

**“DUNĂREA DE JOS” UNIVERSITY OF GALATI
DOCTORAL SCHOOL OF SOCIAL AND HUMAN
SCIENCES**



**Abstract
PH.D. THESIS**

**Globalization and European Integration in
Banking – Review of Bank Performance and
Risk Management Process**

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Author**Cuța (Stratulat) Angelica****I. Key words**

Globalization, banking system, banking, performance, operational risk, econometric model, electronic payment system, monetary convergence, sustainable economic growth, unitary banking policies

II. Conceptual landmarks of the research

The topicality of the research theme. The complex and delicate nature of bank performance topic in the context of severe competition and the emergence of multiple risks, requires banks to continually assess their behavior and analyze their internal activity organization. Given the fast changes that have taken place lately in national economies, the starting points for a new banking order must be based on new management models in this area.

Description of the situation in the research area and identification of the research topics. Within the Institutional Financial Changes such as liberalization of the capital flow, the competition increase in the financial institutional environment, the increase of the volume of transactions, especially of speculative ones, have influenced the occurrence of a financial instability with consequences on two levels, namely the credit risk and the concerns about the risk management valences through the emergence, extension of valuation techniques and the protection of bank's performance.

Bank performance is a critical tool of analysis for bank managers, shareholders, and, last but not least, for all financial market participants who, by their nature, have business relationships with the banks.

In practice, the analysis of bank performance is outlined using a series of indicators, the magnitude of which is given by the result of the comparison between the Balance Sheet items.

The influence of the risk factors is an absolutely necessary analysis in the banking environment, the results of which depend on the systemic banking (operational) components and on the structural organizational categories. The process of limiting the factor's influence is dynamic, adaptive and correlated with macro-systemic developments.

The banking system was marked in its evolution by the development cycles which overlapped Marcov chains which signaled the presence of economic crises. From evolution's point of view, through its extrinsic function of financing the economy, the banking sector has played a role as shock receiver and as a supplier of stability, systematically covering the financing request of the business operators.

Along with the market globalization phenomenon, the banking sector has gained global valences by creating multinational financial institutions, which currently assume the role as strategic partners of the governments all over the world and of the greatest actors from the global markets.

The banking phenomenon analysis raised the interest of many experts in this area, approaching various themes from the social tangent lines of the profession to the capacity as financial pressure regulator, which the banking institutions have assumed at world level.

Some authors have approached in their research themes such as the process of sustainable development of the banking industry, issuing financial integration models of the institutions on the emergent markets or on the global developed markets. A new concept introduced along with the activation of the Global Financial Crisis of 2007 – 2008 was the CRS – Corporate Social Responsibility concept, which aims at developing some social relations in a financial, economic and social stable environment.

Another concept approached by the experts in the area was the capacity of the financial institutions to contribute to the economic increase and to assume responsibilities in the area by the main actors from the banking market. Actually, the banks contribute to the improvement of sustainable economic development practices, through the integration of a concept generically named ESG - Environment Social and Governance. For the monitoring of financial performance and of the role of generating a sustainable economic growth, banking segment monitoring institutions like The International Monetary Fund (IMF), The World Bank and European Central Bank have been created, institutions which act both as assessors and bodies for the monitoring of national and commercial banks.

Another concept applied in the development of the banking activity is represented by GRI – Global Reporting Initiative, which provides the application of ISO 140001 principles as reporting standards on the financial capacity.

The economic crisis, deflation and monetary convergence phenomena have raised the interest of the researches which have focused their studies on shaping the risks and uncertainties from the banking system, by establishing some models of risk prevention, performance increase and double protection of the system and economies where the financial system has been activating.

The specialty literature highlights many risk prevention models, but the most important one in the author's opinion is the virtual model of development and strengthening of the electronic system based on the single currency. This model faces also criticism due to the instability of the convergence rates, the transparency of the harmonization process suffering an image setback in the period between 2016 and 2017 due to the volatility of the exchange rate of the virtual currency.

Some experts estimate that the inclusion of the corporative management element and CSR, as well as the training of the clients – internet banking users, can subdue the asymptomatic curve of development of the electronic system. The sustainable banking practices and the adoption of some sets of unitary policies at world level contribute to this endeavor.

The purpose of the research resides from the most important objective of the banking system, namely of maximization of banking profitability through the identification of the crediting requirement and definition of strategy, in conditions of banking performance and minimum risk. Due to this, the limitation possibilities of the operational risk phenomena through an econometric model are analyzed, an innovative approach of the banking phenomenon being imposed in the global context, so that the banking companies succeed in reaching the primary objectives by achieving profits from the basic activity and to keep the actual role of global economy's driving force.

*In order to achieve this purpose, the following **scientific objective** has been established:*

1. The analysis of the main development trends of the banking services in the globalization context.
2. The influence of the crisis on the banking global system.

3. The influence of globalization on the banking sector from different areas of the globe.
4. The evolution of the banking system in the Romanian banking system.
5. The impact of Basel changes on the risks from the Romanian banking system.
6. Aspects on the global performance in the banking system.
7. Models used in the measurement of global performances.
8. The operational risk in the banking system.
9. The development of own econometric model on the quantification and provisioning of the operational risk in the banks.

Methodology of research and theoretical – scientific support of the thesis. The research methodology is bi-directional, based on the study of the specialized literature, respectively an empirical one, based on the in-depth study of the financial policy indicators reported by the banks, harmonized through the statistical-mathematical methods in tools / models of quantification, forecasting and networking of the risks and risk generating factors.

The provisions of the European Directives, the provisions of BASEL Accords, the National Bank of Romania norms, specialty papers from international and national literature had been taken into consideration in the creation of the study. Management diagnostic models for the Romanian banking sector, along with the variables which determine the competitiveness of the banks in this sector, were presented in the paper. Information coming from three top banks from the Romanian banking market had been used for this model. Accordingly, conclusive information from the annual reports, national and international statistics, as well as from other available sources were taken from the three banks: BRD – Romanian Development Bank, member of the French group Societe Generale, BCR – Romanian Commercial Bank, part of Erste group, respectively Raiffeisen Bank, subsidiary of Raiffeisen Austrian Group.

The grouping of the key variables was achieved in six dimensions (Competitive strategy; Strategic Links; Clients; Power to negotiate; Limitations; Financial Variables) and a data collection instrument and a factorial analysis had been applied, through which the most important variables had been identified in order to define the model. Practically, the study represented a non-experimental research in which a transactional design was used, because the variable measurement is achieved in a descriptive time. Accordingly, the collected data had been interpreted and studied for a period of three years, helping to the calculation of model's basic variables.

The subject of the research is represented by the Romanian banking system and by the assessment of the operational risk in banking activity.

The scientific novelty and originality of research consists in performing a comparative study on the operational risk in the Romanian banking system, highlighting the main methods for quantifying and verifying the banking systemic operational risk, after performing a risk analysis (approach based on scenarios), shaping the operational risk and determining the capital necessary for covering this type of risk.

The solved scientific problem proves that the correct quantification of the dimension of the banking risk phenomenon contributes to increasing the attractiveness of system's usage by the economic operators, underlying the managerial success of the banking units in

the conditions of operational risk limitation and of a prudential approach in the development of current activity.

The theoretical importance and applicative value of the research reside in the pragmatic analysis of the actual structure of the banking system, in the structuring of the concepts based on the new regulations of BASEL International Accords in accordance with the market reality, in the creation of some applicative / practical assessment models of operational risk and transposing the results to the current activity area characterized by financial flows between all actors from the market.

