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METHODOLOGY OF FORMING THE SYSTEM OF ENSURING FINANCIAL STABILITY OF CREDIT INSTITUTIONS

Abstract. This paper is devoted to the research of methodological foundations for ensuring financial stability system of credit institutions. The ensuring credit institutions' financial stability should be based on the value-oriented, risk-oriented approaches and, above all, on the systemic approach. The formation of a system of ensuring financial stability of credit institutions can't be set only by the organizational and managerial influence on the unbalancing resources of the credit institutions, but also foresee an arrangement of an appropriate informal institutional environment that would serve as a world-view platform for successful implementation of measures on financial stability.

Original results. It's determined the nature of the system of ensuring financial stability of credit institutions, the goals and targets of its functioning, object and subject composition, internal structure and scientific principles that determine its nature and peculiarities of its interaction with the external environment. The main components of the studied system include: informal institutional environment; formal institutional environment; the methodical (cognitive) and supplying subsystems. The informal institutional environment is one. Its quality influence on the effectiveness of measures to ensure the financial stability of credit institutions and the ability to maintain it in a long-term period.

Practical relevance. The functionality of the proposed system largely depends on the quality of corporate ethics and the depth of its implementation in the activities of credit institutions. Thus, fraudulent actions, provoked by a business entity (a credit institution), including intentional actions to create a crisis situation in the institution, cannot be turned away by the system. The proposed system is only capable of managing the real threats to financial stability, namely those caused by objective internal or external factors.

Keywords: financial stability, credit institutions, system methodology of ensuring financial stability of the credit institutions.

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МЕТОДОЛОГІЯ ФОРМУВАННЯ СИСТЕМИ ЗАБЕЗПЕЧЕННЯ ФІНАНСОВОЇ СТАБІЛЬНОСТІ КРЕДИТНИХ УСТАНОВ

Анотація. Обґрунтовано методологію формування системи забезпечення фінансової стабільності кредитних установ, а саме: визначено сутність, мету і цільові завдання її функціонування, об'єктно-суб'єктний склад, розкрито внутрішню структуру, наукові принципи і функції, що визначають її природу та особливості взаємодії із зовнішнім середовищем. До основних складових досліджуваної системи віднесено підсистему інституційного середовища, методичну і забезпечувальну підсистему. Фундаментальною компонентою визначено неформальне інституційне середовище, від якості імплементації якого залежить результативність заходів із забезпечення фінансової стабільності кредитних установ і здатність її довгострокового утримання.

Формування системи забезпечення фінансової стабільності кредитних установ повинно базуватися на комплексному підході, тобто варто враховувати не лише особливості організаційно-управлінського впливу на ресурси кредитних установ з метою збалансованого їх функціонування, а й передбачати побудову відповідного неформального інституційного середовища, яке б слугувало світоглядною платформою для успішної реалізації заходів стосовно фінансової стабільності. Підсистема неформального інституційного середовища покликана створювати неформальні норми та правила корпоративної поведінки, які у подальшому суттєво впливають на характер рішень у сфері фінансової стабільності, задають рамки діяльності та спрямовують економічну поведінку установи.

Результативність пропонованої системи залежить від якості корпоративної етики і глибини її імplementованості в діяльність кредитної установи. Так, шахрайські дії, що провокуються самою кредитною установою, не можуть бути відвернені цією системою. Вона дієздатна лише в аспекті управління реальними загрозами фінансовій стабільності, тобто такими, що спричинені об'єктивними внутрішніми чи зовнішніми факторами.

Ключові слова: фінансова стабільність, кредитні установи, системна методологія забезпечення фінансової стійкості кредитних установ.

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МЕТОДОЛОГИЯ ФОРМИРОВАНИЯ СИСТЕМЫ ОБЕСПЕЧЕНИЯ ФИНАНСОВОЙ СТАБИЛЬНОСТИ КРЕДИТНЫХ УЧРЕЖДЕНИЙ

Аннотация. Обоснованно методологию формирования системы обеспечения финансовой стабильности кредитных учреждений, а именно: определены сущность, цели и задачи ее функционирования, объектно-субъектный состав, раскрыто внутреннюю структуру, научные принципы и функции, раскрывающие ее природу и особенности взаимодействия с внешней средой. К основным составляющим исследуемой системы отнесены подсистема институциональной среды, методическая и обеспечительная подсистемы. Фундаментальной составляющей является неформальное институциональная среда, от качества имплементации которой зависит результативность мероприятий по обеспечению финансовой стабильности кредитных учреждений и способность ее долгосрочного удержания.

