



Munich Personal RePEc Archive

# **Operational Risk Governance: The Basel Approach**

Afanasyeva, Olga and Riabichenko, Dmitry

Ukrainian Academy of Banking of the National Bank of Ukraine

2014

Online at <https://mpra.ub.uni-muenchen.de/60652/>  
MPRA Paper No. 60652, posted 16 Dec 2014 11:15 UTC

УДК 336.71

*O. B. Afanasyeva, Ph. D. in Economics,  
D. O. Riabichenko, Ph. D. student,  
Ukrainian Academy of Banking of the National Bank of Ukraine*

## **OPERATIONAL RISK GOVERNANCE: THE BASEL APPROACH**

*This paper analyses key documents of Basel Committee which concern operational risk governance and identifies the interconnectedness between risk source, type of the event leading to losses, loss type and its distribution by business lines. The comparative characteristic of the main operational risk governance stages is provided and the relationships between governance bodies are overviewed.*

*Keywords: operational risk, corporate governance, Basel Committee on Banking Supervision, board of directors.*

**Problem statement.** Due to financial crisis events in recent years the successful operation of financial institutions in rapidly changeable circumstances depends on the ability to appreciate correctly and assume risks. Risk governance that has always been pressing became so called “problem of today”. In this light the Board of Directors and bank’s management take the responsibility for active promotion of changes in the corporate culture that helps to consider decision concerning risk-taking and risk appetite measuring.

The other important issue applies to organization of risk governance in the bank in the most effective way. In accordance with Basel Committee Principles for Enhancing Corporate Governance (dated 2010) this function is recommended to be referred to Chief Risk Officer (CRO). This executive is supposed to be independent and have interaction with other chief executives, including communication with the Board of Directors. So, it explains the necessity of definition of effective organizational system of CRO subordination to the CEO and Board, and also link startup between corporate governance and risk governance inside the bank.

Not in question the fact that operational risk factors have rising influence on banking performance. Thus, frauds, human errors, omissions or sabotages can seriously lessen bank profits and blacken image. Corporate governance of the bank should be focused on identification, warning and non-admission of reaching destructive level operational risk by means of having an influence upon processes, technologies and people. These are the main sources of considered bank risk.

Operational risk has emerged as top priority for financial institutions in recent years. This is partly due to an increasing emphasis by supervisory authorities who are pressing for increasingly stringent regulations and more punitive measures for non-compliance. It is also due to the clear evidence of the harm that non-compliance can do to a company’s reputation.

As known “operational risk is as old as the banking industry itself”, that’s why we should answer the question “Why is it paid more attention to this risk recently?” First of all, this is due to qualitative changes in the banking sector: the development of a large number of banking products, the complexity of technological processes and introduction of sophisticated modern technical equipment. Moreover, the impact of globalization leads to increasing in the intensity of consolidation processes in banks, increasing of their activity, thus, operational risk increases disproportionately to rising of banks’ active operations.

Basel II has raised discipline of managing the operational risk in banks. The new economic and financial conditions (including post-crisis rehabilitation) brought to revision of the existing regulatory standard. Its reflection, notably Basel III, proposes slightly other modified operation risk management. As the Basel recommendations are not obligatory, but advisable, bank may also implement its own model of conducting this type of risk as an integral part of effective corporate governance. The absence of unified approach to realization of operational risk management raises an important task to work it out according to principles of effective corporate governance and with a glance of Basel recommendations.

**Analysis of the latest publications.** Academics such as Julia Allen, Jim Cebula [1], Dennis I. Dickstein, Robert H. Flast [2], Claus Huber, Daniel Imfeld [4], James L. Jones [6], Stuart Robinson, John Rowland [15], David Tattam [17], Günther Thonabauer, Barbara Nösslinger [18], Benedikt Wahler [19] paid much attention to operational risk governance, but the issue of the interconnectedness between corporate governance and operational risk governance in context of Basel recommendations is out of focus in their researches.

