Comparison of the Current Status of ESG Rating Systems

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Abstract. With the rapid development of ESG investment, the importance of its rating system has become increasingly prominent. However, the standards of over 600 rating agencies worldwide were not unified, affecting the accurate measurement and comparison of corporate ESG performance. This paper systematically summarizes the compilation methodologies of mainstream ESG rating systems such as MSCI, CGGI, and Huazheng, and conducts a comparative analysis from the perspectives of domestic and international rating systems, focus orientation, and application of rating systems. The study finds that international mainstream rating systems exhibit significant first-mover advantages, and although domestic breakthroughs were made in localization adaptation, further improvements are still needed. There are significant paradigm differences in the orientation of different evaluation systems, and different rating systems vary in terms of the number of participating enterprises, industry, and ownership distribution. Based on this, the paper proposes development suggestions such as constructing a scientific and authoritative rating system, improving information disclosure standards, and promoting the exploration of rating system applications. The aim is to provide references for researchers, enterprises, and investors, and to help standardize and unify rating standards.

1 Introduction

In December 2004, the United Nations first introduced the ESG concept in the report "Who Cares Wins", aiming to fully incorporate factors related to the environment, society, and corporate governance beyond traditional constraints such as finance during the planning, decision-making, and operational processes. Compared to traditional investment practices that use financial data to measure the merits and demerits of enterprises, ESG performance further assesses non-financial indicators related to environmental protection, social responsibility, and corporate governance dimensions based on traditional methods. On the one hand, this calls for enterprises to balance responsibility while pursuing commercial interests. On the other hand, it also enables investors to evaluate enterprises from multiple dimensions and in an all-around manner. With the support of the United Nations Principles for Responsible Investment (UN PRI) in 2006 for signatory institutions to incorporate ESG

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issues into investment decision-making and ownership practices, ESG gradually becomes an important criterion for measuring the sustainable development capabilities of enterprises.

Currently, with the rapid development of ESG investment, various countries formulated corresponding policies to support the mandatory disclosure of ESG information, and an increasing number of investment institutions also regarded ESG as an important investment evaluation criterion. At the same time, research reports on ESG are continuously increasing, reflecting the rising attention of corporate managers and investors towards ESG. However, there are more than 600 ESG rating agencies globally, and different countries and institutions have not yet formed a unified standard for ESG rating. The trend towards diversification is quite significant, and different rating systems differ in their methodologies and focuses, which to some extent affects the accurate measurement and comparison of corporate ESG performance. In view of this, this paper will systematically summarize common ESG performance rating systems, comprehensively sort out the core methodologies and focuses of each system, and conduct an in-depth analysis of the comparisons and differences among various ESG rating agencies.

The marginal contribution of this study lies in summarizing mainstream ESG performance rating systems, comparing the methodologies and focuses of different systems, providing a one-stop reference for researchers, enterprises, and investors, saving the cost of information collection and comparison, and laying the foundation for further standardizing and unifying rating criteria.

2 Methodology for compiling the mainstream ESG rating system

2.1 MSCI rating system

The MSCI ESG rating system is based on three pillars: environment, society, and governance, encompassing 10 themes and 33 key topics. The system categorizes industries and selects 2-7 core topics for differentiated assessment based on the characteristics of different industries, allocating weights ranging from 5% to 30%, with the governance pillar receiving at least 33% weight. In terms of assessment methods, the environment and society pillars employ a dual model of "risk exposure × risk effectiveness". Risk exposure is quantified through a three-tier model, while risk effectiveness is comprehensively evaluated from three dimensions: strategic governance, implementation measures, and performance, with a deduction mechanism for controversial events. The governance pillar evaluates corporate governance and corporate behavior negatively through a deductive system. The final rating undergoes industry normalization and committee review, and adjustment to construct an ESG evaluation system that combines industry characteristics and universal value, resulting in a seven-level outcome ranging from AAA to CCC.

