ENSURING THE ECONOMIC SECURITY OF CUSTOMERS AND CONTRACTORS DURING THE ELIMINATION OF THE CONSEQUENCES OF ARMED AGGRESSION

Lesya Sorokina¹, Ljudmila Shumak², Oleksandr Filippov³

¹Doctor of Science (Economics), professor of the Department of Construction Economics, Kyiv National University of Construction and Architecture, Kyiv, Ukraine, e-mail: sorokina.lv@knuba.edu.ua, ORCID: https://orcid.org/0000-0002-9981-4615

²Postgraduate student, Department of Construction Economics, Kyiv National University of Construction and Architecture, Kyiv, Ukraine, e-mail: shumak-ljudmila@ukr.net; ORCID: https://orcid.org/0000-0002-5738-5744

³Postgraduate student, Department of Organization and Construction Management, Kyiv National University of Construction and Architecture, Kyiv, Ukraine, e-mail: fil_61@ukr.net, ORCID: https://orcid.org/0000-0002-4601-1966

Citation:

Sorokina, L., Shumak, L., & Filippov, O. (2023). Ensuring the economic security of customers and contractors during the elimination of the consequences of armed aggression. Economics, Finance and Management Review, (3), 24-38. https://doi.org/10.36690/2674-5208-2023-3-24-38

Received: September 04, 2023 Approved: September 29, 2023 Published: September 30, 2023



This article is an open access article distributed under the terms and conditions of the <u>Creative Commons Attribution</u> (CC BY-NC 4.0) license



Abstract. Ukraine is trying with all its might not to sink under the weight of the war. In the event of hostilities, the construction industry, like other sectors of the economy, found itself in a difficult situation, on the verge of collapse. Nevertheless, the Ukrainians could not be defeated, and most of the Developers resumed construction on the spot. The article is devoted to the topic of ensuring the economic security of Customers and Contractors of the construction industry of Ukraine while eliminating the consequences of armed aggression, which reveals the global problem of restoring the wartime housing stock. The article presents the mechanism of movement of financial flows, which should also be taken into account during the post-war recovery. Previously existing methods were analyzed. Examples of current documents regarding the determination of issues of economic security of construction enterprises are given, in which various methods and tasks are applied. An approach for improving methodical support for economic security monitoring is proposed. Economic security in Ukraine is one of the most prioritized functional areas of security. This is the state of protection of the country's national economy from external and internal threats, which ensures the country's economic sovereignty, the unity of its economic space, and the conditions for the implementation of Ukraine's strategic national priorities. The construction sector occupies one of the leading places in the country's economy. It is a multifaceted and multifunctional structure. Any changes that occur in any of the interrelated sectors of the economy lead to a reaction from the market, which undoubtedly affects the construction sector. One of the main features of the modern industrial and construction sector is the ability to work in the face of threats to economic security. One of the main tasks facing the economy of Ukraine and requiring serious consideration is the implementation of measures aimed at stabilizing the work of construction enterprises, including design enterprises. A competently built system of ensuring economic security with the use of existing or built corporate resources is able to create the necessary conditions for achieving business goals and maximizing profits. It is not yet known how all the processes will proceed in the conditions of military and post-war conditions. Economic factors in the construction industry are regularly reviewed. And these questions remain unresolved and relevant to this day.

Keywords: economic security, investment and construction activity, risks, construction enterprises, national economy, monitoring, point evaluations, Fishburn weight formula.

JEL Classification: H56, K22, N6, R31 Formulas: 2; fig.: 1; tabl. 2; bibl.: 35

Introduction. In Ukraine, the issues of economic security in investment and construction activities in the pre-war period are becoming more relevant and broad in connection with the development of economic and financial systems, an increase in the threat of factors that reveal them, as well as in connection with extremely contradictory trends in the modern world Therefore, these issues require a more detailed study and global discussion. The development of the Ukrainian economy at that time took place in conditions of competition for sources of budget revenues, investments and human resources. The struggle to allocate funds from the state budget is one of the main directions. The desire to appropriate or squander the cash flow, which was initially aimed at the formation of a construction cluster, is one of the threats to economic security. In 2013, to replace the Methodology for calculating the level of economic security of Ukraine (2007), the Order of the Ministry of Economic approved Development and Trade of Ukraine "Methodological recommendations for calculating the level of economic security of Ukraine". The new document identifies possible threats to economic security in Ukraine. The Methodological Recommendations state that in the construction industry, recommendations can be used to determine the level of components of economic security when making management decisions regarding the analysis, prevention and prevention of real and potential threats to national interests. The components of economic security are: foreign economic security, investment and innovation security, production security, as well as financial. macroeconomic, energy, demographic, social and food security. The digital component of economic security — an important aspect of the construction industry's development — is not mentioned in the methodology. While the risks of digital transformation of various sectors of the economy, in particular the construction sector, are increasing as rapidly as the digitalization process itself. In the pre-war period, the direction of digitization of the economy, the modern blockchain system and cryptocurrencies attracted the attention of not only entrepreneurship, but also the state administration apparatus. At this stage of time, the presented spheres of activity are carefully studied by the scientific community, economists, computer technology specialists, legal scholars and are very relevant [32, 34].

