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INSTITUTIONAL RESILIENCE OF STATE-OWNED ENERGY ENTERPRISES IN WARTIME IN UKRAINE: CHALLENGES AND PROSPECTS FOR TRANSFORMATION

Annotation. *The article examines the institutional resilience of state-owned energy enterprises (SOEs) in Ukraine under wartime conditions. The full-scale Russian invasion has created an environment of extreme uncertainty, exposing systemic weaknesses in governance and operations while simultaneously stimulating organizational learning, innovation, and adaptation. Using a combination of institutional, systemic, and comparative approaches, the paper investigates how SOEs have adapted their governance models, risk management systems, and reporting practices to maintain operational continuity and contribute to national economic and energy security. The research identifies four key directions of wartime transformation: crisis-induced decision-making dynamics, localized innovation under stress conditions, institutional synergy through international reform support, and transparency-driven governance transformation. These areas reflect the growing role of adaptability, partnership, and openness in shaping sustainable public management practices.*

The findings demonstrate that transparency and accountability have become fundamental determinants of institutional resilience. SOEs' ability to operate effectively under conditions of disruption depends on the modernization of reporting and control mechanisms, the adoption of risk-based decision-making, and the alignment of governance practices with international standards. Strengthening the quality and reliability of information sources ensures evidence-based policy decisions and enhances stakeholder trust, particularly within the framework of digital and circular economy development. The study concludes that transparency and accountability are the cornerstone of resilience and effective transformation of SOEs – both during the war and in the broader context of sustainable recovery and long-term reform. The confirmed hypothesis (H₀) states that transparency and accountability are key factors in ensuring effective management of SOEs under uncertainty within a risk-based governance framework.

Keywords: *public-private partnership, partnership, reporting, financial control, resilience, economic security, circular economy, EU directive requirements.*

ІНСТИТУЦІЙНА СТІЙКІСТЬ ДЕРЖАВНИХ ЕНЕРГЕТИЧНИХ ПІДПРИЄМСТВ В УМОВАХ ВІЙНИ В УКРАЇНІ: ВИКЛИКИ ТА ПЕРСПЕКТИВИ ТРАНСФОРМАЦІЇ

Анотація. У статті досліджено інституційну стійкість державних енергетичних підприємств України в умовах воєнного стану. Повномасштабне вторгнення Росії створило середовище надзвичайної невизначеності, що оголило системні слабкості в управлінні та операційній діяльності, водночас стимулюючи організаційне навчання, інновації та адаптацію. Використовуючи поєднання інституційного, системного та порівняльного підходів, у роботі проаналізовано, як державні підприємства адаптували свої моделі управління, системи ризик-менеджменту та практики звітування з метою підтримання операційної безперервності й забезпечення національної економічної та енергетичної безпеки. У дослідженні виокремлено чотири ключові напрями воєнної трансформації: динаміка прийняття рішень в умовах кризи, локалізовані інновації в стресових умовах, інституційна синергія через міжнародну підтримку реформ та трансформація управління на засадах прозорості. Ці напрями відображають зростаючу роль адаптивності, партнерства та відкритості у формуванні сталих практик публічного управління.

Отримані результати засвідчують, що прозорість і підзвітність стали базовими детермінантами інституційної стійкості. Здатність державних підприємств ефективно функціонувати в умовах дестабілізації залежить від модернізації механізмів звітування та контролю, впровадження ризик-орієнтованого управління і наближення управлінських практик до міжнародних стандартів. Підвищення якості та надійності інформаційних джерел забезпечує ухвалення обґрунтованих управлінських рішень і зміцнює довіру стейкхолдерів, особливо в контексті розвитку цифрової та циркулярної економіки. У дослідженні зроблено висновок, що прозорість і підзвітність є наріжним каменем стійкості та ефективної трансформації державних підприємств – як у період війни, так і в ширшому контексті сталого відновлення та довгострокових реформ. Підтверджена гіпотеза (H_0) стверджує, що прозорість і підзвітність є ключовими факторами забезпечення ефективного управління державними підприємствами в умовах невизначеності в межах ризик-орієнтованої системи управління.

