

**TO THE MEMBERS OF THE SCIENTIFIC JURY  
IN THE PROCEDURE FOR THE ACQUISITION  
OF SCIENTIFIC AND EDUCATIONAL DEGREE  
“DOCTOR” IN DOCTORAL PROGRAM  
“FINANCE, MONEY CIRCULATION, CREDIT  
AND INSURANCE (FINANCE)”**

**OPINION**

**by Prof. Teodora Dimitrova PhD, Department of Finance and Credit,  
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scientific specialty “Finance, money circulation, credit and insurance (Finance)”**

**Author of the dissertation:** Beatris Ventsislavova Lyubenova, state-funded part-time doctoral studies, in the field of higher education: 3. Social, economic and legal sciences, professional field: 3.8. Economics, PhD program: “Finance, money circulation, credit and insurance (Finance)”

**Dissertation topic:** “Risk Assessment and Risk Management of Regulated Financial Institutions”

This Opinion has been prepared in accordance with the requirements of the existing Law on the Development of the Academic Staff, the Rules for its Application and the Rules for the Development of the Academic Staff at D. A. TSENOV ACADEMY OF ECONOMICS – Svishtov.

**I. General presentation of the dissertation work.**

The dissertation is 271 pages and contains 29 figures and 33 tables. 145 literary sources are used. In terms of composition, the presented paper consists of an introduction, three chapters, a conclusion, and a bibliography. There is a logical classical structure covering theory, methodology, practice.

The chosen topic is distinguished by relevance, significance and dissertability. The relevance of the research is determined by the constantly growing role and importance of risk management in regulated financial institutions. The upgrading and expansion of scientific research on the issues related to the topic determine its importance.

Banks and insurance companies are the object of research. The subject of research is risk management in banks and insurance companies under the conditions of increasing regulatory requirements.

The main aim of the dissertation is to examine the regulatory requirements in terms of risk assessment and capital positions of the banking and insurance sector in terms of the Basel III and Solvency II regulations.

In order to achieve the main aim, the following tasks were formulated:

1. To present concepts about the essence of risk.
2. To clarify the peculiarities of risk management in banks and insurance companies.

3. To characterize risk measurement methods in the banking and insurance sectors.
4. To present the theoretical and methodological basis of stress tests and their application in risk management in the banking and insurance sectors.
5. To characterize and compare the regulatory requirements of Basel I, II and III for the banking sector and Solvency I and II for the insurance sector.
6. To analyze key indicators for capital and risk management in credit institutions and insurance companies.

The main research thesis that the author defends in the dissertation is that in order to achieve stability, predictability and solvency of banks and insurance companies under the conditions of periodic turbulence of the global environment and dynamic changes and transformations in the financial services sector, it is necessary to constantly revise, adapt and expand the regulatory requirements in risk management. This dynamics in the regulatory framework poses new challenges to the management of insurance companies and banks in making adequate, innovative and responsible managerial decisions.

The following dissertation research methods were chosen: the deductive and inductive approach, the method of analysis and synthesis, the interdisciplinary approach and the statistical approach in studying mass phenomena in the financial sector. In the process of the research, publications of Bulgarian and foreign authors in the field of finance, management, probability theory, statistical methods for the analysis of variation distributions, for the analysis of relations and dependences, etc., were studied and systematized. Calculations were performed using MS Excel software.

In developing this dissertation, some limitations were adopted in the scope of the research – only two main representatives of the regulated financial institutions, namely the banks and insurance companies, were put into focus, since they are key representatives of the financial sector and their stability is of utmost importance for the stability of the economy both of individual countries and on a regional and global scale.

The scientific literature used is correctly cited. Current Bulgarian and foreign specialized publications have been thoroughly studied and analyzed.

## **II. Assessment of the form and content of the dissertation.**

The research logic and structure of the dissertation are well constructed. The dissertation is based on studies of scientific papers of Bulgarian and foreign researchers in the related field.

In the structuring, the PhD student first of all (in the first chapter) clarifies basic aspects of the theoretical concepts of risk and risk management in the banking and insurance sectors, risk assessment methods and stress tests as an integrated approach to risk and capital management. The many risks to which the banking and insurance sectors are exposed are characterized, among which credit, market, liquidity and operational risks are highlighted as key for the banking sector, and for the insurance sector – underwriting risk (respectively in life insurance, non-life insurance, health insurance), operational risk, market risk and counterparty default risk.

The view substantiated is that the development and adoption of a risk management strategy, as well as the policies and procedures accompanying it, occupy a very important place in the overall risk management process of banks and insurance companies. The requirements



for capital adequacy, the focus on risk management, the requirements for solvency and liquidity are highlighted as key characteristics common to the banking and insurance sectors.

The second chapter has a markedly analytical and research character, due to the accumulation of a large volume of statistical information, combined with the author's abilities to process and analyze it. Focus is placed on clarifying the regulatory framework of the banking and insurance sectors, tracing the evolution of Basel I, II, III and Solvency I and II standards, clarifying the main aspects of each subsequent version of the regulatory frameworks, and performing a comparative analysis of Basel III and Solvency II.

