Empirical Study on Green Credit in Banking Industry under the Background of Fintech

Yingbao Zhang

Tianfu college of SWUFE, Chengdu 610051, China.

Abstract: To further improve the green financial standards in China, it is necessary to set the general catalogue of green financial standards, enhance the official guidelines and standards of green certification and rating, and build a professional research group to solicit opinions from enterprises and professional institutions. Strengthen the green financial support system by setting up promotion mechanism of green financial concept, credit structure adjustment, green financial technology management and carbon emission target responsibility assessment. We can build a green financial risk prevention mechanism through risk management performance appraisal and compensation system, information compulsory reporting and spot check mechanism, technical assistance and knowledge sharing. Program of getting innovative financial products can be conducted through green financial statistical monitoring management system and multi-level financing management mode, with optimizing the development of carbon financial products and services, and introducing international advanced green financial technology.

Keywords: Financial Technology; Banks; Green Credit; Empirical Research

1. The impact of green credit on bank risk

When implementing green finance, financial enterprises can improve their reputation, and on the other hand, they can improve their risk management ability. CHAMI put forward this theory, while Monag han S pointed out that "Equator Principle" should be taken as the code of conduct for commercial banks to put in credit funds, which is a critical measure to solve the environmental risks effectively. Su et al. (2017) pointed out that green credit can improve the profitability of banks by reducing environmental and credit risks. Sun Guanglin et al. (2017) believes that developing green credit can not only increase the net profit of banks, but also reduce the risks of banks.

2. The impact of fintech on banks

Fintech is the advanced stage of the further development of combination of finance and science and technology. Ba Shusong (2017) divided the process of promoting financial transformation by technology into three stages, namely, stage of financial IT, internet finance, and financial technology. As a kind of innovation, fintech has attracted wide attention, and scholars have studied it from various perspectives. From the perspective of profit and capital cost, Dai Guoqiang and Fang Pengfei put forward that fintech has greatly increased the debt capital cost of banks, resulting in a decline in profit. Li Penglin and Zhang Dongdong (2017) believe that fintech has broken the monopoly position and competitive advantage of banks, reduced the traditional interest rate spread of banks, and caused certain adverse effects on bank profits. In terms of risk, Liu Zhonglu (2016) believes that Internet technology can reduce the risk of bank bankruptcy by improving the operational efficiency of banks. Zhang Zhengping and Liu Yunhua (2020) think that the improvement of electronic level is beneficial to banks to improve operational efficiency, reduce risks and provide empirical evidence. As a "catfish", finance enters the credit system, which not only stirs the living environment of traditional finance, but also greatly stimulates the survival consciousness of traditional finance. This competitive pressure makes the banking industry feel crisis, forcing banks to carry out financial innovation and improve their operating efficiency. Undoubtedly, the subversive impact of financial technology on the banking industry can not be ignored.

Through the above-mentioned literature, it is found that most studies focus on one aspect of the impact of green credit on bank performance or risk, few of them consider the two together, and even fewer studies incorporate financial technology factors into the analysis framework.

3. Implement a proactive financial incentive policy

3.1 Contribution to establish a green bank by government finance

Britain began to practice the "Green New Deal" in 2012, and the U.S. Treasury provided funds to establish a green investment bank. During 2012 to 2013, the bank's direct investment in the UK reached 635 million pounds, and it invested more than 50% in green financing projects. The U.S. has provided financing for environmental protection and low-carbon industries, and employs three different green industrial banks to guarantee their financing. Political banks that play an important role in the "green financial system" are in Germany and Europe.

3.2 Green loan discount guarantee and fund provided by the government

For the Germany's demand for financial institutions, it has customized the KfW's environmental loan project especially for small and medium-sized enterprises. KfW's energy saving project and energy fund transfer project have been specially formulated by the German Credit Bank for Reconstruction. Most of the loans are funded by the federal government, which plays a major role in providing funds for SMEs that are environmentally friendly. The British government supports the environmental protection of SMEs through a credit guarantee project, and takes environmental protection as an important basis to measure the proportion of corporate guarantees. GOK company provides support for the research and development of green industry. In 2001, the UK set up the Carbon Fund, and the German government and the German Bank for Reconstruction jointly invested in setting up the independent carbon fund, all of which were mainly used to support green energy conservation and emission reduction projects, and promoted the development of green projects by setting up the fund without specific intervention.

