THE TIPOLOGY OF INFORMATION NECESSARY FOR THE BANKS AND THE FACTORS THAT INFLUENCE CREDIT RISK

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Abstract: *We shall present: Credit risk disclosure for all banks: 1. Qualitative Disclosures and 2. Quantitative Disclosures***.** *In parallel with these factors, we shall present the main factors that influence a company: internal factors (management, strategy, accountancy and financial situation) and external factors (macroeconomics, laws, politics and political tendencies, culture and socio-culture tendencies, technological development, industry and industrial tendencies, the evolutions on the labor-market, the evolutions on the real market, the dependency and geographical position towards the supply sources and retail-market and towards the means of transport). Because The Basel Agreement II permits the banks to decide the minimum capital requirements for credit risk, by using one of the standard approaches or an IRB approach, we are interested to study what one of these methods means for a banking society and how much the interdependence is, by using a minimum capital required.*

Key words: credit risk; crediting risk management; Basel II Agreement

Developing financial markets, facilitated by the explosion of the derived products and information technology developing, has determined three important tendencies:

1. increasing the exposure to the market and intermediary risk;
2. continuing the classic administration of the active and passive and preventing the appearance of new risk situations;
3. modeling the credit, market and operational risk by using statistic and mathematic instruments.

Modern administration of the banking risk is referring to the following steps:

- risks' identification;
- risks' quantification;
- elaborating some adequacy administrating policies and preventing the risks;
- controlling the activity of supervising the risks;
- measuring the obtained performances as a consequence of the risks exposure.

For the biggest part of the universal banks, the credit remains the main active operation. Banks' losses generated by the debtors' bankruptcy are a part of the crediting activity of the banks. That is why; the provisions' volume built by a bank for its credits portfolios represents a measure of the assumed risk.

According to the Explanatory Dictionary of the Romanian Language, through the risk concept we understand the danger, the possible inconvenience, and the probability of accomplishing an event with undesired consequences for the subject.

Risk's existence generates an exposure to the risk, which is given by the present value of all losses or supplementary expenses that is possible to be undertaken in the future by a certain subject, especially the bank.

Through risk in crediting activity we understand the possibility of realizing in the future of some events in clients' activity with negative effects regarding the coverage of the credits reimbursement, the interest rate payments and others.

Credit's analyze represents the crediting risk's evaluation process. Crediting risk must be appreciated depending on what the bank is expecting to accomplish as a result of the crediting activity. The crediting process is potential earnings' generator; they can be grouped in two categories: direct and indirect earnings. Direct earnings are immediate and often measurable. The most important are the interest rate and the commission charged by the bank. Theses are completed by minimum crediting balance of the client's account, balance that represents the credit's guarantee. The indirect earnings are harder in quantifying and unsecured. Approval of a credit is a process that can generate the initiate or maintenance of a relation, an increase of the deposits, as well as an increase of the demand for other banking services. These earnings have to be considered when the risk's exposure is analyzed and, eventually, accepted. Credits analyze is a process that have to be periodically developed: before the credit's approving for substantiated the crediting decision and then, depending on the credit's expiring date, at certain moments in time, usually when the client's financial reports are available.

The credit processes analyze has two dimensions: one quantitative dimension and another one qualitative. Quantitative dimension of the credit's analyze has at the basis a series of specific activities of collecting, processing and interpretation of the information referring to the client, to which the bank has access. Theses are: financial data analyze, prediction of the future evolution of the clients' activities, evaluating the reimbursing capacity through analyzing and forecasting the future flows of incomes and expenses, evaluating the debtor's capacity of resisting to the financial shocks. These activities' results are easy to quantify and can contribute to the substantiating of one objective decision regarding the bank's exposure to the risk, which results through the analyzed credit's assumption. Quantitative analyze supposes the sum and updating of all information referring to the debtor's financial responsibility, determining the real goal of credit's contracting, identifying the risks that can appear for the debtors and estimating the punctuality and implication of the debtor in respecting the engagements assumed to the bank. The determined elements of administrating the individual credit risk are: paying capacity, (real or personal) guarantee, environment conditions. Among these five factors the first one is the most important.

