

REVIEW

for awarding the educational and scientific degree "Doctor" in the scientific speciality "Finance, Monetary Circulation, Credit, and Insurance."

Reviewer: Associate Professor PhD Nadezhda Georgieva Blagoeva, scientific speciality "Finance, Monetary Circulation, Credit, and Insurance," Agricultural University of Plovdiv

Author of the dissertation: Svetlana Dimitrova Avrionova, a full-time doctoral student at the Department of "Finance and Credit," D.A. Tsenov Academy of Economics, Svishtov

Scientific Supervisors: Professor PhD Romyana Lilova

Title of the dissertation: "Economic and Social Effects of the Covid-19 Pandemic on Tax Revenues in Bulgaria"

1. General Overview of the Dissertation

Svetlana Dimitrova Avrionova has been enrolled as a full-time doctoral student in the "Finance and Credit" Department as of March 15, 2021. She earned her bachelor's degree in Public Administration from the Faculty of Law and History at the Southwestern University. Subsequently, she pursued her master's degree in Financial Management at the D. A. Tsenov Academy of Economics in Svishtov. She has extensive professional experience with the National Revenue Agency, which naturally aligns with her interest in the chosen topic of her dissertation. She is proficient in English and has excellent computer skills.

The dissertation submitted for review consists of 236 pages, of which 198 form the main text. The content is organised into a classic structure, including an introduction, three chapters, a conclusion, a list of references, and appendices. To illustrate and substantiate the findings of the study, 25 figures and 16 tables are utilised, 7 of which are part of the main text. The three chapters are closely interconnected and follow a logical sequence. They are relatively balanced, with the second chapter being the longest.

In preparing the dissertation, a significant number of literary sources have been examined, totalling 125. Some are in Bulgarian, while others are in English, covering studies by classical scholars who laid the foundations of financial theory and practice and contemporary researchers whose work has been published in recent years. All cited sources are correctly referenced, following APA style requirements. The extensive literature review proves that the author has thoroughly familiarised herself with the academic discourse in the field.

The doctoral candidate used standard software for empirical research and modelling, specifically Microsoft Excel. To support her findings, the author has included 24 appendices detailing the calculations from her empirical study.

II. Evaluation of the Format and Content of the Dissertation

The topic selected by the doctoral candidate and her supervisor stands out as having remarkable relevance due to its broad impact and multifaceted nature. The author persuasively substantiates this relevance in the introductory section of her dissertation by emphasising that while global crises are not new to economic life, the current crisis caused by the COVID-19 pandemic is unprecedented in the modern world. In such conditions, the state's role emerges prominently as it seeks to mitigate the adverse effects on the country's socio-economic life by employing its fiscal tools—primarily tax revenues—as stabilisers of economic activity.

The dissertation's primary objective is to investigate the socio-economic effects of the COVID-19 pandemic on tax revenue collections in Bulgaria. The focus is on addressing problems related to the significance and potential of macroeconomic measures through tax tools, evaluating national and European approaches (practices) to crisis mitigation, and analysing the long-term effects of the pandemic on tax revenues. Additionally, the study seeks to reveal the determining factors of tax revenue dynamics to improve planning in a dynamic socio-economic environment. To achieve this overarching goal, the candidate formulated five research tasks tightly linked to the study's objective. While solving these tasks, the author substantiates her central research thesis: *"In the context of a dynamic socio-economic environment caused by the COVID-19 pandemic, Bulgaria has maintained stable tax revenue collections, despite the absence of individual or collective dependencies between tax revenues and the key economic, fiscal, and social indicators that typically influence such dynamics in other EU member states."*

The research **object** of the dissertation is tax revenue in Bulgaria and EU member states, while the **research subject** comprises the tools used to assess the factors influencing tax revenues in these jurisdictions. To validate her thesis, the doctoral candidate employs various methods, including historical and chronological analysis, comparative and critical analysis, inductive and deductive research approaches, content analysis, synthesis, quantitative analysis of dependencies, and graphical analysis.

