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**ABSTRACT**

of a dissertation for the award of the educational and scientific degree  
'doctor' in the doctoral programme „Finance, Money circulation,  
Credit and Insurance (Finance)” on the topic:

**„Trade Flows and Transport Services in the Balance of  
Payments in the Republic of Bulgaria: Trends and  
Evidence of Economic Recovery”**

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## **I. General characteristics of the dissertation**

### ***1. Relevance of the topic***

Modern national economic systems function in conditions of strong interconnectedness with the global world. This interconnectedness is facilitated by constant counter-flows of goods and services, linked to reciprocal movements of currency and capital.

This is why we must focus on the dynamics and structural changes in trade flows and transport services in the balance of payments of the Republic of Bulgaria, with a particular emphasis on identifying trends and evidence of economic recovery, which forms the central problem area of the present study. In the context of global economic challenges stemming from the COVID-19 pandemic, geopolitical tensions, and increasing uncertainty in international trade, analyzing these components of the balance of payments is critically important for understanding the economic prospects of the country.

This importance arises from the fact that trade flows and transport services play a key role in Bulgaria's economy, directly influencing GDP, employment, and the country's competitiveness. We believe that changes in these sectors can serve as early indicators of broader economic trends and provide valuable insights into the post-crisis recovery process. At the same time, however, the rapid transformation of the global economic environment, including digitalization, the restructuring of global supply chains (Laktionova, et al., 2019), and the transition to a green economy, undoubtedly presents new challenges and opportunities for the Bulgarian economy.

In this context, the study must logically focus on clarifying whether and to what extent these global trends affect trade flows and transport services in Bulgaria. This approach enables the identification of structural changes in these sectors and assesses their impact on the country's overall economic recovery. Such a focus logically requires an analysis of changes in the geographical and product structure of trade, the development of various types of transport services

and their role in the balance of payments, as well as an evaluation of the interrelations between these factors and key macroeconomic indicators.

In this vein, the defined problem area also encompasses the challenges of accurately measuring and interpreting these economic phenomena, particularly given the increasing complexity of international economic relations and rapidly changing technological and regulatory conditions. To address this issue effectively, it is crucial to analyze the impact of economic policies designed to promote sustainable recovery and foster long-term economic growth in Bulgaria.

## ***2. Subject and object of research***

Based on the above, **the object** of research of this dissertation is the balance of payments of the Republic of Bulgaria. Understanding the balance of payments not solely as a static tool for measuring and assessing the flows of goods, services, and capital is crucial for shaping the problem-oriented focus of the paper.

**The subject** of the dissertation focuses on identifying trends and evidence of economic recovery, measured through the balance of payments, based on trade flows and transport services between Bulgaria and the rest of the world. The choice to examine these components is particularly relevant due to the country's strategic geographical position between Europe and Asia and the anticipated economic recovery and growth following the pandemic, the energy price crises, and the ongoing conflict in Ukraine.

## ***3. Research thesis statement***

**The thesis** of this dissertation is based on the assertion that examining the seasonality and dynamics of exports of goods and transport services in the balance of payments can reveal trends and evidence of Bulgaria's economic recovery as an EU member state. Economic recovery amid a series of crises requires targeted interventions by the executive branch to support the economy, including through EU-level mechanisms such as the Recovery and Resilience Plan.

#### ***4. Research purpose***

**The purpose** of the study is to conduct a theoretical and practical analysis of the dynamics and trends in export trade flows and transport services in the balance of payments of the Republic of Bulgaria. This involves determining the degree of their correlation and seasonal linkage with GDP as indicators of economic recovery during and after a period of multiple crises.

#### ***5. Tasks and methodology of research***

The specific tasks set out in the dissertation are:

**First:** To review the existing literature on trade flows and transport services in the context of the balance of payments.

**Second:** To develop and justify a framework for analysing trade flows and transport services in the balance of payments of Bulgaria, incorporating quantitative and qualitative methods for assessing trends and evidence of economic recovery.

**Third:** To identify and evaluate structural changes in Bulgaria’s trade flows, including changes in the geographical and product structure of trade, as well as the competitiveness of key export sectors.

**Fourth:** To conduct a detailed analysis of the transport services sector in Bulgaria, including its contribution to the balance of payments, key subsectors (maritime, air, and road transport), and factors influencing its development.

