The Impact of Green Finance's on Corporate Finance

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Abstract. Research on how green finance affects corporate finance is becoming increasingly important as China advances its high-quality economic development alongside ecological civilization construction. This paper systematically reviews the evolution of green finance in China by analyzing relevant academic research and policy developments. The study explores the impact of green finance on corporate finance from multiple perspectives, including access to capital, financing costs, and structural adjustments in financial decision-making. Specifically, it investigates how green finance influences corporate financial scales, cost structures, and overall financial performance. The findings indicate that green finance significantly affects corporate financing by promoting sustainable investment, lowering financing costs for environmentally responsible firms, and reshaping the financial structure of enterprises. Furthermore, the impact varies based on ownership type, company size, and industry sector, with state-owned and larger firms often benefiting more from green finance policies and incentives. Lastly, this paper highlights the key findings while acknowledging existing research limitations, such as data constraints and the need for further empirical validation, providing directions for future studies in this evolving field.

Keywords: Green Finance, Corporate Finance, Sustainable Investment, Financial Structure.

1. Introduction

The goal of “dual carbon” is clearly stated in 2020, i.e., “no further growth in carbon dioxide emissions to reach a peak in 2030 and offsetting the production of carbon dioxide or greenhouse gas emissions through energy efficiency and emissions reduction in 2060”. This goal aims to accelerate the pace of reducing carbon emissions, integrating green concepts into enterprise technological innovation, and realizing the green transformation of industries has become an important indicator for enterprises. In light of China's superior economic growth and the establishment of an ecological civilization, green finance is becoming more and more prominent as a key force in coordinating economic growth and environmental protection, and it is crucial to the process of achieving the "double carbon" objective. As a necessary condition for enterprises to carry out productive and operational activities, financing is the assurance that businesses will survive and grow. In the traditional financing model, financial indicators are often put in the first place, while environmental externalities are neglected. Green finance, on the other hand, integrates ecological considerations into the financing link, considers the survival of the human environment and the environmentally friendly development of businesses and leads various economic entities to emphasize ecological balance. This difference has fundamentally reshaped the enterprise financing pattern. In-depth exploration of the green financial model can not only provide precise navigation for enterprises to optimize their financing strategies and achieve transformation and upgrading in the wave of green environmental protection but also help financial institutions to innovate their business and control environmental risks. At the same time, it can also provide empirical evidence and decision-making references for policymakers to encourage sustainable development and enhance the system of green finance policies.

However, the evolution of green financing is still subject to many constraints, especially in enterprise financing. This paper mainly describes the academic results of Chinese scholars on the effect of green finance on business financing by examining how green finance has evolved in China, as well as the adjustments and changes made by enterprises under the relevant policies, and analyzing the literature, collecting and organizing the relevant literature, presenting the impact mechanism, the degree of effect and heterogeneous responses of enterprises, revealing the research trends, tapping into the gaps of the existing research, and creating a strong basis for the further development of the

next study. The research will reveal the research trends, explore the existing research gaps, and lay a solid foundation for the subsequent deepening research.

