

On the Mechanism of Green Economy and Green Finance

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Abstract: Low-carbon green development is an important part of high-quality socioeconomic development, in line with the Basic Law of socioeconomic development. Green economy refers to the high-quality development with emphasis on greening, recycling and sustainability in the process of social economic development. Green finance refers to the financial service activities such as investment and financing, project operation and risk management carried out by various actors to promote the development of green economy for projects in the fields of environmental protection, energy conservation, clean energy, green transportation and green building with the support of national policies. Green economy is the foundation and premise of green finance, and green finance is an important driving force of the development of green economy.

Keywords: Green Economy, Green Finance, low carbon economy

1. Connotation of Green Economy and Green Finance

1.1 Connotation of Green Economy

In 1989, British environmental economist Mary Pierce came up with the concept of “Green Economy”. Subsequently, scholars at home and abroad began to pay attention to green economy from different angles. With the continuous renewal of the concept of green development, the green economy also has a different meaning. Binu parthan et al. (2010) that “The government should improve the energy structure and actively explore new energy sources, economize on the use of existing resources and energy, encourage innovative development of green environmental protection technology, to achieve economic and natural ecological recycling can continue.”

By Kelly Sims and others (2010)“Developing countries should continuously develop new energy sources and new low-carbon technologies to shift to a low-carbon economy”.

Zhu Dajian (2012) holds that “Green economy is composed of low-carbon economy and circular economy, among which low-carbon economy can be regarded as green economy in the sense of energy flow, which requires large-scale use of clean energy, improvement of the use efficiency of traditional energy and absorption of carbon emissions from the export of Economic Processes; circular economy is Green Economy in the sense of material flow, which requires reducing the input of natural resources, strengthening the reuse of goods, and reconvert waste into resources at the output end of the economy”. Chen Zongxing (2012) holds that “Green economy is a new economic form which is market-oriented, takes ecology, environment and resources as its essential factors, takes industrial economy as its foundation, takes scientific and technological innovation as its support, takes economic, social and ecological coordinated development as its aim, takes safeguarding the human survival environment, scientifically develops and utilizes resources and coordinates the relationship between man and nature as its main features”.

We believe that the green economy highlights the following issues: first, the greening of economic activities. The organic combination of economic development and environmental protection, on the one hand, vigorously develop energy-saving and environmental protection of the green industry, but also to transform the original green high energy consumption, high pollution industry. Second, the recycling of economic activities. We should not only pay attention to the reuse of existing materials, but also emphasize the re-conversion of waste into available resources. Third, the sustainability of economic activity. To control the scale of economic activities within the carrying capacity of natural resources, while meeting the needs of contemporary human resources, but also to ensure the needs of future

generations of mankind, to achieve sustainable development of society.

In summary, green economy is a high-quality development process that emphasizes greening, recycling and sustainability in the process of socio-economic development.

1.2 The Connotation of Green Finance

Green Finance is also called “Environmental finance”. Scholtens(2006) put forward that “Green finance is a kind of social responsibility of financial institutions. “Green Finance is a financial institution that deals with potential ecological and social risks through financial creation in the course of its development and achieves healthy economic and ecological development.” William Blyth (2010) proposed that “the government promotes and encourages green finance to transform commercial banks to green, and supports enterprises to participate in carbon emission trading, so as to make people more active in carbon emission trading, so as to promote the development of green finance.

The definition above puts more emphasis on the function of green finance. The G20 Green Finance Research Group defined green finance as “Speculative activities that generate environmental benefits in support of sustainable development” in its 2016 G20 green finance synthesis report.

Wang Yao (2016) that “Green finance is a comprehensive use of credit, bonds, funds, insurance, carbon finance and other tools and policies, the funds will be directed to environmental protection, energy conservation, clean energy, green transport, green buildings and other projects.” In his research, Wang Bo (2019) proposed that “Different from traditional finance, green finance regards environmental protection as the basic starting point, pays attention to the potential environmental impact factors in investment decision-making, fully measures the environmental risk and cost of decision-making, and realizes the maximization of economic benefits and environmental benefits by optimizing the allocation of resources reasonably”. The People’s Bank of China, in conjunction with the Ministry of Finance and other seven ministries and departments, explicitly stated in the guiding opinions on the construction of a green financial system that “Green finance refers to economic activities that support environmental improvement, combat climate change and resource conservation and efficient use, namely financial services provided for project investment and financing, project operation and risk management in such fields as environmental protection, energy conservation, clean energy, green transportation and green building.”. That’s the official definition in this country.

We believe that green finance highlights the following issues: first, as a financial means, the main function of green finance is to promote the development of green economy, and it can also form a part of green economy itself. Second, green finance mainly includes green credit, green bonds, green funds, green insurance, carbon finance and other instruments and policies. Third, green finance undertakes certain social responsibilities and plays a role in guiding funds to green projects such as environmental protection, energy conservation and clean energy.

To sum up, green finance refers to the financial service activities such as investment and financing, project operation and risk management carried out by various actors to promote the development of green economy in the fields of environmental protection, energy conservation, clean energy, green transportation and green building with the support of national policies.

1.3 The Relationship Between Green Economy and Green Finance

1.3.1 Green Economy is the Basis and Premise of the Development of Green Finance

Economy is the precondition of financial development, and green economy is also the development basis of green finance. The development of green economy can create good conditions for the development of green finance, so that green finance can be formed and developed. The development of green economy will produce capital demand. Through its resource regulation function, green finance guides capital to the departments that pay attention to green economy, so as to promote the development of green economy.

