



## REVIEW

from

***Associate Professor Georgi Petrov Georgiev, PhD, University of Agribusiness and Rural Development, Department of Economics and Finance, professional direction 3.8. "Economics", scientific specialty "Finance, money circulation, credit and insurance"***

**regarding:** awarding of the educational and scientific degree "doctor", field of higher education 3. "Social, economic and legal sciences", professional direction 3.8. "Economics" and scientific specialty "Finance, monetary circulation, credit and insurance" for the needs of the primary unit of the department of "Economics and Finances", receiving structural unit Department of Economics and Management.

### 1. General information

The reason for writing this review is my participation in the composition of the scientific jury of the Department of "Economics and Finances" at the Department of Economics and Management of the UARD. The review was prepared on the basis of the order of the rector of UARD No. 114/04.04.2023 to determine the composition of a scientific jury for the defense of a dissertation and the decision of the scientific jury from its first meeting on 04.06.2023 registered with protocol No. 1 .

**Author of the dissertation:** Delyan Kostadinov Plachkov

**Dissertation topic:** "Risk management tools in the context of the Common Agricultural Policy of the European Union"

**Area of higher education 3.** "Social, economic and legal sciences"

**Professional direction 3.8.** "Economy"

**Doctoral program** "Finance and Banking"

**Primary Unit:** Department of Economics and Finance

**Receiving structural unit:** Department of Economics and Management

**Supervisor:** Prof. Dr. Ogniana Stoichkova.



Other formal grounds Art. 28 of the PPZRASRB and Art. 39 par. 2 of the University of Agribusiness and Rural Development.

## **2. Brief biographical data of the doctoral student**

I know doctoral student Plachkov from the time when he was a student at UARD. I have taught him various disciplines at the bachelor's and master's degrees, and my professional impressions of his work and dedication to the scientific field are excellent. His scientific and professional interests are multifaceted and oriented in different areas of human knowledge. Doctoral student Plachkov graduated with a bachelor's degree in "Business Administration" in 2017 and a master's degree in "Finance and Banking" in 2018 at UARD. Immediately after that, he devoted himself to his other passion, theology, enrolling in a bachelor's course at the Higher Evangelical Theological Institute - Sofia. He successfully graduated as a Bachelor of Theology at the end of 2022.

In terms of career, doctoral student Plachkov held and holds management and administrative positions in various sectors of the economy and the public sphere: as manager and assistant manager in Italy /2015-2017/; manager of commercial enterprises in Bulgaria /from 2013 until now/. Since November 2017, he has been appointed to UARD as a system administrator, and since February 2023 he has been part of the academic staff of UARD as an assistant in the Department of Economics and Finance.

He speaks fluently English and Italian.

## **3. General description of the dissertation work. Evaluation of the structure of the dissertation work**

The presented dissertation project in volume 191 pages. The exposition in structural terms is made up of an introduction, three chapters, a conclusion and a list of the literature used. It contains 43 tables, 36 graphs. In this regard, there is a slight



relative imbalance between the size of the individual chapters and slight structural disparities - the volume of chapter one is 48 pages, chapter two is 45 pages, and chapter three is of a larger volume, amounting to 75 pages. The dominance of chapter three is explained by the doctoral student's desire to allocate a greater part of the dissertation development to the empirical research and statistical analyzes on which this chapter concentrates. My opinion is that the strengthening of the research character in the exhibition should be encouraged and appreciated.

Compared to other dissertations, a good impression is made by the fact that the descriptive style does not prevail in the presentation, but the analytical presentation of the information dominates, as the author's arguments are supported by rich statistical facts and empirical data.

In terms of information, the study is provided with a rich bibliographic base, composed of 118 sources, of which: 60 in Bulgarian and 58 in English.

The rich base of empirical material used is up-to-date and all statistics are from the period 2019 - 2022. In the assessment of market risk, 16 representative samples were constructed, each comprising 157 historical observations on the market price of the largest and established regional grain markets in Bulgaria, Romania, Croatia and Slovakia for barley, bread wheat and feed wheat.

