

To NBU  
Department “Economics”

## REVIEW

**By reviewer** (name, academic position and scientific degree):

*Prof. Dr. Andrey Zahariev, UIF*

**Academic field** of the reviewer:

*“Finance, Money Circulation, Credit and Insurance” (Finance)*

**Registration of the reviewer with NACID under the LDASRB and IRLDASRB** (Register of Academic Staff and Defended Dissertations at NACID): since 01.12.2018 г.

**Reviewed author** of doctoral dissertation:

*PhD Candidate Stefani Georgieva Andreeva*

**Title** of the the dissertation:

**„PROBLEMS IN FAIR VALUE ASSESSMENT OF PUBLIC COMPANIES AND IMPROVING ITS SUBSTANTIATION”**

**Unit** where the doctoral candidate is enrolled:

*Department “Economics”*

**Academic field** of the doctoral candidate and mode of study:

*Doctoral Programme “Finance, Money Circulation, Credit and Insurance”*

**Scientific supervisor** of the doctoral candidate:

*Prof. Dr. Reneta Dimitrova*

**Grounds** for preparing this review:

*Decision of the Scientific Jury and Order*

**Regulatory** framework:

*This opinion has been prepared in accordance with the requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria (LDASRB), the Implementing Regulation of the LDASRB and the applicable internal regulatory framework of NBU.*

## **1. Information about the Doctoral Candidate**

Stefani Georgieva Andreeva was born on 19.12.1995 in Bulgaria. She holds a rich multidisciplinary academic background. From September 2009 to May 2014, she completed secondary education at the Foreign Language High School “Nikola Yonkov Vaptsarov” in Shumen. From September 2014 to August 2015, she studied Law at the University of Cologne (Germany) at master’s level. She holds a C1 diploma in German. From September 2015 to February 2021, she successfully obtained a master’s degree in two majors at NBU – Law (primary) and Finance (minor). From October 2020 to July 2022, she completed a second master’s programme in Finance at NBU. The doctoral programme in “Finance, Money Circulation, Credit and Insurance” at the Department of Economics of NBU is the logical continuation of her academic development.

The doctoral candidate’s professional experience is practically oriented and directly related to the dissertation topic. Since December 2021, she has been working as an audit assistant at RSM BG OOD. Concurrently, since September 2020, she has been an active contributor to the Seeking Alpha platform, publishing financial analysis articles on the valuation of public companies. Between October 2017 and December 2021, she worked as an analyst at Elitkar OOD, engaged in pricing, market analysis, and new brand research. The doctoral candidate possesses Expert-level proficiency in German and English, Microsoft Office competencies, and a category B driving licence.

## **2. General Overview of the Dissertation**

This review complies with the normative requirements of the Law on the Development of the Academic Staff of the Republic of Bulgaria, the Implementing Regulation of the law on the Development of the Academic Staff of the Republic of Bulgaria, and the applicable internal regulatory framework of NBU.

The dissertation by Stefani Georgieva Andreeva comprises 231 pages and contains 54 tables and 22 figures. The bibliography includes 91 literary sources and scientific articles, 24 internet sources, 21 regulatory documents, and 15 additional sources comprising statistical and financial data on the analysed companies. The work is structured into an introduction, three chapters, and a conclusion.

The topic is timely and scientifically justified. In the context of globalising capital markets and the increasing complexity of publicly traded companies, traditional fair value models demonstrate significant limitations. The primary research question – how to improve the substantiation of DCF-based valuations when

input data are uncertain – is formulated precisely and addresses a genuine practical need. The thesis holds that integrating Monte Carlo simulations into the DCF method substantially enhances the reliability and justification of valuations by replacing fixed point estimates with probabilistic distributions.

### **3. Assessment of the Scientific and Applied Research Results**

The research is methodologically mature and demonstrates a thorough command of the subject matter. Chapter I presents a comprehensive comparative analysis of classical, neoclassical, and modern theories of value and their transposition into accounting and valuation standards. The evolution of the fair value concept in IFRS 13 and ASC 820 is traced, and the position in favour of further harmonisation between the two standards is well argued.

