

ESG Index Under the Model of Green Finance

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ABSTRACT

With the increasingly serious problem of global climate change and resource shortage, sustainable development has become a global consensus. Green finance, as an important tool to promote the transformation of green, low-carbon and circular economy, is attracting more and more attention. The ESG (environment, social and governance) index, as an important standard to measure the sustainable development ability of enterprises, plays an important role in guiding the capital flow to high-quality and green investment fields. Based on this, this paper will start with the basic concepts of green finance and ESG index, analyze the correlation and action mechanism between them, and discuss how ESG index boosts the sustainable development of economy under the green finance model, and put forward corresponding policy suggestions. It is hoped that the research in this paper can provide useful reference for promoting the development of green finance and ESG index.

KEYWORDS

Green Finance; ESG index; Sustainable Economic Development

1 Basic concepts of green finance and ESG index

1.1 The connotation of green finance

Green finance refers to that financial institutions fully consider environmental factors, climate change and resource utilization in their investment and financing decisions, and guide social capital to invest in green, low-carbon and circular fields through the innovation of financial products and services, so as to promote the sustainable development of economy [1]. The development of green finance helps to promote the rise of green industries, accelerate the green transformation of traditional industries, and reduce environmental pollution and ecological damage.

1.2 The ESG index concept

The ESG index is a tool to evaluate the sustainable development ability of enterprises, mainly focusing on the performance of enterprises in three aspects: environment, society and governance. The ESG index includes the sustainable development ability of enterprises into the investment evaluation system, which provides important reference information for investors. By focusing on the ESG index, investors can have a more comprehensive understanding of the risks and value of enterprises and make more rational investment decisions.

1.3 The ESG index boosts sustainable economic growth

With the rapid development of the global economy and the acceleration of industrialization, environmental issues, social responsibility and corporate governance (ESG) have increasingly

become important factors affecting the sustainable economic development. The traditional economic development model is often accompanied by the high consumption of resources, the heavy pollution of the environment and the social injustice, which not only damages the living environment of human beings themselves, but also poses a serious threat to the long-term development of the economy. Thus, looking for a development model that promotes both economic growth and protects the environment, achieves social equity and good corporate governance, It has become an urgent need of today's society. As a concrete practice of the concept of sustainable development in the financial field, green finance provides an effective way to realize this demand. It emphasizes the full consideration of environmental, social and governance factors in investment and financing decisions, and guiding funds to environmental protection, low-carbon, social responsibility and good governance areas through the optimal allocation of financial resources, so as to promote the green transformation and sustainable development of the economy. The ESG index, as an important tool to measure the sustainable development ability of enterprises, has provided a strong support and guidance for the practice of green finance.

2 The action mechanism of the ESG index under the green finance model

2.1 Capital guidance

Under the green finance model, financial institutions provide critical financial support to the outstanding enterprises in the ESG index by providing a range of green financial products and services, such as green credit and green bonds. These companies can do well in the ESG index, often because of their outstanding performance in environmental protection, social responsibility and corporate governance. As an important financial tool, green credit provides a low-cost funding source for these enterprises to invest in environmental protection projects, clean energy, energy conservation and emission reduction and other fields. This will not only help companies achieve technological upgrading and green transformation, but also promote them to contribute more to environmental protection and social responsibility. Similarly, the issuance of green bonds also provides a broader financing channel for these companies, Enable them to raise more funds to support the sustainability project [2]. Enterprises with financial support from green finance can further increase their investment in environmental protection, social responsibility and corporate governance. They can purchase advanced environmental equipment to improve the energy efficiency and environmental performance of the production process, invest more resources to fulfill social responsibilities such as supporting community development and improving employee welfare; and also strengthen corporate governance and improve management efficiency and transparency. All of these measures will help companies improve their sustainable development ability to maintain or improve their ranking in the ESG index.

