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**FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION**

**PH.D. THESIS**

**MODELING PERFORMANCE AND RISK IN  
BANKS. AN INTERNATIONAL COMPARATIVE  
APPROACH**

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**KEY-WORDS:** financial performance; risk; banking system; financial reporting; financial analysis; dynamic analysis; empirical research; econometric modeling; system rating; international comparative approach

## INTRODUCTION

The experience of the financial crisis, the sovereign debt crisis and especially the current COVID-19 health crisis has elicited both the importance of economic stability and the easiness with which these negative events spread at global level, posing negative consequences on the social and economic life. The characteristics of these crises, the macroeconomic evolutions and changes registered at the level of bank systems represent general coordinates that fostered the choice of the research topic titled “**Modeling performance and risk in banks. An international comparative approach**”. The analysis of the content and effects of these crises has facilitated the identification of factors that generated such phenomena and the implementation of adequate measures within the banking system with the purpose of avoiding future onsets and developments of such crises. Moreover, the analysis of bank performance and risk offers a clear image regarding the different manners in which bank systems from Europe, United States of America (USA), Canada and Brazil have been impacted, depending on their size, specialization and integration degree.

The **motivation behind this Ph.D. thesis** stems from nowadays economic reality, which shows that the changes occurred both in the economic field but also in the financial field call for the enactment of essential changes regarding bank management in order to strengthen the bank capacity of constantly assessing performance and risk with the aim of preventing the occurrence of certain risks and with the aim of increasing the market share of banks. Performance and risk are two essential components of management within credit institutions. Starting from the fact that in recent years economic crises have yielded new risks and vulnerabilities, I have grounded the present research on the current reality experienced by the banking system aiming to highlight the causes that have generated a decrease in banking performance and an increase in banking vulnerability. Furthermore, another aim was to identify viable solutions that banks could implement in order to avoid similar future situations.

The topic of this present research targets the analysis of financial reporting system, the analysis of banking performance and risks, along with how these elements are integrated in the rating of credit institutions from Europe, USA, Canada and Brazil in the attempt to identify the link between performance and risk, to establish the causes that generated the crises and to emphasize the effects of these events on bank performance and risks.

The goal of analyzing bank performance and risk is that of designing a system of indicators with which any bank can permanently assess profit levels and risks in order to prevent the bankruptcy risk of the credit institution. The accumulation of risks during these crises became evident especially for the banking industry and it represented one of the major causes that generated the financial crisis and the most recent health crisis. In this sense, the idea of developing a *composite rating system* that can offer a general image concerning the level of risk incurred by a bank was the main reason for conducting the present research study. From the abovementioned motivation, the following main questions on which I have grounded my Ph.D. thesis arise: 1) *To what extent are the systems of analyzing performance and risks more efficient than the traditional analysis of bank performance and risk?* 2) *What is the impact of the two systems of indicators for measuring performance and risk on bank stability?* 3) *Is the proposed composite rating model useful for preventing bankruptcy risk as compared to the systems CAMELS, CAAMPL, PERLAS, PATROL and ORAP?*

In order to attain the goal of the Ph.D. thesis, I have formulated the following **objectives**:

1. Comparative analysis of the financial reporting systems at international level in order to harmonize the information they contain;
2. Critical analysis of the literature on banking financial reporting, performance, risk and rating;
3. Dynamic analysis of bank performance in connection to the financial crisis and the sovereign debt crisis;
4. Analysis of banking risk, phenomenon that has amplified during the period of crises;
5. Empirical research on the link between bank performance and risk;
6. Developing a *composite rating model* and analyzing the impact it generates on the stability of banks from Europe, USA, Canada and Brazil.

Recent *research studies*, focused on the financial aspects included in the Ph.D. thesis, emphasize the importance that must be granted to bank performance analysis in close connection with risk analysis. Therefore, the analysis of bank performance and risk gains new insights, on the ground of the current health crisis that has been manifesting at global level.

