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Review Paper

BANK REGULATIONS IN MODERN FINANCIAL ENVIRONMENT

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Violeta Todorović, Milena Jakšić, Nenad Tomić

University of Kragujevac, Faculty of Economics

Abstract. *The paper analyzes the role and importance of bank regulations in ensuring safe and stable banking operations. The modern business environment in which banks operate is unstable, turbulent, and quite unpredictable. Unlike traditional business conditions, banks are now exposed to growing and diverse risks, as well as frequent crisis situations. Accordingly, control over banking operations is becoming a necessity. The need for regulation can be justified by the fact that the market, left to itself, cannot remain competitive in the long term. To fulfill their goals, regulations must constantly adapt to changes in the environment. The aim of the paper is to point to the necessity of regulatory changes in the banking sector. By critical review of certain regulatory changes, the authors conclude that they significantly contribute to safer banking operations and system stability.*

Key words: *bank regulations, regulatory changes, banking crisis, Basel regulations*

JEL Classification: G21, G28

INTRODUCTION

The banking business is very dynamic and changes in line with the changing economic environment and regulations. The traditional role of banks has rapidly changed in response to changes in the global environment at the end of the twentieth century. These changes, essentially reflected in deregulation, increased competition, growth of fees in total revenues, increase in the relative share of non-performing loans in total loans, emergence of new financial instruments, development of information technology and market globalization, characterize modern environment and influenced, in general, the

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Corresponding author: Nenad Z. Tomić
University of Kragujevac, Faculty of Economics, Đure Pucara Starog 3, Serbia
E-mail: ntomic@kg.ac.rs

decline in bank profitability and emergence and growth of new business activities with increased risk (Todorović, 2015, p. 16). Given that modern banks appear as a reflection of the entire economic and financial system, ensuring optimal efficiency of the banking system and individual banks is crucial.

The specificity of banks is reflected primarily in the monetary nature of their sources (a vista deposits) and the role in payment operations. Through their lending function and access to information on debtors, banks establish long-term relationships with their users, based on mutual trust and mutual benefit. Such a cooperation provides debtors with stable and reliable working capital (even in unexpectedly unfavourable time periods), and banks with reliable sources of high profit. As members of the monetary system, banks are unique institutions in terms of ability to create money, i.e. increase money supply by granting loans.

Banks are the most important institutions of the financial system and have a primary role in mobilization, concentration, and allocation of funds. The functioning of the economy depends on the supply of money, payment system, and uninterrupted credit flow. In fact, banks' deposit accounts, as a component of money supply, provide liquidity, mobility, and affordability, which is necessary for the efficient functioning of the payment system in each country. Banks are the primary source of liquidity for all participants in the system and the main channel for the implementation of monetary policy.

Bearing in mind the indisputably important role of banks for overall economic trends, it is important to ensure their successful business and, thereby, preserve systemic stability. Therefore, banking operations are, even in deregulated market conditions, most thoroughly regulated area. An adequate regulatory framework should, among other things, protect depositors, investors, and financial systems in different national economies. However, the pre-crisis regulation model in both national and international frameworks gave wrong incentives to banks, encouraging institutions and individuals to take too big risks. With the advent of crisis, it became clear that the established regulatory framework needed to be changed.

Therefore, the subject of the paper will focus on regulatory changes in the banking sector, caused by the global financial crisis, which aim to ensure the safety of banking operations and system stability.

Respecting the previously defined research subject, the main objective of this paper is to review the effectiveness of bank regulations and regulatory policy changes on dealing with banking problems and preserving the stability of banking systems.

In line with the defined research subject and objective, the paper will test the following hypothesis: a turbulent and uncertain modern environment requires modern regulatory changes that will contribute to reducing the banks' exposure to business risks and ensure systemic stability.

To test the starting hypothesis, the paper will apply qualitative methodology based on the study and a descriptive analysis of the defined problem. Consulting the relevant literature, dealing with theoretical generalization and practical experience of authors who have researched the issue under discussion, will enable a comparison and synthesis of different views, on the basis of which to carry out general conclusion about the impact of specific regulatory changes on bank performance.

The paper will first analyze the need for bank regulation. After identifying the crucial importance of regulation for banking operations, attention will focus on possibilities and limits of its proper application. Finally, regulatory changes that have become necessary during the crisis will be reviewed. Specifically, the most significant is the reform of Basel Framework, which will be given special attention.

