THE STANDARD PROCEDURE FOR MEASURING THE CREDIT RISK ACCORDING TO BASEL II AGREEMENT. THE CASE OF ROMANIAN BANKS

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ABSTRACT:
A study made public by The Romanian National Bank in February 2006 that shows that, in the implementation of The Basel Agreement for the entire portfolio, 88% of the banks chose the standard approach, 6% the IRB method-standard approach and 6% haven’t decided yet. We notice that most of the banks chose the standard approach.There are five factors which are influencing directly the bank’s crediting activity, and, in the same time, the administration and management of the crediting risk:

1. banks’ policies and practices in credit’s area;
2. crediting risk management;
3. credit’s exposures;
4. credit’s quality;
5. earning

This study will contain: 1. the implementation of the external credit evaluation; 2.the ways of reducing the negative effects of credit risk by using the standard approach; 3.the techniques of reducing the negative effects of credit risk in a standard approach.

KEYWORDS: risk de credit, risks weights, Basel II, banking system, external credit evaluation

1. Introduction: PRESENT SITUATION OF THE ROMANIAN BANKING SYSTEM

Main analyze indicators of the Romanian Banking System [1]

Table nr. 1 *percentage -*

INDICATOR	1999*	2000	2001	2002	2003	2004	2005
Solvency report	17,9	23,8	28,8	25	21,2	20,6	21,1
Resting and doubtful credits / Total portfolio (net value)	...	0,6	0,7	0,4	0,3	0,3	0,3
Total resting and doubtful credits / Total assets (net value)	2,4	0,3	0,3	0,2	0,2	0,2	0,2
Total resting and doubtful credits (net value) / Self capital	31,2	3,3	2,7	2,0	2,0	2,1	1,4
Credit risk rate (Unadjusted exposure for the credits and interest rates classified as doubtful and loss / Total credits and interest rates classified, excluding the outside balance sheet elements)	35,4	3,8	2,5	1,1	3,4	2,9	2,6
General risk rate	40,7	38,7	39,7	42,9	50,7	47,0	47,6

** Year 1999 represents the beginning of the banking consolidating process followed by a period of stability of its performances.*

The main quantification indicator of the credit risk, respectively the weighted of unadjusted exposure of the credits and interest rates related to the “doubtful” and “lost” categories in the total of the portfolio, continued to decrease – from 2,85 percents in the precedent year to 2,6 percents in 2005, the lowest level from the last decade. These progresses have lead to consolidating the banking system, with an increased capacity of administrating the risks. During the 2005 have been initiated two new projects regarding the banking prudence. So, for implementing at the national level of the newest capital requirements according to the Basel II Agreement, BNR has began a project that is focused on readjusting the legislative framework applicable to the credit institutions. The new project law, which will settle the entire credit institutions’ regime, will contain general settlements regarding communitarian harmonized requests, as well as settlements regarding different credit institutions categories (banks, credit cooperative organizations, saves banks for locative area, electronic currency generating institutions and others).

Slowing the increasing rhythm of the credit activity has produced, considering the prudence policy imposed by the Central Bank through the norms of limiting the consumption credit risk norms (15/2003 BNR Norm) and apothecary (16/2003 BNR Norm). In the effort of re-equilibrating the nongovernmental credit structure, BNR took others measures that were focused on limiting the credit risk for the physical persons (10/2005 BNR Norm), as well the limiting the exposure level for the foreign currency credits (11/2005 BNR Norm). The result of these measures follows to appear for the next period because the foreign currency credit has maintained its dominancy (its weight in the total volume of the nongovernmental credit has been reduced from 60,8 percents in 2004 to 54 percents in 2005). The end of 2005 kept the same characteristic of the precedent year regarding the evolution of the nongovernmental credit: decisive role in expanding the credit activity was attributed to the population credit without structural it had the major position. With a weight of 28,4 percents in the total of credits in December 2004 it increased to 35,2 percents at the end of 2005, this segment contributed with proximally 50,2 percents in increasing the nongovernmental credit, on the background of a more accelerated dynamic (+80,0 percents in nominal terms; +65,7 percents in real terms) than the one recorded by the credit given to the juridical persons (+31,5 percents in nominal terms; +21,1 percents in real terms).

