CREDIT RISK MANAGEMENT IN FINANCIAL CRISIS

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ABSTRACT

The concept of risk can be defined as an undertaking that bears uncertainty due to the probability of winning or loosing. Currently, the risks have become related to all activities, services and banking products and many risks generate different approaches of this notion. The risks a bank is subject to should be treated as a complex of uncertainties, often interrelated, because they may have common causes. The banking risk is expressing the probability of occurrence of events that may have positive or negative influence on the bank. Managers of financial institutions are aware of the fact that profit maximization involves constant exposure to risk. In this context, risks management is an important component of bank management as well as the strategy of a bank. In the current context of crisis, access to any resource, including the financial, is more difficult, and more expensive. Therefore, the eligibility of any customer of the bank is carefully assessed and determining the risk profile and a proper management of credit risk is absolutely necessary. Most valuable capital for a bank is trust: customers must prove that the borrowed money are efficiently used, and will be returned at maturity of the contract.

KEYWORD: *financial crisis, credit risk, indicators, derivatives, guarantees*

The banking risk can be defined as a phenomenon that occurs during the course of banking operations and causing negative effects on this activities by deteriorated business, reducing profits or losses with impaired functionality of the bank. It can be caused by internal or external causes bank generated by the competitive environment. The risk must be regarded as a mixture of risks, often interrelated, that may have common cause or one that can generate others. Therefore it is necessary to consider the overall risk management of the bank. The objectives of bank risk management are embedded in the bank's strategy and in the specific policies for different areas of banking. They are found in the organizational structures of the banks.

The main activity of commercial banks is lending activity, so a special importance is given to credit risk management. In the rules for the authorization and prudential supervision of the National Bank of Romania credit risk is defined as the risk of loss or failure to record the expected profits due to failure of the counterparty of contractual obligations.

The experience of developed countries underlines the need to develop portfolios of information on all bank customers and a database for information processing as a main way to strengthen the bank's position in its relations with customers, regardless of their size, and as a weapon the prevention and avoidance of credit risk. Having a great continuity in selection of customers, continuous updating of the database allows tracking the loan to refund the early, noting in advance any changes in assets and customer business development of customers that would affect the contractual obligations.

Regarding distribution of the loans to individuals for their domestic needs and family, modern technology for lending focuses on using computer methods, the use of credit scoring methods and systems that have a particularly important selection criteria. They must be restricted in number, but of great significance, able to provide potential customers .

For companies, credit analyst request their annual balance sheet of the results and their annexes that allow better understanding of financial operations carried out within a year. If there is a history of banking relationships, financial status are required on the last four or five years of activity. If the company is already a customer of the bank, will be requested only documents for accounting period and forecasts for the current year.

Financial analysis of the situation results in a significant overall and in all its details, and assessments based on professional motivation, moral conduct and credibility of company management team are expressive and binding. This should be taken into account, in particular, elements of asymmetric information and moral hazard, which might be decisive in some cases. It is essential to determine the self-financing capacity which gives us information about the company's ability to repay the loan.

Most banks use software for analyzing the main indicators:

Indicators of liquidity:

$$Current\ ratio = \frac{current\ assets}{current\ liabilities}$$

$$Quick\ ratio = \frac{(current\ assets - inventories)}{current\ liabilities}$$

Indicators of liquidity are used according to the nature of work performed by each client, as follows: customers engaged primarily in the commercial domain where the inventory turnover is high are using current ratio. Similarly first indicator is used by seasonal companies, or whose supply is done seasonally and also in manufacturing companies where the production cycle is long. In other cases one can use the quick ratio.

Indicators of solvency / debt:

$$Degree\ of\ operational\ debt = \frac{short\ term\ loans}{turnover}$$

$$Solvency\ ratio = \frac{debts}{total\ assets}$$

$$Degree\ of\ debt = \frac{total\ debts}{net\ asset\ value}$$

Solvency analysis is essential. The company is solvent if at any time the total debt exceeds its assets. This relation analyzes the net assets of the company: AN = Total assets - Total liabilities.

