

# *Economic security as a factor in the balanced development of an agro-industrial region (on the example of Belgorod region)*

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**Abstract** — Economic security is a factor in the balanced development of a region. It is an obligatory component of Russia's National Security Strategy, a guarantor and protection of national interests that contribute to the country's socio-economic development, as well as a necessary defense potential, in case of internal and external threats. Belgorod region, as a leading agro-industrial region in the Russian Federation, needs increasing the level of economic security in order to ensure its balanced development. The authors aim at developing the set of indicators for assessing the level of economic security and formulating a number of recommendations for enhancing Belgorod region's economic security on the basis of the existing methodology. In the proposed research, based on statistical indicators analysis obtained in 2018, Belgorod region's level of economic security was assessed. The assessment used threshold indices and values based on accumulated international experience and the experience of the country of interest with their actual values. The carried out analysis allows not only to determine the economic security level and its risks, but to identify the occurrence of these risks in various sectors of the regional economy as well. The authors have developed a system of measures to enhance Belgorod region's economic security in order to ensure its balanced development.

**Keywords** — security, socio-economic development, agro-industrial region, Belgorod region, economic security indicators, national security

## I. INTRODUCTION

The relevance of the study of economic security matters is confirmed by a number of facts. Firstly, the economic security is recognized as a mandatory component of Russia's National Security Strategy [1]. Its implementation is urged to promote national economy development, improve citizens' lives quality, strengthen social political consistency, ensure the

country's defense, state and public security, increase Russia's competitiveness and international prestige. Secondly, the main point of economic security more generally is in guarantees and protection of national interests that contribute to the country's socio-economic development, as well as a necessary defense potential, in case of internal and external threats.

As of today, an economic security is a complex concept which represents a state involving many types and spheres of public life. Originally, "economic security" was considered as a purely legal category and was associated with public administration, police, political surveillance and even state crimes [2]. At present, researches' opinions can be divided into three areas. A number of scientists consider economic security to be immunity from external and internal threats; an ability of an economy to provide stability, independence, economic sustainability and effective satisfaction of public needs at the international and international levels (L.I Abalkin, A.M Asaliev, S.V. Borozdin, E.N Borisenko, O.M Bandurka, etc.).

The second group of experts (A.N. Lyashenko, A.A. Melikhov, V.K. Senchagov) offer to consider the economic security not only at the macro level, but at the level of a single enterprise as well [3]. In their opinion, the main point of economic security is the creating of two basic conditions: legal and economic ones. At that these conditions should exclude social criminalization. The third trend is presented by such scientists as A.I. Arkhipov and R.A. Belousov. They treat an economic security as the state of economy and institutions which ensure guaranteed protection of national interests, social policy orientation, sufficient defense potential even in case of unfavorable internal and external development conditions [4].

Particular attention should be paid to the terminology of the National Security Strategy of the Russian Federation [1]. In this official document the economic security is treated as the state of the national economy protection from external and internal threats. This status guarantees the economic sovereignty of the country, the unity of its economic space, the conditions for the implementation of the Russian Federation’s strategic national priorities.

The state of economic security is usually evaluated by means a set of criteria reflecting the qualitative side of counteracting to economic security threats. At present on a regional scale, various indicator systems are used in order to assess and monitor economic security in a region [5]. At the same time, three key approaches to their development deserve the most attention: 1) on the basis of well-known macroeconomic indicators (GDP, national income and others.); they are called “economic and social indicators” in statistics. 2) On the basis of relative indicators (weights, indices etc.) which are widely used by many scientists for analytical purposes. 3) On the basis of “anxiety indicators.” If we compare their values with actual indicators it is possible to identify the excess of legitimate values in proper time and make government executive bodies take a look at it. These indicators act as a “signal” for the timely interference of intergovernmental, governmental and regional agencies [6]. Thus, today there is no unified methodology for assessing the level of regional economic security.

The problem of the study is as follows: Belgorod region, as a leading agro-industrial one of the Russian Federation, is in need of increasing the level of economic security in order to ensure its balanced development.

The purpose of the study is as follows: on the basis of existing methodology to develop the authors’ set of indicators for assessing the level of economic security and formulate recommendations for enhancing Belgorod region’s economic security.

The research tasks are as follows:

- 1) to present the authors’ interpretation of the category “economic security of a region”;
- 2) to study methods of economic security assessment existing in regional management practice;
- 3) to develop a set of indicators for assessing the level economic security of Belgorod region as a leading Russia’s agro-industrial region;
- 4) to suggest measures for growing region’s economic safety in order to ensure its balanced development.

The hypotheses of the study are as follows:

- 1) economic security is integrated into the structure of the region’s socio-economic system;
- 2) enhancing the economic security of the region is the necessary condition for ensuring the protection of its socio-economic relations from internal and external threats;

3) management of the region’s economic security contributes to the creation of conditions for balanced development of the region’s socio-economic system.

