

DOI: 10.5281/zenodo.3406202  
 UDC Classification: 339.138: 378.4  
 JEL Classification: D23, H12

## MANAGEMENT OF CREDIT ACTIVITY OF BANKING INSTITUTIONS

### УПРАВЛІННЯ КРЕДИТНОЮ АКТИВНІСТЮ БАНКІВСЬКИХ УСТАНОВ

Liliya I. Chernyshova, PhD in Economics, Associate Professor  
*Odessa National Polytechnic University, Odessa, Ukraine*  
 ORCID: 0000-0001-7371-2007  
 Email: chernishova\_lila@ukr.net

Nataliya F. Chernova  
*Odessa National Polytechnic University, Odessa, Ukraine*  
 ORCID: 0000-0001-8868-0984  
 Email: natasha.boiko95@gmail.com  
 Received 21.01.2019

*Чернишова Л.І., Чернова Н.А. Управління кредитною активністю банківських установ. Оглядова стаття.*  
 У статті досліджений сучасний стан кредитної активності банківських установ України, визначена динаміка ключових показників, які її характеризують. Встановлена необхідність підтримки клієнтоорієнтованої політики в галузі кредитної діяльності, що є запорукою посилення конкурентних позицій банку у боротьбі за клієнтів. Авторами розроблена комплексна модель активізації управління кредитною активністю банку, в рамках якої запропонована програма дій у визначеному напрямку та рекомендовані окремі діагностичні індикатори визначення стану банку згідно запропонованих цільових орієнтирів. Також детально визначено розмежування роботи на кожному з обраних організаційно-управлінських етапів. Запропоновані важелі зводяться до алгоритму управлінських дій, які дозволятимуть коригувати розвиток кредитної активності банківської установи в пріоритетному напрямку.  
*Ключові слова:* банк, кредитна установа, кредитна активність, кредитний портфель, кредитна політика, інструменти управління

*Chernyshova L.I., Chernova N.A. Management of credit activity of banking institutions. Review article.*  
 The article investigates the current state of credit activity of banking institutions of Ukraine, the dynamics of key indicators that characterize it. The need to support customer-oriented policy in the field of credit activity, which is the key to strengthening the competitive position of the Bank in the struggle for customers. The authors have developed a comprehensive model of activation of credit activity management of the Bank, in which a program of actions in a certain direction is proposed and some diagnostic indicators are recommended to determine the state of the Bank in accordance with the proposed targets. Also, the distinctions of work at each of the selected organizational and management stages are determined in detail. The proposed levers are reduced to an algorithm of management actions that will adjust the development of credit activity of a banking institution in the priority direction.  
*Keywords:* bank, credit institution, credit activity, credit portfolio, credit policy, management tools

Nowadays it is required adjusting the activities of most financial institutions in the modern economic space. The changes that are required by credit institutions are due to the needs of the society and the vectors of the development of our state. The realization of this depends on the particularization of strategic alternatives, a detailed analysis of likely prospects and good management policy in the field of financial services. It is also a starting point, that there is a lack of significant potential for strengthening the competitiveness of financial business, including banking.

As a result, it is urgently necessary to focus on the development of modern tools, that may strengthen the status of banking institutions, restore confidence in them from customers, activate the potential of flexible credit to industry, small and medium-sized businesses, taking into account inflationary risks. Undoubtedly, the effectiveness of activity of banking institutions is more determined primarily by the scope of credit operations in accordance with the tasks of economic development of the country on the basis of a number of conditions, including the need for borrowed funds to solve the problems of ensuring the continuity of production and sales processes, the quality of production and investment activities of enterprises, economical using of resources, the need to provide turnover with payment facilities, etc. [1]. Today, the problem of managing of bank credit activity remains one of the most urgent. Therefore, properly identified tools should become the catalysts of this process and a prerequisite for increasing financial performance, especially during periods of economic instability.

#### Analysis of recent research and publications

The significance of the problem is characterized by a large number of investigations by both native and foreign scientists in this direction. Therefore, it is defined in the number of priorities of banks. Essential acquisitions in the study of these issues belong to such scientists as V.V. Vitlinsky [6], D.D. Gladkikh [15], O.V. Dzubluk [1], V.V. Kovalenko [2], V.I. Mishchenko [13], V.I. Kireev [13] and many others.

In the investigations the consideration of scope of credit to various clients by commercial banks in today's dynamic conditions is prevailed, methods of combating credit risks are identified, and the need to improve the management of credit resources for the economic security of credit institutions is determined.