The *research methodology* has focused on the analysis of the dynamics and structure of bank performance and risks, considering the financial crisis. Throughout this Ph.D. thesis I have presented theoretical and practical aspects, I have conducted qualitative and quantitative analyses,

all with the aim of analyzing banking activity amid financial crises and of identifying ways in which the negative effects caused by the frictions on capital markets could be eliminated. The manner of approaching the topic of the Ph.D. thesis stems from combining quantitative and qualitative analyses across the four chapters in order to answer to the objectives set for this scientific research. The quantitative analyses from chapters two and three of the Ph.D. thesis were based on the static and dynamic analysis of the income statement elements, on the analysis of performance and risk ratios, and also on panel data econometric analyses.

The research study was based on data retrieved from the balance sheet and income statement of 22 European and American banks for the period 2006–2019 with the purpose of capturing as detailed as possible the period before the 2008–2010 crises, but also the period following the sovereign debt crisis. In order to obtain the *composite rating model* I have used the scoring method.

The present Ph.D. thesis is structured in four chapters, each chapter tackles in detail specific objectives, focusing on bank performance and risk in relation to the aforementioned crises. Each chapter comprises relevant literature review, a presentation of the main concepts, financial analysis and empirical studies (i.e., chapters two and three). In my view, such a content offers clarity and scientific consistency regarding the topic of each chapter.

In the first chapter titled “*Financial reporting system in banks – Data source for financial analysis*” I have conducted a comparative analysis on financial reporting of banks from Europe, USA, Canada and Brazil. Hence, I have shown that at the end of the financial exercise the balance sheet of a bank includes elements of assets and liabilities along with the relationship between them, namely the *financial position*. Understanding the elements of the balance sheet and the manner in which bank transactions influence these elements provides instruments necessary for the analysis and management of credit institutions. Moreover, I have also emphasized that the financial analysis of bank performance and risk is based on three pillars of annual reporting: balance sheet, income statement, cash flow statement. Therefore, I have presented each pillar of financial reporting in detail and I have highlighted the structural differences of these financial statements for a sample of banks from Romania, France, Italy, USA, Canada and Brazil.

In order to elicit the ways of ensuring performance within the banking system, in the second chapter titled “*Methods of analyzing performance in banks from Europe, United States of America, Canada and Brazil*” I have tackled bank performance with respect to profitability and

return and I have identified the factors influencing performance. I have also indicated the methods of analyzing performance, static analysis and dynamic analysis of performance in the context of financial crises.

In my view, bank performance can be identified through a financial analysis system built on ratios, which targets the link between profit and risk and which monitors the way in which bank assets and liabilities are managed. The most used indicators for assessing bank performance and solidity can be grouped in: asset quality indicators; profitability indicators; banking risk indicators.

Bank activity was examined in close connection with performance and risks, hence in the third chapter titled “*Current challenges of banking risks*” I have conducted a detailed analysis of the main categories of risks.

In the financial-banking field, risk is correlated with the probability of incurring losses. Banking risk is generated by operations and procedures that require addressing an interdependent risk system, which can have common causes and can generate new risks. Even though the literature does not provide a unanimously accepted taxonomy of banking risks, the Basel requirements at international level and the requirements of the National Bank of Romania can be regarded as starting points in classifying banking risks. Following the literature review, I have noticed that the main risks with which banks are faced and the risks that I have considered for this research were: liquidity risk; interest rate risk; operating risk; market risk; credit risk.

The global performance of a bank is emphasized by its *rating*, and the relationship between profit and risk is analyzed in the last chapter of this scientific research titled “*System rating – Manner of preventing bankruptcy risk*”.

Although recent experiences have indicated that some internal factors have a greater impact on the evolution of bank performance and risks, I believe that the variables included in the models CAMELS, CAAMP, PERLAS, PATROL and ORAP are fundamental for assessing profitability and for efficiently monitoring banking risks.

The environment in which a bank operates is extremely complex, falling under the influence of various factors. Assessing the external factors is very important for a bank considering the influence of these factors on bank performance, but also the success of various strategies that can be implemented at individual level.

