

## The impact of quality of loans on the performance of banks

Andrieş Alin Marius<sup>1</sup>, Cocriş Vasile<sup>2</sup>, Popescu Maria<sup>3</sup>

*1*Alexandru IoanCuza University of Iasi, [alin.andries@uaic.ro](mailto:alin.andries@uaic.ro)

*2*Alexandru IoanCuza University of Iasi, [vcocris@uaic.ro](mailto:vcocris@uaic.ro)

*3*Alexandru IoanCuza University of Iasi, [mariutza\\_82@yahoo.com](mailto:mariutza_82@yahoo.com)

**Abstract.** The management of credit risk entails the necessity of the analysis of the way the quality of the credit portfolio evolves in time. The rating of the quality of assets reflects the potential risk of loans, of investment and of other assets, as well as of the off-balance sheet transactions. The evaluation of the quality of assets must be also analyzed depending on their level of provisions, also it is necessary to consider all other risks that can affect the capitalization of the assets of the bank, including the operational, market, reputation and strategy risks.

**Keywords:** performance, banks, non-performing loans

### 1 Introduction

The management of credit risk entails the necessity of the analysis of the way the quality of the credit portfolio evolves in time. The rating of the quality of assets reflects the potential risk of loans, of investment and of other assets, as well as of the off-balance sheet transactions. The evaluation of the quality of assets must be also analyzed depending on their level of provision, also it is necessary to consider all other risks that can affect the capitalization of the assets of the bank, including the operational, market, reputation, strategy risks and others. The management's capacity is reflected by the extent to which it manages to identify, follow and control these risks.

Credit risk analysis can be realized from two perspectives:

- Individual credit risk through which the probability of insolvency of the debtor or of non-reimbursement of the amounts employed by him is captured. The assuming by the bank of the individual credit risk entails that, that bank introduces in costs, the losses resulting on due date from the non-payment of the obligations its debtor has.
- Global credit risk which gives expression to the probability of deterioration of the quality of the employed bank assets.

The global risk of insolvency is an increasing function of the mass of granted loans, of the interest rate and of the national economic environment. Moreover, with the increase of the volume of loans, the

cases of insolvency increase in accelerated proportion, expression of the fact that the increase of the proportions of the loan brings within the debtors a growing number of persons, potentially insolvent.

Also, the increase of the interest rate, on the background of an overheating of economy constitutes another factor for the amplification of global insolvency. Preoccupied with countering the negative effects that the occurrence of this risk might have, banks have reacted by constituting, over time, a system of complex actions, through which its management is founded.

## **2 The effects of non-performing loans on the activity of the bank**

As mentioned before, non-performing loans are costly for the banks. The provisions constituted by increasing expenses only show us part of the negative effects. Aside from these, there are other aspects, less visible, but with the same negative effect on the profitability of the bank. Here are some examples:

a) deterioration of the bank's image and reputation.

As known, a bank's success is ensured by the trust it inspires to its investors and clients. Based on this, the bank can attract funds from the market and develop its activity.

From the deponents' point of view, trust is the main reason for choosing a bank. Without the certainty that they will receive their money back on the first request, no one will no longer deposit money to a certain bank, even if the interest offered are very attractive. The trust in a bank is tied to its reputation – a subjective perception from the persons who come into contact with the bank and which is created based on a heterogeneous mixture of factors that refer to the size of the financial institution and quality of the products and services. The rumors about the inappropriate management of these funds and the existence of a significant portfolio of non-performing loans determine clients to withdraw their deposits, which in the end lead to incapacity of payment and bankruptcy.

In the banking environment it is appreciated that the value of each bank rests on three pillars: capital, management and reputation. As such, the loss of reputation constitutes maybe the greatest risk for a bank, and its effects might be:

- loss of the trust of deponents – leading to the withdrawal of deposits and being able to generate the decrease of incomes, increase of costs concerning attracting resources, crisis of cash and finally, even the bankruptcy of the bank;
- loss of the support of shareholders – which can be manifested including through their refusal to participate to the increase of the social capital when the bank goes through financial difficulties;
- loss of the trust of the supervision authority – having as extreme consequence the withdrawal of the functioning authorization.

Reputational risk – the risk of registering financial losses as a result of the disappearance of the public's trust – represents the main channel of contagion through which system risk is manifested. The problems emerged at one or several banks – and which would normally affect only these – can lead to the perception that the entire system is in danger, engaging requests for withdrawal of deposits to other banks as well. To the extent that some of these find themselves in difficulty as well, the withdrawals tend to get amplified, gaining accents of panic and leading to the escalation of the problems until the entire system can be endangered.

b) increase of administrative expenses.

