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CREDIT RISK VERSUS PERFORMANCE IN THE ROMANIAN BANKING SYSTEM

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Abstract:

The Romanian banking sector, predominantly governed by the capital of foreign banks, is, as well as other international banking sectors, under the sign of the necessary balance that should exist between risk and performance. This is a result of banks trying to take risks that they can control, given that they need to generate financial results that are satisfactory for all categories of bank creditors, namely shareholders, depositors and other lenders. In this paper, I wanted to analyze the risk situation assumed by the main banks in the system versus the performance gained in recent years. This article is part of a wider research, so I will refer only to the main risk assumed by a bank, namely the credit risk, I will highlight the evolution of the indicators of this risk, so that I can finally analyze their degree of correlation with indicators for measuring bank performance. The situation of other financial risks in banking activity will be addressed in other works.

Key words: *credit risk, performance, ROA, ROE*

1. Introduction

The Romanian banking sector is a dynamic one, in which competition between banks is important, as important as obtaining considerable financial performance in manageable risk conditions. In a bank risk research, their analysis is insufficient, without putting into question their performance. Starting from this aspect, I intend to analyze the correlation between the indicators that measure the main financial risk assumed by a bank and the indicators that measure the banking performance. Banking risks are multiple and cannot be included in a single article, so I will only refer to credit risk, and I will analyze the indicators of their evolution in the last three years along with the analysis of the bank performance rating indicators, at the level of the first three banks in the Romanian banking system, namely BCR, Transilvania Bank and BRD-GSG.

2. Literature review

Starting from the risk I have proposed to analyze, namely credit risk, defining this risk is one that has undergone various interpretations and reinterpretations.

For credit risk, i.e. the risk that has generated the most problems for commercial banks throughout history, the Bank for International Settlements has given a simple and concise definition, namely credit risk is the probability that the borrower will not reimburse its payment obligations assumed by the credit agreement due to non-compliance of terms (http://www.bis.org). Credit risk is therefore strictly linked to the ability of the borrower to generate revenue to cover the cost of the loan, namely principal, interest and possible commissions.

Iuga I. also believes that the credit risk analysis should take into account the bank's expectations of the credit, which can be translated into direct gains and indirect earnings. (Iuga I, 2006). In other words, the bank may decide to take certain risks if the expected gains can cover the assumed risk.

In order to measure credit risk, the analysis can have 3 perspectives: the credit risk analysis assumed using the credit rating adapted by each bank to its own strategy, the credit risk analysis starting from the limits set by the NBR (Regulation No.5) and credit risk analysis using indicators that express the global lending risk, indicators that I intend to analyze in the context of this article.

Regarding aggregate credit risk rating indicators, Badea L. considers that the most important are the following:

- Total credits / Total Assets* 100 ratio, which reflects a higher risk appetite, as its level of risk is higher
- Rates of overdue loans, calculated as percentage of outstanding credits and total credits; according to international standards, the maximum admissible limit of this indicator is 6%; starting from this indicator, a more in-depth analysis of overdue loans can be made to highlight the percentage of short-term or medium-term loans in overdue loans or the percentage of loans by individuals, and legal persons in the case of outstanding loans or the percentage of outstanding loans in foreign currency in total foreign currency loans
- The coverage ratio of credit losses on net profit, calculated as a ratio between net profit and loss in the loan portfolio, a ratio that must be over-unitary, the profit having much more destinations than coverage of loan losses (Badea, L. (coord), 2010: 69-73)

In the case study, I will highlight the situation of loans in total assets and also the structuring of overdue loans according to the debt service and the type of client.

As we have previously said, the risk assumed by a bank cannot be individually analyzed and must be correlated with the level of performance expected and achieved by a bank. Etymologically, the word performance comes from English, from the verb *to perform* which means doing your tasks. If we are to transfer this concept to banks, a bank is considered to carry out its tasks if the risks it assumes by attracting deposits and lending did not affect the financial results, which are on an upward trend.

Consequently, performance in a nutshell can be defined as maximizing profits while minimizing risks, while complying, of course, with the regulations in force.

