TENDENCIES OF CHANGES IN THE LEVEL OF ECONOMIC DEVELOPMENT OF NORTHERN POLAND

Key words: economic development, economic indicators, Northern Poland

ABSTRACT. The aim of the analysis was to determine the trends of changes in the level of economic development in four voivodships: West Pomeranian, Pomeranian, Warmian-Masurian and Podlaskie. The study discusses the genesis of economic development, using the example of countries with oil deposits. The thesis presents the approach of development by Adam Smith, John S. Mill, Paul Krugmann and others. The research was carried out based on secondary data obtained from the Local Data Bank of the Central Statistical Office. The publication applies, among others, an analysis of sources of domestic and foreign literature as well as an index analysis, the results of which were presented in tabular form. For the purpose of this publication, the author used an analysis of sources of domestic and foreign literature as well as an analysis of secondary data expressed in real terms, the results of which have been presented in tabular form. The publication uses current quality data. The assessment of changes in the context of development covered the years 2004-2017. The analyses made indicate an increase in the level of economic development in individual voivodships in the examined period. The research has shown a growing trend in the value of analysed economic values (including GDP per capita). The Pomeranian Voivodship achieved the greatest growth. A divergence in the level of economic growth of voivodships located in eastern and western parts of Poland is visible. The voivodships located at the eastern Polish border, i.e. Warmian-Masurian and Podlaskie, show a significant slowdown, achieving the lowest development parameters.

INTRODUCTION

The term economic development is understood as long-lasting changes taking place in the economic structure on three levels: institutional, production and ownership. It is a concept broader than economic growth, and for its analysis, apart from quantitative indicators (e.g. GDP [Milewski 1999], DN), it is necessary to analyse qualitative conditions [Wojciechowska 2011]. Current management conditions differ significantly from conditions prevailing several decades ago when success was largely determined by the availability of raw materials. At present, and since the beginning of the 21st century, knowledge and skills have been recognised as the main resource. Changes that take place in the economy allow to overcome barriers encountered in the environment more easily and generate new initiatives and solutions more quickly. Entrepreneurship is one of the factors contributing to economic development [Janik 2006].
It is important to notice that the state economy may show economic growth without economic development. The easiest way to illustrate this is to use the example of oil producers. Countries in which income is strongly dependent on oil exports can increase economic growth as a result of an increase in the extraction of raw materials. The economic development of the country in such conditions may be negligible, if new possibilities changing the state’s economic structure (e.g. new branches of industry) are not created. The development of these branches could be partially or fully financed from the export of raw materials [Duda 2003].

MATERIAL AND METHODS

The aim of the work is to determine the level of economic development of Northern Poland based on selected diagnostic features, and to examine the trend of changes over the years 2004-2017.

To pursue the objective, the publication uses, among others, an analysis of sources of domestic and foreign literature as well as secondary data, the results of which are presented in a table.

When analysing economic development, the following quantitative parameters are taken into account: budget revenues and expenditure, GDP per capita, expenditure on research and development, investment expenditure and many other economic parameters. For the purposes of this publication, the targeted choice method has been used, selecting the following indicators:

- \( X_1 \) – Gross Domestic Product per capita,
- \( X_2 \) – disposable income per person,
- \( X_3 \) – total number of business entities,
- \( X_4 \) – investment expenditure per capita,
- \( X_5 \) – expenditure on the reduction of environmental pollution,
- \( X_6 \) – natural increase per 1000 people.

The study covered four voivodships: West Pomeranian, Pomeranian, Warmian-Masurian and Podlaskie, referred to as Northern Poland due to location.

REVIEW OF DEFINITIONS OF ECONOMIC DEVELOPMENT

According to Ewa Oziewicz [1998], the process of economic development is accompanied by structural changes, because apart from changes in the volume of quantitative indicators, qualitative changes are also present. It is a complex process leading to a change in forms of organisation and economic cooperation. Despite the qualitative aspect, economic development can be viewed from a strictly economic perspective, which does not take social, cultural, ideological, historical or political aspects into account.

Adam Smith, a Scottish philosopher and thinker, went down in history in the field of economics as the creator of the work *Research on the Nature and Causes of the Wealth of Nations* from 1776 [Smith 2012]. In his work, the philosopher emphasized the importance of economic development for the economy, discussing the causes of economic development...
in Europe and Great Britain. Since then, there has been improvement in the GDP growth rate per capita, with some moments of decline, but despite this, growth dominates the period. Every year when creating the national budget project for the next year, the GDP level is foreseen. A rising GDP is important from the point of view of economic policy, because if growth per capita is observed in the long run, it is evidence of improving living standards of inhabitants [Beksiak 2000].

