



Sustainable and Healthy Development of Green Finance of Large Commercial Banks under the Vision of Carbon Neutrality

Jun Qiu*

Corporate Banking Department, Bank of Communications, Shanghai, China.

*Corresponding author. Email: qiuj@bankcomm.com

ABSTRACT

As China moves towards the “dual-carbon” goal, financial organizations have been racing on the track of green finance. Large commercial banks are engines that drive real economy and lead the nation towards the dual-carbon objective. How to allow these banks to shoulder the social responsibilities for green development and promote transformation into green financial services and quality development has become a crucial research topic. In light of the advanced practice of other countries and China’s focus in its transformation towards green and low-carbon development, the work here analyses the current conditions of large commercial banks, and explores the challenges that the banks face in its endeavour towards green and low-carbon development as well as the corresponding causes. On that basis, it is advised that banks should adjust their product design and service philosophy to meet the requirements set by the nation as it approaches the dual-carbon goal, take effective measures that involve both top strategic planning and fundamental policy implementation to achieve sustainable and healthy development of green finance. The work here is expected to explore a new path to lead banks towards quality and green development, and provide useful advice to facilitate China’s initiatives to reach the goal of peak carbon dioxide emissions and carbon neutrality.

Keywords: *commercial bank, green finance, carbon neutrality, sustainable development*

1. INTRODUCTION

These years have witnessed quick advances of green finance in China. Observation and analysis of China’s attempts to move towards green finance over these years reveal some insights into China’s financial system: from the perspective of top-level design of the nation’s financial system, the financial administration have been striving to improve the nation’s framework for green financial policies, deepen reforms and innovation of green finance, and have achieved a range of stunning achievements in terms of standard formulation, incentive mechanism, product innovation, division of regional pilot zones, and global collaboration; China has risen to be the world’s first nation that has established a systematic framework for green financial policies^[1]. From the angle of implementation, large commercial banks have been advancing the development of green and low-carbon financial products and service packs. Take for example Bank of Communications, Shanghai Branch: as a large group with multiple business certificates, the bank has incorporated green credit into its performance assessment

framework, fully utilized the carbon emissions reduction tool issued by the Central Bank of China as well as the structural monetary policies like special loans for efficient and clean use of coal released by the central government to provide long-term and low-cost capital service packs towards the goal of green and low-carbon initiatives.

Analyses of the current conditions of large commercial banks reveal the following. First, the structure of financial products in China is multi-levelled. China has now established a multi-level system of green financial products, dominated by green loans and green bonds, and supplemented by green insurance, green funds, green trust, and carbon finance^[2]. As of late 2021, the green loans in domestic and foreign currencies have reached CNY 15.9 trillion, a 33% year-on-year growth, and ranked the first across the globe. Second, the concentration of investment purposes and industries of green capital of banks in China is registering a downward trend, and investment of green capital grows increasingly diversified. As of the third quarter of 2021, industries like transport, warehousing, postal service, power and gas,

aquacultural production and supply account for 54.80% of the sum of green loans, a quarter-on-quarter decline of 1.66 pct than the second quarter. In terms of the purpose of capital usage, most capital is invested into green upgrading of infrastructure and clean energy industries, making up for 72.94% of the overall investment, a quarter-on-quarter decline of 0.77 pct than the second quarter. Third, the race on the track of green finance is seeing increased competition. Green loans feature high comprehensive profits, low rate of bad loans, and governmental support, so banks have adjusted policies and input more resources to green credit business, such as by increasing the pricing allowance and raising accountability of risks to expand its business reach and increase sales. However, to stand out in the competition of green finance, banks also need to have an upper hand in client resources, capital cost, products in and out of the balance sheet, and comprehensive financial service capacities.

2. CHALLENGES FACING LARGE COMMERCIAL BANKS IN GREEN AND LOW-CARBON DEVELOPMENT AND THE CAUSES

On the two sessions of 2021, the “dual-carbon” goal has been made a long-term national development strategy of China, and in the 14th Five Year Plan, it is stipulated that we need to strengthen legal and policy guarantee of green development, construct a system of policies for green development, boost advances of green finance, and encourage commercial banks to, by following the market rules, organize more carbon emission reduction financing activities and direct financial resources to green and low-carbon industries. Compared with the EU, the pioneer of green development standards, China is still in its infancy in green transformation of financial organizations. As China made “dual carbon” a national goal, large commercial banks in China have been trying to grasp the opportunities to establish a green finance development system [3]. Analysis of engagement of large Chinese commercial banks in green financial services shows that these banks suffer tangible drawbacks in three stages of green finance development: the early-stage reserve planning, the middle stage of product release and service output, and the late stage of program implementation. The causes are manyfold. Detailed analyses are as follows.