**The main aim of the article** is to overview Basel documents which touch upon operational risk governance and identify the main steps of governance process in accordance with appropriate governance levels.

**Main results of the study.** Traditionally, risks-managers considered operational risk as a direction of secondary effort. It is connected with extensive character of a problem, subjectivity which, as a rule, is inherent in ways of management of operational risk and ways of its control, difficulties in search/consolidation of the data and qualitative character of decisions.

At the same time it is necessary to notice that operational risk value has considerably increased lately under the influence of financial markets globalization, development of IT in banks (enhancement of electronic calculations systems, remote customer service and interbank information communications).

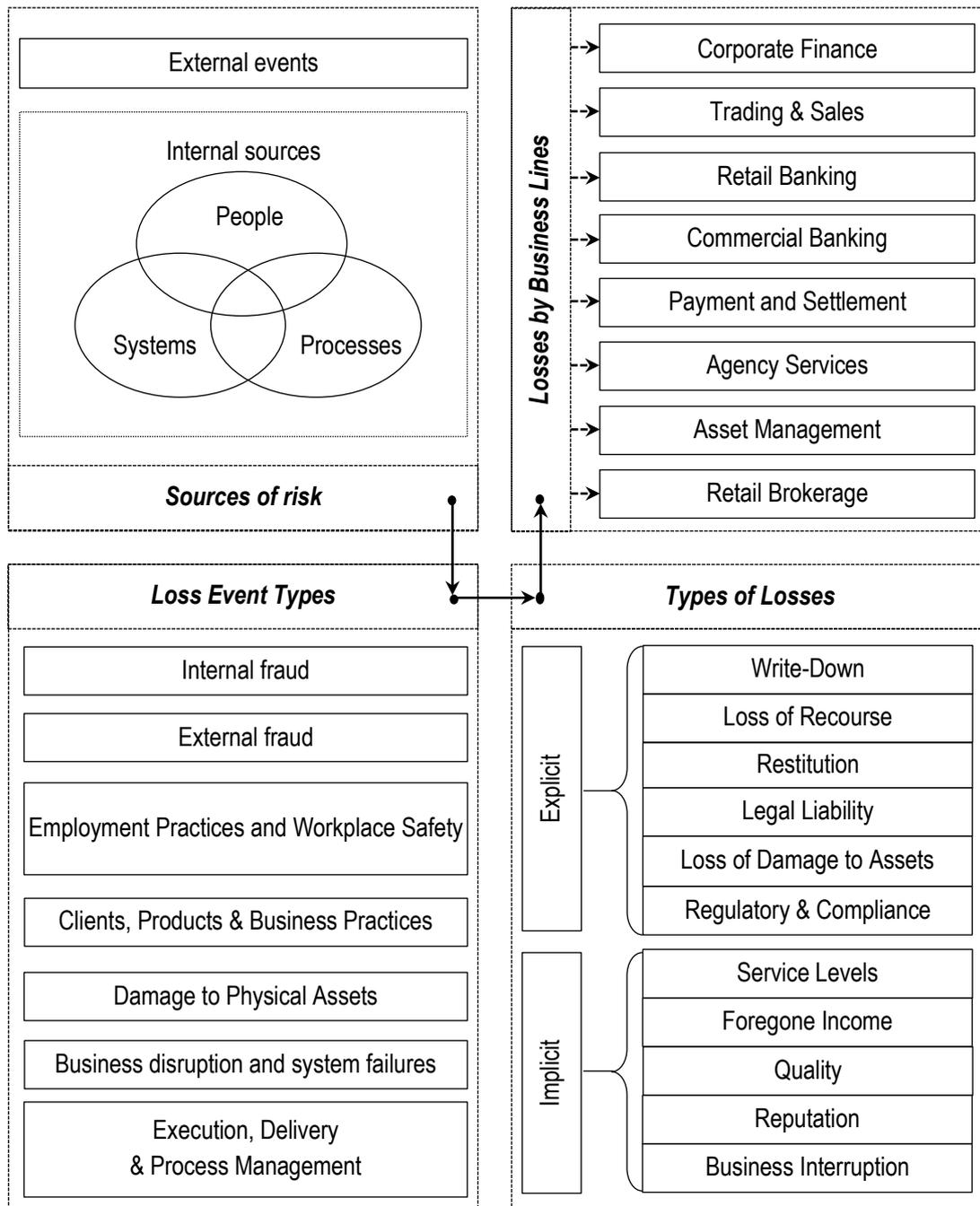
Operational risk losses are unpredictable most of the time. Unfortunately, it happens too often that organizations are affected by substantial losses due to events they fail to foresee. These disastrous financial effects are usually caused by the lack of an effective management of operational risk within the corporation.

