest level of economic growth. Additionally, a common feature of these voivodships is their peripheral location.

The second part of the empirical research was based on a comparative economic analysis of the Warmia and Mazury voivodship against the average economic performance of the group of 15 countries of the so-called “old” EU and also against 9 countries (new member states) which, together with Poland, joined EU on May 1, 2004. A valuable addition to the analysis was the selection of other regions of the European Union. It was assumed that another benchmark would be the average economic results obtained by six eastern German Lander, namely: Berlin, Brandenburg, Mecklenburg – Western Pomerania, Saxony-Anhalt and Thuringen. The decision to adopt this group of regions as

a reference object was decided by several arguments. The first and the most general was, *inter alia*, the fact that these regions, similar to voivodships in Poland in the early 1990s, were subject to political and economic transformation. These areas were (and still are) also characterized by a much lower level of economic growth in comparison with the rest of Germany. Regional GDP *per capita* of former DDR accounted only for 40% of the average value of the western Länder (MOSZYŃSKI 2012, p. 3). Labour productivity in eastern Germany was close to half that of western regions (MAŁACHOWSKI 2001, p. 88). Since the beginning of the transformation process, these regional economies were, therefore, characterized by economic backwardness in relation to the rest of the country. Adoption of this group to the analysis also expanded the subject scope of the second part of the empirical research.

An important issue in studies on the level and rate of economic growth is the length of the study period and also an appropriate selection of measures. In the presented material, the research period covered 2000–2010. The year 2000 was the second full year as an expanded voivodship. The year 2010 is, in turn, the last for which comparable data were available at the time of the study (January 2014). Data were collected from Główny Urząd Statystyczny (GUS) and Eurostat database.

Regarding the measures of economic growth level and its dynamics, it was assumed that a synthetic approach is the most appropriate one. Such a condition is fulfilled by Gross Domestic Product calculated in different relations, for example, in both absolute figures as well as a ratio of a national GDP or as a measure calculated per inhabitant (*per capita*). The use of GDP *per capita* as a basic criteria to make comparisons between regions is also justified by the fact that its value was decisive in qualifying the region to gain public financing under the Convergence objective during the financial period 2007–2013 (PUIG-CERVER-PENALVER, 2007, p 179).

## **Regional economic growth and development in theory**

Issues of regional economic growth and development have been the subject of many studies in many fields and scientific disciplines. Theoretical reflections on the nature and course of these processes are among the most popular thematic areas. Theories that relate mainly to economic issues stem from two main schools of economics.

The first (and a very general) trend which until today has a significant impact on practical aspects of regional policy of national states and of the European Union, are the classical and neo-classical economic doctrines. According to these doctrines, economic growth and development on the local and

regional scale are induced by a specific set of endogenous factors and developmental conditions. The second trend, with a similar scale of impact on regional policy, is sometimes identified with the Keynesian school of economics. This trend treats regional development as a part of larger process occurring firstly in the whole national economy, after which it is transmitted to regions (BOGDAŃSKI 2010, p. 29).

In the development of economic thought, one can observe a gradual evolution of regional growth and development theories from theories of exogenous (top-down) theories to the endogenous (bottom-up) development theories. Most recent theories strongly emphasize the importance of endogenous conditions in stimulating regional economic development. According to these theories, since the internal potential of a region is immobile it has to be used in the best way to ensure full employment together with high productivity of other production factors (STAWASZ 2004, p. 68–69). The source of endogenous development is the creation, expansion and use of internal resources at every spatial level. As in macroeconomic models, theories of endogenous development have a special interest in knowledge and innovations as the main determinants of the process of economic development (SZAJNOWSKA-WYSOCKA 2009, p. 83–84).

Such recognition of new, yet important, determinants of regional development clearly shows a distinctly different way of stimulating this process. Technological progress is not exclusively determined by external factors, nor can it be fully controlled and planned by central authorities. On the contrary, the ability of regions to effectively compete and develop in the era of the information economy is largely determined by their internal potential and ability to learn by doing (learn by practice). It is also dependent on the efficiency of information flow between regional actors and on the quality of human and social capital (NIJKAMP, ABREU 2009, p. 5–6).

