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Ensuring the Economic Security of Enterprises in Conditions of Environmental Instability

Abstract

The purpose of the article is to study the peculiarities of ensuring the economic security of enterprises in conditions of environmental instability. *Methodology.* The methodological basis of the research is a set of general scientific and specialized methods of scientific knowledge, which enabled a comprehensive investigation of the peculiarities of ensuring the economic security of enterprises in an unstable environment. In the research process, the methods of theoretical generalization and systematization of – were used to clarify the essence of the economic security of the enterprise; analysis and synthesis of – to study the main risks, threats and determinants of ensuring economic security; systematic approach – to consider economic security as a complex multi-component system; the method of logical generalization – to form conclusions about the role of adaptive management, resource provision and digitalization in strengthening the economic security of enterprises. *Results.* As a result of the study, the main risks and threats affecting the provision of economic security for enterprises in conditions of an unstable environment, including military, financial and economic, logistics, personnel, information, and cyber risks, were identified. The key determinants of enterprise economic security are outlined, and the roles of resource provision, adaptive management, and digital technologies in enhancing the stability and competitiveness of economic entities are substantiated. It has been established that the effective provision of economic security for enterprises requires a comprehensive combination of strategic planning, systematic risk monitoring, digitalization of business processes, and the implementation of modern management mechanisms in conditions of dynamic economic transformations. *Practical implications.* The practical significance of the obtained results lies in the possibility of applying the proposed approaches and generalizations in the development of a system to ensure the economic security of enterprises in an unstable environment. The adaptive management mechanisms outlined in the study, approaches to risk management, resource provision, and digitalization can be used by business entities to increase the level of financial stability, minimize the impact of external and internal threats, ensure business continuity, and strengthen the competitive position of the enterprise in the conditions of modern economic transformations. *Value / originality.* The scientific novelty of the study consists of a comprehensive approach to ensuring the economic security of enterprises in conditions of an unstable environment, taking into account modern military, economic, logistics, information, and digital challenges.

DOI: <https://doi.org/10.30525/2500-946X/2026-2-2>**1 Introduction**

The current economic environment is characterized by high levels of uncertainty and rapid change, posing significant threats to the stable functioning of economic entities, their financial stability, investment attractiveness, and competitiveness. In such conditions, enterprises are forced to quickly adapt to new challenges, implement effective risk management mechanisms, strengthen internal control, and ensure the sustainability of business processes. Today, the enterprise's economic security is considered not only a system of protection against internal and external

Keywords

enterprise, economic security of the enterprise, risks and threats, resource provision, digitalization

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threats, but also an important element of strategic management aimed at ensuring the efficient use of resources, maintaining business continuity, and creating conditions for the enterprise's long-term development.

The problem of economic security is especially acute in Ukraine, where enterprises operate under martial law, amid financial system instability, exchange rate fluctuations, resource shortages, and a decline in the solvency of the population. Additional risk factors are the growth of cyber threats, the instability of energy supply, changes in the legislative environment, and the need for digital modernization of business,

which necessitates the formation of a comprehensive system of economic security capable of ensuring timely detection of threats, minimizing negative consequences, and maintaining the strategic stability of the enterprise.

At the same time, modern economic transformations create a need to implement new approaches to ensuring enterprise economic security, grounded in the principles of adaptability, systematicity, strategic planning, and effective risk management. Of particular importance is the integration of digital technologies, automated business processes, information and analytical systems, and cybersecurity tools into the enterprise management system, which increases the efficiency of management decisions, optimizes resource allocation, and strengthens enterprises' resilience to internal and external threats.

In view of this, there is a need for further research on how to ensure the economic security of enterprises in an unstable environment, identify key risks, and develop effective tools to ensure the long-term sustainability and development of enterprises.