Regarding the scope of application of the Basel III and Solvency II regulatory frameworks, one of the main differences between the two regulations has been identified. The Basel regulatory reports are presented as an internationally recognized standard agreement in determining capital requirements in the banking sector. The dissertation emphasizes that the regulatory requirements of the Basel Committee are not legislative acts, but a package of requirements that are transposed into the national banking legislation of most countries in the world. For its part, the Solvency II regulatory framework is presented as legislative requirements for the insurance sector on the territory of the EU, as it is the result of the joint work of the European Commission (EC) and the European Insurance and Occupational Pensions Authority (EIOPA). While Basel III is defined as an international regulatory standard for measuring capital adequacy in the banking sector, Solvency II is presented as determining the regulatory requirements for the initiation and implementation of insurance and reinsurance activities on the territory of the EU. Emphasis is placed on the fact that the Solvency II regulatory requirements are adopted by EU bodies but not by the International Association of Insurance Supervisors (IAIS), which is why its scope of application is significantly more limited than the Basel regulatory framework.

Chapter three is devoted to an empirical analysis of key indicators of equity capital, capital adequacy and solvency, and of factor influences of major risks on the amount of equity capital in the banking and insurance sectors. An empirical analysis is carried out in the following directions: analysis of the structure of equity capital in the banking and insurance sectors; analysis of the implementation of capital requirements in the banking and insurance sectors; analysis of the dependence between risks and equity capital in the banking sector; analysis of the dependence between risks and equity capital in the insurance sector.

The risk management system in banks and insurance companies is defined as a complex of techniques, methods and approaches that allow to detect, identify, locate and evaluate risks, on the basis of which adequate measures can be taken to eliminate or mitigate negative results, thus guaranteeing favourable financial results and stability of banks and insurance companies.

The formulated recommendations in the closing part give completeness to the dissertation, and the conclusions and statements presenting the author's views at the end of each chapter further emphasize its qualities. In the conclusion of the paper, the doctoral student systematizes the main generalizations, conclusions and achieved outcomes, which can be considered as scientific contributions – the essence of any research of a similar type. This, in turn, gives grounds to confirm the research thesis put forward at the beginning of the dissertation.

Following the above research logic, the abstract is developed in accordance with the main points of the dissertation, highlighting the contributions of the author. It reflects in a



synthesized form the content, the main results and conclusions reached in the research process. It contains all the necessary elements for composing an abstract for a dissertation, including justifying the relevance of the topic, outlining the object, subject, aim, objectives, research thesis and research methodology, presentation of the structure and content of the dissertation, as well as directions for future research on the topic of the dissertation, information on contributions and on compliance with the national requirements, a list of the doctoral student's publications, a declaration of originality of the dissertation.

7 publications are presented related to the topic of the dissertation – proof that key aspects of the research are made available to the scientific community, including also through participation in scientific forums, as well as the fact that the national requirements for a minimum number of points are covered according to the Regulations for the Application of the Law on the Development of the Academic Staff in the Republic of Bulgaria. What impresses also in the dissertation is that the doctoral student presents the guidelines for future research work on the chosen topic.

### **III. Scientific and scientific-applied contributions of the dissertation work.**

The dissertation builds on existing scientific ideas and presents new ones with scientific and practical significance for the Bulgarian banking and insurance sectors. A careful reading of the dissertation gives reason to single out the following as scientific and scientific-applied contributions:

1. Based on an in-depth review of the scientific literature on the related issues, the author offers a complex systematization of theoretical aspects in the field of risk management and brings out the specifics of risk assessment in banks and insurance companies.
2. Through a methodological analysis, the author presents the role and significance of the regulatory requirements of the Basel Accords (I, II, III) for the banking sector and of Solvency (I and II) for the insurance sector, for the assessment and management of risk in regulated financial institutions.
3. Based on an empirical study of regulated financial institutions, the author analyzes key indicators of risk management in banks and insurance companies, inferring factor influences and causal relationships.

### **IV. Critical notes, questions and recommendations on the dissertation.**

Regarding the dissertation, including the main body and the author's argumentation, I have no critical notes and recommendations.

Questions on the dissertation:

1. Comment on opportunities to improve the applicable legislation in order to adequately control future potential crisis situations in the banking and insurance sectors.
2. Comment on the main challenges facing risk management in banks and insurance companies in a period of post-crisis recovery.

### **V. Summary Conclusion and Opinion.**

The dissertation submitted for opinion has the characteristics of a thorough and in-depth scientific study on a significant economic problem. I believe that the aims and objectives of the dissertation, set in the introduction, have been achieved in the course of the research. The

scientific and scientific-applied contributions formulated in the conclusion and the results of the conducted practical research can be defined as real achievements of the doctoral student.

For the purposes of making a decision by the Scientific Jury to award the educational and scientific degree “Doctor” in the doctoral program “Finance, Money Circulation, Credit and Insurance” (Finance), I give a positive assessment of the dissertation on the topic “Risk Assessment and Risk Management of Regulated Financial Institutions” and I propose to the members of the Scientific Jury to award the educational and scientific degree “Doctor” (in economics) to Beatris Ventsislavova Lyubenova.

**Date:22.08.2023**

**Prof. Teodora Dimitrova PhD**