



Methodological Approach to the Formation of the System of Criteria and Indicators of Economic Security at the Regional Level

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Keywords: Regional Socio-economic System, Socio-economic System Structure, Threats, Status Indicators, Thresholds, Development Trends.

Abstract: Domestic scientists have repeatedly studied the issues of assessing the state of the regional socio-economic system. The results of these studies have been reflected in numerous scientific publications and strategic documents of the Government of the Russian Federation. Permanent changes in the economic conditions of individual groups of economic agents, as well as the development of exogenous conditions of national socio-economic systems functioning, imply the emergence of new threats to the sustainability and risks to the functioning of socio-economic systems at all levels. The article proposes the development of established methodological approaches to analyzing and assessing the state of economic security at the regional level and, in particular, to the selection and justification of the system of criteria and indicators of the state of regional socio-economic systems. Based on the key premise of the necessity and possibility of balanced development of the region, trends of national security, and consideration of exogenous threats, the formation of the system of indicators - factors that characterize different spheres of life of the region - is proposed. Each sphere of life activity can be characterized by potential risks and threats in terms of deviation from thresholds. The assessment of the "quality of life" as the main component of the social component of the socio-economic system is proposed as an indicator of the state of the region's socio-economic system.


1 INTRODUCTION


The prerequisite for forming the methodological approach to the study and selection of criteria and indicators assessed within the state of economic security of the region was the axiom about the need for balance and sustainability of the national economy. A balanced and sustainable national economy means a balanced and sustainable state of interaction between:

- National and global economies; at this level, foreign economic security is interpreted as a state of the economy in which the necessary balance between openness and closedness of the national economy (its involvement in the world economy) and the ability to sustainability and development is not violated (Pushkareva, 2018);

- Subjects and structures within the national economic system; in this context, intra-economic security is a state of the economy in which the necessary balance of the economic system, as a way of ordering, organizing, and self-organizing the economic life of the country and its ability to sustainability and development, including in the geo-economic space, is not violated (Ekonomicheskaya bezopasnost' Rossii, 2018).

Thus, theoretically, the region's economic security as a subject of the national economic system acts as a dynamic concept of balanced and sustainable economic development of the entire national socio-economic system, supported at the mesolevel, and formed to counteract threats formed at the regional level and inter-regional interaction.

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The reasons for the gap in the development of methodological issues of criteria and indicators of economic security of the regions various researchers associate with different circumstances: the lack of modification of used indicators, characterizing the economic security of specific regions in modern conditions, the contradiction of different methodological positions, the problem of unification of regional statistical data that are used to assess the level of regional economic security.

In this case, the author's scientific hypothesis is that it is proposed to proceed from the formulated most common views on the economic security of the region when this term means the state of protection from external and internal threats, in which economic conditions for the implementation of strategic national priorities of the Russian Federation, in general, are provided, basic criteria for assessing the state of the socio-economic system (Ukaz Prezidenta Rossijskoj Federacii from 31.12.2015 №683), as well as indicators of stability of regional socio-economic system of the region (Karanina E, 2017; Innovacionnoe upravlenie tekhnologicheskim razvitiem promyshlennosti regiona, 2018).

2 RESEARCH METHODOLOGY

The key legislative provisions of the Russian Federation are formulated based on the fact that the content of economic security includes not only assessment but also the management of the state of sustainability of national and regional socio-economic system ("ensuring economic security - implementation by public authorities, local authorities and the Central Bank of the Russian Federation in cooperation with civil society institutions of a complex of political, organizational, socio-economic, informational, legal and other measures aimed at countering challenges and threats to economic security and protection of national interests of the Russian Federation in the economic sphere").

Therefore, the selection and justification of criteria and indicators for assessing the socio-economic system of the region require a deeper disintegration of the objects of analysis, including the level of system-forming subsystems.

In practice, the system of national accounts (SNA), which, under the methodological provisions on statistics, is a system of interrelated indicators used to analyze and assess macroeconomic processes in more than 150 countries with market economies (Building the System of National Accounts, 2014),

and used as a system of target indicators of economic development.

The system of national accounts employs the grouping of economic agents by sectors, which is a set of institutional units with similar objectives, homogeneous in terms of functions performed and sources of financing, which determines their similar economic behavior. It should be noted that production and income generation accounts are compiled not only by the economy as a whole and by sectors but also by industries. Aggregation of indicators at the mesolevel makes it possible to assess the state of sectoral production complexes. The methodological problem is as follows:

- On the one hand, the production and income generation accounts are not generated regionally. Therefore, their use as an information base for selecting criteria for assessing the targets of sustainable development of the region is problematic.
- On the other hand, aggregating indicators does not at all imply simply summing up threats and hazards.

