

MODELS OF BANKING RISKS MANAGEMENT

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Abstract: Banking risks management as a fundamental element of banking management aims at diminishing as much as possible the negative impact of risk factors, at minimizing losses by expenditures cut-off and maximizing direct and transferred influxes, changing the employees' conduct and improving the bank's image.

Keywords: model, insurance, risk

Cod JEL:G21

There are, in theory, several known concepts to administrate risks and to organize the structures accountable. Some of the authors²⁹³ consider that *risks should be managed separately*, independently and so should the relevant compartments.

The main reason appealed to is that of simplicity and promptness in establishing decisions for risk administration. In addition, the risk of taking wrong decisions or inappropriate ones is also smaller. A sure disadvantage of this approach is that of non-using (non-revaluating) the correlations between different exposures and, perhaps, over-registration of the same risk exposure.

Others²⁹⁴, on the contrary, state that *risks should be managed in an integrated manner*, consistent and coherent, in order to eliminate the above mentioned disadvantages. The main problems of such an approach are the complexity of the procedure, the great amount of necessary information, the high impact of taking wrong or inappropriate decisions, important costs for personnel and risk management integrated systems maintenance.

Several questions need to be answered in the process of risk management. The most evident is this one: *What would be better for the institution: to take on a certain type of risk familiar to its activity or to transfer it?*

An efficient risk management strategy must offer a clear and explicit answer to this fundamental question. Those responsible of the risks management must always analyze the answer to the above question through the costs and benefits related to the risk management. In case of massive risk exposure, it is preferable to transfer it by applying to a series of popular products on the insurance and capital markets.

At present, market designers of insurance products against various critical events offer a large scale of derived financial instruments, oriented towards meeting the ever diversifying clients' needs, at a cost reasonable for the transferred risks. In addition, financial market innovations and the boom of progress in the information technology allowed a better structuring and identification of the clients' needs, what led to a better identification of the transferred risk sources, the increase of these products' flexibility, liquidity establishment and increase on these markets, etc.

In case risk exposures may be managed at a lower cost as that offered on the derivatives market, the risk exposures become for the institution advantage sources, competitively and comparatively, as opposed to its competitors. Consequently, they must be rationally and efficiently revaluated.

293 http://www.trema.com-finance_online.

294 Dowd Kevin, Enterprise-Wide Risk Management For Corporatism, Global Treasury News, 1998, p.78.

Some²⁹⁵ identify *the efficient risks management with the efficient institution management*. The elaboration of a business plan and of a business strategy should be structured in such a manner that would allow identification and analysis of potential risks as well as creating viable solutions for the potential impact of risks exposure. Or, integrating risk management into the general management of the institution is a major imperative of a successful management.

Considering the above, economical agents must vote for creating specialized divisions responsible with the *engineering process (elaboration, design, testing and implementation) of risks management*. This would permit any level managers to better understand the risks they are being exposed to, the factors of influence and the risks' impact on the business. Even if, on short term, such an action would imply high costs, on long term such a decision would prove quite benefic. Evidently, implementation of an own structure responsible for managing the risks of the enterprise would not imply isolating it and shut it down from the business environment and financial community. Consulting the specialized companies would be highly welcoming. Also, it is recommended the large scale use of methodology and advances techniques of renowned risk management policies (e.g. Monte-Carlo, VaR, Stress Testing, scenarios analysis, etc.).

There are several models of risks management known today. We shall present further the most important ones used in contemporary business practice.

One of the best known and used models in practice consists of the idea that the entire process of risks management is split in 4 big steps:

1) **Context establishment.** It is the basic phase of any efficient risk management process – the theoretic and conceptual step of the process. On its success depends the success of the coming phases and supposes the unwinding of the following sub-stages:

i) *establishing the strategic context.* The strategic objectives, organizational structure, authority and duty delimitation, etc. are being established and, perhaps, revised. The main conditions of the business environment in which the respective institution operates are being determined, the relevant features and connections as well as the tendencies and evolution perspectives from the near future. The main types of risk exposures are identified together with the characteristics and impact of the same on the institution.

ii) *establishing the context of risks management.* Whereas a bank philosophy and general concept is being elaborated in relation with the risk exposure: *aversion, neutrality* or *preference* for risk. Based on those exposed before, a policy of risk management is drawn up and designed, a *passive* one or an *active* (aggressive) one. After that the general objectives are established and the duties to be fulfilled as related to the risk management. Based on these, methods and methodologies of identification, attraction, monitoring, analysis and risk management are being developed. Still under this stage, proceedings of assessment and risks comparison are being elaborated and developed.

It is determined the subdivision responsible for risks management, its responsibilities and authority. If the case, there are designed proceedings and systems of risk control: verification and validation, authorizations, criteria and principles of integrity and safety, consecrated management control proceedings, etc. Still if the case, there are also informational systems designed relative to or assisting risks management, endowed with the following facilities: introduction and storage of data, proceedings of actualization and dissemination of information, methods of control and validation, proceedings of monitoring and reporting of information relative to administrated risks, etc. More, at this very sub-stage, there are also elaborated the standards of identification, monitoring, analysis and report of information relevant to risk exposures. There are either developed or purchased, as the case may be, software systems to help decisions and evaluate their performance. Still at this phase, previous risk management results are analyzed and monitored, strong points and weaknesses of the current system of risk management and control are pointed

295 Idem, p.80.

out, recommendations for its amendment are formulated, measures and concrete actions are taken to improve and put to practice those recommendations and previous decisions about the risks.