The January 2012 issue of the Operational Risk & Regulation magazine mentions a list of the top ten loss events for financial services companies in 2011, based on information from SAS OpRisk Global Data (Table 1).

**Table 1 – The biggest operational risk losses for financial institutions in 2011**

Position in ranking	Name of the financial institution	Country	Losses, million USD	Cause
1	Busan Savings Bank	South Korea	4 290	Internal fraud
2	UBS	Switzerland	2 300	Unauthorized activity
3	Ally Financial	USA	787	Improper business practices
4	Bank of America	USA	410	Own overdraft fee rules
5	77 Bank	Japan	378	Tsunami
6	Axa Rosenberg Group	USA	242	Computer coding error
7	JP Morgan Securities	USA	228	Improper business practices
8	Morgan Keegan	USA	201	Misleading investors
9	Securities America	USA	180	Advisory activities
10	China Construction Bank	China	174	External fraud

Operational risk value has considerably increased lately under the influence of financial markets globalization, development of IT in banks – enhancement of electronic calculations systems, remote customer service and interbank information communications. Operational risks became the reason of the loudest scandals in the financial world. Systematizing of such categories as a risk source, type of the event leading to losses, and loss type is presented in Figure 1.



**Figure 1 – Connection between sources of risk, types of events that leads to losses and types of losses**

According to Basel committee approach there are four major sources of risk: people, systems, processes and external factors. In case of “white stains” in operational risk management, interaction of this sources leads to generation of events which may cause increase of losses in case of their realization. Types of losses can be divided into measurable and non-measurable and should be reallocated to corresponding business lines.

The operational risk is closely connected with other risks; particularly it is capable to lead to large direct and indirect losses of bank with influence of market risk and credit risk (Table 2).

**Table 2 – Market, credit and operational risks connection [20]**

Operational risk	Market risk	Credit risk
Incorrect data input	Loss trade position	Wrong credit value
Incorrect market information	Incorrect current cost evaluation	Wrong reserve value, incorrect evaluation of credit portfolio
Absence of limit control	Exceed of limits	Exceed of limits
Incorrect confirmations	Wrong hedging	Wrong credit or reserves values
Absence of event control	Missed event dates	Missed payments
Report delay	"Blind" trade	Unauthorized credit issue

So, the operating risk management problem is more actual first of all because of existence of close connection between all of banks' risks. When constructing the organizational and functional structure it is necessary to consider integrated approach of risk-management system in bank.

Basel committee recommendations are a directing vector for financial institutions of the majority countries. As a result of the analysis, the basic supervisor documents concerning management of operational risk have been divided into 4 groups:

- corporate governance issues;
- general aspects and Basel I, II, III;
- regulation of the AMA;
- influence on the other aspects of banking activity.

Basel Committee on Banking Supervision throughout long time works over development of appropriate methods of corporate governance in banking sector. The first document has been published in 1999, and in 2006 it has been reviewed and republished in the form of Principles [3] which, in turn, are formulated on a basis and in development of the document of Organization for Economic Cooperation and Development in edition of 2004 [11].

