

ESG Manipulation and the Accuracy of Risk Identification in Financial Institutions

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Abstract. In recent years, with the increasing influence of ESG letter disclosure in financial decision-making, the issue of its authenticity and reliability has gradually become the focus of research and regulatory attention. In order to gain reputational advantage or financing convenience, some companies choose to shape their "green" image by modifying or exaggerating their ESG performance. Such practices, also known as "greenwashing," not only undermine information transparency in financial markets, but also interfere with the judgments of investors and regulators in identifying risks. Based on the theory of information economics, this paper focuses on two key issues in ESG information processing: asymmetric information and agency conflict. It also analyzes how external factors such as institutional environment, regulatory policy and market pressure affect the quality of ESG information. Through the collation and comparison of the existing literature, this paper points out that information manipulation misleads the market participants' understanding of the real situation of the enterprise, which leads to the systematic underestimation of the risk assessment results. To improve the authenticity and verifiability of ESG information, this paper puts forward three policy recommendations, which can help financial institutions enhance the accuracy of risk identification and foster a sustainable investment environment.

Keywords: ESG Information, Greenwashing, Risk Identification, Financial Institutions, Information Asymmetry

1. Introduction

ESG factors have gradually become an indispensable analytical dimension in the financial system. More and more financial institutions incorporate ESG performance into their investment strategies and risk management processes, hoping to identify potential risks through non-financial information. However, with the expansion of the scope of ESG disclosure, the problem of information distortion has become increasingly prominent. Some businesses have a tendency to present a positive picture of sustainability through selective disclosure or data exaggeration in order to facilitate financing. This "greenwashing" phenomenon weakens the signaling function of the market and makes it possible for investors and regulators to be biased in their risk judgments.

From the corporate perspective, a good ESG rating can bring economic benefits, including lower financing costs, improved market reputation and increased investor trust. As a result, some

companies have an incentive to actively manipulate or modify disclosure data. From the market point of view, the rapid growth of demand for sustainable investment further promotes the pursuit of "high ESG scores," stimulating corporate strategic behavior in disclosure. From a regulatory perspective, the current standard system still have gaps. Differences in indicators between different rating agencies and inadequate audit mechanisms leave room for enterprises to greenwash.

For financial institutions, accurately identifying risk is a core job. If risk assessment is based on distorted ESG data, it will not only affect the investment and credit decisions of institutions but also lead to misallocation and systemic risk. The manipulation of ESG information weakens the ability of financial institutions to distinguish between real sustainable practices and symbolic disclosures, potentially threatening the stability of the financial system.

This paper analyzes the impact of ESG information manipulation on the risk identification ability of financial institutions. The study explores the role of information asymmetries, proxy conflicts, and institutional environments in ESG manipulation from theoretical foundations, influence mechanisms and regional differences. It also makes policy recommendations for improving information transparency and regulatory mechanisms. It provides practical reference for financial institutions to foster ESG risk management and regulators to formulate anti-greenwashing policies.

2. Base theory structure

In ESG disclosure, companies possess more internal information than external investors and institutions. They tend to highlight positive content and weaken negative performance to shape a good corporate image. As ESG reports are voluntarily disclosed and lack verification mechanisms, external institutions cannot easily judge the authenticity and integrity of disclosure information. Information asymmetry weakens the basis of risk identification, which may lead financial institutions to overestimate corporate sustainability in credit assessment and granting decisions.

Agency problem is a key perspective to interpret ESG information manipulation. There are interest conflicts between management, shareholders and creditors, and managers' short-term interests are inconsistent with the long-term sustainable development goals of enterprises. Previous studies have shown that high cash compensation ratios are positively associated with greenwashing behavior, and equity incentives help mitigate this tendency to manipulate [1]. If financial institutions cannot identify management's strategic disclosure, the evaluation model will produce systematic bias and cause distorted risk pricing. Thus, agency conflict acts as an important bridge between ESG information manipulation and risk identification bias.

Corporate behaviors are restricted by institutional and regulatory environments. The perfection of external systems and supervision intensity affect the possibility of corporate ESG manipulation. Sound institutional environment and strict law enforcement will increase the cost of false disclosure, while loose regulation allows enterprises to meet requirements only through formal disclosure. Social opinion and media supervision also raise corporate reputational risk, prompting enterprises to adopt "symbolic compliance" instead of improving practical sustainable performance [2, 3]. Symbolic disclosure conceals corporate internal problems and easily causes misjudgment by financial institutions. Under imperfect institutional conditions, financial institutions cannot effectively distinguish real performance improvement from superficial compliance, which weakens their risk identification and pricing ability.

3. Influence analysis

3.1. Internal and governance drivers

First, there is a strong correlation between information manipulation and managerial incentives. Instead of making significant improvements, CEO compensation that is overly dependent on immediate success indicators may tend to enhance market values by fabricating or exaggerating ESG data. Empirical studies have shown that cash-based executive incentives are more likely to trigger greenhouse gases, while equity-based incentives help to motivate management to focus on long-term sustainability goals [1]. This suggests that the design of incentives within an enterprise not only affects management behavior, but also indirectly affects the financial institution's judgment of risk.

