

Research on the Development of Green Finance of China Everbright Bank

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ABSTRACT

In the context of the country's vigorous development of green finance, it is the general trend to carry out green finance business. China Everbright Bank is also actively exploring this field. However, in the face of fierce market competition and a changing market environment, there are still many problems in the development of China Everbright Bank's green finance business. This paper mainly uses the SWOT analysis method to study the advantages, disadvantages, opportunities and threats of the development of green finance in China Everbright Bank, analyzes the performance of green finance business development and the problems of green finance business development in China Everbright Bank, and proposes corresponding countermeasures. The research results of this article are intended to provide certain reference and reference significance for the development of green finance business of other commercial banks in my country.

KEYWORDS

China Everbright Bank; Green Finance; Problems; Countermeasures

1 Introduction

With the deepening development of global economic integration, green finance, as a new financial model, has provided new thinking and new paths for global sustainable development. All countries are actively promoting the layout of green development and promoting the development of green finance. Commercial banks play a crucial role in my country's financial system. Carrying out green finance business is not only in line with the national development strategy, but also helps commercial banks better play the guiding role of capital flow in the resource allocation system. China Everbright Bank adheres to the concept of green development, strives to innovate financial business, deeply explores new, imitable and popularizable green finance models, provides other commercial banks with experience to learn from, and promotes the sustainable development of green finance. Therefore, this paper analyzes the green finance business of Everbright Bank in depth, studies the issues of the development of Everbright Bank's green finance business, proposes the development strategy of Everbright Bank's green finance business, and provides other commercial banks with green finance development experience that can be learned from.

2 Status of domestic and foreign research

2.1 Current status of foreign research

White (1996) believes that the environment affects the decision-making of enterprises. Enterprises should pay attention to environmental protection, focus on environmental factors in the decision-making process, and propose an outline for environmental financial development ^[1]. Salazar (1998) believes that environmental finance is the product of the joint development of the environmental protection industry and the financial industry. Green finance can guide social funds to flow to the environmental protection industry. Green finance is the only way for the sustainable development of the environmental protection economy ^[2]. Martina K and Tom Smith (2016) believe that green finance is a new scientific field of joint development of finance and natural sciences, which can coordinate the relationship between economic development and environmental protection, pointing out a better direction for future social and economic development ^[3]. Gryshova, Kyzym and Khaustova et al. (2020) concluded through research that the progress of national industrial structure and green development is positively correlated, and sustainable development is the general trend in the future ^[4].

2.2 Current domestic research status

Gao Jianliang (1998) first proposed in China that green finance is a financial operation strategy in which the financial department coordinates the relationship between economic development and environmental protection through financial business ^[5]. Li Shu (2002) believes that green finance is a green barrier, which refers to a barrier to restrict foreign trade goods through compulsory laws and regulations, taking the protection of the environment and human health as the starting point ^[6]. Yu Yongda and Guo Peiyuan (2003) believe that foreign research on green finance theory has achieved quite good results, but domestic related research is still lacking. Domestic research should actively introduce

foreign research results to promote the development of domestic green finance as soon as possible and shorten the gap with foreign countries^[7]. He Xude and Zhang Xuelan (2007) believe that green finance business has more obvious operating performance than traditional businesses. Green finance is the future development trend of international banking industry. Our country's financial industry should keep up with the trend and vigorously develop green finance^[8]. Ren Hui (2009) believes that green finance is a sustainable finance that coordinates the relationship between economic development and environmental protection from an environmental perspective^[9]. An Tongxin et al. (2017) believe that green finance is credit, securities, insurance and other activities aimed at the protection of the ecological environment, the rational use of resources, and the sustainable development of the economy. It has the green characteristics of environmental protection, helps and supports the development of green industries and promotes the transformation of traditional industries to green industries^[10]. He Qian (2021) believes that the conceptual connotation of green finance is constantly enriching and developing, from a single financial policy, financial products or financial instruments to environmental protection, promoting the greening of traditional industries, and sustainable development^[11].

3 Performance analysis of the development of green finance business of Everbright Bank

3.1 Performance analysis of green bonds

As an active practitioner of green finance, China Everbright Bank will continue to give full play to its own characteristics and continuously enrich the green connotation of new financial practices. For example, in 2018, China Everbright Bank Hong Kong Branch successfully issued US\$300 million in 3-year green bonds with a face rate of 3MLibor+85 basis points. In 2019, it invested in Guizhou Province's first AAA-level corporate green corporate bond, which was mainly invested in key water conservancy projects in Guizhou Province. In 2023, China Everbright Bank held 40.418 billion yuan of green bonds and underwritten 8.1 billion yuan of green bonds. The successful issuance of 20 billion yuan of 3-year green financial bonds with a face value of 2.68%, which is an important measure to actively respond to national policies.