The dissertation is distinguished by its well-structured and logically sequenced composition. In the introductory section, the key parameters shaping the research framework are clearly outlined. The topic's relevance is thoroughly justified, and the research object, subject, goal, methods, tasks, thesis, and limitations are precisely formulated.

The first chapter presents the theoretical foundation, which focuses on the role of taxes within discretionary and non-discretionary government policies. This chapter is divided into three parts. The significance of taxes for national economies is outlined, accompanied by a critical analysis of the term "tax," with the author noting the lack of a legal definition in Bulgarian law. Despite this absence, taxes are presented as powerful tools for the state, particularly in the socio-economic context of the pandemic. The macroeconomic impact of taxes during periods of economic shocks is analysed, systematically summarising the major global crises alongside their unique characteristics. The author synthesises significant theories from established and contemporary researchers regarding the regulatory function of taxation. The conclusion is drawn that tax policy can be effectively applied to public financial management, primarily during crises, provided it aligns with the socio-economic specifics of the national economy. The role of tax burden in implementing national tax policy during adverse economic conditions—specifically during the COVID-19 crisis—is emphasised. The logical concept of "lightening" the tax burden under such circumstances is defended.

The second chapter examines trends in tax revenue changes across EU member states and the national measures adopted to address the long-term effects of the COVID-19 pandemic on tax revenues. Best practices in mitigating the pandemic's impact from seven European countries are compiled in an original table created by the author. A comparative analysis of these measures with those implemented in Bulgaria is conducted, systematically presenting fiscal measures for supporting businesses, households, and state agencies involved in managing the crisis. Changes in tax revenues across EU countries during 2002–2021 are studied, evaluating the pandemic's impact and comparing it with the global financial crisis of 2008 and 2009, using macroeconomic, fiscal, and structural indicators as benchmarks.

The third chapter presents the empirical results and tests a model for assessing the impact of socio-economic risks on EU member states' tax revenues. The methodological basis for analysing these risks is clarified, and factor variables such as GDP per capita, trade openness index, current account balance relative to GDP, government debt relative to GDP, fiscal balance, public debt interest payments, unemployment rate, and Gini coefficient are identified.

Their significance for tax revenue is evaluated. Eight working hypotheses are formulated to be confirmed or rejected during the study. The results of testing the model, using a multifactor linear regression analysis with sequential inclusion of variables, allow the doctoral candidate to conclude changes in tax revenues in EU countries in a post-pandemic environment.

The conclusion of the dissertation systematically summarises the achieved results. The candidate convincingly and thoroughly validates her scientific hypotheses while articulating and defending her perspective. This perspective is grounded in the extensive academic literature review and demonstrates the candidate's comprehensive field knowledge. A noteworthy feature is the inclusion of conclusions at the end of each chapter section, enhancing the dissertation's structure and readability. The analysis is complemented by well-crafted illustrative material, including numerous figures and tables, which significantly improve the clarity and quality of the research.

At the end of the dissertation, the author includes 24 **appendices**, presenting her detailed calculations and summarising the empirical findings discussed in the main text.

The culmination of the dissertation is presented in the author's abstract, which is 26 pages long. It succinctly outlines the research's individual compositional elements, qualities, and contributions. The abstract adheres to established standards for structure and content, including elements such as relevance, object and subject, thesis, objectives and tasks, research methodology, structure, summary of scientific and applied contributions, publication list, and originality declaration. The author also proposes directions for future research, demonstrating her capabilities and vision as a researcher extending beyond the scope of this dissertation.

The author has published two scientific articles and two conference papers related to the dissertation's topic, with three authored independently and one co-authored. These publications, totalling 35 points (exceeding the legal minimum), reflect key aspects of the dissertation and demonstrate its public and critical reception.

Finally, the originality declaration attests to the authenticity of the dissertation, confirming it as the author's independent and original scientific work.

