

Research on Green Financial Product Innovation from a Low-Carbon Perspective

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Abstract: The development of green finance is to promote the inevitable choice of sustainable development of social economy and environment, this paper summarises the green financial product innovation model and analyse the current status quo of the development of green finance, from the existing legal and regulatory system, green certification rating standards and information disclosure of three aspects of China's green financial field of the deficiencies in the planing, and further put forward targeted comments and suggestions.

Keywords: Low-Carbon Economy; Green Finance; Product Innovation

1. Introduction

Nowadays, climate change has become the focus of the strategic game and international cooperation among the big powers in the international community, and in the severe situation of environmental problems becoming more and more prominent, the development of low-carbon economy has become an inherent requirement of China's sustainable development strategy. 2021, the CPC Central Committee and the State Council issued the 'Opinions on the complete and accurate and comprehensive implementation of the new concept of development to do a good job of carbon peak carbon and carbon neutrality', which makes it clear that. 'We should actively develop green finance as an important way to improve the policy mechanism, and we should orderly promote the development of green and low-carbon financial products and services'. In this policy context, China has accelerated the planning for the adjustment of the green industry, energy and service structure, and has actively promoted green energy, green transport, green credit and green bonds and other green and low-carbon financial products and services. China has accelerated the adjustment planning of green industry, energy and service structure, actively promoted the research, development and application of green energy, green transport, green credit, green bonds and other green and low-carbon financial products and services, and established and improved China's green financial standard system.

2. Existing Green Finance Products in China

Green credit, also known as environmental financing, is a more favourable form of bank loans to support the financing of green projects, introducing 'green' attributes into the traditional credit model innovation, changing the original guarantee method and financing body, and achieving reasonable planning and allocation of funds. Compared with other green financial products, green credit in China's preferential credit policy and product support, showing the development of the longest time, the most mature and the largest scale, as of the end of 2021, China's local currency green loan stock ranked first in the world, the green credit market is a sustained and steady growth trend, the environmental benefits are becoming increasingly significant, and gradually form a benign cycle mechanism of the environmental protection industry and the financial industry.

Green bonds, as a new green financing mode developed rapidly in recent years, are a bond instrument that can be effectively used to invest in green industries or refinance projects. Because of their high liquidity, short maturity, low risk and good return on investment, they have attracted a large number of new domestic and foreign investors, broadened the range of investors and increased property income on a large scale.

Green PPP projects cover various fields such as science and technology education, healthcare, pension insurance, public transport, environmental protection and energy saving, etc. Introducing the PPP model into green industries makes funds flow into the construction of green fields, and becomes an innovative green financing model. China has issued relevant policies and regulations to support the active participation of private enterprises in green PPP projects, regulate the financing of green PPP projects and refine the relevant contract text speci-

fications, guide the investment of social funds and solve the financial problems of green industry construction.

3.Constraints on the Development of Green Financial Products in China from a Low-Carbon Perspective

3.1 Lack of perfect and effective legal and regulatory support system

First of all, China's existing top-level design is insufficient, although China's relevant legislation in recent years has made significant progress, when the main body of legislation is mostly the State Council, the Development and Reform Commission and other administrative departments independently enacted, rather than the National People's Congress and its Standing Committee to formulate the green financial laws, and has not risen to the level of the National People's Congress legislation. In addition, these policies mainly stay at the guidance level, with only policy guidelines, recommendations and declarations, lacking actual coercive force, deterrence and authority.

Secondly, the pertinence and implementation of China's legislation is not strong, most of the legal documents related to green finance do not specify the specific responsibility of the main body, the cause of responsibility, the means of accountability and other content, the lack of specific substantive provisions, and the majority of macroscopic, principled provisions, which can not meet the current demand for the development of green finance laws and regulations.

3.2 China's green financial certification and rating system has not yet taken shape

The third-party green rating and certification system is a powerful mechanism for the relevant regulatory authorities and investors to identify 'green' and reduce 'greenwashing' behaviour, which can reduce the information asymmetry in the financial market, and make the collected funds truly used for the investment and construction of green projects. However, at present, China's green financial assessment and certification system is still in the exploratory stage, and has not been generally carried out nationwide.

3.3 Outstanding information asymmetry

China has only begun to build a green financial system from 2016, and has not yet formed a sound information disclosure mechanism, the information disclosure and sharing mechanism of the relevant regulatory authorities has not been improved, the lack of a mandatory social and environmental information disclosure mechanism and the formulation of uniform standards related to the disclosure of detailed green information, and has not yet formed a more standardised and standardised unified platform for sharing data related to green finance.

4. Innovative Suggestions for Green Financial Development from a Low-Carbon Perspective

4.1 Accelerate the construction of China's green financial standards and legal system

Accelerate the improvement of the supporting laws and regulations related to green financial products in order to constrain the behaviour of offenders from the legal level, stipulate the responsibilities and obligations of enterprises, ensure the steady development of green financial business and the relevant regulatory authorities in accordance with the law on the supervision of enterprises, to create a healthy green financial environment under the rule of law.

