

Saint-Petersburg State University

Department of World Economy

**POST-CRISIS REFORMS IN THE FIELD OF THE EU BANKING REGULATION:  
THE PRELIMINARY IMPACT ASSESSMENT AND UNRESOLVED PROBLEMS.**

A TERM PAPER

Submitted in partial fulfillment of the requirements  
for the degree of Master of Arts 380401 “Economics”  
(International Trading System MA program)

By Anastasiia A. Mileshkina

---

Signature

Supervisor: Dr., Professor

Viacheslav M. Shavshukov

---

Signature

Saint-Petersburg

2018

## TABLE OF CONTENT.

INTRODUCTION.....	3
PART I. THEORETICAL ASPECTS OF BANKING REGULATION.....	8
1.1. The economic essence and role of banking regulation.....	8
1.2. The main instruments of banking regulation.....	13
1.3. The international guidelines to the organization of banking regulation and supervision.....	20
Conclusions.....	27
PART II. POST-CRISIS DEVELOPMENTS IN THE FIELD OF THE EU BANKING REGULATION.....	28
2.1. Lessons from the crisis and need for reforms in the EU banking regulatory sector.....	28
2.2. Post-crisis changes to the European system of banking regulation and supervision.....	37
2.3. The rationale and current layout of the Banking Union project.....	45
Conclusions.....	53
PART III. IMPACTS, FIRST RESULTS AND CONSEQUENCES OF THE REFORMS.....	54
3.1. The impact assessment of the EU banking reforms.....	54
3.2. The first results from the implementation of the reforms and the way forward.....	59
3.3. The unresolved issues and unintended consequences of EU banking regulatory reforms.....	67
Conclusions.....	75
CONCLUSION.....	76
LIST OF REFERENCES.....	78

## INTRODUCTION.

**The urgency and relevance of the research.** The recent financial crisis revealed severe shortcomings in the erstwhile regulatory and supervisory framework of the EU which failed to timely detect and properly address the malignant developments in the banking sector thereby contributing to the escalation and worsening of the already critical situation. The global financial crisis later evolved into a wider sovereign debt crisis with adverse implications for the euro area members' economies and large-scale interventions from the part of the national authorities aiming to rescue the insolvent banks.

A series of such grievous events triggered a fundamental rethinking of what should constitute an adequate financial regulation and supervision. Several pre-crisis principles underpinning banking regulation – such as a high trust in market participants' capacities to manage risks combined with a belief that safeguarding the soundness of individual banking entities would guarantee stability of the whole system – as well as general tendency towards light touch supervisory practices, were strongly criticized. In view of this, the legislators while shaping a new regulatory agenda decided to adopt a close oversight model of banking supervision with special “stress tests” of banks' ability to withstand crises. In light of such substantive alteration, contrasting views emerged with regards to the aptness of the chosen regulatory approach to the resolution of the ailing banks' problems, facilitation of post-crisis economic recovery and further maintenance of the banks' stability. The banks' officials were particularly concerned about the stringency of imposed regulatory requirements anticipating a very soon and rapid deterioration of their profits and quite notable rise in costs of banking operations.

Nowadays, the implementation of many core regulatory measures is well underway, in some instances it has been already completed; and, while some of the outstanding elements of the EU regulatory agenda still need to be enacted, an early economic assessment of the preliminary accumulative effects of the introduced regulatory practices on the various aspects of banking activity is becoming possible.

**The degree of scientific development of the problem.** In the economic literature, the investigation of the existing interlinkages between various regulatory measures, banks' stability and profitability is not sufficiently developed, although the number of studies on the following issue has significantly increased in the aftermath of the 2007 – 2008 global financial crisis. The existing studies provide quite mixed evidences regarding the impact of regulatory and supervisory policies on the performance of the banking industry and banks' immunity to various sorts of the financial system's contagions.

Barth J., Caprio G. and Levine R. did not find any statistically significant relationship between capital stringency, supervisory activities and bank performance.<sup>1</sup> Leaven L. and Levine R. having investigated the 10 largest publicly listed banks concluded: sufficiently stringent capital adequacy requirements have only a little impact on actual financial risk of the bank.<sup>2</sup> Additionally, they came to the following assertion: the capital requirements affect bank stability through their bank valuations, but do not demonstrate any independent effect on banks' stability. Demirgüç-Kunt A. and Detragiache E. in their study did not find support for the hypothesis that better regulation and supervision results are actually conducive to the increased resilience and soundness of the banks.<sup>3</sup>

The following in its essence quite negative view is contested in a few other empirical studies. The advocates of regulatory reforms (e.g., Angkinand A.<sup>4</sup>, Amri P.<sup>5</sup>) indicate a direct link between the degree of regulatory liberalization and the probability of the crisis occurrence (i.e., the crises are becoming more frequent with greater degree of regulatory liberalization).

Pasiouraris F., Gagnis C. and Zopoundis C., having employed bank level data from 71 countries and 857 banks, claimed that some dimensions of the banking regulation have quite significant impacts on banks' ratings.<sup>6</sup> Klomp J. and De Haan J. in their research on the possible impact of bank regulation and supervision on banking risks indicated that banking regulation has a pronounced effect on the risks of banks with high-risk profiles but has no significant effect on low-risk banks.<sup>7</sup> The study implies that the restrictive regulatory practices deliver adequate, net beneficial results only in countries with high quality institutions.

More specific studies conducted to assess the possible effects of the EU regulatory reforms on the banks' profitability, subsequent economic growth and lending conditions present quite contradicting results. The studies conducted by private research groups highlight the negative effects the regulatory agenda may generate in terms of drastically decreasing banks' profitability and loan volumes indispensable for furtherance of economic growth in the Eurozone. The

---

<sup>1</sup> Barth J.R., Caprio G., Levine R. Bank regulation and supervision: what works best? *Journal of Financial Intermediation*. 2004. №13.

<sup>2</sup> Laeven L., Levine R. Bank governance, regulation and risk taking. // *Journal of Financial Economics*. 2009. № 93.

<sup>3</sup> Demirgüç-Kunt A., Detragiache E. Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation. *Journal of Monetary Economics*. 2002. № 49.

<sup>4</sup> Angkinand A. P., Sawangngoenyuan W., Wihlborg C. Financial liberalization and banking crises: A cross-country analysis // *International Review of Finance*. 2010. № 2.

<sup>5</sup> Amri P., Angkinand A.P., Wihlborg C. International comparisons of bank regulation, liberalization, and banking crises. *Journal of Financial Economic Policy*. 2011. № 4.

<sup>6</sup> Pasiouras F., Gaganis C., Zopoundis C. The impact of bank regulations, supervision, market structure, and bank characteristics on individual bank ratings: A cross-country analysis. *Review of Quantitative Finance and Accounting*. 2006. № 27.

<sup>7</sup> Klomp J., De Haan J. Banking risk and regulation: does one size fit all? DNB Working Paper № 323, November 2011.

following view is widely divided by numerous Russian researchers such as Djagityan E. P., Silvestrov S. N.,<sup>8</sup> Matovnikov L.A.<sup>9</sup> and Sakovich M.V.<sup>10</sup>

**The main purpose** of the research is to assess the legal basis and first effects of the EU banking regulatory reforms with a view to determine whether the adopted measures are adequate enough for staving off the development of future crises, promoting the banking sector stability and economic recovery.

### **Objectives:**

- to explore the economic essence and role of banking regulation for proper functioning of the banking system;
- to examine the general effects of various regulations and supervisory practices on bank development, performance and stability commonly referred to/ mentioned in various theoretical studies;
- to take stock of deficiencies of the pre-crisis banking regulatory framework;
- to critically review the legislative proposals in the field of the EU banking regulation;
- to offer insights into the empirical estimates of the costs and net impacts from implementation of the newly introduced regulations;
- to provide an early constructive feedback on the banks' performance as they became compliant with core regulatory measures;
- to introduce some practical recommendations for banks to uphold their profitability;
- to project new risks and possible unintended consequences arising from the new regulatory practices.

In the end of our investigation we will be able to test the validity of our **hypothesis**: post-crisis reforms in the EU banking regulatory sector while having addressed the main fallacies of the pre-crisis banking supervision and regulatory framework are still inappropriate solutions to the ailing banks' problems due to some inconsistencies in their legal basis, ambitiousness of their several goals (that are ultimately conducive to supranationalization of regulatory powers) as well as ambiguous results (the adopted regulatory approach might have generally improved the market discipline and discouraged excessive risk-taking, but whether it managed to preserve an effecting actuation of market incentives).

---

<sup>8</sup> Джигитян Э. П., Сильвестров С. Н. Смена парадигмы банковского регулирования в США: от краткосрочных выгод к долгосрочному управлению рисками. Часть 1 // Деньги и кредит. 2013а. № 8.

<sup>9</sup> Матовников М. Ю. Новации в регулировании: зло или благо? // Деньги и кредит. 2012. № 5.

<sup>10</sup> Сакович М.И. Влияние внешнего регулирования на деятельность коммерческих банков в современных условиях. // Вестник Челябинского государственного университета. 2013. № 32 (323).

The **subject** of the research is the EU approach to banking regulation. The **object** – the legislative proposals issued by the European regulatory authorities to address the deficiencies of the previously existent regulatory system, the economic interlinkages between the regulatory reforms and banks' activities/profitability.

**Methodology:** the systemic approach has been applied for studying the complex processes of banking regulation. The general scientific deductive method has been extensively used for making a substantiated generalization of the collected information and formulating transitional as well as final conclusions of the present paper. The historical method has been used for the identification of the trigger events and causes of the post-crisis regulatory changes. The prediction of the possible consequences of the reforms was based on the method of logical analysis. The methods of statistical analysis have been used for the assessment of the preliminary effects of the regulation reforms. The data was taken from databases and reports of the European financial institutions and statistical agencies (the European Banking Authority, the European Central Bank, Eurostat) as well as from the data repositories of international economic and financial organizations such as the International Monetary Fund, the World Bank, the OECD and the Bank for International Settlements.

**Theoretical contribution of the research:** the overall, holistic assessment of the regulatory approach taken by the EU authorities to address the malignant crisis developments; deducing the potential implications of individual reform proposals based on the existing impact studies; articulation of the challenges for the ongoing reforms.

**Practical contribution of the research:** the research paper compiles the necessary information on the costs, potential risks and challenges banking institutions face while adopting to the more stringent banking regulations. The European banks already have some experience of operation in ever-tightening regulatory environment. The best practices employed by EU banks to minimize the negative impact arising from the restrictive regulatory measures could be successfully applied by Russian banking institutions in their strivings to comply with the current international liquidity and capital requirements.

The following paper consists of an introduction, three chapters, a conclusion, a list of references (147 titles) and 14 figures. The total number of pages – 87.

In the **introduction**, the author stresses the urgency of the research, formulates its aim and objectives, defines the subject and object of the study and establishes the practical as well as theoretical contribution of the performed investigation.

The **first part** of the paper is dedicated to the definition of the notions of “banking supervision” and “banking regulation”, the justification of the rationale for the regulation of banking activities, examination of the effects of various instruments of banking regulation and layout of the international framework for banking sector regulation.

The **second part** of the research briefly reviews the recent history of global financial and sovereign debt crises, identifies the major deficiencies of the incumbent regulatory framework and examines the post-crisis legislation issued by the EU supervisory authorities. The final subsection discusses the current state of the Banking Union project.

The **third part** of the research provides the general overview of the impact assessment studies of the various legislative proposals, compares their findings with the actual outcomes of the reforms and deals with the unaddressed issues of the regulatory agenda that might stimulate the development of new crises.

In the **conclusion**, the author succinctly summarizes the results obtained in the course of the research, matches them with the research goals presented in the introductory part of the paper and provides the response to the hypothesis validity test.

## PART I. THEORETICAL ASPECTS OF BANKING REGULATION.

### 1.1. The economic essence and role of banking regulation.

The concept of banking regulation is one of the most widely used in banking theory. However, there is no uniform, commonly accepted definition in domestic as well as in foreign academic literature.

Russian theorists tend to distinguish the concept of banking regulation from the notion of banking supervision despite their conspicuous relatedness to a similar type of activities. For instance, Mazurina O. indicates that banking regulation mainly involves the development of specific standards, rules, guidelines, or instructions by issuing the necessary legislation that defines structure and governs banking activities. In contrast, the banking supervision refers to monitoring, inspecting and controlling activities supervisory authorities perform to ensure banks' compliance with the established rules, special requirements.<sup>11</sup> Prodchenko I. in her paper states that banking supervision is, in fact, an integral part of the wider banking regulation which includes a set of monitoring activities of the banking system as a whole and of the separate individual credit institutions, timely detection and effective problem resolution in the banking sector.<sup>12</sup> The following point of view is supported by Rogovaya N. who believes that state regulation of banking activities involves supervision; the later simply cannot be fulfilled, even enforced without certain monitoring and controlling activities from the part of special authorities.<sup>13</sup>

At the same time, in the Western academic circles, the distinction between the concepts of banking regulation and banking supervision is less pronounced. While differentiating between the following concepts, the term "banking regulation" is normally used in a broader sense than the term "banking supervision".<sup>14</sup> The former is normally defined as a set of rules of banking institutions' conduct, issued by the state authorities, adherence to which is achieved by coercion. The banking supervision is often defined as the act of observation of banks' compliance with the rules of banking regulation.<sup>15</sup> The key distinction between the introduced concepts is, therefore,

---

<sup>11</sup> Мазурина О.В. Банковское регулирование и надзор – необходимый фактор развития финансовых рынков / О.В. Мазурина // Проблемы развития внешнеэкономических связей и привлечения иностранных инвестиций: региональный аспект: сб. науч. тр. 2007. Ч. 4. Донецк: ДонНУ. С. 1533-1539.

<sup>12</sup> Продченко И.А. Деньги. Кредит. Банки. – Ч. 2: учебно-метод. комплекс / И.А. Продченко / Московский ин-т экономики, менеджмента и права. Центр дистанционных образовательных технологий. М.: МИЭМП, 2010.

<sup>13</sup> Рогова Н. Деякі теоретичні аспекти державного регулювання банківської діяльності / Н. Рогова // Економіка України. 2004. № 4. С. 36-39.

<sup>14</sup> Grünbichler A., Darlap P. Regulation and Supervision of Financial Markets and Institutions: a European Perspective. URL: [ftp://ftp.zew.de/pub/zew-docs/div/regconf/Gruenbichler\\_2.pdf](ftp://ftp.zew.de/pub/zew-docs/div/regconf/Gruenbichler_2.pdf) (Date of access: 28.03.2018).

<sup>15</sup> Apătachioae A. The performance, banking risks and their regulation. // Procedia Economics and Finance. 2015. № 20. P. 36.

that the first one mainly refers the authorities' law creation activities, while the second one traces/oversees the actual compliance with the already enacted laws (includes the actual actions taken by supervisor).

As we have provided a general explanation to the banking regulation and supervision phenomena, we will move further to justify their need.

One of the commonly cited arguments in the literature for banking regulation is the special status of banks which they possess due to their exceptional functions in the economy.<sup>16</sup> One of the most important functions performed by banking institutions is the liquidity provision. Banks are unique institutions since they provide the necessary liquidity by accepting a constant maturity mismatch in their balance sheets. They convert deposits and short-term funding to long-term loans which are most needed by various economic entities (firms, enterprises). Since liquidity demand stems not only from borrowers, but also from depositors, banks are responsible for creating the liquidity on both sides of the balance sheet.<sup>17</sup> Banks are the only financial institutions which can create liquidity. Non-bank financial institutions avoid holding the illiquid assets and their investors normally acquire returns proportionally to their deposits. This implicitly means that the liquidity of non-bank establishments stems only from their underlying holdings and they do not supply any additional liquidity of their own.<sup>18</sup>

Another important function of banks, commonly referred to in the literature, is their role as financial intermediaries. The following function implicitly relates to the banks' liquidity provision activities. Without proper functioning of the financial intermediaries, the single potential lenders (market participants with liquidity surpluses) are not able to fully fund the projects of potential borrowers (e.g., entrepreneurs).<sup>19</sup> Banks also fulfil their intermediary function by acting as delegated monitoring institutions over the borrowers on behalf of the depositors. This is an essential and very useful arrangement without which the lender would have to monitor different borrowers separately. This would lead to duplicated efforts in the banking system or a renouncement of monitoring, inevitably leading to occurrence of the free-riding problem.<sup>20</sup> The

---

<sup>16</sup> Rosenbluth F., Schaap R. The domestic politics of banking regulation// International Organization.2003. №57. P. 307–336.

<sup>17</sup> Post-Crisis Banking Regulation in the European Union: Opportunities and Threats/ K. Sum [et al.]. Switzerland: Palgrave Macmillan, 2016. 1 p.

<sup>18</sup> “The Importance of the Nonbank Financial Sector”: Speech by S. Fischer at the Debt and Financial Stability--Regulatory Challenges conference, the Bundesbank and the German Ministry of Finance, Frankfurt, Germany, March 27, 2015. URL: <https://www.federalreserve.gov/newsevents/speech/fischer20150327a.htm> (Date of access: 26.03.2018).

<sup>19</sup> Diamond D., Dybvig, P. Banking theory, deposit insurance, and bank regulation// The Journal of Business. 1986. № 59(1). P. 55–68.

<sup>20</sup> Diamond D., Rajan R. Liquidity risk, liquidity creation, and financial fragility: A theory of banking// Journal of Political Economy.2001. № 109(2). P. 287–327.

delegated monitoring is closely related to another function of banks – the information provision. Banks generate information on the credit risk of potential borrowers, which can be effectively used by depositors as a sort of a credential.<sup>21</sup> The information provision function of banks effectively deals with the information asymmetry and incentive problems. In addition, by providing the necessary information, banks facilitate safer investments, which are less affected by information asymmetry.<sup>22</sup>

The “special status” was delegated to banks not only because of their special functions, but also because of their extreme vulnerability. Banks not only create liquidity assets, but also need access to liquidity. They are extremely fragile in this respect due to large amounts of ephemeral client funding, which could be subject of potential creditor runs. Given the fact that creditors are dispersed and do not possess the full information, even well-functioning banks potentially face with collective action problems under stress and panic conditions.<sup>23</sup> An additional source of banks’ fragility lies in the banks’ proneness to receive some compensation for accepting a maturity mismatch. The compensation results from the difference between the charges extracted from borrowers and the premium paid to creditors. The following incentivizes banks to increase their lending and attract more deposits to attract additional profits. As a result of creditor funding, banks become highly leveraged, which undermines their stability.<sup>24</sup>

Additionally, banks are viewed as special due to their pronounced excessive risk-taking incentives stemming from their protection by deposit insurance, the subsequent moral hazard and debt pricing distortions, as well as banks’ participation in extremely risky non-banking activities. Knowing that potential losses will be extensively covered by deposit insurance, banks tend to take distorted decisions regarding their lending, investment and funding activities.<sup>25</sup>

The attribution of “special status” to banking institutions may also be explained by the inherent systemic risks arising from bank interconnectedness. Banks become interdependent due to their common activities on the interbank, over the counter derivatives and foreign exchange

---

<sup>21</sup> Boyd J., Prescott, E. Financial intermediary- coalitions. Federal Reserve Bank of Minneapolis, Research Department Staff Paper 97, 1985.

<sup>22</sup> Freixas X., Santomero A. An overall perspective on banking regulation. Federal Reserve Bank of Philadelphia, Working Paper 02-1, 2002.

<sup>23</sup> Diamond, D., Dybvig, P. Banking theory, deposit insurance, and bank regulation// The Journal of Business. 1986. №59(1). P. 55–68.

<sup>24</sup> Mülbart P. Corporate governance of banks after the financial crisis—theory, evidence, reforms. ECGI Working Paper. 2010. № 130.

<sup>25</sup> Rosenbluth F., Schaap R. The domestic politics of banking regulation// International Organization.2003. № 57. P. 307–336.

markets. The banks' interconnectedness makes them simultaneously exposed to market conditions, which subsequently results in the emergence of systemic risk.<sup>26</sup>

Another argument for the bank regulation arise from the need to correct market failures and to alleviate the effects of the externalities resulting from potential banks' bankruptcy. Market failures occur due to the existence of asymmetric information and the fragility of trust between transaction participants.<sup>27</sup> Theoretically, banks may easily correct these market failures. Nevertheless, in practice, banks' responses also result in some sorts of market imperfections since banks take use of the information asymmetry for their own benefit.<sup>28</sup> This happens because depositors do not possess full information about how banks manage their actives; this pushes banks to take on excessive risks in their lending and investments activities. As it was stated by Chiesa G., when specific banking outcomes are not observable by the depositors, market discipline weakens, and banks become less prone to monitor borrowers.<sup>29</sup> But, on the other hand, when the deposit insurance is absent market participants become demotivated to keep their funds in banks. The need of regulation become evident to ensure that banks fulfill their intermediation function.

Market failures also arise from an asymmetry of risk management abilities, between small, insufficiently informed depositor and large-scale, experienced bankers. Banks take the risk of their lending and investment activity, while depositors free-ride and reject the bank's monitoring. Therefore, the market fails to supply the public good – the monitoring services – in sufficient amounts. Thus, there is an inevitable need to supply the following public good by regulatory authorities representing the interests of depositors.<sup>30</sup>

Further market imperfections relate to the monetary liquidity costs stemming from the transformation of illiquid into liquid assets by banking institutions. The financial intermediaries seek to maximize their fees from the following activities. The liquidity provision function is normally performed by the central banks; they are also responsible for the monitoring of the banks in a banking system. The central banks' oversight should ensure that banks' assets are allocated accordingly to support the liquidity transformation and provision functions of the banks.

---

<sup>26</sup> Mülbart P. Corporate governance of banks after the financial crisis—theory, evidence, reforms. ECGI Working Paper. 2010. №130.

<sup>27</sup> Rosenbluth F., Schaap R. The domestic politics of banking regulation. International Organization. 2003. №57. P. 307–336.

<sup>28</sup> Freixas X., Santomero A. An overall perspective on banking regulation// Federal Reserve Bank of Philadelphia, Working Paper 02-1, 2002.

<sup>29</sup> Chiesa G. Optimal Risk Transfer, Monitored Finance, and Banks. URL: <https://www.fdic.gov/bank/analytical/cfr/bank-research-conference/annual-8th/chiesa-g.pdf> (Date of access: 28.03.2018).

<sup>30</sup> Tirole J. The theory of corporate finance. Princeton, New Jersey: Princeton University Press, 2006. 300 p.

Additional market failures may occur when banks perform their information production function. Credit institutions, having obtained the costly information, are not prone to disclose it publicly. Thus, the regulation in the form of certain revelation requirements is needed to enhance the market's transparency and efficiency by providing better pricing signals. The ensured disclosure requirements enable market participants and investors to take better, non-distorted decisions.<sup>31</sup>

In the absence of regulatory authorities, one should also take account for a possible bank's failure. It can be destructive for capital and conducive to reductions in economic welfare. The external effects of a bank's failure are particularly harmful for the third party. The affected agents would be above all dispersed, uniformed depositors that are unable to take the necessary actions to hedge their risks of credit institutions' defaults. Additionally, a bank's failure may affect other stakeholders of a bank (shareholders, borrowers, creditors and bank's employees). A bank's interconnectedness may result in further spillovers threatening the overall financial stability. Given the systemic importance of banks, a failure might significantly affect the real economy through the restricted credit supply to enterprises.<sup>32</sup>

Additional arguments for the regulation of banks may be found within the framework of agency theory. The representatives of the agency theory state that there is a conflict of interests in corporations between owners and managers resulting from information asymmetry.<sup>33</sup> Due to the special status of banks, their activities involve numerous stakeholders embedded in a conflict of interests: large stakeholders, smaller, dispersed shareholders, managers or executive directors, supervisory board members, creditors, borrowers. The agency conflicts arising between various stakeholders may take different forms. For one, there can be a conflict between shareholders and managers arising from the separation of ownership and control. Managers tend to be more risk averse unlike than shareholders, since they are responsible for a company's financial conditions. Also, shareholders, unlike managing personnel, are more dispersed, hence they are prone to risk-taking behavior acting in a group. The restrictions of risk-taking activities are usually undertaken by managers and not owners, which further escalate the conflict between these two parties. A second type of conflict occurs between large shareholders and smaller ones; large shareholders tend to be more risk averse, since they have invested large portions of funds in a particular bank.

---

<sup>31</sup> Freixas X., Santomero A. An overall perspective on banking regulation. Federal Reserve Bank of Philadelphia, Working Paper 02-1, 2002.

<sup>32</sup> Ibid.

<sup>33</sup> Jensen M., Meckling W. Theory of the firm: Managerial behavior, Agency costs and ownership structure. Journal of Financial Economics. 1976. № 3. P. 305–360.

Also, they favor payouts in the form of specific benefits rather than dividends.<sup>34</sup> The next time of conflict arises between owners and creditors. Creditors prefer less risky investment strategies simply because their interest lies in regaining their claims, whereas owners are willing to get higher returns and advocate for more risk-taking activities. A fourth type of conflict arises between depositors and bank managers. Being delegated with the special monitoring functions, bank managers seek different risk profiles in comparison to depositors. A fifth type of conflict is a conflict between borrowers and managers due to the preferences for different risk profiles, resulting to different preferred rates charged to loans.

The described agency conflicts encourage risk shifting from shareholders to managers, creditors and borrowers. In addition, shareholders and managers may strive to get short-term profits at the creditors' expense. The consequences of such strivings are even more detrimental given that banks' risk profiles tend to change very fast, in contrast to non-financial enterprises. The situation at hand is exacerbated even further because of the earlier mentioned opacity of banks' balance sheets, which makes it really difficult to control banks and to conform with the interests of the stakeholders.