Therefore, in our opinion, it is erroneous to form the economic security model of the socio-economic system of the region based on disaggregated evaluation criteria used in the economic security model of the national socio-economic system. Moreover, as a rule, the current budgetary and tax legislation does not take into account the industry specifics of the region, the specifics of productive forces location within the formed financial and industrial groups, natural monopolies, transnational companies. Hence, the system of criteria and indicators involves significant differences in threshold values for different regions.

The analysis of methodological approaches to the assessment of economic security of socio-economic systems has allowed us to formulate the basic provisions used to form a system of criteria and indicators, namely:

- Economic security is as hierarchical as security in the most general sense;
- The concept of economic security is complex, as it includes the main types of security;
- The subjects affecting the state of economic security are the threat sources themselves, as well as the interaction between them;
- An essential role in the formation of economic security at all levels is played by the state administration, including the system of state regulation of economic relations.

As an element (subsystem) of the macroeconomic system of the national economy, the region is

connected and dependent on other regions. Therefore, the complex and multi-level system of economic security involves studying its state not only at the macro level but also at the level of individual territorial entities, i.e., at the mesolevel. Therefore, it seems fair to conclude that economic security is presented as a system of different levels: macro-level - national, mesolevel - regional, micro-level - economic entity, individual.

The regional socio-economic system, being a link between micro and macro levels, has the property of integrity and uniqueness by virtue of its attachment to specific natural and climatic conditions. In addition, the regions have significant autonomy and powers in the economic and legal spheres. Assessing the existing model of regional governance as insufficiently effective, the researchers conclude that this model has led to the fact that, for a long time, the development rate of the regions productive sector has been many times higher than the rate of social evolution, assessed by most domestic scientists based on the integral criterion "quality of life" (Rossoshanskij, 2016).

The peculiarity of assessing economic security at the mesolevel is that the region is a complex integral socio-economic and political entity, part of the state's unified socio-economic and political system. Accordingly, when solving the problems of economic security of the region, one should take into account the criteria related both to the state as a whole and to the specifics of economic security of individual organizations and enterprises operating in this region.

The economic security essence of a region's socio-economic system consists of the ability and capacity of its economy to improve the social sphere (quality of life of the population), which is subject to the influence of internal and external threats. Thus, the object of assessing the economic security of the socio-economic system of the region is the social system considered in the location of the region's territory and all elements of its economy within this territory.

It is fundamentally important to understand that the economic security of the socio-economic system of the region should be considered as a projection of the problem of ensuring national economic security at the regional level. Accordingly, the economic security on the meso-level is provided by identifying and preventing actions of internal and external threats in the economic, social, environmental, informational, and other spheres of life of the region on the state of the socio-economic system of the region.

Therefore, quantitative and qualitative criteria of the state of the national socio-economic system (and their thresholds, exceeding which causes a threat to the country's economic security) should also be valid for the meso-level.

We believe that quantitative criteria developed for the country as a whole should be disintegrated for each of its regions. In this case, the composition of criteria and indicators of economic security of the Russian Federation of the socio-economic system of the region should correspond to the corresponding components of criteria and indicators in part relating to the economy and national interests of Russia as a whole. Qualitative indicators of the state of the national socio-economic system - indicators should be formulated, first of all, considering the uniqueness of the social component of the regional socio-economic system.

3 RESEARCH RESULTS

Based on research and systematization of quantitative assessment indicators - economic security criteria and for localization of possible threats to the social subsystem of the regional socio-economic system such areas of life as economy, health care, education and culture, environmental situation, law enforcement system are highlighted.

The author's methodological approach to the selection of criteria and indicators is based on the following provisions:

- The integral characteristics of the state of the social sphere, corresponding to the spheres of functional impact on the quality of life, were chosen as criteria;
- The values of the criteria are formed depending on the values of quantitative indicators - factors associated with a particular area of functional impact;
- Trends in the factors characterize the probability of potential threats to the quality of life;
- The most likely threats to the quality of life are quantified by the development of trends within (or beyond) the

Based on the set of criterion values, it is possible to judge the presence of a critical level of threats arising in a particular area of functional impact. The aggregate values of the criteria make it possible to judge the presence of probable consequences for the state of the "quality of life" indicator (Table 1).

As early as 1997, experts of the Security Council of the Russian Federation developed an approximate

Table 1: Most likely threats to the regional socio-economic system, affecting the quality of life.

