



Tetiana Zubko

DEVELOPMENT OF THE METHODOLOGY FOR EVALUATING THE ECONOMIC SECURITY OF THE ENTREPRENEURSHIP IN THE INTERNATIONAL TRADE SYSTEM

The object of research is the methodology for assessing the level of economic security of the state from the standpoint of analyzing its foreign trade. The perception of the economic security of countries is not yet unambiguous; it is important to study the theoretical foundations of economic security. In the works of the predecessors, the hierarchy of the concept of economic security was determined and the concept of the economic security of the state was proposed. But most research is not comprehensive enough. The components of the country's economic security are determined through three groups of risks, but such a division does not take into account most of the threats and is not sufficiently detailed and comprehensive. In the scientific works of economists, the methodology, level, indicators are presented as separate aspects of the formation and management of the economic security of the state. Without denying the significant contribution of these developments, the study noted the lack of a unified methodology for assessing the level of economic security of the country. Accordingly, this study was aimed at presenting a conceptual approach to the methodology for assessing the level of economic security of the country, based on the study of international trade and the main statistical indicators of the economy. The study of the level of economic security of the country is based on the use of indicators built on indicators of the state of the country's economy and its international trade. The paper studies the dynamics of the main socio-economic indicators of the development of the economies of the associated trio of countries: Georgia, Moldova and Ukraine. And also the state of economic security of countries and prospects for further development are determined. It has been established that Ukraine in the pre-war period had a better level of economic security than Georgia and Moldova.

Keywords: international trade, world economy, economic development, socio-economic indicators, economic security, international economic relations.

Received date: 05.07.2022

Accepted date: 24.08.2022

Published date: 31.08.2022

© The Author(s) 2022

This is an open access article

under the Creative Commons CC BY license

How to cite

Zubko, T. (2022). Development of the methodology for evaluating the economic security of the entrepreneurship in the international trade system. *Technology Audit and Production Reserves*, 4 (4 (66)), 6–9. doi: <http://doi.org/10.15587/2706-5448.2022.263535>

1. Introduction

The link between economic and national security is undeniable. Since the perception of the economic security of countries is not yet unambiguous, it is important to study the theoretical foundations of economic security. The work [1] defines the two-level nature of economic security, its representation at the macro- and micro-levels. A generalized concept of the country's economic security is also defined, which made it possible to form its five-component concept. The disadvantage of this work is the lack of digital confirmation of this concept. In [2], threats to China's national security caused by globalization and economic growth are studied. The study [3] considers the impact of offshoring on the level of national economic security. The work [4] is devoted to the study of the economic security of the country through three components: risks of the economic environment, security risks, political risks.

In this work, there is no allocation of the influence of exactly the factors of trade, which left room for further research. Improvements [5–8] are mainly devoted to the analysis of methods for assessing the country's risk from different points of view and the definition of structural components and relationships of the country's economic security. The disadvantage of the considered works is the underestimation of the role of foreign trade in establishing the level of economic security. Therefore, this study concerns the improvement of the assessment methodology for assessing the level of economic security of a country, taking into account the analysis of its development and place in world trade.

Therefore, *the object of research* is the methodology for assessing the level of economic security of the state from the standpoint of analyzing its foreign trade. *The aim of research* is to develop a methodology and test a method for rapid assessment of the level of economic security of

the country, based on the study of international trade and important statistical indicators of the economy.

2. Research methodology

Methods of empirical analysis and systematization were used to form the assessment methodology. The analysis of the above works demonstrates disagreements regarding the set of indicators for assessing the level of economic security of the country. The basis for assessing the level of economic security of the country is based on selected and adapted indicators-indicators according to the methodology [9, 10]. Limits of indicators are borrowed from [10]. After calculating the share indicators, it is possible to conclude what level of economic security out of four possible (critical, unsatisfactory, satisfactory, high) the country under study has.

3. Research results and discussion

The basis of the conceptual approach to the analysis and assessment of the level of economic security of the country's trade is its meaningful description, highlighting the research methodology, models, principles for constructing the concept and architectonic elements of the synthesized system.

Different scientists understand the rather complex concept of «methodology» in different ways. This is due to the presence of a large number of approaches to defining the essence of this concept; often there is an identification of the concepts «method», «technique» and «methodology». Various views of scientists on this concept are given in Table 1.