The **contribution** of the present research for the development of the literature in the field resides in the development of a *composite rating model* for measuring banking stability based on



the ratings CAMELS, CAAMPL, PERLAS, PATROL and ORAP, which are also based on financial and non-financial criteria regarding bank performance and risk.

The results registered with the proposed composite rating model, comprising financial and non-financial criteria, indicate with a higher accuracy the financial stability of each credit institution, irrespective of the international reporting standards applied by it.

The *major contributions* of the research presented in the Ph.D. thesis named “***Modeling performance and risk in banks. An international comparative approach***” consist in the analysis of the link between performance indicators and risk indicators, the static analysis and dynamic analysis of these indicators in the context of the financial crises from the period 2006–2019, and the identification of a mechanism for measuring banking stability based on a *composite rating* that facilitates assessing the stability level of a bank. The quantitative and qualitative indicators offer a general view of the aspects analyzed by describing in detail all concepts and by means of the empirical research concerning the analyzed phenomena.

By the very structure of the Ph.D. thesis, which starts with the financial reporting system, continues with the analysis of performance and risks and ends with the description of a new composite rating, the present research represents an important work that adds to the scientific treasure of analytical and empirical studies on banking performance and risk.

# **CHAPTER 1.**

## **FINANCIAL REPORTING SYSTEM IN BANKS – DATA SOURCE FOR FINANCIAL ANALYSIS**

Financial reporting is undeniably a way of highlighting changes in the patrimony of an economic entity in general and a financial institution in particular. The analysis of bank performance and risk is based on financial data from the balance sheet, profit and loss account (i.e., income statement), cash flow statement, statement of changes in equity, notes to financial statements. Starting with January 1, 2012, banks from Romania keep the accounting records according to the International Financial Reporting Standards enacted according to the procedure of the European Community Rule no. 1606/2002 of the European Parliament and the International Accounting Standards Board (IASB) from July 19, 2002, standards found in the literature under the acronym IFRS. Credit institutions organize and manage accounting based on the proceedings of the Accounting Law no. 82/1991 republished, based on the IFRS and the regulations issued by the National Bank of Romania<sup>1</sup>.

The management of banking assets and liabilities (ALM) focuses on collecting and using funds, thus representing the financial core of the bank (Van Greuning & Brajovic Bratanovic, 2003: 44). Therefore, the management of banking assets and liabilities includes stages such as strategic planning, implementation and control, which influence the volume, fluctuation, the interest rate maturity, the quality and liquidity of the elements within the balance sheet of a bank. The main objective of ALM is to generate a cash flow of net income from interest, which has to be stable, to manifest an ascending trend and to have a high quality level. These goals regarding the cash flow are attained by optimally combining assets, liabilities and financial risk (Van Greuning & Brajovic Bratanovic, 2003: 44).

The literature offers numerous studies that cover the topic of the banking assets and liabilities management (e.g., Amenc, Goltz & Schröder, 2009; Găban, Rus & Fetița, 2017b; Kosmidou & Zopounidis, 2008; Lileikiene, 2008; Singh, 2014).

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<sup>1</sup> The NBR Order no. 9/2010 regarding the enactment of the International Financial Reporting Standards by credit institutions, as an accounting basis and for preparing annual individual financial statements, starting with the 2012 financial exercise, published in the Of. M. no.535/30.07.2010.

Throughout this chapter I have shown that the financial analysis of performance and risks in banks is grounded on three pillars of annual reporting: balance sheet; profit and loss account; cash flow statement. In this context, I have made a detailed presentation of each financial reporting pillar and I have indicated the structural differences of the balance sheet, profit and loss account and cash flow statement for a sample of banks from France, Italy, Romania, USA, Canada and Brazil.

## **CHAPTER 2.**

### **METHODS OF ANALYZING PERFORMANCE IN BANKS FROM EUROPE, UNITED STATES OF AMERICA, CANADA AND BRAZIL**

The market economy, within which banks operate, offers (besides new business opportunities and options for diversifying income sources) also the possibility for the emergence of an increasingly complex range of risks, which also become challenges for the traditional approaches of banking management (Trenca & Coroiu, 2006). Within the context of the present health crisis, the management of performance and risks prompt the executive management of the bank to assess the scenarios that should be implemented for economic growth, asset return and risks associated with crediting the economy. During the last years, banks have considered besides the classical methods also other methods of determining performance, such as: value added, return of venture capital and bank liquidity.