Implementation of scientific results. The proposed measures had been tested through the application of observational technique based on “Front – Office Operational Risk Analysis” Survey, addressed to a number of 50 operators from the banking system, survey which reflected the actual tendencies of risk permissiveness according to the personal perceptions of the interviewees and to the professional experience accumulated by the respondents.

Publications to the thesis theme. The main research results were disseminated to national and international conferences, as follows:

1. Riana Iren, Radu and Angelica STRATULAT. "New Aspects Regarding the Role of Banks in Economy in the Context of Globalization." Economics and Applied Informatics1 (2017): 161-166.
2. Stratulat, Angelica. "Issues Regarding Operational Risk Modeling in Banking Units." Economics and Applied Informatics 3 (2016): 132-139.
3. Stratulat, A. and Viorica, Ioan 2013. Analysis of Performance Measures in the Banking System. Economics and Applied Informatics, (2), pp.39-44.
4. Ioan, V. and Stratulat, A., 2012. Lending and Credit Monitoring Principles. Risk in Contemporary Economy, pp.423-428.
5. Angelica, S., 2016. New Developing Methodologies for Strategic and Operational Limits in the European and Romanian Banking System. Risk in Contemporary Economy, pp.412-416.
6. Stratulat, A. and Susanu, M., 2016. The Governance of the Operational Risk Indicators. Risk in Contemporary Economy, pp.341-351.
7. Cucșa, A., 2016. Risk Modeling Approaches in Terms of Volatility Banking Transactions. Ovidius University Annals&58; Economic Sciences Series, 16(2), pp. 455-460.

Also, the results of the research (7 articles) were published in Romanian scientific magazines which appear in international data bases, indexed domain wise (Econlit, RePec, Index Copernicus, DOAJ, Cabell’s, Econis and Ebsco).

The volume and structure of the thesis. The thesis comprises introduction, four chapters, general conclusions and recommendations, bibliography (128 sources), 140 footnotes, 1 annex, 204 pages of basic text, 73 tables and 84 figures.

III. Contents of the thesis

The Ph.D. thesis with the theme “**Globalization and European Integration in Banking – Review of Bank Performance and Risk Management Process**” has an interdisciplinary character, is structured in four chapters and deals with economic concepts of great importance, such as: the globalization in banking, zonal dimension of the globalization phenomena in the banking sector, factors generating global performance in banking system, banking risks and, especially, the operational risk in the banking system, operational risks control models at banking groups level.

Chapter 1, The influence of the globalization phenomenon on worldwide banking, represents the development of an analysis which is bi-dimensional and focused on globalization and banking phenomena, as well as on their manifestations in the global macroeconomic sector. An important role is held by the zonal context of the banking phenomenon, influenced by the global variety of fiscal and monetary policies with impact on the reorganizations of the system and on the changes of classifications in the world banking hierarchy.

The analysis of global developments in banking policies is carried out in light of the influences of the economic crises and of the dynamics of monetary policies. For this purpose, a pragmatic analysis of the current structure of the banking system is carried out, pointing out differentiated zonal aspects, including by novelty factors that affected the system through successive transformations and alignments to operational rules increasingly rigid in the global system.

MAIN GLOBAL INDICATORS OF BANKING PHENOMENON

Region around the globe	Capital level 1 billion \$	Billion \$ profit before taxation	Profit rank before taxation	Total assets Billion \$	% Assets to Capitals Ratio	Return on capital %	Return on assets %	BIS Total %
Asia-Pacific Area	1500709.98	312450.87	282	24209513.7	101.04	352.94	21.17	236.04
Central and East-European Area	35689.15	6651.5	33	447950.51	7.97	18.64	1.48	12.1
Europe	1233501.98	101503.97	1869	27066627.3	90.26	153.23	7.51	325.65
North America	996972.23	143986.88	241	13000663.1	83.32	191.78	13.47	175.43
South America	69943.61	16721.58	55	905813.23	15.54	47.37	3.77	33.01
Total	3836816.95	581314.8	2480	65630567.8	298.13	763.96	47.4	782.23

Source: Processed by the author according to <https://www.thebankerdatabase.com/> (accessed on the date of 15th March 2017)

MAIN DERIVING INDICATORS AND THEIR GLOBAL DISTRIBUTION

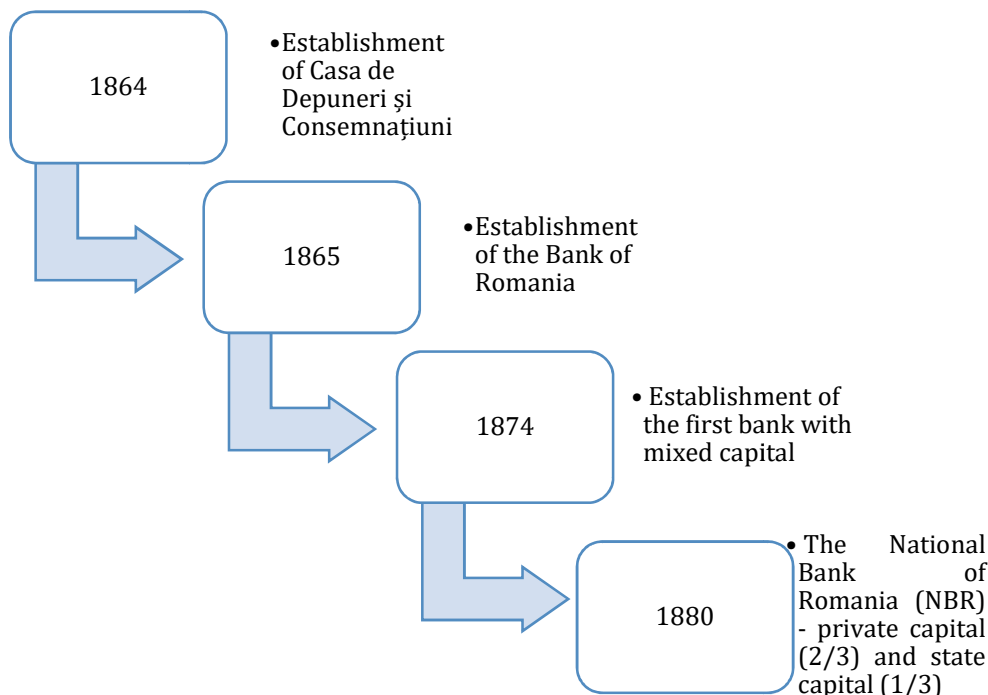
Region around the globe	NPL %	Loans VS active Ratio	RWA to TA Rate	Cost/ income ratio %	Rank of cost/income ratio	Cash and balance of Central Banks Billion \$	Total Gross Credits Billion \$
Asia-Pacific Area	18.46	885.25	932.17	664.59	11640	2491495.32	12608669
Central and East-European Area	3.2	74.54	92.72	37.19	742	47539.91	333904.51
Europe	79.4	925.03	669.1	1209.94	4784	1305505.76	12296063.7
North America	23.8	460.26	625.89	704.41	2624	176040.14	5102162.58
South America	7.36	95.55	129.6	97.96	983	59184.64	437064.5
Total	132.22	2440.63	2449.48	2714.09	20773	4079765.77	30777864.2

Source: Processed by the author according to <https://www.thebankerdatabase.com/> (accessed on the date of 15th March 2017)

Author's own contribution to this chapter consists in the systematization of the economic information from the literature and specialty sources, with the purpose of highlighting the status of knowledge in the global evolution of the banking system.

A review on its changes in different historical periods is performed **in the second Chapter, Evolution and trends in the Romanian Banking System**, with actual emphasis on the efforts of alignment to the European Directives issued in the area.

