BANK RISK MANAGEMENT: THE NON-REIMBURSEMENT OF CREDITS BY LEGAL PERSONS

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ABSTRACT: *As a result of the fact that credit institutions are vulnerable to a risk of non-reimbursement of the credits lent to legal persons, compared to the ones given to natural persons, the authors aim to show that, by means of a good credit risk management, the reimbursability degree of the credits lent to legal persons may be improved. This risk may be reduced by means of two stages of the credit lending, respectively the stage of analysis of the financial situation of the economic entities and respectively the stage of active monitoring of credit lending. We are trying to show that, banks can successfully manage bank risks if they fulfil a few minimal requirements, such as: a good knowledge of the strategic role regarding risk management; the use of the paradigm of analysis and management to increase efficiency; adoption of some precise actions of adaptation of performance under risk and generation of a mechanism reporting performance depending on risk.*

KEY WORDS: *bank, credit, credit risk, rates, contracts concluded.*

JEL CLASIFICATION: *M41.*

1. INTRODUCTION

At the beginning of the third millenium, the increased dependance of the western countries on raw material sources from the East generated an inflationist process which led to high fluctuations of the nominal interest rates. As a result of the intensification of the competition between banks, the complexity and diversity of bank risks has recently known an ascendent trend due to the increase of the international financial markets and of the high number of financial products and services. The modifications which have taken place beginning with the year 2008 on the bank financial markets have led to major changes, risk taking an important place, as it has been found out that it plays an important part in the financial sector, in economic growth and financial stability.

Thus, we could find out that banks, like many other economic entities, are subjected to risk. The competitive environment being subject to changes, as a result of the removal of control over the international transfers of equity and of the modification of bank costs structure, has determined the admission, by the experts within the bank system, of the existence of some multiple risk factors, such as*: currency risk, transaction risk, interest rate risk, liquidity risk, equity risk, business risk*, but the most important is **credit risk,** also named **counterparty risk or client insolvency risk.** Credit risk consists of the probability of the credit institution of registering a loss - as a result of non-observance of the contractual clauses by the client. Credit risk definitely represents one of the most dangerous risks threatening banks.

The loss may be total or partial, as credit risk increases proportionally to the number of clients, to the amount of the credit lent and to the level of the interest rate for the credits lent. Risk is a basic factor of businesses, as the profit gained by the economic entities is not devoid of risks. Therefore, banks must own efficient strategies, which should contain both risk management programmes and procedures, which actually regard the minimizing of the probability of producing risks and, implicitly, a potential exposure of the credit institution. It is the responsibility of the bank companies to limit credit risk and to make all efforts for cashing in their debtors. It is considered that a certain debtor is in state of non-reimbursement, when one of the following events occurs:

- the debtor's delay in payment has exceeded 90 days for any significant obligation of the credits towards the credit institution, the mother company or any of its branches;
- the credit institution considers that, without appealing to actions like guarantee execution, if any, it is unlikely that the debtor might entirely pay his/her obligations of the credits towards the credit institution, the mother company or any of its branches.

Endogenous factors which may determine credit risk level for a bank company are given by the following: quality of norms and internal procedures in the field of lending and of credit risk mangement, viability of the lending policy, quality of experts who carry out the analysis of loan applications and of those who make the decision of lending or rejecting crediting etc., and, among the exogenous factors, we can mention the operational risks expressed through losses due to fraud, failure of the informational system, phishing (electronic fraud). These factors' effects may be foreseen, consequently may be suitably budgeted, by an internal management or safe concession. Thus, an important role in credit lending is held by the prudent banking principle by which one avoids transfering the present incertitudes onto the future.

2. LITERATURE

One of the most interesting problems of the credit institutions' accounting is credit risk, the enterprise's financial structure. The literature emphasizes the fact that, within the bank sector, risk analysis and management are particularly important. Thus, foreign experts like the American mathematicians Fischer Black and Myron Scholes published for the first time, in the year 1970, a mathematical model for the simulation of a managerial option, revealing the risk degree involved by the taking on of a managerial option. Later on, Elsinger et al. (2003) showed, for the first time, an original approach of generation of a network model of interbank loans, analyzing risk on the level of the whole bank system of the country, not only on the individual level. In the empirical research carried out, they concluded that there is a correlation between the banks' portofolios of assets; therefore they represent the main source of the systematic risk.

Throughout the time, more and more experts, like Kaufman (1995), Flannery (1999), Santomero and Eckles (2000), De Bandt & Hartmann (2002) adopted this idea, expressing at the same time their concern regarding the systemic risk. In the year 2008, Choudhry studied the problems of bank risks and suggested efficient actions for removing the weaknesses of the bank system found out on the occasion of the economic-financial crisis that spread across the whole world. Nationally, the researches carried out by Nanu et. al (2005), Dedu and Ganea (2006), Negrilă (2008) stand out, which support the need to adapt bank structures concerning risk management and observe the requirements of the international bank system level. On the other hand, Negrilă (2008) points out the fact that an assessment of the exposure to risk - therefore a suitable management of the equity - represents an important step forward in the stability of the Romanian bank system.

