BANKING RISK EVALUATION MODEL 
BASED ON BASEL COMMITTEE

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Abstract

The Basel Committee on Banking Supervision provides a forum for regular cooperation on banking supervisory matters. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide. The Basel Committee is the primary global standard-setter for the prudential regulation of banks and provides a forum for cooperation on banking supervisory matters. Its mandate is to strengthen the regulation, supervision and practices of banks worldwide with the purpose of enhancing financial stability.

Key words: banking risk, evaluation, model, Basel Committee, economy, crediting, financing

1. BASEL III Agreement regulations on banks obeying criteria

Compared to BASEL II, BASEL III asks from the banks the following: a minimum ceiling of the common capital reserve of 4.5% compared to 2% for BASEL II, in a minimum quantum of rank 1 capital of 6% compared to 4% of BASEL II with regard to the risk balanced assets, and the total capital rate of 8%. BASEL III brings also increased capital reserves with 2.5%.

Retail deposits are favored as they are considered to be stable on medium and long terms. Banks began to adapt their systems and products implying important supplementary costs.

BASEL III represents more than a set of regulations. Its provisions affect banks capacity to produce profit. With this purpose, the following concepts are introduced: government credit in lei and foreign currency, solvency rate – lever effect, un-performing credit rate, liquidity indicator, ROA and ROE.

Aggregate indicators of credit institutions (table 1).
Aggregate indicators of credit institutions (graph 2)
2. Romania’s economy crediting and financing

In order to emphasize the above mentioned information, we will analyze the main aspects regarding the Romania’s economy financing by crediting.

- Given the situation, replaying economy crediting and financing is vital for Romania. Evidently, banks play an important role. During the global pre-crisis period, the financial-banking sector grew rapidly. This process can be quantified showing an increase of the “financial profoundness” indicators. Similarly to other regional states, in Romania, the rapid growth of the domestic credit was supplied by large funds from the mother banks of the foreign crediting institutions operating here.

**Financial sector evolution in Romania**

![Chart showing financial sector evolution in Romania](chart.png)

- Romania score for financing institutions profoundness grew from 3 in 2000 to 28 in 2007, and its score for the financial market profoundness grew from 1 to 13 in the same interval of time.
- The Romanian banking system being the majority of the national financial banking system reported in 2008 a capitalization of the banks quite high and a high liquidity rate. (IMF 2009)
- Before the start of the global crisis, the level of the un-performing credits level compared to granted credits was relatively low; this happened given the fact that in Romania the accelerated increase of crediting covered an internal weakness of the system.
- The score z, which is the indicator for stability used previously, suggests that in Romania and before 2008, banks situation was far from being perfect.

- A rapid deterioration of market trust in Romania led to:
  - the value decrease of the Romanian currency compared to foreign currency;
  - the increase of the interest rate;
  - a stressed decline of the capital values (approximately 80% between 2008 and 2009).
These effects led to important increases of the un-performing credits. The analysis stress-test type concluded during the recent Financial Sector Assessment Program -FSAP (IMF 2009), suggest that some banks were ready to be sub-capitalized during the economic crisis. FSAP made an appeal for consolidation of capital positions of some of the banks and maintaining by mother-banks of the credit lines opened in favor of subsidiaries and of corporations that borrowed directly on the territory of Romania.

- These provocations to stability reflect itself in significant decreasing of the financial indicators, both for the financial institutions, and for the financial markets in 2008, 2009 and the following years.

Also, this frame shows that regardless the international context where the crisis was stopped, in Romania the level of the un-performing credit continued to grow.

A relevant indicator anticipating financial instability is “excessive increase of crediting”.

A developed financial system should report an increase of crediting, which indicates an improving quality of the financial services. Even though the increase of crediting is important and necessary, a very rapid increase of financing proved to be the main cause of the start of each financial-banking crisis.

- In 2004, IMF estimated that approximately 75% of the credited booms on the emergent markets will end in banking crisis. Usually, the crediting increase is fed by more than optimistic expectations regarding future incomes and assets prices, parallel to an available capital infusion. In time, households and companies accumulate substantial debts, while their incomes are stagnant. A possible diminishing of incomes and assets prices will automatically led to a n increase of the un-performing credits and of default credits. If this situation is serious, then the respective country is subject to a financial-banking crisis.