A non-performing loan requires a great attention from the employees of the bank. Thus, banks, especially the large ones, were obligated to constitute specialized departments to follow and recover

non-performing receivables. Practice shown that the time consumed with following a non-performing loan is the same with the one for following ten current loans.

c) decrease of the morale of employees.

A bank that becomes unprofitable because of non-performing receivables is in impossibility of remunerating its employees, even more, there are situations when they are fired (a typical example was with the Banca Agricola). In this situation, the best employees „leave the ship”. The bank finds itself in the situation to pay for training other employees who take their place or to offer higher salaries in order to attract employees from outside the bank.

d) increase of the expenses destined for the initiation and performing of judicial procedures for the recovery of receivables.

The great banks, aside from a considerable law department, also created a body of administrators for the recovery of non-performing loans. There are also situations when, following the repos, a lower value is recovered owed to the fact that the court expenses have priority.

e) increase of expenses owed to the introduction of new procedures or regulations.

In the situation of the existence of a high portfolio of non-performing loans, the commercial bank becomes an object of the controls performed by the National Bank, being necessary numerous reports and explanations given to the control organs that represent additional expenses for the bank, its employees having to work for the control organs. Also, the bank has to take additional prudential measures for granting new loans, which can lead to the loss of some clients unsatisfied with the delays caused by the new measures which imply the centralization of competencies.

Of course, the non-performing loans produce numerous problems for the business environment as well, leading to financial blockage and implicitly to the increase of costs through the necessity of new sources attracted as a result of the decrease of money circulation, owed to blockages. The end is maintaining the economy in a prolonged recession, and the solution can only be eliminating the non-performing loans producers.

As shown, loans are classified, according to their quality, into five categories. There are included in the category of non-performing loans, the loans classified as „substandard”, „doubtful” and „loss”. Loans, even arrear, do not become non-performing unless the conditions for their integral reimbursement and for the paying of interest and commission owed are no longer ensured.

This means that the taking of special measures will be necessary, if needed even the initiation of judicial procedures for the recovery of receivables. Certainly, the beneficiary of a non-performing loan can only be for the bank a non-performing client, who now or in the future is not or will not be able to pay his debts in time.

From these short definitions, both the potentiality and the certainty of the existence of the non-performing loan are noticed. That is why, the early finding of the so-called warning signs that show that the loan has become a problem and its recovery is absolutely necessary before the debt accumulates is so important.

Unfortunately, the current legislation in Romania is favorable to the debtor, in the sense that the initiation of judicial procedures automatically means taking off-balance sheet the receivable and putting in expenses the difference for which there is no provision constituted.

An exhaustive list of the causes for the emergence of non-performing loans would be impossible to put together. In most cases, a non-performing loan is determined by several factors instead of a single cause. The action of several factors cannot be influenced by the bank.

Finding the causes that provoke non-performing loans and establishing some adequate measures to eliminate these causes largely depends on the method of organization and on the experience of each

bank in part and ultimately on the training, talent and feeling of the staff engaged in the lending activity.

### 3. The effects of non-performing loans on the performance of the banking systems

The analysis of the non-performing loans on the bank performance can be performed both at macroeconomic level – at the level of banking system – and at microeconomic level – at the level of commercial banks. In the financial crisis periods the impact of non-performing loans at system level present a greater interest because their level can influence the stability of the banking system and that of the financial system.

At the level of the European banking systems the average level of Non-performing loans and of bank Provisions for non-performing loans registered for the period 2004-2009 the following values:

Table no.1 Average values of the indicators Non-performing loans and of bank; Provisions for non-performing loans registered for the period 2004-2009

Country	Non-performing loans/total loans ratio	Bank provisions for non-performing loans
Austria	2,4000	70,1833
Belgium	1,9167	53,7833
Bulgaria	2,8333	111,1667
Czech Republic	3,8333	65,4000
Denmark	,4250	70,8500
Estonia	1,3667	140,1200
Finland	,3400	82,1500
France	3,2400	153,1000
Germany	3,5400	50,1333
Greece	5,9000	53,2167
Ireland	2,1833	59,7500
Italy	5,4167	47,1667
Latvia	3,8500	93,8333
Great Britain	1,6000	47,6600
Holland	1,1667	63,5667
Poland	8,3167	58,4400
Portugal	1,8333	76,0333
<b>Romania</b>	<b>6,4667</b>	<b>47,1500</b>
Slovakia	3,4667	88,8167
Slovenia	2,3167	81,1833
Spain	1,9500	198,9833
Spain	1,0500	60,5667
Hungary	2,9833	63,4333
<b>Average</b>	<b>3,0555</b>	<b>80,1739</b>

Source: IMF - Global Financial Stability Report, *Financial Soundness Indicators*, April 2010

It can be noticed that for the period 2004-2009 the average level of the non-performing loans in

Romania registered a value superior to the European average level.