Table 1

Definitions of the concept of «methodology»

Source	Definition	Advantages/disadvantages
[11]	«Methodology is the doctrine of the method of activity, covering the principles, methods of activity and knowledge and reflecting them. Includes the methodology of cognition, practical integrity and evaluation (axiomethodology)»	Defined as a doctrine, the systemic nature of this concept is recognized
[12]	System of principles of scientific research; the doctrine of the scientific method of knowing the laws of nature with the help of a set of research methods used in any science according to the specifics of the object of knowledge	The definition is quite complete, but too general
[13]	Methodology is a type of rational-reflexive consciousness aimed at studying, improving and constructing methods. The concept has the following main meanings: a system of certain rules, principles and operations used in a particular field of activity; the doctrine of this system, the general theory of the method	A thorough and complete definition

Note: formed by the author based on data from [11–13]

According to the problems of this study, let's believe that the definitions of works [11, 13], in which the authors determine the subject of methodology through the prism of the process approach, are accurate. The methodology contains conceptual provisions, methods and principles. Based on [11–13], the following definition is proposed: methodology is a system structure, methods, principles, concepts, methods and organization of scientific and cog-

nitive activity. The effectiveness of foreign trade affects the state of economic security of the country most of all, which is the conceptual position. The principles according to which indicators were selected for assessing the level of economic security are as follows: economic feasibility, lack of duplication, complexity, consistency and synergy.

In the assessment model, those that can be calculated using information from the statistical services of other states and world trade are selected:

- indicator of comparability of economic development;
- indicator of relative solvency of the population;
- export dependence of the economy;
- import dependence of the economy;
- ratio of the balance of foreign trade turnover (FTA) to GDP;
- importance of the country in world exports;
- concentration of commodity exports;
- concentration of commodity imports.

This methodology is based on comparing data on economic indicators of a selected country with another in a group of selected countries [9].

The «associated trio» states of the Eastern Partnership (EaP) – Ukraine, Georgia and Moldova – agreed for the first time on cooperation towards EU membership at a meeting in Brussels on December 15, 2021. This is a confirmation to move towards EU membership and a request to recognize European perspective of Georgia, the Republic of Moldova and Ukraine. The EU countries, which are the largest trading partners of Ukraine, were selected for testing. To complete the analysis, a retrospective assessment of the state of economic security of selected countries for five years (2017–2021) was carried out according to selected indicators. The calculation results are given in Tables 2–4.

To assess the level of economic security of Georgia during the study period 2017–2021, Table 2 is done. The Georgian economy demonstrated low performance and a significant imbalance in the solvency of the population (indicators of comparability of economic development and relative solvency of the population are less than the normative 0.5) [10].

Table 2

Assessment of the level of economic security of Georgia in 2017–2021

Indicators	2017	2018	2019	2020	2021
Comparability of economic development (share)	0.14	0.15	0.15	0.14	0.16
Relative solvency of the population (share)	0.11	0.11	0.10	0.10	0.11
Export dependence of the economy, %	41.58	44.72	47.99	31.16	36.30
Import dependence of the economy, %	61.87	65.95	68.25	60.18	63.48
Imbalance of foreign trade (ratio of WTO balance to GDP), %	-20.29	-21.24	-20.26	-29.03	-27.18
International export significance of the country, %	0.02	0.02	0.02	0.02	0.02
Concentration of merchandise exports, %	70.03	70.68	68.51	61.38	54.55
Concentration of commodity imports, %	71.16	71.57	70.66	69.69	56.07

Note: calculated by the author according to [14]

Values of the indicator of import dependence in 2017–2019 fell into the «unsatisfactory» zone (40–50 %), and since 2020 the situation has improved, the value of this indicator has become «satisfactory» (30–40 %) [10]. This was facilitated by a reduction in trade with Russia and a significant increase in trade contacts with other states. The excessive dependence of the Georgian economy on exports is negative (more than 60 %). The criticality of the state of imbalance in foreign trade is demonstrated by the corresponding indicator (over –7 %) [10]. The constancy of the value of the indicator of international export significance indicates the stability of the country's presence in the world commodity market. Indicators of the concentration of exports and imports indicate significant risks for the development of the economy, depending on demand and prices for the corresponding items of commodity flows. The economic security of Georgia is at a critical level.

Table 3 was compiled to assess the level of economic security in Moldova.

