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SYNERGY IN THE REGULATION OF STOCK, CREDIT, CURRENCY AND INSURANCE SEGMENTS OF THE FINANCIAL ARCHITECTURE OF NATIONAL ECONOMY

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ABSTRACT

The article examines the financial architecture in the context of systemic and functional approaches that together constitute the synergetic approach. The functional approach is based on the concept of function for each component of the financial architecture towards the system in general, i.e., a major contribution made by each component in its development. It is proven that specific properties regarding the unity of general, universal nature and functional importance are implemented for each of the elements or corresponding subsystems of a particular system. The process approach allows analyzing systemic identification, management of existing processes and especially systems for managing the interaction of the given processes. The use of the approaches introduced in the article comprehensively and in close relationship with defined hypotheses allowed us to develop the concept of regulating the development of the financial architecture of national economy. Following the research results, we can conclude: one has developed and substantiated a complex of hypotheses, allowing making assumptions for each hypothesis, appropriate provisions for their proof and consequences of using hypotheses. Such an idea of hypotheses allows correctly defining the concept of conducted research and determining the key points of proving. One has stipulated a set of principles and grounded conceptual approaches, allowing identifying the particularities of implementing the principles using various approaches that represent a methodological basis for the development of the efficient concept of regulating the evolution of the financial architecture of national economy. It is substantiated that, in the context of the financial crisis and globalization of national economy, concepts should be practice-oriented because the financial market requires tougher regulation. One concludes that the developed concept of financial architecture regulation has a range of advantages: the concept is based on two hypotheses, the proof of which allows defining its practical basis consisting of the set of mechanisms for financial architecture regulation; it is based on relevant scientific and methodological approaches to research, namely the synergetic one allowing representing the self-organizing component of the financial architecture and its elements; the offered concept allows conducting the efficient regulation of financial architecture segments of national economy and their interaction in the context of financial globalization. Concept implementation tools include complex mechanisms: adaptation of the financial architecture and its components to environmental changes; internal regulation (of individual components of the financial architecture and its interaction areas).

Keywords: synergy, stock segment, credit segment, insurance segment, currency segment, financial architecture, national economy

JEL Classification: G3, M2

INTRODUCTION

The financial support of national economy is impossible without the efficiently functioning and well-developed financial architecture that, in the entirety of potential participants, can adaptively respond to emerging needs of different recipients of financial resources, not provoke but smooth out challenges of globalization breakthroughs in a certain manner. In this regard, the assessment of the possible potential of the adaptive

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response of the financial architecture of national economy in the process of its passing through various stages of globalization and disbalances (different external or internal shocks), such as crisis states, recovery, economic growth, is quite a relevant subject of scientific research.

ANALYSIS OF RESEARCH AND STATEMENT OF THE PROBLEM.

Various theoretical and methodological aspects of the development of the financial architecture of economic systems are described in scientific works by M. Barkley, G. Brown, R. Brealey, S. Brigham, A. Wagner, M. Goldstein, H. Demsetz, T. Dolgopiatova, R. Entov, K. Eieberg, J. Sonnenfels, I. Ivashkivska, R. Kapeliushnikov, M. Kokorieva, B. Kolas, R. La Port, F. Lopez de Silanes, S. Myers, K. Smith, A. Stepanow, D. Finnerty, J. Van Horn, A. Shleifer, etc. Ukrainian scientists investigating problems of the designing and functioning of the financial architecture of national economy include: H. Azarenkova, O. Baranovskyi, N. Bychkova, M. Bilyk, I. Blank, A. Boiko, T. Bondaruk, V. Vyhovska, N. Vyhovska, A. Hrytsenko, V. Yevdokymov, I. Ziatkovskiy, O. Laktionova, I. Lukianenko, V. Marhasova, S. Onyshko, A. Poddieriohin, B. Samorodov, O. Tereshchenko, V. Fedosov, L. Fedulova, I. Shkolnyk, S. Yurii, etc.

RESEARCH RESULTS

Let's review the financial architecture in the context of systemic and functional approaches that together constitute the synergetic approach [1]. The systemic approach is based on the study of the object, namely the financial architecture of national economy, from the position of a corresponding system, consisting of constituent elements and relations between them. In other words, the financial architecture of national economy is considered as a system of components of the financial architecture, which are in constant interaction with each other (*Figure 1*). The use of the systemic approach in our research allows better investigating each component of the financial architecture and exploring the relationship between these components.