One of the targets of bank management is choosing the most efficient profitability models, which focus on investment efficiency at the level of each bank branch. In this sense, banks also consider (besides augmenting the volume of investments and resources) diversifying the portfolio of banking products and services offered, which have become constant activities of the management of banking performance.

Bank performance targets its capacity of generating a sustainable profit in the long run (Bătrâncea et al., 2016a; Găban et al., 2017). Hence, bank performance is essential both for continuing the activity and for investors, who aim to cash in dividends after placing cash at banks under the form of deposits. At the same time, performance is important also for monitoring authorities because based on this indicator one establishes the risk level of the banking environment and the necessary guarantees in accordance with the risks corresponding to the system components. The main vectors of bank performance are income, efficiency of operations, risk taking and the leverage effect. Depending on their own interests, different participants from the banking sector (clients, managers, financial analysts, rating agencies, consultants, monitoring authorities, etc.) follow their own set of indicators when computing bank performance (Banca Centrală Europeană, 2010).

Assessments conducted within the banking management assist with managing risks that are connected to the allocation of own resources and attracted resources, and with evaluating the

performance of each bank. At the same time, improving bank performance aims at increasing profit, satisfying clients' requests in a manner as real as possible, improving the level of capital adequacy and suitably managing the risks that are associated with banking activities. All these characteristics create an even greater competition and viability within the banking sector, thus contributing to the economic development of the country where the bank operates.

In my view, the performance of a bank can be elicited with the help of a financial analysis system, designed via ratios and which considers the correlation between profit and risk, aiming at the management of banking assets and liabilities. The most popular indicators for evaluating banking performance and solidity are grouped in: indicators of asset quality, indicators of profitability, indicators of banking risk. The analysis of bank performance is based on methods that can be divided into three categories: *traditional methods*, *economic methods* and *methods based on market indicators*.

The global bank performance is indicated by the relationship **profit – risk**. Based on financial statements one computes numerous economic-financial indicators that are grounded in the concept of profit, which is in direct connection with the risk taken by the bank. According to the literature, the concept of “performance” is associated with the notions of “profitability” and “efficiency”. Profit is the main source based on which banks establish reserves, thus contributing to the increase in bank capitalization facilitating preventive measures against potential losses triggered by default probabilities following the lending process (Stoica & Căpraru, 2009). According to economic theory, in a perfectly competitive market, profit maximization equals cost minimization. The management aims at profit maximization, therefore yielding a superior bank performance. Profit stability and growth trends are the best synthetic indicators of past and future bank performance (Cocriș & Andrieș, 2010).

In my view, banking profitability represents a bank's capacity of generating profit from all its activities and it is an indicator for measuring efficiency. In this sense, net profit is considered to be a better measure for bank performance. Besides net profit, indicators such as net interest margin and return on equity should be considered for assessing profitability.

Another aspect targeted in this research was the structure of the two components from the income statement (i.e., income, expenditures). According to specialists in the banking field, when analyzing the structure of banking income one has to grant a special attention to the following aspects: trends, structure and accuracy of reported profits; quality, structure and the level of income

and expenditure elements; dividends paid and reported profit; major sources of income and the most profitable business areas; the manner in which the interest accrued but not collected is incorporated into income, especially for loans that are or have to be included in the substandard or inferior risk strategies; the degree in which guarantees (and not operational cash flow) constitute the basis for decisions regarding interest capitalization and/or extending loans; policies of recognizing income and expenditures that distort results; effect of intra-group transactions, especially those regarding profit transfer and assessment of assets-liabilities.