Ключевые слова: финансовая стабильность, кредитные учреждения, системная методология обеспечения финансовой устойчивости кредитных учреждений.

Формул: 0; рис.: 3; табл.: 2; библи.: 10.

Introduction. The issue of ensuring the financial stability of credit institutions after the crisis of 2008 has been updated completely in a new way, radically overturning the idea of this phenomenon and the methodology of managing it. However, the scientific community has paid attention primarily to the revision of the concept of financial stability at the macro and mega levels, taking into account the impact of such megatrends as information-and-network society, including the digital economy; internationalization of capital markets; demographic changes; deregulation of the financial sector. At the same time, insufficient attention is paid to the issues of ensuring the financial stability of financial institutions that creates a methodological gap between macro- and micro-level approaches of solving this problem. In addition, in practical terms, it leads to shifting responsibility for the credit sector financial stability solely to the level of regulators that, in our opinion, increases the level of moral hazard of credit institutions.

Research analysis. Unfortunately, the existing studies on financial stability of credit institutions (FSCI) are fragmentary, and the process of its provision is often limited to the issue of its assessment, which, of course, is important, however, not the same. This is what actualizes the methodological importance as well as practical necessity of conducting systematic, complex studies of this problem.

It is worth mentioning that the popularization of the systemic approach for studying (rather often it is realized by the network theory) is obliged to the synergetic paradigm that more and more substitutes the paradigm of determinism. It is considered that P. Anderson [1] and J. H. Holland [2] were the first who explains modular architecture of financial networks, studying the behavior of complex adaptive systems and their growth as a consequence of two competing feedback mechanisms in adaptive networks: hemophilia and homeostasis. This theoretical approach to the financial system structure combines, on the one hand, the adaptive nature of the behavior of financial institutions based on the individual features of the evolutionary process through the use of the selective method of “trials and errors”, and, on the other hand, the process of self-organization that leads to a stable modular, scale-free architecture of the system that ensures, as a rule, the stability of routine behavior of the system, except for the cases of rare but strong shock effects [3].

Based on statements of L. K. Gallos a modular structure in natural as well as in artificial systems appeared due to multicriteria optimization of stability, efficiency and ability of the system to grow [4]. What is more M. Girvan and M. E. Newman pointed out that many real natural and artificial systems exhibit a modular structure where nodes in small groups are more tightly connected to each other than the nodes in different modules of the network, which is the key to their behavior and functioning of the whole system [5]. The interrelationships between modules are relatively rare, but they are crucial to the functionality of the entire system, and quite often, the failure or breakdown of these links leads to a reduction or even a total malfunction of the system. We agree with this affirmation of A. Karaev and consider it is important to describe the modular architecture of the credit institutions’ financial stability ensuring and peculiarities of each module, their influence on the financial stability providing and long term retaining, their interconnection.

The purpose of this article is to justify the methodological foundations for establishing a financial stability system of credit institutions.

Research results. The development of system forming methodology for ensuring FSCI involves determining the nature of this system, the goals and targets of its functioning, object and subject composition, internal structure and scientific principles that determine its nature and peculiarities of its interaction with the external environment. However, it is necessary first of all to determine the scientific basis of the process of ensuring FSCI. The analysis of scientific theories, as a conceptual basis of FSCI managing, as well as author’s conclusions about feasibility of their use, from the point of view of the effectiveness of achieving the objectives of financial stability, is presented in Table 1.