The agency problems described in the present section need to be controlled. The academics suggested using demandable deposits as one of possible control devices.<sup>35</sup> Another solution would be adequate equity levels being a subject to capital regulations.<sup>36</sup> The special quantity reviews, disclosure and liquidity requirements, could help to significantly alleviate the severity of the mentioned agency conflicts.<sup>37</sup>

As we justified the need for banking regulation, the next question to respond is which instruments, regulatory practices to use to achieve a better functioning of the banking system and undermine the systemic as well as individual risk occurrence in the banking sector. The next section deals with the present issue.

## **1.2. The main instruments of banking regulation.**

Given the importance of the banking sector for the economy and previously mentioned conflicts of interests arising between the different stakeholders, banking regulation has to fulfil a prominent role. In the academic literature, the following strategic goals of banking regulation are

---

<sup>34</sup> Mülbert P. Corporate governance of banks after the financial crisis—theory, evidence, reforms. ECGI Working Paper № 130, 2010. P. 25.

<sup>35</sup> Olszak M., Pipień M., Kowalska I., Roszkowska S. Do regulations and supervision shape the capital crunch effect of large banks in the EU// UW Faculty of Management Working Paper Series.2015. № 3.

<sup>36</sup> Tirole J. The theory of corporate finance. Princeton, New Jersey: Princeton University Press, 2006.

<sup>37</sup> Ciancanelli P., Reyes Gonzales J. Corporate governance in banking: A conceptual framework. URL: [http://papers.ssrn.com/paper.taf?abstract\\_id=253714](http://papers.ssrn.com/paper.taf?abstract_id=253714) (Date of access: 20.03.2018).

commonly cited: protection of creditors and depositors, banks' individual and systemic risks monitoring (financial stability and resilience maintenance of individual banking institutions and banking system as a whole), control of legal aspects of banks' activity (capital, liquidity settings, ext.).<sup>38</sup>

Due the previously established "special status" of banking institutions, the correspondent instruments of banking regulation need to be adjusted to the sector's specific features.<sup>39</sup> As it has been already noted, banking regulation can potentially create market distortions. Therefore, it is necessary to design regulatory instruments that would effectively supervise the banking activities and counteract excessive risks taking incentives.<sup>40</sup>

The regulatory authorities are confronted with the problem of choosing the most optimal combination of regulatory instruments. The approaches vary from minimalist, extremely light, to all-encompassing, highly interventionist patterns. On the one extreme end – the prudential regulation that imposes the costs of regulation on the banks themselves, on the other end – profit padding regulation which places major costs on taxpayers and banks' clientele by distorting the competition in the banking sector.<sup>41</sup>

In practice, the whole array of regulatory instruments can be divided into several broad areas of banking regulation to be further discussed in the present section.

One of the main types of banking regulation is special entry requirements (complex application procedures for obtaining a banking license, the scope of the information to be provided by the candidate; special requirements on bank ownership – the established amounts of shares to be held by a single entity, non-bank financial ownership in a bank, barriers to ownership by foreign entities).<sup>42</sup>

Economic literature provides very conflicting views on the need for and the actual implication on entry into a banking industry. Some of the researcher argue that the entry barriers help to increase the quality of credit institutions and largely contribute to the overall stability of a banking sector. Others claim that incumbent banks with excessive monopolistic powers possess

---

<sup>38</sup> Ермаков С.Л., Галкина М.В. Совершенствование банковского надзора – важнейшее направление повышения эффективности антикризисного управления банковским сектором в неустойчивой экономической среде. // Известия ИГЭА. 2011. № 6 (80). С. 61.

<sup>39</sup> Microeconomics of banking. / X. Freixas, J. C. Rochet – 2<sup>nd</sup> ed. Cambridge, MA: MIT Press, 2008. 2 p.

<sup>40</sup> Dionne G. The foundations of risk regulation for banks: A review of the literature. CIRPEE Working Paper № 03–46, 2003. P. 4.

<sup>41</sup> Rosenbluth F., Schaap R. The domestic politics of banking regulation. // International Organization. 2003. № 57. P. 307–336.

<sup>42</sup> Barth J.R., Caprio Jr. G., Levine R. Measure it, improve it bank regulation and supervision in 180 countries 1999–2011. Milken Institute, 2013. P. 1.

greater franchise value, which in a way enhances prudent risk-taking behaviors.<sup>43</sup> The third group of academics mainly stress the beneficial effects of competition and the destructive effects of restrictions on entry into the banking industry.<sup>44</sup>

The next important regulatory instrument – capital adequacy requirements – prescriptions for banks to hold the required amount, type and quality of capital. Capital serves as a special buffer against bank’s potential losses and failure. Additionally, with restricted liability, the proneness for banks to engage in higher risk activities is significantly contracted with greater amounts of capital at risk.<sup>45</sup> Basically, capital reserve requirements ensure the banks do not lend out or invest all of the money that customers deposit.

Of major importance is the definition of capital and the valuation of banks’ assets.<sup>46</sup> Capital in the strictest sense (Tier I), are largely associated with the equity and disclosed reserves, or retained earnings, in a broader sense it may also comprise undisclosed and revaluation reserves, hybrid debt-equity instruments, as well as general provisions and subordinated debt (Tier II). Tier I capital is often called as “going concern capital”, that is, used by a solvent and effectively operating bank, while Tier II capital is commonly referred to as a “gone concern capital” and embodies a certain guarantee for stakeholders in the case of the bank’s failure.<sup>47</sup>

The traditional view is that higher capital requirements have a positive effect on the banking sector.<sup>48</sup> However, many researchers strongly disagree with the following saying that the imposition of a minimum capital requirement more often increases risk-taking incentives of financial intermediaries instead of reducing them.<sup>49</sup> Heightened capital requirements significantly increase the banks’ risk absorption capability; bank’s heightened financing costs incentivizes it to take on more risks to increase the future value of equity.<sup>50</sup> J. Barth, Jr. G. Caprio and R. Levine argued that while sufficiently stringent capital requirements are associated with decreased amounts of non-performing loans, the capital stringency is not robustly linked with banking sector stability,

---

<sup>43</sup> Keeley M. Deposit insurance, risk, and market power in banking. // *American Economic Review*. 1990. № 80(5). P. 1183–1200.

<sup>44</sup> Shleifer A., Vishny R. *The Grabbing Hand: Government Pathologies and their Cures*. Harvard University Press, Cambridge, MA, 1998. 198 p.

<sup>45</sup> Mehran H., Thakor A. Bank capital and value in the cross-section. *The Review of Financial Studies*. 2011. №24(4). P. 1020–1067.

<sup>46</sup> Barth J.R., Caprio Jr., G., Levine R. *Measure it, improve it bank regulation and supervision in 180 countries 1999–2011*. Milken Institute, 2013.

<sup>47</sup> *Post-Crisis Banking Regulation in the European Union: Opportunities and Threats/ K. Sum [et al.]*. Switzerland: Palgrave Macmillan, 2016. 16 - 17 pp.

<sup>48</sup> Gorton G., Winton A. *Financial intermediation*. / G. Constantinides, M. Harris, R. Stulz [et al.], *Handbook of the Economics of Finance*. Amsterdam, 2003.

<sup>49</sup> Blum J. Do capital adequacy requirements reduce risks in banking? // *Banking Finance*. 1999. № 23. P. 755–771.

<sup>50</sup> Berger A., Bouwman C. How does capital affect bank performance during financial crises? *Journal of Financial Economics*. 2013. №109. P. 146–176.

bank development and performance when controlling for other supervisory and regulatory practices.<sup>51</sup> Some other researchers (e.g., S. Kendall) indicated the destructive impact of the heightened capital requirements only under specific circumstances.<sup>52</sup>

In general equilibrium context, the researcher G. Gorton and A. Winton found out that raising capital requirements leads to reductions in banks' deposit supply reducing their role as liquidity providers.<sup>53</sup>

Another widely used regulation type is restrictions on banks' activities. Restrictions are normally related to the scope and extent of non-typical banking activities banks take part in (securities trading, underwriting and brokerage, involvement in mutual fund activities, provision of insurance contracts, real estate investment ext.).

There are at least five main theoretical reasons for such restrictions. Firstly, conflicts of interests may inevitably arise once banks become involved in diverse non-typical activities. Secondly, to the extent that moral hazard incentivizes the risk-taking behaviors, banks will receive more opportunities to increase risk if allowed to engage in a broader scope of activities.<sup>54</sup> Thirdly, it is difficult to monitor banks' behaviors. Fourthly, banks engaged in non-typical activities may become truly and economically important (transform into the "too big to discipline" institutions). And, finally, large financial conglomerates may reduce competition and efficiency.

Some other researchers advocate the alternative view: they emphasize the need to allow the banks to engage in a broad range of activities. They offer the following arguments in support of their view: fewer regulatory restrictions allow institutions to exploit the economies of scale and scope; less stringent regulatory environment may also increase the franchise value of banks and thereby stimulate the financial intermediaries for more prudent behaviors; the absence of a great number of restrictions on non-typical trading activities may allow banks to diversify their income streams and thereby make them more stable.<sup>55</sup> The empirical studies generally indicate that the

---

<sup>51</sup> Barth, J.R., Caprio, Jr.G., Levine R. Bank regulation and supervision: what works best? // *Journal of Financial Intermediation*.2004a. №13. P. 205-248.

<sup>52</sup> Kendall, S.B. Bank regulation under nonbinding capital guidelines. // *Journal of Financial Services Research*. 1992. № 5. P.275-286.

<sup>53</sup> Gorton G., Winton A. Liquidity provision, bank capital, and the macroeconomy. Mimeo. University of Minnesota, 2000.

<sup>54</sup> Boyd J., Chang C., Smith B. Moral hazard under commercial and universal banking// *Money, Credit, Banking*. 1998. № 30 (3.2). P. 426–468.

<sup>55</sup> Claessens S., Klingebiel D. Competition and scope of activities in financial services. Mimeo. World Bank, Washington, DC., 2000. P. 13.

imposition of restrictions on banking activities has negative repercussions, namely: a higher probability of suffering a major banking crisis and lower efficiency of banking sector.<sup>56</sup>

Some of the researchers encourage the adoption of the stricter activity restrictions under certain circumstances. A. Fernandez and F. Gonzalez indicated that such restrictions are only effective at reducing banking risk when auditing and information disclosure requirements are insufficiently developed.<sup>57</sup>

Such regulatory instruments as auditing requirements and private monitoring are effectively used for reducing the information asymmetry and solving agency conflicts through a strengthened framework allowing private investors to monitor banks' activities. The major components of such regulations are the requirement to oversee banks by specially certified auditors, the requirement to be rated by international rating agencies, the extent of information that need to be disclosed, and the explicit standards for the audit and the legal liability of directors for the accuracy of information provided. Therefore, auditing requirements and conducts of private monitoring enable bank stakeholders to be well-informed about the bank's financial conditions and to make according, non-distorted decisions.<sup>58</sup>

Another substantial element of banking regulation is liquidity requirements since they perform one of the banks' key functions: asset transformation for further liquidity provision. As it was previously indicated, banks not only produce liquidity, but also need to have access to it for their operations. The shortage of liquidity availability becomes especially pronounced in the stressed financial conditions. One of the important tasks of the regulatory authorities is thus to establish a certain prudential regulatory framework for counteracting the occurrence of banks' liquidity risks.

Liquidity regulations generally concern setting explicit liquidity or funding ratios or establishing the appropriate maturity mismatch restrictions. More preventive, far-sighted regulatory measures include limits on concentrated exposures: that is, special standards that dictate to what extent banks are restricted to their lending activities to single or interrelated borrowers or requirements concerning asset and funding diversifications.

---

<sup>56</sup> Barth J.R., Caprio Jr. G., Levine R. Banking systems around the globe: Do regulations and ownership affect performance and stability? In: Mishkin F. (Ed.) Prudential Supervision: What Works and What Doesn't. University of Chicago Press, 2001. 31–88 pp.

<sup>57</sup> Fernandez, A., Gonzalez, F. How accounting and auditing systems can counteract risk-shifting of safety nets in banking: Some international evidence. // Journal of Financial Stability. 2005. № 1. P.466-500.

<sup>58</sup> Post-Crisis Banking Regulation in the European Union: Opportunities and Threats/ K. Sum [et al.]. Switzerland: Palgrave Macmillan, 2016. 20 p.

While liquidity regulations primarily impose quantitative limits on banks' portfolios, asset quality requirements help to determine the quality of these portfolios. They directly influence the bank's ability to perform the liquidity transformation function. The following regulation type entails such elements as the existence and coverage of a regulatory asset classification system, standard of loan classification, criteria for the determination of non-performing loans and general consequences in terms of financial reporting, and relevant standards for loan provisioning.<sup>59</sup>

It is often argued that more stringent liquidity regulation may effectively reduce the risk of banks runs and potential freezing of the interbank market. While the following view is generally not contested in the literature, some other researchers focused their studies on potential negative impacts rather than benefits; they argued that strengthened liquidity regulation may bring about the reduced bank lending to the non-financial sectors and banks profitability.<sup>60</sup>

Additional instrument of banking regulation – the provision of deposit insurance schemes. Deposit insurance is a special guarantee that all or a part of a depositor's debt with a bank will be fully/ partially compensated in the event of a bank's failure. Deposit insurance reduces (and more often eliminates completely) the incentive to run on the bank in the event of financial instability. Thus, it tends to reduce the possibility that a temporary situation of illiquidity and rumors on the insolvency of a certain bank will actually lead to the bankruptcy of the bank. Besides that, the presence of deposit insurance prevents the occurrence of a so-called "domino effect" that can also be started associated by the run on a single bank, so that it reduces the probability of contagion in the given banking system.<sup>61</sup>

The bending moment of deposit insurance for the regulatory authorities is the arising moral hazard for the banks to take on excessive risks and to shift it to the insurer; banks, being cognizant of the levels of insurance premiums, can take on excessive risk to achieve a predefined return.<sup>62</sup> In the situation when the insurance premium is fixed, risk taking behaviors may increase the value of insurance. There is no need for banks to worry about probable downside of their risk-taking activities as potential losses are extensively covered by the insurers. Moreover, depositors are prone to free-riding, simply because they have no incentives to monitor the bank. Therefore, the presence of deposit insurance schemes may significantly exacerbate the above-mentioned agency conflicts between bank owners, managers, and creditors. To mitigate the severity of moral hazard

---

<sup>59</sup> Post-Crisis Banking Regulation in the European Union: Opportunities and Threats/ K. Sum [et al.]. Switzerland: Palgrave Macmillan, 2016. 21 p.

<sup>60</sup> Banerjee R., Mio H. The Impact of Liquidity Regulation on Banks. // BIS Working Papers № 470, 2014. P.2.

<sup>61</sup> International Competition Network Antitrust Enforcement in Regulated Sectors Subgroup 1. An increasing role for competition in the regulation of banks. URL:

<http://www.internationalcompetitionnetwork.org/uploads/library/doc382.pdf/> (Date of access: 15.03.2018).

<sup>62</sup> Dewatripont M., Tirole J. The prudential regulation of banks. Cambridge: MIT Press, 1994. 147 p.

and free-riding problems, a proper structuring of the deposit insurance scheme is required. The regulatory authorities need to set the correspondent limit, scope and conditions of the insurance cover to be able to control the behavior of owners and depositors. An essential control instrument is also the degree of the insurer's ability to timely intervene in banks to revoke insurance or take necessary legal actions against banking entities that severely violate the established regulations of the scheme.<sup>63</sup>

Another beloved instrument of banking regulation, the lend of last resort, is a liquidity facility largely available to banks. As opposed to deposit insurance, the lend of last resort is very implicit and does not fall under regulation. Theoretically it is a facility offered to illiquid, but solvent credit institutions against good collateral. In practice it is often used as rescue package for failing banks. Banks' bail-outs are normally associated with significant costs for taxpayers compelled to bear the burden of banks' extremely risky activities. The large expenses of the lend of last resort function can be extensively reduced by non-conventional liquidity provision tools by central banks via multiple channels. Alternative measure – proper bank resolution mechanisms and bank closure requirements.

The list provided in the present paper is not exhaustive; there might be some additional measures designed to regulate not only the actual banking activities, but also their incentives – special rules concerning mergers in the banking industry, other rules affecting the cooperative incentives of the banks (e.g., with respect to payment systems) and their failings (e.g., special provisions guiding the liquidation processes of the failed banks, regulating winding up and insolvency procedures). The regulatory measures we previously discussed are the most commonly used ones and the most essential ones for the smooth functioning of the banking system.

From the all written above, we may make the following conclusion: existing literature estimating the impact of different regulatory regulations on bank efficiency and development provides quite mixed results. While generally theorists favor an establishment of a certain discipline and introduction of stringent regulatory requirements, especially in the aftermath of the crisis, the very results from the implementation of such measures may drastically diverge in their effects from very positive to extremely negative. To avoid such extremes, the banking authorities need to adhere to the following basic postulate: to choose measures that would be rigid enough to secure stability of the banking sector, but also flexible not to impede the banks' market initiatives. Otherwise, regulatory measures will not achieve the targeted outcomes making the banking system

---

<sup>63</sup> Barth J.R., Caprio Jr. G., Levine R. Measure it, improve it bank regulation and supervision in 180 countries 1999–2011. Milken Institute, 2013.

incapable to fulfill its main functions under the extremely stringent regulations. Further recommendations on the effective organization of banking regulation and appropriate choice of regulatory instruments with the correspondent rigidity are set out in the documents issued by the Basel Committee and will be discussed in the next section.

### **1.3. The international guidelines to the organization of banking regulation and supervision.**

The system of banking regulation in different countries is based on the key principles established by the IMF, the World Bank, the Organization for Economic Cooperation and Development (OECD) and the Basel Committee on Banking Supervision. The European authorities while designing a future shape of the supervisory and regulatory framework for the EU banking sector strongly relied on the recommendations provided by the Basel Committee on Banking Supervision (the BCBS).

The BCBS was established in 1974 by the initiative of a number of European countries, Japan and the United States; the main purposes of the committee were defined as follows: to jointly develop standards in the field of banking supervision, determine the functions and tasks of the banking supervisory authorities and encourage convergence towards uniform supervisory rules and practices.<sup>64</sup>

In the present section, we are intended to critically review the main postulates of the post-crisis version of the Basel Accord with a special emphasis on its prevailing benefits and underlying drawbacks. Consequently, we will define whether the recommendations as suggested by Basel III are apt solutions to the problems of ailing banks.

The first accord of the Basel Committee (Basel I) was issued in 1988. The key objective of Basel I was to make banks to keep an adequate, sufficient level of capital in the case of credit losses and harmonize the issued regulations internationally to prevent the occurrence of regulatory arbitrage. The bank's stability was closely linked to its capital adequacy ratio depending on the level of risks of bank's active operations. The bank's ability to withstand losses was defined by the special formula (Cook coefficient) – the ratio of the value of own capital to the total volume of assets weighted by risk levels (multiplied by individual weights values from 0 to 100%). In

---

<sup>64</sup> URL: <https://www.bis.org/bcbs/about.htm?m=3%7C14%7C573> (Date of access: 28.03.2018) – the official site of the Bank for International Settlements.

accordance with the Basel I, banks were required to hold at least 4% of Tier 1 capital of risk weighted assets and 8 % of Tier 1 and Tier 2. <sup>65</sup>

Bank crises in the early 1990s revealed insufficiency and inefficiency of the established standards to ensure the banking system stability. The development of the derivatives market proceeded at a very rapid pace. The possibility of securitizing assets and transferring them from banks' balance sheet to off-balance positions allowed credit institutions to essentially lower their capital requirements. Therefore, Basel I, while having established a certain capital buffer, enabled banks to control the risk weights attributed to their assets. On top of this, securitization activities allowed banks to transfer the risks to other financial institutions which purchased the derivatives. The following contradicted the Basel I intention to force banks to manage risk. As a consequence, banks accumulated the required capital very easily, prior to the established deadline and even in excess of the established value. This in turn strengthened the banks' incentives to take additional risk. With the growing complexity of derivatives new types of risks emerged, namely – counterparty risk and market risk. And the main limitation of the Basel I was its abstraction from other than credit types of risks. <sup>66</sup>

The revised version of Basel II was issued in 2004. The new framework (Basel II) contained three components: minimum capital requirements, supervisory review and market discipline. The first component improved the framework for calculation of capital requirements, the second one required the regulatory authorities to assess the banks' solvency within their risk profiles and intervene in case of the capital deterioration, the third component introduced special disclosure requirements on banking institutions. <sup>67</sup> The overall goal of the second edition of the Basel accord was to account for new types of risks (of operational and market nature) at the computation of necessary capital requirements. The more detailed risk weighting was introduced and modelling of the probability of default was included. The reference values established under Basel I remained the same, but the risks attributed to the specific assets changed. The computation of capital requirements for credit risk was based on one of the following options: international and private ratings, advanced internal ratings-based approach. The quantification of market risks was allowed by means of standardized or internal bank risk model (with the preference for use of the

---

<sup>65</sup> Моргорова Э. Г. Базельские стандарты деятельности банков: от Базеля I к Базель III. // Проблемы Развития Мировой и Российской Экономики, 2013. С. 96.

<sup>66</sup> Blundell-Wignall A., Atkinson P. Thinking about Basel III: Necessary solutions for capital and liquidity. OECD Journal: Financial Market Trends. № 1. P. 9–33.

<sup>67</sup> International convergence of capital measurement and capital standards / the Basel Committee on Banking Supervision. The Bank for International Settlements, June 2004. URL: <https://www.bis.org/publ/bcbs107.htm> (Date of access 20.03.2018).

Value at Risk models). Operational risk was required to be measured either by use of the basic indicator approach, standardized approach or advanced measurement approach.

The requirements set by the Basel II further strengthened the banking supervisory framework. The second version contained a broader disclosure of banking activities and performance. Additional goal of the introduced framework – harmonization of the existing regulation to prevent regulatory arbitrage. Despite the listed improvements, the regulatory framework introduced by Basel II was far from ideal. First of all, the data for the calculation of risk weights was largely based on procyclical ratings and did not account for building of risks in good economic times. Moreover, banks could easily manipulate the underlying data for capital requirements calculations, as a result the modelling of the probability of default was quite arbitrary. The established regulatory framework did not account for the possible counterparty risk in over-the-counter markets, which subsequently became an essential problem in the wake of financial crisis. An additional disadvantage of capital regulations was portfolio invariance – the computation of risk of correspondent asset exposures separately, without considering the joint composition of the portfolio.<sup>68</sup> As a consequence, diversified portfolios were given the same risk weights as risky and concentrated ones. Also, the standardized computation approach did not account for the risk exposures to complex instruments. The opportunity to choose a relevant computation model by individual banks might in a way have limited the individual bank risk, but hardly prevent the occurrence of systemic risk.<sup>69</sup>

An additional deficiency of the Basel II framework was the different treatment of the trading and banking books regarding risk weighting. The banking book includes assets which are kept to maturity while trading book involves assets that can be sold before the maturation date. The assets comprising both banking and trading books are exposed to credit risk, which were treated differently in terms of relevant risk weighting assignment under the Basel II framework. The Basel provisions included special instructions on how to estimate the correlations between different asset values to determine portfolio risk. In the case of credit risk in the banking book, as opposed to the risks attributed to the trading book, asset value correlations were calculated on the basis of the standardized model, even for banks that used internal models. Also, the established regulatory framework did not take into consideration the full risk stemming from securitized bank promises.<sup>70</sup> The shifts of the following promises between the regulated and unregulated sectors through credit default swaps, gave rise to regulatory arbitrage. Banks could easily reduce their

---

<sup>68</sup> Blundell-Wignall A., Atkinson P. Thinking about Basel III: Necessary solutions for capital and liquidity. // OECD Journal: Financial Market Trends. 2010. № 1. P. 9–33.

<sup>69</sup> “Fundamental review of the trading book”: Consultative document of the BCBS from May 2012.

<sup>70</sup> “Minimum capital requirements for market risk”: Standards of the BCBS from January 2016.

risk weights via securitization activities. A further limitation of the Basel II framework – the inability of supervisory authorities to issue early warning to insolvent and highly problematic banks, as they lacked forward looking risk measures in risk modelling which enable identification of potential failures and systemic risk.

The global financial crisis revealed the previously discussed drawbacks of the Basel II framework. The Basel Committee on Banking Supervision started working on a new version of the Basel accord. The main objectives of the revised version were: to strengthen banks' capital positions and their resilience to shocks to prevent bankruptcies and contagion; to improve risk management practices and ensure better transparency, governance and disclosure in the banking sector.

Under Basel III, more stringent definitions of Tier 1 and Tier 2 capitals had been introduced. Also, Basel III eliminated Tier 3 capital from the regulatory framework. The required level for common equity had been increased from 2% of risk weighted assets to 4.5%, and Tier 1 capital – from 4% to 6%. A further change – an introduction of additional capital buffers (a mandatory conservation buffer of 2.5% of risk weighted assets and a discretionary countercyclical buffer of up to 2.5% of risk weighted assets) which are expected to be used in the period of economic recessions and downturns without banks' decapitalizations beyond the minimum requirement.<sup>71</sup>

The next new element of Basel III is the leverage ratio. According to Basel II requirements, the minimum leverage ratio, defined as Tier 1 capital to the average total non-risk weighted consolidated assets, should exceed or be equal to 3%. The following measure is aimed at preventing the procyclical escalation of leverage during good times and backing up the risk-based capital requirements.<sup>72</sup>

A further enhancement of capital adequacy is achieved by the introduction of capital loss absorption standards, which allows the relevant authority the option to write off or convert to common shares the banks' non-common Tier 1 and Tier 2 capital instruments in the vent of bank's non-viability. Also, Basel III increases the risk coverage of capital. It promotes the bank's ability to cover the risk of securitization exposures held in the banking and trading books through introduction of new risk weights for off-balance sheet assets.<sup>73</sup> The newly introduced mandatory

---

<sup>71</sup> "Basel III: A global regulatory framework for more resilient banks and banking systems": the BCBS from June 2011.

