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Chapter 7

Economic Security of Ukraine within Threats Resulting from Russian Federation Policy

Abstract

The authors reveal fundamentals of economic security. The article discloses the current state of economic development of Ukraine within threats resulting from the policy of Russian Federation. The authors shed light on positive and negative factors influencing economic security and economic growth of Ukraine. The article describes the model for economic security of Ukraine via the rating. Applying the package E-Views-7, the authors have analyzed the impact of macroeconomic indicators on economic growth and proved that forming the economically growing competitive economy guarantees the economic security of the state.

Key words: economic security, threats, economic growth

Introduction

The economic security plays an important role in the current economic development of Ukraine. The situation on the Ukrainian side, namely the hybrid war launched by the Russian Federation against Ukraine, negatively affects its economic security and economic development. Logically, the macroeconomic indicators of Ukraine worsened since 2014 creating a bulk of problems in economic and political spheres. Therefore, the key aim of this article is disclosing economic security of Ukraine and its economic security within threats resulting from the Russian Federation policy.

We apply general conventional scientific and special economic methods. In particular, we use historical and logical method for revealing the essence of economic security; analysis, synthesis and

comparison for determining Ukrainian competitive position among other countries via rating; modeling economic processes for discovering factors impacting the national economic growth and ensuring economic security.

The Retrospective Analysis of the Notion “Economic Security”

The development of social and economic theory proves that the problem of security is always seen as the most important one in any country. The problem of economic security of the state was under scrutinized analysis of Democritus, Epicurus, Plato, etc. Antique philosophers considered security in connection with economic relations via division of labor and interpreted it in the context of establishment of political relations, social institutions aimed at ensuring security of citizens and the state.

At the current stage, security, national security and economic security remain the research objects of interest for a great amount of scientists. Dictionaries provide the conventional understanding of security. They interpret it as reliability, preservation, and the absence of danger¹; the condition in which there is the protection from dangers, there is no danger². Therefore, the essence of security is determined via the formula: the absence of any threats and dangers.

In the modern world, the term “national security”, as the part of internal and external policy, is a complex multi-level functional system aimed at overcoming internal and external threats³. The national security is the condition, when national interests are protected in a broad sense, including political, social, economic, military, ecological aspects, risks connected with foreign economic activity, proliferation of weapons of mass destruction, as well as prevention of threats to national spiritual and intellectual values⁴.

Economically developed countries, as a rule, develop the doctrine, concept and strategy for national security with the emphasis on eco-

¹ Dictionary of V. Dal, www.vidahl.agava.ru, p. 112, access: 11.04.2019.

² Dictionary S. Ozhegov, www.ozhegov.org, p. 14, access: 11.04.2019.

³ M. Shumylo, S. Tkalenko, *Counter-Intelligence Protection of National Statehood and Countering Terrorism*, «Collection of Scientific Papers NASBU» 2010, no. 37, pp. 109–117.

⁴ *The concept of economic security of Ukraine*, Kyiv, 1998, <http://ief.org.ua/>, access: 5.12.2018.

conomic security. Economy is one of the crucial components of activity of individuals, society and the state; therefore, the ensuring of national security is not possible without economic security. The term "economic security" showed up recently and is intrinsically related to the notion "national security". Under contemporary conditions, the national economic security becomes particularly important proving the roadmap for key social and economic decisions. The economic security is the component of national security, its foundation and material basis. Officially, the term "economic security" was determined in 1985 by the UN General Assembly Resolution "International Economic Security".

The problem of economic security is topical for all countries – developed (including European), developing and transition economy ones.

The economic security issue is revealed in a bulk of publications including such authors, as B. Buzan⁵, K. Braden and F. Shelley⁶, K. Dodds and D. Atkinson⁷, H. Morgenthau⁸, D. Fischer⁹, Lee D. Olvey, James R. Golden and Robert C. Kelly¹⁰, S. Pyrozhev¹¹, O. Vlasiuk¹², B. Gubskiy¹³, V. Muntian¹⁴ and many others. The retrospective analysis of different approaches of determining the notion "economic securi-

⁵ B. Buzan, *People, State and Fear: The National Security Problem in International Relations*, Chapel Hill 1983, p. 273.

⁶ K. Braden, F. Shelley, *Engaging Geopolitics*, Englewood, Cliffs: Prentice Hall 1999, p. 159.

⁷ *Geopolitical traditions*, edited by Klaus Dodds and David Atkinson, London and New York 2003, p. 408.

⁸ H. J. Morgenthau, *Dilemmas of Politics*, Chicago 1958, p. 380.

⁹ D. Fischer, *Non military aspects of security: A systems approach*, UNIDIR, Dartmouth 1993, p. 404.

