

## REVIEW

by prof. Virginia Ivanova Zhelyazkova, DSc  
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### 1. General information

The review was prepared on the basis of the order of the rector of VUARR No. 115/04.04.2023 to determine the composition of a scientific jury for the defense of a dissertation and the decision of the scientific jury from its first meeting on 04.06.2023 registered with protocol No. 1.

**Author of the dissertation:** Vladimir Draghi Arsovski

**Dissertation topic:** "Financial Aspects of the Green Economy and Its Role in Sustainable Development: Trends, Dynamics, Interaction"

**Field of higher education:** 3. "Social, economic and legal sciences"

**Professional area:** 3.8. "Economy"

**Doctoral Program:** "Finance and Banking"

**Primary Unit:** Department of Economics and Finance

**Host structural unit:** Department of Economics and Management

**Research supervisor:** prof. Ogniana Stoichkova, Ph.D.

### 2. Brief biographical data of the doctoral student

The candidate Vladimir Arsovski completed his secondary education in the town of Kumanovo in the Republic of North Macedonia. After that, he continued his education at the University of "St. St. Kiril and Methodius" in the city of Skopje, majoring in "Financial Management", and later obtained a master's degree in "Economics" at the International Slavic University. He continued his education at the level of "Ph.D." at the Higher School for Agribusiness and Regional Development (VUARR) in the city of Plovdiv.

Vladimir Arsovski has extensive professional experience, which he has accumulated in the period from 2001 to the present. He has held various positions in the field of management of foreign trade transactions, financial management, and general management practice in the construction sector. This diverse experience has given him the opportunity to gain knowledge

and skills from different areas of economic life and supports his growth as a professional and a person with deep and analytical knowledge.

### **3. General description of the dissertation work. Evaluation of the structure of the dissertation work**

The dissertation submitted for review consists of a total of 246 pages, of which 236 are main text and the rest are appendices.

Structurally, the work is composed of an introduction, four chapters, a conclusion, a reference to the literature used, and appendices. The presentation is enriched with numerous graphic elements - tables and graphs that visually present important information, the subject of the candidate's analysis.

In the introduction, the working hypothesis is clearly defined: *"..... identification of opportunities to increase sustainable development and to optimize the rates of economic growth with the help of the financial instruments of the green economy. The notion is defended that the instability of the modern market economy system does not allow the effective realization of the main advantages of the green economy, and an alternative can only be a system built on the basis of a balance between the market economy and the regulated economy."* From this hypothesis, there are four correctly indicated research tasks that meet the author's research goals. The object and subject of the research are also clearly and logically defined. This shows the candidate's awareness of the issues he is researching, it is evident from the very beginning of the work that he has his own position on it, as well as that he has a vision for its elaboration. The structure of the dissertation works well for the achievement of the research tasks.

The first chapter has an introductory character and is devoted to some basic conceptual positions in the theory of the green economy and its relationship with sustainable economic development in general. I applaud the candidate for his approach, as this relationship needs to be more clearly delineated and discussed in the scientific literature and in academia. Within the first chapter, he has offered his view of this relationship, starting from the debate on what constitutes a green economy and which factors are crucial for its development. Here the candidate outlines well its main characteristics and brings clarity about the content of the term. Further, he pays special attention to the advantages of the green economy, thus presenting his motivation for the choice of a number of countries to turn their economic development to this model. Finally, in the first chapter, the candidate outlines some leading perspectives on the relationship between the economy and the environment.

The focus of the second chapter is on the interaction between the green economy and sustainable development in dynamics. Here the candidate first examines the basic concepts of sustainable development. Sustainable development as a term is an umbrella for a number of economic phenomena that go far beyond environmental concerns. Sustainable development is the modern vision of how the economic and social development of the world in general should be realized. An invariable part of this process is the care of the environment,

which includes a large number of diverse and sometimes even multidirectional activities. Such is the cleanliness of the air, related to the minimization of harmful emissions of gases in the atmosphere, and hence - the stopping of irreversible processes leading to climate change; the protection of biodiversity, directly related to the health of ecosystems, of which humans are a part; the recycling of waste, so as to optimize the burying of harmful substances and materials in the soil and their disposal in the seas and oceans, and others. Although it is not obvious at first glance, the connection of these processes with the quality of life of people and in general with social issues in a global plan (elimination of hunger, fight against poverty, guaranteeing decent working conditions, protection of justice in a social aspect and etc.) is indisputable. Sustainable development also covers this very important aspect of modern economic processes. The candidate consistently and clearly outlines these complex interactions and their directions. He further expands his analysis on the relationship between sustainable development and the green economy. Finally, he analyzes the social component of the green economy and correctly emphasizes that it is an invariable part of the modern understanding of it.

