

# Competitiveness of an Agro-Industrial Region as a Growth Factor of a Federal District's Welfare

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**Abstract.** The authors devote the paper to the research of the competitiveness level of the Belgorod region on the scale of the Central Federal District. When transitioning to market relations, regions, as independent economic entities are endowed with essential functions, the realization of which is conducive to the formation of a socio-economic and legal environment. It guarantees business and commercial structures reliable support in terms of social, economic and environmental security, and competitive recovery of a regional system as well. With the help of a well-known assessment method, 17 indicators were used in order to assess the position of the territory with regard to other subjects on the basis of statistical data. The analysis of main indicators of the Belgorod region's competitiveness has shown that in the period under study there is a positive trend in the change of most indicators of socio-economic development and competitiveness. According to a number of indicators, such ones as gross regional product per capita, volume of own-produced dispatched goods per capita, cash income per capita, retail trade per capita, total living space per capita, paid services volume per capita and infrastructure capacity the Belgorod region ranks among the top five. The most unfavorable moment is the last place in terms of "the proportion of the population with cash income below the subsistence minimum in the total population of a subject." Having summarized the aforesaid, we can draw a conclusion about the high level of the Belgorod region's competitiveness in the scale of the Central Federal District.

## 1. Introduction

The acquisition of economic self-sufficiency by regional systems in modern market conditions requires a reassessment of each subject position and functions on the scale of an economic space where decisions must be made. These decisions must ensure some conditions for balanced development of an economic space. At the same time, it is necessary to take into account such key phenomena and processes as sectoral specialization, investment and budget-financial operations, self-affirmation, choice of economic structure, etc. which ensure the position of a region. Any decision related to inter-regional cooperation is considered from the point of view of economic benefits and the



possibility of achieving fiscal stability, as well as the realization of strategic objectives of socio-economic development of the Russian Federation's constituent entities.

In the process of switchover to market relations, regions being independent and self-sufficient economic entities, are vested with such important functions as:

- formation of conditions ensuring development of business and expansion of production possibilities for using property;
- forming of a regional guarantees system, benefits for investors, business and commercial structures;
- attracting investors and improving economic structure by force of strengthening of regional competitive position;
- steady raising of external economic potential, developing commercial and economic ties;
- coordination and protection of regional interests in the national and world markets.

The realizing of these functions contributes to the formation of socio-economic and legal environment which guarantees business and commercial structures reliable support in terms of social, economic and environmental security, and thereby increasing the competitiveness of regional system.

In recent years, the concept of "competitiveness" has been heard more and more often from governmental authorities representatives' lips. This is due to the globalization of economy, with the integration processes taking place both in Russia and the world. It is necessary to ensure not only an adequate standard of living, infrastructure and other indicators within the country, but also occupy a worthy place among other developed countries, as this will inevitably lead to an influx of additional investments and funds into the country, and will create an extra impetus to further economic growth and development.

The problem of the research is as follows: the Belgorod region, as a leading agro-industrial region of the Russian Federation, is in need of increasing its competitiveness level in order to ensure its welfare growth.

The purpose of the research is to assess the competitiveness of the Belgorod region among the Central Federal District's regions and to develop ways to improve it.

The objectives of the research are: 1) to clarify the essence of the category "regional competitiveness"; 2) to analyze the existing methods of assessing the competitiveness of territories; 3) to assess the level of competitiveness of the research object.

The hypothesis of the research is as follows: the competitiveness of the agro-industrial region is a factor in improving of the federal district welfare.

## 2. Materials and methods (model)

The concept of competition is fundamental in a market economy. A. Smith also formulated the theory of competition and presented it in his paper "A Study on the Nature and Cause of the Wealth of Nations". In addition to A. Smith's works an important contribution to the development of the theory of competition was made by D. Ricardo, D.S. Mole, J. Robinson, J. Keynes, J. Schumpeter and others. However, scientists did not consider competition in the context of concrete countries or regions. In the second half of the 20th century, M. Porter developed the theory of a country's competitive advantages. It was he who began to think that not only individual businesses and goods can compete with each other, but individual regions and countries as well. Later on the concept of competitiveness was considered by the following authors: A.Z. Seleznev; Shekhovtsova L.S.; V.I. Vidyapin; M.V. Stepanov; V. Smirnov; D. Sepik; L.I. Ushvitsky and V.N. Parahin, who interpreted this concept in different ways.

