

REVIEW

**by Assoc. Prof. Dr. Petar Atanasov Atanasov
Plovdiv University "Paisii Hilendarski"**

on the dissertation submitted

for the awarding of the educational and scientific degree "Doctor"

in the field of higher education: 3. Social, Economic, and Legal Sciences

Professional field: 3.8. Economics

Doctoral Program: "Finance and Accounting"

Author: Todor Slavchev Anev

Title: "Financial and Economic Effects of Stimulating Climate-Neutral Growth"

Scientific Supervisor: Prof. Dr. Stanimir Ivanov Kabaivanov

1. General Description of the Submitted Materials

By Order No. RD-21-2369, dated December 19, 2024, issued by the Rector of Plovdiv University "Paisii Hilendarski" (PU), I have been appointed as a member of the scientific jury responsible for overseeing the dissertation defense procedure for the dissertation titled "Financial and Economic Effects of Stimulating Climate-Neutral Growth". The dissertation is submitted for the awarding of the educational and scientific degree "Doctor" in the field of higher education: 3. Social, Economic, and Legal Sciences, professional field 3.8. Economics, doctoral program "Finance and Accounting."

The author of the dissertation is Todor Slavchev Anev, a full-time doctoral student at the Department of Finance and Accounting, under the supervision of Prof. Dr. Stanimir Ivanov Kabaivanov from Plovdiv University "Paisii Hilendarski", Plovdiv.

The set of materials submitted by Todor Slavchev Anev in hard copy complies with Article 36 (1) of the Regulations for the Development of the Academic Staff at PU and includes the following documents:

- Application to the Rector of PU for initiating the dissertation defense procedure;
- Curriculum Vitae in European format;
- Statement from the scientific supervisor;
- Dissertation;
- Abstract;
- List of scientific publications related to the dissertation topic;

- Copies of scientific publications;
- Declaration of originality and authenticity of the submitted documents.

The doctoral candidate has submitted three publications.

2. Brief Biographical Data of the Doctoral Candidate

The doctoral candidate's CV presents a person with broad knowledge and skills in various fields, demonstrating a clear interest in further developing and deepening acquired expertise. Throughout his professional career, Todor Anev has held various positions in companies and projects in the real sector. Currently, he works as a financial manager at UNICEF. His career includes roles such as Project Coordinator, Data Management Specialist, Accountant – Financial Management, and Financial/Accounting Manager. These positions, listed chronologically, span a seventeen-year period and illustrate his professional growth.

Key responsibilities associated with these roles include managing integrated supply chain systems, outsourcing, internal controls, enterprise resource planning systems, customer relationship management, project budgeting and forecasting, financial data management and analysis, process modeling, financial analysis, and project financial management (humanitarian, healthcare, education), among others. These responsibilities highlight essential competencies, including advanced knowledge of modern financial and management software, expertise in project finance and public finance, and strong analytical skills. These competencies align with his dissertation topic and contribute to its successful completion.

3. Relevance of the Topic and Appropriateness of the Goals and Objectives

The relevance of the dissertation topic can be substantiated by numerous international initiatives, acts, and agreements. Fundamentally, the civilization's progress and prosperity have relied on burning hydrocarbons - an activity associated with the depletion of non-renewable resources, environmental pollution, and global warming. The latter has unpredictable consequences, which the world is already witnessing. Simultaneously, the concept of carbon-neutral growth may be ahead of its time. This is evident from the fact that the two largest economies in the world are not yet ready for such a transition, while in Europe, the concept is undergoing significant revision due to economic slowdown and loss of competitiveness.

The dissertation correctly formulates its objectives, and their successful resolution contributes to achieving the stated research goal.

4. Knowledge of the Problem

The research problem is clearly and explicitly defined in the introduction. The key concepts are presented, and a literature review and analysis of publications in the relevant research area are provided. The multidisciplinary nature of the problem is acknowledged, along with the implications of its resolution. These implications pertain to economic restructuring and the need for changes in public and corporate finance, which are systematically analyzed. The dissertation demonstrates a deep understanding of the research problem.

5. Research Methodology

The study employs quantitative analysis and mathematical modeling using theoretical functional models of economic growth and production functions. Statistical hypothesis testing, regression analysis, Monte Carlo simulations, K-step simulations, and methods for splitting data into test and predictive subsets are applied. These methods allow for an adequate response to the dissertation's research questions and objectives.

6. Characteristics and Evaluation of the Dissertation

The dissertation follows a standard structure consisting of an introduction, three chapters, a conclusion, and two appendices. The study comprises 232 pages, including 206 pages of core text. References to 202 literature sources – primarily in English – are included, with citations directly relevant to the research topic.

