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Analysis of Regional GDP Dynamics for the Period 2008-2022 (The Case of the North Central Region in Bulgaria)

(The case of the North Central region in Bulgaria)

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Abstract. *The "Europe of the Regions" has clearly shown the great heterogeneity and disparities in the different regions, which determines the differences of their economic opportunities and interests. There are explicit and implicit forms of competition between regions in the way they develop and integrate into the national and global economy.*

The presented study is defined as statistical-econometric in terms of a group of data and indicators, in particular the time series of Gross Domestic Product (regional and national), Gross Domestic Product per capita (national and regional), and the type of statistical relationship between the presented time series (national and regional). The assessment of development trends in the period under consideration are achieved by estimating absolute growth, growth rate, rate of increase, estimating the value of 1% change in the time series, correlation of the time series. The primary data for the period 2008-2022 were obtained from the official website of the National Statistical Institute of Bulgaria.

The objectives of our study are mainly related to clarifying the main development trends in order to be able to build a clear picture of the changes taking place in the region in the period since Bulgaria's accession to the European Union and comparing the results obtained with those at national level in order to assess the dynamics of development.

The obtained results will provide further justification for the elaboration of management decisions in order to enable the region to participate more successfully in the integration economic processes in the country and internationally.

Keywords: region, regional development, concentration, localization, integration.

Introduction

Territorial development is a complex multifaceted process. It is always viewed through the influence of a wide range of different variables. Socio-economic development of the region is a complex issue that includes a description of the current state of the economy and the social sphere. It also includes the dynamics of a multitude of indicators to assess the economic, cultural, educational, environmental and demographic level.

Socio-economic development is closely linked to the territory and its population, which means that changes in it have qualitative and quantitative significance. The qualitative characteristics of change describe the unquantifiable results of development. These can be, for example, structural changes in the economy, changes in the content of the socio-economic object, the emergence of new characteristics, etc. The quantitative dimension of the socio-economic

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development of a region is expressed by its level of dynamization. The indicators used are the dynamics of the concentration of economic activities and the localization of specialized employment. Both assess the dynamics of the region's development by individual industries and are the subject of another study by Minchev at all (2024, pp 320-335). The analysis of the comprehensive development of the region is examined through the dynamics of regional GDP and regional GDP per capita. We can summarize that the development of a region is a purposeful process of systematic improvement of the well-being of the residents of its territory.

Furthermore, quantitative comparisons need to be made in order to provide an overall assessment of the region's development. In this way, changes in temporal and spatial categories can be identified. There is usually a need to measure the level of socio-economic development of a city, region and country as a whole. We will focus on the regional level and more specifically on the North Central region in Bulgaria.

Literature review.

The German economist Johann von Thunen in his book "The Isolated State and Its Relation to Agriculture and the National Economy" (1926) first considered economics as a spatial category. The author created a scheme very close to the optimal allocation of agricultural production based on the analysis of transport costs for transporting produce from the places of production to the market.

The issues of economic growth based on specialization and spatial concentration of economic activities are mainly addressed in three (Wandel, 2009, pp. 26-27) scientific foundations:

- Classical and Neoclassical theory and especially the models of economic growth developed in the second half of the twentieth century;
- New trade theory;
- New economic geography.

Marshall's industrial zone is used in defining the values and norms shared by relocated firms. Economies of specialization resulting from the concentration of firms are able to attract and maintain specialized suppliers. The concentration of workers with specific knowledge and abilities attracts firms that create specialized employment. Technological innovation from outside, knowledge accumulation and information flow between actors depend on the mobility capabilities of employees and the networks built.

In the early 1980s, so-called industrial complexes began to be seen as supply and demand linkages in the production structure of a geographically limited area. This understanding led to a series of studies at the macro and micro levels focusing on the important interdependencies in the areas in which the country (region) concerned is highly specialized. The basic idea of the concept and the related 'vertical production' approach is that the core of the economic system is formed by the linkages between firms developing new technologies such as items, machines or entire production systems and the firms that use these technologies. The concept of industrial complexes, defined as a group of industries linked by important flows of goods and services, can be found in Lodh and Lewis (1975, pp 53-80), in Czamansky et al (1977, pp 93-111).

