

# The Operational Risk – Comparative Analysis

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***Abstract.** In many cases operational risks tend to be underestimated, considering that the losses they cause are generally minor can't threatening the survival of a bank. Losses resulting from these events come from a complex interaction between organizational factors, personal and market that do not fit into a simple classification scheme. Observing what happened in the past we can say that operational risk is an important question of the financial losses in the banking sector.*

**Keywords:** operational risk; BIA; SA; AMA; LDA; IMA.

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**JEL Codes:** G21, G32.

**REL Codes:** 11C, 11E.

Today, as states and Radu Ghețea “Operational risk should receive increased attention because we have 40 banks. Each tries to grab a market share higher. In this situation, operational risk has increased greatly”.

Such operational risks may materialize in potential financial losses, other than those due to market risk of the credit or strategic, because the occurrence of internal or external events, or because of changes and trends that have not been detected and prevented by corporate governance and internal control systems, policies, organization, ethical standards or other control elements and standards of the firm.

Costs of operational risk, relating to the reduction, establishing and maintaining a system of protection through insurance etc., are considered by most financial institutions costs of activities which support is obtained from current revenues. Thus adopting the management of operational risk effectively reduces the amount that will have to take the form of reserves.

Adopting models of quantification of operational risks financial institutions can benefit from a number of advantages, such as incorporating quantitative risk reduction in the decision process, the allocation of capital for operational risk dimensions, provided the framework for modeling

extreme losses, are encouraged to measure and management of this risk are identified sources and losses of this type of risk, although the experience does not allow quantification, the development of modeling techniques to operational risk were encouraged to adopt a method of quantification of operational risk.

To determine the necessary capital to cover losses from operational risk were the three methods proposed by the Basle Committee, namely: Basic Indicator Approach (BIA), Standardized Approach (SA) and Advanced Approach (AMA), the two institutions credit in Romania<sup>(1)</sup>, in order to verify the hypothesis that capital requirements associated decreases operational risk by using a more advanced method.

Synthesized three methods for determining the capital requirement for operational risk for the credit institution X, and as indicated in Figure 1, we find that the assumption made above is fulfilled only for a level of confidence of 95%. Thus we can consider whether assumptions on which model we advanced (LDA - Approach Loss Distribution), taking into account that no data were available only at the aggregate level, there was just right, whether it does, the level recommended by the Basel is too strict.

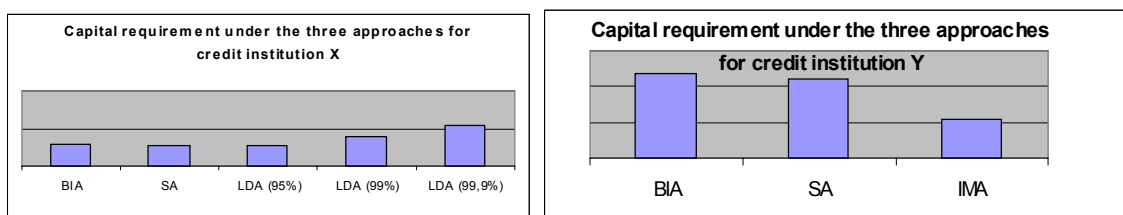


Figure 1. The requirement of capital to cover operational risk

Source: Own processing.

The analysis for the credit institution Y, which can be seen from Figure 1, reveals that once the bank uses a means of measuring the more complex operational risk, capital requirement related to this risk is diminishing. Thus the minimum capital mobilized using Internal Assessment Approach (IMA), as it can identify, measure and more effectively manage operational risks are able to discover what business line is a higher operational risk and which are the most important risk factors.

Comparing the capital requirements determined by the first two methods, there is a diminution of it, explained that the standard approach assumes a different proportion of the capital required on business lines, and the main activity of the institutions is the retail rate for weighting is 12%, unlike 15% for Basic Indicator Approach. But the loss of operational risk using standardized is not significant, and as a result of analysis performed on the two credit institutions, although it is considered that the differentiation business line is a big step in increasing sensitivity calculating capital requirement.

In time, the method of applying the Basic Indicator and standardized methods in practice, to see that between the capital and operational risk can not establish a clear relationship, found in some cases that limit is costly, if capital which will result in excessive failure rate of return on capital are some situations where it is scarce, which exposes the inadequacy of capital for credit risk, in cases where financial institutions are exposed to significant risks, because not determine the exact losses for operational risk. Increasing capital no means necessarily

a health of the credit institution whose survival depends on the profitability of business performance, and not an anticipated risk management and control arrangement of operational risk events.

The advantage of these methods is given by insurance against expected and unexpected losses arising from operational risk by calculating a minimum level of capital allocated to this category of risk, and that the institution has created a department of operational risk that has the task to monitor and collect events operational risk and create a database which provides reports on this type of risk.

Given that a large financial institution generates a higher income than any other institution of a smaller size, the first will be forced, under the basic indicator approach and a standardized approach, to allocate more capital related to operational risk. While the institutions of higher dimensions have more opportunities to diversify risk geographically, by product or industry, whose profits are also not recognized by the Basel Committee, which will lead to the assumption of higher risks due to the raised requirement capital.

Such financial institutions have paid a high attention to operational risk events with the mitigation measures for them: insurance departments involved in training activities exposed to operational risk, the adequacy of the normative documents according to regulations and market conditions; involved departments collect and report department operational risk events resulting in loss; staff training to reduce operating errors, systems development and strengthening of bank

security, evaluation of the methods of reducing risk in terms of costs and benefits of checking utility method risk reduction, using methods of risk reduction (insurance policies, or outsourcing of activities), correct use of tools for managing the operational risk (risk assessments, scenarios of loss and control, indicators of risk and immediate corrective measures, reporting information on monitoring operational risk); updating continuity plans, evaluation and testing them regularly.

