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Green Finance vs Greenwashing Challenges to the Ecological Transformation

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Abstract:

Purpose: *The process of ecological transformation of the economy and society is ongoing. It should be emphasized that it is one of the key processes of our civilization. The aim of this paper is to present and analyze the concepts of Green Finance, with particular focus on Greenwashing. Attention is drawn to the fact that Greenwashing constitutes a significant risk to the scope, pace, and, above all, the quality of ecological transformation. However, efforts to combat it within the EU are being undertaken through the introduction of successive regulatory measures.*
Design/Methodology/Approach: *The following research methods were used to prepare this article: analysis of the literature of the subject, analysis of legal acts, desk research.*
Findings: *The risk of Greenwashing is underestimated in the financial market. At the same time, the scope of recent legal changes concerning Green Finance and Greenwashing in European Union legislation was called into question. The newly introduced regulations are considered overly burdensome for business entities.*
Practical Implications: *It was recommended to continue promoting ecological transformation within society and the economy, with particular emphasis on addressing the risk known as Greenwashing. A return to the discussion on the level of detail and complexity of EU legal regulations – both in the area of Greenwashing and the broader regulatory framework related to the New Green Deal – was also recommended.*
Originality/value: *This study presents original definitions of the concepts of Green Finance and Greenwashing, along with own classification of Greenwashing types. It further emphasizes that overregulation may hinder the ecological transition. These contributions add to the novelty and academic value of the publication.*

Keywords: *CSR, green finance, greenwashing.*

JEL classification: *G15, G18, Q01, Q56, Q58.*

Paper type: *Theoretical study.*

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1. Introduction

The ecological transformation of the economy and society is a necessary process, but also one that is time-consuming and costly. Therefore, it requires scientific analysis. It should be emphasized that this is one of the key processes essential to our civilization. The concepts of Green Finance and Greenwashing are of key importance for maintaining the quality of the ecological transformation. While the publication refers to the notions of CSR, SRI, and ESG, it focuses, consistent with its objective, on the "E" component, that is, Environment.

The aim of this article is to draw attention to the risks affecting the process of ecological transformation, with a particular focus on Greenwashing. The following research methods were used to prepare this article, analysis of literature, analysis of legal acts, descriptive, comparative, desk research.

Importantly, the study proposes own definitions of the concepts of Green Finance and Greenwashing. It also presents classification of Greenwashing based on own elaboration. Greenwashing is highlighted as a risk involving the abuse of trust among investors, clients, business partners, and other stakeholders, and thus as a threat to the ecological transformation of the financial market. The article also points out that excessive legal regulation can itself generate risks for the ecological transformation.

In outlining recommendations, it is recommended to promote ecological transformation and to give particular attention to the risk referred to as Greenwashing. At the same time, the current legal changes concerning Green Finance and Greenwashing in European Union legislation should be called into question – especially in terms of their scope, depth, level of detail, and the severity of the penalties imposed. The newly introduced regulations are excessively burdensome for business entities.

A renewed discussion on the level of regulatory detail within the European Union is warranted, both in relation to Greenwashing and the broader regulatory package under the New Green Deal.

2. Literature Review – How the Financial Market Responds to Environmental Challenges

The financial market, as an integral part of the economy, is also subject to the impact of ecological transformation. Numerous examples can be identified of financial institutions and instruments, whose operation and application have incorporated environmental criteria for many years (Dziawgo, 2024).

Financial institutions extensively report on their environmental protection activities through mandatory reports and disclosures, as well as through voluntary publications and communications (Dziawgo, 2019). The standard frameworks for sustainability data disclosure include GRI – Global Reporting Initiative and ESRS – European Sustainability Reporting Standards. In addition, communication channels such as public relations and investor relations are used. However, it is important to take into account the reliability and usefulness of the information being communicated (Ciechan-Kujawa *et al.*, 2024).

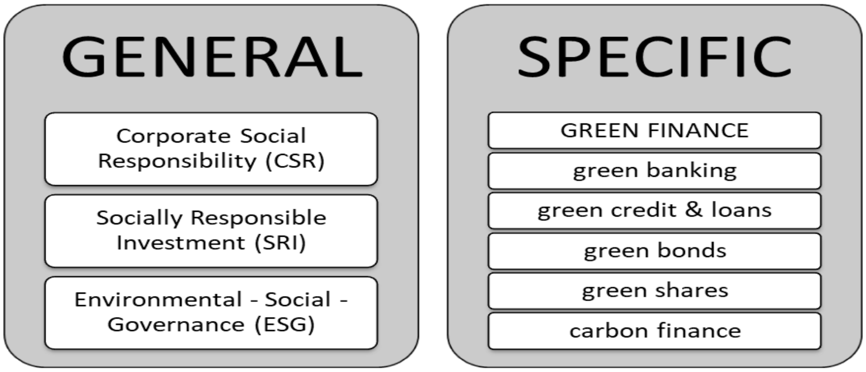
The ecological evolution of the financial market is also reflected in the increasingly widespread use of the following concepts:

- CSR Corporate Social Responsibility,
- SRI Socially Responsible Investment,
- ESG Environmental Social Governance.

