CREDIT RISK ANALISYS WITHIN RAIFFEISEN BANK

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Abstract:
The quality of warranties is appreciated based on the extent to which these warranties can cover the credit, as well as on their nature and legal character. Depending on the nature of the warranties, each bank takes into account their own percentages in appreciating the value of the warranties, according to their own crediting rules. This has resulted in a distortion of the value of the goods used as warranty, as each bank, depending on its own crediting policy, would under-valuate or over-valuate the value of the spinoffs.
The purpose of credit analysis is to avoid profit losses or business losses caused by bad debts, that is, by granting credits to customers who don't pay off the loan or by failing to grant credits to potentially good customers.
Keywords: credit risk, market risk, liquidity risk, bank credit, interest rate risk, liquidity
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Introduction

Credit risk analysis and assessment functions for all business activities are completely centralized and are now a single point of reference for the entire bank.
Credit risk related activities are organized on lines of industry and are specialized on customer segments. Thus, it can be reacted quickly to any major change in the micro or macroeconomic framework of the bank or customers [Beju, D., 2005].
Since 2009, due to economic conditions, the Bank maintained a high frequency of customer review portfolio to identify in time problematic issues and to offer its customers financial expertise and solutions tailored to their needs. In improving the credit risk management was implemented an early standardized warning system for certain categories of loans for non-retail customers and loans for retail customers. The system monthly monitors the portfolio of customers identifying and explaining the warning signals. Based on these indicators, the customer portfolio is divided into different categories of risk and strategies for clients identified as problematic are proposed.

Presenting risk at Raiffeisen Bank

In 2004, the Raiffeisen Group has initiated the implementation of requirements imposed by Basel II Capital Agreement. This process resulted in Raiffeisen Bank Romania receiving the approval of the National Bank of Romania (BNR) to calculate the capital requirements for credit risk based on the internal rating models starting with the 1st of July 2009. The bank uses internal rating models for portfolios referring to "central governments and central banks"," institutions", "societies" and "equity". In order to ensure the calculation and reporting of capital requirements for credit risk, the Bank has implemented a centralized computerized system for collecting primary information at a local level, as well as two applications developed at group level, which provide monthly automatic calculation of weighted assets regarding risk for retail, as well as exposures of other categories defined by the regulations of the National Bank of Romania [www.raiffeisenbank.ro/annual report 2012].

It is very important to highlight that for the future: "The Basel III Agreement benefits overlap the implementing costs, because a stable banking system is the panacea of the durable development and, consequently, with long term benefits….regarding the new Basel III agreement it is important to evaluate and assess the adoption of it's framework by the national authorities, consequently the adoption and the implementation process, because of it's possible divergence across different jurisdictions" (Dumiter, 2013, pp. 109).

Regarding the retail portfolio, in 2011 the Bank met all regulatory requirements to apply for approval of the National Bank of Romania for the calculation of capital requirements for credit risk under the advanced approach based on internal ratings (AIRB).

Thus, in 2009 the Bank began developing statistical models for assessing and previewing the performance of clients/exposures, as well as for the appraisal of risk parameter relevant for calculating risk-weighted assets (PD – PD Probability of default, LGD - loss given default, CCF - conversion factor) for all retail sub-portfolios (loans portfolio for individuals and Micro SMEs clients). At the same time, the centralized system for collecting data regarding the retail portfolio expanded, which improves the analysis capacity of the Bank on this segment.

Starting with January the 1st 2010, Raiffeisen Bank calculates and reports the capital requirement for operational risk using the standard approach that was approved by the National Bank of Romania in November 2009.

The basis for this approval is the management framework for operational risk designated by the Bank through the definition and use of advanced tools such as operational risk incidents database, operational risk indicators, risk scenarios, risk assessment matrix – tools which are continuously improved.

Regarding market risk, the Bank currently uses the standardized approach for calculating capital requirements. Market risk management is carried out through a system of market risk limits that is applied to the Bank's exposures to interest rate risk, currency risk and other market risks subtypes. Careful and frequent monitoring of these limits ensures the maintenance of a cautious risk market profile for Raiffeisen Bank.

