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Inquiry: Design of a Sustainable Financial System

ESTABLISHING CHINA'S GREEN FINANCIAL SYSTEM

Detailed Recommendations 1: Create a Green Banking System

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An effective green banking system serves as an important institutional assurance for the development of China's green industry. This report investigates the background, necessity and feasibility of creating China's green banking system and proposes the basic approaches and targeted policy recommendations for its creation.

(I) The context

1. Growing severity of environmental pollution in China

China is currently confronted with growing environmental pressures and the competing goals of rapid economic development and the desire for environmental protection and a good quality of life. With growing public awareness of environmental protection, environmental improvement through institutional innovation has become a top priority for the government. According to the Environment Performance Index jointly launched in 2012 by Yale University and Columbia University, China today is among those countries with the most serious environmental problems in the world.[1] This list includes 132 major countries and regions and China's composite ranking of environment performance is 116th, of which air quality ranks 128th. Apparently, China's environmental quality is far below the world average, which impedes its effort to build a beautiful China.

2. Challenges confronting environmental protection

As early as in 1983, China identified environmental protection as a basic national policy. Despite certain achievements in this field over the past three decades, the overall tendency toward environmental degradation remains unabated, major pollution incidents have erupted in many regions, and many difficulties lie ahead in the implementation of environmental protection policies.

First, limited administrative instruments: China relied on administrative instruments for environmental management over the years, which has the following vulnerabilities in the long run: First, preoccupied with GDP growth rates, local governments have exaggerated their fulfilment of environmental targets and failed to properly enforce administrative supervision and penalties on environmental violations; moreover, the social cost of administrative instruments remains high with limited effects to attract corporate participation; Second, the future potential of environmental management through administrative instruments is limited, considering that a

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[1] http://epi.yale.edu/

large number of administrative instruments are already in place and yet environmental degradation continues.

Second, there has been a significant shortage of fiscal resources for environmental management. Historically, China's central and local governments have played a dominant role in environmental management. In the face of growing environmental pressure, the share of investments in environment management in China's GDP remains less than 1.5 percent, which is far below the historic level of environmental investments by developed countries. Barriers to China's investments in environmental protection include the following: first, China's regional economic development levels are uneven and local government capacity for environmental management is subject to the constraints of their economic development levels and fiscal capacity; second, local fiscal revenue and spending responsibilities are incompatible and various levels of local government are in an unfavourable position in terms of fiscal revenue distribution for environmental management as compared with central government; lastly, many environmental management projects are long-term activities whose profitability cannot be achieved in a short period of time. Limited short-term solvency of these projects presents a barrier to fund-raising.

Third, the regulatory effect of the financial system is inadequate. China's financial system has yet to provide sufficient support for environmental protection on many fronts. Although green credit is developing rapidly, it still takes time to establish a complete green credit system. Specific gaps include the inadequate monetary effect of green credit policy and the absence of a financing mechanism for green credit and technical policies including: support for performance evaluation criteria and environmental performance evaluation guidelines; green credit policy preferences such as incentives and subsidies; legal responsibilities; and, supervision and constraint mechanisms.

3. Development of an 'ecological civilization' received extensive attention and consensus

Since the 18th CPC Congress held in 2012, the Chinese leadership has attached great importance to the development of an ecological civilization and the "building a beautiful China and realizing ecological civilization" has become a widely accepted pursuit of the public. The Third Plenum of the 18th CPC Congress has called for the building of a beautiful China and deepening of institutional reform for an ecological civilization. As noted by General Secretary Xi Jinping, "protection of eco-environment is equal to the protection of productivity, and improvement of the eco-environment amounts to the development of productivity. A favourable ecological environment is the most equitable public good and represents the most universal public welfare". The implication is that development of productivity is not at odds with the pursuit of economic growth and environmental protection, and that environmental protection should contribute to economic growth instead of at the cost of it. Leveraging the role of green finance and capital in resource allocation is vital to the achievement of the above-mentioned vision.

4. Successful practices of green banking already exist

As the first multinational commercial banks that adopted the Equator Principles, major international banks including the HSBC, Citibank and Standard Chartered Bank have established relevant agencies responsible for green credit at the decision-making level. Founded in 2012, the UK Green Investment Bank (see case 1) is wholly owned by the British government with the role to address market failures that constrain the financing for British green infrastructure projects. The German KfW Development Bank has transformed from a traditional policy bank into a green bank over the past few decades (see case 2). Under the support of the Japanese Ministry of the Environment, Japanese policy banks have launched environmental rating and loan services with discounted interest rates and carried out various types of services to promote environmentally friendly business operations and financing. By doing so, Japanese policy banks have played the important role of coordinator for policy banks and created a platform for the development of green credit.

Case 1: The UK Green Investment Bank

The British Green Investment (GIB) was founded to address market failures that inhibit financing for green infrastructure projects in the UK. The British government expects that the Green Investment Bank will expedite the green transformation of the British economy by mobilizing private capital.