**Fifth:** To analyse the dynamics of exports of goods and transport services from Bulgaria for the selected period of 2020-2023, with particular emphasis on the changes that occurred following the onset of the COVID-19 pandemic, based on quarterly data.

**Sixth:** To assess the evidence of Bulgaria’s economic recovery through an analysis of the interrelationships between export trade flows, transport services, and GDP, with the aim of identifying trends and prospects for sustainable economic growth.

From a **methodological perspective**, the study is based on the use and application of comparative analysis, deduction and induction methods, seasonal projection, graphical methods, statistical analysis methods, descriptive statistics, regression and correlation analysis, etc.

## ***6. Research scope***

Beyond **the research scope** are the issues related to the impact of the balance of payments deficit on the economic equilibrium of the country, as well as the relationship between the examined goods categories and transport services with other items in the balance of payments, including those in the capital and financial accounts.

## ***7. Structure of the dissertation***

The dissertation consists of a total of 215 standard pages, structured into three chapters as follows:

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## ***8. Synthetic overview of the content and research findings***

**Chapter One** explores the current account of the balance of payments, focusing on trade in goods from theoretical, discussion, and applied perspectives. It examines the methodology, principles, reporting practices, and trends for Bulgaria and the European Union.

**Chapter Two** provides a comprehensive debate and analysis of the role and significance of transportation services in the balance of payments of Bulgaria and the EU.

**Chapter Three** is dedicated entirely to econometric modelling, employing correlation analysis, descriptive statistics, and seasonal projections. It examines the relationship between export trade flows, transportation services, and GDP dynamics in Bulgaria. The modelling focuses on export flows by commodity groups and transportation services, emphasizing their positive impact on the resulting variable — Bulgaria's GDP.

**The Conclusion** presents the results and findings of the dissertation research. From the perspective of the author's professional engagement in the transport sector, recommendations on the topic are provided along with directions for future research.

The dissertation includes appendices, a list of references cited in APA style, data, and indicators to ensure compliance with national requirements for the educational and scientific degree of "Doctor."

## **II. Main content of the dissertation**

***Chapter One: The Trade Account of the Balance of Payments – Methodology, Principles, Reporting, and Trends for Bulgaria and the European Union.***

The working hypothesis of Chapter One is linked to the assertion that despite the pandemic in 2020, Bulgaria's economy maintained its open nature and

continued contributing to GDP with objective adjustments in the value indicators of imports and exports for key commodity groups.

The chapter addresses three primary objectives:

First. To review the existing literature on trade flows and transport services in the context of the balance of payments.

Second. To develop and substantiate a framework for analyzing trade flows and transport services in Bulgaria's balance of payments, utilizing quantitative and qualitative methods to evaluate trends and evidence of economic recovery.

Third. To identify and assess structural changes in Bulgaria's trade flows, including shifts in the geographic and product structure of trade and the competitiveness of key export sectors.

Based on the presented content, analysis of theoretical sources, empirical evidence, and the author's interpretation, the following key conclusions and points are drawn:

**First.** The verbal-graphic modelling of monetary flows in a market economy is adapted to reflect the activities of three primary economic agents. The corrective influence of the trade balance aligns with the equilibrium of supply and demand in product markets in an open economy with active import and export of goods and services. Bulgaria demonstrates a higher degree of trade openness compared to the EU average, highlighting the critical importance of international trade for its economy.

**Second.** Regarding the trade balance, while the EU generally maintains a positive trade balance, Bulgaria continues to report a deficit, reflecting structural characteristics of its economy and reliance on imports of certain goods and raw materials.

**Third.** Export structure trends show gradual convergence between Bulgaria and the EU, particularly in the growing share of machinery and equipment. However, significant differences persist, especially in the share of high-tech products.

**Fourth.** As regards geographic concentration, Bulgaria exhibits a higher concentration of trade with the EU compared to the EU average, underscoring its deep integration into the single market but also its potential vulnerability to regional economic shocks.

**Fifth.** In terms of growth dynamics, Bulgarian exports and imports show higher volatility compared to the EU average, likely due to the smaller size of its economy and greater sensitivity to external factors.

