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Construction of Green Finance: Association of Market and Government

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Abstract. The construction of green financial system is necessary for China's economic transformation. It is an inevitable choice to promote green development and sustainable development strategy. The establishment of green finance requires effective coordination of both the government and the market. This paper proposes the unified and complementary pattern between the market and the government, and the respective responsibilities of both parties in the development of green finance.

Introduction

With the rapid development of global economy and the population growth, energy and natural resource consumption has been increasing, and the ecological environment is a seriously challenged. Green development has become the trend of the world economy, and green finance has become the priority of sustainable development. Green finance originated in industrialized countries in the 1970s. When environmental events such as "London smog incident" called public attention, the green ideas were gradually into public view. In the field of finance, social responsibility investment (SRI), the adoption of the Equator Principle and the establishment of carbon trading market have been promoted vigorously.

At the end of 2015, the central economic work conference made it clear that China's resource carrying capacity has reached or close to the upper limit. With no governance, it will fall into the "environmental trap". President Xi once pointed out, "Green nature is gold and silver mines", "protection of the ecological environment is protection of the productive forces", "improvement of the ecological environment is to develop productive forces". To substantially improve China's environment, we need to not only rely on more powerful end treatment measures (government measurement), but also adopt the financial market means to change the incentive mechanism for the allocation of resources. Specifically, the incentive mechanism of financial resource allocation will play a key role by increasing the guiding effect of green financial investment and allocation of resources. Funds will be gradually withdrawn from industries with high pollution and energy consumption. Therefore, it is an urgent task to construct a scientific and reasonable green financial system to realize green and sustainable development.

The Necessity of Developing Green Finance

Green Finance is financial activities to support environment improvement and response to climate change. The construction of green financial system refers to initiation of funds to industries in environmental protection, energy saving, clean energy, clean transportation, clean building through loans, bonds and stocks issuance, insurance, carbon finance and other financial services. The main purpose of establishing a green financial system is to increase the return on green investment and get access to financing for green project (Ma, 2016).

In the process of China's economic development, there are some serious problems such as irrational industrial structure and excess capacity. To change the mode of economic development

and achieve green development, structural reform of supply side must be carried out. Green development boosted by finance is an important part of the reform. Finance mainly boosts green through the development of green financial markets and products, promotion of low-carbon development, and realization of economic restructuring and upgrading. It is important to reduce the supply of products with high consumption and high pollution, and supplement green products required by green industry and green consumption. Through the development of green financial support for energy saving and environmental protection technology innovation and enterprises to adopt energy-saving emission reduction equipment, new growth points are cultivated.

"Government Leading" or "Market Leading"?

From 1950s to the 21st Century, China's environmental governance has always adhered to the "government led" model. Until now, it is still popular with the traditional concept of "economic development depends on the market, and the environmental protection depends on the government". Environmental governance through the market means is still in the initial stage. Many scholars regarded the "government leading" as synonym with"Chinese mode", which is very patch idea. In the development process, once the "government leading" spent a lot of public resources and caused waste of resources. Today's "excess capacity", "low efficiency" and other issues also related to the "Chinese mode". The function of single government conduct is marginal to economic growth and environmental improvement. Only "combination" is the typical characteristic and core strength of "Chinese mode", it is also the greatest potential of China's future transformation, innovation and upgrading.It is a major theoretical proposition and practical proposition that to make market play a decisive role in the allocation of resources. The "invisible hand" and "visible hand" are both important to form a market pattern in which market and government function is mutually complemented and coordinated to promote the sustained and green economic and social development.

In this regard, many scholars (Ren, 2013; Zhu and Qi, 2014) proposed the viewpoints of "optimization of government environmental governance", "market support under government regulation and appropriate supervision". However, it is important that government and market integrate effectively in the development of green finance. In fact, the essence of the roles played by government and the market in the development of green finance is the border dispute. Economic theories such as neo classical economics, public choice theory, and new institutional economics all have their own discussion. For example, neo classical economics believes that there is no externality, and market is the most appropriate way of resource allocation. The government is only used to make up for market failure. According to the theory of public choice, both the market and the government are different methods in different fields to achieve collective behavior (Tan and Qu, 2009). The two theories only provide a direction for the effective integration of government and market in green development. And specific measures in the construction of green financial system need to be elucidated elaborately to clarify the responsibilities of each party in financial development.

The establishment of carbon trading system in the United States also gives us some inspiration: the establishment of carbon trading system seems to be the choice between the market and the government, but whether the system can work well largely depends on the government's ability to make rules (Yuan, 2015).

Specific Ideas in the Construction of Green Financial System

China is currently at the primary stage in green financial development. The 13th Five-Year Plan in 2016 ascended green financial system construction to the height of national development strategies. Prior to this, China's commercial banks have begun to cooperate with foreign institutions to carry out Clean Development Mechanism (CDM) carbon finance business, providing loans for energy conservation and emission reduction. The size of the issuance of green financial bonds increased year by year, with Industrial and Commercial Bank of China, Industrial bank, Agricultural Bank

and other banks involved. In addition to credit field, innovation in green securities, green funds and green insurance promotes the development of China's green finance, such as the Shanghai 180 carbon efficiency index and green industry funds.