Ключові слова: державно-приватне партнерство, партнерство, звітність, фінансовий контроль, стійкість, економічна безпека, циркулярна економіка, вимоги директив ЄС.

Formulation of the problem. When a country is at war, resilience stops being an abstract concept – it becomes a matter of survival. In Ukraine, this resilience is not only built on courage and defense; it also relies on the silent, persistent work of state-owned enterprises (SOEs) that keep the lights on, the economy running, and society functioning. Transparency and accountability are not just elements of good governance – they are the backbone of resilience and effective transformation for Ukrainian SOEs today.

The Russian full-scale invasion has brought unprecedented challenges to Ukraine's fuel and energy sector, placing SOEs at the epicenter of institutional disruption, operational uncertainty, and systemic risks. As critical infrastructure actors, these enterprises are essential for maintaining energy security, fiscal stability, and social welfare. In this environment, public-private partnership plays a decisive role in mobilizing resources, fostering innovation, and ensuring continuity of operations. The reliability of accounting and reporting systems becomes a foundation for public trust, as well as for aligning Ukraine's governance and sustainability practices with EU directive requirements due to current European integration processes.

Moreover, the transition toward a digital and circular economy reinforces the need for adaptive management models that integrate data integrity, sustainability reporting, and risk-based decision-making. Strengthening these components enhances both institutional and economic resilience, ensuring that SOEs can operate effectively, support export capacity, and contribute to the long-term reconstruction and sustainability of Ukraine's national economy.

Considering all above mentioned, the study is based on the *hypothesis (H_0) that transparency and accountability are key factors in ensuring effective management of SOEs in conditions of uncertainty, particularly within the context of risk-based governance.* It explores how Ukraine's energy SOEs apply these principles

in responding to wartime challenges and what forms of organizational adaptation, re-institutionalization, and strategic transformation are emerging in this high-risk environment.

Analysis of recent research and publications. The literature on institutional resilience and the adaptive capacity of SOEs during crises has expanded significantly in recent years, reflecting the growing relevance of resilience-oriented approaches in public sector management. Scholars (Enescu A., Szeles M. R. [5]; Buzhymyska K., Vyhovskyi V., Sotnyk A., Svitlyshyn I., Biliak T. [4]; Oliinyk Y., Kucheriava M. [2, 9]) emphasize that the war in Ukraine has exposed structural weaknesses in the governance and operational systems of energy SOEs while simultaneously catalyzing institutional learning and transformation.

Empirical studies (Nazarov M. [8]) highlight that these enterprises operate under extreme uncertainty, where disruptions of critical infrastructure, cyber threats, and resource scarcity challenge their ability to maintain operational continuity and support the broader goals of national resilience. According to scholars Beseda D., Bidiuk Y., Kravchenko O., Pogrebytskyi M., Shchoholiev D. [3], to mitigate these challenges, many SOEs have adopted adaptive governance mechanisms, emphasizing the diversification of energy supply chains, the localization of production, and the integration of risk management frameworks into strategic decision-making processes.

The academic discourse (Revtyuk Y., Ivanova T. [12]; Rabinovych M., Brik T., Darkovich A., Savisko M., Hatsko V., Tytiuk S., Piddubnyi I. [11]) also underscores the interrelation between institutional flexibility and community-based resilience strategies that strengthen local crisis management systems during wartime. This approach reflects Ukraine's distinctive experience of prolonged emergencies, where horizontal coordination among state and non-state actors has become essential for sustaining public service delivery.

Resilience is increasingly conceptualized not merely as recovery from shocks but as a transformative capability – an ability to adapt structures, governance models, and processes to emerging challenges (Reznikova O., Korniiievskyi O. [13]). Within this paradigm, SOEs are viewed as both economic actors and institutional pillars of state capacity. Their ability to absorb systemic shocks and maintain functionality has become an integral part of Ukraine's national resilience strategy.

Moreover, scholars (Kushnir O. [7]) have drawn attention to the growing importance of digital resilience and the role of e-governance in maintaining institutional continuity during wartime. Digital transformation initiatives have facilitated the preservation of critical state functions, including data protection, procurement transparency, and social service delivery to displaced populations.

