Some Issues with the Establishment of Financial Safety Net: Evidence from Bosnia and Herzegovina

Mehmed GANIC

Faculty of Business and Administration, International University of Sarajevo, Bosnia and Herzegovina, E-mail: mganic@ius.edu.ba

Abstract

In economic and political environment is exposed of each country of SEE acceleration and strengthening market discipline and protection of the credit system are a priority task. One of the mechanisms that contributes to the establishment and implementation of financial discipline is also a function of credit bureaus or Central Registry of Credits as an important determinant of business decisions. However, it remains a fact that the government's conscious need for a mechanism such as a Central Registry of Credits and it is one of the fastest, most effective way to introduction of financial discipline. The aim of this paper is to analyze qualitative data from banks interviews to assess financial system safety-net in Bosnia and Herzegovina and measured the following six main features: The effects of bank membership in the program of deposit insurance to increase savings, the changes in the household, company, public sector savings rate since 2002, frequency of use of information in a borrower's credit history from a Central Registry of Credits, features that reduced the adverse impact of nonperforming loans on banks' balance sheets, effects of establishing a Central Registry of Credits in Bosnia and Herzegovina on certain trends in the domestic banking, and comparison of quality of information from a Central Registry of Credits 2010 and 2006. The paper is divided into five chapters. Section 2 deals with the literature review. Section 3 contains an explanation of the Research Methodology. The findings and discussion were presented in section 4 while paper end with conclusions in section 5. The results presented here imply the significant progress made by establishing a Central Registry of Credits in Bosnia and Herzegovina on certain trends in the domestic banking and the approximation of banking sector in Bosnia and Herzegovina to the developed countries.

Key words

Central Registry of Credit, financial safety net, deposit insurance system

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1. Introduction

Banks that even have a solid management systems and good operational capabilities are not immune to what is called the vulnerability of the bank. Why the banking sector seems so vulnerable? In some areas of business, banks historically had a monopoly and competitive advantages over their rivals.

However, today any non-banking financial institutions or non-financial institutions can provide financial services and offer the same services as banks do in the financial markets. In addition, some factors that supported the existence of banks and facilitated their dominance in the market may become less important, or it can undermine existing market dominance.

Self-regulation and reliance on market forces is certainly one of the essential elements of the stability of financial institutions. The primary goal of policy makers is to ensure that the financial safety net enables rather than undermines market discipline [1]. Recent theoretical papers support the widespread of the prevailing opinion that, in simple terms, all the players on the financial market: depositors, creditors, managers, shareholders and other may create a more secure environment for operating financial institutions, forcing them to operate on a sound basis [2].

The research problem: The basic aim of this research is to give a review of using Central Registry of
Credits, and effects of participation banks in Bosnia and Herzegovina (B&H) in the program of deposit insurance examining how it effects on certain trends in the banking sector. Namely, domestic banking in the form it existed before of establishing Central Registry of Credits has resulted in unsound practice of moving a bad debtor from one to another bank generated banks losses. Banks were unable to find out how much credit each customer uses (multiple loans) and whether the co-borrower or guarantor also appear in that role for more than one loan.

**Objectives of the research:** This research has been undertaken to analyze qualitative data from banks interviews in order to assess how the introduction of Central Registry of Credits and explicit deposit insurance affects on market discipline as well as on certain trends in the domestic banking.

**Sample size:** The questionnaire survey was conducted on twenty out of twenty eight planned banks operating in Bosnia and Herzegovina and from the evaluation of the collected data results that all banks that underwent questionnaire use services of credit bureau. The research process was conducted in B&H. The sample comprises were surveyed by the end of 2010 and 2011, which makes 68.96% of the total sample. This difference was acceptable and does not significantly affect the results of the analysis since these twenty banks represent 83.17% of total assets of the banking sector in Bosnia and Herzegovina.

Based on the given the problem and research objectives it can be set up a working hypothesis: „The introduction of a financial safety net for banks in B&H (Central Registry of Credits and the program of deposit insurance) impact on improving the market discipline and better repayment of credit obligations”.

