

## REVIEW

by Candidate of Economic Sciences, Associate Professor,  
Associate Professor of the Department of Economics and Economic Theory  
of West Ukrainian National University

**Virkovska Anastasiya Andriivna** on the qualification thesis of Wei Linhai  
on the topic “Environmental sustainability of PRC international trade”,  
submitted for the degree of Doctor of Philosophy in the field of knowledge  
29 – International Relations, specialty 292 – International Economic Relations

### *Relevance of the qualification thesis and its connection with scientific programs, plans, and themes*

The qualification thesis of Wei Linhai is relevant as it addresses environmental sustainability in the context of PRC’s international trade, aiming to balance economic growth with environmentally sustainable practices. Key factors contributing to changes in environmental sustainability include the implementation of stringent environmental regulations, promotion of environmentally sustainable practices, investment in green technologies, and ensuring transparency and accountability throughout the supply chain. These measures are crucial for mitigating the environmental impact of cross-border trade and promoting sustainable development at both regional and global levels.

The dissertation is connected to the scientific research themes of the West Ukrainian National University, specifically conducted within the framework of fundamental state budget funding researches “National concept of eco-security of society and inclusion of the circular economy in the conditions of the pandemic” (state registration number 0121U109485); “Concept of recovery and green reconstruction of Ukraine” (state registration number 0124U000003); implementation of the international project (Erasmus+ Module Jean Monnet) “European inclusive circular economy: post-war and post-pandemic module for Ukraine (EICEPPMU)” 2022-2024, registration number 101085640); business funding research on the topic “Transformation of business in conditions of sustainable development of the global economy” (Contract No. MEV-33-2023 dated 05/10/2023); business funding research on the topic “Scientific and professional consulting of the enterprise on issues of social responsibility and organization of recycling” (Contract No. MEV-81-2021 dated 01/10/2021); business funding research on the topic “Formation of the company’s ecological brand in foreign markets” (Contract No. MEV-37-2024 dated 25/04/2024).

***The degree of validity and reliability of scientific statements,  
conclusions and recommendations***

A review of Wei Linhai's dissertation content indicates that the conclusions and generalizations presented in the qualification thesis possess a sufficient level of scientific novelty. The justification of the scientific provisions, conclusions, and recommendations obtained by the author is based on the use of modern scientific theories, concepts, and methodologies of leading domestic and foreign scientific schools.

To achieve the purpose and fulfill the outlined tasks in the qualification thesis, the applicant utilized general scientific and special research methods, including the method of theoretical generalization, historical method, dialectical cognition method, method of analogies and comparative analysis, methods of induction and deduction, methods of analysis, synthesis, and data processing, monitoring method, and data visualization method.

In the first chapter, "Theoretical and methodological basis of the research environmental sustainability of international trade", the applicant substantiates the genesis of international trade theories (pp. 12-27), proposes the concept of environmental sustainability in the system of international economic relations, which includes an analysis distinct from theories that consider the economic system as a closed and linear system, establishes the impact of the environment (pp. 27-41), clarifies the concept of the "decoupling" process, and determines the impact of the use and consumption of natural resources on international trade (pp. 41-53).

In the second chapter, "Research of environmental sustainability of international trade", the applicant analyzes trends in international trade development and reshaping (pp. 56-69), evaluates the status and role of natural resources in international trade (pp. 69-84), and conducts a comprehensive analysis of the environmental sustainability in international trade (pp. 84-97).

In the third chapter, "Prospects of development the environmental sustainability of international trade", the applicant determines the impacts of natural resource utilization and consumption on international trade (pp. 100-113), identifies the ways of developing the environmental sustainability of PRC international trade (pp. 113-124),

and develops a model of an ecologically sustainable trade strategy for China (pp. 124-136).

The validity, reliability, and substantiation of the conclusions and proposals made in the qualification thesis are confirmed by an appropriate analysis of specialized literature. The theoretical and methodological basis of the research includes scientific papers of leading economists, monographs, legislative acts of developed countries on environmental sustainable trade issues, internet publications, statistical data, and analytical materials of the World Trade Organization (WTO), United Nations, Environmental Assessment Agency, World Bank, United Nations Conference on Trade and Development (UNCTAD), International Monetary Fund, National Bureau of Statistics of China, other international organizations and analytical centers, and national “green” strategies.

### ***Scientific novelty of the obtained results***

The most important scientific results obtained personally by the applicant include:

— for the first time, a model of an environmental sustainable trade strategy for PRC has been developed, which is based on ecological, political, and social factors influencing trade, conditions for resource conservation, directions of resource diplomacy and trade policy; it contains proposals for the environmental restructuring of the economy and ways for PRC’s international cooperation; it encompasses vectors for promoting technical innovations and conditions for using economic incentives for environmental sustainability;

— the concept of environmental sustainability in the system of international economic relations has been improved by analyzing a closed and linear economic system, as well as by substantiating the advantages of the material balance model of an economically open circular subsystem and the development of types of sustainability under conditions of substitution between natural and industrial capital;

— the terminology has been improved, in particular, the main characteristics of “environmental international trade”, aspects of “decoupling”, as well as the

classifications of international trade theories by developing methodological approaches to the environmental component of international trade and adapting Porter's model of competitive advantages to the environmental development of the state;