<sup>72</sup> "Basel III: A global regulatory framework for more resilient banks and banking systems": the BCBS from December 2010.

<sup>73</sup> "Revisions to the securitization framework": Basel III Document from 11 December 2014.

coverage of risk deals with large exposures and concentration of risks, as well as the counterparty credit risk exposure of derivatives contracts.

Significant changes have been also introduced to the securitization framework for exposures in the banking book. The hierarchy of the risk measurement approaches in the securitization framework has experienced significant changes to reduce reliance on external ratings. The priority was attributed to internal rating-based models, followed by external measurement by rating agencies and the standardized approach. Additionally, the Basel Committee introduced a new approach to measuring counterparty risk exposures in over the counter derivatives, exchange-traded derivatives, and long settlement transactions. To prevent an arbitrary choice of the relevant risk models, the framework requires banks to adopt a new standardized approach for measuring exposure at default for counterparty credit risk, even for banks that use internal rating-based models. The newly introduced models are expected to reflect the risk volatilities over the stress period and include an additional risk factor in evaluating counterparty credit risk: the maturity of the derivative tranches.<sup>74</sup> The new regulations arrange the settlement of derivative transactions through the centralized clearing counterparties and suggest a single approach to measuring a bank's exposure to the risk of the central counterparty.<sup>75</sup>

Further changes in the Basel regulatory framework concern liquidity regulation. Basel III established a short-term and a long-term liquidity indicator named the liquidity coverage ratio (LCR) and the net stable funding ratio (NSFR) correspondingly. The liquidity coverage ratio was designed to ensure the availability of bank's liquid asset under a short-term stress scenario. According to the Basel provisions, the value of the liquid assets coverage should be sufficient for coverage of the bank's severe total net cash outflows over 30 days. The NSFR requires banks to hold stable funds in excess of the necessary financing coverage for a one-year period under stress conditions. The introduced liquidity requirements limit banks' excessive reliance on short-term interbank funding and incentivizes the financing of credit institutions using assets with longer maturities.<sup>76</sup>

In addition to this, Basel III addressed the extreme interconnectedness of financial institutions and aimed at preventing the systemic risk occurrence. The commonly used instruments for such purposes – higher capital requirements for inter-financial sector exposures and specific and additional requirements concerning global systemically important banks. The revised

---

<sup>74</sup> “The standardized approach for measuring counterparty credit risk exposures”: the BCBS from March 2014 (rev. April 2014).

<sup>75</sup> “Capital requirements for bank exposures to central counterparties”: the BCBS from April 2014.

<sup>76</sup> “Basel III: A global regulatory framework for more resilient banks and banking systems”: the BCBS from December 2010 (rev. June 2011).

framework of Basel contains a special methodology for assessment and identification of such institutions to further impose additional loss absorbency requirements on them.<sup>77</sup>

Basel III also enhances the banks' governance, provides special concentration risk management guidelines, promotes effective stress testing and introduced regulatory colleges for cross-border banking activities. To address the transparency issues in banking industry, Basel III introduced standards patterns for data disclosure.<sup>78</sup>

The changes introduced to the regulatory framework introduced by the Basel III were required to be implemented gradually. The minimum capital ratio recommendation was scheduled to be implemented at a level of 3.5% by 2013, at a level of 4% by 2014 and at its ultimate value of 4.5% for 2015. The capital conservation was stipulated at a level of 0.625% for 2016, 1.25% for 2017 and of 2.5% for 2019. The minimum Tier 1 capital ratio was required to be fully implemented by 2015. The LCR has been initially set at 60% of its required value in 2015 and was expected to increase by 10% each year until its ultimate implementation in 2019. The NSFR needed to be introduced in the beginning of 2018.<sup>79</sup>

Although the third version of Basel introduced significant improvements in the pre-crisis regulatory framework, it remained to be a subject of strong criticism. Basel III did not change the risk weighting in the framework; it did not require bank to hold some more capital against specific exposures. It also has been argued that the updated version of the Basel Accord overemphasizes the linear capital adequacy. In the event of an economic downturn there won't be any possibility of using the existing capital buffers to maintain the minimum requirement. Despite the inclusion of some countercyclical measures, Basel III is still prone to procyclicality. One of the possible solutions to this problem is to require the minimum capital ratio to vary with the asset structure and portfolio diversification of the bank.<sup>80</sup>

An additional deficiency of Basel III found in the literature is that it does not include the regulation of a bank size, nor it places correspondent limitations on banking and non-banking activities.<sup>81</sup> Basel III did improve separate aspects of the capital management process but failed to adequately address the main problems of the risk weighting approach in capital requirements

---

<sup>77</sup> "Global systemically important banks: Updated assessment methodology and the higher loss absorbency requirement": the BCBS from July 2013.

<sup>78</sup> "Revised pillar 3 disclosures requirements.": Standards by the BCBS from January 2015.

<sup>79</sup> "Basel III: A global regulatory framework for more resilient banks and banking systems": the BCBS from December 2010 (rev. June 2011).

<sup>80</sup> Danielsson J., Shin H., Zigrand J. Endogenous and systemic risk. In J. Haubrich & A. Lo (Eds.), *Quantifying systemic risk*. Chicago: University of Chicago Press, 2013. 73–94 pp.

<sup>81</sup> Vallascas F., Keasey K. Bank resilience to systemic shocks and the stability of banking systems: Small is beautiful. *Journal of International Money and Finance*. 2012. № 31. P. 1745–1776.

calculations. It also did not solve the problem of portfolio invariance; the additional capital requirements for concentrated portfolios were not introduced. Additionally, the risk modelling under Basel III reflects only a single global risk factor and not the ones originating locally while the recent crisis demonstrated that shocks tend to originate locally and only then spread further, globally. <sup>82</sup>

Further criticism of Basel III raised from the fact that it still does not eliminate the occurrence of regulatory arbitrage. The weighting of assets is still performed on the ex-ante basis, while banking institutions are still able to trade on global markets to minimize regulatory and tax costs. The following implies that there is still a possibility of transferring the risk from banks to companies outside the banking industry where capital requirements are not applicable. By shifting their risks, banks can significantly reduce capital requirements.

It has also been noted that the leverage ratio, a new measure under Basel III, in a way contradicts the risk weighting of minimum capital. The two regulatory measures may call for different levels of capital. If the leverage ratio is set at a low level, it becomes a maximum capital requirement. Banks will refuse to hold capital beyond the following level and will start arbitrarily adjusting the risk weighted assets.

A significant shortfall of the Basel III framework is its emphasis on the risk of individual institutions without due regard to systemic risk elimination. The level of capital for banks are set individually, without a proper consideration of their linkages with other banks' risk profiles. <sup>83</sup>

Other controversies of Basel III refer to the insufficiently addressed large exposures treatment, the issue of sovereign risk weighting, and arbitrage arising from the dissimilar treatment of the trading and banking book positions and from the possibility of shifting the bank's promises to the unregulated shadow banking sector.

Given the number of the controversies and deficiencies found in the third as well as precedent editions of Basel, we may conclude that the very basis chosen by the EU authorities for their regulatory reforms was far from being ideal, and probably not adequate enough to address the whole range of problems the banks faced during the crisis.

---

<sup>82</sup> Blundell-Wignall A., Atkinson P. Thinking about Basel III: Necessary solutions for capital and liquidity. // OECD Journal: Financial Market Trends. 2010. №1. P.19–33.

<sup>83</sup> Acharya V. The Dodd-Frank Act and Basel III: Intentions, unintended consequences, and lessons for emerging markets. ADBI Working Paper Series № 392.

## **Conclusions.**

The present section reviews the theoretical aspects of banking regulation: explores the economic essence of banking regulation and supervision, provides justifications for the regulation of banking activities and examines an extensive array of the existing regulatory and supervisory instruments.

Special attention is dedicated to studying of the possible effects of independent regulatory and supervisory practices on the bank stability, performance and development. It has been noted that the theoretical and empirical studies examined in the present paper provide quite conflicting views on this particular matter. While theorists generally advocate the establishment of quite stringent regulatory regime and mostly concentrate on the economic benefits from its implementation, the empirical studies indicate that certain regulatory practices, especially if inappropriately applied, are not necessarily conducive to positive outcomes, quite the opposite, in practice, they cause significant costs to financial intermediaries and impede the banks' market initiatives.

The final subsection assesses the post-crisis Basel framework which provided the main guidelines for the regulatory reforms in the EU. The main conclusion is that while the revised version of Basel accord generally addresses the underlying deficiencies of the pre-crisis regulatory framework, it is still far from the ideal one. The controversies of Basel III mainly include: the unresolved portfolio invariance problem, the issue of sovereign risk weighting, the insufficiently addressed large exposures treatment as well as the remaining possibility of arbitrage stemming from the dissimilar treatment of the trading and banking book positions and from the bank's ability to shift its promises between financial institutions (towards the unregulated shadow banking sector).

## PART II. POST-CRISIS DEVELOPMENTS IN THE FIELD OF THE EU BANKING REGULATION.

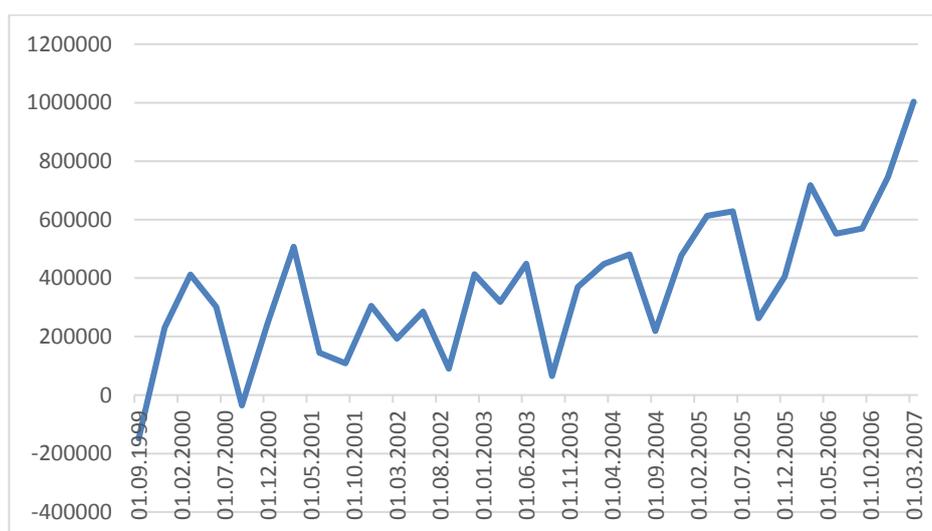
### 2.1. Lessons from the crisis and the need for reforms in the EU banking regulatory sector.

In the present section we are determined to review the main causes and some further implications of the global financial and sovereign debt crises to provide the context in which much of the post-crises banking regulation agenda was shaped.

Shortly before the outbreak of the global financial crisis, financial markets in Europe had been booming and financial institutions thriving. The growth of financial institutions' total assets was outpacing the growth of the real economy (Figure 2.1.). Global banking groups, including those headquartered in the EU, experienced a significant growth both in their size and scope. They became extremely interconnected through long intermediation chains of claims and correlated risk exposures stemming from the increasingly similar investment strategies. Their leverage had also significantly increased as part of an expansion of an active balance sheet; the bank's reliance on short-term wholesale funding had rapidly increased as well. Therefore, solvency and liquidity shock absorbers of the large banking groups had significantly declined alongside with their growing systemic importance.

Figure 2.1.

Totals assets of Euro area monetary financial institutions in millions of €.



Source: ECB Statistical Data Warehouse.

Trading activities of the large banking institutions increased, inducing a further growth of balance sheets as the banks built up large asset inventories to participate in the following

activities.<sup>84</sup> Additionally, commercial banks had started shifting away from customer relationship-based banking (where loans are granted and held to maturity) towards the so-called “originate and distribute” model (in which granted loans are pooled, securitized and sold to investors). The following led to the development of the new connections of traditional banking institutions with the shadow banking sector making the former to become an essential part of the long intermediation chains typically associated with the shadow banking. Securitization and other shadow banking activities allowed banks to tap wholesale markets and institutional investors to grow more quickly than was possible by solely relying on slowly growing insured deposits.<sup>85</sup>

The rapid growth of the major financial institutions and financial sector was also facilitated by the general underpricing of risk in financial markets, inadequate regulation and supervision as well as undue reliance on self-regulation.<sup>86</sup>

The global financial crisis had numerous intertwined causes, which have been analyzed in multiple economic studies. While other factors have played a crucial role, including the international imbalances and accommodating monetary policies, the deficiencies in the financial systems as well as the fallacies of the supervisory and regulatory framework are commonly considered as the main contributors to the crisis.

The following provides a range of the main problems revealed by the pre-crisis financial boom and subsequent bust, with the main focus only on those relating to the deficiencies of the banking regulatory system later addressed by reforms.

- Inadequate micro- and macro-prudential supervision and regulation. Regulators failed to adequately appreciate and address the risks accumulating in the financial system in the years leading up to the financial crisis. The lack of macro-prudential supervision resulted in uncontrolled and excessive asset growth in the financial sector and the emergence of asset bubbles. Financial regulation didn't work properly; it mostly relied on self-regulation and did not provide an adequate level of consumer and investor protection. Regulations worked in accordance with the financial cycle, i.e. allowing expansion of the bank's balance sheet in a boom period when there are less capital constraints, but then restricting it in the period of recession when capital requirements rise, and insufficient capital buffers have been accumulated during the more affluent

---

<sup>84</sup> Global Financial Markets liquidity study / PricewaterhouseCoopers, April 2015. P.14.

<sup>85</sup> URL: <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex:52014SC0158> – EUR-Lex. (Date of access: 17.03.2018).

<sup>86</sup> De Haan, J., Oosterloo S., Schoemaker D. Financial Markets and Institutions: A European Perspective, Third Edition, Cambridge University Press, Cambridge, UK, 2015. P.448.

period. Another problem is related to the lack of international regulation: while the operation of the largest finance institutions expanded far beyond the national borders, regulatory and supervisory frameworks remained largely within the national supervisors' competence, thus, could not adequately deal with the world market developments.

- Leverage and limited ability to absorb losses. The expansion of the financial sector and bank balance sheets accompanied by successive increase in leverage. While the banks' capital bases shrank, the level of risk significantly increased, and by the time of the crisis's outbreak, a range of important institutions had an equity capital base that amounted to less than 3% of their balance sheets. This allowed banks to capitalize on equities, but the increased leverage resulted in a lower resilience, incapacity of banks to absorb shocks and losses once the crisis hit. It also turned out that a large part of bank's capital reserves was of really poor quality, hence, unable to absorb shocks.<sup>87</sup>
- Inability to absorb liquidity shocks. Until the crisis hit, banks increasingly relied on short-term funding to finance their balance sheets, tapping the interbank and wholesale markets in repurchase agreements. The extreme reliance on unstable short-term wholesale funding (and as a result increased maturity mismatch between these short-term liabilities and longer-term loans) made banks vulnerable to liquidity shocks, especially when combined with increasingly small stocks of liquid assets. Shortly after the beginning of the crisis, liquidity disappeared from bank funding markets, large-scale liquidity injections from the part of central banks became necessary. For many banks, these were insufficient, because they ran out of collateral for central bank operations. The liquidity problems hid the fact that many banks were insolvent. The direct consequence of all this was unprecedented state aid in the form of public capital injections, guarantees on newly issued banks debt to help banks regain access to wholesale funding.<sup>88</sup>
- Absence of the relevant authorities/special mechanisms to facilitate an orderly winding down and resolution of cross-border financial institutions.

---

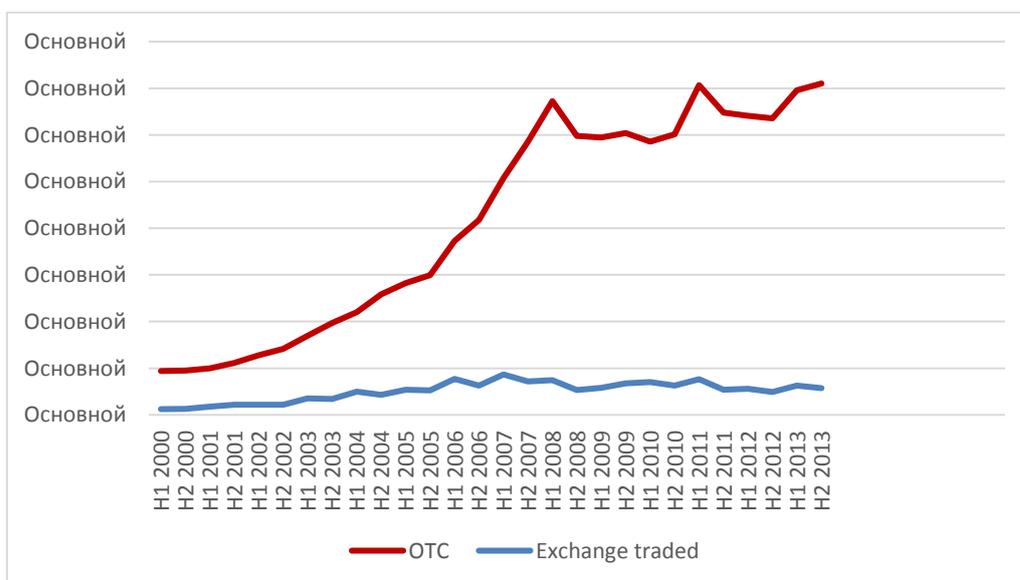
<sup>87</sup> European Commission. Economic crisis in Europe: causes, consequences, and responses// European Economy. 2009. №7. P.10 – 13.

<sup>88</sup> Armstrong J., Caldwell G. Liquidity Risk at Banks: Trends and Lessons Learned from the Recent Turmoil. URL: <https://www.bankofcanada.ca/wp-content/uploads/2012/01/fsr-1208-armstrong.pdf>. (Date of access: 17.03.2018).

- Too big to fail problem. Public safety nets (implicit and explicit public subsidies directed to fund the large banks' costs) and expectation of being bailed out induced banks to expand and take excessive risks; the moral hazard problem arose.
- Weak governance and risk management reinforced the problems, as financial institutions were taking risks that were inadequately monitored in the market and insufficiently controlled internally. Moreover, various remuneration policies used to reward the management staff increasing returns to shareholders without due consideration of risk, and in such a way even promoted excessive risk-taking.<sup>89</sup>
- Deficiencies in derivatives markets. Derivatives markets in the years before the crisis grew increasingly fast, in particular those trading over-the-counter compared to those trading on exchanges (Table 2.2.). OTC trading remained largely outside the scope of regulation. Credit default swaps market (a specific derivative market) contributed significantly to the financial crisis's development through complex web interconnections. The OTC market's inherent opaqueness made it difficult to detect the risks accumulating at individual institutions and in the system as a whole, and to assess the consequences of a default of a market participant.<sup>90</sup>

Figure 2.2.

### Growth in international derivatives markets



<sup>89</sup> Perrut D. Financial Regulation after the “subprime” crisis: what has been learned and what reforms made? // European issues. 2012. № 246. P. 7 – 8.

<sup>90</sup> Bullard J., Neely C., Wheelock D. Systemic Risk and the Financial Crisis: A Primer // Federal Reserve Bank of St. Louis Review. 2009. № 91(5, Part 1). P. 407-408.

Source: BIS Statistics Explorer.

- Systemic risk originating in the shadow banking sector. Shadow banking system (previously not falling under regulation) experienced significant growth in the pre-crisis years. Many banks had moved away from making loans and keeping them on their books to selling loan portfolios and shifted the risk off the balance with the help of securitization. Thus, various kinds of asset-backed securities induced the intermediation of non-bank credit, ranging from asset-backed commercial papers to credit default obligations. The non-bank credit activities were largely relied on wholesale funding, and not funded by deposits. Given the short maturity of the funding, the difficulty to assess their value and the absence of a specific public safety net, made them susceptible towards the liquidity runs evidenced in the course of the crisis.<sup>91</sup>

The listed above regulatory deficiencies were largely global and not specifically European. Further, we will look into more specific deficiencies adherent to the EU regulatory system that turned the financial crisis into a wider sovereign debt crisis.

The origin of the recent sovereign debt crisis can be explained by macroeconomic imbalances and the underestimation of the European monetary union's fragility in a crisis context. The significant microeconomic benefit of a single monetary union's establishment is the eradication of foreign exchange risk between the participating countries, which in turn leads to homogenous individual prices. However, in the absence of fiscal discipline, there might be some negative externalities, especially if member countries' governments fail to adjust their economies internally as imbalance can become extremely large. In the case of the Euro area, the regulatory principles and some fiscal rules inscribed in the Maastricht Treaty were not fully implemented by some peripheral countries which gave rise to significant imbalances. Stated another way, some countries were allowed to join the Eurozone's enlargement process notwithstanding the fact that questions of their fiscal convergence and economic sustainability were still opened. This was the case of Greece, which at the time of accession to the Eurozone could hardly brag about the perfect state of its public finance.<sup>92</sup>

A lack of budget discipline was not the only cause of the Eurozone sovereign debt crisis. In fact, fiscal policies in countries like Ireland and Spain looked relatively healthy when the financial crisis erupted. Another reason of the crisis is a financial cycles' divergence.

---

<sup>91</sup> Perrut D. Financial Regulation after the "subprime" crisis: what has been learned and what reforms made? // European issues. 2012. № 246. P. 7 – 8.

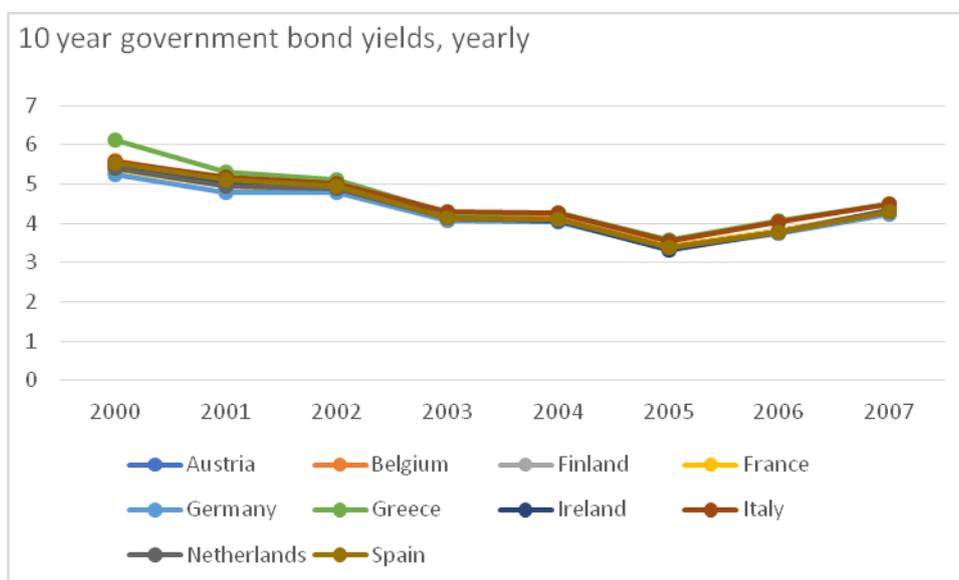
<sup>92</sup> Dobra A. Lessons from the malfunctioning of the Eurozone's financial system// Journal of Public Affairs. 2014.№ 3. P. 269.

Macroeconomic and financial imbalances that were instantly growing in the years prior to the start of the crisis were probably a major factor behind the deterioration of public finances.<sup>93</sup> Characteristics of the financial cycles are that they are driven by growth in credit and house prices; they have a longer duration in comparison to business cycles; and they have a wider amplitude while the correction of the financial cycle is often accompanied by financial crises.<sup>94</sup> The financial cycle in the Eurozone was asymmetric. It was quite strong in periphery countries such as Spain, Ireland, and, to a lesser extent, in Greece, and much more contained in such countries as Germany and Austria, where interest rates were relatively low even before the launch of the EMU project.<sup>95</sup>

As indicated by official statistics agencies, financial markets significantly underpriced sovereign risk after the Euro area monetary unification made interest rates converge among the member countries. The spreads of 10-year sovereign bonds between the peripheral countries and Germany were almost close to zero in the run up to the crisis (Figure 2.3.). Moreover, the sovereign risk of the Eurozone, including the peripheral countries, was priced almost the same as the German sovereign debt.

Figure 2.3.

**Risk premiums in the run up to the crisis.**



<sup>93</sup> De Haan, J, Hessel J., Gilbert N. Reforming the Architecture of EMU: Ensuring Stability in Europe, DNB Working Paper 446. 2014. P.7.

<sup>94</sup> Drehmann, M., Borio C., Tsatsaronis K. Characterizing the financial cycle: don't lose sight of the medium term, BIS Working Paper 380. 2012. P.2.