**2. Literature Review**

The differences in regulatory treatment and supervision of the banks are desirable, not only because of the possible difference between the available information, but also because of the unseen circumstances with which they may face [3]. But past experience shows that even in countries with the most effective control of supervision is coming to bankruptcy. Some rules of conduct, therefore, must be imposed by the requirements to protect the banking sector and the additional use of direct deposit protection of interests of the depositors. In this respect, in any economy, from economic and financial policy-makers requires building a financial safety net. In the U.S. for example, a government safety net established during the Great Depression, has significantly helped to reduce of the some adverse impacts that one bank can hasten the failure of others, leading to a contagion effect [4]. Introduction and reform system of deposit plays a crucial role in the national financial system if the banking sector is a stable with good institutional structure. In order to avoid the possibility arise of moral hazard it recommends the establishment of a system of deposit insurance within financial system safety net [5].

A framework of the financial safety net includes a set of financial mechanisms for the protection of the financial sector. Through these mechanisms, most countries strengthening the resilience of banking sectors increasing their ability to absorb losses in a downturn [6]. In order to eliminate the negative consequences of banking crises, each country, respectively, establishes a safety net for banks, with aim to provide some form of protection for banks in trouble. In addition, building the appropriate institutional framework in the domestic banking system is required, in order to establish a better mechanism for interaction and exchange of information, with aims to improve quality and reduce the cost of credit supply in the national economy, with positive effects on economic growth.

In social and economic system of B&H in the past, as an integral federal unit of former Yugoslavia applied the public deposit protection system, where the federal government to guarantee deposits. Such system has shown a lot of shortcomings, and as a result it caused a loss of public confidence in the banking system. In this environment, the banking sector has lost credit confidence in the domestic market of deposit operations [7].

In addition, there has been noticeable a bad practice of moving from a bad debtor to another bank in the period after 1995 in Bosnia and Herzegovina, which was widespread until the arrival of credit bureaus. As a result, poor loan quality has its roots in lack of market discipline and assessment of the quality client’s solvency.

Therefore, determining the quality of client’s solvency depends on the quality of the institutional framework and infrastructure, which is referred in the business world as a system of credit reporting. Register of credit information is known more as a credit bureau in the U.S. and Canada. Moreover, these countries
have greatly reduced the degree of asymmetry of information consisting of borrower credit history available to potential lenders that use this information to gauge a potential borrower’s ability to repay a loan [8].

A survey, conducted by Stiglitz & Weiss (1981) was pointed out that credit markets include transactions that occur over time, the asymmetry of information between the borrower and the lender creates problems of adverse selection and moral hazard and makes it difficult pricing of loans or interest rates in order to play the function of market clearing. Therefore, there is a credit rationalization where potential borrowers are rejected by banks [9].

If the creditors themselves need to gather necessary information about potential borrowers they are often confronted with: a limited amount of information of potential clients, and that it is often necessary to develop both time and money.

Databases contain individual credit information on borrowers and their credit history provide a valuable input for the evaluation of credit and portfolio management by financial institutions in most developed countries. The above changes actually led that local banks be taken by the foreign banks with their appetites to centralize decision-making processes of credit. These factors have increased the level of trust and the importance of standardization and easier way transmission of information stored in the credit registry.

Parallel with the increased use of credit bureaus, there was significant growth in expanding their capacity to enable lenders to access quickly and cheaply analyze data from a large number of borrowers.

Technology of credit evaluation in a way that provides a numerical quality borrower plays a central part in making credit decisions in the growing demands of credit markets. From its early stages, when the credit evaluation activities were related only to ordinary loans, new financial products and services (mortgage loans, and loans for small and medium-sized enterprises) are introduced every day by increasing the scope of these challenges.

Loans for small and medium sized enterprises as a new and profitable market segment suffer from particularly pronounced information asymmetry. Independent analysis of most small businesses is usually not available because they are usually very diverse, so it is difficult to clearly identify and predict their success and their behavior.

The core of each credit report is to provide sufficient information about the physical and legal persons and their current payment status and past payment history. It enables the creditor to accurately evaluate the potential risk posed by lending money to borrower and to mitigate losses due to bad debt. With most lenders credit bureau data in the short term (30-90 days) are less important in relation to cash flow and liquidity of the company. However, reviewing historical data over time become the most important indicator of the likelihood of default or the probability that the counter-party or borrower will fail to service obligations. A recent survey, conducted by Brown pointed out that information sharing is associated with improved availability and lower cost of credit, particularly in transition countries with very weak legal environments [10]. Their cross-sectional estimates suggest that information sharing and firm-level accounting transparency is substitutes in enhancing credit availability: the correlation between information sharing and credit access (or the cost of credit) is stronger for opaque firms than for transparent ones. At the economic point of view Berger (1991) is found that market discipline requires from private investors to face costs that increase as firms undertake risks, and to take action as a result of these costs. Here, it is curious to note that information relates to current and prospective borrowers enable lenders efficient allocation of resources in the economy.