Digitization is penetrating deeper and deeper into various spheres of human activity, that is, in the global society of information technologies, a new economic order is rapidly being born - the digital one. The formation of the digital economy makes it necessary and important to increase the requirements for personnel training and the level of their competencies. The relevance of issues related to the features of economic security in the conditions of digitalization at this stage acquires high significance. In order to build a security system, develop methods and goals, use resources, it is necessary, first of all, to understand the concept of security and what kind of base is laid in it. The large-scale economic crisis of the pre-war years, rising costs and stagnation, rising interest rates on loans create additional risks for the economic security of the construction sector, in particular design and construction enterprises. To manage economic security in investment and construction activities, it is very important to better understand the short- and medium-term consequences of uncertainty for enterprises in the construction sector. As one of the most important interdisciplinary economic complexes, the construction industry is a subsystem of the national economy. It includes: branches of material production and project-exploration works that ensure the reproduction of fixed capital, and also performs a single technological cycle of production of construction products that meets the needs of the population. The characteristics of the system of the investment and construction complex include: structural elements may also belong to other production systems; a high degree of dependence of the final goal (result) on the organization of links (direct and reverse) in the chain of interaction of system and structural elements.

In pre-war Ukraine, design and construction enterprises that do not pay due attention to economic security are both internally and externally unprofitable and continue to operate in an unstable economic environment. They face a deep crisis, a decline in production, a critical condition or become bankrupt. Such a situation in the construction industry carries risks for the entire economy. Design and construction enterprises are able to cope with the shocks of uncertainty, provided that their management understands the features of economic security and is able to manage them under risk conditions. To measure the economic security of the construction sector, the system of indicators should include the following areas: analysis of financial and economic activity, analysis of cash flows, risks of economic activity and operational analysis. Monitoring, analysis and diagnosis of threats to the economic security of the construction industry are of primary importance based on indicators of the socio-economic development of the industry. Safety is a controlled risk. The main issue is the choice of the main risk management tools and their ratio, based on the features of the objects affected by the risks, which can be destroyed, changed or lost as a result of the implementation of the risk, and not just the acceptance and control of the acceptable level of risk [11].

Using the set of resources listed below, the enterprise provides economic security for itself:

Capital resource. The company's equity capital in combination with loan financial resources is the most important system of the company, which allows you to support and buy other corporate resources that the creators of this company initially lacked.

Resource of information and technology. The most expensive and valuable of the company's resources is information related to all aspects of the company's activities. New methods of business organization and management allow the enterprise to adequately and timely respond to any changes in the external

business environment, effectively plan and implement its economic activities. Scientific, technical and technological information about any aspects of this business, as well as information about changes in the political, social, economic and environmental situation, about the company's markets.

Personnel resource. The main, leading and connecting link connecting together all the factors of this business, which ensures the implementation of the business ideology, as well as the achievement of business goals, are the managers of the enterprise, the staff of engineering personnel, employees and production workers with their knowledge, experience and skills.

Resource of property rights. The role of this resource has increased dramatically with the increase in business value of intangible assets. Land use rights, rights to use intellectual property objects, licenses and quotas for the use of natural resources all include this resource. Gaining access to limited opportunities for business development, as well as the use of this resource, allows the enterprise to participate in advanced technological developments without conducting its own expensive scientific research.

Equipment and equipment resources. The enterprise acquires equipment that is necessary and available, based on available resources based on available financial, information technology and personnel capabilities.

Economic security of the enterprise (EBP) is the economic condition of the enterprise and the protection of its activities from both external and internal threats to ensure the stable functioning of the enterprise and its improvement. Functions of economic security:

1) forecasting, detection, prevention, mitigation of dangers and threats;

2) ensuring the security of the enterprise;

3) creation of a competitive environment;

4) liquidation of the consequences of damages.

Tasks of economic security of the enterprise:

- high liquidity indicators;
- detection of threats and threats;
- finding ways to prevent threats;
- finding means of ensuring the security of the enterprise;
- establishment of the security service of the enterprise;
- ensuring the competitiveness of the company's potential;
- creation of an enterprise management structure;
- monitoring of financial stability.

The financial component of the enterprise's economic security is directly related to working capital (hereinafter referred to as working capital), because working capital involves the movement of financial resources from the enterprise or to the enterprise (Figure 1).

In our opinion, this mechanism of movement of financial flows should be taken into account during the post-war recovery. In particular, in order to avoid inappropriate use of limited financial resources, we consider it necessary to regularly monitor the economic security not only of the enterprise whose destroyed assets are being restored, but also of those business entities, in particular designers and contractors, directly involved in the revitalization process. And for this purpose, we offer a methodical approach, specially designed to account for military realities.