At the same time, the good performance of these companies in the ESG index will also attract more investor attention. While pursuing economic benefits, investors are also paying more and more attention to the sustainable development ability of enterprises. As a result, companies with good performance in the ESG index are often able to attract more capital inflows, creating a virtuous circle. This will not only help enterprises to obtain more financial support, but also promote the sustainable development of the whole society.

2.2 Risk identification

First, the ESG index enables financial institutions to have a deeper understanding of their business models and management practices. When evaluating investment projects, financial

institutions usually focus on the financial position and profitability of enterprises. However, the ESG index provides additional information to help financial institutions understand how companies perform in environmental protection, social responsibility, and corporate governance. This information is essential for assessing the long-term stability and sustainability of the enterprise.

Second, the ESG index helps financial institutions reduce their investment risks. By focusing on the ESG index, financial institutions can identify companies that may have environmental, social, or governance problems. These potential problems may have a negative impact on the financial situation and profitability of the enterprise, thus increasing the investment risk. Therefore, the ESG index can help financial institutions avoid investing in companies with potential risks and reduce their investment risks.

In addition, the ESG index can help financial institutions evaluate the long-term value of their business. In investment decisions, financial institutions usually focus on the short-term profitability and market performance of enterprises. However, the ESG index provides a more comprehensive perspective to help financial institutions understand the long-term potential and value of enterprises. By focusing on the performance of enterprises in the environment, society and governance, financial institutions can assess their sustainable development capacity and long-term stability to make more informed investment decisions [3].

Finally, the ESG index can also promote the communication and cooperation between financial institutions and enterprises. In the process of focusing on the ESG index, financial institutions may communicate and cooperate with enterprises to understand their strategies and plans for sustainable development. Such communication and cooperation will help financial institutions to better understand the business model and management practices of enterprises, so as to make more accurate investment decisions.

2.3 Incentive constraints

In the context of green finance, the ESG index has gradually emerged and become an indispensable tool in corporate governance. ESG index is not only an evaluation system, but also an incentive and restraint mechanism, which virtually guides the behavior of enterprises and promotes the enterprise to develop towards a more environmentally friendly, responsible and transparent direction. As an important tool for enterprise governance, the ESG index provides a comprehensive evaluation framework. This framework covers three dimensions: environment, society and governance, and requires enterprises to perform well in these aspects. This comprehensive evaluation method makes enterprises can not only focus on economic benefits, but ignore the responsibilities and obligations. This characteristic of the ESG index makes it an effective constraint mechanism, prompting enterprises to actively fulfill their obligations in their daily operations.

The incentive effect of ESG index on enterprise behavior can not be ignored. With the increasing attention of investors to ESG factors, the ESG rating and investor recognition of enterprises have become important factors affecting the market value of enterprises. Therefore, in order to obtain better ESG rating and investor recognition, enterprises need to actively fulfill their obligations in environmental protection, social responsibility and corporate governance. This incentive mechanism enables enterprises to have a stronger motivation to improve their sustainable development ability and achieve green transformation. In terms of environmental protection, enterprises need to increase investment, adopt more environmentally friendly production methods and technologies, reduce pollutant emissions, and reduce the impact on the environment. In terms of social responsibility, companies need to pay attention to employee welfare, consumer rights and interests and social public welfare undertakings and other aspects, actively fulfill social responsibilities, establish a good corporate image. In terms of corporate governance, enterprises

need to establish a sound governance structure and management system, improve management efficiency and transparency, and ensure the stable operation and sustainable development of enterprises. Through the incentive and constraint mechanism of ESG index, enterprises can not only improve their sustainable development ability, but also obtain more market opportunities and support from investors. At the same time, this mechanism can also help to promote the sustainable development of the whole society and promote the green transformation of the economy. Therefore, the ESG index is playing an increasingly important role in corporate governance, and it will become one of the important driving forces for the future enterprise development.

