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## ASSET MANAGEMENT OF INSTITUTIONAL INVESTORS AND FINANCIAL SECURITY OF EU MEMBER-STATES: INSIGHTS FROM INSURANCE PENETRATION ANALYSIS

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УПРАВЛІННЯ АКТИВАМИ ІНСТИТУЦІЙНИХ ІНВЕСТИТОРІВ ТА ФІНАНСОВА БЕЗПЕКА КРАЇН-ЧЛЕНІВ ЄС: ВИСНОВКИ З АНАЛІЗУ ПРОНИКНЕННЯ СТРАХУВАННЯ

***This article provides an insightful examination of the critical role played by institutional investors, particularly insurance companies, in promoting financial stability and development within the European Union. It highlights the importance of insurance penetration as a key indicator of economic solidity and resilience beyond the conventional banking sector, emphasizing that the role of institutional investors is not limited to mere financial gain but extends to the broader objective of enhancing macroeconomic stability. This necessitates a deep understanding of the economic environment, regulatory frameworks, and market dynamics.***

***The study introduces an innovative framework to categorize EU member-states based on their levels of insurance penetration, creating five distinct groups: critical, dangerous, unsatisfactory, satisfactory, and optimal. This classification is instrumental in assessing the financial strength and resilience of each member-state, thereby assisting policymakers, regulators, and financial institutions in developing effective financial policies and investment strategies.***

***The research reveals considerable disparities in insurance penetration rates across EU member-states, highlighting differences in economic structures, wealth distribution, and cultural attitudes towards insurance. Luxembourg emerges as a notable example with a remarkably high penetration rate, while Lithuania faces a critical challenge with its significantly low rate. This variance points to the diverse financial contexts within the EU, underlining the need for country-specific financial approaches and regulatory interventions.***

***The study explores the impact of insurance penetration on overall financial stability, suggesting that higher penetration rates are associated with enhanced economic resilience, particularly during financial crises. The findings of this study have significant implications for financial governance in the EU. They suggest a need for a more coordinated approach to financial regulation and policy-making, considering the varying levels of insurance penetration and the unique financial challenges each member-state faces. The study underscores the importance of fostering a more inclusive and resilient financial system within the EU, one that can better withstand economic shocks and contribute to the overall economic well-being of the region.***

**У статті розглянуто роль інституційних інвесторів, зокрема страхових компаній, усприянні фінансовій стабільності та розвитку в Європейському Союзі. Підкреслено важливість проникнення страхування як ключового індикатора економічної надійності та стійкості небанківського фінансового сектору, наголошено, що роль інституційних інвесторів не обмежується лише фінансовою вигодою, а поширюється на ширшу мету — зміцнення макроекономічної стабільності, що вимагає глибокого розуміння економічного середовища, регуляторної бази та ринкової динаміки.**

**У статті представлено інноваційний підхід до класифікації країн-членів ЄС на основі рівня проникнення страхування, що дозволило виокремити п'ять окремих груп з критичним, небезпечним, незадовільним, задовільним і оптимальним рівнем фінансової безпеки. Ця класифікація допомагає оцінити фінансову міцність і стійкість кожної країни-члена, тим самим допомагаючи політикам, регуляторам і фінансовим установам у розробці ефективної фінансової політики та інвестиційних стратегій.**

**Дослідження виявило значні розбіжності в рівнях проникнення страхування в країнах-членах ЄС, що свідчить про відмінності в економічних структурах, розподілі багатства та культури страхування. Люксембург є яскравим прикладом з надзвичайно високим рівнем проникнення страхування, у той час як Литва стикається з проблемами, які пов'язані з низьким значенням цього показника. Така різниця вказує на відмінності фінансових умов у межах ЄС, підкреслюючи необхідність застосування специфічних для кожної країни фінансових підходів та регуляторних інтервенцій.**

**У статті визначено вплив проникнення страхування на загальну фінансову стабільність, припускається, що вищий рівень проникнення асоціюється з підвищеною економічною стійкістю, особливо під час фінансових криз. Висновки з цього дослідження можуть бути використані у фінансовому управлінні ЄС. У статті вказано на необхідність більш скоординованого підходу до фінансового регулювання та формування політики, враховуючи різні рівні проникнення страхування та унікальні фінансові виклики, з якими стикається кожна країна-член ЄС. У дослідженні підкреслено важливість створення більш інклюзивної та стійкої фінансової системи в ЄС, яка здатна краще протистояти економічним потрясінням і сприяти економічному добробуту в регіоні.**