The continuous process of creating favorable conditions of activity under which the interests of the subject are realized and the goals set by him are realized, this is what ensuring the safety of the construction enterprise is. In order to achieve the highest level of economic security, the enterprise must monitor the provision of maximum security in terms of individual functional components of this system, as shown in the diagram (Figure 1).

All the listed functional components of economic security of the enterprise are characterized by their own content, methods of provision and a set of functional criteria.

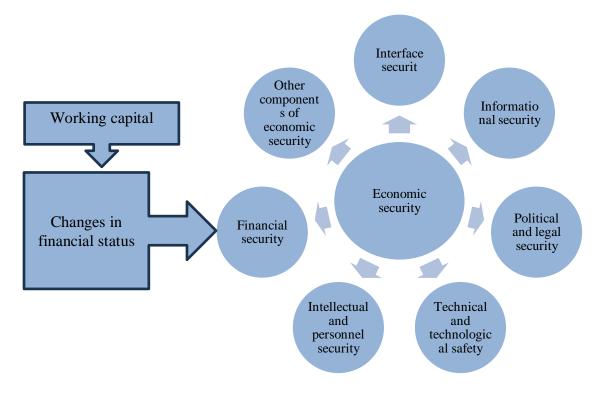


Figure 1. Scheme of influence of working capital on the financial component of the enterprise's economic security

Source: developed by the authors

Literature review. In Ukraine, many modern domestic scientists and specialists dealt with the economic safety of construction enterprises at certain time intervals, in particular: O. Belenkova [22, 23], O. Goyko [17], A. Hrytsenko, L. Husarova [1], Yu. Zapichna [22], K. Izmailova [18], K. Krikun, O. Rubtsova, L. Sorokina [17], S. Stetsenko [18], T. Tsyfra [21] and other scientists [5, 7, 11-15, 19, 20, 24, 25]. They performed a great deal of work in

the Monograph "Econometric tools for managing the financial security of construction enterprises". A theoretical and methodical analysis of the security of the country's national economy and construction enterprises was made. Diagnosis of the prerequisites, consequences, forms and methods of regulation of investment security at the macro- and micro-level was carried out. Attention is paid to the design of risk minimization algorithms at all stages of the investment and construction process, to the development of innovative models based on artificial intelligence for systemic countermeasures against the shortage of resource provision, debt and financial stability of contracting enterprises. The author's methodology for diagnosing the financial security of construction enterprises is proposed, as well as a complete set of criteria for the effectiveness of financial management of construction industry entities is substantiated [18]. But all their developments are intended for economic activity in peacetime. On the other hand, the need to restore the destroyed objects acutely arises even before the indisputable victory of Ukraine, so design and construction work has to be carried out now, simultaneously with the conduct of hostilities.

Article by Harkushi V. and Yershova N. investigated the historical course of awareness of the concept of "security". The main function of security within the modern discourse is determined by imbalances and dysfunctions in the process of functioning of the market economic mechanism. And the essential content of the category "security" in the field of science was also analyzed in order to establish a logical relationship between approaches to interpretation. The author's formulations of the essence of determining the economic security of an enterprise are systematized. Logical justifications are provided, and based on them, the author's definition of the term "economic security of the enterprise" is formulated as a result. The essence of this concept is revealed through "opportunity zones". They proceed from the fact that the economic security of the enterprise is a subjectively perceived state. It depends on the specific set of current threats to the enterprise. The proposed approach to understanding the economic security of the enterprise will further justify innovative methods of managing the economic security of the enterprise taking into account the areas of opportunity [4].

The analysis of research on the identification of risks and threats to the economic security of enterprises in the construction industry was carried out in their scientific works by such scientists as: Bolila N., Koba E., Volynets I., Dmytrenko V., Gordienko N., Azarova T., Zinenko K., Dyachenko K., Kovtunenko K., FilippenkovaO., Korobchynskyi O., Momot T., Pyryatynska I., Fedosova O., Chorna M., Mihus I. and others. (Table 1).

In our opinion, achieving the readiness of the economy to confront external and internal threats is one of the main tasks of managing the economy as a whole. The opinion about the need to ensure a high level of economic development, which will allow to resist external and internal threats, in the specified definitions deserves a lot of attention.