As of today, there are various methods for regions' assessing (such authors as T.P. Skufina, S. Baranov, V.V. Smirnov, A.A. Kerashev, M.K. Tamova, etc.). Analyzed indicators are the main differences in their concepts.

The competitiveness of the regions represents today an undeveloped field of scientific research, despite there are lots of interpretations. For example, A.Z. Seleznev in his work "Competitive Positions and Infrastructure of Russian Market" gives the following definition: the competitiveness of

a region is its position and the position of its individual producers in the domestic and foreign markets, which is reflected through indicators which adequately characterize its state and dynamics. [1, p. 30]

L. S. Shekhovtsova regards region's competitiveness as a productivity of regional resources use, and first of all labor and capital, as compared with other regions. It depends on the value of gross regional product per capita and its dynamics [2, p. 20-32]. Thus, the author believes that a competitive region is characterized by the efficient use of resources in the broad sense of the word, that is, not only regional resource base, but human resources as well. In this concept there is one significant drawback i.e. the competitiveness is identified with the concept of productivity, and it is not the case. L.S. Shekhovtsova also thinks that it is reasonable to evaluate competitiveness through the gross regional product indicator. In fact, the value of the gross regional product is only one of many indicators taken into account when assessing regions' competitiveness.

V.I. Vidyapin and M.V. Stepanov in their book "Regional Economy" interpret the competitiveness of a region as an ability to realize main mission of its operation i.e. sustainable socio-economic development of a region with ensuring a high quality of life for the people. It is realized through the existing "competitive potential". [3, p. 89]. The authors believe that regions' competitiveness is determined not only by the occurrence of some initial advantages (geographical location, presence of natural resources etc.), but by management quality of their socio-economic development as well.

V. Smirnov also believes that competitiveness is based on an assessment of a region's competitive advantages [4, p. 2]. He gives the following definition: the competitiveness is a level of the relevance of a product (material, spiritual, intellectual, cultural etc.) produced and consumed by a given economic system both inside and outside it. [5, p. 7]. V. Smirnov relies on the theory of competitive advantage developed by M. Porter from Harvard University. In M. Porter's book "International Competition," he asserted that "there is no generally accepted definition of competitiveness. He also said that the concept of competitiveness in scale of a country level is the efficiency of resource exploitation. "Thus, the competitiveness, from Porter's point of view, determines success or failure in specific industries and a place that a country occupies in the world's economy system. National competitiveness is determined by the ability of the industry to develop consistently.

L.I. Ushvitsky and V.N. Parahin include three fundamental aspects in the definition of regional competitiveness: first, the necessity of achieving population's high standard of living (competitiveness provided by the population); secondly, the efficiency of functioning of a regional economic mechanism (competitiveness provided by production); thirdly, regional investment appeal (financial competitiveness) [6, p. 4].

We also investigated regions' competitiveness in our research. The level of information was taken as a basis of assessment. The research have shown that the higher level of informatization, the more competitive region is in the modern world [7]. This approach is similar to other researchers' ones [8].

The analysis of the existing interpretations of the category "competitiveness of a region" makes possible to use the following definition: "the competitiveness of a region is a dynamic value characterizing the position of a region and its individual producers in the domestic and foreign markets due to economic, social and political indicators adequately characterizing such position and its dynamics."

At present there are lots of methods to identify the level of competitiveness of territories. In the present research A.A. Kerashev and M.K. Tamova's methods was chosen in order to assess the Belgorod Region's position in scale of the Central Federal District on the basis of 17 main socio-economic indicators [1]. The heart of their method is as follows: the place of the region in the space of the federal district is considered for each type of indicators. At the same time, the best region takes first place, next nearest takes second place etc. Thus, one can comprehensively assess competitive strength of a region by calculating the final rating score as arithmetic average of the ranks obtained according to the ranks of indicators.

