MODERN APPROACH TO FORMATION OF THE BANKING SECTOR DEVELOPMENT TRAJECTORY

Problem statement. The development of the country's banking sector is the basis for the stable functioning of the economy, especially with the capital deficit and variable growth rates, which is typical for Ukraine. The need of the banking sector development is due to the fact that it is the banks as financial intermediaries that create the preconditions for financing the activities of economic entities in various industries and spheres. In addition, the banking system as the most integrated component of the national economy in the world economy provides positive and negative externalities for business and society in the process of achieving financial stability and banking security.

Liberalization of foreign banks’ access to the financial market of Ukraine, on the one hand, made it possible to obtain external financial resources and attract foreign capital; on the other hand, it increased competition in the national market of banking services. A situation has arisen in which foreign banks are actively using internalization tools as competitive advantages in the Ukrainian market, while banks with domestic capital are faced with the need to compete with more financially powerful foreign banks. In these conditions, the problem of the Ukraine banking sector development with regard to banks with domestic capital needs attention.

Recent research and publications analysis. The theoretical and practical aspects of the problems in the banking system development are highlighted in the works of many scientists and practitioners. Scientists have paid attention to various aspects of the banking sector development. Western economists-theorists and practitioners have focused research on the problems of internationalization in the banking sector. Domestic scientists in the last decade have studied the development of the banking system depending on certain conditions: globalization – O. Dziubliuk (2012); transformational – H. Chepeliuk and N. Pantieliieva (2016), U. Niconenko and O. Kopyliuk (2011); crisis – V. Heiets (2012), S. Naumenkova (2009), M. Savluk (2017); competition with foreign capital – H. Karcheva (2016). In the works, a predominantly retrospective analysis is carried out, problems and factors restraining the development of the banking system are considered. However, it is important to determine both the trajectory of further development of the national banking sector and the factors that contribute to it.

Formulation of research. The purpose of the article is to develop an approach to formation the trajectory of the banking sector effective development with an emphasis on banks with domestic capital.

Research findings. To form a trajectory for the effective development of the banking sector, it is important to develop an approach for determining of the factors and calculating their impact on the direction of such a trajectory.

The most significant factors are considered in scientific works. Factors are assessed as negative and positive. O. Dziubliuk studies globalization as a factor influencing the development of the domestic banking system [1]. In particular, those that have a decisive impact include deregulation and liberalization of international capital movement, the development of latest technologies, the gradual blurring of boundaries between the various financial functions of credit institutions. D. Prokopowicz notes that the development of the banking system in Poland is determined by the social and economic determinants of the economic globalization process [2]. In recent studies by foreign scientists, attention is mainly focused on the factors of Internet banking development [3].

Recognizing the importance of stability and security of the banking sector development, scientists investigate the factors that provide them. Among the factors of banking security, O. Baranovskyi identifies two groups that characterize material and financial support, namely the size of capital, the progress of technological innovations, the possibility of lending in foreign and domestic markets, etc. The scientist also draws attention to the excessive regulation of banking activity [4]. T. Vasylieva, L. Sysioieva and A. Vysochyna investigated the factors that ensure the stability of the Ukraine banking system, the assessment of which makes it possible to establish the origin of the determinants of its violation [5]. The analysis of destructive factors of the Ukraine banking sector development is presented in the works of S. Chernyehko with colleagues [6], O. Zolotarova and V. Halahanov [7], and others.

We agree with scientists who divide factors into external and internal. At the same time, in our opinion, external factors should be considered both at the supranational level and at the national level. As factors of the supranational level, one should single out those that are associated with globalization and integration, and above all, the crisis phenomena in the world economy and financial system, the liberalization of the movement of capital. Crisis phenomena in the national economy, the
banking sector, the conditions of competitive internalization, in which banks with domestic capital operate [8], are derived factors from globalization and integration.

External factors at the national level mostly have a negative impact on the development of the banking sector. Political and economic instability in the country, openness of the economy and its sectors, crises in the national economy, low level of its financial stability and security, high level of the economy dollarization, high inflation, periodic devaluation of the national currency and others are external factors at the national level. It should be noted that certain external factors of the national level depend on supranational ones, and internal factors depend on national ones.

Internal factors have been determined on the basis of the state and trends analysis of the banking sector main indicators [9]. Given the persistent trend of dangerous levels of competitive internalization for banks with domestic capital in the presence of foreign capital, it is necessary to introduce factors that will contribute to the formation of such conditions for banking activities in which the banking sector will develop at the expense of domestic banks.