Beginnings



The communist regime

- 1946 - The National Bank of Romania was nationalised, becoming the Bank of the Romanian People's Republic - State Bank.
- Casa de Economii și Consemnațiuni held the monopole in what concerns people's deposits up to the end of 1989.
- The centralised system eliminates any form of competition between banks, as they operated and acted only within very strict guidelines.
- The banks' roles and functions were strictly limited and concerned only drawing in deposits from the population and from the economy and their distribution, according to the credit plans, to some enterprises or to some individuals.

Present days

- Merger of sundry banks and their adsorption by colossi present on the Romanian market, e.g. Volksbank
- The characteristics of the banking sector of 42 credit institutions: out of which ten agencies of the banks from abroad, including a network of specialized credit institutions;
- Total banking assets: 76.8 bld. Euros, (representing approximatively 65% of GDP)

- A percentage of 54% from the banking assets is held by 5 top banks from the system (as compared to 55% in September 2008)
- Solvency ratio = 13.7%
- Majority foreign shareholding
- Market share (according to assets and nationality of capital):
 - 86.8% – Foreign credit institutions;
 - 7.1% – Romanian credit institutions;
 - 6.1% – National credit institutions.

A structured analysis of the market shares of the main players on the banking market in Romania is also carried out in this chapter, based on the study of the reports made by various credit institutions at the end of the financial years. It also presents an analysis of the current trends of the development of the Romanian banking system in the context of globalization.

STRUCTURE OF THE CAPITAL OF THE ROMANIAN BANKS

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
<i>I. Romanian banks, out of which:</i>	32	31	32	32	31	30	31	29	30	29	25
<i>a) wholly or mostly state-owned capital</i>	2	2	2	2	2	2	2	2	2	2	2
<i>b) wholly or mostly private-owned capital, out of which:</i>	30	29	30	30	29	28	29	27	28	27	27
<i>- wholly or mostly domestic capital</i>	3	4	4	4	3	3	4	4	4	4	4
<i>- wholly or mostly foreign capital</i>	27	25	26	26	26	25	25	23	24	23	23
<i>II. Branches of foreign banks</i>	10	10	9	8	8	9	9	7	7	6	7
<i>Total (I+II)</i>	42	41	43	41	40	39	40	36	37	35	32

Under the influence of the double effect of the new competitive environment (on the activities provided and productivity obtained), the banks have updated the applied strategies.

Accordingly, in the last two decades, the banking systems of capitalist countries have been submitted to a powerful changing process:

- First of all, a powerful internationalization process of the banking systems from developed countries took place. By practicing an aggressive policy of insertion in new worldwide financial points, these banks consider the extension on other markets as an integral part of their development policy.
- The second tendency is represented by the powerful process of concentration of the banking activity.

The magnitude of the operations carried out, the growing funds demanded by clients, the insolvency risks of borrowers, and the desire to increase their earnings and the power of penetration to other markets and, consequently, to obtain a dominant position in the international foreign exchange-financial market life, have led to an increase in the process of unifying banks in monopolies, consortia, trade unions or banking alliances.

Globalization determined changes of great length in the hierarchy of the great banks with international activity. Accordingly:

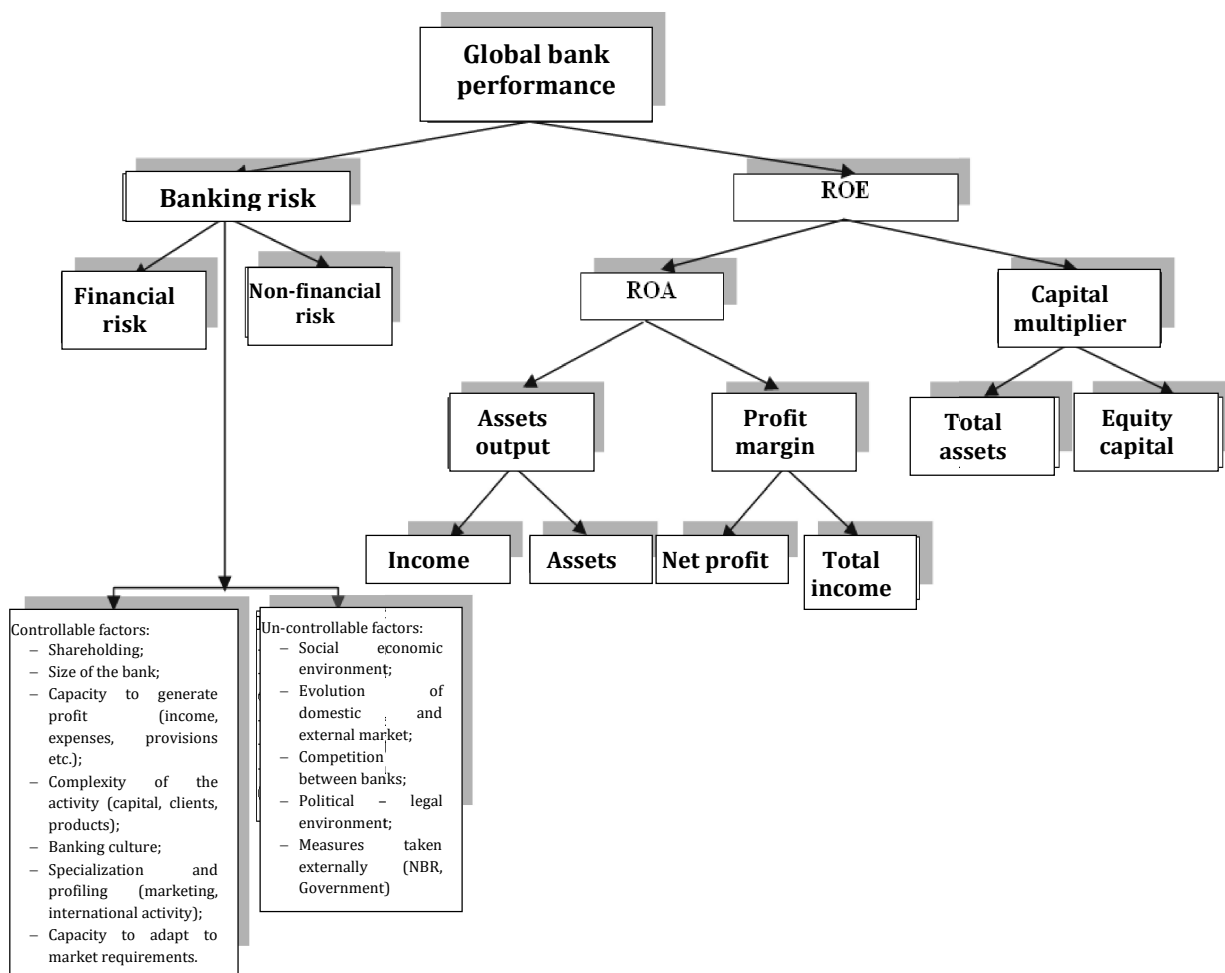
- The great American banks that had dominated the world market for a long time after the Second World War and which were uncrowned by the Japanese banks during the '80s, have returned to force and outrun at present the Japanese rival banks, as well as the banks from England,

France and The Netherlands which occupy also important places in the hierarchy;

- At global level, it is observed a reemergence in the first line of the Japanese banks which are about to overcome the problems they have been facing, especially in what concerns the non-performant credits;
- The Chinese banks are also present in the ranking;
- The German banks have lost in the last year important places as compared to the positions held in the previous years.

