

## **O P I N I O N**

- From:** prof .**Valentina Ljubenova Nikolova-Alexieva, PhD**  
University of Food Technologies - Plovdiv,  
Professional direction 3.8. "Economy"  
Scientific specialty "Economics and Management"  
(Business Economics and Corporate Governance)
- Subject:** Dissertation work for the award of the scientific degree "**Doctor**" on  
in the doctoral program "Finance and Banking",  
Professional direction 3.8. "Economics" from a scientific field 3.  
Social economical and legal sciences at the Department of Economics  
and Finance, Higher School of Agribusiness and Regional Development
- Reason** for presenting the opinion: participation in the composition of the scientific  
jury for defense of the dissertation according to Order No. 114/04.04.2023  
of the Rector of VUARR for opening a procedure for the defence of  
dissertation work.

**Author of the dissertation:**

**DELYAN KOSTADINOV PLACHKOV**

**Dissertation topic:**

**FINANCIAL INSTRUMENTS FOR  
RISK MANAGEMENT IN CONTEXT  
OF THE COMMUNITY OF AGRICULTURE  
POLICY OF THE EUROPEAN UNION**

### **1. Actuality of the problem developed in the dissertation work**

The dissertation is dedicated to the study of a traditional sector of the Bulgarian economy and at the same time represents an extremely actual topic in view of the national policy, which is carried out under the conditions of the Common Agricultural Policy of the European Union. The relevance of the issues presented in the dissertation is indisputable, since the financial instruments used to support farmers and the development of rural areas stabilize the quantities and prices of agricultural and livestock production within the European Union. They are extremely efficient and largely prevent disruptions in supply chains. On the other hand, the assessment of the market risk regarding the changes in the prices of cereals in Bulgaria, Croatia, Romania and Slovakia during the period 07.11.2019 - 10.11.2022 was carried out on the basis of a specific methodology that contributes to the enrichment of knowledge related to predicting this risk.

In this regard, it can be concluded that the topic is *dissertationable and successfully chosen. It is extremely relevant and has great practical significance. The PhD student has justified this importance and relevance very well.*

### **2. General characteristic on presented dissertation labor**

The dissertation analyzes modern scientific achievements in the field of financial instruments for risk management to achieve added value, competitive advantage and sustainable development in the context of the Common Agricultural Policy of the European Union. *A total of 118 sources* are indicated in the list of used literary sources , of which: *60 in Cyrillic, 58 in Latin .*

*The indicated literary sources are up-to-date and directly related to the topic of the dissertation work.*

The presented dissertation labor is in volume of **191 pages**. In structural attitude includes **introduction , 3 chapters and conclusion** . The results are received through contemporary toolkit and are mirrored with appropriate selected **36 figures** and **43 tables** .

In the introduction on dissertation labor are formulated **the main one goal** and **four** logically bound **tasks** for hers achieve . Correct are determined the object and the subject on the study , as well as the main one **thesis on the author** , according to co flock market risk in the grain sector in the context of the European Union's Common Agricultural Policy and the application of financial instruments can be quantified and forecasted using the Value at risk " .

*The tasks are performed in progress on the research , and the formulated research this is proven. The structure on the dissertation research is logical built and conforms on placed purpose and tasks .*

### **3. Evaluation on received scientific and scientific-applied results**

#### **➤ In the theoretical part of the dissertation research:**

The doctoral student has carried out a serious literature review and made a synthesis of theoretical foundations for the development of the Common Agricultural Policy of the European Union in the context of financial instruments and risk management in agriculture. The objectives and principles underlying the Common Agricultural Policy (CAP) of the EU are presented and its role in the liberalization of world markets of agricultural production is highlighted, as well as in the development of the EU budget process. The various directions and stages of the reform of the CAP are presented sequentially. The reforms of 1992, 1999, 2003, 2013 and 2020 have been analyzed. The role of the European Agricultural Fund for Rural Development as the main financial instrument under the second pillar of the CAP, including a variety of loans, guarantees and equity combined with grant funding, intended to support the development of agricultural producers and SMEs in the agri-food sector, is reported . The strategic goals of the CAP in the program period 2021-2027 and the mechanisms for their achievement have been clarified. The systematizations and summaries made show *thoroughness and conscientious work with literary sources* , skills in applying analytical and deductive techniques for processing a significant amount of information with various research methods. Correctly, all citations and comments of the author are underlined, which makes it easier to refer to the cited sources.

