

Research on the Current Situation and Problems of Green Finance Development in China

Tianqi Li*, Shuchen Xiang, Yu Nie and Dezhong Zhu

School of Finance, Anhui University of Finance and Economics, Bengbu, Anhui, China.

* Corresponding Author: 3179268821@qq.com

Abstract

Green finance is the product of contemporary financial innovation, and also the inevitable trend of contemporary financial development. In recent years, all walks of life in our country have been developing green economy, in the premise of developing economy is to protect the environment and resources. The same is true of the financial industry, green finance is a development way to promote the healthy and sustainable development of the financial industry, through efforts, China's green finance has further development, and creates a good beginning, in the protection of resources at the same time also promotes the development of finance. Although there is a good start, but China's green finance after all is in its infancy stage, in many aspects there are still insufficient experience, so in the process of development also encountered many large and small difficulties and problems.

Keywords

Green finance; Development status; Difficulties and problems.

1. Introduction

Green finance refers to financial services provided for project investment and financing, project operation and risk management in the fields of environmental protection, energy conservation, clean energy, green transportation and green buildings to support economic activities that improve the environment, address climate change and save and use resources efficiently. Green finance can not only promote environmental protection and governance, but more importantly, guide resources from high-polluting industries to technologically advanced industries. China has made steady progress in its green finance policy, and has made great progress in such fields as credit and funds. As global environmental pollution and climate change become increasingly prominent, green finance has become a hot topic in the global financial sector. The development of green finance meets the needs of environmental protection and sustainable development, and at the same time has positive significance in supplementing and expanding traditional financial services, as well as stimulating corporate social responsibility awareness and environmental innovation.

2. The significance of developing green finance

2.1. Promoting environmental protection and sustainable development

Green finance can provide financial support for environmental protection and sustainable development projects, such as renewable energy projects, energy conservation and emission reduction projects, so as to effectively ease the pressure on the environment and resources and achieve sustainable development. By providing financial support for green technological innovation, it can promote technological innovation and industrial upgrading, and provide more solutions for environmental protection and sustainable development. Provide financial

support for the construction of ecological civilization, such as ecological restoration, ecological protection and other fields, the development of which can effectively protect and repair the ecosystem and improve the level of sustainable use of natural resources. It can guide funds to environmental protection and sustainable development, promote the transformation and upgrading of the economic model, make the economy more healthy and sustainable, and provide a more solid foundation for future development.

2.2. Mitigating climate change

Climate change is one of the major issues facing the world, and human society needs to take multiple measures to meet the challenge of climate change. Green finance plays an important role in mitigating climate change risks. Developing green finance can reduce greenhouse gas emissions by supporting investment in renewable energy, energy conservation and emission reduction, thereby mitigating the impact of climate change, protecting the ecological environment and providing strong support for the sustainable development of human society. Green finance can provide financial support for renewable energy projects, such as solar energy, wind energy, hydropower and other projects, which can effectively replace traditional fossil energy to provide financial support for energy efficiency improvement projects, such as energy management, energy-saving transformation and other projects, which can reduce energy consumption, and provide financial support for projects in the field of green transportation, such as public transportation. Transportation, electric vehicles and other projects, which can reduce the impact of transportation on the environment and reduce greenhouse gas emissions. Through the introduction of green credit and green bonds and other financial instruments, to guide enterprises to low-carbon development, reduce their greenhouse gas emissions, so as to mitigate climate change.

2.3. Promote financial innovation and development

Green finance can promote the innovation and development of the financial industry, lead the direction of industrial development, enhance the social value and market competitiveness of the financial industry, and promote the innovation of financial products and services, such as green bonds, green credit, green insurance, etc. These new products and services can provide more effective solutions for environmental protection and sustainable development. It can guide the transformation and upgrading of financial institutions, and promote their transformation from traditional financial business to green: financial field, which will provide new business opportunities for financial institutions, but also reduce their negative impact on the environment. It can enhance the social value of the financial sector, making it not only exist for economic benefits, but also one of the important industries that can contribute to environmental protection and sustainable development, which will help achieve the sustainable development goals and provide more solid support for the long-term stable development of the social economy. The development of green finance can expand the scale of the financial market and provide a broader space for the healthy development of the financial industry.