Finally, recent analyses of governance reform processes, provided by Klymak M. and Vlandas T. [6] reveal that wartime has accelerated the modernization of procurement and expenditure management in the public energy sector. These reforms have not only enhanced operational flexibility but also laid the groundwork for the post-war transformation of SOEs into more transparent, innovative, and accountable institutions.

The reviewed literature demonstrates that the institutional resilience of state-owned energy enterprises in Ukraine is a multidimensional construct shaped by governance quality, adaptive capacity, and technological readiness. Researchers converge on the view that resilience under wartime conditions is not limited to the enterprises' capacity to withstand shocks but extends to their ability to transform governance systems, operational frameworks, and stakeholder relations in alignment with the principles of sustainable recovery and national security. The synthesis of existing studies underscores that institutional flexibility, digital transformation, and risk-oriented governance represent the core determinants of resilience in the public energy sector.

However, despite the growing body of research, there remains a gap concerning the empirical evaluation of how transparency and accountability mechanisms function as catalysts for institutional resilience within SOEs operating under extreme uncertainty. Addressing this gap is essential for substantiating the link between governance reforms and the sustainable performance of SOEs amid crises.

Accordingly, this study proceeds from the hypothesis (H_0) that transparency and accountability are key factors in ensuring effective management of SOEs in conditions of uncertainty, particularly within the framework of risk-based governance.

The purposes of the article. Based on above mentioned assumption, the research objective is to identify and assess the institutional, managerial, and informational dimensions that determine the resilience of Ukrainian SOEs during wartime and their potential for post-war transformation.

The research methodology combines general scientific and special methods to ensure a comprehensive analysis of the institutional resilience of SOEs in wartime Ukraine. The *systemic approach* was used to explore the interdependence between governance quality, transparency, and institutional adaptability of SOEs under conditions of uncertainty. The *institutional approach* served as a key analytical framework, allowing for the assessment of the institutional environment that determines the quality of informational sources used

in managing SOE activities, including their compliance with International Financial Reporting Standards (IFRS), European Sustainability Reporting Standards (ESRS), and the UNCTAD Accounting Development Tool (ADT). To systematize empirical findings, the *graphical method* was used to illustrate the structure and dynamics of SOEs across sectors and regions, while the *analytical method* provided the basis for interpreting trends in their financial performance and wartime adaptation strategies. The *generalization and abstraction methods* facilitated the development of key conclusions and policy recommendations concerning the integration of transparency, accountability, and sustainability into SOE management frameworks. Together, these methods ensured a coherent and evidence-based understanding of how information quality and institutional mechanisms shape the resilience and transformation capacity of SOEs in wartime and post-war contexts.

The main material presentation. The findings of the research reveal how the institutional resilience of SOEs manifests through their capacity to adapt governance, reporting, and control systems to crisis conditions. The analysis integrates both regulatory and managerial dimensions of transformation, highlighting how wartime pressures have accelerated the modernization of transparency mechanisms and accountability frameworks within the public sector.

Building on the outcomes of the literature review and the formulated research hypothesis, the study focuses on the institutional environment shaping the development of high-quality reporting by SOEs in the context of implementing International Financial Reporting Standards (IFRS) and the European Sustainability Reporting Standards (ESRS).

Figure 1 illustrates how SOEs contribute to sustaining economic resilience during wartime through employment, infrastructure investment, and control over critical resources.

