

OPINION

About awarding of an educational and scientific PhD degree in professional field 3.8 "Economics", PhD program in "Finance, money circulation, credit and insurance (Finance)"

Prepared the opinion: Prof. Rumén Yordanov Brusarski, PhD, Department of Finance, Faculty of Finance and Accounting at UNWE, Sofia

Ground for presentation of the opinion: Participation as a member of a scientific jury approved by Order No. 51 of 20.01.2023 of the Rector of Academy of Economics "D. A. Tsenov " - Svishtov and according to the decisions of the Faculty of Finance, Minutes No. 5/19.01.2023.

Author of the dissertation work: Julian Hristov Voynov – a full-time PhD student, area of higher education: 3. Social, Economic and Legal Sciences, professional field 3.8. Economics, Ph.D. Program in "Finance, money circulation, credit and insurance (Finance)".

Dissertation Topic: "Lag modeling of public finances through a stress test"

Scientific supervisors: Prof. Rumyana Lilova, PhD and Prof. Yordan Vassilev, PhD

This opinion has been prepared in accordance with the requirements of the Development of Academic Staff Act, and the Development of Academic Staff in Republic of Bulgaria Implementation Regulation as well as the Development of the Academic Staff in AE "D. A. Tsenov" - Svishtov Regulation.

I. General presentation of the dissertation work

The dissertation consists of 197 pages and includes:

- Introduction (9 pages);
- Main part (three chapters – 143 pages);

- Conclusion (7 pages);
- Appendices (2 pcs. – 20 pages);
- List of bibliography.

The introduction and the conclusion are prepared according to conventional requirements. The three chapters are well balanced and form a complete, logically connected complex. Chapter one unites 6 paragraphs, chapter two – 3 paragraphs, and chapter three – 4 paragraphs. Appropriate illustrative material is woven into the body text - 12 tables and 30 figures.

The dissertation has a clearly defined object, subject, aim and tasks of the scientific research as well as a dissertation thesis. *The object* of the reserach concerns the main fiscal parameters contained in the government's budget forecasts, on the basis of which the consolidated fiscal program is prepared, while *the subject* explores the main methods for conducting a stress test on financial parameters and the fiscal cyclically-adjusted budget balance. *The aim* of the dissertation is, by applying a stress test on a model, including economic and fiscal components and their lags, to analyze to what extent the main fiscal variable, in this case the cyclically-adjusted budget balance, reacts to a shock on the economic environment and how this shock impacts in short-term and possibly in long-term the cyclically-adjusted budget balance, and hence also the nominal budget indicators. The PhD student supports the thesis that in order to overcome the existing imperfections of the applied budget forecasts, caused by the "discrepancy" between the budget forecast and the actual execution of the budget, a suitable financial and econometric tool for making adequate political decisions concerning the country's fiscal policy is the application of stress test on an empirical model including economic and fiscal components and their lags.

The author is deeply familiar with the research area both theoretically and purely practically. A sufficient amount of specialized literature has been studied - a bibliography of 70 titles (8 in Cyrillic and 62 in Latin) is attached to the

dissertation work. Modern methodology and relevant statistics are used. Useful conclusions, assessments, recommendations and summaries are made.

II. Assessment of the form and content of the dissertation

The topic of the dissertation is interesting and relevant. Reliable forecast of the main macroeconomic variables and (on this basis) the parameters of the consolidated fiscal program is of paramount importance for the adequate policy of the Bulgarian state and the well-being of the society as a whole.

The structure and the exposition of the work are at the required scientific level. At the beginning, the theoretical foundations are laid and the evolvement of the toolkit for the stress test of financial variables and public finances is presented (chapter one). An empirical analysis of budget forecast errors for the period 2000-2020 follows (chapter two). Finally, the PhD student presents a model and results of application of a stress test on public finances (chapter three). The style is good.

The author has complied with the rules of the scientific ethics – originality of the scientific product, correct citation and reference, truthfulness of the information presented.

The abstract (in a volume of 36 pages) accurately and sufficiently reflects the content of the dissertation work.

The PhD student reports 3 publications (1 study, 1 article and 1 scientific report), thereby exceeding the national requirements. All publications correspond to the issue of the dissertation.

III. Scientific and scientifically – applied contributions of the dissertation work

The main scientific and scientifically – applied contributions in the dissertation can be systematized as follows:

- deriving the specific characteristics and limitations in the application of various models for forecasting and assessment of a cyclically-adjusted budget balance;
- in-depth analysis of the reasons that caused the identified deviations between the forecasts and reported values of the fiscal budgets in the country for the period 2000 – 2020;
- design of an empirical model for assessment of the errors in the budget forecasts and explanation of the main reasons for their appearance;
- design of a model for estimation of the cyclically-adjusted budget balance and conducting a stress test on one of the main macroeconomic parameters in order to check the reaction of the CAB;
- comparative analysis between the model constructed in the dissertation and the model of the Ministry of Finance in order to assess the credibility of the calculations and results as well as the reasons for the deviations found.

IV. Question on the dissertation

I have no questions for the PhD student.

V. Summarized evaluation of the dissertation and conclusion

The dissertation on the topic "*Lag modeling of public finances through a stress test*" is a serious study with clearly expressed scientific and scientifically-applied contributions. The research meets the requirements of art. 6, para. 3 of the Development of Academic Staff in Republic of Bulgaria Act, art. 27 of the Development of Academic Staff in Republic of Bulgaria Implementation Regulation and the provisions of the Development of the Academic Staff in EA "D. A. Tsenov" - Svishtov Regulation.

Against this background, I assess positively the dissertation of Mr. Julian Hristov Voynov for awarding of an educational and scientific PhD degree in the PhD program "Finance, Money Circulation, Credit and Insurance (Finance)".

14.02.2023 г.

Opinion prepared by:

(Prof. Rumen Brusarski, PhD)