On Building a Green Credit System for Marine Environment Protection

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Abstract. On August 31, 2016, the People's Bank of China (PBC), along with six other government agencies, issued the Guidelines for Establishing the Green Financial System, introducing a series of measures to support and encourage green investment and financing. On September 2, the China Banking Regulatory Commission (CBRC) proposed a framework for building a green credit system and comprehensive evaluation of green credit, which lays out the development direction for green lending. Learning from international and domestic research and practical experiences, this paper tries to develop a green credit system for marine environmental protection. Based on the current green credit theory and policy trend, this thesis sets the operating mechanism for green credit, which can enforce contact and cooperation between marine environmental protection departments and financial regulators. All of these can promote enterprises and individual polluters to pay attention to marine environment, strengthen pollution control and maintain ecosystem healthy.

1. Background
Solutions to environmental issues are underpinned by environmental policy, environmental protection technology and capital. Since the 1970s, China has built a preliminary legal system for marine environment protection by introducing a series of laws and regulations to protect the marine environment as well as prevent and control marine pollution [1]. In the meantime, China has focused on developing marine environmental technology, such as: building a marine environment monitoring system and a forecasting and early warning system; developing a “Digital Ocean” information framework; and drawing up information-based marine strategies. However, the financial aspect is rarely touched upon. The governance of the marine environment requires huge and long-term investment. This can be effectively addressed by green credit, as it can not only cut off funds for enterprises that pollute the oceans from the source, but also direct funds towards projects, enterprises and industries that are conducive to marine environment protection by virtue of differentiated interest rates. In this way, green credit promotes the sustainable development of the marine environment.

Over recent years, the green credit system has received increasing attention in China. In July 2007, the previous State Environmental Protection Administration (SEPA), China Banking Regulatory Commission (CBRC), People’s Bank of China (PBC) and other government agencies jointly issued the Opinions on Implementing Environmental Protection Policies and Regulations and Preventing Credit Risks, which requires banks to include corporate compliance with laws and regulations on
environmental protection as a prerequisite for loan approval. On August 31, 2016, the PBC, along with six other government agencies, issued the Guidelines for Establishing the Green Financial System, introducing a series of measures to support and encourage green investment and financing. On September 2, the CBRC proposed a framework for building a green credit system and comprehensive evaluation of green credit, which lays out the development direction for green lending.

2. Practice and Progress of Green Credit

In 1995, SEPA issued the Notice on Promoting Environmental Protection with Credit Policies, which required environmental protection departments at all levels to make full use of credit policies in their work on environmental protection. Later, the PBC also issued the Notice on Relevant Matters of Implementing Credit Policies and Enhancing Environmental Protection, which specified that financial management departments should take support for protection of environmental resources and prevention and control of pollution as criteria for loan approval, and required financial institutions to consider the results of environmental assessment of potential borrowers in lending [2]. In 2013, the CBRC issued the Green Credit Statistics System and organized 21 major financial institutions in China to conduct green credit statistics every six months. By the end of June 2016, the outstanding green loans of 21 major banks in China had reached 7,260 billion yuan, accounting for 9% of the total of all types of loans. The outstanding loans for energy conservation for environmental protection and services added up to 5,570 billion yuan. Based on proportion of loan to total investment, it is estimated that 187 million tonnes of standard coal equivalent can be saved annually.

2.1 Practice of Policy Banks

China Development Bank (CDB) has established mechanisms for cooperation with the National Development and Reform Commission, the Ministry of Ecology and Environment and other departments of the Chinese government, and worked with relevant provinces and key river basins or regions on mechanisms for investment and financing related to environmental protection to strengthen cooperation in the field [3]. As of the end of June 2015, CDB had outstanding green loans of about 1,500 billion yuan. The Agricultural Development Bank of China (ADBC) regards “green credit” as a criterion when approving loan applications. It implements a one-vote veto system for environmental protection and rejects projects with environmental information that does not meet national policy requirements. Since 2007, ADBC has directed funds and loans to green agriculture and green agriculture-related industry and commerce by virtue of policy-based credit leverage to develop eco-agriculture and circular agriculture[4]. Through relending of foreign government loans, the Export-Import Bank of China (EIBC) has introduced more preferential foreign loans to localities for energy-saving and emission-reduction projects, so as to increase support for the environment, circular economy, energy-saving and emission reduction. In 2015, it devised green credit guidelines and imposed requirements on credit projects for strengthening environmental and social risk management. As of the end of 2018, the outstanding green loans of EIBC exceeded 250 billion yuan.