Note that *a system of ensuring financial stability of credit institutions is being interpreted as a set of methods, tools, activities, and their principles to be followed by the subjects of the system in the process of identifying, neutralizing and countering financial stability threats.*

Table 1

Comparative characteristics of concepts of the theory of financial management in terms of expediency of their use as a methodological basis for ensuring FSCI		Advantages and disadvantages of implementing the approach	The expediency of using as a methodological basis of ensuring FSCI *
Concept	Target function of management system	Management activities of an institution	The expediency of using as a methodological basis of ensuring FSCI *
Priority of financial and economic interests of owners	Growth of owners' welfare; key indicators: profit, dividends, earnings per share, return on equity	Increase in market share, minimizing the cost of financial services, use of financial tools that accelerate cash turnover and help maximize profits	Inadvisable. EFSCI is reduced to preventing current insolvency by enforcing legislative norms and requirements. Financial stability is identified with the financial resistance of the institution
Value-oriented management	Business value growth; quantitative indicators: a wide range of financial indicators that take into account the interests of various stakeholders	Forming the basis for obtaining positive results of functioning of an institution in the long-term perspective, which in total provide an increase in its value	Advisable. Ensuring financial stability first of all involves creating prerequisites to the uninterrupted functioning of the institution on the conditions of the planned development. Herewith, profit is an important tool, but not the goal of ensuring financial stability of credit institutions, which closely correlates with the provisions of the value-oriented management approach
Cash flow	Balancing of incoming and outgoing cash flows; quantitative indicators: balance of an institution funds in time and space	Effective cash flow management, synchronization of various types of cash flows by volume and time	Partial expediency. EFSCI by timing synchronization of cash flows is too limited. FSCI is identified with its current liquidity and solvency. The synchronization mode of cash flows does not allow to reveal the influence of the parameters of the institution financial policy and the external environment on the level of its FS comprehensively
Entrepreneurial financial risk	Risk optimization, quantitative indicators: the level of covering risk with capital	Comprehensive implementation of the risk-oriented management system by the activities of an institution	Partial expediency. FSCI is a consequence of effective counteraction to threats that are not limited solely to their business or financial nature. Herewith, the system of financial stability is based on risk management

Source: authorial.

* FSCI — financial stability of credit institutions

In view of the conducted analysis, we believe that the methodology of ensuring FSCI cannot be based on one of the viewed concepts and requires their symbiosis. In our opinion, the basic approach should be an improved concept of cash flow (financial equilibrium) according to T. Unkovskaya's approach, who defines the synchronization of cash flows only as one of the individual cases of the entity's financial equilibrium. According to T. Unkovskaya, the criterion of financial equilibrium lies in providing an institution with "minimum amount of funds required by a credit institution at a given time for the most effective implementation of operational, investment and financial activities in the context of a given economic strategy" [6]. Herewith, when calculating such a minimum amount of funds, the scientist suggests that the expected movement of incoming and outgoing cash flows in accordance with 1) contractual obligations; 2) demand for cash due to the motive of caution; 3) maintaining the rating of the credit institution; 4) demand for compensating balances [7, c. 138-140].

It also ought to be added that ensuring FSCI should be based on the value-oriented, risk-oriented approaches and, above all, on the systemic approach.

The *purpose of the system* of ensuring FSCI is to create conditions for the smooth, efficient and effective performance of functions by institutions, as well as their planned development in time.

This causes the implementation of the following tasks by this system:

- forecast of potential internal and external threats to financial stability;
- organize activities to prevent possible internal and external threats (preventive measures);
- identify, analyze and evaluate the real threats to financial stability;
- decide and organize an immediate react on the real internal and external threats by the inner adaption mechanism;
- permanent improvement of the system's functioning in order to ensure its flexibility, adaptability, rapid reaction to any internal and external threats that guarantees its integrity in result.

Considering FSCI from the point of view of the system-target approach, we consider the process of its ensuring as a multi-stage system (Figure 1) aimed at achieving the final result which is ensuring the planned development of the institution in time and space. We believe that the process of ensuring FSCI goes through four stages. Each of the stages is simultaneously the goal of the previous one and the precondition of the next one, as well as the sequential transition from lower to higher levels of financial stability. Herewith, we consider every level of financial stability as a continuum of the credit institutions' states.