3. RESEARCH METHODOLOGY

Starting from the researches carried out by different experts in the field of the credit institutions' accounting, we have intended to show that any activity has a certain risk degree which may be improved by means of a riguros management. Therefore, the implementation of a risk management system becomes an important goal for any organizational structure. By this research, we are trying to answer questions like: *Can we counteract the negative effects of some random events which occur, whether we want it or not, whether we like it or not?!* Looking for an answer which should satisfy us, we have tried to focus on the analysis of bank risk and of the potential effects which it may have on the bank system. Throughout the research, we have used both theoretical and practical data, we have performed the quantitative and qualitative analysis of the used data, all of these being meant to identify, analyze and control credit bank risk and assure its good management.

4. DESCRIPTION OF THE LENDING PROCESS

The lending process is a complex activity of information, assessment, analysis and decision making, which begins with the knowledge of the clients from a juridical, economic, financial and managerial viewpoint, then goes on with the determination of client reliability, to determine the significant risks they are faced with, then there is the application for credit from the perspective of its destination and of the capacity of reimbursement, payment of interests and of commissions. Schematically, the lending process and the tools meant to manage the risk of non-reimbursement of the credit may be represented as in Figure 1.

For the bank, the lending activity means taking on some risks, which are relevant to the credits lent, and analysis must clarify whether such risks may be accepted under certain conditions and guarantees, or risks are too high and may significantly influence the bank's financial situation and the taking of such risks is not recommended. At the same time, the lending activity is a basic activity of the bank entities, and credit risk is the most important of the different risks that may burden the results of the bank financial agents. The intensity of its manifestation is measured by the deterioration/improvement of the credit portofolio's quality by the solvency state of the clients in debt.

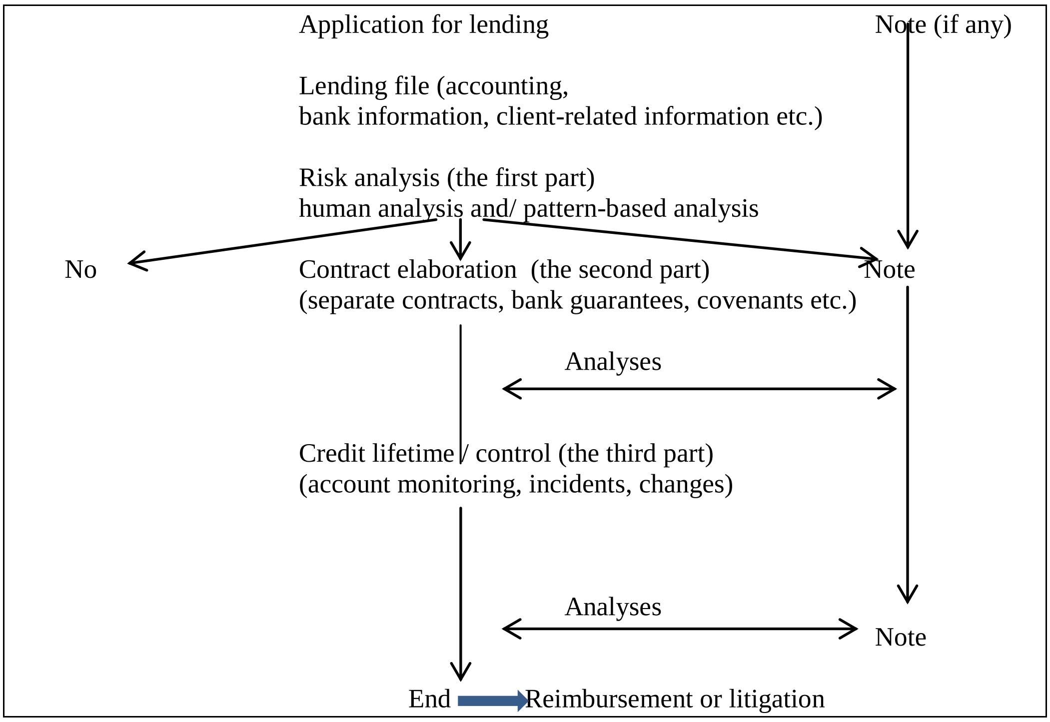


Figure 1. Scheme of the lending process and tools of management of the credit non-reimbursement risk

Each credit institution, with the approval of the the National Bank of Romania – the Directorate of Control, establishes the criteria lying at the basis of the assessment of the clients' financial performances – when these clients are a legal persons – and their capacity to pay back the debt when due. After these assessments, credits are included in the following categories:

Group of credit	Significance of category
Group A	very good performances, allowing payment of debt on due date, with maintaining these performances;
Group B	very good performances, but with no certainty on an average perspective;
Group C	satisfactory financial performances, with worsening tendencies,
Group D	low and periodical financial performances,
Group E	losses and inability to reimburse.