**Sixth.** Recommendations for addressing challenges and leveraging opportunities stemming from EU membership include: a) Promoting investments in high-tech sectors to increase the share of high-value-added products in exports; b) Supporting innovation and human capital development to enhance non-price competitiveness; c) Diversifying trade partners outside the EU to reduce vulnerability to regional shocks; d) Improving energy efficiency and expanding renewable energy sources to decrease dependence on imported energy resources; e) Encouraging the integration of small and medium-sized enterprises (SMEs) into global supply chains.

**Seventh.** The analysis of specific trends in Bulgaria's and the EU's trade accounts reveals several critical directions for future development. Diversifying trade partners and export products is paramount to reducing vulnerability to external shocks for both the EU and Bulgaria. The growing importance of trade in services necessitates targeted policies for developing this sector and facilitating its export. Simultaneously, prioritizing investments in digital infrastructure and skills emerges as a key factor for maintaining global competitiveness. Integrating environmental considerations into trade policy and supporting green technologies open new horizons for export development. In the context of increasingly complex global trade models, investing in advanced systems for collecting and analyzing trade data becomes crucial for informed decision-making.

**Eighth.** For Bulgaria, deepening regional cooperation in Southeast Europe could unlock additional opportunities for trade expansion. Additionally,



developing targeted policies to support the internationalization of SMEs has the potential to significantly improve the country’s trade balance. These directions should be viewed as interconnected elements of a comprehensive strategy to strengthen Bulgaria’s trade position and enhance economic resilience both nationally and within the broader European framework.

***Chapter Two: Transport Services in the Balance of Payments in Bulgaria and the European Union – Reporting and Empirical Evidence of Economic Recovery***

Addressing the issue of accounting for transport services in the balance of payments for Bulgaria and the EU requires a focused analysis of their importance in international trade, their role within the balance of payments framework, and the unique characteristics and trends of the transport sector in both the EU and Bulgaria.

The working hypothesis explored in this chapter asserts that, under the fundamental principles of EU law *acquis communautaire*, which guarantee the free movement of people, goods, and capital, the metrics and tools used to measure the transport services sector (via the balance of payments) are essential for determining economic development trends in Bulgaria and the EU.

The chapter aims to provide a comprehensive analysis of Bulgaria’s transport services sector, including its contribution to the balance of payments, key subsectors (maritime, air, and land transport), and the factors influencing its development.

At the end of Chapter Two, a summary consolidates the findings of the research. Based on the analysis, conclusions, results, and recommendations are proposed. The issues addressed in the chapter are aligned with the author’s views on potential solutions, along with actionable recommendations to enhance economic recovery indicators.

From the analysis and data presented, the following key conclusions,

results, and observations can be drawn:

**First.** The analysis of methodologies for reporting transport services in the balance of payments in Bulgaria and the European Union reveals a significant degree of convergence, largely due to the harmonizing role of international standards, particularly the Sixth Edition of the Balance of Payments and International Investment Position Manual (BPM6) by the International Monetary Fund. Nevertheless, specific national characteristics in the implementation of these standards persist, which affect the comparability of data across individual EU member states.

**Second.** The identification of methodological challenges in reporting transport services prioritizes the following: a) The complexity of distinguishing and correctly categorizing different types of transport services, especially within the context of integrated logistics solutions; b) Difficulties in evaluating transport services provided by non-resident operators, due to limited access to primary data; c) Challenges in accounting for transit transport operations, which hold particular significance for countries like Bulgaria, located at the crossroads of international transport corridors.

**Third.** The transport sector exhibits specific structural characteristics. The analysis reveals significant structural differences in the transport sector between Bulgaria and the EU averages: a) Bulgaria demonstrates a higher relative share of road transport in the overall structure of transport services, reflecting the country's geographical location and the specific characteristics of its economy; b) Air and maritime transport in Bulgaria show lower levels of development compared to EU averages, which impacts the country's competitiveness in these segments of the international transport services market; c) There is a noticeable trend toward the growing importance of auxiliary transport services, which aligns with overall European trends, although the growth rate in Bulgaria lags behind the EU average.