### Unsolved aspects of the problem

In today's conditions, the functions of banking activity are expanding, the preconditions for making radical changes in work with bank and staff clients are strengthened, and search for more acceptable vectors for development in the branch of credit activity. However, the modern methodology of credit relations requires more advanced solutions. Real reformation of the banking sector is needed, development of reasonable projects for attracting resources to the banking sector. It is still unknown which mechanisms that influence the client lead to changes in its long-term relationship with the bank, loyalty to the institution and in what extent. It is the customer-oriented approach that is the strategic vector on which the power of a credit institution depends on a competitive environment of a market. Banks have to move away from the role of service providers and become consultants for their customers (for example, in business structuring, projects, partner selection, funding arrangements, etc.), flexibility of credit products should be sought, focusing on the quality of sources of debt repayment (adequacy of cash flows of clients) [2].

### The main part

The credit activity of banking institutions remains low in recent years, due to lower purchasing power of the population, a significant number of unreliable borrowers who are unable to fulfill their obligations, a rather high level of uncertainty about further development and high cost of credit resources.

Since the end of 2017, the NBU has taken a course towards raising the discount rate and pursuing a tighter monetary policy. According to the NBU, over the last year, the average interest rate on loans in national currency grew by 31.14% and amounted to 21.9% at the beginning of 2019 against 16.7% at the beginning of 2018, whereas the opposite dynamics was observed for foreign currency loans – starting from the beginning of 2017, the average interest rate decreased by 9.34% and amounted to 1.01.2019 5.8% (against 6.4% a year ago). The determined interest rate policy was determined by the decision of the regulator to raise from September 7, 2018 the discount rate to 18% per annum. This change contributed to increasing the attractiveness of the national currency for banks, and therefore to adjust the price terms of business lending. So the value of business loans for the year increased by 6.6 points – up to 20.9% per annum, and the cost of loans for the population – by 3.9 points – to 33.1% per annum. Last year in December, interest rates on business loans grew by 1.2 points, while for the population did not change [3]. This contributed to moderate growth of a credit portfolio of business entities. The growth for the last year amounted to UAH 6.32 million. The most interested in business were short-term and hryvnia credits. In the opinion of banks, basic drivers of demand is growth of necessities of enterprises in a money on addition to the floating capital and investment necessities, and also lead through of restructuring of debts [4].

In general, the credit portfolio of banks in national currency for 2018 grew by 8.1% to UAH 616 billion. In its structure, the portfolio of hryvnia credits to the population grew by 31.4% – to 135.4 billion hryvnia, exceeding the portfolio volume in the pre-crisis period, which indicates the intensification of consumer lending. The portfolio of hryvnia business credits also increased, however, only by 2.7% – up to UAH 478.5 billion.

The dynamics of individual indicators of banking in Ukraine for 2009-2019 is presented in tab. 1.

Table 1. Dynamics of separate indicators of banking activity for 2009-2019, mln. UAH

Indicator	Value at the beginning of the year										
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total assets	926086	880302	942088	1054280	1127192	1278095	1316852	1254385	1256299	1336358	1360764
Credit investments	792244	747348	755030	825320	815327	911402	1006358	1009768	1005923	1042798	1118618
Reserves for active operations of banks	48409	122433	148839	157907	141319	131252	204931	321303	484383	516985	555871
Ratio of credit activity of banks	0.86	0.85	0.80	0.78	0.72	0.71	0.76	0.80	0.80	0.78	0.82

Source: compiled by the authors on the materials [5]

It can be noted the volatile dynamics of the credit activity ratio for Ukrainian banks. The range within 65-75% is considered to be optimal. Thus, only in 2013-2014 there were acceptable values. Current indicators point to the priority of aggressive risky credit policy pursued by banking institutions and the lack of diversification of assets. It is inherent to those financial and credit institutions, that are aimed at increasing the credit portfolio as quickly as possible without paying sufficient attention to the definition of the level of risk. Unfortunately, the values that characterize the compliance of the credit portfolio structure with this credit policy will increase in direct proportion to the increase in the share of financial resources dedicated to the issuance of risk or unsecured credits in the overall structure of the credit portfolio [6].

Also, statistical data show a rather high proportion of problem assets, the root cause of which is, unfortunately, the failure of banks to manage effectively the problem part of the credit portfolio, and its poor quality [4].

Today, most companies conduct restrained, well-meaning activities in the field of obtaining bank crediting. Although there is an increase in the trend of business crediting, there is also a tendency to refuse or delay their long-term projects. Uncertainty in the future, macroeconomic fluctuations give businesses a preference for short- and medium-term credits. On the one hand, it can be a plus for banking institutions, as they are able to make a profit in the shortest possible time, to reduce the level of credit risk, but this does not promise long-term relationships and even repeated customer appeals to the bank.

The study of this issue shows a number of problems that are typical of banking institutions, namely, for credit relations between them and business entities. Among them, it should be noted:

- a) insufficient level of resource supply that has been traced lately;
- b) imperfect regulation of business crediting technologies, in particular small ones, due to increased level of risk;
- c) difficulties that appear in assessing the real financial and economic condition of the borrower and assessing investment projects;
- d) imperfect scoring methods that are not able to assess the real risks and threats to credit institutions;
- e) difficulties in obtaining loans related to the reorientation of their clients by their business, expansion of the sphere of activity;
- f) problems with mortgage liquidity, and etc.