The financial performance assessment is carried out based on the score attributed both to quantitative factors, such as*: liquidity, solvency, profitability and risk, including currency risk*, and to qualitative factors, such as: *management of the analyzed economic entity, shareholders' quality, bank guarantees received, market conditions under which they run their activity.* Financial analysis requires a concrete analysis of the economic entity's solvency, based on the previously mentioned quantitative indicators, and relies on the financial information provided by the client (balance, profit and loss account, verification balance, cash-flow etc). The current financial situation of the credit applicant may be also reflected in other documents, such as: the verification balance for the last month, incomes and expenses budget, forecast of payments and cashings related to the reimbursement period and to payment of interests, situation of stocks and of expenses for which the credit is requested (quantities, values, terms of capitalization), situation regarding the contracting of the selling of the production realized by means of the requested credit, credit reimbursement chart (including interests), description of bank guarantees of the credit reimbursement and of interests payment, business plan etc.

The economic-financial analysis has numerous practical applications of interest for a wide range of users; financial standing, and financial diagnosis constitute technical modalities of determining the client's reliability in the lending process. Therefore, the risk management analysis and activity is the sine-qua-non premise for maintaining an economic entity at efficient parameters, in the long term, and risk identification becomes the first step forward in running a business consciously and responsibly, namely the process by which one identifies, continuously and systematically, the exposures to potential harmful factors.

Based on the financial analysis, the credit institutions aim to identify and quantify the client performance risk, the liquidity risk and the risk related to the equity's structure and funding. Thus, the indicators calculated by a credit institution, for an economic entity, for credit, are given in the following table:

No.	**Indicator**	**Calculation formula**	**Result**	**Score obtained**
1.	Current liquidity	$Lc = \frac{Ac-Sn-Ci}{D<1\ an} * 100$	Lc$\leq$ 80% 80$< Lc \leq 100\%$ 100$< Lc \leq 120\%$ 120$< Lc \leq 150\%$ 150$< Lc \leq 170\%$ $L > 170\%$	-2 -1 1 2 3 4
2.	Solvency	S= $\frac{A-Sn-Ci}{D-Cp} * 100$	S$\leq$ 80% $80 < S \leq 100\%$ 100$< S \leq 120\%$ $120 < S \leq 140\%$ 140$< S \leq 160\%$ 160$< S \leq 180\%$ $S < 180\%$	0 1 2 3 4 5 6
3.	Degree of general indebtness	Gi $= \frac{D}{CPNs} * 100$	Gi$>$ 100% 80$< Gi \leq 100\%$ 60$< Gi \leq 80\%$	-1 0 1

			$40 < Gi \leq 60\%$ $Gi \leq 40\%$	2 3
4.	Speed of rotation of circulating assets	$\text{Rac}=\frac{CAr}{Ac}$	$\text{Ra} \leq 5$ $5 < Rac \leq 10$ $\text{Rac} \geq 10$	1 2 3
5.	Profitability of own equities	$\text{Rcp} = \frac{Pn}{CPNs} * 100$	$\text{Rcp} < 0$ $0 < Rcp \leq 10\%$ $10 < Rcp \leq 30\%$ $30 < Rcp \leq 50\%$ $Rcp > 50\%$	0 1 3 4 2
6.	Coverage of interest	$\text{Ad} = \frac{Cd}{CAr} * 100$	$0 < Ad \leq 20\%$ $20 < Ad \leq 40\%$ $40 < Ad \leq 60\%$ $60 < Ad \leq 80\%$ $Ad > 80\%$	3 2 1 0 -1
7.	Dependance on the purchase and sales markets	x	$\text{At} > 50{,}1\%\ și\ De > 50\%$ $\text{Ai} > 50{,}1\%\ și\ De > 50{,}1\%$ $\text{At} > 50{,}1\%\ și\ De > 50.1\%$ $\text{Ai} > 50{,}1\%\ și\ De > 50.1\%$	4 3 2 1
8.	Bank guarantees	x	Guarantees received from the Romanian Government or from first class banks - Bank deposit - Mortgage - Pledge with/without dispossession - Assignment of debt - Suretiship - General pledge	4 4 3 2 1 1 0
Total score Categories of borrowers			≤ 5 $6-10$ $11-6$ $17-25$ > 25 E D C B A	

Source: http://www.ase.ro/upcpr/profesori/979/GB%202.%20Risk%20de%20credit%20I.pdf

where:

Lc – current liquidity
CPNs - own net equities sensu stricto
Ac – circulating assets
Rac - rotation speed of the circulating assets
Sn – unexploitable stocks
Cd - interest-associated expenses
Dt - domestic sales reported to total sales
Gi - degree of general indebtness
Di – export sales reported to total sales
Ci – uncertain clients
Car - turnover throughout the analyzed period
D < 1an - debts having the due date under one year
At – domestic purchases reported to total purchases
A - total assets
Ai - purchases from import reported to total purchases
D – total debts
Cp – differences from conversion of liabilities