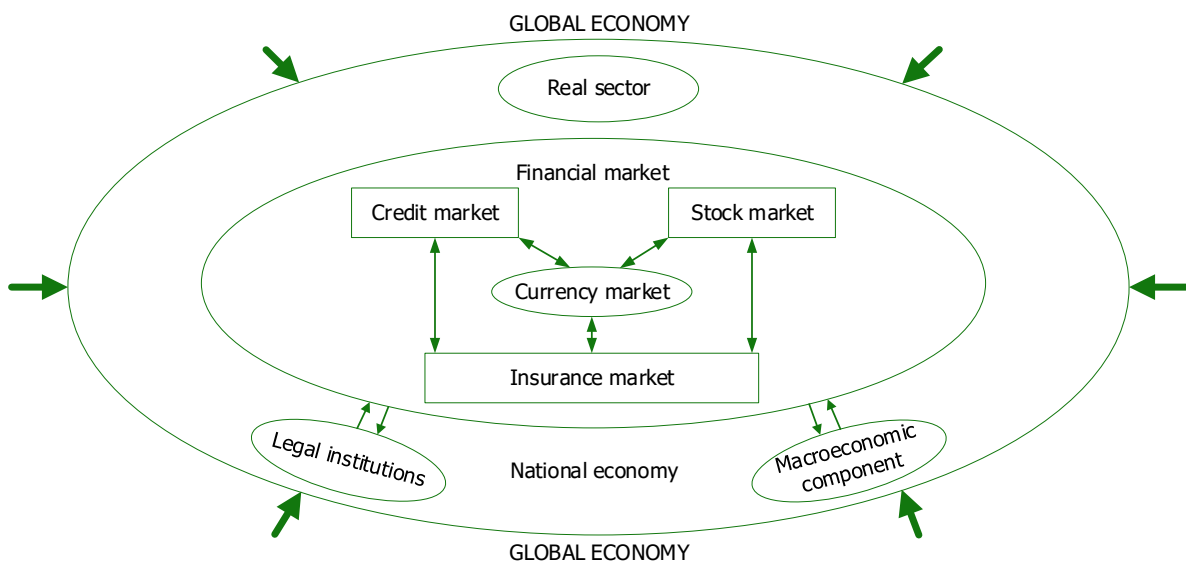


Figure 1. Financial architecture based on the systemic approach

The functional approach is based on the concept of function for each component of the financial architecture towards the system in general, i.e., a major contribution made by each component in its development. So, specific properties regarding the unity of general, universal nature and functional importance are implemented for each of the elements or corresponding subsystems of a particular system. Following this approach, it is reasonable to consider the financial architecture of national economy as a particular complex consisting of four subsystems, each having numerous specific functions that do not intersect each other (*Figure 2*).