John Stuart Mill, the second representative of classical economics, considered development to be a dynamic phenomenon. He analysed development from various points of view, namely, assessing the impact of industrial development on prices. These observations were accompanied by improvements in the production process as well as a growing share of trade, which contributed to the lowering of production costs. The second direction of analysis was the assessment of population growth and the impact of industrial development on the formation of wages and profits [Narski 2001].

As for economics, one of its fields concerns the economic theory of development, which includes the theory of dynamic efficiency [Śledziński, Huerta De Soto 2010].

When discussing the issue of economic development, one should look at the paradigm in economics. The concept was introduced into the economy by Tomas Kuhn, according to whom the theory is recognised in science as correct, and perceived as a model in further research and analysis. The paradigm of economy in the field of development is identified, among others, with increasing affluence per person [Kuhn 1985]. When we analyse the history of mankind, we may notice that the periodization into eras was often made. The last of the eras is the best and is the culmination of the history of mankind. This approach forms the basis of the paradigm of a one path economic development. The level of economic development in Marx’s concept was connected with the degree of development of productive forces. In order to negate Marx’s theory of the periodization of history, Walt Rostow [1960] presented an alternative idea – the theory of Stages of Economic Growth. It took into account the interdependence of economic and random events and the possibility of combining them with the population theory. The basis of the theory was the conviction that the countries of the world will double the phenomenon of economic development of the countries of North America and Western Europe. An exemplary stage of growth was traditional society, in which almost 75% of society lived off agriculture, where economic growth was dependent on favourable natural conditions (including weather conditions). Over time, scientific solutions and inventions began to be applied in agriculture, which meant that the traditional community was categorised as pre-Newtonian. Another stage of growth was the creation of the take-off, the beginning of which was located at the turn of the 17th and 18th centuries. It is believed that the whole economy up to that point was underdeveloped, however, the stage covered the agricultural revolution. The first entrepreneurs who appeared were not afraid to take risks and, thanks to them, it was the first time an increase in the investment rate appeared. The economy began to use scientific solutions, which contributed to the improvement of efficiency and productivity, thus giving the possibility for the labour force to penetrate between the branches of the economy. As a result, competition for initially domestic markets began, followed by world expansion [Bartkowiak 2013].
When talking about the eighties and nineties, theories of economic development were associated with the so-called Washington consensus, associated with measures aimed at accelerating the development of developing countries. These activities include, i.a., foreign trade liberalization, deregulation, monetary and fiscal policy as well as maintaining inflation and interest rates low [Piasecki 2003]. A characteristic feature of this period is Paul Krugmann’s stance. He believed that “... the views of supporters of the state economy result from the erroneous understanding of even the simplest facts and economic concepts” [Krugman 1996]. In line with the approach of the new liberal school, certain conditions must be met to drive the development of countries to sustainable economic development [Piasecki 2003]:

- a close relationship between economic growth and an open economy,
- compliance with diplomatic procedures, enabling the acceleration of development thanks to a higher level of social acceptance,
- resource allocation possible when the global economy is under pressure from competitors.

Jan Tinbergen, a Nobel Prize winner, in his research, postulates continuous economic development because capitalism is accompanied by an uninterrupted increase in the size of the state sector in the economy of the country, and the tax system takes 25% of national income, which greatly increases the possibility of state interference in the economy, indicating the significant purchasing power that the state represents. It gives the opportunity to influence investment processes and increase consumption in society. According to Jan Tinbergen, changes taking place in the state lead to social economy. He understands optimal economic development as a process which is desired resulting from constant changes in capitalism. The fundamental social goal is to maximize the welfare of society [Narski 2001].

In many cases, the words “growth” and “development” are used interchangeably. These concepts are related to each other, but economic growth is a narrower concept expressed in terms of quantity, while development is a wider concept, expressed quantitatively and qualitatively. It must be remembered, as it was mentioned earlier, that economic growth does not always have to be accompanied by development. However, there is no economic development without growth.

