

## Progress and Trend of Green Finance Research

Wei He, Yanming Zhou\*

School of Economics and Management, Inner Mongolia University of Technology, Inner Mongolia, China

### Abstract

**Green finance refers to the financial has a "green" preference activities, namely in the process of investment and financing to consider environmental factors, through innovative products and institutional arrangement into environmental protection and energy conservation and emission sustainable development projects and enterprises, reduce some high pollution and energy consumption investment, with financial tools innovation as the carrier, promote the economic to the stage of high quality important way of development. This paper conducts statistics and analysis of the relevant literature on domestic green finance research from 2005-2021 based on the SSCI and CSSCI citation index database, and preliminary discussion the origin, development mechanism and practice situation and development trend of green finance.**

### Keywords

**Green Financial; Environment Protection; Sustainable Development.**

### 1. Introduction

In the 18th century, People enjoy the material resources for the negative effects of the industrial revolution. In the process of exploring future economic and social issues and sustainable development, a new concept --green finance. In 2005, when Industrial Bank cooperated with international financial companies, Industrial Bank introduced the concept of green finance into the daily operation of commercial banks. From then on, domestic green finance began to develop. In 2015, countries unanimously adopted the United Nations Framework Convention on Climate Change, also called the Paris Agreement, and since then, the global economy began to formally transform into low-carbon emissions and adaptation to climate change. At the 2016 G20 Hangzhou Summit, with the G20 Comprehensive Green Finance, China for the first time introduced green finance to the G 20 agenda and set up a green finance research group to provide suggestions for the development of green finance and support the transformation of the global economy to green and low-carbon. It marks the development of green finance from "global cognition" to "global action"[1]. Green finance is to focus on the credit supply of green projects such as energy conservation and environmental protection, and inhibit the public credit of pollution, energy consumption and other projects. Therefore, if we want to support green finance, it is necessary to limit the credit supply of polluting projects, actively increase the capital supply of green projects, and promote the green development of the real economy.

### 2. Foreign Green Financial Development Mechanism

After the financial crisis, the United States began to implement the "Green New Deal", which increased the government's fiscal investment and tax cuts in the low-carbon industries, and invested a lot of money in the environmental protection and energy fields [2]. the UK has long been stepping up legislation on green finance. In order to encourage private capital to invest in green environmental projects, the British government wholly owned holding operated its first policy green investment bank in 2012. The Green Investment Bank selects the target industry

based on the UK's resource endowment, establishing offshore wind power, energy efficiency financing and biomass as the three major priority investment areas to ensure operational sustainability. Meanwhile the UK also focuses on the regulation of environmental risks in the financial sector [3]. Campelo measures the proportion of the number of commercial banks added to the equatorial principle and the index of the development level of green credit in a country.[4] In contrast, domestic scholars are more inclined to build a green financial index system to measure the development level of green financial index system, usually choosing green credit, green securities, green insurance, green investment, carbon finance and other investment indicators [5]. Salazar believes that green finance links financial and environmental industries, while green finance can be considered as financial innovation to seeking methods for environmental protection [6].

### 3. Current Status of Domestic Green Finance

Today, China's economy is no longer only pursuing rapid development in the past, but has entered a stage of high-quality development. Green development has begun to play a key position in the new concept of high-quality economic development. In his report to the 19th CPC National Congress, President Xi made it clear to "accelerate the reform of the ecological progress system and build a beautiful China" and introduce "developing green finance" in the path of promoting green development. Different scholars have different conclusions on the relationship between green finance and economic growth[7]. One group of scholars believe that investing in green finance products can promote the sustainable development of enterprises to a large extent, which will effectively promote economic growth in the long term. Another group of believes that the scale of green finance development and the efficiency of green financial resources will significantly inhibit macroeconomic growth [8]. Lei anyun and other studies found that the green finance can be used to improve the environment to achieve the sustainable development goals of the quality of economic growth [9]. Yin Zibo measured the development level of green finance in Chinese provinces in the past 10 years, and concluded that there are unbalanced and inadequate development problems of green finance development level in China, showing the pattern of "high east", "middle and flat" and "low west" [10].

### 4. The Influence Factor of Green Finance

Fischer believes that green financial products can drive social capital to invest in green and environmental protection, but due to the asymmetric environmental information disclosure of some enterprises, it will easily lead to pollution incidents, which will hinder the development of green finance [11]. Zhang Yanmei (2021) to one of the green financial reform and innovation pilot zone --guizhou province, for example, using stata16 measurement software, choose five indicators are: financial development level, education level, residents income level, urban environmental protection investment, unit GDP energy consumption and green financial development index to build multiple regression model, empirical results show that financial development level on green financial development level, education level, unit GDP energy consumption, urban environmental protection investment, residents income level are important influence factors of green financial development in guizhou. The government should increase investment in higher education, improve the financial system, increase the self-allocated income of urban and rural resident customers in Guizhou Province, and banks should expand the scale of green finance business [12]. Wang Jing believes that both the government, financial institutions and enterprises can drive and guide the development of green finance to different aspects and degrees[13]. Yu Fengjian and others have demonstrated that the relationship between Guangdong Province's GDP and the degree of education and green finance will show a positive connection, and the degree of financial development will show a negative

link between air quality and green finance[14]. Studies by Qiao Qin and others show that the level of economic development, scientific and technological innovation, and the development of the financial industry show a positive impact on green finance. Environmental pollution has a significant negative impact on the development of green finance. In addition, the remaining several indicators such as residents' financial cultural literacy, the degree of information and government intervention (the proportion of fiscal environmental protection expenditure in GDP) have no significant impact on regional green finance[15].

