



DEVELOPMENT OF APPROACHES TO BANK CAPITAL ADEQUACY ASSESSMENT IN CONTEXT OF EFFICIENT MANAGEMENT CONCEPT

Elena Posnaya¹
Natalya Alesina
Yuliya Zima
Artyom Shevtsov
Andrey Kuzmin

Received 07.09.2022.
Accepted 19.11.2022.
UDC – 502.131.1

Keywords:

Sustainable development, industrial management, bank capital, capital adequacy, mandatory ratios

ABSTRACT

The current economic situation again emphasizes the need to form a banking system management that is resistant to negative external influences. The development vector of the industrial sector management directly depends on the banking system efficiency, which in turn will lead to an increase in the values of macroeconomic parameters. An important role in improving the stability of the modern banking sector is played by the implementation of the Basel III requirements, developed taking into account the experience of the global financial crisis. The article examines the impact of changes in the capital adequacy requirements of Russian banks from the point of view of the need to ensure the sustainable development of both the banking system and the effective management of industry. Based on the identified patterns, recommendations are formulated for organizing a system for assessing the capital adequacy of a commercial bank. The capital of the bank is the basis of the successful lending process, in particular to industry. And the effective management of industrial enterprises serves as a guarantor of the production development, the creation of jobs, and an increase in the values of the main macroeconomic indicators.



© 2022 Published by Faculty of Engineering

1. INTRODUCTION

In the difficult economic conditions of crisis caused by the unfavorable epidemiological situation, the need to adjust measures aimed at implementing goals of sustainable development and effective management of industry becomes more urgent. In current situation, a

number of economy sectors are facing serious financial problems, which in turn increases financial crisis likelihood. One of the key prerequisites for sustainable development is stability of country's financial system, including banking sector, which is basis for settlements and capital redistribution. Effective management at large industrial enterprises directly depends on the qualitative

¹ Corresponding author: Elena Posnaya
Email: sntulena@mail.ru

and quantitative composition of bank capital, which stimulates processes of favorable lending. The banking system stability, in turn, depends on effective management of industry, the quality of bank's capital, and therefore it is necessary to modernize approaches to organizing the assessment of bank capital adequacy in terms of compliance with ideas of sustainable development and green finance.

2. PURPOSE OF STUDY

Market instruments are traditionally more effective tools for stimulating economic development in the long term; however, the development of banking system is impossible without the implementation of supervisory requirements, which is largely due to large role of banks in the economy and the high speed of spread of the financial crises both within the region and the global economy. Obviously, the stability of the banking system is directly proportional to the rigidity of the requirements that are imposed on it. But, from the point of view of implementing the sustainable development goals, we must not forget that the role of banks in ensuring the sustainable development of the banking sector directly depends on the credit resources of the organization, which are significantly limited when regulatory requirements for bank capital adequacy are strengthened. In turn, an effectively developed and successfully functioning banking system contributes to an effective management system for industrial enterprises, which will allow the macroeconomics to develop effectively and increase the efficiency and stability of the country's banking system as a whole.

In recent years, a number of important measures have been taken to strengthen the stability of the Russian banking system, but at the same time the number of banks has significantly decreased, which in turn may slow down the transition to sustainable development of the Russian economy. At the same time, it is obvious that the reduction of capital requirements for banks increases the likelihood of a crisis in the banking sector in case of an unfavorable change in the situation, in connection with this, a hypothesis was formulated that in order to stimulate sustainable development, approaches to organizing the assessment of bank capital adequacy should be analyzed and possibly modified.

The purpose of the study is to analyse the impact of organizing the assessment of bank capital adequacy on achieving sustainable development goals, as well as developing recommendations for the development of approaches to organizing the assessment of bank capital adequacy from the point of view of sustainable development concept.

