

Green Finance in China's Commercial Banks

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Abstract

Green development has become the consensus of the entire society and can be reasonably used for financial leverage. The promotion of “green credit” will substantially guide credit funds toward a low-carbon environmental economy and aggregation. Commercial banks, as China's major financial intermediaries, play an important role in the development of green finance business. A complete green financial business system, which is China's green finance business in the initial development, remains in the early stages compared with other foreign commercial banks. This study draws on the successful experiences of foreign countries in the implementation of a credit policy and promotes the development of green credit and other aspects of targeted recommendations.

Keywords: Green finance; Equatorial principles; Green credit; Environmental protection

1. Present Situation of Green Finance Development in China

1.1 Policy

In July 2007, the People's Bank of China, China Banking Regulatory Commission, and State Environmental Protection Administration jointly proposed the “Green Credit,” which is the “implementation of the environmental protection policy on the development of credit risk advice” to strongly curb the market's environmental pollution and financial leverage.” On September 27, 2011, the “three departments” launched the “Green Credit” assessment research project to establish the “China Green Credit Data Center.” This endeavor entails commercial banks to implement green credit, management, and assessment of risk authoritative information support. The National Development and Reform Commission announced energy-saving emission reduction targets that measure and reform the development of mechanism-based energy efficiency financing. The market size can reach 300 billion Yuan.

1.2 Exploration of a few Chinese banks on green finance development

In May 2006, Industrial Bank and International Finance Corporation signed a Xucooperation agreement on energy efficiency financing projects; hence, the former is the first commercial bank to launch green financial products in China [1]. China Merchants Bank and Agricultural Bank also proposed the concept of green finance. At end of 2014, Industrial Bank's green finance accumulated loans and balance amounting to 555.8 billion Yuan and 296 billion Yuan, respectively. Industrial Bank implemented the Equator Principles Applicability Review for 854 projects. The total investment was approximately 2.12 trillion Yuan, which applies to

the Equator Principles of project financing 217. The total investment involved in the project is approximately 0.43 trillion Yuan, thereby laying the foundation to expand overseas market operations. The four state-owned banks introduced the concept of environmental protection into the principle of credit access and implemented the credit approval system called "one-vote veto." The Agricultural Bank of China provides several CDM projects, such as "carbon finance" investment banking business services. The assessment services in the CDM project reached over 20 services in 2014. The average annual emission reduction is approximately 1.2 million tons. Minsheng Bank focuses on energy-saving emission reduction, clean energy, sewage treatment, technological innovation, transformation, and other aspects of the project that are given key credit support. A few large banks involved in the development of green credit have implemented preliminary exploration.

2. Literature review

Wang (2010) put forward a point that China should establish a comprehensive carbon finance policy system, a diversified carbon financial organization service system, multi-level carbon finance system as the goal, to guide the financial industry's comprehensive and deep participation. Our low Sustainable development of carbon economy is provided a wide range of financing channels and diversifies risk and low-cost solutions for the realization of low carbon targets in China. It puts forward a new perspective for the development of green finance in China. Chen (2010) draws a conclusion through the study of the development path of green credit both at home and abroad: the core of the "green credit" mechanism lies in its integration of environmental and social responsibility into the commercial bank's loan policy, loan culture and loan management process. This is undoubtedly the development of China's green finance put forward a new perspective. On the basis of the empirical analysis on the carbon finance practice of the Bank of the Netherlands and the Bank of China, Weng (2011) argues that China's commercial banks can construct innovative support for carbon finance from the aspects of corporate culture, environmental management system, banking service and information disclosure system. The research of Weng (2011) and Chen (2010) are the development of green finance at home and abroad, but the two research point of view is indeed different. Xu (2010) analyzed the necessity of implementing green credit and the many problems in the implementation of commercial banks and proposed the effective idea of green credit.