Second, the independence of disclosure is also influenced by a company's connection with a bank. It is found that if there is a non-credit relationship between banks and firms, such as cross-ownership or executive roles, firms are more likely to selectively disclose favorable information to maintain financing facilities [4]. These "relational disclosures" make it easier for banks to underestimate the possible dangers of borrowers in their credit evaluations, undermining their independent judgment. The accuracy of financial organizations' risk modeling and credit decision-making may be directly impacted by this information distortion.

In addition, the structure of the board and the effectiveness of the oversight of independent directors are important factors in internal governance. When a board lacks independence or oversight mechanisms are empty, it is easier for management to manipulate information. On the other hand, boards with a high level of independence and professionalism can reduce the occurrence of greenwashing to some extent.

3.2. External market signals

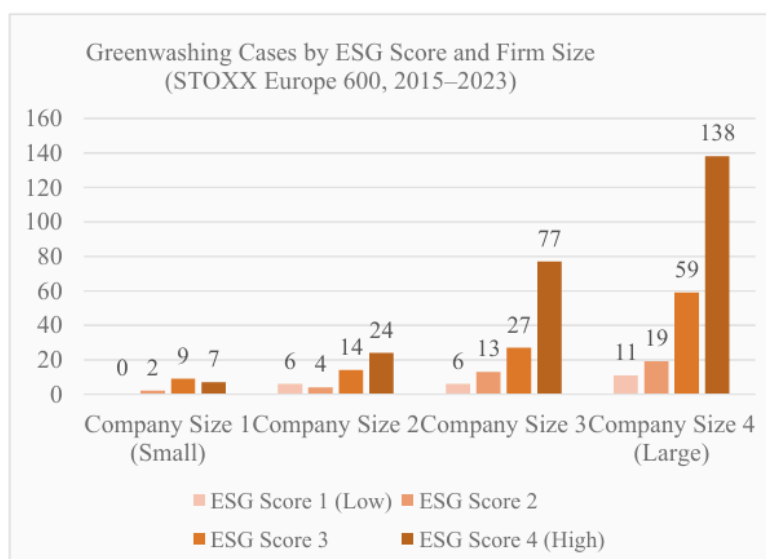


Figure 1. Greenwashing cases by ESG score and firm size

External market signals also significantly influence ESG manipulation. One major issue is that existing ESG rating systems tend to reflect a firm's level of disclosure more than actual performance [5]. Consequently, businesses can get a higher rating simply by "looking better" in the way their

information is presented, without having to pay a substantial improvement cost. As a result, large enterprises with higher ratings have become a high percentage of greenwashing.

Figure 1 shows that this rating bias not only misleads investors but also causes financial institutions to face a "double bias" when they rely on ESG scores for risk assessment: on the one hand, they overestimate the sustainability of companies with high scores and ignore the potential for improvement of companies with low scores on the other. In the long run, such systemic biases can lead to a decrease in the efficiency of capital allocation and even a combination of environmental and credit risks.

The study also found that investor behavior was similarly affected by distorted information. Although investors are generally aware of the financial implications of climate risk [6]. However, if the ESG data upon which it is based is manipulated, the portfolio may still contain high-risk companies. Misperceptions of risk can reduce market discipline and weaken investors' commitment to unsustainable behavior, leading to further distortions of market signals.

3.3. Environmental risk responses



Figure 2. Annual number of greenwashing cases in the STOXX Europe 600

As shown in Figure 2, greenwashing cases in the STOXX Europe 600 rose continuously from 18 in 2015 to a peak of 94 in 2021, then fell to 87 in 2022 and dropped sharply to 29 in 2023. This decline reflects the restraining effect of strict EU regulatory policies.

Meanwhile, financial organizations' capacity to adapt to environmental hazards is weakened by ESG manipulation. Financial institutions find it challenging to promptly detect possible cash flow volatility and asset value fall threats when businesses conceal environmental vulnerabilities in their disclosures.

For instance, studies reveal that environmental factors, such as air pollution, have a substantial impact on the need from consumers; in China, movie attendance dramatically decreases during times of high pollution [7]. Financial institutions' risk models will be unable to appropriately evaluate shifts in corporate income and debt service capacity if businesses conceal such exposures through misleading declarations, leading to a systemic undervaluation of credit risk.

In spite of the current decrease, greenwashing is still a problem. According to the data, it is still high generally even though it marginally decreased in 2023 [5]. This implies that ESG manipulation has developed from individual behavior to a structural issue, and its continued existence makes it difficult for financial institutions to identify risks.