From the analyze of the situation regarding the credits and interest rates' classification at the end of 2005 it resulted the diminution tendency of the value for the main credit risk quantification indicators, the weight of unadjusted exposure of the credits and interest rates classified in "doubtful and loss" categories in the total amount of credit and interest rates (2,6 percents) situated under the level of anterior year (2,9 percents). By adding up the elements outside of the balance sheet, respectively the inter-banking placements, this indicator has maintain low than the 2004 year (first at 2,5 percents compared to 2,9 percents, and the second one to 2,4 percents compared to 2,7 percents). Slight accelerated evolution of the self funds (+49,0 percents) compared to the risk weighted assets (+45,9 percents) have influenced the value of solvability indicator, which at the end of 2005 recorded a level bigger than the legal limit (12 percents), respectively 21,1 percents. Regarding the general risk rate expresses the report between risk weighted assets and the total assets at the accounting value, being situated for the entire year 2005 around the 47 percents value.

2. Body of Paper:

Capital Standards – a Revised Framework was finalized by the Basel Committee in 2003, signed in 2004 and is going to be implemented by the EU countries as of December 2006. *As future member state of EU from the 1st of January 2007, Romanian will have to apply the provisions of the Basel Agreement II* **[2].** The agreement itself is not compulsory for the member countries of the Basel Committee and neither for other states. In Europe, in the virtue of agreements called gentlemen agreements, the agreement provisions are taken by European Directives that must be implemented into the national legislation of member states. The Basel II requirements will be received by EU countries through a *European Directive* known as CAD III Capital Adequacy Directive, which is about to be approved by the European Parliament by the end of 2005. CAD III takes the Consolidated Banking Directive 2000/12/EEC and the Capital Adequacy Directive of the Investment Companies and Credit Institution 93/6/EEC, reconfigured.

The key-element of this theme is the credit risk; it is the main type of credit studied by The New Agreement Basel II (almost 50% of the Agreement is about credit risk).This concept, credit risk, can also be found in the Romanian banking system, being stipulated in the Romanian banking laws from the beginning of 2004 (art.3 from The Norm 17/2003 of the Romanian National Bank) and it is defined as being the risk that registers the losses and the risk of the unaccomplished anticipated interests, as a result of the fact that the borrower did not respect the contract **[3].** The Norm 5/24.06.2004 of the Romanian National Bank concerning the adequacy of the capital of the credit institutions regulates the capital adequacy for these institutions, on an individual and a consolidated basis, representing - for the institutions mentioned above- the implementation of the Directive 93/6/EEC concerning the adequacy of the capital for investment and credit institutions, as it was modified by the Directives 98/31/EC and 98/33/EC. According to the Regulation no.4/07.04.2004 concerning the organization and functioning of a Banking Risks Central in the Romanian National Bank (The Official Monitor no.739/16.08.2004), the Banking Risks Central organizes and administrates a data basis which includes: 1. The credit central register (RCC), which contains information about banking risks, in order to capitalize the information in the climate of keeping the banking secret. The credit central register could be very effective concerning the data about: the reviewed persons' identity and other special situations; the individual risks and their features; global risks and their characteristics. 2. The default credit register (RCR), which contains data about banking risks concerning the reviewed persons and their debts to the entire banking system in Romania; it also includes information about people who do not respect the limit of reporting and defaulted their obligations for more than 30 days. 3. The borrowers groups register (RGD); 4. The card frauds register.

Agreement Basel II that introduces the compulsoriness of calculating the minimum capital of banks. Depending on operational risk, it is made up of three pillars that support one another: **Pillar 1** regulates the minimum capital requirements necessary for covering specific risks of banking: credit risk, market risk and operational risk; **Pillar 2** is represented by the process of prudential supervision, which imposes the national supervision authorities to make sure that banks dispose of healthy internal procedure to evaluate their own risks; **Pillar 3** intends to consolidate market discipline by increasing the financial transparency of banks.

The Agreement allows the banks to choose between two major calculating methodologies of the capital requirements in the case of credit risk. **First methodology is:** possibility of measuring the credit risk in a standard manner (standard approach) sustained by an external evaluation of the credit. **The second methodology** uses internal evaluation systems of the banks' credit risks (internal methods based approach).

