Revista de Științe Politice. Revue des Sciences Politiques • No. 88 • 2025: 121 – 127

ORIGINAL PAPER

Understanding colors in finance - The impact of Green, Blue and Black Finances on sustainable economic growth

Ramona Birau[1)] , Virgil Popescu[2)]

Abstract:
The main aim of this paper is to provide a literature survey of Green, Blue and Black finance and their implications on sustainable development, financial markets and economic growth. This extensive conceptual analysis highlights topics of great current interest. A low-carbon economy represents a global challenge given the dramatic consequences of climate change. Green finance and implicitly blue finance are focused on achieving sustainable economic growth. The environmental sustainability is considering the reduction of greenhouse gas emissions.

Keywords: *Green finance, Blue finance, Black finance, blue economy, economic growth, sustainable development, climate change, renewable energy, environmental sustainability*

[1)] University of Craiova, "Eugeniu Carada" Doctoral School of Economic Sciences, Craiova, Romania & "Constantin Brâncuși" University of Târgu Jiu, Faculty of Economic Science, Tg-Jiu, Romania, ramona.f.birau@gmail.com
[2)] University of Craiova, Faculty of Economics and Business Administration, Craiova, Romania, virgil.popescu@vilaro.ro

Introduction

The three important pillars of sustainability are as follows: economic sustainability, social sustainability and environmental sustainability. Green finance makes a major contribution to sustainable development and economic growth considering the preservation of limited natural resources and renewable energy investments. The concept of green finance has the meaning that it represents financial structures used to protect the environment such as limited and exhaustible natural resources. The environmental performance criteria are essential in evaluating green finance instruments. Green finance policies must be integrated in an optimal manner so that ESG performance factors are also taken into account for implementing strategies based on environmental protection, social responsibility and sustainable economic growth.

On the other hand, natural resources are renewable or non-renewable. Green finance also focuses on an innovative approach based on green technologies. A series of optimized financial instruments includes the following: green investments, green credit, green bonds, green banks and many others. Sustainable Development Goals also known as SDGs constitute a very effective approach to achieving sustainable development and economic growth. For instance, green banking, green financial technology, carbon credits, carbon pricing instruments or other carbon market instruments play a crucial role in underpinning green finance policies.

On the other hand, green finance is essential in the context of a low carbon economy that aims for environmental sustainability. Moreover, climate change is a phenomenon with devastating effects that cannot be ignored, but optimal solutions can be identified to achieve sustainable development. Green finance provides financing and funds channeled towards green technologies and renewable energy projects whose main purpose is to reduce carbon dioxide emissions level, such as the greenhouse gas emissions.

The concept of blue finance represents investments of capital or financing the blue economy. Blue finance is focused on ocean and marine-friendly activities and other sustainable projects that are intended to protect aquatic ecosystems. Blue finance is actually perceived as a niche area within green finance.

Literature review - An international perspective on the concepts of Green finance

Jiang et al. (2025) have investigated the impact of blue finance on marine fisheries economy based on a case study for China. Marine fisheries includes certain key aspects such as: economic development of coastal marine areas and other specific areas, boosting growth in the maritime sector, contributions to ensuring maritime sovereignty, highlighting support in increasing the income and living standards of seafarers, fishermen and other workers in the maritime sector, diversifying and increasing the quality of the specific culinary sector based on products specific to the aquatic environment (marine, oceanic etc.). Moreover, another important aspect is represented by marine environmental quality and the multiple implications for the blue economy.

Xing et al. (2024) investigated the linkage between sustainable development, economic growth, the implications of green finance and environmental issues focused on degeneration process for a very long time frame starting from 1985 to 2021 based on panel data series. Zournatzidou (2025) examined the nexus between green finance and sustainable development from a socially and environmentally responsible perspective. Moreover, the linkage between green financing and fintech can lead to significant performance in terms of ESG criteria, such as Enviromental, Social, Governance factors.

Birau and Popescu (2025) have conducted a comprehensive review of the specialized literature on the nexus between green finance, climate finance, but also energy finance given the implications for economic growth and sustainable development. Aaliya et al. (2024) have conducted a research study on Green Human Resource Management also known as GHRM and its impact on green economics and organizational performance sustainability. Moreover, Awais-E-Yazdan et al. (2024) have analyzed green HRM customs considering green technologies and environmental sustainability.