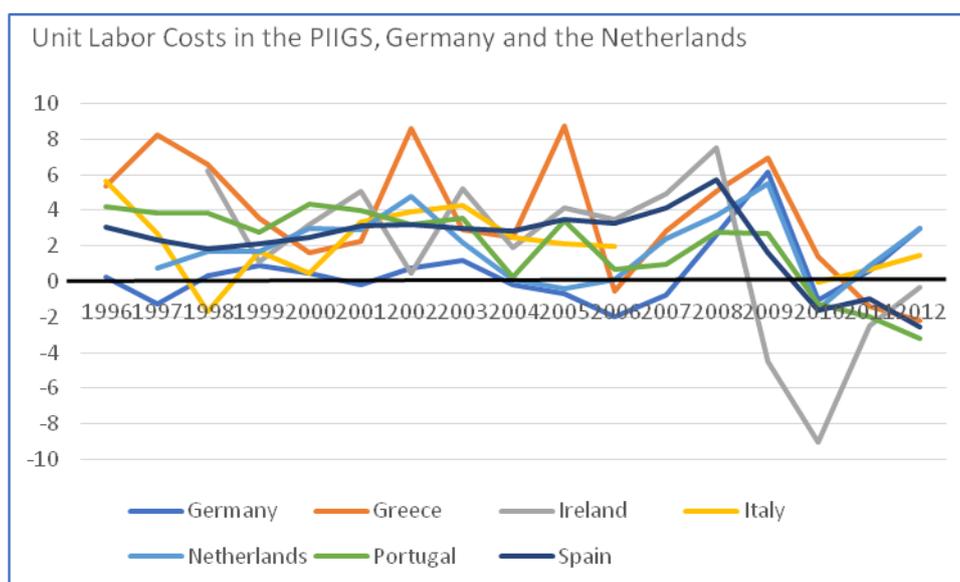
<sup>95</sup> Obstfeld, M. Finance at Center Stage: Some lessons of the Euro crisis, European Economy – Economic Papers 493. 2013.

Source: OECD online database

Another cause of the sovereign debt crisis is a diverging competitiveness within the euro area. In the run-up to the crisis, from the very inception of the euro, several periphery countries saw their competitiveness deteriorate. Between 2001 and 2011 per unit labor costs rose by 33% in Greece, 31% in Italy, 27% in Spain, and 20% in Ireland. In contrast, in Germany and some other advanced Eurozone economies they hardly exceed 1% (Figure 2.4).

Figure 2.4.

### Growing labor costs of the periphery countries since the Eurozone establishment.

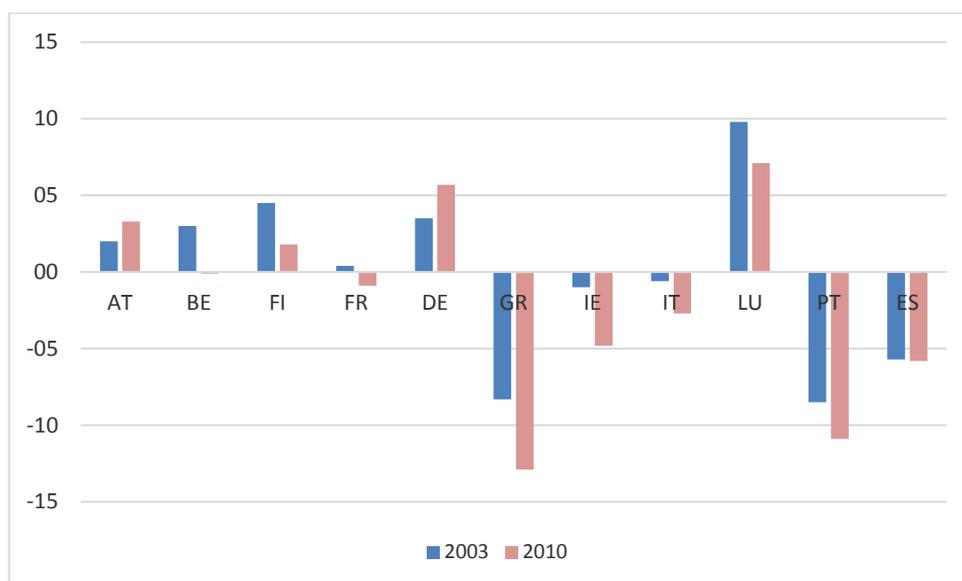


Source: OECD online database.

Large current-account deficits in some countries supposedly should have signaled a deterioration of their competitive positions (Table 2.5). But these deficits were easily financed due to increased availability of foreign funding accompanying financial integration. In fact, the incoming flows of capital continued pushing up money and credit growth thereby increasing inflation and further deteriorating the periphery countries' competitiveness. As Eurozone members were not allowed to devalue their currency or use national monetary policy, external imbalances could only have been restored by improving competitiveness (but it was not realized; the cross-border capital flows in periphery countries went primarily into the non-tradable sector and financed demand rather than supply – exporting industries).

Figure 2.5.

### Current account balances in some Eurozone countries.



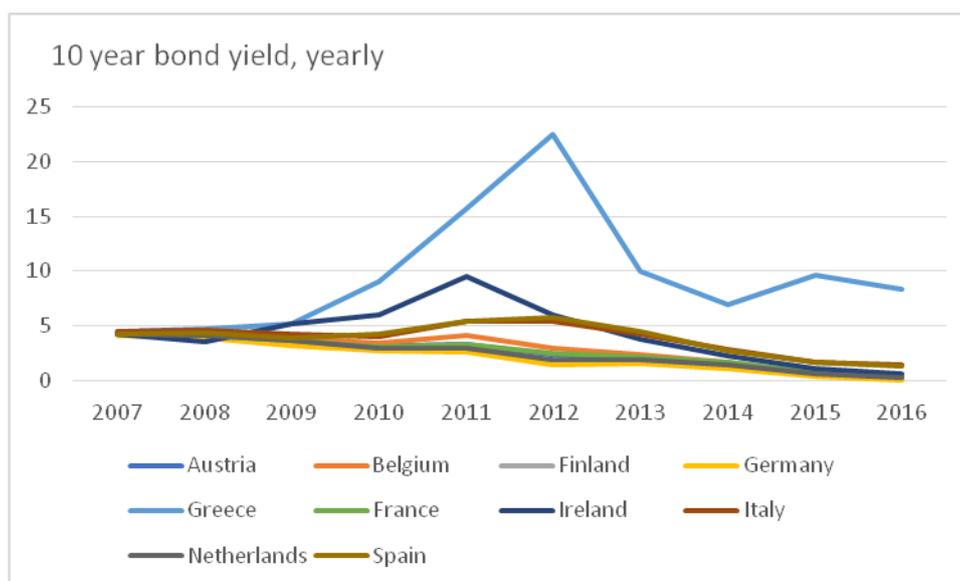
Source: Eurostat.

After the inception of the Global Financial Crisis in 2008, the market mechanisms demanded a reevaluation of the sustainability of credit growth and large account deficits.<sup>96</sup> The process of reevaluation resulted into large private sector capital outflows, ensuing real sector's deprivation of investments and tightening of credit availability. This led to the outbreak of the sovereign debt crisis of the peripheral countries. The volatility of their sovereign debt, as a matter of course, rapidly increased between 2007 and 2009, and the cost of insuring sovereign debt against default soared drastically as the confidence in the peripheral countries' abilities to repay their debts disappeared. Starting from 2010, the spread of 10-year sovereign bonds between Germany and PIIGS (Portugal, Ireland, Italy, Greece, Spain) was no longer the same (Figure 2.6.).

*Figure 2.6.*

### **Risk premiums following the outburst of financial crises.**

<sup>96</sup> Véron N. The European debt and financial crisis: origins, options. Congressional Testimony Submitted to the US Senate Committee on Banking, Housing, and Urban Affairs: Subcommittee on Security and International Trade and Finance, 22 September 2011.



Source: OECD online data base.

The predominance of bank financial was an additional amplifier of problems. European banks were thinly capitalized prior to the crisis eruption and extremely large relative to the countries' GDP values. They were so large, so significant for the financial system that they had to be bailed out, but their sizes created a double-drowning scenario. This was particularly the case of Ireland, banking system of which went down first. The Irish banking sector had to absorb huge losses on mortgage lending when the subprime crisis broke out. In addition, it was confronted with massive withdrawals from the international liabilities. So, government's financial assistance became unavoidable. The Irish authorities required an external help from the European Financial Stability Fund. A program of €85bn financial assistance was agreed at staff level with the Troika; and approved by the ECOFIN Council and the IMF Board in December 2010.<sup>97</sup> The Irish government received financial assistance to recapitalize its banks and cover additional costs of deleveraging the private banks so that they would become less reliant on governmental funding.

The funding problems of sovereigns were also aggravated by a negative feedback loop with the banking sector. Many banks in the Eurozone are large in proportion to their home economies. Furthermore, most of these banks heavily invested in government bonds, with a home bias which is quite strong for banks of the most disturbed sovereigns – Greece, Ireland, Italy, Spain and Portugal. In in the last three countries home banks owned around 25% of the outstanding stock of government debt. This is basically a foundation of the so-called “doom loop”. During the financial crisis, government in troubled euro area economies engaged in large-scale, sometimes blanket financial sector bailouts. The following bailouts necessitate the issuance of additional debt by the

<sup>97</sup> The Economic Adjustment Program for Ireland / Occasional Papers 76. European Commission. February 2011. P.5.

governments causing a buildup in the sovereign's credit risk. Slumping creditworthiness of a sovereign may bring about the following problems. First, it may result in underinvestment in the economy and eventually in a significant slowdown in a country's economic growth. Household and corporations may anticipate that a high level of government debt may result in increased taxes, thereby diluting long-run returns on real sector and human-capital investments. Second, the deterioration in a government's creditworthiness may feedback adversely into its financial sector. So, one of the primary goals of post-crisis reforms was to break these vicious links between sovereign and banks.<sup>98</sup>

The final determinant of the crisis propagation was the question of the appropriateness of the policy response. It suddenly became clear that the Eurozone institutional infrastructure is not prepared for a crisis of such extreme severity. So, policymakers made numerous mistakes in the pursuit of the markets' appeasement and survival of the member countries' financial systems. Judging from the financial markets' reactions, each of the policy interventions made things even worse. The corner was turned only when ECB President Mario Draghi announced at an investment conference in the summer of 2012 that the central bank within its competences will take all necessary measures to preserve the euro.

The recent crises have made clear that pre-crisis financial regulation and supervision in the European monetary union is not a viable arrangement. Lots of deficiencies in the structure and operation of the European financial system were identified. The special authorities took stock of them and embarked upon the full-scale program of the regulatory reforms.

## **2.2. Post-crisis changes to the European system of banking regulation.**

The global financial and sovereign debt crises triggered a round of regulatory reforms in the EU banking sector. There were some measures agreed at international level as part of the G-20 and the Financial Stability Board commitments representing a direct response to the financial crisis and some wider measures taken at European level aiming at the creation of a stable, efficient and resilient banking sector in the EU. The present section of the paper revisits the objectives of the banking reforms, examines the newly issued pieces of legislation for the purpose of identifying their possible deficiencies and cites the introduced revisions of the already existing regulations.

Banks are major elements of the EU financial system. Households, governments and non-financial corporates are heavily dependent on the banks' ability to supply the finance. The fact that

---

<sup>98</sup> Archaya, V. Schnabl P. *How Banks Played the Leverage Game, Restoring Financial Stability*, Wiley Hoboken (NJ), 2009. 303 p.

most of the financial assets in the euro area are held by banks demonstrates their key role in the financial system.<sup>99</sup>

Unlike most of the non-bank institutions, banks are characterized by a high risk of instability and fragility mainly due to the maturity and liquidity mismatches between their assets and liabilities. Hence, they are particularly vulnerable to various sorts of confidence crises as their predominantly short-term creditors may be prone to withdraw their funds. To avoid the occurrence of disruptive runs and confidence crises, banks benefit from explicit and implicit public safety net coverage, including deposit guarantee schemes, lender of last resort support by central banks, but also implicit subsidies. The following safety nets prevent wide-scale collapse of the intermediation services of the financial intermediaries. However, their presence may incentivize banks to take excessive risks, expand their balance sheet and leverage up.<sup>100</sup> To control the excessive risk-taking and leverage incentives of banks, banks have long been heavily regulated and supervised. However, as it was noted in the previous section, the regulatory and supervisory framework of banks in the EU was inadequate prior to the crisis.

To enhance the stability and resilience of the banking sector and reduce the likelihood of the future banking failures occurrence, the EU regulatory authorities introduced a number of important reforms in the banking regulation sector aimed at:

- increasing the banks' ability to absorb losses by increasing the level and quality of bank capital;
- improving the banks' capacity to absorb liquidity outflows and ensuring adequate asset-liability matching;
- improving banks' risk management and governance;
- addressing the "too big to fail" problem;
- facilitating crisis management and bank resolution.<sup>101</sup>

---

<sup>99</sup> Bakk-Simon K., Borgioli S., Giron H., Maddaloni, H., Rosati R. Shadow banking in the euro area: an overview// ECB Occasional Paper Series. 2012. № 133. P.20.

<sup>100</sup> Admati A. The bankers' new clothes: What's wrong with banking and what to do about it. Princeton University Press/ ed.: A. Admati, M. Hellwig. Princeton University Press, 2013. P.9.

<sup>101</sup> Carmassi J., Di Noia C., Micossi S. Banking Union: A federal model for the European Union with prompt corrective action// CEPS Policy brief, № 282, 2012.

The key legislation issued to correct the deficiencies of the pre-crisis banking system was the Capital Requirements Directive<sup>102</sup> and Regulation<sup>103</sup> (jointly titled as CRD IV package) entered in force in July 2013 and aimed at implementing the Basel III settings in the EU.

The Directive regulates the rules for establishing banking institutions, capital buffers and bank's supervision. In conformity with the Basel III requirements, CRD IV introduced five new capital buffers: the capital conservation buffer, the counter-cyclical buffer, the global systemic institutions buffer, the systemic risk buffer and the other systemic institutions buffer. The capital conservation buffer was set at 2.5% of the total risk exposure. The countercyclical capital buffer should have been correspondent to the total risk exposure multiplied by the weighted average of the countercyclical buffer rates specified in the CRD IV. The systemic risk buffer was expected to be calculated as at least 1% of the exposures to which the systemic risk buffer applies.<sup>104</sup> The buffer for the global systemic institutions should have been equivalent to one of the five subcategories they belonged to, as specified by the criteria stipulated in CRD IV. The minimum value of the buffer for the lowest category was equal to 1%. Each subsequent category was to increase the value of the buffer by 0.5% compared to the precedent one. The local financial institutions' buffer should have been equal to 2% of the risk weighted assets.<sup>105</sup>

CRD IV has also introduced some new regulations concerning corporate governance and remuneration, aimed at counteracting excessive risk taking. The corporate governance measures include the requirement of diversity in board composition and enhanced risk management functions. Also, CRD IV included a special bonus cap on the variable components of remuneration. In addition, CRD IV proposed additional disclosure requirements for individuals whose earning exceed one million of euro per annum.<sup>106</sup>

As part of the Basel III, CRD IV has also attempted to reduce the banks' extreme reliance on external credit ratings by requiring internal credit opinions before taking investment decisions and internal ratings valuations concerning the computation of the adequate capital requirements.

---

<sup>102</sup> Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

<sup>103</sup> Regulation (EU) № 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012.

<sup>104</sup> URL: [http://europa.eu/rapid/press-release\\_MEMO-13-690\\_en.htm/](http://europa.eu/rapid/press-release_MEMO-13-690_en.htm/) (Date of access: 18.03.2018) – official site of the European Commission.

<sup>105</sup> Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms.

<sup>106</sup> Ibid.

The second integral part of the CRD IV package is the Capital Requirements Regulation (CRR) (Regulation № 575/ 2013) which operationalizes and further specifies the regulatory requirements presented in CRD IV. While the directive mainly regulates the conditions of access to deposit taking, the regulation introduced obligatory prudential norms for the activities of credit and investment institutions. The CRR largely aimed at creating the European Single Rulebook and preventing regulatory arbitrage as well as major distortions in the EU banking sector. It establishes the special requirements for the financial institutions' own funds, capital standards, liquidity, and leverage. Based on the proposal regarding prudential requirements issued by the European Commission in 2011, the CRR included a new, stricter and clearer definition of the regulatory capital (common equity and Tier 2 capital), as well as the additional requirement to increase banks' own funds.

To complement risk-based capital requirements, the CRR has also introduced a special leverage ratio. The following regulatory tool is primarily intended to restrict the build-up of leverage in the banking sector and complement the risk-based capital requirements with a non-risk backstop measure.<sup>107</sup> Since the leverage ratio used to be a relatively new regulatory instrument for the EU, the Commission suggested it should be applied in a phased manner based on the information reported by European banks starting from 2015. In 2016 the European Banking Authority based on the collected data affirmed that the introduction of a leverage ratio minimum requirement in the EU will significantly mitigate the risk of excessive leverage.<sup>108</sup> Based on this conclusion, the application of the leverage ratio as a binding measure has started in January 2018.

109

While strong capital requirements are indispensable for improving the solvency position and losses absorbability of banks, they alone are not sufficient to enhance the resilience of banking system. Banks also need an adequate liquidity base and to be able to manage their cash flows and liquidity position. As it was previously indicated, in the period of the crisis the banking institutions did not hold sufficient amounts of liquid means. So, when the crisis erupted, they experienced a shortage of liquid assets and were unable to raise cash once funding markets had dried up. If not timely governmental interventions and superfluous central bank support, the following liquidity shortages would put an end to several financial institutions. The CRD IV package addresses the following problem by introducing a new set of liquidity requirements. It introduced a binding net

---

<sup>107</sup> Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and investment firms amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.

<sup>108</sup> URL: <https://www.eba.europa.eu/-/eba-recommends-introducing-the-leverage-ratio-in-the-eu/> (Date of access: 17.05. 2018) – official site of the EBA.

<sup>109</sup> The CRD-IV package. The EU Legislation in Progress Briefings / European Parliament. April 2017. P. 6.

stable funding ratio (NSFR) – a long-term structural ratio for correcting the liquidity mismatches. It requires banks to keep a stable funding profile in relation to their on- and off-balance sheet activities starting from January 2018. Next to the liquidity coverage ratio, it is the second major liquidity monitoring instrument. NSFR is expressed as a percentage and set at a minimum level of 100 %; it signals that an institution holds sufficient funding to meet its funding needs during the one-year period under both normal and stressed conditions.<sup>110</sup>

One of the major controversies relating to the CRD IV package is the treatment of sovereign risk. The European regulatory framework assigns a zero-risk weight for sovereign exposures; it does not consider the increase in sovereign market risk. Although the Basel guidelines do not impose explicit sovereign risk weights; it includes risk weighting differentiation reflecting default risk of certain counterparties and an incremental risk charge which is also relevant to sovereigns. In these terms, the EU CRD IV/CRR is inconsistent with the Basel framework.<sup>111</sup> In essence, the CRR treats sovereign bonds as risk-free high-quality assets due to the ability of the euro area participants to repay their debt any time by raising taxes. They constitute a great share of bank liquidity. Nevertheless, sovereign risk materialization during the past crisis resulted in significant losses and capital shortfall of banks. The CRD IV assumption that sovereign bonds are risk-free doesn't hold; it makes this regulation ineffective means of prudential provision. The other controversies are more of the technical nature. The CDR IV package failed to delink the calculation of capital requirements from banks' internal risk management models. The following gives rise to the quite divergent risk assessments of identical portfolios and distorts the risk exposures' evaluation processes.<sup>112</sup>

Another important piece of the post-crisis legislation addressing the issue of financial stability in banking sector is the Bank Recovery and Resolution Directive (BRRD). It proposed a common framework of rules and powers to ensure that regulatory authorities are able to intervene in a timely manner and restore the viability of a distressed financial institution, take ex-ante measures to prevent a distress and, where necessary, allow a failing of an insolvent institution. The overarching aims of the BRRD are to restore confidence in EU banks, prevent the need to bail out Too-Big-To-Fail institutions, and prepare the ground for the implementation of the banking union's project. The BRRD introduced a special mechanism for dealing with the banks' insolvencies that consist of three main stages: the insolvency prevention, an early intervention and

---

<sup>110</sup> URL: [http://europa.eu/rapid/press-release\\_MEMO-16-3840\\_en.htm?locale=en/](http://europa.eu/rapid/press-release_MEMO-16-3840_en.htm?locale=en/) (Date of access: 17.03.2018). – official site of the European Commission.

<sup>111</sup> Andreasen, B. L., Haastруп, M. N., Larsen, T. M., Oma, L. Favourable treatment of government bonds in financial regulation// Danmarks Nationalbank Monetray Review 1st quarter 2015.

<sup>112</sup> Financial Services Authority. Results of 2009 hypothetical portfolio exercise for sovereigns, banks and large corporations. March 1, 2010. P. 2.

resolution.<sup>113</sup> The preventive stage obliges banks to draw up special recovery plans. The responsible supervisory authority may take part in the bank's restructuring process to facilitate recovery. The resolution stage refers to the complex processes of the financial institution's restructuring or liquidation with the preservation of its critical functions, avoidance of significant disruptions to economic activities, minimized recourse to taxpayers' bail-in mechanism and adequate protection of the depositors.<sup>114</sup>

The BRRD has also included a provision for each EU country to set up a national resolution fund. All financial institutions were required to make necessary contributions to fund. The particular amount of contributions is calculated based on the institution's size and risk profile. The BRRD's rules ensure that bank's shareholders and creditors pay the defined share of the costs through the bail-in mechanism. If it appears to be insufficient, the national resolution funds introduced by the BRRD can provide the necessary resources to ensure the operation of a bank while it is being restructured.<sup>115</sup> The BRRD has been approved by the Parliament in April 2014. The application period for member states starts from January 2015, apart from the bail-in provisions which must have been applied from 1 January 2016 at the latest.<sup>116</sup>

In the period of crisis, the EU banking sector was exposed to shadow banking financing. Policymakers while trying to improve the EU regulatory framework addressed the need to improve the transparency of financial transactions. For this purpose, they issued a communication on shadow banks and took necessary measures to prevent banks from arbitrage by shifting their actives to the less regulated sector. The legislation dealing with the following issue are the Communication on Shadow Banking and Proposal on Money Market Funds (MMFs) issued in 2013, and the Proposal on Transparency of Securities Financing Transactions in 2014.<sup>117</sup> There is also lots of other legal instruments designed to regulate shadow banks.

European Market Infrastructure Regulation (EMIR) is one of them. It is aimed at increasing stability and improving transparency of the derivate market. The mentioned regulation requires the reporting of all derivative transactions to special database (trade repositories) to make them

---

<sup>113</sup> Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms.

<sup>114</sup> Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms.

<sup>115</sup> URL: [https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-supervision-and-risk-management/managing-risks-banks-and-financial-institutions/bank-recovery-and-resolution\\_en/](https://ec.europa.eu/info/business-economy-euro/banking-and-finance/financial-supervision-and-risk-management/managing-risks-banks-and-financial-institutions/bank-recovery-and-resolution_en/) (Date of access: 18.03.2018) – official site of the European Commission.

<sup>116</sup> URL: <http://pubdocs.worldbank.org/en/307521493605042302/S1-Anna-Gardella-BR-Wkshop-19Apr-2017.pdf/> (Date of access: 18.03.2018) – official site of the European Banking Authority.

<sup>117</sup> URL: [http://europa.eu/rapid/press-release\\_IP-15-5930\\_en.htm/](http://europa.eu/rapid/press-release_IP-15-5930_en.htm/) (Date of access: 19.03.2018) – official site of European Commission.

available to ESMA (European Securities and Market Authority). Additionally, EMIR ensures that eligible (standardized) derivative contracts are traded on exchanges or electronic trading platforms and cleared through special Central Clearing Counterparties. If a contract is not standardized and eligible for CCP clearing, enhanced risk management techniques need to be applied to reduce bilateral counterparty credit risk. Regulation requires financial counterparties to measure, monitor and mitigate risks by improving operational processes, conducting regular portfolio reconciliations between counterparties or by engaging in portfolio compression for large numbers of contracts with the same counterparty.<sup>118</sup>

Another post-crisis legislative acts that substantially improved transparency of shadow banking sector are Alternative Investment Fund Managers Directive (AIFMID) and the supplementing Delegated Regulation № 694/2014 on technical standards determining types of alternative investment fund managers. It offered rules on remuneration policies and required reporting of transactions to depositaries and the disclosure of necessary information to investors, national regulatory authorities, ESMA and the ESRB.<sup>119</sup>

Further rules that had to enhance of the EU regulatory framework of shadow banks were brought about by the MIFID and the supplementing regulation, published in the Official Journal in 2014. The Market in Financial Instruments Directive (MiFID) is a central piece of legislation for security markets. It governs the functioning of traditional stock exchanges and alternative trading venues as well as the provision of investment services in financial instruments by various financial intermediaries. The original form of MiFID transposed in November 2007 increased competition between trading venues, brought more options and lower prices for investors, but failed to properly address the regulation of “dark trading” activities (trading which is not subjected to pre-trade transparency requirements): dark pools, over the counter trading (OTC) and broker dealer crossing systems/ networks.<sup>120</sup>

The reviewed version of MiFID aims to make financial markets more transparent and resilient as well as to ensure investor protection. MiFID II takes under control not only multilateral trading operations (Multilateral Trading Facilities) and organized markets, but also previously unregulated Trading platforms (Organized Trading Facilities, OTF). At the same time, regulation of transactions of financial intermediaries with commodity derivatives is toughened, limits for the

---

<sup>118</sup> Regulation (EU) № 648/2012 of the European Parliament and of the Council of July 2012 on OTC derivatives, central counterparties and trade repositories.

<sup>119</sup> Communication from the Commission to the Council and the European Parliament. Shadow Banking – Addressing New Sources of Risk in the Financial Sector.