Internal factors are grouped into those that have a positive and negative impact on the development of the banking sector (Fig. 1). The most significant and interrelated factors are described below.

Fig. 1. Factors of positive and negative impact on the development of the Ukraine banking sector

The high level of the economy dollarization is due to its openness and participation of economic entities in world economic relations. Domestic banks respond to this factor by appropriate dollarization of loans and deposits to serve customer needs. The dollarization of loans and deposits determines the possibility of increasing both income and risk. The dollarization is inherent in countries with unstable economies, and therefore is a periodic phenomenon from a historical point of view. Inflation in the country's domestic market precedes the dollarization process. A decrease in inflation, sustainable development of the economy, and its restructuring from raw materials to commodities with high added value are factors that will contribute to optimizing the
dollar dependence of the banking sector and the economy as a whole.

Political instability and crisis phenomena are the determinants of currency devaluation and loss of the banking sector’s financial stability, and, consequently, the stability of the financial system and the national economy.

To improve the financial stability of the banking sector, it is proposed to expand the object of the mandatory audit of financial statements results in banking institutions. The audit report is provided annually by the bank to the NBU. It is proposed to include indicators of financial stability in the list of verification objects in accordance with the NBU methodical guidelines, which is coordinated with the IMF methodology. This will increase the list of indicators and will allow developing a basis for substantiating the standards of international indicators, taking into account domestic experience. In addition, it will contribute to the development of the audit services market and, consequently, to the replenishment of the state budget [10]. Dissemination of transparent information on the NBU website will help increase confidence in the Ukrainian banking system.

The problem of increasing confidence in the banking system can be solved by introducing a legal framework to protect corporate deposits of legal entities. Protection of population deposits is carried out through the activities of the Fund for guaranteeing deposits of individuals. Upon liquidation of the bank, funds on deposits of individuals, including entrepreneurs, are reimbursed, in the amount of up to ₴ 200 thousand. There is a discussion about increasing the amount. The accounts of legal entities are blocked from the day the procedure for withdrawing an insolvent bank from the market begins. Legal entities can only declare their claims to the bank to the Deposit Guarantee Fund. Such requirements will probably be satisfied in the order of priority established by law.

The need to increase the level of capitalization in the banking sector is due to its irrelevance to the needs of the economy. Requirements for the size of the bank authorized capital were established first by the Resolution of the NBU Board dated 06.08.2014 No. 464 «On bringing the authorized capital of banks in line with the minimum established size», and then by amendments dated 04.02.2016, No. 58. Due to these requirements, small banks with domestic capital left the market. The minimum authorized capital for a bank in the amount of at least ₴ 500 million is established by the Law of Ukraine «On Banks and Banking Activities». This actually prevents the full development of commercial banks with domestic capital. It should be noted that Resolution No. 58 establishes the same requirements for the size of the authorized and regulatory capital. Quite logical is the proposal of Ukrainian Banks Association to establish requirements specifically to the amount of regulatory capital and to reduce the minimum authorized capital to ₴ 200 thousand. In the EU, banks must have a minimum capital of € 5 million (about ₴ 150 million at the current exchange rate). In addition, there is only one type of license for banks in Ukraine. The introduction of a «reduced» license and the establishment of requirements for a smaller amount of the authorized capital will contribute to the development of small business in the banking sector. The regional financial services market will develop due to cooperative banks.

The experience of the crisis years shows that small banks have a minimum amount of non-performing loans and are mostly profitable. Such domestic banking institutions, at the expense of regional clients, will increase confidence in the banking system and create an opportunity for financial inclusion for the population. Their activity will help to reduce the level of competitive internalization.

The resumption of lending is constrained by the high cost of financial resources, which depends on the NBU discount rate and the bank’s risks. High bank interest rates are justified by limited finances. However, there are other factors that contribute to the high cost of loans. These include inflation (its level of about 10% leads to an increase in the cost of credit by 2.5%), low profitability of business (enterprises with a profitability of more than 20% are credited) [11]. In capital investments, bank loans account for about 10%. Therefore, the pace of economic development at the expense of only own funds is very slow. Considering that the overall level of the economy profitability is estimated at 7%, the level of the NBU discount rate of 8% is reasonable and will contribute to the economy development [12].