*Key words: asset management, EU member-states, financial security, institutional investors, insurance penetration, investment strategies.*

*Ключові слова: управління активами, країни-члени ЄС, фінансова безпека, інституційні інвестори, проникнення страхування, інвестиційні стратегії.*

## GENERAL STATEMENT OF THE PROBLEM AND ITS CONNECTION WITH IMPORTANT SCIENTIFIC OR PRACTICAL TASKS

In the modern financial landscape, institutional investors, particularly insurance companies, play a pivotal role in the overall economic stability and growth of EU member states. These entities are major actors in asset management, controlling substantial investment portfolios and influencing capital markets. The strategic deployment of these assets is crucial, not only for the investors themselves but also for the financial health of the broader economy. Herein lies a dual challenge: optimizing investment strategies for institutional investors while ensuring the financial security and resilience of EU economies.

The crux of the problem revolves around the concept of insurance penetration — the ratio of insurance premiums to Gross Domestic Product (GDP) — which serves as a key indicator of an economy's financial depth and stability. Higher insurance penetration rates typically reflect a more developed insurance market, suggesting a greater capacity to absorb financial shocks. This relation-

ship becomes particularly salient in the context of the EU, where economic interconnectedness heightens the impact of financial stability or instability in individual member states on the entire union.

From a scientific perspective, understanding the dynamics between asset management of institutional investors and the financial security of EU member states presents a complex and fertile ground for research. It involves analyzing financial models, economic theories, and market behaviors, necessitating a multidisciplinary approach encompassing finance, economics, and political science. This investigation contributes to the academic discourse by providing empirical insights and theoretical frameworks that can shape future research in these fields.

Practically, the findings of this research hold significant implications for policymakers, regulatory bodies, and financial institutions. As EU member states grapple with financial challenges, including market volatility, regulatory changes, and economic downturns, insights into how insurance penetration impacts financial security are invaluable. They aid in formulating robust financial policies, devising regulatory frameworks, and

guiding investment strategies that bolster economic resilience. Furthermore, understanding these dynamics is crucial for insurance companies themselves, guiding their asset management strategies to achieve sustainable growth and contribute positively to the financial ecosystem.

## ANALYSIS OF RECENT STUDIES AND PUBLICATIONS

The theme of safeguarding the financial security of the state is extensively explored across a multitude of scholarly works, delving into its various dimensions. These publications delve into the intricate interplay between economic policies, fiscal strategies, and governmental initiatives aimed at ensuring the stability and resilience of national finances. Scholars scrutinize the impact of global economic trends, domestic fiscal measures, and regulatory frameworks on the overall financial health of the state. Furthermore, analyses often extend to encompass geopolitical factors, technological advancements, and socio-economic dynamics, shedding light on their implications for maintaining robust financial security. In essence, these studies offer comprehensive insights into the multifaceted nature of safeguarding the financial security of the state, thereby contributing to informed policymaking and strategic decision-making processes.

For instance, Zaichko proposed new metrics to enhance the evaluation of a state's financial security, such as banking security (the contribution of the National Bank of Ukraine's revenues to national budget revenues), non-banking financial market security (the comparison of private and state pension fund revenues), and budget security (the ratio of public debt service and repayment to GDP) [1, p. 24]. The study would gain from comparing these new metrics with established methods used in other countries, like those in the EU, to ascertain their validity.

Han suggests that for China to gain financially, it must engage more in financial internationalization, balancing minimal risks with significant rewards. This would involve improving international exchanges, collaboration, reforming the global financial system, and standardizing the capital market. A gradual approach with a strong financial management and supervision system is crucial for stability [2, p. 6]. Yet, the suggestions for enhancing exchanges and collaboration are too vague for effective implementation.

Siemiakowski emphasizes the need for both public and private sectors to intensify efforts in handling international financial transactions, acknowledging that many financial risks are international or global, beyond national control. He notes the increase in political risk, especially in the EU, exacerbating economic instability. Developed EU countries, attracting more investor interest, fare better in external funding than developing economies [3, pp. 94–95]. However, the study lacks practical advice for policymakers or practitioners, diminishing its value for decision-making.