Among endogenous regional growth and development theories (which significantly contributed to understanding of this process nature and also essentially determined the direction and tools of regional policy) one can distinguish such theories as: the theory of industrial districts and the associated concept of territorial system of production (TSP), cluster theory and the theory of regional systems (networks) of innovation. Some of the issues and problems typical for endogenous regional development theories are also included in another significant group of theoretical considerations on the nature and sources of the process of economic development of regions – New Economic Geography (CHURSKI 2004, p. 5).

## Warmia and Mazury voivodship economy compared to Poland and selected groups of voivodships

The economic growth dynamics of the Warmia and Mazury region compared to Poland and two groups of selected voivodships is presented in Tables 1 and 2 using fixed prices from 2000.

Table 1  
GDP *per capita* of selected voivodships as a percentage of GDP *per capita* of Poland  
(in %, fixed prices from 2000)

| Year                           | Warmia and Mazury | Leaders | Eastern Wall |
|--------------------------------|-------------------|---------|--------------|
| 2000                           | 78.6              | 117.4   | 73.0         |
| 2001                           | 76.4              | 117.8   | 74.0         |
| 2002                           | 75.8              | 117.5   | 74.1         |
| 2003                           | 78.5              | 117.6   | 74.2         |
| 2004                           | 77.1              | 118.5   | 72.7         |
| 2005                           | 76.4              | 119.0   | 71.8         |
| 2006                           | 75.2              | 119.5   | 71.4         |
| 2007                           | 74.2              | 119.8   | 71.7         |
| 2008                           | 73.8              | 119.5   | 72.8         |
| 2009                           | 73.9              | 120.7   | 71.8         |
| 2010                           | 73.4              | 121.6   | 70.9         |
| Change<br>in percentage points | -5.2              | 4.2     | -2.1         |

Source: own calculations based on Bank Danych Lokalnych GUS, [http://www.stat.gov.pl/bdl/app/strona.html?p\\_name=indeks](http://www.stat.gov.pl/bdl/app/strona.html?p_name=indeks) (access: 03.01.2014).

Based on the data presented in Table 1 it can be seen that the economic growth observed in the whole country was faster than the GDP *per capita* growth rate in the region of Warmia and Mazury. During the study period, the share of studied voivodship in the national GDP declined from 2.9% to 2.7%, i.e. by 0.2 percentage points. This gap is even more pronounced when comparing data calculated per inhabitant. The GDP *per capita* in Warmia and Mazury in percentage relation to the national GDP decreased from 78.6% to 73.4%, which means that the difference is larger in 2010 compared to 2000 by 5.2%.

An analysis of the figures presented in Table 1 also reveals that not only in the region of Warmia and Mazury did the distance in relation to the average level of GDP *per capita* in Poland increase. The average relations in the group of four other voivodships of the eastern wall were also the same direction. **It is worth noting, however, that the gap for Warmia and Mazury grew**

**faster, which means that the rest of the eastern wall regions are at the same level of economic growth. This indicates the existence of f-conditional convergence between these voivodships.**

In contrast to the observed process of economic convergence between voivodships of the eastern wall, the relations between Warmia and Mazury and the group of regional “leaders” are completely different. The data show that the share of this group in national GDP, not only in the initial year (2000), was significantly higher (by 17.4 percentage points) in comparison with the national average, but throughout the study period it increased by a further 4.2 percentage points. **It follows that the growth of GDP per capita in Warmia and Mazury was relatively slower than the average growth dynamics of the whole country due the relatively faster growth or regional “leaders”.**