1.3.2 Green Finance is An Important Driving Force For the Development of Green Economy

Green finance uses the resource regulation function of the financial industry to gather funds into the green industry through financial services such as green credit, green bonds and green insurance, so as to provide financial convenience for the development of green economy. Green finance can make funds flow to green industries through the capital depression effect. While solving the problem of financial support for the development of green economy, it will also promote the high-quality development of

green economy through corresponding financial standards. At the same time, green finance can effectively overcome the problem of market failure and comprehensively promote the development of green economy by combining environmental risks into financial risks and using financial risk management mechanism to manage risks in advance or in the process.

2. The Mechanism of Green Economy Affecting Green Finance

2.1 The Development of Green Economy Gave Birth to the Emergence of Green Finance

The development of green economy needs a lot of financial support. In addition to the necessary financial support of the government, it also needs the financial market to provide financial elements for the green economy. The strong demand for funds to promote the development of green economy gave birth to the supply of green finance. The rise of green economy provides a historical opportunity for the development of green finance, and green finance has become a part of green economy.

2.2 The Development Degree of Green Economy Determines the Development Scale of Green Finance

Green economy is the basis of green finance. The breadth and depth of green economic development determine the demand for green financial products, the quantity and quality of green financial market, and the development direction of green financial market. The rapid development of green economy not only makes the scale of green financial market grow rapidly, but also requires the continuous improvement of green financial system, which promotes the development of financial innovation taking into account economic and social benefits.

2.3 The Development of Green Economy Provides a Favorable Environment for the Development of Green Finance

On the one hand, in order to promote the development of green economy, the government encourages and guides the development of green finance through preferential policies such as investment, taxation and credit, and provides a good development environment for the development of green financial products under the guidance and encouragement of national policies. On the other hand, the national policies, laws and regulations related to green development not only cultivate the environmental risk awareness of micro subjects, but also provide regulatory constraints for green development, which is conducive to the smooth promotion of green financial products. In the context of sustainable development and low-carbon economy, governments and international organizations pay more and more attention to environmental protection, and have issued various relevant laws, regulations and regulations. These institutional measures not only guarantee the implementation of green finance, but also provide a favorable environment for the development of green finance.

3. Mechanism of Green Finance Affecting Green Economy

3.1 The Influence Path of Green Credit on Green Economy

The impact of green credit on green economy is mainly realized through the green capital support behavior of micro enterprises. Green credit mainly makes the high negative externality projects of enterprises face financing constraints, and the credit funds flow to low pollution and low energy consumption projects, so as to promote enterprises to increase investment in green innovation and realize green development. Specifically, green credit acts on the investment and financing behavior of enterprises' green projects, and further affects green output and green economic development. As an important source of funds to promote green innovation of polluting enterprises, green credit plays a role in guiding financial capital away from backward production capacity with high pollution, so as to optimize the economic structure.

3.2 The Influence Path of Green Securities on Green Economy

Through the issuance of green securities (such as green corporate bonds), enterprises can quickly and effectively obtain capital needs and provide financial support for enterprises' investment, R & D and sales activities. The green project of the enterprise has been supported by funds, the financial

performance of the enterprise has improved, the project operation has been guaranteed, and the economic benefits of the enterprise have been improved. The funds obtained from the issuance of green securities are used for environmental protection, emission reduction of waste gas and wastewater, green technology innovation, etc. their implementation and promotion play an important role in accelerating the development of green economy.

3.3 The Influence Path of Green Insurance on Green Economy

On the one hand, green insurance introduces the concept that the negative externalities caused by environmental pollution have a great impact on life into the traditional insurance industry, and "escort" the green industrial economy through the way of "insurance + service", so as to finally realize the "greening" of economic and social activities. The invention of green insurance allows polluting enterprises to break the concept that they can survive only through "illegal discharge", deal with pollution problems positively, promote the information transparency of the whole society, and finally promote the development of the overall green economy. On the other hand, the introduction of green insurance promotes the introduction of green pricing and ecological environment related insurance products, provides a foundation for the innovation of environment related financial products and provides multi-faceted protection for the development of green economy. For example, the introduction of environmental pollution liability insurance has triggered the innovation of relevant financial services and other insurance products related to ecological environment and climate change, such as forestry insurance, earthquake insurance and other insurance for losses caused by natural disasters.

3.4 The Influence Path of Green Investment on Green Economy

After green investment enters related industries, the overall development of the industry has been supported by effective funds and developed rapidly with the support of green investment. At the same time, the infrastructure construction of related industries and upstream and downstream industries will produce a large number of derived demand. Stimulated by green investment, the production scale of related industries expands, thus promoting economic growth. At the same time, green investment activities can promote industrial structure upgrading, pollution enterprise treatment and green technology innovation, promote the development of green economy and achieve high-quality economic development.

3.5 The Influence Path of Carbon Finance on Green Economy

The development of carbon financial market is an important part of green financial derivatives trading. With the expansion and deepening of carbon emission trading market, the pricing of carbon financial assets is more reasonable and promotes the rational development of financial derivatives market. On the other hand, the development of carbon finance can play a leading role in establishing the concept of low-carbon development. The development of carbon finance effectively speeds up the R & D, promotion and application of energy conservation and environmental protection projects, and develops low-carbon energy technology through technological innovation to realize low-carbon economy. With the development of carbon finance, countries vigorously promote low-carbon life, guide residents and enterprises to earnestly fulfill their obligations of quantitative emission reduction, and promote the development of green economy.

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