Table 3

Assessment of the level of economic security of Moldova in 2017–2021

Indicators	2017	2018	2019	2020	2021
Comparability of economic development (share)	0.11	0.14	0.14	0.14	0.14
Relative solvency of the population (share)	0.09	0.09	0.11	0.12	0.12
Export dependence of the economy, %	38.04	36.50	36.12	31.58	39.28
Import dependence of the economy, %	59.77	60.04	58.78	53.21	68.80
Imbalance of foreign trade (ratio of WTO balance to GDP), %	-21.74	-23.54	-22.66	-21.64	-29.52
International export significance of the country, %	0.01	0.01	0.01	0.01	0.01
Concentration of merchandise exports, %	83.38	82.59	83.45	81.80	64.63
Concentration of commodity imports, %	67.05	67.31	67.86	68.89	54.65

Note: calculated by the author according to [14]

For five years, the performance of the Moldovan economy was insufficient (<0.5), but there is a tendency to increase this indicator. The indicator of relative solvency of the population also confirms this. The indicator of export dependence falls into the zone satisfactorily (30–40 %) [10] during the entire study period.

Import dependence indicator in 2017–2020 fell into the «dangerous» zone (50–60 %), and in 2021 showed a «critical» value (more than 60 %) [10]. This indicates the dependence of the development of the country's economy on imports. The dynamics of the values of the foreign trade imbalance indicator indicates a critical (over –7 %) scale of trade flows imbalance in the process of economic development and GDP creation. The economic security of Moldova also has a critical level.

Table 4 was compiled to assess the level of economic security of Ukraine.

The indicator of comparability of economic development during the period under review is significantly less than the normative one (0.5) [10], which indicates the low efficiency of the country's economic activity. But there is a posi-

tive growth trend (0.09 in 2017, 0.15 in 2021), indicating a steady increase in the performance of the economy. The indicator of comparative solvency showed a significant lag in the level of wages in Ukraine (0.06 in 2017, 0.11 in 2021). Its constant increase is positive. But there are threats of low purchasing power of the population, a significant level of unemployment, the threat of a «leakage» of labor. Indicators of export and import dependence characterize a significant level of openness of the country's economy, which causes financial and economic threats as a result of the excessive dependence of the country's economy on exports and imports. Foreign trade imbalance indicator in 2017–2019 fell into the «dangerous» zone, which showed a significant imbalance in the country's commodity flows. Since 2020, the situation has improved, the indicator fell into the «satisfactory» zone (0–(-2.5) %), which characterizes a significant decrease in the imbalance of the country's development factors. The weight of Ukraine in the formation of the world commodity market is insignificant, but tends to gradual and stable growth. Squeezing out of world trade does not threaten Ukraine. Indicators of the concentration of commodity exports and imports indicate the presence of risks of economic development (all values >40 %) [10]. But according to the dynamics of these indicators, it is possible to conclude that the Ukrainian economy is gradually and steadily developing. But now the economic security of Ukraine has an unsatisfactory level.

Table 4

Assessment of the level of economic security of Ukraine in 2017–2021

Indicators	2017	2018	2019	2020	2021
Comparability of economic development (share)	0.09	0.10	0.12	0.12	0.15
Relative solvency of the population (share)	0.06	0.07	0.08	0.11	0.11
Export dependence of the economy, %	51.28	48.28	43.91	41.62	44.77
Import dependence of the economy, %	56.11	54.79	49.76	42.10	44.85
Imbalance of foreign trade (ratio of WTO balance to GDP), %	-4.84	-6.51	-5.85	-0.48	-0.08
International export significance of the country, %	0.24	0.24	0.26	0.28	0.31
Concentration of merchandise exports, %	78.46	78.19	78.82	77.45	57.96
Concentration of commodity imports, %	79.51	79.64	79.21	76.66	59.69

Note: calculated by the author according to [14] and given in [9]

Ukraine seeks to join the EU in order to obtain a better development of the economy. Now, besides Ukraine, Georgia and Moldova also want to join the EU. Ukraine has real chances for this, unlike Georgia, where the unemployment rate reaches 20 % and the level of economic security is critically low. Moldova stands a better chance than pre-EU Georgia, as it has the lowest unemployment rate among candidates and a relatively better political and social impact than Georgia.

Deepening the integration of Ukraine into the European society needs to overcome the backlog of the country's development in various sectors of the economy, especially the harmonization of foreign trade processes and strengthening

its position on the world stage. Since September 2017, a deep and comprehensive free trade area has been created between Ukraine and the EU. This process has not only advantages, but also challenges that require more detailed consideration.

4. Conclusions

A conceptual approach to the analysis and assessment of the level of the country's economic security is outlined, including: a conceptual position, planning principles and a methodological approach. According to the conceptual position, the analysis of the analysis of foreign trade regarding the impact on the state of the country's economic security is determined. The application of planning principles is justified: economic feasibility, lack of duplication, complexity, consistency and synergy. The proposed methodological approach is based on the assessment of indicators that characterize the degree of development of the country in terms of the main socio-economic indicators and the state of its foreign trade. It differs from the existing ones in the speed and simplicity of calculations, since it contains only eight indicators.