The overall performance concept starting from the study of the specialized literature was identified in **Chapter 3, Global performance in the banking system**, the analysis of this phenomenon being performed based on the identified banking performance indicators, and as a case study it includes the presentation of a comparison on the influence of the banking performance phenomenon achieved on three important banking groups, Erste Bank, Raiffeisen Group and Societé Generale.

DU PONT RELATION SCHEME



The specialized literature presents a way of calculating the profitability of the banking unit in stages, and it establishes nine different steps to cover the expenses, as follows:

CALCULATION IN STEPS OF THE BANK UNIT PROFITABILITY

Step	Compared elements
1	Income from interests – expenses with interests
2	Income from taxes and commissions – operational expenses
3	Income from providing financial services – expenses with providing financial services
4	Exceptional income – exceptional expenses
5	Other income – other expenses
6	Income corresponding to the resources excess – expenses corresponding to the resources excess
7	Income from interest for minimum mandatory reserve – expenses for not establishing the minimum mandatory reserve
8	Income from provisions – expenses with provisions
9	Imposed distributed income – imposed distributed expenses

Source: Spulbăr, C., (2008), *Banking Management*, Sitech Publishing House, Craiova

This step-by-step presentation of the bank unit's costs covering calculations creates the conditions for a detailed analysis of bank income and expenditure structure, of bank's strategy foundation and bank performance assessments.

Through its content and structure, the Balance Sheet enables the comparative analysis and knowledge of the changes occurred in the asset and liability elements structure, but at the same time it is also the main tool for the complete and clear analysis of the bank's assets, financial situation and results.

In order to completely characterize the stability, solvability and profitability status of a bank or banking system at a certain point, many types of indicators are determined: efficiency indicators, assets, solvability and liquidity measurement indicators, indicators for assessing the profitability and cost-effectiveness, indicators for the analysis of banking costs and income.

Indicators for measuring bank efficiency

Gross profit rate (Rpb) is measured at percentage level of the gross profit to total income:

$$Rpb = \frac{\text{Gross profit}}{\text{Total income}} \times 100$$

The cost-effectiveness (R) is measured at percentage level of gross profit to total expenses:

$$R = \frac{\text{Gross profit}}{\text{Total expenses}}$$

The bank worker labor productivity (Wlb) expresses the efficiency of the bank worker (um/employee), being the ratio between the value of the gross profit and the average number of employees:

$$Wb = \frac{\text{Gross profit}}{\text{average number of employees}}$$

The weighting of salary expenses in the total operational expenses (Ps) represents the ratio between the sum of salaries plus the bank contributions and the operational expenses:

$$Ps = \frac{\text{Salaries and related expenses}}{\text{Operational expenses}} \times 100$$

The satisfaction degree of salary expenses (Gas) from commissions:

$$Gas = \frac{\text{Collected commissions}}{\text{Salaries+related expenses}} \times 100$$

The degree of coverage of operational expenses (Gacf) from commissions:

$$Gacf = \frac{\text{Collected commissions}}{\text{Operational expenses}} \times 100$$

Indicators used in measuring the quality of structures

Weight in total assets of those non-performing (PAn), indicator of great expressivity which highlights the non-performing assets. A large part of them leads to a chronic state of the losses with results which influence bank's capital.

$$PAn = \frac{\text{Non-performing assets}}{\text{Total assets}} \times 100$$

The weight in total assets of due credits (PCr.r) – according to the Romanian banking practice, the good administration of credit portfolio supposes a smaller weight of 3% of the due credits in total credits.

$$PCr.r = \frac{\text{Due credits}}{\text{Total assets}} \times 100$$

The weight in total credits of the provisions constituted to non-performant credits and/or due interests (PPCr.r). This report tends to increase while the quality of the credit portfolio decreases. A high value of this indicator proves not only the high level of non-performing credits out of the total of credit portfolio, but also the interest of the bank in protecting itself by creating substantial provisions, in the conditions when the law and the financial possibilities allow it.

$$PPCr.r = \frac{\text{Provisions for non-performing credits and due interests}}{\text{Total credits}} \times 100$$

Indicators for assessing the solvency and liquidity

Solvency is an indicator which measures the capacity / sustainability of the business through equity capitals.

Banking Solvency Indicators (S) are calculated with the help of the following ratios:

$$S = \frac{\text{Equity capital}}{\text{Total assets}} \times 100$$

$$S = \frac{\text{Equity capital}}{\text{Credits}} \times 100$$

$$S = \frac{\text{Equity capital}}{\text{Funding obtained}} \times 100$$

The banking liquidity represents the bank capacity to honor at request (insight) payments from holders' accounts. In this context, the bank must have at disposal the necessary of reserves and to have the capacity to transform to liquidity those short term investments with special impact on the liquidity computed by the bank.

- Liquidity of liquid funds (LAI):

$$LAI = \frac{\text{Cash+Governmenta securities+Interbanki operation}}{\text{Total assets}} \times 100$$

The indicator for assets with high degree of liquidity of the bank and a high value of the indicator highlights the efficient reaction capacity of the bank unit.

- Credit's liquidity (Lcr) indicates the dimension of their reimbursement capacity, the credits being assessed with a low liquidity degree. A high

level of this indicator shows a low active liquidity:

$$Lcr = \frac{\text{Total credits}}{\text{Total assets}} \times 100$$

- Safe assets liquidity (LAs):

$$LAs = \frac{\text{Cash} + \text{Governmental securities} + \text{Deposits}}{\text{Total assets}} \times 100$$

The high value of the indicator proves a low liquidity risk.

- Inter-banking liquidity (Li) can be expressed through the indicator of

“hot capitals” as per the ratio:

$$Li = \frac{\text{Assets on money market}}{\text{Liabilities on money market}} \times 100$$

Indicators for assessing the profitability and cost-effectiveness

The ROE-Return of Equity Indicator measures the percentage return of each own equity monetary unit:

$$ROE = \frac{\text{Net income}}{\text{Total own funds}} \times 100$$

The ROA – Return of Assets Indicator measures the net income generated by each asset monetary unit:

$$ROA = \frac{\text{Net Income}}{\text{Total Assets}} \times 100$$

The Equity Multiplier (EM) compares the assets with equity, so that a high value of this indicator shows a higher degree of financial debt. This indicator measures at the same time both profit and risk.

$$EM = \frac{\text{Total assets}}{\text{Total net equity}}$$

There is a direct correlation between the three indicators, as follows:

$$ROE = ROA \times EM$$

Indicators for the analysis of banking income and costs

The banking performance from the structural analysis point of view is in direct relation with the results account. The main indicators used to this sense are the following:

Weight in total assets of income from interests (Pvd):

$$Pvd = \frac{\text{Income from interests}}{\text{Total assets}} \times 100$$

Weight in total assets of income, other than income from interests (Pvas):