Ramos Farroñán et al. (2025) investigated the impact of green finance on renewable energy investments in the case of emerging economies by examining certain studies from the existing literature using PRISMA 2020 statement guidelines. Green finance instruments are very useful in achieving sustainable development through the use of renewable energy. In addition, Krastev et al. (2024) also investigated the effect of green finance on sustainable development based on a bibliometric analysis while considering ESG factors influence.

Yardımcı and Oskay (2025) developed a research study focused on the emerging economy of Turkey and analyzed the relationship between green finance, environmental sustainability and low-carbon economies in the context of financial globalization. Furthermore, Liu et al. (2024) have conducted a research study and investigated the nexus between green finance, corporate ESG performance, green sustainable development and economic uncertainty strategies. The opinion was that green finance can be defined as the process of conformation and accommodating the balance between "*economic growth and environmental preservation*", while considering that there is important to highlight "*high-quality economic advancement to balance economic progress and environmental advantages*".

International Finance Corporation or IFC as part of the World Bank Group investigated relevant aspects on green finance highlighting the diversity of conceptual approaches and the lack of rigorous estimates regarding the growth of this segment of finance. Moreover, many project-level perspectives were revealed that do not ensure high accuracy and rigor regarding the size of the green finance sector and its implications for economic growth. It is important to measure green finance flows accurately but also considering data availability (IFC, 2025).

On the other hand, environmental, social, and governance factors also known as ESG play an essential role in the foundation of green finance approach. The integration process of green finance highlighted a new direction towards achieving a sustainable economic growth based on renewable energy and cleaner energy investments. Efficient energy based-technologies are focused on clean energy systems and renewable sources of energy.

According to the official website of the United Nations, the definition of renewable energy is the following, such as an "energy derived from natural sources that are replenished at a higher rate than they are consumed", like for instance Sunlight, but also the wind power. Moreover, the United Nations argued that non-renewable resources such as fossil fuels are much more harmful and polluting because they cause carbon dioxide or CO2 emissions. It is important to mention that carbon dioxide represents the main greenhouse gas generated by human activities which cause the global climate changes (United Nations, 2025).

Disseminating the concept of Blue finance

The International Finance Corporation (IFC) as a member of the World Bank Group provided the Guidelines for Blue Finance, as even version 2.0, and defined the concept of blue finance as: "*a thematic subcategory of green and sustainable finance*" considering it an essential factor to guarantee "t*he regeneration, protection, and sustainable use of oceans and water resources*" (ICF, 2025). The demand for blue financing instruments registers significant increases globally.

The extreme weather events causes increasing losses and damages in recent times, continuously worsening and intensifying due to pollution, irresponsible or illegal logging and deforestation, but also irrational consumption of limited natural resources. The economic well-being of the population depends on the way of managing the blue finances regarding the resources of the seas and oceans, the marine coastal and the related beaches and areas. Moreover, water resources are also very important in the context of very serious climate changes which affects implicitly the marine conservation process.

Renewable energy is increasingly perceived as a viable solution to extreme events caused by increasingly abrupt and unpredictable climate change. Ullal et al. (2024) examined the relationship between green energy and artificial intelligence considering the importance of renewable energy systems and green technologies.

The official website of the United Nations highlighted certain main sources of renewable energy such as:

- Solar energy
- Wind energy
- Geothermal energy
- Hydropower
- Ocean energy
- Bioenergy (United Nations, 2025).

Shiiba et al. (2022) have conducted a research study focused on ocean conservation and suggested that blue finance represents „*a crucial tool to ensure ocean sustainability, aligned with economic growth*" considering the considerable risks generated by accentuated climate changes and human-generated pollution. Some researchers (Jiang et al., 2025) identify certain limitations regarding the existing literature on blue finance, namely the fact that is based only on the "*meaning of blue finance and its promotion of the marine economy".*

On the other hand, eco-friendly or environmentally friendly sources are essential in ensuring economic, social and environmental sustainability, including a sustainable blue economy. Shiiba et al. (2022) defines blue finance as "*financial instruments or investments that ensure the conservation of the ocean environment, related resources, and boosts the blue economy*" taking into account the preservation of oceanic resources and the conversion into sustainable economic growth. Practically, we can identify certain financial instruments characteristic for the blue economy, such as the following: blue loans and blue bonds those that also focus on reducing the level of pollution and the effects on climate change.

