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Definition, Causes and Solution Approach of Greenwash in ESG Regulation

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Abstract: The rapid growth of ESG has generated substantial green premiums, incentivizing policy support and capital flows, yet greenwashing risks undermine market integrity. Causes include two key issues. First, regulatory frameworks are flawed: global disclosure standards vary widely, industry-specific criteria conflict, rating systems are fragmented, and enforcement lacks rigor (e.g., low third-party audit rates and unbalanced penalties). Second, legal liabilities are inadequately designed: civil compensation faces high proof barriers and absent class-action mechanisms; administrative penalties are insufficient; and criminal liability thresholds remain too high. Solutions require a multi-layered approach: strengthening civil liability via reverse burden of proof and class-action funds; enhancing administrative deterrence through higher fines and dynamic penalty tracking; and exploring criminal liability for severe violations. Internationally, efforts should focus on harmonizing regulatory frameworks under ISSB guidelines as a global minimum standard, establishing cross-border accountability via information-sharing and joint enforcement, and using economic leverage to encourage compliance. This integrated strategy aims to address regulatory arbitrage and foster genuine ESG practices.

Keywords: Greenwash; REGULATORY framework; Legal liability; Cross-border recourse.

1. Raising the Issue: Background on ESG Development and Greenwashing

The green premium generated by ESG development has shifted from policy-driven in the early days to policy- and market-driven. Through substantial ESG transformation, enterprises can not only obtain direct economic benefits such as tax breaks and low-interest loans, but also build long-term competitiveness through supply chain optimization, brand value enhancement, and technological innovation. In the future, with the ISSB global disclosure standards, the normalization of carbon tariffs and the deepening of consumer awareness, the green premium will be further concentrated in "deep green" enterprises, forming a virtuous cycle. In the face of the green premium in the ESG development process, companies are inclined to shape their image through superficial environmental initiatives in order to obtain low-cost financing, boost share prices or cater to consumer preferences. For example, Deutsche Wirtschaftsprüfungsgesellschaft (DWS) was ultimately fined €25 million by German regulators in 2021 for claiming that $900 billion in assets were ESG-compliant when only $115 billion were actually in compliance. Such "compliance arbitrage" is essentially taking advantage of regulatory loopholes in the early stages of ESG development.

The relationship between ESG development and greenwash is essentially a game between the concept of sustainable development and short-sighted commercial behavior. The existence of greenwash exposes the loopholes in the ESG framework, but it may also lead to the improvement of regulatory, technological and market mechanisms. This paper focuses on how to define the nature of greenwash, regulate the legal responsibility of greenwash, and propose a reasonable regulatory framework, as discussed at.

1.1. ESG Trends and the Green Premium

By 2025, global ESG investments are projected to reach $53 trillion, representing one third of global asset management. Of this, sustainable funds will amount to around $3.2 trillion at the end of 2024, with Europe leading the way with $2.6 trillion, followed by the US ($344 billion) and Asia ($74 billion) [1]. There is also a trend towards diversification in the types of ESG investments, i.e. from "risk aversion" to "active value creation", with investors choosing either a single or a combination of strategies based on their own objectives (financial return, social responsibility, risk control). With the tightening of global ESG regulation (e.g. EU CSRD, US SEC Climate Disclosure Rule), ESG integration and active ownership are becoming mainstream, driving capital flows towards sustainability.

Among the different types of ESG investments, green bonds, sustainable funds, and private equity are more prominent, of which green bonds in the first half of 2024 global issuance amounted to 356 billion U.S. dollars, and the whole year is expected to exceed 800 billion U.S. dollars, of which the proportion of sovereign green bonds to 40% (such as 9 billion euros in Italy and 12 billion U.S. dollars in Japan). China's green bond issuance scale increased by 53.4% year-on-year, and the interest rate of Xiamen Bank's 3 billion yuan green bond is only 1.90%. In terms of sustainable funds, global ESG fund assets reached $3.3 trillion in Q3 2024, with Europe accounting for 84% and Asia rising from 5% to 10%. China's ESG thematic fund size has recovered to RMB 223.5 billion, up 14.8% from 2023. In terms of private equity, the global ESG private equity transaction volume will exceed $200 billion in 2024, with a focus on renewable energy (e.g., hydrogen) and circular economy. the green premium generated by ESG development is reflected in multiple dimensions, such as policy support, financial inclination, market access, and brand value enhancement, and the core is to transform environmental and social responsibility into economic gains through institutional design and market

mechanism.