As for crediting to individuals, it should be noted that during the previous accounting year, the focus of the banks was on consumer lending. Statistics shows that it accounted for about 80% of the total retail credit portfolio. Experts believe that the trend will be traced. From the point of the current state of the country, we think that consumers will also benefit from short-term lending. As this is a tool that is easier to use from the point of the difficult situation of the majority of the population, for increasing the number of customers, banks should increase their installment limits, develop simple payment programmes, and adjust credit card conditions in order not to frighten, and, conversely, to encourage credit funds. It is recommended to maintain a client-oriented policy in the branch of activating credit activity, as it is a guarantee of strengthening the competitive positions of the bank in the struggle for customers.

In order to solve one of the principal issues in the banking sector aimed at stimulating reproductive processes in the economy of the, and from the view of our high investment potential, it is proposed to coordinate the management policy of banks in the direction of further intensification of lending activity. It has been made an attempt to model the management policy in a definite direction (fig. 1).

It is given priority to a detailed study of credit market of the country, the identification of specificity of key sectors of the economy and the demand for their credit resources. It will allow to coordinate the information on business activity in the society, the financial policy of a number of legal entities working in the sphere of small and medium business. It is also necessary to analyze the benefits and opportunities of the population in order to strengthen policy in this direction.

An important aspect of credit policy is making a decision on choosing loans in accordance with accepted banking strategic guidelines, taking into account the ratio of profitability and risk. Target benchmarks for management of the credit activity of a banking institution may be:

- a) optimization of credit potential;
- b) formation of a risk management system in a credit sphere;
- c) strengthening the quality of the credit portfolio;
- d) increasing the efficiency of credit operations.

From the point of risk management, a dilemma is traced: more risky credits are provided at a higher percentage, they bring great profit, are beneficial, but there is a high probability of their loss and no return, and vice versa. In other words, it is a choice of the ratio of risk / profitability or profitability / risk. The optimal combination of these parameters is investigated in the Mark-Sharpe's model, where the search for an optimal ratio of profitability and risk is realized in a phased manner, by integrating the main direction, a gradient, on the spatial surface of probabilistic events [7]. To solve this problem commercial banks should diversify the loan portfolio in order to minimize credit risk.

At the diagnostics stage, it is suggested to use certain indicators for each object of the target orientation that would identify the state of credit activity (tab. 2).

Depending on the needs, each credit institution can expand the proposed list of indicators.

Attention should be paid to the issue of ensuring the credit activity of banking institutions. We have allocated personnel, information, technical, resource, methodological and organizational components of the provision. Some of them have already been considered by scholars, in particular through the mechanism of monetary policy [8], from information and organizational point of view [9], technical [10], staffing [11-12] etc, however, fully and systematically, some of them were considered more in terms of bank security, rather than influence on lending activity, which, in our opinion, is mistaken and requires additional investigations.

The next step should be study of certain tools that will affect the lending activity of banking institutions and determine the mechanisms for managing them. Among them, it is recommended to distinguish between two groups:

- intrabank (tools developed and used by the banking institution it self);
- external tools, among which interbank funds (tools developed by a group of banks in order to jointly reduce credit risk) and government (governmental debt management tools) can be identified.

