Research on Green Finance Development of Commercial Banks under the Background of "Double Carbon"

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Abstract. In September 2020, General Secretary Xi Jinping clearly put forward to achieve "carbon peak" in 2030 and "carbon neutrality" in 2060. In recent years, he has proposed various policy guidelines to promote the realization of the goal. Based on the background of the "double carbon" goal, this paper explores the current situation of the development of green finance in commercial banks. Based on the SWOT analysis of commercial banks, it points out the opportunities and threats of the external environment, the advantages and disadvantages of the internal development of banks, and puts forward corresponding suggestions.

Keywords: "Double carbon" target; Green finance; Commercial bank; SWOT analysis.

Under the background of economic globalization, countries around the world pay more and more attention to the coordinated development of economy and ecological environment, realize green low carbon transformation and promote sustainable development. In 2020, General Secretary Xi Jinping announced at the 75th United Nations General Assembly that he strived to achieve the peak emission of carbon dioxide by 2030 and achieve carbon neutrality by 2060. The "double carbon" goal has accelerated the development of green finance, promoted the adjustment of economic structure, and helped the green and low-carbon development of industry. As the backbone of the development of green finance, commercial banks must actively carry out reform and innovation to support the realization of the "double carbon" goal.

1. "Double Carbon" Target proposed Background

Since entering industrialization era, the emission of greenhouse gases has been increasing, resulting in an increasing greenhouse effect and changing the global climate. How to deal with climate change has become an important global issue [1].

On September 22, 2020, at the 75th United Nations General Assembly, General Secretary Xi Jinping clearly set out the "carbon peak, carbon neutrality" dual-carbon goals, striving to peak carbon dioxide emissions by 2030 and to achieve carbon neutrality by 2060. At the climate ambition summit in December 2020, President Xi Jinping announced that by 2030, China's carbon dioxide emissions per unit of GDP will decrease by more than 65% compared with 2005. On March 31, 2022, at the Sixth International Conference on Innovation and Emerging Industries Development, the project outcome report of the Chinese Academy of Engineering proposed seven strategies and eight paths to help achieve the dual carbon goal.

The "double carbon" goal meets the requirements of China's sustainable development and the responsibility of building a human fate community. In the process of promoting the "double carbon" goal, China' s economy will also face great development opportunities by accelerating the construction of ecological civilization and promoting industrial transformation and upgrading. From the field of commercial banks, it is necessary to develop sustainable financial services [2], expand the scale of HP finance, innovate the green financial service system, and help achieve the goal of "double carbon".

2. "Double Carbon" Background Commercial Bank Green Financial Development Status

2.1 Green Credit

In 2021, China's commercial banks have committed to the field of green finance, making the overall development of green finance accelerated. It can be seen from table 1, by the end of 2021, the largest amount of green credit was ICBC, with green credit amounting to 2480.621 billion yuan, an increase of 634.791 billion yuan compared with 2020, with a growth rate of 25.59%, but ICBC had the slowest growth rate of less than 30%. The fastest growing is Bank of China, with green credit at 1408.6 billion yuan at the end of 2021, an increase of 802.902 billion yuan compared with 2020, growth rate of 57%. From the total point of view, figure 1 shows that ICBC ranks first in the six major banks, Bank of Communications and Postal Savings Bank is far lower than the other four banks; but from the growth point of view, the growth rate of Bank of Communications and Postal Savings Banks is above 30%, and the scale of green credit is growing faster.

In 2021, the enterprise economy gradually recovered after the epidemic, the business situation improved, and the non-performing loan rate of the banking industry decreased. According to the 2021 annual report, the non-performing loan rate of Bank of China is 1.33%, down 0.13 percentage points from the end of last year; Agricultural Bank non-performing loan ratio is 1.43%, a decline of 0.14 percentage points; ICBC's non-performing loan ratio was 1.42%, a decrease of 0.16 percentage points; Construction Bank non-performing loan ratio 1.42%, a decrease of 0.14 percentage points; Bank of Communications is the highest rate of non-performing loans in the six banks, the rate of non-performing loans is 1.48%, a decline of 0.19percentage points compared with the end of last year; Postal Savings Bank bad rate is still in six lowest, 0.82%, a decline of 0.06 percentage points.