3. MATERIALS, METHODS AND OBJECTS OF RESEARCH

The need to strengthen the requirements for capital adequacy of banks and the complexity of the transition to Basel III standards are reflected in many works of Russian and foreign scientists and practitioners. A number of studies are also widely presented on the role of the financial sector in general and the banking system in particular in creating the prerequisites for sustainable development and a green economy. Nevertheless, it seems important to consider the development of capital adequacy requirements for banks in terms of promoting sustainable development through the prism of bank capital adequacy, taking into account the current situation in the real and financial sectors. Within the framework of this article, an analysis was made of changes in regulatory requirements for the bank's capital in the context of the Basel III introduction in recent years. To assess the impact of changes on the domestic banking system, statistical and analytical materials from the Bank of Russia (Overview of the Russian Financial Sector, 2020; Overview of the Russian Federation Banking Sector, 2020) and the Basel Committee on Banking Supervision (Basel III Monitoring Report, 2020) were used. To assess compliance with the goals and objectives of sustainable development, materials from the United Nations were used (Sustainable Development Goals, 2021). To develop recommendations aimed at stimulating sustainable development, an analysis of the theoretical, practical and regulatory foundations of the bank's capital adequacy was carried out.

The object of the study is the banking system of the Russian Federation, the subject of the study is the strengthening of requirements for the bank's capital from the point of view of the prospects for sustainable development.

4. RESULTS AND DISCUSSION

In general, since 2008, taking into account the experience of the global financial crisis, one should note the general trend of financial sector tightening regulation, primarily the banking segment, aimed at increasing its stability. It was in order to prevent a repeat of the 2008 crisis that Basel III standard was adopted, which was gradually introduced into banking sector national regulation. In our country, in recent years, a number of Basel Committee recommendations, including Basel III, have been gradually integrated into regulation of the banking system, a transition to IFRS 9 has been made. Also noteworthy are the actions of the Bank of Russia to tighten macroprudential policy in order to avoid the accumulation of systemic risks in certain segments of lending. Also, a significant step towards the development of the country's banking system and increased competition in this market segment, which is also a prerequisite for sustainable development, was the transition to proportional regulation.

Since 2018, in the Russian Federation, for credit institutions, the indicator of financial leverage (N1.4) has been introduced as a new capital ratio, calculated as the ratio of fixed capital to the amount of balance sheet assets and a part of off-balance sheet claims (Instruction of the Bank of Russia, 2020). This standard is not so strongly dependent on the practice of risk weighting assets applied in the country. The ratio also differs from other capital ratios by taking into account off-balance sheet requirements, which makes it possible to more accurately assess the stability of a credit institution.

In accordance with the policy of strengthening banking regulation noted above, in 2017–2019, there was a tightening of liquidity risk regulation for systemically important organizations. This approach is objectively due to the “too big to fail” problem that emerged during the global financial crisis. As part of the increase in liquidity requirements of large credit institutions, the minimum threshold for the short-term liquidity ratio was gradually increased, and since 2018, a net stable funding indicator, N28 (29), was added, aimed at providing stable sources of formation of the resource base for funding balance sheet assets and off-balance sheet liabilities of credit organizations.

It should also be noted the gradual increase in requirements for markups, in particular, in 2016, guided by the requirements of Basel III, the Central Bank of the Russian Federation introduced a markup for all banks to maintain capital adequacy, in addition, for the relevant banks - a markup for systemic importance, and during 2017–2019 there was an uneven increase in the requirements for these allowances (Figure 1).

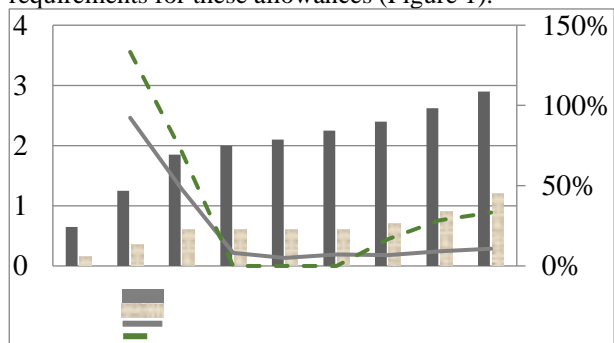


Figure 1. Dynamics of the amount of capital adequacy and systemic importance allowances in the Russian Federation