1. IMPLEMENTING THE CREDIT'S EXTERNAL EVALUATION SYSTEM IN ROMANIA

A credit external evaluation can be used for determining the risk weight correspondent to one exposure, only if the credit external evaluation institution is recognized as eligible, for realizing by the competent authorities of another member state, Romanian National Bank will be able to recognize that institution as eligible, without realizing its self evaluation.

Measures for implementing the Basel II by the Romanian national Bank **[4]:**

1) Legal framework:

• Taking and transposing in the Romanian legislation of the European Directives:

2) Institutional framework

a) Central Bank
- staff specialization.
- developing data bases regarding the credits.
- self-evaluation of the supervising capacity (Pillar 2).
- evaluation the impact of the macroeconomics evolutions upon the financial stability.

b) Credit institutions
- including the new requirements in the internal strategies and policies.
- developing the corporative governance practices.
- reconfiguring the objectives in the banking products and client area.

3) Relation framework

• Cooperation between BNR, MFP, CNVM, CAFR, ARB

4) Cooperating agreements with the supervising authorities from the credit institutions' origin countries that have fillies in Romania.

5) Straightening the cooperation at the regional level regarded the experience in implementing the Basel II

6) Developing rating national agencies

Standard Approach of the credit risk **[5]:**

It is the element of connection with Basel I it keeps the methodology of establishing the requirements concerning their personal funds by using risk credit coefficients and instruments for decreasing the credit risk.

New elements brought by Basel II: **1. The enlargement of credit risk ponderosa** from 4 to 8(0%,10%, 20%, 35%, 50%, 75%, 100% and 150%); **2. The diversification of the instruments necessary for diminishing the credit risk** (recognizing the fact that the adequate securities offered by the local and regional authorities or by public entities or by other entities with an elevated rating diminish the credit risks, the use of derivative instruments, such as: the credit default swap, the total return swap, the credit linked notes; **3. The use of ratings for clients' assessment** (e.g.: for central authorities, corporations, credit institutions, etc.) established by independent rating agencies.

According to the Basel II Agreement, the national supervisors are responsible in determining if a credit external evaluation institution (external credit assessment institution-ECAI) covers all the eligible criteria presented below. National supervisors are responsible for determining whether an external credit assessment institution (ECAI) meets the eligibility criteria that we shall present below. The assessments of ECAIs may be recognized on a limited basis, e.g. by type of claims or by jurisdiction. The supervisory process for recognizing ECAIs should be made public to avoid unnecessary barriers to entry. *Eligibility criteria:* An ECAI must satisfy each of the following six criteria:

1. OBJECTIVITY: The methodology for assigning credit assessments must be rigorous, systematic, and subject to some form of validation based on historical experience. Moreover, assessments must be subject to ongoing review and responsive to changes in financial condition.

2. INDEPENDENCE: An ECAI should be independent and should not be subject to political or economic pressures that may influence the rating. The assessment process should be as free as possible from any constraints that could arise in

situations where the composition of the board of directors of the assessment institution may be seen as creating a conflict of interest.

3. TRANSPARENCY: The individual assessments should be available to both domestic and foreign institutions with legitimate interests. In addition, the general methodology used by the ECAI should be publicly available.

4. DISCLOSURE: An ECAI should disclose the following information: its assessment methodologies, including the definition of default, the time horizon, and the meaning of each rating.

5. *RESOURCES*: An ECAI should have sufficient resources to carry out high quality credit assessments.

6. CREDIBILITY: To some extent, credibility is derived from the criteria above. In addition, the reliance on an ECAI's external credit assessments by independent parties (investors, insurers, trading partners) is evidence of the credibility of the assessments of an ECAI. The credibility of an ECAI is also underpinned by the existence of internal procedures to prevent the misuse of confidential information. In order to be eligible for recognition, an ECAI does not have to assess firms in more than one country.

2. WAYS OF REDUCING THE NEGATIVE EFFECTS OF THE CREDIT RISK THRUOGH STANDARD APPROACH

During the year 2006, the Romanian National bank elaborated a series of regulations projects that are preparing the Romanian banking system from the legislative viewpoint for applying the settlements of the Basel II. So it have been elaborated a series of regulations, such as: Regulation regarding the determination of the minimum capital requirements for the credit risk according to the standard approach; Regulation regarding the determination of the minimum capital requirements; Regulation regarding the determination of the capital requirements for the credit risk according to the approaches based on internal rating methods; Norms regarding credit risk diminution techniques. All these regulations are presently debated in public and than they follow to be defined, approved and adopted.