2.2 Syntao green finance ESG rating system

When determining evaluation indicators, comprehensively consider international conventions, investor concerns, and industry characteristics. After developing a long list, conduct cluster analysis to form an enterprise ESG indicator system that combines general and industry-specific indicators.

In the assessment of ESG risk exposure, from both industry benchmark and individual enterprise dimensions, risk event data is collected, risk levels are evaluated, industry benchmark risks and enterprise risk adjustment multipliers are determined, and risk indicators are scored and weighted to calculate the enterprise risk exposure score. The total ESG rating score is composed of the weighted score of management indicators and the total risk exposure score, with ten grades ranging from A+ to D. The rating covers domestic and overseas listed companies and bond issuers, with data covering multiple levels, and the results can be applied to investment, risk control, policy formulation, and other fields.

2.3 Huazheng ESG evaluation system

Huazheng combines China's information disclosure situation with company characteristics to construct a top-down ESG evaluation system, which includes 3 primary pillar indicators, 16 secondary thematic indicators, 44 tertiary issue indicators, nearly 80 quaternary underlying indicators, and over 300 underlying data indicators. The rating adopts a seven-level system ranging from AAA to CCC.

In terms of indicator setting, Huazheng determines the theoretical benchmark level based on literature research, practical experience, and national standards, standardizes the indicators, and assigns values. The underlying data is divided into structured and unstructured data. For unstructured data, NLP, semantic analysis, and other technologies and algorithms are used to assign values. Due to the imperfection of the domestic ESG information disclosure system, statistical methods are used to handle missing values in the underlying indicators. After determining the weights, Huazheng adjusts the ESG weighted scores by industry, and the standardization process does not change the industry ranking of companies. Considering that newly listed companies have lower ESG disclosure and scores, when calculating the highest and lowest scores in the industry, companies newly covered in the past two years are excluded.

3 Comparative analysis of ESG rating systems

3.1 Comparative analysis of domestic and international ESG rating systems

Overseas ESG rating systems emerged earlier and have evolved into relatively mature frameworks with broad coverage. Notably, rating agencies such as MSCI, FTSE Russell, and S&P Global wield significant international influence, with their ratings being most widely adopted and recognized in global markets [1]. In contrast, China's domestic ESG evaluation systems started later and remain in an exploratory phase of diversified development. The sector lacks unified standards, with infrastructure for ESG rating systems still underdeveloped. Evaluation scope is predominantly confined to domestic listed companies, and practical applications of various ESG rating frameworks exhibit notable shortcomings [2].

Nevertheless, ESG rating agencies such as Huazheng, CSI, Syntao Green Finance, WIND, and the Social Value Investment Alliance still possess a certain degree of reference value. While drawing on international evaluation frameworks, these rating agencies also fully considered China's national conditions and gradually established an ESG evaluation system that aligns with China's market conditions, allowing for a more targeted measurement of the ESG performance of Chinese enterprises. The domestic influence of these rating agencies is increasing, and some have achieved full coverage of A-share listed companies in their ratings. For instance, Zelin Zhang highlighted that the China Green Finance Institute (CGFI) has independently developed an indigenous ESG evaluation framework aligned with China's national context. This framework not only accounts for the pivotal role of government and regulatory bodies in advancing ESG development within China but also acknowledges the strategic priorities and institutional characteristics of Chinese enterprises [3].

The 2024 White Paper on China's ESG Development Report indicates that overseas institutions generally assign lower ESG ratings to Chinese enterprises compared to domestic rating agencies. Firstly, international ESG ratings primarily adopt a universal evaluation approach, without fully considering the differences with Chinese characteristics. Secondly, international ESG ratings also face challenges in accessing public information about Chinese companies. Furthermore, the insufficient disclosure of ESG information and the relatively short development time in China are also significant factors contributing to the lower overall ESG ratings of Chinese enterprises.