Dahmen (1988, pp 3-14), famous for his Development blocks, laid the theoretical foundations. They are presented as complexes of industrial relations to be analyzed in terms of their development over time (these ideas were later developed by Porter). The concept belongs to the field of Schumpeterian dynamics and is the basis of industrial economics. The main factor is considered the transformation that affects micro-units.

Krugman (1991, 1995) interprets and combines spatial dimensions with basic economic theory. The main conclusion he proposes is that only specialization and specialized employment are important for the concentration process. He published his views in As a result, the theoretical framework has been significantly influenced by the controversy over concentration and decentralization in European regions. Krugman's research generated extensive reaction from the economic geography community in the 1990s in the form of Martin and Sunley (1996, pp 259-292), Martin (1999, pp 65-91), Jaffe at all (1993, pp 577-598), Audretsch and Feldman (1996, pp 630-640).

At the end of the 1980s, Porter started a study in ten countries, in which he analyzed ten and sometimes more industries (sectors). The focus fell on the upward and downward chain relationships between firms, the institutional environment, the firm environment and the firm internal environment. Initially, it examines clusters with their competitive advantages in ten countries - Denmark, Germany, Italy, Japan, Korea, Singapore, Sweden, Switzerland, UK and USA. Later, the research was used as the empirical basis for the theory presented in Porter's 1990 book The Competitive Advantages of Nations.

Most authors interpret Porter's main idea not as a theory of clusters, but as a theory of national, regional and local competitiveness in the context of the global economy. Porter concludes that clusters of firms exist in a country or in a region if a business is well developed there. Chemistry in Germany, pharmaceuticals in Switzerland, semiconductors in the US and Japan, mobile phones in Scandinavia are a few examples of these types of clusters.

The idea of clusters, adopted as a new perspective for business policy, served as a basis for the study and analysis of so-called “resource zones”. It should be noted that different names are used in different countries, such as resource clubs, resource blocks, etc.

Dreiger at all (1997, p 19) define a resource zone as a broad sector of products or services that are relatively stable over time and have important importance or size in the economy.

The functioning and development of the regional economy takes place in interaction with other regions and the surrounding world. Inter-regional economic relations are a system of economic relations and interests of the regions that develop in the processes of social production and the intensive integration of regional markets into the national production chain, socio-cultural and humanitarian contacts. The social division of labor, the specialization and territorial distribution of production depending on natural-geographical conditions, natural resources and the development of infrastructure and the provision of skilled labor resources conditions the relations.

State/regional authorities must secure the necessary resources for the regional development strategy. Strategies must be responsive to European and national policies and tailored to the specificities of the region they concern. (Stoyanov, 2018, p.365) However, for most regions it is unaffordable to finance all their projects and measures themselves. Moreover, this is where the state needs to step up through its resource redistribution function. Another important role is to promote the regions as attractive for investment. Popularity is the sum of simultaneous and parallel action of related and originally unrelated phenomena and circumstances. The increase in variables creates a growth effect in the outcome (Stoyanov, 2023, p.169) However, the role of the region is not a passive one - it is common practice for the region itself to undertake part of the financing of projects, including in the form of public-private partnerships.

The modern theory of interregional economic interactions (interactions between regional economies) integrates theories of spatial distribution of production with factors of production, interregional economic linkages, etc. Results from general economic equilibrium theory and

international economic integration theory are used. Mathematical multi-objective optimization, game theory, group decision making, etc. are central to the theory.

Regional Gross Domestic Product (GDP) and regional GDP per capita are summary characteristics of the level of development of the processes of specialization and concentration in the region, presented above. They usually represent the value of all final goods and services produced within a territorially limited area over a given period of time, usually a year.

According to Eurostat requirements (2013, p 11), regional accounts play an important role in the formulation, implementation and evaluation of regional policies. In particular regional indicators resulting from the regional accounts are used for assessing regional disparities. In the context of the European Cohesion Policy, regional GDP is an indicator of the regional accounts by industry, used to allocate funds to eligible regions.