In terms of policy support, ESG investments can receive relevant tax incentives. For example, China exempts new energy vehicles from vehicle purchase tax (up to RMB 30,000 per vehicle in 2024-2025) and guides companies to reduce emissions through green taxes such as environmental protection tax and resource tax. The European Union provides R&D subsidies to companies that comply with the Green Transition Directive, and Germany offers a 15% investment tax credit for renewable energy projects. ESG investments are also tilted in favor of corresponding industrial policies; for example, the U.S. Inflation Reduction Act (IRA) provides $369 billion in subsidies for clean energy projects, and Tesla receives a $7,500 tax credit for each qualifying electric vehicle. China offers a 150% pre-tax deduction for green technology R&D, and tax breaks for high-tech enterprises will exceed RMB 2.5 trillion in 2023.

In terms of financial support, ESG investments have the advantage of low-cost financing and diversified capital support. For example, in the field of bond financing, taking ESG-featured green bonds and carbon-neutral bonds as an example, the scale of China's green bond issuance in the first quarter of 2025 amounted to RMB 175.67 billion, an increase of 53.4% year-on-year, and 64% of the green bonds were issued at an interest rate lower than that of ordinary bonds. The coupon rate of the 3 billion yuan green financial bond issued by Xiamen Bank was only 1.90%, significantly lower than that of corporate bonds in the same period; China launched "carbon neutral bonds" and "transition-linked bonds", and the scale of transition bond issuance in the first quarter of 2025 increased by 4.6% year-on-year. The EU allows companies to attract cross-border capital by issuing "double green bonds" (meeting both EU and China standards).

In addition to this, premium ratings on share prices can give ESG-invested companies a valuation boost, which can also lead to advantages in terms of the cost of corporate credit. For example, Nestlé, which had its credit rating upgraded to AAA by S&P in 2019 for reducing plastic packaging (environmental), improving supply chain labor standards (social) and enhancing board diversity (governance), is saving tens of millions of dollars in interest annually by lowering the interest rate on its bond offerings by about 0.5 percentage points compared to the pre-ratings upgrade period. Tesla, Inc.'s strengths in electric vehicle technology (environmental) and innovative governance, despite controversy, led to an upgrade of its 2020 junk bond rating to investment grade (BBB-) and a subsequent reduction in the interest rate on its bond issuance to 3.25% from the previous 6%, reflecting the expected credit risk mitigating effect of ESG.

1.2. Definition and Forms of the Green Drift Problem

Under the trend of expanding scale and diversifying types of ESG investments, market fraudulent behaviors are common in order to obtain a green premium. Such behavior not only undermines investor trust, but also may lead to legal risks and ultimately lead to share price volatility and brand reputation collapse in the investment market, i.e., green drift behavior. For example, BP rebranded itself as "Beyond Petroleum" and claimed to be transforming into a renewable energy company, but it still plans to develop the Kirkuk oil field in Iraq by 2024, and carbon emissions from its refining business have not dropped significantly. Investors have questioned the sincerity of the transition, and the stock price has lagged behind peers, criticized as "using public relations to mask fossil fuel dependence.