2 Literature Review

The growth of scientific interest in ensuring enterprise economic security is driven by dynamic changes in the external environment, rising risks, and crisis phenomena. Various aspects of this issue are reflected in the works of many scientists. In particular, the article by M. Zlotnik, P. Kasperskyi, and I. Kulpa considered the peculiarities of ensuring the economic security of enterprises in conditions of martial law and environmental instability, systematized key threats to economic security, and also substantiated the need to use complex anti-crisis, organizational, financial, and digital tools to increase the stability and continuity of business entities (Zlotnik, Kasperskyi & Kulpa, 2026). In turn, I. Mykolenko analyzed the interrelationships among the key components of enterprise economic security and substantiated an institutional mechanism to ensure economic security, aimed at increasing enterprise stability, competitiveness, and adaptability to modern challenges and risks (Mykolenko, 2025). Authors O. Hapieieva M. and R. Holovko, in their article, consider the process of forming an enterprise's economic security system, its main stages of construction, and risk management (Hapieieva & Holovko, 2025). In the work of O. Revenko, V. Bereza, S. Uvarov, Ya. Pushak, D. Litvinov considered the theoretical, organizational, and legal principles of ensuring the economic security of enterprises (Revenko, Bereza, Uvarov, Pushak & Litvinov, 2025). In turn, in the article by V. Zalizniuk, N. Safonik, and A. Kaia, the authors examined the peculiarities of preventive management of enterprises' economic security, focusing on the need to detect, prevent, and minimize risks and threats in a timely manner (Zalizniuk, Safonik, &

Kaia, 2022). S. Smerichevskiy examines the strategic aspects of the adaptive management of enterprises' economic security (Smerichevskiy, 2023). In the article, O. Garafonova, R. Yankovoy, and I. Dvornyk considered resource provision as a key component of the enterprise's economic security management system, defined its role in ensuring the stability, adaptability, and competitiveness of enterprises, and substantiated the need for a comprehensive approach to resource management to support stable development (Garafonova, Yankovoy, & Dvornyk, 2025). However, further research into the challenges of ensuring enterprise economic security in an unstable environment is necessary, given the ongoing increase in economic uncertainty, the dynamism of external changes, and the emergence of new risks and threats.

3 Conceptual Principles of Ensuring the Economic Security of Enterprises in Conditions of an Unstable Environment

The dynamism of the external environment, increased competition, economic instability, digital transformation, and the growing number of risks form new challenges for economic operators. Under such conditions, enterprises must not only respond effectively to changes but also develop adaptive management mechanisms that ensure the sustainability of operations, protect the potential of resources, and maintain a competitive advantage in the face of uncertainty. That is why the formation of an effective system of economic security of the enterprise, capable of ensuring its stable functioning, adaptability to changes in the external environment, and timely response to potential risks and threats, is now of particular importance.

In the context of a full-scale invasion, ensuring the economic security of enterprises in Ukraine becomes especially relevant. As of the end of 2025, the total amount of direct damage caused to buildings and infrastructure of Ukraine is estimated at more than 195 billion US dollars (World Bank Group, 2026), which indicates a constant increase in the scale of economic losses and destruction (Fig. 1). The housing sector, transport infrastructure, energy, industry and the commercial sphere suffered the greatest damage, which directly affects the activities of enterprises, the stability of production processes, logistics support and the functioning of markets. Constant attacks on critical infrastructure, energy systems, and transport networks create additional risks for economic operators, complicating their ability to maintain business continuity and ensure adequate financial sustainability.

Martial law entails significant risks and threats to the functioning of enterprises, associated with both the direct impact of hostilities and large-scale structural transformations of the state's economy. Among the

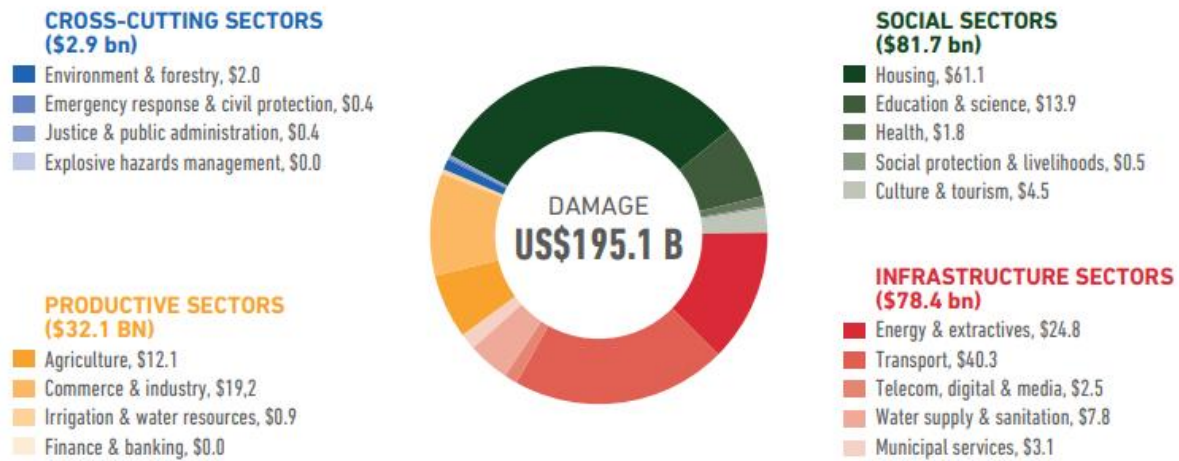


FIGURE 1 Total damage by sector (US\$ billion)