economic security of enterprises in the construction industry				
Author	Risks and threats to the economic security of construction enterprises			
Volynets I.	Internal threats to the economic security of enterprises in the construction industry include: 1) increase in wear and tear of fixed assets of most construction enterprises; 2) inefficient management of assets and capital; 3) low competitiveness of construction products; 4) a long period of turnover of working capital; 5) incorrect sales policy; 6) uncertainty of goals; 7) unmotivated behavior of personnel; 8) low qualification of management personnel; 9) increase in personnel turnover.			
	The author singles out the following as external threats: 1) political instability; 2) crisis state of the national economy; 3) high level of inflation; 4) imperfection of the current legislation; 5) lack of investments and quality domestic building materials; 6) development of the shadow sector in the field of construction; 7) exchange rate change; 8) energy dependence on other countries; 9) high level of credit rates; 10) low purchasing power of the population; 11) military conflicts, natural disasters; and so on. [3].			
Dmytrenko V.	Summarizing the research of scientists, Dmytrenko V.I. identifies the following specific external and internal threats for enterprises in the construction industry: 1) causing damage to the construction object, equipment, deterioration of goods and material values; 2) the threat of marriage; 3) causing harm to personnel; 4) corrupt relations during the distribution of state orders; 5) commercial bribery when receiving orders; 6) unfair competition; 7) intensifying competition; 8) monopolization of the market by large construction companies [6].			
Bolila N.	Bolila N. adds the following to this list: internal threats (risky financing policy; seasonal fluctuations in the construction sector; simple equipment; decrease in the quality of personnel potential). As well as external threats (weak technical regulation; crisis state of the national economy; decrease in the quantity and quality of labor resources; irregular supply, high price level, improper performance of contracts by suppliers, rupture of contractual relations by Customers) [1].			
Kovtunenko K. and Filippenkova O.	In addition, unqualified accounting and unqualified auditing are identified as threats specific to construction enterprises.			
Koba O.	Koba O. reveals the urgent issues of ensuring the economic security of the construction industry of Ukraine in the conditions of martial law. In her work, measures are indicated to strengthen the economic security of operating construction enterprises in timely conditions. Challenges and threats to the economic security of the construction industry of Ukraine related to the military situation are identified. The damage caused to the economy of Ukraine since the large-scale invasion of Russia was analyzed [10].			
Mihus I.	Mihus I. analyzes a set of interdependent elements that allow managing the activities of a joint-stock company by minimizing the impact of internal and external threats on it and achieving its strategic goals [26, 27, 28].			

Table 1. Analysis of studies on the identification of risks and threats to the economic security of enterprises in the construction industry

Source: developed by the authors

The issue of economic security of enterprises, including construction enterprises, was not neglected and explored in their works by young scientists: Matsapura O., Ryzhakova G., Novak Y., Kalashnikov D., Zeltser R., Dubinin D., Vakhovich I., Dub B., Reznik M., Shevchenko Yu., Molodid O., Karpova K., Barabash N. and many others, whose scientific works also deserve attention [21, 22, 29, 30, 31].

It should be noted that, while paying tribute to the authors of scientific works, the results of which contributed to the process of establishing the economic security of economic entities as a science, unfortunately, the issue of the features of the construction of the system, which includes the economic security of enterprises in the construction industry, has not been studied in depth enough. Therefore, our goal is a thorough study of the essence and features of building a system of economic security of construction enterprises in Ukraine.

In a number of monographic works, publications, training manuals, methodological recommendations, dissertations, such topics as: - the management system of the enterprise, in particular the construction one, are considered in great detail; - organizational structure of the enterprise; - accounting; - managerial accounting; - audit; - risk management; - internal control; - controlling and other topics.

In most cases, they are considered without taking into account the need to ensure the economic security of the entire complex complex, which are modern enterprises. Specialists in the relevant fields in practice have to face the problem of ensuring economic security in one way or another. This is evidenced by the experience of the authors of scientific works. In the works of the mentioned authors, insufficient attention is paid to the industry specifics of ensuring the economic security of construction enterprises. In connection with the small presence of methodical developments that take into account organizational and management aspects and branch specifics of the activity of construction enterprises, it is difficult to solve a number of practical issues of ensuring economic security.

Different interpretations of the term "system of economic security of a construction enterprise" confirm the diversity of views of modern scientists on the essence of the concept. The issue of the essence and composition of the enterprise's economic security system does not have a clear universal formulation and has not yet found a final solution. Today, during the wartime, all these issues are difficult to solve, the country has suffered huge economic losses, in particular, design and construction enterprises.

Abroad, the problem of security of enterprises is traditionally given more importance, because in developed foreign countries, the experience of managing in the conditions of a market economy is much richer. The study of economic security is devoted to the work of such foreign scientists as: Arvai Ya., Blades D., Gutmann P., Dallago B., Feig E. and others [24, 33]. The following scientists have devoted their works to the study of theoretical issues of the shadow economy: Blaydes D., McAfee K., Dallago B., Kazimier V., Lüttikhausen R., Frenz A., Gutmann P., Contin B., Kassel D. Research staff of the center Institute for International Governance Innovation (CIGI) Dan Ciuriak and Patricia Goff examine the relationship between Canada's domestic innovation and international trade and investment in their published paper, Economic Security and the Changing Global Economy. These include developing better indicators to assess the impact of Canada's trade agreements on innovation performance. Canada's position in the global economy is affected by rapid and disruptive global change. All over the world, these events made the economic dimension of national security and national economic security important topics of political debate [25].

