

Study on the Impact of Green Credit on the Business Performance of Commercial Banks

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Abstract: Nowadays, the problem of environmental pollution affects people's lives and inhibits the development of the national economy. The development of green credit plays a very important role in promoting the sustainable development of society, ecology and economy. In the long run, under the background of increasingly fierce international competition, the development of green credit by commercial banks is not only conducive to strengthening their own reputation and international competitiveness, but also conducive to improving their own business performance. However, in the short term, due to increased costs, environmental risks, incomplete supporting policies and other problems, green credit business may also have a negative impact on the business performance of commercial banks. Therefore, this paper analyzes the different impacts of green credit on commercial banks, and then discusses how to promote the improvement of commercial banks' operating performance from the perspective of green credit.

Keywords: Green Credit, Commercial Bank, Profitability.

1. Introduction

With the rapid development of industrial civilization, environmental degradation, energy depletion and other ecological problems have become increasingly prominent, and people are widely aware of the dangers posed to the environment by the past way of life. Therefore, in order to promote the harmonious development of human beings, economy and nature, human beings have formulated sustainable development strategies, advocated green civilization, and tilted towards environmental protection industry and economic development in terms of policy and public opinion [1]. The practice of green credit by commercial banks can gain advantages for their own development, help commercial banks realize the transformation of development strategy, and better serve the real economy [2]. The development of green finance and the promotion of green economy will be an important goal and promote the transformation of enterprise operations [3]. There is a growing international consensus on environmental protection and cooperation in the form of international agreements. If commercial banks want to expand their business scope to all parts of the world and compete fairly with financial institutions of other countries in the international market, they must follow the values and systems of the world. Therefore, the development of green credit will help commercial banks to improve their international competitiveness.

Commercial banks are enterprises with profit as their core. Green credit can increase revenue channels for commercial banks, and at the same time help optimize their credit structure, improve their reputation and promote bank growth. However, the main customers of green credit are "two high and one excess": enterprises with high pollution, high energy consumption and excess production capacity, which have a high risk of credit default, and the initial evaluation cost of green credit implementation is high. Not only that, the imperfect information sharing mechanism of China's green

credit has also brought more costs to banks, and the insufficient incentive and restraint mechanism has also made commercial banks less supportive of corporate green credit [4]. All these problems will have an adverse impact on the improvement of commercial banks' operating performance. Therefore, in the development of green credit business, commercial banks must make a balance between operational performance and social responsibility.

2. The Definition of Green Credit

Green credit, as a financial policy aimed at improving the environment by investing in green projects, is often referred to as sustainability financing or environmental financing. "Green credit" is a type of differentiated credit issued by banks and other financial institutions to different enterprises, which provides favorable credit support (with low loan interest rate) [5] for energy saving, environmental protection and environmentally friendly enterprises. Green credit covers many levels, such as policy formulation, institutional arrangements and financial practices. At the micro level, green credit is a kind of credit business carried out by banks based on specific environmental protection standards. At the macro level, green credit is also an important part of the national macro-control and is a credit policy to guide the investment of credit. [6] Green credit has the transmission function of environmental protection policy and industrial policy. Through green credit, banks can control the financing of polluting enterprises, support environmental protection enterprises, promote loan enterprises to assume environmental responsibility, achieve the policy goals of energy conservation and emission reduction, optimize the industrial structure and change the economic development model [6].

Green credit has the characteristics of concentration, extensive service, service differentiation, overall integration and profitability. Concentrated means that green credit is a credit resource mainly used to support environmental

protection and development, and its industrial layout is more concentrated in the green field. The universality of service means that the object of green credit business is not only the traditional green industry, but also the innovative green industry and the green industry to be developed. Service differentiation means that banks actively innovate green credit products in order to continue to develop and occupy a leading position in the industry, so that more and more different green credit products provide different services to customers. The overall integration means that green credit is closely related to asset business and intermediate business. Profitability means that the purpose of profitability is the starting point and end result of green credit and green product development of Chinese commercial banks.