Significant volumes of problem loans do not contribute to the resumption of lending. This requires a gradual increase in costs, and therefore more stringent conditions for hedging the risk of non-payment. To reduce the risk, banks raise lending interest rates and increase reserves for credit risks. This reduces the amount of resources that could be spent on lending. The way out of the situation of relatively high loan interest rates is to reduce the volume of non-performing loans (their amortization), curb inflationary processes to stabilize prices (the main goal of the NBU) and reduce the discount rate. Then the transmission mechanism at interest rates will function effectively.

Reducing interest rates on loans is the foundation for the development of small and medium-sized enterprises. Currently, a number of programs have been introduced to compensate small and medium-sized businesses for part of the interest for using a loan. However, the amount of funds allocated for this is insufficient.

At the state level, the Law of Ukraine «On Amendments to Certain Legislative Acts of Ukraine Concerning the Resumption of Lending» has been adopted, which protects banks from unscrupulous borrowers. This will be facilitated by the use by banks of the Borrowers Unified State Register. However, its presence does not protect banks from the emergence of other unscrupulous borrowers. Therefore, banks need access to another database, namely the State Register of Rights to Real Estate, in order to obtain a single statement.
The stability of the national currency depends on many factors. Such factors are the state of the economy, including its foreign economic sector, dependence on international creditors, and most importantly – the monetary policy of the NBU, and others. The Law of Ukraine «On Currency and Currency Transactions», dated 07.02.2019, radically changes the system of currency regulation, liberalizes currency policy and currency transactions. Foreign exchange easing is aimed at making it easier to do business and improve the investment attractiveness of Ukraine. Within the framework of the Law, a new model of the regulatory framework has been formed: 7 new regulations have been introduced under separate articles to replace 56 by-laws.

The impact of factors on the development of the banking sector has been established using dynamic modeling, which is the main method for studying the dynamics of the economic system behavior [13; 14]. One of these systems is banking system, the functioning of which is a complex process due to a large number of various factors. The use of software products allows you to experimentally investigate a real system on its simulation model.

Using dynamic modeling based on the pulse process, it was confirmed that four of the selected 14 factors have a positive effect. Positive and negative factors have a certain relationship and interdependence. The mutual impact of factors that determine the trajectory of the banking sector development in Ukraine was established using a software product when building a structural-logical graph of their totality (Fig. 2).

It is established that the development of the banking sector is impacted by the factor of dangerous level of competitive internalization (target peak 1, dotted line), and the decrease is significant (Fig. 3).
Calculations in the software proved that the negative impact of the dangerous level of competitive internalization can be offset by a single positive factor or a combination of them. So, the positive trend of the banking sector development in the conditions of dangerous level of competitive internalization is provided by such an external factor at the national level as the development of the economy, in particular the real sector and priority sectors, foreign economic relations (Fig. 4).

![Fig. 4. The trajectory of the banking sector development under the impact by the factor of the dangerous level of competitive internalization compensated by the positive impact factor of the economy development](image)

Similarly, changes in the trajectory of the banking sector development are obtained under the impact of positive internal factors, such as growing demand for banking services, increasing confidence in the banking system and stabilizing the national currency. Using the impulse process, it is proved that positive internal factors together compensate for the negative impact of any negative factor, including the dangerous level of competitive internalization.

The most effective elimination under the impact of the dangerous level of competitive internalization is obtained by applying all the positive factors (Fig. 5).

![Fig. 5. The trajectory of the banking sector development under the impact by the factor of the dangerous level of competitive internalization compensated by the combination of positive factors](image)

Thus, the selected positive factors ensure the development of the banking sector under the coordination of measures aimed at forming internal factors. Such factors are increasing confidence in the domestic banking system, growing demand for banking services from businesses entities and population, stabilization of the national currency, well as of the external factor of effective development of the national economy, in particular the real sector and priority sectors, their foreign economic relations.

**Conclusions.** The modern approach to the formation of effective development trajectory of the
banking sector using dynamic (simulation) modeling is substantiated in the article. To do this, factors are systematized and are divided into external and internal. Among the external factors, the supranational and national levels are singled out. External factors mostly have a negative impact on the development of the banking sector. The certain external factors of the national level depend on supranational ones, and internal factors depend on national ones. Factors are divided into those that have a positive and negative impact on the development of the banking sector.

