REVIEW

by a member of the scientific jury, appointed by Order № 626/27.06.2024
of the Rector of D. A. Tsenov Academy of Economics – Svishtov,
regarding a dissertation work for the acquisition of
the educational and scientific degree "**Doctor**"

Reviewer: Prof. Lyuben Dimitrov Kirev, PhD, field of higher education 3. "Social, economic, and legal sciences", professional direction 3.8. "Economics"

Author of the dissertation: Radka Ivanova Vasileva, doctoral programme "Finance, Money Circulation, Credit and Insurance (Insurance and Social Security)"

Title of the dissertation: "Possibilities for Reducing the Ceding Company's Property Insurance Payments in the Context of its Reinsurance Programme"

I. General presentation of the dissertation paper

1. Subject

The subject of research in the dissertation work is "the existing and commonly applied reinsurance coverages in property insurance, focusing on their utilisation and combination methods aimed at reducing the insurer's payments size resulting from adverse risk developments. The objective is to outline the possibilities for optimising payments made by the ceding company in property insurance within the framework of its defined retention, which is part of its reinsurance programme. The achievement of the stated objective has led to the identification of four major scientific tasks corresponding to the structure and content of the dissertation. The thesis argues that through properly defined retention within the established reinsurance programme, there exists significant potential to reduce payments and optimise the results of an insurance company operating in the field of property insurance. **The formulated goals and tasks have been successfully achieved, with the specified research methods properly used, resulting in a successful defence of the advocated research thesis.**

2. Length

The dissertation comprises 229 standard pages, supported by 34 tables and 13 figures illustrating the research findings.

3. Structure

The structure of the dissertation work is well-balanced and consists of an introduction; an exposition covering three chapters; a conclusion; a list of cited and used literature; a declaration of originality and authenticity; and 22 appendices. The structure is logical, based on a deductive approach from the general to the specific and individual. It covers the stated goals and tasks, contributing to the development of the problem and the argumentation of the research thesis.

Introduction. The introduction contains all necessary structural elements for an introductory section. It outlines the relevance of the topic, the object and subject of the study, defines the purpose and tasks of the research, precisely formulates the research thesis, discusses the logical-theoretical methods used in the study, and presents the validation of the dissertation work. It is particularly important to highlight the scope of the study (the delimited scope of analysis).

The first chapter has a scientific-theoretical nature and is dedicated to property insurance and its position in the insurance market in Bulgaria. In it, the PhD student demonstrates a deep understanding of the nature, characteristics, and types of property insurance. The chapter extensively covers the specifics of claim settlement and determination of compensations in property insurance, and provides a circumstantial analysis of the state and development of the market for insurance and reinsurance operations in property insurance in Bulgaria during the period 2018-2022.

In **the second chapter**, the emphasis is placed on reinsurance as a means to equalise risk outside the insurance pool. The essence of reinsurance is thoroughly explained, including the types, methods, and forms of reinsurance protection. The nature, objectives, and advantages of reinsurance programmes, as well as their organisation and development, are extensively covered.

In **the third chapter**, the focus is on minimising adverse payment deviations within the insurance pool for property insurance in the context of the established reinsurance programme. The retention of the insurer as a component of the reinsurance programme of the insurer is substantiated; the possibilities for determining the retention in various forms of reinsurance and other substantiated opportunities for reducing the insurer's payments within its retention are justified.

Conclusion. The conclusion concisely and comprehensively outlines the main findings and achieved research results.

Bibliography

The PhD student has used 74 literary sources related to the topic of the dissertation, including 28 in Latin script (English language) and 46 in Cyrillic script, of which 6 are in Russian language, including regulatory and informational sources, mainly from the FSC (Financial Supervision Commission).

5. **Appendices**. The dissertation includes 22 tables in the appendices.

II. Assessment of the relevance and content of the dissertation

1. Assessment of the relevance and the elaboration of the research problem.

Risk in property insurance is a precondition for insurance companies to seek ways to mitigate the adverse consequences of its occurrence. A widespread practice in this regard is the conclusion of reinsurance contracts with reinsurers. However, problems with adverse deviations between paid and expected indemnities can be more successfully resolved not through individual reinsurance contracts, but through the development of a reinsurance programme as a more integrated approach. A primary element of the reinsurance programme is the correct definition of the "ceding company's retention". Thanks to it, all significant potential losses, which serve as the basis for determining the maximum amount of compensations payable by the insurer, can be managed without encountering serious difficulties. The dissertation of Radka Ivanova Vasilieva is dedicated to these successfully selected issues crucial for the insurance business. **The dissertation is an independent and completed scientific study on a significant and current topic, with a logical structure, successfully achieved research aim and tasks, and a successfully defended research thesis.**

2. Opinion on the language, volume, and research tools of the dissertation paper

The style is tight, the language is precise and unambiguous. The scientific apparatus is correctly used, and the visualisation of the discussed topics through tables and figures is at a high level. The information base used is exceptionally rich, highlighting a deep understanding of informational and literary sources on the issue. A mathematical-statistical toolkit has been successfully employed for data processing.