Greenwashing refers to the behavior of companies or organizations in ESG investments that portray an environmentally friendly or sustainable image through exaggerated, false, or misleading publicity, while their actual actions are seriously out of step with their declared ESG objectives. In terms of manifestation, there are three types of greenwash behavior. One is vague or misleading statements, such as the use of terms that lack clear definitions, such as "natural" and "sustainable". Or exaggerating a company's commitment to future operational goals, such as setting distant emission reduction targets (e.g., "net-zero emissions by 2050") without a medium-term implementation plan. The second type is data falsification and certification fraud, such as faking third-party certifications: using labels such as "China Environmental Labeling" when they are not certified. For example, a printing company was fined 200,000 RMB by the market regulator for falsely advertising "green printing products". Selective disclosure of data, showing only ESG indicators that are favorable to the company. For example, a car company emphasized the growth of electric vehicle sales in its report, but hid the fact that carbon emissions from fuel vehicles exceeded the standard. The third type is financial arbitrage through financial instruments to circumvent regulatory policies. For example, after obtaining low-cost funds by issuing green bonds or applying for green credits, an enterprise actually invests the funds in high-pollution and high-energy-consumption projects. For example, the green energy subsidiary of India's Adani Group used green financing funds for the Carmichael coal project in Australia, which led the Norwegian pension fund KLP to sell its shares [2].

2. Causes of the Greenwash Problem Under the ESG Regulatory Framework

A considerable number of greenwash problems worldwide are not only detrimental to the long-term development of enterprises, but also undermine the overall investment order of ESG investments, and the regulatory arbitrage and market frauds brought about by greenwash behavior also damage the interests of market investors to a large extent, which requires a careful analysis of its causes. The current situation of the greenwash problem is mainly composed of two reasons, the first is that there are problems in the regulatory framework itself, which makes there are a lot of loopholes in the regulation, so that regulatory arbitrage behaviors continue to appear, and the second is that the corresponding legal responsibility regulation of greenwash behavior is not in place, resulting in low cost of violation of the law.

2.1. Deficiencies in the Regulatory Framework

The regulatory framework for ESG has its own systemic problems of fragmented rules and weak enforcement. The global ESG disclosure framework is "divided". The European Union's Corporate Sustainability Reporting Directive (CSRD) requires "dual materiality" disclosure (i.e., the impact of the enterprise on the social environment and the impact of the social environment on the enterprise), while the U.S. SEC focuses on "financial materiality" (the impact of environmental factors on the enterprise's finances), and China adopts "environmental materiality" (the impact of

environmental factors on the enterprise's finances). (the impact of environmental factors on a firm's finances), while China adopts a "tiered and mandatory" standard. This difference leads to regulatory arbitrage by multinational enterprises by choosing low standard jurisdictions [3].

In addition, there are conflicting ESG standards for different industries. For example, there are significant differences in the definition of "transitional green energy" in the energy sector, with the European Union classifying natural gas as a "transitional energy" and China focusing on renewable energy installations, leading to conceptualization and packaging by energy companies to avoid regulation. While the International Sustainability Standards Board (ISSB) promotes the global harmonization of standards, regional rules remain highly barricaded and lack the impetus and space for external harmonization.

Finally, the rating system is fragmented. More than 600 ESG rating agencies around the world use more than 1,200 different indicators, and there is no uniform rule for weight allocation, which may ultimately lead to a wide range of rating results for the same company: Tesla received a "BBB" (below the industry median) in the MSCI ESG rating, but was categorized as "high risk" in the RepRisk rating due to the "data privacy controversy", while Robeco SAM gave it a "platinum rating" for its innovation ability, with a divergence rate of up to 10 percent. Tesla is rated "BBB" by MSCI ESG (below the industry median), but "High Risk" by RepRisk for "Data Privacy Controversy," while Robeco SAM assigns it a "Platinum" rating for innovation, a 67% divergence.

From the perspective of enforcement of the regulatory framework, there are also many serious problems. While mandatory forensics is an important trend in ESG regulation, the third-party forensics rate of global ESG reports is less than 30%, and the lack of mandatory forensics has led to low credibility of the data, making regulatory enforcement virtually non-existent. In addition, the imbalance of punishment and the lack of uniformity in punishment standards have also led to a significant reduction in the regulation of greenwashing. For example, in the EU, greenwashing companies can be fined up to 4% of revenue, but in China, the fine only accounts for 0.03% of revenue, so the cost of violating the law is seriously inversely proportional to the revenue.

2.2. The Design of Legal Liability Does Not Allow for The Implementation of Regulatory Effects

Greenwashing generally involves three types of liability, civil, administrative and criminal.