Considering that the most economically independent countries in terms of GDP (\$ million) are the USA - 20,494,100.00; China - 13,608,151.86; Japan -4,970,915.56; Germany - 3,996,759.29; Great Britain - 2,825,207.95; France -2,777,535.24; India - 2,726,322.62; Italy - 2,073,901.99; Brazil - 1,868,626.09; Canada - 1,712,510.03, then their experience in forming the economic security management mechanism is of particular interest for the construction of the Ukrainian management system. The analysis of existing foreign approaches to the definition of economic security demonstrates that simultaneously with its theoretical understanding, the mechanism of state management was formed and state economic strategies were developed. Depending on the continent, global integration processes and the mentality of the population, the specifics of economic development and priorities of national interests, the positions of countries in the sphere of ensuring economic security differ. Economies of the world are fundamentally different. Having its own idea of the final result and ways to achieve it, each state conducts its own policy. GDP indicators make it possible to compare whose policies are more successful and, accordingly, more correct. As we can see, the most developed and strongest economy in the world is in the United States of America. A stable increase in GDP is observed due to their influence on the world and the politics of countries. Demonstrating the real miracles of economic movement and development in recent decades, China is rapidly catching up with the United States. It can be understood that the development of the state depends on competent administrative management [16]. Such an example can be Japan - a country with high discipline and industriousness of its citizens, which made it possible to raise the economy to such a high level, to achieve great success in the field of technology and production. Modern leader Suzuki Kazuto in his article "The Kishida Fumio Government's Economic Security Strategy: Primarily a Toolkit of 'Defense'?" [8] draws our attention to the draft Law on Ensuring Economic Security for 2022, which is being submitted to lawmakers by the Cabinet of Ministers under the leadership of Prime Minister Kishida Fumio, making the Law a top priority. An important task for 2022, the Cabinet of Ministers of Japan announced the adoption of the legislative framework for strengthening measures to ensure

economic security. Kobayashi Takayuki, Minister for Economic Security, is a central figure in this work. The Kishida government's economic security strategy focuses on turning things around for the better where there are gaps in the Japanese system. And that's first of all. It is equally important for Japan to deserve to be recognized as a responsible member of the international community by other countries. In terms of introducing the appropriate system, Japan is trying to catch up with Western countries [8].

Richard and Susan Hayden Academy Fellow Theo Beale noted in his article, Economic Security - The Need for Renewed Global Efforts: There is a need for transparency and exchange of information between like-minded countries regarding their specific definitions of economic security and the strategic policies that underlie it. And this is the first step on the way to significant international cooperation in the field of economic security [2].

The analysis of modern domestic and foreign literature on the economic security of construction enterprises and the results of research allow us to conclude that there is no consensus among economists regarding the definition of the essence of economic security and its constituent elements. Without the creation of an effective mechanism for ensuring the economic security of the state, the further development of market relations is generally impossible.

Investment and construction activity is a key link in matters of ensuring improvement of people's quality of life, creation of a favorable production climate and acceleration of scientific and technical progress (STP) in a number of branches of material production. Without this, reproduction at a new, higher innovative level is impossible. The investment process in construction includes continuously repeating investment cycles: the birth of an idea, its implementation, and the achievement of specified project performance indicators. Economic security in the conditions of digitalization will receive special attention due to the fact that with the improvement of advanced technologies, it makes us more vulnerable. Digital media accompany the movement of real assets, the essence of production and social economic relations is changing. In these conditions, various abuses in the economy will be traced, the termination of which should be dealt with by specialists in economic security, and their services will be more and more in demand over time. In order to improve the methodical provision of economic security monitoring, we have proposed the following approach. Firstly, due to the need for its systematic analysis, an integral indicator should be used, which can be compared at different points in time. At the same time, we recommend checking the level of economic security according to this indicator at least once every 6 months. Secondly, the integral indicator should summarize all the components of economic security shown in fig. 1. However, despite the schematic representation in the form of equal segments of a circle, each of the components must be considered with the appropriate level of significance in the overall result. In turn, the significance is determined by the specifics of the operational

activities of enterprises participating in the revitalization process. Thus, for the Designer, who begins the restoration process, the economic security from Figure 1 should be arranged as follows:

1. Intellectual and personnel security as a result of the project being created is an intangible asset.

2. Financial security as a source of life-giving resources.

3. Information security, because the development of restoration projects requires taking into account all modern requirements for buildings, materials, structural products, and the cost of resources.

4. In our opinion, the technical-technological, interface and political-legal components are equivalent due to the objective need to preserve the business reputation and the ability of the project enterprise to adapt to the economic environment.

The given list is, in fact, a ranking of safety components, which allows applying the Fishburn weighting formula to justify the importance of individual components:

$$\alpha_j = \frac{2 \cdot (m - \bar{j} + 1)}{m \cdot (m + 1)},\tag{1}$$

where *m* is the number of components for which the weighting factor is determined, in this study it is the number of safety components; — rank number, that is, the position of a certain component in the overall ranking.

