

Credit Risk Management in Banking Institutions in Republic of Macedonia

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Abstract: Banking institutions have crucial importance for each national economy functioning. The activities of contemporary banks are not limited only to traditional banking activities, such as collecting deposits and issuing credits, but they also offer many other non-banking services, such as securities trading, financial consulting, financial leasing, managing financial and non-financial assets etc., and as a result of that, the risks on which they are exposed are increased. From this point of view, the efficient risks managing and use of information-communications technology in that process present a challenge for each banking institution.

The most important risk the banks are faced with in their working is the credit risk. The bank should possess an appropriate system for managing the credit risk, which should be based on firmly accepted policies, which should determine: the level of acceptable risk, limiting of credit exposure of individual debtors, activities and geographical areas, internal system for risk measuring and monitoring, competences and responsibilities for making credit decisions, internal control of the crediting process etc. So, the accent of this study will be on the instruments for credit risk management, with a special review of the conditions of the banks in R. Macedonia.

Key words: banking institutions, financial innovations, credit risk.

1. Introduction

Banking institutions are the biggest, the most important and the oldest financial institutions that function in conditions of dynamic changes in the environment, such as: competition of the other financial mediators, foreign competition, regulative changes, globalization, fast development of information and communication technology, financial innovations etc. In their working, they face different kinds of risks, that outlines the need for increasing their flexibility and ability to adjust themselves to the changes in the financial system and in that way to provide their competitive advantage over other financial institutions.

The effectiveness and efficiency of the risks management can be assessed by the bank strategic positioning, the nature of risky exposure and the identification system adequacy, supervision and quality of the banking risks managing, etc. These activities should be an integral part of the policy for risks management, that is subject to constant monitoring and updating according to the environment trends and the bank's exposure to risks.

Since crediting is a predominant banks' activity, it is logically to conclude that dominant risk in their working is the credit risk. According to the Decision for managing risks in the banking institutions in R. Macedonia, the credit risk is a risk of loss for the bank, due to inability of its client to meet its liability towards the bank in the agreed amount and/or within the agreed terms.

The credit risk is a primary cause for the failure of the banks and it is the most usually seen risk with which the banks managers are faced to (Benton E. Gup, James V. Kolari, Commercial banking, Ars Lamina, Skopje, 2011, page 12). The estimation of the credit risk has a central place in the process for risks management , because in the most of the cases , the insolvency of the bank is directly caused by the high percentage of mature loans compared to the bank’s total loans (Sheila Heffernan, Contemporary banking, Akademski pecat, Skoje, 2009, page 112).

The credit risk can be examined from the aspect of the client’s worse financial state, when it becomes financially not capable to return the rest of the debt to the bank, and this results in the growth of the credit risk, as an increased possibility for loss of the resources placed with that client. The height of this loss is determined by several factors, and first of all, by the rest of the debt, but also by the height of the bank’s total exposure towards the client and its associated persons, and by the credit collateral coverage. Therefore, the credit risk dominancy over the other risks, is in the losses percentage that can be caused by it. Namely, “besides the innovations in the financial sector, over 70% of the bank’s balance of assets are generally associated with this aspect of the risks management. So, the credit risk is a key reason for the banks bankrupt” (Bratanovic Brajovic Sonja, van Greuning Hennie, Analyzing banking risk – A framework for assessing corporate governance and risk management, Third edition, The World Bank, D.C., 2009, p.161).

2. Characteristics of the Banking System in R. Macedonia

The banks are predominant participants in the financial system of R. Macedonia. They participate with 85.8% in the total financial system assets. By the end of 2016, the banking system in R. Macedonia comprises 15 banks and 3 savings banks. The banks number sees a trend of decreasing, compared to the previous period, when there were 18 banks in the market, as a result of merger of the smaller banks with the bigger ones, but also of the consolidation of the smaller banks in order to increase the market share. Since the start of the banking system restructuring, up today, there has been a trend of growth of foreign capital share in the total banks’ capital, which is 74,6% at the end of 2016. In a table no. 1, we give a proof of foreign capital share in the capital of the banking system of R. Macedonia (2012-2016).