<sup>120</sup> G20 Leaders Statement: The Pittsburgh Summit, September 24-25, 2009, Pittsburgh URL: <http://www.g20.utoronto.ca/2009/2009communique0925.html> (Date of access: 22.02.2018).

categories of participants are introduced to better control speculative transactions. The transparency of trading activities has been significantly improved in the following ways: a consolidated tape of post-trade data and a trade transparency regime for non-equities markets have been introduced; the transaction reporting to supervisory authorities has been significantly strengthened.<sup>121</sup>

When the 2008 crisis erupted the incumbent Deposit Guarantee Schemes in the EU revealed themselves widely fragmented in terms of the levels, payout coverage and, in some cases, coverage scope (there was a lack of coverage of institutional deposits, including those of the SMEs). To restore confidence in the banking sector, in 2009 the EU authorities promptly reacted by introducing the necessary amendments to the 1994 version of the DGSD increasing the minimum coverage level from € 20 000 to € 100 000. The updated directive entered into force in 2009 (Directive 2009/14/EC).<sup>122</sup> Due to the urgency of its implementation, it was lacking some necessary revisions. To complete the work, in 2010 the Commission proposed a more comprehensive recast of the incumbent Directive. The revised DGSD aimed at harmonizing the guaranteed amounts and at simplifying their payouts. It included a clear and updated definition of deposits which narrowed the coverage scope for insurance of structured products. In contrast, the deposits of small and medium sized enterprises became eligible for the coverage. Also, the DGSD reduced the payout deadlines and required banks to inform depositors about the DGS eligibility of their deposits. The complete directive entered into force in 2014. It was expected to be reviewed after five years by the European Commission, which will if necessary put forward a new proposal.

<sup>123</sup>

The regulatory changes reviewed in the present section highlighted the need to increase security and transparency of financial markets, recognized the necessity of an enhanced consumers' protection from the upcoming crises; addressed the deficiencies of the incumbent banking regulatory framework and created special mechanisms for counteracting future crises in

---

<sup>121</sup> Global Regulatory Reform. The world of financial instruments is more complex. Time to implement change. Capital markets reform: MiFID II, EY building a better working world, 2015. URL: [http://www.ey.com/Publication/vwLUAssets/EY-MiFID-II-client-brochure-the-world-of-financial-instruments-is-more-complex/\\$FILE/EY-MiFID-II-client-brochure-the-world-of-financial-instruments-is-more-complex.pdf](http://www.ey.com/Publication/vwLUAssets/EY-MiFID-II-client-brochure-the-world-of-financial-instruments-is-more-complex/$FILE/EY-MiFID-II-client-brochure-the-world-of-financial-instruments-is-more-complex.pdf) (Date of access: 22.02.2018)

<sup>122</sup> Quaglia, L. Financial regulation and supervision in the European Union after the crisis. *Journal of Economic Policy Reform*. 2013. № 16(1). P. 17–30.

<sup>123</sup> Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes (recast).

a timely manner.<sup>124</sup> The presented above regulations had the largest impact on the banking sector's performance and profitability.

The further reforms that we are intended to review in the ensuing section are mainly directed at correcting the shortcomings in the institutional framework that supports the single market and at restoring the financial integration within the Eurozone.

### **2.3. The rationale and current layout of the Banking Union project.**

Single Market integration since the completion of the Single Market Plan brought significant benefits to the EU member states. Le Europe group of researchers estimated that in 2015, as a result of member states' integration since nineties, GDP per capita is 1.7% higher on average across the EU than it would have been without the integration processes, and there are 3.6 million more jobs in the EU. The indicated gains are recurring and growing over the timespan.<sup>125</sup>

Integration in the markets for financial services is an integral part of the Single Market. Among the economic growth and employment benefits, financial integration has contributed to the convergence and reduction of financing costs for various corporations and households and revelation of new investment and diversification opportunities across the EU.<sup>126</sup>

As it was previously outlined, the financial and sovereign debt crises decelerated the pace of financial integration (if not completely killed the stimuli to integrate further) and shuttered the Eurozone's stability.

The EU regulatory reform agenda aimed at restoring the previously disrupted integration processes and correct the institutional deficiencies in the Eurozone's structure (completing the European Economic and Monetary Union). It suggested a move towards a single rulebook for EU financial services, creation of the European System of Financial Supervision and establishment of a Banking Union with a single Supervisory Mechanism and a Single Resolution Mechanism.

A lack of harmonized rules and coordination among national supervisors across the European members' borders may result a regulatory patchwork, uncertainty for financial intermediaries and investors, excessive exploitation of regulatory loopholes, distorted competition and established barriers for various financial agents to operate across the Single Market. In order to establish a unified supervisory framework for the EU financial sector, the European regulatory authorities have engaged in the process of establishing a single rulebook, containing a single set

---

<sup>124</sup> De Haan, J., S. Oosterloo, D. Schoemaker. *Financial Markets and Institutions: A European Perspective*. Cambridge: Cambridge University Press, 2015.

<sup>125</sup> Muller P., Julius J., Natraj A. *The EU Single Market: Impact on Member States*. Brussels: Le Europe, 2017. P.33.

<sup>126</sup> *European Financial Integration / European Central Bank*. April 2012. P.31.

of harmonized rules for the financial sector in the EU. The creation of the European System of Financial Supervision consisting of three micro-prudential supervisory authorities (European Banking Authority (EBA), European Securities (ESMA) and Market Authority and European Insurance and Occupational Pensions Authority (EIOPA) deemed necessary for the single rulebook's furtherance.<sup>127</sup>

The EIOPA is an institution responsible for appropriate insurance undertakings and occupational retirement provisions. The ESMA acts as supervisory authority for credit-rating agencies and trade repositories.

The EBA perform multitude tasks among which effective and consistent regulation and supervision, maintaining the robustness and effectiveness of the European financial system; preventing regulatory arbitrage; facilitating international supervisory coordination; ensuring an adequate regulation of credit institutions' supervision and providing consumer protection. In addition, the EBA is conferred with task of contributing to the development of the Single Rulebook via drafting technical regulations and ensuring technical standards.<sup>128</sup>

The creation of a Banking Union and development of the Single Rulebook are mutually reinforcing processes: they both necessitate an establishment of the unified system of supervisory and resolution rules. The project of Banking Union additionally addresses the need to break the two-way link between the bank and sovereign risks and avoid cases where taxpayers are first in line to bail out ailing banks.

A decision to establish a full-fledge Banking Union in the euro area has been postulated in the report of the President of the European Council, Herman Van Rompuy, in June 2012.<sup>129</sup>

European Banking Union consists of four interrelated building blocks: a single rule book (that highlighted the need to create stronger prudential requirements for banks as well as special rules for the management of failing banks), single supervisory and single resolution mechanisms, a fiscal back-stop, an alignment of deposit guarantee schemes, and, finally, an institution responsible for implementation of macro-prudential supervision (European Systemic Risk Board). All the following elements are strictly interconnected; without the single rule book the overall

---

<sup>127</sup> The High-level Group of Financial Supervision in the EU Report chaired by Jacques de Larosière, Brussels, February 25, 2009. URL: [https://ec.europa.eu/info/files/report-high-level-group-financial-supervision-eu-chaired-jacques-de-larosiere\\_en](https://ec.europa.eu/info/files/report-high-level-group-financial-supervision-eu-chaired-jacques-de-larosiere_en) (Date of access: 24.02.2018)

<sup>128</sup> Regulation (EU) №1093/2012 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority).

<sup>129</sup> The European Council and Banking Union: European Council in Action, February 2016. URL: [http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS\\_BRI\(2016\)573282](http://www.europarl.europa.eu/thinktank/en/document.html?reference=EPRS_BRI(2016)573282) (Date of access – 24.02.2018)

supervision would be fragmented and competition in the banking sector distorted; the supervision without common resolution mechanism would not address the problem of vicious circle; and joint resolution practices without joint supervision would create moral hazard.<sup>130</sup>

*Figure 2.7.*

**The governance framework for financial supervision and stability.**



Adapted from: Schoenmaker, D. *Governance of International Banking: The Financial Trilemma*/ New York: Oxford University Press, 2013.

The general governance framework for banking supervision and stability includes five stages from rule-making to the fiscal backstop (Figure 2.7). It can be applied to depict the structure and way functioning of the Banking Union in the EU. The European Commission (EC) is the key policy- and rule-maker. The European Banking Authority is conferred with the obligations of drafting technical standards and developing the single rulebook for the European internal market. The supervisory function is now performed by the European Central Banks under the Single Supervisory Mechanism.<sup>131</sup>

The third and the fourth elements in the Banking Union structure deal with crisis management. The lender of last resort – emergency liquidity assistance function – should have been delegated to the ECB. Currently, it is still performed by national central banks. The deposit insurance and resolution mechanisms necessary for banks’ restructuring and dissolution processes are still not enacted/fully established (an integrated European Deposit Insurance and Resolution Authority are still absent in the banking union architecture).<sup>132</sup> The fifth element of the government framework depicted in the Figure 2.5. – the fiscal backstop – a certain barrier of public money that can be used in times of crisis when all the bail-in mechanisms are exhausted. The actual

<sup>130</sup> Speyer, B. *EU banking Union: right idea, poor execution*. DB Research Management, 2013.

<sup>131</sup> Schoenmaker, D. *Governance of International Banking: The Financial Trilemma*/ New York: Oxford University Press, 2013.

<sup>132</sup> Gros, D, Schoenmaker, D. *European Deposit Insurance and Resolution in the Banking Union*// *Journal of Common Market Studies*. 2014. №52. P. 529-546.

establishment of such fund in the EU is quite problematic, though frequently discussed and promulgated at the highest level.<sup>133</sup>

Let us further discuss the designated elements in detail. The Single Supervisory Mechanism is the first pillar of the European Banking Union, involving the European Central Bank which is responsible for its functioning, and the national competent supervisory authorities of the Eurozone. These supranational and national entities have to cooperate in good faith and to exchange the necessary information. National competent authorities must assist the ECB with the implementation of its obligations under the SSM Regulation.<sup>134</sup>

The SSM is based on the two legislative acts: the Council's Regulation 1024/2013 and the joint Council's and Parliament Regulation 1022/2013. The former regulation entitles the European Central Bank to supervise other banks in the EU. The second regulation incorporates changes to the founding act of the European Banking Authority.<sup>135</sup>

Within the SSM framework, the ECB is entitled to issue regulations, guidelines or general instructions to national supervisory authorities. Most of the supervisory decisions are taken by the ECB officials; the national representatives are predominantly preoccupied with the implementation of the ECB acts. For the bank to be a subject of ECB supervision the following conditions should be met: the bank's assets should exceed 30 billion of euros; the ratio of total assets to GDP of the euro area member state should exceed 20%; or national competent authorities define the chosen institution as significant to their financial system. An institution may be qualified as significant by the ECB officials if it has significant cross-border assets and liabilities, relies on ESM financial assistance, or is among the three biggest institutions in one of the member countries.<sup>136</sup> The banks that are smaller in size and qualified as less significant are supervised by the national authorities with the reservation of the oversight possibility by the ECB.<sup>137</sup>

To exercise its tasks, the ECB was endowed with numerous supervisory instruments: stress testing initiations for individual banks; the authority to set capital requirements in excess of those imposed locally, supplementary powers to supervise financial conglomerates; as well as early

---

<sup>133</sup> URL: <http://tass.ru/ekonomika/5066359/> (Дата обращения: 03.04.2018) – сайт ТАСС информационное агентство России.

<sup>134</sup> See Art. 6, Council Regulation (EU) № 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions).

<sup>135</sup> Ibid.

<sup>136</sup> See Art. 6(4), Ibid.

<sup>137</sup> See Art. 4(1), Council Regulation (EU) № 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions.

intervention instruments in cooperation with the relevant resolution authorities.<sup>138</sup> The only powers left to the national competent authorities were those connected with protection of consumers and anti-money laundering problems as well as supervision of various branches of non-European banks.<sup>139</sup>

As a supervisor, the ECB is endowed with a quite strong status: according to Article 12 (2) of the SSM Regulation the legitimacy and validity of the ECB's decision will be subject to review only by the Court of Justice of the European Union. National judicial authorities may disapprove the conduct of on-site inspections if the formality of the ECB's request is deemed inadequate. National authorities may only state that the decision of the ECB is indeed authentic and that the coercive measures envisaged are neither arbitrary nor excessive with the regard to the subject matter of the inspection.

Another document of the legislative package on SSM relates to the tasks bestowed on the European Banking Authority. The EBA has to cooperate with the ECB within the European System of Financial Supervision. While the central bank took responsibility of daily supervision of credit institutions, the banking authority became responsible for monitoring activities to ensure the stability of the banking system as a whole, inter alia, through periodical stress tests initiations for the systemically important credit institutions. In the amended regulation, it was also asked to prepare a Single Supervisory Handbook which had to harmonize the supervisory practices existing within the European Union.<sup>140</sup>

The second pillar of the European Banking Union – the Single Resolution Mechanism. The rationale behind the introduction of the SRM is the need to reach a cross-country convergence towards single rules for managing banking crises. This would not only stem forthright and self-willed practices of the European financial institutions, but also vest the competent authorities with a set of special tools to prevent the development/occurrence of crisis situations in a timely manner.

The SRM is based on two major legislative acts: Regulation № 806/2014 of the Parliament and Council amending Regulation 1093/2010 and an intergovernmental agreement (Council of the European Union ECOFIN) on the transfer and mutualization of contributions to the Single Resolution Fund. The first document set the uniform rules for bank resolution within the SRM

---

<sup>138</sup> See Art. 4(1), Council Regulation (EU) № 1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions..

<sup>139</sup> Ibid.

<sup>140</sup> Regulation (EU) № 1022/2013 of the European Parliament and of the Council of 22 October 2013 amending Regulation (EU) № 1093/2010 establishing a European Supervisory Authority (European Banking Authority) as regards the conferral of specific tasks on the European Central Bank pursuant to Council Regulation (EU) № 1024/2013.

framework and established the single resolution fund. The second document arranged the transfer and mutualization of the contributions within the singly fund.

The Single Resolution mechanism applies to all the banks that are subjects of the SSM as supervisory and resolution functions need to be exercised by the same level of authority to avoid the possible conflicts between the supranational supervisor and national resolution authorities. An additional argument for resolution of banks on a supranational level – the national authorities’ proneness to constantly bail out and provide financial assistance to the ailing credit institutions (the perpetuation of the “diabolic” loop problem).

The work of the SRM is based on a central decision-making body, the Resolution Board, and a Single Resolution Fund.

The SRB has started its operation since 2016 right after the ratification of the previously mentioned intergovernmental agreement. The main functions of the SRB is creating the resolution plans and taking the resolution decisions related to the significant banks and the banks that the ECB deemed necessary to take under its own supervision. The national authorities are endowed with the same responsibilities related to all the other banks not falling under the ECB’s supervision. In addition, the SRB sets the minimum requirement for own funds and eligible liabilities for significant banks, the NCAs do the same for the less significant credit institutions.<sup>141</sup> The Single Resolution Fund consists of pooled contributions of banks taking part in the SSM; in addition, it can even issue the necessary debt securities on the financial market. The SRF’s resources are not included in the EU budget. The fund is expected to reach its target level (€55 billion) no later than January 2024 and is being administered by the Resolution Board. Once the fund is accumulated to the targeted amount, it can borrow on the financial markets through the issuance of bonds with the status of mutual debt of all EU banking institutions.

The current version of the SRM introduced in Regulation EU № 806/2014<sup>66</sup> Regulation № 1093/2010 is not fully satisfactory. Multiple improvements need to be introduced to deal with the following deficiencies of the present architecture of the SRM. Retail bank customers should be excluded from the application of the bail-in rule, because they might be unable to have an adequate evaluation of the risks implied by the bail-in. This rule may generate vulnerability and increased costs in the funding conditions of banks.

---

<sup>141</sup> See Art. 13, Regulation (EU) № 1022/2013 of the European Parliament and of the Council of 22 October 2013 amending Regulation (EU) № 1093/2010 establishing a European Supervisory Authority (European Banking Authority) as regards the conferral of specific tasks on the European Central Bank pursuant to Council Regulation (EU) № 1024/2013.

The decision-making process should be simplified and cleared out of excessive interference of such political bodies as the EU Commission and the Council. The current decision-making process is extremely complex. The ECB, the SRB, the EU Commission, and the EU Council should constantly interact with each other and take decisions, fulfill their obligations under very strict deadlines. To be more efficient the SRB should take form of an independent agency similar to the Federal Deposit Insurance Corporation in the United State.

The size of the Single Resolution Fund should be increased to make it more credible as a power stabilization tool. It would be even better if the SRF could rely on a common fiscal backstop at the EU level. For this to happen, it should be allowed to borrow money from the European Stability Mechanism (the ESM). Its ability to directly support the recapitalization of insolvent banks should be strengthened. The ESM governance should be reviewed. As in the case of the SRM, the degree of political interference in specific bank resolution programs should be reduced.

The third pillar of the European Banking Union architecture – the European Deposit Insurance – is still under construction. The single Deposit Insurance Scheme would relieve the budgetary pressure on the governments of the periphery and resolve their financial problems; the risk that a distressed banking system may require a government bailout would no longer prevail over the assessment of a country's fiscal sustainability, and the credibility of banks restructuring activities would be enhanced once the supranational financing arrangements are included.<sup>142</sup>

In October 2017 the European Commission published a special communication calling on the European Parliament and the Council to work actively on the completion of the banking union project, particularly, on the EDIS's establishment.<sup>143</sup> The creation of the EDIS, however, stumbles across two serious impediments. The first one is that the credibility of the single deposit insurance scheme without government guarantee is impossible (it would require a close fiscal consolidation within the EU members). The second one is that the EDIS creation implies the pooling of members' funds (renouncement of parts of their sovereignty) and correspondent Treaty violation with regards to the clause prohibiting bail-out.<sup>144</sup>

From all has been said above we may make the following conclusion: the banking union project, despite significant progress made in the last few years, remains incomplete and does not

---

<sup>142</sup> Hadjiemmanuil, C. Bank Resolution Financing in the Banking Union// LSE Law, Society and Economy Working Papers. 2015. №6. P.19.

<sup>143</sup> Communication to the European Parliament, the Council, the European Central bank, the European Economic and Social Committee and the Committee of the regions on completing the banking Union, European Commission, Brussels, 11.10.2017. P. 5 – 6.

<sup>144</sup> Véron, N. A realistic bridge towards European Banking Union, Peterson Institute for International Economics, Policy Brief. 2013. P. 13–17.

therefore play its full role as a mechanism of shock prevention absorption through private channels in the European economic and monetary Union. A powerful political will and the EU members' consensus on some controversial issues need to be achieved to make the European Banking Union project a viable solution to the EU banking sector problems.

## **Conclusions.**

The global financial as well as subsequent sovereign debt crises revealed substantial deficiencies in the EU incumbent banking regulatory framework: the presence of regulatory arbitrage, inadequate attention to the systematically important institutions, the absence of special monitoring mechanisms for prevention of the endogenous and systemic risks occurrences, lack of coordination among the various supervisory authorities, ext.

The European authorities responded by introducing far-reaching regulatory reforms extensively laid out in the present section. The majority of them, while being not deprived of the flaws, are believed to be quite apt solutions to the ailing banks' problems.

At the forefront of the regulatory agenda was the project of the Banking Union creation, which despite significant progress made remains to be incomplete. Its full implementation will require considerable time and serious effort from the side of the euro area members to reach consensus on all the controversial issues that currently exist.

## **PART III. IMPACTS, FIRST RESULTS AND CONSEQUENCES OF THE REFORMS.**

### **2.1. The impact assessment of the EU banking reforms.**

The impact assessment of any reform agenda includes a careful appraisal of the costs incurred in the process of the reforms' implementation and estimation of various kinds of benefits to be gained in the long-term/ short-term perspective. In the present section, we are intended to review the existing quantitative impact studies on banking sector reforms conducted by public authorities, academics and private research associations/establishments.

The Institute of International Finance, a global association of private financial institutions created to support the banking industry in the prudent management of risks, in September 2011 published a special report on the cumulative impact of Basel III (in particular, capital and liquidity requirements); it estimates the negative impact of new legislative proposal in terms of credit and GDP dynamics. An econometric model NiGEM was used to analyze the impact of the reforms on the economic activity of enterprises.<sup>145</sup> The IIF predicts a per annum GDP loss of 0.6% from the trend for the Eurozone members over a period of five years since the enforcement of regulatory measures in 2015 (or a yearly GDP drop of 0.7% in average for all countries included in the study, which leaves the level of real GDP about 3.2% lower than it would otherwise be). The projected decrease is largely explained by an allegedly precipitous decline in the growth of credit supply. According to the IIF's study, Basel III measures significantly reduce the credit supply and make credits very expensive. Lending rates are expected to increase by 328 basis points for the period of 2012 – 2019.<sup>146</sup> The IIF's experts also claimed that there is a risk that the Euro area banks will not be able to fully meet the newly introduced liquidity requirements.

The estimated costs of the reforms might be overstated by the IIF's academics as they assume that projected increases in safety margins are largely driven by regulatory changes and not market adjustments. Additionally, the IIF's cost overestimation may stem from its primary focus on the short-term transitional costs and not long-term effects that are expected to at least partially offset the interim costs incurred in the process of regulatory reforms' implementation.

Other private institutions, such as McKinsey and JP Morgan, chose to estimate the impact of the reforms only on bank fundamentals, credit volume and pricing. They assess macroeconomic impacts based on the projections derived from accounting identities and previously registered bank data. The McKinsey and JP Morgan's primary focus is on the impact on banking sector return-on-equity (ROE). Assuming full implementation by 2019 of all the measures envisioned in Basel III,

---

<sup>145</sup> The Cumulative Impact on the Global Economy of Changes in the Financial Regulatory Framework / Institute of International Finance, 2011. 69 p.

<sup>146</sup> Ibid.

McKinsey's researched assumed that the pretax ROE of major European banks would decrease by 3.7 – 4.3% from the pre-crisis level of 15% <sup>147</sup>, while JP Morgan's analysts predicted a more dramatic decrease in the banking sector's ROE – from 13.3% to 5.4%. <sup>148</sup> According to the presented studies, the precipitous reductions of profitability rates in the banking sector would not be able to attract new capital. The McKinsey and JP Morgan's experts also assert that this is due to higher capital and liquidity standards as well as the business model changes being mandated for the derivatives businesses.

KPMG concentrated its impact assessments of the new regulatory measures on the banking sector of Belgium and the Netherlands for the period of 2013 – 2016. The estimates are derived from accounting identities and largely concentrated on private costs incurred in the transition periods. More specifically, KPMG looks deeper at the effects of regulation on banks' balance sheets and income statements for the following pieces of legislation: CRD IV package, crisis management and bank resolution, deposit guarantee scheme and the financial transaction tax. <sup>149</sup> In the baseline scenario, in which banks do not take any additional actions to comply with the new regulatory requirements, the results of the conducted study indicate sharp declines in bank profitability (the ROE of the Belgian banking supposedly falling below 4% as from 2014), <sup>150</sup> and an assumption that they would still not be able to reach the new regulatory settings by 2016. The studies also suggest that in order to reach the targets set a mix of extra measures is requested the costs of which would be around € 4.4 billion for Belgian and € 3.3 billion for the Dutch banking institutions accordingly. <sup>151</sup>

In 2014, the Association for Financial Markets in Europe (AFME) asked PricewaterhouseCoopers (PwC), currently one of the most prestigious accounting and consulting firms in the world, to conduct a special research on possible impacts of the proposed regulatory changes in the EU's banking sector. The final results of the study indicated that the suggested reform might negatively affect the companies seeking for loans, pension funds, and result in significant declines in the EU economic growth and employment rates. According to the PwC's estimations, the structural banking reforms will probably increase the costs of debt finance for

---

<sup>147</sup> Härle P., Lüders E., Papanides T., Pfetsch S., Poppensieker T., Stegemann U. Basel III and European Banking: Its impact, how banks might respond, and the challenges of implementation // McKinsey & Company Working Papers on Risk. 2010. № 26. P. 4.

<sup>148</sup> URL:

[https://careers.jpmorgan.com/cm/Satellite?pagename=JPM\\_redesign/JPM\\_Content\\_C/IB\\_Generic\\_Detail\\_Page\\_Template&cid=1271975651888&c=JPM\\_Content\\_C](https://careers.jpmorgan.com/cm/Satellite?pagename=JPM_redesign/JPM_Content_C/IB_Generic_Detail_Page_Template&cid=1271975651888&c=JPM_Content_C) (Date of access: 11.03.2018) – JP Morgan official site.

<sup>149</sup> The cumulative impact of regulation. An impact analysis of the accumulation of regulations on the Belgian banking sector / KPMG, June 2013. 8 p.

<sup>150</sup> Ibid, 8 p.

<sup>151</sup> Ibid, 50 p.

borrowers, reduce the investors' returns, significantly increase the administrative costs for businesses, and result in a permanent reduction of the steady-state level of EU GDP of 0.15% and 316,000 jobs loss across the EU countries.<sup>152</sup> The PwC researchers finish their report with the following statement: the resulting costs of the structural banking reforms are truly substantial; it is still unclear whether the costs incurred in the process of their implementation will be offset by the incremental benefits.

The studies conducted by public authorities and academics somewhat differ from those commissioned by private entities. The later ones focus mainly on the private costs of regulation, such as correspondent drops of banks' profitability, the effects on loan volumes and pricing. Only few of the existing private impact studies go further to translate the identified banking sector specific impacts into the wider effects on the economy. The public authority studies which we will review further in the section to concentrate more on social costs and often struggle to estimate the expected benefits.

The Basel Committee on Banking Supervision and the Financial Stability Board established a special Macroeconomic Assessment Group (MAG) to draft an impact report based on the estimation approaches taken by public entities in each country. The interim report was published in June 2010; it draws on the preliminary results of several quantitative assessments conducted by central banks and regulatory authorities in 13 countries as well as several supranational authorities (the IMF, the ECB and the European Commission Services). The final report came out in December 2010 and contained the regulatory proposals as agreed by the Basel Committee in September 2010 by the special group of Governors and Heads of Supervision.