#### **4. Evaluation of the content of the dissertation. Relevance and significance of the developed scientific problem**

The presented dissertation deals with an extremely topical problem related to the study of financial instruments in the context of the EU CAP for risk management in the agricultural sector. Risk management specialists know that the agricultural sector, compared to other sectors of the economy, is characterized as one of the most risky. From this point of view, it is extremely important for agricultural producers to have specific quantitative data on the levels of different types of risk in the sector and a reliable methodology for its forecasting and assessment.



The content of the development fully corresponds to the established topic of the dissertation. The object, the subject of research, the research thesis and limitations are precisely formulated and well justified in the presented version. The assigned tasks correspond to the structure in the subsequent three chapters of the project.

The research methodology used in the dissertation is extremely diverse and includes the use and application of a wide range of analyses, such as: the VaR methodology, statistical analysis, parametric, non-parametric econometric methods, etc.

It is clear from the presented material that the doctoral student has a deep insight into the researched issues, knows the methods of scientific research and can draw his own motivated conclusions based on empirical data and theoretical statements. Has skills for statistical processing of empirical data and knowledge about the use and application of modern financial methods for assessing market risk.

In conclusion, I believe that the presented dissertation project meets therequirements and has the qualities and potential of a modern dissertation development.

## **5. Evaluation of the abstract for the dissertation work**

The abstract correctly and logically reflects the main points of the structure of the dissertation presentation. The doctoral student attached at the end of the presentation of the auto-abstract a reference on the contributing points of the dissertation work. Six scientific and applied results with the character of scientific contributions have been synthesized. I can confidently declare that they were developed entirely by the author in the scientific development.

## **6. Evaluation of the contributions of the dissertation work (scientific, scientific-applied)**



Doctoral student Plachkov synthesized the results of his dissertation development to the following six findings of scientific and scientific-applied contributions, which I share for the most part.

As scientific contributions I define:

- The retrospective analysis of the Common Agricultural Policy of the European Union (CAP) and the specific features of types of financial instruments for risk management in this area are highlighted.
- The interventions and impact of the Common Agricultural Policy and risk management through financial instruments on the agricultural sector and rural development are investigated with an emphasis on market risk in the agricultural sector.

As scientific - applied contributions I accept:

- For the first time, a methodology for stochastic modeling of market risk in the grain sector of Central and Eastern Europe has been successfully tested with real data;
- The market risk for grain producers in Eastern and Central Europe is estimated and forecast at 99% probability for a 7 and 30 day period using the Delta Normal VaR and Historical Simulated VaR approaches.
- The levels of market risk in grain markets in Bulgaria, Romania, Croatia and Slovakia before and after the start of hostilities have been assessed and analyzed.

## **7. Evaluation of publications related to the dissertation work**

The PhD student has submitted a total of 3 scientific publications on the subject under the procedure – one scientific article in an academic publication and 2 scientific reports in collections of materials from International Scientific Conferences published in refereed publications. I believe that it meets the minimum national requirements for obtaining a scientific degree "doctor" and meets the requirements for independent and bona fide author's scientific research.



## 8. Questions for the PhD student

- What do you think are the main problems in the implementation of the CAP in Bulgaria's agricultural sector?
- What metrics other than value at risk do you think would be appropriate to measure market risk in the agricultural sector.
- You use Delta normal VaR and historical simulation when calculating market risk. How could the predictive accuracy of the models be increased?

## 9. Conclusion:

The doctoral candidate demonstrates high analytical skills in the presented dissertation development, has solid professional experience and has already penetrated deep enough into the matter, which is reflected in the derivation of the necessary contributions in both theoretical and practical-applied aspects and the successful completion of the entire procedure .

My opinion regarding the presented thesis work and the procedure for awarding the educational and scientific degree "doctor" to Delyan Kostadinov Plachkov is **positive**. It meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria, the Regulations for its Application, the Regulations of the UARD and I propose with conviction to the scientific jury that Delyan Kostadinov Plachkov be awarded the educational and scientific degree "doctor" in scientific field 3 "Social, economic and legal sciences" in professional direction 3.8 "Economics" in scientific specialty "Finance, money circulation, credit and insurance".

05/09/2023

member of the jury:

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Prof. Dr. G. Georgiev