2.2 Practice of Commercial Banks

In July 2018, the PBC issued the Notice on Carrying out Evaluation of Green Credit Performance of Depository Financial Institutions and formulated the Plan for Evaluation of Green Credit Performance of Depository Financial Institutions (Trial). The latter requires quarterly evaluation of green credit performance of depository financial institutions, the results of which would be incorporated into the macro-prudential assessment (MPA) of the institutions. Driven by national policies and social responsibilities, most commercial banks have formulated their green credit policies and implementation measures. For example, the Construction Bank of China has devised the Five Basic Principles for Credit Approval of Large and Medium-sized Clients, which includes environmental protection as an important basis for credit application and approval of large and medium-sized clients. Bank of Communications has released the Notice on Green Credit Classification and Management of Corporate Loans in China, specifying requirements for “green
credit” management and operations of 31 industries. Shanghai Pudong Development Bank issued the 
Credit Orientation Guidelines of Shanghai Pudong Development Bank, which offers clear credit 
support for energy conservation and emission reduction. Bank of China has also introduced similar 
measures. As of the end of 2016, its outstanding green loans had reached 652.3 billion yuan. In 
addition to policies and measures, Industrial Bank also adopted more stringent international standards 
of the banking industry—the Equator Principles [5].

3. Building a Green Credit System for Marine Environment Protection

3.1 Green Credit Organizational Structure
Organizations for marine green credit should include government departments, financial institutions, 
marine-related enterprises, marine research institutes and non-governmental organizations (NGOs). 
Among them, government departments promote green credit and regulate financial institutions which 
are responsible for implementation. Marine-related enterprises are the target of the green credit 
mechanism. Marine research institutes support the research and improvement of green credit. 
Supervision by NGOs boosts the green credit system. Their relationship is presented in the figure 
below.

![Green Credit Organizational Structure](image)

3.2 Rating the Environmental Behaviors of Marine-related Enterprises
To build a green credit system for marine environment protection, it is necessary to evaluate the 
environmental behaviors of marine-related enterprises; this provides a basis upon which to approve 
loans and decide interest rates. For enterprises with low ratings of marine environmental behaviors, 
banks should adopt a one-vote veto system. In other words, they should not grant credit to such 
enterprises regardless of their financial and economic conditions. On the contrary, commercial banks 
may support those with high ratings by lowering interest rates, increasing credit, or extending maturity 
when making credit decisions.

Indicators for rating corporate environmental behaviors may be divided into three categories, 
namely: pollution emission, environmental management, and social impact. These are based on the 
actual conditions of marine-related enterprises in China, in accordance with the Marine Environment 
Protection Law of the People’s Republic of China, Regulations of the People’s Republic of China on 
the Control of Marine Dumping, Opinions on Accelerating the Evaluation of Corporate Environmental 
Behaviors, and Technical Guide for Rating Corporate Environmental Behaviors, with reference to the 
relevant regulations of Jiangsu, Zhejiang and other provinces on rating corporate environmental 
behaviors. The indicators are specified in Table 1.
Table 1. Indicators for Rating Environmental Behaviors of Marine-related Enterprises

| Indicator                          | Description                                                                 |
|-----------------------------------|-----------------------------------------------------------------------------|
| **Pollution emission**            | Setting and operation of facilities for environmental protection and pollution |
|                                   | Pollutant emissions compliance                                              |
|                                   | Control of pollutant discharge                                              |
| **Environmental Management**      | Due payment of sewage and dumping charges                                   |
|                                   | Sewage and dumping registration                                             |
|                                   | Environmental Statistics                                                    |
|                                   | Standardized management of sewage outlets                                   |
|                                   | Implementation of environmental assessment system                           |
|                                   | Corporate personnel, department and management system for environmental protection |
|                                   | Clean Production Audit and Environment Management System Certification      |
|                                   | Marine Environment Emergency Management                                    |
|                                   | Coastal protection                                                          |
|                                   | Marine environment protection                                               |
| **Social impact**                 | Marine environment pollution and damage incidents                           |
|                                   | Environmental violations and administrative penalties                       |
|                                   | Public complaints about marine environment pollution                         |

