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Assessment of the level of development of the economic potential of the regions of Kazakhstan

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Abstract

The aim of the article was to thoroughly analyze the current state of the economy of the regions of the Republic of Kazakhstan and identify problems hindering the intensive development of individual regions and develop recommendations and proposals to overcome them. To achieve this goal, the following indicators were selected: 1) the growth rate of the gross regional product; 2) the growth rate of gross regional product per capita; 3) grouping of regions by the growth rate of GRP per capita; 4) gross value added per employed employee; 5) the share of gross regional product in the GDP of the Republic of Kazakhstan; 6) the rate of income growth of the population. The research was carried out using the following methods: economic analysis and synthesis, statistical-economic, computational-constructive and economic interpretation of statistical data. The primary statistical data have been processed and their final values are presented in tabular form, the grouping of indicators has been carried out and the necessary economic generalizations have been made. The information base of the research was compiled by the data of the "Bureau of National Statistics", the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan. The regions of the Republic of Kazakhstan are classified into groups depending on the growth rate of gross value added, the specific weights of individual regions in the structure of the gross domestic product of the Republic of Kazakhstan are calculated, in order to rank regions by their contribution to the GDP of the Republic of Kazakhstan. The economic factors constraining the development of the economy of individual regions are identified and proposals are given to overcome these barriers. Thus, for the intensive development of both lagging and average regions, it is recommended to improve intersectoral and interregional economic ties between them. In this regard, the problem of insufficient development of industries engaged in harvesting, storage and processing of agricultural products is particularly acute. This issue is especially relevant for the southern and southeastern regions of the country. It is recommended to invest more material, technical and financial resources in the sphere of transportation, storage and processing of the agro-industrial complex.

Keywords: agglomeration, regional economy, gross regional product, gross value added, growth rates, relative growth rates, grouping, specific weight of regions

Қазақстан өңірлерінің экономикалық әлеуетін бағалау

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Түйін

Мақалада ҚР өңірлері экономикасының қазіргі жай-күйін мұқият талдау және жекелеген өңірлердің қарқынды дамуын тежейтін проблемаларды анықтау және оларды еңсеру үшін ұсынымдар мен ұсыныстар әзірлеу мақсаты қойылды. Осы мақсатты жүзеге асыру үшін мынадай индикаторлар таңдалды: 1) жалпы өңірлік өнімнің өсу қарқыны; 2) жан басына шаққандағы жалпы өңірлік өнімнің өсу қарқыны; 3) өңірлерді жан басына шаққандағы ЖӨӨ-нің өсу қарқыны бойынша топтастыру; 4) әрбір жұмыспен қамтылған қызметкерге шаққандағы жалпы қосылған құн; 5) ҚР ЖІӨ-дегі жалпы өңірлік өнімнің үлес салмағы; 6) халық табысының өсу қарқыны. Зерттеулер экономикалық талдау және синтез, статистикалық деректердің статистикалық-экономикалық, есептік-конструктивтік және экономикалық интерпретациясы әдістемелерін пайдалана отырып орындалды. Бастапқы статистикалық деректер өңделіп және олардың түпкілікті мәндері кестелік нысанда рәсімделді, көрсеткіштер топтастырылып және оларға қажетті экономикалық қорытындылар жасалды. Зерттеулердің ақпараттық базасын "Ұлттық статистика бюросы", ҚР Стратегиялық жоспарлау және реформалар агенттігінің деректері құрады. ҚР өңірлері жалпы қосылған құнның өсу қарқынына қарай топтарға жіктелген, өңірлерді ҚР ЖІӨ-ге қосқан үлесі бойынша саралау мақсатында ҚР жалпы ішкі өнімінің құрылымындағы жекелеген өңірлердің үлес салмағы есептелген. Жекелеген өңірлер экономикасының дамуын тежейтін экономикалық факторлар анықталды және осы кедергілерді еңсеру үшін ұсыныстар берілді. Мәселен, артта қалған және орташа көрсеткіштері бар өңірлерді қарқынды дамыту үшін олардың арасындағы салааралық және өңіраралық экономикалық байланыстарды жақсарту ұсынылады. Осыған байланысты ауыл шаруашылығы өнімдерін дайындаумен, сақтаумен және өңдеумен айналысатын салалардың даму қарқынының төмен дәрежеде болуы, салалараралық қатынастардың өзара үйлесімінің жеткіліксіз екендігін айқындап отыр. Бұл мәселе, әсіресе елдің оңтүстік және оңтүстік-шығыс аймақтарына қатысты. Агроөнеркәсіптік кешенді тасымалдау, сақтау және қайта өңдеу саласына материалдық-техникалық және қаржылық қаражатты көбірек салу ұсынылады.