Indicators of profitability:

$$Net\ profit\ margin = \frac{net\ profit}{turnover}$$

$$Operational\ return = \frac{operating\ profit}{turnover}$$

$$ROE = \frac{net\ profit}{equity}$$

For production companies (industry, construction, transport, etc.) that are using the method of accelerated depreciation, the provisioning of risk is recording large volumes.Also in the case where companies register high volumes of financial costs arising from interest payment costs etc., profitability analysis will use operational return. The companies engaged in commercial activities or services will use return on equity - ROE, while other companies will use the net profit.

Repayment capacity

$$Degree\ for\ coverage\ of\ interest = \frac{operating\ profit}{interest\ expense}$$

$$Debt\ service = \frac{operating\ profit + depreciation + provision\ for\ currency\ risk}{interest\ expense + repayment\ of\ \ short\ term\ loan}$$

$$Degree\ for\ coverage\ of\ currency\ risk = \frac{operating\ result}{net\ interest\ expense + net\ expensive\ for\ exchange\ rate}$$

One of the three indicators consider the type of the credit and its weight in total bank debt. If the company has mainly short-term debt it will be used interest coverage, for medium and long term debt it is used the debt service, and if the customer recorded differences of currency it will be used degree for coverage of currency risk.

Management indicators:

$$Receivable\ turnover = \frac{turnover}{clients} \times \frac{365}{N}$$

$$Inventory\ turnover = \frac{turnover}{stocks} \times \frac{365}{N}$$

$$Accounts\ payable\ turnover = \frac{turnover}{suppliers} \times \frac{365}{N}$$

Often the informations of financial diagnosis should be supplemented with information about the external environment of the company, information about human and technical potential, legal and commercial potential, and the management of company. This elements, analyzed objectively, affect the financial performance of the company leading its competitiveness.

Romanian business environment, as of January 1 2007, has a new aspect, that is a new institutional context, more competitive, which requires a rethinking of management, management tools and techniques. Risk management has had a constant evolution, and the financial crisis imposed many new ways of measuring risk. The most effective tools for risk management should consider the debt-capital market, currency risk, forward contracts, futures, swaps and options.The use of these is limited of adverse selection and moral hasard.

A bank may use a derivative to transfer some or all risks of loan to other parties. Banks have a comparative advantage in monitoring credits and hence in bearing credit

risks. This suggests that the reasoning for why banks use credit derivatives has to be more subtle than the reasoning that leads the literature to conclude that banks should hedge interest rate risks. Morrison (2001) argues that the availability of credit derivatives could adversely affect banks by reducing their incentives to monitor borrowers.

By using credit derivatives, banks keep the loan on their balance sheet. Transferring credit risks using derivatives means risks that credit risk transfers with loan sales or securitizations do not have. Banks using these derivatives have to bear associated counterparty, operational, and legal risks. Further, banks often are unable to use hedge accounting when using credit derivatives, so that their accounting earnings are not hedged even when credit derivatives are used for hedging purposes. Consequently, credit derivatives are most likely to be used when the costs of selling or securitizing loans are too high.

Operators of international markets experiences an increased volatility and the effects of crises which may be transmitted rapidly from one financial center to another. In this case we are talking about systemic risk. Appearance of this is made in connection with the significant increase in the volume of transactions in financial derivatives (swaps, futures, options). Systemic risks have been reduced substantially by action of unprecedented political and signs of improvement in the real economy.

The outbreak - in the summer of 2007 – of the subprime credit crisis in the United States had begun an impact only on one segment of bad loans, but after financial effects have developed,it was rapidly expanding in the United States, Europe, Asia, etc.

Market failures to provide a rapid response to crisis challenges, multiply percentage of impaired assets held by banks with substantial investments in securitized securities and the number of institutions on the verge of bankruptcy. Many banks were forced to significantly reduce lending activity to remain afloat. How financial institutions have played a role in the economy deteriorated rapidly and their impact on the functioning of the economy has become increasingly prominent in developed countries.

The year 2008 marked the deepening crisis and its extension to almost everyone, including Romania. In the first two stages Romanian banking system was not directly hit their effects, as investing in securities represent a small fraction of the total assets of credit, turbulence on foreign exchange markets, international monetary and exchange is manifested in our country since the end of 2008. Macroeconomic indicators have seen an accelerated deterioration and depreciation of the currency was very fast, but so it happened to the other regional currencies. In these circumstances the cost of external resources attracted by Romanian banks increased significantly, thus exploding interest on loans.