Throughout this chapter I have analyzed the factors influencing banking performance across the entire sample, across the banks from Europe and the banks from USA, Canada and Brazil. I have noticed that performance is mainly determined by the evolution of income, interest expenses, commissions, expenses related to financial operations and other expenses. If in the case of banks from Europe and Brazil the main income is represented by interest income, in the case of banks from USA and Canada the most important income sources are financial operations, other banking activities and commissions.

The empirical research has elicited the fact that certain factors significantly influenced performance indicators for the banks in question. Econometric models showed that liquidity and solvency indicators had a notable impact on performance indicators such as interest income margin (MAB), capitalized assets margin (MAV), return on assets (ROA), return on equity (ROE), general return rate (RRG) and profit margin (MP).

## **CHAPTER 3.**

### **CURRENT CHALLENGES OF BANKING RISKS**

In a market economy, banking activity is subject to risk and uncertainty. As commercial entities, the goal for banking activities is profit maximization amid risk minimization. Since the yield of profit cannot be attained without risks, banks have to take a certain risk dose, nevertheless within managing boundaries.

Banking risk is an essential component of management because the bank aim at maximizing its profit and maintaining an acceptable risk level (Bătrâncea et al., 2016b; Găban, Rus & Fetița, 2017a). Through the system of identification, evaluation, analysis and control, the management of banking risks targets to mitigate the negative influence of risk factors during the planning stage, but also to minimize losses during the operation execution stage of the proposed strategic plan. Hence, risk management is grounded on two types of relationships. The first relationship focuses on the global strategy of the banks and risk types. The second relationship is set between the commercial and the financial areas. The commercial policy of the bank deals with comparing banking products-current and future bank clients, while the financial policy stems from the comparison between return and risk (Iliescu, 2006: 53).

The role of management in identifying financial risks is described by the *Basel Committee for Banking Supervision*. According to the Committee, all the managerial levels of an organization that uses new financial instruments has to know and understand the related risks, to adapt internal accounting systems in order to ensure an adequate control. The financial market is permanently under the influence of subjective and objective factors, reason for which it is extremely volatile. Therefore, maximizing the bank profit means a permanent exposure to risk. In order to generate profit, credit institutions have to take specific risks under *conditions of prudence*, taking into account the following factors (Nițu, 2000: 34): following the prudential regulations set by the National Bank of Romania; the forecasted profit should justify risk exposure; losses should not considerably deteriorate the annual financial situation, these being covered based on profit or provisions; risk sizing so that the loss be considered normal for banking activity, and the bank image not to be damaged. Hence, the credit institution can accept risk exposures only if these are profitable, without taking individual or cumulated risks that cannot be measured or whose consequences could jeopardize the bank.

Throughout this chapter I have analyzed the factors that impact on the risk of 22 banks from Europe, USA, Canada and Brazil. I have noticed that banking performance influences risks via specific indicators: return on banking assets, operational profit margin, return on equity and general return rate. There is no doubt that the analyzed risks represent important components of the systemic risk. These components must be constantly monitored in order to prevent bank insolvency, as the USA experienced in the period 2008–2010 with the investment bank Lehman Brothers and over 450 local banks.

The empirical research elicited the fact that profitability indicators significantly influenced interest rate risk, liquidity risk, operating risk, market risk and credit risk, namely it mitigated them. The research conducted on the 22 banks showed that the main cause that could increase risks within the banking system is bank exposure. Hence, it is important for banks to protect their assets from risk via a prudent investment policy on the capital market with high returns and minimum risk.



## CHAPTER 4.

### SYSTEM RATING – MANNER OF PREVENTING BANKRUPTCY RISK

In the economic literature, the concept of *rating* plays a fundamental role for companies in general and for credit institutions in particular because this provides important information regarding their health (Bae et al., 2013; Bătrâncea, Găban & Rus, 2015, 2016; Bătrâncea et al., 2015; Baghai, Servaes & Tamayo, 2014; Bedendo & Siming, 2020; Chi & Zhang, 2017; Gavalas & Syriopoulos, 2014; Găban, Rus & Fetița, 2017c; Han, Pagano & Shin, 2012; Kravets, 2009; Lu et al. 2012; Machauer & Weber, 1998; Weisssova, Kollar & Siekelova, 2015). Numerous studies have reported that a high bank rating signals financial equilibrium, solid financial performance and robust payment capacity.

