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METHODOLOGICAL APPROACH TO FORMATION OF A SYSTEM OF ECONOMIC AND LEGAL SUPPORT OF STABILITY OF THE BANKING SYSTEM

Abstract. The heart of any market economy is its circulatory system. The complex of credit and banking institutions that serve their viability of structures (infrastructural elements), is a full-fledged banking system of the country. Modern dynamic processes of globalization of financial markets due to the acceleration of the free movement of capital, in addition to a positive impact on the development of national financial systems, create conditions for the spread of crisis trends, including contributing to the manifestation of the chain of «infection effect» of banking systems in the international financial space. A system of economic and legal support for the financial stability of the banking system has been developed. The feasibility of creating and achieving the effectiveness of which in modern conditions is due to the need to reboot the domestic banking system to solve existing internal financial problems and transform it in accordance with the European-oriented vector of development of the country's economy. The existing system provides for the financial stability of the banking system at two levels: at the macro level — the banking system as an object with systemic properties; micro-level — banks as structural elements of the banking system. The study of the features of the formation of a system of economic and legal support for the financial stability of the banking system. The main task was to optimize the main elements of the system of economic and legal support for the financial stability of the banking system. The main goal of the study is to form a system of economic and legal support for the financial stability of the banking system. A methodology for structuring system elements was

applied. Building an information model allows you to structure the elements of the system of economic and legal support for the financial stability of the banking system, see their relationship, highlight the main and secondary ones.

Keywords: economic and legal support, stability, financial stability, banking system, banks.

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МЕТОДИЧНИЙ ПІДХІД ДО ФОРМУВАННЯ СИСТЕМИ ЕКОНОМІКО-ПРАВОВОГО ЗАБЕЗПЕЧЕННЯ СТАБІЛЬНОСТІ БАНКІВСЬКОЇ СИСТЕМИ

Анотація. Серцем функціонування будь-якої ринкової економіки є її система кровообігу. комплекс кредитно-банківських установ, які обслуговують свою життєздатність структур (інфраструктурних елементів), являє собою повнокровну банківську систему країни. Сучасні динамічні процеси глобалізації фінансових ринків за рахунок прискорення вільного руху капіталу, крім позитивного впливу на розвиток національних фінансових систем, створюють умови для поширення кризових тенденцій, у тому числі сприяючи прояву ланцюжка «Ефект зараження» банківських систем у міжнародному фінансовому просторі. Якщо заглибитися в теорію побудови держави, банківська система, зазвичай, розглядається як підсистема або сектор фінансової системи, які разом з політичною системою становлять економічну систему держави. Для ефективної і повномасштабної реалізації своїх функцій в умовах, коли банківська система відіграє роль підтримки економічного зростання і структурної перебудови в напрямі підвищення конкурентоспроможності, перекладу

економічного зростання у стабільну основу, стимулювання внутрішньої промисловості та попиту на вироблені виробництва, у кредитних організацій повинна бути фінансова стійкість. Проведено дослідження особливостей формування системи економіко-правового забезпечення фінансової стабільності банківської системи. Основним завданням була оптимізація основних елементів системи економічного і правового забезпечення фінансової стійкості банківської системи. Основна мета дослідження — формування системи економічного і правового забезпечення фінансової стійкості банківської системи. Була застосована методологія структурування елементів системи. Побудова інформаційної моделі дозволяє структурувати елементи системи економічного і правового забезпечення фінансової стійкості банківської системи, побачити їхній взаємозв'язок, виділити основні і другорядні.

Ключові слова: економіко-правове забезпечення, стабільність, фінансова стабільність, банківська система, банки.

Формул: 3; рис.: 1; табл.: 2; бібл.: 15.

Introduction. Modern dynamic processes of globalization of financial markets due to the acceleration of the free movement of capital, in addition to a positive impact on the development of national financial systems, create conditions for the spread of crisis trends, including contributing to the manifestation of a chain «effect of infection» of banking systems in the international financial space. Given the high sensitivity of the banking system to external shocks and imbalances, as well as the leading role in the reproductive structure of the economy and financing the needs of business entities, timely diagnosis of the violation of its financial stability is an extremely important task facing the National Bank in the current and long term.