Кілттік сөздері: агломерация, өңірлік экономика, жалпы өңірлік өнім, жалпы қосылған құн, өсу қарқыны, салыстырмалы өсу қарқыны, топтастыру, өңірлердің үлес салмағы

Оценка уровня развития экономического потенциала регионов Казахстана

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Аннотация

В статье была поставлена цель тщательно проанализировать современное состояние экономики регионов РК и выявить проблемы сдерживающие интенсивного развития отдельных регионов и выработать рекомендации и предложения для их преодоления. Для осуществление этой цели были выбраны следующие индикаторы: 1)темпы прироста валового регионального продукта; 2) темпы прироста валового регионального продукта на душу население; 3) группировка регионов по темпам прироста ВРП на душу население; 4) валовая добавленная стоимость на одного занятого работника; 5)удельный вес валового регионального продукта в ВВП РК; 6)темпы прироста дохода население. Исследования выполнены с использованием методик: экономического анализа и синтеза, статистико-экономического, расчетно-конструктивного и экономической интерпретации статистических данных. Первичные статистические данные обработаны и их конечные значения оформлены в табличной форме, осуществлена группировка показателей и сделаны необходимые экономическое обобщения. Информационную базу исследований составили данные «Бюро национальной статистики», Агентства по Стратегическому планированию и реформам РК. Регионы РК классифицированы по группам в зависимости от темпов прироста валовой добавленной стоимости, рассчитаны удельные веса отдельных регионов в структуре валового внутреннего продукта РК, с целью ранжирование регионов по их вкладу в ВВП РК. Выявлены экономические факторы сдерживающие развития экономики отдельных регионов и даны предложения для преодоления этих барьеров. Так, для интенсивного развития как отстающих, так и регионов со средними показателями рекомендуется улучшить межотраслевые и межрегиональные экономические связи между ними. В этом отношении особенно остро стоит проблема недостаточного развития отраслей занимающиеся заготовкой, хранением и переработкой сельскохозяйственной продукции. Данный вопрос особенно актуален для южных и юго-восточных регионов страны. Рекомендуется больше вложит материально-технические и финансовые средства в сферу транспортировки, хранения и переработки агропромышленного комплекса.

Ключевые слова: агломерация, региональная экономика, валовой региональный продукт, валовая добавленная стоимость, темпы роста, темпы прироста, группировка, удельный вес регионов

Introduction

The regional development of the country's economy is an urgent problem because the regions are the most sensitive link of management, where the process of "Production-procurement-storage-processing and transportation of products" is carried out. A regional economy is where the "Consumer" in terms of the population and the "Supply of consumer goods and services" of manufacturers intersect directly. Therefore, the level of the socio-economic situation of the population directly depends on and is defined by the regional economy.

President of Kazakhstan Kassym-Jomart Tokayev, speaking in the Majilis on January 11, 2022, pointed out the uneven development of the republic's regions, which entailed social discomfort with the growth of migration and instructed the government to eradicate the imbalance in the socio-economic development of the regions of Kazakhstan. "Recent events have shown an urgent problem with employment in the western and southern regions. There is a high birth rate, and the economy is not keeping up with creating jobs. Therefore, systemic industrialization, assistance to small and medium-sized businesses, and the development of the service sector in these areas are not regional but national priority. We must not forget about the cultural and educational component of development," the President said [1].

The relevance of this problem for the Republic of Kazakhstan is that the country has a huge territory, which is a very diverse natural and climatic zone, unevenly distributed productive forces and production relations, as a result of which completely different socio-demographic conditions, the standard of living of the population and the degree of economic development have developed. All this underlines the importance and timeliness of the topic and the direction of research of this article.

The article studies the regional economy of the Republic of Kazakhstan based on the following indicators: a) the growth rate of the gross regional product; b) the growth rate of gross regional product per capita; c) the grouping of regions by the growth rate of GRP per capita; d) gross value added per employed employee; e) the share of gross regional product in the GDP of the Republic of Kazakhstan; f) the growth rate of income of the population. The goal of the research was to thoroughly analyze the current state of the regions' economy of the Republic of Kazakhstan using the above indicators to identify problems hindering the intensive development of individual regions and to develop recommendations and proposals to overcome them.

Literature Review

The conducted research on the regional economy of the Republic of Kazakhstan is quite a lot. We will attempt to classify them according to the research directions and depending on the coverage of the information volume. Therefore, in fundamental analytical work on the regional economy was carried out from the point of view of socio-demographic conditions [2]. A methodology was proposed to identify depressed areas and settlements needing state support. This technique has been tested by the authors on materials that prove the possibility of its application by the governing bodies of the Republic of Kazakhstan.