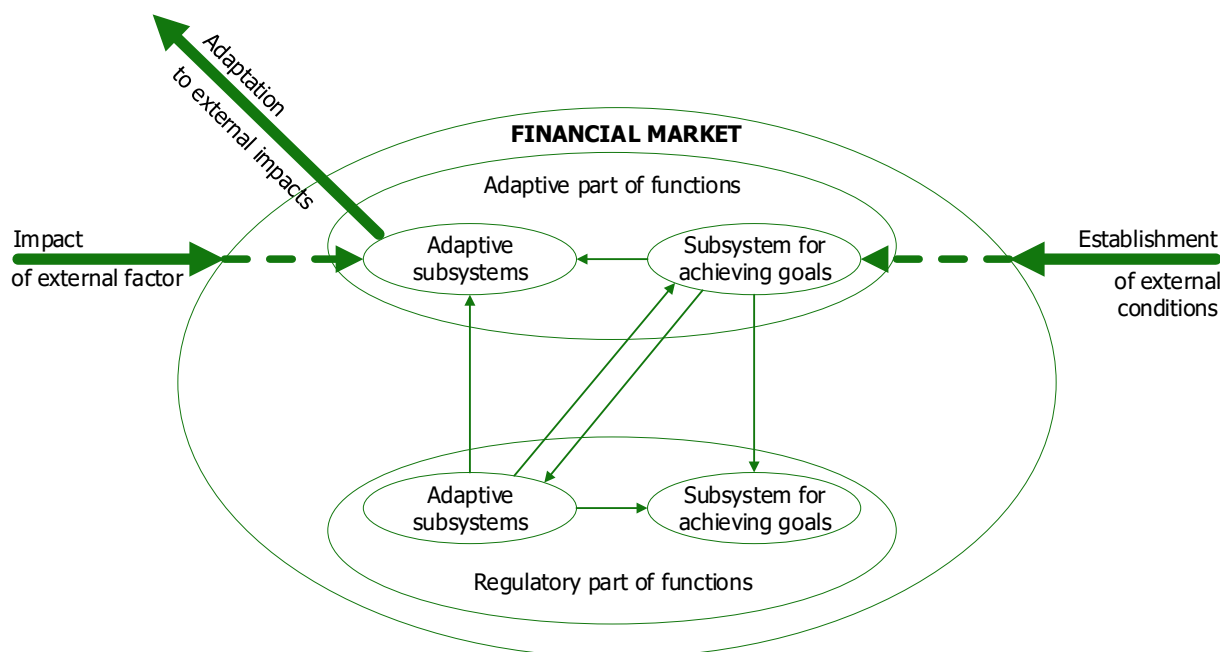


Figure 2. Financial architecture of national economy based on the functional approach

The given subsystem for achieving goals implies the accounting to ensure the internal development of the financial architecture of national economy and the external impact in order to elaborate the goal for the strategic development of the financial architecture.

The subsystem of the given approach to the adaptation performs functions of the impact of two exogenous groups of factors: national and global economy, which results in the adaptation of the financial architecture to external challenges.

Consequently, the integration subsystem takes into account functions of supporting both particular integration processes between the given components of the financial architecture of national economy and the integration process between certain subsystems. A positive result for successful integration is the stability of financial architecture functioning, the elements of which are in constant interaction while corresponding regulating efforts of the country at all segments of the financial architecture take place in the context of implementing their functions, a corresponding function totally complies with the goal of not only individual elements but also the financial architecture in general.

The subsystem of latency implies the implementation of the function aimed at the individual functioning of each subsystem of the financial architecture of national economy.

Accordingly, the process approach allows analyzing systemic identification, management of existing processes and especially systems for managing the interaction of the given processes. To consider the financial architecture of national economy based on the process approach, one should examine dynamic processes taking place at a corresponding element of the financial architecture [2—5]. The given analysis of elements of the financial architecture allows designing a scheme of the functioning of the financial architecture of national economy based on this approach (*Figure 3*).

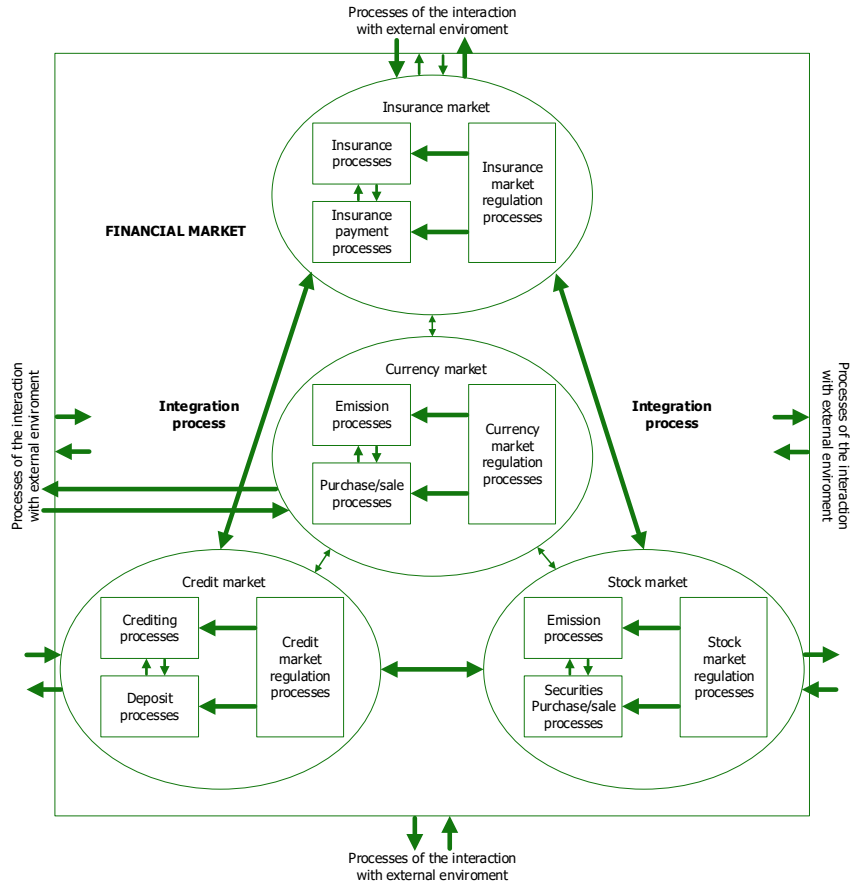


Figure 3. Financial architecture of national economy based on the process approach

The use of the given approaches comprehensively and in close relationship with defined hypotheses about the concept of regulating the development of the financial architecture of national economy is shown in *Figure 4*.