At the level of the Romanian banking system it is noticed, from the following graph, that the level of non-performing loans registered a continuous growth since 2005 until 2009. This phenomenon was owed, especially, to the significant increase of the level of total loans granted by Romanian banks.

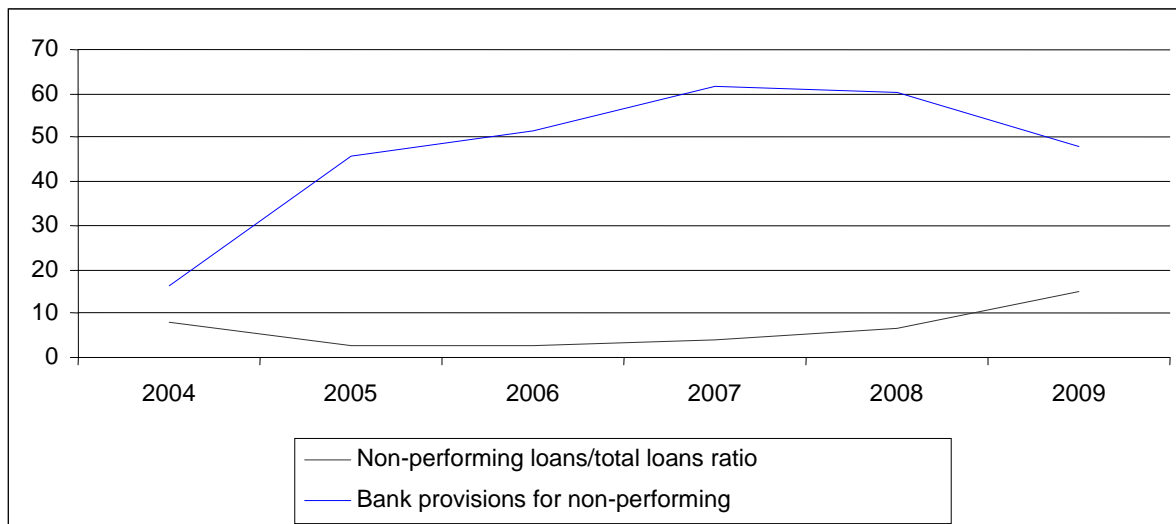


Fig. no.1 Evolution of non-performing loans and of bank provisions for non-performing loans in Romania for the period 2004-2009

At the level of bank provisions for non-performing loans there can be noticed for the analyzed period a significant increase, followed by a decrease at the level of the year 2009.

Table no. 2. Average values of the indicators Profit/assets and Profit/capital for the period 2004-2009

Country	Profit/assets	Profit/capital
Austria	,5333	12,3833
Belgium	,1167	5,1167
Bulgaria	2,0000	20,7833
Czech Republic	1,3167	24,5833
Denmark	1,2000	20,6500
Estonia	,4833	7,8667
Finland	,9400	11,7600
France	,4200	9,0400
Germany	,1800	5,1000
Greece	,5833	9,6167
Ireland	,8500	18,9500
Italy	,6400	10,1800
Latvia	,7833	10,2333
Lithuania	,3333	5,3167
Luxembourg	,6500	14,3500
Malta	1,1600	10,8000
Great Britain	,3167	4,2500
Holland	,2333	8,8333

Poland	1,5333	19,2333
Portugal	,7333	11,9500
<b>Romania</b>	<b>1,5500</b>	<b>13,3500</b>
Slovakia	1,0667	14,0833
Slovenia	1,0000	11,9000
Spain	,8333	16,1167
Spain	,6333	15,8500
Hungary	1,2167	19,7333
<b>Average</b>	<b>,8190</b>	<b>12,6946</b>

Source: IMF - Global Financial Stability Report, *Financial Soundness Indicators*, April 2010

There can be noticed that the average profitability registered by the banks in Romania, both the one reported for total assets and the one reported for own capital, is above the average registered by the banks in the European Union.

