

ENSURING ECONOMIC SECURITY OF THE STATE IN THE CONTEXT OF GEOPOLITICAL CHALLENGES AND THREATS

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Abstract: The article examines the peculiarities of the formation and assessment of the state's economic security in the conditions of systemic transformation of the global economic security system. The key role of the functions of economic security in the formation of the system of economic security of the national economy at the macro level is defined. The role of the Human Development Index in the formation of the economic security assessment system in terms of the need to ensure an effective socio-economic mechanism that determines the effectiveness of the security of the national economy is defined. The importance of the global competitiveness index for assessing the dynamics of economic security of individual countries is considered.

Keywords: Economic security of the state, Functions of economic security, Index of global competitiveness, Index of human development.

1 Introduction

The specificity of the functioning of the system of economic relations is currently marked by a high level of globalization and is also directly related to the strengthening of the social division of labour. In this aspect, there is a significant need for effective provision of economic security at the state level in connection with the need to ensure its socio-economic interests and the need to stimulate the dynamic development of the national economy in general. At the same time, ensuring sustainable socio-economic development, forming a mechanism for countering internal and external threats, raising the standard of living of the population, and developing a system of international economic interdependence are of particular relevance. On the other hand, the relevance of the study of economic security in the scientific field is determined by the powerful consequences of potential global crises on world markets and the objective need to develop rapid response measures to large-scale threats within the framework of the national economy.

It is also worth noting that in recent years, new approaches to the assessment of economic processes in general and economic security, which are based on the application of new information and digital technologies, have become important. All this significantly speeds up the decision-making process in the field of ensuring economic security at all levels. At the same time, disregard for economic security can lead to catastrophic consequences and can manifest itself in the decline of certain sectors of the economy, the bankruptcy of enterprises, and the imbalance of the life support system of the country's population. These problems arise primarily due to the inconsistency of the social and economic development of the country and the lack of scientific justification for the reforms being carried out. Therefore, there is an urgent need for a comprehensive study of these problems, as well as the formation of approaches to the regulation of the economic security system at the national level. In addition, a reliable assessment of the socio-economic consequences, whose qualitative consideration will contribute to the formation of the socio-economic security of the country's population, becomes particularly relevant.

2 Literature Review

The study of the problems of the effective functioning of the

economic security system at the level of the national economy is sufficiently widely disclosed in the specialized economic literature. In this aspect, significant attention of scientists when studying this issue is paid to the direct study of practical approaches to ensuring the economic security of the state. This problem is most widely disclosed in the works of such researchers as O. Agres [1], I. Balaniuk [4], A. Boiar [6], M. Dziamulych [15-23], N. Gavrylenko [24], T. Kravchenko [27], V. Onyshchenko [31], R. Ribeiro [34], S. Shkarlet [37], T. Shmatkovska [38-41], O. Stashchuk [46-48], Z. Varnalii [50], I. Yakoviyk [52], O. Yatsukh [54], A. Zieľińska [56] and others. At the same time, it is also worth highlighting the significant contribution that was made within the framework of the study of the problems of finding solutions to ensure economic security based on the formation of specialized security models. In particular, it is necessary to note the works of such scientists and practitioners as O. Apostolyuk [2], V. Baidala [3], O. Binert [5], I. Britchenko [7-13], Y. Chaliuk [14], Z. Gbur [25], T. Nestorenko [28], N. Onyshchenko [30], J. Reitšpís [32], N. Serdiuk [36], R. Sodoma [42-45], V. Tretiak [49], I. Voronenko [51], Ya. Yanyshyn [53], N. Zachosova [55] and many others.

However, dynamic changes in the global economic system, as well as a significant increase in risks and threats in financial markets lead to the need for constant improvement of existing models of economic security, which requires further research into this problem.

3 Materials and Methods

One of the key indicators on which the state's modern economic security system is based is the Human Development Index (HDI), which combines such basic indicators as GDP per capita, education level, and life expectancy. Usually, this indicator is used to compare the development of the social sphere of different countries. However, the content of this indicator provides an assessment of the opportunities for realizing human potential due to the improvement of the level of education, income, and life expectancy, which is the basis for the efficiency and security of the functioning of the national economy.