2.4. Enhance financial risk management capabilities

The development of green finance can enhance financial institutions' ability to manage environmental and social risks, avoid potential environmental and social risks, enhance the sustainability of enterprises and financial institutions, help financial institutions better identify and manage environmental and social risks to reduce possible adverse effects, and help financial institutions strengthen risk management and supervision. To protect the interests of investors and society. It can promote the formulation and implementation of green investment standards, thereby helping investors and financial institutions to identify environmentally friendly investment opportunities, helping to regulate the development of green financial

markets, and reducing potential investment risks. It can provide financial support for environmental protection and sustainable development projects, help enterprises reduce environmental risks and social risks, help improve the competitiveness of enterprises, can provide green financial services for enterprises, thereby helping enterprises to enhance their social image and social responsibility, and help enterprises to win a better reputation and trust in society.

3. Status Quo of Green Finance Development

The formal development of green finance in China began with the introduction of green credit policy in 2007. Since Industrial Bank accepted the Equator principle and began to practice green finance in 2008, more and more financial institutions have joined the team of green development. At present, the main forms of green finance in our country include green credit, green securities, green trust, green insurance, green investment and carbon finance.

3.1. Green credit

3.1.1. Green credit balance

Green credit is the earliest green financial product in China, accounting for more than 90% of the existing green financial instruments in China, and has a relatively mature operation model. By the end of 2020, China's green credit balance will be about 12 trillion yuan, ranking first in the world in total amount of stock. It is not difficult to see from Figure 3.1 that the balance of green credit in China has shown a steady upward trend in recent years, and the growth rate has basically maintained at the level of 5%-15%.

At present, China's green credit is mainly put in the two major fields of transportation and energy, the main reasons include: first, many industrial enterprises have maintained extensive development mode, energy and transportation are the two major areas of the current development of more mature industries, can achieve the greatest degree of emission reduction, is the most low-carbon economic development potential of the field. Second, due to the limitations of technology, the development of many low-carbon industries is not mature. However, as financial institutions with strict risk control, banks still keep a wait-and-see attitude towards many emerging industries, so the loan amount issued in these emerging low-carbon industries is small.

3.1.2. The proportion of interest expenses of the six large energy-consuming industries above designated size

In China, the interest rate difference between industries is small, and the interest expense can reflect the size of the loan balance. The six energy-intensive industrial industries mainly refer to the "two high and one high and the remaining" industries, which are the main industries restricted and restricted by national policies. With reference to the index system constructed by Zeng Xuewen and others, the proportion of interest expenses of the industry is taken as an indicator to measure the scale of green credit.

On the whole, the proportion of interest expenditure of the six energy-consuming industrial enterprises in China's provinces (municipalities) in 2018 has decreased significantly compared with 2013, which is related to the transformation of the economic development model of the provinces and the gradual reduction of financial support for the "two and one and one and the remaining" industries. Among them, the proportion of Zhejiang, Shanghai and Jiangsu is the lowest, which is closely related to the better ecological foundation and economic growth mode of these provinces. The index dropped the most in Beijing, indicating that the city attaches great importance to the development of green finance and has significantly reduced financial support for energy-consuming enterprises.

Among all regions, the proportion of interest expenditure of the six energy-consuming industrial enterprises in central China decreased the most, followed by the eastern region, the western region decreased the least, and even some provinces in western China saw an increase in the index, such as Inner Mongolia, Qinghai and Gansu. This is closely related to the implementation of China's western development strategy and the relocation of high energy-consuming industries to the west brought about by the industrial transformation in the east.

3.2. Green securities

3.2.1. Proportion of A-stock market value of listed enterprises in environmental protection industry

The proportion of the market value of environmental protection enterprises can reflect the financing level of energy-saving and environmental protection enterprises using stocks in the secondary market. China's enterprises to develop environmental protection industry time is relatively late, environmental protection industry has not formed a perfect market mechanism, the overall scale is not large, the development is very dependent on relevant policy support. The number of listed environmental protection enterprises in China is not large, the A-stock market value of environmental protection enterprises accounts for A low proportion of the total market value, and the green capital market has great potential for development in the future. At present, the number of environmental protection listed enterprises in the eastern provinces (municipalities) and the proportion of A-stock market value are in the forefront of the country, indicating that the environmental protection industry in the eastern region has A more active capital market, while the western region is limited by the economic foundation, there are fewer environmental protection listed enterprises.