Nosan and Nazarenko identify a lack of conceptual frameworks for financial security management, the difficulty in accessing relevant public information, too many indicators including outdated ones, and a shortage of effective models at various levels. They propose a com-

prehensive 16-element model focusing on organizational culture and sustainable development, among others [4, p. 145]. However, they don't explore the practical challenges or implementation issues of these principles, limiting the study's practicality.

Hrytsenko, Zakharkina, Zakharkin, Novikov, and Chukhno highlight the role of digital technology in enhancing transparency in financial matters, particularly in public finance. This transparency helps reduce financial abuses, corruption, and the shadow economy, thereby improving financial security [5, p. 173]. But the research does not consider the possible negative consequences or challenges of increased digitalization in financial systems.

Pantilieieva discusses the impact of the digital economy and the integration of digital technologies in financial innovations on financial security. She stresses the need for measures to prevent negative effects, like enhancing the ability to adopt financial innovations and improving financial security monitoring. This is important for assessing economic stability and ensuring inclusivity [6, p. 33–34]. However, the study does not delve into the broader socio-economic impacts of such inclusivity, narrowing the scope of the analysis.

Vaitkus and Vasiliauskaite describe financial security for households, businesses, and governments as needing active maintenance, being sensitive to external factors, and ensuring the fulfillment of essential needs and financial independence. They note that these characteristics depend on economic development, purchasing power, reserve accumulation, and consumption stability. Legal regulations and anti-corruption efforts are also significant, according to their panel regression analysis [7, p. 86]. However, they only briefly mention possible future research areas, like including qualitative aspects in financial security analysis, without detailed exploration.

Rushchysyn, Medynska, Nikonenko, Kostak, and Ivanova argue for an effective mechanism, like a coordination center, for comprehensive economic and financial sector monitoring by state authorities. This center would work with different government branches to identify and forecast financial threats [8, p. 239]. However, the study primarily focuses on domestic aspects, not considering international standards or practices in financial security management.

Kudriashov discusses critical infrastructure as crucial for uninterrupted essential services, resilience, and recovery from disruptions. It includes various sectors and should be supported without straining financial security. Fiscal policy adjustments are essential for stability [9, pp. 21–22]. Yet, specific strategies or measures for enhancing economic stability and financial security are not explored, leaving the recommendations ambiguous.

Poltorak, Potryvaieva, Kuzoma, Volosyuk, and Bobrovska propose a five-tier doctrinal model for state financial security in the context of globalization. This model covers doctrinal, conceptual, strategic, software, and planned aspects, employing a polynomial algorithm for forecasting, which includes various indicators derived from SWOT and TOWS analyses [10, pp. 32–33]. However, they do not address potential limitations or challenges of their models and methodologies, which might overestimate their effectiveness.

Despite these studies providing valuable insights into different facets of financial security, they lack a focused examination of the relationship between the asset management of institutional investors and the financial security of EU member-states.

## FORMULATION OF THE OBJECTIVES OF THE ARTICLE (TASK STATEMENT)

Utilizing threshold and comparative analysis, the article aims to examine the current state and trends of insurance penetration in EU member states, compare the observed insurance penetration levels with established threshold values indicating the financial security of a state, and provide insights and recommendations for policymakers and financial regulators to optimize the role of institutional investors in enhancing the financial security of the state.

## SUMMARY OF THE MAIN RESEARCH MATERIAL

The set of metrics used to assess the financial security of the state encompasses an indicator that highlights the contribution of institutional investors in safeguarding non-banking financial market security, specifically the insurance penetration rate (insurance premiums as a percentage of GDP). Table 1 outlines the ranges of values for this specific indicator, illustrating different levels of financial security of the state. For instance, optimal financial security is considered to be achieved when the insurance penetration rate equals or surpasses 8 percent of GDP.

Table 2 displays the current insurance penetration rates for EU member states from 2019 to 2022, along with the growth of this metric and the ranking of countries based on their average level attained throughout this timeframe.

One of the most striking observations is the significant variance in penetration rates among EU member-states. Luxembourg leads with an average penetration rate of 34.8%, which is substantially higher than the second-placed Denmark at 11.0%. At the lower end, Lithuania has the lowest average at 1.9%. This disparity indicates differing economic structures, levels of wealth, and perhaps varying attitudes towards insurance in different countries.