Therefore, the calculation of the human development index is based on the assessment of its three basic indicators:

1. Index of life expectancy, which is determined by the following formula:

$$I_{life} = \frac{x_i - x_{min}}{x_{max} - x_{min}}$$

where x_i – expected life expectancy at birth of the population of the i -th territory;

x_{min} – the minimum value of the indicator (accepted at the level of 20 years);

x_{max} – the maximum value of the indicator (accepted at the level of 85 years).

2. The education level index determined by the following formula:

$$I_{educ} = \frac{x_i - x_{min}}{x_{max} - x_{min}}$$

where x_i – the share of educated people among the adult population in the i -th territory, %;

x_{min} – the minimum value of the indicator (accepted at the level of 0%);

x_{max} – the maximum value of the indicator (accepted at the level of 100%).

3. Index of adjusted real GDP per capita, calculated according to the formula:

$$I_{inc} = \frac{lgx_i - lgx_{min}}{lgx_{max} - lgx_{min}}$$

where x_i – adjusted real GDP per year (at purchasing power parity) per capita of the i -th territory;

x_{min} – the minimum value of the indicator (accepted at the level of 100 USD per year);

x_{max} – the maximum value of the indicator (assumed at the level of 40,000 USD per year) [35].

The integral value of these indicators will be the Human Development Index for the i -th territory.

4 Results and Discussion

The study of the practical aspects of ensuring the economic security of the state is actually not sufficiently deeply studied in the theoretical aspect. Therefore, the current stage of research on this issue is characterized by the lack of a perfect methodology for its research and assessment. The experience of the developed countries of the world confirms that ensuring economic security is a guarantee of stable economic growth of the state and improvement of the welfare of its population. That is why ensuring economic security is one of the most important tasks for guaranteeing the effective functioning of the national economy. At the same time, it must be taken into account that the concept of “economic security” is sufficiently broad and characterizes the state of protection of the economic interests of the individual, society, and the state from internal and external threats, which is based on the independence, efficiency, and competitiveness of the country. So, it can be argued that economic security is a set of activities related to the need to ensure economic security in general.

Since the development of any model of economic security is impossible without a comprehensive understanding of its essence. Thao should define the specific characteristics of economic security, which include:

- Stability and stability, countering internal and external threats, which implies stability and reliability of connections between all elements of the economic system, stability of the economic development of the state, as well as resistance to containment and elimination of destabilizing threats and factors;
- Economic independence, which characterizes the possibility for any subject of economic security to independently make and implement strategic economic and political decisions to ensure its effective development, the possibility to use national competitive advantages;
- Self-reproduction and self-development, which involves creating the necessary conditions for effective economic policy and expanded self-reproduction, ensuring the competitiveness of the national economy on world markets;
- National interests, which determine the ability of the national economy to protect priorities in the system of its economic development.

Therefore, if we talk about individual structural elements of economic security, then among them it is worth highlighting raw material and resource security, energy security, financial security, social security, innovation and technological security, food, and foreign economic security.

As practice shows, the system of economic security of the national economy has a close relationship with other systems. In particular, the system of economic security is directly integrated into the general system of social security, which provides for the simultaneous functioning of not only economic, but also ecological, social, cultural, political, and other security systems that society needs. Thus, it can be argued that economic security should include objective consideration of not only economic or socio-economic processes, but should also include general security indicators that are valuable for the state and human society at a specific moment in time. Thus, it is impractical to

single out individual spheres or branches of human activity, on the basis of solving the problems of which the task of implementing security in a specific sphere is implemented. Approaches to the implementation of economic security must be complex and closely related to other elements of state security.

In practice, the implementation of tasks for the economic security of the state should provide for the systematicity and functionality of such approaches. The applied value of the mechanism of guaranteeing the economic security of the state is revealed through the functions it performs. Undoubtedly, a function is nothing more than an action, an activity, or the implementation or execution of certain operations, which takes place in accordance with a specified plan, algorithm, prescription, etc., that is, it has a clearly defined trajectory and scope [33]. The main functions of this mechanism include informative, preventive, practical, prognostic, regulatory, protective, and control. The impact of these functions on the economic security system is shown in Table 1.