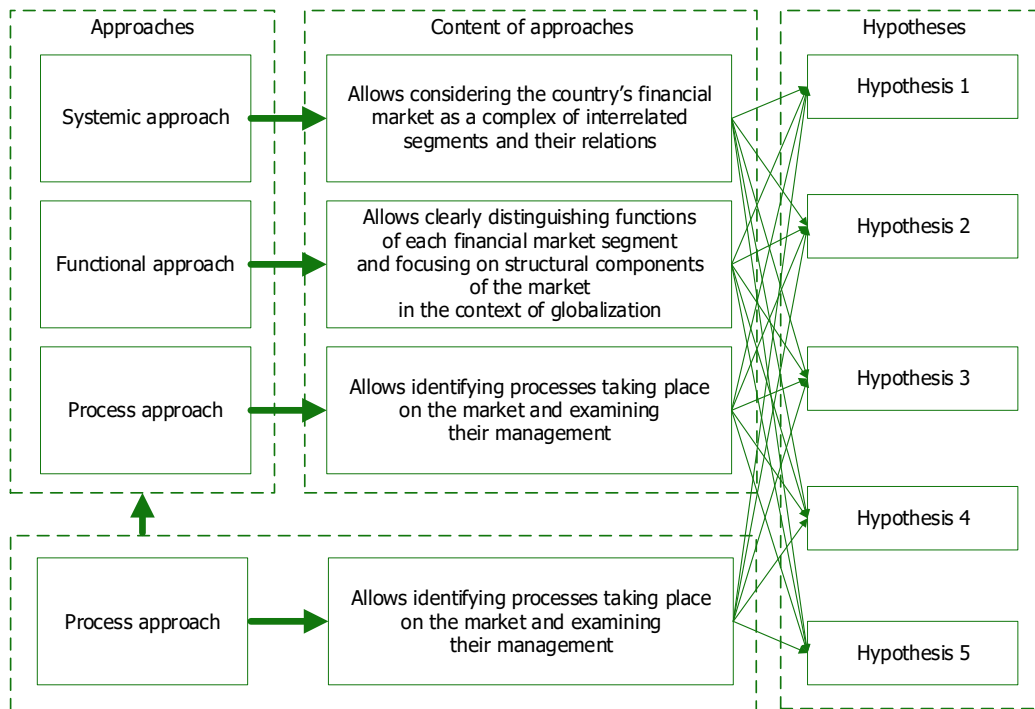


Figure 4. Interrelation between potential approaches and hypotheses about the regulation of the development of the financial architecture of national economy

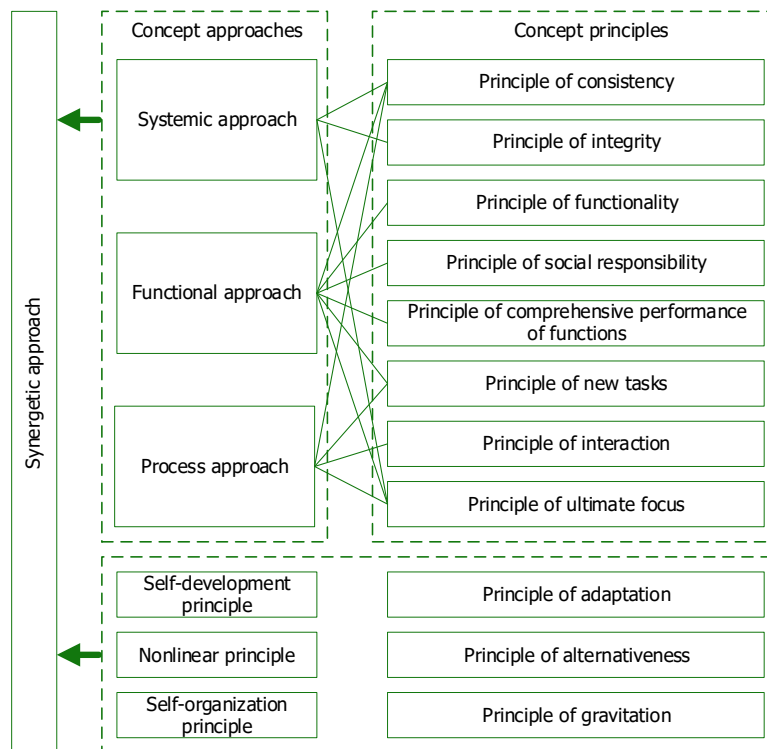


Figure 5. Interrelation between principles and conceptual approaches to the adoption of the concept of regulating the development of the financial architecture of national economy

