Proceedings of ICEMGD 2025 Symposium: Innovating in Management and Economic Development
DOI: 10.54254/2754-1169/2025.LH25192

The Synergy Between ESG and Green Finance

Yudong Shen

Department of Statistical Science, University College London, London, the United Kingdom
1936010231@pop.zjgsu.edu.cn

Abstract. Pursuit of sustainable corporate development has attracted increasing scholarly and policy interest. This paper reviewed domestic and foreign research on ESG and green finance. We found that both external and internal factors can affect a company's ESG; although good ESG performance can increase a company's stock price and reduce the issuance rate of the bonds, its impact on corporate performance is not clear. In addition, green finance can reduce the credit risks of commercial banks, alleviate enterprises' financing constraints and promote them to carry out green technology innovation at the micro level and can help a country achieve the transformation of its industrial structure at the macro level. Furthermore, the development of green finance can not only provide financial support for enterprises to promote the innovation of green technologies but also encourage more companies to improve their ESG performance; the prevalence of ESG can also in turn improve the efficiency of resource allocation in the whole society and promote the further development of green finance. This paper aims to help relevant personnel deepen their understanding of ESG and green finance, expand the scope of research in related fields, and ultimately provide guidance for enterprises to achieve sustainable development.

Keywords: Sustainable Development, ESG, Green Finance

1. Introduction

Recently the impact of environmental issues on the global economy has become increasingly significant. Problems such as resource shortage and environmental degradation have intensified which has once again made sustainable development a hot topic in global discussions. In response to the concerns of the times, 195 member states of the United Nations jointly signed the Paris Agreement, proposing to "limit the increase in global average temperature to within 2 degrees Celsius higher than pre-industrial levels, and strive to limit the increase in temperature to 1.5 degrees Celsius higher than pre-industrial levels" in 2015. As the main participants in market economic activities, companies can play an important role in it. Against this backdrop, ESG has been regarded as a useful framework to encourage corporate contributions to sustainable development. ESG is an acronym that stands for environmental, social, and governance. It integrates environmental, social and governance issues into financial analysis and investment decisions, while considering the sustainable development of economy, society and environment. Since the ESG concept was officially introduced into the Chinese market in 2008, more and more investors and financial institutions have begun to pay attention to corporate ESG when determining investments and loans because it is highly consistent with China's "double carbon" goal.

In order to cope with increasingly acute environmental problems, low-carbon and environmental protection has become a prominent feature of this round of technological revolution and industrial transformation. Green emerging industries are booming around the world, and green finance has also become the most dynamic part of the global financial system. As He and Cheng said, the essence of green finance is still finance, but it can guide the real economy towards green, low-carbon, circular and sustainable development through the allocation of financial resources [1]. It is thus an important means to help countries around the world achieve the goals of the Paris Agreement.

Due to the consistency in concepts between ESG and green finance, many scholars have devoted themselves to exploring the relationship between the two. For example, An et al. believe that with the help of green finance, enterprises are more likely to have better ESG performance, because it can not only provide financial support, but also play a guiding, motivating and promoting role [2]. By contrast, when companies practice ESG concepts, they also urgently need the support from green finance [3]. The following section provides a brief review of recent research on ESG and green finance, with a particular focus on their interrelationship.

2. Literature review

2.1. Literature on ESG

So far, academic research on ESG has mainly focused on its influencing factors and economic consequences. Among them, the influencing factors are mainly divided into internal factors and external factors; while the economic consequences of ESG are reflected in two aspects: capital markets and corporate operations.

The external environment mentioned here mainly refers to the national policy environment: As the social norms companies face may differ, their ESG performance may vary greatly. For example, when Garcia and Orsato compared the ESG performance of companies under different national systems, they found that companies in emerging countries are more likely to prioritize capital accumulation and ignore the potential strategic benefits of ESG [4]. Moreover, Fang' s research suggests that if the government levies environmental protection taxes, corporate's ESG performance will be improved by increasing investment in environmental protection and improving the level of green innovation [5]. The behaviors of investors, suppliers and even the government can also affect the ESG of enterprises. Some research found that institutional investors can enable companies to improve their ESG by improving the quality of corporate accounting information and increasing their investment in environmental protection [6]. Coincidentally, Chen and Liu hold a similar view: they believe that the attention of external investors will help ease companies' financing constraints and enhance their ability to protect the environment, thereby improving their ESG levels [7]. In addition to investors, suppliers and governments are also very influential. With the acceleration of enterprise digital transformation, suppliers can promote enterprises in the supply chain to jointly achieve ESG goals through data sharing and intelligent analysis, thereby enhancing mutual trust among enterprises [8]. When it comes to the governments, Xu et al. found that the more attention local governments pay to environmental issues, the stronger the command-and-control system formed regulates corporates' behaviors, and the higher the ESG levels of enterprises are [9]. What's more, as the main way for the public to obtain information, media attention to corporate ESG

DOI: 10.54254/2754-1169/2025.LH25192

practices can play the role of external supervision and promote companies to show better ESG performance [10].