Table 1. Foreign Capital Share in the Banks’ Total Capital (in %)

	31.12.2012	31.12.2013	31.12.2014	31.12.2015	30.6.2016
Big banks	78.1%	77.6%	76.3%	75.0%	74.5%
Medium banks	69.0%	74.0%	76.3%	76.1%	76.0%
Small banks	87.0%	74.7%	75.7%	69.8%	69.7%
Banking System	75.2%	75.2%	76.2%	74.8%	74.6%

From the aspect of the geographical origin of foreign capital, three banks have predominant shareholder from Bulgaria, two from Greece, while five have predominant foreign capital from Slovenia, France, Austria, Turkey and Germany.

If we review the movements in the banking system of R. Macedonia from the aspect of the banking institutions size and degree of the market share, the analyses show that there is an asymmetric banking system, where three big ones stand out from the other banks. As per the NBRM classification, big banks are considered those ones that have assets above 32,1 billion denars, medium banks are those with assets between 8,0 and 32,1 billion denars, and small banks are those which assets are under 8,0 billion denars. The three biggest banks still account more than 60% in the total assets of the banking system. The medium banks are increasing their market share, while the small banks have very low and insignificant share in the total assets of the banking system.

3. Credit Risk Management

Each bank is obliged to establish general acts and internal procedures in which it will regulate the way and methods of risks identification, measuring and managing, and which should be completely harmonized with the law regulative, decisions and rules defined by the NBRM. The banks credit risk exposure in R. Macedonia is under strict supervision and control of NBRM. Namely, in order to define the basic guidelines for credit risks managing, NBRM has prescribed a “**Decision for managing the credit risk**” (“Official gazette of R. Macedonia, no. 50/13).

According to this decision, each client and/or the bank credit exposure should be categorized into one of the five categories of risks of NBRM. The categorization is made according to:

- Creditability, that is confirmed by a financial analysis of the client just before the crediting, or, eventually, during restructuring the exposure or reprogramming of the contractual terms and it is subject to monitoring every six months or earlier, should some financial problems and difficulties in the client’s working have been identified;
- Fulfillment of the obligations, i.e. the client’s accuracy in meeting its obligations under the current or some past closed exposures, and for the period of at least 6 months;
- Provision quality, that is estimated as per the type of provision, its value and liquidity, i.e. the possibility for fast and efficient realization in the market etc.

The table no. 2 shows grouping of the resources as per their credit risk level on the base of the Decision for managing credit risk of NBRM. In fact, all banks exposures categorized in the risky categories G and D, and the exposures classified in the category B, which are completely or partially outstanding, for any reason, more than 90 days, are considered as non-functional credits.

Table 2. Grouping of the Resources as per the Credit Risk Level

Category	Exposure characteristics	Value correction
A	The obligations based on the exposure are fulfilled in time or with a delay of max. 31 days; In the last 12 months, the concrete exposure or any other credit have not been restructured ¹	0-5%
B	The obligations based on the exposure are fulfilled with a delay up to 60 days (with exceptions even to 90 days, but if the delay is only occasional in the interval of 61 days to 90 days); In the last 6 months, there has not been a restructuring of the credit exposure.	5-20%
C	The obligations based on the exposure are fulfilled with a delay up to 120 days (with exceptions even to 180 days, but if the delay is only occasional in the interval of 121 days to 180 days); The credit exposure is restructured.	20-45%
D	The obligations based on the exposure are fulfilled with a delay up to 240 days (with exceptions even to 300 days, but if the delay is only occasional in the interval of 241 days to 300 days); The client is insolvent. The obligations based on the exposure are fulfilled with a delay more than 241 days; The client is under bankruptcy proceedings .	45-70%

¹ Restructuring of some credit is a process of modifying one or more existing credits, i.e. their disintegration or integration, which leads to changes in the initial contractual terms , such as time, provision, height of the interest rate etc.

4. Analysis of the Banks' Credit Portfolio in RM

Due to the low development degree of the Macedonian stock exchange, the banking institutions in R. Macedonia are the most important participants in the capital market. Crediting is a stimulator for business development. In the last years, people's crediting has been increasing, with which the banks contribute to quality of life increasing and to consumption stimulating. Table no. 3 shows the state of gross credits of non-financial entities in the last 5 years (2012-2016).