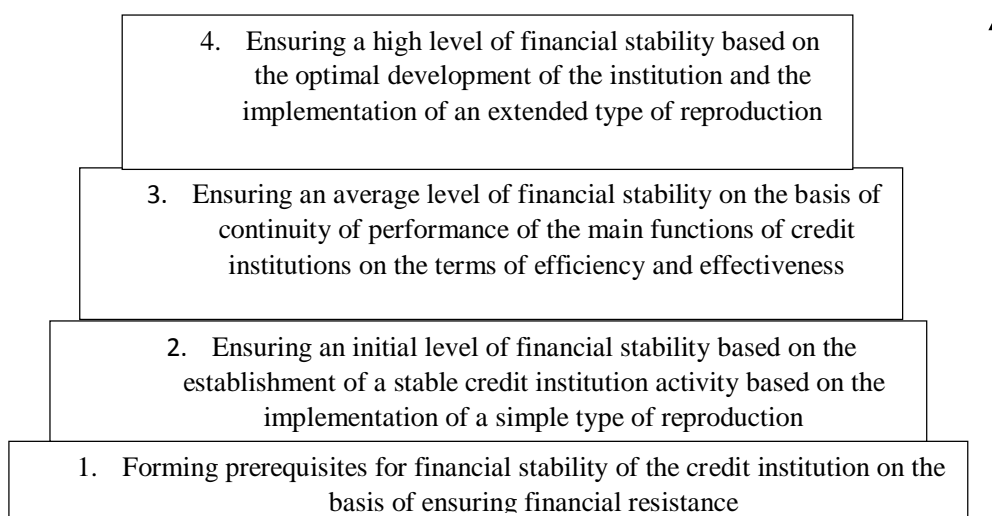


Fig. 1. System-targeted approach to ensuring FSCI

Source: authorial.

The objects of this system are financial resources and information resources. *The subjects* of the system are Board of Supervisors, Board of Directors and some organizational departments of the credit institution which carry out activities to ensure financial stability according to the strategy and tactics. At least they are as follows: the risk management department, asset and liabilities department, the HR department. At the same time, if we talk about not only internal, but external subjects of the relations in solving the problem of FSCI as well, it is necessary to speak about law-making institutions, the central bank and other financial regulators of the credit institutions activity, international institutions in the sphere of standardization of regulation and supervision on the activity of credit institutions, self-regulated professional associations, the financial unit of executive power organs, the antimonopoly committee, interagency institutions (e.g., Financial Stability Board), deposit guarantee agency, specialized information and analytical agencies, etc.

The formation of a system of ensuring FSCI should be based on an integrated approach taking into account not only the organizational and managerial influence on the unbalancing of the credit institutions resources, but also foresee an arrangement of an appropriate informal institutional environment that would serve as a world-view platform for successful implementation of measures on financial stability. In general, the main components of the studied system include: the subsystem of the informal institutional environment; the subsystem of the formal institutional environment; the methodical (cognitive) and supplying subsystems (Figure 2).