As defined by the International Monetary Fund (IMF), GDP measures the monetary value of final goods and services that are purchased by a final consumer. These are produced in a country/region over a period, for example a quarter or a year. It accounts for all production within the country/region. GDP consists of goods and services that are produced for sale on the market and includes some non-market products, such as educational services. It is important to note that not all productive activities are included in GDP. For example, unpaid labor performed at home or by volunteers and black market activities are not included as they are difficult to measure and estimate accurately.

Nominal GDP is based on current prices and does not consider inflation. The problem is that inflation always leads to higher prices. Therefore, over a period, prices can rise due to inflation without there being any real increase in output. However, in macroeconomic terms this will be reflected as GDP growth. On the contrary, in case of deflation (currency appreciation), even a decline in nominal GDP may be recorded. Real GDP, which considers inflation, is therefore the best method of expressing long-term national/regional economic performance.

Methodology.

The choice of evaluation methods depends on the type of problem, the objectives of the analysis and the database. The methodology for assessing the outcome of a region's development should look into the aspects presented above and identify the most appropriate method or a combination of methods.

Due to the systematic structure of the processes to be assessed, the methodology must ensure consistency between the assessment methods and the solution of the problem at hand - in this case the analysis of the dynamics of regional GDP for the period since the country's accession to the EU (2008-2022). In addition, it should also allow for comparative analysis with national development levels.

According to methodology of Bulgarian National Statistical Institute, GDP is calculated by Income method, annual data. The value method is compiled in parallel with the production method to estimate GDP and characterizes the production of primary incomes of participants in the production process. The gross value added at basic prices created as a result participation represents a resource for compensating employees and taxes on production and imports with a balancing item 'gross operating surplus/gross mixed income'.

The scheme for calculating GDP using the value method is as follows:

Gross domestic product (market prices) = + compensation of employees (labour and social security costs) + net other taxes on production and imports (taxes - subsidies on production and

imports) + gross operating surplus/gross mixed income + adjustments (taxes and subsidies on products).

The database can be defined as a time series, since time is the independent variable. A characteristic feature of time series is that the observations are made sequentially and equally over time and the overall variation of the resulting attribute is defined as a trend.

Our study are categorized as statistical and econometric in terms of a group of data and indicators - Gross Domestic Product (regional and national), Gross Domestic Product per capita (national and regional), the type of statistical relationship between the time series (national and regional).

Our methodology of assessing historical development trends includes a combination of methods presented in the following stages:

1. Formation of a database including GDP values at national and regional level.
2. Consistent calculation of statistical indicators: absolute increase ($\Delta_i = Y_n - Y_{n-1}$), growth rate ($Y_i = \left(\frac{Y_n}{Y_{n-1}}\right).100$), rate of increase ($R_i = Y_i - 100$).
3. Calculation of the value of 1% change for each year of period.
4. Study of correlation dependence of the obtained time series at national and regional level.
5. Analysis of the influence of key factors on the outcome variable.

Primary data for the period 2008-2022 were obtained from the official website of the National Statistical Institute (NSI) of Bulgaria.

Results and discussions.

Following the accession of Bulgaria and Romania to the European Union in 2007, Regulation (EC) No 176/2008 of the European Parliament and of the Council was adopted on 20 February 2008. It relates to the amendment of the annexes of Regulation No 1059/2003 on the establishment of a common classification of territorial units for statistics (NUTS), supplementing the classification with the newly acceded Member States. In this study we will use the territorial division of the country for statistical purposes.

We will examine the regional GDP dynamics of the North Central region in Bulgaria. The analysis will be based on a comparison of development trends in the region and the country as a whole (Table 1). For the purpose of our study, we use regional and national level data for the variables considered.

Table 1. GDP, Δ_i, Y_i, R_i for the period 2008-2022 – regional/national level.