**Fourth.** The analysis of the dynamics of transport services in the balance of payments reveals the following key trends: a) An overall increase in the value

of transport services in both Bulgaria and the EU, with growth rates exceeding GDP growth, underscoring the sector's growing importance for the economy; b) Increased volatility in reporting transport services, particularly following the onset of the COVID-19 pandemic, reflecting heightened uncertainty in the global economic environment; c) Gradual improvement in Bulgaria's net position in trade in transport services, albeit with fluctuations, indicating increased competitiveness of Bulgarian transport operators.

**Fifth.** The study uncovers significant implications regarding the sector's effects on economic recovery and growth policies. These findings serve as a foundation for formulating and implementing recovery and resilience-oriented economic policies, including: a) The need for targeted measures to stimulate the development of air and maritime transport in Bulgaria, aiming to balance the structure of the transport sector and enhance its competitiveness; b) The importance of investments in transport infrastructure, especially in the context of the Trans-European Transport Networks, to improve Bulgaria's position in international transport flows; c) The potential for Bulgaria to develop as a logistics hub for Southeast Europe, requiring an integrated approach to the development of the transport sector and its associated services.

**Sixth.** Based on the conducted analysis, the following key recommendations can be formulated. Group one comprising methodological improvements including: a) Development of more detailed methodological guidelines at the EU level for accounting for specific types of transport services, particularly in integrated logistics and multimodal transport; b) Enhancement of primary data collection mechanisms through strengthened collaboration among national statistical institutes, central banks, and transport operators; c) Implementation of automated systems (Zahariev, et al., 2022) for data collection and processing, employing technologies such as artificial intelligence (Zarkova, et al., 2023) and machine learning (Zahariev, et al., 2020), to improve the accuracy and timeliness of reporting. Group two comprising policy measures including: a)

Development of a targeted strategy for the development of the transport sector in Bulgaria, focusing on enhancing competitiveness in underperforming segments (air and maritime transport); b) Prioritization of investments in transport infrastructure, especially projects that enhance connectivity with major European transport corridors; c) Promotion of innovation and digitalization in the transport sector through targeted support programs and public-private partnerships. Group three comprising recommendations and measures for international cooperation, including a) Strengthening EU-level cooperation in the harmonization of statistical methodologies, including the establishment of working groups to address specific methodological challenges; b) Expanding the exchange of best practices among EU member states in the accounting of transport services and the development of the transport sector; c) Initiating joint EU-level research projects to deepen the understanding of the interrelations between transport sector development and economic growth.

***Chapter Three: Seasonal Modeling and Analysis of Export Operations in the Trade Account and Transport Services in the Balance of Payments Relative to Bulgaria's GDP (2020-2023)***

The working hypothesis of Chapter Three asserts that seasonal modeling of selected positions in Bulgaria's balance of payments can determine the degree of correlation between export flows of goods and transport services and the GDP of Bulgaria as an open economy.

Two primary tasks are addressed in the chapter:

**First.** To examine the dynamics of Bulgaria's exports of goods and transport services from 2020 to 2023, with a particular focus on changes following the onset of the COVID-19 pandemic, using quarterly data.

**Second.** To assess the relationship between export flows, transport services, and GDP, aiming to identify trends and prospects for sustainable economic growth.

A limitation of the analysis presented in the chapter is that it focuses exclusively on export flows, which have a positive impact on GDP in the classical formula. This contrasts with import flows, which contribute to absorption but can reduce productivity measurements.

As a result of the presentation in Chapter Three, the following main conclusions and recommendations were formulated:

**First.** Recommendations and conclusions for economic policy. Based on the results of the study, the following recommendations can be made:

a) to develop specific tools for managing liquidity in the economy, accounting for seasonal fluctuations in trade and transport flows.

b) to implement an early warning system based on seasonal indicators to identify potential economic imbalances.

c) To focus on diversifying the economy to reduce overall seasonal volatility and increase economic resilience.

**Second.** Recommendations and conclusions for statistical reporting on the activities of economic operators in foreign trade of goods and transport services. To improve the quality and utility of economic data, it is recommended:

a) to introduce more detailed seasonal breakdowns of trade and transport services data in official statistics;

b) to develop an integrated system for collecting and analyzing high-frequency data relevant for seasonal modeling;

c) To improve the methodology for seasonally smoothing macroeconomic indicators, considering the specific characteristics of the Bulgarian economy.