We exeplify the above mentioned through the granting of a credit to Alpha SRL Petroşani by BCR Petroşani – a credit in an amount of RON 60,000. Under the circumstances where the own funds of the bank are of RON 700,000, it analyses the maximum amount which it can lend to the economic entity, knowing that, it collaborates in its business with SC Europa SRL Petroşani - a company to which the credit institution lent a credit of RON 140,000. At the same time, SC Apha commits itself to guarantee the credit lent, through pledge without dispossession over the assets. Furthermore, in February-May 2016, a cash flow forecast is elaborated to identify the cash movement of SC Alpha SRL Petroşani and to determine the actual credit needs, the available amount of the monthof January being estimated at RON 270,000,000, and the rate of the tax on profit at 16%. The situation of Alpha SRL Petroşani's patrimony is known to be the one given in the following table:

Assets		**Liabilities**	
1. Real estate	2,640,336	1. own net equities in a large acceptance,	4,208,012
2. stocks, of which:	1,740,050	of which: CPNs	4,208,012
unexploitable stocks	-	2. provisions for risks and expenses	32,564
3. commercial receivables, of	2,074,444	3.debts having the due date over 1 year	-
which:	-	4. long term liabilities (1+2+3)	4,273,146
uncertain clients	32,564	5. non-financial debts having the due date	1,929,899
4. regularization accounts	-	under 1year	
5. bonuses regarding reimbursement		6. regularization accounts, of which:	-
of bonds	3,847,058	differences of liabilities conversion	-
6. achievable assets (2+3+4+5)	-	7. financial debts having the due date	290,725
7. equity tools	6,373	under 1 year	
8. accounts in banks, cashbox	3,820,873	8.debts having the due date under 1 year	2,220,624
9. circulating assets (2+3+7+8)		(5+6+7)	
		9. total debts (3+8)	2,220,624
10. Total assets	**6,493,767**	**10. Total liabilities**	**6,493,767**

Actually, for the credit institution, the two trade companies are regarded as a single debtor. In such cases, the maximum exposure of the bank may not exceed 25% of the own funds, namely, in our case RON 700,000$\times\frac{25}{100} = \text{RON } 175{,}000$. Thus, in order not to be in position of a credit risk, the credit institution shall only be allowed to lend a credit in an amount of RON 35,000, even if the credit is requested in an amount of RON 60,000. The turnover of the applying economic entity is of RON 10,491,338, the expenses regarding interests are in an amount of RON 46,411, the situation of the internal clients is of RON 1,150,000, of the external ones is of RON 300,000, and the situation of the internal suppliers is of RON 1,000,000, respectively of the external ones is of RON 275,000. Based on the above-mentioned performance criteria, one can establish the credit group grantable to the entity S.C. Alpha S.R.L. Petroşani.

1. Current liquidities: Lc$\frac{3{,}820{,}873}{2{,}220{,}624}$x 100 = 172.06% = 4 points;

2. Solvency: S= $\frac{6493767}{2220624}\ x\ 100 = 292.43\%$ = 6 points;

3. Degree of indebtness Gi = $\frac{2{,}220{,}624}{4{,}208{,}012}$ x 100 = 52.77% = 2 points;

4. Speed of rotation of the circulating assets: Rac = $\frac{10491338}{3820873}$ = 2.75% = 1 point;

5. Profitability of own equities: Rcp = $\frac{2704747}{4208012}$ x 100 = 64.27% = 2 points;

6. Interest coverage: Ad = $\frac{46411}{10491338}$ x 100 = 0.44 = 3 points;

7. Dependance on markets : At > 50.1% and Dt > 50.1% = 2 points;

8. Bank guarantees: pledge without dispossession over some assets = 2 points.

Total score: 4+6+2+1+2+3+2+2 = 22 points = category of borrowers B = very good performance, but with no certainty on an average perspective

We foresee that the cashing in will be realized during the time period under consideration:

Cashing in out of:	February	March	April	May
- operation	43,500	78,000	84,000	102,000
- interests	60	240	240	900
Payments out of:				
- operation	63,660	93,600	93,600	94,000
- interests	240	900	840	1,260

I. Investment activity	**February**	**March**	**April**	**May**
1.total inputs	-	-	-	-
2.total outputs	-	-	-	-
3.excess/deficit of liquidity flow (1-2)	-	-	-	-
4. reimbursements of long-term credits	-	-	-	-
5. net liquidity flow (4-3)	-	-	-	-
II. Trading activities:				
6.cashing in out of operation	43,500	78,000	84,000	102,000
7.cashing in out of financial activity	60	240	240	900
8. Total cashing in (6+7)	43,560	78,240	84,240	102,900
9.Payments for operation activity	63,660	93,600	93,600	94,000
10. Gross flow excl. taxes (8-9)	- 20,100	- 15,360	- 9,360	92,998
11.Payments for taxes and charges	-	-	-	-
12.Reimbursement of short-term credits and interests	240	900	840	1,260
13. Exceptional payments	-	-	-	-
14. Net flow (10-11-12-13)	- 20,340	- 16,260	-10,200	- 91,738
III. Liquidity Flow (cash-flow)				
15. liquidity flow of the period	- 20,340	- 16,260	-10,200	- 91,738
16.Available amount of the previous month	**27,000**	**47,340**	**63,600**	**73,800**
17. Current necessary available amount (15+16)	**47,340**	**63,600**	**73,800**	**17,938**