2. China's Green Financial Development

2.1. Policy Evolution

Before conducting the research, this paper needs to sort out the development of green finance in China, to have a comprehensive understanding of green finance from time to time, to find out the development law, and to put forward suggestions for enterprise financing. China's green finance policy started early and has been advancing continuously; Opinions on the Implementation of Environmental Protection Policies and Regulations to Prevent Credit Risks were jointly released in 2007 by the China Banking Regulatory Commission (CBRC), the People's Bank of China (PBOC), and the State Environmental Protection Administration (SEPA). Among other things, it improves the collaboration and connection between financial regulators and environmental protection and promotes credit security by strengthening environmental supervision. It supports environmental preservation combined with stringent credit control and strengthens economic constraints and supervision of corporate environmental violations. The Guiding Opinions on Energy Conservation and Emission Reduction Credit Work were released by the China Banking Regulatory Commission (CBRC) that same year, in which operational rules and credit policy requirements were made for energy-intensive and heavily polluting businesses. At the same time, it encourages energy-saving and emission reduction industries and projects. Given the dominance of bank credit in China's financing system, the green finance regulatory policies issued by the China Banking Regulatory Commission (CBRC), are essential to China's economic green transition as the regulator. Initially, a green credit policy framework has been established, laying the cornerstone for banks' participation in green finance. The 2012 Green Credit Guidelines have strengthened the green credit policy system by refining banks' environmental responsibilities and business norms and reinforcing the implementation of the policy. Seven commissions and ministries collaborated to release the Guiding Opinions on the Construction of a Green Financial System in August 2016, which, with the additional assistance of financial, environmental and other policies and relevant laws and regulations support a sound green financial system. The 2016 G20 summit pushed green finance to the forefront of international cooperation, and the domestic trend accelerated the innovation of diversified tools such as green bonds and green funds, and the policy expanded from a single credit control to a comprehensive financial service ecology, which promoted the flourishing development of the green financial market [1]. In June 2017, seven ministries and commissions jointly issued the “Introduction of the Program of Green Financial Pilot Areas for Some Localities in Five Provinces and Districts”, which Promote the coordinated development of ecological civilization construction and green finance. It provides a reference for other regions of the country to learn from, and thus extends to all regions of the country. The "Guiding Opinions on Further Strengthening Financial Support for Green and Low-Carbon Development" were released by the People's Bank of China (PBOC) in collaboration with the National Development and Reform Commission (NDRC), the Ministry of Industry and Information Technology (MIIT), the Ministry of Finance (MOF), the Ministry of Ecology and Environment (MOE), the General Administration of Financial Supervision (GAFS), and the China Securities Regulatory Commission (CSRC). These opinions propose relevant laws, standards, and monetary policy tools from various initiatives. With its support for green and low-carbon development, China's green financial policy system is further developing towards maturity.

2.2. Market Development

The market's size is growing, and the green credit balance keeps rising. According to data, China's green loan balance was RMB 35.75 trillion at the end of the third quarter of 2024, gaining 25.1% from the previous year [2]. Nearly 200 million tons of carbon emissions have been reduced because of financial institutions being encouraged to offer carbon emission reduction loans totaling more than

RMB 1.2 trillion through the Carbon Emission Reduction Support Tool. China's green bond market has been growing quickly in recent years. Compared to the same period last year, China's green bond new issue in November totaled 70.214 billion yuan and there were 76 issues, representing increases of 43.75% and 76.74%, respectively. The green bond market started in 2016, and the cumulative issuance scale has exceeded 3,413.871 billion yuan. Its varieties are constantly enriched, attracting the participation of diversified investors.

3. Impact of Green Finance on Corporate Financing

3.1. Dimension of Financing Scale

Green financial policy has brought many aspects of influence on the scale of enterprise financing. The first is that green financial policy brings more financing possibilities to environmental protection enterprises through green loans and green bonds. The influence of green bond issuance on debt financing was examined by Liu et al. using the double difference method model [3]. They discovered that issuing green bonds may greatly enhance the amount of debt financing that businesses undertake. Green bonds not only make it easier for enterprises to borrow from banks, but also make it more convenient to raise funds in the bond market, which helps enterprises integrate more funds. Secondly, green loan policy can bring favorable impact on the financing scale of enterprises. Qian argues that green credit policy drives further financing of enterprises by encouraging banks to give loans to green enterprises [4]. The green credit policy facilitates financing options for environmental firms and encourages the development and promotion of environmental technologies, particularly in the area of environmental protection. According to data, the balance of green loans in China as of the end of the third quarter of 2024 was 35.75 trillion yuan, a 25.1% increase over the previous year [5]. This indicates that green credit has significantly aided businesses in increasing their financing capacity. However, the green finance strategy has made it more difficult to fund large energy-consuming businesses. Zeng's study proved that the policy on green funding makes the financing cost of high energy-consuming enterprises increase and makes their financing scale decrease [6]. Because high energy-consuming enterprises bring some damage to the ecological environment, it is difficult for them to obtain green credit and green bond opportunities, and ultimately the financing scale is limited. Particularly in energy-intensive industries such as iron and steel and chemicals, after the implementation of the green finance policy, it has become more difficult for these companies to receive financing, and the amount of funds they can obtain has decreased.