The British government adopted ambitious green objectives and developed a set of plans for national infrastructure construction, reform of the electric power market, revision of the climate change tax, incentives for renewable heat energy, and a review of waste management policies. Nevertheless, even with these measures in place, financing issues still constrain the scale and speed of Britain’s green transition. The UK Green Investment Bank is the first investment bank in the world dedicated to promoting a green economy by addressing financing issues.

Between 2012 and 2015, with a government investment of three billion pounds, the UK Green Investment Bank has played a pivotal role in addressing market failures that impede green infrastructure projects and further stimulated private investment. In 2015, the GIB identified five priority areas: offshore wind power, commercial and industrial wastes, conversion of waste into energy, and a ‘Green Program.’ During this time, at least 80 percent of investments approved by the Green Investment Bank have been allocated for these priority areas, while the remaining 20 percent can be used for other green industries such as maritime energy and carbon capture and storage.

These investments are focused on commercial green infrastructure projects of a strong commercial nature. All investment opportunities will be evaluated against the following key criteria: consistency with the GIB’s risk management requirements, promotion of private sector investments and green effects. The GIB operates independently from the government. As the shareholder of sole investment, the government has a seat on the board. The British government made a commitment that, as of April 2015, additional government funding will be provided to the GIB, provided that the share of net public sector liabilities in GDP declines. Headquartered in Edinburgh, the GIB has an office in London.

In October 2012, the European Commission approved financial assistance for the GIB, which has strengthened the GIB’s capacity to make investments across many green areas in accordance with commercial principles. In May 2012, the GIB legislation became part of the Enterprise and Regulatory Reform Act. This legislation will ensure that the GIB will be dedicated to green investments regardless of changes in its ownership structure, which is conducive to its independence and standardization of financing conditions.

Case 2: German KfW Development Bank

Germany is among the earliest originators of green finance with sophisticated policies and systems already in place after decades of development. Founded in 1948, the KfW Development Bank played a vital role in the entire green finance system and launched various green financial products. The KfW Development Bank's financial products for energy conservation and environmental protection are free from government intervention—from early stage financing to later stages of financial product sales—all business activities are carried out through an open and transparent public tendering to ensure a fair and transparent operation. The role of the German government is to provide interest rate discounts and formulate relevant administrative measures, which ensures the efficient and fair use of capital.

Headquartered in Frankfurt, the KfW Development Bank was founded in 1948, which precedes the Federal German Government. Upon its founding, the KfW Development Bank had an original capital stock of one billion German marks, of which the Federal German Government accounted for 80 percent and the state governments represented the remaining 20 percent. Despite the state ownership, the KfW Development Bank is not a government institution. Currently, the KfW Development Bank has become one of the largest banks in Germany with total assets worth €261 billion. The KfW Development Bank provided capital to Federal Germany's reconstruction after World War II and later began to offer long-term loans for German companies and, in recent two decades, increasingly provided green loans in such areas as environmental protection, energy conservation and new energy. For instance, the KfW Development Bank provided 1 percent low-interest loans for efficient energy conversion projects and loans to energy efficient new buildings and energy efficiency renovations of existing buildings. Successful experiences of the KfW Development Bank are as follows:

- First, prior to issuing loans, the KfW Development Bank evaluates the economic performance of a proposed project and approves lending under the risk control model of commercial banks.
- Second, as a state-owned bank, the KfW Development Bank takes upon itself the mandate to promote the development of German companies and economy.
- Third, the KfW Development Bank is neutral and does not compete with commercial banks. The KfW Development Bank wholesales capital for the retail of commercial banks, i.e. the KfW Development Bank's credit capital is not directly lent to borrowers but transferred by commercial banks to borrowers through on-leading and thus constitutes a relationship of cooperation rather than competition with commercial banks.
- Fourth, despite its state ownership and the oversight of a government-appointed supervisory board, the KfW Development Bank functions without government intervention and credit issuance authority rests with the board.
- Fifth, the KfW Development Bank does not rely on government subsidies for business operation. Supported by government guarantee, the KfW Development Bank enjoys relatively low costs of financing in the international capital market.
- Sixth, upon the KfW Development Bank's founding, the Law Concerning Kreditanstalt für Wiederaufbau was adopted to establish its legal status and role.

(II) The case for creating China's green banking system

1. Increasing China's soft power and voice in the creation of a new world order

The development of China's green ba0nking system and green finance has strategic significance. First, environmental protection and ecological civilization are important channels for major world powers to overcome their ideological conflicts and further integrate their societies. In this respect, the development of an ecological civilization is essential for increasing China's soft power and voice on a global scale and provides an important instrument for China to take part in creating a new world order.