Table 1: Functions of guaranteeing the economic security of the state

Function name	Impact on the economic security of the state
Informational	Increases the level of economic security of the state
Preventive	Plays a key role in the timely detection of possible negative consequences in ensuring economic security
Practical	Determines the ability of the economic system to ensure its stable development
Forecasting	The ability of the state to provide for the protection of national economic interests under relevant prospective programs
Regulating	Effective provision of the economic security of the state through the implementation of uniform regulations for the regulation of this process by all business entities
Control	Requires the creation of a separate body that would control the economic security of the state

* Source: [33]

The experience of the European Union shows that the provision of national economic security in today's globalized world is decided by securing the role of that place among other countries that corresponds to its geostrategic importance and potential. Therefore, most EU countries in their national doctrines consider strengthening the European space by developing European integration and applying an active neighbourhood policy of the European Union with the countries of Eastern Europe, the South Caucasus, Central Asia, and the Mediterranean region as the main task of the economic security policy. The final plan for ensuring economic security in the EU within the formation of a fully integrated Europe with the same standard of living in all member states [29].

Modern approaches to the formation of an economic security assessment system are based on a combination of two main directions – mathematical modelling of the security assessment system and models of digital integration into modern software solutions to increase the efficiency of their functioning and application. At the same time, it is necessary to note the fact that the formation of economic security assessment models is not a new task for Ukrainian science, which is expressed in the research of a number of scientists and the development of the domestic economy methodology for calculating the security level of Ukraine, then the integration of the developed systems into practical digital software solutions is more difficult. A task that requires close cooperation with foreign companies that generate the source codes of complex information content. Thus, there is an objective need to take into account foreign experience in the formation of information integrated systems for evaluating economic security for the effective construction and application of domestic developments in this field.

However, if we talk about the practical assessment of economic security, it should be noted that there are quite a number of different methods of its assessment, which include a sufficiently wide set of factors and indicators of security. However, to

generalize and assess the state of economic security at the global level, the human development index is most widely used, on the basis of which the evaluation of the effectiveness of the functioning of the socio-economic system is based on taking into account a number of socio-humanitarian indicators, on the basis of which all countries of the world are divided into four levels of development. In particular, according to this indicator, Ukraine belongs to the group of countries with a high level of development. The dynamics of this index and its key indicators for Ukraine are shown in the Table 2.

Table 2: Dynamics of the human development index of Ukraine according to the UN and its key indicators for 1990-2019

Indicator	1990	1995	2000	2005	2010	2015	2019
Life expectancy at birth	69.8	67.9	67.3	67.5	69.4	71.5	72.1
Expected number of years of training	12.4	12.2	13	14.6	14.8	14.8	15.1
Average number of years of training	9.1	10.0	10.7	11.2	11.3	11.4	11.4
GDP per person, thousand USD	16,182	7,538	7,025	10,840	11,608	11,273	13,216
Human Development Index	0.725	0.686	0.694	0.738	0.755	0.765	0.779

*Source: [26]

As we can see, according to the latest HDI rating published by the UN, Ukraine ranks 74th. At the same time, the main indicators that form this index as of the last analytical date have the following values:

- Life expectancy (years) – 72.1;
- Expected duration of education in the system of general school education (years) – 15.1;
- GDP per person at purchasing power parity – 13,216;
- Population size according to the criterion of multidimensional poverty (%) – 0.2;
- Employment of the population aged 15 and over – 49.3;
- Number of murders per 100,000 populations – 6.2;
- Export and import, % of GDP – 90.2;
- Internet users, total, % of the population – 58.9;
- Emissions of carbon dioxide, production per person, tons – 5.1;
- Total population, million; the data correlate to forecast data in 2030 – 40.9;
- Highly qualified labor force, % of the working population – 80.0.

Howsoever, such relatively high indicators are largely determined by good indicators of educational development.

However, in general, the formation of approaches to the assessment of the economic security of the state is formed from a complex of components that take into account the state of threats and the availability of tools for countering them in key sectors and branches of the national economy. At the same time, it is necessary to take into account that economic security, as such, is also a separate element of the national security of each country. In practice, the systematic construction of national economic security systems is not carried out, since it is impossible in an isolated form, because it requires taking into account systemic interaction with other areas of protection of the interests of the state.