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.

1. Banks' policies and practices in credit's area must consider the following:

   a) scurrying transactions treatment and other activities that are changing or relocating the credit's risk;
   b) credit's exposures types that are evaluated individual;
   c) self-correcting mechanisms that are used for reducing the differences between the estimated losses and real losses;
   d) existence and effects of the credit concentrations and changes in concentration level, changes in the operating medium of the future debtors;
   e) the way in which is comparing the allocation level with the historical net experience of the losses.

2. Credit's risk management is referring to:

   a) used methods for limiting or controlling the general exposure of the credit, including:
      - credit's limits;
      - credit concentration's limits (depending on the activity sector);
      - supervising these limits.

b) processes and methods used for appreciating the credit's exposures and of the entire portfolio, including a description of the intern system of classifying the credit's evaluation;
c) used mechanisms for reducing the credit's exposures;
d) safety activities.

Each bank must establish a strategy of measuring the credits' portfolio risk in the manner in which is establishing the credit's scoring model.

3. Risks' exposures:

A bank has to research and evaluate in a correct manner the total exposures of a credit, including the exposures appeared in the credit's management, of the liquidities and resources, as well as the activities outside of the balance-sheet. It must be researched in this sense the type of approved credits, informing the concentration (significant concentrations of the credit's risk), as well as the diminishing techniques of the credit's risk.

4. Credit's quality

Experience shows that, a low quality of the credit doubled by the wick management practices continues to be a major factor in the banks' bankruptcy and banking crisis. Information regarding the profiles of a bank of the crediting risk, including the quality of the credit's exposures and the matching of the management processes of the crediting risk are crucial in appreciating the stage, evolution and survival capacity of one bank. Such information are important in a quantifying the general safety and sanity in the banking system.

5. Earnings

For appreciating correctly the financial evolution of one bank and especially what is wining considering the exposures of the crediting risk, any bank must realize an overall analyze regarding the earnings. This analyze has to include:

1. information regarding the incomes and expenses classified on their nature in a bank framework;
2. incomes and expenses' structure depending on the contracted credit type and the credit's quality;
3. information regarding the impact of the non-performing credits upon the credit's quality.

Banks have acknowledge the need for identifying, measuring, supervising and controlling the credit's risk as well as determining the fact that they are tide to the adequacy capital against these risks.

In our opinion, the credit's risk management is governed by four big principles:

1. establishing an adequate medium of the credit's risk;
2. operating by a health process of approving the credit;
3. maintaining an adequate credit's management, of the measuring and supervising process;
4. assuring some adequate controls upon the credit's risk.

Some practices of credit's risk management are different form a bank to another depending on the nature and complexity of credit activities.

1. Establishing an adequate medium of the credit's risk

Banks' management should have periodical revisions (al least annually) regarding the credits risk strategy and upon the significant policies of the credit's risk. Each bank should develop a strategy or a credit's risk plan which is establishing the objectives that are guiding the activities of crediting and adopts the needed procedures for leading such activities. As well, the bank's management has to consider that the strategy and policies have to cover the multiple activities of the bank in which the exposure of the credit has a significant risk. The risk's strategy has to consider the credit quality's goals, earnings and increasing. Each bank, non considering its dimensions, is involved in business for becoming profitable and it must determine the report acceptable risk / reward for its activities, as an element in the capital cost. The bank's management has to find the most adequate strategy in selecting and isolating the risks and maximizing the profits. It should periodically inspect the financial results of the filial and agencies, and based on these results to establish if they must bring changes to the strategy. Each bank credit risk strategy should offer continuity in method. That is why the strategy should consider the cycle aspects of each economy and the changes resulted from the composition and quality of the total portfolio of the credit. Even if the strategy should be fixed and improved periodically, it should by long term viable even if it will pass through numerous economic cycles.

Banks' policies should be created and accomplished in the framework of internal and external factors, such as: bank's market place, staff's abilities and technology. Policies and procedures, which are adequately developed and accomplished, allow the bank to:

- maintain the credit contract's standards;
- supervise and control of the credit's risk;
- correctly evaluate the new business' opportunities;
- identifying and administrating the problem credit.