Liquidity risk is managed and monitored by the bank with the help of liquidity gap report (in order to identify and measure the mismatch between the maturities of assets and liabilities) and uses a scorecard for early warning which assesses the robustness of sheet structure balance (ratio between loans and deposit funding concentration, the ratio of liquid assets, etc). The Bank also performs stress exercises to determine the necessary liquidity reserve.

During 2010, the Bank implemented the requirements of Regulation No.18/2009 on the management of credit institutions business, the internal assessment of capital adequacy and conditions of outsourcing their activities. In this regard, the Bank now has an internal process that results in calculating the capital requirements using its own methodologies and ensuring capital adequacy from an internal perspective.

Financial risk management policies within the group

Raiffaisen Group is exposed to the following risks from its use of financial instruments:

- Credit risk
- Liquidity risk
- Market Risk
- Operational risk

Market risk includes currency risk, interest rate risk and price risk on equity instruments.

1. Risk management framework

Group Directorate is responsible for implementing and monitoring risk management framework. Management Committee of Assets and Liabilities (ALCO), Credit Committee, Risk Management Committee and Problematic Credit Committee are responsible for developing and monitoring the Group's risk management policies specified areas. All committees report regularly to the Executive Board.

Risk management framework is defined within risk strategy developed and reviewed on a yearly basis. Risk profile is also reviewed on a yearly basis and includes assessing all risks considered significant.

Group's risk management policies are established so as to identify and analyze the risks to which the Group is exposed, and also to set appropriate risk limits and controls, and to monitor risks and adherence to limits risk. Policies and risk management system are reviewed regularly to reflect changes in market conditions, products and services. The group aims to develop a disciplined and constructive control environment in which all employees understand their roles and obligations through training courses, standards and implemented leading procedures. The process of risk management is essential for the continuous profitability of the Bank and each individual within the Bank is responsible for the Bank's risk exposures relating to his or her responsibilities.

The Group Audit Committee reports to Supervisory Board and is responsible for monitoring compliance with risk management procedures. The Audit Committee is assisted in its duties by the Internal Audit department.

The Internal Audit performs both regular reviews and ad-hoc controls and risk management procedures, the results of which are reported to the Audit Committee.

Stress exercise testing is a common practice in the bank. Stress tests which have to be performed are either locally developed or are developed and made in the RBI

Group. The Bank implemented a stress testing manual that establishes the steps, concepts, methodologies and periods of stress testing process. All stress tests are reviewed, analyzed and reported to local management.

2. Credit risk management within the Group

Credit risk is the risk that the Group will bear the loss caused by non-performance of its clients or counterparties. The Group manages and controls credit risk by setting limits on the size of risk that is acceptable for individual counterparties and for geographical and industry concentrations, and by monitoring these limits.

The Group is exposed to credit risk through lending, trading and investment, but also when it acts as intermediary on behalf of clients or third parties, in situations in which the group runs funding activities of financial leasing operations or in the situation when it acts as the issuer of the warranty.

Credit risk related to trade and investment is managed through the process of credit risk management of the Group. The risk is reduced through selecting solid financial partners, by monitoring their activity, using exposure limits and, where necessary, by requiring warranties.

The group's main exposure to credit risk arises from granting loans to customers and from providing funding activities through financial leasing. In these cases, exposure is the carrying amount of assets in the consolidated statement of financial position. The Group is exposed to credit risk on various other financial assets, including derivatives and debt, the exposure to these instruments being equal to their carrying amount presented in the consolidated statement of financial position. In addition to the above, the Group is exposed to credit risk off balance sheet, within funding commitments and issuing guarantees.

To minimize risk, the Group has certain procedures to assess clients before granting loans and financing leasing operations; thus, it monitors clients' ability to repay the money and interest during the lifetime of the loans and leases and to establish exposure limits. The Directorate has delegated responsibility for the management of credit risk to the Credit Committee.