Chapter II outlines the limitations of traditional DCF models and develops a new methodology for integrating Monte Carlo simulations, structured in sequential and reproducible algorithmic steps – from identification of key input variables and determination of probability distributions, to specification of correlation dependencies, model configuration via Oracle Crystal Ball, and interpretation of results.

Chapter III constitutes the empirical validation applied to two real publicly traded companies – Rivian Automotive Inc. and Vera Therapeutics Inc. For Rivian Automotive, the baseline DCF model yields a fair value of \$6.93 per share, while the 90% confidence interval spans from -\$2.71 to \$24.04, with the market price of \$13.30 positioned around the 80th percentile. For Vera Therapeutics, the baseline estimate is \$19.85 against a market price of \$41.41; by August 2025 the share price had fallen to \$21.64 – remarkably close to the derived estimate, confirming the predictive validity of the methodology.

### **4. Assessment of the Formulated Contributions and Achieved Theoretical, Applied-Theoretical, and Empirical Results**

The dissertation formulates clear and well-justified contributions in three dimensions. The theoretical contributions consist in systematising the development of the fair value concept and conducting a comparative analysis between IFRS 13 and ASC 820 with argued recommendations for harmonisation. The methodological contribution is the development of a new, sequential, and reproducible methodology for simulation-based DCF valuation, the originality of which is substantiated through a thorough literature review. The applied contributions are demonstrated empirically: the simulation results attest to practical value in investment analysis, merger and

acquisition transactions, audit impairment tests, and risk management.

### **5. Assessment of the Publications Related to the Dissertation**

The doctoral candidate has published five academic works directly related to the dissertation topic during 2023–2024: in the refereed Yearbook “Economics and Business” of the Department of Economics at NBU and in proceedings of four international conferences. The publications address the methodological aspects of simulation-based models, risks associated with financial information platforms, the impact of ESG factors, and sustainable finance. The number and quality of the publications meet the requirements for the award of the Educational and Scientific Degree “Doctor”.

### **6. Assessment of the Extended Abstract**

The extended abstract presents the content of the dissertation in a structured and comprehensive manner. The document is methodologically sound and covers: topicality, object and subject of research, aim and objectives, thesis, methods, limitations, practical significance, a brief chapter-by-chapter overview, contributions, and a list of publications. The exposition is clear and academically correct, enabling the reader to gain a full understanding of the research. The extended abstract meets all regulatory requirements.

### **7. Critical Remarks, Recommendations, and Questions**

The dissertation is of high quality. The critical remarks are directed towards expanding the research horizon in future studies, rather than diminishing the scientific merit of the present work:

1. The study is limited to two companies from the US market. It is advisable to extend the empirical base in future research to include companies from European markets, including the Bulgarian Stock Exchange, where information asymmetry is even more pronounced.

2. The sensitivity analysis was conducted using the “Data Table” functionality in Microsoft Excel. Future research could explore more automated and scalable solutions for conducting this analysis.

Question for clarification at the public defence: How is the methodology proposed to be adapted for the valuation of non-public companies, where publicly available information on the beta coefficient and industry comparables is lacking?

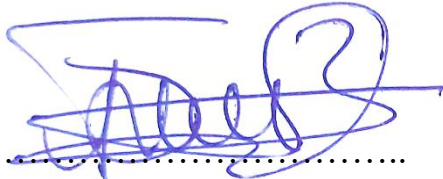
## 8. Conclusion

There is a **successful doctoral candidacy** that has led to a **dissertable research of high econometric complexity, publications and academic presentations**. The support of the scientific supervisor is evident and positive in all respects and directions.

*On the basis of all the above, I express a positive **conclusion** – “IN FAVOUR” of awarding the Educational and Scientific Degree “Doctor” in Economics to PhD candidate Stefani Georgieva Andreeva.*

05.08.2026

Sofia



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/Prof. Dr. Andrey Zahariev/