	Year	GDP	Absolute increase Δ_i	Growth rate % Y_i	Rate of increase R_i	Nominal value of 1% change	Annual inflation/ deflation (%)	Real value of 1% change
Data for the North Central Region	2008	6109,061	628,061	111,45	11,45	54,81	7,80	50,53
	2009	6001,1	-107,961	98,23	-1,77	61,09	0,60	60,72
	2010	5883,209	-117,891	98,03	-1,97	60,01	4,50	57,31
	2011	6396,443	513,234	108,72	8,72	58,83	2,80	57,18
	2012	6639,181	242,738	103,79	3,79	63,96	4,20	61,28
	2013	6685,513	46,332	100,69	0,69	66,39	-1,60	67,45
	2014	6948,634	263,121	103,93	3,93	66,85	-0,90	67,46
	2015	7103,668	155,034	102,23	2,23	69,48	-0,40	69,76
	2016	7418,446	314,778	104,43	4,43	71,03	0,10	70,97
	2017	7923,239	504,793	106,80	6,8	74,18	2,80	72,11
	2018	8429,259	506,02	106,38	6,38	79,23	2,70	77,09

	Year	GDP	Absolute increase Δ_i	Growth rate % Y_i	Rate of increase R_i	Nominal value of 1% change	Annual inflation/ deflation (%)	Real value of 1% change
	2019	8955,578	526,319	106,24	6,24	84,29	3,80	81,09
	2020	9006,654	51,076	100,57	0,57	89,55	0,10	89,47
	2021	10484,268	1477,614	116,40	16,4	90,06	7,80	83,04
	2022	12086,426	1602,158	115,28	15,28	104,84	16,20	87,86
Country Data	2008	72847,049	9353,049	114,73	14,73	634,94	7,80	585,41
	2009	73181,465	334,416	100,45	0,45	728,47	0,60	724,10
	2010	74887,599	1706,134	102,33	2,33	731,81	4,50	698,88
	2011	81126,316	6238,717	108,33	8,33	748,87	2,80	727,91
	2012	82642,828	1516,512	101,86	1,86	811,26	4,20	777,19
	2013	82253,423	-389,405	99,52	-0,48	826,42	-1,60	839,65
	2014	84147,688	1894,265	102,30	2,3	822,53	-0,90	829,94
	2015	89571,386	5423,698	106,44	6,44	841,47	-0,40	844,84
	2016	95349,439	5778,053	106,45	6,45	895,71	0,10	894,82
	2017	102682,967	7333,528	107,69	7,69	953,49	2,80	926,80
	2018	109915,576	7232,609	107,04	7,04	1026,82	2,70	999,11
	2019	120342,013	10426,437	109,48	9,48	1099,15	3,80	1057,39
	2020	120492,425	150,412	100,12	0,12	1203,42	0,10	1202,22
	2021	138979,417	18486,992	115,34	15,34	1204,92	7,80	1110,94
	2022	167808,976	28829,559	120,74	20,74	1389,79	16,20	1164,65

Source: NSI and Authors' own research.

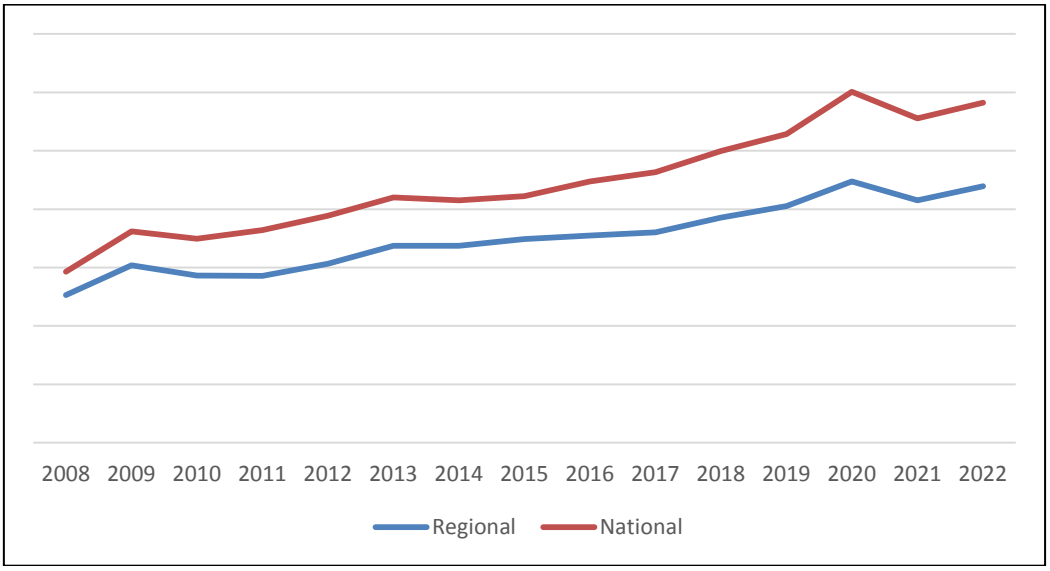

Figure 1. Dynamics of the 1% change in national and regional GDP for the period 2008-2022

Source: Authors' own research.