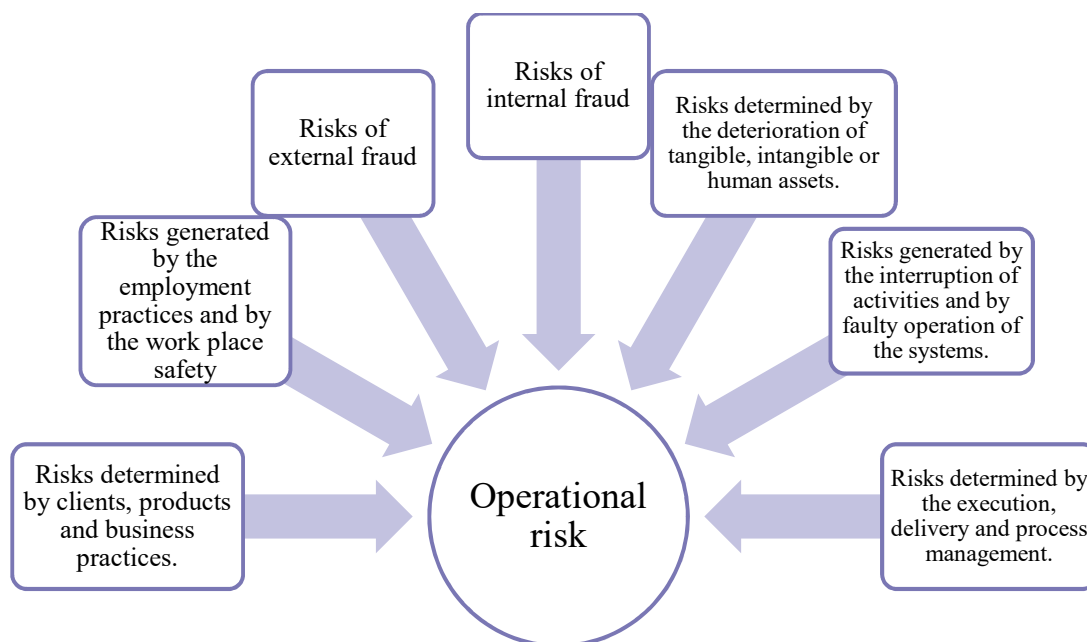
$$Pvas = \frac{\text{Income from oth sources than interests}}{\text{Total assets}} \times 100$$

Rate of expenses with interests (Rcd) as compared to total assets:

$$Rcd = \frac{\text{Expenses with interests}}{\text{Total assets}} \times 100$$

Chapter 4, Comparative study on the operational risk in the Romanian Banking System, comprises an analysis of the way in which the operational risk is perceived by the employees of the banks from Romania.

MAIN CATEGORIES OF OPERATIONAL RISK



Source: Author's contribution

This study takes into consideration the analysis of the methods of measurement and control of the operational risk in the banks, and at the conceptual level, the achievement of an econometric model for the quantification of the operational banking risk and the application of the model's results in order to determine this type of risk at the level of three banking units significant for Europe and Romania. Another aspect dealt with in this chapter, as own contribution, is to determine the capital needed to cover the operational risk as a measure to control this type of risk.

Model 1: LAD, using observations from 1 to 4

Dependent variable: DIndicator_2

	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-ratio</i>
ERSTE GROUP BANK AG	-5.38697e-05	1.54337e-05	-3.4904
ROMCAB SA TG MURES	5.38626e-05	1.55172e-05	3.4712
SIF TRANSILVANIA SA	-4.73442e-06	2.35112e-06	-2.0137
BANCA TRANSILVANIA SA	1.47237e-06	5.3529e-07	2.7506

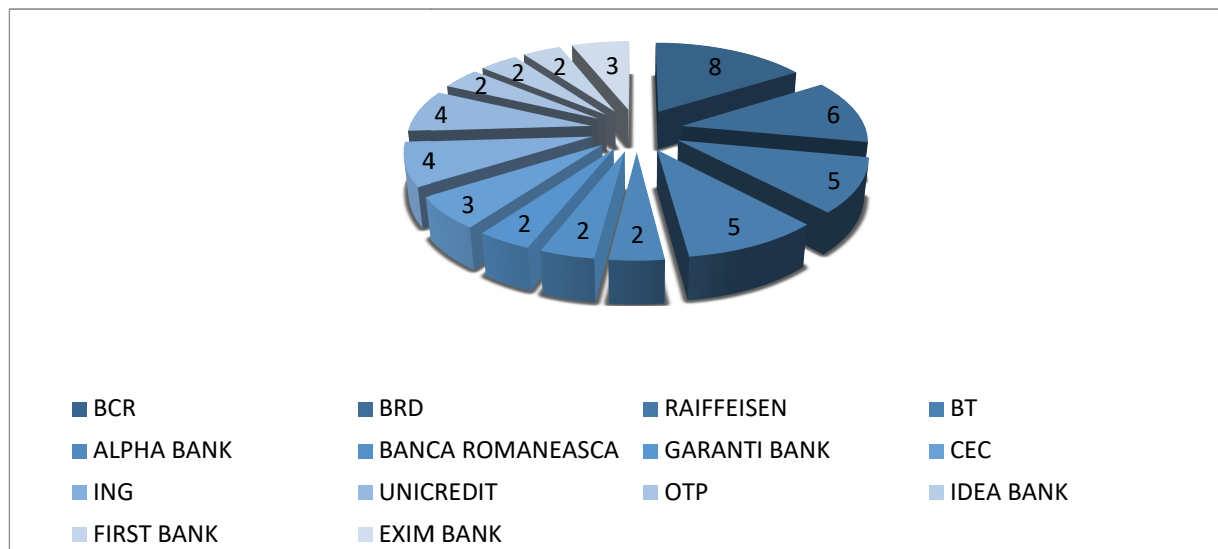
The chapter ends with a study based on a survey on the behavior at risk of the front-office operators which are part of the bank units' network from Romania.

The survey was structured in two parts: a structural part consisting in age, banking professional experience and the number of bank units where they have activated; the second part defines risk critical indicators and performance indicators (staff fluctuation, budget overrun) of the respondents in the activity developed.

53,737 employees are working in the banking system from Romania, developing their activity in 4,300 bank branches.

The interviewees’ sample was selected from 14 banks which activate in the Romanian banking system, which are representative from the point of view of turnover, market share and volume of assets, being divided per age categories and banking professional experience.

BANK UNITS FROM WHICH THE RESPONDENTS HAD BEEN SELECTED



From the data obtained following to the answers to the applied survey, it is observed that the banks’ adaptability to the risk generated by uncontrollable activity interruption factors (power failure, losses of connectivity to the communication networks, earthquakes, robbery etc.) is high, the bank developing backup and fast recovery plans also with low costs.

The operational risk generated by unauthorized internal access (fraudulent access of colleagues’ workstations, formal validations without complying with the “4 eyes” principle, use of other colleagues’ passwords to perform operations, etc.) is rarely met, operators adopting and assuming the Code of Conduct imposed by the bank. The Bank takes its own security measures for this type of operational risk by implementing video systems within the bank agencies, so only 18% of the respondents have been confronted with these situations.

Following to applying the survey, 66% of the respondents did not identify any credit applications which were not finalized but had commissions’ attached, positive aspect in the front-office operational activity. The small percentage of employees, i.e. 4%, which identified this type of operational risk, shape a positive image on the permissiveness of the bank operators to risk, as they were informed on the importance of the compliance with the internal procedural framework.

The answers of the interviewed employees regarding the likelihood of being confronted with phishing attacks (interception of emails, false web links, unauthorized entry from the exterior to clients’ accounts, etc.) outline an adequate degree of security implemented by banking entities; only 4% of respondents were confronted directly with this type of operational risk.