1. THE NEED FOR BANK REGULATIONS

Regulation of banking operations is accompanied by a series of concerns. Despite changes in the global environment, essentially reflected in deregulation, liberalization, and internationalization of business, banks are generally still most thoroughly regulated institutions in the financial system. Regulators agree in their assessment that crisis in the financial and economic system must be avoided even at the cost of overregulation and overprotection of banks when most other economic sectors open up globally. Preoccupation with systemic risk is forcing regulators to be tolerant of the anti-competitive behaviour of banks. Bearing in mind that users of banking services are the main drivers of the economic system, regulators aim to increase the transparency of banking operations. There are two basic arguments in support of the necessity of regulating banking operations.

First, the importance of a stable banking system is reflected in ensuring optimal and efficient allocation of resources, and, thereby, fostering economic growth. Past experience and practice have shown that leaving the banking system to spontaneously functioning market laws exposes banks to systemic risks, which also leads to instability of the entire banking system. Given the nature of their activities, banks are more sensitive to systemic risk than non-financial institutions. The problems individual banks face may affect the system as a whole, given company insolvency and clients' fear that their deposits will be threatened both in that and in other banks. Bank run occurs, involving sudden and massive withdrawal of deposits and illiquidity problem. Due to insufficient reserves to cover the deposit outflow, banks are forced to sell part of their traditionally non-performing loans at prices lower than the market price or at a loss. A chain reaction produces a banking panic, which manifests itself in the entire banking, even economic system illiquidity. In accordance with the foregoing, an adequate regulatory framework should ensure public confidence in the banking system and its stable and secure functioning.

Second, an adequate regulatory framework is necessary in order to eliminate various market imperfections (asymmetric information, adverse selection, and moral hazard), which significantly reduce the efficiency of operations of all market participants. Asymmetric information leads to wrong selection of loan applications due to difficult risk assessment and return on specific projects, while deliberately taking high risks occurs as a result of moral hazard.

Control over banking operations can be viewed from two aspects: 1) macro-economic, which aims to control the functioning of monetary flows, or the amount of money in circulation, price and exchange rate stability, and the achievement of other economic policy goals, and 2) micro-economic, which aims to regulate the operations of individual banks and to protect the interests of depositors and creditors (Beke-Trivunac, 1999, p. 16).

Financial market development, which caused the separation of macro and micro control, diversification of banking operations, and the loss of boundaries between banking and non-banking activities, was made difficult by finding the most appropriate system for the regulation and supervision of complex financial institutions (Vuksanović & Todorović, 2013, p. 10). Integration of different types of financial services and unclear boundaries between different financial institutions imposed a question of choosing between functional and institutional system of regulation and control.

A functional regulatory system means that a particular financial activity is subject to a uniform prudential regime, independently of the legal structure of institutions that perform a given activity. From the perspective of the institution, it means that it is subject to control by as many regulatory authorities as many different activities it performs. However, the system of functional regulation requires that, along with individual institutions, there is a supreme institution for the consolidated supervision of the financial institution as a whole. Specifically, it will be an entity responsible for assessing overall risks to the entire system of a financial institution.

The institutional system of regulation means that every individual type of financial institution is regulated and supervised by a regulatory authority. This system, established according to the sector to which the institution concerned belongs, is effective only in relation to strictly specialized financial institutions.

Regardless of the chosen system of regulation and control, potentially there is always the possibility that the powers of various regulatory bodies overlap. In this context, integrated prudential supervision could minimize any negative consequences of these regulation systems. It can also allow for the achievement of two objectives: 1) uniform control of institutions supervised, and 2) competitive neutrality of prudential control over all institutions supervised (Mešić, 2004, p. 58).

Regardless of the chosen regulatory system, the fundamental objectives of bank regulations are related to: ensuring security and solidity of banks and financial instruments; ensuring an efficient and competitive financial system; ensuring monetary stability in the country; maintaining integrity of the national payment system; protecting customers from abuse of credit institutions (MacDonald & Koch, 2006, p. 4).

At the same time, it cannot be denied that bank regulation is an expensive process, and incremental costs of compliance with regulatory process are usually passed on to end users, resulting in higher costs of financial services and possibly limited mediation. These are the costs of certain activities required by regulators, which would not be undertaken in the absence of regulation. Examples of compliance costs include costs of all additional systems, training, time, and capital required by the regulator. In addition, regulatory costs can act as a barrier to market entry and thus strengthen the monopoly position of certain banks.

However, regulatory costs are not a sufficient argument to eliminate the need for regulation of banking operations. Regardless of the costs of the regulatory process, the users of banking services themselves require adequate regulation, because market solutions cannot assure them that they are protected in the right way.