Scope of functional impact	Integral characteristic of the state of the social sphere	Indicator - factor	Trend	Most likely threats
Economy	Population well-being	Gross domestic product, RUB mln	Decrease	Decrease below threshold, %
		Official unemployment rate, %	Decrease	Decrease below threshold, %
		Ratio of average per capita cash income to the subsistence minimum, %	Decrease	Decrease below threshold, %
		Population with incomes below the subsistence minimum, %	Decrease	Decrease below the subsistence minimum, %
	Social conditions of life	Total floor area of residential premises per resident, m2	Decrease, m2 per inhabitant	
		Commissioning of residential buildings, m2	Decrease, m2	
		Level of housing amenities (gas, water, sewerage, heating, telephone), %	Decrease to level, %	
Health	State of health	Life expectancy at birth, years	decrease (-), years	Decrease below the established level, years
		Natural increase, population decrease	decrease (-), pers.	Decrease below threshold, %
		population loss, pers.	decrease (-), pers.	Decrease below threshold, %
		Capacity of outpatient clinics, thousand visits per shift;	Decrease, thousand visits per shift	Decrease below the normative level, %
Education and culture	Educational and cultural level	Graduation of specialists by specialized secondary and higher educational institutions, thousand people;	Decrease, pers.	-
		Number of visits to cultural institutions (theatres, museums, exhibitions) per 1,000 people	decrease, number of visits per 1,000 people.	-
- Ecology	Environmental situation	Air pollutant emissions from stationary sources, thousand tonnes	Increase, thousand tonnes	Increase above MPC levels, thousand tonnes
Law enforcement subsystem	Moral state of society	Number of registered crimes per 100,000 people	Increase, crimes per 100,000 people	-

list of indicators - factors for determining the criteria of national economic security of the Russian Federation (Lukin, 2021). Researchers criticize the developed system of criteria and their thresholds precisely to evaluate the integral criterion "quality of life" (Mulugeta Tesfaye Teshome, 2019). Thus, Andrey Illarionov, in his article "Economic Security Indicators by S. Glazev's Methodology" notes that "the threshold value of the indicator "volume of gross domestic product" of 75% of the average for the G7 countries (and equivalent in 1996 to 1670 billion dollars at PPP in prices of 1993) does not meet not

only Russia but also all the countries of the modern world except for the three largest - the United States, China, and Japan. Therefore, if we follow the methodology of S. Glazev, it turns out that according to this indicator, almost 99% of countries and more than 72% of the world's population are "behind the critical line" of economic security" (Illarionov, 1996).

Generalization of the information presented in various training and methodological materials allowed us to compile Table 2, developed by the author and characterizing various aspects of

functional systematization of the criteria of threats to economic security in the socio-economic system of the region. In constructing Table 2, we formed the author's idea of the content of the set of classification

attributes corresponding to the security threats to the main spheres of life of the social subsystem of the socio-economic system of the region, which includes social and economic components.

Table 2: Grouping of threats to the main spheres of life and their likely consequences for the socio-economic system of the region.

Functional group of criterion formation	The most likely threats	Likely implications	Possible and feasible measures counteraction (FTP. funded from the federal budget as of 2020, regional programs, etc.)
Economy			
GRP	Fall in GRP	Deindustrialization of the economy	State and regional regulation of economic development. Federal target programs for the development of territories (FTP "South of Russia (2014 - 2020)" (approved by Russian Government Resolution No. 1297 of December 26, 2013, "Economic and Social Development of the Far East and Trans-Baikal Region for the period until 2018" (approved by Russian Government Resolution No. 480 of April 15, 1996), etc.)
Innovations	Reduced regional budget revenues for science development	Technological backwardness, destruction of intellectual potential	Increased allocation for the implementation of innovative projects
FEA	Increased share of imported products, the reduced share of manufacturing in the region's exports	Dependence of the region's livelihoods on imported products, colonial (raw material) economic structure	Targeted agro-industrial development
	Strengthening of differentiation in incomes of the population by regions	Weakening of intraregional ties, extinction of territories (municipalities)	Fiscal and budgetary management Intergovernmental fiscal transfer system
Shadow economy	Increase in the share of the illegal sector in the GRP structure	Decline in the country's economic development, reduction of budget revenues	Strengthening the fight against corruption, tax regulation
Centralization (globalization)	Reduced competitiveness of local producers	Curtailed production by local producers	Implementation of programs to prepare industries and production facilities for integration into the global production system
State of the biosphere	Global environmental pollution	Increased number and severity of emergencies and disasters	Improvement of measures to prevent environmental pollution and technogenic accidents Federal Target Program "Protection of Lake Baikal and Socio-Economic Development of the Baikal Natural Area for 2012 - 2020 Federal Target Program "Ensuring Nuclear and Radiation Safety for 2016 - 2020 and for the Period until 2030

Table 2: Grouping of threats to the main spheres of life and their likely consequences for the socio-economic system of the region (cont.).