Note: Values are for the period between February 24, 2022, and December 31, 2025

Source: (World Bank Group, 2026)

main threats to the economic security of enterprises, the physical and infrastructural risks associated with the destruction of production capacities, transport, and energy infrastructure, which leads to the shutdown or reduction of operational activities and the loss of assets, are singled out. Financial and economic threats also have a significant impact, particularly inflationary pressures, currency fluctuations, and limited access to credit and insurance, which negatively affect the financial stability of enterprises and their investment activity. Additional destabilizing factors include disruptions to logistics chains, resource scarcity, and rising transport costs, which reduce production volumes and make it difficult to meet contractual obligations. At the same time, enterprises face personnel challenges due to worker mobilization, population migration, and psychological exhaustion, leading to a shortage of qualified personnel and a decline in labor productivity. In the context of the digitalization of the economy, the volume of information and cyber threats is also increasing, which can disrupt business processes and cause reputational losses. In addition, the instability of the market environment, changes in the demand structure, and frequent changes in regulatory and legal frameworks pose additional challenges to enterprises' economic security and require the implementation of adaptive risk management mechanisms (Zlotnik, Kasperskyi & Kulpa, 2026). Under such conditions, enterprises need to build an adaptive system of economic security, focused on prompt response to threats, risk minimization, and sustainable functioning in an unstable environment.

The economic security of the enterprise in conditions of an unstable environment is based on the effective use of resource potential, ensuring the stability of functioning and the formation of adaptive management mechanisms aimed at timely

identification, assessment, and minimization of the impact of risks, threats, and destabilizing factors arising in the process of economic activity in conditions of high uncertainty and a competitive environment (Tsyhanchuk, Tsyhanchuk, & Tiazhkorob, 2024).

In this context, we agree with S. Smerichevskyi that the control, analysis, and assessment of the main indicators of financial and economic activity are of great importance for identifying negative trends and potential threats in a timely manner (Smerichevskyi, 2023). In general, the enterprise's implementation of the development strategy, formed with risks and destabilizing factors of the external environment in mind, is a complex and multifaceted process that necessitates adaptive approaches to managing the enterprise's economic security.

4 Determinants of Ensuring the Economic Security of Enterprises

Among the key aspects of ensuring the economic security of enterprises in conditions of an unstable environment, it is advisable to single out maintaining the appropriate level of competitiveness and adaptability of the enterprise to changes in the external environment, ensuring financial stability and efficiency of economic activity, as well as the formation of a flexible organizational structure capable of promptly responding to internal and external risks. Compliance with the principles of rational resource use and environmental responsibility is also important, contributing to increased enterprise efficiency and reduced resource losses. In addition, one of the determining factors of economic security is the development of personnel potential, the increase in personnel qualifications, the intellectualization

of work, and the ensuring of the effectiveness of management and innovation processes in the conditions of dynamic transformations of the economic environment (Chernyshov, 2023).

Based on the above, we see that ensuring the economic security of enterprises in an unstable environment is a complex, multi-component process influenced by both external and internal factors. The dynamics of economic processes and the strengthening of military, financial, logistical, and information risks require the formation of an adaptive management system capable of ensuring the stability

of the enterprise's operations and competitiveness. In this regard, it is appropriate to single out the key determinants that determine the level of economic security of enterprises and form the basis for making effective management decisions in conditions of instability of the external environment (Fig. 2).