One of the major operational risks faced by banks in Romania is represented by the fluctuation of staff. If before the year 2008, the year of the financial crisis, working in a bank was attractive in terms of career and financial motivation, the situation changed radically after 10 years, reaching to a percentage of approximately 20% leavers from the system. Staff fluctuation has taken this turn because of the working conditions offered by

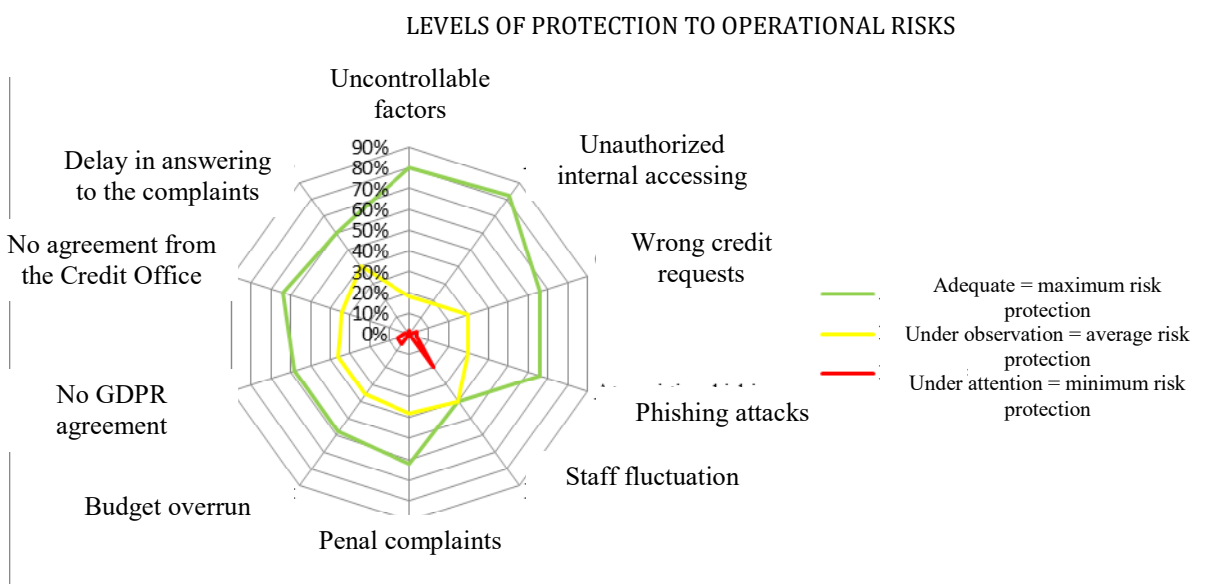
the banks, where a very important aspect is represented by the salary which is less motivating as compared to other areas.

The bank’s loss of employees determines bottlenecks in the operational flow, oversizing the responsibilities of the remaining employees, drawing in the dissatisfaction of clients and operators. The employment of new staff represents a structured endeavor in which Human Resources Department is involved, with time spending, expenses for training, extra responsibilities for the mentors from the bank, all these generating delays in the finalization of operations, budget and deadlines overrun.

By analyzing the answers of the interviewees, it is observed an alarming percentage of voluntary departures of the bank’s employees to other institutions or areas, fact which imposes taking measures for employees’ retention and motivation by the banks’ management, so that working in the banking environment would become attractive.

Another extremely sensitive facet of the banking activity, with negative impact on the bank image, is represented by the category of risks generated by the penal complaints of the clients. The litigations we refer to put the bank in the situation of paying damages and compensations to the clients for the acts or omissions in the relation with the plaintiff, as they can reach to the Courts of Law or can be finalized through passive agreements with the client. In case they are not kept under control, these categories of operational risk can generate large prejudices to the reputation of the bank, by decreasing the degree of trust of the clients to the services of the bank.

Regarding the Romanian banking sector, we can observe from the answers of the operators that in our country, the banks are perceived with a high degree of trust, the employees not being directly involved in litigations which bring a prejudice to the institution. The banks themselves treat very carefully this type of operational risk, adapting the legal framework to all possible scenarios the bank can be confronted with.



Source: processing results obtained from the survey – author’s contribution

Banking activity constantly registers complaints about the products and services of the bank on one hand and the behavior of the operators on the other. Bank management is very receptive to these customer complaints, treating them very carefully. The complaint settlement period should not exceed 30 days. From the analysis of the answers to the survey, 60% of the interviewees reported delays in settling complaints in less than 5% of cases. 40% of respondents are under the observation area, with delays in less than 10% complaints.

This type of operational risk is treated by the banks very carefully, being approached from two perspectives: the one of avoiding conflict escalation with the purpose of preventing ANPC (National Authority for Consumer Protection) to intervene in their solving and potential financial penalties and respectively the one of constant improvement of banking services, with positive impact on the bank's image and increasing the client's trust.

The survey-based analysis of the risk prevention behavior showed two distinct profiles, out of which the one with maximum level of risk assurance is predominant, while the permissive to risk behavior, although minimum as impact, revealed vulnerabilities especially related to the staff fluctuation phenomenon, in relation with non-GDPR compliance, revealing some gaps in understanding especially for the persons with experience in the classical typology of risk prevention.

The last Chapter of the paper, **Conclusions and proposals**, comprises a synthesis of the research, highlighting the main critical aspects determined within the study performed and marking keys for solving the global issues of the banking phenomenon, submitted in the actual context to monetary policies' influences and to various types of risks assumed more or less by the bank operators.

These conclusions are important in the context more and more credit institutions are confronted with more and more bank litigations, with a deepening of the currency sufficiency.

III. Conclusions and proposals

1. The banking phenomenon was analyzed from a pragmatic point of view in this paper, a phenomenon influenced by the economic, social and macroeconomic policy transformations of the global environment, under the influence of the continuous development of globalization, under the impact of the increase of information exchange and the exchange of products at international level.
2. The global context favors the introduction of virtual currency transactions or of transactions on an accrual basis (still risky), being well-known the Deutsche Bank case (over the last 12 months), which has implemented transactions on an accrual basis at large corporations level (American Airlines, General Motors, British Airways) and which, in the current geopolitical context of terrorist attacks, of various strikes and meteorological phenomena leading to disasters, had suffered significant losses, failing to honor its commitments in due time, and the bank suffered major prejudices in its capacity as guarantor of commitments.
3. The banking phenomena has been suffering major changes, the banks being compelled to operate with even negative interests in order to draw in liquidities, to honor their commitments and to support the financial effects in which they are involved.
4. As subsidiary effect, it was observed an intensification of bonds and FUTURES products issuance, these operations being regarded with the greatest reserves by most clients, in the context of the unfavorable global economic climate.
5. In what concerns the traditional credit products offered by the banks, they have undergone a transformation process, the banks trying to cover their risks by increasing the guaranteeing limits and by increasing the advance payments, but at the same time, trying to counterbalance them by offering some packages of attractive products where insurance or assessment services are offered to the clients free of charge.