Table 3. Gross Credits of Non-Financial Entities (In million denars and in %)

	31.12.2012		31.12.2013		31.12.2014		31.12.2015		30.9.2016	
Big banks	159,511	73.8%	148,533	64.5%	179,711	71.0%	194,488	70.1%	187,743	68.6%
Medium banks	47,921	22.2%	67,901	29.5%	63,694	25.2%	73,254	26.4%	76,787	28.1%
Small banks	8,793	4.1%	13,698	6.0%	9,562	3.8%	9,791	3.5%	9,051	3.3%
Banking system	216,225	100.0%	230,132	100.0%	252,967	100.0%	277,533	100.0%	273,582	100.0%

Source: National Bank of the Republic of Macedonia

The analysis of the banks' portfolio can be carried out on several levels i.e.: analysis per maturity, analysis of the exposure volume towards credits users, analysis of the riskiness degree, analysis of the on-balance and off-balance credit exposures of the bank and the degree of their riskiness etc.

Total credit exposure of the banks in RM (as per data from NBRM) constantly increases, so in 2012 it was 365.561 million denars, at the end of 2015 it reached level of 459,568 million denars, and in 2016 the credit exposure is 469,675 million denars (table no. 4). In the total credit exposure of the banking system, the loans with enterprises have the highest share, that account over 60% of the total loans.

Table 4. Total Credit Exposure (In million denars)

	31.12.2012	31.12.2013	31.12.2014	31.12.2015	31.12.2016
Big banks	260,301	243,392	295,494	315,830	355,659
Medium banks	91,722	121,395	112,921	127,805	98,467
Small	13,537	22,165	15,159	16,024	15,550
Banking system	365,561	386,952	423,575	459,658	469,675

The credit risk coming out of the exposure towards corporative sector, is still the most important risk for the domestic banks, especially if you have in mind significant participation of the restructured credits and risks that are characteristic for such exposures. Therefore, it is indispensable to monitor operative realizations of the domestic corporative sector regularly, especially its ability for providing positive cash flows from the operative working.

When assessing the quality of the credit portfolio, as a criterion we usually take the participation of nonfunctional credits in the total credits for non-financial entities. This indicator on the level of the whole banking sector shows permanent decreasing and for 2016 it is 6.6% (table no. 5). At the end of 2015, the National bank made an amendment in the existing regulative, according to which, latest to 30 June 2016, the banks should write off (and to continue with writing off) all credits that are completely reserved more than two years, i.e. for which, before at least two years, the bank determined and completely covered the credit risk of not being recovered. The regulative for obligatory writing off the banks credits that are completely reserved for period of 2 years, should contribute to decreasing the level of nonfunctional credits.

Table 5. Nonfunctional Credits/Total Credits for Non-Financial Entities (in %)

	31.12.2012	31.12.2013	31.12.2014	31.12.2015	31.12.2016
Big banks	10.3%	12.5%	12.5%	12.5%	7.3%
Medium banks	9.4%	8.7%	7.2%	5.7%	3.5%
Small banks	20.4%	15.1%	16.6%	16.0%	9.3%

Banking system	10.5%	11.5%	11.3%	10.8%	6.6%
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Concerning the indicator that shows participation of the risk categories B,G and D in the total credit exposure, it can be stated that on the level of the total banking system, with small exceptions, it decreases and in 2016 it is 5.5% (table no. 6).

Table 6. (B,G and D)/Total Credit Exposure (in %)

	31.12.2012	31.12.2013	31.12.2014	31.12.2015	31.12.2016
Big banks	9.6%	11.7%	11.1%	10.0%	6.0%
Medium banks	6.7%	6.1%	5.4%	4.2%	3.2%
Small banks	15.6%	12.1%	13.8%	12.0%	7.5%
Banking system	9.1%	10.0%	9.7%	8.5%	5.5%

The report of the NBRM on the financial stability of R. Macedonia for 2015, shows that negative effects of eventual outstanding nonfunctional credits and their influence on the banks' capital are limited, having in mind high coverage of these credits with a value correction of (86,7%). In that way, the not reserved part of the nonfunctional credits absorbs only about 8% of the total own resources of the banking system, which would cover unexpected losses in hypothetically an extreme case of a total non-recoverability of these credits. At the same time, in 2015, the banks were more engaged in resolving "bad" credit portfolios, which is seen in the rather higher amount (by 45,2%) of the written off credits and annual decreasing (-16,9%) of the taken over estate on the basis of the bad debts . Losses due to realization of the credit risk can exceed the expectations of the banks, especially in unfavorable business conditions. Such exceeding is possible mainly due to higher concentration of the banks' credit portfolios, high costs or inability to realize the established loans providing (at favorable prices) , and due to presence of credits with which it is more difficult to follow the clients' cash flow (for instance, credits with a redundancy pay of the principal and credits with an approved grace-period) or credits where the value damaging can be "masked" (for example, prolonged credits).