As an example of quantitative measures in the analysis of economic development, the following indicators, among others, are used: GDP per capita, expenditure on R&D, expenditure on investments and total expenditure. These are examples of quantitative variables, but to measure the level of development, it is also necessary to apply qualitative measures, such as gender, birth rate, education level, and average life expectancy.
RESEARCH RESULTS

As to the location of selected voivodships, three of them: West Pomeranian, Pomeranian and Warmian-Masurian cover areas with access to the Baltic Sea – which forms its basis and gives opportunity to benefit from the development of tourism and entrepreneurship in these regions. The development of entrepreneurship contributes to economic growth, and is a stimulus for economic development manifested, for example, by better and easier access to cultural events, due to the fact that development is not only associated with quantitative but also qualitative changes. At the same time, the Warmian-Masurian Voivodship borders with Russia, while Podlaskie borders with Lithuania and Belarus. A well-known opinion about the less developed eastern part of Poland is confirmed, as the Warmian-Masurian and Podlaskie Voivodships are clearly distinguished by lower economic development parameters, such as GDP, income per capita and the number of business entities in the year under review. The first parameter examined for the assessment of economic development was the value of gross domestic product per capita (Table 1).

Based on Table 1 of the surveyed voivodships, the highest level of GDP per capita is achieved by the Pomeranian Voivodship, reaching PLN 46,913 per person in 2016 (an increase of PLN 22,919 per person compared to 2004). In second place, in Northern Poland, is the West Pomeranian Voivodship, whose GDP per capita amounted to PLN 22,038 per person in 2004, and in 2016 PLN 40,592 per person. The lowest level of GDP was recorded in the Podlaskie Voivodship in 2004 (for comparison – in the Warmian-Masurian Voivodship, in the same year, it was higher by PLN 471 per person). Summing up the changes in the value of Gross Domestic Product in 2004-2016, it should be noted that year-by-year, the value of the parameter increases, reaching higher and higher values per capita. Comparing 2004 and 2016, all voivodships saw an increase in the value of GDP per capita.
Table 2. Disposable income per person in the years 2004-2017

<table>
<thead>
<tr>
<th>Region</th>
<th>Disposable income per person [PLN]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>735.4</td>
</tr>
<tr>
<td>Podlaskie</td>
<td>644.88</td>
</tr>
<tr>
<td>Pomeranian</td>
<td>753.32</td>
</tr>
<tr>
<td>Warmian-Masurian</td>
<td>657.68</td>
</tr>
<tr>
<td>West Pomeranian</td>
<td>762.04</td>
</tr>
</tbody>
</table>

Source: own study based on CSO data [GUS 2004-2017]

Table 3. Total number of business entities in the years 2009-2018

<table>
<thead>
<tr>
<th>Region</th>
<th>Total number of business entities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>3,742,673</td>
</tr>
<tr>
<td>Pomeranian</td>
<td>249,262</td>
</tr>
<tr>
<td>Warmian-Masurian</td>
<td>114,821</td>
</tr>
<tr>
<td>West Pomeranian</td>
<td>215,079</td>
</tr>
</tbody>
</table>

Source: own study based on CSO data [GUS 2009-2018]
ships included in Northern Poland recorded an almost two-fold increase in gross domestic product per capita. Another parameter used in the study to assess changes in the level of economic development was disposable income (Table 2).

Among the surveyed voivodships, the highest disposable income is achieved by the inhabitants of the Pomeranian Voivodship, increased by ~900 PLN per person over 13 years; in 2014 in the Warmian-Masurian Voivodship, there was a decrease in disposable income by less than PLN 60 per person, in subsequent years an increase in income was recorded again. As for the West Pomeranian Voivodship – the year 2013 was a period of a drop in disposable income, as in the case of Warmia and Mazury, and, in the following years, an increase in the value of this economic parameter was also noted. In 2004-2017, disposable income per capita increased almost two-fold in the analyzed voivodships, which indicates an improvement of the material situation of society, and thus the quality of life.

The next economic parameter was the number of total business entities (Table 3). Creating enterprises affects economic growth and, finally, the development of individual regions. A desirable situation is a growing number of business entities, which would translate into a drop in the unemployment rate, a reduction in the risk of social pathologies and other problems, including addictions among the non-employed part of the community.

Among the administrative units surveyed, the largest number of economic entities is registered in the Pomeranian Voivodship (over 296 thousand), and the least in the Podlasie Voivodship (over 103 thousand). In the analysed period, the only decrease was recorded in the number of business entities by the West Pomeranian Voivodship in 2011 and 2014, and the Podlaskie voivodship in 2011. In 2009-2018, the largest number of new entities was registered by the Pomeranian Voivodeship – over 47,000.
As the fourth economic parameter, the level of investment expenditure per capita was chosen, it includes both investment in the private sector, as well as the public sector – the table presents the level of total expenditure (Table 4).