3 Optimization path for the construction of the ESG index standard system

Under the green finance model, the role of ESG index in promoting sustainable economic development is highly consistent with China's concept of promoting green and sustainable economic development. However, the existing research shows that China has not yet established a perfect ESG index standard evaluation system, and the index standard is relatively single. The existing standard system focuses too much on economic indicators and ignores the collection of other index data in social, environmental, governance and other aspects, resulting in the lack of authenticity of data disclosure and the lack of comprehensive index measurement. At the same time, the measurement of the enterprise ESG index also generally tends to be based on the large listed enterprises, while the attention paid to the ESG practice of small and medium-sized enterprises is obviously insufficient. In order to enhance the safety of the use of green development funds, boost Chinese enterprises to establish international standards links, improve the governance capacity of enterprises and the government, and further promote the sustainable economic development, it is of great significance to the optimization and promotion of China's ESG index standard system.

3.1 Current status of ESG index system in China

Although the development of ESG index system in China started late, with the strong cooperation and support of various government departments, many achievements have been made in system guarantee, system construction and preliminary application.

From the perspective of ESG disclosure, China's existing reporting requirements have been greatly improved in terms of professionalism and standardization, and enhance the transparency of enterprises. However, a perfect ESG standard system has not been established, and no unified national standards have been issued. Moreover, the existing standards are few and lack global coordination, so there is a large gap between them and foreign countries.[5] From the perspective of ESG rating, China's rating agencies are still in the early stage of development, and the main rating agencies are China Finance and Green Gold Institute, Business road green and social value investment Alliance, Harvest Fund, etc. But China also faces multiple challenges in the ESG rating field. First, the use of the ESG ratings is not clearly defined. When investors make decisions, some regard them as investment basis, and some as risk assessment tools. Companies also see it as a yardstick of sustainability and social responsibility, a diverse use that leads to difficulties in interpreting and applying rating results. Secondly, various rating agencies have different index systems, scoring and quantification methods when implementing ESG rating. Due to the lack of a uniform ESG rating criteria, Various institutions have different priorities and standards when evaluating the ESG performance of enterprises, resulting in uneven evaluation results. Moreover, the quality of the ESG ratings is difficult to assess. With different priorities and standards, it is difficult for investors to judge the credibility of ratings. At the same time, the lack of transparency in the evaluation process of rating agencies makes it difficult for investors to understand the evaluation

Table 1 Existing ESG regulations in China

Release department	Systems and regulations	time
Hong Kong, China Exchange	Guidelines on Environmental, Social, and Governance Reports	In 2012,
The Ministry of Environmental Protection and the China Securities Regulatory Commission	Cooperation Agreement on Jointly Carrying out Environmental Information Disclosure of Listed Companies	In 2017,
The Asset Management Association of China	Research Report on ESG Evaluation System of Listed Companies in China "Green Investment Guidelines"	In 2018,
Ministry of Ecology and Environment	The Reform Plan for the Legal Environmental Information Disclosure System	In June, 2021
China Enterprise Reform and Development Research Society	The Enterprise ESG Disclosure Guide	In April, 2022
The China Banking and Insurance Regulatory Commission	Guidelines on Green Finance for the Banking and Insurance Industry	In June, 2022
the People's Bank of China; People's Bank of China	Guidelines on Environmental Information Disclosure of Financial Institutions	In July, 2022
the State-owned Assets Supervision and Administration Commission	The Blue Book of the Environment, Society and Governance of Listed Companies of Central Enterprises (ESG) (2022)	In November, 2022
The General Office of the State-owned Assets Supervision and Administration Commission	Notice on Forwarding the Research on the Preparation of ESG Special Report of Listed Companies controlled by Central Enterprises	In July, 2023
Chinese Academy of Social Sciences	China ESG Investment and Development Report (2023)	In September, 2023

methods and data sources, thus affecting the judgment of the accuracy and reliability of the rating results. From the perspective of ESG investment, many ESG products can open up a steady, for external investors The ESG application path of the system can realize the perfect integration of capital and sustainable strategy. This not only promotes the economic development and modernization reform of enterprises, but also helps the optimization and upgrading of industrial structure, and accelerates the formation of a new trend of economic and social development led by green and technology [6]. But at the same time, we also need to be alert to the current "green bleaching" phenomenon of enterprises and the "green" bubble " problem, and always have a cautious attitude towards the investment and application of ESG.