6. The banking phenomenon in relation to the globalization phenomenon has suffered transformation even on the social side, the banks being forced to adopt a policy of transparency and of proximity to the client, thus becoming more exposed to some adjacent risks, such as Court proceedings, short term transactions or termination for convenience of the contracts.
7. The globalization, as effect of those transformations, had generated a cyclicity of its transformations in the debit - banking system from the point of view of the financial crises manifested periodically with a varied intensity, whose climax was reached in the period 2007 - 2008 by the bankruptcy of Lehman - Brothers banks and subsequently, in 2016, by the financial crash of Deutsche Bank.
8. Along with the occurrence of the globalization phenomenon, the banks have become exposed to internal and external risks, this thing drawing in attention to risks prevention by all means. Among them, the most important is represented by capital consolidation. The capital's consolidation criterion has become increasingly important, being approved by Basel Committee (1988).
9. Another aspect on globalization refers to the unification and integration of global capital markets and, at the same time, of monetary markets. This must be done through swap and arbitration mechanisms for the differences between the international prices. This has allowed banks and other financial institutions to carry out their activities in different financial markets around the world at the same time. Alternatively, global changes have forced banks and other institutions to compete with one another. At the same time, large banks have as main purpose the extension of their scope to the domestic and international market, costs reduction and profits maximization through services, innovation and, at the same time, constantly meeting consumer needs. To achieve these goals, knowledge is an important factor. To be competitive, banks and institutions need well-developed strategies to expand geographically and open up new markets, as well as challenge new competitors.
10. The effect of the 2008 crisis had important repercussions on the financial stability of the great areas of global economic power, such as North America, Euro area and Asia - Pacific area. At the European Union level, the crisis destabilized Euro currency and EU integrality as a whole, being necessary drastic measures for correcting and avoiding the financial collapse.
11. Bank units from Greece and Cyprus had entered in the crisis gearing, generating strong movements in the structure of the respective countries' economies, but also firm policies for fast recovery which involved the banks' clients, including penalizing their deposits with 15%, the banks issuing in compensation shares which were distributed to the clients at the value of the penalties applied.
12. In this context, Greece economy was strongly affected, needing powerful support from the European Union, which involved macroeconomic restructuring policies without precedent.
13. The financial crash continued its effects in the European Union area, affecting Spain and Italy, country which reached an external debt of 2 trillion Euro in the year 2016, according to the reporting of the International Monetary Fund, and the employment rate reached the level of 40% for youth, being imposed measures for reducing the deficit up to 2.6% of GDP.
14. In North America, the United States of America had reached a deficit of 3.3% of GDP, respectively an external debt of 616 billion American dollars, 32% higher than in the year 2015.
15. Canada registered a deficit of 1.96 billion American dollars in the year 2016, according to Bloomberg data, higher by 34% as reported to the same period of the year 2015.

16. The evolution of the budgetary deficit in Mexico is a positive one, in the sense of its reduction by 11% as compared to the level of the year 2014, the value of the deficit as at 31st December 2016 being 42.038 Trillion Euros (www.datosmacro.com).
17. In Asia – Pacific area, the public debt of China for the year 2016 was 42.92% of GDP, 20% higher than in the year 2015, according to datosmacro.com website. The budget deficit for the year 2016 was 270.822 million Euros, 290% higher as compared to the level of this indicator in the year 2015, when it reached the value of 71.974 million Euros.
18. In what concerns the country rating level of the 3 classification agencies (Moody's, Standard & Poors and Fitch) for the year 2017, the following obtained the maximum category (AAA): Germany, Australia, Switzerland, Denmark, Luxemburg, The Netherlands, Norway, New Zealand, Sweden, and Singapore. As compared to previous years, U.S.A. was declassified, obtaining Standard & Poors AA+ rating.
19. In this context, the Chinese economy was classified with A+ rating by Standard & Poors and Fitch agencies and with A1 by Moody's.
20. Romania registers a very low standard, quoted Baa3 by Moody's agency, BBB - by Standard & Poors and Fitch agencies, as it emphasizes a high speculative risk according to the opinion of the 3 classification agencies.
21. These country ratings get reflected, at the level of the banking policies, in measures of protection and risk assurance, underlined in the costs of credits and protective levels (drawing in guarantees at crediting), aspects which, at least at the level of Romania, have manifested in slowing down the crediting process, increasing the number of bank litigations and motions issued by some banks (the case of "transfer in lieu of payment" for mortgage credit) to the European fora in order to solve favorably some high risk cases.
22. At the level of the exchange rates, there were observed fluctuations for the main currencies, which followed the financial crisis cycles, as follows:
23. The relation between Euro and the American Dollar passed through a wavy route, as follows: if at the end of the year 2015, Euro/ American Dollar ratio registered the value of 1.09, it decreased to 1.04 in the year 2016, period followed by a continuous increase during the year 2017 (1.19 Euro/ American Dollar). The year 2018 registers a peak of the ratio value in February, respectively 1.23, after which the Euro/ American Dollar exchange rate passed through a descending trend, reaching at the end of the year 2018 to a value of 1.13.
24. Euro / Pound Sterling exchange ratio passed through a fluctuating route (0.74-0.79) in the period 2015 – 2016, following that the trend had been relatively stable in the period 2016-2018, the ratio reaching values comprised between 0.89-0.90).
25. When referring to the Euro / Japanese Yen exchange ratio, we can observe major fluctuations of the exchange rate, with a maximum value registered in 2015 (138.35), followed by a minimum at the middle of the year 2016 of 112.25, proof of the fact that the Japanese Yen had appreciated. Between 2017 and 2018, it is observed an increase of the ratio, meaning a return to the situation in 2015, being noticed the depreciation of the Japanese currency.
26. The par of exchange ratio between Euro and the Swiss franc had gone also through fluctuations which have to be taken into consideration. If the Swiss franc was better quoted than the Euro currency (0.98) at the beginning of the year 2015, the ratio between the two currencies reached the value of 1.19 at the end of the interval, respectively 2018, which proves the depreciation of the Swiss currency.
27. When referring to Euro/Leu ratio, the evolution had marked a constant depreciation of the Romanian currency, with insignificant rare recoveries. Euro/Leu ratio recorded average values of 4.40 at the beginning of the year 2015 while the ratio reached

- values of 4.76 towards the end of the reference period, respectively 2018, aspect indicating the constant devaluation of the national currency.
28. The interest rates on the monetary market of Euro Area (EURIBOR) had been continuously decreasing in the period between 2015 and 2018, registering at the beginning of the interval positive values (0.049), which had continuously decreased, 2016 intermediary values - minus 0.31, 2017 - minus 0.329, respectively 2018 - minus 0.307.
 29. The inter-banking interest rates, ROBOR 3 months, had registered important fluctuations during the period, with a minimum registered in the year 2016, respectively 0.700. Significant increased had followed, which started in the fourth quarter of the year 2017 (2.200), with a maximum in July 2018, respectively 3.47.
 30. In this context of monetary policy directed towards the risk protection area, the cost of financing non-finance companies had reached a historically low level according to the Yearly Report of the European Central Bank for the year 2017.
 31. The credit institutions have acted to the sense of creating an adequate mechanism of protection and reduction of vulnerabilities, to which they are exposed due to the influence of the economic globalization phenomenon and of international trade.
 32. Along with the emergence of Law 83, the transition to a higher stage was marked in Romania, with focus on the sustainability of the financial resources developed in order to consolidate a banking system which would fulfill the conformity requirements manifested at the level of the foreign credit institutions.
 33. The alignment of the banking legislation to the provisions of EU and Basel Directives regarding an efficient bank monitoring took place in 2004, the moment when the monitoring based on conformity was changed by the monitoring based on risk.
 34. Current trends have affected overall banking profitability, leading to a flattening of the yield curve and generating changes in the funding of asset purchases from the long term to the short term, thus reducing the pressure on the intermediation margins practiced by them.
 35. The negative interest rate level affects deposit facilities contributing, in the long run, to the loss of profitability of banks using interbank transactions as a source of profit.
 36. We believe that the implementation of effective structural economic policies, aimed at increasing labor productivity and sustainable stimulation of economic growth, could represent valuable tools for creating a process of relaxation of banking policies and for the revival of the phenomenon in the stabilized global economy context.
 37. The profitability of a bank is given by drawing in resources on short term and their investment on long term. Accordingly, the interest rate level for investments would be much over the one of short term resources, which would generate a substantial margin between the active and the passive interest and implicitly, a maximum profit.
 38. The Basel Committee on Banking Supervision represents an international body consisting of representatives of banking supervision authorities and of the central banks from the main industrialized countries (Luxemburg, Germany, France, Italy, Belgium, Switzerland, Canada, Great Britain, Japan, The Netherlands, Sweden, USA and Spain), which develops its activity mainly by periodical meetings (quarterly) which take place at the headquarters of the Basel International Regulations Bank
 39. In 2001, the Basel Committee issued the first draft of a new accord (the New Basel II Accord or Basel II Accord) on the minimum capital of banking companies, which was revised and completed successively in collaboration with representatives of the banking sector and the Supervision authorities around the world.
 40. The Basel Committee on Banking Supervision (BCBS) published an advisory document on 22nd December 2014, which provides designing a framework for

minimum capitalization based on a review of standardized approaches to credit risk, market risk and operational risk.