According to the ECB, bank performance can be defined as the bank's sustainable capacity to make profit. (BCE, 2010).

According to the classic approach, the main benchmarking indicators of bank performance are:

- Return on Equity (ROE) calculated as a percentage ratio between net profit and equity. The optimum level considered for this indicator is between 15 and 20%. ROE is the most significant expression of bank profits from the shareholders' perspective, as it highlights the effect of their engagement in banking activity.
- Economic Return (ROA – Return on Assets) calculated as a percentage ratio between net profit and total assets. This indicator is relevant to banking efficiency because it expresses the result obtained from asset management under the terms of some given resources. The optimum level in the developed banking sectors for this indicator is between 10-20%, but there are a lot of banks, especially in the emerging countries that function with a level of ROE beyond this level.
- The leverage effect or the financial leverage, which is calculated as the ratio between total assets and equity, with values generally greater than 10. This indicator varies in the opposite direction to the equity ratio in total liabilities. Thus, a lower value of capital implies a higher leverage effect, i.e. a higher risk assumption. (Leonardo Badea, 2010: 440).

These are not the only indicators for measuring banking performance, the profit rate, asset utilization rate, the net interest margin can also be calculated, but in this article, taking into considerations the data provided by financial statements of the banks, I will only analyze the three indicators in correlation with the banking risk-measurement indicators.

3. Case study

I will start the analysis by determining the credit risk rating indicators at the level of the first banks in the system, namely BCR, Transilvania Bank and BRD.

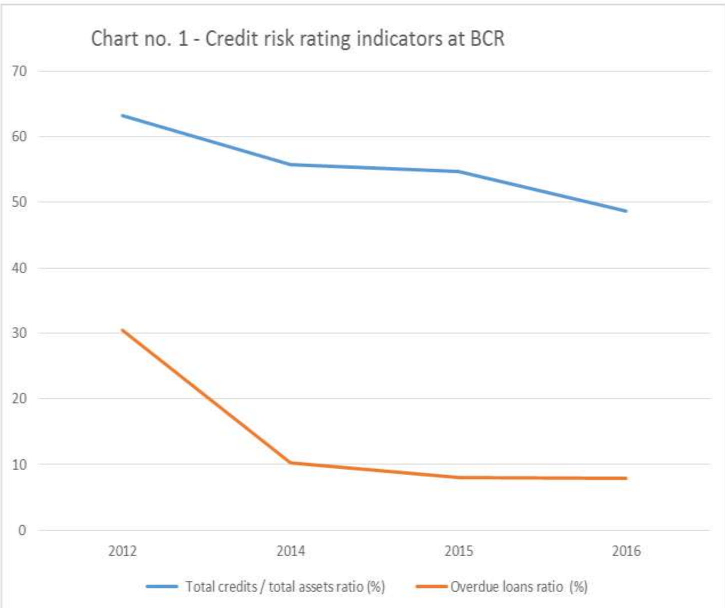
Regarding credit risk rating Indicators, they are summarized in tables 1-3 for each bank in the last 5 years. It is interesting to note that in the top 3 there is also a bank with majority Romanian capital, Transilvania Bank, and we will observe whether there are different evolutions in its case.

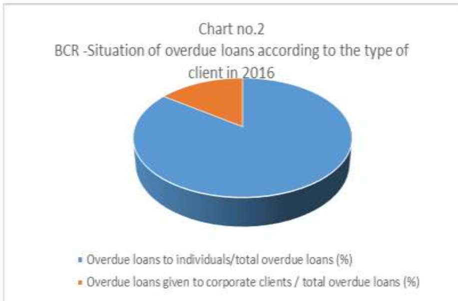
Table 1: Credit risk indicators for BCR during 2012-2016 (%)