The method of using this formula for monitoring the economic security of a subcontractor is presented in Table 2.

Tuble 2. D'ulauton of the importance of components of coordinate security				
An integral component of economic security	Rank number	Weight calculation (1)	Validity, α	
1. Intellectual and personnel security	1	$\frac{2 \cdot (5 - 1 + 1)}{5 \cdot (5 + 1)} = 0,333$	α _{ik} =0,333	
2. Financial security	2	$\frac{2 \cdot (5 - 2 + 1)}{5 \cdot (5 + 1)} = 0,267$	$\alpha_{f} = 0,267$	
3. Information security	3	$\frac{2 \cdot (5 - 3 + 1)}{5 \cdot (5 + 1)} = 0,200$	α _i =0,200	
4.a Technical and technological safety	5=(4+5+6)/3	$\frac{2 \cdot (5 - 5 + 1)}{5 \cdot (5 + 1)} = 0,067$	α _{tt} =0,067	
4.b Interface security	5=(4+5+6)/3	$\frac{2 \cdot (5 - 5 + 1)}{5 \cdot (5 + 1)} = 0,067$	α _{if} =0,067	
4.c Political and legal security	5=(4+5+6)/3	$\frac{2 \cdot (5 - 5 + 1)}{5 \cdot (5 + 1)} = 0,067$	α _{pl} =0,067	

Table 2. Evaluation of the importance of components of economic security

Source: developed by the authors

From Table 2, it is noteworthy that the last three components have related ranks, that is, the same value, which corresponds to the averaging of the item numbers, which could be in the case of political and legal inequality, interface and technical-technological component.

Third, the proposed weighting factors should be applied to relative safety assessments, which should be determined by experts. Usually experts from economic security should be involved in the composition of expert groups. In our opinion, a 3-point rating system should be used: 1 - unsatisfactory security status, 2 - satisfactory security status, 3 - sufficient security status. As a possible option for the substantiation of the specified points, there may be an accounting of the number of threats in relation to each component of security. The set of factors that constitute threats, as well as their strength, which affects the score, should be determined by experts in economic security.

Thus, in order to calculate the integral indicator of economic security (ES), estimates of 1 or 2 or 3 points must be multiplied by the corresponding weighting factors (table 2) and find the sum of the resulting works:

$$ES=0,333\bullet Xip+0,267\bullet Xf+0,2\bullet Xi+0,067\bullet Xtt+0,067\bullet Xif+0,067\bullet Xpl,$$
(2)

where Xip, Xf, Xi, Xtt, Xif, Xpl are point estimates according to the intellectual and personnel, financial, informational, technical-technological, interface, political-legal component of economic security.

Discussion. The economic security of a complex system is based on the foundations of economic independence, the stability of the economic system as a whole and all its elements, the ability of the system to self-develop, the constant maintenance of a high level of self-sufficiency of the economy, inseparability from the process of economic growth. All these signs of economic security are inextricably linked with the investment security of economic systems. The decisive role in the process of growth of the national economy is played by enterprises of the investment and construction complex, whose activities ensure the creation of new production facilities, the installation of technological equipment, and its commissioning. In turn, high-quality and timely execution of construction works requires adequate capital equipment of contractors, which can be achieved in conditions of financial stability, economic stability and sufficient investment potential. Since the investment security of the national economy is possible only with the investment security of each individual construction enterprise, the problem of identifying threats of loss and the mechanism of restoring the latter is an urgent task of economic science [22]. In the case of a military situation, previously existing methods must be reviewed for suitability in a VUSA environment. In this, it is advisable to use the above methodical approach. Also, the prospects for further research in this

direction are the substantiation of the methods of determining point estimates of the components of economic security.

Conclusion. The state of protection from the negative impact of external and internal threats, destabilizing factors, which ensures the sustainable implementation of the main economic interests and goals of the design and construction enterprise — this is what the economic security of the enterprise is. The article is devoted to topical issues of ensuring the economic security of the construction industry of Ukraine in pre-war and military conditions. The risks and threats posed to Ukraine's economy since the large-scale invasion of Russia have been analyzed. In order to quickly restore and ensure the economic growth of the country's economy, the problems of construction enterprises, which require urgent solutions, have been identified. Measures to strengthen the economic security of operating construction enterprises in modern conditions are indicated, taking into account destroyed infrastructures, insufficient financial resources, loss of logistics connections, demand, suspension of many enterprises, reduction of labor potential, solvency of the population. It is expedient to formulate regulations concerning the necessary changes in the policy of business entities in the construction industry, and to substantiate the factors affecting the assessment of economic security. This contributes to increasing the stability of the economic security of this industry. The development and implementation of a complex system for ensuring the economic security of enterprises will allow to qualitatively influence the general financial condition of a specific project or construction enterprise. This will have a positive effect on the activities of the enterprise itself and will affect the recovery of the country's economy as a whole. Various abuses and their preventive measures in the economy will be dealt with by economic security experts in the future. Over time, their services will be more and more in demand. The search for ways to restore Ukraine has begun. In some regions of the country, the activities of design and construction enterprises have been resumed. In the process of recovery of the country, the role of the construction industry is crucial. Elimination of the consequences of the destruction of the country will give impetus to the development of all industries involved in construction. This will lead to the rapid development of the construction sector and requires the development of a mechanism for the implementation of measures necessary for development.