2. Identification, analysis and investigation of risks. This is the most important and greater time consuming stage. Its objective is to elaborate a risk profile (relevant risks spectrum to which the bank's activity is exposed) to be tested at different scenarios (analysis of feasibility and viability of the profile). At first the concrete risk exposures are being identified, the risk sources and the influential factors. The following questions are tried to be answered: What will happen as a consequence of a certain type of risk exposure? When will it happen and under what conditions? Subsequently, the main characteristics of these exposures are determined, like frequency, nature of exposures, correlation to other risks, impact on business, etc. Still more questions wait to be answered: What is the probability of these risks to appear? What are the consequences for the bank? Now the internal control proceeding are determined related to certain types of risks and their efficiency for each and every exposure. The risks identified are assessed according to the previous stage established methodologies. Next the risk level is determined. The magnitude of a concrete exposure is analyzed in the light of maximum risk postures the bank can take, as well of its capacity to absorb certain exposures. The sensitivity of the bank's risk profile to a series of critical events and processes will permit the establishment of priorities in the risk management procedures. The risks will be grouped according to their financial impact and probability of occurrence. Thus we can obtain different priority rank risks. Their interdependence and correlation must also be identified and, if the case, revaluated because of their portfolio effects.

3. Risks remedy. Based on former stages data and information as well on those related to the bank's experience in risks management (approaches and historical data), there are identified and evaluated the possible strategies of reduction and even elimination of the risks to which the bank is exposed. Concrete plans and measures are elaborated for attenuation of risks.

This is the *documentation stage*. Adequate solutions must be developed in order to attain the following objectives:

- Reducing the probability of risk occurrence.
- Reducing the financial impact of the risks.
- The transfer of the risk.
- Keeping and managing the risks (source of competitive advantage).
- Eliminating the risk (the case of discontinuous activities; non-recurrent risks).

4. Implementing and monitoring the risk management plan. Based on the risk management plan the selected strategies are implemented into practice, at the same time evaluating also the performances of these implementations. The results of previous assessments are being processed, reported and analyzed by the responsible people and the superior hierarchy level managers. Activities sensitive to risks are continuously monitored and the results are conveyed to the initial stage. It is important that the elements of the risks management strategy to be communicated both internally and externally in the bank. The specific responsibilities must be allocated to trained personnel. It is important that the model and strategy of the risk management to be dynamic and to reflect the inner and outer bank environment changes.

It is concluded, based on the detailed presentation of each phase, that this particular risk management variant is a dynamic one, self-critical and adaptable to the modifications of the management environment and practice. This is a continuum cycle method of risk management. In addition, elaboration and design of the conceptual and theoretic frame necessary for the risk management is assimilated to the process of risks management (being an integrated part).

The real benefits of the risks management process derive from the proper understanding of risk exposures and from establishing coherent and pertinent decisions about the manner to approach risks.

The benefits and risks related to the risks management process are never to be taken lightly.

There are several manners and models to approach efficiency and success of the risks management policy, one of them being the pyramidal model.

The pyramidal model or that of *risks management completeness* presumes that the success of any risk management policies is based on three fundamental elements, namely:

- *Notorious analytic models and proceedings of risks management*. The notorious character confers *credibility* to the used methodologies and *compliance* with the field or international standards and practices (e.g. Monte-Carlo, VaR, scenario analysis, etc.).

- *Technologies mixing*. Presumes appeal to the new technologies (both hardware and software) and technical proceedings of risks management.

The IT innovational boom as well the latest developments in the financial theory, made possible the application of the most sophisticated and complex models and methodologies of risk administration. The big banks mustn't be reluctant towards the development and consolidation of the existing management systems if they want to keep their positions and performances. The new millennium announces itself to be a new era in the matter of risks management, an *era of digital risk management*.

On a broad scale, at present, there is used *high performance risk engines* specialized in the optimal management of risks. A specific feature of these new technologies of information consists of the stability the risk management processes have as compared to the business volume: a bigger business volume requires a greater number of computer stations, the rest of the hardware and software system remaining invariable.

- *Integrated information*. The complexity and risk exposure variety as well as the ever tougher exigencies of the shareholders, investors or law givers, have determined the big financial institutions to revise and modernize the risk management process related informational system.

The informational technologies brought about a plus value of the services in every fields of activity. The development level of a country is associated with the degree of computerized services that establish directly the quality of life.

The banking and financial domain is one of the biggest beneficiaries of informational technologies and telecommunication networks. The new economy infrastructure is used with a maximum efficiency in this field. Mutually, through a positive reaction loop, the increase of competition and the demand for more complex banking services, boost up innovation and production of technologies destined to this sector.

The gradual process of automation of operations was the main source of change in the world's banking system.

In order to keep up with the growing competition and to consolidate their position on the market, banks have invested more and more in technology.

In the latest years these investments were dominated by two priority aspects: security of information and real time transaction accomplishments. Moreover, globalization of services asked the banks for investments in the informatics system in order to get connected to the international inter-banking networks.

Along with the benefits obtained from automating processes – efficiency increase, decrease of production costs, increase of services quality, etc. – there were also supplementary risks surfacing the international banking system.

The equation of balance between innovation, information protection, decreasing the transaction time and risks management determine the tendency of modern banking technology development.

The current tendency in what the informational systems are concerned is that of integration and standardization of data and information (obtained from different sources of monitoring,

information, evaluation and report) relative to the risk management, as well as of analytical methods of evaluation, analysis and reporting positions and risk exposures. A special focus is placed on the transparency of the risk management methodologies and on the effective costs due to these processes.

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