3.2 Comparative analysis guided by ESG focus

Some scholars presented the keywords of five institutions through word frequency and word cloud analysis, judging the focus of each rating system based on the content emphasized in their discussions. Huazheng and Bloomberg did not emphasize risk factors in their keyword frequency analysis, indicating an achievement-oriented approach. Conversely, Syntao Green Finance, Wind, and MSCI all focus on assessing corporate ESG-related risks, reflecting a risk-oriented approach. The environmental dimension of achievement-oriented ESG ratings is most closely related to financial performance and market performance, while the environmental dimension of risk-oriented ESG ratings is least closely related to these two aspects. This distinction reflects the different philosophies and focuses of different rating agencies in constructing their rating systems and also leads to certain differences in rating results [4].

The current academic literature on the application analysis of different rating systems also confirms the aforementioned differences in the characteristics of various rating systems. For instance, the Huazheng ESG rating results are primarily utilized to assess the comprehensive ESG performance of enterprises; Zhai Shengbao and others often rely on the Bloomberg ESG rating system to reflect the quality of corporate ESG information disclosure; while scholars such as Gallucci point out that MSCI can effectively reveal the ESG-related risks faced by enterprises [5]. Furthermore, the Syntao Green Finance and Wind ESG rating systems share certain commonalities with MSCI in terms of rating philosophy, both of which regard the enterprise's ESG risk management capability as a core evaluation dimension.

3.3 Comparison of ESG rating system applications

There are significant differences in the number of enterprises participating in ESG ratings across different institutions. According to statistics by Wang Xinhong et al., the number of enterprises participating in Wind and Huazheng ESG ratings increased from over 3,400 in 2018 to over 4,800 in 2022; during the same period, the number of enterprises participating in FTSE Russell, Syntao Green Finance, and Menglang ESG ratings did not exceed 1,100 [6].

In terms of industry distribution, enterprises participating in ESG ratings span various sectors of the manufacturing industry, but there are differences in the number of enterprises across different sub-sectors among different institutions. Enterprises participating in ESG ratings conducted by Wind, Huazheng, and Syntao Green Finance have a consistent distribution across sub-sectors of the manufacturing industry, with a significant number of enterprises in seven sub-sectors, including pharmaceutical manufacturing, special equipment manufacturing, electrical machinery and equipment manufacturing, and computer manufacturing. The number of manufacturing enterprises participating in ESG ratings conducted by FTSE Russell and Menglang is generally lower, with the number of enterprises participating in ratings across sub-sectors not exceeding 100. This difference stems from the target positioning of rating agencies and reflects the importance of ESG issues and data availability in various industries [7].

Similarly, the participation patterns of enterprises with different ownership structures exhibit significant differentiation. According to the data distribution from rating agencies, Wind and Huazheng Private Enterprises rank first in terms of participation, followed by state-owned enterprises; whereas FTSE Russell, Syntao Green Finance present a pattern where state-owned enterprises lead and private enterprises follow. This difference is partly attributed to the differentiation in resource endowments of enterprises, including factors such as policy tilting, financial support, financing channels, policy support intensity, and the deep constraints imposed by the global ESG strategy of parent companies on foreign-funded enterprises.

4 Suggestions for the development of ESG rating system

4.1 Constructing a scientific and authoritative ESG rating system

Currently, various ESG evaluation systems have their own evaluation criteria and indicators, lacking a unified and authoritative ESG evaluation standard. Moreover, the correlation between different ESG evaluation systems is low, and there are significant differences in evaluation results [5]. The development of the ESG conceptual framework and related standards lags the urgent market demand for ESG. There are obvious differences in the standards and systems established by different organizations, which hinder ESG ratings. Therefore, in the face of an ESG rating ecosystem where different rating systems with low correlation coexist and rating results are chaotic, relevant government regulatory authorities should explore practical paths to create a good ESG rating ecosystem based on the actual development of ESG in different countries. Government departments should introduce ESG rating-related systems to regulate the ESG rating work of different institutions, guide for institutions to carry out rating work, guide rating agencies to form more coordinated evaluation objectives, and gradually transform the "divergence noise" of ESG ratings into "incremental information", reducing the interference effect of different-oriented ratings in the ESG rating ecosystem [8,9].