III. Scientific and Applied Scientific Contributions of the Dissertation Work

The summary of contributions presented at the end of the abstract outlines six contributions in total, which are not strictly divided into scientific and applied scientific categories. They are as follows:

First, based on a thorough analysis of specialised scientific literature, a critical review has been conducted on the perspectives of leading researchers and schools regarding the role, place, and significance of taxes for the national economy and economic growth in the modern world. The topic's relevance concerning the role of discretionary and non-discretionary state policies has been substantiated.

Second. By clarifying the logical connections between taxes as a fiscal policy tool and socio-economic risks, the possibilities for macroeconomic impact through taxes during economic shocks are justified on the one hand. On the other, the dependency of tax revenue inflows on specific influencing factors is established. These factors have been systematised and empirically confirmed for EU member states.

Third. Applicable countercyclical measures in selected EU member states, including Bulgaria, to overcome the long-term impact of the COVID-19 pandemic have been studied and systematised. A comparative analysis between Bulgarian and European practices has been conducted, and the national measures for countering the crisis caused by the pandemic in Bulgaria have been assessed.

Fourth. The value of empirically studying tax revenue inflows during an economic crisis has been argued from a research perspective. Trends in EU tax revenue inflows have been analysed through macroeconomic, fiscal, and structural indicators for 2002–2021. As a result, specific cause-effect relationships and trends, characteristic of the time frame covered by the research, have been identified, highlighting the sensitivity of tax revenue inflows to economic cycle fluctuations such as the COVID-19 pandemic.

Fifth. Based on an econometric model, the factor influences have been studied, and the individual and collective significance of key macroeconomic, fiscal, and socio-economic determinants causing changes in tax revenue inflows for EU member states relative to their gross domestic product during the COVID-19 pandemic have been outlined.

Sixth. Based on the tested econometric model and the identified most significant determinants for changes in tax revenue inflows, a methodology has been proposed, and these inflows have been forecasted for five years. The ultimate goal of the applied forecasting model

is to derive essential generalisations about the development of tax revenues for the national economies of EU member states in a post-pandemic environment, which would assist in planning under similar socio-economic conditions or during deviations in economic cycles, such as the COVID-19 pandemic.

In conclusion, I can summarise that the contributions of the dissertation work can be categorised under "enrichment of scientific achievements" and "application of scientific knowledge in practice." They are entirely sufficient for obtaining the educational and scientific degree of "Doctor."

IV. Critical Remarks, Questions, and Recommendations on the Dissertation Work

I believe that the collaboration between doctoral student Svetlana Avrionova and her academic supervisor has enabled her to develop her dissertation at a level of excellence, making it a well-rounded, in-depth, and engaging scientific study. Therefore, I have no substantial critical remarks, but I allow myself to pose the following questions:

1. Do you believe that reducing the countercyclical capital buffer in Bulgaria—without lowering it to 0%, as other European countries have done—is a shortcoming of our country's macroprudential policy?
2. Which fiscal measures implemented in Bulgaria to support businesses and households do you consider the most effective?

I recommend that the doctoral student continue her scientific inquiries, at least in the directions she has identified as promising and engaging, and publish her results in recognised and reputable scientific journals.

V. Summary Conclusion and Opinion

In conclusion, the dissertation submitted for review, titled "*Economic and Social Effects of the COVID-19 Pandemic on Tax Revenues in Bulgaria*", represents an independent and comprehensive scientific study on a highly relevant topic for science and practice. The research is focused on the timely intervention of the state to overcome the consequences of the severe and multifaceted crisis caused by COVID-19. It fully meets the requirements of the Law on the Development of the Academic Staff in the Republic of Bulgaria and its regulations.

The doctoral student convincingly achieves her initial goal and substantiates her central research thesis. This demonstrates her qualities and ability to conduct independent scientific and applied research. The aforementioned arguments provide a solid basis for me to give my strong positive assessment and recommend to the esteemed academic jury that the educational and scientific degree of "Doctor" be awarded to Svetlana Dimitrova Avrionova in the field of higher education 3. *Social, Legal, and Economic Sciences*, professional field 3.8 *Economics*, scientific specialty *Finance, Monetary Circulation, Credit, and Insurance*.

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Assoc. Prof. PhD. Nadezhda Blagoeva