The introduction clearly defines the research subject, object, and main problem. Nine specific tasks and eight research hypotheses are outlined to achieve the research goal. A recommendation for the author is to separate Hypotheses No. 1 and No. 2 to distinguish between the hypothesis elements and assumptions.

The theoretical framework comprehensively presents the characteristics of the employed economic and econometric tools. The candidate demonstrates proficiency in using not only appropriate mathematical models but also ones requiring strong statistical and econometric justification.

The assessment of climate-neutral growth effects includes the main research findings and results. Sectoral data are systematically analyzed, and specific models are developed to highlight the effects of transitioning to climate-neutral growth. The combination of linear regression models with linear optimization algorithms provides concrete policy recommendations. Notably, Ridge regression models and ARIMA are used for time series analysis, demonstrating the extensive scope of examined data and potential dependencies.

The concluding section summarizes the research findings, linking them to the objectives and hypotheses, thereby ensuring logical coherence.

7. Contributions and Significance for Science and Practice

The dissertation addresses a pressing issue of significance for both national and global economies. The author identifies five original scientific and applied contributions, each of which provides opportunities for concrete solutions, ranging from regulatory framework adjustments to macroeconomic policy design. The identified interconnections, dependencies, and theoretical tools for the quantitative assessment of financial policies, along with the proposed and validated models, enable the precise calibration of economic processes, even within a short-term timeframe. These contributions can serve as the foundation for the development of flexible economic policies that effectively respond to contemporary challenges. Such contributions hold substantial scientific as well as practical applicability.

8. Assessment of Publications Related to the Dissertation

In connection with the current dissertation defense, three articles have been presented, resulting from participation in international peer-reviewed conferences. The total number of points assigned to these publications exceeds the required minimum threshold.

9. Personal Contribution of the Doctoral Candidate

The assessment of the doctoral candidate's personal contribution to the conducted dissertation research can be made, on the one hand, based on the personal profile, knowledge, and skills presented in Section 2, and on the other, through the perspective of my professional interactions with his academic supervisor. Prof. Stanimir Kabaivanov has repeatedly emphasized Todor Anev's independent work, which leads me to have no doubts regarding his personal merit in achieving the presented contributions and results.

10. Abstract

The abstract has been prepared in accordance with legal requirements and accurately reflects the structure and content of the dissertation, emphasizing the key aspects, findings, and conclusions of the research.

11. Critical Remarks and Recommendations

In the presented dissertation, the introductory section is structured as a standalone chapter, an approach that I do not find entirely appropriate. The econometric research, which forms the foundation of the dissertation, is exceptionally thorough and serves as compelling evidence of the doctoral candidate's expertise. The diversity of the obtained results allows for a more pronounced financial interpretation - one that, on the one hand, would further highlight the author's analytical capabilities and, on the other, would strengthen the financial orientation stated in the dissertation title. In this regard, my recommendation is to establish a deeper connection between econometric and financial knowledge to better emphasize the latter. These remarks and suggestions are entirely constructive and do not, in any way, call into question the merits of the dissertation.

12. Personal Impressions

My personal impressions of Todor Anev are of a highly intelligent, well-educated, and ambitious young individual - something that his professional career and the present dissertation clearly affirm.

13. Recommendations for the Future Utilization of the Dissertation's Contributions and Findings

Doctoral candidate Todor Anev demonstrates evident personal, academic, and professional growth, with this dissertation representing yet another significant milestone, particularly in his academic development. Considering the obtained results and contributions, as well as acknowledging the limitations of the study and the economy in which it was conducted, I recognize the high potential for further research and development, which I fully support.

Conclusion

The dissertation presents scientific, applied scientific, and practical results that constitute an original contribution to the field of science and fully comply with all requirements of the **The Law on the Development of the Academic Staff in the Republic of Bulgaria (LDASRB)**, the **Regulations for the Implementation of LDASRB**, and the corresponding **Regulations of Plovdiv University "Paisii Hilendarski."**

The dissertation demonstrates that **Todor Slavchev Anev** possesses in-depth theoretical knowledge and professional competencies in the **doctoral program "Finance and Accounting."** Furthermore, it showcases his ability to conduct independent scientific research.

Based on the above, I confidently provide a **positive assessment** of the conducted research, as presented in the reviewed dissertation, abstract, obtained results, and contributions. I **recommend** that the esteemed **scientific jury** award the **educational and scientific degree "Doctor"** to **Todor Slavchev Anev** in the **field of higher education: 3. Social, Economic, and Legal Sciences, professional field 3.8. Economics, doctoral program "Finance and Accounting."**

30.01.2025

Reviewer:

/Assoc. Prof. Dr. Petar Atanasov/