The MAG impact assessment report concentrates exclusively on the transitional costs of tighter capital requirements. The estimations of the report consider the macroeconomic response in the 8-year implementation period for a gradual increase in targeting capital ratios, so that both the quantity and quality expectations of the newly established capital requirements are met. Overall, the MAG's assessment suggests a quite modest impact on aggregate output of the transition towards higher capital and liquidity standards.<sup>153</sup> According to MAG's estimates, a one percentage point increase in the target ratio of tangible common equity to risk-weighted assets is expected to result in the respected GDP drop by a maximum of about 0.19% from the baseline path after four and a half years (which correspond to a decrease in the annual growth rate of 0.04

---

<sup>152</sup> Impact of banks structural reforms in Europe / PwC's Report for AFME, November 2014. 5 p.

<sup>153</sup> Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements / BCBS – MAG Group, December 2010. 3 p.

percentage points over the same period).<sup>154</sup> Regarding the tighter liquidity requirements (modeled as a 25% increase in the holding of liquid assets, combined with an extensions of the maturity of banks' wholesale liabilities) MAG's assessment results indicate a median increase in lending spreads of 14 basis points and a respective fall in lending volumes of 3.2% after four and a half years. The presented estimates need to be associated with a median decline in GDP in the order of 0.08% relative to the baseline trend. <sup>155</sup>

The second study of MAG conducted in 2011 examined the impact of higher capital requirements on global systemic important institutions by scaling the impact of increased capital requirements on the banking industry as a whole by the share of the systemic important institutions in domestic financial systems. The resulting study indicates that higher capital requirements on the systemic important institutions have only a moderate effect on the economy activity. It also claimed that raising capital requirements for the 30-potential global systemic important institution across the globe by one percentage point over 8 years, would lead to a GDP decrease of approximately 0.06% below trend which would then be followed by an economic recovery. <sup>156</sup>

The described above study of the MAG on short-term effects of heightened capital and liquidity standards was consequently complemented by another study initiated by the Basel Committee on the long-term economic impact (LEI) of the proposed capital and liquidity reforms. Overall, the LEI report issued in 2010, concludes that the potential benefits of the bank regulatory reforms are quite large and outweigh the alleged costs. The resulting benefits of the reforms are expressed through a reduced probability of a further crisis's occurrence multiplied by the expected losses once it occurs. The costs expressed in terms of correspondent steady state output losses, mainly related to higher lending rates, resulting from a higher overall cost of capital. <sup>157</sup>

The report considers the macroeconomic costs of financial crises as either temporary, in which case the economy gradually returns to its pre-crisis growth path, or permanent, where the economy eventually resumes its pre-crisis growth rates but being destabilized after crisis remains on a lower growth path as opposed to a no-crisis-situation. According to the BCBS's long-term effects study, the aggregated discounted losses linked to the banking crises range between 19% (when a certain crisis has no lasting long-term effects; when the macroeconomic costs incurred are temporary) and 158% (in case of permanent effects) on annual pre-crisis GDP levels. When there

---

<sup>154</sup> Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements / BCBS – MAG Group, December 2010. 3 p.

<sup>155</sup> Ibid, 4 p.

<sup>156</sup> URL: <https://www.bis.org/publ/bcbs202.htm> (Date of access: 11.03.2018) – official site of the Bank for International Settlements.

<sup>157</sup> An assessment of the long-term economic impact of stronger capital and liquidity requirements / BCBS, August 2010. 1 p.

is a moderate permanent effect of a financial crisis, the cost of crisis is estimated to be equal to 63% of pre-crisis annual output.<sup>158</sup>

The probability of a financial crisis's occurrence is normally derived through the following different approaches: reduced-form econometric models based on the past registered data; and structural models based on portfolio theory (e.g., the European Commission's SYMBOL estimations). Drawing heavily on these two approaches and assuming moderate permanent effects of a crisis, the perceived annual benefits of increasing capital requirements alone by two percentage points from 7% to 9% of RWA would be around 1.62% of the pre-crisis GDP levels. With the NSFR, the annual expected benefits can add up to 1.82% of the pre-crisis GDP levels. The estimation of expected macroeconomic costs is commonly based on various Dynamic Stochastic General Equilibrium models. It has been estimated that a two percentage points increase in capital requirements might reduce the long-term steady-state level of GDP by 0.18% annually (and by 0.26% when the NSFR is also met). The presented numbers retrieved from different studies from different countries are somewhat similar for the case of the Euro Area. The new benefits for the Euro area amount to 1.56% of the pre-crisis GDP.

In 2011, the Organization for Economic Cooperation and Development (OECD) published its own estimates of the macroeconomic impact of the updated Tier I capital and common equity standards. The model used by the OECD researchers suggests that the increased costs of funding are directly passed through as an increase in the interest rates of loans. The results indicate that, to meet the capital requirements by 2019, the banks' lending spreads would increase by 54 basis points; the resulting increase in lending rates was expected to decrease the level of GDP by 1.14%.<sup>159</sup>

The Bank of England in its study estimated the impact of high capital requirements resulting from the introduction of the CRD IV for the period of 2010 – 2021. The data used for estimation of the regulatory effects includes 10 firms based in the US and accounting for 64% of the UK banking sector in terms of total assets and overall lending activity. The net benefits resulting from the reduced probability of the next crisis occurrence are assumed to reach about £ 15.5 billion on annual basis, while the macroeconomic costs are estimated to hit the number of 4.5 billion of pounds a year.<sup>160</sup>

---

<sup>158</sup> An assessment of the long-term economic impact of stronger capital and liquidity requirements / BCBS, August 2010. 11 p.

<sup>159</sup> Slovik P., Cournède B. Macroeconomic Impact of Basel III. OECD Economics Department Working Papers № 844, OECD Publishing, Paris, 2011.

<sup>160</sup> Strengthening capital standards: implementing CRD IV: The Bank of England's Policy Statement from August 2013.

The European Commission's study on the potential effects of the Deposit Guarantee Scheme Directive projects significant reductions of banks' profits. The EC researchers argued that European banks will suffer substantial losses from this regulatory measure both in normal times through collection of ex-ante contributions and thus reduction of banks' operating profits and in situation of a crisis through the payment of ex-post contributions. Higher costs and lower revenues for banks will render them less attractive for investors, mitigating their own funds and thus diminishing their capacity to provide credits. The latter is fraught with deceleration of economic growth.<sup>161</sup>

Any of the presented above quantitative assessments cannot be fully trusted as their results are largely dependent on the certain methodology often with strong assumptions and rigid conditions. In that they are incapable of capturing the specific effects, unexpected occasions and various complex interactions. There are also some deviations from the real-life scenarios due to data limitations. Therefore, the results derived from various numerical studies need to be interpreted with some caution. In the next section, we will check the soundness and at least close accuracy/ inaccuracy of the above described projections following the 6 – 7-year implementation period of the reforms.

## **2.2. The first results from the implementation of the reforms.**

The European system of banking regulation went through an exceptional transformation since 2007. In the present section, we are intended to summarize the first effects of the reforms on the overall profitability and performance of the EU banking sector, on the resulting availability of the EU banks' lending services and on the independent banks' operating models. The impact of the regulatory measures on the overall economic activity cannot be adequately estimated in the present study for two main reasons: the resulting values of GDP and employment rate indicators are influenced by various factors, not exclusively regulatory ones; in the longer term, the actual effects of the banking regulation is better to assess not in terms of equivalent GDP reductions, but in terms of less frequent occurrence of crisis-prone situations.

In the end of our analysis, we will be able to determine whether the results obtained from our tentative assessment of the reforms correspond to the previously discussed projections of the impact studies.

In the recent years, the EU banks have made noticeable steps towards strengthening their capital bases and towards improving their financial soundness. The EU banks have undertaken the

---

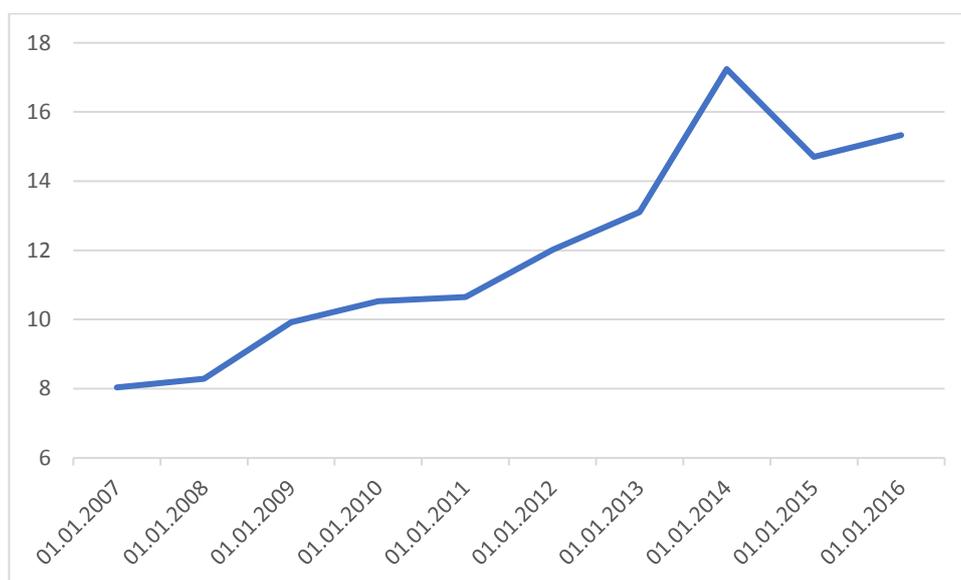
<sup>161</sup> Impact assessment of the deposit guarantee scheme / European Commission, 2010.

necessary steps to strengthen, de-risk and deleverage their balance sheets mainly through capital raising and improving quality of the assets held. The overall capitalization of the euro area banks has significantly increased, as well as their capacity to absorb shocks.

Tier 1 capital ratio has seen a noticeable increase since the pre-crisis 8% to 15.32% in the third quarter of 2017 (Figure 3.1).<sup>162</sup> The total capital has almost doubled in the same period from 8.1% to 17.56%.<sup>163</sup>

*Figure 3.1.*

**Tier 1 capital ratio in % for the EU banks.**



Source: ECB database.

The average Common Equity Tier 1 ratio (CET1 capital ratio, including the capital of the highest quality) of the EU banks stood at 14.32 % in the third quarter of 2017 already exceeding the minimum fully-phased in 2019 regulatory CET1 ratio established under the third Accords of Basel.<sup>164</sup> For the comparison, the CET 1 ratio of Eurozone significant banking institutions was around 7% in 2007 and only two percent more in 2012.<sup>165</sup> Also, the banks in the EU managed to

<sup>162</sup> URL: <https://www.bankingsupervision.europa.eu/banking/statistics/html/index.en.html/> (Date of access: 16.03.2018) – official cite of the European Central Bank.

<sup>163</sup> URL: <https://www.ebf.eu/banking-sector-performance/> (Date of access: 16.03.2018) – official cite of the European Banking Federation.

<sup>164</sup> URL: <https://www.bankingsupervision.europa.eu/banking/statistics/html/index.en.html/> (Date of access: 16.03.2018) – Supervisory Banking Statistics of the ECB.

<sup>165</sup> Kirova S. The First Steps toward the Banking Union’s Implementation and Effects on the Eurozone Banking Sector. // Economic themes. 2017. № 55 (1). P. 31.

reduce the original total capital shortfall ratio by € 538 billion from 2011 mainly through the raising of new capital and earnings retaining.<sup>166</sup>

The banks' risk absorbing capacity has also improved in the recent years. Currently all the EU banks report having a leverage ratio above the expected regulatory minimum of 3.0% set out in the third edition of the Basel Accords, with an average of 5.17 % across the banks in the third quarter of 2017.<sup>167</sup>

On the liquidity side, the EBA reported liquidity coverage ratio amounting to 143.1% on average at the end of June 2017; all banks included in the EBA's sample demonstrates a LCR above the targeted minimum requirement that is expected to be fully applied from January 2018 (100%). The EBA has also indicated a continuous increase in the banks' net stable funding ratios; in December 2016 its average estimate reached 112.3% with an overall shortfall in stable funding of €50.9 billion.<sup>168</sup>

The impact assessment studies commissioned/ carried out by private institutions argued that the regulatory reforms may adversely affect the banks' profitability, loan volume and pricing. With the great certainty, we may declare that the following assumption has been fully bore out in practice: the reduction of the banks' risk exposures and enhancement of their resilience have been largely achieved at the expense of their profitability.

The return on equity is believed to be one of the major indicators used by investors to assess the bank sector's attractiveness/ profitability. For the EU banks it was 3.22% in 2016 down from 4.5% seen in 2015. In 2017, the ROE estimate has managed to reach 7.03% which can be considered as a significant progress.<sup>169</sup> Despite this recent positive development, the return on equity remains to be extremely low compared to the pre-crisis estimate of 15%, as well as compared to the present estimates of the American banks' ROEs (around 8.5% on average).<sup>170</sup>

The return on equity estimates across the EU economies significantly diverge since 2007 up to the present time indicating a growing fragmentation particularly across the Eurozone (Figure 3.2.).

---

<sup>166</sup> Kirova S. The First Steps toward the Banking Union's Implementation and Effects on the Eurozone Banking Sector. // Economic themes. 2017. № 55 (1). P. 32.

<sup>167</sup> Ibid.

<sup>168</sup> URL: <https://www.eba.europa.eu/-/the-eba-crdiv-crr-basel-iii-monitoring-exercise-shows-further-improvement-of-eu-banks-capital-leverage-and-liquidity-rati-1/> (Date of access: 09.04.2018) – official cite of the European Banking Authority.

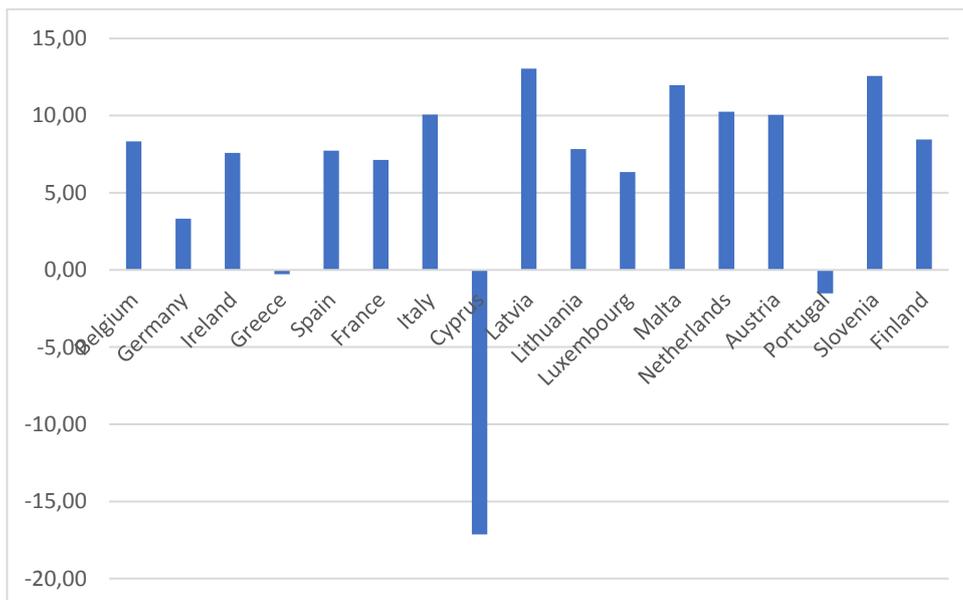
<sup>169</sup> URL: <https://www.bankingsupervision.europa.eu/banking/statistics/html/index.en.html/> (Date of access: 16.03.2018) – official cite of the European Central Bank.

<sup>170</sup> URL: <https://fred.stlouisfed.org/series/USROE> - official cite of the Federal Reserve Bank of Saint Louis/ (Date of access: 01.04.2018).

From the above presented results we may conclude that academics' concerns about the possibly decreasing levels of the ROE are largely confirmed: the recent levels of the ROE are far below their pre-crisis estimates. With ever tightening regulatory environment in which banks currently operate, the restoration of ROE to the levels that would sustain a stable growth of banks might take indefinitely long period of time.

Figure 3.2.

**Return on equity (%) by country in 2017.**

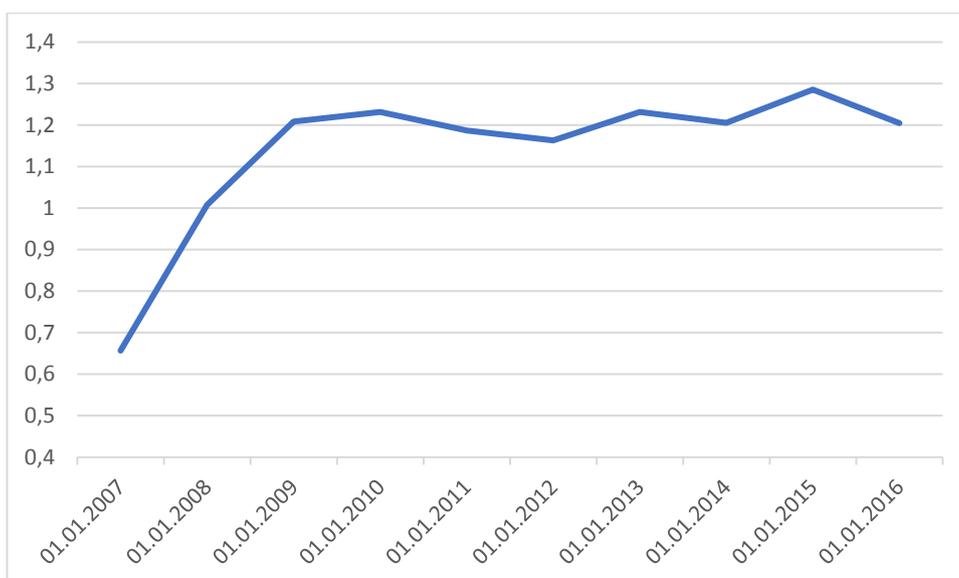


Source: ECB database.

Another important indicator of the banks' profitability – net interest income – estimated as a difference between the bank's revenue generated from its assets and the expenses the banks pays on its liabilities. Net interest margins are typically lower in the European Union (normally, not exceeding 1.33 percent of total assets) than elsewhere (e.g., in the US it reaches and most often exceeds 3%). In 2016, net interest income of EU banks was standing at approximately 1.27 percent of total assets which is 0.6% lower than in 2015 (Figure 3.3.). Despite the noticeable decline in the past several years, net interest income remains broadly stable, obstinately not exceeding the estimate of 1.3%.

Figure 3.3.

**Net interest income of the EU banks (% of total assets).**



Source: ECB database.

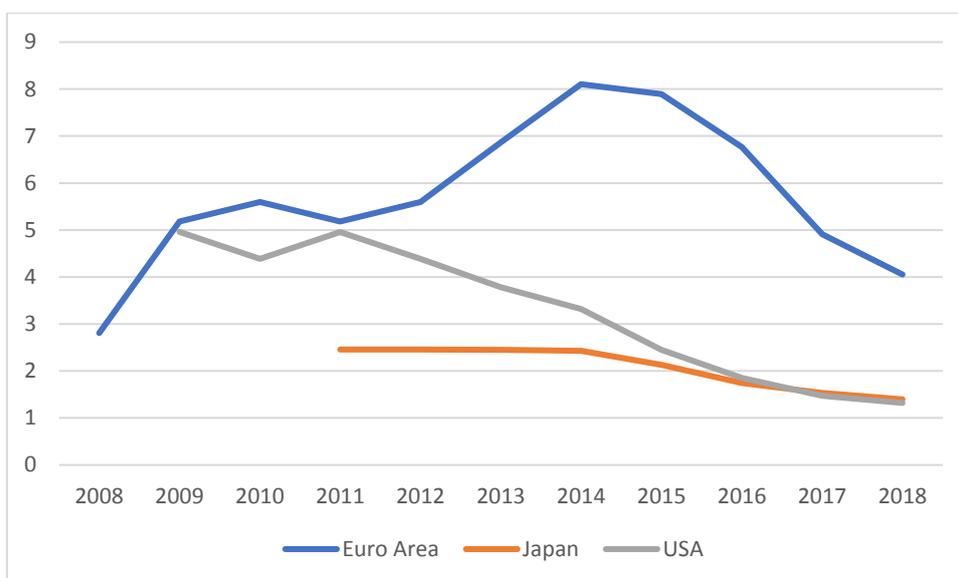
Aside from the increasing stringency of the banking regulation, there are many additional downsides to euro area banks' profitability – the low interest rate environment (which essentially slashes the interest earnings of banks), quite subdued outlook for the economic growth in the Eurozone. The low profitability can be further explicated by the growing direct and indirect costs of risk management and compliance as well as big amounts of litigation costs for some of the biggest banks in Europe. According to the European Banking Authority's report issued in December 2016, more than 44% of the banks in the European Union have paid more than EUR 500 million in compensation for their actions during the 2007-2008 global financial crisis.<sup>171</sup>

Additional pressure on the Eurozone banks' profitability exhibits the sizeable stock of non-performing loans. The NPLs require high loan-loss provision and affect the banks' capacity to extend new loans. Non-performing loans have drastically increased in the Eurozone since 2008, from around 3% in 2008 to above 8% since 2014; in 2016, the number of NFLs though significantly decreased in 2016 is still much higher than the level of NPLs reported by the World Bank for the other developed economies, such as the USA and Japan (far below 2%).

*Figure 3.4.*

**Bank non-performing loans to total gross loans (%), 2008 – 2016.**

<sup>171</sup> Risk Assessment of the European Banking System / European Banking Authority. December 2016. 39 p.



Source: World Bank Group database.

As far as the lending activities of banks is concerned, the recent ECB Bank Lending Survey indicates a recovery of loan growth in the Euro area, largely driven by eased lending conditions and increased demand for loans. After reaching a record high of 14.9% in March 2008, the growth rates of banks to non-financial corporations fell precipitously, turning negative in the period of 2009 and 2010 and once again in the period of 2012 – 2015. Since then, it barely recovered, hitting the mark of 2.41% in April 2017.<sup>172</sup>

As for the lending standards to enterprises, the recently issued bank lending survey indicated that they eased significantly in the first quarter of 2018. In general, however, euro area banks considered their current credit standards as still being tighter compared with the historical range of credit standards seen in 2003.<sup>173</sup>

The December 2017 survey contained some ad hoc questions about the effects new regulatory and supervisory measures cause on banks' lending policies. Eurozone banks responded that, in relation to regulatory and supervisory actions, their total assets and liquid assets were broadly remained unchanged. Additionally, they indicated a net easing impact of the introduced regulatory and supervisory actions on their funding conditions, as markets react to the improved capital situation in the banking sector.<sup>174</sup>

<sup>172</sup> URL: <https://www.euro-area-statistics.org/classic/positive-trend-in-euro-area-bank-loans-to-corporates-continues?lg=en/> (Date of access: 27.04.2018) – Euro area statistics website.

<sup>173</sup> Euro area bank lending survey / European Central Bank. April 2018. P 2.

<sup>174</sup> Euro area banking lending survey / European Central Bank. December 2017. P 24.

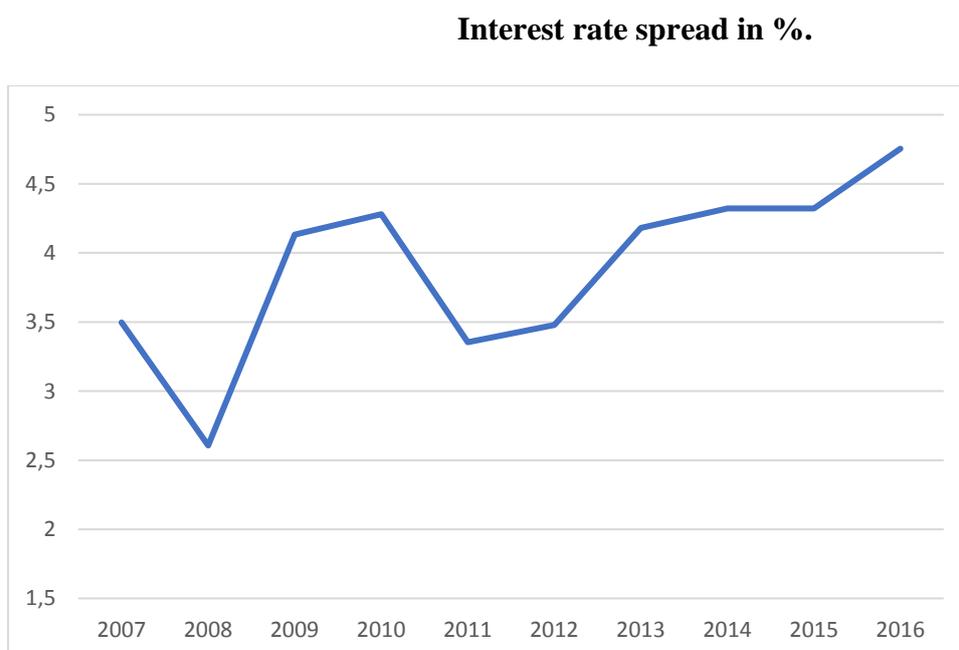
In general, it became evident that higher capital standards did not cut back sharply on lending growth of banking institutions at the euro area aggregate level.

Given all the listed above developments we may conclude that the Eurozone banking sector is improving but still facing the challenges of persistently high stock of non-performing loans and rapidly deteriorating revenues with deem prospects for recovery. Against this backdrop banks become more motivated to change their operational models.

One of the possible solutions include the following: increasing lending spreads, reducing operating expenses and cutting costs (undertaking various kinds of cost efficiency measures), generating extra non-interest income, repricing loans and “debt to clients”, issuing new capital or consolidating through mergers and acquisitions.

Figure 3.5. indicates a gradual increase in the lending spreads of the banks in the Euro area.