2. Effectiveness of Bank Regulations

Given that underwriting risk is a prerequisite of economic growth, and that banks themselves knowingly and willingly underwrite and manage risks in their business, the question revolves around the primary objectives of bank regulations. It is clear that the basic aim is to limit banks in taking too big risks, in order to eliminate moral hazard within the safety net, designed to protect the banking system and individual depositors.

In the modern sense, regulatory framework can be viewed as a “line of defense” or “buffer”, which partially protects public funds from bank losses, by strengthening market discipline and positive assessment of safety net. Although they focus on capital, bank regulations include requirements for holding liquid assets, loan loss reserves, loan concentration limits, quick corrective action, different rescue procedures of problem banks, etc. The current regulatory framework is based on three key pillars, namely: (1) prudential norms that seek to harmonize different incentives *ex-ante*, (2) *ex-post* safety net (deposit insurance and lender of last resort), aimed to attract small depositors and prevent contagious run on solvent banks, and (3) *"line-in-the-sand"*, which separates the world of prudentially regulated (commercial banks) from the world of unregulated institutions (Torre & Ize 2009, p. 6).

The third pillar (line in the sand), which separates the regulated and non-regulated financial institutions, is based on three key arguments. First, introducing regulations requires extensive and complicated procedures, and may limit innovation and competition. Therefore, it must be accompanied by adequate and expensive supervision. Second, the expansion of inadequate monitoring outside the commercial banking leads to an increase in moral hazard. In addition, poorly regulated intermediaries can get undeserved high-quality rating. Thirdly, it is considered that market investors (outside the field of small depositors) are well informed and fully responsible for their own investment. As a result, they can effectively oversee unregulated financial intermediaries, and influence them to keep an adequate amount of capital in order to minimize moral hazard.

In line with this explanation, only depository institutions are prudently regulated and supervised under the current regulatory architecture. Accordingly, they benefit from the safety net. Other intermediaries do not enjoy safety protection, and they are also not burdened with prudential norms. Instead, unregulated intermediaries are subject to market discipline and specific regulations on the securities market, which focus on transparency, governance, investor protection, market integrity, and so on.

It is obvious that such regulatory architecture has many disadvantages and that it is quite unbalanced. Exceptionally high growth of the so-called "shadow banking", which is based on the securitization of credit risk, off-balance sheet operations and assets, and rapid expansion of highly leveraged intervention by investment banks, insurance companies, and hedge funds, justifies the previously stated stance. This especially became apparent with the emergence and expansion of the *Subprime* crisis, when, finally, safety net had to be expanded sharply to cover both regulated to unregulated institutions. In other words, unregulated intermediaries became systemically relevant, and were, therefore, without being asked, involved in the *ex-post* safety net.

Based on the above, the question is whether and how bank regulations in general can be justified and effective. The answer to this question depends on the objectives of regulations. In this context, they can be successful in achieving some goals, but less successful in other areas. If safety and stability of the banking system are the primary objectives, with a simultaneous collapse of a large number of banks, other objectives of banking regulations cannot be achieved (Todorović & Jakšić, 2009, p. 122). A large number of banking bankruptcies and crises, both in previous periods and today, suggests that prudential regulations have limitations, and that in some countries they work better than in others. One of the limitations lies precisely in systemic causes of banking crises. Most banking crises are associated with unstable economic conditions, such as deflation of asset prices, rising interest rates and exchange rates, and so on. Prolonged stability and strong economic growth could encourage banks to, without adequate credit analysis, enter high-risk lending transactions, which, in the long term, may adversely affect the stability of the banking system (Todorović, 2015, p. 90).

The question is why similarly caused crises reoccur, despite the development of a large set of prudential regulations over the years, designed to prevent systemic collapse.

In many cases, regulations not only failed to prevent, but they significantly worsened the problems raised. For example, the key regulation in the United States, which emerged from the Great Depression, was the *Glass-Steagall Act*, which aimed to protect commercial banks from price fluctuations on the stock exchange, by separation of commercial and investment banking. Furthermore, savings and loan crisis initiated the regulatory requirements for securitization, as a means of transferring credit risk to financial markets. Today it is obvious that investment banks and securitization were the key initiators of the *Subprime* crisis (Todorović, 2013, p. 222).