Each of these terms contains a significant environmental component, and financial institutions consistently promote both their business activities and their business support efforts using the above concepts.

It is also worth pointing to additional concepts that, while more specific and narrower in scope, are therefore more concrete in their environmental relevance for the financial market. It is presented in Figure 1.

Figure 1. *General and specific concepts related to environmental protection criteria in economic activity, including in the financial market.*



Source: *Own elaboration.*

Regarding Figure 1, it should be noted that the term "Green Finance" is more general compared to the other concepts identified in the above figure as more specific. "Green Finance" refers to all financial transactions in which environmental quality criteria are taken into account. This encompasses the activities of financial institutions as well as other business entities and public institutions in connection with financial transactions of this character.

Financial instruments used in Green Finance transactions include, for example, bonds and shares issued by entities recognized as environmentally sustainable.

3. Green Finance

The concept of Green Finance is defined broadly and in diverse ways. Below are selected definitions provided by internationally recognized institutions:

Organisation for Economic Co-operation and Development (OECD): Green finance and investment means achieving economic growth, while reducing pollution and greenhouse gas emissions, minimising waste and improving efficiency in the use of natural resources (OECD, 2024).

UN ESCAP (United Nations Economic and Social Commission for Asia and the Pacific): Green finance describes broad range of funding for environment-oriented technologies, projects, industries or businesses. A more narrow definition of green finance refers to environment-oriented financial products or services, such as loans, credit cards, insurances or bonds. Green investing recognizes the value of the environment and its natural capital and seeks to improve human well-being and social equity while reducing environmental risks and improving ecological integrity (UN ESCAP, 2024).

UNEP: Green financing is to increase level of financial flows (from banking, micro-credit, insurance and investment) from public, private and non-profit sectors to sustainable development priorities. A key part of this is to better manage environmental and social risks, take up opportunities that bring both a decent rate of return and environmental benefit and deliver greater accountability (UNEP, 2024).

Pricewaterhouse Coopers Consultants: For the banking sector, green finance is defined as financial products and services, under the consideration of environmental factors throughout the lending decision making, ex-post monitoring and risk management processes, provided to promote environmentally responsible investments and stimulate low-carbon technologies, projects, industries and businesses (Pricewaterhouse, …, 2013).

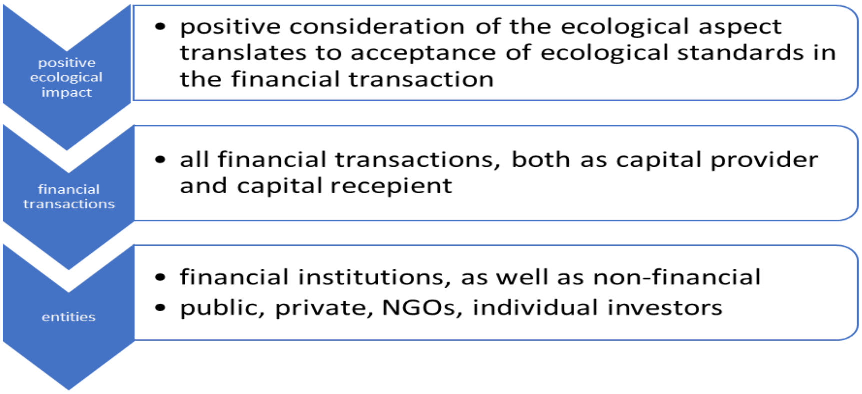
An analysis of the presented definitions reveals that their common feature is the emphasis on the link between financial transactions and environmental criteria. The definitions are formulated in either a broader or narrower context (sustainable development vs. environmental protection). They refer to sources of financing (public or private) as well as to financing objectives. Some of them also specify the financial instruments used to support such activities.

To summarize, taking into account the definitions of "Green Finance" presented above, as well as the author's own expertise and experience, "Green Finance" can be defined as:

any financial transactions that positively incorporate environmental considerations of the financed project.

The definition should be both adequate and comprehensive, while remaining as simple as possible. The proposed definition represents an attempt to concisely capture the specific nature of Green Finance. For a proper interpretation of the definition, it can be broken down into components, as illustrated in Figure 2.