Conceptual approach regarding Black finance

In general, the term black finance has a negative connotation, referring to illicit activity such as money laundering or other illegal financial activities. Another dimension of black finance concerns the terrorism financing which has very serious implications considering the connection with terrorist organizations and the provision of money and

other financial assets or financial support in this regard. However, implementing sustainable strategies regarding anti-money laundering, preventing terrorism and counter-terrorism enforcement financing should be a priority in order to reduce illegal actions based on black finances.

Alami and Guermond (2022) defined money in a very original but radical manner such as "*the most supreme and abstract incarnation of wealth and class power*". MacKenzie (2005) analyzed particular aspects regarding the concept of black box in finance which is perceived as being defined as follows "*devices, practices, or organizations that are opaque to outsiders*" considering the fact that it has much more technical and complex characteristics. In addidion, Hassan et al. (2023) investigated the implications of financial distress on an emerging economy considering corporate and business financial obligations.

Masciandaro et al. (2007) investigated the concept of black finance with increased interest being given to the implications caused by money laundering activities. In other words, black finance contributes significantly to the process by which the so-called dirty money are subject to the action of transformation into clean money. The phenomenon of money laundering is a global problem with very extensive ramifications, which significantly affects financial markets, including the banking sector.

Benson (2025) have conducted a research study on black finance such as illicit finance considering its numerous negative effects on financial markets and the banking sector. A key role in the research that was carried out is played by activities violating the legal framework, namely terrorism financing and money laundering. In addition, increased attention must be paid to economic criminality generated by tax evasion and financial fraud.

Conclusions

The existing literature is in continuous development, considering the innovative concepts and profound implications in the context of the global economy. Environmental sustainability is based on green finance, implicitly on blue finance. The environmental degradation is a significant cause in new green technological developments aimed at protecting the environment in a sustainable manner. Furthermore, renewable energy sources are characterized by a tremendous potential in terms of achieving ecological, social and economic sustainability objectives.

A sustainable economy represents a significant challenge in the context of current climate change, which is continuously dynamic and worsening due to pollution. Green financing represents a significant resource in achieving economic growth and sustainable development. Moreover, green and blue finance strategies must be integrated including through the use of environmentally friendly investments. Marine and ocean sustainability is a huge challenge in the current period considering the significant risks, but it can be achieved on the basis of blue financing. On the other hand, the impact of black finance is very harmful on sustainable economic development, affecting economic sectors due to money laundering, economic crimes, terrorism financing.

Authors' Contributions:
The authors contributed equally to this work.

References:

Aaliya, A., Ulfat, A., Popescu, V., Birau, R. (2024) Green Human Resource Management (GHRM) practices : Unlocking the path to sustainable organizational performance, Annals of the „Constantin Brâncuşi" University of Târgu-Jiu, Economy Series, Issue 6/2024, Volume II, pp.5-11, „Academica Brâncuşi" Publisher, ISSN 2344 – 3685/ISSN-L 1844 – 7007.

Alami, I., Guermond, V. (2022). The color of money at the financial frontier. Review of International Political Economy, 30(3), 1073–1097. https://doi.org/10.1080/09692290. 2022.2078857.

Awais-E-Yazdan, M., Iqbal, M.S., Mushtaq, M., Birau, R., Popescu, V., Ninulescu, P.V. (2024) Green HRM practices in textile sector of Pakistan and its impact on green innovation and environmental sustainability, In: Industria Textila, 75, 3, 275–282, http://doi.org/10.35530/IT.075.03.202383.

Benson, K. (2025). From money laundering to illicit finance? The evolving 'AML' regulatory regimes for legal professionals in the UK and Australia. Current Issues in Criminal Justice, 37(2), 245–263. https://doi.org/10.1080/10345329.2024.2443702.

Birau, R., Popescu, V. (2025) A literature survey on climate finance, green finance and energy finance considering the impact on economic growth and sustainable development, Annals of the „Constantin Brâncuşi" University of Târgu-Jiu, Economy Series, Issue 1/2025, „Academica Brâncuşi" Publisher, ISSN 2344 – 3685/ISSN-L 1844 – 7007, pp.206-211, https://www.utgjiu.ro/revista/ec/pdf/2025-01/24_Birau.pdf.