Civil liability, involving dual recourse for consumers and investors. Companies misleading consumers through false environmental statements may violate the Advertising Law and the Consumer Protection Law. If a company discloses false information about ESG in the securities market, it may constitute securities misrepresentation liability. For example, a listed company that conceals environmental violations or fictionalizes green performance in an ESG report may trigger civil damages under the Securities Law. [4] For example, Jiangsu Huifeng Bio was sued by 230 investors for inaccurate disclosure of environmental information, and ultimately paid compensation of RMB 87.19 million.146 The SEC's decision in the case of Valeant Bio was a major step forward. The U.S. SEC found in the Vale case that the concealment of tailings dam safety risks constituted a "material misrepresentation", and initiated cross-border recourse accordingly. In addition, companies that violate environmental commitments in green bonds and supply chain agreements may face litigation for breach of contract.

Administrative liability, which involves multiple controls and penalties by regulators. In the area of financial regulation, greenwash involving administrative liability includes ESG investment product misrepresentation, such that financial institutions face securities regulatory penalties if they exaggerate ESG investment capabilities or falsely advertise product attributes. For example, the U.S. SEC fined The Bank of New York Mellon $1.5 million, for claiming that "all assets were analyzed for ESG" but not actually doing so. In addition, the misappropriation of green bond funds to create illegal arbitrage can also face regulatory penalties. In addition, ESG rating manipulation, such as companies boosting their ratings through "metrics arbitrage," will also be dealt with severely by regulators.

Criminal liability, including corporate liability and liability of corporate members. For example, enterprises evading regulation by tampering with monitoring data and discharging pollutants clandestinely may constitute the crime of polluting the environment. Directors and executives may be held liable for breaching their duty of diligence if they are involved in decision-making on greenwashing.

There are obvious problems with the current design of legal liability. The burden of proof for civil damages is heavy and the cost of defending rights is good. Investors need to prove that "green-drifting behavior directly caused the loss of their investment," but the impact of ESG factors on share prices is difficult to quantify. For example, the plaintiffs in an ESG fund lawsuit in the United States 2024 were ultimately forced to withdraw their lawsuit because they were unable to distinguish between the overall volatility of the market and the specific impact of green-drifting behavior. In addition, because corporate greenwash is a complex operation, it is sometimes difficult for individuals to defend their rights, and the lack of a class action mechanism also makes the legal responsibility for ESG greenwash lack strength in the pursuit process. The penalty for administrative liability is not strong enough, and the amount of fine is far lower than the illegal gain, for example, the EU Sustainable Financial Disclosure Regulation (SFDR) stipulates that the penalty amount is to be carried out by the corresponding provisions of the domestic laws of each member state, and in actual implementation, it is mostly 0.1%-0.5%, and this discounted penalty makes the deterrent effect of administrative liability limited, and cannot prevent enterprises from engaging in the bleaching behavior for the sake of profit. [5] The threshold for criminal liability is too high, and the pursuit of criminal liability for individual corporate management is a mere formality. Globally, there are only a handful of cases of criminal liability for ESG greenwash, mainly because it is difficult to criminalize ESG-related behaviors in terms of criminal legislation.

3. Directions for Institutionalization to Address the Problem of Greenwash

3.1. Raise the Cost of Violating the Law and Build a Pluralistic Responsibility System

To address the problem of inadequate legal responsibility, the different types of legal responsibility should be upgraded, and a hierarchical system of multiple responsibilities should be constructed.

In terms of civil liability, conditions should be put in place to introduce a system of reversal of the burden of proof for enterprises and a group litigation fund to reduce the cost and difficulty of investors in pursuing liability. For example, reference can be made to the EU's Digital Marketplace Act, which requires enterprises to self-certify the authenticity of ESG information; an "investor protection fund" can also be piloted, whereby the regulator advances litigation costs, which are deducted from the compensation payment after winning the case.

In terms of administrative liability, the upper limit of monetary penalties should be raised to increase the cost of violating the law. For example, reference can be made to the U.S. Dodd-Frank Act, which imposes a fine of 2-3 times the illegal income for intentional greenwashing; the EU can refer to the GDPR rules to raise the upper limit of the fine to 4% of the turnover. [6] In addition, a dynamic penalty tracking system for ESG greenwash should be established. For example, the U.S. SEC pays constant attention to the ESG disclosure of market participants, conducts timely investigations into emerging issues, and adopts a variety of penalties, including fines, rectification orders, and market bans, depending on the severity of the violation. At present, the dynamic penalty tracking system for ESG bleaching is still in the stage of continuous development and improvement globally.