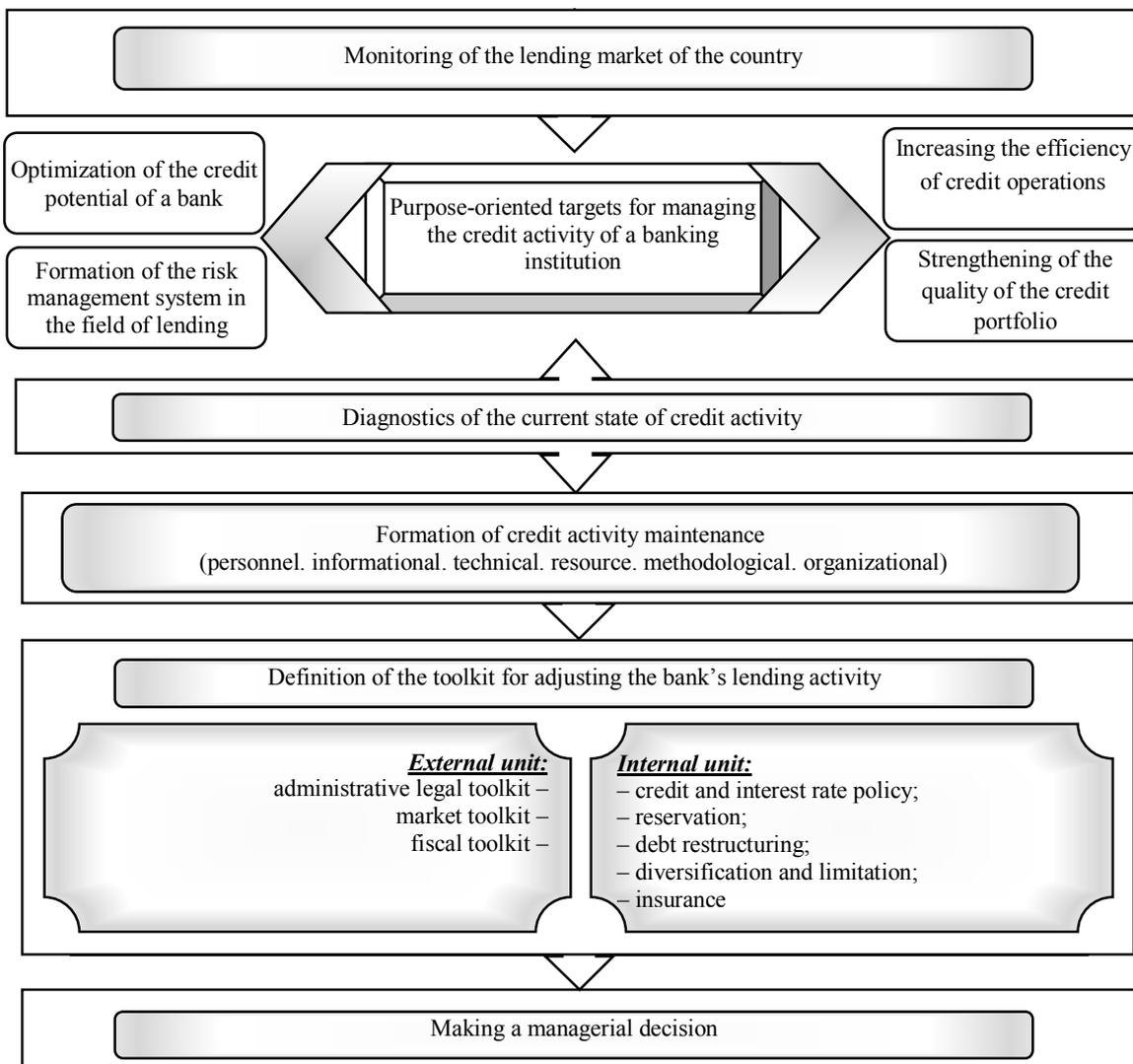


Fig. 1. Complex model of activation of management credit activity of banking institutions

Source: own elaboration

It is recommended to adjust the level of credit activity at macro, meso and micro levels.

The most important administrative and legal instruments include: legislative and regulatory acts, directives, instructions of the NBU, which regulate credit relations at the legal level; selective credit policy; requirements and restrictions on the activities of banks; administrative supervision.

In order to stimulate lending activity, the NBU uses market tools, including a policy of lowering the required reserve, the NBU interest rate (establishing a certain level of the weighted average interest rate, thus regulating the interest rate on loans), refinancing of commercial banks, open market operations, regulatory portfolio of assets of commercial banks (asset quality review (AQR) and stress testing for the largest Ukrainian banks). The latter increase (or decrease) the volume of resources of banks and the banking system as a whole, which is reflected in the value of the loan and the volume of demand.

Fiscal policy is also capable of influencing the development of the banking sector through taxation, which ultimately affects the money market and forms the conditions under which monetary and credit policy is carried out. From its side, the amount of money in circulation determines the ability of economic entities to calculate and pay taxes and mandatory payments to the budget in cash [13]. For example, the introduction of compulsory taxation of interest income accrued on deposits and current accounts (fluctuations ranged from 15% in 2014 up to 18% today) and the military income tax on personal income as a direct route to reduce their attractiveness for the population and easing their resource base. This tendency also influences the volumes and value of loans provided to the economy. Therefore, it would be advisable to set tax rates depending on the size of the deposit or the minimum amount of the deposit, which interest is generally exempted from taxation. Thus, fiscal instruments

should be sufficiently balanced and adequate to the current phase of the economic cycle of the national economic system.

Table 2. Recommended individual diagnostic indicators of the credit activity of banks according to selected target targets

Target guideline	Diagnostic indicator
Optimization of credit potential	ratio of credit activity
	ratio of investment activity
	ratio of correlation of liabilities and capital
	ratio of correlation of loans and deposits
	ratio of using deposits
	ratio of transformation of short-term resources into short-term loans
	share of formed reserves in the amount of involved resources
	average term of clients' savings on deposit accounts
	share of arrears on credits in the total amount of credits
Formation of a risk management system	indicator of the risk of a loan granted to a debtor – juridical person and a natural person
	ratio of coverage of classified loans
	ratio of protection of loans from losses on the amount of a created reserve
	ratio of covering of loan by equity
Strengthening of quality of the loan portfolio	ratios of debit and credit circulation on loan accounts
	ratio of coverage of classified loans
	ratio of specific gravity of the weighted classified credits
	ratio of unpaid credits
	ratio of unprofitableness of credits
	ratio of credit security
	ratio of collateral availability of unprofitable credit
	ratio of credit loss protection by reserve amount
	ratio of cover of losses at the expense of the reserve
	degree of completeness of the formation of the reserve
ratio of loan coverage by equity	
Increasing of the efficiency of credit operations	profitability of credit operations
	profitableness of credit operations
	income of credit operations
	specific gravity of income from the provision of credits in the total amount of income