Bank	BCR				
Indicator	2012	2013	2014	2015	2016
Total credits / total assets ratio (%)	63,19	59,39	55,79	54,73	48,63
Overdue loans ratio (%)	30,44	40,06	10,3	8	7,87
Overdue loans <30 days / total overdue credits (%)	16,63	24,02	84,89	85,57	86,83
Overdue loans with debt service between 30-90 days (%)	10,32	7,73	13,39	9,91	10,33
Overdue loans>90 days / total overdue loans (%)	73,05	68,25	1,72	4,52	2,84
Overdue loans to individuals / total overdue loans (%)	42,17	37,64	76,32	83,41	84,92
Overdue loans given to Corporate clients / total overdue loans (%)	57,83	62,36	23,68	16,59	15,08

Source: Processing after the consolidated financial statements of BCR for the period 2012-2016, www.bcr.ro

Analyzing the evolutionary situation of credit risk indicators at BCR, we notice an improvement in the situation of overdue loans. Thus, if in 2012 the overdue loans accounted for over 30% of the total loans, at the end of 2016 they were below 10%. This is also in line with the decreasing evolution of the total loans / total assets ratio, but is primarily determined by the process of "clearing" the non-performing credit portfolio by selling them. Thus, BCR sold only in 2015 bad loans to corporate clients amounting to 1.2 billion euros, for which it collected under 10%. The buyer of these credits is a consortium of Deusche Bank, APS Holdings and IFC. Under these circumstances, BCR remains with a non-performing loan stock of approximately 20% of the amount of non-performing loans held in June 2014. (http://www.bancherul.ro).





Analyzing the structure of the overdue loans according to the debt service and depending on the client type, the situation is favorable at the end of 2016 (chart no. 2 and 3). Thus, we see a preponderance of loans granted to individuals in outstanding loans, which are believed to generate a lower potential credit risk, due to the credit amounts that are lower, so the risk is scattered. Also outstanding loans with a debt service of less than 30 days are preponderant, which also reflects a lower credit risk. However, we notice (table no. 1) that the situation was not always the same for BCR, because until the end of 2013 BCR had a preponderance of loans to corporate clients, respectively a preponderance of loans with a debt service over 90 days, these being loans mainly held by corporate customers. Thus, the present favorable situation is a situation generated by the sale of bad loans for small amounts to associations with the objective of recovering them.

Regarding the situation of credit risk rating indicators at Transilvania Bank, the situation is different compared to BCR (table no. 2).

Table 2: Credit risk rating indicators at Transilvania Bank for the period 2012-2016 (%)

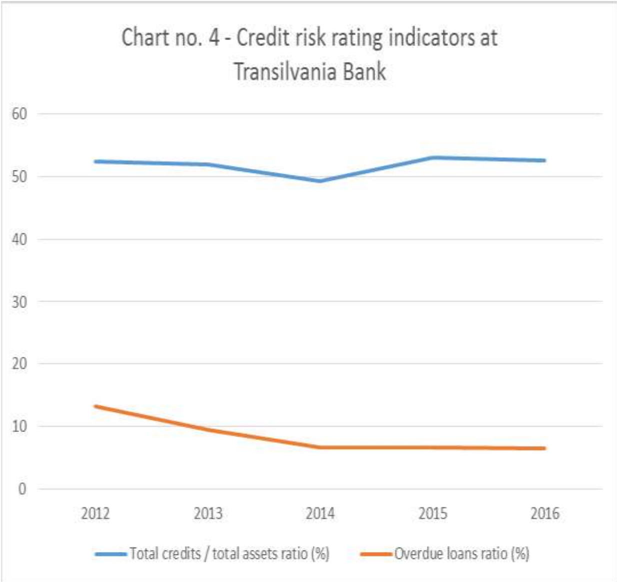
Bank	Transilvania Bank				
Indicator	2012	2013	2014	2015	2016
Total credits / total assets ratio (%)	52,45	51,98	49,18	53,03	52,56
Overdue loans ratio (%)	13,31	9,54	6,75	6,6	6,58
Overdue loans <30 days / total overdue credits (%)	63,86	58,84	80,72	77,98	78,89
Overdue loans with debt service between 30-90 days (%)	29,08	32,84	12,27	16,71	16,23
Overdue loans>90 days / total overdue loans (%)	7,06	8,32	7,01	5,31	4,88
Overdue loans to individuals / total overdue loans (%)	-	-	-	-	68,18
Overdue loans given to Corporate clients / total overdue loans (%)	-	-	-	-	31,82