3.2.2. Green bonds

Although China's green bond practice is later than many developed countries, the growth rate is fast, and the market has begun to take shape, but the growth rate has slowed down in recent years. At present, the development level of China's green bond market has been in the advanced level in the world. The number of transactions in the market is nearly 1,000, and the stock exceeds 800 billion yuan, ranking second in the world. At present, the provinces with the most developed green bond market in China include Beijing, Jiangsu, Guangdong, Zhejiang and Hubei. Their total bond issuance accounts for more than half of the country's total, indicating that enterprises in these regions have more extensive channels for bond financing.

3.2.3. Green insurance

Green insurance can protect the vital interests of the insured from potential environmental hazards under the market mechanism. Environmental pollution liability insurance is one of the typical types of green insurance. The development of environmental pollution liability insurance in China began in 1991. Although China's green insurance has a long development time, the overall scale of the market is still small, there are few insured enterprises, the lack of development impetus, and the growth rate is slow. Since China only issued the relevant policy of forcing enterprises to purchase environmental liability insurance in 2013, there is no authority to disclose relevant data in detail, and agriculture is a very sensitive industry to the natural environment, so this paper chooses the proportion of agricultural insurance expenditure to represent the development level of green insurance.

At present, Heilongjiang, Xinjiang and Qinghai provinces account for the largest proportion of agricultural insurance expenditure in China. From a regional perspective, the scale of agricultural insurance in western China is the largest, while the scale of agricultural insurance in most provinces in eastern China is small, which is mainly related to the ecological environment and leading industries in each region: The primary industry in the western region is the leading industry, which will correspondingly lead to a large number of green insurance

expenditures, while the leading industry in the eastern region is the second and third industries, so the expenditure of agricultural insurance will be relatively small. However, the proportion of agricultural insurance expenditure in each province in the western region has not shown a downward trend in recent years, which can also show that the environment in the western region has not been well protected to some extent.

3.2.4. Green investment

The proportion of investment in environmental pollution control can directly reflect the level of green investment development, reflecting the ability of a region to raise funds through other channels other than bank credit and capital market, and the increase of its proportion can directly reflect the scale of development of green environmental protection industry and reflect the importance of the whole society to the development of green industry.

3.2.5. Government expenditure

The scale of government investment in green economy takes the proportion of public expenditure on energy conservation and environmental protection as an indicator, which can directly reflect the importance of a government to energy conservation and environmental protection. The provinces with the highest proportion of fiscal expenditure on energy conservation and environmental protection are mostly resource-based and industrial provinces, which have greater demand for energy conservation and environmental protection and do not have a relatively open financial environment. Therefore, the government needs to invest more fiscal funds to achieve the goal of energy conservation and emission reduction. Beijing's investment in environmental pollution control and fiscal expenditure on energy conservation and environmental protection rank high, which shows that Beijing really takes environmental control as a key point of government work.

3.2.6. Carbon finance

At present, China's carbon finance is in the initial stage of development, with small and low market volume and a lack of trading platforms. Currently, there are only a few pilot regional exchanges in Beijing, Shanghai and Wuhan, and infrastructure needs to be built urgently. The "Twelfth Five-Year Plan" suggests that it is the general trend to gradually promote the construction of carbon finance market, and China's carbon finance market is about to enter a stage of rapid growth. In June 2021, China will launch the online trading system of the national carbon market. It is estimated that China's carbon market will cover more than 4 billion tons of carbon emissions, making it the largest carbon market in the world covering CO₂ emissions. As of August 2016, a total of 5,074 CDM projects have been approved by The State Council.

Most of China's CDM projects are concentrated in Sichuan, Gansu, Hebei, Shandong, Yunnan and Inner Mongolia, and the region with the largest number of approved CDM projects is the western region, with a total of 2,638 projects, followed by the eastern region with 1,262 projects, and the central region ranked last with 1,174 projects. At present, the most important project emission reduction types in western China are new energy and renewable energy, mainly because the western region has very advantageous natural conditions, the degree of urbanization is not high, and can provide more new energy bases of wind and solar energy. And the east and central will also have some energy-saving and energy-saving CDM projects (such as landfill, energy saving transformation, waste incineration, etc.), which is closely related to the industrial structure of these regions.

4. Problems in the Development of Green Finance

4.1. The packaging of green projects is not in place, the main body of the loan is weak, and the guarantee capacity is insufficient.