We may notice that the need funded in the first month is of RON 47,340, increasing to RON 73,800 in the third month of the analyzed period, and then it progressively decreases, due to the increase of cashing in out of goods sales. A loan of RON 73,800 would be enough to fund the activity of SC Alpha SRL Petroşani. In the analysis carried out, several criteria were considered, for each criterion establishing a score. At the same time, we can find out that credit institutions should be more vigillent about the evolution of the indicators of liquidity, profitability, assets quality and equity, to be able to estimate, control and improve the rating they receive from the National Bank of Romania. Apparently, the client performance risk has the highest importance for the creditor, but we must keep in mind the fact that, any economic entity can survive during significant periods of time having low profits or even losses, but it will not be able to survive with no cash. Therefore, the most important issue in the lending of a credit is the cash flow situation of the economic entity.

The non-financial analysis comes to complete and confirm the results of the financial analysis, in order to obtain an image as faithful as possible about a potential debtor. In this respect, an analysis on the management and shareholders is needed, respectively on the abilities and experience in managing a credit.

After these analyses, respectively financial, non-finacial and risk analyses, if the result is a positive one, the lending contract is to be concluded, otherwise, the client is rejected; in the present case, the economic entity received the credit.

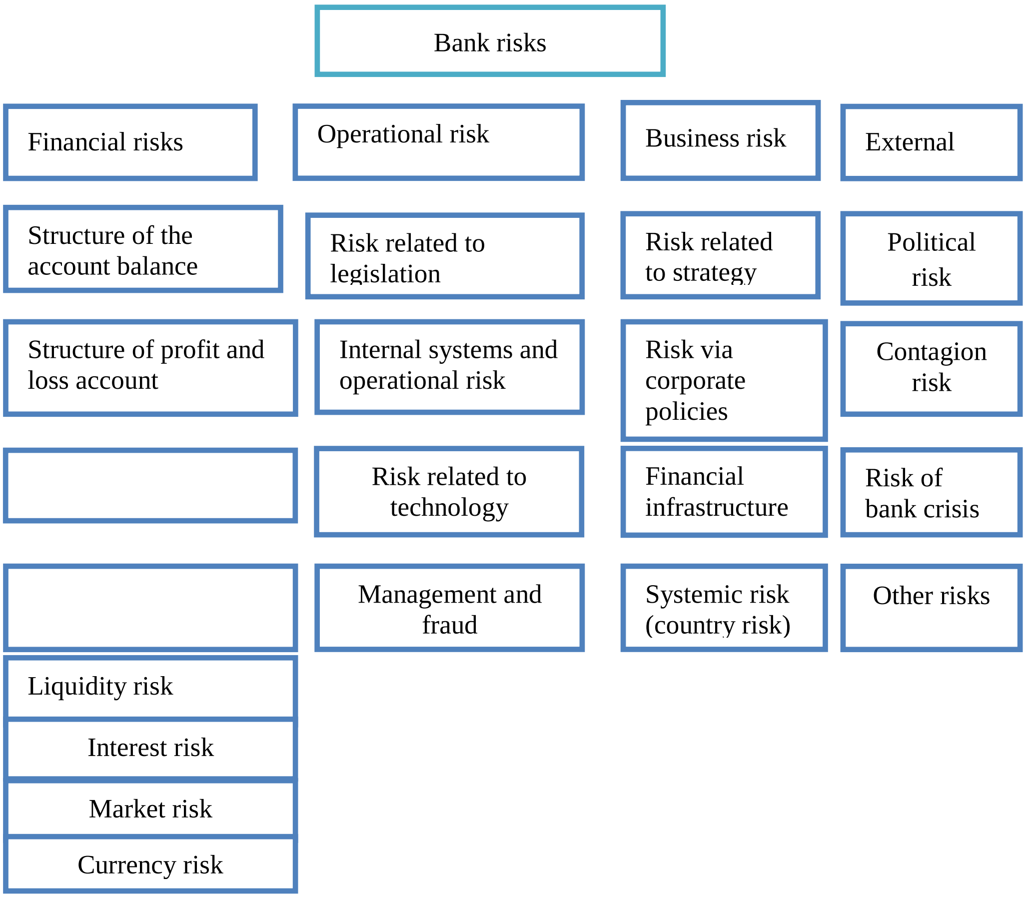
Therefore, we consider that, at the basis of the analysis regarding the granting or not of a credit, there must be: the management quality, the economic efficiency of the economic entity and, last but not least, the safety of the business.

5. BANK RISK - A FACTOR INFLUENCING THE FINANCIAL PERFORMANCE OF THE CREDIT INSTITUTION

As a result of the economic and financial crisis, the bank environment has become increasingly unstable and vulnerable to the fluctuations of the monetary domain, so that credit institutions are increasingly threatened by the variety of risks affecting their activity and position on the financial market. The range of risks that might occur at a certain moment in a bank institution may be represented like in Figure no. 2.