3. Problems in the Development of Green Finance in China's Commercial Banks

3.1 Government, commercial banks, and enterprises that form a restrictive relationship

The main implementer of China's green finance is the government, through which the introduction of policies and regulations promotes commercial banks to develop green credit, other green financial businesses, commercial banks, and businesses with businesses. The government aims to take financial control to achieve environmental protection. Commercial banks make profit through green products to ensure that enterprises or consumers comply with state regulations. Energy-saving emission reduction achieves the interests of units to complete policy indicators. The implementation of green finance does not immediately result in profits. Thus, commercial banks encounter difficulty because they gain in a short period but risks eventually arise. However, commercial banks do not want to provide green financial products. Enterprises comply with energy conservation. Cash flow is not open when applying for green loans.

3.2 Imperfect information communication system

China's commercial banks in the green credit business require a sound information communication mechanism to reduce the bank's risk of loans. However, the central bank credit system "enterprise basic credit report" can provide "environmental information" that involves a limited range of enterprises. However, the system does not belong to the scope of national monitoring enterprises. Commercial banks in an environmental violation situation have difficulty obtaining illegal information. When the information communication system is not ideal, China's commercial banks in the green credit have high risk, low income, and high cost, thereby resulting in the refusal of commercial banks to actively implement green financial credit.

3.3 Lack of corresponding laws and regulations

The green financial business in China has been implemented relatively late. Numerous laws and regulations do not support construction, thereby curbing the healthy and rapid development of China's green financial business. Commercial banks only have their own policies that are consistent with the green credit of their own banks. Consequently, these banks decide whether to place green loans to energy conservation and emission reduction enterprises and whether to reduce the number of enterprises or the number of loans to the enterprises. A few commercial banks are driven by high loan income, the pollution industry, and business projects to relax credit approval; relevant administrative departments lack the corresponding channels through administrative or legal means to sanction commercial banks and do not meet the green act of credit.

3.4 Single product category

The green credit product line of commercial banks has a few types of products, has a tendency to gradually converge, and cannot meet the need of the market and the enterprise diversification of products and services. The green credit performance of the banking industry is flat, thereby leading to shortage of human and financial resources in the development of green credit products. Moreover, green credit products are slow to update and the innovation opportunities of green credit are not completely explored. Most financial derivatives of green credit businesses are mainly for the investment needs of individual customers and forego the financing needs of individual customers.

3.5 Lack of professional talent

The staff members of commercial banks engaged in green credit business, whether green credit environment risk assessment, green loan approval, or green credit post-mortem supervision, should have a high level of professionalism. However, commercial banks are late in developing green financial businesses. The compound talents of commercial banks that grasp the knowledge of credit approval and understanding of environmental laws and regulations are also limited. The impact of the quality improvement and green finance in the green credit business of China's commercial banks is short-term.

4. Development of Foreign Banks in the Field of Green Finance

Equator principles (EPs) are the most influential green credit policy in the world. EPs require financial institutions to assess the impact of lending on environmental and social aspects, particularly when lending to a project worth over \$10 million using finance leveraged means to promote the coordinated development of the project and society. EPs are not mandatory for commercial banks. In 2013, EPs were adopted in 35 countries, including 78 financial institutions (e.g., Wells Fargo, JP Morgan Chase, Citibank, and HSBC Holdings). For the world's major financial institutions, the total project financing accounted for over 86% of the global total project financing market share. EPs gradually became a large international bank

that participates in international credit projects called "soft threshold." Table 1 shows the adoption of EPs by the world's major banks.

Table 1 The world's major large banks to adopt the "Equator Principles" situation

Name	Bank Name	Country	Whether to adopt the principle of equator
1	Wells Fargo	America	Yes
2	JPMorgan Chase&Co	America	Yes
3	ICBC	China	No
4	Citibank	America	Yes
5	CCB	China	No
6	Legal and Gener	United Kingdom	Yes
7	Bank of America	America	Yes
8	ABC	China	No
9	Mizuho Financial Group	Japan	Yes
10	BOC	China	No

We introduce the experience of the successful implementation of green finance business in the lower part of the country.