2.1. Insufficient Early-Stage Reserve for Green Financial Projects of Large Commercial Banks

The green capital reserve is the foundation for large commercial banks to promote green and low-carbon financial businesses at all levels. Most large commercial banks in China, however, have insufficient reserve in the early stage, the causes for which are three-folds: the first is the absence of top strategic planning. Most large

commercial banks have no overall planning for developing green finance, and most work in this regard is still in the stages of research and exploration; and strategic planning, organization, and development strategies for green finance have not drawn due attention. Take for example the Bank of Communications, Shanghai Branch: the bank has not yet released medium- and long-term plans for development of green finance, though it has made green finance a supplementary goal of fintech, upgrading of the manufacturing sector, and implementation of social responsibilities. The second is the lack of collaborations between the head office and branch banks and between departments of the banks. When the head office interprets the policies on green finance, it delivers the message to branch banks with “accessible” expressions and “useful” tools; in this scenario, the branch banks often fail to respond quickly, and sometimes may lead to “unclear meaning and undefined accountabilities”. Besides, there is information asymmetry in group work among departments: for example, the promotion campaigns at the front are mismatched with policy guide at the backstage. The third cause is defective assessment mechanism of banks. Though most commercial banks have incorporated green finance into their assessment system, the operation organizations often do not give much attention to the marketing and reserve of green financial services due to insufficient incentives or punishments, thus showing low motivation. Moreover, both the head office and the branch banks have not organized enough training among the customer managers about the knowledge of green and low-carbon industries, and as a result, the bank staff are short of the motivation and skills for promoting green financial services. Banks should, by increasing the incentives and punishments, encouraging the branches to adopt new work modes, and organizing flexible groups and professional marketing teams, strengthen organic fusion of marketing, review, and management, and thereby carry out green finance programs.

2.2. Lack of Capacities for Medium-Stage Service Output in Large Commercial Banks

When promoting green finance programs, many commercial banks show the lack of service capacities [4]. The causes are the following. First, the banks do not have enough capacity to innovate their products. The products are not systematic or advanced [5]. For instance, the product system of Bank of Communications, Shanghai Branch is still dominated by credit products, whereas there are few on investment banking products or services like green bonds and derivatives, and ESG products are rare. In terms of clients, the reach of small- and medium-sized green finance clients is not sufficient, and there is little crossover with inclusive businesses. The second cause is the lack of practical experience among the grassroot staff members. As the head office has no top-level strategic planning and the branch banks are not

aware of the importance of strategic planning of green finance development, the client managers and executives in basic operation organizations have not enough understanding of programs of green finance. Consequently, they cannot direct preferential policies and quality resources to green finance projects, and cannot support green finance programs.

2.3. Lack of Green and Low-Carbon Corporate Culture and Risk Control Capacity of Large Commercial Banks

In daily work and commutes, energy wastes and pollution caused by private cars, use of paper, air conditioning and elevators are rife. The idea of “green bank” has not yet been established in large commercial banks in China, and the staff do not give much attention to the green development outlook; meanwhile, rules regarding green development in the bank are not established, making it hard for the staff to identify green finance projects [6]. At the stage of project implementation, the banks have not enough tools and measures for risk matching, risk pricing, and risk hedging, and sometimes may invest capital to fake green development programs by mistake.

3. SUGGESTIONS FOR LARGE COMMERCIAL BANKS TO ACHIEVE GREEN AND LOW-CARBON DEVELOPMENT

As China aims to reach the goals of peak carbon dioxide emissions and carbon neutrality, developing quality green finance has become a must for large commercial banks in the 14th Five Year Plan. The following suggestions are proposed to lead large commercial banks in China towards healthy and sustainable development of green finance.

3.1. Taking a Big-Picture View and Implementing the “Dual-Carbon” Strategy Issued by the Central Government

The “dual-carbon” strategy is a strategic plan proposed by the central committee of CPC with Comrade Xi at its core when making national development plans in face of the situations in China and abroad, and it is the guiding line for China’s economic transformation and quality economic development in the following decades. As the “dual carbon” strategy moves forward, “green development” is bound to be the central theme of China’s social and economic development. Large commercial banks, as the pillars of national economic growth planning, need to incorporate green and low-carbon finance into their strategic planning, and implement it in their annual business work plans, thereby ensuring match

between their low-carbon finance initiatives with the national goals [7].