When analyzing quality of the credit portfolio , other components are analyzed as well, such as: maturity date of the non-financial entities' credits, participation of the credits with a redundancy pay of the principal in the total credits structure, participation of the high exposures amount in the bank's own resources, i.e. the risk concentration, participation of the non-provided credits in the total credit exposure, the average dept per capita (not for the total population, but only for those persons that are in debts) etc.

From the point of view of the off-balance activities, the banks in R. Macedonia mainly perform traditional services in the area of foreign payment transactions, i.e. they open Letters of Credit and issue guarantees for their clients. The undeveloped financial market is a reason why the banks are not involved in the transactions with derivative financial instruments, i.e. forwards, swaps, futures and options. Off-balance risky assets in the last ten years comprise about 1/5 of the banking system total credit exposure (according to the NBRM data).

5. Instruments for Protecting Against Credit Risk

The efficiency in managing the credit process imposes the need for determining appropriate instruments for protecting against credit risk. The banking institutions in R. Macedonia , most frequently apply the following instruments: prices policy, credit limitations, provision of credit and credit portfolio diversification.

Prices policy means determination of the credit price, i.e. the interest rate which should be adjusted to the client's riskiness. Namely, should a more risky client is in question, the bank should include higher premium for the risk in the credit's interest rate. The height of the premium for the risk depends on several factors, such as: market interest rates, credit maturity, provision of credit etc.

Credit limitations refer to the height of the credit exposure, measured mainly in relation with the capital. So, according to the Law for banks, the total amount of credits approved by the bank to one

debtor, must not exceed 25% of the bank's capital, where if the debtor is a big shareholder of the bank, this limit is 10%. Moreover, the regulative determines the amount of a high credit exposure, where the total amount of large credits must not exceed eightfold amount of the bank's capital.

Provision of a credit decreases the bank's exposure to a credit risk. When applying this instrument for protection against credit risk, the banks are faced with problems when they sell the pawn resources, in case when the debtor cannot pay its liability towards the bank in time.

Credit portfolio diversification understands credits approval by the bank in different business sectors and branches, and in different geographical regions. Namely, when larger part of the banks' credits are concentrated in one sector, then this increases the credit risk, because the eventual unfavorable economic or other events in that sector can cause problems with credits collection.

6. Conclusions and Recommendations

The credit risk presents predominant form of a risk the banking institutions are faced with. Besides the innovation in the sphere of financial services, the credit risk is the most frequent cause for the bankruptcy of the banks. The credit risk management is a process of identifying the existing and potential risks associated with the credit process and taking over appropriate measures and activities for its minimizing. The efficient managing of the credit risk understands creating a strategy and policy for credit risk management, establishing of an appropriate organizational structure and defining of the managing bodies responsibilities in each banking institutions. Since the total credit exposure of the banking institutions in RM is continuously increasing, it is indispensable for the banking institutions to define an appropriate policy for prices, to restrict the credit exposure towards individual debtors, to diversify the credit portfolio into different geographical regions and sectors and to have quality provision of credit. Namely, the quality provision should meet the following three conditions: the provision value to exceed the credit value, there should be an active secondary market in which the provision can be sold and the bank can easily take over the possession over the provision.

When analyzing the quality of the credit portfolio, crucial role should be played by the amount of nonfunctional credits and their participation in the total credits of non-financial entities. Nonfunctional credits rise, but at almost twice lower annual rate (which is 4,7%). In the conditions of minimally delayed credit growth, the participation of these credits in the total credits of non-financial entities, has seen annual decrease of 4,2 percents scores and amounts 6,6%. Also, the risks of the nonfunctional credits for the banks' solvency are minimized, having in mind their high coverage with the value correction for them (86,7%), which restricts the potential negative effects on the banks' capital positions under extremely unfavorable circumstances. Currently, the value correction percentage of the regular credits (or the average level of riskiness of the regular credits) is mainly defined on an appropriate level, by the banks. On the basis of the previously performed analysis of the situation in the banking sector, it can be stated that the banking institutions in RM successfully manage the credit risk, but in the future, they have to pay special care to: the changes in the business environment, investing climate, the state monetary policy and its reflection on the banks' business policy, the degree and dynamics of the financial market development etc.

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