In the Basel committee document (2006) key aspects of corporate governance had been formulated:

- the board of directors should actively participate in the statement of strategy of the credit organization;
- authority division must be set up and maintained clearly;
- policies of remuneration payment should correspond to long-term objectives of credit organization;
- adequate risk management in case of insufficient transparency of credit operations must be provided.

Since publication of these recommendations a number of cases of deviation from Principles of effective corporate governance had been revealed. Many of these cases were visually shown during financial crisis which has begun in 2007. It is necessary to admit inappropriate control on activities of executives from board of directors, inappropriate risk management, deliberate complication or

hiding organizational structures of credit organizations and types of their activities. Taking this into account Basel committee took decision to publish new edition of Principles [9].

In the Basel I accord under the capital, published in July, 1988, the operational risk was not considered as one of major, and it was not used in capital sufficiency calculation. In July, 1989 the Basel committee issued the publication “Risks in computer and telecommunication systems” [14], admitting growth of banks risks in connection with rapid growth of their activities automation. “Operational risk” term has not been entered yet, but Basel allocates separate group of risks, such as: insufficient management of the information confidentiality; computer programs errors and data input errors; fraudulent actions with use of information systems of bank; failures of programs and the equipment and a business stop; inefficient development of the IT Infrastructure; risks of the data loss. The document published in 1998 “Risk Management for Electronic Banking and Electronic Money Activities” [13] has specified “the risks arising in connection with considerable lacks (defects) of reliability and integrity of information systems” and approaches to their management.

In September 1998 the Basel committee had been issued the special document “Operational Risk Management” [7], setting management principles by the operational risks determined “by contradiction” as risks, not being credit and market. The major document of operational risks management methodology was “Sound Practices for Management and Supervision of Operational Risk” [16] issued by Basel committee in February, 2003. Determination of operational risk has not been given yet, however, in the document it is accurately registered what sort of risks should be understood as operational – the examples of operational risk grouped in seven categories. Besides, ten recommended principles of reasonable management of operational risks of bank are reflected in the document.

Lately banks and supervisors have obtained additional knowledge and experience in operational risk control systems application. Besides, expansion of banks and supervisors experience of an appropriate business practice establishment were promoted by suffered losses data gathering, by studying of quantitative consequences, and also a number of the analyst researches devoted to problems of management, data gathering and modeling of operational risk measurement methods.

Considering these changes, the Committee has made the decision on necessity of the document of 2003 adjustment taking into account enhancement of appropriate operational risk management practice applied now in banks. The current version entitled “Principles for the Sound Management of Operational Risk” [10] contains an appraisal of appropriate practice and the detailed description of eleven principles of operational risk appropriate management which are divided into groups: Fundamental principles of operational risk management (2), Governance (The Board of Directors (2), Senior Management (1)), Risk Management Environment (Identification and Assessment (2),

Monitoring and Reporting (1), Control and Mitigation (1), Business Resiliency and Continuity (1)), Role of Disclosure (1).

The document “Operational risk transfer across financial sectors” [8] issued in August 2003 puts on practical aspects of management and includes such basic elements as definition of the term, events that lead to losses (Internal fraud, External fraud, Employment practices and workplace safety, Clients, products and business practices, Damage to physical assets, Business disruption and system failures, Execution, delivery and process management). It can be stated that recommendations from this document have been included to Basel II soon. The Accord defines operational risk as “the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events” [5]. Basel II gives special place to operational risks because they position the 2<sup>nd</sup> place by the amount of losses in the activity of European banks between credit (1<sup>st</sup> place) and market (3<sup>rd</sup> place) risks. Considering this, the document reasonably recommends to deal operational risk as an individual risk category that should be maintained by the definite amount of bank equity capital called “economic capital for operational risk”. The document includes recommendations concerning methods of capital assessment for operational risk (BIA, TSA (ASA), AMA) and appropriate criteria for these methods.

