Frontiers in Economics and Management Volume 6 Issue 7, 2025
ISSN: 2692-7608 DOI: 10.6981/FEM.202507_6(7).0015

The Impact of Divergent ESG Ratings: Consensus and Controversy

Yanjun Yu*

College of international programmes, Guangdong University of Finance, Guangzhou, 510521, China

*Corresponding author: 22281d117@m.gduf.edu.cn

Abstract

Against the backdrop of the global sustainable development process, environmental, social and governance (ESG) rating systems have increasingly become a key bridge between corporate non-financial performance and capital allocation. However, significant differences among rating agencies not only undermine the credibility of the rating system, but also pose a double challenge to the transformation of the real economy and the stability of financial markets. This study reveals the internal logic of ESG ratings divergence from the three dimensions of causes, transmission mechanisms and governance paths, and finds that heterogeneity in assessment methods and information asymmetry constitute the underlying causes: the former inhibits corporate innovation through distorting the financing environment and market signals, while the latter can evolve into a catalyst for systemic change under the driving force of regulatory synergy and technological empowerment. This paper innovatively proposes a synergistic governance model of "system-technology-market", which lays a theoretical foundation for the construction of a compatible ESG ecosystem.

Keywords

ESG Rating Divergence; Generation Mechanism; Information Asymmetry; Greenwash Behaviour; Capital Market Efficiency.

1. Introduction

Against the backdrop of a deepening global consensus on carbon neutrality, the Environmental, Social and Governance (ESG) rating system has evolved as a key pivot in capital allocation mechanisms. However, the system is in an application dilemma due to differences in assessment paradigms. In 2022, Berg et al. revealed through a systematic study that the divergence of cross-agency rating results for the same subject reflects both the inherent tensions in the sustainability system and the structural deficiencies of the non-financial information forensic system[1]. In 2025, Xiao Hongjun further pointed out that such heterogeneity not only weakens the value of rating decisions, but also slows down the process of low-carbon transition through the channels of capital pricing distortion, strategic decision alienation and regulatory arbitrage[2].

Existing studies mostly focus on static causes: in 2022, Wang Kai et al. pointed out that the heterogeneity of assessment methods mainly stems from localised indicator design by comparing domestic and international ESG systems; in the same year, Christensen et al. revealed, based on cross-country samples, that information asymmetry stems from the differences in subjective interpretations of non-financial indicators[3,4]. However, there is still a lack of systematic discussion on the dynamic evolution mechanism, cross-market transmission effect and comprehensive governance strategy of ESG divergence. With digital technology restructuring the information disclosure model, in 2024, Han Yiming et al. demonstrated through the blockchain technology application case that data traceability can

ISSN: 2692-7608 DOI: 10.6981/FEM.202507_6(7).0015

significantly inhibit the assessment discrepancy; in the same year, Feng Yuting et al. based on the empirical study of China's capital market found that the increased synergies of international standards may amplify the discrepancy of qualitative indicators[5,6]. The influence mechanism of the ESG discrepancy has evolved from a technological conflict to an institutional game, and it is urgent to construct a cross-disciplinary and cross-dimensionally integrated governance strategy. It is urgent to construct an interdisciplinary, multidimensional and integrated analysis framework.

This study breaks through the traditional analysis paradigm and systematically deconstructs the generation logic, transmission path and governance scheme of ESG divergence. Through the integration of cross-domain theories, it reveals the dual mechanism of "empowerment-regulation" of digital technology to suppress rating divergence, demonstrates the threshold effect of corporate ESG benchmarks on innovative behaviours, and creates the first dynamic synergistic governance model of "system-technology-market". The study not only provides a composite analytical tool for solving the problem of rating heterogeneity, but also contributes to the policy path for sustainable financial ecology construction through the innovation of governance mechanism.