Table 2  
GDP per capita growth rate in Warmia and Mazury, Poland and groups of selected regions (previous year = 100%, in fixed prices)

| Year                  | Warmia and Mazury | Poland | Leaders | Eastern wall |
|-----------------------|-------------------|--------|---------|--------------|
| 2000                  | 100               | 100    | 100     | 100          |
| 2001                  | 96.5              | 99.3   | 99.4    | 100.7        |
| 2002                  | 101.1             | 101.8  | 101.7   | 101.9        |
| 2003                  | 107.2             | 103.6  | 103.7   | 103.7        |
| 2004                  | 104.1             | 106.0  | 106.9   | 103.9        |
| 2005                  | 103.2             | 104.2  | 104.5   | 102.8        |
| 2006                  | 105.1             | 106.8  | 107.2   | 106.2        |
| 2007                  | 107.0             | 108.3  | 108.6   | 108.9        |
| 2008                  | 103.5             | 104.0  | 103.9   | 105.6        |
| 2009                  | 101.8             | 101.7  | 102.7   | 100.3        |
| 2010                  | 102.0             | 102.6  | 103.3   | 101.4        |
| Dynamics<br>2000=100% | 135.8             | 145.3  | 150.5   | 141.1        |

Source: own calculations based on Bank Danych Lokalnych GUS, [http://www.stat.gov.pl/bdl/app/strona.html?p\\_name=indeks](http://www.stat.gov.pl/bdl/app/strona.html?p_name=indeks) (access: 03.01.2014).

The scale of disparities in the level of economic growth between studied voivodships is clearly visible when analysing the figures presented in Table 2. Throughout the studied period, the fastest average rate of GDP per capita growth (approximately 50.5%) occurred among the regional “leaders”. Because of the relatively high dynamics of economic growth in this group, the GDP per capita of the whole country also grew quite fast (by 45.3%).

The lowest growth rate could be observed in the region of Warmia and Mazury (approximately 35.8%) and was noticeably higher in the group of the

other four voivodships of Eastern Poland (around 41.1%). This confirms the thesis of the progressive economic divergence between regional leaders in economic growth and Warmia and Mazury as well as other representatives of the eastern wall of Poland. In turn, the slower dynamics of economic growth in the Warmia and Mazury region in comparison with Podlaskie, Lubelskie, Podkarpackie and Świętokrzyskie voivodships confirms earlier findings, that in the case of these regions, f-conditional economic convergence can be observed.

### **Warmia and Mazury voivodship against selected regions of the European Union**

In order to present data on the dynamics of economic growth in the Warmia and Mazury region in a broad perspective, the second part of the research included regions from outside the Polish economy as reference objects. It was decided to select three groups of regions for further analysis. The first one consisted of regions of the fifteen countries of the so-called “old EU” (EU-15). The second group was formed by regions of countries which on the 1st of May 2004, together with Poland, joined the European Union. Finally, the last group consisted of six Lander of the former DDR. In this part of the analysis, all results were based on purchasing power parity<sup>1</sup> and the data source was different. Data were obtained from the statistical database of Eurostat, not GUS. In some cases, it caused the presented figures to differ from the data analyzed in the previous stage of the study.

Table 3 presents data characterizing the *per capita* GDP value of Warmia and Mazury voivodship as a percentage of the average value of this measure in groups of selected regions of the European Union. The presented data indicate that virtually throughout the entire study period, Warmia and Mazury was at a low level of economic growth.

Regardless of the specific economic growth disparities, there are very interesting development trends which could be observed in subsequent years. One can notice characteristic similarities and differences between studied groups of regions and countries of the EU. Changes in the value of GDP *per capita* in Warmia and Mazury regions are close to those observed in EU-15 and in the former DDR. Although during years 2001 and 2002 this relation

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<sup>1</sup> Purchasing power parity (PPP) is one of the techniques used to assess the relative value of a currency. By taking into account the differences in price levels between countries, it shows how much goods and services could be purchased in the studied economy per one unit of the currency. Purchasing power parity therefore provides a better basis to make comparisons on the level and the dynamics of economic growth.