As risk represents exposure to a potential inherent danger that may occur in a situation or activity, it is a threat about which we do not know when it will occur, but it is susceptible of occurring at a certain moment. In definining bank risk, most experts emphasize the banks' traditional function, respectively of mediation in the sphere of financial risks by their division, the issue of some unforeseen losses of the bank assets being treated, which losses are caused by market risks, credit risks or liquidity risks, but one must also consider the potential or effective losses due to random situations (fraud) or to situations uncontrolled by man, such as natural disasters – fire etc.

Banks must evaluate the risks associated to the credit granted to a business, must research the reason of the loan and identify the sources of reimbursement which depend on the business operation which they credit, hence they must check whether the business is to be profitable and its operation in the future will generate profit and whether the respective entity has enough available liquidities to reimburse the loan.



Source: own projection

Figure 2. Range of potential risks

Today, the goal of any credit institutions is to maximize its market value while maintaining risks on an acceptable level. Managers of the credit institutions are more and more aware of the fact that maximizing profit means permanent risk exposure, which determines them to establish a high-performance bank strategy which should contain programmes and procedures of risk management. To reduce the additional losses or expenses, the credit institution intends to minimize the probability of occurrence of such risks. In the achievement of the bank performance, an important desideratum is risk management, since it has as a main goal, the ensurance of the bank's perenniniality through the assessment of risks which, sooner or later, shall be translated into future costs.

Risk assessment must not be limited to a simple analysis of the financial situations of one client, since they reflect a state of fact at a given moment, without foreseeing the future of the business, which may be influenced by a series of internal or external factors. Yet one must look at and analyze other non-financial aspects, as well, to get a picture as clear as possible of a future debtor.

6. BANK RISK MANAGEMENT

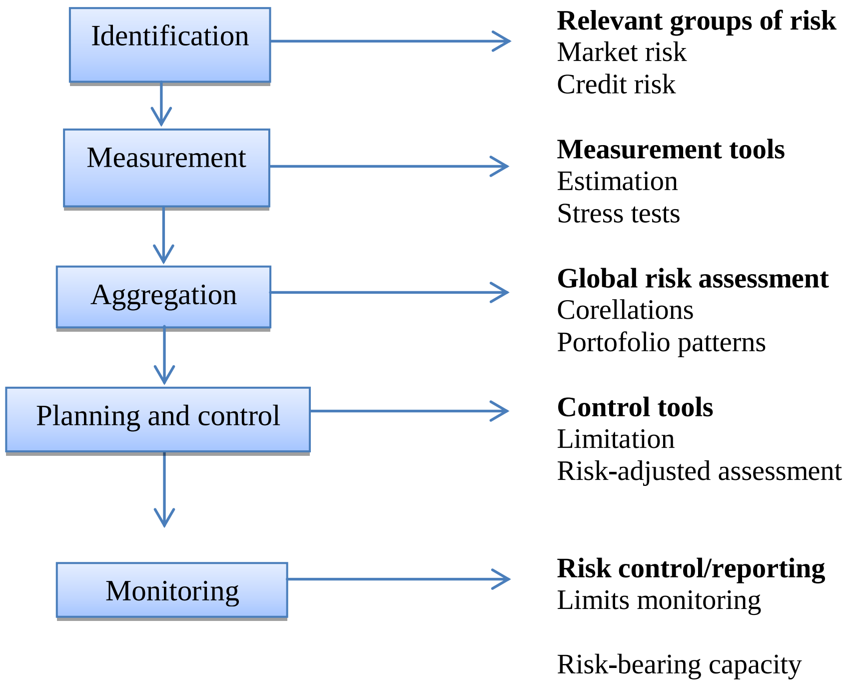
Credit activity involves risk, through the very forecast elements the lending decision relies on, of maximum importance for the credit being: risk identification, risk assessment - as realistically as possible - and the aware acceptance of the possibility of risk occurrence; accordingly, efficient actions of management and diminution of their effects are brought into effect. Credit risk represents a basic component of bank risk, both through the weight of the credit in the banks' balance, and through the weight of the incomes they generate. Any credit institution assumes – to a certain extent – risks, when some debtors do not fulfill their obligations. Whatever the levels of the assumed risks, losses can be minimized, if credit operations are organized and managed professionally. Thus, bank risk management is associated to the function of planning of the bank's risk position, as well as the active risk management, based on this planning. The process of analysis of the credit portofolio quality is a recurrent action, going through several stages, two of which are crucial, namely:

- the moment preceding the credit lending, including the client analysis, respectively the internal financial analysis to which the non-financial issues are added, as well;
- the moment of credit lending and post-lending, which requires careful observation of the loan beneficiary, of the way credit rates and interest are reimbursed.

Bank risk management begins from the very first stage of the credit lending, when potential risks must be identified. In this respect, the credit institutions establish a set of actions to determine and appreciate the phenomena, factors and events with a negative influence on the activity. Thus, the risk management process may be represented as in Figure 2.