3.2. Financing Cost Dimension

Different types of enterprises are affected differently by financing costs under green finance policies. For green and environmental protection related enterprises, the green finance policy gives them low-cost financial support, which makes the financing cost of these enterprises lower. Bai's study shows that green bonds provide long-term low-interest loans for the environmental protection industry, which allows the cost of financing to be reduced [7]. In addition green credit policy implements favorable interest rate policy, which is also the reason that helps green enterprises to reduce financing costs. According to relevant statistics, in general, green bonds have lower interest rates than conventional bonds, while the interest rate of green credit is also significantly lower than that of traditional credit, which shows that the given the green finance policy clearly impacts enterprises to reduce financing costs [4]. However, for those energy-intensive companies, green finance policies make their financing costs significantly higher. Zeng pointed out that the green finance policy, especially the requirement of needing to disclose environmental information, contributed to the rise in financing expenses for high energy-consuming firms [6]. By analyzing the DID model, Dai et al. found that the policy on green funding made it more costly for high energy-consuming enterprises to borrow money [8]. Because of the lack of environmental benefits of these enterprises, banks are reluctant to provide low-interest loans, causing their financing costs to rise further. Using data, Jiang et al. found that corporate financing significantly increased when corporate

environmental disclosure improved. Especially for high energy-consuming types of enterprises, environmental disclosure requirements raise these businesses' funding expenses [9].

3.3. Financing Structure Dimension

Green financial policies' effects on businesses' funding structures is mainly reflected in is the relaxation of the corporate debt maturity and the broadening of debt channels in two aspects. Bai suggests that green bonds can provide long-term financial assistance, which helps businesses modify their financing arrangements and lessens their reliance on high-interest, short-term loans [7]. As for high energy-consuming enterprises, the capital structure has been adjusted with green bonds to exchange old for new and extend the debt maturity plan. In addition, the green finance policy promotes enterprises to issue green bonds and green credit, thus making their financing channels more diversified. Liu et al. argue that the issuance of green bonds not only allows enterprises to finance more money but also makes their financing channels richer and reduces financing risks [3]. Especially for the environmental protection industry, green bonds and green credit bring them diversified financing channels, and these financing channels promote the rapid development of the environmental protection industry. However, the effect of green financial policies on the change of the financial structure of SMEs is not significant. Li suggests that SMEs are not strong enough in technology, lack of collateralized assets and lack of information disclosure, which makes it difficult for them to meet the strict requirements of green finance, hence their funding sources and organizational design are comparatively undifferentiated [10]. For micro and small enterprises, green finance lacks support for them, and it is difficult to help them broaden their financing channels. Therefore, it is difficult for them to broaden their financing channels and improve their financing structure.

4. Impact of Differentiation under Enterprise Heterogeneity

4.1. Industry Differences

The impact of green financial policies on various industries varies. For environmental safeguarding and environmentally friendly industries, green financial policies give them inexpensive financial assistance, which drives their rapid development. According to Qian's research, green credit and green bonds help environmental protection enterprises to finance a large amount of money and promote the research and development and use of their environmental protection technology [4]. Particularly for energy-saving and innovative energy-related environmental protection businesses, green finance policies have provided them with more financing opportunities, accelerating the development of these enterprises. According to figures released by Dong’s paper, by the end of the third quarter of 2024, China's total green loans amounted to $35.75 trillion, up almost 25% from the same period the previous year, which shows that green financial policies have indeed effectively promoted the environmental protection industry [5]. However, for high energy-consuming industries, the green finance policy has obviously increased their financing costs, so they have to upgrade their industries. Zeng feels that green financial policies have increased the financing costs of energy-intensive enterprises, which has compelled them to enhance their machinery and technology in order to hasten industrial change [6]. Through their study, Dai et al. pointed that these policies increased the debt financing costs of energy-intensive enterprises and promoted their green transformation [8]. In addition, the policies of green finance have also had a great impact on the financing structure of various industries. Bai claims that the issuance of green bonds has provided the environmental sector with sustained financial assistance, which makes their financing structure better and reduces their reliance on those short-term high-interest loans [7]. However, the situation is different for energy-intensive industries, as green finance policies can make their financing cost higher. This makes it difficult for these enterprises to obtain sufficient financial support, which ultimately makes it difficult to make effective improvements to their financing structure.