Banks should develop and accomplish procedures and policies for making sure that the credit's portfolio is adequately diversified, considering the target markets of the bank and the credit's general strategy. Banks should operate after healthy and well defined criteria. These criteria should include a clear indication of the bank's target market and a complete understanding of the debtors as well as the goal of the credit's structure and its source of reimbursement.

2. Operating by a health process of approving the credit

Banks should receive the sufficient information to allow fixing the real profile of the debtor's risk. Depending on the type of the credit's exposure and the credit's relation nature at that time, we have to consider and record the following factors:

- credit's goal and reimbursement sources;
- current risk's profile of the future debtor;
- the reimbursements' history of the debtor and the present capacity of reimbursing the credit considering the financial tendencies and the future liquidities' projections, considering the different scenarios;
- for the commercial credits, specialty of the one which is borrowing in business and the economic sector's status where this one is operating, as well as this one's position in that sector;
- proposed terms and conditions of the credit's, including the created inconveniences for limiting the changes made in the future risk's profile of the debtor.

Banks should understand to whom they are giving the credit. That is why before contracting a new credit, a bank should get familiarly to the borrower and to be convinced that is discussing with a debtor with a healthy financial reputation and which deserves the credit. There are strict policies for avoiding the association with individuals or companies involved in fraud activities and other infractions. This can be obtained through a large number of ways, including the references' solicitations from the well-known parts and the familiarization with the responsible individuals, with the company's management and references verifying and the financial situation. Although, a bank shouldn't give a credit only for the fact that the debtor is familiarly to the bank or is received as a debtor with a good reputation.

3. Maintaining an adequate credit's management, of the measuring and supervising process

Credit's administrating is a critical element in maintaining the bank's safety and heath.

Banks are encouraged to develop and use an internal system of risk evaluation in credit's risk management. The evaluating system should be consequent with the nature, dimension and complexity of the bank's activities. Internal evaluations of the risk are an important instrument in supervising and controlling the credit's risk.

For facilitating the early identification of the changes in the risks' profiles, the internal system of the bank for evaluating the risk should be sensitive at the present or potential deteriorating indicators of the credit's risk. The problem credits must be supplementary supervised, for example, through frequent visits of the credit's inspectors and including these companies in a list of supervising which is regulated supervised by the local management of the bank.

Basel Committee has accomplished different works on the issues that are regarding the credit's risk, including the modeling and credit's risk management. Supervising authorities of the banks are promoting the risk evaluating and measuring policies because they have an important interest in prudential approval of the credits and in the banks' acting ways. Experience has shown the following fact: the main cause in banks' bankruptcy is low quality of the credits and the wrong evaluation of the credit's risk. If it is not discovered in useful time the damaging of the credit's quality, the issue can be aggravated and lengthened.

Basel Committee, from the International Bank of Settlements' framework, with the centre at Basel, Switzerland has elaborated the Basel I in 1998 and Basel II in 2004 Agreements, which are imposing standards for risk's measurement by the banks and for capital allocation for covering these risks.

According to the 4/07.04.2004 Settlement regarding the organization and functioning of the Romanian National Bank of the Banking Risks Central (Official Monitory nr. 739/16.08.2004), the banking Risks Central organises and administrates a database which is including: 1. Central Credits Register (CLR), which contains banking risk information regarding the valorization by the users of banking confidentiality. Central Credits Register can point out in operative manner information regarding: identifying the resented persons and pointing out the special situations; individual risks and their characteristics; global risks and their characteristics. 2. Residual Credits Register (RLR), which includes information regarding the banking risk referring to the resented persons and residual credits considering the entire Romanian banking system; it includes information regarding the physical persons which are not accomplishing the limit conditions of reporting and record older residual payments than 30 days. 3. Debtors Groups Register (DGR); 4. Cards Frauds Register (CFR).

Basel II Agreement is composed by three pillars which are mutually supporting: **Pillar 1** settles the minimum requirements of the needed capital for covering the specific risks of the banking activity: credit's risk, market risk and operational risk; **Pillar 2** is represented by the prudential supervising process, which imposes for the national supervising authorities to make sure that the banks are disposing of healthy internal procedures of evaluating the self risks; **Pillar 3** is following the strengthening of the market discipline through increasing the banks' financial transparency.

