Opinion

of a member of the Scientific Jury

for obtaining the educational and scientific degree "Doctor"

under the program "Finance, money circulation, credit and insurance"

in Burgas Free University

Author of the dissertation: PhD student Kairat Bolatovich Koishibekov (№ 18258001), PhD student at the Center for Economic and Management Sciences at Burgas Free University.

Topic of the dissertation: “Methodological aspects of stress testing in the financial industry and their applicability to systems in the Republic of Kazakhstan“.

Research supervisor: Prof. Dr. Sava Hristov Dimov, Burgas Free University.

Prepared the opinion: Assoc. Prof. Dr. Ivaylo Mihailov Mihailov, habilitated in the scientific specialty 05.02.05 "Finance, Money Circulation, Credit and Insurance".

I. General presentation of the dissertation

The basis for writing the opinion is the decision of the scientific council of Burgas Free University dated 03.10.2022, approved by order of the rector No. 30/06.10.2022. The review of the dissertation work was prepared in accordance with the normative requirements of Law on the development of the academic staff in the republic of Bulgaria and complies with the Regulations for the development of the academic staff at BFU from the Center for Economic and Management Sciences.

In the dissertation submitted for opinion *"Methodological aspects of stress tests in the financial industry and their applicability to the systems in the Republic of Kazakhstan"* there is a clearly formulated object, subject, goals and objectives. It asserts the thesis that *"stress tests of organizations from the financial industry of the Republic of Kazakhstan show their resistance to systematic risks and global shocks, which inevitably reflects on the stability of socio-economic life in the country".*

In structural terms, the dissertation includes: an introduction, four chapters with paragraphs, a conclusion, references and an appendix. The development consists of 222 pages, of which 180 pages are the main text. The balance between the volume of individual chapters is good. The number of literary sources used is 178, the majority of which are scientific works by foreign authors. 30 tables, 35 diagrams, 2 diagrams and 1 figure are included to support the presented main text.

For the purposes of the study, the following research methods were used: the methods of descriptive research, "Data Mining" - "data extraction" and "intelligent data analysis", mathematical-statistical, inductive and deductive method, the method of analysis and synthesis, multiple discriminant analysis for predicting default states, ratings and more.

Eleven publications were made on the subject of the dissertation, of which: 1 monographic research, 2 studies, 5 articles and 3 scientific reports. The monograph is co-authored, and in the rest of the scientific production, the dissertation student is the sole author. The publications are the result of the author's research and reflect some of the main ideas and results presented in the dissertation. They fully satisfy the requirements for obtaining the educational and scientific degree "doctor".

The abstract is compiled according to the requirements and correctly reflects the main parts of the conducted research.

II. Assessment of the form and content of the dissertation

The relevance of the dissertation is justified by the fact that stress tests of financial institutions are a modern phenomenon, widely used after the World Financial Crisis of 2007-2009. Undoubtedly, the choice of the topic is in accordance with the needs of financial theory and practice. The research contains new and current theoretical questions and scientific-practical statements, with the emphasis being placed on the prudential requirements for applying stress tests, as well as on a simulation model for analyzing the results of conducted stress testing of sectors of the financial industry of the Republic of Kazakhstan.

The content of the dissertation is organized into four chapters with paragraphs that include theoretical-methodological issues of the researched issues, a simulation model for stress testing the banking sector in the Republic of Kazakhstan and results of the analysis.

In the *first chapter*, a chronological review of the existing concepts and discussion points in stress testing of financial industries is carried out. Fundamental scientific papers relevant to stress testing system development approaches are reviewed.

The *second chapter* is devoted to the prudential requirements for stress tests of financial systems. The necessity of their application as well as the weaknesses of the stress tests, which became apparent after the debt crisis in the EU, are justified.

The *third chapter* is related to the empirical presentation of scenarios for testing financial and credit institutions and the pandemic effects on the stress tests of the financial sector in the Republic of Kazakhstan. The "drivers" of financial risk have been consistently identified.

In the *fourth chapter*, a general description and the specifics of the banking sector in the Republic of Kazakhstan are presented. A simulation model is proposed for the analysis of the results of conducted stress testing of sectors of the financial industry of Kazakhstan.

In the conclusion, the author has successfully summarized the results of the conducted research.

PhD student Kairat Bolatovich Koishibekov has submitted a declaration of originality and credibility, with which he guarantees that the dissertation work is authentic and represents his own scientific production.

III. Scientific and scientific-applied contributions of the dissertation

On the basis of the conducted studies, data processing and analyses, the doctoral student has formulated nine contributions of a scientific and scientific-applied nature.

IV. Critical notes and questions on the dissertation

There are also some gaps and weaknesses in the doctoral student's work, which in no way diminish the merits of the research.

1. When enumerating, different symbols are used, which leads to confusion: in some places it is given with (i), (ii), (iii), in others with – a, b, c, and in others – 1, 2, 3 etc.

2. There are tables and charts under which the source of information is not indicated. If the data is obtained and summarized as a result of own studies and research, this should be noted.

3. It is necessary to set a clearer dividing line between the achieved results and the contributing moments.

During the examination of the dissertation, the following questions arose:

1. Is risk in Islamic banks regulated by the state and if so, how? Are conventional and Islamic banks on an equal footing in terms of regulations and supervision in the Republic of Kazakhstan?

V. Summary assessment of the dissertation and conclusion

The dissertation submitted to me for opinion on the topic *"Methodological aspects of stress tests in the financial industry and their applicability to the systems in the Republic of Kazakhstan"* meets the requirements for a doctoral dissertation in terms of volume and quality. It is my opinion that the purpose and tasks are fulfilled and the author's thesis is confirmed. All this gives me grounds for an overall high assessment of the dissertation work, on the basis of which I propose to the respected scientific jury to award the educational and scientific degree "doctor" to Kairat Bolatovich Koishibekov.

Date: December 16, 2022 г.

Prepared the opinion: ………………

Assoc. Prof. Dr. Ivaylo Mihaylov