Figure 1 shows that the dynamics of GDP changes at regional and national levels are similar. Both trends show positive changes, i.e. increases. But the growth rates of national GDP are higher than those of regional GDP. Over time, the growth rate of regional GDP becomes slower than the growth rate of national GDP, i.e. the region slows down against the background of national growth rates.

According to Eurostat requirements (2013, p 52) regional GDP per capita plays an important role in the allocation of the EU Structural Funds to the less prosperous regions. This section devotes attention to the regional population. The definition of population is based on chapter 11 of ESA 2010. According to ESA 2010, par. 11.05, the regional population as used for regional accounts purposes is defined as follows: on a given date, the total population of a region consists of all persons, national or foreign, who are permanently settled in the economic territory of the country, even if they are temporarily absent from it.

Table 2. GDP per capita Δ_i, Y_i, R_i for the period 2008-2022 – regional/national level

	Year	GDP per capita	Absolute increase Δ_i	Growth rate % Y_i	Rate of increase R_i	Nominal value of 1% change	Annual inflation/ deflation (%)	Real value of 1% change
Data for the North Central Region	2008	6582,245	730,245	112,47	12,47	58,52	7,80	53,96
	2009	6526	-56,245	99,14	-0,86	65,82	0,60	65,43
	2010	6476,374	-49,626	99,23	-0,77	65,26	4,50	62,32
	2011	7456,861	980,487	115,13	15,13	64,76	2,80	62,95
	2012	7820,102	363,241	104,87	4,87	74,56	4,20	71,44
	2013	7957,409	137,307	101,75	1,75	78,20	-1,60	79,45
	2014	8365,045	407,636	105,12	5,12	79,57	-0,90	80,29
	2015	8657,852	292,807	103,50	3,50	83,65	-0,40	83,99
	2016	9153,592	495,74	105,72	5,72	86,57	0,10	86,49
	2017	9901,332	747,74	108,16	8,16	91,53	2,80	88,97
	2018	10675,583	774,251	107,81	7,81	99,01	2,70	96,34
	2019	11499,068	823,485	107,71	7,71	106,75	3,80	102,70
	2020	11709,522	210,454	101,83	1,83	114,99	0,10	114,88
	2021	13834,3	2124,778	118,14	18,14	117,09	7,80	107,96
	2022	17499,998	3665,698	126,49	26,49	138,34	16,20	115,93
Country Data	2008	9555,723	1266,723	115,28	15,28	82,89	7,80	76,42
	2009	9648	92,277	100,96	0,96	95,55	0,60	94,98
	2010	9939,571	291,571	103,02	3,02	96,48	4,50	92,14
	2011	11040,105	1100,534	111,07	11,07	99,39	2,80	96,61
	2012	11311,812	271,707	102,46	2,46	110,40	4,20	105,76
	2013	11321,696	9,884	100,08	0,08	113,11	-1,60	114,93
	2014	11648,453	326,757	102,88	2,88	113,21	-0,90	114,24
	2015	12478,615	830,162	107,12	7,12	116,48	-0,40	116,95
	2016	13377,08	898,465	107,20	7,20	124,78	0,10	124,66
	2017	14511,552	1134,472	108,48	8,48	133,77	2,80	130,03
	2018	15646,264	1134,712	107,81	7,81	145,11	2,70	141,20
	2019	17251,454	1605,19	110,25	10,25	156,46264	3,80	150,52
	2020	17377,007	125,553	100,72	0,72	172,51454	0,10	172,34
	2021	20207,128	2830,121	116,28	16,28	173,77007	7,80	160,22
	2022	25956,142	5749,014	128,45	28,45	202,07128	16,20	169,34

Source: NSI and Authors' own research.