Basel II Agreement supposes to allow to the banks to choose between two big methodologies of calculating the requirements for the capital in the risk's case. **The first methodology is:** the possibility of measuring the credit's risk in a standard manner (standard approach) sustained by an external evaluation of the credit. **The second methodology** which supposes the use of the internal evaluating systems of the banks' credit risk (approach based on internal models). The second methodology can have on its turn two approaches: basis approach and advanced approach. The risk components include: 1. probability of default: PD; 2. loss given default: LGD; 3. exposure at default: EAD and maturity: M.. The IRB approach is based on the measurement of the unexpected losses: UL and of the expected losses: EL. **The approach based on internal systems of evaluating the credit risk** contains the own evaluations of the bank. This methodology could have, on its turn, two approaches: a base approach and the advanced approach. In ***the internal basis systems*** of evaluating the credit risk, the bank has to calculate its own estimations concerning the probability of default (PD) and the other two indicators (loss given default: LGD and exposure at default: EAD) are established by The Central Bank. As the ***advanced internal systems*** of evaluating the credit risk are concerned, all the three indicators (PD, LGD, EAD) are calculated and estimated by each bank separately.

4. The assurance of adequate controls concerning credit risk (the role of the overseers)

After an important reorganization of the bank supervising activity, started in the year 1999, the acts realized by The National Bank from Romania for an increased efficiency of this activity, are concentrated mainly towards the following directions:

a) the improvement of The Uniform System of Bank Rating and Early Admonition, implemented in the year 1999, in order to promote an efficient banking supervision lined up to the international standards and practices;
b) more attention is given to the quality of management (a distinct component in evaluating the banks from the system) and to the quality of the shareholder aspect;
c) the reduction to one year of the cycle of inspections at the headquarters of the banks by means of a better organization and dimension of the human resources implied in the supervision activity;
d) the setting-up of a discipline climate by a more severe punishment of the banks.

The overseers have to take into account especially the fact if the leadership of the bank recognizes the problem-credits very early and they enterprise the necessary activities in this respect. The overseers have to monitories the tendencies in the general credit portfolio of a bank and to discuss any important defacement with the mangers of the bank.

Any bank activity implies a certain risk. That is why, risk exists permanently, accompanying all the bank affaires and if it takes place or not depends on the conditions that are created for it. The default situation appears when the debtor is in one of the following situations: 1. bank considers that the debtor will not accomplish totally his obligations if it does not make use of security measures; 2. the debtor delayed the fulfillment of his money obligation for a period of more than 90 days (in paying his bank installment) towards the bank.

The requirements of The Basel Agreement II will lead to important changes in the policy of the banks in the problem of credit risk and in the architecture of the informatical bank system, no matter the approaches that will be used.

The main types of **general information** concerning credit risk for all the banks are:

1. **Qualitative information**:
    - to define the surpass of maturity;
    - the description of the approaches applied for general or specific loans, and for the statistical methods;
    - the discussion concerning the management policy of the credit risk;
    - the description of the nature of the exposure for each portfolio: standard approach; IRB method- the basic variant; IRB method- the advanced variant
    - the description of the management plans and how fast the approach for reducing the negative consequences must be implemented;
2. **Quantitative information**:
    - the total of credit risk exposures;
    - the geographical distribution of exposures;
    - types of exposure distribution;
    - the remained maturity as it was established in the contract for the entire portfolio by taking into consideration the type of exposure:
    - the sums of money that were borrowed, that can not be repaid and that had already had to be paid;
    - general and specific installments;

- receiving the specific installments and other sums of money in the same period of time.

The main factors that affect a company that requires a credit:

1. ***internal factors*** (management, strategy, accountancy and financial situation) and ***external factors*** (macroeconomics, legislation, politics and political tendencies, culture and socio-cultural tendencies, technological development, industry and industrial tendencies, evolutions on the labor-market, evolution on the immovable goods market, dependency and geographical position towards the supply resources and retail market, towards the waggonway).
2. ***quantitative factors*** (liquidity, solvability, risk and profitability) and ***qualitative factors*** (administration of society, the quality of shareholders' activity, the guarantee system and market conditions).