Data from the credit bureau are also important to increase the efficiency of credit culture in developed countries. While the theoretical literature often discusses the role of information in the credit markets it is often attention given to the potential benefits from enhancing market discipline in a country’s banking sector. For example, a study conducted by Berger is shown that market discipline may improve the efficiency of banks by pressurizing some of the relatively inefficient banks to become more efficient as well as increased market discipline may reduce moral hazard incentives [11].

In addition, another interesting thing is that credit reports strengthen market discipline and reduce delayed payments as well as eliminate secretly debtor defaults with credit markets. For lending to individuals, lenders are faced with moral hazard, i.e. that the borrower may default on financial obligations to the lenders, or to take actions that would increase exposure to risks related to the investment project.
3. Research Methodology

The research was carried out applying the methods of questionnaire survey. The research process was conducted in B&H. Questionnaire is based on the concept of close questions by examining the effects the establishment of financial safety net in B&H. Each question represents the objective of this research. The survey was carried out in the spring of 2012. The data for this research has been collected from primary source. Questionnaires were given to banks management. They have instructed to statement carefully and check the appropriate answers by marking tick on it and give answers to questions. Each question represents the objective of this research. A questionnaire was developed to help us to understand and assess the effects the establishment of financial safety net in B&H and other issues related to it measuring the following six main features:

- effects of bank membership in the program of deposit insurance to increase savings,
- the changes in the household, company, public sector savings rate since 2002,
- frequency of use of information in a borrower’s credit history from a Central Registry of Credits,
- features that reduced the adverse impact of nonperforming loans on banks' balance sheets,
- effects of establishing a Central Registry of Credits in Bosnia and Herzegovina on certain trends in the domestic banking,
- comparison of quality of information from the Central Registry of Credits 2011 and 2006.

4. Survey research

The research process was conducted in the questionnaire according to the requirements defined in the research methodology.

4.1. Effects of bank membership in the program of deposit insurance to increase savings

The first question forward looking effects of bank membership in the program of deposit insurance to increase savings. Namely, seventeen banks answered on the information asked by questionnaire while three banks have not provided an answer to this question.

![Figure 1. Effects of bank membership in the program of deposit insurance to increase savings](image)

The respondents were asked to evaluate each activity using the following scale: increase in savings is much higher, increase in savings is slightly higher, level of savings remained about the same on that basis, level of savings remained slightly less as well as level of savings is much less. The responses from the questionnaire to this issue are presented in fig. 1. On average the estimation of effects of bank membership in the program of deposit insurance to increase savings from the sample of 0.47 suggests that increase in savings were between the features „increase in savings is slightly higher“ and „increase in savings is much higher“. On average deviation from this average value is 1.45 which may be characterized as a satisfactory reliability of responses obtained.

Judging from the results of responses to the first question, it can be concluded that in six banks (31.29% of total banking assets in B&H or 30% of the sample) increase in savings is much higher as a result of
membership in the deposit insurance program, while ten banks (22.5% of total banking assets in B&H or 50% of the sample) increase in savings is slightly higher, while one bank (19.61% of total banking assets in B&H or 5% of the sample) level of savings remained about the same on that basis.

4.2. **Summary score for a respondent’s attitude of movement of the rate of aggregate savings by household, company and public sector since 2002**

To this question respondents were asked to evaluate each activity using the following scale: the rate of aggregate savings has been increasing, the rate of aggregate saving has remained at the same level and the rate of aggregate savings has been decreasing. Judging from obtained responses of the surveyed banks, it can be concluded that trends in the rate of aggregate savings in B&H from 2002 have been positive (household, company and public sector—see Figure 2).

![Figure 2. Summary score for a respondent’s attitude of movement of the rate of aggregate savings by household, company and public sector since 2002](image)

Figure 2 illustrates that with the sixteen banks (77.74% of total banking assets in B&H or 88.8% of the sample) the rate of aggregate savings has been increasing recently by household, company and public sector, while two banks (4.06% of total banking assets in B&H or 11.2% of the sample) the rate of aggregate saving has remained at the same level.