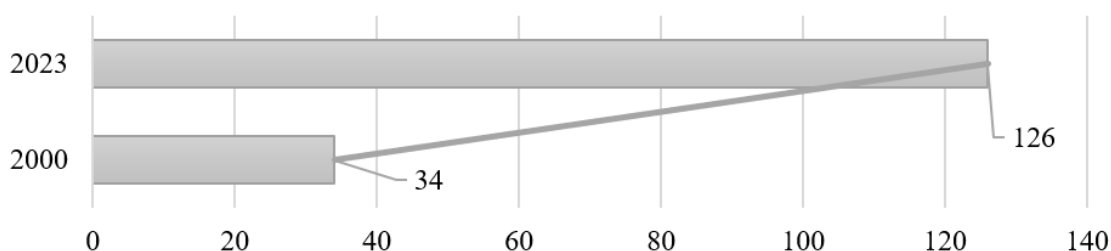


Fig. 1. Dynamics of the number of SOEs among the 500 largest global companies by revenue, units

Source: [10]

At the same time, it emphasizes that reducing the presence or capacity of SOEs may generate significant social and economic risks. Therefore, maintaining transparency, accountability, and effective governance of SOEs remains essential for national stability.

In general, the study focuses on how SOEs operate under wartime conditions – what challenges they face, how they adapt, and, most importantly, what institutional mechanisms help them remain resilient and effective.

Before moving to sector-specific aspects, it is crucial to underline the strategic importance of SOEs as the backbone of Ukraine's economic resilience and security.

Operating primarily in critical sectors – energy, transport, communications, and defense – these enterprises safeguard national interests and ensure the functioning of the state under extreme conditions. Their role goes far beyond production: they maintain economic continuity, protect employment, stabilize regional economies, and uphold access to essential services.

In wartime, the effective performance of SOEs becomes a determining factor for economic and social stability. They absorb shocks that private business often cannot withstand, ensure control over vital infrastructure, and prevent systemic collapse.

Each enterprise in this system represents a node of national security, where operational sustainability directly translates into the country's ability to resist and recover.

The figure 2 illustrates the diversity of Ukrainian SOEs operating in the energy sector. They cover the entire value chain – from generation and transmission to distribution and final delivery of electricity, heat, and gas.

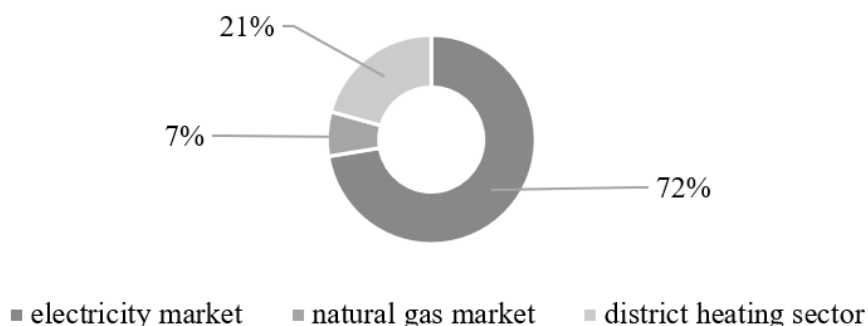


Fig. 2. Structural distribution of energy SOEs by sectors of activity, %.

Source: [1]

Such integration strengthens not only energy security and resilience but also enables risk diversification and guarantees continuous access to essential services – even amidst shelling, occupation threats, or logistical disruptions. In short, SOEs today act as the economic shield of Ukraine, combining production efficiency with the mission of safeguarding national stability and the foundations for post-war recovery.