2. Deconstructing the Generation Mechanism of ESG Rating Disagreement

2.1. Dual Effect of Disclosure

Established theories hypothesise that increased corporate information transparency compresses ESG rating differences, but empirical evidence presents an inverse association. In 2024, an empirical study by Yuting Feng et al. shows that enhanced ESG disclosure rather exacerbates inter-institutional cognitive divergence in the Chinese capital market, the mechanism of which lies in the amplification of qualitative explanatory differences in unstructured information (e.g., community engagement)[6]. In 2022, Christensen et al.'s cross-country study further reveals that mandatory disclosure, while expanding information coverage, fails to address indicator comparability deficits, as exemplified by the adoption of different measurement benchmarks in carbon emission accounting, which directly leads to significant divergence in mainstream rating agency scores[4].

Technology-enabled governance pathways show breakthrough potential. In 2024, Han Yiming et al. found that the application of blockchain technology suppresses assessment discrepancies through a triple mechanism: enhanced data traceability reduces the risk of information distortion, an intelligent verification mechanism reduces manual interpretation bias, and cross-system data integration promotes the convergence of rating standards[5]. This provides an innovative technological solution to the marginal utility dilemma of information disclosure.

2.2. Heterogeneity of Rating Methodologies

Paradigm differences in global ESG evaluation systems have evolved beyond the technical to institutional conflicts over values. In 2022, Berg et al.'s three-dimensional "scope-measurement-weighting" model reveals that the operationalisation of measurement dimensions is the core contradiction, for example, the differences in data sources (corporate self-reporting/third-party validation), measurement methodologies (binary/continuous), and the choice of periodicity (yearly/quarterly) of the assessment of labour rights and interests have led to systematic bias[1]. China's ESG practices show significant localisation: in 2022, Wang et al. found that the domestic system incorporated characteristic indicators such as "party organisation governance" into the social dimension, resulting in a significantly higher rate of divergence in the social dimension than in the environmental and governance dimensions. This institutional innovation enhances local adaptability, but increases friction with international standards.[3]. In 2025, Xiao Hongjun points out that despite the increasing

ISSN: 2692-7608 DOI: 10.6981/FEM.202507_6(7).0015

convergence of international standards (2021-present) and the convergence of ratings divergence due to the increased compatibility of international standards, there is still room for institutional arbitrage in emerging markets[2].

3. The Transmission Path of Rating Disagreement to Corporate Decisions

3.1. Strategic Drift in Green Innovation: Short-term Pandering Versus Long-term Capacity Building

ESG valuation differences have differential impacts on firms' green technology innovation. In 2024, Zhang, Xuehui et al. find that rating divergence inhibits firms' green R&D by exacerbating financing constraints, as evidenced by the ambiguity in investors' assessment of the value of ESG innovations that pushes up the cost of financing, as well as management's strategic preference for short-term abatement technologies (e.g., upgrading of end-of-pipe treatment equipment) over long-term innovations[7]. The effect is more pronounced among non-ESG-oriented investor-led firms, confirming the moderating role of capital attributes on innovation paths.

On the contrary, in 2024, Yao S. et al. find that when ESG divergence exceeds a critical value, media scrutiny and institutional review pressure will force firms to improve the quality of innovation[8]. The core mechanism is that public attention pushes firms to improve verifiable innovation disclosure systems, and in-depth due diligence by institutional investors pushes the establishment of full-cycle data traceability mechanisms. This effect is particularly pronounced in highly transparent firms, revealing that governance foundations are decisive for innovation transformation.

In 2022, Zhu Kang et al. further reveal the moderating effect of corporate ESG benchmarking: while high benchmarking firms create an innovation premium through forward-looking forensics (e.g., carbon footprint validation), low benchmarking firms fall into the trap of "pseudo-innovation" due to signalling failures, and falsely inflate the number of green technologies through strategic patenting[9]. The study recommends the establishment of an innovation certification system based on life cycle assessment (LCA) to curb the scope for institutional arbitrage.

3.2. Adaptive Adjustment of Financing Structures: Risk Pricing and the Maturity Game

ESG assessment differences present multidimensional transmission characteristics in risk pricing in the capital market. In 2024, an empirical study by Wang Biao et al. shows that ESG perception differences among cross-border rating agencies have a significant impact on the cost of bond financing, which is significantly stronger than the divergence among domestic agencies[10]. This phenomenon reflects the market's sensitivity to cross-border information asymmetry and the discounted inertia of the local market in institutional information processing. In 2023, Zhang Yunqi et al. further reveal from the perspective of debt maturity allocation that ESG divergence contributes to the short-term tendency of corporate debt structure by exacerbating refinancing risk exposure and is more prominent among non-state-owned firms, reflecting structural differences in risk buffer mechanisms among firms with different ownership attributes[11].