3. Research Status of Green Credit on Business Performance of Commercial Banks

Sigel and Vitaliano(2007) pointed out that green credit can make banks gain advantages in competition. Green credit is a kind of environmental protection business with great development potential. Especially in the case of increasingly fierce competition among banks, green credit can enable banks to gain a first-mover advantage, establish a good image among the public, and improve the differentiation and particularity of banking business [7]. The development of green credit has a certain positive effect on commercial banks. Francis (2008) studied the relationship between green reputation and bank performance and found that from the perspective of the media, the more positive reports on green credit of commercial banks, the more active commercial banks will be in implementing green credit. And their business performance will be improved accordingly [8]. At the same time, Liu et al. (2015) quantitatively calculated the systematic effects of green credit policies by using general equilibrium, and found that the punitive high interest rate imposed by commercial banks on energy-intensive industries can effectively reduce their investment in energy-intensive industries, and can also play a certain social responsibility, thus causing a positive impact on the reputation of commercial banks. To ensure the long-term and steady development of commercial banks [9].

However, the positive impact of green credit on commercial banks is not absolute. Mallin et al. (2014) showed through research that when listed commercial banks and other financial institutions develop environmental finance, their operating costs will rise and their returns will decline, which is unfavorable to their long-term development [10]. Zhou Linlin (2014) selected the data of 13 commercial banks during the five-year period from 2008 to 2012 as analysis samples and used the individual fixed effect model to conduct regression analysis. The results showed that green credit had a significant negative correlation with the profitability of commercial banks [11]. Li Cheng et al. (2016) selected the data of 16 listed banks in China, analyzed and studied the implementation effect of green credit in commercial banks based on the differential differential model, and found that the implementation of green credit increased operating costs in the short term, that is, it had a negative impact on the bank's operating performance to a certain extent, but with the continuous improvement of relevant policies, the negative impact would gradually decrease [12].

To sum up, it can be seen that scholars have not reached a

unanimous conclusion on the impact of green credit on commercial banks. On the one hand, they believe that green credit can improve the business performance of commercial banks, and on the other hand, they believe that green credit will reduce their business performance.

4. The Impact of Green Credit on Business Performance of Commercial Banks

4.1. Positive Impact of Green Credit on Business Performance of Commercial Banks

On the one hand, the development of green credit business of commercial banks is helpful to improve their business performance, which is reflected in the following aspects: First, the development of green credit can improve the reputation of commercial banks. Nowadays, major enterprises are increasingly aware of the importance of social responsibility and practice their social responsibility with their own actions. In order to fulfill their corporate social responsibility and contribute to the environmental protection of the whole society, commercial banks must vigorously develop the financial business of green credit. By promoting the sustainable development of the economy and promoting the construction of ecological civilization, it brings good credit and establishes a good social image for commercial banks, which not only increases the social capital of the banks, but also provides a way for the banks to make profits in the long run. The development of green credit also helps to enhance the bank employees' sense of belonging and identity to the bank, provide more proactive services for the enterprise, create intangible benefits for the commercial bank and enhance the profits of the enterprise. Secondly, the development of green credit can enhance the influence of commercial banks in the world. With the development of green finance in the world, as the main body of green finance development, commercial banks must adapt to the development of The Times, vigorously develop green credit, and improve their international competitiveness. Therefore, commercial banks should seize the opportunity, actively carry out the innovation of credit products, and take advantage of this opportunity to integrate with the world's green finance, and through cooperation with foreign countries, to enhance their competitiveness, so that the traditional development mode has been broken through, so as to increase profits. Thirdly, the development of green credit can help the bank to expand the intermediate business. Although the current income of China's commercial banks is still based on interest income, with the deepening of financial globalization, many banks are making efforts to do intermediate business. Developing green credit can not only help commercial banks increase their interest income, but also help them expand their intermediate business. Commercial banks can help guide enterprises that want to apply for green credit by means of green financial advisers, green financial leasing, green account management, etc., and earn intermediate business income in this way [13]. Not only that, commercial banks can also increase their intermediate business income by cooperating with enterprises that have the demand for green asset securitization. Finally, carrying out green credit can also help adjust the credit structure of banks. Since traditional credit business focuses too much on profits and neglects

corporate social responsibility, banks are required to determine the preconditions for their loans when developing green credit. Identify projects that meet the credit conditions, that is, provide favorable borrowing costs for enterprises that meet environmental protection requirements and advocate environmental protection; and some enterprises or projects in the "two high and one excess" industries temporarily stop or refuse to lend, so that more funds can be invested in environmental protection projects. At the same time, the government will strengthen its support for green loans, so that more green credit will be invested in environmental protection projects. The increase in green credit lines will certainly have a positive impact on China's commercial banks.