First of all, we should improve the top-level design of China's green finance development, actively formulate some high-level, specific and broader coverage of the mandatory legal system, make appropriate additions to the existing legal system, clearly delineate the responsibilities and obligations of the relevant enterprises and regulatory agencies and the government's punitive indicators and provisions for enterprises that damage the environment, and special legislation on green finance, so that the relevant laws and regulations in the green finance-related enterprises and institutions can be implemented in accordance with the laws and regulations. The laws and regulations in the green finance related enterprises and institutions to carry out financial business can be used as an important basis to follow the implementation of the government regulatory departments can be in accordance with the law to monitor and assess the relevant environmental standards, to ensure the implementation of laws and policies in the field of green finance, and at the same time to increase the government departments of the green finance of the polluting enterprises in the legal punishment and illegal costs, to build a more complete system of green finance laws, policies and standards. Secondly, due to the high level of green finance industry, the green finance industry has a high level of risk.

Secondly, the positive incentive mechanism of green finance should be actively established to stimulate the innovation and development of relevant green financial products, and to increase the enthusiasm of implementing green finance and the enthusiasm of investors in the field of green finance. Formulate relevant preferential policies, and provide a series of support and incentives such as financial subsidies, tax breaks and financial concessions to enterprises carrying out green financial projects, so as to promote the transformation of more financial institutions and the sprouting of green financial enterprises. Strengthen the environmental risk management of green financial institutions through incentives, establish a sound environmental risk management system with the help of green bonds, green credit and other green financing tools, and create an atmosphere of green financial product innovation.

4.2 Optimise the third-party green assessment and certification framework

Only by making a unified and detailed green financial standard for the green product certification system of the third-party assessment institutions can we help regulators and investors effectively identify 'green' projects and regulate and manage the market behaviour of 'green-washing' in a reasonable manner.

Standardise the third-party assessment and certification mechanism, formulate detailed certification standards based on the qualitative and quantitative index design of the financial sector related to the green industry, and open up the information-sharing platform for assessment and certification, so as to facilitate the relevant governmental supervisory departments to carry out the quality evaluation, risk assessment and consumption guidelines for green products, and to avoid financial risks due to time lag, so as to improve the credibility and scientific validity of the third-party assessment and certification system. It also improves the credibility and scientificity of the third-party assessment and certification system, encourages consumers to prioritise the purchase of financial products that have obtained national green certification, guides the flow of consumer funds to the field of green finance, and helps to build a perfect and transparent third-party green assessment and certification system.

Strengthen the combination of the financial industry and green assessment and certification, real-time monitoring of green capital flows, mastering the investment of funds into the green financial sector risk early warning, with the popularity of information big data and human intelligence, matching and integrating financial science and technology with the green project certification standards, reducing the cost of green assessment and certification, and the implementation of a full flow of supervision of the input capital and environmental performance, which serves as an early warning of the risk.

4.3 Improve green information sharing mechanism

Green financial sector has been the existence of information asymmetry drawbacks, the relevant financial institutions can only through the environmental protection department issued by the existing information to understand the enterprise's environmental protection information, and investors can only be passive according to the financial institutions to provide the green information to judge the direction of their funds, which results in the opacity of information and time lag increases the difficulty of judgement of the relevant green project decision-making. Through the establishment and improvement of a set of standard green financial information disclosure mechanism, the content of environmental information disclosed to the society is more specific, specifying the green information matters that must be disclosed by the relevant enterprises and the quantitative indexes of disclosure, enhancing the transparency, openness and depth and breadth of environmental protection information, and safeguarding the legitimate rights and interests of the investors, and at the same time, clarifying the formulation of system enforceability standards and ensuring the mandatory nature of the system's implementation, and enhancing the public operability of information disclosure, so that relevant enterprises disclose information in accordance with the law.

Develop a social sharing platform for green information, smooth the information-sharing mode of green projects, and publicly disclose information on the industrial structure, illegal emissions, fund-raising and energy conservation and emission reduction of the relevant financial enterprises, which is conducive to investors' identification and judgement of the corresponding risks brought about by their investments and the promotion of green financial business. By increasing penalties for polluting enterprises and preferential policies for enterprises with complete information disclosure to mobilise financial institutions to actively disclose information, and by establishing a complete and strict social supervision and management mechanism to supervise and regulate the disclosed information, we can effectively curb the financial risks

caused by information asymmetry.

5. Conclusion

Green finance is an inevitable trend to achieve the organic combination of environmental protection and sustainable economic and social development in the context of today's low-carbon economy. With the booming development of China's green industry and economic market, the traditional green financial products have been replaced by more energy efficient and innovative green financial products. Due to the late start of green finance in China, there are still a series of problems and deficiencies in the current relevant business development, such as the incompleteness of the relevant legal system, the lack of green certification system and rating system, and information asymmetry, etc. In view of these realities, this paper puts forward the proposed strategies to improve the laws and regulations of green finance, strengthen the third-party assessment and certification system and optimise the information disclosure mechanism.

References

[1] Liu Yang, Ding Xueyan, Lin Runwu, Lu Koon. Research on green financial product innovation of large commercial banks under the perspective of low carbon[J]. Knowledge Economy,2018

[2]Yang Sheng. Analysis on the application of innovative green financial products in China—Taking CGN wind power green bonds as an example[D]. South China University of Technology,2016