3.2 Performance analysis of green loans

The balance of green loans in China Everbright Bank has shown a rapid growth trend in recent years, especially in 2022 and 2023, with a year-on-year growth rate exceeding 50%. This reflects the importance of Everbright Bank to green finance and sustainable development. With the support of policies and market promotion, the scale of Everbright Bank's green loan market will continue to expand in the future, providing more financial support for the development of the green economy. In 2022, the green loan balances of Industrial and Commercial Bank of China, Everbright Bank, Industrial Bank and Pudong Development Bank will be RMB 3978.458 billion, RMB 199.29 billion, RMB 1629.76 billion and RMB 427.1 billion respectively. The balance of green loans of Industrial and Commercial Bank of China is the largest, and the balance of green loans of Everbright Bank is still very different from the other three banks. We should actively absorb the experience of large domestic and foreign commercial banks, further expand the scale of green loans, and inject inexhaustible impetus into the country's development of green finance.

3.3 Performance analysis of Carbon Yitong Scenario Finance

China Everbright Bank was the first in the industry to launch the "Carbon Yitong Scenario Finance" model. Relying on the national carbon exchange, it provides power companies participating in carbon quota trading with a package of financial services such as carbon emission rights pledge financing, green bonds, payment settlement, account management, etc., which helps the green development of enterprises and provides more ideas for green financial innovation in the banking industry^[12]. For example, in May 2022, Everbright Bank used the "Carbon Yitong Scenario Finance" business model to issue a loan collateral to Fuzhou Hete New Energy Co., Ltd. with a 30,000 tons of carbon emission quota, with a loan amount of 10 million yuan. In 2023, China Everbright Bank handled Yantai's first carbon emission rights pledge financing business for Laiyang Thermal Power Co., Ltd. In 2024, Industrial and Commercial Bank of China issued a 30-million-yuan carbon emission rights pledge loan to a chemical company in Xiantao City.

4 Analysis of SWOT in the development of green finance in China Everbright Bank

4.1 Advantages

Everbright Bank clearly defines the definition of ESG risk and the content of risk preference in bank risk preferences. Strictly implement the "one-vote veto system" for ESG risks, and it is strictly prohibited to add any new credit to customers with major ESG risks. In terms of overseas project management, strengthen communication with the regulatory

authorities of the country or region on the basis of implementation requirements, follow relevant international practices or guidelines, and ensure consistency with international good practices. Integrate ESG risk management requirements into the credit management system, set up ESG risk management modules in the pre-loan, in-loan and post-loan credit process, set up multiple corporate ESG major risk credit reports, and dynamically monitor the credit status of climate risk enterprises; combine internal and external standards, set up high-carbon labels within the bank to regularly monitor the concentration of high carbon assets and asset quality. Through the sunlight warning platform, we monitor and early warning of ESG risks such as natural disasters and environmental punishments for customers, and risk control of early warning customers.

In 2022, China Everbright Bank has established 1,037 branch structures in the country, and its institutional outlets radiate to 150 economic center cities, second only to Industrial Bank. The wide range of branches is conducive to the branches developing characteristic green finance business according to the province and city according to local conditions, expanding the scale of green finance business, accelerating capital turnover, diversifying green finance risks, and improving the strength and competitiveness of green finance services. For example, Chongqing Branch invested in Chongqing Airport Group Co., Ltd.'s second issue of green medium-term notes for 2022. This project helped Chongqing Jiangbei International Airport East Terminal Area and the third runway to achieve green upgrades, mainly in terms of rainwater utilization, new energy use, pollution prevention and control, etc.

4.2 Disadvantages

Compared with other commercial banks, Everbright Bank developed green finance later. China Everbright Bank has not joined Equator Bank so far. It only began to release its annual social responsibility report in 2010, including green finance as a key development strategy, briefly mentioning the development trends of green finance. There is no special green finance sector to introduce the development history, overview and specific trends of green finance. Green finance is developing slowly, the green finance system is not perfect enough, and there is insufficient experience in green finance development, which is far from other banks. Although the official website of China Everbright Bank also has an ESG column, it only briefly discloses and summarizes the relevant information in the annual social responsibility report, and will only be more perfect since 2022. It reviewed and passed the "Green Finance Work Management Measures (Trial)" and the "Medium-term Action Plan for Promoting Carbon Peak and Carbon Neutrality and Green Finance Work (2022-2025)" and released the social responsibility (social, environmental and governance) report, further focusing on the environment, society and governance fields, and the disclosure of green finance business is more detailed, but there are still many shortcomings, which are not enough to be highly disclosed in Industrial Bank. It is difficult for investors and society to understand the real information data of Everbright Bank's green finance business. It does not pay high enough attention to green finance products, and it is difficult to evaluate the quality and services of products, which has become a stumbling block to its green finance development.