Analyzing the dynamics of strengthening requirements in terms of capital adequacy, one cannot fail to note their significant increase since July 1, 2017 (by 2 times or more), as well as a significant increase in the premium for systemic significance since January 1, 2020 (by more than 50%) (Instruction of the Bank of Russia, 2020). At the same time, the uneven increase in requirements should also be noted, on the other hand, too frequent adjustment of regulatory requirements complicates decision-making and requires a review of the bank's credit and deposit policies, which is a negative factor, given the difficulty of banks with the formation of long-

term liabilities. Considering the current economic situation, it should be noted that the gradual increase in capital requirements has contributed to the strengthening of the Russian banking system, which will make it easier to endure the current crisis.

It is impossible not to note the prospects for introducing an approach based on internal ratings when calculating capital adequacy ratios, which is beginning to be used in the Russian Federation. This approach allows commercial banks to assess the level of credit risk, based on the generated statistics on the servicing of issued loans - provisions for possible losses are formed based on the bank's estimates obtained on the basis of the constructed model. During the period from 2017 to 2019, two systemically important banks in the Russian Federation received the right to apply this approach. It is generally accepted that the approach based on internal ratings allows banks to more accurately assess risks, and if they are low, it allows to reduce the volume of reserves and, accordingly, release capital for active operations, which, on the one hand, will increase the profitability of credit institutions, on the other hand, it should contribute to a more efficient redistribution of resources in the economy. The maximum part of the resources should be directed to the development of industry, which will provide employment, production, and tax revenues to the budget.

The proportional regulation of banks in the Russian Federation has been introduced since 2018, the need to differentiate the approach to banks, depending on the scale of their activities, has been emphasized by the banking community for a very long time. According to the currently implemented approach, two types of banking license are distinguished: universal and basic, depending on the importance of a commercial bank for the stability of the financial market, the scale and complexity of banking operations. At the same time, proportional regulation implies a difference in requirements for such aspects of banking regulation as the amount of capital, a list of mandatory ratios, as well as reporting forms. The easing of regulatory requirements for banks with a basic license is due to the limitation of the volume of operations. Russian banks have taken advantage of this opportunity since 2018, and by the beginning of 2019, more than 100 banks received basic licenses (Overview of the Russian Federation Banking Sector, 2020) (Figure 2).

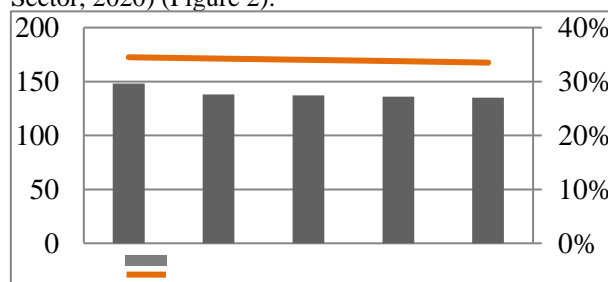


Figure 2. Dynamics of the number of banks with a basic license in the Russian Federation

It should be noted that despite the decrease in the number of such banks by almost 11%, from January 2019 to March 2020, their share in the country's banking system remains stable and accounts for a third of the total number of Russian banks, which suggests that this format of licensing credit institutions proved its right to exist. It should also be emphasized that the policy of the Bank of Russia to strengthen banking supervision and the massive revocation of licenses that began in 2013, despite the positive effect of the financial system increasing stability, also had a number of negative consequences, including a significant decrease in competition in the banking market, which in turn hindered the further development of the system. In addition, the access of the population and organizations to banking services is one of the prerequisites for sustainable development. Thus, lowering entry barriers to the market will stimulate its development, while not significantly endangering the stability of the system, due to the existing restrictions for banks with a basic license.