Luxembourg's position as the leader in insurance penetration can be attributed to its robust financial sector, which includes a significant insurance industry. Its rates, however, show considerable fluctuation, with a drop in 2020 (30.6%) followed by a rebound in 2021 (38.5%) and another decline in 2022 (31.9%). This pattern could reflect economic disruptions, possibly due to events like the COVID-19 pandemic and subsequent economic recovery phases.

Denmark, Ireland, France, and Sweden, which complete the top five, maintain relatively stable insurance penetration rates throughout the four years, with minor fluctuations. This stability could be indicative of mature insurance markets with consistent demand and well-established insurance practices. On the other end of the spectrum, countries like Lithuania, Bulgaria, Greece, and the Slovak Republic have some of the lowest insurance

**Table 1. The interplay between insurance penetration rate and financial security of the state**

| Levels of financial security of the state | Insurance penetration rate (insurance premiums to GDP), % |           |                |              |         |
|-------------------------------------------|-----------------------------------------------------------|-----------|----------------|--------------|---------|
|                                           | [1; 2)                                                    | [2; 4)    | [4; 6)         | [6; 8)       | ≥ 8     |
|                                           | critical                                                  | dangerous | unsatisfactory | satisfactory | optimal |

Source: elaborated based on reference [11].

penetration rates, hovering around 2%. Generally, Western European countries (like Luxembourg, Denmark, Ireland) have higher penetration rates compared to Eastern European countries (like Hungary, Greece, Bulgaria). These figures suggest either a lack of awareness or accessibility to insurance products or possibly economic conditions where insurance is not prioritized.

The overall average penetration rate for all the countries over the four-year period is 6.4%. An interesting observation is the decline in average insurance penetration rate across all EU member states from 6.6% in 2019 to 6.0% in 2022. This decline could be indicative of a broader economic trend or changing attitudes towards insurance in Europe. The year 2020, marked by the onset of the COVID-19 pandemic, shows a slight decline (6.3%) compared to 2019, which could be attributed to the economic impact of the pandemic. However, there's a slight increase in 2021 (6.7%) before another decline in 2022.

The data in Table 3 categorizes EU member-states based on the degree of financial security within their non-banking financial markets, as assessed through the lens of insurance penetration rates. This categorization is divided into five levels: critical, dangerous, unsatisfactory, satisfactory, and optimal.

At the critical level, we find Lithuania standing alone. This suggests that Lithuania's insurance market is

**Table 2. Insurance penetration rates in EU member-states from 2019 to 2022**

| Country         | 2019 | 2020 | 2021 | 2022 | Average | Rank |
|-----------------|------|------|------|------|---------|------|
| Luxembourg      | 38.0 | 30.6 | 38.5 | 31.9 | 34.8    | 1    |
| Denmark         | 10.9 | 11.3 | 11.3 | 10.3 | 11.0    | 2    |
| Ireland         | 11.8 | 10.8 | 11.3 | 8.9  | 10.7    | 3    |
| France          | 10.6 | 10.0 | 10.6 | 10.3 | 10.4    | 4    |
| Sweden          | 8.8  | 9.8  | 11.1 | 11.1 | 10.2    | 5    |
| Netherlands     | 9.2  | 9.6  | 9.0  | 8.3  | 9.0     | 6    |
| Italy           | 7.8  | 8.1  | 7.8  | 6.7  | 7.6     | 7    |
| Germany         | 6.6  | 6.9  | 6.7  | 6.2  | 6.6     | 8    |
| Belgium         | 6.1  | 6.0  | 6.3  | 6.0  | 6.1     | 9    |
| Portugal        | 5.3  | 4.5  | 5.8  | 4.7  | 5.0     | 10   |
| Spain           | 4.9  | 5.0  | 4.9  | 4.6  | 4.8     | 11   |
| Slovenia        | 4.8  | 5.0  | 4.8  | 4.6  | 4.8     | 12   |
| Austria         | 4.4  | 4.7  | 4.5  | 4.3  | 4.5     | 13   |
| Estonia         | 3.5  | 3.4  | 3.2  | 3.2  | 3.3     | 14   |
| Czechia         | 2.8  | 2.9  | 2.9  | 2.9  | 2.9     | 15   |
| Latvia          | 2.8  | 2.6  | 2.5  | 2.6  | 2.6     | 16   |
| Croatia         | 2.6  | 2.8  | 2.7  | 2.5  | 2.6     | 17   |
| Poland          | 2.7  | 2.6  | 2.5  | 2.2  | 2.5     | 18   |
| Slovak Republic | 2.7  | 2.6  | 2.3  | 2.4  | 2.5     | 19   |
| Hungary         | 2.4  | 2.5  | 2.4  | 2.1  | 2.3     | 20   |
| Greece          | 2.2  | 2.5  | 2.5  | 2.2  | 2.3     | 21   |
| Bulgaria        | 2.4  | 2.4  | 2.3  | 2.1  | 2.3     | 22   |
| Finland         | 2.5  | 1.7  | 2.0  | 1.6  | 2.0     | 23   |
| Lithuania       | 1.9  | 1.9  | 1.9  | 1.8  | 1.9     | 24   |
| Average         | 6.6  | 6.3  | 6.7  | 6.0  | 6.4     | X    |