¹⁰ D.L. Olvey, J.R. Golden, C. Kelly, *The Economics of National Security*, Avery, New York 1984, p. 404.

¹¹ S.I. Pyrozhev, *Methodological Recommendations for Assessing the Level of Economic Security of Ukraine*, Kyiv 2003, p. 42.

¹² O.S. Vlasiuk, *Theory and practice of economic security in the system of science of economics*, Kyiv 2008, p. 48.

¹³ B.V. Gubskiy, *Economic security of Ukraine: measurement methodology, state and strategy of provision*, Kyiv 2001, p. 121.

¹⁴ V. I. Muntian, *Economic security of Ukraine*, Kyiv 1999, p. 186.

ty” enables us to distinguish several groups of its interpreting¹⁵:(1) the condition of the state, economic system, national economy;(2) the system for protecting interests;(3) the condition of economy and protection of interests;(4) the cumulative conditions, set of interconnected systems, the set of certain elements, features, structures, etc.;; (5) the integrated system, set of activities, mechanism;(6) economic capacity;(7) specific science.

Therefore, the notion of economic security belongs to categories, which, on the one hand, are understandable and, on the other, difficult to determine in concrete and comprehensive forms. In our view, the economic security is the complicated term, which characterizes the capacity of national economy for expanded reproduction; aims at balanced satisfaction of needs of citizens and the state at the determined level, confronting destabilizing effect of different internal and external factors, as well as ensures the competitiveness of national economy in the world economic system.

The taxonomic structure of economic security includes mega-, macro-, meso-, micro- and nano-levels. We concentrate our efforts on the macro-level, namely, the economic security of Ukraine.

The Economic Security in the Current Conditions of Economic Development of Ukraine

In the current conditions of political and economic development of Ukraine (considering the hybrid war against Ukraine conducted by the Russian Federation), vector of European integration, there is the emphasis on economic security. Thus, beginning with 2014 one of the key threats were uncertainty and misunderstanding leading to drop in national investment, capital flight, decrease in GDP, production volumes and employment, inflation growth, etc. Stimulation of positive factors and minimization of impact of negative factors foster economic growth and forming the economic security of the state.

The cooperation between Ukraine and EU member-states is one of the key methods for ensuring economic growth. Positive factors fostering economic security of the state include a resolute fight against

¹⁵ M. Shumylo, S. Tkalenko, *Counter-Intelligence Protection of National Statehood and Countering Terrorism*, «Collection of Scientific Papers NASBU» 2010, no. 37, pp. 109–117.

corruption, establishment of the business-ombudsman institute, and restructuring the regulation of energy sphere. Close cooperation between Ukraine and EU member-states facilitates mobilizing investments aimed at inclusive growth, ensuring job creation and sustainable development, centered on such priorities, as energy and communication; financing micro-, small and medium enterprises; sustainable agriculture, agricultural companies and agribusiness in general; sustainable cities; digital development.

The ensuring of economic security also relies on the set of political, economic, legal, financial, social, cultural condition in the process of forming the adequate infrastructure determining the national economic competitiveness. The activity (including investment, business and other types of activities) is the integral characteristic of economic development indicating the level of realization of economic potential considering risks (evaluated via investments in a national economy). The state of a country's economic development is viewed through the increase in production, GDP, economic growth tempos, national wealth, etc. (evaluated via key macroeconomic indicators).

It is worth mentioning, that there are many approaches to quantitative evaluation of economic security of national economies, including macroeconomic indicators and rating by different international organizations. The key macroeconomic indicators featuring and influencing the economic security is economic growth (nominal and real GDP), balance of payments (embracing volumes of export, import, international reserves, external debt), capital market influenced by inflation and labor market (rate of unemployment).

Let us review the characteristics of model for economic security of Ukraine applying rating scales – ease of doing business index; index of economic freedom; human development index; corruption perception index; globalization index; the global competitiveness index. For example, in 2016-2017 Ukraine improved its rating by ease of doing business index. Besides, the human development index grew slower in Ukraine compared with the world average level (Table 1).

According to the corruption perception index, the level of corruption in Ukraine remained almost the same during 2013-2017. Thus, considering rating scales for evaluation of the economic security, we can assume the low rate of economic development of Ukraine. Let us

analyze the impact of quantitative indicators on economic growth within the framework of ensuring economic security.

Rating	2013	2014	2015	2016	2017
Ease of Doing Business Index	96	81	80	80	76
Index of Economic Freedom	161	155	162	162	166
Human Development Index	83	81	81	84	88
Corruption Perception Index	136	142	130	131	130
Globalization Index	47	44	42	41	45
Global Competitiveness Index	84	76	79	85	81

Table 1. Rating of Ukraine by Different Indices¹⁶.