One must admit that Basel III (December 2010) did not introduce innovations into operational risk management: banks are still recommended to be guided by prior approach.

The most absolute method in this context is AMA. Its application gives to banks definite level of latitude and flexibility, but at the time with the aim of trespasses or abuses non-admission Basel Committee has issued a number of significant papers regulating the AMA implementation.

The last group of Basel Committee documents in the area of operational risk is related to its impact on the other spheres of banking activity: FX transactions (“Supervisory Guidance for Managing Settlement Risk in Foreign Exchange Transactions” (September 2000), updated consultative version was published in August 2012 – “Supervisory guidance for managing risks associated with the settlement of foreign exchange transactions”), outsourcing (“Outsourcing in Financial Services” (February 2005)), business continuity (“High-level principles for business continuity” (August 2006)).

This group of documents is not aimed at direct control of operational risk, but contains implicit recommendations to its governance. The fact of existence of this type of papers confirms the hypothesis that bank risks don't appear singly and are inseparably linked both between each other, and with other aspects of banking activity. That is why, the complex approach to bank risks governance is the only effective way out.

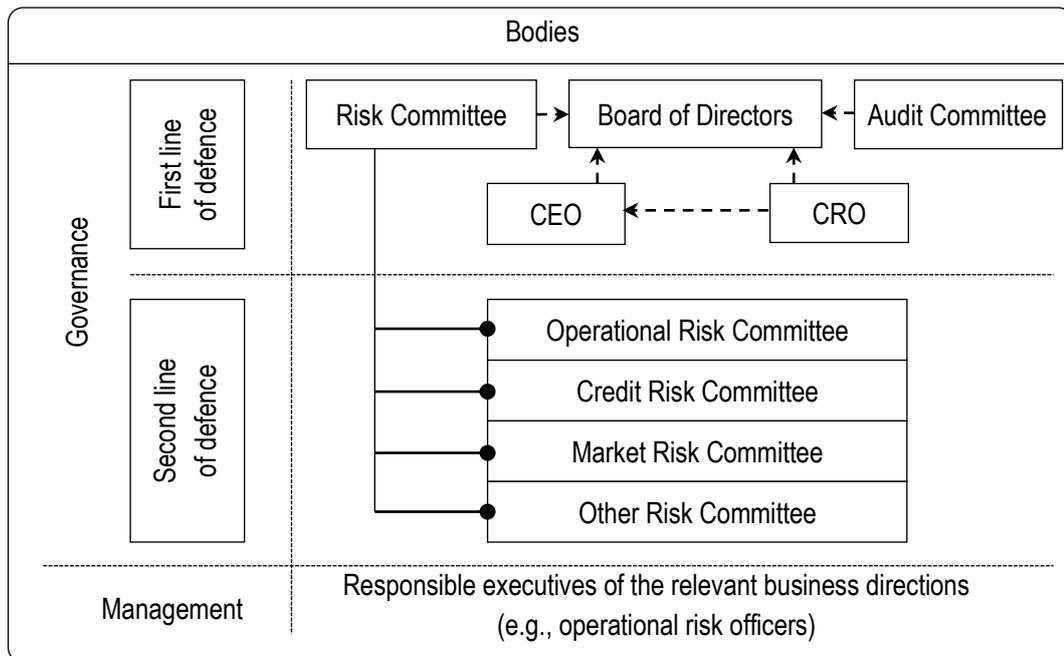
Mechanism of operational risk governance is a set of stages and procedures implemented sequentially to reach defined aims. Although the list of stages differ among different approaches (Table 3), it must be admitted that differences are evoked by tasks of scientific investigation, but the essence is common.