Source: elaborated based on reference [12].

significantly underdeveloped or underutilized, which may indicate potential vulnerabilities in its financial system. This could be due to a range of factors, such as low levels of public awareness about insurance, limited availability of insurance products, or broader economic challenges that make insurance less affordable or less prioritized by individuals and businesses.

The dangerous category includes a broad group of countries: Bulgaria, Croatia, Czechia, Estonia, Finland, Greece, Hungary, Latvia, Poland, and the Slovak Republic. The classification of these markets as dangerous suggests that while they may have more developed insurance sectors than Lithuania, there still exist significant gaps in coverage that could leave these economies exposed to systemic risks. These countries might be experiencing similar issues as Lithuania, but to a lesser degree, or they might have specific challenges such as limited types of insurance available or high levels of market concentration in few insurance providers.

In the unsatisfactory category, we find Austria, Portugal, Slovenia, and Spain. This suggests that these countries have insurance markets that are somewhat more developed than those in the Dangerous category, but still have significant room for improvement. Issues here might include a lack of comprehensive coverage across all sectors of the economy, relatively high insurance premiums, or a lack of public trust in insurance providers.

The satisfactory level consists of Belgium, Germany, and Italy. These countries are likely to have well-established insurance markets with a range of products available, reasonable levels of public participation, and a regulatory framework that supports market stability and consumer protection. However, the classification as merely satisfactory suggests that there is still room for these markets to become more inclusive, innovative, or competitive.

Finally, the optimal category includes Denmark, France, Ireland, Luxembourg, the Netherlands, and Sweden. This suggests that these countries have highly developed insurance markets that play a significant role in their overall financial ecosystems. These markets are likely characterized by high levels of insurance penetration, a wide variety of insurance products catering to different needs, a competitive landscape with multiple providers, and a strong regulatory framework that ensures market stability and protects consumers.

For the EU as a whole, Table 3 suggests a varied landscape in terms of insurance market development, underscoring the need for tailored approaches to financial market regulation and consumer education in different EU member-states.

## CONCLUSIONS AND PROSPECTS FOR FURTHER RESEARCH IN THIS AREA

The research has underscored the pivotal role of insurance penetration as a crucial indicator of economic stability and a marker for assessing the security of the non-banking financial markets in EU member-states. The analysis highlighted significant disparities in insurance penetration rates across EU member-states, indicating varied levels of financial security and economic resilience.

**Table 3. Categorization of EU member-states by the level of financial security (insurance penetration indicator)**

| Levels of financial security | Critical  | Dangerous                                                                                      | Unsatisfactory                     | Satisfactory            | Optimal                                                   |
|------------------------------|-----------|------------------------------------------------------------------------------------------------|------------------------------------|-------------------------|-----------------------------------------------------------|
| EU member-states             | Lithuania | Bulgaria, Croatia, Czechia, Estonia, Finland, Greece, Hungary, Latvia, Poland, Slovak Republic | Austria, Portugal, Slovenia, Spain | Belgium, Germany, Italy | Denmark, France, Ireland, Luxembourg, Netherlands, Sweden |

Source: elaborated based on reference [12].