The main problems that intermediaries face in their business are: moral hazard, external negative impacts (externalities), and uncertainty. In an attempt to solve a problem, regulations often worsened other problems. The failure of regulations largely resulted from partial (piece by piece) approach to regulatory reform. For example, the introduction of deposit insurance after the Great Depression, which was intended to alleviate instability caused by depositors' run on the banking system (problem of externalities), worsened the problem of moral hazard. Then, strengthening prudential norms after the savings and loan crisis, which was aimed at solving the problem of moral hazard, indirectly worsened the problem of externalities (there was a rise of unregulated financial intermediaries, who did not have regulatory-induced motives to worry about system liquidity and stability). This problem, coupled with business uncertainty, is in the epicentre of the *Subprime* crisis.

The global financial crisis has shown that the regulatory framework had many failures (Torre & Ize, 2009, p. 21-22). First, there is a clear line between *ex-ante* prudential standards and *ex-post* safety net. *Ex-ante* regulatory framework focused on the stability of assets, and *ex-post* safety net on maintaining liquidity of liabilities. In addition, growing systemic liquidity risks were not covered by regulations, which was their main flaw. Second, prudential regulation focused on the safety and strength of individual institutions, based on the assumption that the sum of strong institutions is equivalent to a strong system. However, the *Subprime* crisis has shown that such an approach was completely wrong, because it is the system that is most important for the strength of each institution. Third, traditional regulations focused on statistically measurable risks, based on sophisticated and complex measurement techniques and their management. With the development of Basel II Capital Accord, the existing regulatory framework tried to reduce the gap between the ever-growing risks and regulatory business principles. However, the *Subprime* crisis has shown that risk management techniques were too complex, and the control of bank operations incomplete, followed by rising uncertainty in the environment.

Finally, it can be concluded that bank regulations need to be changed in order to reflect the volatile environment in which they operate. Any reform must integrate all three problems (moral hazard, externalities, and uncertainty), and maintain an adequate balance between financial stability and financial development. This is a difficult task, because each individual problem can lead to different and often inconsistent regulatory implications.

3. Regulatory Changes in Modern Banking Environment

In recent years, the scope and complexity of bank regulations have grown continuously, in response to public reaction to frequent occurrence of financial crises and resulting political pressures. Due to increased competition from non-bank financial institutions, bankers themselves require a change in the regulatory environment. At the same time, every change increases regulatory risk. If the bank does not anticipate such a change and does not include it in its business plan, it will be considerably handicapped and riskier than competing banks. It should be noted that certain changes in the regulatory environment are affected by the relative power of special interest groups, trying to secure an advantage for their members (for example, commercial banks as opposed to investment banks, large banks opposite the small banks, etc.). Regulatory changes or reforms are conditioned by a number of factors.

First, internationalization of banking operations is an important factor affecting the regulatory reform. The development of internationally active banks implies a greater role of foreign banks in many domestic financial sectors. The increased presence of foreign banks raises the question of competence for their regulation. Who is responsible when the bank faces problems on foreign markets – regulator from home or the host country? Generally, for large and complex banks, regulator in the host country supervises the foreign subsidiary's activities, but the regulator in the home country is ultimately responsible if the bank faces difficulties.

Second, the phenomenon of globalization, closely linked to the internationalization of banking operations, affects the change of the regulatory environment. Rising international activities and trade of multinational corporations have increased demand for the services of financial institutions that operate across national borders. As a result, banks are more exposed to risks coming from abroad, i.e. their financial stability is becoming less dependent on risks on the domestic market. Consolidation in the global banking industry has resulted in the emergence of financial conglomerates, i.e. the creation of universal banks that may engage, either directly or through subsidiaries, in other financial activities, such as insurance, leasing, investment banking, and so on. On this basis, greater coordination between national regulators is needed, as well as greater regulatory monitoring of operations of such institutions.

Third, the development of financial innovation and their market importance condition regulatory changes, i.e. requests for new regulations. For example, in early 2005 in the US there was a need to regulate hedge funds (private investment funds which, on behalf of their clients, trade in different assets, such as securities, commodities, currencies, and derivatives), due to their rapid growth and potentially destabilizing activities. The reason why financial innovation attracts regulators' attention is precisely the fact that it often arises from regulatory arbitrage. In other words, financial institutions and markets create new products not only to meet the requirements of their customers, but also to avoid or circumvent existing regulations. If a particular regulation reduces banks' ability to adequately manage risks and achieve satisfactory return, they have a greater incentive to find ways to circumvent the same (Kane, 2015, p. 321). While banks use innovation to circumvent existing regulations, regulators are always one step behind them. This phenomenon is known as regulatory dialectic.