First, the project packaging lacks integrity. Through investigation, most of the green projects in the counties and districts of Ya'an are public welfare and quasi-public welfare projects. The projects are small and scattered and have not coordinated with the operating projects to package the projects, resulting in the shortage of the first repayment source of green projects and the failure to meet the requirements of bank financing. Second, the strength of the main body of the project loan is weak. The main problems are insufficient paid-in capital, insufficient total assets, insufficient operating cash flow, high asset-liability ratio, basically no operating business in the early stage, continuous operating losses, etc., resulting in insufficient access conditions and unable to cover loan interest through the company's own comprehensive income. Third, the project guarantee capacity is insufficient.

4.2. Limited by the government's solidified conservative thinking, green projects are not promoted smoothly.

First, there is a local government and industry line authorities as the leading arrangement, green projects have completed the planning, project approval and related administrative licensing procedures before applying for bank financing, resulting in the project construction content, project income and project owners do not meet the bank financing conditions. Second, some government departments and managers of state-owned enterprises have not formed a modern management concept, which is mainly reflected in the lack of timely combing and integration of scattered state-owned assets, the lack of comprehensive integration of existing green projects, and the lack of strong awareness of cultivating and strengthening state-owned enterprises to implement guarantees, leading to difficulties in the process of promoting projects. Third, some governments have rigid financing concepts, fail to fully understand the relevant policies to promote green development, and their thinking is limited to the declaration of special bonds, or only consider the declaration of superior special subsidy funds to declare the implementation of green project construction, and do not fully consider the debt and loan mix and bank financing methods, and the project procedures, requirements and contents of issuing bonds or declaring special funds in the early stage do not meet the requirements of bank financing. It is difficult to adjust and change a series of procedures, and it is difficult for banks to intervene and support them. Fourth, local governments have weak financial resources and have not established green credit risk compensation funds in cities, counties and districts to increase credit for green enterprise projects and slow down bank credit risks.

4.3. Green credit products, assessment and organizational mechanisms need to be further improved.

First, in recent years, the Agricultural Development Bank has successively issued the "Green Credit Guidelines" and "Green Finance Bond Financing and Use Management Measures" and other institutional documents, and initially built the institutional framework of green finance development. However, it has not combined with the characteristics of the green development industry, further combing and integrating the existing various credit products, forming a set of green credit products for the reference and application of the current grass-roots bank, in addition, it has not innovated green credit featured products, and the development of green finance at the grass-roots bank is mainly "looking at projects, catalogued and looking for products", which is not conducive to improving the quality and efficiency of the project. Second, from the perspective of the agricultural issuance system, no special green finance division or special business group has been set up from top to bottom to strengthen the organizational

guarantee of green finance development, and the current organizational structure for the development of green finance at the grass-roots bank is still loose. Third, the evaluation of the annual performance of green finance by the Agricultural Development Bank needs to be strengthened, and the attention paid by the grassroots bank to this work needs to be improved.

4.4. The professional quality of the existing credit team personnel is difficult to support the development of green finance.

The development of green finance is still in its infancy, and green credit business involves a wide range of technical and professional fields, which not only requires a thorough understanding of basic credit business, but also requires a certain grasp of environmental protection policies and regulations, green industry standards and related professional knowledge. However, the knowledge structure of the credit team of the bank is still relatively weak. The contradiction between the bank and the professional knowledge reserve required for the development of green projects is prominent. As a result, in the process of developing green credit business, it may be difficult to identify green project technology, grasp the operation characteristics and risk development trend of green industry, and fail to identify and monitor the environmental protection risks of customers in a timely and effective manner.

Green finance in China has experienced many years of development, in the process of China's economic development, green finance has gradually stepped into the transition period from the exploratory period, which has brought a lot of vitality for economic development, but at present, there are still many problems in the development process of green finance in China. These problems need to be solved in a timely manner, so as to better promote the development of green finance industry.

Acknowledgements

This work is supported by the 2022 Provincial College Student Innovation and Entrepreneurship Training Project of Anhui University of Finance and Economics: "A Comparative Study on the Sustainable Development of Green Finance in the Yangtze River Delta and Pearl River Delta Regions-Based on EWM-Probit Modeling" (No.: S202210378013).

References

- [1] Chen Z F. Research on the development status and problems of green finance [J]. Business News, 2023(12):84-87.
- [2] Hu Pingping. Analysis on the status quo and problems of green finance development [J]. China Collective Economy, 2023(16):1-4.
- [3] YueYanWei. China's green financial development present situation and problem analysis [J]. Journal of Inner Mongolia, 2021 (3): 10-12.