Source: own elaboration

Credit policy has to act as a key active tool for management of credit activity of banking institutions. From the point of strategic prospects it has to include the priorities, principles and objectives of a particular bank in the credit market, as well as firstly rely on customer choice, and secondly, on norms and rules governing bank management, and thirdly, on professionalism and Competence, both managers of the bank and staff dealing with credit issues.

Reservation is an instrument that has been used to compensate a bank for losses that arise as a result of non-repayment by the borrower of loans fully or partly, by prior accumulation of a share of funds from each loan granted. The results of tab.1 indicate a significant dynamic growth of reserves for active operations over the past ten years. Their creation is the result of a risk assessment by banks of non-fulfillment from the position of clients of their obligations.

Restructuring of debt is also an important tool for reviewing a credit agreement in order to establish more favourable conditions for the borrower to fulfill his obligations. The most widespread measures for debt restructuring are: extending the credit; granting of the delay in the payment of the credit; cancellation of the amount of fines and penalties; credit repayment; changing in crediting scheme; lowering the interest rate on the credit. This instrument should not be used often by a bank, as it recognizes the ineffectiveness of its credit policy.

Diversification means the distribution of loans between different categories of borrowers – large and medium-sized companies, small business enterprises, individual etc. This instrument is based on the distribution of risks, which impedes their concentration. However, it should be used constructively and carefully, taking into account the capabilities of the bank itself and the level of training, since excessive diversification leads to an increase in credit risk [2].

Limitation of a borrower allows to systematically regulate and monitor the quality of the credit portfolio of the bank. its dynamics and structure. and limit the volume of transactions with one borrower. The result is the implementation of any single credit agreement is the subject of general rules and requirements dictated by the limitation of risk positions [14].

Each of the identified instruments should provide for the use of specific mechanisms that will be continuously improved by management of the bank. Preserving of the balance between these instruments

determines the ability of banking institutions to survive in market competitive conditions and provide an acceptable credit position.

Thus, the proposed model is a schematic representation of the process of management of the credit activity of a banking institution. Therefore, it is recommended to develop a step-by-step management programme of actions aimed at activating the credit activity of an institution based on pre-presented and diagnosing the current state (fig. 2). The combination of organizational and managerial aspects, in our opinion, will enhance the effect of work in a particular direction.