For an efficient management of credit risk, National Bank of Romania has limited foreign currency loans, loans that had reached the limit of financial stability. Board of the Central Bank discussed a program of prudential measures to limit lending in foreign currency, capping one of the options being the balance of foreign currency funding to 200-300% of own funds of banks[1]. Thus, if the end of 2008 were recorded annual growth rates of credit in RON of 16.2 respectively 28.8% for the euro, the dynamics in June 2009 dropped to -4.5 and 3.5%[2]. Also appeal to the progressive reduction of the monetary policy interest from 10.25% to 8%, as is currently, Figure 1.

[1] www.infonews.ro
[2] Raport BNR iulie 2009

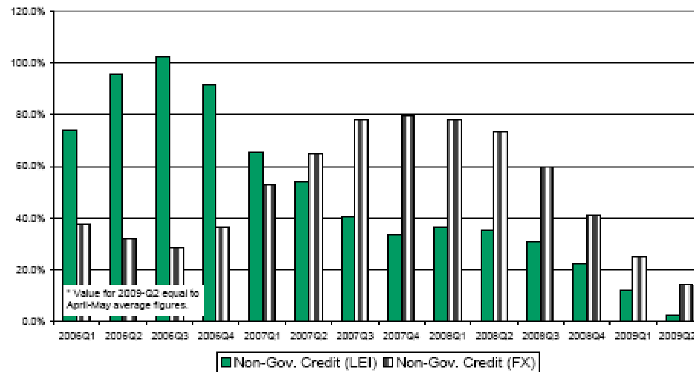

Figure 1
Source: IMF staff estimates

Another measure imposed to limit credit risk refers to the amount of credit for real estate investments, which may not exceed 75% of the property concerned. The balance must be secured by the borrower as an advance. Guarantees, in this case, you must be over 133% from the loan. Although collateralisation is not mandatory for banks in developed countries, the Romanian banking system is providing basic security lending, which is formed before lending, wearing various forms: lien, mortgage, etc. Practically guarantees should not be viewed only as a security subsidiary, the decision to grant the loan must be taken according to the possibility of loan repayment. Bank must take into account that the first preferential creditors will be compensated - taxation authorities, the State, so guarantees will never cover the loan amount.

Guarantees should be considered in conditions in which the bank granted a loan very risky, taking practical responsibility of recovering credit by the guarantee. The risk can be eliminated and by personal guarantees, represented policyholders with the object of ensuring or taking the risk of default by their transfer for bank. With these loans, borrowers will assess the creditworthiness of guarantees under the conditions set by the internal regulations of each bank.

In assessing the creditworthiness of the applicant will be considered as commitments of the applicant's total monthly payment (principal and interest) and his family, arising from the credit agreement and other contracts of the same nature, such as other credit agreements, leases, contracts of purchase of goods by installments, regardless of credit, representing more than 40% of net monthly income of his family.

The key financial stability risks that have materialized since the April 2009 Global Financial Stability Report (GFSR). It examines the channels of credit deterioration in the United States and Europe, and assesses the implications for financial sector balance sheets and the main challenges faced by financial institutions. Assessment of the risks and underlying conditions affecting global financial stability is summarized in the global financial stability map (Figure 2). From point of view of IMF credit risks has retreated from historic highs, though overall risks remain elevated.