**Third.** Recommendations and conclusions for the business sector. To more effectively manage seasonal effects in business, it is recommended:

a) to invest in analytical tools and expertise to better understand and forecast seasonal patterns in relevant industries.

b) to develop strategies for diversifying products and markets to reduce dependence on seasonal factors.

c) to actively collaborate with academic and research institutions to improve models for seasonal forecasting.

**Fourth.** To maximize the benefits of exporting capital goods, countries should develop balanced economic strategies that include diversifying export markets to reduce the risk of dependence on specific economies; investing in education and research and development to maintain a competitive advantage; developing diversified industries to create a more sustainable economic structure; and precise management of macroeconomic policies to balance the effects on exchange rates and competitiveness.

**Fifth.** The following prospective ideas with scientific and practical-applied potential are outlined as general guidelines for future research:

(1) Methodological aspects: a) Developing new techniques for dynamic seasonal modeling that can capture rapid changes in seasonal patterns; b) Exploring the potential of machine learning to identify complex seasonal dependencies in economic data; c) Integrating spatial models into seasonal analysis for better understanding of regional aspects of seasonality in trade and transport.

(2) Economic aspects: a) Analyzing the impact of climate change on seasonal patterns in trade and transport in the long term; b) Investigating the interaction between seasonality in various economic sectors and potential spillover effects; c) Assessing the effectiveness of different policies for managing seasonal volatility in the context of small open economies like Bulgaria. (3) Cross-sectoral research: a) Integrating sociological and psychological factors into models of seasonal economic behavior; b) Studying the relationship between seasonality in the economy and the labor market, including aspects like seasonal employment and migration; c) Analyzing the impact of technological innovations (e.g., automation and artificial intelligence) on traditional seasonal patterns in trade and transport.

**Sixth.** The empirical study and testing of seasonal data on the impact of exports from the four basic commodity groups plus exports of transport services

show varying degrees of correlation with GDP. The export of transport services and capital goods exports have the highest impact and support for economic recovery. A clear growth trend is found for transport services, with pronounced seasonal dynamics. This is confirmed by the high value of the coefficient of determination. Through a linear regression model of the impact of transport service exports on the country's GDP, it can be concluded that the influencing factor can explain 73.29% of the seasonal variation in GDP.

### ***Conclusion***

This dissertation analyses trade flows and transport services in the balance of payments of the Republic of Bulgaria, examining trends and identifying evidence of economic recovery. The conclusion synthesizes the key findings, critically assesses the main results, outlines prospects, and suggests directions for further research.

The study has identified several significant trends in Bulgaria's trade flows and transport services:

1. Trade volumes have steadily recovered following the downturn caused by the COVID-19 pandemic, with growth rates in certain sectors surpassing the EU average.
2. A growing share of high-tech products in the export structure, which indicates a gradual restructuring of the economy.
3. Transport services, especially in the logistics and courier sectors, have become increasingly prominent in the balance of payments, fueled by the rise of e-commerce.
4. Gains in the trade balance for services have partially mitigated deficits in goods trade.
5. Bulgaria has deepened trade ties within the EU and across Southeast Europe.

Despite these positive trends, the research highlights several pressing challenges that require strategic attention. The foremost issue is the sustainability of the observed recovery. Amid global economic uncertainty and heightened geopolitical tensions, the long-term sustainability of this recovery remains unclear. The second challenge pertains to structural imbalances in Bulgaria’s economy. Despite the noted improvements, the country continues to exhibit significant reliance on imports of energy resources and high-tech components. This dependence creates vulnerabilities to external shocks and could negatively affect economic stability. The third challenge concerns competitiveness. Increasing pressure from countries with lower production costs raises questions about the long-term viability of Bulgaria’s traditional export sectors. The fourth area of concern relates to digital transformation. Despite progress, the pace of digitalization in certain sectors of Bulgaria’s economy remains below the European Union average. This lag may adversely impact the future competitiveness of the country.

The analysis of current trends highlights the following perspectives and potential risks. Positive perspectives include:

1. Potential for further integration into European supply chains, especially in sectors such as automotive manufacturing and electronics.
2. Opportunities for developing a green economy and exporting environmental technologies, aligned with the EU’s carbon neutrality goals.
3. Expansion of market share in the IT services and outsourcing sectors, leveraging a skilled workforce and relatively low costs.
4. Potential for Bulgaria to develop as a logistics hub for Southeast Europe, given its strategic geographical location.