A distinct division of Risk, reporting to Vice President of Risk is responsible for overseeing the Group's credit risks, including:

- Formulating credit policies, which aims to ensure the maintenance of a healthy loan portfolio by setting appropriate limits and define specific criteria for certain credit, customer, etc..
- Establish and implement procedures for: treatment and evaluation of warranties, periodic review of loans, classification and loan portfolio reporting, legal documentation about lending, monitoring and treatment of non-performing loans, ensuring compliance with regulatory bodies.
- Establishing the authorization structure for the approval and renewal of credit facilities: permit limits may be set at the individual level of risk analysts assigned or may be set by the Credit Committee or approval body designated at Group level. Authorization limits are stipulated in the operation regulation of

the Credit Committee and are established according to criteria such as loan amount, compliance with credit policy, etc..

- Evaluation and review of credit risk is in compliance with the authorizing limits established in the operation regulation of the Credit Committee and regulatory requirements.
- Limit exposure on parties, geographic areas, industries and the issuer, credit rating category, market liquidity. Concentration risk is monitored in the course of portfolio management and is reviewed monthly with reports by the staff engaged in the lending and management.
- Development and maintenance of customer classification systems based on the degree of risk. At the Group level wide uniform grading systems are used depending on the degree of customer risk. These systems include both assigning rating methodology, as well as methodologies based on the use of scoring. The group performs regularly review of customer classification systems. Risk level measured with the help of these systems underlies the amount of reserves required to cover the risk of default.
- Review and verification of compliance with the limits stipulated within credit policies and internal procedures.
- Periodic reports on the quality of loan portfolio are presented to the Appropriations Committee and appropriate measures to rectify are proposed.
- Provide information, advice and expertise for work points to promote the most appropriate group practice when it comes to the management of credit risk.

3. Exposure to credit risk at Raiffeisen Bank

Significant credit risk concentrations arise depending on the type of customer loans, advances and credit commitments given by the Group. Concentration of credit risk related to financial instruments is analyzed both at the portfolio level, as well as at the level of the customer segments who have similar economic characteristics and whose repayment capacity is similarly affected by changes in the economic environment.

The main concentration of credit risk arises from individual exposure, on customer segments regarding loans and advances granted by the Group, credit commitments and guarantees issued. Risk concentrations on economic sectors in 2012 compared to 2011 is as in Table 1.

4. Exposure to market risk at Raiffeisen Bank

The main tool used to measure and control market risk exposure for the trading portfolio is the value at risk (VaR). During 2012, the model used by the group is a confidence level of 99% and a holding period of one day. The Group uses VaR limits for total market risk and in particular for currency risk and interest rate risk for the trading and non-trading activities. The overall structure of VaR limits is reviewed and approved by the Committee for Active and Pasive.VaR is calculated daily for currency risk and for interest rate risk, and weekly for the activities outside trading portfolio (ewww.raiffeisenbank.ro / annual Report 2012).

Table 1. Risk concentrations on economic sectors

- thousands RON -

	31 December 2012	31 December 2011
Retail Customers, including:		
Flexi	2.541.046	2.618.632
Mortgage loan	2.299.404	1.942.125
Housing loan	1.944.507	1.974.337
Credit Card	1.455.979	1.357.273
Overdraft	1.418.574	1.340.812
Financing investments	413.422	421.091
Consumption	118.027	122.07
Others	243.032	127.343
Corporate customers, including:		
Agriculture	715.349	726.802
Electricity, oil, natural gas	993.685	836.136
Production	2.486.694	2.900.831
Constructions	2.107.255	2.293.289
Retail and wholesale	2.784.238	2.620.334
Services	2.007.102	2.405.951
Public sector	471.911	424.537
Securities	2.735.871	3.806.203
Loans to banks	1.888.364	1.814.698
Total	**26.624.460**	**27.723.451**

Sursa: www.raiffeisenbank.ro/annual report 2012

5. Managing interest rate risk within the Group

The main risk posed to non-trading activities is the risk of loss due to changes in future cash flows or the market value of financial instruments caused by fluctuations in interest rates.