3. Opinion on how accurately and completely the author's abstract corresponds on the dissertation paper

The author's abstract accurately and comprehensively reflects the content of the dissertation. Furthermore, the abstract includes: Declaration of Originality and Authenticity; Reference on the Scientific and Scientific-Applied Contributions in the Dissertation; List of Publications by the Doctoral Candidate on the Topic of the Dissertation Work (3 independent scientific articles and one co-authored, and one scientific report) and Reference for the fulfilment of the minimum national requirements in the connection with the procedure for awarding the educational and scientific degree "Doctor" (total points obtained in the indicator group D 41.6, with the required number being 30).

III. Scientific and scientific-applied contributions of the dissertation

The achievements of the doctoral candidate, characterised by scientific and scientific-applied contributions, can be systematised as follows:

First. In addition to the research of leading authors in Bulgaria and abroad, I consider the clarification of the essence, characteristics, types, and place of property insurance in the Bulgarian insurance market. The specifics of claim settlement and indemnity determination in property insurance are presented in detail, and the state and development of insurance and reinsurance operations in property insurance in Bulgaria have been established.

Second. A contribution of the same order is the clarification of the essence of reinsurance as a means to reduce fluctuations and the amount of paid compensations in property insurance. The development of reinsurance relationships has been traced historically, and the types, methods, and forms of reinsurance protection have been examined in detail and from multiple perspectives. A clear achievement of the doctoral candidate is the definition of the nature of the reinsurance programme, its goals and advantages, as well as its organization and development.

Third. The role of the insurer's retention has been established as the most important element of the reinsurance programme, and its nature has been defined. The factors influencing the size of the self-retention have been thoroughly identified and presented, as well as the possibilities for determining the self-retention under various forms of reinsurance. It is argued with reasoning that there is no ideal approach to determining the size of the retention. However, properly defined self-retention and a well-structured reinsurance programme offer significant opportunities to reduce paid indemnities.

Fourth. Other justified opportunities to reduce insurer payments within its self-retention include setting an insurance maximum as the maximum amount an insurance company can assume responsibility for without compromising its financial stability, as well as combining reinsurance contracts. It is emphasized that accurately established and justified retention limits, along with well-chosen mathematical and statistical methods, will enable the insurer to reduce uncertainty, lower the size of compensation payments, and optimise the outcomes of property insurance companies.

Fifth. I consider it an undeniable contribution of doctoral candidate Radka Vasilieva the extensive use of mathematical and statistical methods in examining the possibilities for determining self-retention under various forms of reinsurance. Similar toolkit has been applied extensively in determining probability of insolvency; the need for reinsurance in proportional reinsurance; cedant's share of losses in non-proportional reinsurance; cedant's priority; insolvency status (illiquidity), optimal retention of policyholders; insurance maximum, and others. The mathematical and statistical toolkit used not only forms the basis for substantiating the author's conclusions but also lends clarity and a clear structure to the study itself.

IV. Critical remarks and questions regarding the dissertation

I have no critical comments on the developed dissertation. The obtained results would be more convincing if the analysis of empirical data covered a longer period of time, not just five years.

V. General evaluation of the dissertation work and conclusion

The dissertation submitted for review is dedicated to a significant and current issue in economic theory and insurance practice. It represents a comprehensive and completed scientific study that is both theoretically rigorous and practically oriented. In its development, alongside the strong theoretical foundation, the doctoral candidate demonstrates proficient use of scientific tools, clear formulation of research problems, skills in analysis, synthesis, and critical evaluation of theoretical perspectives, and interpretation of empirical studies. Independently, she has reached conclusions and generalisations that enrich scientific knowledge and contribute to the application of existing theoretical perspectives in the field of property insurance and reinsurance. The dissertation fully complies with the Law on the Development of the Academic Staff in the Republic of Bulgaria, its Regulations, and the Regulations for the Development

of the Academic Staff of D. A. Tsenov Academy of Economics. These merits of the dissertation, the mentioned contributions, and my entirely positive assessment of the work, are grounds to propose to the esteemed members of the scientific jury to vote for awarding the educational and scientific degree "**Doctor**" in field of higher education 3. "Social, economic, and legal sciences", professional direction 3.8. "Economics", with a scientific specialty in "Finance, Money Circulation, Credit and Insurance (Insurance and Social Security)" to doctoral candidate **Radka Ivanova Vasileva**.

14.07.2024 г.
Sofia

Reviewer:
/ Prof. Lyuben Kirev, PhD /