The Impact of Macroeconomic Indicators on Economic Growth within the Framework of Ensuring Economic Security

The policy of the Russian Federation aimed at Ukraine led to the drop of macroeconomic indicators in Ukraine and increased the role and importance of ensuring the national economic security. We consider the economic security of Ukraine as the main component of the system of its national security. It is worth mentioning, that the essence of economic security manifests and specifies itself via the system of its types, which, more or less, include the economic component. The systemic essence of economic security of the state lies in the fact that it includes, on the one hand, internal elements (commodity and natural resources, energy, military, information, food subsystems, etc.), on the other hand, external ones (foreign trade, investment, financial subsystems). Each of the abovementioned subsystems in their turn consists of smaller components.

¹⁶ Compiled by authors for Doing Business, 2013, 2014, 2015, 2016, 2017; <http://russian.doingbusiness.org/ru/rankings> (access: 16.01.2019); Report on the level of economic freedom in the world – 2013, 2014, 2015, 2016, 2017, <http://edclub.com.ua/tegy/indeks-ekonomichnoyi-svobody>, access: 16.01.2019, Human Development Report, 2013, 2014, 2015, 2016, 2017; <http://hdr.undp.org>, access: 16.01.2019, Corruption Perceptions Index, 2013, 2014, 2015, 2016, 2017; <http://www.transparency.org/> access: 16.01.2019, The KOF Globalization Index, 2013, 2014, 2015, 2016, 2017; <http://www.kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html>, access: 16.01.2019, the Global Competitiveness Report, 2013, 2014, 2015, 2016, 2017; <http://www.weforum.org/reports/the-global-competitiveness-report>, access: 16.01.2019.

Considering the complex nature of economic security, let us analyze the impact of macroeconomic factors on economic growth, which is the positive factor for ensuring economic security and addressing the threats imposed by the Russian Federation. The roster of macroeconomic factors includes gross domestic product (GDP), foreign direct investments (FDI), export (E), import (I), globalization index (GI) and employed population – labor market (LM). We have built the correlation matrix explaining the interplay between variables of interest applying the software package E-Views – 7.

The coefficient of correlation equals 0.87 proving that there is the strong connection between variables. The probability of acceptance of zero-hypothesis $F\text{-statistic}=0.000000$ supports the acceptance of the alternative hypothesis of significance of the equation as the whole. We used Granger Causality Test for determining the causality between chosen variables and foreign direct investments. The basic idea is as follows: if the change of variable A is the reason (cause) of change of B , then the change of A precedes the change of B ; determining whether A or B is primary. We conducted tests for Lags 2, 3, and 4. There is also the causality between foreign direct investments and globalization index showing the level of integration of the national economy into the world economic system and positively affecting the bulk of foreign direct investments into Ukraine, and respectively stimulating the economic growth. The causality with other variables is deferred (Lag 3 and Lag 4). Thus, Granger Causality Test enabled us to check two zero-hypotheses.

Table 2 indicates the profiles of chosen variables. We observe the highest values of standard deviations in cases of foreign direct investments, export, import, employed population (labor market) and GDP proving their general inclination to volatility and dependence on external and internal factors. In particular, the aggression of the Russian Federation against Ukraine significantly influence the macroeconomic indicators of Ukraine. To overcome such negative tendencies, Ukraine tries to attract foreign direct investments for stimulating production, GDP growth, and increasing employment and foreign trade turnover. Considering the traditional interpretation of asymmetry coefficients (if they exceed 0.5 in absolute, the asymmetry is significant; if they are less than 0.25, than it is non-

significant), we determined that the asymmetry is significant in cases of all variables.

	FDI	E	GDP	GI	LM	I
Mean	23671,19	44319,37	123545,9	67,25	19,69	46848,58
Median	21607,30	46098,30	111885,0	68,93	20,10	44576,30
Maximum	53704,00	83010,70	513315,0	76,36	22,60	92016,80
Minimum	1438,20	4159,80	31580,90	53,76	16,20	12959,30
Std. Dev.	19118,56	24852,12	103932,5	7,26	1,72	27071,56
Skewness	0,16	0,10	2,566853	-0,43	-0,78	0,35
Kurtosis	1,41	1,73	10,55	1,93	3,04	1,87
Jarque-Bera	2,28	1,45	72,96	1,65	2,13	1,54
Probability	0,31	0,48	0,00	0,43	0,34	0,46
Sum	497095,0	930706,7	2594465,0	1412,39	413,60	983820,2
Sum Sq. Dev.	7,31E+09	1,24E+10	2,16E+11	1054,42	59,36	1,47E+10
Observations	21	21	21	21	21	21

Table 2: Descriptive Analysis of Variables¹⁷.