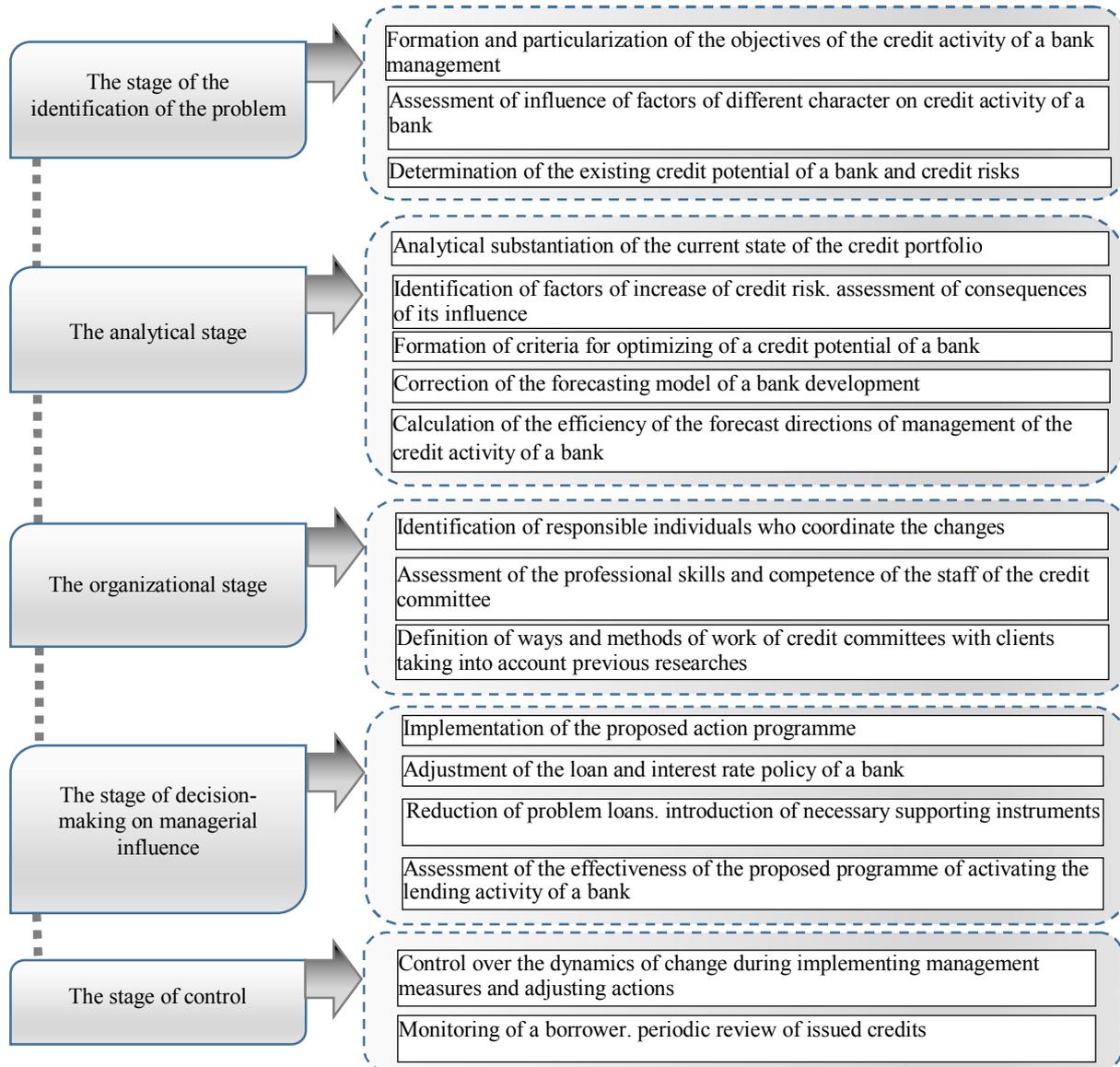


Fig. 2. Scheme of organizational and managerial stages of the programme of activating the banking activity of the banking institution

Source: own elaboration

The differentiation of work can take place in several stages:

- the stage of the identification of the problem, at this stage, the decision is taken as to the need for changes, the objectives are detailed. the factors of influence are investigated and the probable risks with which the credit institution will collide;
- the analytical stage, it is necessary to analyze the current state of the credit portfolio, to investigate the reserves of its increase, to simulate further development, taking into account the target benchmarks and optimization criteria, the change of which will lead to the correction of the bank's credit policy. Criteria can be quantitative and qualitative (with subsequent transfer of the latter into the quantitative sphere if necessary). Certain parameters of banking activity will be the parameters;
- the organizational stage, the individuals responsible for the credit activity of a bank are determined, their professional abilities and competence are assessed;

- the stage of decision-making on managerial influence. This stage includes the direct implementation of the developed programme of action, application of the necessary tools and evaluation of the effectiveness after its introduction;
- stage of control, monitoring of the completion of certain implementations should be permanent, so that if necessary, adjust the work.  
To sum up, the following should be noted:
- firstly, each bank should consider ways of activating the credit activity in accordance with its own strategic guidelines, periodically reviewing them and adjusting them according to the development strategy and monetary policy of a country;
- secondly, it is needed a constant correlation of the structure of the credit portfolio of a banking institution with the development of business activity in society and the state of the economic environment;
- thirdly, within the framework of the reorganization of the non-working corporate credit portfolio, it is recommended to create a state-owned company for the management of problem assets or a single rehabilitation bank, which has to accumulate inactive loans from state banks and withdrawn from the market of banks under the control of the DGF, at the second stage are problem credits other banks. This will enable "clear" the bank balances, "unload" their credit and legal units from the pretentious work and realization of mortgaged property and allow them to focus on lending [15];
- in the fourth, credit institutions should improve the tools of securing credit repayments, because, unfortunately, in our country there is a chronic crisis of payment discipline in accordance with its obligations of many customers, both individuals and businesses. This is needed to secure the return of loans to customers. After all, the mechanisms of internal control should be constantly monitored and improved and regulators. When they find problems. Should be able to act quickly and decisively.

Accounting and realization of the above-mentioned points will allow to activate the credit activity of commercial banks and, using their potential, ensure the economic growth of the manufacturing sector of Ukraine.

### Conclusions

At the end of the article, it can be noted that the development and management of credit activity of banking institutions should be clearly and coherently implemented. It will restore the confidence of banks that has been lost by many customers, will lead to consistent work with the latter, which will undeniably affect the economic development of the. Credit institutions need to pre-calculate probable changes in business activity in society, adjust vectors of development in accordance with strategic goals and capabilities. It is also necessary to strive for stable and long-term relationships with clients, to become consultants, followers in their business relations, business projects, organization of the financing process for them. It is recommended that more attention be paid to the quality of the sources of repayment, thereby reducing risk relationships.