In the article, we proposed an approach for improving the methodical provision of economic security monitoring:

1) due to the need for its systematic analysis, an integral indicator should be used, which can be compared at different points in time;

2) the integral indicator should summarize all components of economic security;

3) the proposed weighting factors should be applied to relative safety assessments, which should be determined by experts.

For the suitability of the VUSA environment under the conditions of martial law, it is necessary to review the previously existing methods, which should become the subject of further research.

Author contributions. The authors contributed equally.

Disclosure statement. The authors do not have any conflict of interest. **References:**

1. Bolila N.Y., Husarova L.V., Classification and systematization of threats to the economic security of construction enterprises. Ways to increase the efficiency of construction in the conditions of the formation of market relations. Kyiv. 40. 2019. <u>https://core.ac.uk/download/pdf/322454275.</u>

2. Bill T., Economic security - the need to renew global efforts, 2022.

3. Volynets I., Classification of threats and ways to ensure the economic security of construction enterprises. Scientific notes of the Lviv University of Business and Law. <u>http://dx.doi.org/10.5281/zenodo.3900558.</u>

4. Harkusha V.O., Yershova N.Yu., Theoretical and methodological principles of the formation of economic security of the enterprise. Black Sea Economic Studies. 2018. 27(1). Z. 106-112. (Date of application: 26.06.2021). URL: <u>http://nbuv.gov.ua/UJRN/bses_2018_27%281%29__23.</u>

5. Victoria Garkava, Alina Klishchevska, Formation and implementation of the concept of economic security in the management of the economy of the region, Economic Analysis, Volume 31. No. 2. 2021 From 14 to 24.

6. Dmytrenko V., Threats to the development of enterprises in the construction industry: theoretical aspect. Agromir. 11, 2020. Doi: <u>10.32702/2306-6792.2020.11.136.</u>

7. Zaichko I.V., Financial stability of enterprises as a tool for realizing financial security "Young Scientist" 10 (74), 2019. KNUKiM pp. 651-656.

8. S. Kazuto, The economic security strategy of the Kishida Fumio government: primarily a toolbox of "defense"?, 2022. <u>https://www.nippon.com/ru/in-depth/a07901/.</u>

9. Kovtunenko K., Filippenkova A., Specific types of threats and features of the organization of ensuring financial and economic security of construction enterprises. V MNPIK Problems of the Market and Development of the Regions of Ukraine in the XXI Century, Odesa, 2014, p. 10-12, p. 20-22. https://economics.net.ua/files/science/ipreed/2014/t2/20.pdf.

10. Koba E., Economic security of the construction industry in the conditions of challenges and threats of martial law, J. Economy and Society 42 (2022). Doi: <u>https://doi.org/10.32782/2524-0072/2022-42-9</u>.

11. Korobtsova D., Legal provision of the financial security of the state under martial law, Report Analytical and comparative jurisprudence Section V. (2022) 141-146. Doi: <u>https://doi.org/10.24144/2788-6018.2022.02.27.</u>

12. Lytovchenko O., Ilyashenko O., Gordienko M., Stages of strategic planning of economic security of the enterprise. Economic Analysis, Volume 31, 2, 2021. Doi <u>https://doi.org/10.35774/econa2021.02.98.</u>

13. Lishenko O. M., Analysis of the financial stability of the enterprise as an element of ensuring the financial stability of the enterprise. Herald of Cherkasy University. Series: Economic Sciences. 2018. 2. P. 49-57.

14. Melnyk S., Management of financial security of enterprises: theory, methodology, practice, Lviv, 2020. ISBN <u>978-617-7864-31-7</u>.

15. Osidach O.B., Sarnavskyi B.O. Financial security of small business: realities and problems "Young Learning" No. 10 (74) October, 2019. P. 692 - 696.) October, 2019) DOI: <u>https://doi.org/10.32839/2304-5809/2019-10-74-145.</u>

16. Rating of the economy of the developed countries of the world, 2023. https://visasam.ru/emigration/vybor/ekonomika-stran-mira-2.html.

17. Sorokina L.V., Goyko O.F. Study of threats to investment security of construction enterprises. Construction production magazine, Kyiv. 2016. No. 61/2. - P. 10 - 21. P.