4.3. **Assessment of the applicant’s repayment willingness and capacity, including consideration of credit history and performance on past and existing obligations**

To this question respondents were asked to evaluate each activity using the following scale: never; often, always. It turned out that eighteen banks in which the survey was conducted, (74.75% of total banking assets in B&H or 90% of the sample), always check the use of information on borrower’s financial capacity and performance on past and existing obligations from a credit bureau with CB of B&H, while two banks (8.35% of total banking assets in B&H or 10% of the sample) often used to it (figure 3).
The average estimation of responses obtained from the sample is 0.1 and that it indicates that banks generally always prefer to consider credit history and performance on past and existing obligations of the applicant from the credit bureau, while the standard deviation of 0.43 shows relative reliability of obtained responses from the sample.

4.4. Reduced the ratio of nonperforming loans to total loans

Most of the survey’s respondents (82.56% of total banking assets in B&H or 90% of the sample) answered that the ratio of nonperforming loans to total loans has reduced in their balance sheets since 2002 while two banks (0.54% of total banking assets in B&H or 10% of the sample) have not reduced their ratio (figure 4).

Bankers who have responded positively to the previous question were offered several options to explain the relative importance of reduction of nonperforming loans since 2002 (Table 1).

**Table 1. Features that reduced the adverse impact of non performing loans on banks’ balance sheets**
The adoption of stricter regulatory frameworks for banks  

<table>
<thead>
<tr>
<th>The role of the bank management</th>
<th>0</th>
<th>6</th>
<th>12</th>
<th>59.95</th>
<th>0</th>
<th>2.67</th>
<th>0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>A strategy of prudence in lending</td>
<td>0</td>
<td>3</td>
<td>9.24</td>
<td>15</td>
<td>73.33</td>
<td>0</td>
<td>2.83</td>
</tr>
<tr>
<td>The loan approval process to loyal and trusted customers</td>
<td>0</td>
<td>0</td>
<td>18</td>
<td>82.56</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Detailed examination of the policies and practices of conduct business</td>
<td>0</td>
<td>4</td>
<td>8.31</td>
<td>14</td>
<td>74.26</td>
<td>0</td>
<td>2.78</td>
</tr>
<tr>
<td>Beginning of managing other banking risks</td>
<td>1</td>
<td>0.82</td>
<td>9</td>
<td>52.11</td>
<td>8</td>
<td>29.63</td>
<td>0</td>
</tr>
<tr>
<td>Competitive pressure</td>
<td>7</td>
<td>10.85</td>
<td>7</td>
<td>44.23</td>
<td>4</td>
<td>27.48</td>
<td>0</td>
</tr>
</tbody>
</table>

Table 1 summarizes information on the features that reduced the adverse impact of nonperforming loans on banks’ balance sheets-related activities performed by respondents. Finding indicates following:

- the adoption of stricter bank regulation is important in reducing the share of nonperforming loans to total loans with twelve banks (59.95% of total banking assets in B&H or 66.66% of the sample), while for six banks (20.89% of total banking assets in B&H or 33.34% of the sample) it is less important;
- For the most banks, specifically the fifteen banks (73.33% of total banking assets in B&H or 83.33% sample) the role of the bank management is important in reducing the share of nonperforming loans as a percentage of total loans, while for three banks (9.24% of total banking assets in B&H or 16.67% of the sample) it is less important;
- with eighteen banks (82.56% of total banking assets in B&H or 100% of the sample) a strategy of prudence in lending is very important criterion in the multiple choice relevant to the reduction of nonperforming loans in total loans;
- Out of twenty banks in the surveyed, their fourteen banks (74.26% of total banking assets in B&H or 77.77% of the sample) expressed opinion that policy governing of the loan approval process to loyal and trusted customers is an effective way to reduce the share of nonperforming loans to total loans, while four banks (8.31% of total banking assets in B&H or 22.23% of the sample) it is somewhat important;
- thirteen banks (73.39% of total banking assets in B&H or 72.22% of the sample) detailed examination of the policies and practices of conduct business very important in reducing the share of nonperforming loans in total loans, while five banks (9.18% of total banking assets in B&H or 27.78% of the sample) it is somewhat important.

It seems interesting that competitive pressures and risk management policy are considered less important. For nine banks (52.11 of total banking assets in B&H or 50% of the sample), significant improvement in many risk management practices is somewhat important, while seven banks (44.23% of total banking assets in B&H or 38.88% of the sample) competitive pressure is considered somewhat important in decreasing nonperforming loans to total loans.