An important component of the system for ensuring the enterprise's economic security is resource provision, encompassing the financial, material, informational, and labor resources necessary to maintain the enterprise's stability and adaptability to external and internal threats. Resource provision

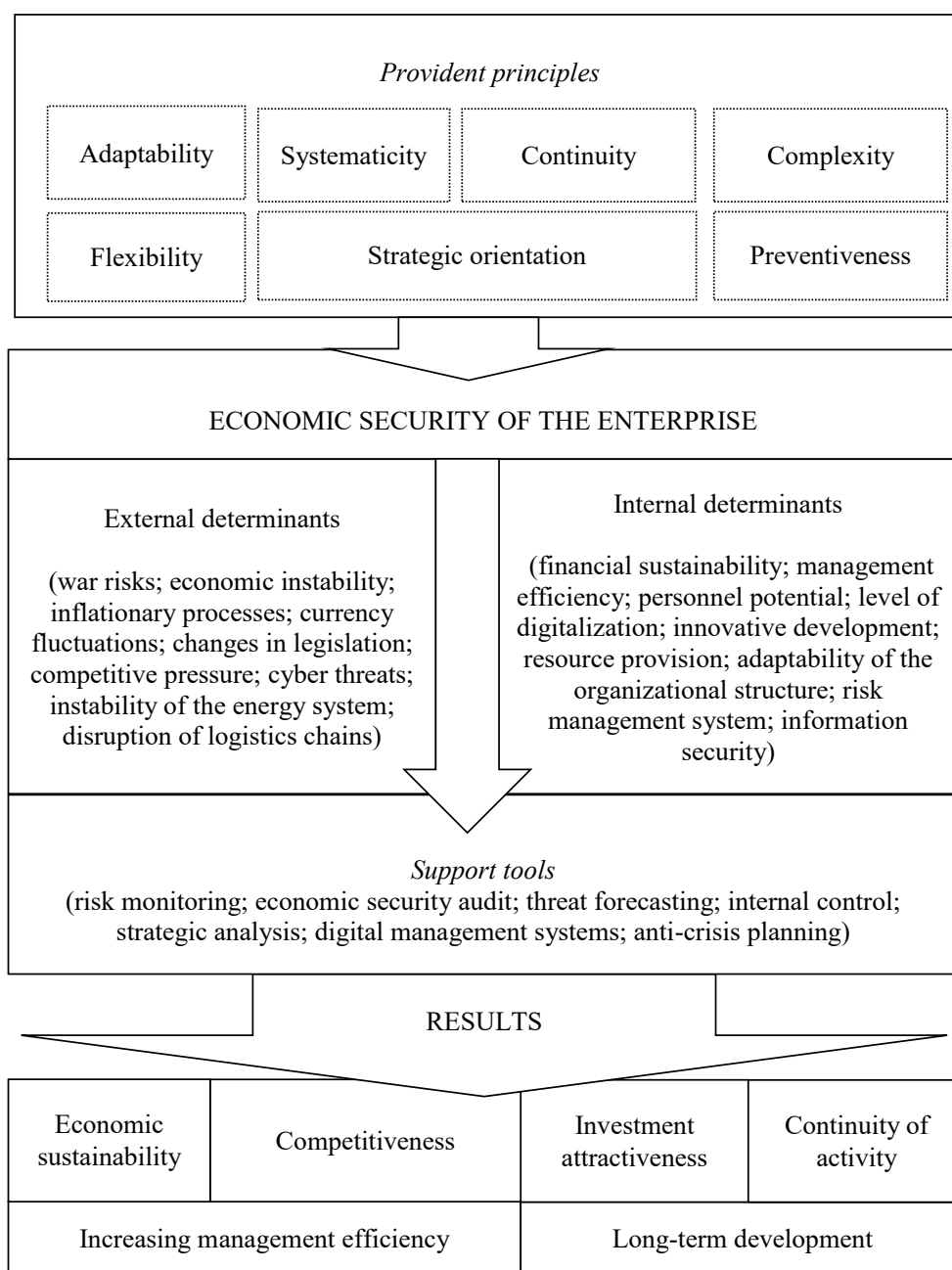


FIGURE 2 Key determinants of ensuring the economic security of enterprises in conditions of an unstable environment

Source: developed by the author according to (Hapieieva & Holovko, 2025; Garafonova, Yankovoy & Dvornyk, 2025; Zalizniuk, Safonik & Kaia, 2022; Mykolenko, 2025)

serves as the basis for implementing management decisions, ensuring competitiveness and maintaining enterprise stability amid economic uncertainty. Financial resources, which enable prompt responses to crisis phenomena, the formation of reserves, and the maintenance of the enterprise's financial stability, are of key importance in the system of economic security. At the same time, material resources, in particular production capacities, equipment, and raw materials, determine the stability of production processes and the continuity of the enterprise's activities. Equally important are information resources and modern digital management systems that ensure effective risk monitoring, automation of business processes, and increase the efficiency of management decisions. Labor resources are also of particular importance, since the professional level of staff, their adaptability, and their ability to respond quickly to changes directly affect the enterprise's efficiency in an unstable environment (Garafonova, Yankovoy, & Dvornyk, 2025).