— the evaluation the status and role of natural resources in international trade has been improved by comparison using indicators such as: production and consumption of primary energy in PRC, production in the mining industry, value of agricultural products, and the availability of resources in the total share of imports and exports;

— the main properties and characteristics of decoupling have been further developed; the results of the impact on international trade from the use and consumption of natural resources have been updated and classified, along with methods for the use and consumption of natural resources and justification of the contribution of international trade to reducing extreme poverty;

— the analysis of trends in international trade development and reshaping has been summarized; and the evaluation of the impact of fragmentation on economic convergence; correlation analysis of trade openness and the probability of conflict; evaluation of the impact of technological improvements on reducing CO<sub>2</sub> emissions and their coverage;

— the opportunities and prospects for the environmental sustainability of PRC international trade have been further developed; this has allowed outlining ways to environmental sustainability and identifying components of PRC's sustainable trade strategy.

### ***The significance of the results of qualification thesis for theory and practice***

The theoretical basis of the qualification thesis consist in uncovering the theoretical and methodological principles of environmental sustainability in China's international trade and outlining the pathways for developing international trade oriented towards ecological principles.

The practical significance of Wei Linhai's dissertation results is that the main theoretical provisions of the study on key directions for the development of environmental sustainability in international trade and ways to implement an

environmental sustainable trade strategy for PRC can be used in the practical activities of economic entities engaged in foreign economic trade relations and in further scientific research.

The presented research results, brought to the level of practical developments and recommendations, are confirmed by an implementation certificate provided by West Ukrainian National University (certificate No. 21/70-2024 dated 28.06.2024).

### ***Completeness of the published main provisions of the qualification thesis***

The main provisions of the qualification thesis, which have scientific novelty, are comprehensively and argumentatively disclosed in 11 published papers. Based on the main results of the dissertation, 1 article was published in a journal included in the international scientometric databases Scopus and Web of Science, 3 articles were published in scientific editions of Ukraine, and 7 publications were published in other approbation journals based on conference materials.

The profile of the journals and the content of the scientific publications meet the established requirements regarding the completeness of the coverage of the obtained results of the qualification thesis for the degree of Doctor of Philosophy in the field of knowledge 29 “International Relations”, specialty 292 “International Economic Relations”. The number and volume of edited papers on the dissertation topic and the completeness of the reflection of the provisions of the qualification thesis in these papers meet the requirements and provide the author with the right for the public defense of the dissertation.

### ***Evaluation of the structure of the qualification thesis, language, and style of presentation***

The content of the qualification thesis corresponds to the defined purpose and objectives of the research, reveals the topic of the thesis, and attests to its coherence and completeness. The dissertation is written in English, adhering to all the requirements of the scientific style.

### ***Absence (presence) of violations of academic integrity***

A review of the content of Wei Linhai's qualification thesis provides grounds to assert that the author adheres to the principles and norms of academic integrity. The dissertation contains necessary references to information sources in every instance of using ideas, developments, statements, and data, and complies with the norms of copyright and related rights legislation. Furthermore, the qualification thesis is successfully verified for text borrowings using the internet service Unicheck.

### ***Discussion points and comments on the qualification thesis***

Wei Linhai's qualification thesis formulates and substantiates several scientific provisions and conclusions, some of which have a debatable nature, namely:

1) the research would be more substantiated if the analysis of environmental sustainability in international trade included a correlation-regression analysis of GEI, ExpGov, and EPI;

2) the proposed ways of developing the environmental sustainability of PRC international trade should have included suggestions regarding green trade and green investment in PRC;

3) it would have been worthwhile to specify the environmental risks associated with the implementation of environmentally responsible practices by transnational companies;

4) environmental consequences of inefficient consumption transform waste disposal methods, making it appropriate to characterize business initiatives for waste management and directions for applying environmentally responsible practices in PRC.

Nevertheless, these comments and debatable provisions do not affect the overall high evaluation of Wei Linhai's qualification thesis and can serve as a basis for scientific discussion and the continuation of the author's research in the chosen direction.

### ***General conclusion***

Wei Linhai's qualification thesis, on topic "Environmental sustainability of PRC international trade", is a completed, independent, and logically structured scientific research that aligns with the specialty 292 – International Economic Relations. The author has substantiated the purpose and objectives of the research, the scientific novelty, and the practical significance of the obtained results. The dissertation provides a theoretical generalization and proposes a new solution to the scientific problem, along with practical recommendations for the environmental sustainability strategy of PRC international trade. The research has formulated conclusions with both scientific-theoretical and practical orientations.

The qualification thesis meets the requirements of "On the Approval of the Procedure for Awarding the Degree of Doctor of Philosophy and the Cancellation of the Decision of a One-time Specialized Academic Council of a Higher Education Institution, Research Institution on Awarding the Degree of Doctor of Philosophy" approved by the Resolution of the Cabinet of Ministers of Ukraine dated January 12, 2022, No. 44, and its author, Wei Linhai, deserves to be awarded the degree of Doctor of Philosophy in the field of knowledge 29 International Relations, in speciality 292 International Economic Relations.

**Reviewer:**

**Candidate of Economic Sciences,  
Associate Professor,  
Associate Professor of the Department  
of Economics and Economic Theory  
West Ukrainian National University**

**Anastasiya VIRKOVSKA**