4.2. Negative Impact of Green Credit on Business Performance of Commercial Banks

On the other hand, the implementation of green credit will also have a negative impact on the business performance of commercial banks, which is reflected in the following aspects: First, carrying out green credit business will increase the operating costs of banks. In the short term, the development of green credit will greatly increase the operating costs of enterprises, including personnel technical training, environmental risk assessment, information collection and management costs. In addition, since commercial banks have a large number of high-quality customers, such as steel, cement and other enterprises with strong financial strength, good performance and stable income, but environmental protection enterprises have less collateral, longer loan term and higher cost, commercial banks will also face certain opportunity costs to carry out green credit business. Secondly, carrying out green credit makes commercial banks face environmental risks. Environmental risk means that the loan bank will be punished by direct or indirect damage to the ecological environment for the purpose of loan, which will affect the normal operation of the bank. Banks face two kinds of environmental risks, direct and indirect. Direct environmental risk means that the commercial banks are punished by the relevant departments because the projects of their direct investment have caused certain destructive effects on the environment [14]. Indirect environmental risk refers to the reputational and legal risks that commercial banks encounter because they have issued loans to enterprises that have caused environmental pollution. Finally, due to the lack of perfect supporting policies for green credit, commercial banks have problems such as free riding and adverse selection while carrying out green credit. This is because, no matter what achievements the bank has made in promoting green credit, its development can establish a good image for the bank in society. Therefore, some banks usually gain credit only through the superficial publicity of green credit, while the actual implementation of green credit banks will have to spend higher costs, which is likely to lead to adverse selection. Ultimately, leads to the loophole of the green credit system, which has an adverse impact on the business performance of commercial banks.

On the whole, green credit may have both positive and negative effects on commercial banks. In the initial stage of development when the scale of enterprises gradually expands and the credit system takes shape, the improvement of bank performance is not significant due to the opportunity cost of capital investment. In the later period, due to the decline of operating expenses and other costs, the improvement of

performance is becoming more and more obvious. Therefore, carrying out green credit business has both advantages and disadvantages for commercial banks. Green credit business can improve the reputation of commercial banks, increase their international influence, but also can improve the intermediary business income of commercial banks, adjust the credit structure of banks, through these ways can improve the business performance of commercial banks. However, the implementation of green credit will also increase the operating cost burden of commercial banks and make them face more stringent environmental risks and adverse selection, which will affect the operating performance of commercial banks.

5. Conclusion and Suggestions

In the context of sustainable development, green credit has become an important part of green finance, which is of great significance for realizing ecological protection and sustainable development. This paper summarizes and combs the literature of past scholars, analyzes the possible impacts of green credit on the operating performance of commercial banks in terms of theoretical mechanisms, and concludes that green credit business has advantages and disadvantages for commercial banks. Green credit business can improve the reputation of commercial banks, increase their international influence, improve the intermediary business income of commercial banks, adjust the credit structure of banks, and thus increase the business performance of commercial banks. However, the implementation of green credit will also increase the operating cost burden of commercial banks and make them face more stringent environmental risks and adverse selection, which will affect the operating performance of commercial banks to a certain extent. Based on this, in order to encourage commercial banks to actively carry out green credit and promote the rapid development of green finance, the following suggestions are put forward:

First, seize the low-carbon opportunity and speed up credit innovation. Nowadays, the low-carbon economy has become an irreversible trend in the development process. Energy saving and emission reduction, circular economy, low-carbon economy, environmental protection and ecology are the characteristics of industrial development. In this case, commercial banks should actively carry out green finance, explore various forms of green credit business, expand their service scope, and further innovate in the existing traditional green credit card, green bond and other ways, so as to push green credit to a new height, so as to seize the development opportunity of low-carbon economy and seize the opportunity in fierce competition.

Second, improve information sharing and enhance information transparency. In order to ensure the smooth progress of risk management, commercial banks must establish a sound internal information exchange mechanism, and commercial banks at all levels should establish a timely, accurate and complete environmental information exchange and communication mechanism with local environmental protection authorities. At the same time, special personnel should be set up to collect and exchange relevant environmental information, increase the coverage of environmental information as much as possible, and use the integration of property rights between banks and companies to reduce the asymmetry of information, so as to establish a comprehensive and multi-level environmental information early warning management system.