In addition to taking into account the ongoing regulatory changes, the need for an integrated approach to various aspects of assessing the bank capital adequacy should be emphasized, and it should also be taken into account that significant components of complex systems, to which we can attribute credit institutions, often act as systems themselves. Therefore, when analyzing the capital adequacy of a credit institution, one should take into account various aspects of its functionality, including:

- Compliance of equity capital with the requirements that allow it to implement its key functions: protecting the interests of creditors and depositors; regulatory; image;
- Assessment of regulatory capital in terms of compliance with mandatory standards, as well as management decision-making;
- Assessment of economic capital, integrating the amount of accepted risk (Manuylenko et al., 2018; Manuylenko et al., 2017a; Manuylenko et al., 2017b).

It should be noted that the capital of any organization, including a bank, protects the interests of its creditors, and taking into account the specifics of banking activities, the group of persons whose interests are protected by banking capital also includes depositors. Banking assets exceed the amount of liabilities by the amount of equity, therefore, the owners of the bank, by investing in the authorized capital, and the leaders of the policy of forming reserves and distributing profits, with the consent of the owners, form an insurance reserve, which helps prevent the loss of creditors and bank depositors money. At the same time, the formation and development of the deposit insurance system reduced the role of the bank's own capital in the system of protecting the financial interests of individual depositors in Russian practice. It should also be noted that taking into account the role of the bank as a settlement center for various individuals and legal entities, the bank's own capital, as a

reserve to compensate for losses and prevent the bank's bankruptcy, also protects their interests. In addition, the bankruptcy of large banks can destabilize the economic situation in the country due to the suspension of payments and settlements, the limitation of credit resources, as well as the "domino effect" of the banking system, so the stability of the banking system, which is provided, among other things, by equity capital, protects the interests of the state from the point of view of in providing conditions terms for the sustainable development of the country's economy and ensuring the citizens well-being.

Therefore, the protection function can be considered the main function of bank capital at the micro and macro levels, reflecting the general property of the bank and having a permanent character. It is she who serves as the main guarantee in protecting the interests of the bank's depositors and creditors, based on this, the financing of the largest part of the bank's assets is carried out. In the theory and practice of the banking business, the bank's capital is a value, based on the size of which, bank obligations are guaranteed. Also, the bank's equity capital protects against the risk and possibility of bankruptcy. With its help, it becomes possible to carry out operations even in the event of losses and force majeure circumstances, it becomes possible to compensate for various emerging problems of banks. In literary sources, the capital of a bank is often associated with a shock absorber, an airbag, money for a rainy day, the ultimate line of defense.

In our opinion, the function of compensation for losses should be noted separately, bank capital serves as a shock absorber, absorbing current losses, so the bank can always perform certain operations without disruption in activities; in case of force majeure losses, the bank is allowed to use the authorized capital to normalize current activities and level losses. The bank's capital is a kind of buffer that absorbs losses arising from current operations until the management finally resolves all urgent problems to get out of the current situation. The significance of this function is also confirmed by the emphasis on covering losses in a number of definitions of the concept of bank equity. In fact, the bank implements a protective function largely due to the fact that its own capital acts as a buffer that absorbs losses.

The function related to the regulation of the bank's activities can be associated with the financial interest of the society, as well as maintaining the level of financial stability of the bank, with the recognized norms of economic behavior of business entities, which can allow regulating banking activities at the time of the creation, development, functioning of the bank. This function also performs the function of protecting the bank from unforeseen financial and economic circumstances and consequences. The regulatory function serves as a bank guarantee against possible financial instability, major risks, regulates the bank's activities in terms of active and

passive operations. Banks' own capital is the dominant indicator that characterizes the capabilities and quality level of banks' activities. Assessing the financial condition of banks, the capital adequacy ratio is taken as the basis. The level of bank capital affects the possibility of obtaining licenses, which subsequently allows to increase the number of bank services and improve their quality. The bank's capital level is taken into account by the regulator when determining the institution's reliability rating. The most important and informative value in all mandatory economic standards is given to the capital adequacy ratio, which directly affects the volume of banking business and the level of profit received by banks. At the same time, the main regulatory impact is directed to the effective performance of the "airbag" function by the bank's own capital, which allows us to note the direct impact of the protective function on the regulatory one. It is also possible to note the reverse interaction, due to how well and adequately the standards governing the bank's capital adequacy are established. And on the basis of this, it is possible to determine the effectiveness of the implementation of the protective function.