The doctoral student's participation in the discussions on the researched problems *is active and reflects skills to express his own critical thinking and formulate new conclusions and findings.*

#### **➤ In the methodological part of the dissertation research:**

The PhD student has chosen an appropriate methodology and research toolkit that matches the complex, multidimensional nature of the study. In order to prove **the author's thesis , the system approach** was used , building on already done studies, theoretical analysis and synthesis, comparative analysis, the method of observation, experimental and empirical method, as well as descriptive, inductive, deductive methods regarding summarizing and deriving the essential characteristics of the basic concepts. To achieve **the main goal** and set **tasks**, *a grouping method* was used (authors' opinions, methodological characteristics, influencing factors, companies); *method of analogy; graphical methods; statistical , parametric, non-parametric methods and those from the probabilistic modeling group* . More specifically, when evaluating and forecasting the market risk in the agricultural sector, the following were used: Delta normal VaR; Historical simulation; Probabilistic stochastic modeling; Statistical analyses. The dissertation offers an original methodology for evaluating the market risk accompanying the growing and trading of cereals. It contains a formula apparatus from descriptive statistics used to estimate time series, combined with the value-at-risk approach.

*I give a very high assessment of the literature review, the methodology used, as well as in terms of the implementation of the set tasks for the achievement of the research objective.*

➤ ***In the applied part of the dissertation research :***

The doctoral student completely correctly applies the methodology proposed in the second chapter for conducting the empirical research related to the assessment of the market risk in connection with the changes in the price of bread wheat in Bulgaria, Croatia, Romania and Slovakia during the period 07.11.2019 - 10.11.2022 , predicting what the maximum losses for bread wheat producers from these countries will be in the next 7 days, respectively the next 30 days with a probability of 99% when trading it using delta normal VaR and historical simulated VaR. The doctoral student measures in an analogous way the market risk regarding changes in the price of fodder wheat in Bulgaria, Croatia, Romania and Slovakia during the period 07.11.2019 - 10.11.2022, predicting what will be the maximum losses for the producers of this wheat from the countries included in the study in the next 7 days, respectively the next 30 days with a probability of 99% when trading it using delta normal VaR and historically simulated VaR. A quantitative assessment of the market interest rate risk was carried out in connection with changes in the price of barley in Bulgaria, Croatia, Romania and Slovakia during the period 07.11.2019 - 10.11.2022, predicting what the maximum losses will be for barley producers from these countries in the next 7 days, respectively the next 30 days with a probability of 99% when trading it using delta normal VaR and historically simulated VaR.

Delyan Plachkov makes a comparative analysis of the changes in market risk values regarding the prices of bread wheat, feed wheat and barley before and during the special military operation in Ukraine on the markets of Bulgaria, Croatia, Romania and Slovakia with a horizon of 7 days and of 30 days with a probability of 99%, measured using delta normal VaR and historically simulated VaR. The results of the quantitative assessment of the market risk borne by grain producers in the analyzed countries are presented and recommendations are made for improving the schemes for risk management and extending the application of financial instruments in the context of the Common Agricultural Policy to address the challenges faced by farmers and rural communities.

*The work contains specific results and empirical evidence that objectively reflect the real achievements of the conducted scientific research.*

The presented dissertation work is a comprehensive, completed research on a current and significant socio-economic problem. In the course of the study, the most significant theoretical and practical problems related to the identification of financial instruments for risk management were raised and discussed.

*All of this gives reason to conclude that Delyan Plachkov has an excellent knowledge of modern literature on the researched problem and possesses the necessary theoretical level for researching and analyzing economic problems, formulating scientific theses, testing hypotheses through empirical evidence and forming scientific generalizations.*

Stakeholders of the research can be educational and training organizations for the purposes of professional training, business organizations with a different industrial profile, organizations from the non-governmental sector, state and regional authorities.

*I believe that the results of the dissertation research have a high degree of practical applicability, therefore I recommend the project-oriented approach for continued development of the topic.*

#### **4. Evaluation of scientific and scientific-applied contributions.**

Contributions can be divided into *scientific* and *scientific-applied* .

❖ **Scientific contributions** can include:

- enriching knowledge in the field of analysis and assessment of market risk in the grain sector of the countries of Central and Eastern Europe.