According to the Regulation proposal regarding the determination of capital minimum requirements according to the standard approach, each asset or outside balance sheet element will be framed in one of the following exposure classes:

a) exposures towards the central administrations or central banks;
b) exposures towards the regional administrations or local public administration;
c) exposures towards the administrative organisms and non-working entities;
d) exposures towards banks with multilateral development;
e) exposures towards international organisms;
f) exposures towards institutions;
g) exposures towards commercial companies;
h) retail exposures;
i) exposures guaranteed with real estates;
j) resting elements;
k) elements belonging to the a high risk settlement categories;
l) exposures like guaranteed bonds;
m) safe positions;
n) short term exposures towards institutions and commercial companies;
o) exposures such as units obtained from the collective placements organisms in titles;

For being framed in retail exposures, one exposure must accomplish the following conditions:
a) exposure has to be for one or more physical persons or towards small or medium entities;
b) exposure has to be a piece from a portfolio built from a significant exposures with similar characteristics, so that associated risks for these exposures to be substantially reduce;
c) total amount due by a debtor or a related clients group built from credit institutions, mother companies and credit institutions' filial, amount containing the exposures for the late debts, but excluding residential real estates guaranteed exposures, must not surpass the equivalent of 1 million EUR, according to the credit institution's information. The credit institution must make all efforts for obtaining this information.

RISKS WEIGHTS [6]:

a) Exposures towards the central administrations or central banks

Exposures towards the central administrations and central banks, for which the credit institution dispose by a credit evaluation realized by a credit external evaluation institution nominee, is attributed with a risk weight according to the credit quality scale on which is framing according to the determination realized by the Romanian National Bank.

Table nr. 2

Credit quality scale	1	2	3	4	5	6
Risk weight (%)	0	20	50	100	100	150

Exposures towards the European Central Bank are applied a 0% risk weight.

b) Exposures towards the regional administrations or local public administration

Exposures towards the regional administrations and local authorities are attributed the corresponding risk weight, according to the table nr.3, credit quality scale level that corresponds to the external evaluation of the central administration in which jurisdiction is the regional administration or local authority.

Table nr.3

Credit quality scale level that corresponds to the external evaluation of the central administration in which jurisdiction is the regional administration or local authority	1	2	3	4	5	6
Risk weight (%)	20	50	100	100	100	150

Exposures towards the regional administrations and local public authorities which are in the jurisdiction of a central administration for which there are not available external evaluation of the credit will receive a risk weight of 100%.

c) Exposures towards the administrative organisms and non-working entities

Exposures towards the administrative organisms and non-working entities are applied the risk weight of 100%.

d) Exposures towards banks with multilateral development

The following institutions are considered multilateral developing banks: International Investments Society, Developing and Commerce Bank in the Black Sea Region and the American Central Bank for Economic Integration.

For the exposures towards the following banks are applied the risk weight 0%:

1. Reconstruction and Developing International Bank;
2. International Financial Society;
3. Inter-American Developing Bank;
4. Asian Developing Bank;
5. African Developing Bank;
6. European Council's Developing Bank;
7. Northern Investments Bank;
8. Caribbean Developing Bank;
9. Reconstruction and Development European Bank;
10. Investments European Bank;
11. Investments European Fund;
12. Investments' Multilateral Guaranteeing Agency.

e) Exposures towards international organisms

Exposures towards the European Community, International Monetary Fund and International Settlements Bank are applied the risk weight 0%.

f) Exposures towards institutions

Exposures towards the institutions, with a payment term longer than three months, for which there is available a credit analyze realized by a credit external evaluation institution nominated, they are attributed with the corresponding risk weight, according the table nr.4, the quality level associated to the external evaluation of the credit quality.

Table nr. 4

Credit quality scale's level	1	2	3	4	5	6
Risk weight (%)	20	50	50	100	100	150

Exposures towards institutions (with the initial payment term longer than three months), for which there is not available a credit external evaluation, are applied the risk weight of 50%.