Regarding capital markets, the most used variable for financial instability identification is market volatility.

The economic crisis didn’t mean only the appeal to viable methods applying for the improvement of the degree of credit loss covering by provisions and foreclosures in cases the clients couldn’t pay, but also finding new possibilities of growing on certain market segments, loyalty of the clients while the weakening of the competition let more room for action.

While the deepening of the economic crisis became global also in the European countries, the Romanian banking system was exposed to evil consequences. Thus, a banking institution cannot be considered viable other than by an attentive monitoring of its crediting performance compared to the risks it is confronted to.

3. The impact of BASEL III agreement on the European banking system

In 2007, a certain weakness of the banking system and a capital shortage were signaled. This demanded a revision of the BASEL II Agreement. In 2010, the members of BASEL Committee had series of meetings in order to consolidate the regulations of the banking financial system. In September 2010, they officially announced the modifications in the regulations that had to be adopted by the commercial banks until the end of 2018.
The BASEL III Agreement aims at consolidating the capital global standards, an easier adaptation crisis periods, thus ensuring a stable banking system. BASEL III means calculation of the requirements of the capital afferent to the credit risk by restrictions regarding certain attributes filled by the banking agent. The client categories had in view will be completed in the bank application, Basel attributes being completed for all non-banking clients who now register or will do it in the future becoming exposed to the bank.

By exposure we mean any engagement assumed by the bank for a client, in balance accounts or in extra-balance accounts, including, credits, trade discount effects, trade effects, guaranty letters, credit facilities not used, open or confirmed letters of credit.

Thus, the banks modified the informatics applications, as follows:
- Verification of the values for the field “business turnover” – the annual turnover will be checked at the moment of credit granting in lei (RON), taken from the last annual balance (31/12…) that can be found in the client file with the existing turnover on the screen where data about the client was introduced. In case inconsistencies might be found, a notification shall be transmitted to Reports Service.
- Completion of the values for the field “Real Type”, condition to be met by a building as a residential type is to be a residence, rented or meant to be rented by the owner in order to be inhabited. For a building which is not a residential type building, the condition is to have a commercial destination.
- Completion of the values in the field “Date of the last evaluation”: it will be completed the date of the last evaluation of the building made by an independent evaluator, like mm-dd-yyyy.
- Completion of the values in the field “Insurance policies”: for the goods that are guaranties and are assigned to the bank.
- Completion of the values in the field “Capacity of Repayment”: it will be completed with the value resulted from the report between the cash flows generated by the respective building (rents) taken into account by the bank in order to repay the credit, and the commitments of monthly payment in percentage. In case this value fluctuates during the time of credit granting, according to the calculated cash flow, it will be completed with the maximum value from the report. This report shows the measure the repayment exposure depends exclusively on the incomes generated by the respective building. In case there are other repayment sources capable to cover completely the monthly installments, the attribute “Repayment Capacity” takes value 0.

4. Some aspects regarding the dynamic model of the banking processes and afferent risks

The general dynamic model of the banking process allows the possibility to identify the main banking risks and to integrate them in the planning process that set explicitly the purpose of the banking process. Any factor of the model may be considered a sub-process of a global process of the banking activity.

The banks display measurement and express control of the market, credit, competition, risks, interest rate and liquidation rate, country and operational risks, for which the bank is exposed, setting the afferent capital absorption, and makes portfolio analyses for risks type, client segments, economic activity segments.
The banks also operate the analyses of the main monetary and financial market evolution through its specialized departments, and periodical reports regarding macroeconomic scenarios on short and long terms, that are useful in the management of treasury activities referred to interest rate, currency exchange rate and market quotation.

**Conclusions**

The economic crisis didn’t mean only the appeal to viable methods applying for the improvement of the degree of credit loss covering by provisions and foreclosures in cases the clients couldn’t pay, but also finding new possibilities of growing on certain market segments, loyalty of the clients while the weakening of the competition let more room for action.

While the deepening of the economic crisis became global also in the European countries, the Romanian banking system was exposed to evil consequences. Thus, a banking institution cannot be considered viable other than by an attentive monitoring of its crediting performance compared to the risks it is confronted to.

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