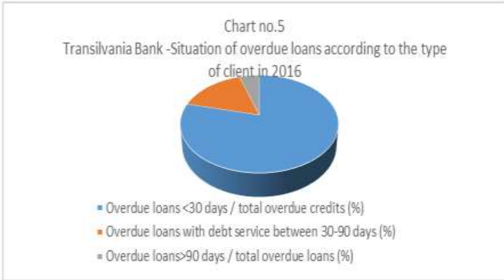
Source: Processing after the consolidated financial statements of Transilvania Bank for the period 2012-2016, www.bancatransilvania.ro

Thus, we note that the value of total loans in total assets did not fluctuate significantly during the analyzed period and the value of overdue loans had a decreasing trend, but we did not witness any sudden changes in this ratio (chart no.6).

Also, overdue loans to individual customers are predominant in overdue loans, and loans with a debt service up to 30 days are the highest in the analyzed period. All of these aspects reflect the stability of Bank Transilvania's loan portfolio, adequate credit risk management and less exposure to possible losses. Additionally, no unfavorable fluctuation from the crisis is observed, reflecting prudent management, a predominant exposure to loans to individuals, which was more easily to be managed risk later on.

Regarding the credit risk situation at BRD, it can be seen from Chart no. 7 the decreasing trend of both the share of loans in total assets and the rate of overdue loans. However, the share of overdue loans remains high compared to its main competitor, Transilvania Bank, which is why, starting with 2016, BRD started selling bad loans, following the model of the leader BCR. Regarding the structure of overdue loans by type of client, the overdue loans to individuals are currently prevailing, but in the period 2012-2013 the overdue loans to corporations prevail.





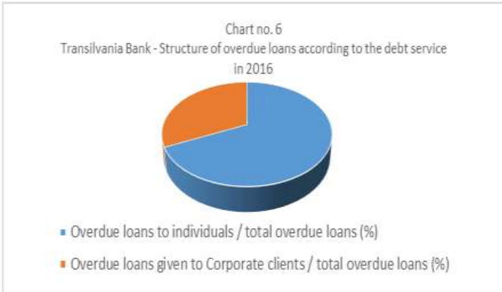
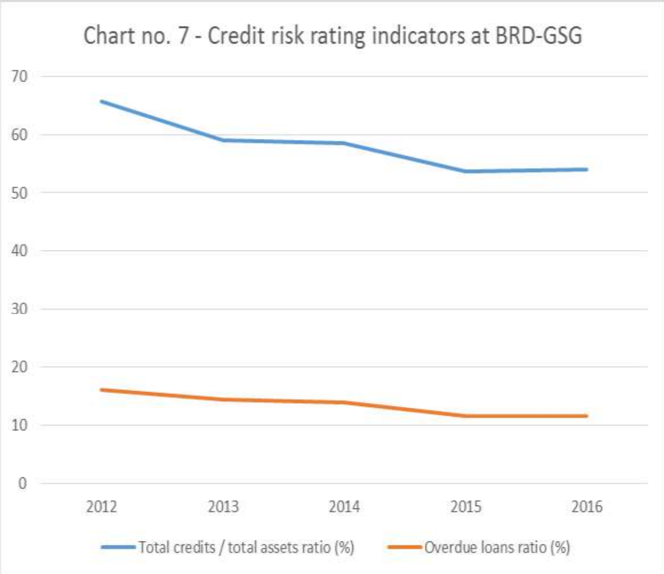


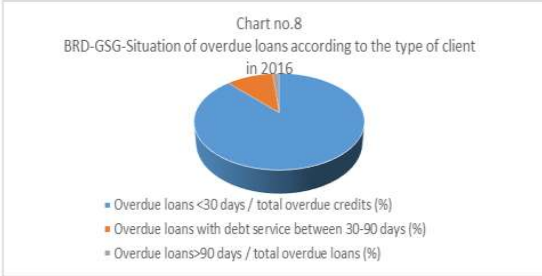
Table 3: Credit risk indicators at BRD - GSG for the period 2012-2016 (%)

