

## STATEMENT

### FOR THE AWARD OF THE DEGREE OF DOCTOR OF EDUCATION AND SCIENCE IN THE DOCTORAL PROGRAMME "FINANCE, MONEY CIRCULATION, CREDIT AND INSURANCE (FINANCE)" IN SA "D. A. TSENOV" – SVISHTOV

**Prepared by:** Assoc. Prof. Gergana Ilieva Mihaylova-Borisova, PhD

**Author of the dissertation:** doctoral student Beatris Ventsislavova Lyubenova

**Dissertation topic:** Assessment and risk management of regulated financial institutions

**Scientific supervisor:** Prof. Stoyan Stanimirov Prodanov

**Reason for submitting an opinion:** participation in the scientific jury for the defense of a dissertation according to the Order No. 686/11 July 2023 of the Rector of SA "D. A. Tsenov" – Svishtov

#### **I. General information about the PhD student**

The doctoral candidate is enrolled in the part-time study form of the doctoral program "Finance, Money Circulation, Credit and Insurance" at the Department of Finance and Credit, Faculty of Finance, D. A. Tsenov", with a term of study of 4 years starting from 13 November 2023. Prior to her enrolment in the PhD programme, she completed her Bachelor's degree in Finance and Master's degree in Financial Management at the D. A. Tsenov". She graduated with excellent grades and participated in numerous competitions, receiving prestigious awards.

Beatris Lyubenova also has practical experience in banking. She was first a trainee at Unicredit Bulbank and then held various positions at Piraeus Bulgaria AD and Raiffeisenbank Bulgaria EAD. Currently she works as an analyst in the Financial and Supervisory Reporting Department of Central Cooperative Bank AD.

#### **II. General presentation of the thesis**

The dissertation has a total length of 271 pages, of which the actual research is 242 pages. Structurally, it consists of an introduction, three chapters, a conclusion, a bibliography and appendices. In developing her dissertation, the doctoral candidate has made conscientious use of 145 sources, of which 27 are in Bulgarian and the majority are in English. The dissertation uses figures (29 figures) mainly for the purpose of the analysis of the capital structure and risks inherent in the banking and insurance sectors in a number of European countries.

The dissertation is on a very topical subject given that banks and insurers are the main financial intermediaries that are subject to constant regulation due to the fact that they work mainly with foreign funds. Maintaining their financial stability is of particular importance, especially in the face of constant crises, which requires constant monitoring, measurement and management of their inherent risk.

The subject of the dissertation is banks and insurance companies, and its subject is "risk management in banks and insurance companies under increasing regulatory requirements". The thesis that is defended is that "to achieve stability, predictability and solvency of banks and insurance companies in 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 management of risk". The stated objective of the study is to examine the regulations regarding risk assessment and capital positions of the banking and insurance sectors in the context of Basel III and Solvency II.

In the first chapter of the dissertation the PhD student presents in detail the concept of risk related to banking and insurance activities. It focuses on the stages of risk management as well as on the models for its assessment. In the second chapter, a very detailed discussion is made of the specifics of the regulatory framework affecting the banking sector - Basel I, Basel II and Basel III, as well as the regulations in insurance activity - the Solvency I and Solvency II capital frameworks. The PhD student also makes a very thorough comparative analysis of the requirements under Basel III and Solvency II in terms of the scope of their application, the requirements for the eligibility of own funds and the concept of risk management, highlighting the similarities and differences between them. It highlights the convergence achieved in terms of risk management in the two regulatory frameworks as a result of the exposure of market participants to a series of crises. The last chapter provides an empirical analysis of the equity capital structure of the banking and insurance markets. For this purpose, 77 banks are selected for the period 2017-2021, for which information is available from the ECB, the BNB, the European Banking Authority and insurance market statistics for 30 countries for the period 2017-2020 published by the European Insurance and Occupational Pensions Authority (EIOPA). On the basis of the analysis carried out, it is found that there is an increasing trend in the share of banks' Tier 1 capital, which is increasing at the expense of hybrid instruments and subordinated term debt. With regard to the insurance market, there is also an increasing trend in the share of Tier 1 capital, but at the same time a decreasing number of countries with a relative share of Tier 1 capital in the insurance sector in the range of 95-100% over the period analysed, due to the inclusion of Tier 2 and Tier 3 capital in the



capital base of insurers. The analysis of the capital requirements in both sectors shows that the minimum ratios required by the regulations are exceeded, thus demonstrating that risk management in both sectors plays a key role in meeting the requirements. This chapter also provides an analysis of the relationship between banks' and insurance companies' equity capital and the associated risks. In the conclusion, the main results of the study are highlighted.

The annexes present the data for the selected 77 banks and for the insurance market of the 30 countries.

### **III. Assessment of the dissertation format and content**

The dissertation is on a very topical subject. Considering the series of crises observed in recent years, maintaining the stability of financial intermediaries and adequate risk management is of particular importance. The dissertation uses an appropriate scientific style. The doctoral candidate is fluent in the terminology of the area she is researching. Appropriate research methods such as deduction and induction, methods of analysis and synthesis, interdisciplinary approach and statistical methods have been used in the regression equations estimated.

The presented abstract accurately and fully reflects the content of the dissertation work as its volume is slightly larger than the established standards, but given the broad scope of the study of the structure of equity capital and its dependence on the attendant risks of banks and insurance companies this is acceptable.

The reference of publications shows that the PhD student has 7 publications, which exceeds the national minimum requirements under the Regulations for the Implementation of the Law on the Development of Academic Staff of the Republic of Bulgaria. She has published 2 studies, 1 article and 4 papers, two of which are co-authored. The high publication activity shows that the PhD student is a young scientist with the potential to do quality research.

### **IV. Scientific and applied contributions of the thesis**

In the abstract, the PhD student lists 5 contributions. As more significant can be pointed out:

- Performing a historical and comparative analysis of Basel-based banking regulations and insurance market regulations based on Solvency I and II requirements;
- Highlighting the role and place of risk management in meeting capital requirements and ensuring the solvency of banks and insurance companies;

- Conducting empirical research on the structure of banks' and insurance companies' equity capital and on the impact of the inherent risks of the two sectors on the capital base.

#### **V. Critical remarks and questions on the thesis**

The presented dissertation is a complete study, which is distinguished by the logical interconnection of the individual parts. The dissertation mentions the derivation of basic causal relationships concerning the equity of banks and insurance companies and the risks involved, which has not been tested with statistical methods. Considering the PhD student's declared great interest in research in the future, she may be oriented towards exploring this issue of causal relationships between the indicators studied in the dissertation.

I would like to ask the PhD student the following question:

What is your opinion on the establishment of a single integrated regulatory authority in Bulgaria? Should one be built in our country following the example of other countries and would this contribute to greater financial stability?

#### **VI. Summary evaluation of the thesis and conclusion**

The dissertation on "Assessment and risk management of regulated financial institutions" is a qualitative and logically linked study with the required scientific and scholarly contributions. Taking into account the qualities of the work, I believe that the doctoral candidate Beatris Lyubenova deserves to be awarded the degree of Doctor of Education and Science in the professional field 3.8 "Economics", scientific specialty "Finance, money circulation, credit and insurance".

July 24, 2023

Prepared by: .....

(Assoc. Prof. Gergana Mihaylova-Borisova, PhD)