The convenience of this technique using is as follows: above listed indicators are available on the official website of the Russian Federation's territorial body of statistics [9] and the official website of the RA rating agency "Expert" [10].

The advantage of the method is that these indicators cover various areas of such region's activities as natural resources, economics, health care, construction, criminality etc., which were conducive to a more comprehensive assessment of the competitiveness of a territory [11]. It is worth noting that many of the indicators presented are calculated per capita, and are not compared in their absolute value.

### 3. Results and discussion

At present, the Belgorod Region is one of Russia's successfully developing industrial and agricultural regions and for several years has been among leading regions in terms of main indicators of economic development in scale of the Central Federal District: it takes second place in the gross regional product per capita (443086 rubles); fourth place in terms of the volume of shipped goods of own production per capita; third place in terms of the volume of goods shipped, work performed and services by the type of economic activity "manufacturing industries" per capita; first place in per capita production of agricultural products; third place in terms of the average cash income of residents per capita (29,579 rubles); 3rd place in terms of the level of housing provision (on average, there are 29.9 square meters of living space per capita in the Belgorod Region); first place in terms of the proportion of the population with incomes below subsistence minimum (8.2%) [12].

High above-enumerated positions are provided increasingly with unique regional geographical location with enormous wealth of mineral resources and black soil.

The basis of the regional economy is largely determined by the development of the industrial complex, in which one third of gross regional product is formed. In 2018, more than 80% of the volume of shipped industrial products fell to the share of processing industries.

The leading sector of the region's economy is agriculture and an agro-industrial complex. Its share in the region's GRP exceeds 20%. The agro-industrial complex and its basic industry - agriculture is one of the leading backbone sectors of the regional economy. The Belgorod Region takes fourth place in terms of agricultural production volume, first place in meat production, first place in compound feed production, second place in soybean production among the Russian Federation's subjects.

The positive dynamics of the Belgorod economy indicators characterizes region as one of Russia's fastest growing regions. The successful development of the Belgorod region is explained by balanced structure of the regional economy [13].

We will consider the dynamics of the Belgorod region's main indicators of the competitiveness. As a time interval for our research, we have taken the period 2016 - 2018. The choice of such a period for the analysis is mainly due to the global financial and economic crisis in 2016-2017. It is appropriate to observe trends in the level of competitiveness changes during the crisis and post-crisis periods [11]. It is worth noting that many of the presented indicators are calculated per capita without comparing in their absolute values.

The analysis of main indicators of the competitiveness of the Belgorod region has shown that there is positive dynamics in the change of most indicators of socio-economic development and competitiveness in the research period. So, for example, the Belgorod Region takes second place in terms of a generalizing indicator of the region's economic activity. This indicator is a measure of a process of producing goods and services i.e. gross regional product per capita, giving way only to Moscow. The growth of the region's GRP over analyzable period of time was 20% which makes it necessary to consider the dynamics of the volume of shipped goods of domestic production for all kinds of activities.

As a whole, the volume of shipped goods of domestic production per capita shows growth in 2018 as compared with 2016 by 23.52%. However, the Belgorod region takes only fourth place, giving way to Moscow, Kaluga and Lipetsk regions.

The basis of the regional economy is largely determined by the development of the industrial complex, where the third part of the gross regional product is formed. In 2018, more than 80% of the volume of factories shipments came from processing industries. According to the volume of dispatched goods, work performed and services per capita the Belgorod Region takes third place

among the Central Federal District's regions and the twelfth in the Russian Federation by such type of economic activity as "manufacturing".

