To
The members of the Scientific Jury
D. A. Tsenov Academy of Economics
Finance and Credit Department

STANDPOINT

of a member of the scientific jury, determined by Order No. **686/ 11.07.2023.**
of the Rector of D. A. Tsenov Academy of Economics – Svishtov
on dissertation for awarding educational and scientific degree "Doctor" (in Economics)

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Author of the dissertation: Beatris Ventsislavova Lyubenova, PhD student, d020218170, doctoral programme "Finance, money circulation, credit and insurance (finance)"
Dissertation topic: ASSESSMENT AND RISK MANAGEMENT OF REGULATED FINANCIAL INSTITUTIONS
Dissertation Advisor: Prof. Stoyan Prodanov, PhD

I. General presentation of the dissertation work

1. Subject

Doctoral student Beatrice Lyubenova defines "banks and insurance companies" as an **object** of research, and "risk management in banks and insurance companies in the conditions of increasing regulatory requirements" as a **subject**. On this basis, the research thesis, the aim and tasks of the dissertation work are formulated, as well as the methodology and information provision of the research are indicated (pp. 12-13). The author also justifies the restrictive condition of the study due to the wide scope of the regulated banking institutions and the specifics in the regulations - it focuses precisely on "banks and insurance companies as key representatives of the financial sector..."

2. Volume

The volume of the dissertation is 271 standard pages, including: an introduction, three chapters, a conclusion, 2 applications and a bibliography. The work without the applications consists of 242 pages.

3. Structure

The structure of the work follows the realization of the set aim and tasks and helps to prove the research thesis. It includes theoretical aspects, analysis of regulatory framework and author's research.

The **introduction** contains what is necessary for such scientific research – arguing the relevance of the topic and formulating the object, the subject, the thesis, the goal, the tasks, etc.

The **first chapter** reviews the evolution of views and theories about risk and emphasizes the specificity of risk in the financial sector. The nature, importance and stages of risk management in banks and insurance companies are also analysed. Next, the value-at-risk VaR and expected shortfall ES models are discussed with their advantages in current risk monitoring and highlighting their limitations in historical analysis. Features of the Monte Carlo risk assessment method and the theory of risk in insurance are also presented. The benefits and necessity of applying stress tests as an important tool for assessing the impact of adverse macroeconomic scenarios on the sustainability of banks and insurance companies are justified.

In the **second chapter**, an in-depth analysis of the regulations in the banking and insurance sector is carried out. The evolution of the international regulatory framework of banking institutions - Basel I, Basel II, Basel III, as well as the regulatory framework in the insurance sector in the European Union - Solvency I and Solvency II is followed in sequence. The doctoral candidate skilfully commented on the need to adjust and upgrade the regulatory frameworks in accordance with the changes in the economic and financial situation. A strong point in this chapter is the author's comparison between the regulatory requirements in the banking and insurance sectors, and in particular Basel III and Solvency II, where three defining criteria are identified – scope of application, requirements for equity capital adequacy and the concept of risk management.

In the **third chapter**, which is of an empirical-research nature, the PhD student relies on official statistical data from national and European financial sector supervisory and regulatory bodies for the period 2017-2020 (2021). The following analyses are carried out consecutively: analysis of the structure of equity capital in the banking and insurance sectors; analysis of the implementation of capital requirements in both sectors; analysis of the dependence between risks and equity in one and the other sector. Both indicators from descriptive statistics and dependency analysis using the regression and correlation methods are used. Through their application, important conclusions are reached about the key role of risk management in relation to capital requirements and ensuring the solvency of financial institutions

In the **conclusion**, the results obtained from the development of the dissertation work are summarized.

4. Bibliography

The doctoral student used 145 sources in Bulgarian and English related to the theoretical-methodological foundations of the dissertation work, including scientific publications of our and foreign authors, regulatory documents and statistical information.

5. Appendices to the document

The dissertation contains 2 applications representing data on the banking and insurance sector from the European Banking Authority (EBA) and the European Insurance and Occupational Pensions Authority (EIOPA). The main part contains numerous tables and figures illustrating the analysis of the regulations, as well as the results of the author's research.

II. Assessment of the form and content of the dissertation

1. Assessment of the relevance and development of the researched scientific problem

The key role of financial institutions and their stability for the economic system, as well as the impact of multiple crises, require a strict regulatory framework and supervision of the activity and implementation of risk management in the banking and insurance sectors. Beatrice Lyubenova, using her acquired knowledge and skills as a bachelor, master and PhD student in finance, as well as the acquired professional competences, undertakes the task of researching risk management in banks and insurance companies in the EU (and in the EEA) under the conditions of increasing regulatory requirements.