Figure 2. *Components of proposed definition of Green Finance.*



Source: *Dziawgo and Barbača, 2025.*

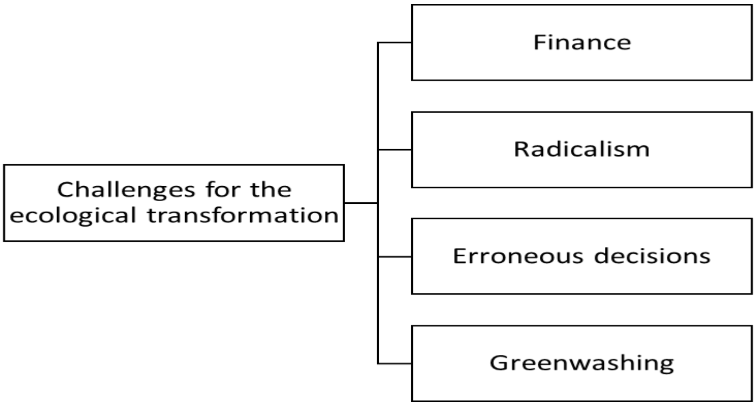
When discussing Figure 2, it should be emphasized that the term “positive consideration of the ecological aspect” refers to an adequate level of environmental standards. The phrase “all financial transactions” covers transactions conducted within the capital market, banking sector, insurance sector, and others, as well as those carried out by public institutions. Meanwhile, the expression “entities” includes financial institutions, non-financial institutions, public bodies (governmental and local), private actors, NGOs (non-governmental organizations), as well as institutional and individual investors.

4. Challenges to the Environmental Transition of Financial Markets

Challenges to the quality of the ecological transformation impact the entire economy, including the financial market. Four main causes of these challenges are identified and illustrated in Figure 3.

The laws of economics make finance one of the most significant challenges to ecological transformation. Maintaining efficiency in the revenue–cost relationship continues to pose a challenge for both business and public activities related to environmental protection. As emphasized, this applies to both public and private finance. It should be acknowledged that finding an equlibrium between financial and environmental efficiency will require time and prudence, regardless of the source of financing. A substantial experience has already shown that while simple economic calculation remains tempting, it appears to be an insufficient tool in the era of ecological transformation.

Figure 3. *Areas of challenges for the ecological transformation of the financial market.*



Source: *Own elaboration.*

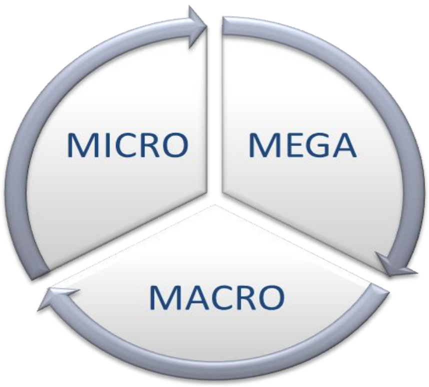
Naturally, in addition to expenditure and resulting efficiency, the acquisition of financing sources for ecological projects remains a key financial concern. Both private and public funds are inherently limited, which clearly presents a challenge for the scale, speed, and overall quality of the ecological transition.

When considering the threats to ecological transformation, one should also take into account the issue of ecological radicalism. Actions such as blocking streets, highways, and airports by environmental activists, as well as other controversial "happenings" organized by them, may discourage the public from supporting environmental protection efforts. This risk is real and significant. Terms such as "ecotyranny," "ecoterrorism," "ecoextremism," "ecologism," and even "economic suicide" can be encountered in this context.

There is, unfortunately, no shortage of international examples of ecological radicalism. It is debatable whether such methods of protest are sufficiently effective in building public support for the green transition. For radical environmental activists, the challenge remains to strike a balance in the form and scope of their actions so as to engage society constructively in the discourse on environmental protection.

A further risk to the success of ecological transformation is the adoption of erroneous environmental decisions. When such decisions are made by political actors, they may vary significantly in scale, both in terms of the regulatory scope they cover and the extent of their real-world consequences. A typology of environmental erroneous decisions based on their scope of influence is presented in Figure 4.

Figure 4. *Typology of environmental erroneous decisions based on their scope of influence.*



Source: *Own elaboration.*

The proposed classification can be simplified as follows: mega-level decisions impact several countries simultaneously (such as those within the EU under the European Green Deal); macro-level decisions pertain to national-level policies; and micro-level decisions apply to individual entities operating within a single country. Notably, a significant number of misguided decisions can be traced back to manifestations of ecological radicalism.