Exposures towards institutions, with a payment term of or smaller than three months, for which there is available a credit evaluation performed by a credit external evaluation institution nominated, according to the table nr.5, the credit quality level associated to the external evaluation of the credit quality.

Table nr. 5

Credit quality scale level	1	2	3	4	5	6
Risk weight (%)	20	20	20	50	50	150

For the exposures with an initial payment term of or smaller than three months, recorded towards the institutions for which there is not available a credit external evaluation, and they are applied the risk weight of 20%.

g) Exposures towards commercial companies

Exposures towards commercial companies for which there is available a credit evaluation realized by a credit external evaluation institution nominated, they are applied the corresponding risk weight, according to the table nr.6, the quality level associated to the credit quality's external evaluation.

Table nr. 6

Credit quality scale level	1	2	3	4	5	6

Risk weight (%)	20	50	100	100	150	150

Exposures towards commercial companies for which there is not available a credit external evaluation realized by a credit external evaluation institution nominated, is applied maximum of the risk weight of 100% and the weight risk corresponding to the state central administration in which the commercial company has its social location.

h) Retail exposures

- Are applied the 75% weight risk.

i) Exposures guaranteed with real estates

For the exposures entirely guaranteed with real estates are applied the 100% risk weight.

j) Resting elements

For the non-guaranteed piece of each resting element for more than 90 days it will be applied a weight risk of:

1) 150%, if the value adjustments represent less than 20% from the non-guaranteed gross exposure;
2) 100%, if the value adjustments represent at least 20% from the non-guaranteed gross exposure.

In the aim of guaranteeing the resting exposure, the eligible real and personal guarantees are the ones considered for the purpose of applying the credit risk diminution techniques.

3. NEGATIVE EFFECTS DIMINUTION TECHNIQUES THROUGH THE STANDARD APPROACH

Through the risk diminution technique we understand: technique used by a credit institution through reducing the credit risk for one or more exposures that the institution holds (*continues to hold*)

Techniques used in the purpose of credit protection, together with the measures and done actions in this sense as well as the implemented procedures and policies by the lending credit institution so that it will be concretized in signing the credit protection contracts available from the legal viewpoint and the executors in all relevant jurisdiction.

The following financial instruments can be recognized as viable real guarantee for calculating capital requirement for the credit risk, as well as for the standard approach, as for the rating internal methods approach, for all methods applied by the lending credit institution for the treatment of the credit risk diminution techniques.

(a) Cash in the deposit shape, as well as for the instruments assimilated to the cash kept by the lending credit institution;
(b) Value titles emitted by the central administrations or central banks, titles that have a credit evaluation from a credit external evaluation institution or from an export crediting agency;
(c) Value titles emitted by institution, titles that have a credit evaluation from a credit external evaluation institution recognized as eligible;
(d) Value titles emitted by other entities, titles that have a credit evaluation from a credit external evaluation institution recognized as eligible;
(e) Value titles that have a short term credit evaluation from a credit external evaluation institution recognized as eligible;
(f) Capital titles / Shares and convertible bonds included in a main stock market indicator;
(g) Gold.

Residential real estate that is or will be inhabited by owner or given with rent by the owner for being inhabited, as well as commercial real estate, like bureaus and other commercial spaces, can be recognized as being eligible real estate guarantees if there are accomplished the following conditions:

(a) Real estate value does not depend significant on the credit quality associated to the debtors. This requirement does not regard the situations in which the exclusively factors on macroeconomic nature affect as well as the real estate value as the lender performance.
(b) Lender's risk does not depend significant on the real estate performances or project support, but it depends mainly on its own capacity of reimbursing the debt from other sources. So, reimbursing due fees does not depend significantly on the cash flows generated by the guaranteed real estate.

4. CONCLUSION:

About banking we can say that is nothing else but exact risks administration sciences. Basel II Agreement underlines strongly this reality. The Basel Committee realized different paper works regarding these themes especially regarding the credit risk, including credit modeling and management. Supervising authorities of the banks are promoting credit risk evaluation and measurement policies because they have an interest in prudential approach of the credits and in the banks' action way. Experience showed that the main cause for bankruptcy is the low quality of the credits and miss evaluation of the credit risk **[7].** If can not be discovered in time the credit quality's deterioration the issue can be aggravated and delayed.

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