3.2 Comparison of ESG development status at home and abroad

In the context of globalization, ESG has become an important symbol of enterprise transparency and sustainable development. At present, the United States, the European Union and the Hong Kong, China are at the forefront of ESG information disclosure. The Chinese mainland is also actively exploring and building an ESG standard system suitable for its national conditions. One is that the United States, as the leader of the global economy, has its ESG disclosure system designed to strengthen the supervision of listed companies in terms of environmental and social responsibilities. Listed companies should not only force the disclosure of the impact of environmental issues on the company's financial position, but also refer to a series of international standards, such as GRI, SASB, ISO 26000, etc., to ensure the comprehensiveness and accuracy of information disclosure [7]. The establishment of this system, It not only helps to reduce the investment risks caused by negligent environmental, social and other factors, but also provides investors with real, objective, effective and comparable enterprise ESG information. Second, the EU has also spared no effort in ESG information

disclosure. The system not only requires listed companies to disclose ESG information in accordance with the Guidelines on Environmental, Social and Regulatory Reporting, but also encourages companies to voluntarily disclose more information. This combination of coercion and voluntary approach, It not only guarantees the basic requirements of information disclosure, but also gives the enterprise a certain flexibility. However, the EU also faces some challenges in ESG information disclosure, such as the inconsistency of regulatory regulations among member states, the inconsistency of disclosure standards and the lack of third-party authentication. Third, Hong Kong, China region pays more attention to international standards in ESG information disclosure. Its information disclosure form is mainly compulsory disclosure, and enterprises are encouraged to voluntarily disclose more information. At the same time, Hong Kong has also formulated the General Guidelines for ESG Information Disclosure of Enterprises and other guidelines, It provides a clear disclosure direction and standards for enterprises. However, as most companies lack ESG management strategies and architecture, the flexibility and depth of information disclosure still need to be improved. Fourth, as an emerging market, mainland China is also actively promoting ESG information disclosure. The government requires central enterprises holding listed companies to explore the establishment and improvement of the ESG system, which is designed to strengthen information disclosure and promote the steady development of ESG work in China. However, mainland China still faces some challenges in ESG information disclosure, such as the lack of unified standards, comprehensiveness and coordination to be improved.

As can be seen, ESG development has become an important issue around the world. While promoting the ESG information disclosure work, various countries and regions are also constantly exploring and improving the relevant standards and systems. In the future, with the continuous development of the global economy and the increasingly severe environmental problems, ESG information disclosure will play an increasingly important role in the development of enterprises.

3.3 Optimization of the ESG index system in China

3.3.1 ESG information disclosure optimization

In order to build an open, transparent and sustainable environmental information disclosure system, enterprises need to first build a set of comprehensive environmental information collection and management mechanism. This covers an extensive collection of environmental data, accurate monitoring of environmental indicators, and a scientific assessment of the environmental impact, aiming to provide solid data support for information disclosure. Next, enterprises should clarify the policy framework of environmental information disclosure, and stipulate the disclosure content, frequency and platform of disclosure, so as to improve the transparency and consistency of information. At the internal management level, strengthening the supervision and audit mechanism is the key to ensure the accuracy of environmental information. This includes establishing a strict audit process, an internal control mechanism, and a clear responsibility for information disclosure. At the same time, we should actively communicate and cooperate with stakeholders to deeply understand their needs and expectations, and adjust and improve the content and method of information disclosure accordingly. The introduction of third-party certification and evaluation agencies for audit can effectively improve the credibility and credibility of information disclosure, and then enhance the trust of investors and stakeholders in the enterprise environmental performance of the [8]. Finally, enterprises should regard environmental information disclosure as a process of continuous progress, continuously reflect on and optimize the contents and methods of disclosure, and flexibly adjust their strategies and actions to adapt to environmental changes and the needs of stakeholders.