In addition to the previously mentioned factors, there are many others that can have a significant impact on the regulatory environment. Among other things, changes in the regulatory framework are conditioned by large banking and financial crises. The very emergence of crisis is an indicator that the *ex-ante* established regulatory framework is not adequate, and, therefore, requires reform.

Given that, in the world of uncertainty, even best regulations and supervision probably will not completely eliminate the risk of systemic crisis, improving system features of the safety net will have special significance in the new regulatory framework (Todorović, 2013, p. 223). Thus, the authorities in the United States, shortly after the outbreak of crisis, initiated changes in the deposit insurance system, referring to a temporary increase in the amount of insured deposits. By the *Emergency Economic Stabilization Act*, the United States, on 3 October 2008, increased deposit coverage from 100,000 to 250,000 dollars (Hansen et al., 2009, p. 50-51).

The current crisis has influenced the temporary increase in insured deposits in the European Union in the amount of 50,000 euros in June 2009, and, during 2010, the limit increased to 100,000 euros. At the same time, some countries, such as France and Germany, introduced temporary complete deposit coverage, so depositors would not lose their money, and in order to preserve confidence in banks during the crisis. Behind unlimited deposit guarantee, there are the state and political structures of a given country (Thematic Review on Deposit Insurance Systems, 2012, p. 11). A characteristic of the European Union market is that national supervisors are not interested in preserving the integral value of their banks operating abroad. During the crisis, the tendency of national supervisors is aimed at preserving the stability of the national parts of cross-border banks. This position is supported by the well-known financial trilemma, which indicates that the three major objectives (maintaining global financial stability, strengthening cross-border financial integration, and preserving national integrity) cannot fit easily (Schoenmaker, 2012). Each of these three objectives can fit relatively easy with others, but it is difficult, almost impossible, to achieve all three.

However, in order to maintain both internal and cross-border value of European banks, it is necessary to consolidate supervision, deposit insurance, lender of last resort, and the process of resolving problem banks at the supranational level, i.e. at the level of the European Union (Schoenmaker & Gros 2012, p. 8). In this respect, the proposal is to establish the European Fund for deposit insurance, which would have a significant role in monitoring and resolving problem banks.

Based on the above, it can be concluded that the current situation requires complete revision and reform of the current regulatory environment. In addition, the design of an appropriate regulatory framework faces two major challenges (Torre & Ize, 2009, p. 27-31). The first relates to the need to build such a regulatory framework that will integrate the problems of moral hazard, externalities, and uncertainties, and that will not, by solving one, worsen other problems. Another challenge relates to finding the optimal balance between financial stability and financial development. In this regard, extreme solutions (system resistant to crisis that does not perform its mediating function adequately, or system that is rapidly evolving, but often faces crisis) should be avoided.

In contrast to the pre-crisis period, when the components of bank regulations were stability and safety, capital adequacy, and deposit insurance, today, in the post-crisis period, systemic risk that applies to the entire financial system, not its individual participants, is gaining in importance (Jickling & Murphy, 2010, p. 6). Thus, the regulatory reform should aim to improve the compliance of various incentives in order to minimize systemic liquidity risk and counter-cyclical effects of bank capital. Strengthening prudential norms that encourage keeping the systemically safe assets can help in limiting banks' sensitivity to systemic liquidity shocks.

In a world where regulations are not applied uniformly, financial flows will sooner or later find the line of least resistance, which will provide unregulated intermediaries with comparative advantage and the possibility of rapid climb to the point where they can become dangerous to the system. This problem can be solved by separation of commercial banks and non-deposit institutions. In addition, non-deposit institutions can choose between being prudently regulated and remaining unregulated. All regulated intermediaries must meet the appropriate prudential requirements in terms of capital adequacy and minimum capital threshold to enter the market, the same as commercial banks. Unregulated intermediaries do not have to meet these requirements, and they should be forbidden to borrow directly from the market. In other words, they should be allowed only to borrow from banks or other regulated intermediaries. This would ensure regulatory neutrality and favour innovation and competition.

In addition, in order to avoid cross-border arbitrage, reform will have to be supported by a minimum degree of international consensus. At the same time, bearing in mind the problem of uncertainty, the reform will have to pay more attention to the growing risks of financial innovation and to review oversight role of the market and supervisors, so supervisors get more responsibility and more power. Through appropriate legislative powers, responsibilities, and instruments, supervisors need to have a greater role in overseeing banking operations. They must focus on the risk and development of the banking system and the establishment of countercyclical prudential requirements, caused by changes in the environment. At the same time, regulators should be given greater authority in the process of regulation, standardization, and approval of all forms of innovation, which must undergo rigorous approval and tests.