There are many restrictions for the development of green finance. For example, green financial policy support system has not been established; there is lack of innovation power and environmental risk analysis; intermediary service system develops behind. The establishment of China's green financial system framework requires the effective coordination of the government and the market. For this, we put forward the following suggestions.

Government Power in Green Finance Construction

The financial system is a composition of financial system, financial institutions, financial instruments, financial markets and financial regulation (Dai and Huang, 1998). Therefore, the construction of China's green financial system should start from these five aspects.

First, the development of green finance requires the protection by laws and regulations. Social responsibility of enterprises is strengthened in the field of investment and financing, and other energy saving and environmental protection is linked by laws and regulations. Although the UN Framework Convention on Climate Change and the Kyoto Protocol do not require China to assume the obligation to mandatory emission reduction, Chinese government needs to establish a unified implementation of the specific regulations on the total amount of emission rights. In addition, the central government should also consider regional differences in each province and adjust flexibly.

Second, green finance development requires supervision strengthening. The specific characteristics of the green finance and the mode of operation have challenged the existing regulatory system in China. In the future, the implementation of regulatory policies requires listed companies and issuers to disclose environmental information. Only by this can investors judge which enterprises are polluting, which are green. Investors can vote with their feet and funds flow into green enterprises. At present, the Shanghai and Shenzhen Stock Exchanges disclose ESG information with relevant notice or guidance documents, but the majority of listed companies disclose voluntarily. The listed companies with environmental information disclosure only account for about 20%. Thus, the government should play an important part in the guiding the market and create a good market order and punishment mechanism.

Market Role in Green Financial Resources Allocation

In the transformation of the global ecological governance, the deep convergence of government and market is emerging. The key of the integration lies on the boundary. The market must not retreat when it hits. The development and improvement offinancial institutions, financial instruments and financial market requireus to follow the market rules, and apply market mechanism rationally and effectively.

First, cultivation of green financial institutions need to be strengthened. At present, commercial banks have become the main financial institutions involved in the green credit business, but the development of China's green finance needs to attract more market participants, such as low carbon project consultation, project financing guarantee, credit enhancement, audit and legal services. More intermediaries' participation not only cultivates a competitive environment, but also effectively reduces transaction costs and project risks.

Secondly, innovative green financial instruments also rely on strong market forces. At present, instrument innovation in developed countries mainly focuses on a series of financial derivatives of carbon emissions, including the carbon Futures, EUA Futures, CER Futures, EUA Options, and spread option based on CER and EUA (Spread Option). China's green financial products are in the initial stage. The carbon market is facing a lack of demand and amount control. Therefore, the development of green financial market trading tools should follow the pace of market development, from foundation to innovation, from simple to complex. In the continuous improvement of green financial market compensation mechanism, more green financial derivatives are to be provided.

Third, the green financial market needs to be developed. On the one hand, the cultivation of green financial market cannot be separated from the market's own strength; on the other hand, the

government should play a leading role in the early stage of market construction. For example, fiscal policies such as financial subsidies, transfer payments or tax incentives to assist green economic growth. Differentiated credit policies can also be applied to strengthen window guidance and increase support for the green economy. Through platform construction, more funds are guided into the green financial markets. Government capital participation has strong demonstration effect, and leads to 5 to 15 times private investment.

What needs to be emphasized that the construction and development of China's green financial market is gradual. Take carbon trading market as an example , in its early stage, the CDM project should be based to consolidate the position as the most potential supplier of CDM project. In the mid stage of development, regional industry pilot demonstration can help smooth transition from voluntary to mandatory emission reduction. In the mature period, it is necessary to unify the national carbon market, establish a unified registration and settlement platform, standardize the trading mechanism, and gradually realize the convergence of the domestic market and the international market.

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References

[1] Ma, Jun. Development and prospect of China's green finance. Comparison of economic and social system, 2016(6): 25-33. (In Chinese)

[2] Wei, Binxian. Innovation and development of green finance in China under the framework of G20, Journal of Zhejiang provincial Party School, 2016(6): 64-73.(In Chinese)

[3] Yuan, Jian. Climate policy in the United States: the choice between market and government, International Studies, 2015(6): 104-123.(In Chinese)

[4] Ren, Bingqiang. Environmental governance from the perspective of ecological civilization construction: problems, challenges and countermeasures. Political Studies, 2013(5): 64-70.(In Chinese)

[5] Zhu, Yuan & Qi, Jiuhong. Government and market in the construction of Ecological Civilization: a case study of carbon trading. Southeast scholarship, 2014(6): 59-66.(In Chinese)

[6] Tan, Rong & Qu, Futian. The boundary between market and government: the choice of governance structure of non-agriculture land. Management world, 2009(12): 39-48.(In Chinese)

[7] Xi, Jinping. Promoting green development and sustainable development in Asia. People daily, April 2nd, 2010.(In Chinese)