The own definition of the definition of the methodology is given, which differs from the existing ones in completeness and detail, gives an understanding for choosing methods for calculating indicators of the economic security of the state.

The proposed approach makes it possible to identify problematic components and monitor the country's economic security. The basis of the assessment methodology is the place of the country in the world trade turnover in terms of foreign trade indicators and the possibilities of its development in the international arena are shown.

Conflict of interest

The author declares that they have no conflict of interest in relation to this study, including financial, personal, authorship or other, which could affect the study and its results presented in this article.

References

1. Černius, G., Kremer-Matyševič, I. (2019). *Country's economic security concept: theoretical insights*. Vilnius: Mykolo Romerio universitetas, 78–98. Available at: <https://repository.mruni.eu/bitstream/>

- handle/007/16031/WOE_Kremer-Maty%C5%A1kevi%C4%8D.pdf?sequence=1&isAllowed=y
2. Zhengyi, W. (2004). Conceptualizing economic security and governance: China confronts globalization. *The Pacific Review*, 17 (4), 523–545. doi: <http://doi.org/10.1080/0951274042000326050>
3. Hobela, V. (2020). Economy offshoring in the national economic security. *Scientific Horizons*, 23 (12), 109–120. doi: [http://doi.org/10.48077/scihor.23\(12\).2020.109-120](http://doi.org/10.48077/scihor.23(12).2020.109-120)
4. Odehnal, J., Neubauer, J. (2018). Economic, Security, and Political Determinants of Military Spending in NATO Countries. *Defence and Peace Economics*, 31 (5), 517–531. doi: <http://doi.org/10.1080/10242694.2018.1544440>
5. Sviderskė, T. (2014). *Country Risk Assessment in Economic Security and Sustainability Context*. Vilnius: Technika, 132. Available at: <http://dspace.vgtu.lt/handle/1/1809>
6. Kyzym, M. O., Ivanov, Yu. B., Hubarieva, I. O. (2018). Evaluation of the level of economic security of Ukraine and EU Countries. *Finansy Ukrainy*, 4, 7–18. Available at: http://www.irbis-nbuv.gov.ua/cgi-bin/irbis_nbuv/cgiirbis_64.exe?C21COM=2&I21DBN=UJRN&P21DBN=UJRN&IMAGE_FILE_DOWNLOAD=1&Image_file_name=PDF/Fu_2018_4_3.pdf
7. Wysokińska-Senkus, A., Raczkowski, K. (2013). Economic Security in the Context of Sustainability. *Rural Development*, 6 (1), 454–462. Available at: <https://depot.ceon.pl/handle/123456789/2931>
8. Chunguang, L., Mezentseva, J. R., Kroklicheva, G. E., Arkhipov, E. L., Alekseeva, O. A. (2020). The Regional Resource Potential as a Factor in Ensuring Economic Security at the Meso-Level. *Proceedings of the International Conference on Economics, Management and Technologies 2020 (ICEMT 2020)*. Available at: <https://www.atlantispress.com/proceedings/icemt-20/125940085>
9. Zubko, T. (2022). Methods of assessing the economic security of the country. *State and Regions. Series: Economics and Business*, 2 (125), 18–23. doi: <http://doi.org/10.32840/1814-1161/2022-2-3>
10. Davydenko, S. V., Yehorova, O. O., Prykhodko, V. P.; Prykhodko, V. P., Yehorova, O. O. (Ed.) (2017). *Ekonomika ta ekonomichna bezpeka derzhavy. Teoriia i praktyka*. Uzhhorod: RIK-U, 383.
11. Surmin, Yu. P. (2006). *Maisternia vchenoho*. Kyiv: NMTs «Konsortsium z udoskonalennia menedzhment-osvity v Ukraini», 302.
12. Novokreshchenov, I. O., Boiko, O. V., Didovets, I. V. (2009). *Metodolohiia ta orhanizatsiia naukovykh doslidzhen*. Kyiv: DE-TUT, 175.
13. Konverskyi, A. Ye. (2010). *Osnovy metodolohii ta orhanizatsii naukovykh doslidzhen*. Kyiv, 352.
14. *World Trade Organization*. Available at: <https://www.wto.org/>

Tetiana Zubko, PhD, Associate Professor, Department of World Economy, State University of Trade and Economics, Kyiv, Ukraine, e-mail: t.zubko@knute.edu.ua, ORCID: <https://orcid.org/0000-0002-8950-1797>