In this chapter I have analyzed the implications of banking performance and risks on the rating system. I have conducted a comparative analysis on the results provided by the CAMELS (specific for USA banks), CAAMPL (specific for Romanian banks), PERLAS (specific for credit unions), PATROL (specific for Italian banks) and ORAP (specific for French banks) rating systems. I have noticed that the CAMELS rating system favors American banks (for which it was originally been designed), while the rating systems CAAMPL, PATROL and ORAP favor European banks. Considering these differences, I have designed and applied a new composite rating system based on the notations of rating agencies and the value scale 1–5, which is common for all these monitoring systems (i.e., CAMELS, CAAMPL, PERLAS, PATROL, ORAP).

After applying this composite system, the banks ratings were flattened and they approached the average of European banks and the average of banks in the USA, Canada and Brazil.

I believe that a multi-criteria and multicultural system as the one advanced in this Ph.D. thesis can prevent the bankruptcy of a credit institution in advance.

## CONCLUSIONS AND PROPOSALS

The 2008 financial crisis, the 2010 sovereign debt crisis and the recent health crisis from 2020 are phenomena that the financial world faced or still faces and which had a strong impact on the economic and social life at global level. Globalization, European integration, the liberalization of capital markets are extensive processes that shape both the world economies and the world population. The evolution of these global phenomena show that we live in a global world with permanent dependencies and interdependencies, which trigger crises that manifest at the societal, group or individual levels.

In my view, a harmonization between US GAAPs (i.e., American standards of financial reporting) at the international level, IFRS and European Directives at international level is necessary in order to avoid misunderstandings among investors regarding their wealth, but also regarding the banking performance and viability of banking activities. I believe that financial reporting based on the balance sheet (list format), income statement and cash flow statement have to be grounded on the International Financial Reporting Standards, which provide a common language for all investors from Europe, North and South America, Asia, etc.

The literature reports an extensive debate on the concepts of bank profitability and return. I believe that bank return indicates its capacity of generating profit from all activities due to an efficient use of all resources available on the market. In business, profit represents the excess of income as compared to expenditures and it measures the performance of a bank. Moreover, net profit is regarded as a better measure for bank performance in comparison with operating profit. Besides net profit, the interest rate net margin and the return on capital employed are two important indicators for the assessment of bank performance. Furthermore, bank performance can be measured either by qualitative or quantitative methods. In addition, performance can be measured with respect to return, growth, efficiency, liquidity and performance of credit risk, solvency.

By analyzing the performance of European banks, I have noticed that they were less affected with respect to income and intermediary profit results. At the same time, banks from USA and Canada (except for those in Brazil) have faced major perils after acquiring a large volume of toxic assets from the capital market, which considerably mitigated bank assets. Another notable aspect was that North-American banks were seriously affected by the consequences of the crisis, while European banks did not face major financial difficulties after applying certain adequate

prudent policies concerning investments on the capital market. Still, I have observed that the existence of a similarity between bank policies regarding commissions and interests. Hence, banks from these regions implemented lower interest rates when granting a loan simultaneously with significantly raising risk commissions, loans management commissions and other commissions (cash withdrawal, financial operations towards other banks, etc.).

In order to implement an adequate management of banking performance, one should consider all elements that could jeopardize its activity and could negatively hinder the attainment of the objectives pursued by the chosen strategies. Moreover, it is necessary to compute the most relevant indicators that could fit the bank goals and could express the real situation regarding the bank performance at a certain point in time. The current macroeconomic context requires that banks respond in an adequate manner to their customers' needs. Therefore, an efficient management of bank performance should consider the increases of its profitability, the correct risk management strategy, increases in the bank market share, the maintenance of the competitiveness level to the standards imposed by the current situation.