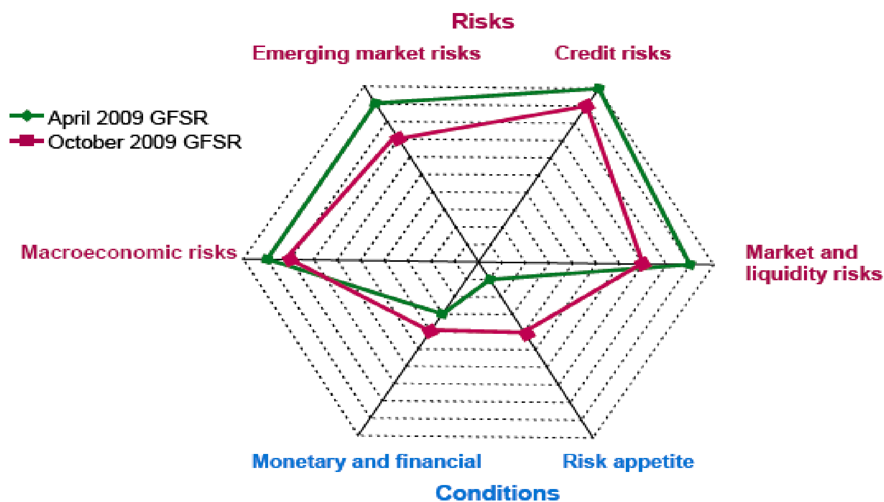

Figure 2. Global Financial Stability Map
Source: IMF staff estimates

Economic conditions have shown tentative signs of stabilizing, projections of corporate default rates have been lowered. Bank stability risks have also receded reflecting government support of balance sheets.We find that while bank capital positions have begun to stabilize, there is still a need to build capital buffers and strengthen balance sheets to provide adequate credit to the real economy. Still, credit risks remain elevated, reflecting rising loan delinquencies, Figure 3. From analysis of national authorities in Romania we are witnessing a continuous growth of bad loans between 2006-2009, the largest being in 2008.

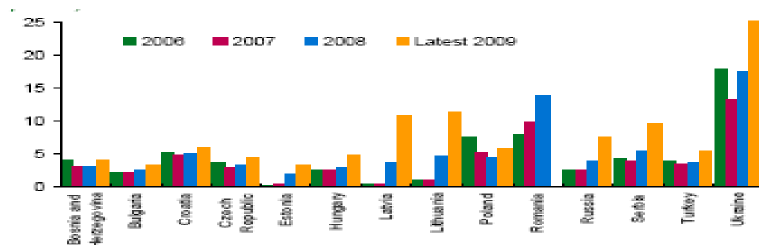

Figure 3. Emerging Europe: Nonperforming Loan Ratios *(In percent)*
Source: National authorities.

Lending to companies have deteriorated more quickly than those granted to individuals for household, reflecting the greater weight of the worsening business climate and overall economy. Nonperforming loan ratios are expected for the next 12 months - 18 months to reach its peak, is between 50% and 100% above current levels, according to various projections of the central bank. While the current level of reserves is sufficient to cover loan losses in that time additional provisions necessary for the next period will limit the capital positions of banks and their ability to issue new loans.

Also there were changes in perceptions and quality of loans that have the potential to create significant losses to financial institutions. The spreading global index of corporate bonds provide a market price based on investors' assessments of credit risk for

corporations.For Romania, from the end of June 2009, the average capital adequacy system was 13.5%. The report was supported by withholding wage increases in 2008 and equity in several banks, leaving all the banks, with a report 10 mins% (regulatory minimum is 8%). However, credit quality continues to deteriorate, and the reported loss doubtful loans almost doubled in a year, ranging from 4.7% to 11.8%, Table 1.

Table 1

Romanian Banking System - Core Indicators

	Dec-07	Jun-08	Dec-08	Jun-09
Capital Adequacy Ratio	13.8%	12.8%	13.8%	13.5%
Leverage Ratio (Tier I capital/assets)	7.3%	7.3%	8.1%	6.9%
Non-performing loans/Loans	4.0%	4.7%	6.5%	11.8%
Return on Assets	1.0%	1.4%	1.6%	0.1%
Return on Equity	9.4%	15.8%	17.0%	0.6%

Source: IMF staff estimates

Asset quality will deteriorate further with increasing unemployment and falling corporate profitability, putting additional pressure on bank capital.

In the current context of crisis, access to any resource, including the financial, is more difficult, and more expensive. Therefore, the eligibility of any customer of the bank is carefully assessed and determining the risk profile and a proper management of credit risk is absolutely necessary. Most valuable capital for a bank is trust: customers must prove that the borrowed money are efficiently used, and will be returned at maturity of the contract.

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