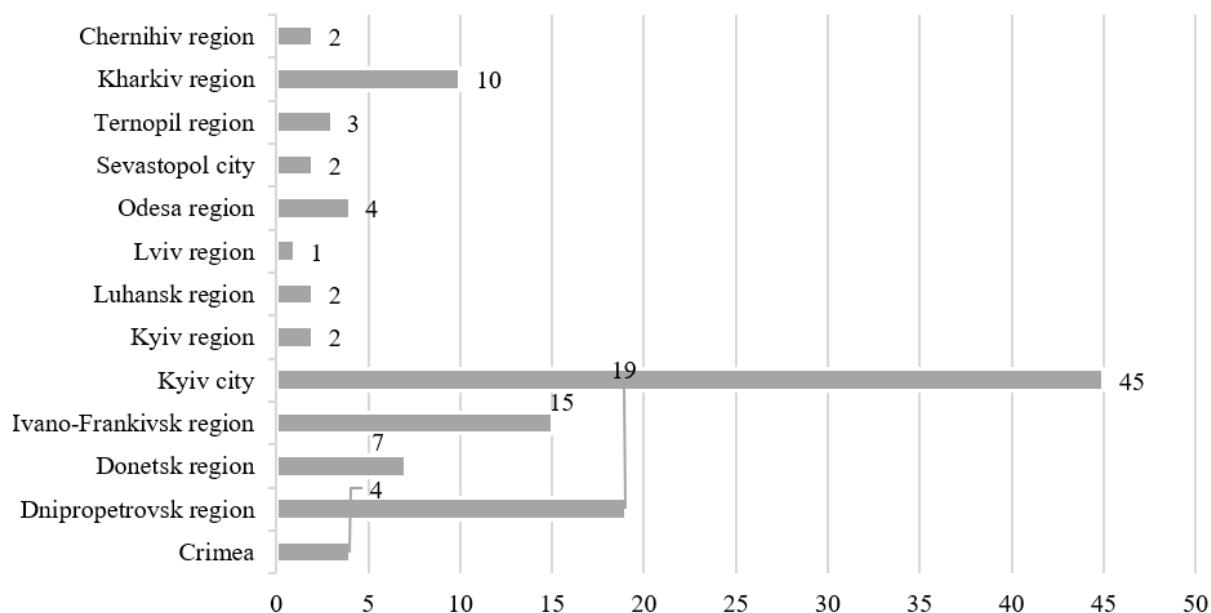


Fig. 3. Distribution of SOEs by location (city with special status / region)

Source: [1]

As we can see (fig. 3), the majority of enterprises – about 72 % – operate in the electricity market, while 21 % are engaged in the district heating sector, and around 7% in the natural gas market. This structure demonstrates not only the dominance of electricity generation and distribution but also the critical role of SOEs in maintaining the country's overall energy resilience and economic security, especially under wartime conditions [1].

Regionally, the concentration of SOEs is the highest in Kyiv city, followed by Dnipropetrovsk, Ivano-Frankivsk, and Kharkiv regions. Such a pattern is not accidental – it reflects the strategic alignment of SOEs with the country's defense and recovery priorities. These enterprises ensure the functioning of critical energy infrastructure under constant threats, support the work of hospitals, transport, and military facilities, and serve as stabilizing anchors for regional and national economies.

In the context of war, this structural and regional distribution is not just a statistic – it is a map of resilience, showing how SOEs uphold Ukraine's sovereignty, prevent systemic collapse, and form the foundation for post-war reconstruction and sustainable growth.

SOEs financial performance also matters. Profit they earn through exports, taxes, and dividends strengthens the national budget and supports fiscal stability during the war. That's why SOEs are not only part of the economy – they are a foundation of national resilience and recovery capacity.

The research findings show that enterprises in the fuel and energy complex demonstrate remarkable adaptability. Even under shelling, they restore damaged facilities, find new logistics routes, and ensure decentralized power supply where central grids are disrupted. However, long-term institutional resilience still varies – some enterprises remain stronger than others.

Based on the conducted analysis, four key directions of wartime transformation of SOEs were identified. These directions reflect the multidimensional nature of institutional adaptation in conditions of prolonged uncertainty, combining managerial, operational, and governance changes that enhance overall resilience and transparency. The main components of this transformation are summarized in table 1.

Table 1

Key Directions of SOEs' Wartime Transformation

Direction of Transformation	Content
Crisis-Induced Decision-Making Dynamics	Acceleration of strategic and operational decisions based on emergency needs, enabling SOEs to maintain functionality and adapt to rapidly changing wartime conditions.
Localized Innovation under Stress Conditions	Development of decentralized management solutions and innovative operational practices in conflict-affected regions to ensure continuity of critical energy supply.
Institutional Synergy through International Reform Support	Strengthening coordination with international donors, financial institutions, and reform partners to secure resources, technical assistance, and alignment with post-war recovery goals.
Transparency-Driven Governance Transformation	Enhancement of transparency, reporting, and stakeholder accountability mechanisms under the influence of donor requirements and civil society monitoring.