4.1 American experience

The most evident feature of the American experience is its ideally legal and regulatory environment in the implementation of the green credit policy. The US government promotes the domestic commercial banks' green financial industry development and recommends a series of incentives. The most important and critical policy is that concerning taxes. The US government, through the implementation of a tax policy, inspired the commercial banks in the country to actively implement green financial business and effectively promote the development of the environmental protection industry. The data show that 62.5% of banks in the US have changed the flow of previous loan projects to increase the environmental protection audit in 2014, meet the development needs of the international green finance business, and avoid the potential environmental pollution risks. Citibank is one of the banks in the US that implements EPs and has set up a special environmental monitoring and management mechanism. The main contents of Citibank's green credit are the external public and private affairs cooperation system, environmental policy and process training mechanism, environmental and social risk management mechanism, environmental and social policy scoring committee, and environmental protection business development mechanism. Citibank provides green enterprises with a good method to raise financing and comprehensive training programs, thereby promoting the rapid and healthy development of these enterprises.

4.2 British experience

In the 20th century, the UK focused on the protection of the environment's adherence to the road of sustainable development and pollution prevention principle. Accordingly, the British government required commercial banks to strictly follow EPs. Enterprises in the production process develop strict production standards and strictly define the saboteurs pay and other

relevant provisions. This situation enables commercial banks to face high-polluting enterprises to grant loans that bring immense risks. HSBC is one of the earliest commercial banks that uphold EPs and plays an important role in the popularization of these principles. In the implementation of the sustainable development of credit and in support of green economy loans, HSBC must comply with the highest international standards, which comprehensively consider the benefits of future generations. HSBC has formulated a set of sustainable development credit policies that include environmentally sensitive industries that consider the environment and society as the starting point. This endeavor identifies the sectors and areas that do not meet the support of the supply loans.

4.3 Canadian experience

Canada believes that the development and application of new technologies can promote the rapid development of the circular economy, enterprises, and academic groups through high-tech means. This undertaking aims to explore a new environmental economic development model and solve ecological and environmental problems. Individual resources are recycled and material and energy capability in production and spending is reduced. The main prevention and treatment are considered to supplement the policy that will be spared in the production of pollutants. The Canadian government publishes the status quo of the ecological environment every six months through the “Canadian ecological environment” journals and the network platform for the people free of charge. Moreover, the government participates in the financing of projects to actively answer open questions in public. The establishment of government behavior and corporate environmental performance of the transparency of the system reiterate the government policy on environmental protection, urban development proposals and environmental monitoring, and other types of implementation. The public is encouraged to join the supervision of government action and implementation of relevant policies. Consequently, government behavior becomes open, transparent, and considerably institutionalized. Canadian banks based on equatorial standards have immense impact on the assessment and review of credit requirement and environmental assessment decision-making mechanisms and actively build the green credit management golden triangle model (see Figure 1).