Although recent experiences have signaled that some internal factors exhibit a stronger influence on the evolution of bank performance and risks, I consider that the variables included in the rating models CAMELS, CAAMP, PERLAS, PATROL and ORAP are fundamental for estimating profitability and for monitoring bank risks. The environment in which a bank activates is extremely complex, including multiple factors of different nature. Therefore, the assessment of external factors is essential from the perspective of their influence on bank performance, but also considering the success of certain strategies that can be implemented by each bank.

All in all, the results of the empirical research concerning the monitoring by means of the proposed composite rating system, based on financial and non-financial criteria, have elicited with a higher accuracy the financial stability level of each bank, irrespective of the international reporting standards that the credit institutions abides by.

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## **LEGISLATION**

1. Circulara nr.47 a B.N.R./18.12.2004 privind modificarea și completarea Planului de conturi pentru societățile bancare și a normelor metodologice de utilizare a acestuia, aprobate prin Ordinul ministrului de stat, ministrului finanțelor și al guvernatorului Băncii Naționale nr.1418/344/1997, cu modificările și completările ulterioare, publicată în M. Of. nr. 964/28.12.2002.
2. Legea nr.57/22.12.2003 privind Codul Fiscal, publicată în M. Of. nr.92/23.12.2003, art. 26.
3. Legea nr.58/5.03.1998 privind activitatea bancară, publicată în M. Of. nr.78/24.01.2005, art. 60.
4. OMFP nr.263/5.02.2004, privind modificarea și completarea unor reglementări contabile aplicabile instituțiilor de credit publicat în M. Of., Partea I nr.163/25.02.2004.
5. OMFP nr.1982/8.10.2001, pentru aprobarea Reglementările contabile armonizate cu Directiva Comunităților Economice Europene nr.86/635/CEE și cu Standardele Internaționale de Contabilitate aplicabile instituțiilor de credit, publicat în M. Of. nr.694/1.11.2001.

6. OBN nr.5/8.10.2001, pentru aprobarea Reglementărilor contabile armonizate cu Directiva Comunităților Economice Europene nr.86/635/CEE și cu Standardele Internaționale de Contabilitate aplicabile Instituțiilor de credit, publicat în M. Of. nr.694/1.11.2001.
7. Ordinul BNR nr.9/2010 privind aplicarea Standardelor Internaționale de Raportare Financiară de către instituțiile de credit, ca bază a contabilității și pentru întocmirea de situații financiare anuale individuale, începând cu exercițiul financiar al anului 2012, publicat în M. Of. nr.535/30.07.2010.
8. Ordinul B.N.R. nr.344/1.08.1997 privind aprobarea Planului de conturi pentru societățile bancare și a normelor metodologice de utilizare a acestuia publicat în M. Of., Partea I nr.189/8.08.1997.
9. Ordinul nr.13/19.12.2008 pentru aprobarea Reglementărilor contabile conforme cu directivele europene, aplicabile instituțiilor de credit, instituțiilor financiare nebankare și Fondului de garantare a depozitelor în sistemul bancar, publicat în M. Of nr.879/24.12.2008.
10. Regulamentul nr. 5 din 18/02/2008 al Băncii Naționale a României, privind riscul operațional, art.2(1), lit. c.
11. Regulamentul nr.6/2002 al Băncii Naționale a României privind regimul rezervelor minime obligatorii, publicat în M. Of. nr.566/01.08.2002.
12. Regulamentul Băncii Naționale a României nr.18/17.09. 2009 privind cadrul de administrare a activității instituțiilor de credit, procesul intern de evaluare a adecvării capitalului la riscuri și condițiile de externalizare a activităților acestora.

## ***INTERNET SOURCES***

1. <https://www.alphabank.ro/>
2. <https://www.bankofamerica.com/>
3. <https://www.bancatransilvania.ro/>
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5. <https://group.bnpparibas/en/>
6. <https://www.bmo.com/>
7. <https://www.bw-bank.de/de/home.html>
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9. <https://www.ecb.europa.eu/ecb/html/index.ro.html>
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26. [https://www.unicredit.it/en/about\\_us.html](https://www.unicredit.it/en/about_us.html)