We consider of great importance the development of models in quantifying the banking credit risk, taking into consideration the fact that the Romanian banks will have to choose one of the two methodologies of calculating proposed in the Agreement.

As the projection decision and economic efficiency for implementing a measurement model are concerned, we have to have in view a general framework for its evaluation. The most important evaluating criteria are:

a) the expected value of the model shows how valuable the model is expected to be in certain situations, having as sub-criteria the instructive value of the model, as well as the savings that result from the decisions that are taken faster and better thanks to the model that was used;

b) the initial costs show how expensive the implementation of the model is in certain situations, by taking into account the adapting cost and the costs for gathering the initial data;

c) the structure of the model has as sub-criteria: adaptability, completion, an easy testing, the easiness of understanding and the sturdiness of the model.

The completion of the model shows the measure in which the representatives users of the model consider that the model permits explicitly or implicitly the treatment of all the important and relevant phenomena for the problem investigated.

The easiness of understanding of the model shows how well and fast the user can understand the general logics of the model.

The adaptability of the model shows the easiness with which the values of the parameters and the structure of the model can change as an answer to the new conditions in which the model is used.

The easiness of testing refers to the existent possibilities for model validation for current applications.

The sturdiness of the model shows the measure in which correct results are possible to be obtained, when the entrance data in the model exceed a certain order.

d) the characteristics of usage show how easily the model can be used and it has the following sub- criteria: the easiness of communication and control, the volume of entrance data and the time given for the answer.

e) the use context shows the extension until the specific conditions in which the model is used favors its acceptance by the managers and it has in view: the domain of the problem that has been analyzed, the type of decision taken into account and the frequency of using it.

f) the validation of the model represents the major criterion of evaluating the model. A non-valid model that is not real leads to wrong conclusions concerning the performances of the system.

g) the consistency of the model reflects the degree in which the component elements of process modeled by the relations between them were presented.

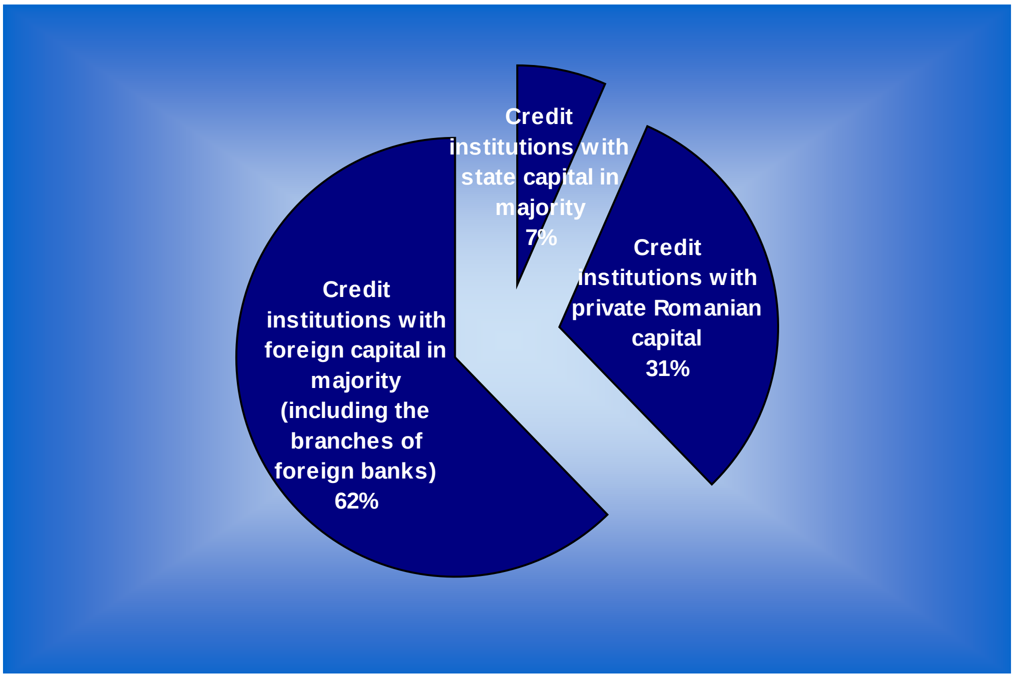
h) the quality of the model is given by respecting the following main requests: coherence, correctness, efficiency, completion and the efficient usage of the model.