**Table 3 – Comparison of approaches to the basic steps of the operational risk governance mechanism**

Author	Main steps
Benedikt Wahler	Identification; Assessment; Risk control measures selection; Risk control measures implementation; Monitoring and reviewing
Stuart Robinson, John Rowland	Risk identification; Self-assessment by operational management; Scenario development; Senior management review; workshop; Board review
Günther Thonabauer, Barbara Nösslinger	Identification; Assessment; Treatment; Monitoring
Claus Huber, Daniel Imfeld	Risk inventory; Reassessment measurement; Update of Control Inventory; Risk Mitigation; Controlling; Reporting
Julia Allen, Jim Cebula	Risk Planning; Risk Identification; Risk Analysis; Risk Response; Risk Monitoring and Control
Dennis I. Dickstein, Robert H. Flast	Determine potential risk; Monitor risk; Manage risk; Set and update the risk environment
David Tattam	Establish the context; Identify risks; Analyse risks; Evaluate risks; Monitor and review; Record the risk management process
James L. Jones	Identify hazards; Assess hazards to determine risk; Develop controls and make risk decisions; Implement controls; Supervise and evaluate

This research is based on Basel Committee approach that is represented mainly in Principles for the Sound Management of Operational Risk (2011). The main stages of operational risk governance according to this paper are identification, assessment, monitoring, and control/mitigation.

Comprehensive risk governance system helps shareholders to be aware of the situation in the bank and to trust the Board. Let's have a survey on the main risk governing bodies and their duties that differ across banks, but may have similar structure (Figure 2).



**Figure 2 – Governance bodies' subordination**

Risk governance system is aimed to ensure proper management of operational risk together with flexibility and steadiness on its every level.

At the first line of defence the highest body is Board of Directors that provides risk oversight, adopts bank risk management strategy, defines the acceptable (secure) risk level, risk appetite by assessing the bank's risk and risk-bearing capacity and assesses risk management efficiency. This is the primary level of risk governance in banking organization.

Board of Directors approves internal statutes that regulate basic principles of risk governance, in particular operational risk; provides organizational structure implementation that fits the main principles of operational risk governance; controls the completeness and periodicity of internal control of operational risk managing of individual departments and the whole bank; controls the completeness and periodicity of reports concerning operational risk estimation; assesses the effectiveness of operational risk governance.

Board of Directors establishes the committees that are responsible for definite missions. According to Basel recommendations in context of risk governance the important task is to provide operation of Risk Management Committee which is formed by Board members. Researches of leading banks held in 35 largest organizations [12] evidence that in half of respondent banks there is an overall Risk Committee. The others have Risk Committee for specific risk only (34 %) or have just Audit Committee (16 %). Committee dedicated to risk governance at the Board level empowers to cover the whole image to the Board which, in turn, contributes to reducing decision-making time.

The other point about Risk Committee is independency of its members. Directors' independency implies meeting requirements of New York Stock

Exchange Listed Company Manual or other applicable law and includes absence of management or financial responsibility, absence of any privileges concerning deposit, loan, investment or other activity within the bank or its subsidiaries.

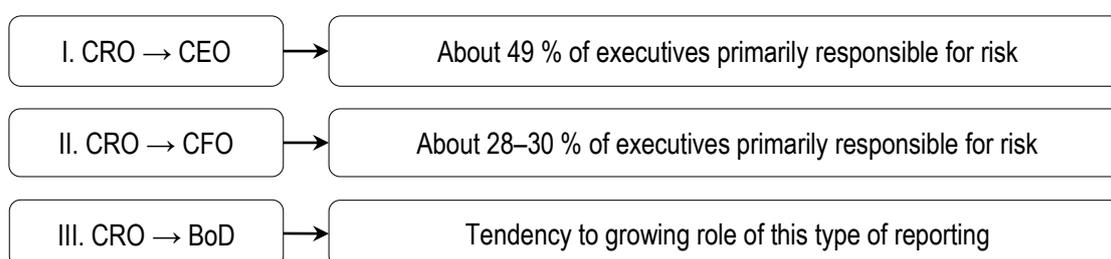
Risk Committee is responsible for reviewing bank risk governance strategies and procedures, and providing suggestions to the Board of Directors; reviewing the bank's major operational risk activities; monitoring the implementation of the bank's risk governance strategies and procedures; regularly assessing the duty performance of risk management and internal control by the senior management and departments of the bank, including regularly hearing their reports and requesting improvements; monitoring compliance with operational risk-related regulatory requirements.