3.3 Operation Mechanism for Green Credit in Marine Environment Protection

3.3.1 Green Credit Incentive Mechanism

(1) A Subsidy System

Banks may face lower income if they offer credit with low interest rates to support marine-related enterprises that use new energy and technologies, and exhibit good environmental behaviors, while restricting credit for those with high pollution and energy consumption, like reducing loans for them. This problem can, to some extent, be addressed by subsidies, which will boost the enthusiasm of banks for implementing a green credit system. On the other hand, the state should also provide subsidies to marine-related enterprises that have invested in environmental protection, such as developing new energy sources and controlling pollution, so as to encourage them in protecting the marine environment.

(2) A Tax Incentive Mechanism

A tax incentive mechanism can enhance the motivation of banks and enterprises to implement green credit policies. Differentiation of taxes and different parts of tax collection may be utilized to encourage banks and marine-related enterprises to respond positively to green credit policies, thereby forming a tax incentive mechanism that can guide and regulate these organizations. For example, tax may be reduced or abolished for marine-related enterprises that have good environmental behaviors and banks that actively implement green credit policies. On the other hand, tax may be imposed on enterprises that lag behind in marine environment protection technology and severely pollute marine environment as well as banks that do not meet the requirements of green credit.

(3) A Legal System for Green Credit

A sound legal system for green credit can impose certain penalties on banks that do not abide by green credit through tougher methods, which will guarantee the legal status of green credit in China and offer guidance on its development. The legal status can be established through special legislation. For example, *Environmental Protection Credit Law*, which specifies the legal system for green credit, may be formulated to lay out financing projects, procedures, legal responsibilities, etc. that apply to green credit. Or existing laws may be amended by including green credit. For instance, the *Environmental Protection Law* may be amended to include environmental economic policies or the *Commercial Bank Law* may be amended and improved to clarify the social responsibilities of the banking industry, in order to build a legal system for green credit.
3.3.2 Green Credit Information Sharing Mechanism
The Ministry of Ecology and Environment, the State Oceanic Administration and financial institutions may jointly build a green credit information sharing platform to ensure adequate information disclosure and efficient use of information. This article believes that an information sharing platform for marine environment protection is made up of policies and regulations, such as: laws and regulations related to marine environment protection, and marine environmental economic policies; collection of information on marine-related enterprises’ interaction with the marine environment, including their violations and penalties, credit ratings of marine environmental behaviors, and completion of tasks for marine environment protection; and use of environmental information on marine-related enterprises, including increase or reduction of credit, refusal or withdrawal of loans, lifting or lowering of interest rates by financial institutions based on corporate environmental information.

During the operation of the proposed platform, environmental protection departments should report and update information on marine environment protection of maritime-related enterprises in a timely fashion, and provide financial institutions with advice on credit for relevant enterprises and construction projects. Such information will become the major basis for credit management by financial institutions so as to tighten up credit approval and prevent credit risks from environmental problems.

3.3.3 Green Credit Supervision Mechanism
The promotion of green credit may meet resistance from local protectionism. After all, driven by economic interests, local governments may interfere with the business of commercial banks in order to protect local fiscal revenue or for other reasons, which may disrupt the operations of commercial banks. In order to reduce such interference, China’s central government has considered taking performance in implementing environmental protection law into account when assessing leading cadres, so as to regulate and restrict the behaviors of local governments and prevent them from influencing the operations of commercial banks.

In addition, financial institutions are also subject to regulation by authorities when they implement green credit, to ensure that they will not lower their standards for approval of green credit because of their own interests. The Green Credit Guidelines issued by CBRC specify that CBRC is responsible for the supervision and administration of banks’ green credit operations, environment and social risk management; banks shall conduct full-scope evaluations of green credit at least once every two years, and submit their self-evaluation reports to the CBRC.

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