Hassan, E., Awais-E-Yazdan, M., Birau, R., Paliu-Popa, L. (2023) Anticipating financial distress in monster sectors of Pakistan's economy: an application of logit, In: Industria Textila, 2023, 74, 3, 363–370, http://doi.org/10.35530/IT.074.03.2022105.

Jiang, Y., Huang, L., Zhu, X., Song, W., Liu, Y. (2025). Effect of Blue Finance and Marine Environmental Quality on the Marine Fishery Economy. Fishes, 10(4), 147. https://doi.org/10.3390/fishes10040147.

Krastev, B., Krasteva-Hristova, R. (2024). Challenges and Trends in Green Finance in the Context of Sustainable Development—A Bibliometric Analysis. Journal of Risk and Financial Management, 17(7), 301. https://doi.org/10.3390/jrfm17070301.

Liu, C., Cui, P., Zhao, H., Zhang, Z., Zhu, Y., Liu, H. (2024). Green Finance, Economic Policy Uncertainty, and Corporate ESG Performance. Sustainability, 16(22), 10141. https://doi.org/10.3390/su162210141.

MacKenzie, D. (2005). Opening the black boxes of global finance, Review of International Political Economy, 12(4), 555–576, https://doi.org/10.1080/09692290500 240222.

Masciandaro, D., Takáts, E., Unger, B. (2007) Black Finance: The Economics of Money Laundering, Publisher E. Elgar, ISBN 1847202152, 9781847202154, 257 pages.

Ramos Farroñán, E. V., Farfán Chilicaus, G. C., Cruz Salinas, L. E., Correa Rojas, L., Chuquitucto Cotrina, L. K., Licapa-Redolfo, G. S., Vera Zelada, P., Vera Zelada, L. A. (2025). Green Finance and the Energy Transition: A Systematic Review of Economic Instruments for Renewable Energy Deployment in Emerging Economies. Energies, 18(17), 4560. https://doi.org/10.3390/en18174560.

Shiiba, N., Hao Wu, H, Huang, M.C., Tanaka, H. (2022) How blue financing can sustain ocean conservation and development: A proposed conceptual framework for blue

financing mechanism, Marine Policy, Volume 139, May 2022, 104575, https://doi.org/10.1016/j.marpol.2021.104575.

Ullal, M.S., Anand, A., Popescu, V., Birau, R. (2024) Investigating the nexus between green energy and artificial intelligence (AI), Annals of the „Constantin Brâncuşi" University of Târgu-Jiu, Economy Series, Issue 6/2024, Volume II, pp.84-90, „Academica Brâncuşi" Publisher, ISSN 2344 – 3685/ISSN-L 1844 – 7007.

Xing, L., Chang, B. H., Aldawsari, S. H. (2024). Green Finance Mechanisms for Sustainable Development: Evidence from Panel Data. Sustainability, 16(22), 9762. https://doi.org/10.3390/su16229762.

Yardımcı, P., Oskay, C. (2025). The Impact of Green Finance and Financial Globalization on Environmental Sustainability: Empirical Evidence from Türkiye. Sustainability, 17(13), 5696. https://doi.org/10.3390/su17135696.

Zournatzidou, G. (2025). Green Finance and Sustainable Development: Investigating the Role of Greentech Business Ecosystem Through PRISMA-Driven Bibliometric Analysis. Administrative Sciences, 15(4), 150. https://doi.org/10.3390/admsci15040150.

*** - International Finance Corporation (IFC) - World Bank Group (2025) Green Finance - A Bottom-up Approach to Track Existing Flows, Executive Summary, https://documents1.worldbank.org/curated/en/148291573020848322/pdf/Executive-Summary.pdf (accessed on October 10, 2025)

*** - The United Nations, Climate action, What is renewable energy? (2025) https://www.un.org/en/climatechange/what-is-renewable-energy (accessed on October 21, 2025)

*** - International Finance Corporation (IFC) - World Bank Group (2025) Guidelines for Blue Finance, Version 2.0, https://www.ifc.org/content/dam/ifc/doc/2025/guidance-for-blue-finance-v2-0.pdf, September 2025, (accessed on October 20, 2025).

Article Info

Received: November 01 2025
Accepted: November 18 2025

How to cite this article:
Birau, R., Popescu, V. (2025). *Understanding colors in finance - The impact of Green, Blue and Black Finances on sustainable economic growth. Revista de Ştiinţe Politice. Revue des Sciences Politiques,* no. 88, pp. 121-127.