The systemization of the complex of approaches and principles of regulating the development of the financial architecture of national economy is shown in *Figure 5*.

Following the research results, we can conclude: one has developed and substantiated a complex of hypotheses, allowing making assumptions for each hypothesis, appropriate provisions for their proof and consequences of using hypotheses. Such an idea of hypotheses allows correctly defining the concept of conducted research and determining the key points of proving. One has stipulated a set of principles and grounded conceptual approaches, allowing identifying the particularities of implementing the principles using various approaches that represent a methodological basis for the development of the efficient concept of regulating the evolution of the financial architecture of national economy.

The proof of hypotheses and the identification of principles and approaches to developing the concept of regulating the development of the financial architecture of national economy allow us to define a range of methodological provisions:

1. Concerning outlines of the financial architecture regulation. The financial architecture of national economy has two outlines for its regulation: internal and external, and its condition is a crucial result for their common effect. The efficiency of regulation directly depends on the most appropriate correlation between defined regulation institutions. Thus, the internal regulation is based on the regulation of particular market segments and their interaction; the key external regulation is generally focused on the process of adapting the financial architecture of national economy and its components to dynamic changes in the volatile external environment [6; 7].
2. Concerning elements of the financial architecture of national economy. Each given component of the financial architecture (stock, currency, credit and insurance ones) has properties for the whole financial architecture, and it should be subject to a methodological provision for determining internal and external centers of regulation. The complexity and integrity of components of the financial architecture of national economy is defined by a certain interaction between corresponding regulation centers at the level of financial architecture components.
3. Concerning self-organization, self-development and gradual adaptation of elements of the financial architecture of national economy. The development of the financial architecture of national economy is subject to general principles of self-organization, self-development and adaptation. In the context of the synergetic approach implementation, the prompt development of individual elements of the financial architecture without external factors is defined by self-organization principles and its natural evolution. The self-development principle is implemented by establishing the interaction between elements of the financial architecture of national economy. Consequently, the transparency of

the financial architecture makes it necessary to apply the principle of adaptation, i.e., immediate adaptation to various fluctuations.

4. Methodological aspects of regulating the development of the financial architecture of national economy. The financial architecture of national economy is a system that should be regulated both comprehensively and due to its particular elements. The regulation efficiency primarily depends on the level of development and interaction of financial architecture components and external destabilizing impacts of different external segments of the financial architecture, which affect the advancement of the regulation system to the adaptation process.
5. Concerning the efficiency and stability of the financial architecture of national economy. The financial architecture is a complex system that remains stable if all elements of the financial architecture seamlessly evolve and stay in close interaction. In accordance with the management theory, negative aspects of the financial architecture are related to the activity of the weakest subsystem. Therefore, the absence of proper seamless development will affect the performance of the whole financial architecture.
6. Methodological aspects of establishing the efficient interaction between the national and international financial architecture of national economy. The national financial architecture is a crucial component of the international financial architecture, which strives for the sustainable growth in the context of such architecture. This methodological basis correlates in a certain manner to the previous ones, as the beneficial harmonious development of the financial architecture of national economy along with the evolution of other financial architecture components will encourage the stabilization of the world's financial architecture.
7. The methodological basis concerning the complex of interrelated mechanisms for its regulation. External and internal outlines of financial architecture regulation have a similar nature and should be subject to specific principles, being implemented due to the complex of interrelated mechanisms that are homogeneous in terms of the structural and functional component and different in terms of the strategic focus. Accordingly, internal regulation mechanisms are directly subject to particular principles of self-organization and self-development of financial architecture components while external regulation mechanisms are focused on the adaptation of all financial architecture components to changes in the dynamic external environment. These three mechanisms represent a general mechanism for financial architecture regulation.
8. The methodological basis concerning the establishment of the parity of social and economic interests of components of the financial architecture of national economy. The efficient regulation in the internal outline of the financial architecture (regulation of the development of components and their interaction) is the regulation ensuring the parity of social and economic interests of all given components of the financial architecture of national economy. If such an efficient regulation is absent, it is impossible to harmonize the development of all financial architecture components and ensure the sustainable growth at the level of the whole financial architecture as an integral complex system.
9. The methodological basis concerning prospects of the state regulation of the development of the financial architecture of national economy. The state regulation, depending on particularities of financial architecture functioning, can be also implemented on the principles of banking and stock segments. A specific feature of the development of the financial architecture of national economy is the fact that it initially belongs to complex systems targeted at the credit sector. Therefore, to enhance the state regulation efficiency, it is reasonable to take regulatory actions in a defined credit sector compared to the stock one. So, the state regulation should primarily focus on the enhancement of the competitive environment and the increase in the level of financial architecture steadiness [8–10].