Theory and practice have given rise to a large number of important and detailed proposals for establishing a regulatory framework. It is clear that regulators, having state support, tended to, with the adoption of new regulations and laws, fill gaps and weaknesses in terms of bank regulations and supervision. US regulators adopted Dodd-Frank Act, and tried to improve regulations in relation to deficiencies identified through: highlighting the systemic risk; recomposition of responsibilities of the existing and creation of new regulatory institutions; regulation of banks' speculative activities; regulation of financial institutions' liquidation; an end to the concept of "too big to fail".

In order for a regulatory reform to be successful, it is necessary to combine specific rules (which maintain the system within reasonable limits) and institutional reforms that are proportional to greater responsibilities and powers of supervisors and strong enough to overcome a number of difficulties associated with the use of discretion regarding an approach based on transparency and simplicity (Page & Hooper, 2013, p. 52). The system of bank regulations needs to move from an attitude of too complex and confusing rules. Finding the right modalities of implementation and regulatory mix between rules and discretion will be one of the toughest and most important challenges of regulatory reform in the future.

4. Changes to Basel Regulations Caused by Global Financial Crisis

The Basel framework has the most significant impact on the convergence of bank regulation systems, since it allows the transfer of information and exchange of experience on national supervision programs, increases efficiency of international banking supervision techniques, and sets minimum supervision standards, where possible (BCBS, 2009, p. 1). The first two Basel Accords (Basel I and Basel II) had the objective of establishing uniform requirements in terms of the amount of capital, which banks were required to meet. In other words, the objectives were preventing banking crises, promotion of domestic banks as stable and solvent ones, and eliminating problems arising from non-compliance of national legislation. Although other factors, such as liquidity and interest rate sensitivity, are perhaps even more important in achieving these objectives, adequate capital was for many years the regulators' primary problem. It was only the third accord (Basel III) that highlighted the problem of liquidity as a key factor of instability in the banking system (Banerjee & Mio, p. 2014, 3).

Basel II was created in order to resolve the identified deficiencies and simplification of capital indicators in Basel I (giving priority to the type, not the quality of assets) (Heid, 2007, p. 3885), i.e. accord that did not recognize differences in the quality of credit risk; did not take into account other risks in the banking business, such as, for example, operational risk; ignored the possibility of reducing the credit risk through diversification of assets or through hedging transactions.

However, over time, the so-called indirect costs have been identified, associated with pro-cyclical effects that Basel II may cause in macroeconomics. By increasing sensitivity to credit risk, accord has at the same time increased cyclicality of minimum capital requirements. Thus, capital management can be a big problem in banks. Given recessive economic trends (which today characterize the global economy), banking capital experiences erosion due to losses in credit portfolios (non-performing loans). At the same time, banks are required to hold a higher amount of regulatory capital in relation to the total level of loans, thus decreasing the level of banks' lending activities and further deepening the crisis in economic activity.

The problem of cyclicality of minimum capital requirements of Basel II was the subject of intense discussion in financial and regulatory circles. In this sense, there were requirements to reduce mandatory minimum rate of capital during periods of recession from 8% to, say, 6%, in order to enable credit expansion. Of course, in this case, loans would be approved only to creditworthy customers. However, the Basel Committee, until 2010, relying on several key arguments, stuck to unique and fixed minimum capital rate. First, the introduction of a more flexible capital rate could relativize the basic idea of the Basel Committee regarding the creation of a solid regulatory capital regime in the context of increased risk and uncertainty in the functioning of the macroeconomic and banking system. Second, some raised the question of who would decide on the transition to lower rates of capital – the Basel Committee or the national supervisor. Thirdly, there were no clear criteria for deciding whether there are sufficient macroeconomic reasons for the reduction of regulatory capital.

The emergence of the global financial crisis (*Subprime* crisis) actualized the evident failure of Basel regulations, reflected in inadequate establishment of dynamic links between monetary and prudential policies. The job of the central bank related to ensuring macro stability and the provision of services of the lender of last resort, while the supervisors were responsible for prudential regulation and financial stability. In addition, regulations did not require their strong mutual cooperation, which is where one of the main causes of the crisis lies. Insufficient attention of both monetary authorities in relation to implications of their actions on financial developments and supervisors in relation to macro dynamics deeply contributed to the crisis.