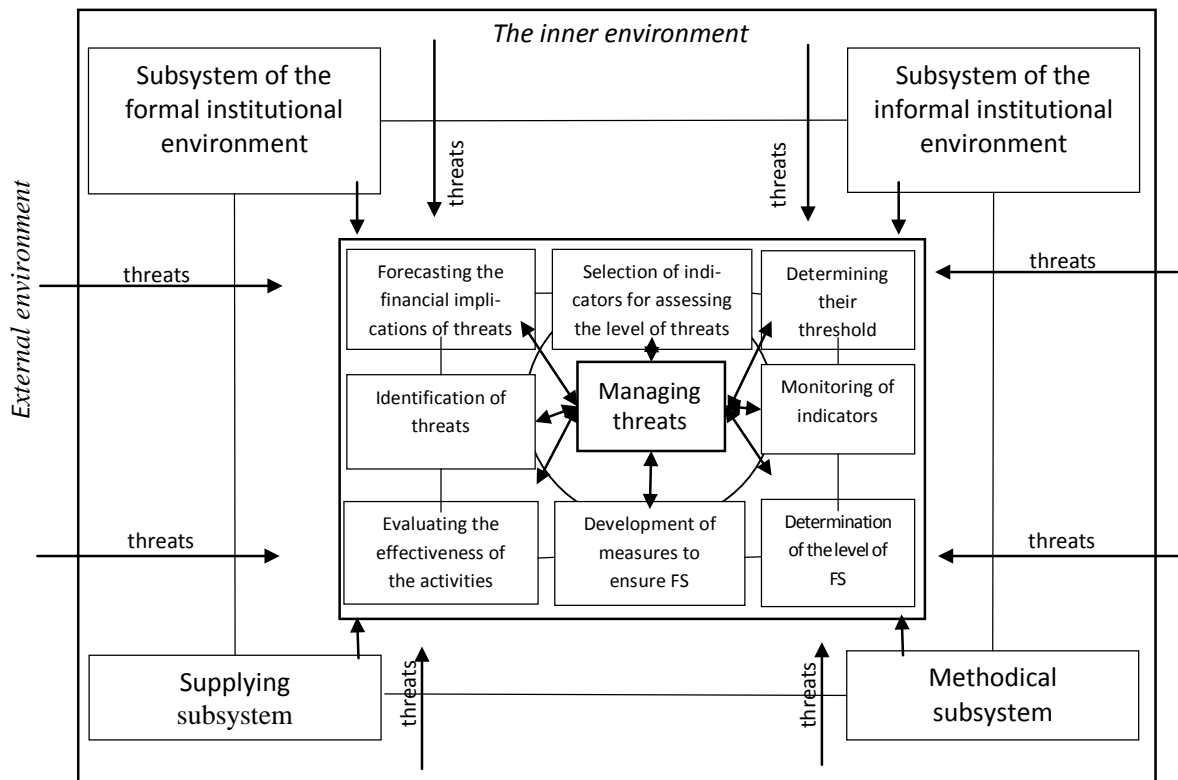


Figure 2. The system of ensuring FSCI

Source: authorial.

In interpreting the term “institutional environment” we are to draw on O. Williamson's approach, according to which these are basic rules that determine the context in which the economic activity is carried out [8]. In the context of our study, under the institutional environment of the system for ensuring FSCI is to be understood a set of formal (legal, economic) and informal rules and norms that form the fundamental basis for the uninterrupted performance of economic and social functions by credit institutions on the terms of efficiency and effectiveness, and direct their activity in the process of the financial stability ensuring. In Table 2 there is the author's understanding of the content of the institutional environment of a system of ensuring FSCI.

Table 2

Structure and elements of the institutional environment of FSCI

Components	Subcomponent	Standards and rules
Informal rules	Ideological	The perception of the ideas of sustainable development Change in stereotyped perception of a credit institution solely as a commercial institution The priority of ensuring stability of the institution over financial interests of the owners Corporate culture as a competitive advantage Intolerant attitude to corruption, illegal actions, including illegal methods of receiving income
	Social	Etiquette for doing business Active social position of the institution The perception of corporate social responsibility as the basis of managing relations with stakeholders and managing the impact on the national economy, the social sphere and the environment Refusal to finance activities that have negative social, economic or environmental impact
Formal rules	External	The concept of financial stability of credit institutions Regulatory and advisory documents aimed at ensuring financial stability of credit institutions (the national and international levels) Regulatory legal acts regulating the process of restoring the solvency of credit institution
	Internal	Principles, standards and norms of conduct of employees, top management and shareholders in the field of financial stability Financial stability policy Strategy and tactics of ensuring financial stability

Source: authorial.

The fundamental component of the proposed system is the informal institutional environment. We consider that the quality of its implementation depends on the effectiveness of measures to ensure the FSCI and the ability to maintain it in a long-term period. This subsystem is aimed to create informal norms and rules of corporate behavior, which in the future significantly affect the nature of decisions in the field of financial stability, set the scope of the institution's activities, direct its economic behavior.

An informal institutional environment is given much attention in the work of institutionalists. Thus, D. North's considerations are based on the fact that in any institutional system, formal institutions occupy only a small "visible" part. The main part of the institutional system, reminiscent of the invisible basis of an iceberg, is informal institutions: culture, traditions, stereotypes of behavior [9]. E. Ostrom opposes the efficiency of collective informal norms and the low effectiveness of market methods in the distribution of limited social goods, when the latter are implemented without support at the level of the informal environment: views, traditions, beliefs, stereotypes of thinking [10, pp. 149-157].