Below is a summary of the VaR analysis of the trading portfolio for interest rate risk and currency risk on December 31, 2012 and 2011 respectively.

Table 2

- thousands RON –

	2012			2011		
	Currency Risk	Interest rate risk	**Total**	Currency Risk	Interest rate risk	**Total**
on 31 December	418	1.494	**1.912**	1.393	451	**1.844**
Medium Risk	414	784	**1.198**	651	897	**1.548**
Maximum Risk	1.999	2.761	**4.76**	1.937	2.217	**4.154**
Minimum Risk	52	102	**154**	64	419	**483**

Sursa: www.raiffeisenbank.ro/annual report 2012

The Group is exposed to interest rate risk as exposure to adverse fluctuations in market interest rates. Market interest rate risk is managed through modification of interest-bearing assets and liabilities in order to optimize net interest income.

Derived financial instruments used by the bank to reduce interest rate risk include swaps whose value changes according to changes in interest rates.

Swaps are commitments on OTC concluded between the bank and third parties in order to change the future cash flows on agreed amounts. Through swap commitments regarding the interest rate, the bank agrees to exchange with third parties at determined time intervals, the difference between fixed rate and floating rate interest.

The interest rates for local currency and major foreign currencies on December 31, 2012 and 2011 were as follows:

Table 3

Currency	Interest Rate	31 December 2012	31 December 2011
Leu (RON)	ROBOR 3 luni	6,05%	6,05%
Euro (EUR)	EURIBOR 3 luni	0,19%	1,36%
USA dolar (USD)	LIBOR 6 luni	0,51%	0,81%

Sursa: www.raiffeisenbank.ro/annual report 2012

6. Currency Risk

The Group is exposed to currency risk due to the foreign exchange transactions it carries. There is also a balance sheet risk that net monetary assets denominated in currencies will have a lower value in USD as a result of the cursor movements or foreign currency net monetary liabilities will have a higher value in USD as a result of the same movements.

Currency risk is classified as the so-called market risk, as determined by changes in the exchange rate, balance of deficit payments, shortages of international liquidity.

Monetary assets and liabilities denominated in foreign currency and Ron on 31 December 2012 are set out in Table 4.

Conclusions

The banking system is one of the most important links of the market economy based on free enterprise and competition. The establishment of a national economy is directly related to the stability of the domestic banking system. Therefore banks should reduce the risk of banking activities and processes that could generate losses.

In the Romanian transition context, the economy showed many cases where banks have disappeared from the market due to various factors, among which the most important one is the inadequate measures that were taken in the calculation of bank risk.

Therefore, to strengthen economic activity and to deliver superior economic-financial results banks must devote effort to:

• Updating of lending standards and risk management and their interpretation in legal terms;
• Provide permanent balance between loan resources and placements;
• Knowledge of the methodological norms for evaluating the goods which represent the credit guarantee;
• Reconsideration of all the bad files to find solutions for credit recovery;
• Regular training of personnel for the uniform application of work norms.

Table 4

- thousands RON -

Monetary assets	**RON**	**USD**	**EUR**	**Altele**	**Total**
Cash and availability at the Central Bank	1.967.989	17.378	2.330.146	14.787	4.330.300
Financial assets held for trading	474.449	144	26.972	-	501.565
Derivatives held for risk management	4.684	-	8.062	-	12.746
Credite şi avansuri acordate băncilor	229.357	11.769	489.969	52.013	783.108
Loans and advances to clients	7.751.765	432.755	5.151.121	1.768.428	15.104.069
Securities	1.996.212	964	738.695	-	2.735.871
Participating	32.399	-	-	-	32.399
Deferred tax	192	-	-	-	192
other assets	68.858	1.248	62.959	19.,130	152.195
Total monetary assets	**12.525.905**	**464.258**	**8.807.924**	**1.854.358**	**23.652.445**
Monetary liabilities					
Financial liabilities held for trading	74.837	143	3.286	-	78.266
Derivatives held for risk management	5.617	-	5.719	-	11.336
Deposits from banks	120.848	4.743	41.066	604	167.261
Deposits from customers	9.446.832	1.119.493	6.291.290	124.524	16.982.139
Loans from banks and other financial institutions	-	-	2.413.705	661.654	3.075.359
Subordinated Debt	-	-	221.674	-	221.674
Other liabilities	277,845	16.296	186.642	3.741	484.524
Total monetary assets	**9.925.979**	**1.140.675**	**9.163.382**	**790.523**	**21.020.559**
Net currency position	**2.599.926**	**-676.417**	**-355.458**	**1.063.835**	**2.631.886**