**Table 1.** The Belgorod region's main indicators of the competitiveness.

Indicator	2016	2017	2018	Absolute deviation 2018 from 2016, %	Relative deviation 2018 from 2016, %
Gross regional product per capita, rubles	368875	400821	443086	74211	120,12
Volume of shipped goods of domestic production per capita, mln. rubles	375,86	434,10	464,29	88,43	123,53
Agricultural products in farms of all categories per capita, thousand rubles	121,59	142,38	147,04	25,45	120,93
Share of small enterprises,%	67,55	66,16	56,82	-10,73	84,12
Investments in fixed capital per capita, mln. rubles	78,044	95,036	92,686	14,642	118,76
Average per capita cash income, rubles / month	25372	28331	29579	4207	116,58
Real cash incomes of population,% to the previous year	99,7	97,9	99,1	- 0,6	99,40
Retail trade turnover per capita, rubles	164079	178097	192504	28425	117,32
Total area of living space per inhabitant, m <sup>2</sup>	28,3	29,1	29,9	1,6	105,65
Number of hospital beds per 10,000 population	80,4	77,1	72,7	-7,7	90,42
Volume of paid medical service per capita, thousand rubles	45,571	48,026	50,066	4,495	109,86
Proportion of the population with cash incomes below the subsistence minimum in the total population of the entity,%	7,5	8,5	8,2	0,7	109,33
Number of recorded crimes per 100,000 population	925	1019	884	-41	95,57
Unemployment rate,%	4	4,1	4	0	100,00
Innovative potential	8	9	8		
Infrastructure potential	3	3	3		
Natural resource potential	1	1	1		

The agro-industrial complex and its basic industry - agriculture is one of the leading backbone sectors of the Belgorod region's economy. They form both agrifood market, regional economic security and labor force, settlement potential in rural areas [14].

The Belgorod region is a leader in the Russian Federation in farm commodity production in farms of all categories. The region is realizing an action plan to promote import substitution in the agro-industrial complex, which includes 71 projects totaling 162.7 billion rubles. Today, the government program "Development of agriculture and fish farming in the Belgorod region for 2016-2020" operates in the region. Its main priorities are growth in prosperity of citizens, their living standards and

employment, sustainable rural development, modernization and technological reequipment of agribusiness [12].

The number of small-scale enterprises for the analyzed period in the region decreased by 15% and it put the Belgorod region in 4th place in the rating of the Central Federal District's regions. At the same time, the government takes this problem into consideration and actively realizes the state policy in the field of supporting small-scale and medium-sized enterprises with the assistance of such federal, regional authorities and development institutions as "Federal Corporation for the Development of Small and Medium Entrepreneurship"; "Foundation for Assistance to the Development of Small Enterprises in Scientific and Technical Spheres", "Microfinance Company Belgorod Regional Fund for the Support of Small and Medium-Sized Businesses", "Belgorod Guarantee Fund to Assist Crediting", etc.

The positive dynamics of the volume of investments in fixed capital per capita (the run-up in 2018 as compared with 2018 was 18%) allows to support economic growth successfully. The average income of the Belgorod region's residents per capita for analyzable period increased by 16.6% and amounted to 29,579 rubles by the end of 2018 that allowed the region to take third place in the Central Federal District. The leaders are Moscow and the Moscow region, the outsider is the Vladimir region. It should be said that the average per capita income in Russia for 2017 according to the data by the Federal State Statistics Service of the Russian Federation was 30,473.6 rubles, that is only 3% more than the Belgorod region's indicator.

At the same time, the real change in citizens' financial position in a subject can be judged by the index of the change in real cash incomes of the population. In the Belgorod region there is a cutback in this indicator.

In 2018 retail trade per capita in monetary terms in the Belgorod region amounted to 192.504 rubles (fifth place among the Central Federal District's regions), which is 17% higher than in 2016. The leader in terms of this indicator is Moscow where in 2018 retail trade turnover amounted to 346,602 rubles.

By the level of housing provision, Belgorod Region takes third place among the Central Federal District's regions, giving the pas to Moscow and Tver Regions. Housing policy is an essential element of social development. At the end of 2018, on average per a Belgorod region's inhabitant accounted for 29.9 square meters of living space that is 19% higher than in the Central Federal District.