The subsystem of the informal environment is represented by ideological and social components and works in the sphere of stakeholders' relations management. The purpose of its functioning is to create a system of stable views on the economic role of the credit institutions and is deeply correlated with ideas of sustainable development concept. This informal aspect can reflect the mission of the credit institution and the purpose of its functioning and integrates into the content of the development strategy of the institution and thus extends to all the levels of management system. The implementation of the ideas of sustainable development leads to a change in the perception of the purpose of the credit institution functioning, namely, the transition from one-dimensional interpretation of the goal — as maximizing value in the interests of owners formalized in the indicator of the capital efficiency (ROE) — to generate the value that reflects the interests of a wide range of stakeholders and simultaneously provides stable growth of the business-value of credit institutions in time by ensuring the positive impact of their activities on the economic, social and environmental spheres. Such a position of a credit institution makes it necessary to form a development strategy based on the following priorities:

1) the use of a system approach to the credit institutions targets defining, which achievement would contribute both — the increasing of the business-value as well as the level of their financial stability. Such targets should not be limited solely by the financial activities of the institutions, but also reflect the economic, social and environmental effects of their functioning;

2) the widening of the criteria list for decision making by indicators of sustainable development, which will reflect the quality of the credit institutions impact on the economic, social and environmental spheres. In our opinion, this will allow: a) to minimize those types of activities of credit institutions that have a negative impact on the external environment and, consequently, indirectly intensify the level of their financial stability, as long as it weakens the channel of negative feedback; b) to expand the participation of credit institutions in the implementation of investment programs that have a long-term effect, and, therefore, lengthen the time horizon of their investments; c) to promote convergence of individual interests of shareholders of credit institutions and subjects of the real sector of the economy.

Methodical subsystem provides justification of principles, approaches and methods of ensuring FSCI. A separate issue is devoted to developing a methodology for assessing the level of financial stability by identifying actual and potential imbalances, taking into account the expected effects of the implementation of threats that is to be the subject of further research.

While institutional and methodical subsystems form the preconditions for ensuring FSCI, the supplying component is the source of resources on the basis of which the functions of this system are performed. The specified structure of the supplying subsystem is presented in Figure 3.