4.3 Opportunities

Since 2012, my country has successively issued many policies, divided green credit in detail, formulated evaluation standards for the implementation of green credit, standardized the applicable projects and review standards for green bonds, and improved and deployed the development plan for green finance. In 2019, my country achieved a phased leap in the green financial system. The green financial market has developed rapidly, the policy system is relatively perfect, the practical experience is rich, and the global promotion is active. Since then, the country has firmly established a green financial system, so as to seek new breakthrough points in the field of green finance and accelerate the construction of the green financial system. The 2022 "Guidelines for Green Finance of Banking and Insurance" propose that the banking and insurance industry should include environmental, social, and governance (ESG) requirements into the management process and comprehensive risk management system.

4.4 Threats

Although China Everbright Bank has innovated innovative products such as "Carbon Yitong" scenario financial model, carbon emission rights pledge loans, forest rights mortgage loans, sustainable development-linked loans, digital credit cards, etc., it is not enough that Industrial Bank has many green financial products and has made early access. Industrial Bank began to participate in carbon finance as early as 2007 to serve the "7+2" domestic regional carbon emission rights trading market. Under the digital transformation strategy, Jiangsu Bank has portrayed enterprises for eight major industries such as electricity and steel through intelligent portrait rating companies. Everbright Bank learns from other commercial banks to accelerate the use of digital technology to help the development of green finance, innovate carbon finance models, and comprehensively develop carbon finance scenario businesses. The China Development Bank has

innovatively launched a special green financial bond for the development of the Yangtze River Economic Belt, which is also a "Bond Connect" green bond. It is highly attractive to overseas investors and continues to actively practice the concept of green development and innovatively creates a series of special green bonds. The Agricultural Development Bank of China has innovatively issued green bonds supporting biodiversity conservation and the development of green industries in Gansu, with a total scale of 7.4 billion yuan. China Everbright Bank mainly underwritten green financial bonds but does not innovate green bonds. It will issue green financial bonds in 2023, covering large-scale projects in key areas such as wind power generation, solar energy utilization, and urban rail transit, as well as special projects encouraged by national industrial policies such as energy conservation and environmental protection industries and ecological environment governance. Although Everbright Bank has many types of underwriting bonds, it rarely issues bonds. In contrast, no other commercial banks issue bonds in many types and innovative types.

5 Analysis of the problems of the development of green finance business of Everbright Bank

5.1 Green financial products are inadequately innovative

Compared with other commercial banks, the types of green financial products of Everbright Bank are fewer, such as green credit, green leasing, green bonds, green notes and green low-carbon credit cards, which lack innovation and diversity. In contrast, Industrial Bank continues to innovate green products, including green asset management, green trust, green funds, green securities services, green supply chain and other business types. Although the green loan balance of Everbright Bank has grown steadily, and there are many green credit products, such as photovoltaic loans, carbon emission rights pledge loans, energy-saving financing loans, etc., the green loan projects have low investment returns and long return cycles, and the products provided have few choices for individual investors, and there is insufficient innovation and expansion in the retail field. This leads to the contradiction between balancing business expansion and the maturity structure of green credit products when conducting green loan business.

China Everbright Bank has only pledged green rights, while Industrial Bank has successively explored the implementation of green financial innovative products such as forest rights mortgage loans, forest rights loan loans and national reserve forest construction loans. Moreover, China Everbright Bank issues fewer green bonds, mainly investing in underwriting green bonds. In contrast, Industrial Bank actively explores the green bond market, issuing a large number of green financial bonds with a scale of basically more than 20 billion yuan, providing more options for the green bond market, improving capital liquidity, reducing financing costs of green bond issuer, and innovatively carrying out the creation of credit risk mitigation certificates for debts with green bonds as the target.

5.2 Green financial risk prevention capabilities are weak

Risk control is a key issue in the development of green finance. We must balance the relationship between economic and environmental benefits and ensure the sustainability and robustness of financial activities. Due to the continuous changes in technology, policies, markets, etc. in the field of green finance, information needs to be updated and disclosed in a timely manner. Everbright Bank has a relatively new business in the field of green finance and has little experience. There are differences in risk control of green finance business and traditional financial business, and different management measures are required.