Source: developed by authors

As illustrated in table 1, the wartime transformation of SOEs is characterized by accelerated decision-making, local-level innovations, intensified international cooperation, and growing transparency standards. Together, these processes have not only ensured the continuity of strategic enterprises under crisis conditions but have also laid the groundwork for sustainable post-war recovery and the modernization of Ukrainian public administration system.

SOEs play a crucial role in ensuring the country's economic and energy security. To enhance their efficiency, transparency, and accountability, it is essential to strengthen the accounting and corporate reporting infrastructure that underpins their governance. In times of war and reconstruction, open and reliable information about the performance of SOEs becomes a cornerstone for public trust, evidence-based policy decisions, and effective international cooperation.

Strengthening transparency and disclosure standards in the public sector directly contributes to Ukraine's overall resilience – both economic and institutional. Robust information support allows policymakers to identify weaknesses, establish clear priorities for institutional capacity building, and monitor progress toward internationally comparable reporting standards such as IFRS and ESRS. Applying these frameworks to SOEs is particularly significant due to their strategic importance, public accountability, and sectoral diversity.

The UNCTAD Accounting Development Tool (ADT) [14] serves as a practical instrument for assessing the maturity of transparency and reporting systems. Its application to SOEs aligns national practices with international benchmarks, boosts investor and stakeholder confidence, and promotes transparent, sustainable management of public assets. In the context of wartime transformation, this tool also facilitates the transition from short-term operational survival to long-term institutional development and strategic resilience.

Traditional mechanisms of control and accountability are being reconfigured under the pressure of wartime realities. SOEs are required not only to maintain the continuity of critical operations but also to uphold fiscal stability, employment, and infrastructure integrity. However, their sustainable development depends on adherence to the core governance principles – integrity, transparency, accountability, and the integration of sustainability with economic security. These principles form the conceptual foundation for implementing the ADT and for ensuring consistency between wartime resilience and post-war reconstruction objectives.

Based on our findings, we developed several policy recommendations aimed at embedding wartime adaptations into a long-term reform agenda for the energy and industrial sectors. These include:

- applying the ADT specifically to SOEs, including industrial dimensions;
- institutionalizing risk-based planning frameworks;

- developing public–private hybrid management tools;
- building leadership capacity for crisis-responsive governance in energy SOEs.

Overall, the research confirms that transparency and accountability remain the cornerstone of resilience and effective transformation of Ukraine's SOEs – both during the war and in the broader context of post-war recovery and sustainable growth.

Conclusions. The conducted research confirms that the institutional resilience of SOEs in wartime Ukraine is grounded in transparency, accountability, and the modernization of governance and reporting frameworks. These factors enable enterprises not only to withstand shocks but also to adapt and transform effectively under crisis conditions, ensuring economic stability and continuity of critical services. The study achieved its objective by identifying the institutional and informational dimensions of SOEs' resilience and by emphasizing the central role of high-quality reporting (IFRS, ESRS) and tools such as the UNCTAD ADT in strengthening governance integrity and public trust.

The hypothesis H_0 , stating that transparency and accountability are key factors in ensuring effective management of SOEs under conditions of uncertainty within a risk-based governance framework, has been confirmed. Transparency and risk-oriented management have proven to be decisive drivers of institutional transformation, turning wartime adaptations into sustainable mechanisms for post-war recovery and long-term reform.

Perspective directions for further study include the exploration of ESG-based governance and partnership models that link ethical behavior, trust, and investment resilience of business. Integrating the ESG approach into enterprises (i.e. SOEs) management will provide a strategic pathway for ensuring sustainability, transparency, and ethical accountability in post-war economic reconstruction.