The academic community has made new progress in exploring the mechanism of divergence mitigation. In 2024, Liu et al. showed that dynamic interpretation and immediate communication between companies and investors on ESG issues can effectively reduce assessment differences[12]. The core paths of action include reducing inter-institutional cognitive heterogeneity through the establishment of a standardised indicator interpretation framework, and mitigating the dispersion of market expectations through a high-frequency

ISSN: 2692-7608 DOI: 10.6981/FEM.202507_6(7).0015

information interaction mechanism. This finding provides theoretical support for the construction of a more responsive ESG information synergy system.

4. Capital Market Efficiency and Sustainable Development Dilemma

4.1. Pricing Efficiency Loss: From Information Noise to Market Contagion

There are multiple transmission paths for the perturbation of capital market operational efficiency by ESG rating divergence. In 2023, Liu Xiangqiang et al. confirm that ESG divergence significantly enhances individual stock price convergence by reinforcing information friction by constructing a cross-institutional rating deviation indicator[13]. The deeper mechanism of this disordered market information environment lies in the fact that, on the one hand, individual investors are constrained by their information processing ability and are prone to misinterpret contradictory signals as market consensus signals; on the other hand, professional investors generally adopt convergent operation strategies to avoid information verification costs. In 2023, Li Xiaoyan et al.'s study of liquidity heterogeneity shows that the most prominent discounting effect on market depth is caused by divergence in social category indicators, which stems from the quantitative complexity of non-financial indicators, such as employee benefits, which objectively amplifies the assessment bias among market participants[14].

Emerging research fields are beginning to focus on cross-market correlation effects. In 2024, an empirical study by Yin Haiwen et al. reveals that ESG valuation disagreements of mainboard market firms can interfere with the valuation efficiency of GEM firms through a horizontal transmission mechanism[15]. The specific channels of action include: first, investment institutions use the ESG performance of main board companies as an industry reference point to form cross-market valuation anchors; and second, the tracking of controversial events in the financial media triggers cross-sector negative sentiment transmission. Such valuation contagion effects are magnified in GEM companies that receive less attention from analysts, highlighting the deeper impact of the lack of information intermediation on the market pricing mechanism.

4.2. Institutional Hotbeds of Greenwash Behaviour: Regulatory Gaming and Cognitive Manipulation

ESG valuation differences create arbitrage space for strategic corporate disclosure. In 2024, Zou Yanfen et al. show that while selective environmental disclosure can lead to short-term valuation enhancement, systematic data manipulation can lead to long-term value depreciation, which is motivated by the higher market sensitivity of environmental indicators (e.g., carbon footprints) than governance dimensions, as well as the technical ambiguities of the accounting standards that reduce the efficiency of identifying irregularities[16]. In 2023, Su Dongwei et al. find that green finance policies have a double effect: enhancing environmental performance while inducing new types of greenwashing behaviours such as supply chain data falsification, highlighting the urgency of synergising regulatory systems with technical standards[17].

Institutional investors present a behavioural paradox in ESG governance. In 2024, Nuanxin Wang et al. reveal that cross-institutional investor networks may tacitly allow corporate disclosure bias through implicit collaboration in order to safeguard portfolio returns[18]. The mechanism is manifested in a horizontal information sharing mechanism that weakens the accuracy of individual firm risk assessment, and a portfolio investment strategy that dilutes the intensity of accountability for specific corporate governance deficiencies. This finding reveals the structural contradiction of the imbalance between institutional investors' power and responsibility in the current system, and provides a basis for reconfiguring the governance accountability framework.