In terms of criminal liability, after sufficient argumentation, one can choose to include consideration of ESG violations in certain criminal offenses and clarify the personal liability of management, for example, in China's criminal law, appropriate consideration can be given to whether the seriousness of disclosure of ESG violations is incriminated in the crime of violation of disclosure and non-disclosure of important information.

3.2. Build Cross-Border Accountability Mechanisms to Further Harmonize Regulatory Frameworks for Global Collaboration

Efforts should be made to build a "regulatory arms-length" collaborative network and set up a cross-border regulatory information-sharing platform. Led by the International Organization of Securities Commissions (IOSCO) and the Organization for Economic Co-operation and Development (OECD), the platform should establish a data exchange mechanism among national regulators, allowing member states to access ESG-related books, contracts, audit reports, and other documents of third-country firms (subject to confidentiality agreements). For example, EU regulators can use the platform to access the carbon emissions data of a Chinese supplier to verify the authenticity of its ESG declarations to EU customers.

In addition, in terms of international law enforcement cooperation and coordination, a mechanism for joint law enforcement and mutual recognition of penalties should be constructed, and bilateral or multilateral agreements should be signed to recognize the legal effect of the penalty decisions of other countries. For example, the U.S. SEC can directly enforce the European Union's greenwash fines against a multinational corporation, or assist in enforcement through measures such as asset freezing and prohibiting market access, so as to prevent enterprises from utilizing jurisdictional loopholes to evade their responsibilities [7].

In addition, to address the inconsistencies and contradictions in the standards of regulatory frameworks, the ISSB Guidelines can be promoted as a "global minimum standard" based on mutual trust to promote the "smallest common denominator" of consensus among countries globally, and through international treaties to enhance the binding nature of the Guidelines and emphasize the legal space for cooperation among countries on this basis. The ISSB Guidelines can be promoted as a "global minimum standard", and the binding force of the Guidelines can be enhanced through international treaties, and the legal space for cooperation among countries can be emphasized on this basis. For example, under the G20, APEC, and other frameworks, countries can be pushed to commit to adopting the ISSB Guidelines as the basis of their domestic laws, while at the same time allowing them to add more stringent regional rules (e.g., the EU's CSDDD, China's ESG guidelines on disclosure of information). For countries that do not comply with the minimum standards, economic pressure can be exerted through additional clauses in trade agreements (e.g., the Carbon Border Adjustment Mechanism (CBAM)) to force them to upgrade their.

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[4] Article 85 of the Securities Law of the People's Republic of China stipulates that if the information disclosure obligor fails to disclose information in accordance with the regulations, or if there are false records, misleading statements or material omissions in the securities issuance documents, periodical reports, interim reports and other information disclosure materials, resulting in the investor's loss in securities transactions, the information disclosure obligor shall bear the responsibility for compensation; and the issuer's controlling shareholders, actual controllers, directors, supervisors, senior management and other directly responsible persons of the issuer, as well as the sponsor, the underwriting securities company and its directly responsible persons, shall be jointly and severally liable with the issuer, unless they can prove that they are not at fault.

[5] Article 45 of the SFDR (Administrative sanctions) only authorizes EU member state regulators to impose administrative sanctions for non-compliance, but does not directly set the percentage of fines. The French AMF fines financial institutions up to €15 million or 1.5% of the previous year's global turnover, whichever is higher, for SFDR violations; the German BaFin fines are capped at €5 million (as the SFDR does not oblige member states to adopt a turnover ratio).

[6] In accordance with Article 83 of the General Data Protection Regulation (GDPR), administrative fines are divided into two tiers of infringement, with clear ceilings linked to the company's global turnover, up to a maximum of 2% of turnover or €10 million for a Tier 1 infringement, and up to a maximum of 4% of turnover or €20 million for a Tier 2 infringement.

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