Thus, the value of the bank's equity capital is of great importance for the following entities:

- For the bank itself, its owners and managers, since the scale, level, quality of the bank's passive and active operations depend on the size of the capital, and this can directly affect the efficiency of the bank's activities - the level of its profit;
- For creditors and depositors of the bank, as ensuring the protection of their investments;
- For clients on settlement and cash services, as ensuring the possibility of timely access to their funds;
- For contractors, as a benchmark for the stability of the organization and the feasibility of long-term cooperation;
- For public authorities, as well as for the regulator of the banking system in the general sense, as well as the system of settlements under non-cash agreements; since the stability of the system is achieved with the necessary and sufficient level and volume of the bank's own funds, which is protection against unforeseen financial and economic circumstances, and contributes to the sustainable development of the country's economy.

The economic and financial significance of the bank's own funds also lies in maintaining the sustainable development and functioning of the organization. Banking capital also performs an operational function, serves as the main source of development and functioning of the material base of the bank under the prevailing conditions and circumstances. In the initial stage of the functioning and creation of the bank, its own capital covers the main items of expenditure that are of

paramount importance for the start of activities: buildings, equipment, land, wages. Without making these expenses, the bank cannot function, therefore, reserves are created for their implementation and renewal. In addition, equity serves as a guarantee of payment for fixed assets, if it was decided to purchase them on a loan basis. During the period of growth, a developing bank is interested in establishing long-term relationships with existing customers, attracting the necessary number of new potential customers. These circumstances require expanding the range of possible and current services in terms of volumes, terms, conditions, improving their quality, introducing the latest information technologies, programs, and specialized banking equipment. Therefore, in carrying out the activities of the bank, equity capital contributes to the further development of its infrastructure, including the acquisition of buildings that will house branches, additional offices, as well as the acquisition of various property (computers, cars, software, telecommunications equipment, modern and high-quality information arrays processing technologies), thus laying the foundation for the further successful development of the credit institution.

This function represents the financial base of the bank, is a measure of protection against possible risks that are interconnected with the financial growth of the bank, its stability, security, sustainability. It should be noted the relationship between the regulatory and operational functions, since the norms of the minimum authorized capital established by law, as well as the norms for capital, weighted taking into account the level of risk of assets, limit the bank's ability to place its own funds. The general theoretical approach to determining the stability of a bank is based on the principle of forming an optimal structure of assets and liabilities, making settlements with customers and counterparties in full and on time, as well as minimizing the share of overdue debts to creditors. The fulfillment of these conditions forms the image of a reliable bank, both for customers and for shareholders and creditors. Achieving such success is possible subject to the development of a competent long-term development strategy and the required level of bank capital. In addition, compliance with the requirements of the regulator affects the perception of the bank by its customers, counterparties and competitors, respectively, we can talk about the dependence of the image function on the regulatory impact of the state and the bank itself. The functions of equity presented above contribute to reducing the overall risks of banking. When characterizing some sources of the bank's capital, it is considered that at the first stage of the bank's activity, the authorized capital serves as the only productive source of funds. Other sources of funds may be formed already in the course of the bank's operation. In the course of the formation of these sources, the bank's equity capital is combined with the authorized capital, although the authorized capital is always an element of equity capital. As an integral part of equity capital, the authorized capital is very significant in the functioning of the bank.

It forms the minimum value of the property, which is a guarantee of the interests of depositors of the bank institution and bank creditors, fulfills the security of bank obligations. The amount of equity capital affects the possibility of carrying out bank operations in case of unprofitable activities, with unforeseen expenses and covering these expenses in case of insufficient funds and funds from the bank. Banking specialists assume that the bank retains and maintains solvency at a stable level as long as the authorized capital remains intact.