Like any open economic system, banking system is very vulnerable and sensitive to destructive influences from both external and internal socio-economic and political factors, in turn causes a deterioration in the main parameters of its state, limits the ability to ensure the normal functioning of the money market, negatively affects the organization of payment circulation, causes an imbalance in financial flows between banks and other business entities and, as a result, leads to a decrease in macroeconomic indicators and the level of competitiveness of the country as a whole. Therefore, in recent years, ensuring financial stability of the banking system has become one of the most important tasks of economic policy, which is urgent for every state. Under such conditions, for a timely response to the identified imbalances in the banking system, it is extremely necessary to develop and implement an integrated approach to monitoring its financial stability. Since the indicators of financial stability of the banking system constitute the analytical basis for its monitoring, and organizational and economic support is the basis for improving this process, the priority tasks in the thesis were to deepen the content of financial stability of the banking system and analyze approaches to its assessment, and form a system of organizational and economic support for financial stability. In addition, the formation of an effective system for ensuring financial stability is a condition for restarting and reforming the banking system in accordance with the chosen European-oriented vector of development of the country's economy.

The presence in Ukraine of a functional financial sector, in particular the banking sector, is a prerequisite for creating an effective market economy, gaining strong positions in the domestic and world markets. For the functioning of the banking system in Ukraine, a regulatory framework has been developed, the principles of banks' activities, methods and instruments of monetary policy, and the like have been introduced. However, the rapid development of financial globalization processes poses more and more tasks for the banking system, in the event of the solution of which Ukraine will become its active participant.

Research analysis and problem statement. The state of the banking system is of decisive importance in the context of the development of the national economy. It is banks that are one of the main sources of investment of financial resources in the country's economy. The study of the problems of banking regulation and the achievement of financial stability has been the task of many scientists, in particular, one can single out: Akhigbe [1], Allen [2], Anginer [3], Beck [4], Boyd [5], Chant [6] and others [7—15].

Keeping due to the scientific growth of scientists, it should be noted that the issue of forming a system of economic and legal support for the financial stability of the banking system was not considered due to the ordering of its basic structural elements using the mathematical apparatus.

The task is streamlining the fundamental elements of the system of economic and legal support for the financial stability of the banking system.

The main purpose of the study is to form a system of economic and legal support for the financial stability of the banking system.

The research methodology. In order to build an information structure, many elements that are included in the system of economic and legal support for the financial stability of the banking system, with the distribution of elements by levels with more or less dominance, the methodology of structuring the elements of the system was applied. Because of deductive logic, many elements have been obtained, that is, a list of elements of the system of economic and legal support for the financial stability of the banking system, between which there are certain interrelationships. These elements have the following content and designation: «1» — subjects; «2» — principles, «3» — functions; «4» — objects; «5» — tools; «6» — target; «7» is the task.

Results of the research. The relationships between the elements are shown in *Fig.*, where the direction of the arrow is determined by the direction of the dependency: the arrow points to the element on which it depends and from which it comes.

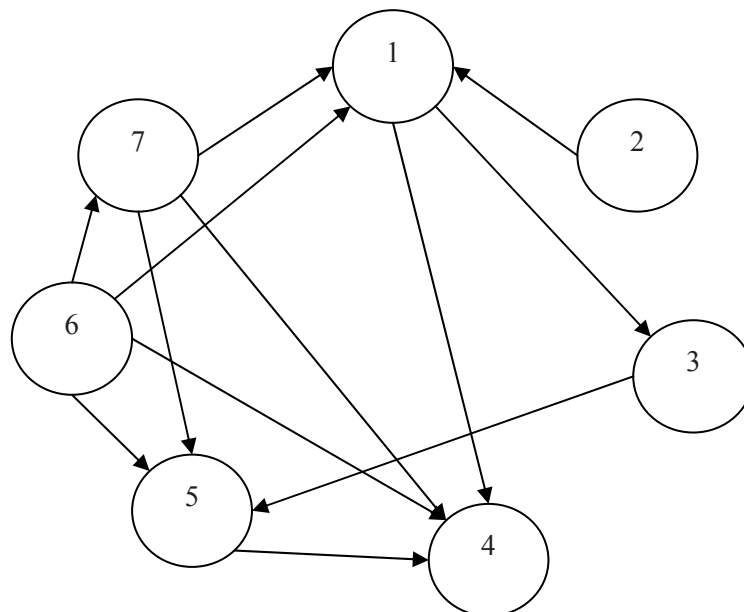


Fig. Relations between the elements of the system of economic and legal support for the financial stability of the banking system