Functional group of criterion formation	The most likely threats	Likely implications	Possible and feasible measures counteraction (FTP. funded from the federal budget as of 2020, regional programs, etc.)
Social sphere			
Population growth	Decrease in natural increase	Depopulation	Increase in allocations to the Federal Target Program "Development of Physical Culture and Sports in the Russian Federation for 2016 - 2020".
Fertility	Declining fertility rate	Depopulation	
Social burden	Increase in the share of people of retirement age	Aging population	Increase in the retirement age
Funds ratio (decile)	Increase in the gap between maximum and minimum incomes of the population	Antagonization of the social structure	Tax regulation, improvement of social programs, state support for vulnerable segments of the population
Wages	Decrease in the degree of excess of the average wage in the region over the subsistence level	Decrease in the motivational function of wages, drop in labor productivity	
Unemployment	Increase in the share of the unemployed	Dequalification of the labour force	Improvement of the training and retraining system
Deviant behaviour	Increase in crime rates, rates of alcohol consumption	Criminalization of society, physical and mental degradation of society	Promotion of healthy lifestyles, involvement of young people in the implementation of public and government programs Federal Target Program "Development of the Penal and Correctional System (2018 - 2026)
Legitimacy of power	Decreased level of public confidence in regional and local authorities	Alienation of power from the people	Increasing the degree of information openness of the authorities. State Program "Information Society". Target Program "Development of Information Technologies in the Irkutsk Region"
Population growth	Decrease in natural increase	Depopulation	Increase in allocations to the Federal Target Program "Development of Physical Culture and Sports in the Russian Federation for 2016 - 2020".
Fertility	Declining fertility rate	Depopulation	
Social burden	Increase in the share of people of retirement age	Aging population	Increase in the retirement age

Economic security of the region, as a subject of the Russian Federation, is a component of the economic security of the entire state, since the subjects of the Russian Federation are not only public entities, but also, from the perspective of the economy, integral socio-economic entities and, therefore, should be considered as part of the economic system of Russia. It is natural that there is

no absolute economic security for the state and its regions (as well as for the whole society and individuals), because there are always some external and internal threats to the economic system of any country.

Therefore, the functional grouping of criteria presented in Table 2, as well as the potential consequences of factors going beyond the threshold

values can be detailed when the impact of any of the threats increases, supplemented or reduced when additional threats to national economic security arise, or when the probability of any of them decreases.

4 DISCUSSION OF RESULTS

Based on the results summarized in Table 1 and Table 2, we can conclude that the economic security criteria, their thresholds, and assessment methodology is an evolving and methodologically adjusted system of indicators, reflecting the strategic development objectives of the region at a certain stage of development of both the state and the world community.

We believe that, in the context of resolving theoretical contradictions that have led to the problems of methodological approaches to the selection of criteria and indicators for assessing the economic security of the socio-economic system at the regional level, it is necessary to specify the subject of research, defining the way (principle) of subsystems allocation in the socio-economic system of the Russian Federation. As such, it is advisable to consider the allocation of subsystems as the subject allocation of regions of the Russian Federation when the subject is allocated under the requirements of budget and tax regulation (Osnovnye napravleniya byudzhetoj, nalogovoj i tamozhenno-tarifnoj politiki, 2021).

Assuming that a prerequisite for the implementation of national strategic objectives in the field of economic security is the presence of a certain critical level of health protection, Article 41 of the Russian Constitution guarantees to every citizen the right to health protection and free medical care in state (municipal) institutions, which is implemented through the payment of insurance premiums, budget funds, and other revenues.

Based on the identified contradictions of normative provision of strategic development tools and problems of practical implementation of strategic tools of public administration, it is logical to assume that the level of health care development can be used as a tool for analysis, assessment, and development of economic security of a subject of the Russian Federation.

From the summary of the formulated above methodological ideas about the composition of criteria and indicators of economic security of the socio-economic system of the region, we can consider that the main factor that provides interconnection and interaction of subsystems, integrating the region as a

unified socio-economic system, is the activity of people. Human is an organic part of each of the subsystems. It is part of nature, the main component of the productive forces of the national economy, and, finally, part of the population, as it forms the socio-territorial community proper through connections and relations with other people.

5 CONCLUSION

The conducted study of the criteria and indicators of economic security of the region's socio-economic system allows us to judge the health sector as the most important element of the region's socio-economic system, the management of which will make it possible to achieve the goals indicated in the strategic programs for ensuring economic security.

Taking into account the formulated scientific hypothesis, it can be considered that the state of health care development as a tool to assess and ensure economic security of the socio-economic system of the region should be considered as a particular object of modeling in the framework of the present study.

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