4. Regional differences

The regulatory framework and ESG disclosure mechanism are comparatively developed in industrialized economies. However, greenwashing is still prevalent as businesses take advantage of flaws in reporting structures by using symbolic language or presenting data selectively. This suggests that independent third-party audits and enforcement are more important to the efficacy of regulations than just formal regulations. Emerging markets, on the other hand, have lagged in terms of ESG disclosure, have insufficient regulatory frameworks, and have few penalties. As a result, it is simpler for businesses to comply with formal disclosure requirements, such as relying too heavily on policy slogans and qualitative descriptions rather than verifiable quantitative data. Strong non-credit ties between banks and businesses raise the risk of greenwashing in the Chinese market, according to research, while wider analyst coverage can successfully lower it [4].

Cultural and social factors also influence the practice of "greenwashing". Increased public concern about corporate social responsibility may prompt companies to make symbolic environmental or social disclosures in an effort to meet public expectations. The lack of transparent verification mechanisms further exacerbates information asymmetry and undermines the quality of financial institutions' judgments. Overall, both mature and emerging markets show that transparency and external supervision have been shown to be crucial in curbing the manipulation of ESG information.

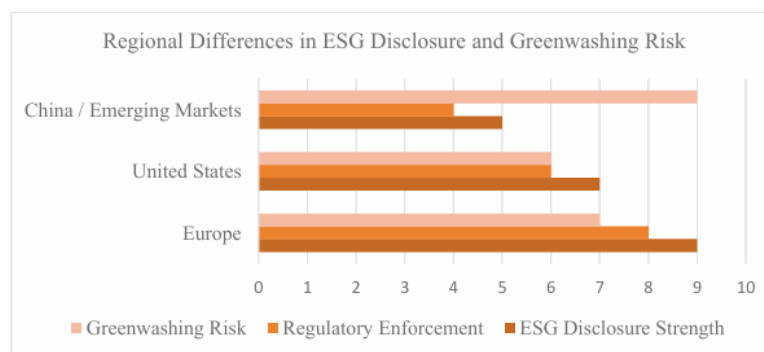


Figure 3. Regional differences in ESG disclosure and greenwashing risk

Figure 3 illustrates that there are significant variations in the level of standardization of ESG disclosures across different regions, along with the risk of "greenwashing". The disclosure standards in the European market are relatively high, but manipulation is still not completely avoided. Emerging economies face more concentrated risks due to weak regulatory frameworks and insufficient data verification. This shows that relying on a single regulatory approach is insufficient to eradicate "greenwashing". Instead, effective governance requires the long-term integration of regulatory, auditing, and market mechanisms [8].

5. Suggestions

Regulatory authorities should establish a unified, transparent and highly enforceable ESG disclosure framework. The advantage of this is that it can standardize domestic and foreign measures, clarify the indicator system and disclosure standards, and reduce the arbitrariness of enterprises when choosing disclosure content. Furthermore, the regulatory authorities need to strengthen the legal binding force on false disclosure and even implement multi-dimensional control over misleading acts of intentional fraud to increase the cost of violation. Most importantly, regulators need to

promote the construction of ESG information sharing platforms, with the aim of improving the efficiency of information verification by financial institutions and reducing the costs of repeated disclosures.

From an enterprise perspective, as an important part of ESG disclosure information, optimization of internal governance and strengthening of incentive mechanisms should be prioritized as means to reduce the occurrence of such phenomena. Sustainable development data should be used as one aspect of management performance evaluation. The compensation structure should focus on long-term value creation rather than short-term financial indicators, thereby contributing to enhancing the authenticity and consistency of the disclosures [1]. In addition, enterprises can also introduce a third-party audit mechanism to enhance the credibility of reports and strengthen communication with stakeholders, so as to establish good public trust. and promote the development of sustainable practices.

Financial institutions can reduce the dependence on external ESG ratings as much as possible by creating an independent assessment system containing internal models and relevant operational data. This shows that institutions need to develop relevant expertise through dedicated teams, improve risk assessment methods, and strengthen the data verification process. Additionally, cooperation with regulatory and academic partners is crucial for the development of customized risk identification tools and standardized databases, which helps to improve model accuracy and reduce the impact of greenwashing on market stability.

Social oversight by the public, media, and NGOs fills regulatory blind spots and creates reputational pressure to improve disclosure authenticity [2]. All in all, preventing ESG manipulation demands multi-party coordination to build a credible information system and improve market robustness.

6. Conclusion

This paper analyzes the impact of ESG information manipulation on the risk identification capability of financial institutions. The study finds that ESG information distortion not only reduces overall market transparency but also leads to systemic biases in financial institutions' risk identification, credit pricing and capital allocation decisions. The root causes of ESG manipulation mainly stem from three aspects: information asymmetry, agency conflicts and institutional environment limitations. These factors interact with each other, resulting in a decline in the accuracy of financial institutions' risk judgments when relying on ESG data.

This study enriches the theoretical research on ESG information quality and financial risk management, and provides targeted practical guidance for regulators, enterprises and financial institutions to address greenwashing behaviors. By proposing multi-level countermeasures from institutional design, corporate governance, internal risk control and social supervision, the study aims to promote the authenticity of ESG disclosure, improve the risk pricing efficiency of financial institutions, and support the healthy and stable development of sustainable finance.

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