Up to now, China Everbright Bank has not introduced the Equator Principle as a risk prevention and control standard, while Industrial Bank and Jiangsu Bank have actively introduced the "Equator Principle" as the basis for risk assessment of green finance projects. In recent years, other urban commercial banks except Jiangsu Bank and even rural commercial banks have been actively joining the "Equator Principle" to become Equator Bank. Compared with commercial banks that join the Equator Principle, Everbright Bank will have some shortcomings in risk control capabilities related to green finance business.

5.3 Lack of professional talents in green finance business

my country's green finance business is still in its infancy, involving a wide range of industries and fields, and requires professional knowledge and skills, and few professional talents. China Everbright Bank has a relatively weak talent team in green finance business, especially professional and technical talents. In the field of green finance, professional talents in environmental assessment, professional talents in green financial product design, and professional talents in green investment assessment are needed.

The field of green loans involves professional knowledge in the areas of environment, public welfare, law, finance, etc., and requires interdisciplinary compound talents and a very familiarity with the banking industry. The screening, evaluation, due diligence and approval of green loan business all require corresponding professionals to conduct analysis

and evaluation. In the process of handling green loan business, due to the lack of research and training on green environmental protection and other related professional knowledge, the staff may be not professional enough, resulting in problems in project environmental protection risk review, failure to detect potential environmental pollution problems in the enterprise in a timely manner, and neglect management and supervision or unable to take corresponding measures in a timely manner.

At present, many commercial banks have established green finance departments. After years of development, Industrial Bank has built a professional green finance team and will continue to strengthen talent introduction and internal transformation in the future. China Everbright Bank has invested relatively little in this regard, and lacks effective solutions for recruiting and cultivating professional talents in green finance business. As the development of green finance is just beginning, the current market has seriously insufficient relevant talents, and the relevant training policies are not sound enough, and subsequent talents are insufficient. Against the backdrop of my country's active development of green finance, the demand for related professional talents by commercial banks will only become more intense in the future.

5.4 The information disclosure mechanism is not sound

Information disclosure in communication mechanisms is crucial to the development of green finance business. China Everbright Bank lacks great difficulty in this regard, lacking sufficient transparency and openness. It is difficult for investors and the public to understand the specific situation of Everbright Bank's green finance business and to evaluate its business quality and influence.

By inquiring about the official websites of major commercial banks, we can see that whether it is Industrial Bank, Industrial and Commercial Bank of China or Pudong Development Bank, they have issued the "Environmental Information Disclosure Report", which conducts quantitative and qualitative analysis of green credit investment, green bond issuance, greenhouse gas emissions and natural resource consumption generated in business activities, green finance innovation achievements, performance, etc., and conducts comprehensive calculations and disclosures on the development of commercial banks' investment and financing business and their own low-carbon operations. Through the bank's official website, investors and the public can obtain information more intuitively. However, China Everbright Bank has not released the "Environmental Information Disclosure Report", but it is only mentioned in the social responsibility report. Industrial Bank and Industrial and Commercial Bank of China both released special "Green Finance Development Report" to disclose the bank's green finance business information in detail every year. Industrial and Commercial Bank of China has issued social responsibility reports every year since 2007 and has released ESG special reports every six months starting from 2021. Industrial and Commercial Bank of China has been releasing related reports such as the "Green Bond Annual Report" and the "Green Finance Special Report" since 2017. Although China Everbright Bank publishes social responsibility reports every year, it does not have specific reports specifically for green finance business. The green finance part involved in the social responsibility report accounts for a very small proportion in the report, and the relevant information disclosure is not sufficient.

Everbright Bank has not yet established a complete information disclosure channel and platform and cannot provide customers and investors with sufficient green financial product information, and its communication channels with customers are not flexible and efficient enough, and cannot solve problems in a timely manner.

6 Countermeasures for the development of green finance business in China Everbright Bank

6.1 Developing innovative green finance products

Product innovation is crucial when commercial banks conduct green finance businesses, and product innovation will face many difficulties. For example, whether the new product meets the current market demand; whether there are huge risks in the new product, whether the risks are controllable; whether it can fully learn from the successful innovative cases of some large international banks based on their own actual situation. In response to these challenges in green financial product innovation, first of all, China Everbright Bank can promote product innovation through cooperation with enterprises, institutions and academia, and actively conduct market research to promptly understand the latest national policies on green development and fully interpret them. In this way, we can develop green financial specialty products that better meet customers' needs based on market demand and green development direction, and at the same time enhance the competitiveness of Everbright Bank. Secondly, Everbright Bank can actively explore the use of technological means to innovate green financial services, such as risk assessment and monitoring of green projects through technological means such as big data and artificial intelligence. The liquidity and transparency of green financial products can be strengthened through blockchain technology. We can innovate the "green + " model, such as "green + energy", "green + environmental protection" and "green + new model" to meet the multi-level, multi-modal and diversified needs

of customers, and inject strong momentum into promoting the sustainable development of local green economy. Support the development of new energy, help green manufacturing enterprises, explore new financing models, and continuously explore new financing models on the basis of supporting the development of the green economy in traditional ways.