Thus, it can be argued that for an objective assessment of the level of economic security of the national economy, it is objective to use methods that are based on taking into account individual indicators and sub-indices of economic security. Taking them into account in this way allows us to cover potential threats as much as possible and determine the level of their influence on the state of the markets and the national economy of Ukraine in general. In our opinion, the methods based on the general multiplicative nature of the integral index and normalization of individual indicators of economic security is more effective in practical application. This is due to greater ease of application of such models in practice, as well as increased opportunities for changing the options of individual indicators if necessary.

In addition, one of the most important indicators characterizing the state's level of security in the economic aspect is its global level of competitiveness according to economic indicators, which is determined based on the competitiveness index of the national economy proposed by the World Economic Forum (WEF). This Index is formed on the basis of generalized statistical measurable indicators and expert assessments and determines the overall competitiveness potential of each specific state. At the same time, 12 groups of basic indicators are taken into account to determine this index: institutions; infrastructure; macroeconomic environment; health and primary education; higher education and specialist training system; product market efficiency; labour market efficiency; the ideology of the financial market; technological development; market volume; business experience; innovations. The dynamics of Ukraine in this rating is shown in Figure 1.

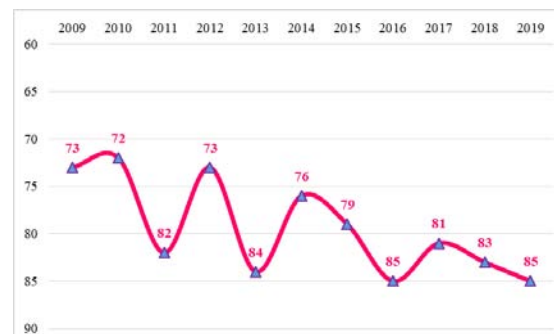


Figure 1 – The dynamics of the rating of Ukraine by the level of global competitiveness

*Source: [35].

As we can see, the dynamics of this index are not too positive, because it indicates a general decrease in the competitiveness of the national economy of Ukraine in comparison with the economic development of other countries. Therefore, this is evidence of the growth of threats to the economic security of the state in the long term and reflects the insufficient dynamics of the development of the economic system in the country. At the same time, since the mathematical models on the basis of which the competitiveness index is formed assume that the highest level of safety is achieved under the condition that all indicators are within the range of acceptable limits, the threshold values of an individual indicator should not be reached at the expense of reducing other indicators. That is, a decrease in the rate of economic growth should not result in an increase in the level of unemployment above a certain threshold value.

Therefore, in our opinion, when forming a system of indicators of economic security, it is important to take into account the possibility of applying regional characteristics of these economic indicators and criteria. When conducting an analysis of economic security, it is advisable to differ indicators into blocks, each of which is characterized by a separate set of indicators. Such a system of indicators should provide an opportunity to assess the quantitative parameters and trends of the economic security of the state in general.

5 Conclusion

Therefore, practical and effective provision of the economic security of the state is impossible without the development and implementation of unified functions of the state in this area, the implementation of which will be entrusted not to all subjects of both the state and non-state sectors, but to a special body that will be created to perform not only functions but also the tasks assigned to him. The activities of a special body for regulating the state of economic security will allow, on the one hand, to detect and prevent crimes and other offenses in the economic sphere, and on the other, to rationally distribute the competence of its activities according to the developed system of measures to ensure economic security inherent in internal and external threats of our country.

In addition, it is necessary to take into account that economic security at the macroeconomic level includes a number of important directions, the consideration of each of which is absolutely necessary to ensure a qualitative assessment of the vulnerability of economic spheres to negative influences. It should be noted that it is the macroeconomic assessment of such an impact that gives the most complete answer about the security of the state in the sector of investment and innovative implementations, security of financial markets, socio-economic security, security of foreign economic relations, etc. In addition, depending on the specific directions of economic system assessment, the effective assessment of economic security can be expanded by covering the relevant spheres of economic activity at the national level. Therefore, it can be stated that in general, economic security, as a component of the state's national security, requires the formation of reliable approaches to the assessment of the level of danger from various internal and external factors of influence and potential threats.

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Primary Paper Section: A

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