The using of the above suggestions in practice will allow to build an effective system of development of banking activity in the future.

### Abstract

The article investigates the current state of credit activity of banking institutions of Ukraine. the dynamics of key indicators that characterize it. The need to support customer-oriented policy in the field of credit activity, which is the key to strengthening the competitive position of the Bank in the struggle for customers. It was found that the credit activity of banking institutions in recent years remains low. This is due to a decrease in the purchasing power of the population. a significant number of unreliable borrowers who are unable to fulfill their obligations. a sufficiently high level of uncertainty about further development and the high cost of credit.

In order to solve one of the leading issues in the development of the banking sector aimed at stimulating the reproduction processes in the country's economy. and given the high investment potential of the country. it is proposed to coordinate the management policy of banks in the direction of further activation of credit activity. For this purpose. the authors have developed a comprehensive model of activation of credit activity management of the Bank. in which a program of actions in this direction is proposed and some diagnostic indicators are recommended to determine the state of the Bank in accordance with the proposed targets. It is indicated that. depending on the needs of each credit institution can expand the proposed list of indicators.

The article also indicates the need to study certain tools that will affect the credit card activity of banking institutions and the definition of mechanisms for their management. Among them. it is recommended to distinguish two groups: intrabank (tools that are developed and used by the banking institution itself) and external tools. among which are interbank (tools that are developed by a group of banks in order to jointly reduce credit risk) and state (tools for managing credit activity on the part of state bodies). It is recommended to adjust the level of credit activity at macro -, meso - and micro levels.

Also. the distinctions of work at each of the selected organizational and management stages are determined in detail. The proposed levers are reduced to an algorithm of management actions that will adjust the development of credit activity of a banking institution in the priority direction.

**Список літератури:**

1. Дзюблюк О. Грошово-кредитна політика в період кризових явищ на світових фінансових ринках / О. Дзюблюк // Вісник Національного банку України. – 2009. - № 5. – С. 20-30.
2. Кредитна діяльність банків України: проблеми та перспективи розвитку: монографія / за ред. В.В. Коваленко. – Одеса: Видавництво «Атлант». 2015. – 217 с.
3. Нацбанк обчислив суму гривневих кредитів в Україні [Електронне видання]. – Режим доступу: <https://1news.com.ua/ukraine/natsbank-obchisliv-sumu-grivnevih-kreditiv-v-ukrayini.html>
4. Офіційний сайт Національного банку України [Електронний ресурс]. – Режим доступу: <https://bank.gov.ua/control/uk/index>
5. Офіційний сайт Міністерства фінансів України [Електронний ресурс]. – Режим доступу: <https://index.minfin.com.ua/ua/banks/stat/active/>.
6. Вітлінський В. Застосування інструментарію нечіткої логіки при формуванні кредитного портфеля / В. Вітлінський, В. Сердюк // Вісник Київського національного торговельно-економічного університету. – 2012. – № 1. – С. 106-117.
7. Sharpe W.F. A Simplified Model for Portfolio Analysis // W.F. Sharpe. – Management Science. – Vol. 9. – No. 2 (Jan. 1963). – PP. 277-293.
8. Краснов С. Забезпечення кредитної активності комерційних банків через механізм грошово-кредитної політики / С. Краснов., М. Бегман. – Українська наука: минуле, сучасне, майбутнє. – 2011. – Вип. 16. – С. 124-130.
9. Банківський менеджмент: питання теорії та практики: монографія / О.А. Криклій, Н.Г. Маслак, О.М. Пожар та ін. – Суми: ДВНЗ «УАБС НБУ». 2011. – 152 с.
10. Гамза В.А. Безопасность банковской деятельности: учебник для вузов / В.А. Гамза, И.Б. Ткачук, И. Жилкин. – 3-е изд. перераб. и доп. – М.: Издательство Юрайт. 2017. – 513 с.
11. Ілляшенко О.В. Кадрова безпека в системі економічної безпеки банку / О.В. Ілляшенко, О.С. Пуятіна. [Електронне видання]. – Режим доступу: [http://eprints.kname.edu.ua/48505/1/ilovepdf\\_com-84-87.pdf](http://eprints.kname.edu.ua/48505/1/ilovepdf_com-84-87.pdf).
12. Яременко С.М. Кадрова складова комплексної системи економічної безпеки банку. / С.М. Яременко. – Вісник КЕФ КНЕУ імені В. Гетьмана. – 2011. – № 2 – С 130-133.
13. Вдосконалення координації грошово-кредитної та фіскальної політики: Інформаційно-аналітичні матеріали / За ред. В.І. Міщенко, О.І.Кірсєва, М.М. Шаповалової – Київ: Центр наукових досліджень НБУ. 2005. – 96 с.
14. Костюченко Н.С. Анализ кредитных рисков / Н.С. Костюченко. – СПб.: ИТД «Скифия». 2010. – 440 с.
15. Гладких Д.М. Оздоровлення банківської системи як ключовий фактор відновлення корпоративного кредитування в Україні / Д.М. Гладких // Проблеми економіки. – 2017. – № 3. – С. 248-253.
16. Філіппов, В.Ю. Напрями покращення фінансового стану банківських установ / В.Ю. Філіппов, Н.О. Дишкант, Є.О. Скоморохов // Український журнал прикладної економіки. – 2016. – Том 1. – № 4. – С. 129-138. – ISSN 2415-8453.