The subject of the third chapter is perhaps the most important issue for the practical realization of the green economy - the financing of the activities that lead to it. The candidate examines this problem in the context of the overall understanding and global policy toward sustainable development. I congratulate him on this approach - both analyzing and working towards a green economy should not be separated from sustainable development efforts - it is an important part of these and it is essential to look at the policy towards it in the wider context of sustainable development. The object of the analysis in this part of the work are primarily some basic financial aspects of the green economy. The candidate further outlines the relationship between "green economy - economic growth". Special attention is paid to the topic of "green" jobs, and this is expedient and necessary to enrich the analysis in his work, since the drive and policies towards a green economy lead to the gradual formation of new professions under the pressure to build new knowledge and skills. Without a workforce prepared for the realities, one cannot think about realizing a green economy and hence - about modern sustainable development. The object of the exposition in the third chapter is also the specific financial instruments in the European context of the green economy. Here, the candidate has identified, presented, and analyzed the main green financial instruments, correctly defining them: green bonds, bank financing, project financing, and guarantee schemes to support the development of green business ideas. It further correctly derived some of the key indicators for measuring the green economy based on the Global Green Economy Index (GGEI), introduced in 2010, which is published by Dual Citizen LLC. This index ranks countries in four categories: leadership and climate change, efficiency sectors, markets and investment, and environment. According to the indicators in these categories, countries from Europe - Sweden, Switzerland, and Iceland - occupy leading positions. Finally, the analysis in the third chapter concludes with a discussion on the current topic of "Pros" and "Cons" of the green economy and some contemporary solutions relating to the concept of it.

The fourth, last chapter of the dissertation is dedicated to the development of the green economy in the context of the Republic of North Macedonia. Here the candidate presents the realities and some basic problems and practices in this field from his country. First of all, the object of the analysis is green entrepreneurship as a driving force for the development of good "green" practices. The candidate further analyzes the main tasks facing the Republic of North Macedonia to achieve a green economy. The comparison that the candidate makes of the capacity of small and medium-sized enterprises in his country and those in the European Union to realize the green economy is interesting and valuable. The analysis ends with a presentation of the results of an empirical study of the public attitudes of various municipalities in the Republic of North Macedonia regarding the transition to a green economy. The study has a scientific and practical value, as the number of respondents covered by it is significant - a total of 456 respondents were surveyed, from various professions and with varying degrees of commitment to the issue: 67 business representatives, 188 citizens, 87 administrative employees, 90 NGO representatives and 24 others. The main conclusion from the analysis of the answers is that, in general, public attitudes in the Republic of North Macedonia are positive for the green economy. There is an interest and desire to develop business models in this direction, using the experience of the EU, including specifically Bulgaria as a neighboring member state of the union. These results are encouraging for the potential of the development of the green economy in the country. In conclusion, the main inferences of the study are correctly, clearly, and precisely defined.

#### **4. Evaluation of the content of the dissertation work. Relevance and significance of the developed scientific problem**

The dissertation submitted for review is devoted to an undeniably current topic, which at the same time is not sufficiently researched, especially in the scientific literature in the Bulgarian language, and which needs significant additional clarification. The wording of the title of the work is well defined, the dissertation is structured very well, and fulfills the objectives set by the candidate at the beginning of the research.

The dissertation is a good overview of a significant contemporary problem and its contextualization for the Republic of North Macedonia - a country neighboring Bulgaria, which is about to join the EU and follow the policies, including those in the direction of a green economy, of the union.

The number of sources that the candidate has researched and referred to in his work is impressive - a total of 287 from Bulgarian and foreign authors. This explains his serious awareness of the topic under study, the presence of the author's position everywhere in the text, and the conviction that is felt in the conclusions he presents.

#### **5. Evaluation of the abstract for the dissertation work**

The abstract correctly reflects the main points of the dissertation work, consists of 38 pages and was developed in accordance with good academic practices.

## **6. Evaluation of the contributions of the dissertation work (scientific, scientific-applied)**

The main scientific contribution of the dissertation consists in illuminating the nature of the green economy in the context of the broad, global concept of sustainable economic development. The candidate rightly states that despite numerous studies and documents on the topic of the green economy, the diversity of terminology hinders the very realization of effective green transition policies. Therefore, explaining and motivating the conceptual apparatus is essential for the practical realization of the green economy concept.

I accept as having applied the contributions defined by the candidate, aimed at the use of the results of his research for the purposes of forming documents aimed at a realized policy towards a green transition and for the training of students and Ph.D. candidates.

## **7. Evaluation of the publications related to the dissertation work**

The candidate's publications are more than sufficient to cover the national minimum requirements laid down in the Law on the Development of the Academic Staff in the Republic of Bulgaria (ZRASRB) and the Regulations for its implementation. Presented are:

- two large research papers (one in co-authorship),
- one article and
- three scientific reports published in conference proceedings.

These publications correspond to a total of 56 points with a required minimum of 30 according to legislative requirements.

## **8. Critical notes and recommendations**

I recommend that the candidate publish his research as a book based on their dissertation work.

## **9. Questions for the PhD student**

1. Do you think that the deadlines set by the EU for the implementation of the green economy are too ambitious given the complexity of their implementation and, if so, in what direction should their adaptation be?
2. Give an example from the Republic of North Macedonia for green business.

## **10. Conclusion:**

As a result of the above, I give my positive assessment of the dissertation work, the author's abstract and the scientific publications of the candidate Vladimir Arsovski and I propose to the honorable scientific jury according to the present procedure that he be awarded the educational and scientific degree "Philosophiae Doctor" according to 3.8. Economy.

05/09/2023

Jury member: (s)

prof. Virginia Zhelyazkova, DSc