An efficient bank management aims to attain a control of the permanent risk, from the moment it occurrs, thus eliminating the probability of recording losses between the moment the risk occurred and the moment it was discovered through the analysis of financial records. The risk management used within credit institutions represents the set of policies and procedures that the financial institutions have implemented to manage, monitor and control exposure to risk. For the credit institution's future, failure factors represent a real danger. They include:

- poor management of the credit institution's activity, as well as of its own equity;
- randomly expansion, which does not rely on precise goals;
- lack of mobility, actually - conservatorism, concerning business orientation;
- improper use of the credit;
- a salary policy that is inapplicable and in full disagreement with the credit institution's requirements;
- insufficient training of the staff, in relation to the credit institution's necessities;
- runaway of professionals, respectively their migration and, last but not least,-birocracy.



Source: Project Risk Management. Risk Management SIG Committee, 2001

Figure 2. Risk management process

According to some experts, *risk represents the volatility of net cash flows of a business unit.* By business unit – in the case of the credit institutions – one can understand a department, a branch, a product or even **the whole** bank company. From a mathematical perspective, the enounced definition may be expressed as follows:

$$\text{standard deviation} = \frac{\sum_{i=1}^{n}(CFi - CFavg)^2}{n-1} \qquad \text{(rel.1)}$$

where:

CFI = cash flow of period i;

CFavg = average cash flow;

Cash – flow = expresses inputs and outputs of cash and cash equivalent;

Cash = contains cash and sight deposits;

Cash equivalent = contains short-term investments, investments with high transformation degree, into cash and which are not subjected to depreciation.

Each credit institution has free will in creating its own risk management system. The elaboration of some risk management policies represents the permanent concern of the management of a credit institution, such policies having to be found on the level of each structure within the bank, through the application of some specific tools, according to table 2.

Table 2. Risk management policies on decision levels

Decision level	Directions	Quantification
Bank's main office	Profitability	ROE, RAROC
	Rating	Rating agencies
	Liquidity	Liquidity rate
	Market value	Exchange rate trend, VaR
	Credit portofolio	Benchmark, IRB
Center of profit	Credit portofolio	Equivalent of credits
	Interest rate trend	Volatility, span
	Risk of country	Country rating
Debtor	Debtor's solvency	Credit score
	Bank guarantees	Mortgage, pledge

Source: own projection

To limit credit risk, the National Bank of Romania has issued several norms of management of potential risks which must be transposed into internal procedures/rules, by each credit institution. Among them, we shall mention:

- the amount of high exposures may not exceed eight times its own funds;
- any transaction leading to high exposures is to be approved by the Board of Control;
- any transaction of 10% over the own funds is considered high exposure;
- in case a unique group of debtors includes a member of the respective credit institution, exposure may not exceed 20% of its own funds;
- to ensure credit risk dispersion, for the first 100 unique clients/debtors, the credit institution shall monitor the exposure to its clients;
- net exposure to its own personnel, may not exceed 25% of its own funds;
- considering the criteria established by the National Bank of Romania, the internal rating of the bank and the international practice, the credit institutions classify the portofolio of credits and investments, build and use provisions of credit risk; and
- consulting the bank risk information recorded in the general archive of the Credit Risk Office (Centrala Riscurilor de Credite - CRC) or of other entities with similar activity (Credit Office - Biroul de Credit), before granting any credit-type product, to a client – natural or legal person - irrespective of the total level of exposure of the bank to the respective client.

Therefore, in credit lending, risk analysis will always be a first stage, and monitoring and control will be the second stage.

7. CREDIT RISK MANAGEMENT TOOLS

In time, the most used management tools have proved to be the following:

- purchase and sale of assets;
- assessment of individual credits, balanced with the related risk;
- establishment of limits for the exposure of the credit portofolio or of the individual position.

By their nature, banks gain profit - to a great extent - by running their activity in certain segments of the market. The bank capacity of protecting itself against excessive risks depends on:

- experience of the personnel in the respective market segment;
- size of equity;
- quality of its bank management;
- technical expertise.

A good tool in credit risk management is the application of a score, assessing the capacity of a person to pay in due time the financial obligations related to credits. The score indicates the chances of an economic entity of getting a credit, respectively its classification in one of the following values: 0-50, 50-80, 80-100. The classification of an entity as viable or non-viable is done according to the respective scores:

- 0-50 points: the economic entity may not get a credit;
- 50-80 points: the entity may get a credit only from certain credit institutions (according to the lending policy of each bank company);
- > 80 points: the entity may get a credit from most banks and institutions.

The calculation of this score is done taking into account the proportion of several parameters, which have different values for each entity in turn. Anyway, there are several rules applied by all credit institutions for a good management of the bank companies, and for the good security of their clients, by calculating a set of indices referring to the credit institutions' liquidity and solvency, namely:

$$\text{risk coverage index} = \frac{\text{own funds}}{\text{total commitments}} = 8\%;$$

$$\text{risk sharing index} = \frac{\text{risk related to a single client}}{\text{net own funds}} = 40\%;$$

$$\text{liquidity index} = \frac{\text{own funds+resources} > 5\ years}{\text{possessions} > 5\ years} = 60\%.$$

Therefore, we should keep in mind that it is very useful that the credit institutions should have their own system monitoring and controlling risks.