4. Constantly innovating green financial products

4.1 Green credit

Green credit includes three aspects. Firstly, it is necessary to formulate China's fiscal policy based on the "Equator principle”. For example, the British government evaluated environmental protection standards of enterprises, and their implementation was dynamically managed. Mizuho Bank of Japan is the first Asian bank based on "Equator Principle". It developed an "Environmental Impact Assessment Form" and formulated detailed rules for 38 industries, which significantly improved the project financing performance.

Secondly, it is necessary to innovate green credit products. For example, the American Innovation Bank provides unprotected and preferential loans for the research and development of green and energy-saving technologies. In 2014, JPMorgan Chase provided preferential loans of US$ 1.8 billion for new wind energy projects. Dutch banks have launched a series of green wealth management products to encourage investors to undertake the obligation of environmental protection and get a return on investment. German banks offer 1% discount for green real estate and housing mortgage. In 2016, the World Bank provided $55 million to manage the pollution of Lake Gail and Litani River in Lebanon. For SMEs, families and individuals, there are a large number of financial products related to retail banks, such as green buildings, green cars and green consumption. For example, Sun Power, a solar power company, has provided support for America's "One Financial Plan" and N R b New Energy Company. Vancouver Credit Union of Canada launched a new clean air vehicle loan in 2006, which evaluated the energy-saving effect of various low-emission vehicles and set the loan interest rate.

Finally, it is also necessary to enhance risk control of the environment. For example, Citibank has formulated environmental risk management system, environmental policy and process training, environmental risk management mechanism, and external collaboration mechanism in public and private fields.

4.2 Green bonds

During promoting green bonds, developed countries actively encourage the diversification of bond issuers. Nowadays, the issuers of green bonds in developed countries include government departments, quasi-government agencies, central banks, multilateral development financial institutions, commercial banks, industrial and commercial enterprises and other institutions of higher learning (such as MIT). In addition, the varieties of green bonds in developed countries are increasingly diversified. Apart from traditional bond products, there are also green asset securitization, green investment or index-linked derivative bonds.

4.3 Green fund

Foreign green funds generally support different industries. For example, Wells Fargo's green fund focuses on clean solar energy and wind power generation; "Green Financing" in Netherlands is mainly engaged in low-cost environmental protection programs. Barclays is mainly committed to emission reduction, and its CO2 index is the first CO2 credit trading fund in the world. Venture Capital Corporation is the global climate fund of the Canadian climate fund, which helps small companies to meet the extra cost of developing green buildings. Developed countries often employ an independent management team to operate green fund, and use special funds and authority to ensure its organization and management. After a comprehensive analysis of the interests and risks of the project market, public and private sectors, they brought the best suggestions for environmental protection and economy. For example, in 2008, the Global Energy Efficiency and Sustainable Energy Fund, established by the International Energy Council, focused more on using leverage to attract private funds. With foreign green funds, SMEs have been greatly developed. The cooperation of government, international financial organizations and non-governmental organizations is an important guarantee for the development of green funds. Green funds with different investment directions operate in various ways. Therefore, specialized investment and operation can effectively reduce the asymmetry between investors and environmental protection investment.

4.4 Green insurance

Developed countries started early in green insurance products and green capital investment. Most developed countries set up professional green insurance specialized agencies to operate green insurance projects, and they have different methods to participate in green insurance. The U. S. implements compulsory liability insurance for projects that may cause environmental damage. German combines financial guarantee with compulsory liability insurance. France is based on arbitrary liability insurance, and enterprises voluntarily choose to participate in insurance. In Japan, the right is left entirely to enterprises who decide whether to insure or not by evaluating the risk of environmental pollution accidents.

5. Conclusion

In summary, we should improve the green financial regulations by formulating green standards, environmental credit rating and information disclosure system, including how to implement the financial incentive policy through loan discount guarantee, green fund and price subsidy purchase; and how to innovate green financial products through green credit bonds, insurance and carbon finance. By comparing the understanding of green finance at home and abroad, this article puts forward some suggestions and related measures for the development of green finance in China.

References

[1] He F, Lei X. Foreign experience and domestic suggestions of green finance development under the "dual carbon" goals (in Chinese). International Finance 2022; (4):15-22.

[2] Zhu X. Research on the impact of green credit on the operating performance of China's commercial banks (in Chinese). Industrial Innovation 2022; (7): 130-132.

[3] Wu X, Yu Y. On green credit information disclosure of listed banks: Trend analysis and quality evaluation. Credit Reference 2022; 40(4): 66-73.

[4] Ye T. The new theme of financial services in the new era. China Financialyst 2019; (9): 43-44.