Using dynamic modeling based on the pulse process, it was confirmed that four of the selected 14 factors have a positive effect. Positive and negative factors have a certain relationship and interdependence. The mutual impact of factors that determine the trajectory of the banking sector development in Ukraine was established using a software product when building a structural-logarithmic graph of their totality. The negative impact of the dangerous level of competitive internalization is proved. This impact can be offset by a single positive factor or a combination of them. Using the impulse process, it is proved that positive factors together compensate for the negative impact of any negative factor, including the dangerous level of competitive internalization. The most effective elimination under the impact of the dangerous level of competitive internalization is obtained by applying all the positive factors. Such factors are increasing confidence in the domestic banking system, demand for banking services from businesses entities and population, stabilization of the national currency, effective development of the national economy, in particular the real sector and priority sectors, their foreign economic relations.

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Diatlova Yu. Modern Approach to Formation of the Banking Sector Development Trajectory

The results of the study topical issue on effective development of the banking sector with an emphasis on banks with domestic capital are summarized in the article; the modern approach to formatting the trajectory of such development is substantiated.

The factors influencing the development of the banking sector are systematized. External and internal factors are distinguished. The supranational and national levels are defined for the group of external factors. Supranational factors are related to globalization and integration. First of all, these are crisis phenomena in the world economy and financial system, the liberalization of capital movements. External factors at the national level mostly have a negative impact on the development of the banking sector. It is shown that certain external factors of the national level depend on supranational ones, and internal factors depend on national ones.

Internal factors are grouped into those that have a positive and negative impact on the development of the banking sector. The characteristic of the most significant factors is given, their mutual influence is shown. Factors such as the dangerous level of competitive internalization due to the presence of foreign banks in the Ukrainian banking sector.
market, the high level of loans and deposits dollarization, low quality of assets and loans have a negative impact on the development of the banking sector. The influence of internal factors on the development of the banking sector is determined. It is proved using dynamic (simulation) modeling based on an impulse process that the development of the banking sector is significantly influenced by the factor of dangerous level of competitive internalization. It is established that such stabilizing factors as the growth of demand for banking services, increasing confidence in the banking system and stabilization of the national currency together compensate for the destabilizing effect of any negative factor, including competitive internalization. The formation of positive internal factors will contribute to the progressive trajectory of the banking sector development, in particular banks with domestic capital.

**Keywords:** banking sector; development factors; supranational and national external factors; positive and negative internal factors; dynamic modeling of development trajectory.

Дятлова Ю. В. Современный подход к формированию траектории развития банковского сектора

В статье обобщены результаты исследования актуального вопроса по эффективному развитию банковского сектора с акцентом на банки с отечественным капиталом, обоснован современный подход к формированию траектории такого развития.

Систематизированы факторы, влияющие на развитие банковского сектора. Факторы распределены на внешние и внутренние. В группе внешних факторов выделены наднациональный и национальный уровни. Факторы наднационального уровня связаны с глобализацией и интеграцией. Прежде всего, это кризисные явления в мировой экономике и финансовой системе, либерализация движения капиталов. Внешние факторы на национальном уровне преимущественно негативно влияют на развитие банковского сектора. Показано, что определенные внешние факторы национального уровня зависят от наднациональных, а внутренние – от национальных.

Внутренние факторы сгруппированы на позитивно и негативно оказывающие влияние на развитие банковского сектора. Приведена характеристика наиболее значимых факторов, показано их взаимное влияние. Негативно влияют на развитие банковского сектора такие факторы, как опасный уровень конкурентной интернализации из-за присутствия иностранных банков на украинском рынке банковских услуг, высокий уровень долларизации кредитов и депозитов, низкое качество активов и кредитов и другие. Определено влияние внутренних факторов на развитие банковского сектора. С использованием динамического (имитационного) моделирования на основе импульсного процесса доказано, что на развитие банковского сектора значительное воздействие оказывает фактор опасного уровня конкурентной интернализации. Установлено, что такие стабилизирующие факторы, как рост спроса на банковские услуги, повышение доверия к банковской системе и стабилизация курса национальной валюты вместе компенсируют дестабилизирующее влияние любого негативного фактора, в том числе относительно конкурентной интернализации. Формирование позитивных внутренних факторов будет способствовать прогрессивной траектории развития банковского сектора, в частности банков с отечественным капиталом.

**Ключевые слова:** банковский сектор; факторы развития; наднациональные и национальные внешние факторы; положительные и отрицательные внутренние факторы; динамическое моделирование траектории развития.

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