Greenwashing constitutes a particularly serious risk to the ecological transformation of both society and the economy, and will be examined in greater depth in the next section of this paper.

To conclude, the essential ecological transformation of both society and the economy must take into account the challenges previously identified. Undervaluing or disregarding these threats would, in itself, pose a significant risk to the integrity and effectiveness of the transformation process.

5. Greenwashing

Greenwashing is a significant challenge to the scope, pace, and quality of the ecological transformation of society and the economy, yet it is often underestimated. The exploitation of the naivety or lack of knowledge of public and private entities is not only unethical but also reprehensible. Tolerating such practices constitutes a form of discrimination against entities that are genuinely committed to environmental protection and bear the associated costs. Therefore, this is also a matter of fair and effective competitiveness in the economy.

There are many valuable definitions of the term Greenwashing. Below is one of the most important, defined by the UN:

The United Nations sees greenwashing as the deceptive tactics behind environmental claims. Greenwashing misleads the public to believe that an entity is doing more to protect the environment than it is. Greenwashing promotes false solutions that distract from and delay concrete and credible action (United Nations, 2024).

Dziawgo and Barbaca (2025), on the other hand, proposes the following definition of Greenwashing. An activity within the scope of marketing, public relations, and investor relations aimed at deliberately misleading consumers and investors into believing that the offered products and services meet an appropriate level of environmental quality (Dziawgo and Barbača, 2025).

The analysis of Greenwashing practices focuses on two key levels:

- the company level,
- the product or service level.

The first level of analysis concerns companies engaged in environmentally unethical practices despite their public declarations highlighting the importance of environmental issues.

The second level of analysis concerns products or services that are presented as environmentally friendly, while in reality they have a negative impact on the environment.

The common denominator of both levels is that the positive environmental effects are emphasized and publicly communicated, whereas the negative side effects are concealed.

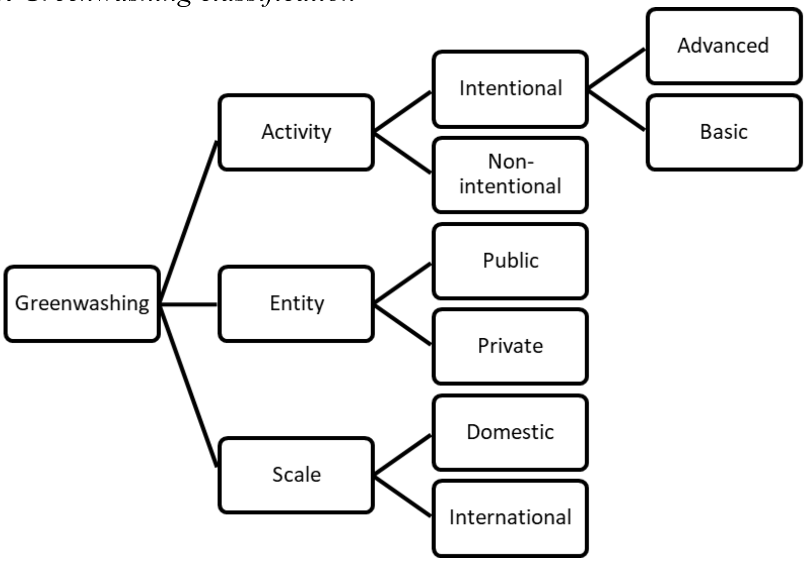
A similar approach to Greenwashing is confirmed by other studies on the main classifications of this phenomenon, in which two categories are identified: “claim greenwashing” and “executional greenwashing” (de Freitas Netto *et al.,* 2020).

“Claim greenwashing” refers to false or misleading statements made by companies about the environmental benefits of a product or service.

“Executional greenwashing”, on the other hand, refers to nature-evoking elements that, whether intentional or not, can create a false perception of the brand as environmentally friendly (Parguel *et al.,* 2015).

A classification of Greenwashing can be developed based on selected dimensions, which has been presented in the Figure 5.

Figure 5. *Greenwashing classification*



Source: *Own elaboration.*

In terms of activity, Greenwashing can be categorized as either intentional or non-intentional. Intentional Greenwashing occurs when the provider of a product/service intentionally seeks to mislead the customer about the environmental quality of the offering.

Non-intentional Greenwashing, on the other hand, takes place, when the provider lacks sufficient awareness or understanding of the environmental aspects of their own offer. In such cases, the provider may prematurely rely on the supposedly green credentials of their contractors or suppliers, and, based on these assumptions, offer products or services whose environmental quality has not been properly verified, thereby unintentionally perpetuating unsubstantiated claims throughout the transaction chain.