2. Green transformation entails tremendous financing demand

At the United Nations Climate Change Conference in Copenhagen in 2009, China reaffirmed its commitment to reducing carbon intensity (emissions per unit of GDP) by 40 to 45 percent by the end of 2020 and increasing the share of clean energy to 15 percent. In the China-US Joint Communiqué released at the end of 2014, China further declared its commitment to reach the peak of carbon emissions by 2030 and achieve this target ahead of schedule. Achievement of these goals requires an annual financing demand of two trillion yuan between 2015 and 2020 while, according to the recently released *China Climate Financing Report 2013: Innovation of Public Funding Mechanism*, the annual shortage of funds exceeds two trillion yuan. Furthermore, massive amounts of investment are also required for environmental protection and other green infrastructures arising from the future 'new type urbanization', most of which needs to be financed by private capital.

3. Favourable to risk sharing, confidence building and talent development

First of all, the primary function of green bank system is to share the investment risks of private companies. Despite their great interest in green industry investments, private companies are often deterred by the risks. However, a green banking system can assist with risk sharing and provide guidance for private investments in green industries. Secondly, the establishment of a green banking system sends a strong signal that the government has confidence in green industry investments and their implementation, which provides the market with clear and reliable incentives. Lastly, green banking will systematically contribute to the accumulation of professional knowledge for green industries and green finance, which is favourable for the long-term development of green industries.

4. Necessary to create professional green banks

Due to extensive problems in China's current fiscal system, resource pricing, professional evaluation capacity and environmental cost information, investors and financial institutions lack interest in green projects. The growth of green investments will be very slow if we simply wait for the necessary incentives that could solve all these problems. Sponsored by the government, banks that specialize in green investment services could fully leverage the magnifying role of green bonds and help build the professional evaluation capabilities. They could substantially promote the growth of green investments without changing the overall system. We suggest that a national green bank be established, which could be named **'China Ecological Development Bank'**, for the development of a professional green banking system.

Many of the developmental loans issued by the China Development Bank are already allocated to environmental protection and energy saving projects—therefore, some may question the rationale for setting up a new green bank. We believe a new green bank could provide at least five major benefits besides meeting China's huge green financing needs that have outgrown the existing system. First, by establishing a green bank at the national level, the Chinese government can clearly demonstrate to the nation and the international community its resolve in managing and reducing pollution and in developing a green economy, which will enhance the public's confidence in China's future environmental policies and help steer more public funds and resources toward green industry. Second, the national green bank can adopt the Equator Principles from its inception, establish a highly specialized system for evaluating a project's environmental impacts, and enjoy the benefits that a high level of specialization and a large scale system and database can provide. Third, as a specialized green bank, it can more easily design and implement innovative financing methods for targeted industry sectors and market needs (e.g., issuing green bonds, and green refinancing from the PBoC). Fourth, compared to the eco-finance divisions of commercial banks, an independent green bank can have a much more flexible ownership structure, which can attract private investors intending to have a stake in long-term green investments. Fifth, green projects are usually faced with lower returns and higher risks in comparison with traditional projects, but empirical results from other countries have demonstrated that a specialized green bank can outperform normal commercial banks in controlling risks and non-performing loans.

(III) Feasibility of creating the green banking system

1. Consistent with national strategies

The Third Plenum of the 18th CPC Congress made a strategic decision of "vigorously advancing the development of ecological civilization" and drafted a grand blueprint for developing an ecological civilization with ten aspects. Creating a green banking system is therefore entirely consistent with the strategies identified by the Third Plenum.

2. Consistent with public expectations

Environmental problems have become a growing public concern. Frequent smoggy weather in Beijing and many other Chinese cities and regions have highlighted the fragility of China's environmental capacity and the severity of its environmental degradation. In this context, environmental improvement has become a public expectation.

3. Supported by a certain fiscal and financial foundation

First, China has adequate national power and foreign exchange reserves. Making the most of inventory capital and promoting the ecological development of financial services are issues to be addressed by a green finance system. Second, China's banking sector has been developing rapidly over the years. The ratio of bad assets for state-owned banks is relatively low while policy banks have developed abundant experiences of environmental project development and evaluation.

4. Backed by international experiences as reference

Developed countries have already accumulated many successful experiences with green finance and green banking. These experiences can serve as the foundation for our creation of green banks.

(IV) Blueprint for creating China's green banking system and the ecological development bank

1. Creation of China's green banking system

China's green banking system should be created at three levels as an organizational assurance for developing green credit. First, the China Ecological Development Bank (see the following sections for detailed discussions) should be established. Second, some regions may also create local green banks, thereby creating a national system of green banks. According to our engagement with local stakeholders, local governments and powerful private entrepreneurs in such places as Qingdao city of Shandong province and Fujian province, some of them have already started to consider establishing local green banks and introducing foreign capital. We believe that prior to the establishment of a national-level green bank, local green banks can be identified as priority candidates for the approval of the next batch of private banks. Lastly, at the level of existing institutions, large and medium-sized banks (including state-owned banks and shareholding banks) may establish a green finance division to offer green credit services. China Industrial Bank (CIB) is currently the only Chinese bank that has established an ecological finance division, which currently has a green loan balance exceeding 300 billion yuan, with the ratio of bad assets only at 0.2