In her work, the PhD student conscientiously highlights the contribution of foreign and Bulgarian researchers who worked on the problems of risk management in financial institutions. At the same time, from her positions as an analyst specialist in a bank, she conducts an in-depth analysis of the development of regulatory frameworks and an empirical analysis of risk management in 77 banks at the highest level of consolidation in the EU and the EEA, as well as in the insurance sector of 30 EU and EEA countries. I consider the combination of the study of risk management in both sectors as a novelty due to their key place in the financial system and role in the economy.

2. Opinion on the language, volume and toolbox of the dissertation work

The dissertation is written in very good academic language, using general and specific scientific terminology precisely. In some places, repetitions of expressions and sentences are observed.

The sources of statistical information, regulatory documents, as well as scientific publications on the subject, are cited in accordance with the established requirements in compliance with the rules of scientific ethics. Applied research methods demonstrate skills for working with scientific literature and competencies for conducting empirical studies and interpreting their results.

The dissertation highlights the author's presence when "reading" the theoretical statements, when justifying the evolution and comparison of the regulatory frameworks for banks and insurance companies, when planning and conducting the empirical analysis, when summarizing and interpreting the obtained results.

The volume, structure and content of the dissertation correspond to the formulated research thesis and follow the set aim and tasks.

3. Opinion as to how well the author's summary accurately and completely reflects the work

The mandatory elements are present in the summary: general characteristics; main content of the dissertation work (and synthesized presentation); guidelines for future research; reference to scientific and scientific-applied contributions; a list of the doctoral student's publications; a reference for the compliance with the national requirements under the Regulations for the implementation of the Law on the development of the academic staff in the Republic of Bulgaria; statement of originality and authenticity.

The abstract faithfully reflects the structure, logic and content of the work.

Directly related to the topic of the dissertation are seven publications – two studies, one article and four scientific reports, two of which are co-authored and from foreign conferences (in Croatia).

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

The author formulates five contributions that really reflect the qualities of the dissertation. My view of the main contributions of the scientific work is expressed in the following.

First, through an in-depth study of the literature on the problems of risk and its management in the financial system, the general characteristics and specifics for the banking and insurance sectors are highlighted. At the same time, the need under modern conditions for effective risk management, for increasing regulatory requirements for capital and for strict control of supervisory authorities is substantiated.

Secondly, by using the historical and comparative method, an in-depth and original analysis of the regulatory frameworks for the banking and insurance sectors is carried out in terms of methodological features, the need for implementing and upgrading, significance for strengthening the capital base in the conditions of increasing risks. Three key components have been identified, based on which the specifics of the regulatory impact of Basel III and Solvency II have been derived.

Third, through the use of large-scale data from European supervisory authorities, an empirical study has been conducted, including an analysis of key indicators of capital and risk management in the European banking and insurance system. Models have been constructed for the influence of risk factors on the amount of equity capital in both sectors and the key role of risk management in relation to capital requirements and guaranteeing the solvency of banks and insurance companies has been established.

I consider the above contributions to be the personal work of the PhD student. Through them, on the one hand, scientific research in the field of risk management in the financial sector is enriched, and on the other hand, practical guidelines for risk analysis and assessment in banks and insurance companies are demonstrated.

IV. Critical notes and questions on dissertation work

In her work, Beatrice Lyubenova shows knowledge, skills and competences in the field of finance, acquired during her studies as a student and doctoral student, as well as in her professional activity. I have no serious objections to the qualities of the dissertation. However, given the precision required in our field, I will note the following non-essential and correctable weaknesses: 1) in some places in the first and second chapters there are repetitions of quotations and thoughts of the author; 2) it is unnecessary to clarify the risk in insurance again in the second chapter, after this has been done in the first; 3) it would be appropriate to deepen the interpretation of the derived regression models at the end of the third chapter and to include recommendations/guidelines related to risk management in the sectors.

My **questions** to the PhD student are:

1) To highlight the main features of the Bulgarian banking system and insurance sector in terms of key indicators for capital and risk management.

2) Is there a significant change in the capital indicators and the fulfilment of capital requirements in the two sectors in 2022-2023 in the context of the dynamic environment?

V. Summary evaluation of the dissertation work and conclusion

The presented dissertation meets the requirements of the national and university regulations in the D. A. Tsenov Academy of Economics. Through it, doctoral student Beatrice Lyubenova demonstrated an excellent level of general economic and financial theoretical training, upgraded with professional experience, as well as abilities to conduct independent empirical research. There is the necessary relevance and significance of the developed problem, good faith in the exposition, scientific significance and originality of the author's analyses. The ideas and results of the conducted research are popularized through participation in conferences and in scientific publications.

All this gives me grounds for a positive assessment of the dissertation work and to propose to the respected members of the Scientific Jury to vote for awarding the educational and scientific degree "Doctor" in the doctoral program "Finance, monetary circulation, credit and insurance (finance)" of PhD student Beatrice Ventsislavova Lyubenova.

20.08.2023
Veliko Tarnovo

Assoc. Prof. Vanya Tsonkova