Table 3  
GDP *per capita* of Warmia and Mazury voivodship as a percentage of EU-15, EU-9 and East Germany  
Länder GDP *per capita* value (in PPP)

| Year                           | EU-15 | EU-9 | Eastern Germany |
|--------------------------------|-------|------|-----------------|
| 2000                           | 32.9  | 61.8 | 45.0            |
| 2001                           | 31.3  | 57.5 | 43.3            |
| 2002                           | 32.1  | 57.2 | 44.2            |
| 2003                           | 33.9  | 58.2 | 45.8            |
| 2004                           | 34.7  | 57.8 | 46.5            |
| 2005                           | 34.6  | 56.0 | 46.0            |
| 2006                           | 35.0  | 55.1 | 46.2            |
| 2007                           | 36.2  | 54.9 | 47.1            |
| 2008                           | 37.5  | 55.0 | 48.9            |
| 2009                           | 40.5  | 60.4 | 52.0            |
| 2010                           | 41.6  | 62.2 | 52.2            |
| Change<br>in percentage points | +8.7  | +0.4 | +7.2            |

Source: own calculations based on Eurostat, <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/> (access: 04.01.2014).

declines, from 2003 (the year preceding Polish accession to the European Union) to 2008, there was a gradual improvement in favor of Warmia and Mazury. In relation to EU-9 these changes progressed differently. After 2001, one can observe a clear deterioration in the relationship of GDP *per capita*, which lasted practically until 2007, when it reached the lowest level of approximately 54.9%. In practice, almost all of the improvement in the relation of 0.4 percentage points, which occurred between 2000 and 2010, was a result of changes in the two last years (2009 and 2010). During two last years, in relation to all groups of regions in the EU there was a rapid improvement in favor of the Warmia and Mazury voivodship. In comparison with EU-15 it was 3 percentage points, to EU-9 it was 5.4 percentage points and in comparison to the former DDR it was 3.1 percentage points.

The direct causes, which may explain the changes in the presented relations, are presented in the studies of, among others, R. Warżała. They show that in March 2007 in Warmia and Mazury voivodship, there was the peak of the business cycle which had lasted since 2002. The lowest point, that signalled a return to economic growth, occurred in March 2009 (WARŻAŁA 2012, p. 119, 145). It should be noted that the period of economic downturn in Warmia and Mazury coincides exactly with the economic crisis among the EU-15 and Eastern Germany in 2008–2009 and among the EU-9 in 2009 (Table 4).

Table 4

GDP *per capita* growth rate  
(previous year = 100%, in purchasing power parity)

| Year                  | Warmia<br>and Mazury | Poland | EU-15 | EU-9  | Eastern<br>Germany |
|-----------------------|----------------------|--------|-------|-------|--------------------|
| 2001                  | 98.6                 | 102.2  | 103.7 | 106.0 | 102.6              |
| 2002                  | 105.6                | 105.3  | 103.1 | 106.2 | 103.6              |
| 2003                  | 106.7                | 102.0  | 100.8 | 104.7 | 102.8              |
| 2004                  | 106.3                | 108.9  | 103.8 | 107.0 | 104.7              |
| 2005                  | 103.5                | 104.5  | 103.7 | 106.9 | 104.6              |
| 2006                  | 105.7                | 107.0  | 104.7 | 107.4 | 105.3              |
| 2007                  | 108.6                | 110.6  | 104.9 | 109.0 | 106.5              |
| 2008                  | 103.0                | 103.7  | 99.3  | 102.8 | 99.2               |
| 2009                  | 101.0                | 100.7  | 93.5  | 92.0  | 95.0               |
| 2010                  | 106.7                | 107.7  | 103.9 | 103.5 | 106.2              |
| Dynamics<br>2000=100% | 145.7                | 152.6  | 121.4 | 145.5 | 130.5              |

Source: own calculations based on Eurostat, <http://epp.eurostat.ec.europa.eu/portal/page/portal/eurostat/home/> (access: 04.01.2014).

An explanation of other direct causes of changes in the relations described earlier can also be found by analysing the figures presented in Table 4. In this table, data relating to Poland were also added. It can be noted that during the studied period, the fastest economic growth was observed in Poland, followed by Warmia and Mazury and EU-9 regions. A relatively slow rate of GDP *per capita* growth was observed in the Länder of eastern Germany and the slowest was in EU-15.