Bank	BRD - GSG				
Indicator	2012	2013	2014	2015	2016
Total credits / total assets ratio (%)	65,68	58,97	58,57	53,62	54,06
Overdue loans ratio (%)	16,09	14,42	13,83	11,6	11,63
Overdue loans <30 days / total overdue credits (%)	70,77	77,85	75,52	82,77	87,85
Overdue loans with debt service between 30-90 days (%)	28,57	20,21	23,35	15,33	10,66
Overdue loans>90 days / total overdue loans (%)	0,66	1,94	1,13	1,9	1,49
Overdue loans to individuals / total overdue loans (%)	31,6	25,72	75,76	85,06	80,96
Overdue loans given to Corporate clients / total overdue loans (%)	68,4	74,3	24,24	14,94	19,04

Source: Processing after the consolidated financial statements of BRD for the period 2012-2016, www.brd.ro

As it can be seen, both in the case of BRD and BCR, the period that followed 2008 was a difficult one from the point of view of the loan portfolio, these two banks being the main financiers of the major corporate investment projects who were affected by the crisis and had delays in repaying the loans. The financial reports of these banks have resulted in permanent concern for credit risk mitigation, on the one hand, through portfolios' restructuring, and on the other hand by selling non-performing loans for small amounts.





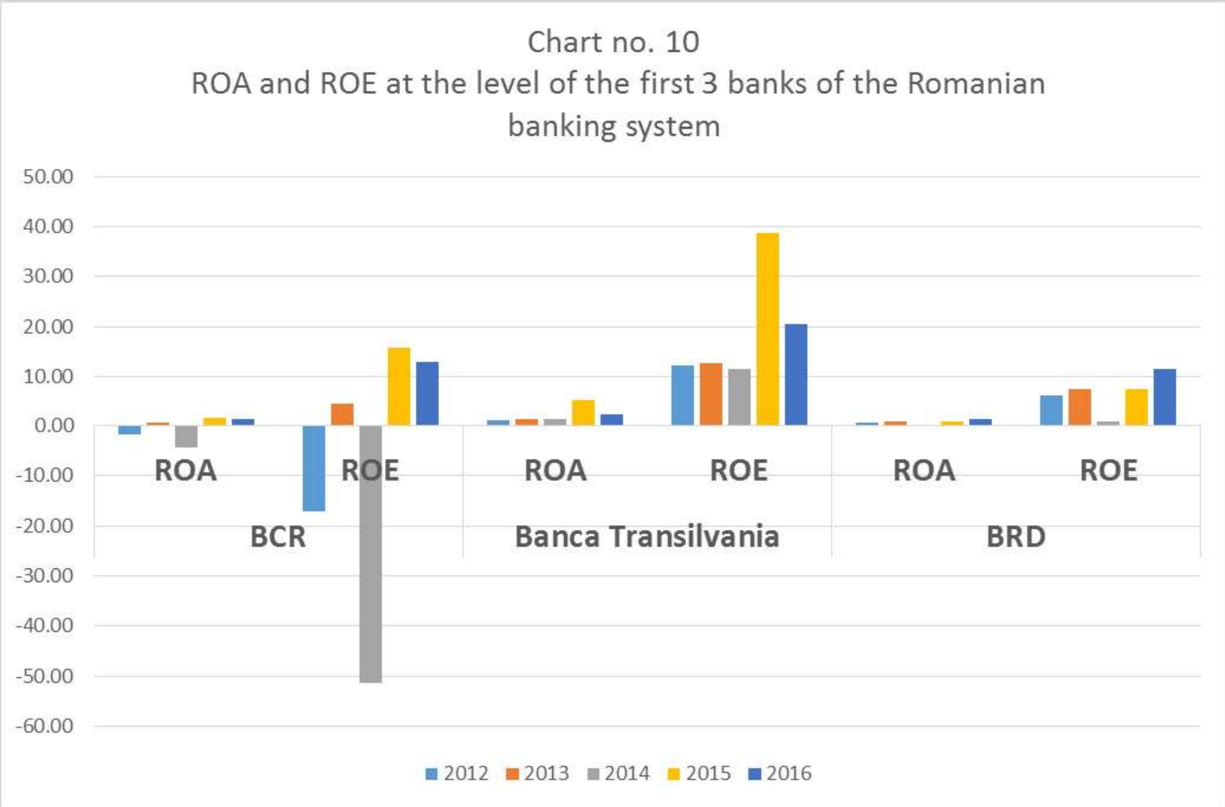
Regarding the indicators of measuring the banking performance, I determined, on the basis of the annual financial statements, the rate of economic profitability and the rate of financial return for the last five years (table no. 4)