In another work, to solve the current problems of the regional economy, it was proposed: in the Republic of Kazakhstan, it is necessary to focus on two areas of reforms: a) to support the development of economic activity based on the advantages and resources of the regions, the country should develop mechanisms and policy instruments that take into account local conditions, as well as realize the additional potential of agglomeration, especially in large and secondary cities; b) in order to implement policy measures considering local conditions, it is necessary to improve the efficiency of the public administration system [3]. In particular: Subnational government bodies should have higher-quality data on regions, the number of plans should be reduced, and their consistency should be improved. Opportunities for this should be provided by the digitalization of the economy, including the sphere of public services, as well as the adoption of international standards and methodologies, such as the use of the concept of functional urban areas [3]. For development at the subnational level, achieving a greater degree of coherence of actions within the government and between the state, the private sector and civil society would be helpful.

The following research demonstrates analytical calculations to determine the state of regional inequality in the country is based on the need for a thorough diagnosis of the current state of the regional economy [4]. Based on the results of the conducted research, the authors conclude that the differences between the regions of Kazakhstan are large and continue to grow. Despite the fact that over the past 20 years, GDP in Kazakhstan has increased significantly, however, intensive growth rates have occurred only in a few regions: in the large agglomerations of Astana and Almaty, as well as in oil and gas regions [4]. The authors conclude that regional inequality in the future may become an obstacle in Kazakhstan's quest to become one of the most developed economies in the world.

The research emphasizes that to improve the regional development of the economy of Kazakhstan, it is necessary to develop interregional competition and cooperation [5]. Also, in order to further improve the assessment of the socio-economic development of the country's regions, the authors recommend expanding the indicators for assessing the economic activity of regions by such indicators as creating incentives for the development of cooperation between regions, ease of doing business, productivity growth, technological renewal, digitalization, the production of export-oriented goods and other [5]. At the same time, it is believed that increasing the competitiveness of the regions will further contribute to increasing the competitiveness of the national economy as a whole.

The solution to the problems of the regional economy through the accelerated development of the agro-industrial complex and the increase of agro-resource potential is seen in the following work of a group of researchers [6]. It is believed that it is the agro-resource potential that can create conditions for achieving the most integrated result of the regional economy.

The problems of innovative development of the regions of the Republic of Kazakhstan can be solved by the widespread introduction of innovative processes - goods, products and services, according to the authors of the following work [7]. Research is based on the correlation and regression analysis of the relationship between the effects of innovative factors on the volume of gross regional product. Statistically

observable indicators were selected as factors: the level of innovation activity and the volume of the innovative product. In our view, the proposed methods and correlation coefficients of GRP from the volume of innovative products can be an effective tool for regional authorities developing and implementing a regional development strategy [7].

A group of researchers [8] assessed the effectiveness of the state regional policy from 1998-2018. The authors systematized all strategic and program documents of the state, determining the place of regional policy in the state planning system in the Republic of Kazakhstan. Based on the assessment of the degree of achievement of the target indicators of the program documents and their compliance with the strategic guidelines of the country's development, they revealed that most of the strategic and program documents of the country do not have clear and reasonable target indicators, some of the targets have not been achieved. In addition, an analysis of an array of statistical data demonstrating the results of the development of various sectors of the economy and regions was carried out, during which it was revealed that most of the goals pursued by program documents and strategies were not achieved. The authors draw conclusions about the low effectiveness of the state regional policy and identify a list of factors hindering the uniform development of the country's regions, namely: a) uneven distribution of resources; b) an economic strategy based on the priority development of the extractive sector; c) lack of understanding in local executive bodies of strategic guidelines for regional development; d) budget policy, not contributing to economic development; e) incomplete transparency of the actions of state bodies on the implementation of regional policy [8].

In our opinion, the proposed recommendations are very relevant and deserve attention when developing a strategy for developing the regional economy of the Republic of Kazakhstan.

