

# Carbon Rights Trading - The Synergistic Impact of Climate Finance and Regional Economic Development on Regional Economy

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**Abstract:** Climate finance is a financial solution that has emerged to address climate change and develop a low carbon economy and is a significant trend in the development of modern finance. The article mainly reviews and prospects climate finance related issues. Research has pointed out that from a global perspective, climate finance has emerged with the emergence of global climate change issues and will inevitably develop with the deepening of global efforts to address climate change. Climate change mitigation, adaptation, and marketization of climate friendly technologies will be the three major areas of climate finance support. The financial ecological environment and its various factors in the Beijing Tianjin Hebei region have overall positive effects on economic development, but the effects of each factor vary. The financial ecological environment has a positive promoting effect on the growth of economic aggregates, the tertiary industry, and urbanization, and has a significant impact on the growth of economic aggregates and urbanization. Insufficient support for the primary industry has a negative impact on the growth of the secondary industry.

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**Keywords:** Carbon Rights Trading , Synergistic Impact, Climate Finance, Regional Economic Development

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## 1. INTRODUCTION

The international community does not have a clear and authoritative definition of climate finance. The author believes that climate finance has at least two levels of connotation. Firstly, climate finance in a broad sense refers to all financial businesses related to addressing climate change. The second is narrow climate finance, which refers to a specific type of financial derivatives related to climate change, especially greenhouse gas emission trading businesses, such as carbon finance and carbon funds. Finance is closely related to the real economy and is the core of modern economy. The role of finance in regional development is to make social resources become social reproduction capital through financial intermediary and financial markets, improve the efficiency of resource allocation and use, and then promote economic development.

In the economic environment where social resources are allocated in a market manner, the effectiveness, liquidity, and safety of financial resources depend more on the quality of the regional financial ecological environment. A region with a good financial ecological environment can create a "capital depression", attract capital inflow and accumulation, and thereby promote the improvement of local economic competitiveness, achieving benign interactive development of economy and finance. The ecological environment of various industries is increasingly affecting the development of the entire industry in the process of social development, such as the financial industry, which is showing an increasingly obvious ecological trend. Therefore, the ecological environment is mainly for the stable development of various organisms and achieving a certain balance. In the financial ecological environment, efforts need to be made to maintain dynamic balance, so it is necessary to have a certain degree of

self-regulation and adaptability, Maximize the avoidance of ecological imbalances.

Therefore, building a certain financial ecological environment can achieve stable social development and harmonious operation of the economy and society. Then study the impact of financial integration and local protection on economic development, as well as the direct and indirect mechanisms. The research results suggest that the improvement of financial integration level will promote economic development, while local protection will significantly hinder local economic development. At the same time, there are differences in the impact of local protection on economic development in the three regions of Beijing, Tianjin, and Hebei. Local protection hinders the level of financial integration and has a significant indirect impact on economic development. Climate finance is undergoing changes along with the trend of economic globalization, environmental globalization, and global environmental and economic integration.

Currently, many international and domestic financial institutions are actively carrying out climate finance business in various innovative forms. For example, the World Bank, the Asian Development Bank, and others have successively established funds with the concept of climate change. Large commercial banks such as HSBC and Citibank have made climate change an important part of corporate governance. Swiss Re and Munich Re are actively promoting catastrophe insurance. Institutions such as the Chicago Climate Exchange have started attempting voluntary emission reduction trading, and some financial institutions in China are also carrying out green credit and green investment practices, launching financial products linked to carbon emissions, etc. Choosing appropriate indicator variables is a prerequisite for scientifically exploring the relationship between the financial

ecological environment and economic development. This study involves numerous variables, including economic aggregate variables, economic structure variables, financial ecological environment variables, and control variables. Based on the principles of systematicity, comparability, and accessibility in variable selection.

## 2. THE PROPOSED METHODOLOGY

### 2.1 The Development of Climate Finance Industry

In the continuous development process of the financial industry, funds are deeply influenced by the ecological environment, such as the circulation of currency in the region, the development of regional finance, the attraction of large funds, and the comparison with other regional funding sources, all of which will to some extent affect the core financial power of the region. Based on this, to better develop the regional economy and promote currency circulation, it is necessary to create a relatively healthy regional financial ecological environment. Climate change can lead to an increase in the probability of systemic risk occurrence, which may result in significant losses for the insurance industry at a certain point in time, leading to liquidation risk. This presents practical challenges to government regulatory authorities, the reinsurance industry, and institutional investors. Similarly, the specific project risks brought about by natural disasters can also cause losses to financial institutions' loans and investments. This requires financial institutions to assess risks, ensure cash reserves, and establish response mechanisms continuously and systematically.

The per capita GDP of the previous period has a significant impact on the per capita GDP of the current period. When the per capita GDP of the previous period increases by 1%, the per capita GDP of the Beijing Tianjin Hebei region will increase by about 0.947% at a significant level of 1%. This indicates that the growth of the total economic output has good dynamism, and its growth is a dynamic adjustment process. Therefore, using dynamic panel models is more accurate in depicting the real situation of economic aggregate growth than other models. Having a good financial ecological environment is to some extent an important condition for capital inflows. The core of financial economy can be reflected through the regional financial ecological environment, which can also play a solid foundation for the good operation of financial institutions.