41. The profitability analysis is a basic coordinate of bank management with regard to: bank resources and investments, optimization of ROL settlements and intra- and inter-banking estimates, rationalization of operating expenses, increasing the labor productivity for bank workers, launching new banking products and services, attracting new customers, etc.
42. The Commercial banks, due to the fact that they provide services and products specific to the banking industry to different partners from the economy, also assume objectively certain associated risks.
43. The requisite of inseparability between risk and banking activity has been demonstrated since the emergence of the banking systems, the importance of the subject for the field having good present and future perspectives, in equal measure, in the development of the banking sector.
44. The multi-factor model, particularly applicable to public companies: The share price (Pt) can be estimated on the basis of a large number of external risk indicators (It), indicators that deal with the market risk, credit risk and other non-operational risk factors (such as interest rate variation, the variation of the prices at the Stock Exchange and other macroeconomic effects.) Thus, the operational risk is measured as being the volatility of the residual term.
45. The result of the model reveals that the sample has a moderate risk response in the non-aggregated variant and a high response to the aggregate factor risk, indicating that the pattern is homogeneous, thus representative for the sample chosen. Risk control leads to increasing investor's safety and to enhancing the number of margin transactions.
46. Our contribution consists in synthetizing some volatile information and establishing the degree of predictability of the actions of investors in the conditions of a controlled risk. These actions have a beneficial role on the listed companies, succeeding in stabilization of methods and reactions on a market affected by external influences and sensitive to risk stimuli due to macroeconomic crisis phenomena of BREXIT type.
47. The economic environment in general and the financial – banking environment in particular are areas that are constantly subject to fierce competition between the players of the contemporary world. All finance-banking operations, no matter if they take place on the domestic market or on the international market, are subject to risk, that is why it is stated that the credit institutions are risk management institutions.
48. While trying to cope with the different types of risks and, at the same time, to obtain profit, the credit institutions use tools for risk quantification and loss avoidance, taking measures of banking prudence and security through an efficient risk management.
49. In the contemporary approach, the risk is viewed objectively, in correlation with the object or subject analyzed, and dependent on the management method used. At the same time, the classification of risks can be made taking into account various criteria, their assessment being made in relation to their complexity and to the impact they generate.
50. The methods by which it is made the risk assessment in banking activity are as rich and varied as they are complex, the risk management process being influenced by three main factors: the bank's management, the shareholders and the central bank. Each of these factors may have different purposes, as this explains the difference of the methodologies recommended and applied in bank risk management. The main purpose of banking regulation and of the Basel Committee's recommendations on risk management is to correlate the risk with the bank capital requirement.

51. The development of methods for preventing the bank risk within the credit institutions is highly relevant both for the national banking system and for the global banking system.
52. Knowing that risk can be identified, evaluated, monitored and diminished, but never eliminated, banks must develop a set of general policies (depending on the Central Bank's legal provisions and regulations), specific policies (in relation to the bank's development strategy) and sectorial policies (by branches and sectors of activity, respectively by areas and territorial units) to protect themselves.
53. Bank risk management is the main function of the banks in charge with market activity. Risk management can be considered as a basic pillar of the economy. The ethics of the market economy binds itself to a form of risk management as balanced as possible. The way in which risks are managed is found in their distribution, which, when unequal, demonstrates that there are extra-economic constraints in the respective economy that create distortions.
54. In order to counteract the operational risk at the system level, the banks can take measures like restricting the access at user level, validation of certain transactions by a supervisor, value limits beyond which transactions cannot be made in the system, restrictions on account types in which certain operations cannot be performed without prior authorization, testing system penetration security, implementation of disaster recovery centers, business continuity plans.
55. Control and minimization of operational risk can be perceived by the bank's option to transfer, accept, diminish and avoid the operational risk. In order to minimize the operational risk, the banks can use a series of controls: implementation of policies and procedures for bank's activities; preventive controls implemented in the core banking application or performed outside the system through different validations or segregation of roles and responsibilities; detective controls performed by the representatives of the Directorates or by other authorized persons; controls performed by External and Internal Audit; controls performed by the National Bank, or by assurance for different processes.
56. The analysis of the risk prevention behavior based on survey revealed two distinct profiles, of which the one with the highest risk assurance level emerged predominantly, while permissive risk behavior, although minimal as impact, revealed vulnerabilities especially related to the staff fluctuation phenomenon in relation to the non-compliance with the GDPR, revealing some gaps in understanding especially of those persons with experience in the classical risk prevention typology.
57. Out of the analysis based on the survey, it results that some pragmatic measures of employee professional awareness, periodical trainings and changing the procedural approach to the assignment of the risk process according to the specificity of the operation are required.
58. Along with the revival of the economy and the improvement of the business environment in Romania, the banking system has known an expansion based on the opportunities offered by the new globalization strategies adopted internationally based on performance management, on the legislation aligned to U.E. standards.
59. It must be observed, however, that the international rules are transposed at national level on the basis of criteria of sectoral uniformity and alignment with the specificity of the relevant market. In the case of Romania, the banking infrastructure has undergone transformations and reconfiguration as the banking system has been consolidating. At national level, the analysis of the banking prudential indicators performed in this paper has proved the leading position of the Romanian banking system in the European ranking.

60. Basel II and Basel III conditionings on equity capitals' level have had repercussions on their profitability, in some cases causing the cancellation of the initial benefit.
61. Because banking risks are a source of deficit, their adequate and responsible timing will have the diminishing of bank shocks as effect.
62. Correct knowledge of the size of the banking risk phenomenon attributes the role of "physicians" of the system to the credit institutions' managers, giving them financial potency and profitability.
63. The banks can successfully manage their risks by implementing a sound, based on prudence management system, and if these requirements are met, both the bank and the system in its integrity will have benefits.

IV. Research limits, directions of future research

The general limits on the banking performance concept addressed in this study refer to the relatively small number of bank units included in the study (Erste Bank, Raiffeisen Zentralbank Österreich Ag (Rzb), Societe Generale Group), number which limited the resulted conclusions on the profitability and performance details, considering that the study may be extended to the top 10 banking companies in Romania in order to complete the general profile directions on performance (Research Direction 1).

Secondly, the study was conducted in a global context by extrapolating the results of the analyzed multinational companies. With the dynamics of the banking market and the specialized international rankings, the study can be completed by the analysis on top ten global banking units, subject to the identification of data sources and conditions of access to them (Research Direction 2).

Thirdly, the development of the Basel Accords requires a dynamic approach of the indicators studied by nearing to the agreed indicators of the next international Basel Accord (Research Direction 3).

And last, but not least, it should be extended the process of modeling the operational risk by introducing some new variables or by completing those variables identified (V1. Competitive strategy; V2. Strategic connections; V3. Clients; V4. Power to negotiate; V5. Limitations; V6. Financial variables) in agreement with the variables resulted following to the observational study according to the research directions 1-3 (Research Direction 4).

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