Possible negative trends include:

1. Risk of slowing economic growth among key trading partners, which could negatively affect Bulgarian exports.



2. Potential increase in global protectionist measures, which may restrict access to critical markets.
3. Intensified outflow of skilled labour, potentially eroding competitiveness in key sectors.
4. Risk of deepening technological lag in certain traditional industries, leading to a loss of competitive positions.
5. Vulnerability to climate change, which may negatively impact agricultural exports and the tourism sector.

The presented research has several objective limitations, that must be considered for an accurate understanding and interpretation of its results.

First, the study focuses on the recovery period following COVID-19, which may not fully reflect the long-term structural trends in the economy. This narrow temporal focus may lead to overlooking broader economic dynamics. Second, the analysis is limited by the lack of access to detailed firm-level data. This constraint might restrict a deeper understanding of the microeconomic factors driving trade flows and their changes. Third, the econometric models used in the research have methodological constraints. These models may not adequately capture the intricate relationships between various economic variables, potentially impacting the robustness of the analysis. Fourth, the unpredictability of the rapidly changing geopolitical situation adds uncertainty to projections of future trade developments. Such volatility makes it challenging to provide precise forecasts of upcoming trends. Fifth, currency denomination in data analysis presents specific challenges (Zahariev & Lichev, 2014). Data from NSI and Eurostat, denominated in euros, highlight certain trends and support specific conclusions. However, when using databases from UNCTAD, the IMF, and the World Bank, where figures are expressed in US dollars, the resulting trends and conclusions are influenced by fluctuations in the exchange rates of the major global currency pair.

### **III. Directions for future research on the dissertation topic**

- A comprehensive analysis of the impact of digital transformation on the structure of trade flows and transport services in Bulgaria.
- Exploration of the potential for developing new export niches within the context of the green economy and circular economy.
- Analysis of the impact of regional trade agreements on the competitiveness of Bulgarian exports.
- Evaluation of the implications of potential global supply chain restructuring on Bulgaria's role in international trade, leveraging its strategic geographic position.
- Study of the relationship between foreign direct investment and trade flow dynamics in Bulgaria, with a specific focus on export activities.

### **IV. Reference on the scientific and scientific-applied contributions in the dissertation**

#### ***Theoretical and methodological contributions***

**First.** A comprehensive methodological framework has been developed to analyze the interconnection between trade flows, transport services, and economic recovery through the balance of payments. The innovative aspect of this approach lies in combining quantitative methods (correlation analysis, descriptive statistics) with seasonal projection of selected balance of payments components to assess economic recovery under conditions of multiple crises.

#### ***Empirical and diagnostic contribution***

**Second.** An in-depth empirical analysis of the structural changes in Bulgaria's trade flows during the period 2020–2023 has been conducted. This

analysis reveals new trends in the geographical and product structure of trade. A gradual restructuring of the economy has been identified, characterized by an increased share of high-tech products in the export structure and enhanced trade integration with the EU and the Southeast European region.

***Prognostic and analytical contribution***

**Third.** Key factors and trends determining Bulgaria’s potential as a logistics hub for Southeast Europe have been identified. Specific opportunities for further integration into European supply chains have been highlighted, particularly in the automotive and electronics sectors, along with prospects for green economy development and the export of eco-friendly technologies.

***Practical and applied contribution***

**Fourth.** A toolkit has been developed to assess the degree of correlation between export trade flows, transport services, and Bulgaria’s GDP as an open economy. This toolkit enables the identification of specific vulnerabilities and risks to economic recovery, including dependence on imported energy resources and high-tech components, as well as the potential impact of climate change on key export sectors.

## **V. List of publications by the doctoral candidate**

### **I. Articles (2 papers)**

1) **Velkovski**, Anatoli. (2022). The Customs Union and Foreign Trade of the Republic of Bulgaria – Dynamics and Trends." Annual Almanac "Scientific Research of Doctoral Students," 2022, Vol. XV, Book 18 – Studies and Articles, pp. 177–190, ISSN: 1313-6542.