Thus, own funds (own capital) is one of the forms of resources of a credit institution. As distinctive features, it should be noted a stable and irrevocable nature, the need to comply with Russian legislation, in addition, without equity, it is impossible to create and operate a bank, it is the basis for successful activities, as well as further development of the bank. And even despite the relatively small share in banking resources, the capital of the bank implements the main and extremely important functions for the successful operation of the bank.

An analysis of the functions of the bank's capital confirmed that the regulatory function of the equity capital of a commercial bank is one of the key ones and is closely related to its other functions. A significant role in the implementation of the regulatory function is played by the activities of the state, as well as the central bank, aimed at regulating and controlling the activities of commercial banks in order to stimulate the development and strengthening of the country's banking system, as well as control the stability of individual banks.

World experience indicates the need to develop regulation of the commercial banks capital, including their own, which is largely due to the expansion of the range of tools and activities of commercial banks, as well as the importance of their role in the financial system of each country and in global financial markets.

At the current stage, one of the key tasks in the development of banks is to strengthen their stability, which excludes the possibility of systemic crises in banks, which largely depends on the growth of the adequacy of assessing and regulating the capital adequacy of banks, their compliance with international standards, and tightening the requirements of supervisory authorities in the field of growth namely the real level of credit institutions capitalization. On the other hand, the regulation of banking capital should create prerequisites for the sustainable development of the banking system and not interfere with the performance of its functions in the national economy.

Analyzing the role of the banking system from the point of view of promoting the achievement of sustainable development goals, the banks' opportunities are most clearly seen in the activities to achieve the eighth goal "Decent working and economic growth", primarily in the framework of the banks redistributive function, which

contributes to the development of the economy growing sectors, in including objectives 8.3 "Promote development-oriented policies ...and encourage ... the development of micro, small and medium-sized enterprises, including through providing them with access to financial services" and 8.10 "Strengthen the ability of national financial institutions to promote and expand access to banking , insurance and financial services for all" (Sustainable Development Goals, 2021). In addition, the spatial and affordability of banking services for the population contributes to the achievement of goals such as quality education and the reduction of inequality. The role of banks in the development of the green economy and green finance is also very significant, since it is through banks that cash flows are redistributed, in addition, banks are one of the largest investors in the securities market. Despite a number of measures aimed at stimulating the development of a green economy in the Russian Federation, it should be noted that at the moment, within the framework of the bank's capital adequacy regulation, there are no direct incentives to transform the banking business into a green one. Nevertheless, improving the stability of the banking system, including by regulating the capital adequacy of commercial banks, creates conditions for ensuring stable economic growth by strengthening the financial system and increasing its resilience to external shocks.

Obviously, the assessment of capital adequacy is an integral part of the credit institution decision-making. Each significant decision most often entails not only positive, but also negative consequences, the scale of which must be compared with each other, as well as assessing the possible impact on other areas of the bank's activities. The most correct is the adoption of decisions that make the greatest contribution to the achievement of the bank strategic goals.

To achieve the set goals of the bank's capital assessment system, it is necessary to take into account the principles of its logical organization. It should be noted the grouping of such principles proposed by V.V. Manuilenko et al. (2017):

- Forming principles: adequacy, functional completeness, complexity, expediency, decomposition, consistency, efficiency;
- Functional principles: correlation between theoretical and practical aspects, regulation; security, reduction of risks of errors and abuses, reliability, periodicity, transparency, economy;
- Specific principles, determined by the objectives of the assessment and intended for

In our opinion, the principle of efficiency can be considered not only related to the first group, since it must be taken into account in the functioning of the system, as well as the organization of its components. Also of particular note is the principle of transparency, which is of particular relevance within the framework of the sustainable development concept. In addition, the

specific principles group for individual segments of the system can include principles that focus on compliance with sustainable development criteria.

It should also be noted the following fundamental aspects of the bank's capital adequacy, identified in the work of V.V. Manuilenko et al. (2017), the key of which, in our opinion, are the following:

- Constant interaction with the external environment of the bank's capital system;
- Significant uncertainty in the conditions for the functioning of the system for assessing the level of bank's capital adequacy, as well as the impact of the environment on it;
- The principle of maintaining the bank's capital adequacy;
- The relationship between the level of capital adequacy of an individual bank and the banking system;
- The subjectivity of determining the bank's capital adequacy.