Література

1. Ліцензійний реєстр НКРЕКП. / НКРЕКП: вебсайт. – URL: <https://www.nerc.gov.ua/rejestri-nkrekp/licenzijnij-reyestr-nkrekp> (дата звернення: 11.11.2025).
2. Олійник Я. В., Кучерява М. В. Інституціональні чинники макроекономічного регулювання діяльності державних підприємств в умовах поширення пандемії COVID-19 / Я. В. Олійник, М. В. Кучерява // Наукові праці НДФІ. – 2023. – № 2. – С. 44–65. – <https://doi.org/10.33763/npndfi2023.02.029>.
3. Beseda D., Bidiuk Y., Kravchenko O., Pogrebytskyi M., Shchoholiev D. The energy system as an object of legal regulation and implementation of innovative technologies for the protection of critical infrastructure / D. Beseda, Y. Bidiuk, O. Kravchenko, M. Pogrebytskyi, D. Shchoholiev // *Polityka Energetyczna – Energy Policy Journal*. – 2025. – Vol. 28, No. 1. – P. 55. – <https://doi.org/10.33223/epj/193724>.
4. Buzhymyska K., Vyhovskyi V., Sotnyk A., Svitlyshyn I., Biliak T. Towards Green Industrial Development in Ukraine: A Decision Model for Post-Industrial Production Strategies / K. Buzhymyska, V. Vyhovskyi, A. Sotnyk, I. Svitlyshyn, T. Biliak // *Management and Production Engineering Review*. – 2024. – <https://doi.org/10.24425/mper.2024.151135>.
5. Enescu A.-G., Szeles M. R. Discussing energy volatility and policy in the aftermath of the Russia–Ukraine conflict / A.-G. Enescu, M. R. Szeles // *Frontiers in Environmental Science*. – 2023. – Vol. 11. – <https://doi.org/10.3389/fenvs.2023.1225753>.
6. Klymak M., Vlandas T. Governance in times of war: Public procurement in Ukraine / M. Klymak, T. Vlandas // *PLoS ONE*. – 2024. – Vol. 19, No. 6. – <https://doi.org/10.1371/journal.pone.0305344>.
7. Kushnir O. Interwoven Resilience: Non-State Actors and Formal Institutions in Ukraine's Urban War Effort / O. Kushnir // *Central European Journal of International and Security Studies*. – 2025. – Vol. 19, No. 2. – P. 29. – <https://doi.org/10.51870/tjmr1807>.
8. Nazarov M. National Resilience and Post-war Reconstruction of Ukraine / M. Nazarov. – 2024. – P. 63. – https://doi.org/10.1007/978-3-031-66434-2_5.
9. Oliinyk Y., Kucheriava M., Korytnyk L., Dmytrenko T., Kuzminska O. Development of information support for fiscal risk management within crises / Y. Oliinyk, M. Kucheriava, L. Korytnyk, T. Dmytrenko, O. Kuzminska // *Financial and Credit Activity Problems of Theory and Practice*. – 2023. – Vol. 6(53). – P. 432–450. – <https://doi.org/10.55643/fcaptp.6.53.2023.4219>.
10. Ownership and governance of state-owned enterprises. – Paris: OECD Publishing, 2024. – URL: https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/06/ownership-and-governance-of-state-owned-enterprises-2024_136e9151/395c9956-en.pdf (дата звернення: 11.11.2025).
11. Rabinovych M., Brik T., Darkovich A., Savisko M., Hatsko V., Tytiuk S., Piddubnyi I. Explaining Ukraine's resilience to Russia's invasion: The role of local governance / M. Rabinovych, T. Brik, A. Darkovich,

M. Savisko, V. Hatsko, S. Tytiuk, I. Piddubnyi // *Governance*. – 2023. – Vol. 37, No. 4. – P. 1121. – <https://doi.org/10.1111/gove.12827>.

12. Revtiuk Y., Ivanova T. Implementation of the Community Resilience Approach in the System of Crisis Management of Ukraine in 2022–2024 / Y. Revtiuk, T. Ivanova // *European Research Studies Journal*. – 2024. – Vol. 27(2). – P. 712. – <https://doi.org/10.35808/ersj/3745>.

13. Reznikova O., Korniiievskiyi O. Resilience of the Ukrainian society in wartime: Components and influencing factors / O. Reznikova, O. Korniiievskiyi // *Eastern Journal of European Studies*. – 2024. – Vol. 15, No. 1. – P. 113. – <https://doi.org/10.47743/ejes-2024-0105>.