*Figure 3.5.*

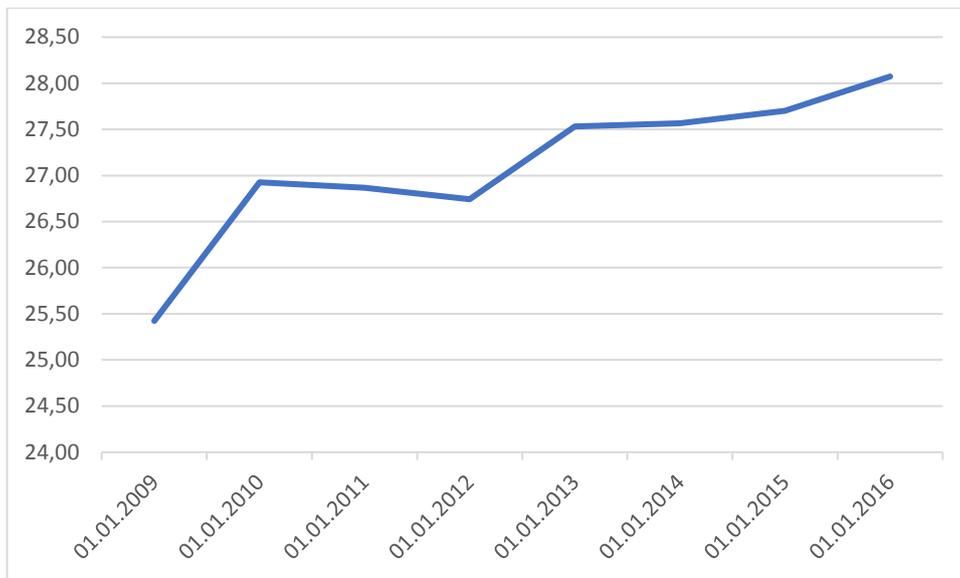


Source: World Bank database.

The banks’ attempts to generate additional non-interest revenues are reflected in an annual percentage increase of the net fees and commissions income (Figure 3.6.).

*Figure 3.6.*

**Net fee and commission income (% of total assets) of the Euro area institutions.**

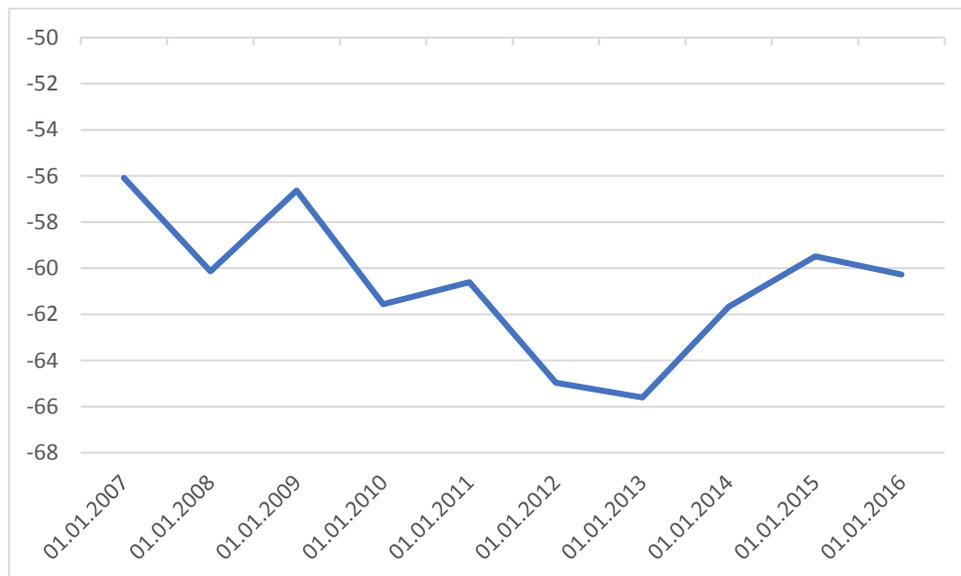


Source: ECB database.

Figure 3.7 indicates that Euro area banks continue to operate with relatively high costs levels, which is an additional drag on banks' efficiency and ability to generate sufficient net incomes. Improving costs efficiency, therefore, could be another strategy for the European banks to achieve higher levels of profitability.

*Figure 3.7.*

**Cost-to-income ratio for the Euro Area banking institutions.**



Source: ECB database.

An alternative way of improving the banks' efficiency is through banking sector consolidation activities, i.e., via mergers and acquisitions. An appropriately managed M&As may

potentially generate quite significant cost synergies (e.g., branch rationalization, decreased administrative expenses) as well as revenue synergies (such as lower levels of funding costs of the merged entities) that are theoretically conducive to the increased levels of banks' profitability. Mergers and acquisition activities, however, remain subdued in the Euro area. The ECB's report on financial integration issued in May 2017 has documented a still declining trend in the M&As activities of the euro area banks since 2000.<sup>175</sup>

Also, banks may have recourse to loans' repricing to at least partially offset the negative impact from the escalation of the regulatory costs. Repricing of loans allows generation of an additional interest income and as a result significantly improves the interest rate margin. The ultimate outcome of loans' repricing – increased profits of banks, higher ROE and correspondingly lower cost/ income ration.<sup>176</sup>

The analysis of the present section indicates that the EU banks significantly improved their capital bases since the financial turmoil of 2008, but it was achieved at some costs to financial intermediaries in the form of slumping profits. The profits' decreases, however, are not as dramatic as it had been projected by the impact assessment studies earlier analyzed in the present paper. From the above presented data, we may conclude the more or less passable levels of profitability can be attributed to several factors including the banks' diversifications of income sources (generation of revenues from other than interest earning instruments) and lending spreads' widenings. The loan provision functions of the banks after having been significantly circumscribed since the outbreak of the crisis did not become fully actionable up till now (the number of loans provided to non-financial corporations and households is still low).

### **2.3. New risks and potential unintended consequences of the reforms.**

Many researchers expressed several concerns about the actual consequences of the reforms: instead of increasing the resilience and stability of banking industry the new regulatory provisions may in fact create new risks elsewhere in the system. Henceforth, in the present section, we are intended to recite some major problematic aspects of the regulatory agenda (the major areas of regulators' and academics' concerns) and articulate the unaddressed issues of banking regulation that might further generate escalatory risks to the EU banking sector's stability.

Financial institutions normally respond to the tightening of the regulation by changing their behavior to avoid or mitigate the requirements. There is a great variety of ways in which industry

---

<sup>175</sup> Financial Integration in Europe / European Central Bank. May 2017.

<sup>176</sup> The cumulative impact of regulation: an impact analysis of the accumulation of regulations on the Belgian banking sector / KPMG. June 2013. P.48.

may respond to fudge on the rules: through financial engineering (creating, deploying new instruments to elude stringent regulatory requirements); through supervisory arbitrage, by moving activity across jurisdictions; or, by shifting activities to the parts of the financial system that are less regulated. The successful use of any of the listed tricks on a large scale may render the reforms ineffective and create new risks to financial stability.

Financial engineering activities can play a significant role in facilitating temporary transfers of liquid assets to financial institutions that mostly need them, whilst at the same time providing the lending firms with secured exposures and enhanced yield. However, the increased intensity of such activities normally occurring in response to tightened regulatory measures could potentially create new risks in the financial system: the increased interdependence between banks and insurers and fund managers; possibly increased pro-cyclicality of lending and asset prices; and raised doubts about adequacy of borrowed assets for meeting liquidity requirements under stress conditions.<sup>177</sup>

There are also risks of supervisory arbitrage. This refers to the shifting of certain activities or positions to other jurisdictions to avoid a situation or relatively stricter prudential supervision by a certain regulatory authority compared to another. It would have been possible to eliminate the occurrence of such arbitrage by implementing a large number of strict and universal rules. However, this would complicate things in the areas where at least some discretion is needed. The crisis made it clear that a formalist approach to supervision was inadequate. It is quite difficult if not impossible to lay down a complete set of binding rules on the financial solvency of a bank. Policymakers recognized the need of providing supervisors with sufficient room for subjective discretion in decision-making processes. Another case where constrained regulatory discretion would be desirable – defining the trigger for bank resolution, where a strict uniform and rule-based trigger could be counterproductive. But, at the same time, full discretion is not always effective; it may potentially result in legal uncertainties and potential divergences in implementation and application of the rules by numerous national regulatory authorities.

Apparently, a certain degree of cooperation between regulators and supervisors, across borders and sector is needed to eliminate supervisory arbitrage. The harmonization of the rules at the EU level, including the single rulebook and the establishment of the European Supervisory Authorities contributing to a supervisory convergence should inhibit supervisory arbitrage opportunities within the single market. Additionally, the assignment of the role of a single

---

<sup>177</sup> Joint Committee of the European Supervisory Authorities. Report on risks and vulnerabilities in the EU financial system, March 13, 2013. URL: [https://www.esma.europa.eu/sites/default/files/library/2015/11/jc-2013-010\\_jc\\_rsc\\_joint\\_risk\\_report\\_2.pdf](https://www.esma.europa.eu/sites/default/files/library/2015/11/jc-2013-010_jc_rsc_joint_risk_report_2.pdf) - official site of ESMA. (Date of access: 04.03.2018).

supervisor to the ECB as a part of the Single Supervisory Mechanism is a significant step for member states composing the Banking Union that is expected to ensure the consistent and objective application of the regulatory framework for the prudential supervision of banks. However, as the Banking Union project remains incomplete, opportunities for supervisory arbitrage are still present.

The regulatory agenda targeted the major deficiencies of the EU banking system revealed during the crisis. That is, it addressed the risks in specific segments of a banking system without considering the probability of risks occurrence in other parts of the system. To be more specific, the regulation introduced to respond to the recent crisis sought to focus more on the formal banking sector, rather than the non-bank credit intermediaries most of which comprise the shadow banking sector. Thus, the tightening of regulatory requirements in a traditional banking area may induce the migration of some activities out of the banking industry altogether towards the non-bank credit institutions. The following not so much constitute an argument against more stringent regulation of banking sector, rather emphasizes the importance of strong oversight and adequate supervision and, when necessary, stronger rules and better supervision of the shadow banking sector.

Another area of concerns is the encumbrance of assets in banks' balance sheets. During the crisis, banks have desperately sought to obtain exclusively secured funding and as unsecured funding became increasingly expensive and scarce, while investors have accorded a special preference to secured assets to mitigate heightened counterparty credit risk. A pronounced rise in secured funding implies an increased number of banks' assets that are encumbered, i.e. pledged with priority to investors in the banks' secured debt. The encumbered assets, therefore, become exclusively available to secured creditors and out of reach of unsecured creditors in the event of a bank's insolvency. The phenomenon of asset encumbrance normally originates from collateralized or asset-backed transactions (e.g., repurchase agreements, securitizations, or derivatives).

Heightening of the regulatory requirements is also conducive to increased asset encumbrance. For instance, secured funding in the form of covered bonds is normally given a favorable treatment in the calculation of banks' capital requirements for covered bonds and for exposures in covered bonds. Covered bonds might also become extremely attractive when banks pursue compliance with the liquidity provisions under the CRD IV package. Combined with the increased collateral requirements of the OTC derivatives reforms, the following may lead to the greater encumbrance of banks' balance sheets. Another possible source of asset encumbrance –the central bank's liquidity provision on a secured basis, where banks pledge collateral to get access for the liquidity facilities. The policy concerns arising from the increased levels of asset

incumbrance relate not only to the fact that unsecured creditors become deprived of benefits from the liquidation of encumbered assets in the even of insolvency, but also to the more broad stability implications since encumbered assets are generally not accessible to obtain emergency liquidity in case of the unforeseen occurrence of the stress event. Asset encumbrance therefore generates the need for close monitoring.<sup>178</sup>

The importance of a bank's deleveraging processes has been emphasized by the EU regulatory authorities in their numerous legislative proposals. But if the following process is undertaken in a relatively fast and disorderly manner, it may entail significant risks adversely affecting the economy. Significant contractions in bank lending in a short period of time can essentially affect the credit flow to businesses, especially small and medium enterprises heavily dependent on banking lending. In contrast, a very slow and unconvincing deleveraging procedures may significantly erode confidence of the market and disturb a smooth return to financial stability. Therefore, policymakers need to tread a fine line between normalization of balance sheets at the financial institution level and simultaneous minimization of the potential negative effects arising from disorderly deleveraging of the banking system at the macro-economic level.

Concerns have also been raised that regulatory agenda might hamper securitization activities and thereby interrupt the permanent flows of finance to the real economy. A relative decline in securitization activities following the outburst of financial crisis cannot be attributed to the regulatory undertakings. Quite the contrary, a more stringent regulation was truly needed to correct the market failures. The main task for regulators in such circumstances is to facilitate the recovery of sustainable and safe securitization markets with a view to providing additional funding sources for the real economy. Since the outbreak of the crisis, there has been a precipitous decline in the issuance of securitized products in the EU; since then, no substantial recovery in securitization markets has been observed; and activity in the markets remained quite limited. The European policymakers having realized the need of securitization as an additional source of finance quite indispensable for the economic recovery several times attempted to facilitate the recovery of safe and sustainable securitization markets in Europe.<sup>179</sup>

It is believed that banking regulatory reforms may significantly distort competition in the banking sector. There is a risk that more stringent regulatory requirements may act as additional barriers to entry for new banking entities. Regulations tend to pose an essential burden on smaller participants of the industry and makes it for them even harder to compete with larger players. As

---

<sup>178</sup> Houben A., Slingenberg J. Collateral scarcity and asset encumbrance: implications for the European financial system, Financial Stability Review № 17, Banque de France, April 2013.

<sup>179</sup> Hale T. European securitisation issuance suffers 36% drop in Q1. // The Financial Times, April 20, 2017.

doing banking business with additional regulations becomes more expensive, financial institutions tend to concentrate on their core, most profitable activities and sell off parts of their business in which they are less efficient. Other market participants might take on the businesses sold and thereby increase the scale of their activities. The described tendencies in the market lead to the increased specialization of financial institutions, but at the same to less competition. A number of banking and financial institutions have recently merged or expressed interests in the mergers' formation to achieve the economies of scale preferences. The increased number of mergers (increased concentration and consolidation of financial entities) affects competition in at least two ways: by increasing the market power of existing firms and by promoting advantages the systemically important financial institutions might gain from the obtained status of "too big to fail".<sup>180</sup>

The FSB, the BCBS have long been advocating the uniform application of the Basel standards. Until now, however, they are still non-binding and are free to be interpreted and transposed by various authorities in a frivolous manner. If the EU authorities move quicker than their counterparties in their strivings to adopt the Basel or even more stringent regulatory requirements, they might significantly distort the competitive position of the EU financial industry.

A further concern, relating to the regulatory agenda, is that the incompleteness of the banking union project as well as delays in introduction of several regulations aimed at pooling of sovereign competences, may eternize systemic risk. The establishment of the monetary union contributed to the EU's propensity to asymmetric shocks and therefore to the emergence of systemic risk in the banking sector. The following tendency is strengthened by highly integrated financial markets and possibility of capital flight. Because of the existence of the single market, the systemic risk problem becomes pertinent not only for the Eurozone members, but also for the all EU countries. As it was demonstrated during the crisis, national regulatory authorities are handicapped in their attempts to prevent the spread of systemic risks, since their actions may trigger the previously discussed negative feedback loop and further deteriorate banks' soundness.

A full implementation of the banking union project would counteract systemic risk occurrence.<sup>181</sup> Although the euro area already has – belatedly – a single supervisor (the European Central Bank), and a special entity to deal with insolvent banks, it still lacks a single deposit-insurance scheme, mainly because German taxpayers do not want to be responsible for the failings

---

<sup>180</sup> URL: <https://www.ecb.europa.eu/press/pr/date/2000/html/pr001220.en.html/> (Date of access: 05.04.2018) – official cite of the ECB.

<sup>181</sup> Gross D. The Single European Market in banking in decline—ECB to the rescue? In T. Beck (Ed.), *Banking union for Europe. Risks and challenges*. London: Centre for Economic Policy Research, 2012.

of lenders farther south. But even the introduction of a common deposit insurance scheme raises several concerns. The viability and effectiveness of deposit insurance scheme largely depends on some sort of government guarantee. The following necessitates a closer fiscal consolidation at the EU level.<sup>182</sup> The establishment of the Single Deposit Insurance Scheme also implies pooling of countries' sovereignty and the violation of the "no-bail out" provision of the EU Treaty.

Even when fully complete, the banking union project may pose serious problems as its current form is far from flawless. The main critics refers to the conflict arising from the competing competences within the Single Supervisory Mechanism between the ECB and the national regulatory authorities. The later ones are able to object to banks closures initiated by the EBC, provided that the resolution is national. The further contradictions may arise, further on, due to the overlapping competences of the ECB and national authorities in terms of the macro-prudential supervision. The ECB may object to national decision but cannot stop them from realization.<sup>183</sup> It has been also noted that the Single Supervisory Mechanism may create incentives for a two-level banking supervision as only large, significant banks are supervised by the ECB; the smaller ones remained under the national oversight. The following is prone to regulatory distortions, since smaller banks are not required to be compliant with the new supranational regulatory rules. In the event of a bank's insolvency or imminent failures, the ECB will likely be asked to intervene, and the ECB's ex post interventionist actions would cost a lot.

The second pillar of the banking union – the Single Resolution Mechanism – is also not deprived of significant shortcomings. The SRM is considered as a quite effective solution for fighting moral hazard through its bail-in procedure and through the contingency of the resolution fund contributions on bank risk. However, it has been indicated that the bail-in procedures may significantly destabilize banks, since transfers of a part of their funds might lead to intense deposit withdrawals due to losses in confidence. Additional problem with the SRM is that while it was designed to make the banking sector to cover costs incurred from banks' failure, it still does not guarantee the private sector's obstinance from the banking resolution processes. The SRM's ability to safe insolvent banks from failures is largely dependent on the viability of the bail-in principles introduced by the BRRD and the adequate size of the single resolution fund. Based on the following assumption, the SRM's credibility is impaired by its operational flaws: its insufficient amount of fund available in the resolution fund, the preservation of the bailout possibility when fund is depleted, and exemptions from the bail-in principle. The SRM's credibility is further

---

<sup>182</sup> Véron N. A realistic bridge towards European Banking Union, Peterson Institute for International Economics, Policy Brief. 2013. № 13–17.

<sup>183</sup> EU banking union. Right idea, poor execution / DB Research, 2013.

handicapped by exemptions relating to the participation of creditors in bank recovery procedures, which impair the loss absorbing capacity of the mechanism. Furthermore, secured liabilities derivatives, inter-institution liabilities with maturities of less than 7 days are not included in the bail-in procedure. In addition, national regulatory authorities may discretionally exempt particular liabilities, if they cannot be bailed in within a determined period of time, or if they are critical for ensuring the continuity of the banks' systemically important functions.

The lack of ex ante backstops enabling a timely intervention in the event of a systemic crisis at national level further increases the probability of bailout procedures at the expense of taxpayers. Due to pooled sovereignty, national supervisory authorities may have no incentives to monitor their banks. Therefore, the SRM needs a special inter-governmental agreement on burden sharing and ex ante resolution plans for banks operating in several countries to prevent cross-border assets shifting from the failing banks.<sup>184</sup>

An additional controversy relating to the functioning of the SRM – the prolonged duration of crisis resolution procedures. A fact of common knowledge is that to avoid significant economic costs crises need to be solved quickly, without undue delays. As resolution procedures suggested by the SRM legislation is quite time consuming, the swift provision of state financing may appear to be a better solution.<sup>185</sup>

A further shortcoming of the banking union is the lack of alignment in the implementation schedule of its pillars. The Single Supervisory Mechanism has been in force since 2014, while the SRM is expected to be fully enacted only in 2023. The non-simultaneous implementation of the project is fraught with significant distortions in the functioning of the whole structure of the union. It also raises the question of the banking union's operation effectiveness. In the periods of transition, the successful functioning of the banking union will be largely dependent on the ability of the ECB and national supervisors to coordinate effectively and hence will be prone to delegation risks.<sup>186</sup> The members in possession of spare funds to bail out the failing institutions will be prone to do so, while others will likely recourse to bail-in procedures. The following may lead to substantial outflows of funds from the countries with weaker public finances to countries where they are more stable and thus disrupt the funding of the banks located in the fiscally weaker countries of the EU.<sup>187</sup>

---

<sup>184</sup> Beranger A., Scialom L. Banking Union: Mind the gaps. // *International Economics*. 2015. №144. P. 95–115.

<sup>185</sup> Beck, T. Why the rush? Short-term crisis resolution and long-term bank stability. In T. Beck (Ed.), *Banking union for Europe. Risks and challenges*. London: Centre for Economic Policy Research, 2012.

<sup>186</sup> Moloney, N. European Banking Union: Assessing its risks and resilience. // *Common Market Law Review*. 2004. № 51(6). P. 1609–1670.

<sup>187</sup> Deutsche Bank. EU banking union. Right idea, poor execution. DB Research, 2013.

A further deficiency of the banking union construction is an endowment of the ECB with the supervisory functions while it is being in charge of price stability maintenance.<sup>188</sup> The problem is that monetary policy measures are usually countercyclical, while regulatory policies are mostly procyclical. The following is particularly evident in times of the crises, when regulatory authorities introduced tighter restrictions on banks' activities to restore their soundness, while monetary policy remains to be expansionary to restore confidence on the interbank market and to boost credit. The following implies that supranational supervisor may be either prone to issue more lenient regulatory requirements in line with looser monetary policy during economic recessions, or excessively relax monetary policy to improve the banking sector performance.<sup>189</sup>

The banking authorities raise some additional concerns about further deterioration of their profits with yet another surfeit of regulations. In 2018, a new international accounting standard – IFRS 2 – requiring lenders in more than 120 countries, including the euro area members, to increase provisions for credit losses, is expected to enter in force. According to the estimates of the EBA, the following legislation will result in significant increases of the banks' loan-loss provisions and correspondent decreases in average ratio of common equity to risk-weighted assets; banks with big stocks of non-performing loans are expected to incur most of the costs.<sup>190</sup> The preparations for adoption of recently agreed Basel IV requirements and negotiations on the implementation of the European Deposit Insurance Scheme (EDIS)) are also on this year agenda. The above listed regulatory changes are expected to expose the EU banking industry to even more competition, tighten rules on trading and further erode the reported profits. The European banks seem to be dissatisfied with such state of affairs especially when the American banks' profits reach the unprecedented levels and Mr. Trump states his readiness to unshackle US financial sector from mounds of stultifying regulation.<sup>191</sup>

---

<sup>188</sup> Véron, N. A realistic bridge towards European Banking Union, Peterson Institute for International Economics, Policy Brief. 2013. № 13–17.

<sup>189</sup> Ioannidou V. A first step towards a banking union. In T. Beck (Ed.), Banking union for Europe. Risks and challenges. London: Centre for Economic Policy Research, 2012.

<sup>190</sup> URL: <https://www.economist.com/news/finance-and-economics/21731448-new-accounting-rule-credit-losses-about-kick-timelier-provisions-may> - the Economist (Date of access: 28.04.2018).

<sup>191</sup> URL: <https://www.economist.com/news/finance-and-economics/21725013-significant-trump-nominee-fed-new-approach-financial-regulation> - the Economist (Date of access: 28.04.2018).

## **Conclusions.**

The studies reviewed in the opening subsection of this part provide quite divergent results on the impacts of the EU regulatory reforms. The findings of the private research institutions predict a significant deterioration of the banks' profits with deem prospects for recovery. They are mostly concentrated on the costs to be incurred by various financial intermediaries in the process of implementation of the new regulatory standards. The impact assessments funded by public and international institutions place a special emphasis on the long-term outcomes of the reforms. The greater compliance with newly introduced regulatory requirements is expected to result in the lesser probability of banking failures' occurrence and costs' reductions from the banks' insolvency.

In the second subsection, the first effects of the regulatory reforms are succinctly summarized. Most of the private studies' predictions have been realized in practice. While being better capitalized, the euro area banks are currently experiencing quite meaningful reductions in their profits. Both the CET1 and leverage ratios – the core measures of the bank's capital strength – have risen significantly. In contrast, the return on equity as well as other profitability indicators are still lagging behind as compared to their pre-crisis levels. In pursuit of higher returns, the European banks have already started adjusting their business models to the new unprecedentedly stringent regulatory environment by switching to the non-interest rate fundraising operations, loans' repricing, lending spread increases and M&As activities. It was also noted that the additional revenues could have been gained through the reductions of operational expenses that are still high in the EU compared to the rest of the developed world. The lending provision functions of the banks despite being quite circumscribed by the newly introduced regulatory measures remain quite actionable; the credit standards for the SME and households are being much tighter than years ago.

The final subsection of the part recites the unaddressed issues of banking regulation that might further generate the escalatory risks to the EU banking sector's stability. It has been established that there is a great variety of them. The most essential ones are the financial engineering activities of the individual banks; supervisory arbitrage, migration of the banking activities to the parts of the financial system that are less regulated, ext.

## CONCLUSION.

The post-crisis reforms in the field of the EU banking regulation gave rise to intensive debates among academics and representatives of the banking sector. Contrasting views emerged with regards to the adequacy and accuracy of the new regulatory solutions. The analysis conducted in the present paper indicates that the post-crisis regulatory changes while having corrected the major operational deficiencies of the banking institutions and having provided them with ample opportunities are still fraught with serious threats to the banking sector stability and profitability.