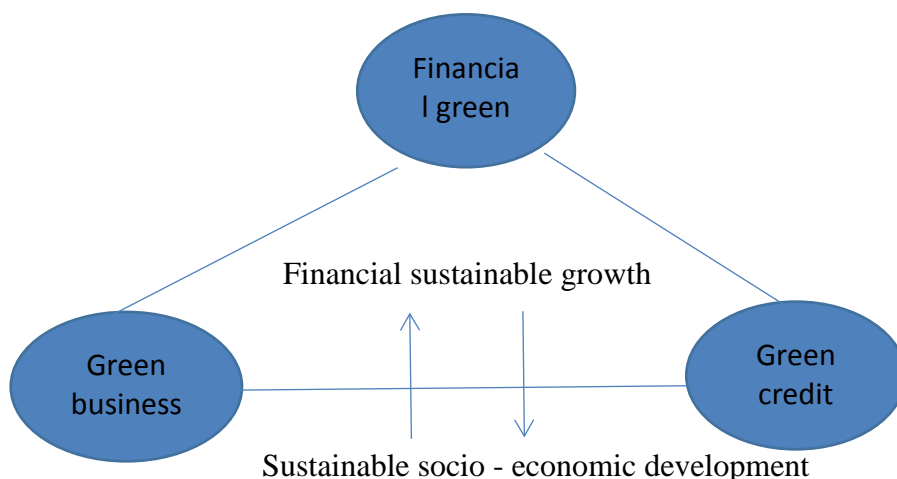


Figure 1 Green Credit Triangle Model

Integrated green financial business is developed in a few countries that are part of the international banking industry. Typical green finance products have five main categories (see Table 2).

Table 2 International banking green financial typical products

Types of Loans	Product Name	Bank	Content
Housing mortgage	Structured energy saving mortgage	Citigroup	The credit rating system of the loan applicant includes energy saving indicators.
	Eco household loans	United Kingdom Joint Financial Services	Free home energy assessment and carbon dioxide offset service provide for all housing transactions.
Commercial building loan	Concessional loan	New Resources Bank	Preferential Loans US New Resource Bank offers discounts to green or commercial units for commercial or multi-purpose residential units.
	First mortgage	Wells Fargo Bank	Commercial buildings provide first mortgages and refinancing because developers do not have to pay initial premiums for "green" commercial buildings.
Home equity loan	Convenient financing	Citigroup	Citigroup Signed a joint marketing agreement with Sharp Electric to provide convenient financing to customers who purchase civilian solar technology.
	Loan donation	Bank of America	Applicants use the amount of VISA card consumption, according to a certain percentage of donations to non-governmental environmental organizations.
car loan	Cleaning air car loan	VanCity Bank	VanCity Bank Offered preferential rates to all low-emission models.
	Go Green car loan	MECU Bank	The premise of car loans is that lenders absorb carbon dioxide from private cars by planting trees.
Transport loan	Small Business Management Fast Loans	Bank of America	quickly review the process; the truck company to provide unsecured and preferential terms of loans to support its investment in fuel-efficient technology; help them buy fuel-efficient rate of 15% Smart Way upgrade package

5. Suggestions on the Development of Green Finance in China's Commercial Banks

5.1 Improving the relevant legal policy

Deepening the reform of the green credit system is the "two high and one left" industry on credit policy, credit help, and implementation details. Banking and financial institutions should establish accurate green credit views as their own business strategy [4]. The government's environmental and commercial banks can build a public information platform to disseminate relevant information. If the number of commercial banks in the implementation of green credit is limited, then the environmental protection departments can be promptly notified to be corrected to improve their performance. The Bank of China's credit system should conserve resources for environmental protection information into the enterprise credit file. That is, commercial banks can immediately and accurately make decisions.

5.2 Strengthening the construction of information sharing platform

Given the lack of an effective information-sharing platform, the banking industry initially experiences difficulty in understanding the relevant government departments of energy conservation, environmental protection, and safety. In addition, this industry struggles in the elimination of backward kinetic energy and other relevant information in the credit audit, loan supply and post-loan management, and other steps that lack actual reference.

5.3 Actively pursuing product innovation

Commercial banks should increase their investment in the research and development of green credit products, focus on market trends and changes in user requirements, and continue to develop new products and service design varieties, particularly for small and medium enterprises. Commercial banks should introduce innovations to the credit management of the traditional concept of credit to a new and comprehensive credit management mechanism.

5.4 Strengthening the introduction and cultivation of professional talents

Although China is strengthening cooperation with large international financial institutions, this country's commercial banks should learn from the experience of foreign countries and increase their communication with the professionals they employ. Accordingly, we can hire foreign professionals in the direction of green finance business.

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