



О P I N I O N

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1. General Information

This opinion has been prepared on the basis of Order No. RAS-33/30.03.2026 of the Rector of UARD for the appointment of a scientific jury for the defense of a dissertation and the decision of the scientific jury from its first meeting held on 08.04.2026.

Author of the dissertation: Stoycho Gochev Stoev

Title of the dissertation: “Models for Financial Risk Management in Healthcare”

Field of higher education: 3. Social, Economic and Legal Sciences

Professional field: 3.8. Economics

Doctoral programme: “Finance and Banking”

Primary unit: Department of Economics and Finance

Hosting structural unit: Department of Economics and Management

Scientific supervisors: Assoc. Prof. Georgi Petrov Georgiev, PhD and Prof. Dimitar Stoyanov Vergiev, PhD

2. General Description of the Dissertation

The dissertation submitted for discussion consists of **171 pages**. It is structured into **an introduction, three chapters, a conclusion, a bibliography, and appendices**. The dissertation includes 28 tables, 3 figures, 7 graphs, and 76 literature sources, including 15 in Bulgarian and 61 in English, as well as 15 electronic sources. The separate parts of the dissertation study are characterized by logical consistency, internal coherence, and relative balance.

The dissertation entitled “Models for Financial Risk Management in Healthcare” is devoted to a **topical and significant issue**. The problems related to the assessment and management of risk in healthcare are of great importance both for the financial sustainability of healthcare institutions and for the quality and reliability of healthcare services. In this sense, the topic has not only theoretical but also clearly expressed practical orientation.

In the dissertation, the doctoral candidate has clearly formulated the object, subject, thesis, aim, and objectives of the research. In this regard, **the object** of study is the various manifestations of risk in the healthcare sector in

Bulgaria, while **the subject** is the contemporary financial approaches and methods for risk assessment and forecasting. The defended **thesis** is that the precision of risk assessment and forecasting in healthcare can be improved through the use of an appropriate methodology based on stochastic modelling.

3. Evaluation of the Structure and Content of the Dissertation

From a structural point of view, the dissertation is successfully designed. There is logical consistency and good linkage between the individual parts. The content of the exposition fully corresponds to the topic of the dissertation, and the methodology used is appropriate for conducting the research and proving the defended thesis.

The first chapter examines the theoretical foundations of contemporary risk management in healthcare. It analyzes the specific features of financial risk management in the healthcare sector, the classifications and types of risk, as well as the approaches to identifying and treating healthcare risks. **The second chapter** presents contemporary quantitative approaches to financial risk management, namely the “probability-impact” matrix, Monte Carlo simulations, VaR, CVaR, and cash-flow-at-risk models. In **the third chapter**, these approaches are applied through the development of risk-based models for assessing and forecasting risk in healthcare institutions.

The author demonstrates good skills in working with scientific literature, systematizing theoretical concepts, and applying quantitative methods to a specific practically significant problem. A particularly positive impression is created by the effort to move from theoretical analysis to applied modelling based on empirical data.

4. Evaluation of the Abstract of the Dissertation

The abstract of the dissertation by Stoycho Gochev Stoev has been developed in a volume of **42 pages** and is prepared in accordance with the established requirements for presenting a dissertation for the award of the educational and scientific degree “Doctor”. It should be positively noted that, alongside the main theoretical propositions and applied results of the dissertation study, the abstract also presents directions for future research related to the development of a universal approach for the quantitative assessment of the risk exposure of hospitals, the further deepening of stochastic modelling, and the validation of the obtained results. The abstract also contains a list of publications related to the dissertation, which shows that some of the research results have already received publicity in the academic

community. A summary of the scientific and scientific-applied contributions is also included, among which the theoretical study of contemporary financial approaches to risk assessment, the analysis of the portfolio of risks in the healthcare sector, the construction of stochastic models, and the analysis of the problems of the health insurance system in Bulgaria stand out.

In conclusion, it can be summarized that the abstract **corresponds** to the content of the dissertation and correctly presents the main scientific positions, results, and contribution-related aspects of the author's work.

Among the submitted materials, there is also a declaration of originality in which the doctoral candidate states that the achieved results and the contributions outlined are original and have not been borrowed from studies and publications in which he had no participation. Within the framework of this opinion and on the basis of the submitted materials, **I have not established any evidence of plagiarism.**

5. Evaluation of the Contributions of the Dissertation (Scientific, Scientific-Applied)

My assessment is that the contributions of the dissertation are real and reflect both the scientific and the scientific-applied qualities of the study. The more significant of them are the following **(one scientific-theoretical and three scientific-applied)**:

1. A systematization and theoretical generalization of contemporary approaches to financial risk management in healthcare has been carried out, with risk considered in its financial, organizational, technological, and strategic dimensions.

2. The parameters of the portfolio of risks registered in the healthcare sector in Bulgaria have been studied, which gives the dissertation empirical grounding and greater practical value.

3. Models for quantitative and stochastic risk assessment in a Bulgarian hospital have been developed through the use of a "probability-impact" matrix, Monte Carlo simulations, VaR, CVaR, and cash-flow-at-risk models. This is a substantial contribution of a scientific-applied nature.

4. An analysis of the current problems of the health insurance system in Bulgaria has been carried out, and conclusions and recommendations aimed at improving risk management in the healthcare sector have been formulated.

I believe that the contributions formulated in this way accurately reflect the scientific merits of the dissertation and its usefulness for both theory and practice.

6. Critical Remarks and Recommendations

I have no substantial critical remarks regarding the dissertation. Only some recommendations may be made with a view to the future development of the author's research. It would be useful in future studies to deepen the comparative application of the quantitative models used in different types of healthcare institutions. It is also advisable for the author to continue his scientific work on the topic and to publish his results in a wider range of specialized scientific journals. These recommendations do not diminish my positive assessment of the merits and strengths of the dissertation.

7. Questions to the Doctoral Candidate

In view of the presented dissertation, the methodological tools used, and the formulated scientific-applied results, the following question may be addressed to the doctoral candidate: **Which specific changes, in your opinion, would have the strongest effect on limiting financial risk in hospitals in Bulgaria?**

8. Conclusion

Based on the assessment made of the presented dissertation and its abstract, I consider that the work by Stoycho Gochev Stoev entitled "Models for Financial Risk Management in Healthcare" represents a completed independent scientific study on a topical and significant problem for both theory and practice. The dissertation contains results and contributions that substantiate the conclusion that the doctoral candidate possesses the necessary theoretical preparation, research skills, and capacity for scientific work.

On this basis, I give a **positive** opinion of the dissertation and **propose that the respected scientific jury award Stoycho Gochev Stoev the educational and scientific degree "Doctor" in the field of higher education 3. Social, Economic and Legal Sciences, professional field 3.8. Economics, doctoral programme "Finance and Banking"**.

Date: 24.04.2026

Member of the Scientific Jury:.....
(Assoc. Prof. R. Krasteva-Hristova, PhD)