3.2. Creating a Green Finance System, Establishing the Brand Culture of “Green Banks”, and Releasing New Green Financial Products

First, it is necessary to create a system of green finance. In strategic planning, large commercial banks should aim at developing into green financial groups. In terms of collaborations between the head office and the branches, a green finance organizational structure with the board of directors at the top should be created, and green finance promotion teams should be established in branch banks to achieve integrated cooperation between the head office and the branch banks in the green finance system. In addition, from the angle of interactions between the branches and overseas banks, large commercial banks can make use of its multiple certificates to expand its strategic goals from basic green loans and bonds to green trust, green leasing, green financing, and green investment.

Secondly, it is imperative to establish the corporate culture of green development. Large commercial banks should uphold the idea of ecological protection and pursue sustainable development, incorporating the brand of “green banks” into the corporate culture of banks’. In addition, Chinese banks need to learn from international banks, set an overall goal of carbon emissions reduction, encourage low-carbon initiatives, and reduce the emission of greenhouse gases and energy consumption in their daily operation [8]. For instance, banks can adopt the paperless office mode, use renewable resources or clean energies and encourage green travel on carbon emissions to reduce negative impacts on the environment.

Thirdly, it is necessary to roll out new green financial products. Green financial services are of their unique characteristics, and it will be challenging to promote these services by way of the traditional authorization modes. It is necessary to specifically roll out green financial products and services [9]. To boost green finance products and service packs, large commercial banks need to coordinate collaborations between departments and subsidiaries in funds, leasing, and trusts to release new green financial products and create a multi-dimensional system of green financial products and services. The banks can also develop differentiated green financial products and services as the clients and the requirements for green development vary, therefore creating a full-process and full-coverage service system and meeting the financial needs of enterprise throughout the whole life cycle. Besides, it should be noted that large commercial banks should pay special attention to the opportunities in the carbon trade market, keep abreast of the advances in the system construction for carbon emission permit trading and the carbon trading market. It is necessary to

pay attention to the opportunities and challenges in carbon emissions permit allocation and trading, and actively explore the mechanisms for pledge and authorization of carbon capital, carbon delivery guarantee, and global carbon factoring.

3.3. Strengthening Green Data Governance and Improving Relevant Policies

First, banks should pay attention to financial data governance. Data governance underlies investment of green loans, and it is also an important basis for preparing the sheets of items for green capital reserve. As the saying goes, great oaks from little acorns grow; acquisition of basic green data and creation of a database are crucial for development of green finance. Data governance comprises new data acquisition and data analysis. In terms of new data acquisition, the new data mainly include carbon footprints of enterprises, climate risk pressure test data, and full-process data of corporate ESG. In the new situation, large commercial banks in China need to draw lessons from EU banks to establish a carbon footprint estimation model, assess climate risks, and build a climate and environment risk database to incorporate climate risks into the bank pressure test, which will facilitate effective control and management of banks in identifying sensitive areas and the risks they face. Meanwhile, in the review of the whole process, banks need to collect complete data on corporate ESG to perform comprehensive evaluation, and adjust the current risk model indicators or embed ESG factors into the risks assessment framework through situation analysis. With regard to data analysis, banks should make use of existing data and improve accuracy in identifying green projects. Banks can configure a preliminary step to identify high risks, and screen projects and clients by the pre-defined identification standards to classify clients and projects into “permitted”, “limited”, and “banned”. The bank also needs to update the item sheet and consult corresponding departments about projects that fail to meet the standards.

Secondly, policies on green credit orientation should be improved. Credit orientation policies serve as a guiding wand for credit investment of financial organizations. First of all, the subjects of green loans should be diversified. The diversification of the subjects of green loans means that the loans should not only go to clean energy and other key industries, but to other nontypical green initiative to improve efficiency and infrastructure of traditional industries^[10]. For instance, part of the green loans should be invested into technical upgrading, development of low-carbon technology industry chains and the circular economy system of enterprises able to reduce carbon emissions and those with high emissions and high energy consumption, helping these enterprises to achieve green production. In addition, the credit orientation should be differentiated to

achieve combination of “support and control”. The differentiation of green credit means that financial organizations, in face of different projects, need to develop differentiated credit policies and invest more into green industries and low-carbon transformation of traditional industries, and it is also necessary to probe further into industry segments. At present, green finance is still at the stage of incremental market, and banks need to have an upper hand in grabbing the market. However, limited by the industrial chains of the green industry, banks need to probe into the industry segments of the green industry to identify the specific target market and clients, and improve their capacity for customer service and risk control. Last, the bank needs to secure the bottom line and perform risk monitoring. It should create databases and specific green finance algorithms and evaluation mechanism with the collected data, and employ financial technologies to reduce the cost of data acquisition and effectively control the risks.