18. Sorokina L., Goyko O., Stetsenko S., Izmailova K., Econometric tools for managing the financial security of a construction enterprise. Monograph. Kyiv. KNUBA 2017. Bibliography P. 373 – 398. Kryvyi Rih. Publisher of FOP Chernyavskyi D.O. 2017. - 404 p. ISBN <u>978-617-7553-53-2.</u>

19. Trots I.V. Ensuring economic security at the enterprise in order to prevent bankruptcy. Access mode: https://www.science-community.org/system/files/Trots.

20. Yurovych L. Economic security of the enterprise: essence, influencing factors, main problems. [Electronic resource]. (Yurovich, L. Economic security of enterprise: nature, factors of influence, main problems. Access mode: <u>http://ena.lp.edu.ua:8080/bitstream/ntb/4894/1/95.pdf).</u>

21. Shevchenko Yu., Bolila N., Tsyfra T., Effective use of working capital of the construction enterprise as a factor of economic security, Zh. Ways of increasing the efficiency of construction in the conditions of the formation of market relations 44 (2020). Doi: <u>https://doi.org/10.32347/2707-501x.2020.44.133-146.</u>

22. Bielienkova O., Novak Y., Matsapura O., Zapiechna Y., Kalashnikov D., Dubinin D. (2022). Improving Organization and Financing of Construction Project on Means of Digitalization, International Journal of Emerging Technology and Advanced Engineering, 12(8). Doi: <u>10.46338/ijetae0822_14</u>.

23. Bielienkova O., Stetsenko S., Oliferuk S., Sapiga P., Horbach M., Toxanov S., Conceptual model for recognition of company competitiveness based on depth of logic: social and resource factors. *IEEE International Conference on Smart Information Systems and Technologies (SIST)*, 2021, pp. 1-5, Doi: 10.1109/SIST50301.2021.9465923.

24. Bijan P. Karimi, Security and prosperity: reexamining the relationship between economic, domestic and national security, J. NPS NDSC, Monterey, California, 2015, p. 157. <u>https://www.hsaj.org/articles/8069.</u>

25. Ciuriak D., Goff P., Economic Security and Changing Global Economy, J. RCNSS, 8 https://www.cigionline.org/static/documents/NSS_Report8_sS8s9ak.pdf.

26. Mihus, I. (2022). Corporate management evaluation tools in joint stock companies under economic uncertainty conditions, The economics of uncertainty: content, evaluation, and regulation: collective monograph, Tallinn, SCIR OU. Doi: <u>https://doi.org/10.36690/EUCER-99-112.</u>

27. Mihus, I., & Melko, L. (2022). Economic security system management of travel industry: making management decisions in crisis conditions. *Economics, Finance and Management Review*, (4), 96–102. https://doi.org/10.36690/2674-5208-2022-4-96.

28. Shemayeva, L., Hladkykh, D., Mihus, I., Onofriichuk, A., Onofriichuk V. (2021) Informational and Methodological Approach to Ensuring the Economic Security of the State in the Banking Sphere. IJCSNS International Journal of Computer Science and Network Security, VOL.21 No.12, December 2021.<u>https://doi.org/10.22937/IJCSNS.2021.21.12.66</u>.

29. Zeltser, R. Ya. Digital Transformation of Resource Logistics and Organizational and Structural Support of Construction. Science and Innovation. 15 (5). 38-51. (2019).

30. Ryzhakova H. V. et. "Modern structuring of project financing solutions in construction", 2022 IEEE International Conference on Smart Information Systems and Technologies (SIST), 2022.

31. Reznik, N., Ijaz, Y., Kushik-Strelnikov, Y., Barabash, N., Stetsko, M., Bielienkova, O.: Systems Thinking to Investigate Archetype of Globalization. Springer International Publishing <u>https://doi.org/10.1007/978-3-031-08087-6_9 (2022).</u>

32. Project Plan vidnovlennia Ukrainy [Draft Plan for Recovery of Ukraine] / Natsionalna rada z vidnovlennia Ukrainy vid naslidkiv viiny – national collective for the reconstruction of Ukraine in Consequences of the War, 2022. URL: <u>https://www.kmu.gov.ua/storage/app/sites/1/recoveryrada/ru/functioning-of-the-financial-system.</u>

33. Y. Fernando, M. Shaharudin, A. Abideen, Circular economy-based reverse logistics: dynamic interplay between sustainable resource commitment and financial performance, European Journal of Management and Business Economics, 2022, <u>https://doi.org/10.1108/ - 08-2020-0254</u>.

34. NSDC approved, Zelenskyi signed. The Economic Security Strategy until 2025 was implemented in Ukraine On August 11, 2021; President Volodymyr Zelenskyi signed a decree that implemented the decision of the NSDC on the Economic Security Strategy of Ukraine for the period until 2025.

35. Bielienkova O., Moholivets A., Loktionova Y. Measurement of the level of economic security of enterprises by the indicator of the attractiveness for hostile takeovers. *Baltic Journal of Economic Studies*, 2021, 7(5), 29-40.