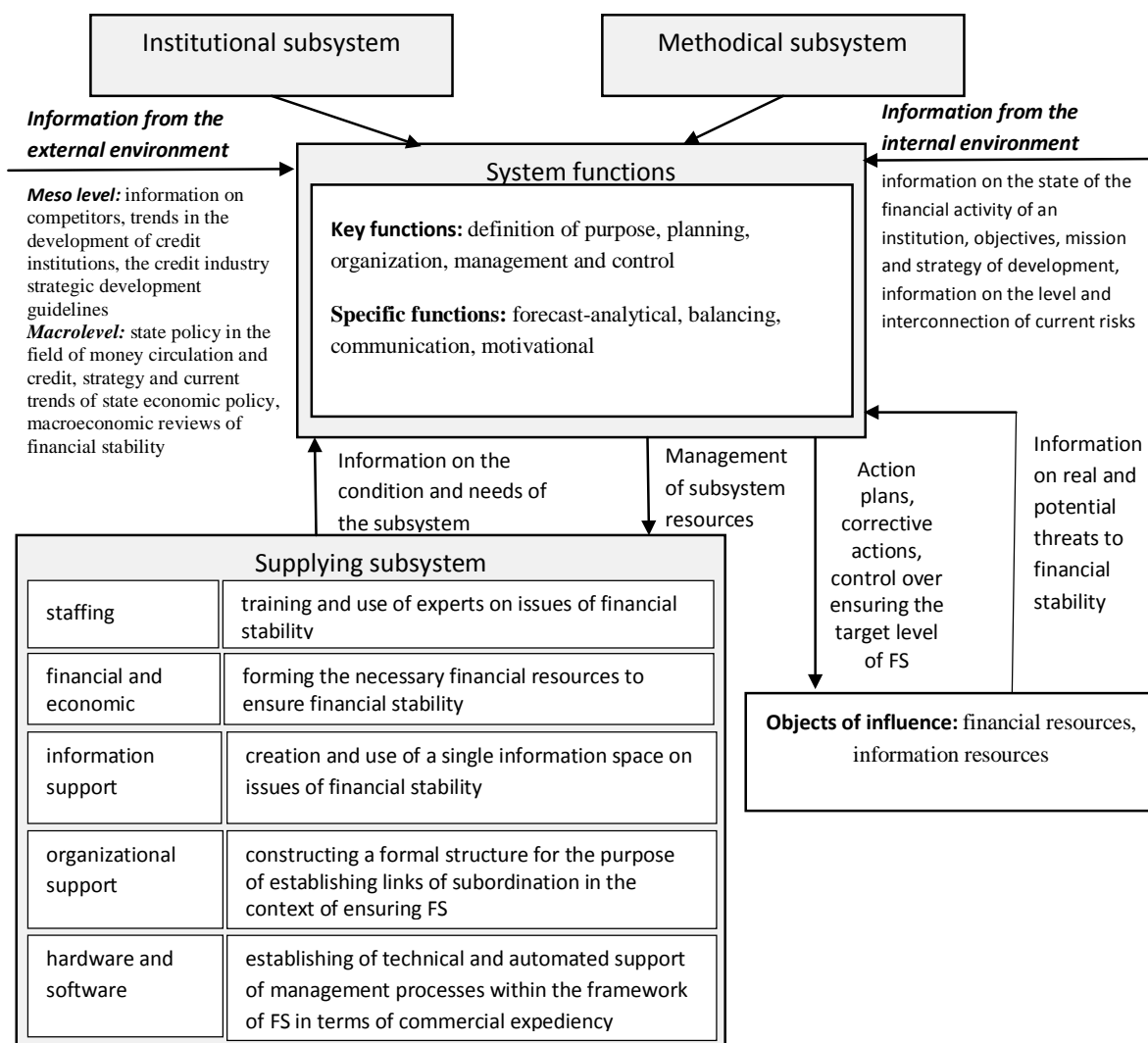


Fig. 3. Clarification of the structure of the supplying subsystem and its interaction with other components of the financial stability system of credit institutions

Source: authorial.

It should be added that the proposed system is to be based on the following *principles*:

1. *The principle of complexity* — none of the components of the financial stability system can fully compensate for the lack of another.

2. *The principle of sequence* — the formation of the system should occur step by step, taking into account the priority, as well as existing and potential subjective and objective prerequisites.

3. *The principle of timeliness and adequacy of measures* related to the prevention of threats to financial stability of a credit institution.

4. *The principle of multidimensional adaptability* — the object of the system of ensuring financial stability is not only connected with its financial activities, but also consider all major of inner processes. This causes a wide range of threats, and consequently the need for a high level of adaptability of the system to diverse threats, and for its flexibility.

5. *The principle of manageability*, that is, the need to set up unconditional and uninterrupted control over the implementation of the system, and the tasks put on it.

6. *The principle of internal communication* — the effectiveness of ensuring FSCI requires internal communication about the potential and existing threats to financial stability, both horizontally within the institution and vertically through reporting to the Board of Directors and top management.

7. *The principle of information transparency* means timely, complete, objective, comprehensive disclosure of information about the activities of an institution, which includes both financial information and policy of the institution in the field of business ethics, the impact on the economy, the environment and the social sphere, which is a powerful tool of influence on the choice of business model of an institution and the level of protection of investors and other stakeholders. Of course, the high quality of disclosure is not an only guarantee for financial stability, but it is a tool that helps to support other important principles of the functioning of this system.

8. *The principle of balancing the interests of stakeholders*.

9. *The principle of effectiveness* — achieving the optimal balance between results and cost of ensuring financial stability.

Conclusions. Once again, we emphasize that the effectiveness of the proposed system largely depends on the quality of corporate ethics and the depth of its implementation in the activities of a credit institution. Thus, fraudulent actions, provoked by a business entity (a credit institution), including intentional actions to create a crisis situation in the institution, cannot be turned away by the system. The proposed system is only capable of managing the real threats to financial stability, namely those caused by objective internal or external factors.

The functioning of the proposed system should include the development of target programs and the establishment of a mechanism for operational management of financial stability by substantiating, providing, controlling and maintaining the optimal quantitative and qualitative indicators of the activities of credit institutions by the chosen criteria. At the same time, the criteria for the effectiveness of measures implemented within these programs should be those levels of financial stability that meet the minimum costs to ensure them. All these will be a further research object.

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