In a number of financial institutes in a structure of Board of Directors there is Audit Committee responsible also for risk oversight. It substitutes Risk Committee in governance of financial risks, so the point is that it is also important for providing effectiveness of banking activity to account and supervise all types of risks, but not only financial. That explains the actuality of Risk Committees in the Board.

Chief Risk Officer (CRO) stands for senior executive with the primary responsibility – risk governance and elaboration of risk management strategy. CRO regularly presents the report to the Board of Directors that sums up the problems and perspectives concerning risk dealing. CRO carries out operational risk oversight activities (which cooperate closely with other risks supervision) to maintain a strict risk control and to help ensure that risk capital is enforced wisely.

The analysis of the main trends of improving CRO activity especially after global financial crisis allows us to define the following requirements for enhancement of risk framework within banking institutions:

1. Reporting of the CRO to CEO and directly to the Board. Figure 3 presents the most common ways of CRO subordination. According to investigations banks perform significantly better in the financial crisis.



**Figure 3 – Models of CRO subordination amongst largest banks [12]**

2. The fulfillment of previous issue enables the access of the CRO to the Board of Directors. This factor promotes decision-making process, shortens time for important tasks implementation in crisis periods.
3. CRO should have specific set of skills that includes sufficient experience and qualifications, banking market and product knowledge, mastery of risk

disciplines, broad financial expertise, and also personal professional qualities: strategic thinking, credibility, eye for details, etc.

To summarize the collaboration of CRO and Board of Directors (BoD) in context of risk governance one must admit that the task of CRO is to implement risk management program, and BoD oversees the effectiveness of this procedure.

The second line of defense assumes implementation of committees for managing the specific type of risk. It is reasonable to establish Operational Risk Committee, Credit Risk Committee, Market Risk Committee, etc. They report to CRO on regular basis that enables him to make decision, to get an overall image and to inform the Board concerning significant changes in risk governance framework. It is important especially in context of operational risks, because they often may not be connected to market changes and induced by defects or technological failures, so time becomes critical factor. The lower level could be represented by Operational risk officers or equivalent.

**Conclusions.** Fundamentally, the global crisis was a failure of risk management, or rather a failure to apply risk management at all levels, to understand properly the risks being run and to have a risk governance process in place in which risk management was key and was an accepted challenge to executives' decisions. And as so much of risk management is about instilling proper risk behaviors and disciplines, risk management failure, the fundamental cause of the crisis, is mainly about people risk, which lies at the heart of operational risk.

Because operational risk management is evolving and the business environment is constantly changing, management should ensure that the policies, processes and systems remain sufficiently robust. Improvements in operational risk management depend on the degree to which operational risk managers' concerns are considered and on the willingness of senior management to act promptly and appropriately on their warnings.