The implementation of Basel II Agreement in Romania - Central Bank strategy. Key- elements and conditionalities

The characteristics of the bank branch

- 39 banks (of which 7 branches belong to some foreign banks)
- Total bank active: 22,3 milliard euro
- 60% from banking actives are concentrated in the first 5 banks from the system
- The solvability indicator = 18, 79%
- Capital requests for market risk- testing period
- Shareholders' situation, represented by foreign entities in majority

Fig. nr. 1: Shareholder's structure in credit institutions from Romania



We consider that models' development and credit risk quantification will be very important when the Romanian banks have to choose between one of the two calculating methodologies proposed by the Agreement. The opportunity of development was also determined by the results given by a study made publicity 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.

The key-elements and the conditionalities of the strategy of implementation:

1. *Options of credit institutions for implementing Basel II*

Table nr. 1

	Credit risk		
	Standard	Basic	Advanced
December 2006	13%	6,4%	–
January 2007	85%	14%	1%

2. Implementation of Basel II will lead to:

- the development of rating agencies' market
- the development of the bases with statistic data and of the econometrics methods for the foundation of the internal methods of the banks

3. Human resources forming is the key- element for:

- the efficient usage of the evaluation models of rating agencies
- realizing the supervising process at the level of the requirements from Pillar 2
- the validation of the internal models of credit institutions, made by the National Bank of Romania

Measures that must be taken by the National Bank of Romania in order to implement Basel II

- Law framework
  - Assimilation and application in our Romanian laws of the European Directives
- Institutional framework
  - Central Bank
    - staff's specialization
    - the development of data bases concerning the credits
    - self-evaluation for the supervising capacity(Pillar 2)
    - evaluation of the impact of the macroeconomics evolutions upon the financial stability
  - Credit institutions
  - to include new requirements in the internal politics and strategies
  - the development of corporative governance practices
  - reconfiguration of the objectives in the domain of the clients and of the banking products
- Relational framework
  - Collaboration between the National Bank of Romania, Public Finances Ministry, Movable Goods National Commission, The Romanian Association of Banks
- Cooperation agreements with the supervising authorities from the root states of credit institution that hold branches in Romania
- To consolidate the collaboration on a regional level , concerning experience in implementing Basel II
- The development of national rating agencies

The strategy of implementation of The New Capital Agreement by The National Bank of Romania. The deployment stages:

Step 1: to initiate the dialogue and to realize the exchange of information with banking branch (May – November 2005), stage in which the main activities are:

A. to realize a general evaluation concerning the management instruments of the risk and to know the position of credit institutions concerning the national options (to adopt the standard approach or the one based on internal models);
B. information and the establishment of the dialogue with other national (Public Finances Ministry, Movable Goods National Commission) and international (supervising authorities from other countries) authorities;
C. evaluation of the professional forming authorities at bank system level, including at the level of the central authority.

Step 2: the development of the means necessary for realization of the supervision in the bank branch at the standards imposed by The New Capital Agreement (*December 2005 – May 2006*). In this stage, the efforts will be canalized simultaneously towards the following domains:

A. transposition in the national law framework of the European Directives
B. supervising activities from the headquarters of the central bank (*off- site*) and missions at the headquarters of the credit institutions (*on- site*) for verifying the preparations for Basel II implementation
C. the assurance of the financial stability premises in the period of application for Basel II Agreement

Step 3: validation process made by the National Bank of Romania concerning the internal rating models used by the credit institutions in order to evaluate the clients and the portfolio of the credits existent. (*June – October 2006*)

Step 4: the process for verifying the application of The New Capital Agreement in the banking branch (*starting with January 2007*)

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