4.2 Improving ESG information disclosure standards

The core challenge facing the ESG rating field stems from the ideological differences among multiple criteria systems. Research indicates that there are significant cognitive disparities in the dimensions of user orientation, substantive judgment principles, and information boundary delineation among the disclosure frameworks issued by different institutions. This heterogeneity directly leads to fragmented corporate disclosure practices. When companies independently choose their disclosure basis, the differential information supply and the widespread absence of third-party verification mechanisms create a synergistic effect, resulting in uneven quality of the underlying data for ESG ratings, objectively increasing the technical difficulty of the rating process. Therefore, companies should conduct adequate ESG information disclosure. In recent years, major exchanges have gradually transitioned from voluntary disclosure to semi-mandatory or even mandatory disclosure and required improvements in the quality of disclosed information to avoid misleading investors through "greenwashing" practices. Furthermore, it is necessary to further improve the unified standards and requirements for ESG information disclosure by listed companies, enhancing the reliability, comprehensiveness, and scientific nature of the ESG rating data samples [10].

4.3 Promote exploration on the application of ESG rating system

Enterprises should integrate ESG evaluation into their management strategies, implement ESG management practices that align with their values and actual development, establish ESG application and risk management mechanisms, and incorporate ESG evaluation into their management regulations and core business processes. Financial institutions should strengthen the construction of their ESG evaluation capability system, enhance their understanding and recognition of the intrinsic value of ESG evaluation and the positive impact of ESG investment on the environment and society, further strengthen the development of their ESG evaluation team, develop ESG evaluation data and model resources for financial institutions, and accelerate the construction of a comprehensive and scientific ESG evaluation methodology. While improving the ESG evaluation methodology, financial institutions should actively explore the application of ESG evaluation results in credit risk management and financial product innovation.

5 Conclusion

This study conducts an in-depth comparative analysis across multiple dimensions, including domestic and international rating systems, focus orientation, and the application of rating systems, and draws the following main research findings.

Firstly, the mainstream international ESG rating systems, with their comprehensive evaluation frameworks, enjoy high influence and market acceptance globally. In contrast, domestic ESG rating systems, despite achieving certain breakthroughs in localization and adaptation, are still in the exploratory stage of diversified development. Secondly, different ESG rating systems exhibit significant differences in their focuses. Achievement-oriented rating systems place greater emphasis on assessing enterprises' achievements and performance in ESG aspects, while risk-oriented rating systems focus more on examining the ESG-related risks faced by enterprises. This difference is not only reflected in the construction philosophy of the rating systems but also directly impacts the rating results and their application effects. Furthermore, different rating systems also show significant disparities in terms of the number of participating enterprises, industry distribution, and ownership distribution. These differences stem from the target positioning of rating agencies and reflect the importance of ESG issues in various industries, as well as data availability. Finally, this study proposes suggestions such as constructing a scientific and authoritative unified rating system, improving information disclosure standards, and deepening the application scenarios of rating results, to provide theoretical support and practical paths for the standardized development of the ESG ecosystem.

With the continuous evolution of the ESG rating system and the development of the big data era, researchers are expected to achieve methodological innovation in artificial intelligence applications. By leveraging artificial intelligence and big data technologies to optimize data collection and analysis efficiency, the practicality and adaptability of ESG ratings can be enhanced. Simultaneously, as the trend towards diversification and international cooperation deepens, countries will promote the convergence of core indicators and evaluation logic through cross-border dialogue mechanisms, narrowing the gap between local and international rating systems, and gradually forming a standardized and highly referential ESG rating system.

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