The following types of capital adequacy can be distinguished: regulatory (established by supervisory authorities); actual (at a specific point in time); optimal (covers risks and allows development) [6]. Obviously, regulatory sufficiency is most important for a bank in the framework of building an assessment system, since it determines the possibility of banking operations, but at the same time it does not always cover the risks of a particular bank, unfortunately, in this situation, banks do not always pay enough attention to determining the optimal sufficiency, but are guided by the desire to maximize profits in the short term. It should be noted that the regulatory capital adequacy of a bank, being the minimum threshold for access to banking operations, includes a minimum level of actual sufficiency, which makes it possible to compare the stability of the banking systems of individual countries and regions, including allowing them to be assessed from the point of view of the prospects for sustainable development of the banking system and the country's economy as a whole.

In general, when developing a system for assessing the bank's capital adequacy, it is necessary to take into account a number of the following aspects. In particular, the complexity of the system for assessing capital adequacy, which is due to its multidimensionality, variety of relationships and elements heterogeneity. An additional problem is that the unreliability of the conclusions made on the basis of a poor-quality assessment of the bank's capital adequacy entails serious negative consequences not only for a single bank in the form of license revocation, but also for the country's economy and its sustainable development opportunities.

At the same time, the bank's capital adequacy not only has a significant impact on the real sector and the welfare of the population, but is itself subject to their influence. For example, an increase in demand for banking services

directly depends on the dynamics of trade volumes and the development of production, as well as on the level of well-being and population financial literacy.

In science, the term "capital" is considered from different points of view, depending on the scope, goals and objectives of the analysis. The definition of Yu.G. Shvetsov and V.G. Koreshev, who define own capital as a set of funds in various forms at the bank disposal for its operation, and owned by it, and used to make a profit and reduce risks (Posnaya et al., 2018a; Posnaya et al., 2018b; Posnaya et al., 2019a; Posnaya et al., 2019b).

At present, an adequate assessment of the bank's capital is especially relevant, since its unreliability will lead to an underestimation of the risks of the banking system and, accordingly, a banking crisis in the event of an unfavorable and prolonged change in the economic situation. Since operations for the formation and effective functioning of bank capital are inextricably linked with lending, and lending activities enable the effective development of industry, it is necessary to improve the procedure for assessing capital adequacy and other aspects aimed at a qualitative and objective assessment of the banking institution capital. At the same time, the problem of bank capital adequacy is significantly complicated by the rapid increase in the volume of lending operations during periods of economic growth, which is objectively due to the increasing demand of potential borrowers with an acceptable risk level. With a massive increase in bank capital requirements, small banks that do not have a significant impact on the economy are the first to suffer, therefore, the deepening of the approaches diversification to assessing and regulating bank capital, depending on their systemic importance, plays a special role.

As part of the promotion of sustainable development and the green economy, the following areas of development of banking capital adequacy regulation can be noted:

- Deepening the bank licensing differentiation (it is possible to single out green banks, the capital of which will be subject to lower requirements, primarily in terms of assessing credit risk);
- Decrease in indicators by which the risk for green loans and lending to projects aimed at sustainable development is weighed.

In addition, the banks themselves should take into account sustainable development guidelines when developing a system for assessing equity capital adequacy, including at the stage of its construction principles.

5. CONCLUSION

It should be noted that the strengthening of requirements for banks, including the adequacy of their capital, is objectively due to the importance of the banks role in the economy and, accordingly, in achieving sustainable

development goals. At the same time, Russian legislation differentiates requirements for banks depending on the scale of their operations, systemic significance, which is a very important step to ensure the achievement of sustainable development goals and objectives. Nevertheless, within the framework of state support for the green economy development, additional preferences

in regulating the capital adequacy of banks are not yet expected. In our opinion, it would be advisable to include not only economic efficiency, but also efficiency in terms of achieving sustainable development goals in the set of principles taken into account when building a system for assessing the bank's capital adequacy.