These variations pointed to deeper underlying factors such as economic structures, levels of wealth, and public attitudes towards insurance. Particularly striking was the stark contrast between countries like Luxembourg, with exceptionally high penetration rates, and nations like Lithuania, where the rates are critically low. This dichotomy not only reflects the economic and regulatory landscape of these countries but also signals areas of potential vulnerability or strength within the EU's financial ecosystem.

Institutional investors, particularly in the insurance sector, have a pivotal role to play in this context. Their asset management strategies need to be aligned not just with the pursuit of financial returns but also with the enhancement of financial security at the macroeconomic level. This requires a nuanced understanding of the economic environment, regulatory landscape, and market dynamics.

Future research should aim to establish threshold values for key indicators of a state's financial security, such as life and non-life insurance penetration rates. These threshold values would serve as benchmarks for evaluating the financial health and stability of the EU member-states, offering a more nuanced and quantitative understanding of where each country stands in terms of financial security. This approach would enable a more targeted analysis of countries falling into categories like critical or dangerous, facilitating a deeper understanding of the specific challenges and needs in these regions.

Furthermore, comparative analysis holds immense potential for expanding the understanding of the security of non-banking financial markets, not only within the EU member-states but also in countries-candidates aspiring to join the EU. Such comparative studies would illuminate how differing regulatory frameworks, economic conditions, and market dynamics influence the development and stability of insurance markets. This research could be instrumental in guiding policy decisions, regulatory reforms, and strategic investments in these countries.

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### Literature:

1. Zaichko, I. V. (2020). Methodical provision of financial security assessment of the state. *Economies'*

Horizons, vol. (12), pp. 15—25. URL: [https://doi.org/10.31499/2616—5236.1\(12\).2020.205284](https://doi.org/10.31499/2616—5236.1(12).2020.205284) (date of access: 10.01.2024).

2. Han, R. (2018). Financial internationalization and financial security issues. Open Access Library Journal, vol. 5, no. 9, pp. 1—7. URL: <https://doi.org/10.4236/oalib.1104874> (date of access: 10.01.2024).

3. Siemiatkowski, P. (2017). External financial security of the European Union member states outside the Eurozone. Journal of International Studies, vol. 10, no. 4, pp. 84—95. URL: <https://doi.org/10.14254/2071-8330.2017/10-4/6> (date of access: 10.01.2024).

4. Nosan, N., and Nazarenko, S. (2022). Financial security management in economic security systems at different levels of management systems: methodological problems. Financial and Credit Activity Problems of Theory and Practice, vol. 6 (41), pp. 138—146. URL: <https://doi.org/10.18371/fcaptp.v6i41.251418> (date of access: 10.01.2024).

5. Hrytsenko, L., Zakharkina, L., Zakharkin, O., Novikov, V., and Chukhno, R. (2022). The impact of digital transformations on the transparency of financial-economic relations and financial security of Ukraine. Financial and Credit Activity Problems of Theory and Practice, vol. 3 (44), pp. 167—175. URL: <https://doi.org/10.55643/fcaptp.3.44.2022.3767> (date of access: 10.01.2024).

6. Пантелєєва, Н. М. (2020). Фінансова безпека в умовах цифрової економіки: очікування і реальність. Фінансовий простір. № 2 (38). С. 22—37. URL: [https://doi.org/10.18371/fp.2\(38\).2020.209289](https://doi.org/10.18371/fp.2(38).2020.209289) (date of access: 10.01.2024).

7. Vaitkus, R., and Vasiliauskaite, A. (2022). An assessment of the impact of legal regulation on financial security in OECD countries. Journal of Risk and Financial Management, vol. 15, pp. 86. URL: <https://doi.org/10.3390/jrfm15020086> (date of access: 10.01.2024).

8. Rushchyshyn, N., Medynska, T., Nikonenko, U., Kostak, Z., and Ivanova, R. (2021). Regulatory and legal component in ensuring state's financial security. Business: Theory and Practice, vol. 22 (2), pp. 232—240. URL: <https://doi.org/10.3846/btp.2021.13580> (date of access: 10.01.2024).

9. Кудряшов, В. П. (2021). Критична інфраструктура та фінансова безпека. Фінанси України, № 2, С. 7—25. URL: <https://doi.org/10.33763/finukr2021.02.007> (date of access: 10.01.2024).