In comparison to Poland’s investment outlays, only the Pomeranian Voivodship exceeds average Polish expenditure per capita by PLN 610 in 2008. The lowest expenditure is recorded in the Podlaskie Voivodship, a slightly higher expenditure is incurred by the Warmian-Masurian and West Pomeranian Voivodships. A visible decline in the level of investment outlays for all analysed voivodships was recorded in 2016, but a year later a visible increase in funds transferred for the development of the private and public sector was observed.

In the years 2004-2017, the level of investment outlays per person, in the analyzed voivodships, has more than doubled, thus contributing to the economic development of the regions. The method of purposeful selection, as a variable of economic development, selected expenditure borne in individual voivodships in order to reduce pollution, the results of which are presented in the table (Table 5). Parameters from status range and environmental protection are examples of qualitative variables.

The smallest expenditure on pollution reduction are borne by the Warmian-Masurian Voivodeship (only in 2005, 2008 and 2009, expenditure exceeded PLN 14.8 million) and Podlaskie, which, in 2012, failed to incur any expenditure. As for the Pomeranian and Zachodniopomorskie Voivodeship, taking into account the years 2004 and 2017, the value of outlays in both areas increased almost 10-fold. The highest expenditure in Pomorskie were recorded in 2014 (PLN 262 million), and Zachodniopomorskie in 2017 (PLN 253.4 million). The increase in expenditure on pollution reduction is extremely important, as evidenced by a growing awareness of the need to care for the natural environment. In Poland, expenditure increased almost three-fold comparing to the first and last year of the analyzed time series.
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Natural increase per 1,000 inhabitants was selected as the qualitative variable of economic development, the results of which are presented in the table (Table 6). Parameters in the field of population status are a source of qualitative data.

Taking into account natural increase, the West Pomeranian region looks the worst, achieving negative growth in 2013-2019 by deepening from -0.9 (2013) to -1.9 (2018). An extremely different situation is noted in the Pomeranian Voivodship, which has a positive natural increase in the entire analysed period. The Podlaskie Voivodship, similarly to the Zachodniopomorskie voivodship, maintains a negative natural growth throughout. Only in 2014 and 2017, Warmińsko-Mazurskie showed a positive increase of 0.6 and 0.1. It should be noted that the creation of the “500+” programme failed to cause a rapid natural increase, which decreased in 2018 compared to 2017.

<table>
<thead>
<tr>
<th>Region</th>
<th>Natural increase per 1000 people</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Poland</td>
<td>-0.5</td>
</tr>
<tr>
<td>Podlaskie</td>
<td>-1.3</td>
</tr>
<tr>
<td>Pomeranian</td>
<td>1.7</td>
</tr>
<tr>
<td>Warmian-Masurian</td>
<td>-0.2</td>
</tr>
<tr>
<td>West Pomeranian</td>
<td>-0.9</td>
</tr>
</tbody>
</table>

Source: own study based on CSO data [GUS 2013-2018]

SUMMARY AND CONCLUSIONS

The concept of development itself is a broader concept than the concept of economic growth. The first difference lies in its interpretation, as increase is expressed in terms of quantity, while development, besides the quantitative approach, is also expressed qualitatively.

Taking into consideration changes in the value of GDP in 2004-2016, it should be noted that year-by-year, the value of the parameter increases, reaching higher and higher values per capita.

When it comes to Gross Domestic Product per capita and disposable income per capita, the highest results are achieved by the Pomeranian Voivodship.

Based on the analyses of six variables, it can be pointed out that an increase in the level of economic development is visible in voivodships located in Northern Poland. The Pomeranian Voivodship has the greatest growth, having more than twice as many business entities than the Podlaskie Voivodship. In this voivodship, as the only one, a positive natural increase is achieved in the analyzed period, hence it is the region with the highest level of economic development in Northern Poland. A divergence in the level of economic growth of voivodships located in the eastern and western parts of Poland is
visible. The voivodships located at the eastern Polish border, i.e. Warmian-Masurian and Podlaskie, show a significant slowdown, achieving the lowest development parameters. Explicit economic development is not observed in the West Pomeranian Voivodship, located at the western border of Poland. This voivodship has achieved a slightly higher income per capita compared to the Pomeranian Voivodship, achieving a lower rate of per capita income and a much lower index of the number of business entities.

**BIBLIOGRAPHY**


TENDENCJE ZMIAN POZIOMU ROZWOJU GOSPODARCZEGO PÓŁNOCNEJ POLSKI

Słowa kluczowe: rozwój gospodarczy, wskaźniki ekonomiczne, północna Polska

ABSTRAKT


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