Therefore, having a good economic environment is an important condition for attracting capital inflows. If the other financial ecological environments have transparent systems, good reputation, harmonious relationships with other enterprises, and strong ability to maintain creditor's rights, it can greatly increase its attraction and greatly increase the possibility of inward capital inflows. This can also provide strong support for the development of the entire region. The development status of regional economy depends to a certain extent on the financial ecological environment, so it is necessary to strive for the continuous improvement and soundness of the financial ecological environment. Because of this, large international financial institutions have taken corporate governance structure reform as a major strategic adjustment to address the challenge of climate change. Financial institutions are constantly exploring new methods in information disclosure, climate finance research, investor relations, project decision-making, and reducing their own carbon footprint to enhance brand image and improve business performance. Research on corporate governance of

financial institutions shows that large financial institutions in the United States, the United Kingdom, and Europe have higher ratings on climate change. However, the ratings of financial institutions in China are relatively poor. In the regression analysis of financial ecological environment variables on the proportion of the primary industry, most variables have a positive regression number, indicating a positive correlation between the financial ecological environment and the growth of the primary industry. However, the regression coefficients have not passed the significance test.

This indicates an increase in the proportion of financial ecological environment external to the primary industry, indicating that the financial ecological environment lacks sufficient support for the primary industry. To significantly enhance the effectiveness of macroeconomic regulation. Fifth, if there is a good financial ecological environment, it can give full play to the role of the market price mechanism itself, help financial institutions to achieve better development under the guidance of profit goals, increase capital investment to industries with "bottlenecks" in economic development, balance the relationship between supply and demand, and better optimize the allocation of macro resources. Committed to significantly enhancing the financial competitiveness of the region.

### 2.2 Analysis of the Impact Mechanism of Climate Finance on Regional Economic Development

At present, non-performing loans still account for a large proportion of operating financial institutions in China. Therefore, by strengthening the construction of a financial ecological environment, it can help operating financial institutions improve the quality of credit assets, promote the significant enhancement of the core competitiveness of the local financial industry, fully leverage the core role of finance, and achieve better coordination. The development of a unified economy and finance. The international climate institutional framework that affects the development of climate finance mainly includes the Convention, the Protocol, and the ongoing Bali Road Map process. As an international law on climate Conservation International, the convention defines that developed countries should provide new, additional, adequate, predictable, and sustainable sources of funding to developing countries to assist developing country parties in their implementation actions and designates this funding mechanism to be operated by the Global Environment Facility (GEF) under the guidance of the Conference of the Parties (COP).

After 2009, the contracting parties finally established a new Green Climate Fund (GCF) through negotiations, with an initial commitment of \$10 billion, which is about to be put into operation. In the regression analysis of the proportion of the financial ecological environment to the secondary industry, the coefficients of the SD, FE, and FI indicators of the financial ecological environment are all negative, indicating a negative correlation between the indicators. This indicates that the improvement of the financial ecological environment will be detrimental to the development of the secondary industry and have a significant negative impact on its growth. Regarding the formulation and implementation of monetary policy, the central bank needs to focus on significantly improving its own quality, ensuring the scientific and forward-looking nature of monetary policy, and on this basis,

strengthening the mechanism of policy guidance to ensure the effectiveness of this policy.

In the transmission mechanism of monetary policy, commercial banks, as a crucial link, need to enhance their sensitivity to the macro situation, strengthen risk management, and lay a solid foundation for the stable and healthy development of the financial industry to the maximum extent while pursuing their own interests. The results of the Paris climate change negotiations in 2015 will affect the future trend of climate finance, providing new opportunities for climate finance. It can be predicted that due to the severity of global climate change issues and the irreversibility of change trends, regardless of the outcome of future international institutional arrangements, climate finance will mainly support three major areas, namely climate change mitigation, adaptation, the marketization of climate friendly technologies and exits process from polluting industries is also relatively slow.

### 3. CONCLUSION

The increasing development and growth of climate finance is a major trend in the process of economic globalization and environmental globalization. Relevant financial institutions and comprehensive decision-making departments need to comply with this trend, explore sustainable financial development ideas, innovate financial policies and tools, serve the development of green economy, and build an environmentally friendly and climate friendly harmonious society. The improvement of the financial ecological environment does not lie in a single day, but rather in a systematic project that is closely related to the health and sustainable development of the entire social economy, as well as the ability to build a harmonious society. Therefore, in the process of improving the financial ecological environment, it is necessary to give sufficient understanding of its importance and urgency, realize that this construction work is relatively systematic and complex, and must use the scientific development concept for guidance, strengthen the cooperation and efforts of multiple departments in different fields, and ensure that this work can be carried out steadily and with targeted goals.

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