10. Poltorak, A., Potryvaieva, N., Kuzoma, V., Volosyuk, Y., and Bobrovska, N. (2021). Development of doctrinal model for state financial security management and forecasting its level. Eastern-European Journal of Enterprise Technologies, vol. 5 13 (113), pp. 26—33. URL: <https://doi.org/10.15587/1729-4061.2021.243056> (date of access: 10.01.2024).

11. Міністерство економічного розвитку та торгівлі України (2013). Наказ від 29.10.2013 № 1277 "Про затвердження Методичних рекомендацій щодо розрахунку рівня економічної безпеки України". URL: <https://zakon.rada.gov.ua/rada/show/v1277731-13#Text> (date of access: 10.01.2024).

12. OECD.stat (2024). Insurance indicators: Penetration. URL: <https://stats.oecd.org/Index.aspx?DataSetCode=INSIND> (date of access: 10.01.2024).

## References:

1. Zaichko, I. V. (2020), "Methodical provision of financial security assessment of the state", Economies' Horizons, vol. 1 (12), pp. 15—25. DOI: [https://doi.org/10.31499/2616—5236.1\(12\).2020.205284](https://doi.org/10.31499/2616—5236.1(12).2020.205284).

2. Han, R. (2018), "Financial internationalization and financial security issues", Open Access Library Journal, vol. 5, no. 9, pp. 1—7. DOI: <https://doi.org/10.4236/oalib.1104874>.

3. Siemiatkowski, P. (2017), "External financial security of the European Union member states outside the Eurozone", Journal of International Studies, vol. 10, no. 4, pp. 84—95. DOI: <https://doi.org/10.14254/2071-8330.2017/10-4/6>.

4. Nosan, N., and Nazarenko, S. (2022), "Financial security management in economic security systems at different levels of management systems: methodological problems", Financial and Credit Activity Problems of Theory and Practice, vol. 6 (41), pp. 138—146. DOI: <https://doi.org/10.18371/fcaptp.v-6i41.251418>.

5. Hrytsenko, L., Zakharkina, L., Zakharkin, O., Novikov, V., and Chukhno, R. (2022), "The impact of digital transformations on the transparency of financial-economic relations and financial security of Ukraine", Financial and Credit Activity Problems of Theory and Practice, vol. 3 (44), pp. 167—175. DOI: <https://doi.org/10.55643/fcaptp.3.44.2022.3767>.

6. Pantelieieva, N. M. (2020), "Financial security in the digital economy: expectations and reality", Financial space, vol. 2 (38), pp. 22—37. DOI: [https://doi.org/10.18371/fp.2\(38\).2020.209289](https://doi.org/10.18371/fp.2(38).2020.209289).

7. Vaitkus, R., and Vasiliauskaite, A. (2022), "An assessment of the impact of legal regulation on financial security in OECD countries", Journal of Risk and Financial Management, vol. 15, pp. 86. DOI: <https://doi.org/10.3390/jrfm15020086>.

8. Rushchyshyn, N., Medynska, T., Nikonenko, U., Kostak, Z., and Ivanova, R. (2021), "Regulatory and legal component in ensuring state's financial security", Business: Theory and Practice, vol. 22 (2), pp. 232—240. DOI: <https://doi.org/10.3846/btp.2021.13580>.

9. Kudriashov, V. P. (2021), "Critical infrastructure and financial security", Finance of Ukraine, vol. 2, pp. 7—25. DOI: <https://doi.org/10.33763/finukr2021.02.007>.

10. Poltorak, A., Potryvaieva, N., Kuzoma, V., Volosyuk, Y., and Bobrovska, N. (2021), "Development of doctrinal model for state financial security management and forecasting its level", Eastern-European Journal of Enterprise Technologies, vol. 5, no. 13 (113), pp. 26—33. DOI: <https://doi.org/10.15587/1729-4061.2021.243056>.

11. Ministry of Economic Development and Trade of Ukraine (2013), Order "On Approval of the Methodological Recommendations for Calculating the Level of Economic Security of Ukraine", available at: <https://zakon.rada.gov.ua/rada/show/v1277731-13#Text> (Accessed 10.01.2024).

12. OECD.stat (2024), "Insurance indicators: Penetration", available at: <https://stats.oecd.org/Index.aspx?DataSetCode=INSIND> (Accessed 10.01.2024).  
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