To
the Department of Insurance and Social Security
at D. A. Tsenov Academy of Economics – Svishtov
To
Scientific jury for the procedure of acquiring the educational and scientific degree "Doctor" in the scientific field "Finance, Monetary Circulation, Credit and Insurance
(Insurance and Social Security)" at D. A. Tsenov Academy of Economics – Svishtov

REVIEW

To acquire the educational and scientific degree "Doctor" in the scientific field
"Finance, Monetary Circulation, Credit and Insurance
(Insurance and Social Security)"

Reviewer:

Assoc. Prof. Rumen Georgiev Erusalimov, PhD

Author of the dissertation:

Radka Ivanova Vasileva

Part-time PhD student at the Department of 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

The dissertation submitted for review on the topic "Possibilities for Reducing the Ceding Company's Property Insurance Payments in the Context of its Reinsurance Programme" consists of 200 pages of main text, structured in the classical format of introduction, three chapters, and conclusion. It includes a list of 74 cited sources, a Declaration of Originality and Authenticity and 22 appendices. The research is illustrated with 34 tables and 13 figures.

II. Assessment of the form and content of the dissertation

The economic essence of insurance is expressed through its primary indemnifying function by assuming responsibility for various types of risk. Therefore, insurance companies, in carrying out their core activities, are also exposed to the effects of risk. One of the main ways to distribute the risk that insurers assume and to mitigate its consequences is through reinsurance. Therefore, the dissertation submitted for review is on a particularly relevant topic. In it, the author aims "to delineate opportunities for optimising payments made by the ceding company in property insurance within the framework of its defined retention, which is a component of its reinsurance programme" and the thesis she defends is that "through correctly defined retention, within the context of an 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".

In the introduction of the dissertation, which covers 5 pages, the relevance of the examined issue is substantiated, the object and subject of the research are described, and the main goal and research thesis are stated.

The first chapter of the dissertation research begins with clarifying the concept of "property insurance" and outlining its scope concerning the types of insurance. It is specified that the subject of the study will be property insurances

(11 types in total) classified by the Financial Supervision Commission. A brief justification is made regarding the insured object, covered risks, and the upper limit of liability of insurers for these 11 types of property insurances.

In order to address the first research task outlined in the introduction of the dissertation, the first chapter continues by examining the characteristics of the claims settlement process for the specific types of insurance falling within the scope of the study. The chapter logically concludes with a justification of the necessity for reinsurance protection for insurers operating within the scope of the included insurance types under study. Based on calculated coefficients of variation for three key insurance indicators (paid claims, net loss ratio, and probability of loss), the author determines the level of reinsurance coverage required for the individual types of insurance, thus fulfilling the second research task.

The second chapter begins with a brief historical overview and clarification of the essence of reinsurance as a specific human activity. To achieve this, a series of definitions provided in specialised literature are examined. The author has paid particular attention to the classification according to which the individual types, methods, and forms of reinsurance should be considered. A distinction has been made based on two main criteria: the legal concept of reinsurance contracts and the technology of their conclusion. Based on this, the main types, methods, and forms of reinsurance have been examined.

Chapter Two concludes with clarifying the essence and outlining the advantages for insurers of establishing a reinsurance programme. The basic principles for establishing a reinsurance programme are also provided, marking the transition to the third chapter of the dissertation study.

In the third chapter, one can seek the author's main contributions related to achieving the primary goal of the dissertation work. At the beginning of the third

chapter, directions are set forth for minimising insurers' losses in adverse deviations in property insurance payments through the development of a balanced reinsurance programme. The essence, objectives, and factors influencing the level of retention in reinsurance transactions have been clarified. Precisely determining this level is crucial for insurers' financial outcomes resulting from risk management. An excessively high retention level will deprive the insurance company of a significant portion of its earned premium income. On the other hand, an excessively low retention level exposes the insurer to the risk of unforeseen payments that could seriously threaten its financial stability. Therefore, the study continues by examining the possibilities for selecting an appropriate retention level for the insurer. Based on the "Probability of Insolvency" indicator, the author provides reasoned guidelines for determining the optimal retention level in both quota share reinsurance and surplus reinsurance, supported by a developed numerical example. The "reinsurance requirement" is also utilised, determined by multiplying three factors, to determine the optimal retention level in quota share reinsurance. The "cedant's priority" is determined based on established rules from specialised literature (mathematical relationships of insurance-technical variables). The chapter concludes with an examination of additional methods to optimise insurer payments through the determination of the retention level. The Landré criteria for relative average risk have been examined, based on which both the necessary minimum number of insured objects in the pool and the maximum size of the sum insured for a new insurance can be determined, ensuring that the insurer is not exposed to increased risk. This way, it can quickly be determined for which pool (aggregate) and/or individual insurance contract reinsurance protection should be sought. The author's proposals for constructing a reinsurance programme are noteworthy, involving the combination of various reinsurance methods and types of reinsurance contracts.

In the conclusion of the dissertation, contained in 2 pages, the main findings and achieved research results are presented in a summarised form.

The strong logical coherence of the presentation and the clear style with which the author presents her research and defends her positions are impressive. There is no apparent misuse of others' texts. The opinions and viewpoints of other authors writing on the topic are accurately cited.

The author's abstract accurately reflects the content of the dissertation. It presents all the main findings and conclusions that the author reaches in the full text of the research.

III. Scientific and scientific-applied contributions of the dissertation

The dissertation submitted for review has a pronounced applied character. It includes the following scientific-applied contributions:

1. A substantiated, reasoned, and numerically supported proposal introduces a new method called "reinsurance necessity", which establishes the need for reinsurance protection for the respective insurer.

2. The significance of self-retention is derived across various types of reinsurance contracts, aiming to preserve the financial condition and solvency of insurance companies.

3. Based on developed numerical examples, the optimal retention level has been determined for various types of reinsurance, providing particular benefits to insurers who include property insurance in their portfolio, as discussed in the dissertation.

4. In order to optimise payments for insurance companies, combinations of various reinsurance methods and types of reinsurance contracts have been proposed in the development of their reinsurance programmes.

IV. Critical remarks, questions and recommendations regarding the dissertation

In the dissertation submitted for review, no significant weaknesses or omissions are identified.

I allow myself to ask the following questions:

1. What form of reinsurance coverage should the insurance company choose in case of a low probability of occurrence of large losses caused by a single event?

2. In your opinion, what is the most suitable reinsurance coverage if the potential frequency and severity of losses have a low probability of occurring?

V. General conclusion and opinion

The presented dissertation is complete and shows good logical coherence. It includes sufficient contributory points and original ideas. The literary sources used are cited accurately and correctly. All of this gives me grounds to express my **positive opinion** regarding the qualities of the dissertation submitted for review on the topic "Possibilities for Reducing the Ceding Company's Property Insurance Payments in the Context of its Reinsurance Programme". I hereby vote **"FOR"** granting Radka Ivanova Vasileva the academic and scientific degree of Doctor.

19 July 2024   Reviewer ……………………..

                                    (Assoc. Prof. Rumen Erusalimov, PhD)