Analysis of structural shifts in the economic development of the regions of the Republic of Kazakhstan for the period from 2011 to 2020, as well as the forecast for the period 2025 - 2030, the following work is devoted to [9]. It is assumed that the sectoral structure of the GRP of the republic will remain mostly the same over the forecast period. During the entire forecast period, the maximum contribution to the production industry dedicates to GRP, while its share, will not change significantly. The share of agriculture will decrease, while the share of construction, trade, transport and communications will increase. The authors propose the formation of growth poles in the regions of Kazakhstan, integrated with regional and global markets, contributing to the formation of promising industrial and innovative zones. At the same time, the territory of Atyrau and Mangystau regions will be considered a growth zone, connected by a common infrastructure to ensure the development of the oil and gas sector, ad in the future -forming a high-tech production complex, trade, logistics and transport and communication portal in the west of the country. Based on the analysis of the prerequisites and conditions for the development of Kazakhstan’s oil and gas regions, three main competitive industries are proposed, the development of which should be directed to domestic and foreign scientific potential. This will allow us to raise the innovative entrepreneurship of these regions to a new level. These are the creation of capacities for deep processing of oil and gas with the production of a wide range of high-tech products of 5-6 stages, the development of

capabilities of construction industry enterprises, and the development of capacities for growing and processing fish.

The researchers' recommendations are very competent and can be successfully used in developing regional development programs engaged in extracting, processing, transporting, and selling products of oil and gas origin.

The research of Western scientists on regional economics can be divided into the following concepts: a) neoclassical theorists who conduct their research through the production function; b) the theory of cumulative growth based on theoretical calculations of Neocasian and institutional models of regional development; and c) new theories of regional growth based primarily on human capital and the economic efficiency of the scale of production, in the absence of ideally pure competition in determining market prices. Currently, the most common and implemented in practice is the latter direction. So, the most expressive representative of this direction is Harris [10]. He put forward a new theory of regional economics, which implies that entrepreneurship is rapidly developing in those regions where there are better conditions for "market access", the so-called "market potential". Based on studies of sales markets in each state and county of the USA, the author hypothesized that the population's purchasing power has an inverse correlation dependence on its location, i.e., the distance of the markets for products and services. In his opinion, the scale of production and its high concentration in certain districts has the property of extended self-reproduction[10]. Pred Allan, the next representative of this direction, is a model of the basic multiplier of regional income in the temporal aspect, i.e. in dynamics [11]. Its concept is based on calculations in the temporal aspect, so by extrapolating the value of value added in the region intended for export and the amount of revenue from the revenue of goods and services within the area in dynamics, which should be increasing functions of the size of the regional economy. Thus, if the region's economic potential is large enough (i.e., this value is greater than the conditionally average value compared with other regions), this process can become a preliminary stage of cumulative growth of the regional economy. Researcher Jovanovic also conducted his research in this direction [12].

Other researchers, Fujita, Mori and Krugman, represent the regional economy based on system-forming industries and industries [13]. Next, they rank them according to the current level of the cost of storing and transporting goods, as well as the effect of the scale of production. They are driven by the idea that in such a situation, developed transport hubs make a sharp increase in the function of "market potential" and agglomeration development possible.

Chinese researcher Ying believed that the basis for the intensive development of China's regions could be human capital invested outside the agro-industrial complex, government subsidies and foreign investment [14]. The optimal combination of these economic factors wilincreasein the growth rate of the region's economy.

A review of the main areas of development of foreign scientists in regional economics gives an idea of their great diversity, which is dictated by the fact that they represent different countries differing in the level of economic development, the state of logistics and socio-demographic conditions on the materials of which these studies were conducted.

Summing up the literature review on the project's problems, it can be stated that in the methodology of building a strategy for developing Kazakhstan's regional economy, many concepts explore this problem from different positions. At the same time, this problem still needs to be generalized and improved.

Methodology

The authors of this article are based on the general conceptual approaches of internal and foreign researchers considering their theoretical views on the socio-economic development of the regions.

The research was carried out using the following methods: economic analysis and synthesis, the statistical-economic, computational-constructive and economic interpretation of statistical data. The primary statistical data have been processed, and their final values are presented in tabular and graphical form, the grouping of indicators has been carried out and the necessary economic generalizations have been made. The information base of the research was compiled from the data of the Bureau of National Statistics and the Agency for Strategic Planning and Reforms of the Republic of Kazakhstan.

The research is based on the indicators of the gross product of the regions of the Republic of Kazakhstan and their values per employed person per capita. The regions of the Republic of Kazakhstan are classified depending on the growth rate of gross value added, the specific weights of individual regions in the structure of the gross domestic product of Kazakhstan are calculated, in order to rank regions by their contribution to the GDP of the Republic of Kazakhstan. Based on such an analysis and relevant economic generalizations, regions' place and role in Kazakhstan's economy are determined. The economic factors constraining the development of the economy of individual regions are identified, and proposals are given to overcome these barriers.