4.2. Differences in Firm Size

The effect of green finance policies on firms varies across firm sizes. For large firms, these policies give them low-cost tolerant magnetic support, prompting them to transform into environmentally friendly enterprises. According to Liu's paper, with their strong financial strength and brand reputation, big businesses are more likely to receive assistance from green bonds and green credits, thus accelerating their environmental transformation [3]. For example, Sinopec obtained a large amount of funds through the issuance of green bonds and eventually implemented green projects. From the side of SMEs, the role of green finance policies is not as obvious as that of large enterprises. Li found that SMEs are difficult to meet the stringent requirements of green finance because of their insufficient level of technological research and development, lack of collateral costs, and low disclosure of company information, making it difficult for them to obtain loans with higher interest rates [10]. Especially those small and micro-enterprises, green finance to give them particularly little help, so the way to find money has become narrower, borrowing money is also more expensive. The average loan interest rate for small and medium-sized businesses is much higher than that of large businesses, according to data. This suggests that green financing regulations do not adequately assist small and medium-sized businesses.

4.3. Variations of Property Rights

Additionally, there are notable variations in how green finance regulations affect businesses with various property rights. For state-owned enterprises, green financial policies give priority support and help through the government's credit endorsement and policies. State-owned enterprises thus receive more green financing support. Liu et al. found that support for green debt and green credit is more likely to reach state-owned businesses due to their special social status, thus promoting their green transformation [3]. For example, some state-owned energy enterprises have issued green bonds and raised a large amount of capital, which has allowed them to carry out their green projects. On the other hand, for private enterprises, the effect of green finance is somewhat limited. Li argues that it is difficult for private enterprises to get help and support from green finance because of their lack of capital and credit [10]. In particular, the support of green finance is limited for private enterprises of the SME type, which have narrower financing channels and higher financing costs. Data show that the interest rate of loans for private enterprises is significantly higher than that of state-owned enterprises, showing the inadequacy of green financial policies in supporting private enterprises. In addition, the policies of green finance lead to obvious changes in the financing structure of enterprises with different property rights. Bai argues that green bonds give long-term financing support to SOEs, making the financing structure of SOEs more reasonable and reducing their need for short-term high-interest loans [7]. However, for private enterprises, the support of green finance policies is limited, leading to difficulties in optimizing their financing structure.

5. Conclusion

In the process of promoting sustainable development in China, green finance policies are becoming improved and mature. This study finds that green finance has a significant impact on the size, expense, and cost of business financing, and that businesses of various sizes, industries, and property rights types react to green financing initiatives in rather varied ways. In addition, green finance is driving the development of protecting the environment and encouraging the conversion of energy-using industries. Some scholars believe that green finance is altering how businesses obtain funding, supporting excellent enterprises in terms of scale, and gradually becoming greener and more reasonable in terms of structure. Different industries, the size of enterprises, given the characteristics of property rights, these elements also affect how green finance policy works. Policies and markets work together, but there are also problems in the transition. For example, policy implementation is stuck in the final stage, and market pricing is not perfect. Some scholars have found that some enterprises lack knowledge of green finance and pay attention only to economic benefits while

ignoring sustainable development. Although the green economy is now a major trend, many enterprises are difficult to give up the income brought by industries with high levels of pollution and energy usage that are averse to change and advancement. Nowadays, most of the research focuses on static analysis, neglecting to observe the procedure of dynamic change, and the research needs to be improved in the dynamic analysis part. Therefore, the influence of green financial policies can be increased in the temporal dimension by introducing dynamic panel and data modeling to capture the long-term impact. Many of the quantitative methods use linear assumptions and are unable to interpret complex nonlinear relationships. Various methods, such as machine learning, can be added to future research to strengthen the study of nonlinear relationships. The micro-decision-making of enterprises is not transparent enough, and further research is needed in the transfer of information on green finance and how strategies among enterprises affect each other. At the same time, the internal decision-making process of enterprises, such as leadership cognition, corporate culture and these core aspects, should be further studied. It also needs to incorporate carbon finance innovation and fintech into this research to discover the effects of the emerging green finance sector, so that it can continue to help the China's green financing development and continue to explore ways for enterprises to find more financing methods. In the future, the research will provide some operational suggestions for policies, such as how to improve the support of green finance to individual businesses as well as small and medium-sized businesses.

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