Thus many analysts consider that the two methods of determining the capital requirement for operational risk, the basic and standardized, is insufficient given that institutions can use to demonstrate the key risk factors faced in the operational risk and at the same time can not build a culture of risk appropriate.

It can highlight a number of proposals that would help the institution in question, namely: level departments to identify the alarm signals (staff turnover, inadequate training of employees, etc.) to practice a prudent policy in human resources (achieved through competitive employment, providing legal number of days of leave, follow the materials of the employees, the migration of staff from one department to another with all the responsibilities of teaching, etc.), conduct physical checks (cash, checking signatures and documents, careful preparation sales team, correction of labor standards, etc.) security and guarding buildings (access procedures in different locations of buildings, securing jobs involving cash, safe storage and confidentiality of documents, etc.) existing staff in compartment of security and safety,

system protection systems that are changing passwords regularly protected against intrusion from outside, and the possibility of data recovery in case of failures, a quantitative assessment of operational risk in each transaction, activity, product; operational risk management is performed each compartment and territorial unit ensuring the maximum efficiency and decentralization of the internal control structures across all the bank, there is an internal focus in particular on sensitive locations, through spot checks (by the way recovery of outstanding debts, mail their-nostrum accounts, circuit documents, registration documents etc.) overall strategy of the institution to be consistent with models of quantification of operational risk, in case of emergency, strategic operations for reopening must be a back-up of IT systems, the database contains information on the loss for at least the past 5 years, in order to determine losses from operational risk, regular testing of the IT system to be adapted to requirements.

To the credit institution X, taking into account the hypotheses assumed, there is a requirement of capital adequacy to cover higher losses related to operational risk that takes into account the risk profile and ability to identify, measure, monitor and control risks level.

Experience of credit institutions (Berg-Yuen, Medova, 2004) shows that the capital requirement determined by the method is more advanced than what is based on a standard method or a basic result obtained in the case of the credit institution X. While in the case of methods advanced credit institution may also benefit from insurance

discount, there are sufficient incentives to encourage banks to use the advanced approaches for determining capital requirements. This may be due to inaccuracies in the assumptions made as operational risks are not yet well inventoried, unmaking subject of historical records of events and their consequences, although an audience big enough and there is concern for proper management. This is due in particular to the lack of data which depends very much on the human factor which must report events involving material or immaterial loss on the institution concerned has suffered. Such employees are out to make such reports as may prevent such events would be a task of service, or fraud if the information is valid after the event, or many other reasons. It also must be taken when this type of quantification of risk and risk events with low frequency and potential major impact, so as to meet the requirement of a confidence interval of 99.9% for a time horizon of a an information unhealed the institution concerned when providing the data needed study. These are just some of the reasons that have not been expected results.

The second credit institution has a clear vision and specific events causing the loss caused by operational risk and allocate capital based on those losses actually saving capital and retaining customers, thus providing a much better picture on the Romanian market.

Thus we suggest that financial institutions as the first step that should make for measurement operational risk is to do an inventory by category and the creation of methodologies to identify, plan and avoid

these risks and devising plans for crisis and remedying the effects of this event risk.

By using advanced methods, credit institutions can identify operations challenging operational loss, and thus demonstrate progress in the management of such risk. But until such methods must demonstrate to the supervisory authority that have complete databases and well-documented, and in certain situations and they must have additional funds to be able to invest significant amounts of money in a process operational risk management.

Because the application of these methods of quantification of operational risk there were observed a number of issues such as the emergence of tensions due to the identification of operational losses (to obtain values for different indicators because the accounting standards and practices vary from country to country; lack of regulations on the inclusion or exclusion of some losses in the calculation of capital required, the allocation of losses to different types of risks is difficult), consistency, relevance and subjectivity estimates depend on the frequency and impact of loss-generating events, as while quantitative methods are applied on irrelevant data, poor quality or too expensive.

Thus we can say that the methods of quantification of operational risk proposed by the Basel Committee present a number of shortcomings which result in a default measurement incorrect for this type of risk.

Setting the real optimum capitalization of financial institutions of special importance by allowing capital to meet the operational function of protection, which involves the absorption time of any loss contingencies

that may occur during the course of which will allow a reduction the probability of bankruptcy of the bank and increase the degree of implicit trust of the population in the national banking system.

The new agreement is likely to establish discrimination to the economic-financial nature between large banks (which have sufficient funds for the design and implementation of internal models of

complex and effective risk assessment) and smaller, what experience turn on structure of national banking systems by increasing the concentration of banking (encouraging mergers and acquisitions in the banking and financial) with all the complex factors that it entails, namely: reduction and the competitiveness of the large banks of monopoly positions regarding the imposition of prices of banking services.

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### Note

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<sup>(1)</sup> For reasons of privacy compliance, we will not specify the identity of their name and we will continue to name them: a) the credit institution that uses X, standardized methods for quantification of operational risk, although the group to which the model uses an internal, due to lack of historical data necessary for carrying out the relevant scenarios and measurement indicators relevant

in determining the depreciation losses, offering and that within two years to move to an advanced model. b) the credit institution Y which has adopted an advanced model for measuring operational risk which is aimed at locating potential risks to the goods and/or support activities, in order to estimate the potential impact.

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