The research period covers 2008 to 2021, such a fairl long-term time series, for analysts, makes it possible to more thoroughly analyze the trajectory of the development of the region’s economy when the specific features of development become more tangible, which provides the basis for an objective assessment of the level achieved and the pace of their development.

Results

Table 1 shows the dynamics and growth rates of GRP per capita from 2008 to 2021 by region. Such a period for analytics was chosen to consider the fact that for a long period, almost three five-year plans, it makes it possible to identify general patterns of regional economic development in time and space (see Table 1).

Such an approach, in our opinion, will also make it possible to neutralize the indicators of the negative impact of the global financial crisis that occurred in 2007-2008 and show how to take advantage of the economic benefits that usually follow financial crises. These data indicate that over the past fourteen years, there has been an increase in the GRP per capita level in Kazakhstan regions. If this indicator averaged 1,024,2 thousand tenge in the country in 2008, then in 2021 it reached the level of 4,417,9

thousand tenge or increased by 4,31 times. The analysis of this indicator in dynamics shows that if in the period 2008-2010 the annual growth was 65.2%, then the subsequent (2011-2017 and 2018-2021) periods decreased, respectively, to 32.6 and 29.3%. Thus, it can be argued that, in general, the annual growth rate of this indicator in the country is positively stable.

Table 1 - Gross regional product per capita, thousand tenge

Region	Year					Growth, %			
	2008	2010	2012	2017	2021	in 2021 by 2008 (%)	in 2021 by 2012 (%)	in 2021 by 2017 (%)	Average annual growth over the period
Kazakhstan	1024,2	1336,5	1847,1	3014,7	4417,9	431,3	239,2	146,5	33,2
Akmola	641,4	798,1	1092,8	2107,8	3644,9	568,2	333,5	172,9	43,7
Aktobe	1231,1	1523,1	2220,7	2749,7	3982,1	323,4	179,3	144,8	24,9
Almaty	409,2	537,9	751	1235,8	2201,1	537,9	293,1	178,1	41,4
Atyrau	3626	5401	6580,7	9685,1	16037,4	442,2	243,7	165,6	34
West Kazakhstan	1339,4	1730,4	2865,9	3628,4	5323,6	397,4	185,8	146,7	30,6
Zhambyl	316,9	429	715,4	1210	1976,9	623,8	276,3	163,4	48
Karaganda	1088,4	1387,7	1798,5	3100,9	5419,3	497,9	301,3	174,8	38,3
Kostanay	789,7	970,8	1308	2108,9	4082,8	517	312,1	193,6	39,8
Kyzylorda	1075,9	1236,5	1764,4	1839	2345,1	217,9	132,9	127,5	16,8
Mangystau	2631	2890,4	3169,8	5058,8	4966,5	188,7	156,7	98,2	14,5
Turkestan	310,4	474,6	705,1	1097,7	1363,1	439,1	193,3	124,2	33,8
Pavlodar	1153,6	1384,6	2032,8	3134,3	5185	449,4	255,1	165,4	34,6
North Kazakhstan	619	790,1	1168,6	1985,9	3313,8	535,3	283,6	187,5	41,2
East Kazakhstan	627,9	889,8	1299,1	2289,5	3723	592,9	286,6	127,7	45,6
Astana c.	2080,2	2635,7	3479,6	5766,2	7361,9	353,9	211,6	127,7	27,2
Almaty c.	2193,2	2797,3	3908	6694,2	7495,8	341,7	191,8	112	26,3
Note: compiled by authors from the Bureau of National Statistics [15]									

The performed analytical studies on this criterion give a clear picture of the dynamics and growth rates by region and indicate the presence of large differences between them. Thus, in the Akmola, Almaty, Atyrau and Zhambyl regions, the dynamics and rates of annual growth of the gross regional product were higher than the level of this

indicator for the country as a whole. Aktobe, West Kazakhstan, Kyzylorda and Mangystau regions have indicators lower than the achieved level on average in the country.

Therefore, it can be argued that in the country as a whole, the average level of gross regional product per capita has increased significantly over the analyzed period. However, it should be noted that this indicator's dynamics and growth rates vary greatly by region. According to this indicator, until 2010, the differences by region were insignificant, but the intensive growth of the domestic economy that followed after this period led to the fact that the regional values of this indicator became more striking. At the same time, the indicators of industrially developed regions have significantly increased compared to regions with weak economies.

Thus, in the Atyrau region, where the largest oil fields and reserves are located, GRP in 2021 reached 16,037.4 thousand tenge per capita, while in Kyzylorda, only - 2,345.1 thousand tenge. The difference is 6.84 times. At the same time, the annual growth rates (2008-2021) in these regions, respectively, were: 34.0 and 16.8%.