Regarding the criterion of the entity of Greenwashing actors, one can distinguish between public and private entities. Governmental and municipal institutions have to also be considered as potential sources of Greenwashing. Likewise, private entities, including commercial enterprises, may resort to such practices, viewing them as an inexpensive and effective means of attracting consumer attention.

The next criterion is the scale at which Greenwashing is implemented. It may be practiced on a national scale, for instance when a given entity conducts its business activities exclusively within one country. In contrast, in the case of international corporations, Greenwashing practices may occur simultaneously across multiple countries.

In summary, the consequences of Greenwashing are varied and represent a significant threat to the complex and demanding process of ecological transformation of society and the economy. Greenwashing undermines the entire concept of the green transition, misleads consumers, and erodes public trust in the authenticity of the environmental transformation process.

6. Greenwashing in EU Legislation

It should be noted, however, that Greenwashing is undergoing a radical transformation. Previously, it concerned only business entities and the misuse of a positive image – particularly in the environmental ("green") context. Such behavior was publicly criticized but rarely resulted in significant legal consequences.

Currently, Greenwashing has been addressed in EU legal regulations. As a result, various indicators and measurement tools are being developed to combat Greenwashing. Green communication, originally associated with management and marketing, is now expanding into the areas of accounting, reporting, and law. To better illustrate this phenomenon, several selected EU legal acts have been referenced, currently applicable to large entities, but with plans to extend their scope to smaller entities as well.

As of 2024, the CSRD Directive updates and expands the obligation (originally introduced in 2014) to regularly publish integrated reports that describe social and environmental risks, as well as the impact of an entity's activities on people and the environment.

The CSRD Directive mandates the use of ESRS standards and the EU taxonomy, and introduces the requirement for sustainability reporting to be audited by certified public auditors. Moreover, it imposes penalties for improper reporting, equivalent to those applicable to financial reporting. As a result, the significance of sustainability reports has been essentially equated with that of financial reports (CSRD, 2022).

ESRS – European Sustainability Reporting Standards – are new regulations and standards with which corporate green communication must comply. The expanded regulatory framework is intended to protect society from Greenwashing (ESRS, 2023). Following the International Financial Reporting Standards, business entities are now required to comply with a new set of reporting standards – this time in the area of sustainability (ESRS, 2023).

A taxonomy has also been established, which classifies economic and investment activities as either green or other. It defines, which business activities are considered environmentally sustainable. Regulation 2020/852 lays down the framework for sustainable investments (Sustainable investment framework, 2020).

It is complemented by Regulation 2021/2178, which specifies the content and presentation of information related to environmentally sustainable economic activities. This regulation establishes Key Performance Indicators (KPIs) for various types of business activities (Content and presentation of information, 2021).

In 2026, a directive is also set to enter into force with the aim of protecting consumers by eliminating misleading environmental claims and misleading information about the social characteristics of products or traders' business practices. The directive adds Greenwashing to the list of commercial practices that are prohibited under all circumstances (Greenwashing Directive, 2024).

Also under the legislative procedure is the Green Claims Directive, which introduces the requirement to communicate explicit environmental claims in the form of green statements (Green Claims Directive, 2023).

The Corporate Sustainability Due Diligence Directive (CSDDD, 2024) also introduces new obligations. It imposes legal responsibility on business entities for human rights and environmental violations within their supply chains. Companies will be required to implement due diligence procedures across all ESG areas, including environmental responsibility, pollution prevention, and biodiversity protection.

The wave of regulations aimed at combating Greenwashing has recently been somewhat slowed. In April 2025, the European Parliament adopted an omnibus measure that delays the implementation of green reporting obligations (the so-called StopTheClock mechanism). However, it appears that this delay is only temporary, and the announced simplifications may prove to be limited in scope (Omnibus, 2025).

7. Conclusions

The ecological transformation of the economy and society is ongoing. While the concepts of CSR, SRI, and ESG are referenced in this study, it focuses on the "E" component. At a more detailed level, the analysis centers on the concepts of Green Finance and Greenwashing, which are essential for understanding the subject and the quality of the ecological transformation.

The recommendations should emphasize the importance of supporting the ecological transformation while also recognizing and addressing the risk of Greenwashing.

In the context of the legal regulations implemented within the European Union to counteract Greenwashing, certain doubts must nevertheless be raised. Several questions arise:

Is this the kind of Green Deal we truly want?

Does the fight against Greenwashing genuinely require such significant attention from EU regulators?

Is it necessary to impose so many detailed disclosure obligations on entities in an era of intense international economic competition?

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