Table 1. Green Credit Data of Six Banks in 2021

Bank	Green credit balance (hundred million RMB)	Growth from last year (hundred million RMB)	Growth ratio (%)
BOC	14086.00	8029.02	57.00
ABC	19778.00	6052.07	30.60
ICBC	24806.21	6347.91	25.59
CCB	19600.00	6979.56	35.61
BCM	4767.63	1495.61	31.37
PSBC	3722.94	1210.70	32.52

2.2 Green Bond

Under the background of carbon peak and carbon neutrality, China's green bonds have developed rapidly, especially in the field of commercial banks. In recent years, China's commercial banks continue to increase green bond investment in the market, and actively explore the green bond business. As the first Equator Bank in China, Industrial Bank has cultivated more than ten years in the field of green finance, innovated continuously, and actively participated in the underwriting market of green bonds. It has successively fallen into the first single green sustainable bonds, sustainable development bonds, blue bonds, green epidemic prevention and control bonds, "carbon neutralization" bonds and other bonds, and occupies a leading position in the green bond market. In order to help the "dual-carbon" strategy, Industrial Bank successfully underwrites the first issue of the "Bond Connect" green financial bond of the National Development Bank in 2022.

Taking Bank of China as an example, by the end of 2021, the scale of underwriting domestic and foreign green bonds issued by the Bank of China was 129.4 billion yuan and 23.4 billion dollars, respectively. Figure 2 shows that the underwriting scale of green bonds of Bank of China in 2021 ranks first among the six major banks. In terms of investment, ranking first in the Bank of China Market Trading Association (NAFMII) 2021 Green Debt Financing Tools.

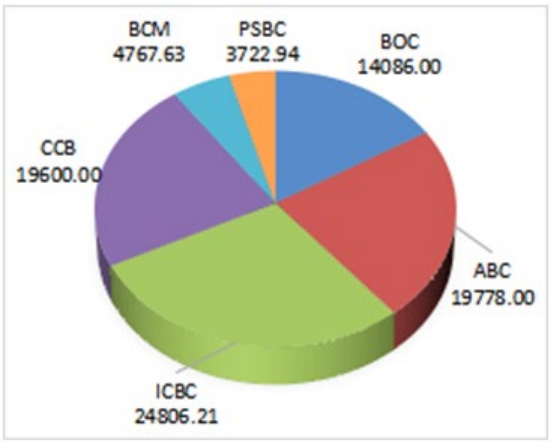


Figure 1. Bank green credit balance

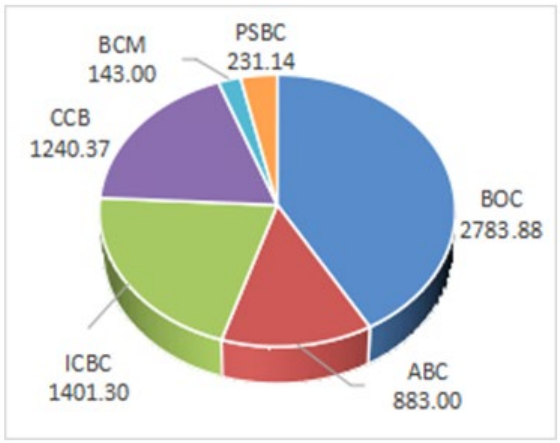


Figure 2. Underwriting size of bank green bonds

2.3 Diversification of Green Financial Products

In the development practice of green finance, commercial banks have gradually formed a diversified financial product system from a single green credit. For corporate customers, green financial products and services to meet corporate "Financing + Intelligence + Integration" needs. For individual customers, banks issue personal carbon accounts, low-carbon credit cards and so on, effectively promoting green consumption. In terms of green financial products, some innovative credit products have been developed more perfect, such as carbon assets, emission rights pledge and so on[3]. In addition, leasing, funds, green bonds and other products have gradually developed, and the green financial product system of commercial banks has been greatly improved.

3. "Double Carbon" Background Commercial Bank Development Green Financial SWOT Analysis

3.1 Opportunities for Commercial Banks to Develop Green Finance

Government policy support. Since 2015, the state has introduced a number of policies to help the development of green finance. In 2016, the National People's Congress explicitly proposed to establish a green financial system, develop green credit, green bonds and establish green development funds through the "13th Five-Year Plan". In 2020, many provinces and cities in the financial industry has been introduced in the "14th Five-Year" development plan will "develop green finance" as one of the key work direction [4]. Green finance contributes to the sustainable development of society, environment and economy, and plays an important role in promoting the realization of the "double carbon" goal.

Development of carbon finance. In the development of green finance, carbon market and carbon finance are an indispensable part [5]. The national carbon emission trading market closed on December 31, 2021. The cumulative turnover of carbon emission quota (CEA) was 179 million tons and the cumulative turnover was 7.661 billion yuan. The establishment and development of China's carbon emissions trading market has provided support for the realization of green low carbon transformation and led commercial banks to actively develop green finance.

Green low carbon transformation requirements. Under the goal of "double carbon", China clearly points out that we should promote the transformation of social economy to green development, accelerate the development of new energy economy, continuously expand the supply and consumption of green low-carbon products, further develop green low-carbon industries, and help upgrade traditional industries. This social and economic transformation needs the strong support of commercial banks to further promote the development of green financial business of commercial banks.