Sursa: www.raiffeisenbank.ro/annual report 2012

Regarding the objective of risk reduction within the banking, experience activities impose stringent implementation and generalization of effective ways of attenuation, but first, ways to prevent risk.

Avoidance and minimization of risk is achieved by making decisions and finding legal techniques as coherent as possible.

Minimizing risks incurred by the bank helps minimize losses by the bank and maximizing its profitability.

Control and risk assessment can be made in circumstances where there is high qualified experienced personnel in the field, but do not become an obstacle to credit traders, that is the contemporary economic engine.

The main risks associated with the Bank's activities are financial and operational, resulting from conducting banking activities both in Romania and with foreign correspondent banking. Financial risks to which the bank is exposed are market risk, credit risk and liquidity risk. Market risk includes currency risk and interest rate risk.

Risk management policies are established to identify and analyze the risks faced by the bank, to establish appropriate risk limits and controls and to monitor risks and adherence to these limits. They are an integral part of the Group's risk policies adopted by the Group of Raiffeisen International. Risk management policies and systems are reviewed regularly to reflect changes in relation to market products and services.

Credit risk source is not only lending; in addition to this we can mention derivative transactions, holdings in other counterparties, the issue of counter-guarantees or acceptance, confirmation letters.

In order to limit counterparty risk in the investment or correspondent relationships with other banks, the bank establishes and monitors compliance with the maximum exposure on each bank on money market and currency market in connection with these counterparties risk, but also with own funds bank.

Regarding liquidity risk, the Bank analyzes the structure of bank assets and liabilities based on the remaining period at the balance sheet date to the contractual maturity date. The Bank seeks to maintain a balance between the maturity of investments and attracted sources.

Figure 1 presents a summary chart of the VaR analysis belonging to the trading book for interest rate risk and currency risk on December 31, 2012 and 2011 respectively.

The Bank is exposed to currency risk due to foreign exchange transactions they carry, as shown. There is also a risk of the balance sheet, related to the fact that net monetary assets denominated in currencies will have a lower value expressed in EUR as a result of movements in foreign exchange rates or currencies; currency debt will have a higher value expressed in EUR as a result of the same movements.

Figure 2 presents the monetary assets and liabilities denominated in foreign currency Ron on 31 December 2012.

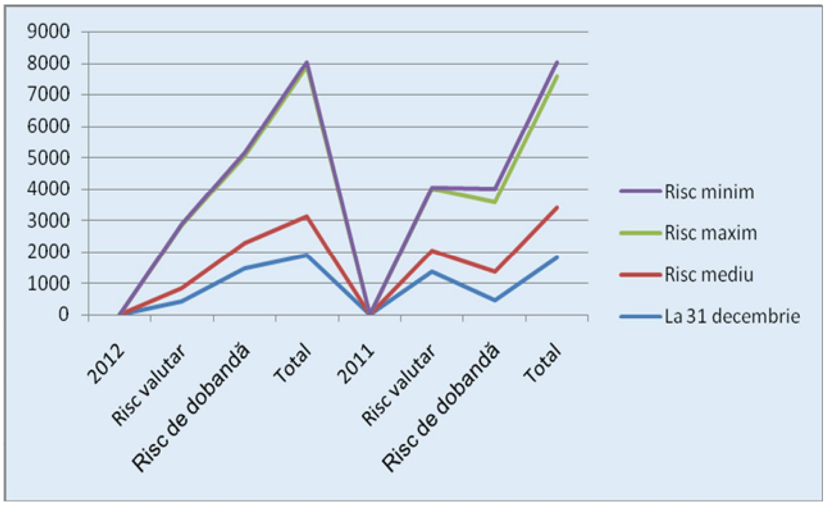

Figure 1. The trading book VaR for interest rate risk and currency risk on December 31, 2012 and 2011 respectively