Also, the introduction of digital technologies and the integration of innovative solutions into the enterprise's risk management and resource provision processes have become an important direction for increasing the efficiency of the enterprise's economic security system. In this context, we agree with A. Kovalchuk and N. Safonik state that the use of digital platforms, information and communication technologies, data analytics systems, business process automation, and cyber protection contributes to increased management efficiency, optimized resource provision, and reduced risk impact. In addition, digitalization enables enterprises to ensure business continuity, increase competitiveness, and adopt a more adaptive operating model amid instability. At the same time, the process of digital transformation is accompanied by new challenges, including the intensification of cyber threats, dependence on digital infrastructure, the need to protect information resources, and the need for highly qualified personnel (Kovalchuk & Safonik, 2025). That is why ensuring the economic security of enterprises should be based on a combination of strategic management, innovative development, and a systematic risk management approach in today's unstable environment.

Given the current unstable economic environment and the growing impact of internal and external threats, an effective risk management system is essential to ensuring the economic security of enterprises. In this context, we agree with O. Revenko, V. Bereza, S. Uvarov, Ya. Pushak and D. Litvinov, which is of particular importance not only for enterprises' ability to promptly respond to crisis phenomena and destabilizing factors, but also for the formation of an adaptive system of economic security focused on the preventive detection of potential threats. Such a system should be based on strategic planning, transparency in management processes, effective information provision, and consideration of the specifics of modern economic

transformations, military challenges, and hybrid risks (Revenko, Bereza, Uvarov, Pushak & Litvinov, 2025).

Therefore, an effective system of economic security should be based on a comprehensive combination of adaptive management, rational resource provision, digital technologies, systematic risk monitoring, and strategic planning. It is the ability of enterprises to quickly respond to changes in the external environment, minimize the impact of threats, and develop flexible management mechanisms that will determine their stability, competitiveness, and operational efficiency in an unstable environment.

5 Conclusions

The current stage of economic development is characterized by high instability in the external environment, which is accompanied by an increase in the impact of military, financial, economic, logistics, information, and technological risks on enterprises' activities. Under such conditions, the economic security of enterprises is transformed from a narrowly functional element of the management system into a strategic component of ensuring the stability, adaptability, and continuity of the enterprise's functioning.

Ensuring the economic security of enterprises should be based on a comprehensive approach that combines financial stability, effective resource management, adaptable organizational structure, strategic planning, and systematic risk monitoring.

The ability of the enterprise not only to respond to existing threats but also to develop preventive management mechanisms focused on forecasting potential crisis phenomena and minimizing their negative impact on economic activity results is of key importance. At the same time, adaptive management of economic security, which enhances decision-making flexibility and increases the company's resilience to dynamic changes in the external environment, is particularly important.

An important factor in ensuring the economic security of enterprises in modern conditions is the digitalization of economic processes and the integration of digital technologies into the enterprise management system. The use of information and communication technologies, analytical systems, automated business processes, digital platforms, and cybersecurity tools enhances risk management efficiency, enabling prompt decision-making, optimizing resource allocation, and ensuring the continuity of enterprise operations. At the same time, the digital transformation process is accompanied by an increase in information and cyber threats, requiring enterprises to establish a comprehensive information security system and achieve greater digital stability.

Along with this determining factor in strengthening the economic security of enterprises, the development

of personnel potential, the increase in personnel professional competence, and the formation of an effective human resources management system remain. In conditions of martial law, migration processes, and a shortage of qualified personnel, human capital becomes a key resource for maintaining enterprise operations and implementing adaptive management decisions. In general, ensuring the economic security of enterprises in an unstable environment should be considered a continuous, multi-component, and

strategically oriented process aimed at maintaining the enterprise's stability in the face of external and internal threats, ensuring the effective functioning of the management system, and laying the groundwork for long-term development. The effectiveness of such a system largely depends on enterprises' ability to combine adaptive management mechanisms, digital technologies, strategic planning, and a comprehensive risk management approach in the context of modern economic transformations.

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