Considering that enterprises need a strong leadership team to implement ESG concepts, in recent years, research on how the internal governance structure of enterprises would affect ESG has emerged endlessly. Some studies found that the presence of female executives can encourage a company to take on more responsibilities in the ESG field; others found that Chinese companies that perform well in ESG always have executives who are members of the Communist Party of China [11]. As for shareholders of enterprises, Liu et al. found that active participation by non-controlling shareholders in corporate management can reduce abuse of power by controlling shareholders, then improving the company's ESG performance [12]. Similarly, because foreign investors attach great importance to environmental protection, they can also improve companies' ESG performance indirectly. With the rapid development of the digital economy, digitalization can make it easier for enterprises to achieve sustainable development. At present, academic circles have reached a consensus that the higher the degree of digitalization of an enterprise, the better its ESG performance. However, scholars still have different views on the path that digitalization affects ESG. Some studies showed that digitalization can help improve the efficiency of resource allocation, allowing companies to invest more resources in environmental protection; others found that digital transformation can help companies obtain more advanced and environmentally friendly production technologies, thereby improving their ESG [11].

As investors pay more attention to corporate ESG, the impact of ESG on corporates' performance in the stock market and bond market has become increasingly obvious. As an important part of corporate value, the stock price performance of listed companies has always been a hot topic in ESG research. For example, Zhou et al. found that good ESG performance can increase the stock price of listed companies, especially those with higher information disclosure levels [13]. When it comes to the bond market, ESG ratings can convey to the outside world information that companies are actively practicing environmental protection, thereby reducing bond issuance rates. However, there is no absolute thing. Once investors discover that a company is engaged in ESG greenwashing behavior, the interest rate on its bonds will rise instead. Different from research on capital markets, academic circles currently still have different conclusions on what impact ESG has on corporate operations. Taking corporate performance as an example, most studies believe that the impact of ESG on corporate performance is positive, that is, ESG can promote the improvement of corporate performance. However, some studies still believe that the impact is negative or insignificant [14].

2.2. Literature on green finance

The concept of green finance dates to the 1970s and is considered to be a financial tool that can be used to improve environmental quality. It was not until recent years that scholars began to realize that in addition to ecological finance, green finance also includes a larger range of financial activities in aspects such as environmental protection and low carbon. As for the types of financial instruments, green finance mainly includes forms such as green credit, green bonds and green insurance. Among them, green credit and green bonds are currently relatively mature. Green credit refers to the policy of financial institutions providing loan support and preferential interest rates to green enterprises and imposing loan restrictions and interest rate penalties on polluting production enterprises. Green bonds refer to bond products whose final investment in the raised funds is green projects.

Current academic research on the economic consequences of green finance is conducted at two levels: macro and micro. Research at the micro level mainly focuses on commercial banks and

DOI: 10.54254/2754-1169/2025.LH25192

enterprises. To be specific, banks' green credit often has lower credit risk than other products [15]. For enterprises, green finance can reduce enterprises' financing costs and promote their innovation in green technologies. But we still need to be vigilant about corporates' ESG greenwashing behaviors. At the macro level, research found that green finance can not only help China achieve the "double carbon" goal but also promote the upgrading and transformation of industrial structure [16].

2.3. The relationship between ESG and green finance

ESG measures an enterprise's sustainable development capabilities, while green finance is an important force supporting the sustainable development of enterprises. Therefore, there are many people studying the relationship between ESG and green finance. Currently, academic circles generally believe that enterprises supported by green finance can better assume their responsibilities in the ESG field; but there are two views on the impact path. Firstly, green finance aims to help enterprises achieve sustainable development. By providing financial support to enterprises that meet regulations, it channels limited financial resources toward environmentally friendly projects and enterprises committed to sustainability. With financial support, environmental companies can better strive to improve their ESG performance. Secondly, as mentioned above, green finance can impose punitive interest rates on polluting companies and strictly limit the size of their loans, then making it more difficult for companies to raise funds. In order to obtain more favorable loan interest rates and improve their own market competitiveness, companies have no choice but to carry out technological innovation to achieve transformation [2].

With growing concerns over environmental issues, an increasing number of companies are integrating ESG principles into their strategic planning and investment decisions. This trend not only reflects enterprises' active commitment to social responsibilities but also provides new impetus and opportunities for the development of green finance. In fact, companies that want to perform well in ESG field always have a very urgent need for funds: to actively assume social responsibilities, companies often need to invest a large amount of money in technological innovation. ESG ratings help investors identify regulation-compliant companies more efficiently. This allows for timely allocation of capital to enterprises in need, thereby supporting the implementation of ESG practices. In addition, to meet the diversified needs of enterprises, relevant departments also have to create more types of financial products. On the other hand, ESG practices can strengthen communication between enterprises, financial institutions and investors, allowing all parties to better cooperate to respond to global challenges and achieve coordinated development of the economy, society and environment [3].