This current trend is evidence that despite the positive dynamics of the growth of the country's economy as a whole, development needs to be more balanced in the regional context. The central regions determining the dynamic development of the country are Atyrau, Karaganda, West Kazakhstan, Mangystau, Pavlodar. Lagging behind in the value of GRP are Almaty, Zhambyl, Kyzylorda, and Turkestan (formerly South Kazakhstan). There is a tendency here that the southern regions are specialized mainly in agricultural production, where, due to the low share of mechanized labor and automation of the production process, low productivity of labor and funds, which determines the insufficient growth rates of the economy in these regions. Along with this, there is an acute problem of processing and storage of agricultural products, especially in the field of processing meat, milk, fruit and vegetable products and fruits. It is necessary to emphasize the so-called phenomenon of "low manufacturability" of agricultural raw materials. Therefore, being one of the main meat producers, domestic producers could not provide meat products of the required quality and meet the requirements of the international standard, which was the reason for the withdrawal of McDonald's franchisees from the Kazakhstan market. In addition, currently needs to be movement vegetable storage and processing capacity in the southern regions, as a result of which there are large losses of agricultural products up to 20-25% of the grown crop.

Intraregional specialization and the placement of agricultural sectors also play an important role. If agricultural enterprises in the northern regions of the Republic of Kazakhstan are relatively large and capital-intensive, then small types of economic formations and personal subsidiary farms are characteristic of the southern regions. Therefore, in the South, it is not possible to obtain an economic effect due to the scale of agricultural production, which allows for reducing the unit costs of production, collection and transportation of products.

The above provisions were the reason that the southern regions for the analyzed period (2008-2021) could not improve their performance and still need to catch up in the development of the regional economy.

For a more thorough analysis of this process, we made a grouping of the regions of the Republic of Kazakhstan based on the following prerequisites: the first group includes

regions whose average annual growth rates for 2008-2021 ranged from 41 to 48%; the second – 27-40% and the third 14-26% This grouping allowed us to identify individual regions' development patterns according to this criterion. Thus, Zhambyl (48.0), East Kazakhstan (45.6), Akmola (43.7), Almaty (41.4), North Kazakhstan (41.2) regions showed the highest annual growth rates.

Schematically, this trend is illustrated as follows (see Table 2).

Table 2 - Grouping of regions by GRP growth rates per capita (in % and thousand tenge)

Region	Year					Growth, %			
	2008	2010	2012	2017	2021	in 2021 by 2008 (%)	in 2021 by 2012 (%)	in 2021 by 2017 (%)	Average annual growth over the period
Kazakhstan	1024,2	1336,5	1847,1	3014,7	4417,9	431,3	239,2	146,5	33,2
1-group (41-48)									
Zhambyl	316,9	429,0	715,4	1210,0	1976,9	623,8	276,3	163,4	48,0
East Kazakhstan	627,9	889,8	1299,1	2289,5	3723,0	592,9	286,6	127,7	45,6
Akmola	641,4	798,1	1092,8	2107,8	3644,9	568,2	333,5	172,9	43,7
Almaty	409,2	537,9	751,0	1235,8	2201,1	537,9	293,1	178,1	41,4
North Kazakhstan	619,0	790,1	1168,6	1985,9	3313,8	535,3	283,6	187,5	41,2
on average	522,9	689,0	1005,4	1765,8	2971,9	568,4	295,6	168,3	43,7
2-group (27-40)									
Kostanay	789,7	970,8	1308,0	2108,9	4082,8	517,0	312,1	193,6	39,8
Karaganda	1088,4	1387,7	1798,5	3100,9	5419,3	497,9	301,3	174,8	38,3
Pavlodar	1153,6	1384,6	2032,8	3134,3	5185,0	449,4	255,1	165,4	34,6
Atyrau	3626,0	5401,0	6580,7	9685,1	16037,4	442,2	243,7	165,6	34,0
Turkestan	310,4	474,6	705,1	1097,7	1363,1	439,1	193,3	124,2	33,8
West Kazakhstan	1339,4	1730,4	2865,9	3628,4	5323,6	397,4	185,8	146,7	30,6
Astana c.	2080,2	2635,7	3479,6	5766,2	7361,9	353,9	211,6	127,7	27,2
Almaty c.	2193,2	2797,3	3908,0	6694,2	7495,8	341,7	191,8	112,0	26,3
on average	1572,6	2097,8	2834,8	4402,0	6533,6	415,4	230,5	148,4	31,9
3-group (14-26)									
Aktobe	1231,1	1523,1	2220,7	2749,7	3982,1	323,4	179,3	144,8	24,9
Kyzylorda	1075,9	1236,5	1764,4	1839,0	2345,1	217,9	132,9	127,5	16,8