## 5. The Necessity to Develop Green Finance

Now, many major countries are committed to solving environmental pollution and resource consumption, and advocating the development of green technology, green finance, green credit, and green innovation. Therefore, the primary considerations in China's economic development are green development and environmental protection. Green finance is an important means to support high-quality economic growth, and developing green finance is the main direction of financial institutions in the future. To effectively protect the ecological environment and save resources, it is necessary to take strong end-end governance measures, and more importantly, we need to adopt a series of financial policies to fundamentally realize the optimal allocation of resources. China will strive to achieve the carbon peak by 2030 and the carbon neutrality by 2060 (the "30 60" target). In order to achieve this goal, China needs a huge green and low-carbon investment of 10 billion yuan. In addition to government capital investment, the vast majority of these funds need to be guided and encouraged by social capital through investment and financing in the market-oriented system. The financial sector should accelerate its transformation and improve the green financial policy system and market system that support the realization of the 30 60 goal [16]. As economic development enters a new normal, the development of green economy has become an inevitable choice to break bottlenecks in resources and the environment, and also an internal requirement for promoting the transformation of economic structure and realizing sustainable development. Finance is the core of modern economy, and the development of green economy cannot be separated from the strong support of green finance. In essence, the purpose of green finance is to achieve the sustainable economic development that finance facilitates environmental optimization and resource conservation.

## 6. How to Develop Green Finance

Finance has been a powerful driving force for human progress since the industrial revolution. If countries want to transition to globalization, it needs a lot of money to invest in low-carbon development, green economy, so as to win the global fight against poverty and disease, and provide quality education and infrastructure globally. Smart and visionary investors and the whole financial industry need to set their long-term goals, develop green finance, build and improve the green financial system, and achieve carbon peak and carbon neutrality as soon as possible. In recent years, several new methods for funding green projects have been developed, including green bonds, green banks, village-level funds, etc. Green banks and green bonds have the potential to support clean energy development. Green finance includes providing better credit conditions for clean energy projects, aggregating small projects, achieving a commercially attractive scale, creating innovative financial products, and by spreading the benefits about clean energy. Improve the financing availability of green projects and return on investment is the main goal of building the green financial system, at the same time in order to promote the economic structure to green transition and transformation need to reduce the financing availability and return of polluting projects, make green projects can get more resource allocation, also need to reduce the resource allocation of polluting industries.

## References

- [1] Pan Siqun.Green finance in China: realistic difficulties and countermeasures [J]Contemporary Economic Management, 2017 (3).
- [2] Zhang Xiaoyan.Enlightenment of the Development of International Carbon Finance Market to China and Reference by J. Economic Issues, 2012 (2).
- [3] Zhang Chenghui, Xie Mengzhe.China Green Finance: Experience, Paths and International Reference by M. Beijing: China Development Publishing House, 2015.
- [4] Campelo,M.,Do stock prices influence corporate decisions? Evidence from the technology bubble. Journal Of Financial Economics,Vol.107,No.1,2013.
- [5] Zhang Lili, Xiao Liming, Gao Junfeng. Measurement of development level and efficiency of China -- is based on micro data of 1040 public companies [J].China Science and Technology Forum, 2018,000 (009): 100-112,120.
- [6] Salazar,J.Environmental Finance: Linking Two World[Z]. Presented at a Workshop on Financial Innovations for Biodiversity Bratislava ,1998,(1):2-18.
- [7] Climent F.,Soriano P.Green and Good?--The Investment Performance of US Environmental Mutual Funds [J]. Journal of Business Ethics,2011,103(2).
- [8] Xiu Jing, Liu Haiying, Zang Xiaoqiang.Industrial Growth and Forecdiction under Green Credit, Energy Conservation and emission Reduction [J]. Contemporary Economic Science, 2015,037 (003): 55-62.
- [9] Lei Hanyun, Wang Xuxia.Environmental pollution, Green finance and high-quality economic development [J]. Statistics and Decision Making, 2020 (15): 18-22.
- [10] Yin Zibo, Sun Xiqing, Xing Mao.Study on the Impact of Green Finance Development on Green Total factor Productivity [J]. Statistics and Decision-Making (3): 6.
- [11] Fischer,C., Environmental protection for sale: Strategic green industrial policy and climate finance. Environmental &Resource Economics,Vol.66,No.3,2017.
- [12]Zhang Yanmei.--takes the example of Guizhou Province [J]. China Insurance (6): 4.
- [13]Wang Jing. Research on Green Finance Development in China [J]. Economic System Reform, 2019, (5): 136-142.
- [14]Yu Wenjian, Xu Feng. Guangdong Green Finance Development and Its Influential Factors -- Based on Fixed-Effect Space Dubin Model [J]. Technology Management Research, 2019,39 (15): 63-70.
- [15]Qiao Qin, Fan Jie, Sun Yong, et al.Study on the green financial measures and influencing factors of the provinces along the "Belt and Road" [J].Industrial, technical and economic industries, 40 (7): 7.
- [16]Xuan Yu. We will accelerate the improvement of the carbon peak and carbon neutral green finance policy system [J].Finance and Economy (6): 1.