6.2 Preventing green financial risks

At present, the green financial risk management system of Everbright Bank is not perfect enough. To strictly manage risks, an independent green financial risk management system must be established. The green financial risk management system can help Everbright Bank better identify, quantify and manage the risks of green financial business. Establish green financial risk management policies and regulations to ensure that all green financial businesses follow the same risk management standards and procedures. To strictly prevent the use of "green" under the name of "green", we need to formulate practical and feasible special rules for the use of green finance, strengthen financing and use requirements in terms of green project catalogs and green benefits, and form clear guidelines for the purpose of raised funds.

Everbright Bank can establish a special green finance risk management department and professional team to be responsible for the risk management of green finance business, including risk assessment, risk control and risk reporting. Actively develop scientific risk assessment models for green finance businesses, evaluate the risk levels of different green finance businesses, as well as related market, credit, operational, liquidity and political risks, etc. A third-party green assessment agency can be appointed to conduct follow-up monitoring of the funds raised by green projects and their usage directions and adopt the evaluation opinions of third-party green assessment agencies to avoid risks and promote the construction of green projects.

6.3 Strengthening the construction of the talent team

Building a professional team of green finance talents is crucial to Everbright Bank's development of green finance business. Our country started to carry out green finance business later than other developed countries, which led to fewer professional talents in green finance in my country's entire banking industry, and it is difficult to build a team of professional talents in green finance. Currently, Everbright Bank has insufficient professional talents in green finance, which is not conducive to further expanding the scale of its green finance business in the future.

Bank practitioners must have both financial knowledge and relevant knowledge in the field of environmental protection. Different green financial product review standards are also different, so this requires extremely high professional capabilities of practitioners. Moreover, the overall exploration of my country's commercial banks in the field of green finance was relatively late, so the demand for compound talents in the field of environmental protection and financial fields is quite large at this stage. However, in real life, such compound talents are quite scarce. Therefore, Everbright Bank should increase its efforts to cultivate talents in the field of green finance and form a professional talent team.

China Everbright Bank can introduce talent introduction policies to attract senior professional talents and senior management personnel in the field of green finance to form a green finance research think tank, follow up on key industry trends, and enhance the bank's professional capabilities in the field of green finance. On the other hand, strengthen the training of practitioners, regularly organize practitioners to learn relevant green finance knowledge, formulate relevant assessment standards, and impose corresponding penalties on those who fail the assessment. A journal about green finance expertise is published every month to facilitate employees keeping abreast of financial development trends.

6.4 Improving the information disclosure mechanism

The data disclosed by my country's financial institutions is extremely limited, and the information disclosure standards of various banks are different, so information sharing is also a key step in the development of my country's green finance. Everbright Bank can work with financial institutions to establish a green financial risk sharing platform, establish a green industry project information database, and include illegal fraud information of credit acquirers, bond issuers, and fund users into the basic financial credit database, fully releasing the supervisory role of social forces. The smooth and sharing of information disclosure is conducive to investors making decisions. Only by strengthening information exchange between financial institutions, enterprises and the public can we promptly discover and correct the exposed problems and improve the efficiency of green finance development.

The high degree of disclosure of information related to green finance business can strengthen the government and the public's understanding and attention of commercial banks, thereby regulating the behavior of banks and urging banks to actively practice social responsibilities. However, Everbright Bank's transparency in the disclosure of contents of

its green finance-related businesses is obviously insufficient. Therefore, Everbright Bank can carry out information disclosure work in all aspects of the project, including project establishment, evaluation, approval, loans and repayment, etc. to ensure that investors and the public understand the real situation and risk status of the project.

In addition, China Everbright Bank can also use information disclosure as an important assessment indicator for green finance projects, encourage bank employees to actively carry out information disclosure work, improve project transparency, regulate their own behavior through public supervision, and thus reduce risks. Through the bank's official website, investors and the public can obtain relevant information more intuitively. Everbright Bank can learn from other experienced banks and publish detailed environmental information disclosure reports. In contrast, Industrial Bank and Industrial and Commercial Bank of China both released special "Green Finance Development Report" to disclose the bank's green finance business information in detail every year.

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