2) **Velkovski**, Anatoli. (2024). Proofs of Seasonality of Bulgaria’s Export of Consumer Goods, Raw Materials, and Processed Materials over the Period 2020–2023, *Economic Archive*, Issue 3 (in press).

### **II. Scientific reports (1 paper)**

3) **Velkovski**, Anatoli (2023). The Logistics of Goods in the Balance of Payments of the Republic of Bulgaria: Evidence and Trends for the Period 2019 – 2022, Scientific Conference "Logistics and Public Systems," March 16–17, 2023, NVU "Vasil Levski," Veliko Tarnovo, pp. 703–712, ISSN 2738-8042.

## **VI. Reference on the participation of the doctoral candidate in scientific forums**

- 1) XVth Doctoral Scientific Session, December 2, 2022, D. A. Tsenov Academy of Economics, Svishtov.
- 2) Scientific Conference "Logistics and Public Systems," March 16–17, 2023, NVU "Vasil Levski," Veliko Tarnovo.

## **VII. Compliance with National Requirements according to the Regulations for the Implementation of the Act on the Development of the Academic Staff in the Republic of Bulgaria**

**Articles: 2 papers (authored)**

**Scientific reports: 1 paper (authored)**

**Minimum required number of points: 30**

Points Achieved for Criterion 7 (Articles and reports published in non-refereed journals with scientific review or in edited collective volumes), according to the Appendix to Art. 1a, Para. 1 of the Regulations for the Implementation of the Act on the Development of the Academic Staff in the Republic of Bulgaria with the Minimum National Requirements for the scientific, teaching, and/or artistic or sports activities of candidates for acquiring academic degrees and for holding academic positions such as "Chief Assistant," "Associate Professor," and "Professor" in the fields of: Area 3. Social, Economic, and Legal Sciences, 3.1. Sociology, Anthropology, and Cultural Studies, 3.2. Psychology, 3.3. Political Science, 3.4. Social Work, 3.5. Public Communications and Information Sciences, 3.6. Law, 3.7. Administration and Management, 3.8. Economics, 3.9. Tourism.

**3 articles and scientific reports × 10 points = 30 points.**

## VIII. Scientific indicators of the dissertation

<b>№</b>	<b>Indicator</b>	<b>Value</b>
1	Number of tables	26
2	Number of figures	29
3	Total number of standard pages	215
4	Software used	MS Excel
5	References	106
5.1.	incl. in foreign languages	72
5.2.	incl. in Bulgarian	34
6	Number of publications by the doctoral candidate	3
7	Number of points acc.to the Regulations for the Implementation of the Act on the Development of the Academic Staff in the Republic of Bulgaria	30,00
8	Number of participations in scientific forums	2
9	Enrolment order number	Order № 133/15 March, 2021
10	Date of enrollment in the doctoral programme	01 March, 2021
11	Order number for supervisor change	Order 1055/02 Dec, 2022 г.
12	Duration of the doctoral studies	3 years with extension
13	Annual assessment grades	positive
14	Date of DC decision to proceed with defense	26.11.2024
15	Date of FC decision to initiate defense	26.11.2024
16	Time, date, and place of public defense	11 am / 04.04.2025
17	URL for online access to the public defense, BBB Room “SA-KFC-Scientific Juries”	<a href="https://bbb.uni-svishtov.bg/b/yc7-x2c-dtm">https://bbb.uni-svishtov.bg/b/yc7-x2c-dtm</a>

## **IX. Declaration of originality of the dissertation**

The dissertation, comprising 215 pages, titled: “*Trade Flows and Transport Services in the Balance of Payments of the Republic of Bulgaria: Trends and Evidence of Economic Recovery*”, is an original and independent scientific work of the author. It incorporates the author’s ideas, texts, and visualizations in the form of graphs and tables while adhering to all requirements of the Copyright and Related Rights Act through proper citation and acknowledgment of external intellectual contributions and data, including:

1. The results achieved and contributions made in the dissertation are original and have not been borrowed from studies or publications in which the author did not participate.
2. The information presented by the author in the form of copies of documents, publications, self-composed references, and other materials corresponds to objective truth.
3. Scientific results obtained, described, and/or published by other authors are properly and thoroughly cited in the bibliography.

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(Doctoral Candidate Anatoli Velkovski)