Third, strengthen the assessment and supervision of environmental credit risks, and carry out strict responsibility investigation for environmental credit risks. Commercial banks should establish and improve the responsibility system for environmental protection laws and compliance work and the accountability system for environmental risks, strengthen organizational leadership, and strengthen the prevention of credit environment risks, so as to stimulate the internal enthusiasm of commercial banks and promote the development of green credit.

Fourth, undertake social responsibility. Commercial banks should take the initiative to shoulder their social responsibilities and realize the organic unity of economic growth and social responsibility. Green credit is not only a means for commercial banks to fulfill their social responsibilities and establish a good social image, but also a means to effectively manage environmental risks, and may become a new profit growth point. Therefore, commercial banks must seize the opportunity, conform to the development trend of The Times, and achieve a win-win situation of economic benefits and environmental benefits.

Fifth, establish a legal system for green credit supervision. The government should strengthen the construction of laws and regulations on green credit. First, specific, operable and mandatory environmental responsibility documents should be formulated. At the same time, it should also increase the training of environmental protection talents, carry out regular professional inspections of enterprises, and impose heavy penalties once pollution exceeds the standard.

Sixth, improve the incentive mechanism of green credit policy. The competent authorities should not only establish an accountability mechanism for the lending of environmental illegal projects, but also implement positive incentives for institutions that achieve outstanding results in the implementation of green credit. It is necessary to give full play to the fiscal and tax leverage role, improve the bad debt write-off and risk reserve provisioning mechanisms corresponding to the green credit policy, and formulate corresponding tax risk compensation measures. In particular, in the process of implementing the green credit policy, it is necessary to give certain tax relief to the "two high and one high" industries, the loss of enterprise credit withdrawal, and the credit risk arising from supporting the research and development of new technologies. In order to stimulate their enthusiasm.

References

- [1] Han Yiqing. Research on green credit practice of Listed joint-stock commercial banks in China [D]. Beijing Forestry University, 2014.
- [2] Global Banking Research Group, Institute of International Finance, Bank of China, Chen Weidong, Zong Liang. Adapting to Supply-side reform requirements and Resolving Current Operating pressure -- Bank of China Global Banking Outlook Report (Q2 2016)[J]. International Finance, 2016, (04): 57-65
- [3] Wang Shuo. Green finance will become an important direction of bank transformation [J]. China Rural Finance, 2015, (08): 20-21.
- [4] Li Yao. A study on the impact of green credit on the Business Performance of commercial banks [D]. Anhui University of Finance and Economics, 2020.
- [5] Liu Yiwen, Tan Huizhong. Study on the impact of green credit development on the quality of economic growth [J]. Business Research, 202, 29 (04): 109-121.
- [6] Wang Hongyi. Legalization of green credit policy under the background of revision of Commercial Bank Law [J]. Finance and Economics Law, 2021, (01): 75-85.
- [7] Siegel S D, Vitaliano F D. An Empirical Analysis of the Strategic Use of Corporate Social Responsibility [J]. Journal of Economics Management Strategy, 2007, 16 (3): 773-792.
- [8] Francis J, Huang A H, Rajopai S, et al. CEO Reputation and Earnings Quality [J]. Contemporary Accounting Research 2008, 25 (1): 109-147
- [9] Liu J Y, Xia Y, Fan Y. Assessment of a Green Credit Policy Aimed at Energy Intensive Industries in China Based on a Financial C GE Model [J]. Journal of Cleaner Production, 2015, 163: 423-441
- [10] Mallin C, Farag H, Ow-Yong K. Corporate social responsibility and financial performance in Islamic banks [J]. Journal of Economic Behavior and Organization, 2014, 103S21-S38.
- [11] Zhou Linlin. The impact of green credit on the profitability of Chinese commercial Banks [D]. Jilin University, 2014.
- [12] Li Cheng, Bai Wei, Wang Ye et al. How can green credit policies be effectively implemented by commercial banks? -- A study based on evolutionary game theory and DID model [J]. Southern Finance, 2016, (01): 47-54.
- [13] Ma Jie. Study on the impact of green credit on the Business Performance of Listed commercial Banks in China [D]. Shihezi University, 2018.
- [14] Li Xiwen. Study on the impact of green Credit on Financial Performance of Listed commercial Banks [D]. Shanxi University of Finance and Economics, 2021.