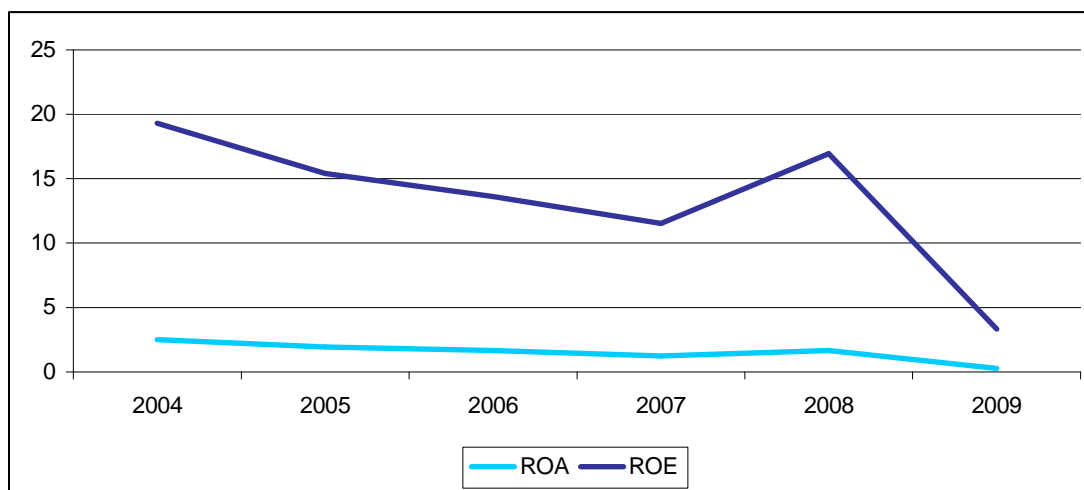


Fig. no. 2 Evolution of the ROA and ROE indicators at the level of banks in Romania for the period 2004-2009

From the graph above it can be noticed that for the analyzed period the banks in Romania registered a decrease of the ROA and ROE indicators, especially in the year 2009.

In order to analyze the connection between non-performing loans and the performances of the banks we will use the regression and correlation analysis.

Table no. 3. Indicators of the correlation analysis

		Non-performing loans/total loans ratio	Bank provisions for non-performing loans	Profit/assets	Profit/capital
Non-performing loans/total loans ratio	Pearson Correlation	1	-,315(**)	,366(**)	-,435(**)
	Sig. (2-tailed)		,001	,000	,000
	N	146	115	143	143
Bank provisions for non-performing loans	Pearson Correlation	-,315(**)	1	,172	,171

	Sig. (2-tailed)	,001		,069	,069
	N	115	115	113	113
Profit / assets	Pearson Correlation	<b>-,366(**)</b>	,172	1	,908(**)
	Sig. (2-tailed)	,000	,069		,000
	N	143	113	147	147
Profit / capital	Pearson Correlation	<b>-,435(**)</b>	,171	,908(**)	1
	Sig. (2-tailed)	,000	,069	,000	
	N	143	113	147	147

\*\* Correlation is significant at the 0.01 level (2-tailed).

From the table above it is noticed that at the level of the European banking systems there is an inverse relation between the level of non-performing loans and the level of bank performances, no matter the used indicator ROE or ROA. It is noticed thus that an increase of the level of non-performing loans determined a significant decrease of the level of the ROA indicator (value of the Pearson correlation indicator – 0,366) and an even greater decrease of the ROE indicator (value of the Pearson correlation indicator – 0,435).

Table no. 4. *Indicators of the regression analysis – Dependent ROA variable*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0,151251	0,557198		0,27145	0,786573
Indicator regarding the adequacy of capital	-0,02328	0,043183	-0,0537	-0,53905	0,590982
Capital/Assets ratio	0,190181	0,054924	0,348285	3,4626	<b>0,000773</b>
Non-performing loans/total loans ratio	-0,09344	0,034205	-0,26759	-2,73177	<b>0,007381</b>
Bank provisions for non-performing loans	0,0005	0,002031	0,024349	0,246033	0,806132

From the performed regression analysis there can be noticed that the ROA indicator is influenced by the level of non-performing loans and the ratio between the level of capital and the level of assets.

#### 4 Conclusions

In the past decades, most countries in Central and Eastern Europe have adopted structural reforms in view of increasing the size, stability and efficiency of financial systems. The opening towards the outside and the internal structural reforms of the financial sector are two independent processes, both having as purpose the development of a competitive and efficient financial system, in order to facilitate economic growth.

The results of the performed analysis show us that, for the analyzed period, at the level of the European banking systems there is an inverse relation between the level of non-performing loans and the level of banks performance. This means that an increase of the level of non-performing loans

determined a significant decrease of the level of the ROA indicator and an even greater decrease of the ROE indicator.

## **5 Acknowledgements**

This work was cofinanced from the European Social Fund through Sectoral Operational Programme Human Resources Development 2007-2013, project number POSDRU/89/1.5/S/59184 „Performance and excellence in postdoctoral research in Romanian economics science domain”

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