14. UNCTAD. The Accounting Development Tool: Building Accounting for Development. – URL: <https://unctad.org/publication/accounting-development-tool-building-accounting-development> (дата звернення: 11.11.2025).

References

1. Litsenziyniyi reiestr NKREKP [License Register of NEURC]. (2024). NEURC official website. <https://www.nerc.gov.ua/rejestri-nkrekp/licenzijnij-reiestr-nkrekp> [In Ukrainian] (accessed November 11, 2025).

2. Oliinyk, Y. V., & Kucheriava, M. V. (2023). Instytutsionalni chynnyky makroekonomichnoho rehuliuвання diialnosti derzhavnykh pidpriemstv v umovakh poshyrennia pandemii COVID-19 [Institutional factors of macroeconomic regulation of state-owned enterprises under the COVID-19 pandemic]. *Naukovi pratsi NDFI*, (2), 44–65. <https://doi.org/10.33763/npndfi2023.02.029> [In Ukrainian].

3. Beseda, D., Bidiuk, Y., Kravchenko, O., Pogrebytskyi, M., & Shchoholiev, D. (2025). The energy system as an object of legal regulation and implementation of innovative technologies for the protection of critical infrastructure. *Polityka Energetyczna – Energy Policy Journal*, 28(1), 55. <https://doi.org/10.33223/epj/193724>

4. Buzhymaska, K., Vyhovskiyi, V., Sotnyk, A., Svitlyshyn, I., & Biliak, T. (2024). Towards green industrial development in Ukraine: A decision model for post-industrial production strategies. *Management and Production Engineering Review*. <https://doi.org/10.24425/mp.er.2024.151135>

5. Enescu, A.-G., & Szeles, M. R. (2023). Discussing energy volatility and policy in the aftermath of the Russia–Ukraine conflict. *Frontiers in Environmental Science*, 11. <https://doi.org/10.3389/fenvs.2023.1225753>

6. Klymak, M., & Vlandas, T. (2024). Governance in times of war: Public procurement in Ukraine. *PLoS ONE*, 19(6). <https://doi.org/10.1371/journal.pone.0305344>

7. Kushnir, O. (2025). Interwoven resilience: Non-state actors and formal institutions in Ukraine's urban war effort. *Central European Journal of International and Security Studies*, 19(2), 29. <https://doi.org/10.51870/tjmr1807>

8. Nazarov, M. (2024). National resilience and post-war reconstruction of Ukraine (p. 63). https://doi.org/10.1007/978-3-031-66434-2_5

9. Oliinyk, Y., Kucheriava, M., Korytnyk, L., Dmytrenko, T., & Kuzminska, O. (2023). Development of information support for fiscal risk management within crises. *Financial and Credit Activity Problems of Theory and Practice*, 6(53), 432–450. <https://doi.org/10.55643/fcaptp.6.53.2023.4219>

10. OECD. (2024). *Ownership and governance of state-owned enterprises*. Paris: OECD Publishing. https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/06/ownership-and-governance-of-state-owned-enterprises-2024_136e9151/395c9956-en.pdf (accessed November 11, 2025).

11. Rabinovych, M., Briik, T., Darkovich, A., Savisko, M., Hatsko, V., Tytiuk, S., & Piddubnyi, I. (2023). Explaining Ukraine's resilience to Russia's invasion: The role of local governance. *Governance*, 37(4), 1121. <https://doi.org/10.1111/gove.12827>

12. Revtiuk, Y., & Ivanova, T. (2024). Implementation of the community resilience approach in the system of crisis management of Ukraine in 2022–2024. *European Research Studies Journal*, 27(2), 712. <https://doi.org/10.35808/ersj/3745>

13. Reznikova, O., & Korniiievskiyi, O. (2024). Resilience of the Ukrainian society in wartime: Components and influencing factors. *Eastern Journal of European Studies*, 15(1), 113. <https://doi.org/10.47743/ejes-2024-0105>

14. UNCTAD. (n.d.). *The Accounting Development Tool: Building Accounting for Development*. <https://unctad.org/publication/accounting-development-tool-building-accounting-development> (accessed November 11, 2025).