In the process of comprehensive assessment of regions' competitiveness, it is necessary to evaluate public health service at the regional level as well. In the applied methodology it is proposed to appreciate health care according to the number of hospital beds per 10,000 people. In 2018, in the Belgorod region, there were 72 hospital beds per 10,000 people, and that puts the region in 17th place in the federal district. The leader is the Smolensk region with an indicator of 97.1 (the number of hospital beds per 10,000 people). As a whole, this is a pretty good result, but in order to raise the regional competitiveness it is necessary to improve medical services quality and solve problems taking place in the health care system.

The volume of paid services for the population reflects the volume of consumption citizens of various types of services provided to them for a fee. The leader in terms of providing paid services to the population in the Central Federal District is Moscow which is confirmed by the structure of regions' GRP. The Belgorod region takes fifth place in the ranking with an indicator of the volume of paid services per capita in the amount of 50,066 thousand rubles in 2018.

The proportion of the population with incomes below the subsistence minimum characterizes the level of poverty in the region. The Belgorod region is notable for its rather low level of poverty of the population, the proportion of the population with incomes below the subsistence minimum in the region is only 8.2%, and this makes the Belgorod region leading together with the Moscow region.

Crime in the Belgorod region is diversified in its displays and differs according to the gravity of its individual components in territories, types, characteristics of persons committing crimes and in many other parameters. In 2018 the number of registered crimes per 100,000 people in the region was 884.

The unemployment rate is a main indicator characterizing the state of the labor market. If an unemployment rate is close to a natural unemployment rate, then this situation is optimal, as it is considered that in this case all people who wish to find work find it. It is also considered that the natural rate of unemployment is at the level of 4-6%. The unemployment rate in the Belgorod region is at a fairly low level, at 4%. However, labor market has such significant problems as high level of unemployment in the countryside; lots of vacancies requiring low-skill workers; a large number of young professionals of various specialties without any operational experience who cannot get a job in their fields; imbalance in supply and demand for labor [13].

Thus, the analysis of indicators of competitiveness of all regions within the Central Federal District allows us to determine the rating of each subject in the federal district (Table 2).

**Table 2.** Formatting sections, subsections and subsubsections.

Indicators of competitiveness, thousand	2016	2017	2018
Gross regional product per capita, rubles	2	2	2
Volume of shipped goods of own production, work performed and services on their own for all activities per capita, mln. rubles	4	4	4
Products of agriculture in farms of all categories (in actual prices) per capita, mln. rubles	1	1	1
Share of small-scale enterprises (at the end of the year), %	1	1	4
Investments in fixed capital per capita, mln. rubles	7	5	5
Per capita cash income, rubles / month	4	4	3
Retail trade turnover (at actual prices) per capita, rubles	5	5	5
Total area of living space on average per inhabitant (at the end of the year), m <sup>2</sup>	3	3	3
Number of hospital beds per 10,000 population	16	15	17
Volume of paid medical service (at actual prices) per capita, thousand rubles	3	3	5
Proportion of the population with cash incomes below the subsistence minimum in the total population of the entity, %	18	18	2
Number of recorded crimes per 100,000 population	3	3	3
Unemployment rate, %	13	13	14
Innovative potential	8	9	8
Infrastructure potential	3	3	3
Natural resource potential	1	1	1
Total rating (average)	6,82	6,35	6,53
Place in the federal district	2	1	1

Thus, despite the low positions in the rating for some specific indicators, in the total aggregate of all indicators, the Belgorod Region takes first place among the Central Federal District's regions.

#### 4. Conclusion

The present analysis, carried out in all areas of the Central Federal District, makes it possible to assess the position of the studied region with regard to other ones. The Belgorod region occupies a leading position in a number of such indicators as agricultural products in farms of all categories per capita, share of small enterprises, natural resource potential. According to a number of indicators, it ranks among the top five: gross regional product per capita, volume of own-produced goods shipped per capita, per capita cash income, retail trade per capita, total living space, per capita, paid services per capita infrastructure capacity. The most unfavorable moment is the last place in terms of "the proportion of the population with cash income below the subsistence minimum in the total population of the subject."

The research has shown that the hypothesis concerning the fact that the competitiveness of the agro-industrial region as a factor in improving of the federal district welfare is correct.

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