Since the global financial crisis revealed the conceptual shortcomings of Basel II, which failed to prevent and stop the crisis flows, the need for counter-cyclical control instruments and mechanisms arose, which associated capital needs with the rate of change in bank lending. Thus, in 2010, the Basel Committee issued some guidelines to Basel III, in order to improve banks' ability to absorb shocks arising from the environment, increase the transparency of banks, and establish appropriate regulatory frameworks at the global level. In other words, this document is a result of the efforts to make the regulatory framework of the banking business more stable, while stressing the importance of adequate risk management.

Basel III standards combine two complementary approaches to supervision, micro approach, at the level of individual banks, on the one hand, and macro-approach, on the other hand. Micro-prudential supervision refers to the increasing resistance of banks in periods of market uncertainty by establishing higher quality capital, more comprehensive risk coverage and adequate supervision. At the same time, the basis of macro-prudential supervision consists of three elements: capital buffers, liquidity standards, and leverage ratio (Matić, 2011, p. 180).

Request for a minimum total capital remained the same and amounts to 8% of the risk weighted assets, while the minimum amount of primary capital (Tier 1) increased from 4% to 6%. In relation to Basel II, changes are reflected in the elimination of tertiary capital (Tier III) and the introduction of new categories, such as protective and countercyclical buffers. The meaning of inclusion of protective capital buffer is the creation of reserves in the expansion phase, which can be used to absorb losses during financial and economic stress periods, without prejudice to the required minimum rate of capital. Protective buffer is included in equity, and should be set at 2.5% above the minimum required capital. This will increase the minimum requirements to 8.5% when it comes to primary capital and 10.5% of total capital. Banks will be allowed to withdraw protective buffers during stress and crisis, whereby convergence to the minimum requirement for nominal capital will affect larger restrictions and prohibitions of dividend and bonus payments to employees and shareholders.

The obligation of forming countercyclical buffer is not directly imposed on banks, and national regulators, depending on threats of systemic nature, may require this type of capital. The amount of countercyclical buffer is in the range of 0-2.5% of risk-weighted assets, in order to provide macro-prudential goal of protecting the banking system in terms of excessive credit growth. Practically, regulators use it flexibly to stimulate or reduce loans in various stages of the credit cycle. Also, regulators have left the possibility of introducing stricter rules for systemically important banks, i.e. institutions that can easily endanger the financial system.

Stricter requirements for capital are a necessary but not a sufficient condition for the stability of the banking sector. In order to ensure the necessary conditions for long-term liquidity structure in banking institutions, Basel III has introduced new standards that provide greater resilience of banks to short-term liquidity problems, because it turned out that the problems in banks occurred because of insufficient liquid funds despite possessing adequate amount of capital. Two liquidity standards have been formed, namely:

1) Liquidity coverage ratio (LCR), as a ratio of highly liquid assets and total net cash outflow in the following 30 days, which should be greater than or equal to 100%. It includes the obligation for banks to hold highly liquid assets in an amount equal to a minimum of net cash flows over the next 30 days. This ratio should allow banks to maintain high-quality assets that can be converted into cash during stressful periods (Basel III: The Liquidity Coverage Ratio and liquidity risk monitoring tools, 2013, 6). Liquidity coverage ratio became the minimum standard as of 1 January 2015.

2) Net stable funding ratio (NSFR) represents the relationship between the amount of resources available for stable funding and the amount required for stable funding, which

must be higher than 100. The ratio is intended to limit over-reliance on short-term financing during periods of stress and encourage better assessment of liquidity risk in balance sheet and off-balance sheet activities. It assumes that long-term liabilities are more stable than short-term liabilities, and that short-term deposits of individuals and small businesses are more stable than large investment of other partners of the same maturity (Basel III: The Net Stable Funding Ratio, 2014, p. 2). The net stable funding ratio will become the minimum standard as of 1 January 2018.

Due to the lack of transparency in financial reporting before the crisis, a large number of banks have sought to ensure maximum benefits through modest investment. In this way, banks have become heavily indebted. Therefore, Basel III has introduced a leverage ratio, which should limit the overall exposure of banks to risky activities and eliminate the possibility of their over-indebtedness. Leverage ratio, as a ratio of primary capital and total exposure of banks, must not be less than 3%.

Practically, the Basel Committee made some recommendations for the reform of bank regulations and supervision of banks, primarily related to an increase in capital adequacy ratio, in line with the growing risks of complex and globalized financial operations and improved quality of primary capital. It also made a recommendation on the introduction of minimum global liquidity standard, which was not previously included in the regulation, but could prevent the loss of liquidity.