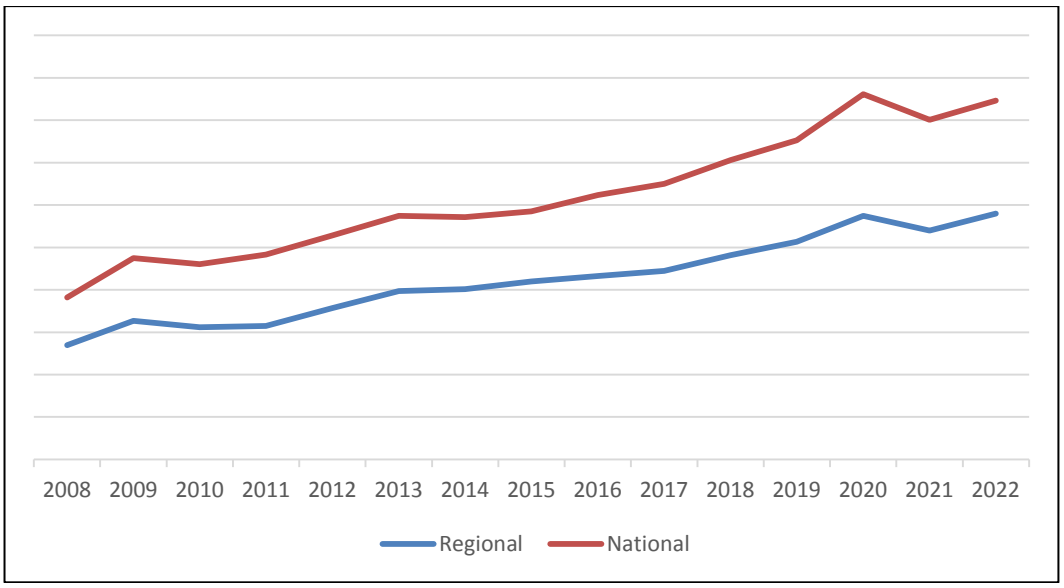

Figure 2. Dynamics of the 1% change in national and regional Gross domestic product per capita for the period 2008-2022

Source: Authors' own research.

Figure 2 shows that the dynamics of changes in GDP per capita at the regional and national levels are similar. Both trends show positive changes, i.e. increases. However, compared to Figure 1 (regional/national GDP), the differences in growth rates are even greater, i.e. on this indicator the North Central region is even more slowed down compared to the national level.

In order to properly interpret the differences in development dynamics at the regional and national levels, we need to add another time series to our study. This is the data on population changes at the regional and national levels over the period under consideration. In this way we will be able to analytically present and assess the weight of one of the explanations of the causes of what is happening.

Table 3. Population dynamics for the period 2008-2022 – regional/national level

	Year	Number of population	Absolute increase Δ_i	Growth rate % Y_i	Rate of increase R_i	Real value of 1% change
Data for the North Central Region	2008	928112	-8482	99,09	-0,91	9366
	2009	919607	-8505	99,08	-0,92	9281
	2010	908411	-11196	98,78	-1,22	9196
	2011	857793	-50618	94,42	-5,58	9084
	2012	848989	-8804	98,97	-1,03	8578
	2013	840162	-8827	98,96	-1,04	8490
	2014	830675	-9487	98,87	-1,13	8402
	2015	820488,5	-10186,5	98,77	-1,23	8307
	2016	810441	-10047,5	98,77	-1,23	8205
	2017	800219,5	-10221,5	98,73	-1,27	8104
	2018	789583	-10636,5	98,67	-1,33	8002
	2019	778809	-10774	98,63	-1,37	7896
	2020	769173,5	-9635,5	98,76	-1,24	7788
	2021	757846	-11327,5	98,52	-1,48	7692
	2022	690653	-67193	91,13	-8,87	7578