Table 4: Situation of bank performance indicators at the level of the first three Romanian banks (%)

	2012	2013	2014	2015	2016
BCR					
ROA	-1,72	0,53	-4,45	1,62	1,38
ROE	-17,05	4,48	-51,45	15,68	12,86
Transilvania Bank					
ROA	1,16	1,27	1,21	5,11	2,37
ROE	12,31	12,73	11,44	38,74	20,52
BRD					
ROA	0,69	0,82	0,09	0,91	1,44
ROE	6,01	7,47	0,79	7,45	11,39

Source: processing according to the financial statements of BCR - www.bcr.ro, Transilvania Bank – www.bancatransilvania.ro, BRD – www.brd.ro

Analyzing the evolution of ROE and ROA at BCR, Transilvania Bank and BRD, we can see a different situation between them, a situation that confirms the differences observed in the credit risk rating indicators (chart no. 10).



Thus, if for BCR we have highlighted significant credit risk problems, this bank having to resort to the sale of non-performing loans, in chart no. 10 we note that BCR faces difficulties in maintaining the bank performance indicators at positive levels until 2014. This is the year when the bank sells a consistent share of non-performing loans, the revenues being much lower than the generated losses. With this action, BCR starts to recover in terms of ROE and ROA and even approach the optimum levels. BRD, although it manages to maintain positive net profit values throughout the analyzed period, its level is not very high, which is why ROA and ROE record lower values. Transilvania Bank, a bank with private capital, mostly Romanian, but also benefiting from capitalization from important banking financial institutions such as the Bank of Cyprus and the EBRD, records positive and optimal levels of banking performance indicators, if we refer to ROE. This aspect can be correlated with the levels recorded in the credit risk rating indicators. Thus, recording a low level of overdue loans is correlated with Transilvania Bank's ability to generate profits at a considerable level. The bank's prudent policy, focusing in particular on retail activity, has proven to generate sustainable profits. This does not apply to the other two banks, which still feel the effects and are trying to recover after the crisis.

4. Conclusions

When we talk about banking activity, we automatically refer to risks, and risks can only become acceptable if we have satisfactory results, or bank performance to satisfy bank creditors. Of the many risks a bank faces, in this article we analyzed the credit risk that we have put in the balance with the performance indicators to highlight the extent to which they influence each other. The analysis was made at the level of the first three banks in the Romanian system for the last five years. The analysis allowed me to know if credit risk affects profitability, which I synthesized in chart no. 13, where I chose as relevant credit risk indicator, the overdue loan rate.