- based on a thorough analysis of Bulgarian and foreign authors and sources, the essence, scope and specific features of the Common Agricultural Policy of the European Union and the various types of financial instruments for risk management in its context are highlighted, and a historical analysis of its development in this direction.
  - systematization of interventions and the impact of the Common Agricultural Policy and risk management through financial instruments on the agricultural sector and rural development with an emphasis on market risk in the agricultural sector, as it is comprehensively defined, and its components are examined and analyzed in detail.
- ❖ Scientific **and applied** include:
- the proposed original author's delta normal VaR and historical simulated VaR approach, to estimate the market risk of grain producers in Central and Eastern Europe (and in particular Bulgaria, Croatia, Romania and Slovakia), which is forecast at 99% probability for a period of 7 and 30 days as required by the regulatory framework of the Bank for International Settlements in Basel.
  - empirically established the peculiarities of market risk assessment and forecasting for three cereals: bread wheat, fodder wheat and barley, quoted on the markets in Central and Eastern Europe (Bulgaria, Romania, Croatia and Slovakia). The level of market risk for the entire studied period, as well as for the periods before and during the war in Ukraine, was established.
  - it is proven that the military conflict in Ukraine affects to a different extent and in a different direction in terms of market risk in the grain sector of the analyzed countries, and it is found that the military conflict has the greatest impact on the feed wheat market in Romania, thereby reducing market risk. The highest levels of increase in market risk due to hostilities were calculated for barley markets in Croatia.
  - formulated recommendations regarding risk management schemes in Rural Development Programs, oriented to the need to develop financial instruments, taking into account the latest trends and priorities towards "greening", "simplifying" and modernizing the CAP, as well as promoting of applying innovations and digital technologies, improving awareness and increasing motivation among all stakeholders, creating and sharing new knowledge and building capacity for the development of the financial instruments of the Common Agricultural Policy of the European Union.

*I accept the contributions as real, credible and proven in the course of the dissertation research.*

**I consider significant achievements to be the personal work of the doctoral student.**  
*The conclusions and proposals in the dissertation present Delyan Plachkov as an erudite researcher with good theoretical training, with opportunities for creative generalizations and formulating solutions for practice .*

### **5. Evaluation of publications on the dissertation work**

A total of 3 independent publications dedicated to the dissertation work are presented, which shows his bright ability for individual expression. All three have been published in publications, referenced and indexed in international databases of scientific information . Like volume and quality them correspond on the requirements for receiving of the Educational and scientific degree "Doctor".

*I accept all publications like direct relatable to dissertation labor. In them are summarized and published essential problems and results from research in the dissertation labor .*

## **6 . Evaluation of the autoref**

The presented abstract of the dissertation is in a volume of **48 pages** . It reflects the goals and objectives of the research, the emphasis of the individual chapters of the dissertation, as well as the contributions of the author. *The abstract was developed in accordance with the requirements for its preparation and reflects the main results and contributions of the dissertation work.*

## **7. Criticisms, recommendations and questions**

- **Main opinion** : quality thesis, excellently illustrated, clearly outlined contributions with potential for development.
- **Critical notes** : I have no significant critical notes on the dissertation research.
- **Recommendations** : the doctoral student has the potential to publish in publications that are referenced and indexed in world-renowned databases of scientific information ( Scopus / Web of Science)
- **Question** : Does the PhD student think that the availability of risk management tools is different for different EU Member States?

## **8. Conclusion**

Given the merits of the dissertation work, the topicality and complexity of the researched problems, the need to search for effective solutions for them in practice, the good theoretical level of the researched and analyzed problems, it can be summarized that the presented dissertation work meets the normative criteria for **awarding the Educational and Scientific Degree "Doctor" /ZRAS, art. 6, paragraph 2 and paragraph 3/.**

The indicated results of the study dedicated to **"Financial instruments for risk management in the context of the Common Agricultural Policy of the European Union"** provide sufficient grounds for a **high assessment** of the scientific potential and research opportunities of the doctoral student.

All this allows me to vote **POSITIVE with conviction** for awarding **Delyan Kostadinov Plachkov the Educational and Scientific Degree "Doctor" in the Field of Higher Education 3. Social, economic and legal sciences, Professional direction 3.8. Economics, Doctoral Program "Finance and Banking".**

27.04.2023  
Plovdiv city

Prepared the opinion:

*/ Prof. V. Nikolova-Alexieva, PhD/*