Similarly, in TABLE I it can be seen relatively good confirmation of all answers provided in which the banks surveyed. In other words, for the most banks in Bosnia and Herzegovina features that reduced the adverse impact of nonperforming loans on banks’ balance sheets had average estimation of responses obtained from the sample over 2.5 while features that has had most affected by the reduction of nonperforming loans in total loans with average estimation of responses obtained from 2.72 and more: detailed examination of the policies and practices of conduct business, the loan approval process to loyal and trusted customers, the role of the bank management, as well as a strategy of prudence in lending. In contrast, a feature that has had the least impact on reducing the nonperforming loans to total loans is competitive pressure. On average the estimation of responses obtained from the sample was less 1, and we can conclude that it has its logical interpretation.

4.5. Effects of establishing a Central Registry of Credits of Legal and Physical Entities in Bosnia and Herzegovina on certain trends in the domestic banking

Within the sample bankers were asked about the potential effects of establishing a Central Registry of
Credits on certain trends in the domestic banking. Bankers were offered the option of multiple responses in order to gain insight into effects of establishing a Central Registry of Credits on certain trends in the domestic banking. Based on the response of surveyed banks it may be concluded that majority of them, specifically the fourteen banks (57.15% of total banking assets in B&H or 70% of the sample) determine that the establishment of a Central Registry of Credits has led to improved timeliness of certain loan servicing obligations.

In addition, with eighteen banks (80.87% of total banking assets in B&H or 90% of the sample) was recording continuously decreasing trend of non-performing loans to total loans (see fig. 5). Although it was offered the option of multiple answers, based on the obtained results it could be concluded that are features price differentiation, lower cost for the bank and a declining share of nonperforming loans were less relevant. On average the value of answers of 0.72 is calculated on the basis of the given bank appraisal, which indicates that the effects of establishing a Central Registry of Credits were between the characteristics „better timeliness of certain loan servicing obligations“ and „reduction in non-performing loans“. On average deviation from this average value is 2.43 which may be characterized as a satisfactory reliability of responses obtained.

**Figure 5.** Effects of establishing a Central Registry of Credits of Legal and Physical Entities in Bosnia and Herzegovina on certain trends in the domestic banking

**4.6. The quality of information from a Central Registry of Credits in 2011 compared to 2006**

Judging from obtained responses of the surveyed banks quality of information was significantly improved by implementing a Central Registry of Credits over the period from 2006 to 2011. The responses from the questionnaire to this issue are presented in figure 6.

Looking at fig. 6, we see that the quality of information was significantly improved with thirteen banks (68.80% of total banking assets in B&H or 65% of the sample), while seven banks (14.3% of total banking assets in B&H or 35% of the sample) the quality of information is not changed that it is kept at the same level.

The average estimation of responses obtained from the sample is 0.35 and it suggests that the quality of information from a Central Registry of Credits over the period between 2006-2010 were close to the feature of significantly improved rather than the quality of information is not changed.

Value of standard deviation of 1.52 indicates significant reliability of responses obtained.
5. Conclusion

The banking sector plays an important role in the economy of each country, including Bosnia and Herzegovina, and therefore the importance of the existence of permanent supervision of the banking sector as a precondition for its stability. Creating the institutional basis of the formation of the entity banking agencies, the introduction system of the currency board, a lot has been done to maintain the stability of the domestic banking sector and strengthening public confidence.

Also, the improvement of the institutional framework there was a reduction in banks’ credit risk, which encouraged the growth of credit supply. The institutional framework of the banking sector has improved by strengthening prudential regulation and supervision, increasing the minimum capital requirements of banks and the application of international accounting standards in the banking sector.

There is no doubt that the results presented in this work showed significant progress has been made in solving hat imposing a heavy burden on banks before the establishment of a Central Registry of Credits.

In fact, banks were unable to find out how much credit each customer uses (multiple loans) and whether the co-borrower or guarantor also appear in that role for more than one loan.

Among other things, it should be mentioned a bad practice of moving bad debtor from one to another bank, which was distributed to the establishment of a credit bureau which generated defaulting.

To conclude, we should look ahead with optimism on the grounds of the following:

- The introduction of safety net in Bosnia and Herzegovina has allowed that in the past few years make greater progress in terms of financial discipline;
- there is indication that is achieved a significant increase in savings due to the introduction of deposit insurance;
- the large number of banks surveyed is improved their credit decision-making policies by using information from a Central Registry of Credits;
- The establishment of a Central Registry of Credits has led to improved timeliness of loan servicing obligations;
- Quality of information from a credit bureau has been significantly improved thereby strengthening risk profiling in terms of credit delivery and management in Bosnia and Herzegovina.

References