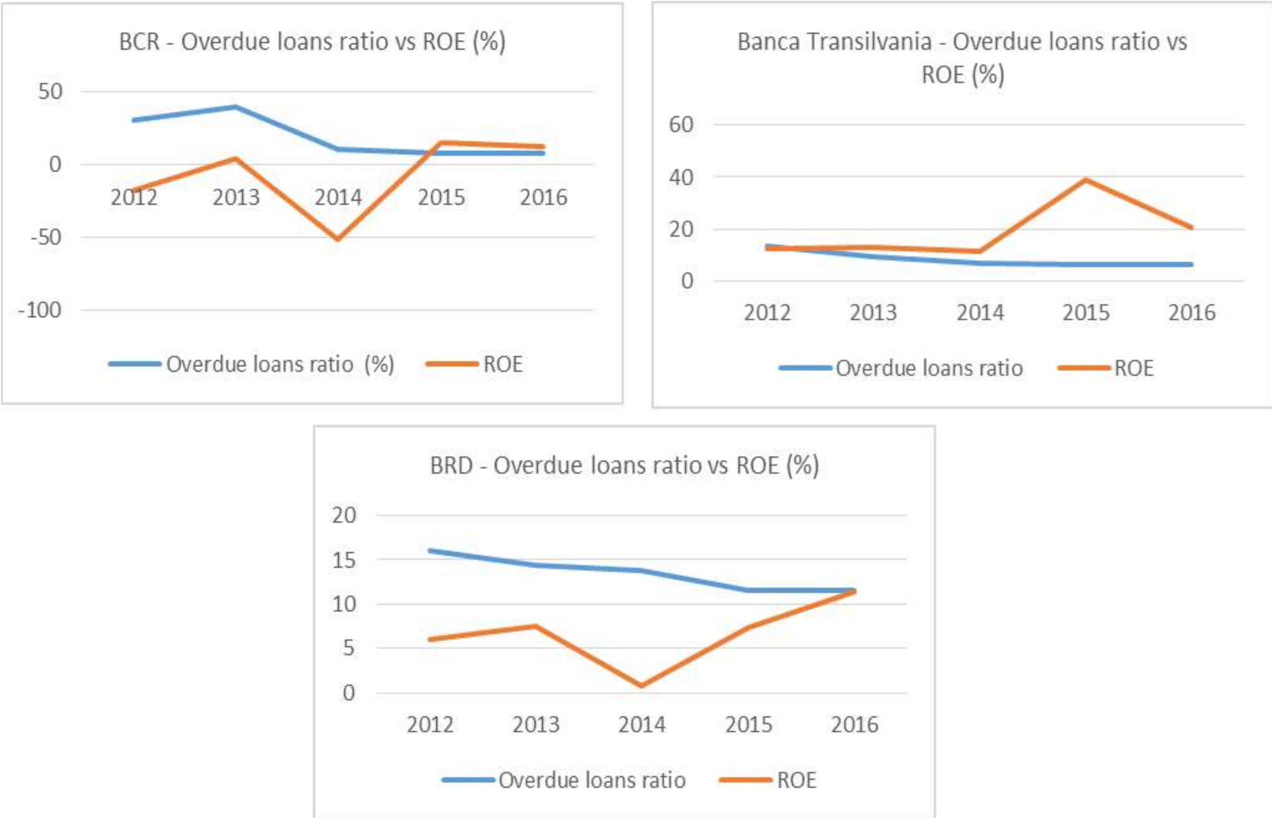


Chart no. 11. Risk vs. performance at the level of the first 3 banks in the Romanian system

Analyzing the three graphs we noticed that the link that exists only between the credit risk measured by the overdue loan rate and the economic profitability is an inverse and medium intensity relationship (measured in the case of Transilvania Bank with a correlation coefficient of -0.48, and in the case of BRD with a correlation coefficient of -0.45, in the case of BCR, this coefficient is not relevant due to the sudden changes that took place both in terms of overdue loans and profit). Testing the correlation coefficient is not relevant for a period of only five years, but the graphical developments and the level recorded for this coefficient allow me to say that credit risk is one of the risks whose manifestation can significantly affect bank performance. Of course, alongside credit risk, the other significant risks (liquidity risk, market risk, insolvency risk, risk of contagion) are influencing bank performance.

Another aspect that we highlighted as a result of the analysis was the different situation, in a positive way, between Transilvania Bank (low and declining outstanding loans, increasing profitability), and BCR and BRD (which have faced rising overdue loans and have had profitable profitability until they have found solutions for outsourcing problem loans). This highlights different visions and strategies in terms of exposure to credit risk and risk appetite, which in the case of Transilvania Bank was a lower one, which led to performance even after the crisis began.

Therefore, even if it is not possible for the banking activity not to be accompanied by credit risk, it is very important that this risk is controllable, that the measures to diminish it are started in time, that the portfolio growth is not aggressive during periods of economic growth, all of which are responsible for generating sustainable banking performance.

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