Thirdly, the auxiliary incentive and constraint system should be improved. Banks need to improve its assessment system and incorporate green finance businesses into the comprehensive business evaluation system^[11]. Meanwhile, large commercial banks should provide supportive policies and allocate more resources to green programs, and earmark a specific proportion of capital for green credit businesses to improve the efficiency of policies in the bank. Besides, they should boost green projects, increase financial investment into green programs, and encourage departments and subsidiaries to develop more clients for green finance, release new green financial products, and initiate more key projects in this regard. Moreover, in the credit check and approval, large commercial banks need to provide a “green channel” for green programs and give these programs priority.

4. CONCLUSION

To reach the goal of peak carbon dioxide emissions and carbon neutrality is a solemn mission proposed by the central committee of the communist party of China with Comrade Xi Jinping at its core aiming to create a community of shared fate across the globe, which is important to enhance ecological conservation initiatives and boost healthy economic development. Large commercial banks, as crucial hubs for resource allocation in China’s modern economic system, play an important role in capital flow control, financing, and adjustment of economic structure and operation. Promoting healthy and sustainable development of green financial services not only accounts for the foundation of China’s “dual carbon” strategy, but also serves as the engine for development of new business packs of commercial banks. Large commercial banks should, in light of the reality, explore the paths for developing green finance, and take measures in terms of top strategic planning, policy design,

corporate culture, organizational structure, and product innovation, to achieve sustainable and healthy development of green finance, and reach the “dual-carbon” goal in all aspects.

AUTHORS' CONTRIBUTIONS

JQ has conducted research and wrote the manuscript.

ACKNOWLEDGMENTS

This work was supported by the Major Program of the National Social Science Foundation of China (Grant No.: 20&ZD124), the National Natural Science Foundation of China (Grant No.: 71773115), the National Social Science Foundation of China (Grant No.: 21CJY024), the Philosophy and Social Science Program of Zhejiang (Grant No.: 22NDQN290YB) and the Humanity and Social Science Foundation of Ministry of Education of China (Grant No.: 21YJA790043, 21YJA630037, 19YJA790107, 18YJA790088, 21YJCZH213).

REFERENCES

- [1] S.Q. Hu, Current conditions of green finance in the context of quality development and policy recommendations — A case study of Yangtze River Delta. *Hebei Finance*. 2022(4), pp. 33-36.
- [2] H. Wang, Developing innovative green financial services and promoting construction of bank ESG management system. *China Money*. 2022(2), pp. 78-82.
- [3] S.J. Zeng, J.J. Li, H. Zheng, Innovation of bank green financial products in the context of “dual carbon” goal. *Industrial Innovation*. 2022(3), pp. 83-87, 99.
- [4] L.K. Liu, A new path for reshaping transformation of commercial banks under the “dual carbon” goal. *Tsinghua Financial Review*. 2022(2), pp. 69-72.
- [5] X.Y. Gao, Y. Lu, X.C. Chen, Typical reality for innovation of green credit products of Chinese commercial banks and responding strategies. *Journal of Shandong University of Finance and Economics*. 2019, 31(6), pp. 36-45.
- [6] M.F. Lu, Green development and low-carbon transformation: building low-carbon commercial banks in the new stage — from the perspective of the century goal of green development. *Financial Theory & Practice*. 2021(5), pp. 1-11.
- [7] H.Y. Min, Current situation and problems of green credit development in Chinese commercial banks and solutions. *Journal of Regional Financial Research*. 2021(9), pp. 82-87.
- [8] Y.F. Ye, T.Y. Li, J.L. Gao, H. Yin, New opportunities and challenges facing commercial banks under the carbon neutrality goal. *China Banking*. 2021(8), pp. 21-23, 34.
- [9] G.Y. Wang, R.Q. Hu, Monitoring and management of commercial banks in developing carbon finance and green finance and suggestions. *Modern Finance Guide*. 2022(2), pp. 61-67.
- [10] Y.Q. Chen, Z. Bie, The system and innovation of green financial products and services of commercial banks. *Financial Perspectives Journal*. 2021(3), pp. 46-52.
- [11] R. Wang, Q. L. Wang, Boosting green and low-carbon transformation of asset allocation of commercial banks by green finance policies. *Hainan Finance*. 2021(11), pp. 76-82.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