In addition to the above recommendations for strengthening prudential banking supervision at the micro level, the Basel Committee made recommendations at the macro level. First, capital adequacy ratio must be supplemented by the corresponding internationally harmonized capital availability ratio, in order to prevent the banks to circumvent the requirements of the new regulations. Second, it is necessary to create protective buffers in phases of economic prosperity, which would be activated during the recessive trends in the economy. Third, it is necessary to introduce rules on derivatives, to reduce their use as complex high-risk instruments.

The new accord has emerged as a compromise between American and European banks, which are generally less capitalized, and will, in this respect, have to raise more capital. However, the new regulation has faced mixed reactions in the banking sector. While the regulators' goal was to create a safer banking sector, resistant to crises and boom and bust cycles, bankers expressed fears of slow economic recovery, reduced and difficult lending, and increased interest rates.

In this sense, the regulators allow the new Basel III rules to be introduced gradually, so that banks have sufficient time to adapt to stricter requirements and in order not to jeopardize the economic recovery after the global crisis. Increasing the level of capital began in January 2013, while the new requirements should be fully completed by January 2019. Of course, it is expected that most of the commercial banks will be able to timely increase their capital, while maintaining revenues.

CONCLUSION

Based on the generally known bank features, as well as practically confirmed danger of completely free and spontaneous operation of market laws to the stability of the banking system, the paper points out the importance of establishing an adequate regulatory framework. Regardless of the chosen regulatory system, the fundamental objectives of bank regulations are related to: ensuring system stability, maintaining security of banking and financial institutions, and protecting customers.

An appropriately designed regulatory framework is necessary to make the right operational decisions and ensure public confidence in the banking system, no matter if regulations cannot fully prevent the banking crisis, eliminate risks in the banking business, or guarantee the correct management decisions and ethical behaviour of bank managers.

Previous remarks require acceptance of the thesis of the necessity of regulating the banking sector. Also, it is clear that a permanently applicable and universal concept of bank regulations does not exist. It is conditioned by specifics and structural aspects of the banking sector in a specific country, as well as the depth of the crisis affecting a specific banking system. Bank regulations are a dynamic category that, under the influence of theory and practice, changes with the passage of time.

Looking at the modern business environment, the current regulatory architecture can be characterized as quite imbalanced. Credit crunch, triggered by the *Subprime* crisis, led the financial and banking system to the unknown terrain. Since the era of stability, i.e. stable prerequisites, is over, the uncertainty on financial markets is today's norm.

It is clear that regulations failed to prevent the collapse of the banking and financial system, which gave rise to some reforms to bring bank regulations in line with the unstable environment in which they operate. At the international level, the most significant changes took place in the Basel regulations, reflected in the adoption of the new accord – Basel III. It aims to make the regulatory framework of the banking business more stable, ensure adequate capital and liquidity of banks, reduce systemic risk, and eliminate cyclical fluctuations in the economy, which, in fact, confirmed the starting hypothesis in the paper.

Finally, it is important to point out that certain regulatory changes, aimed at minimizing the problems of individual banks and systemic problems (such as Basel III), are still in the implementation phase, so their effectiveness cannot be measured reliably. Therefore, future research needs to focus on testing the effectiveness of the existing regulatory changes.

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REGULATIVA BANAKA U SAVREMENOM FINANSIJSKOM OKRUŽENJU

U radu se analiziraju uloga i značaj bankarske regulative u obezbeđenju sigurnog i stabilnog poslovanja banaka. Savremeno poslovno okruženje, u kome banke obavljaju svoju delatnost, je nestabilno, turbulentno i prilično nepredvidivo. Za razliku od tradicionalnih uslova poslovanja, danas su banke izložene rastućim i raznovrsnim rizicima, kao i čestim kriznim situacijama. Shodno navedenom, kontrola nad poslovanjem banaka postaje nužnost. Potreba za regulativom se može pravdati činjenicom da tržište prepušteno samo sebi ne može da održi konkurentnost u dugom roku. Da bi određena regulativa ispunila ciljeve zbog kojih je i doneta, ona se mora stalno prilagođavati promenama u okruženju. Cilj rada je da se ukaže ukaže na neophodnost regulatornih promena u bankarskom sektoru. Kritičkim osvrtom na određene regulatorne promene, autori zaključuju da su one značajno doprinosile sigurnijem poslovanju banaka i sistemskoj stabilnosti

Ključne reči: *regulativa banaka, regulatorne promene, bankarska kriza, bazelska regulativa*