Credit risk management may also mean limiting the position of risk, as well as decreasing or increasing the lending limit by means of financial tools or adequate techniques suitable for this scope. The respective techniques or tools regard the individual risk, and/or the global risk of the credit portofolio. When establishing the risk limit, the bank considers the credit rating related to the respective loan category. The credit institution, depending on the resulting score may establish five groups of risk, as follows:

Group of risk	Credit rating	Trends
I	1.00 – 1.80	Significant increase
II	1.81 – 2.60	Increase
III	2.61 – 3.40	Stability

IV	3.41 – 4.20	Decrease
V	4.21 – 5.00	Significant decrease

On a credit institution's level, the credit rating is calculated as the weighted average of the individual credit ratings of the clients within the portofolio. The best level of the credit rating is 1, and the worst is 5, actually a credit having the rating of 5 is considered as a loss, since the acceptable level is 3. The risk limits assigned to an economic entity are higher if the financial performance and the non-financial aspects are better, which triggers a better score. Risk limits are reviewed every six months, depending on the new evolutions and issues occurred, being approved by the executive management in charge with credits. For the economic entities having a good financial situation and a long product manufacturing cycle, risk limits are approved and reviewed annualy. In credit risk management, an essential prudential action is the use of information provided by the Credit Risk Office of the National Bank of Romania.

9. CONCLUSIONS AND SUGGESTIONS

Financial performance represents, along with risk, the basic element in the analysis of the activity of a credit institution, both from the perspective of the control institutions, and from that of the shareholders, clients, management etc. Therefore, optimization of the relation *profitability-risk* represents, for credit institutions, a goal that needs to be applied on the level of each bank product, extending up to the level of the whole portofolio of a credit institution. Non-efficient credits are a disturbing factor for the activity of credit institutions. To prevent risk in this field, bank companies need to have pertinent information on the debtors' patrimonial and financial situation, on the operations' economic nature, on the debtors' moral reputation, reliability etc. An efficient risk management requires the generation of a connection between performance and risks. For a financial stability of credit institutions, we consider that the application of a generally valid lending policy for all the credit institutions regarding the lending office tasks and the optimum qualities of the credit portofolio, unitary principles and procedures in the building and managing of a credit portofolio and the considering of the detailed lending parameters, specific to each type of credits and their application norms – are the lever of the optimum lending mechanism. One thing is certain: non-efficient credits may have both objective causes, related to the economic cycle, and subjective causes, brought about by a faulty credit management. Therefore, credit risk must be measured, monitored and managed, both on the individual level, and on the portofolio level, permanently correlating the individual credit risks with the global risk related to the whole portofolio.

REFERENCES:

[1]. Bătrâncea, I.; Bătrâncea, L.M. (2006) *Standing financiar-bancar* (Bank Financial Standing), Ed. Risoprint, Cluj Napoca

[2]. Botiş, S. (2009) *Produse şi servicii bancare* (Bank Products and Services), Editura Universităţii Transilvania, Braşov

[3]. Cocriş, V.; Chirleşan, D. (2009) *Economie bancară. Repere teoretice şi studiu monografic* (Bank Economy. Theoretical Landmarks and Monographic Study), ediţia a II- a, revizuită şi adăugită, Ed. Universităţii „A.I. Cuza", Iaşi

[4]. Isaic-Maniu, I. (2006) *Caracterizarea statistică a riscului: concepte, tehnici, aplicaţii* (Statistical Characterization of Risk: Concepts, Techniques, Applications), Editura ASE, Bucureşti

[5]. Matiş, E.A. (2009) *Managementul performanţelor şi riscului în băncile comerciale din România* (Management of Performances and Risk in the Romanian Commercial Banks), Ed. Casa Cărţii de Ştiinţă, Cluj Napoca

[6]. Opriţescu, M. (2007) *Managementul riscurilor şi performanţelor bancare* (Bank Risk and Performance Management), Editura universitaria, Craiova

[7]. Răscolean, I. (2012) *Contabilitate bancară, Note de curs* (Bank Accounting, Lecture notes), Editura Universitas, Petroşani

[8]. Răscolean, I. (2014) *Contabilitata instituţiilor de credit* (Credit Institution Accounting), Editura Universitas, Petroşani

[9]. Răscolean, I.; Dura, C.; Isac, C. (2014) *Economia şi gestiunea întreprinderii. Fundamente teoretice şi studii de caz* (Economy and Enterprise Management. Theoretical Bases and Case Studies), Editura STECH, Craiova

[10]. Trenca, I. (2006) *Metode şi tehnici bancare - principii, reglementări, experienţe* (Bank Methods and Techniques - Principles, Settlements, Experience), Ed a 2-a, Editura Casa Cărţii de Ştiinţă, Cluj-Napoca

[11]. www.bcr.ro (accessed on 1 Nov.2015)