**II. MATERIALS AND METHODS (MODEL)**

To assess the level of an agro-industrial region’s economic security the authors offer to use threshold indices and values based on accumulated international experience and the experience of the country under investigation with their actual values. However, the list of indicators and their threshold values are different from different researchers’ points of view.

The accumulated domestic and foreign experience in the field of development and application of indicators systems, threshold values and indices suggests that they are based on numerous fundamental indicators. It causes the difference of classification features. Indicators and indices systems are known in Russia, and limiting values are used instead of “anxiety indicators”. In order to identify the most suitable indicators for assessing the economic security of the region, we will compare several well-known techniques (table 1).

**TABLE I. COMPARATIVE ANALYSIS OF TECHNIQUES FOR ASSESSING AND MONITORING THE ECONOMIC SECURITY OF THE REGION**

Indicators	Technique						
	<i>Cabinet of Ministers of the Ukraine</i>	<i>Moscow State University</i>	<i>Expert Rating Agency</i>	<i>Bank of Austria</i>	<i>World Bank</i>	<i>Yashin, Puzov et al</i>	<i>Institute of Economics, Ural Branch of RAS</i>
Natural resources		+	+		+	+	+
Human resources		+	+	+	+	+	+
Economic and financial resources	+	+	+	+	+	+	+
Production resources	+		+		+	+	+
Institutional and information resources			+	+		+	+
Social resources	+	+	+	+		+	+

The analysis shows that all designated spheres of the territorial socio-economic life include techniques developed by S.N. Yashin, E.N. Puzov, A.I. Tatarkin et al [7].

In most of the examined methods, the indicators used in the calculation are based on statistical data. In the subsequent analysis, there is complexity in identifying precisely those indicators, the comparison of which with threshold values will allow us to carry out a complex analysis of the state of the regional economy, as well as to find out the most critical areas. Therefore, in this context threshold values are limiting ones, which discrepancy hinders various components of

reproduction from normal development. These components contribute to the formation of negative, destructive impacts in the field of economic security. When setting thresholds, the strategic interests of the Russian Federation's constituent entity should be taken into account because after goals attainment for each area, the region can move to a new phase of development.

Thus, we can conclude that none of scientific studies provides for a system of indicators of regions' economic security with certain threshold values. At the state level, the most common technique for assessing regional economic security is S. Glaziev's one (Table 2).

TABLE II. INDICATORS OF ECONOMIC SECURITY ASSESSMENT ACCORDING TO S. GLAZIEV'S CRITERIA

Indicators	Threshold Value
1. GDP volume	
1.1. GDP in general from the average for the "seven",%	75
1.2. GDP per capita from the average for the "seven" ,%	50
1.3. GDP per capita of the world average	100
2. Share of manufacturing, %	70
3. Share in industrial production of mechanical engineering, %	20
4. Volumes of investments of GDP, %	25
5. R & D expenditures of GDP, %	2
6. Share of new types of products in the volume of products, %	6
7. Share of people in the population with incomes below the subsistence minimum, %	7
8. Life expectancy of the population, years	70
9. Correlation between incomes of 10% of the highest-income groups and 10% of the lowest-income groups, times	8
10. Crime rate (number of crimes per 100 thousand population), thousand	5
11. Unemployment rate according to ILO technique, %	7
12. Inflation rate for the year, %	20
13. Volume of domestic debt of GDP, %	20
14. Service of public debt of tax revenues of the budget, %	25
15. Volume of external debt of GDP, %	25
16. Share of external borrowing in covering the budget deficit, %	30
17. Budget deficit of GDP, %	- 5
18. Deposits in foreign currency in % to total money supply	10
19. Volume of cash foreign currency to the volume of cash rubles, %	25
20. Total money supply (M2) as % of GDP	50
21. Import of GDP, %	30
22. Food import in % of food consumption	25
23. Differentiation of federal subjects according to the subsistence minimum, times	1,5

In our opinion, a number of considered indicators can be used as a basis for developing a system of indicators of regional economic security.

In this study, the object is Belgorod region as a leading agro-industrial one in the Russian Federation. Belgorod region is a part of the Central Black Earth economic region and the Central Federal District.

Today, Belgorod region is one of Russia's successfully developing industrial and agricultural regions and over several years is among leading regions in terms of the key indicators of economic development in scale of the Central Federal District [11].

Belgorod region takes the 2nd place in the gross regional product per capita (443086 rubles); the 4th place in terms of the volume of shipped goods of own production per capita; the 3d place in terms of the volume of goods shipped, work performed and services by type of economic activity "manufacturing industries" per capita; the 1st place in production of agricultural products per capita; the 3rd place in terms of the average cash income of residents (29,579 rubles) per capita; the 3rd place in terms of the level of housing provision: on average, 29.9 square meters of living space per capita take place in Belgorod region; Belgorod region takes the 1st place in terms of the proportion of the population with incomes below subsistence minimum (8.2%).