3.3.2 ESG rating and evaluation optimization

First, the construction and optimization of the ESG evaluation system has evolved to be based on a series of principles and standards, aiming to unify the basic principles, methods and procedures of the evaluation, and accurately classify the results. These principles include science, transparency, fairness, dynamics and applicability to ensure that the evaluation process is comprehensive and rigorous. The evaluation method involves the evaluation content, the index system establishment and the evaluation method, Ensure the accuracy and validity of the evaluation. Secondly, the evaluation procedure specifies the evaluation process, organization, material collection, information processing, evaluation requirements, grade confirmation and responsibility supervision, etc., to ensure that the evaluation process is standardized and orderly. Finally, the selection guidelines of industry special evaluation standards can provide personalized ESG evaluation standards and guidelines for enterprises in different industries, and ensure the pertinence and practicability of the standards, covering industry characteristics, risk management, regional requirements and stakeholders and other aspects.

3.3.3 ESG investment guidance optimization

The optimization of ESG investment guidance standards is a continuous process that requires the joint efforts of investors, regulators, industry associations and other parties to provide investors with clear guidance to help them make smarter investment choices. This standard should cover the quantitative assessment of ESG value, including multi-dimensional indicators such as environment, society and governance, as well as detailed investment process, risk assessment, opportunity identification and portfolio management guidance, so as to make investment decisions more scientific and effective. With the optimization of the investment guidance, the information management standards should also be integrated. Through the implementation of information management standards, promote the transparency, openness and communication of ESG information, and realize data sharing. ESG information system, data management, disclosure platform and privacy protection.

4 The ESG index boosts the sustainable economic development measures

4.1 Improve the green finance policy system

In order to promote the in-depth development of green finance and strengthen its role in promoting sustainable development, the government should further increase the support for green finance. This is not just a slogan, it requires real action and policy support. First, the government should formulate and improve relevant policies and regulations to provide a solid legal foundation for green finance. These policies and regulations should clarify the definition, scope, standards and regulatory requirements of green finance, and provide clear guidance for financial institutions to carry out green finance business. At the same time, the government should also strengthen the supervision of the green financial market to ensure that the market is fair, transparent and efficient. Secondly, the government can encourage financial institutions to actively participate in green finance business through fiscal and tax means. For example, the government can set up a special fund for green finance to provide financial support for green projects, reduce the capital cost of financial institutions, and improve their enthusiasm for green finance business. In addition, the government can also provide tax incentives, loan discount interest and other policy support to green finance business to further reduce the financing cost of enterprises and promote the implementation of green projects. The government should also strengthen the publicity and

promotion of green finance to raise the public's awareness and participation in green finance. By holding green finance forums and releasing green finance reports, we will popularize the concept and advantages of green finance to the public and attract more private capital to invest in the green sector. The government can also strengthen the cooperation and exchanges with the international green finance market, learn from the international advanced experience, and promote the international development of green finance.