	Year	Number of population	Absolute increase Δ_i	Growth rate % Y_i	Rate of increase R_i	Real value of 1% change
Country Data	2008	7623395	-36369	99,52	-0,48	76598
	2009	7585131	-38264	99,49	-0,51	76234
	2010	7534289	-50842	99,32	-0,68	75851
	2011	7348328	-185961	97,53	-2,47	75343
	2012	7305888	-42440	99,42	-0,58	73483
	2013	7265115	-40773	99,44	-0,56	73059
	2014	7223937	-41178	99,43	-0,57	72651
	2015	7177991	-45946	99,36	-0,64	72239
	2016	7127821,5	-50169,5	99,30	-0,70	71780
	2017	7075946,5	-51875	99,27	-0,73	71278
	2018	7025036,5	-50910	99,28	-0,72	70759
	2019	6975760,5	-49276	99,29	-0,71	70250
	2020	6934015	-41745,5	99,40	-0,60	69757
	2021	6877742,5	-56272,5	99,18	-0,82	69340
	2022	6465097	-412645,5	94,00	-6,00	68777

Source: NSI and Authors' own research.

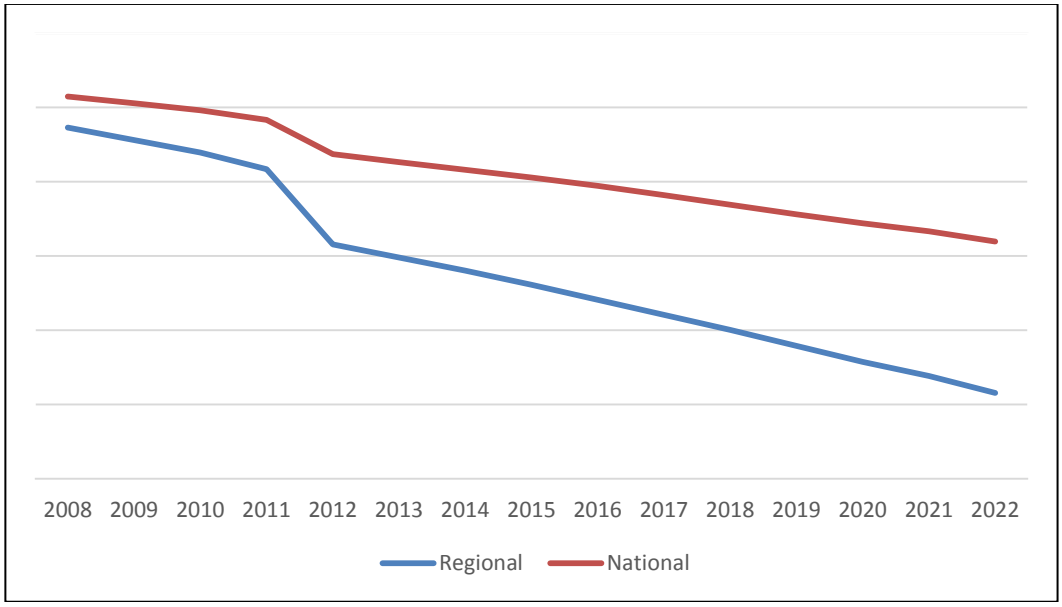

Figure 3. Dynamics of 1% change in population for the period 2008 - 2022.

Source: Authors' own research.

Figure 3 shows an unambiguous distribution - both at national and regional level similar processes of population decline are taking place. But the rate of population decline in the North Central region is significantly outpacing the rate of population decline nationally.

The next stage in our study is to assess the significance of the causal relationship between the time series formed at the national and regional levels. Here we will use the possibilities of correlation analysis.

Table 4. Correlation – regional level.

Year	Real value of 1% change Regional GDP per capita	Correlation (r)	Real value of 1% change Population (North Central region)
2008	53,96	-0,9649785	9366
2009	65,43		9281
2010	62,32		9196
2011	62,95		9084
2012	71,44		8578
2013	79,45		8490
2014	80,29		8402
2015	83,99		8307
2016	86,49		8205
2017	88,97		8104
2018	96,34		8002
2019	102,70		7896
2020	114,88		7788
2021	107,96		7692
2022	115,93		7578

Source: Authors' own research.

Table 5. Correlation – national level.