Mangystau	2631,0	2890,4	3169,8	5058,8	4966,5	188,7	156,7	98,2	14,5
on average	1646,0	1833,3	2384,7	3215,8	3764,6	228,7	157,9	117,1	17,6
Note: compiled by authors from the Bureau of National Statistics [15]									

The first group includes five relatively dynamically developing regions with above-average growth rates. However, their indicators in terms of their share in the structure of Kazakhstan's GDP are very modest. Thus, the percentage of Zhambyl region is 2.57%, East Kazakhstan (6.02%), Akmola (2.97%), Almaty (5.00%), North Kazakhstan (2.08%). However, the current growth rates for this indicator will allow them to significantly improve their indicators in the future to increase their share in the structure of the GDP of the Republic of Kazakhstan.

The second group comprises the so-called "middle-class regions", whose average annual growth rates for the analyzed period ranged from 27 to 40%. Namely: Kostanay (39.8), Karaganda (38.3), Pavlodar (34.6), Atyrau (34.0), Turkestan (33.8), West Kazakhstan (30.6), Astana (27.2), Almaty (31.9).

This group includes those regions that have both the largest and the smallest specific weights in the structure of the GDP of Kazakhstan. Thus, the agglomerations of Astana and Almaty have, respectively: 11.0% and 19.0%, as well as Atyrau (12.45%) and Karaganda (8.2%). The remaining regions are Pavlodar – 4.45%, Kostanay -3.8%, West Kazakhstan -4.22 and Turkestan - 3.08%. Thus, this group of regions creates 66.2% of Kazakhstan's GDP (see Table 3).

Table 3 - The share of regions in the GDP of the Republic of Kazakhstan,%

Region	Year				Average specific weight by region
	2018	2019	2020	2021	
Akmola	2,8	2,78	3,2	3,2	2,97
Aktobe	4,4	4,28	4,2	4,3	4,3
Almaty	4,5	4,67	5,3	5,5	5
Atyrau	12,7	13,41	11	12,7	12,45
West Kazakhstan	4,5	4,24	3,9	4,2	4,22
Zhambyl	2,5	2,46	2,7	2,7	2,57
Karaganda	7,7	7,75	8,6	8,9	8,2
Kostanay	3,4	3,53	4,1	4,2	3,8
Kyzylorda	2,7	2,63	2,3	2,3	2,47
Mangystau	6,2	5,3	4,3	4,3	5,02
Turkestan	4,4	4,36	4,4	4,6	4,45
Pavlodar	2	1,99	2,2	2,1	2,08
North Kazakhstan	2,7	2,9	3,4	3,3	3,08
East Kazakhstan	5,8	5,79	6,5	6	6,025
Astana c.	10,9	11,27	11,3	10,6	11

Almaty c.	19,6	19,48	19,1	17,9	19
Shymkent c.	3,5	3,17	3,5	3,2	3,4
Note: compiled by authors from the Bureau of National Statistics [15]					

Despite the fact that relatively average growth rates of the gross regional product are observed in these regions, it is the representatives of this group that are systemically important, especially Atyrau, Karaganda, Astana and Almaty.

The third group contains regions with an average annual growth rate in the range of 14-26%: Aktobe (24.9%), Kyzylorda (16.8%), Mangystau (14.5%). These regions are also characterized by a relatively small share of GRP produced by them in the structure of the GDP of Kazakhstan. This indicator is 4.3, 2.47 and 5.02, respectively.

The calculations performed by us according to this methodology show the following. So, in the Atyrau region for the period from 2010-2021, the volume of GRP increased from 5.40 million tenge to 16.03 million tenge, i.e., by 2.97 times (see Table 4).