ISSN: 2692-7608 DOI: 10.6981/FEM.202507_6(7).0015

5. Summary and Outlook

5.1. Research Gaps and Future Directions

Current ESG research has significant limitations at the level of dynamic evolutionary mechanisms and comprehensive governance structures. At the theoretical level, the mainstream cross-sectional research paradigm has difficulty in capturing the spatial and temporal transmission patterns of rating divergence. Typically, for example, in 2025, the four-stage evolution model proposed by Xiao Hongjun outlines the macro trend, but fails to quantify the stage transition thresholds and the technology-institution interaction driving coefficients, resulting in limited explanatory power of the mechanism[2]. At the methodological level, the dominance of listed companies' samples has resulted in ESG data faults for MSMEs. In 2024, Zou Yanfen et al. pointed out through a case study of environmentally sensitive industries that a systematic blind spot was formed in the field due to non-standardised data collection; in the same year, Zhang Xuehui et al. revealed based on the research of science and technology start-ups that technological confidentiality and the specificity of the innovation cycle exacerbated the failure of the assessment system. This data disconnect severely limits the external validity of the findings[7,16].

In the practical dimension, there is a significant mismatch of tools in current governance: in 2024, Yuting Feng et al. find that while disclosure standards are gradually improving, smart regulatory tools and market incentives are lagging behind[6]. In 2023, Su Dongwei's team systematically demonstrated the innovative application scenarios of carbon finance tools, but a full-cycle monitoring system has not yet been established in this area; Han Yiming's team proposed digital infrastructure in 2024, but its synergy potential with carbon finance has not yet been fully unleashed, and current research still lacks an inter-temporal governance performance assessment model[5,17].

Future research needs to focus on three major breakthrough directions: first, constructing a dynamic monitoring framework, integrating panel data and complex network analysis, and quantifying the spatial and temporal impacts of exogenous variables, such as the carbon tax policy (2025), on the divergence of ESG; second, establishing a matrix for analysing heterogeneous firms, and, in 2021, Zhu Fuxian et al. took the lead in constructing the model for the evolution of ESG strategies of family-owned firms through the systematic study of intergenerational inheritance perspectives, with an emphasis on analysis of its dynamic adaptation mechanism, while strengthening the cross-national comparison of emerging markets; Third, innovation of the regulatory technology ecosystem, the application of digital twin technology to achieve ESG data asset authentication, and the construction of a decision support model containing indicators such as the internalisation rate of environmental costs and the leverage rate of social benefits[19].

5.2. Theoretical Innovations and Policy Implications

This study innovatively constructs a "triple synergy" framework for ESG rating divergence governance: the theoretical level breaks through the traditional paradigm and establishes a three-dimensional governance structure of "institutional resilience - technological innovation - market regulation". The institutional dimension requires the implementation of a dynamic layered disclosure mechanism - in 2022, Berg et al. demonstrated the necessity of aligning environmental indicators with the Paris Agreement's globally harmonised standards through international comparative research; in the same year, Wang Kai et al. proposed that social indicators with regional characteristics should follow the right to development oriented differentiated design principle [1,3] Technological dimension promotes the change of rating paradigm, in 2024, Yuting Feng et al. used knowledge graph to build a semantic network of cross-system indicators, and developed a deep learning system to solve the problem of

ISSN: 2692-7608 DOI: 10.6981/FEM.202507_6(7).0015

"conceptual alienation" of unstructured data[6]. In 2024, Tingting Duan and others will design ESG volatility futures and divergence risk swaps to stimulate market self-correction mechanism[20].

Policy practice requires a triple breakthrough: first, establish a multi-dimensional assessment pilot zone in cross-border financial hubs (e.g. Guangdong, Hong Kong and Macao Greater Bay Area), integrating the climate stress test and geopolitical risk assessment of the TCFD standard update in 2023, so as to realise the gradual integration of the system; second, build a three-tier forensic system (data traceability-logical validation-impact assessment), and in 2024, Nuanxin Wang et al. revealed the key loophole of carbon footprint falsification. In 2024, Wang Nunxin et al. revealed the key loophole of carbon footprint falsification, and in the same year, Geng et al. empirically found the correlation mechanism between the misreporting of R&D data and green innovation bubbles; third, establish a transnational regulatory infrastructure based on the G20 platform, and in 2022, Berg et al. adopted the model of "mandatory convergence of core indicators + flexible declaration of distinctive indicators", which balances the global comparability with the diversity of civilisations[1,18,21]. This framework provides a solution for ESG governance with both theoretical depth and practical feasibility.