Based on *Fig.*, using the binary relation «depends on», a dependence matrix B is constructed, the elements b_{ij} of which are equal to (1):

$$b_{ij} = \begin{cases} 1, & \text{if } i \text{ depends from } j; \\ 0, & \text{if } i \text{ don't depends from } j. \end{cases} \quad (1)$$

The next is the reach matrix. To construct it, a binary matrix $(I + B)$ (where I is the identity matrix) is formed and raised to the power k , at which condition (2) is satisfied:

$$(I + B)^{k-1} \leq (I + B)^k = (I + B)^{k+1}. \quad (2)$$

Achievable vertices h_i from vertices h_j form a subset $R(h_i)$, previous vertices h_i of vertices h_j form a subset $A(h_i)$. The set of those vertices $A(h_i) = R(h_i) \cap A(h_i)$, for which the requirement of

unreachability from any remaining vertices of the set H is fulfilled and can be denoted as the model level. To structure the set of elements H is formed *Table 1* with the elements h_i , $R(h_i)$, $A(h_i)$ and $R(h_i) \cap A(h_i)$ and the first iteration of the analysis is performed.

Table 1

First iteration of building a structured diagram

h_i	$R(h_i)$	$A(h_i)$	$R(h_i) \cap A(h_i)$
1	1,3,4	1,2,6,7	1
2	2,1	2	2
3	3,5	3,1	3
4	4	4,5,6,7,1	4
5	5,4	5,6,7,3	5
6	6,7,5,4,1	6	6
7	7,5,4,1	7,6	7

To form a subset $R(h_i)$ from the i -th row of the reach matrix, no-zero elements are written out. To form a subset $A(h_i)$ from the i -th column of the reach matrix, no-zero elements are written out. The subset $R(h_i) \cap A(h_i)$ is formed as a logical intersection of elements of two subsets $R(h_i)$ and $A(h_i)$. Elements for which condition (3) is satisfied make up the first level of model (3):

$$A(h_i) = R(h_i) \cap A(h_i). \tag{3}$$

Accordingly, in *Table 1* indicates that condition (2) is satisfied for the second and last elements, which means that they are the first level of the information model. After rejecting the elements obtained during the first iteration, iterations are carried out until more than one element remains. When repeating iterations, the level of elements was obtained, which are presented in *Table 2*.

Table 2

The system of economic and legal support for the financial stability of the banking system

Level 1	The goal is to ensure the stable and secure functioning of the banking system
	Principles, including both general and specific
Level 2	Tasks involving the formation of a transparent policy of the National Bank and increasing capitalization
Level 3	Subjects
Level 4	Functions, which include organizational, legal, analytical, stabilization, methodological, control
Level 5	Instruments (monetary regulation; Macro-regulation; Micro-regulation)
Level 6	Objects

Building an information model allows to structure the elements of the system of economic and legal support for the financial stability of the banking system, see their relationship, identify the main and secondary ones. It is important to note that a feature of the constructed system is the defined levels of ensuring financial stability and the coordinated combination of monetary policy instruments of the National Bank of Ukraine, existing and promising for the introduction of macro- and microprudential regulation instruments, allows to form an integrated approach to ensure financial stability and which are advisable to take into account in the process of its monitoring.

Conclusions. A system of economic and legal support for the financial stability of the banking system has been developed. The feasibility of creating and achieving the effectiveness of which in modern conditions is due to the need to reboot the domestic banking system to solve existing internal financial problems and transform it in accordance with the European-oriented vector of development of the country’s economy. The existing system provides for the financial stability of the banking system at two levels: at the macro level — the banking system as an object with systemic properties; micro-level — banks as structural elements of the banking system. The features of the functioning of the developed system of economic and legal support for the financial stability of the banking system are determined, taken into account and specified in its elements: goals, objectives, subjects, objects, principles, functions, tools.

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