According to the above-mentioned methodological aspects, principles, approaches and hypotheses about the concept of regulating the development of the financial architecture of national economy, a proper regulation mechanism can be an efficient tool for implementing this concept. Taking into account that the efficient regulation of the financial architecture of national economy is aimed at gaining an appropriate development level based on sustainability, mechanisms for establishing the structure of the regulation concept should have a clear compensatory or supporting effect.

Thus, the mechanism for regulating the financial architecture of national economy is a complex of viable elements: mechanisms for ensuring the process of self-organization, self-development and adaptation that enable in a certain way the development of efficient regulatory measures aimed at providing the efficient functioning, taking into account internal factors involved in financial architecture components, particularities of their mutual influence, external disproportions in the external financial environment.

Let's imagine the key forces that have a destructive impact of the process of developing elements of the financial architecture of national economy. Hence, the following forces affect the development of particular components of the financial

architecture of national economy (*Figure 6*).

Interaction forces (F_2) are formed under the influence of other different components of the financial architecture of national economy. The impact of these forces depends on the level of integration between financial architecture components and is expressed in the context of the influence of indicator changes in one of the components on the dynamics and indicators in other components. These forces have a two-way trajectory: except for the direct impact on the component of the financial architecture of national economy, financial architecture components also affect its other components. Thus, the effect in different sides is not compensated by appropriate means, which is stipulated by time measurements of the impact between components of the financial architecture of national economy.

External environment forces (F_3) are formed on international markets and affect both the whole financial architecture of national economy and its components. Powerful external forces include forces related to changing trends in world's developed financial architectures.

The complex impact on the financial architecture of national economy that can result in the disturbance of the development level is characterized by the given three forces:

$$F = F_1 + F_2 + F_3 \tag{1}$$

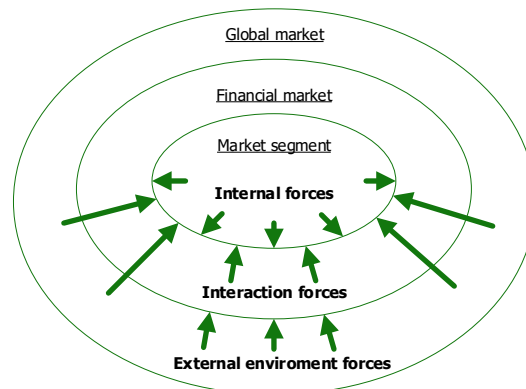


Figure 6. Structure of forces directly affecting the development of the financial architecture of national economy

When the development trajectory of the financial architecture of national economy is no longer reliable, such forces have a destructive impact on the development process of the financial architecture of national economy. To neutralize the negative effect and bring particular components of the financial architecture to the stable reliable condition, one suggests such a regulation mechanism that includes two main groups of mechanisms depicted on *Figure 7*.