We determined the coefficients of excess for all variables, which turned out to be more than 0, therefore, there was the tipped distribution of variables. The zero-hypotheses for almost all variables (except GDP) is normally distributed at the level of 5 percent. The standard deviation compared with the average value is low indicating the small variation coefficient. The results of checking variables on stationary using the Dickey-Fuller test proved that all variables are stationary.

We also conducted the autoregression test, namely checking the values of the row by past values of the same particular row. The coefficient of correlation equals to 0.962, therefore, there is the strong connection between variables. The results of coefficient expectancy show the adequacy of our model.

Besides, we identified exogenous and endogenous variables in the VAR-model. The test showed the possibility that GDP, globalization index, employed population (labor market) and import are exogenous variables (the value of probability is more than 0.1), while ex-

¹⁷ S. Tkalenko, *Theoretical and methodological foundations of investment security of the national economy*, 2017, p. 400.

port is the endogenous one. Therefore, export is influenced mostly by internal factors, including favorable economic environment stimulating internal production considering the national potential and the system of benefits for exporting companies. Thus, in spite of the aggression of the Russian Federation against Ukraine, there are opportunities for increasing export volumes via diversification of economic partners located in different countries aimed at counteracting threats and increasing the level of economic security.

Our model shows the interplay between macroeconomic factors and economic development, as well as economic security of Ukraine. It proves that the increasing export of goods and services fosters the increase in investments, production, GDP, etc. Our VAR-model takes into account external shocks and graphically reflects the forecasted values of indicators, which are components of this model for identifying trends, levels and comparative efficiency of, primarily, foreign investments aimed at the national economic growth, sustainable and secure development.

Conclusions

In view of the aggressive policy of the Russian Federation including different methods of the hybrid war, Ukraine experienced the significant decrease of the key macroeconomic indicators. The economic policy of Ukraine aims at defending its sovereignty, overcoming the terrorism and ensuring economic security selecting priorities for the economic growth, European integration and enhancing the national competitiveness.

Bibliography

- Braden K., F. Shelley, *Engaging Geopolitics*, Englewood, Cliffs: Prentice Hall 1999.
- Buzan B., *People, State and Fear: The National Security Problem in International Relations*, Chapel Hill 1983.
- Corruption Perceptions Index, 2013, 2014, 2015, 2016, 2017; <http://www.transparency.org/>, access: 16.01.2019.
- Dictionary of S. Ozhegov, [online], www.ozhegov.org, access: 11.04.2019.
- Dictionary of V. Dal, [online], www.vidahl.agava.ru, access: 11.04.2019.
- Doing Business, 2013, 2014, 2015, 2016, 2017; <http://russian.doingbusiness.org/ru/rankings>, access: 16.01.2019.
- Fischer D., *Nonmilitary aspects of security: A systems approach*, UNIDIR, Dartmouth 1993.

- Geopolitical traditions*, edited by Klaus Dodds and David Atkinson, London and New York 2003.
- Gubsky B.V., *Economic security of Ukraine: measurement methodology, state and strategy of provision*, Kyiv 2001.
- Human Development Report, 2013, 2014, 2015, 2016, 2017; <http://hdr.undp.org>, access: 16.01.2019.
- Morgenthau H.J., *Dilemmas of Politics*, Chicago 1958.
- Muntian V.I., *Economic security of Ukraine*, Kyiv 1999.
- Olvey Lee D., James R. Golden and Robert C. Kelly, *The Economics of National Security*, Avery, NY 1984.
- Pyrozchkov S. I., *Methodological Recommendations for Assessing the Level of Economic Security of Ukraine*, Kyiv 2003.
- Report on the level of economic freedom in the world – 2013, 2014, 2015, 2016, 2017; <http://edclub.com.ua/tegy/indeks-ekonomichnoyi-svobody>, access: 16.01.2019.
- Shumylo M., Tkalenko S., *Counter-Intelligence Protection of National Statehood and Countering Terrorism*, «Collection of Scientific Papers NASBU», 2010, no 37.
- The concept of economic security of Ukraine*, Kyiv, 1998, [online], <http://ief.org.ua/>, access: 5.012.2018.
- The Global Competitiveness Report, 2013, 2014, 2015, 2016, 2017; <http://www.weforum.org/reports/the-global-competitiveness-report>, access: 16.01.2019.
- The KOF Globalization Index, 2013, 2014, 2015, 2016, 2017; <http://www.kof.ethz.ch/en/forecasts-and-indicators/indicators/kof-globalisation-index.html>, access: 16.01.2019.
- Tkalenko S., *Theoretical and methodological foundations of investment security of the national economy*, 2017.
- Vlasiuk O.S., *Theory and practice of economic security in the system of science of economics*, Kyiv 2008.