3. Conclusion

With the increasing importance of ESG and green finance, research on these topics has become a hot topic in the academic community. This paper systematically combed the domestic and foreign literature on ESG and green finance in recent years and found: (1) The influencing factors of ESG can be mainly divided into external factors and internal factors. Among them, external factors mainly include policy environment, third-party behavior and media attention, while internal factors include internal governance structure, shareholder characteristics and digitalization; (2) The economic consequences of ESG are mainly concentrated in capital markets and corporate operations. To be specific, companies with better ESG performance tend to have higher stock prices and lower bond issuance rates, but the impact of ESG on corporate performance remains uncertain; (3) Green financial products mainly include green credit, green bonds and green insurance. And its economic consequences are mainly at micro and macro levels. At the micro level, green finance can help reduce banks' credit risks, reduce corporates' financing costs and promote their technological innovation; at the macro level, green finance can help realize the transformation and upgrading of industrial structure; (4) Green finance incentivizes corporate adoption of ESG practices, while the growing emphasis on ESG further reinforces the development of green finance, forming a mutually reinforcing cycle.

Although current research on ESG and green finance has achieved some results, overall, research in these areas is still in its infancy. Future research can be carried out in these aspects: (1) Research on the economic consequences of ESG has problems such as inconsistent conclusions and insufficient in-depth research. To make up for these shortcomings, more variables such as green finance and stock liquidity can be introduced to enrich relevant research. (2) Green finance policies involve government intervention to the market, such as price subsidies, quantity restrictions and so on. These interventions may hinder the free operation of the economy. Based on this, future research can focus on its market impact.

References

[1] He, D., Cheng, G. (2022). Green Finance. Economic Research Journal, 57(10), 10-17.
[2] An, J., Dong, L., Wang, X. (2025). Research on the Effect of Green Finance on Corporate ESG Governance: Empirical Evidence Based on Listed A-share Manufacturing Companies. China Market, (14), 26-30.
[3] Tian, W. (2024). Green Finance and ESG Practice in Investment Enterprises. Economic Research Guide, (12), 52-55.
[4] Garcia, A. S., Orsato, R. J. (2020). Testing the Institutional Difference Hypothesis: A Study about Environmental, Social, Governance, and Financial Performance. Business Strategy and the Environment, 29(8), 3261-3272.
[5] Fang, X. (2024). VAT Allowance and Refund, R & D Innovation and Corporate ESG Performance. Friends of Accounting, (13), 133-140.
[6] Jiang, Y., Wang, C., Li, S., & Wan, J. (2022). Do Institutional Investors' Corporate Site Visits Improve ESG Performance? Evidence from China. Pacific-basin Finance Journal, 76, 101884.
[7] Chen, X., Liu, H. (2023). Does Investor Attention Affect Corporate ESG Performance: Evidence from Internet Search. Journal of Zhongnan University of Economics and Law, (2), 15-27.
[8] Li, J. (2025). Overview of Corporate ESG Performance. Enterprise Reform and Management, (3), 7-9.
[9] Xu, N., Zou, S., Wu, Z. (2024). Local Governments' Attention to Environmental Protection and Corporate ESG Performance: Based on the Perspective of Environmental Institutions. Friends of Accounting, (16), 61-68.
[10] He, F., Guo, X., Yue, P. (2024). Media Coverage and Corporate ESG Performance: Evidence from China. International review of financial analysis, 91, 103003.
[11] Zhang, B. (2025). Literature Review on Factors Influencing Enterprise ESG Performance. Co-operative Economy & Science. (10), 144-147.
[12] Liu, M., Liu, Y., Xue, K. (2025). Impact of Non-controlling Shareholders' Participation in Governance on Corporate ESG Performance. Finance and Accounting Monthly. (11), 1-6.
[13] Zhou, G., Liu, L., Luo, S. (2022). Sustainable Development, ESG Performance and Company Market Value: Mediating Effect of Financial Performance. Business Strategy and the Environment. 31(7), 3371-3387.
[14] Duque-Grisales, E., Aguilera-Caracuel, J. (2021). Environmental, Social and Governance (ESG) Scores and Financial Performance of Multilatinas: Moderating Effects of Geographic International Diversification and Financial Slack. Journal of Business Ethics. 168, 315-334.
[15] Chami, R., Cosimano, T., Fullenkamp, C. (2002). Managing Ethical Risk: How Investing in Ethics Adds Value. Journal of Banking & Finance. 26(9), 1697-1718.
[16] Wang, Y., Pan, D., Zhang, X. (2016). Research on Green Finance's Contribution to China's Economic Development. Comparative Economic & Social Systems. (6), 33-42.