### *References*

1. Allen J. Risk and Resilience: Considerations for Information Security Risk Assessment and Management / J. Allen, J. Cebula. – Washington : CERT, 2008. – 110 p.
2. Dickstein D. I. No Excuses: A Business Process Approach to Managing Operational Risk / D. I. Dickstein, R. H. Flast. – Washington : Wiley, 2009. – 308 p.
3. Enhancing Corporate Governance for Banking Organisations [Electronic resource] // Basel Committee on Banking Supervision. – 2006. – Access mode : <http://www.bis.org/publ/bcbs122.htm>.
4. Huber C. Operational Risk Management in Practice: Implementation, Success Factors and Pitfalls / C. Huber, D. Imfeld // Risk and Finance. – 2012. – № 34. – 56–71.
5. International Convergence on Capital Measurement and Capital Standards : a Comprehensive Version [Electronic resource] // Basel Committee on Banking Supervision. – 2006. – Access mode : [www.bis.org/publ/bcbs128.htm](http://www.bis.org/publ/bcbs128.htm).
6. Jones L. J. Operational Risk Management / L. J. Jones. – Washington : Marine Corps, 2002. – 41 p.
7. Operational Risk Management [Electronic resource] // Basel Committee on Banking Supervision. – 1998. – Access mode : [www.bis.org/publ/bcbs42.htm](http://www.bis.org/publ/bcbs42.htm).

8. Operational risk transfer across financial sectors [Electronic resource] // Basel Committee on Banking Supervision. – 2003. – Access mode : <http://www.bis.org/publ/joint06.htm>.
9. Principles for enhancing corporate governance [Electronic resource] // Basel Committee on Banking Supervision. – 2010. – Access mode : <http://www.bis.org/publ/bcbs176.htm>.
10. Principles for the Sound Management of Operational Risk [Electronic resource] // Basel Committee on Banking Supervision. – 2011. – Access mode : <http://www.bis.org/publ/bcbs195.htm>.
11. Principles of Corporate Governance [Electronic resource] // OECD. – 2004. – Access mode : <http://www.oecd.org/dataoecd/32/18/31557724.pdf>.
12. Risk Governance at Large Banks. Have Any Lessons Been Learned? [Electronic resource] // Moody's Investor Service. – 2010. – Access mode : [http://www.garp.org/media/58854/riskgovernanceatlargebanks\\_01182010.pdf](http://www.garp.org/media/58854/riskgovernanceatlargebanks_01182010.pdf).
13. Risk Management for Electronic Banking and Electronic Money Activities [Electronic resource] // Basel Committee on Banking Supervision. – 1998. – Access mode : [www.bis.org/publ/bcbsc215.pdf](http://www.bis.org/publ/bcbsc215.pdf).
14. Risks in Computer and Telecommunication Systems [Electronic resource] // Basel Committee on Banking Supervision. – 1989. – Access mode : <http://www.bis.org/publ/bcbsc136.htm>.
15. Robinson S. Effective management of operational risk / S. Robinson, J. Rowland // Financial Services. – 2006. – № 2. – P. 10–13.
16. Sound Practices for Management and Supervision of Operational Risk [Electronic resource] // Basel Committee on Banking Supervision. – 2003. – Access mode : <http://www.bis.org/publ/bcbs96.htm>.
17. Tattam D. A Short Guide to Operational Risk / D. Tattam. – London : Gower Publishing, 2012. – 256 p.
18. Thonabauer G. Operational Risk Management / G. Thonabauer, B. Nösslinger. – Vienna : Oesterreichische Nationalbank, 2006. – 115 p.
19. Wahler B. Process-Managing Operational Risk: Developing a Concept for Adapting Process Management to the Needs of Operational Risk in the Basel II-Framework / B. Wahler // Risk Management Journal. – 2012. – № 4. – P. 45–54.
20. Моделювання оцінки операційного ризику комерційного банку : монографія / [О. С. Дмитрова, К. Г. Гончарова, О. В. Меренкова та ін.] ; за заг. ред. С. О. Дмитрова. – Суми : ДВНЗ “УАБС НБУ”, 2010. – 264 с.

Отримано 30.08.2013

#### *Анотація*

У статті проведено аналіз основних документів Базельського комітету, що стосуються управління операційним ризиком, та визначено взаємозв'язок між джерелами ризику, типами подій, що призводять до втрат, і розподілом цих втрат за бізнес-напрямами. Наведено порівняльну характеристику етапів управління операційним ризиком та охарактеризовано взаємозв'язки між суб'єктами управління.