High listed positions are provided to a greater extent with the unique geographical location with plentiful supplies of mineral resources and black soil. The basis of the regional economy in many respects is determined by the development of the industrial complex, in which the third part of the gross regional product is formed. In 2016, more than 80% of the volume of shipped industrial products accounted for processing industries.

Agriculture is a leading sector of the regional economy and the share of agro-industrial complex in the region's Gross Regional Product (GRP) exceeds 20%. The agro-industrial complex and its basic industry - agriculture is one of the leading backbone sectors of the economy. Among the Russian Federation's subjects, the region ranks 4th production in agricultural production volume, takes the 1st place in meat production, the 1st place in combined feed production, the 2nd place in soybean production. The positive dynamics of a number of Belgorod region's economy's indicators characterizes this region as one of the fastest growing regions in the Russian Federation. The successful development of Belgorod region is explained by the balanced structure of the economy [8].

### III. RESULTS AND DISCUSSION

Using the existing experience of identifying the level of economic security in the region, we will compile a list of indicators for the agro-industrial subject analyzing. According to scientists' opinions, the most significant are the following indicators: GDP volume as a whole of the average for the G-7 (%); manufacturing industry share (%); investment volumes (% of gross regional product (GRP); R & D expenses (% of GRP); share of new types of products in volume of output (%); share of people with incomes below subsistence minimum (%); life expectancy of the population (in years); gap between incomes of 10% of the highest-income groups and 10% of the lowest-income groups (the number of times); crime level (%); unemployment rate (%); inflation rate (% per year); budget deficit (% of GRP); import (% of GRP). The choice of indicators is due to the need to disclose the main

components of the region's socio-economic development: economic and financial, production, institutional and information resources and social ones. S. Glazyev's criteria are used as threshold values.

TABLE III. THE ASSESSMENT OF THE LEVEL OF BELGOROD REGION ECONOMIC SECURITY, 2018

Indicators	Threshold Value	Assessment	Compliance
GDP volume as a whole from the average for G-7,%	75	26	-
Share of manufacturing,%	70	1,6	-
Investment volumes,% to GRP	25	21	-
R & D expenses,% of GRP	2	0,25	-
Share of new types of products in volume of output, %	6	7,3	+
Share of people with incomes below subsistence minimum, %	7	8,2	-
Life expectancy of the population, years	70	72	+
Gap between incomes of 10% of the highest-income groups and 10% of the lowest-income groups, times	8	13,1	-
Crime level, thousand	5	1,02	+
Unemployment rate, %	7	4	+
Inflation rate, % per year	20	1,1	+
Budget deficit, % of GRP	- 5	0,44	-
Import, % of GRP	30	0,2	-

The conducted analysis allows us not only to determine the level of economic security and its risks, but to identify the occurrence of these risks in different areas of the regional economy as well. As can be seen from the table III, the level of Belgorod region's economic security is not stable: only 5 indicators conform to threshold values. It shows that the region's economic security level is 38%. Therefore, management of economic security for ensuring Belgorod region's balanced development should be based on strengthening of the indicators whose values do not meet the criteria of the region's economic security.

The conducted research allows us to formulate measures necessary to enhance Belgorod region's economic security in order to ensure its balanced development.

1. The formation of industrial and industrial associations on the territory of the region at the expense of the development of domestic and foreign markets is recommended. It will ensure the leading position of the regional economy in the economic space of the federal district and Russia as a whole. In addition it will ensure the development of high technologies and innovations, the development of new innovation-oriented productions.

2. Buildup of innovative technologies in all spheres of the region's activities and supporting of small and medium-sized businesses innovative activity will ensure their contribution to

the diversification of the economy at the expense of flexible creation of market niches which are not attractive for big business.

3. Search for new mechanisms of state regulation and management of socio-economic processes; forming of a strategic management system for the regional structure; ensuring high quality and availability of government services provided by government executive bodies.

4. Forming the conditions for social policy activating: reducing the imbalance of demand and supply of labor force by means of reforming vocational education system; qualitative changes in the level of material security of the population in order to improve their social well-being; stimulating baby boom and support for young families; security of flexible labor market conditions.

Thus, the implementation of the suggested measures will increase the level of Belgorod region's economic security ensuring its balanced socio-economic development.

#### IV. CONCLUSION

The analysis of indicators of the economic security level demonstrates the significance of Belgorod region's diversification in social, financial, economic, industrial, informational and other fields. Therefore, the suggested hypothesis-1 can be considered proven.

The inclusion of GDP volume as a whole from the average for the G-7 in the system of indicators of assessing the level of economic security indicates a comparison of the region with the indicators of the development of leading world states whose development often acts as an external threat to the Russian Federation's subjects. The suggested hypothesis-2 can be accepted correct accordingly.

Measures to implement recommendations to improve the level of Belgorod region's economic security cover all fields of socio-economic development. The desire to reach the threshold values contributes to the formation of a state of equilibrium in the region's development. In this connection, the suggested hypothesis-3 can be considered proven as well.

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