References

[1] Berg, F., Kölbel, J.F., Rigobon, R. (2022) Aggregate confusion: The divergence of ESG ratings. Rev. Finance, 26(6): 1315-1344.

[2] Xiao, H.J. (2024) Research progress on ESG controversy. Econ. Dyn., (3): 145-160.

[3] Wang, K., Zhang, Z.W. (2022) Status quo, comparison and outlook of domestic and international ESG ratings. Financ. Account. Mon., (2): 137-143.

[4] Christensen, D.M., Serafeim, G., Sikochi, A. (2022) Why is corporate virtue in the eye of the beholder? The case of ESG ratings. Account. Rev., 97(1): 147-175.

[5] Han, Y.M., Hu, J., Yu, X.R. (2024) Corporate digital transformation and ESG rating divergence. Financ. Econ., (7): 59-69.

[6] Feng, Y.T., Guo, X.M., Zeng, X.L. (2024) ESG disclosure and ESG rating divergence: A consensus or a disagreement? Institutional regulation of ESG in China. Account. Res., (1): 49-63.

[7] Zhang, X.H., Mu, G.Y., Han, F., Miao, L. (2024) The impact of ESG divergence on corporate green innovation: Based on corporate governance and external financing perspectives. Sci. Manag. Res., 42(5): 98-107.

[8] Yao, S., Chen, G.Y. (2024) Can ESG rating divergence drive substantive green innovation. Financ. Econ., (6): 50-59+73.

[9] Zhu, K., Tang, Y. (2022) ESG rating and corporate debt financing cost: An empirical test based on multi-period DID. Manag. Mod., 42(6): 30-37.

[10] Wang, B., Liu, Q.D., Li, K. (2024) ESG rating divergence and corporate bond pricing: Information mining or information deterioration. Int. Financ. Stud., (3): 87-96.

[11] Zhang, Y.Q., Yang, H.Y., Zhang, X.Y. (2023) ESG rating divergence and the cost of debt capital. Financ. Rev., 15(4): 22-43+124.

[12] Liu, X., Liu, J., Liu, J., et al. (2024) Can investor-firm interactions mitigate ESG rating divergence? Evidence from China. Int. Rev. Financ. Anal., 96: 103612.

[13] Liu, X.Q., Yang, Q.Q., Hu, J. (2023) ESG rating divergence and stock price synchronisation. China Soft Sci., (8): 108-120.

[14] Li, X.Y., Liang, R.X., Li, Y. (2023) Does ESG affect stock liquidity? Based on the dual perspectives of ESG ratings and rating divergence. Int. Financ. Stud., (11): 75-86.

[15] Yin, H.W., Hu, X.M. (2024) ESG performance and stock pricing efficiency of GEM listed companies: A study based on China's multi-level capital market system. Shanghai Univ. Financ. Econ., 26(1): 48-63.

ISSN: 2692-7608 DOI: 10.6981/FEM.202507_6(7).0015

[16] Zou, Y.F., Xiao, Z.W. (2024) Research on the impact of ESG "greenwashing" on corporate performance. Contemp. Financ. Econ., (11): 152-164.

[17] Su, D.W., Liu, Z.M. (2023) Does green finance reform affect corporate green performance and bleaching green risk? Int. Financ. Stud., (4): 74-85.

[18] Wang, N.X., Zhang, S.P. (2024) Inhibiting or exacerbating: The impact of common institutional shareholding on ESG bleaching behaviour. Ind. Econ. Rev., (4): 83-100.

[19] Zhu, F.X., Xu, X.L., Li, S.Y. (2024) Will disclosure exacerbate ESG rating divergence. Financ. Account. Mon., 45(8): 65-72.

[20] Duan, T.T., Zhang, L.G. (2024) Capital market opening and corporate ESG disclosure: A quasi-natural experiment based on the inclusion of A shares in the MSCI index. Econ. Rev., (1): 153-168.

[21] Geng, Y., Chen, J., Liu, R. (2024) ESG rating disagreement and corporate green innovation bubbles: Evidence from Chinese A-share listed firms. Int. Rev. Financ. Anal., 95: 103495.