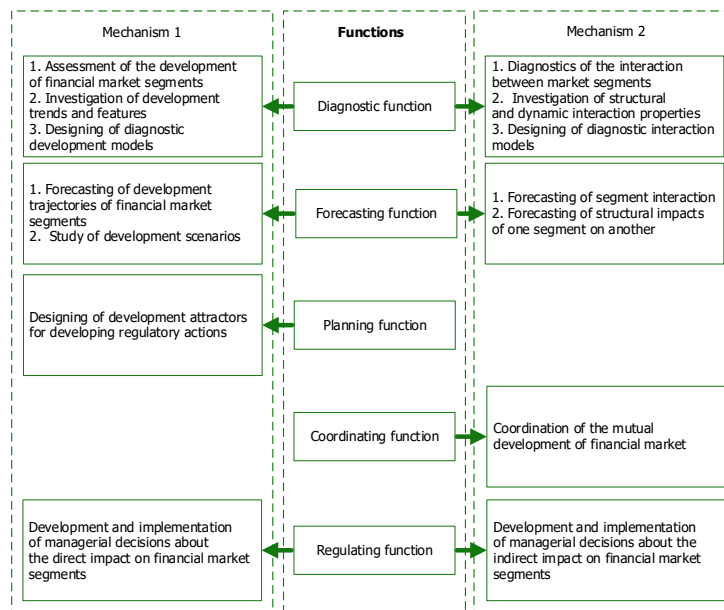


Figure 7. Functions and components of mechanisms for self-organization and self-development of the financial architecture

In the context of the financial crisis and globalization of national economy, concepts should be practice-oriented because the financial market requires tougher regulation. The article offers conceptual provisions for regulating the development of the financial architecture of Ukrainian economy (Figure 8).

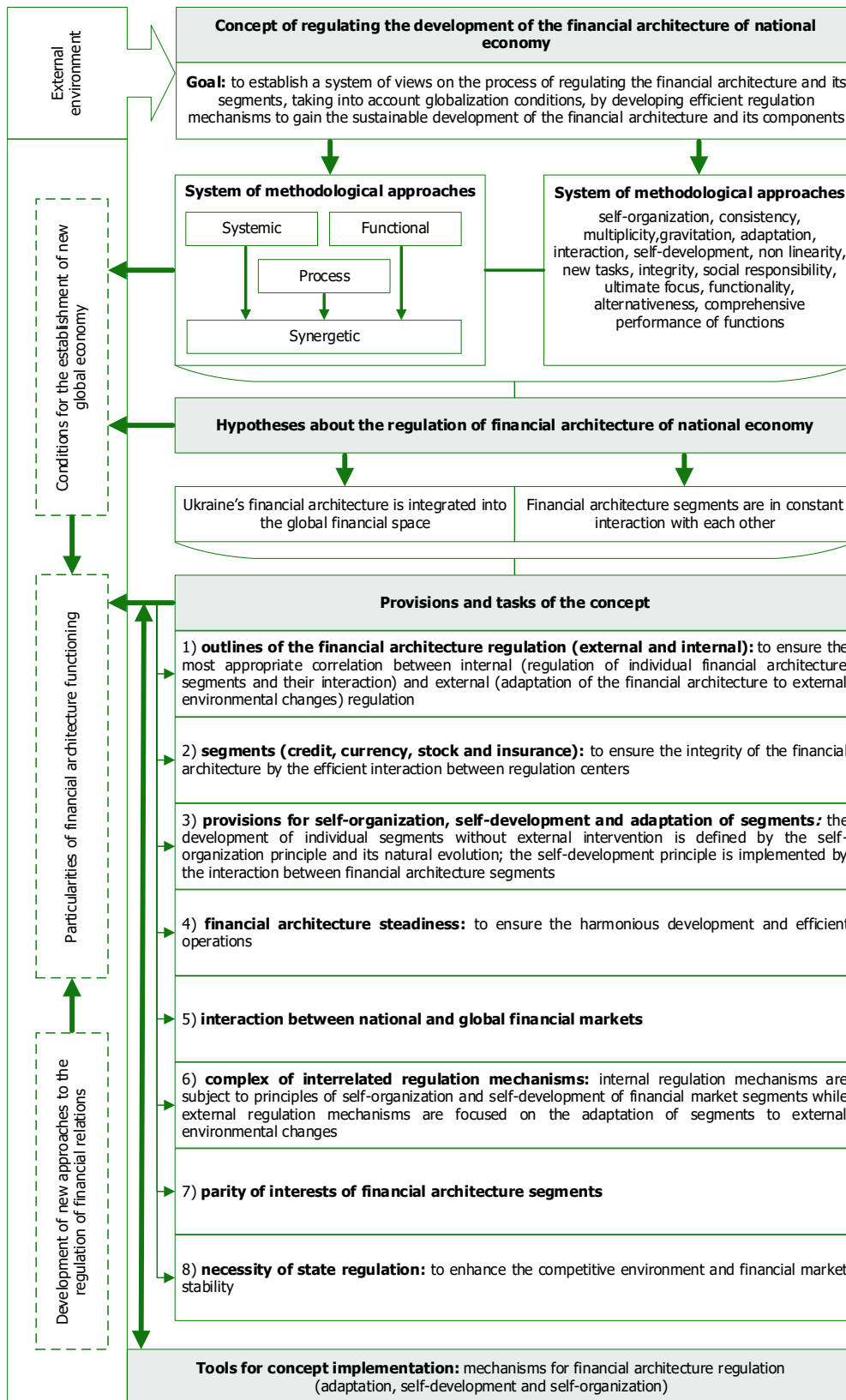


Figure 8. Key components of the concept of regulating the development of the financial architecture of Ukrainian economy