The presented data show (Tables 3 and 4), that throughout the studied period in the case of Warmia and Mazury (except 2001) and Poland one could observe steady economic growth. However, in 2008 and 2009 there was a clear slowdown in the growth dynamics. During the same years (especially in 2009) in the EU-15 and in Eastern Germany, a significant reduction in the level of GDP *per capita* was noted. An even greater decrease was observed in 2009 in the EU-9. It follows that the economic crisis which occurred in many European countries had a decisive influence on a more favourable assessment of the economic growth in Poland and in Warmia and Mazury. The relatively good economic results of these areas against two groups of countries and selected regions of the EU are rooted in continuing economic growth. However, part of this favourable assessment is a result of the economic crisis, which caused an absolute decrease in the GDP *per capita* in EU-15, EU-9 and in the Lander of eastern Germany in 2008 and 2009.

## Conclusions

1. The presented research results confirm the existence of two distinctively different paths of economic growth for regions in Poland. The process is dominated by relatively fast-growing regional “leaders”. At the other end, there is the group of relatively slow growing voivodships of the eastern wall, with Warmia and Mazury among them. Such division may be explained in different ways – including rational arguments. There is no doubt, however, that in the long term, it will lead to the accumulation of negative effects resulting from growing economic disparities. Already, Poland is split into areas relatively attractive to business and, hence, also to other activities (culture, sport, science), while on the other hand, there are areas moving towards economic and social degradation and this gap will probably increase in the foreseeable future. The lack of opportunities to communicate quickly with large urban centres is just one of the practical implications of such exclusion, in this case communication. Today, young people migrate from poor regions, not only to Warsaw, but mainly to better-developed regions and countries of the European Union. Hence, the faster economic growth of today;s backward areas, including Warmia and Mazury, is expected and necessary mainly to reduce the scale of social exclusion.

2. The results of the second part of the analysis show that Poland and the Warmia and Mazury region grew faster than the EU- 15 and eastern Lander of Germany. Thanks to this, the economic disparities over the study period between these areas declined. It is, however, a very optimistic conclusion, because it omits the most important cause of this decline – the economic crisis which occurred among some countries in Western Europe. The crises caused an absolute decline in GDP in 2008 and 2009. Therefore, there is no question of systematic improvement in relations between GDP growth rates. Also worth noting is the fact that although one could not observe a decline of GDP in Poland during the crisis, there was a clear slowdown in the growth rate. This indicates a fairly strong connection between the Polish and European (especially German) economies.

3. If one considers only extreme years when analysing relations in the GDP level between Warmia and Mazury and EU-9, it could be concluded that there was virtually no change. It means that the economic distance between them became stable. The relationship between GDP *per capita* of Warmia and Mazury and the EU-9 countries in 2010 was 6.2:10, which means that the chances to relatively quickly close this gap are small.

The research results could be interpreted in two ways. The first interpretation assumes that the phenomenon of the existing economic disparities between regions is objective. Therefore, one should not worry about the differences and reduce the external actions taken to decrease them. Faster economic

growth of regions with a higher level of economic growth, in this approach, is seen as a positive. It is an indicator of the higher economic efficiency of the whole country and, thus, a faster rate of economic growth. A second interpretation is completely different. It assumes that existing and (what is worse) increasing, regional disparities in the level of economic growth in a country are undesirable for many reasons and they, therefore, should be decreased. If the latter opinion is correct, there are two different ways to achieve a higher level of economic cohesion. The first way is through the doctrine of development called “top-down”, and the second, the doctrine of development “from below”. It should be noted, however, that only properly-matched relations between the two doctrines and, thus, their rational composition may lead to successful economic convergence among countries and regions, for the benefit of all participants in society. Thus, it is worth discussing methods of stimulating economic growth, especially due the fact that the research results do not indicate that the gap in the level of economic growth, even in a long period, is being reduced.

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