Table 4 - Gross value added per employee, thousand tenge

Region	Year				Growth, %	
	2010	2015	2020	2021	in 2021 by 2010 (at times)	in 2021 by 2015 (в %)
Akmola	1219,0	2258,4	4943,4	5861,2	4,8	259,5
Aktobe	2832,2	3706,5	6270,5	7633,6	2,6	205,9
Almaty	1012,6	1750,0	3362,9	4152,3	4,1	237,2
Atyrau	10335,4	12844,7	22572,7	30442,3	2,9	237,0
West Kazakhstan	3034,8	4772,8	7576,4	9663,1	3,1	202,4
Zhambyl	701,1	1725,8	3395,0	3980,8	5,6	230,6
Karaganda	2402,7	4044,9	8189,0	10047,3	4,1	248,3
Kostanay	1489,7	2385,2	5237,2	6366,2	4,2	266,9
Kyzylorda	2606,1	3321,2	4387,5	5199,9	1,9	156,5
Mangystau	6706,9	6590,0	8525,7	9412,0	1,4	142,8
Turkestan	906,1	1838,5	2567,8	3083,6	3,4	167,7
Pavlodar	2245,7	3751,8	7181,5	8832,5	3,9	235,4
North Kazakhstan	1091,3	2224,5	4575,7	5296,2	4,8	238,0
East Kazakhstan	1500,1	2904,4	6127,7	6632,4	4,4	228,3
Astana c.	4397,8	9116,7	12467,1	13808,3	3,1	151,4
Almaty c.	5508,6	9611,9	12466,4	13760,8	2,4	143,1
Note: compiled by authors from the Bureau of National Statistics [15]						

Over the same period, the GRP of labor productivity per employee increased from 10.33 to 30.44 million tenge, i.e. 2.94 times. GRP growth is observed here ahead of the dynamics of labor productivity growth in the region. It can be argued that there is a high correlation between these indicators and their interaction is equivalent. This is more typical for regions with high rates of development.

If we study the materials of lagging regions using this methodology, we get a different picture. Thus, in the Zhambyl region over the same period, GRP growth was 4.60 times, and labor productivity per employee increased 5.67 times. Hence, it can be concluded that a significant increase in labor productivity in this region did not lead to a corresponding equivalent increase in the gross regional product. In the Karaganda region, during the study period, with an increase in labor productivity by 4.2 times, the volume of GRP was only 3.8 times. Also in the West Kazakhstan region, with GRP growth of 2.6 times, labor productivity growth was 3.2 times. Such a low return on invested labor and funds is also observed in the Turkestan (formerly South Kazakhstan) region, where, with an increase in labor productivity of 3.4 times, GRP increased only 2.7 times. This pattern is typical for lagging regions that do not use the material and technical resources at their disposal efficiently enough.

This pattern can be traced in the economic picture of such large agglomerations as Astana and Almaty. Thus, in Astana during the study period, with an increase in labor productivity per employee by 3.1 times, the GRP growth was 2.7 times, which is insufficient under such circumstances. In Almaty, a more favorable situation is observed: with an increase in labor productivity by 2.4 times, economic returns, i.e. GRP growth was 2.7 times.

Conclusions

Our research has allowed us to determine the current state of the regions of the Republic of Kazakhstan in terms of the rate and growth level of the gross regional product as a whole and per capita. The analytical work was carried out over a fairly long period, for the period 2008-2021. in order to identify the general patterns of development of the economy of the regions in time and space. Regions were also grouped according to the criterion of average annual GRP growth and thus the regions were classified into three groups: a) regions with growth rates higher than the average for the country as a whole Zhambyl (48.0%), East Kazakhstan (45.6%), Akmola (43.7%), Almaty (41.4%); b) regions that have reached an average level of growth Kostanay (39.8%), Karaganda (38.3%), Pavlodar (34.6%), Atyrau (34.0%), Turkestan (33.8%), West Kazakhstan (30.6%), and such agglomerations as, Astana (27.2%), Almaty (31.9%); c) regions with indicators below the corresponding values for the Republic of Kazakhstan as a whole (Aktobe (24.9%), Kyzylorda (16.8%), Mangystau (14.5%). As a result of such calculations, the properties and patterns of development of regions within these groups were revealed and recommendations were made to improve their indicators.

The interdependence of labor productivity indicators by region by the value of the ratio of "Gross value added per employee" and with the corresponding indicators of the overall development of the economy of this region were also investigated. As a result, it was revealed that there is a certain pattern between labor productivity and the value of

the GRP indicator per capita. Thus, with higher growth rates of gross value added per person employed in the region, it can be accompanied even at low levels of GRP growth or vice versa. This is a consequence of the fact that regions usually stimulate the development of the economy and, for this, attract certain investments and qualified management, which leads to the rapid development of individual regions with good basic indicators and resource bases. However, over time, higher production costs and, as a result, investments will form in these rapidly growing regions. Equity capital begins to flow to other regions where the return on capital and investment is much higher.

Therefore, for the intensive development of both lagging and average regions, it is recommended to improve intersectoral and interregional economic ties between them. The problem of insufficient development of industries engaged in harvesting, storing and processing agricultural products is particularly acute. This issue is especially relevant for the southern and southeastern regions of the country. It is recommended to invest more material, technical and financial resources in the sphere of transportation, storage and processing of the agro-industrial complex.

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