4.2 Promote the ESG investment philosophy

For the government, as a policy maker and regulator, it should actively advocate the ESG investment concept and widely publicize it through various channels. The government can organize relevant forums, seminars and other activities to invite experts, scholars and industry insiders to discuss the importance and practical methods of ESG investment, so as to improve the awareness of ESG investment concept. At the same time, the government can also formulate relevant policies to encourage enterprises to strengthen ESG management, improve the transparency of ESG information disclosure, and provide a better environment for ESG investment. For social participants, they should actively participate in the promotion of ESG investment concept, and the media can increase the reporting of ESG investment concept. Through news, columns, interviews and other forms, Publicize ESG investment knowledge to the public and raise the ESG awareness of investors. NGOs and industry associations can also exert their advantages to organize relevant training and exchange activities to promote the recognition and application of ESG investment concept in a wider scope. For financial institutions, as an important participant in ESG investment, the research and development and promotion of ESG investment products should be strengthened. Financial institutions can actively study the development trend and investment opportunities of the ESG investment market, and develop competitive ESG investment products that meet the market demand. At the same time, financial institutions can also strengthen cooperation with other institutions to jointly promote the research and development and promotion of ESG investment products to provide investors with more choices.

4.3 Strengthen international cooperation and exchanges

International cooperation and exchanges are the key to promoting the development of green finance and ESG investment. In today's globalized world, countries' economic, social and environmental problems are closely linked and need to be addressed together. Strengthening international cooperation and exchanges can share the successful experience of countries in green finance and ESG investment, and promote the dissemination of knowledge and technological innovation. Through cooperation, countries can jointly develop and promote more environmentally friendly and efficient financial products to contribute to global sustainable development. At the same time, international cooperation and exchanges will also help to coordinate national policies and promote the unification of global green finance and ESG investment standards. Policies and standards on green finance and ESG investment may differ between different countries, This will affect the stability of cross-border investment and financial markets. Through international cooperation and exchanges, countries can strengthen communication, enhance understanding, and promote the unification of global green finance and ESG investment standards. This will help to reduce the risk of cross-border investment, improve the efficiency of the financial markets, and promote the global economic prosperity. In addition, international cooperation and exchanges will also help to form a synergy of global green finance and ESG investment. Governments, financial institutions and enterprises of various countries can jointly invest to set up green investment funds

to provide financial support for green projects. At the same time, countries can jointly promote the issuance and trading of green bonds to provide more financing channels for green projects. Through cooperation, countries can form synergy to jointly promote the development of global green finance and ESG investment, and make greater contribution to global sustainable development.

4.4 Cultivate a professional talent team

Green finance and ESG investment, as emerging fields, have a growing demand for professionals. To ensure the sustainable development of these areas and play their key role in promoting sustainable development, governments, financial institutions and universities should work together to develop a team of talents with expertise in green finance and ESG investment.

First, the government should play its guiding role in the field of education and training. The government can set up special funds to support education and training programs in green finance and ESG investment areas. This includes funding universities to offer courses to provide students with systematic knowledge of green finance and ESG investment, and funding financial institutions to conduct internal training to improve staff professionalism and practical skills [4]. Secondly, financial institutions, as the main participants in green finance and ESG investment, should actively participate in talent training. Financial institutions can work with universities to jointly develop relevant courses to introduce the latest market trends and practical experience into the teaching content. In addition, financial institutions can provide internships for students to learn and master professional skills in green finance and ESG investment in practice. As an important base for talent training, universities should also assume the responsibility of cultivating professionals in green finance and ESG investment. Colleges and universities can offer relevant majors or courses to provide students with systematic theoretical knowledge and practical skills training. At the same time, colleges and universities can also strengthen the cooperation with financial institutions, jointly develop teaching cases and teaching materials, and improve the pertinacity and practicability of teaching. In addition, the government, financial institutions and universities can also jointly organize relevant seminars, forums and other activities to provide a platform for professionals to communicate and learn. These events can invite industry experts, academics and practitioners to share their experiences and views, and promote exchanges and cooperation in green finance and ESG investment.

The ESG index boosts the sustainable economic development under the green finance model is a complex and important issue. By improving the green finance policy system, promoting ESG investment concept, strengthening international cooperation and exchanges, and cultivating professional talents, the role of green finance and ESG index in promoting sustainable economic development can be fully played. In the future, as green finance and ESG investment continue to grow, we have reason to believe that the economy will achieve a greener, more low-carbon and more sustainable development.

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