CONCLUSIONS

Well, the specific feature of the introduced concept is a symbiosis of functional, systemic and process approaches, allowing us to implement the synergetic approach to the establishment of the concept of regulating the financial architecture of national economy. The use of the synergetic approach has allowed us to define three components in the financial architecture development: self-organization representing the evolution of particular segments of the financial architecture; self-development targeted at the interaction between all segments of the financial architecture; and adaptation enabling the prompt efficient regulatory impact, taking into account the volatility of the external environment. The developed concept of the financial architecture regulation has a range of advantages: the concept is based on two hypotheses, the proof of which allows defining its practical basis consisting of the set of mechanisms for financial architecture regulation; it is based on relevant scientific and methodological approaches to research, namely the synergetic one allowing representing the self-organizing component of the financial architecture and its elements; the offered concept allows conducting the efficient regulation of financial architecture segments of national economy and their interaction in the context of financial globalization. Concept implementation tools include complex mechanisms: adaptation of the financial architecture and its components to environmental changes; internal regulation (of individual components of the financial architecture and its interaction areas).

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СИНЕРГІЯ В РЕГУЛЮВАННІ ФОНДОВОГО, КРЕДИТНОГО, ВАЛЮТНОГО ТА СТРАХОВОГО СЕГМЕНТІВ ФІНАНСОВОЇ АРХІТЕКТУРИ НАЦІОНАЛЬНОЇ ЕКОНОМІКИ

Розглянуто фінансову архітектуру щодо системного й функціонального підходів, які в сукупності становлять синергетичний підхід. Основою функціонального підходу є представлення поняття функції для кожної складової фінансової архітектури щодо представлення системи як загального цілого, тобто який основний внесок робить кожен із складових у її розвиток. Доведено, що специфічні властивості щодо єдності загального, універсалізму й функціональної важливості реалізуються для кожного з елементів або ж відповідних підсистем певної системи. Під процесним підходом розглянуто систематичну ідентифікацію, управління наявними процесами, особливо системи управління взаємодією представлених процесів. Використання представлених підходів у комплексі й тісному взаємозв'язку із визначеними гіпотезами дозволили розробити концепцію регулювання розвитку фінансової архітектури національної економіки. У результаті проведеного дослідження зроблено такі висновки: побудовано й обґрунтовано комплекс гіпотез, що дозволило представити припущення для кожної з гіпотез, відповідні положення для їхнього доказу й наслідків використання гіпотез. Таке представлення щодо гіпотез сприяє коректності формування концепції проведеного дослідження й визначення ключових моментів щодо доведення; сформовано комплекс принципів й обґрунтовано концептуальні підходи, у контексті яких ідентифіковано особливості реалізації принципів використовуючи різні підходи, які представляють методологічний базис для розроблення ефективної концепції регулювання розвитку фінансової архітектури національної економіки. Обґрунтовано, що в умовах фінансової кризи та глобалізації національної економіки концепції повинні мати практичну спрямованість, адже потрібне суворіше регулювання фінансового ринку. Зроблено висновки, що розроблена концепція регулювання фінансової архітектури має низку переваг: в основі концепції лежать дві гіпотези, підтвердження яких дозволяє сформувати її практичний базис, що складається із сукупності механізмів регулювання фінансової архітектури; вона базується на актуальних науково-методологічних підходах до дослідження, а саме синергетичний, який дозволяє представляти самоорганізовувальну складову фінансової архітектури та її складових; запропонована концепція дозволяє здійснити ефективне регулювання сегментів фінансової архітектури національної економіки та їхньої взаємодії в умовах фінансової глобалізації. Інструментами реалізації концепції є комплексні механізми: адаптації фінансової архітектури і її складових до зміни зовнішнього середовища; внутрішнього регулювання (окремих складових фінансової архітектури та напрямів її взаємодії).

Ключові слова: синергія, фондовий сегмент, кредитний сегмент, страховий сегмент, валютний сегмент, фінансова архітектура, національна економіка

JEL Класифікація: G3, M2