Year	Real value of 1% change National GDP per capita	Correlation (r)	Real value of 1% change Population (country total)
2008	76,42458	-0,9629291	76598
2009	94,9838866		76234
2010	92,1384		75851
2011	96,6126301		75343
2012	105,764206		73483
2013	114,92801		73059
2014	114,235913		72651
2015	116,950468		72239
2016	124,661364		71780
2017	130,025218		71278
2018	141,197401		70759
2019	150,51706		70250
2020	172,342025		69757
2021	160,216005		69340
2022	169,335733		68777

Source: Authors' own research.

The correlation data from Table 3 and Table 4 (regional and national level) show negative values, characterizing the relationship as inverse. At both levels, the values tend to (-1), which means that the time series considered are very highly correlated with each other, i.e. their degree of dependence is very strong.

Conclusion.

The North Central region is part of the NUTS level 1 region "North and South-Eastern Bulgaria". It is formed by the districts of Veliko Tarnovo, Gabrovo, Ruse, Razgrad and Silistra (NUTS level 3). There are 36 municipalities in the region.

The area of the region is 14 974 km2, constituting 13,49 % of the territory of the country. The region is bordered to the north by the Republic of Romania, to the east by the Northeast Region, to the south by the Southeast Region and to the west by the Northwest Region.

Some generalizations can be made from the results obtained.

Comparing the regional and national rates of change, the tendency of the region to lag behind the national development dynamics is very clear. This gap is widening over time and will continue to widen if current policies are not changed.

The square of the correlation coefficient, r_{xy}^2 or the so-called coefficient of determination, is used to assess the quality of the function choice. It characterizes the proportion of the variance of the outcome trait described by the regression in its total variance. Hence, the quantity (1-r_{xy}^2) characterizes the proportion of variance in terms of (Y) caused by the influence of other factors not accounted for in the model.

In our study the coefficient of determination is as follows:

1. For the national level it is ≈ 0.93. Therefore, the variance of the unobserved factors in the model is 0.07.

2. For the regional level it is ≈ 0.93. Therefore, the variance of the unobserved factors in the model is 0.07.

The larger the proportion of variance explained by the regression equation, the less important the other factors. Accordingly, the selected model approximates the baseline data very well and can be used to analyze and predict the significance of the outcome trait.

The examined time series of national and regional level data have negative correlation coefficients very close to (-1). This characterizes the examined dependencies as inverse and very strong.

Despite the trends thus outlined in the study, the region cannot be fully autonomous and independent from the central subjects of governance. Consequently, the region depends on the central government for many of the problems to be solved. Hence the serious differences between individual regions and national data caused by their economic situation, the inherited results of their historical development, the previous regional policy, the spatial concentration and uneven distribution of productive forces, the redistribution of resources, etc.

Interregional cooperation should become one of the key and priority areas of the state regional policy. It should be built on the principles of mutual benefit, achieving maximum socio-economic impact for all participants. Contemporary conditions require constant improvement of the infrastructure of interregional relations, rationalisation of the economic division of labour, intensification of technological development, industrial, commercial, communication and humanitarian projects. The diversification and optimisation of interregional relations must be aimed at improving the well-being of the population, strengthening territorial integrity and security. Bulgaria and Romania are working very actively in the field of cross-border cooperation with the active assistance of the EU. Within the North-Central region, a third bridge is to be built on the Danube at Ruse, an industrial park is to be built in the town of Svishtov, which is also located on the Danube, construction has begun on the Ruse-Byala-Veliko Tarnovo expressway and many other infrastructure projects are to be carried out with a view to improving north-south interregional connectivity. This should lead to accelerated economic development, which is particularly important for lagging regions. There, production systems are subject to the strong impact of international competition and new technologies.

Only through innovation and the creation of new businesses will the North Central region be able to recover its lost ground. There is no doubt that many of the lagging regions are currently

in crisis. For example, the North-West region in Bulgaria is the most backward region in the entire EU. Most regions, however, have resources that can favour their economic development.

In the light of the latter considerations, the following conclusion can be drawn: successful regional policy is increasingly focusing attention on exploiting local regional resources, through the prism of creating new, preferably science-based activities, especially in the SME sector.

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