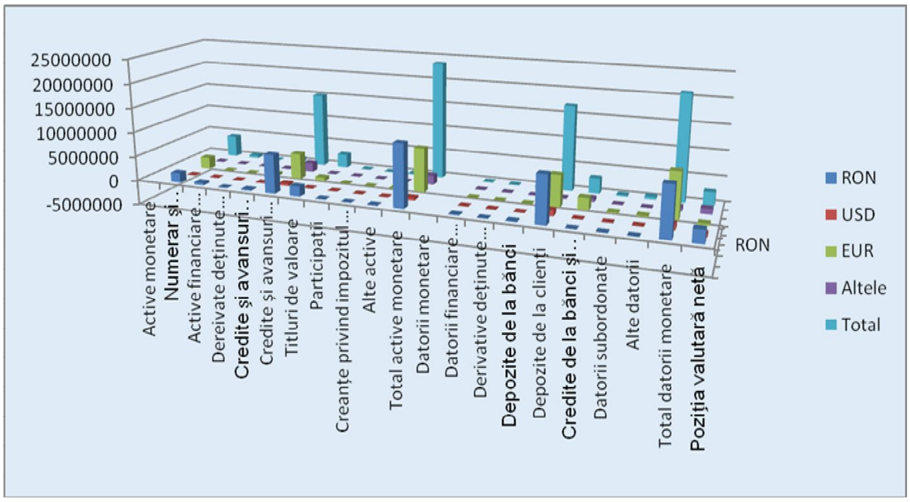

Figure 2. Monetary assets and liabilities denominated in RON and foreign currencies at December 31, 2012

Derivatives assure the bank with great possibilities for neutralizing financial risks. Equally, they are available for adopting speculative positions. In fact, sometimes the demarcation between hedging and speculation is very fragile, leading to a negative perception of the effectiveness of the instrument itself.

In times of crisis, risk management in the banking system has a greater importance than in peaceful economic times. The current crisis, characterized by a multitude of factors that triggered it and influence it is in consonance with the sophistication of banking and financial instruments that have emerged in recent years.

BIBLIOGRAPHY:

- Beju, D., 2005, Mecanisme monetare și instituții bancare, Editura Casa Cărții de Ştiinţă, Cluj-Napoca
- Beju, V., 2006, Resursele financiare publice. Evaziunea fiscală şi corupţia, Editura Casa Cărţii de Ştiinţă, Cluj-Napoca
- Beju, V., Cucoşel, C., 2010, , Fiscalitate, evaziune şi armonizare fiscală, Editura Universității de Nord, Baia Mare
- Cerna, S., 2000, Monedă şi teorie monetară, vol I şi II, Editura Mirton, Timişoara
- Dedu, V., 1997, Management bancar, Editura Mondan, București.
- Dumiter, F. 2013, Basel III Agreement – between necessity and convenience, Studia Universitatis "Vasile Goldiş" Arad – Economics Series, Vol. 23, Issue 1/2013, pp. 108 – 166.
- Iliescu, C., 2003, Managementul riscului, Editura Dacia, Cluj-Napoca
- Pop, V., Berlingher, V., Pop, D., 2009, Bănci și burse, Editura Universității de Nord Baia Mare
- Basno, C. şi colaboratorii, 2001, Monedă, credit și bănci, Editura Didactică și pedagogică, București
- Roșca, T., 2001, Monedă și credit, Editura Altip, Alba Iulia
- Saunders, A., 2002, Financial institutions management, 3rd edition, McGraw-Hill, Boston
- Trenca, I., 2003, Metode şi tehnici bancare, Editura Casa Cărţii de Ştiinţă, Cluj-Napoca
- www.raiffeisenbank.ro/scurt istoric
- www.raiffeisenbank.ro/ raport audit 2012