3.2 Threats of Developing Green Finance in Commercial Banks

Industry competitiveness is not strong. The formal development of green finance in domestic banks is late, but foreign banks have had a relatively perfect trading mechanism, resulting in China's weak competitiveness in the international trading market [6]. Although commercial banks have achieved rapid development in green finance, compared with traditional business, the proportion of financial products such as green credit and green bonds in commercial banks is still at a low level.

Lack of perfect legal system. Green finance involves a variety of areas, and the implementation of green finance policies requires banks to have comprehensive capabilities. Due to the limited policies at present, there are no uniform regulatory measures and implementation rules for each bank, which slows the development of green finance.

3.3 Advantages of Commercial Banks in Developing Green Finance

Commercial Banks are the core of China's financial operation and the bridge between enterprises and financial field. Banks can easily obtain the most complete data and information of major enterprises, and can also provide convenient and efficient services for enterprises. In addition, long-term financial transactions between enterprises and banks can build mutual trust and help banks to promote the development of green financial products and services.

3.4 Weaknesses of Commercial Banks in Developing Green Finance

Information disclosure problems. Although the environmental information disclosure of commercial banks has improved, there are still many problems. On the one hand, banks have not formed a sound incentive and restraint mechanism; on the other hand, banks have difficulties in measuring quantitative indicators [7], incomplete data collection and lack of unified information disclosure standards, which are not conducive to making correct decisions.

The financial system is not perfect. China's current green low-carbon economic development is still in the primary stage, green finance and green life, green consumption and other aspects failed to achieve full fit. Green finance in the financial market has been dependent on social policy guidelines, failed to achieve full independence. In addition, all walks of life have not fully understood the concept of finance and cannot form a close connection, which leads to the difficulty of green finance development.

Green financial products are single. At present, the green financial products of the banking industry are mainly concentrated in the field of credit. Although the issuance scale of green bonds has increased, it still occupies a small proportion. Compared with the financial products such as insurance services and green PPP in developed countries, the green financial products of commercial banks in China are relatively single and small. In addition, there are some limitations in the object of green financial services [8].

Lack of green finance professionals. Green finance is a newly formed economic activity in recent years. The public's green consciousness is weak, and the new green concept and concept content cannot be deeply understood. Most importantly, the existing talent level is uneven, which cannot meet the development needs of green finance.

4. Suggestions for Commercial Banks to Develop Green Finance

4.1 Perfecting Disclosure System and Realizing Information Sharing

First of all, commercial banks should be mandatory binding banks to disclose environmental information. Secondly, further set up to adapt to the commercial bank information disclosure standards; in addition, legislation should be promoted to guarantee citizens' right to know and to achieve information justice, transparency and sharing. Finally, diversified cooperation should be actively promoted. Environmental protection agencies need to review relevant information again, and transmit information to commercial banks in time to reduce information asymmetry.

4.2 Improving the financial system and strengthening risk management

Under the concept of green development, banks should improve relevant systems, laws and regulations, and regulatory mechanisms, so as to establish a sound green financial system. Due to the large initial investment of green finance projects, there are generally problems of long recovery period and low return rate. Therefore, commercial banks should optimize the credit structure, comprehensively supervise customers, identify risks from various aspects and angles [9], and strengthen risk management.

4.3 Learning from Excellent Experience and Innovating Green Finance

China's commercial banks green finance starts late, all aspects of knowledge and technology is not mature enough. According to China's national conditions and the development status of green finance, the banking industry should learn from foreign experience and summarize the economic system suitable for the development of banks. In addition, it is necessary to accelerate the innovation of green finance in content and products, actively explore fields such as funds and asset management, and broaden the business scope. Actively develop special products, adjust measures to local conditions, accurately and effectively serve different industries, and promote the reform and innovation of financial products and services.

4.4 Raising Green Awareness and Cultivating Professional Talents

On the one hand, commercial bank employees should actively follow up on the concept of green development, improve the awareness of green development [10], and deeply understand the connotation of green finance. On the other hand, commercial banks should formulate talent training plan, carry out professional training based on existing personnel, actively introduce talents, and establish a compound team with professional knowledge and skills of green finance. In addition, commercial banks should establish close contact with major universities and collaborate with the government to ensure professional talents and capital needs, and promote the healthy development of green financial services of commercial banks.

5. Conclusion

Under the background of striving to achieve the goal of "carbon peak, carbon neutrality", commercial banks are facing many opportunities and challenges. It is a complex and arduous task for commercial banks to achieve green financial development and promote industrial economic transformation. For commercial banks, it is necessary to actively learn from foreign excellent experience, constantly innovate in multi-field financial products and services, improve the green financial system in the process of practice, strengthen risk management and control capabilities, realize information sharing based on green information data, avoid information asymmetry, speed up the introduction of talents, increase the intensity of professional personnel training, and help realize the goal of "double carbon".

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