References:

- Basel III Monitoring Report (2020). *Basel Committee on Banking Supervision* April 2020. Retrieved from: <https://www.bis.org/bcbs/publ/d500.pdf>
- Instruction of the Bank of Russia dated November 29, 2019 N 199 I (as amended on March 26, 2020). *On mandatory ratios and allowances for capital adequacy ratios of banks with a universal license*. Retrieved from: <http://www.consultant.ru>.
- Manuylenko, V.V., Kabardokova, L.A., Koniagina, M.N., Glaz, V.N., & Sadovskay, T.A. (2018). Modification of Universal Toolset for Evaluation of Financial Sustainability of Corporations in their Strategic Planning. *Journal of Applied Economic Sciences*, XIII(2)(56). 454 – 464.
- Manuylenko, V.V., Kabardokova, L.A., Loktionova, M.A., Sobchenko, N.V., & Sadovskay, T.A. (2017a). Methodological Tools for Evaluation of Strategic Target Structure of Financial Resources in Corporations with Limited Liability. *European Research Studies Journal*, XX(2B), 439 – 466.
- Manuylenko, V.V., Mishchenko, A.A., Bigday, O.B., Sadovskay, T.A., & Lisitskay, T.S. (2017b). Evaluation Method for Efficiency of Financial and Innovative Activities in Commercial Organizations Based on Stochastic Modelling. *Journal of Applied Economic Sciences*, XII(4)(50), 1226 – 1246.
- Overview of the Russian Federation Banking Sector (2020). No. 211. Retrieved from: https://cbr.ru/statistics/bank_sector/review/#a_48871
- Overview of the Russian Financial Sector and Financial Instruments (2020). *Analytical Material of the Bank of Russia*. Moscow.
- Posnaya, E.A., Dobrolezha, E.V., Vorobyova, I.G., & Chubarova, G.P. (2018b). The economic capital model in bank's capital assessment. *Contemporary Studies in Economic and Financial Analysis*, 100, 111–119.
- Posnaya, E.A., Kaznova, M.I., Shapiro, I.E., & Vorobyova, I.G. (2018a). Theory and Practice of Capital Estimation Methods: An Application in Bank Management. *European Research Studies Journal*, XXI(SI 2), 497-505.
- Posnaya, E.A., Semenyuta, O.G., Dobrolezha, E.V., & Smolander, M., (2019a). Modern Features for Capital Portfolio Monitoring. *International Journal of Economics and Business Administration*, VII(SI 1), 53-60.
- Posnaya, E.A., Tarasenko, S.V., Bukach, B.A., & Shokhnekh, A.V. (2019b). The Significance of Bank Financial Security in Capital Management. Proceedings of the "New Silk Road: Business Cooperation and Prospective of Economic Development". *Advances in Economics, Business and Management Research*, Atlantis Press, 131. 977-979.
- Sustainable Development Goals (2021). *Official Website of the United Nations*. <https://www.un.org/sustainabledevelopment/ru>

Elena A. Posnaya

Institute of Finance, Economics and Management, Sevastopol State University, Sevastopol, Russia
sntulena@mail.ru
ORCID: 0000-0002-7716-9117

Natalya V. Alesina

Institute of Finance, Economics and Management, Sevastopol State University, Sevastopol, Russia
alesina_nv@mail.ru
ORCID: 0000-0001-5822-9877

Yuliya A. Zima

Institute of Finance, Economics and Management, Sevastopol State University, Sevastopol, Russia
lulek-06@mail.ru
ORCID: 0000-0001-5961-5892

Artyom O. Shevtsov

Institute of Finance, Economics and Management, Sevastopol State University, Sevastopol, Russia
shevtsov.artyom@mail.ru
ORCID: 0000-0001-5124-541X

Andrey V. Kuzmin

Institute of Finance, Economics and Management, Sevastopol State University, Sevastopol, Russia
ak7556699@gmail.com
ORCID: 0000-0001-6933-0196