The major results of the present research can be summarized as follows:

- the exceptional functions banks perform to support economic activities of a country, the inherent instability residing in the specificity of the banks operations (the banks' proneness to excessive risk-taking and readiness to accept a constant maturity mismatch in their balance sheets), the existence of various sorts of market imperfections justifies the need for effective banking regulation;
- the authorities possess quite an extensive array of regulatory instruments; the effects of independent regulatory practices on the banks' activities and profitability is not straightforward; the application of a certain regulatory measure may yield quite controversial results and not exclusively positive ones;
- the global financial crisis revealed numerous deficiencies in the former regulatory framework consisting of regulatory arbitrage, inadequate attention to the systematically important institutions, lack of macro-prudential supervision, inability to prevent the successive increases in the banks' leverage, inappropriate regulation of the banks' capital base sufficiency, the absence of the relevant authorities with the necessary powers to timely intervene and orderly restructure the insolvent banking institution;
- the post-crisis legislative proposals in the field of banking regulation have generally addressed the above indicated deficiencies: the EU post-crisis arrangements in the banking regulation sphere improved market transparency through the common reporting framework for systematically important institutions (alternative Investment Fund Managers (AIFMD), Money Market Fund (MMF), MiFID2), strengthened the capital and liquidity positions of the EU banks, increased their loss absorbency (CRD IV package), in part restored the confidence in the European banking sector (MiFID2), enhanced the protection of depositors (Directive on the Deposit Guarantee Scheme) and established the much needed crisis management, recovery and resolution

framework (BRRD, Single Resolution Mechanism – the second pillar of the banking union project);

- despite the listed improvements, the present form of the EU banking regulations is far from being flawless: it is still lacking measures that would effectively deal with financial engineering activities of the individual banks, supervisory arbitrage, migration of the banking activities to the parts of the financial system that are less regulated; the Basel III requirements that formed the basis of the EU regulatory agenda are not themselves deprived of deficiencies (the unresolved portfolio invariance problem, the insufficiently addressed large exposures treatment as well as the remaining possibility of arbitrage arising from dissimilar treatment of the trading and banking book positions);

- the impact assessment studies reviewed in the third part of the present research present quite controversial results; the private investigations project substantial deterioration of banks' profits, especially in the period of their adaption to more stringent regulatory requirements; in contrast, the public estimates of the regulatory impacts do not reflect any substantial damages to banks' profitability and remain centered on the societal benefits arising from the implemented regulations – the resulting welfare from the enhanced banking sector stability and risk minimization of future crisis occurrence;

- the preliminary effects of the reforms were summarized in the final part of the present research; the EU banks became much better capitalized than they were a decade ago; the private studies' concerns about deterioration of the banks' revenues have been practically confirmed: the return on equity estimates as well as other performance indicators have seen significant reductions in their values; the European banks' lending provision function despite being significantly circumscribed remained actionable;

- at least partial recovery of forgone revenues can be achieved through the banks' adoption of a completely new operational model including the bank's switching to the non-interest rate fundraising, loans' repricing, lending spread increases and participation in M&As activities.

Once the necessary changes in the banking business models are made and still existent inconsistencies/deficiencies in the legal basis of the introduced reforms are removed, the EU approach to banking regulation becomes quite an attractive solution to the ailing banks' problems as it improves the banks' robustness to heterogenous risks without compromising their profitability and minimizes the probability of future crisis occurrence.

## LIST OF REFERENCES

### Laws, standards and regulations.

1. “Basel III: A global regulatory framework for more resilient banks and banking systems”: the BCBS from June 2011.
2. “Capital requirements for bank exposures to central counterparties”: the BCBS from April 2014.
3. “Communication to the European Parliament, the Council, the European Central bank, the European Economic and Social Committee and the Committee of the regions on completing the banking Union”: the European Commission from 11 October 2017.
4. “Council Regulation (EU) №1024/2013 of 15 October 2013 conferring specific tasks on the European Central Bank concerning policies relating to the prudential supervision of credit institutions”.
5. “Directive (EU) 2014/65 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Directive 2002/92/EC and Directive 2011/61/EU”.
6. “Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC.”
7. “Directive 2014/49/EU of the European Parliament and of the Council of 16 April 2014 on deposit guarantee schemes (recast). “
8. “Directive 2014/59/EU of the European Parliament and of the Council of 15 May 2014 establishing a framework for the recovery and resolution of credit institutions and investment firms.”
9. “Economic Review of the Financial Regulation Agenda”: Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions from May 5, 2014.
10. “Fundamental review of the trading book”: Consultative document of the BCBS from May 2012.
11. “Minimum capital requirements for market risk”: Standards of the BCBS from January 2016.
12. “Regulation (EU) 600/2014 of the European Parliament and of the Council of 15 May 2014 on markets in financial instruments and amending Regulation (EU) № 648/2012.”

13. "Regulation (EU) № 1022/2013 of the European Parliament and of the Council of 22 October 2013."
14. "Regulation (EU) № 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) № 648/2012".
15. "Regulation (EU) № 648/2012 of the European Parliament and of the Council of July 2012 on OTC derivatives, central counterparties and trade repositories."
16. "Regulation (EU) №1093/2012 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority."
17. "Revised pillar 3 disclosures requirements": Standards by the BCBS from January 2015.
18. "Revisions to the securitization framework": Basel III Document from 11 December 2014.
19. "Shadow Banking – Addressing New Sources of Risk in the Financial Sector": Communication from the Commission to the Council and the European Parliament from 4 September 2013.
20. "Strengthening capital standards: implementing CRD IV": The Bank of England's Policy Statement from August 2013.
21. "The High-level Group of Financial Supervision in the EU Report chaired by Jacques de Larosière from February 25, 2009".

### **Speeches.**

1. "Market Failures and Public Policy": Prize Lecture by J. Tirole at Toulouse School of Economic, France, December 8, 2014.
2. "The European debt and financial crisis: origins, options": Congressional Testimony by N. Véron submitted to the US Senate Committee on Banking, Housing, and Urban Affairs: Subcommittee on Security and International Trade and Finance, September 22, 2011.

### **Statistical books and reports.**

1. An assessment of the long-term economic impact of stronger capital and liquidity requirements / the Basel Committee on Banking Supervision. The Bank for International Settlements, August 2010. 63 p.
2. Andreasen, B. L., Haastrup, M. N., Larsen, T. M., Oma, L. Favorable treatment of government bonds in financial regulation/ Danmarks Nationalbank Monetary Review, 2015. 72 p.

3. Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements / the BCBS – MAG Group. The Bank for International Settlements, December 2010. 19 p.
4. Assessing the macroeconomic impact of the transition to stronger capital and liquidity requirements / Macroeconomic Assessment Group. The Bank for International Settlements, December 2010. 19 p.
5. Economic crisis in Europe: causes, consequences, and responses// European Economy 7. European Commission, 2009. 108 p.
6. Euro area bank lending survey / European Central Bank. April 2018. 61 p.
7. Financial Integration in Europe / European Central Bank. May 2017. 104 p.
8. G20 Leaders Statement: The Pittsburgh Summit, September 24-25, 2009, Pittsburgh URL: <http://www.g20.utoronto.ca/2009/2009communique0925.html> (Date of access: 22.02.2018)
9. Global Regulatory Reform. The world of financial instruments is more complex. Time to implement change. Capital markets reform: MiFID II / EY. EYGM Limited, 2015. 20 p.
10. Global systemically important banks: Updated assessment methodology and the higher loss absorbency requirement / the Basel Committee on Banking Supervision. The Bank for International Settlements, July 2013. 23 p.
11. Houben A., Slingenberg J. Collateral scarcity and asset encumbrance: implications for the European financial system / Financial Stability Review № 17. Banque de France, April 2013.
12. Impact of banks structural reforms in Europe / PwC's Report for AFME, November 2014. 95 p.
13. International convergence of capital measurement and capital standards / the Basel Committee on Banking Supervision. The Bank for International Settlements, June 2004. 251 p.
14. Report on risks and vulnerabilities in the EU financial system / Joint Committee of the European Supervisory Authorities. March 13, 2013.
15. Risk Assessment of the European Banking System / European Banking Authority. December 2016. 72 p.
16. The CRD-IV package. The EU Legislation in Progress Briefings / European Parliament. April 2017. 13 p.
17. The cumulative impact of regulation. An impact analysis of the accumulation of regulations on the Belgian banking sector / KPMG. June 2013. 86 p.

18. The Cumulative Impact on the Global Economy of Changes in the Financial Regulatory Framework / Institute of International Finance. September 2011. 104 p.
19. The Economic Adjustment Program for Ireland / Occasional Papers 76. European Commission. February 2011. 90 p.
20. The euro area banking lending survey / European Central Bank. December 2017. 42 p.
21. The standardized approach for measuring counterparty credit risk exposures / the Basel Committee on Banking Supervision. The Bank for International Settlements, March 2014. 23 p.
22. Véron N. A realistic bridge towards European Banking Union / Peterson Institute for International Economics, Policy Brief. June 2013. 14 p.

### **Books.**

1. Admati A. The bankers' new clothes: What's wrong with banking and what to do about it. Princeton University Press/ ed.: A. Admati, M. Hellwig. Princeton University Press, 2013. 455 p.
2. Archaya, V. Schnabl P. How Banks Played the Leverage Game, Restoring Financial Stability, Wiley Hoboken (NJ), 2009. 401 p.
3. De Haan, J., Oosterloo S., Schoenmaker D. Financial Markets and Institutions: A European Perspective, Third Edition, Cambridge University Press, Cambridge, UK, 2015. 528 p.
4. Dewatripont M., Tirole J. The prudential regulation of banks// Cambridge: MIT Press, 1994. 262 p.
5. European Financial Integration / European Central Bank. April 2012. 146 p.
6. Microeconomics of banking. / X. Freixas, J. C. Rochet – 2nd ed. Cambridge, MA: MIT Press, 2008. 389 p.
7. Muller P., Julius J., Natraj A. The EU Single Market: Impact on Member States. Brussels: Le Europe, 2017. 136 p.
8. Post-Crisis Banking Regulation in the European Union: Opportunities and Threats/ K. Sum [et al.]. Switzerland: Palgrave Macmillan, 2016. 273 p.
9. Shleifer A., Vishny R. The Grabbing Hand: Government Pathologies and their Cures. Harvard University Press. Cambridge, MA, 1998. 288 p.
10. Tirole J. The theory of corporate finance. Princeton, New Jersey: Princeton University Press, 2006. 338 p.

### **Articles in academic journals and working papers.**

1. Acharya V. The Dodd-Frank Act and Basel III: Intentions, unintended consequences, and lessons for emerging markets. ADBI Working Paper Series № 392. P. 1 – 30.
2. Amri P., Angkinand A.P., Wihlborg C. International comparisons of bank regulation, liberalization, and banking crises // *Journal of Financial Economic Policy*. 2011. № 4. P. 1 – 45.
3. Angkinand A. P., Sawangngoenyuan W., Wihlborg C. Financial liberalization and banking crises: A cross-country analysis // *International Review of Finance*. 2010. № 2. P. 263 – 292.
4. Apătăchioae A. The performance, banking risks and their regulation. // *Procedia Economics and Finance*. 2015. № 20. P. 35 – 43.
5. Bakk-Simon K., Borgioli S., Giron H., Maddaloni, H., Rosati R. Shadow banking in the euro area: an overview// *ECB Occasional Paper Series*. 2012. № 133.
6. Banerjee R., Mio H. The Impact of Liquidity Regulation on Banks. // *BIS Working Papers* № 470, 2014. P. 1- 31.
7. Barth J.R., Caprio G., Levine R. Bank regulation and supervision: what works best? // *Journal of Financial Intermediation*. 2004. №13. P. 205 – 248.
8. Barth J.R., Caprio Jr. G., Levine R. Measure it, improve it bank regulation and supervision in 180 countries 1999–2011. URL: [http://www.auburn.edu/~barthjr/Bank\\_Regulation\\_and\\_Supervision\\_Around\\_the\\_World.pdf](http://www.auburn.edu/~barthjr/Bank_Regulation_and_Supervision_Around_the_World.pdf) (Date of access: 18.04.2018).
9. Barth J.R., Caprio Jr. G., Levine R. Banking systems around the globe: Do regulations and ownership affect performance and stability? In: Mishkin F. (Ed.) *Prudential Supervision: What Works and What Doesn't*. University of Chicago Press, 2001.
10. Beck, T. Why the rush? Short-term crisis resolution and long-term bank stability. In T. Beck (Ed.), *Banking union for Europe. Risks and challenges*. London: Centre for Economic Policy Research, 2012.
11. Beranger A., Scialom L. Banking Union: Mind the gaps. // *International Economics*. 2015. № 144. P. 95 – 115.
12. Berger A., Bouwman C. How does capital affect bank performance during financial crises? *Journal of Financial Economics*. 2013. № 109. P. 146 – 176.
13. Blum J. Do capital adequacy requirements reduce risks in banking? // *Journal of Banking & Finance*. 1999. № 23. P. 755 – 771.
14. Blundell-Wignall A., Atkinson P. Thinking about Basel III: Necessary solutions for capital and liquidity // *OECD Journal: Financial Market Trends*. 2010. № 1. P. 1 – 23.

15. Boyd J., Chang C., Smith B. Moral hazard under commercial and universal banking// *Money, Credit, Banking*. 1998. № 30 (3.2). P. 1 – 71.
16. Boyd J., Prescott, E. Financial intermediary coalitions. Federal Reserve Bank of Minneapolis, Research Department Staff Paper 97, 1985.
17. Bullard J., Neely C., Wheelock D. Systemic Risk and the Financial Crisis: A Primer // *Federal Reserve Bank of St. Louis Review*. 2009. № 91(5, Part 1). P. 1 – 15.
18. Carmassi J., Di Noia C., Micossi S. Banking Union: A federal model for the European Union with prompt corrective action// *CEPS Policy brief*. 2012. № 282. P. 1 – 8.
19. Chiesa G. Optimal Risk Transfer, Monitored Finance, and Banks. URL: <https://www.fdic.gov/bank/analytical/cfr/bank-research-conference/annual-8th/chiesa-g.pdf> (Date of access: 28.03.2018).
20. Ciancanelli P., Reyes Gonzales J. Corporate governance in banking: A conceptual framework. URL: [http://papers.ssrn.com/paper.taf?abstract\\_id=253714](http://papers.ssrn.com/paper.taf?abstract_id=253714) (Date of access: 20.03.2018).
21. Claessens S., Klingebiel D. Competition and scope of activities in financial services. Mimeo. World Bank, Washington, DC., 2000. P. 1 – 32.
22. Danielsson J., Shin H., Zigrand J. Endogenous and systemic risk. In J. Haubrich, A. Lo (Eds.), *Quantifying systemic risk*. Chicago: University of Chicago Press, 2013. P. 73 – 94.
23. De Haan, J, Hessel J., Gilbert N. Reforming the Architecture of EMU: Ensuring Stability in Europe, DNB Working Paper № 446, November 2014. P. 1 – 41.
24. Demirgüç-Kunt A., Detragiache E. Does Deposit Insurance Increase Banking System Stability? An Empirical Investigation. *Journal of Monetary Economics*. 2002. № 49. P. 1373 – 1406.
25. Deutsche Bank. EU Banking Union. Right idea, poor execution. DB Research, September 4, 2013.
26. Diamond D., Dybvig, P. Banking theory, deposit insurance, and bank regulation// *The Journal of Business*. 1986. № 59(1). P. 55 – 67.
27. Diamond D., Rajan R. Liquidity risk, liquidity creation, and financial fragility: A theory of banking// *Journal of Political Economy*. 2001. № 109(2). P. 287 – 327.
28. Diamond, D., Dybvig, P. Banking theory, deposit insurance, and bank regulation// *The Journal of Business*. 1986. №59(1). P. 55 – 68.
29. Dobra A. Lessons from the malfunctioning of the Eurozone’s financial system// *Journal of Public Affairs*. 2015. № 3 (15). P. 268 – 276.
30. Drehmann, M., Borio C., Tsatsaronis K. Characterizing the financial cycle: don’t lose sight of the medium term, BIS Working Paper № 380, June 2012. P. 1 – 43.

31. Fernandez, A., Gonzalez, F. How accounting and auditing systems can counteract risk-shifting of safety nets in banking: Some international evidence. // *Journal of Financial Stability*. 2005. № 1. P.466-500.
32. Financial Services Authority. Results of 2009 hypothetical portfolio exercise for sovereigns, banks and large corporations. March 1, 2010.
33. Freixas X., Santomero A. An overall perspective on banking regulation. Federal Reserve Bank of Philadelphia, Working Paper 02-1, 2002.
34. Gorton G., Winton A. Financial intermediation. / In G. Constantinides, M. Harris, R. Stulz [et al.], *Handbook of the Economics of Finance*. Amsterdam, 2003. P. 431 – 552.
35. Gorton G., Winton A. Liquidity provision, bank capital, and the macroeconomy. Mimeo. University of Minnesota, January 25, 2014. P. 1- 47.
36. Gros, D, Schoenmaker, D. European Deposit Insurance and Resolution in the Banking Union // *Journal of Common Market Studies*. 2014. № 52. P. 529—546.
37. Gross D. The Single European Market in banking in decline—ECB to the rescue? In T. Beck (Ed.), *Banking union for Europe. Risks and challenges*. London: Centre for Economic Policy Research, 2012.
38. Hadjiemmanuil, C. Bank Resolution Financing in the Banking Union// *LSE Law, Society and Economy Working Papers*. 2015. №6.
39. Hale T. European securitisation issuance suffers 36% drop in Q1. // *The Financial Times*, April 20, 2017.
40. Härle P., Lüders E., Papanides T., Pfetsch S., Poppensieker T., Stegemann U. Basel III and European Banking: Its impact, how banks might respond, and the challenges of implementation // *McKinsey & Company Working Papers on Risk*. 2010. № 26. P. 1 – 32.
41. Ioannidou V. A first step towards a banking union. In T. Beck (Ed.), *Banking union for Europe. Risks and challenges*. London: Centre for Economic Policy Research, 2012. P. 85 – 95.
42. Jensen M., Meckling W. Theory of the firm: Managerial behavior, Agency costs and ownership structure. *Journal of Financial Economics*. 1976. № 3. P. 1 – 78.
43. Keeley M. Deposit insurance, risk, and market power in banking. // *American Economic Review*. 1990. № 80(5). P. 1183-1200.
44. Kendall, S.B. Bank regulation under nonbinding capital guidelines. // *Journal of Financial Services Research*. 1992. № 5. P. 385 – 402.
45. Kirova S. The First Steps toward the Banking Union’s Implementation and Effects on the Eurozone Banking Sector. // *Economic themes*. 2017. № 55(1).

46. Klomp J., De Haan J. Banking risk and regulation: does one size fit all? DNB Working Paper № 323, November 2011. P. 1 – 48.
47. The cumulative impact of regulation: an impact analysis of the accumulation of regulations on the Belgian banking sector / KPMG, June 2013. P. 1 – 86.
48. Laeven L., Levine R. Bank governance, regulation and risk taking. // Journal of Financial Economics. 2009. № 93. P. 259 – 275.
49. Mehran H., Thakor A. Bank capital and value in the cross-section // The Review of Financial Studies. 2011. №24(4). P. 1019 – 1067.
50. Moloney, N. European Banking Union: Assessing its risks and resilience. // Common Market Law Review. 2004. № 51(6). P. 1609-1670.
51. Mülberr P. Corporate governance of banks after the financial crisis—theory, evidence, reforms. ECGI Working Paper №130, 2010. P. 1 – 40.
52. Obstfeld, M. Finance at Center Stage: Some lessons of the Euro crisis, European Economy – Economic Papers 493, April 2013. P. 1 – 81.
53. Olszak M., Pipień M., Kowalska I., Roszkowska S. Do regulations and supervision shape the capital crunch effect of large banks in the EU // UW Faculty of Management Working Paper Series. 2015. № 3.
54. Pasiouras F., Gaganis C., Zopoundis C. The impact of bank regulations, supervision, market structure, and bank characteristics on individual bank ratings: A cross-country analysis // Review of Quantitative Finance and Accounting. 2006. № 27. P. 673-694.
55. Perrut D. Financial Regulation after the “subprime” crisis: what has been learned and what reforms made? // European issues. 2012. № 246.
56. Global Financial Markets liquidity study / PricewaterhouseCoopers, April 2015. 156 p.
57. Quaglia, L. Financial regulation and supervision in the European Union after the crisis // Journal of Economic Policy Reform. 2013. № 16(1). P. 17 – 33.
58. Rosenbluth F., Schaap R. The domestic politics of banking regulation// International Organization. 2003. №57.
59. Schenone C. The Effect of Banking Relationships on the Firm’s IPO Underpricing // The Journal of Finance. 2005. № 6(59). P. 2903 – 2958.
60. Schoemaker, D. The Financial Trilemma // Economics Letters. 2011. № 111. P. 57 – 59.
61. Slovik P., Cournède B. Macroeconomic Impact of Basel III / OECD Economics Department Working Papers № 844. OECD Publishing. Paris, 2011. P. 1 – 15.
62. Speyer B. EU banking Union: right idea, poor execution / DB Research Management. September 4, 2013. P. 1 – 20.

63. Vallascas F., Keasey K. Bank resilience to systemic shocks and the stability of banking systems: Small is beautiful // *Journal of International Money and Finance*. 2012. № 31. P. 1745 – 1776.
64. Джагитян Э. П., Сильвестров С. Н. Смена парадигмы банковского регулирования в США: от краткосрочных выгод к долгосрочному управлению рисками. Часть 1 // *Деньги и кредит*. 2013а. № 8. С. 1 – 8.
65. Ермаков С.Л., Галкина М.В. Совершенствование банковского надзора – важнейшее направление повышения эффективности антикризисного управления банковским сектором в неустойчивой экономической среде // *Известия ИГЭА*. 2011. № 6 (80). С. 59 – 66.
66. Мазурина О.В. Банковское регулирование и надзор – необходимый фактор развития финансовых рынков / О.В. Мазурина // *Проблемы развития внешнеэкономических связей и привлечения иностранных инвестиций: региональный аспект: сб. науч. тр.* 2007. Ч. 4. Донецк: ДонНУ. С. 353 – 355.
67. Матовников М. Ю. Новации в регулировании: зло или благо? // *Деньги и кредит*. 2012. № 5. С. 140 – 142.
68. Моргорова Э. Г. Базельские стандарты деятельности банков: от Базеля I к Базель III // *Проблемы Развития Мировой и Российской Экономики*. 2013. № 3. С. 166 – 170.
69. Продченко И.А. *Деньги. Кредит. Банки. – Ч. 2: учебно-метод. комплекс / И.А. Продченко / Московский ин-т экономики, менеджмента и права. Центр дистанционных образовательных технологий. М.: МИЭМП, 2010.*
70. Рогова Н. Деякі теоретичні аспекти державного регулювання банківської діяльності / Н. Рогова // *Економіка України*. 2004. № 4. С. 59 – 61.
71. Сакович М. И. Влияние внешнего регулирования на деятельность коммерческих банков в современных условиях. // *Вестник Челябинского государственного университета*. 2013. № 32 (323). С. 62 – 68.
72. Шавшуков, В.М. Глобальные финансы и новые вызовы мировой экономики // *Вестник Санкт-Петербургского государственного университета*. 2003. №5. С.63–64.

#### **Internet resources.**

1. “The Importance of the Nonbank Financial Sector”: Speech by S. Fischer at the Debt and Financial Stability--Regulatory Challenges conference, the Bundesbank and the German Ministry of Finance, Frankfurt, Germany, March 27, 2015. URL: <https://www.federalreserve.gov/newsevents/speech/fischer20150327a.htm>.

2. Armstrong J., Caldwell G. Liquidity Risk at Banks: Trends and Lessons Learned from the Recent Turmoil. URL: <https://www.bankofcanada.ca/wp-content/uploads/2012/01/fsr-1208-armstrong.pdf>. (Date of access: 17.03.2018).
3. Grünbichler A., Darlap P. Regulation and Supervision of Financial Markets and Institutions: a European Perspective. URL: [ftp://ftp.zew.de/pub/zew-docs/div/regconf/Gruenbichler\\_2.pdf](ftp://ftp.zew.de/pub/zew-docs/div/regconf/Gruenbichler_2.pdf) (Date of access: 28.03.2018).
4. International Competition Network Antitrust Enforcement in Regulated Sectors Subgroup 1. An increasing role for competition in the regulation of banks. URL: <http://www.internationalcompetitionnetwork.org/uploads/library/doc382.pdf> (Date of access: 15.03.2018).
5. URL: <http://europa.eu/> – official site of the European Commission.
6. URL: <http://eurostat.ec.europa.eu/> – official site of Eurostat.
7. URL: <http://pubdocs.worldbank.org/> – official site of the European Banking Authority.
8. URL: <http://tass.ru/> – сайт ТАСС информационное агентство России.
9. URL: <http://www.europarl.europa.eu/> – official site of the European Parliament.
10. URL: <http://www.vox.com/> - сайт журнала VOX.
11. URL: <https://careers.jpmorgan.com/> – JP Morgan official site.
12. URL: <https://fred.stlouisfed.org/> – official cite of the Federal Reserve Bank of Saint Louis.
13. URL: <https://www.bankingsupervision.europa.eu/banking/statistics/html/index.en.html/> – Supervisory Banking Statistics of the ECB.
14. URL: <https://www.bis.org/> – the official site of the Bank for International Settlements.
15. URL: <https://www.eba.europa.eu/> – official cite of the European Banking Authority.
16. URL: <https://www.ebf.eu/> – official cite of the European Banking Federation.
17. URL: <https://www.ecb.europa.eu/home/html/index.en.html/> – official cite of the European Central Bank.
18. URL: <https://www.economist.com/> – site of the Economist.
19. URL: <https://www.euro-area-statistics.org/> – Euro area statistics website.
20. URL: <https://www.ft.com/> - site of the Financial Times.