**References:**

1. Dzyubliuk, O. (2009). Monetary policy during the crisis in the world financial markets. Visnyk Natsionalnogo banku Ukrainy, 5, 20-30 [in Ukrainian].
2. Kovalenko, V.V. (Eds.) (2015). Credit activity of banks of Ukraine: problems and prospects of development. – Odessa: Publishing House "Atlant" [in Ukrainian].
3. Natsbank obchyslyv sumu hryvnevykh kredyiv v Ukraine [The national Bank has calculated the amount of hryvnia loans in Ukraine]. (n.d.). Retrieved from: <https://1news.com.ua/ukraine/natsbank-obchisliv-sumu-grivnevih-kreditiv-v-ukrayini.html> [in Ukrainian].
4. Official website of the National Bank of Ukraine. Retrieved from: <https://bank.gov.ua/control/uk/index> [in Ukrainian].
5. Official website of the Ministry of Finance of Ukraine. Retrieved from <https://index.minfin.com.ua/ua/banks/stat/active/> [in Ukrainian].
6. Vitlinskii, V., & Serduk, V. (2012). Application of fuzzy logic in loan portfolio formation. Visnyk Kyivskogo natsionalnogo torgovelnno-ekonomichnogo universytetu, 1, 106-117 [in Ukrainian].
7. Sharpe, W.F. (1963). A Simplified Model for Portfolio Analysis. Management Science, Vol. 9, 2, 277-293 [in USA].
8. Krasnov, S. & Begman, M. (2011). Ensuring credit activity of commercial banks through the mechanism of monetary policy. Ukrainska nauka: mynule, suchasne, maibutne, Vol. 16, 124-130 [in Ukrainian].

9. Kriklii, O.A., Maslak, N.G. & Pozhar, O.M. (2011). Banking management: theory and practice. Sumy: DVNZ "UABS" [in Ukrainian].
10. Gamza, V.A., Tkachuk, I.B. & Zhilkin, I. (2017). Banking security. (3d ed.) Moscow: Izdatelstvo Yurait [in Russian].
11. Illiashenko, O.V. & Putiatina O.S. Kadrova bezpeka v systemi ekonomichnoi bezpeky bank. Retrieved from: [http://eprints.kname.edu.ua/48505/1/ilovepdf\\_com-84-87.pdf](http://eprints.kname.edu.ua/48505/1/ilovepdf_com-84-87.pdf) [in Ukrainian].
12. Yaremenko, S.M. (2011). Personnel component of the Bank's comprehensive economic security system. Visnik KEF KNEU imeni V. Getmana, 2, 130-133 [in Ukrainian].
13. Mishchenko, V.I., Kireev, O.I. & Shapovalova, M.M. (Eds.) (2005). Improving coordination of monetary and fiscal policy: Information and analytical materials. Kyiv: Tsentr naukovykh doslidzhen NBU [in Ukrainian].
14. Kostiuchenko, N.S. (2010). Credit risk analysis. SPb: ITD "Skiffia" [in Russian].
15. Gladkih, D.M. (2017). Rehabilitation of the Banking System as a Key Factor in the Resumption of Corporate Crediting in Ukraine]. Problemy ekonomiky, 3, 248-253 [in Ukrainian].
16. Filippov, V.Yu., Dishkant, N.O., Skomorokhov E.O. (2016). Directions for improving the financial condition of banking institutions. Ukrainian Journal of Applied Economics, 1, 4, 129-138 [in Ukrainian].

**Посилання на статтю:**

*Chernyshova L. I. Management of credit activity of banking institutions / L. I. Chernyshova, N. A. Chernova // Економічний журнал Одеського політехнічного університету. – 2019. – № 1 (7). – С. 70-78. – Режим доступу до журн.: <https://economics.opu.ua/ejopu/2019/No1/70.pdf>. DOI: 10.5281/zenodo.3406202.*

**Reference a Journal Article:**

*Chernyshova L. I. Management of credit activity of banking institutions / L. I. Chernyshova, N. A. Chernova // Economic journal Odessa polytechnic university. – 2019. – № 1 (7). – С. 70-78. – Retrieved from <https://economics.opu.ua/ejopu/2019/No1/70.pdf>. DOI: 10.5281/zenodo.3406202.*

