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Promoting Regional Economic Green Development through Green Finance

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Abstract

With the continuous advancement of industrialization, the demand for traditional energy sources such as coal and oil has grown significantly. While this trend has driven rapid economic growth, it has also led to the deterioration of ecological environments and living conditions, highlighting the increasingly prominent contradiction between economic development and environmental protection. In order to protect the ecological environment while maintaining economic progress, the Chinese government has formulated a series of targeted policies based on practical development needs, achieving notable results. Within the financial sector, green finance has emerged as both a core and a goal of financial industry development. It plays a vital role in realizing low-carbon goals, improving living environments, and promoting high-quality regional economic growth. However, as green finance is still in a developing phase, its potential to drive high-quality regional development has yet to be fully unleashed in practice. This paper explores the role of green finance in addressing these contradictions and offers corresponding strategies based on real-world conditions to meet the demands of future sustainable development.

Keywords

Green Finance; Regional Economy; High-quality Development.

1. Explanation of Key Concepts

1.1. Green Finance

The concept of green finance has gradually emerged, developed, and been refined through continuous practice. Green finance refers to the integration of environmental protection as a fundamental policy in financial decision-making, wherein potential environmental impacts must be considered during investment and financing activities. It incorporates environmental risks, returns, and costs into daily banking operations, emphasizing ecological preservation and pollution control. By guiding the allocation of socioeconomic resources, green finance promotes sustainable societal development[1-3].

Compared with traditional finance, green finance stands out by placing greater emphasis on the human living environment. It considers environmental protection and resource efficiency as key indicators of financial performance and encourages economic actors to prioritize ecological balance. It aims to ensure the coordinated development of financial activities with environmental sustainability and ultimately supports the goal of sustainable economic and social development. In recent years, green finance has attracted increasing interest from domestic financial institutions-especially banks-and has become a major topic of concern across society.

1.2. High-quality Economic Development

The concept of high-quality economic development was first introduced in the report of the 19th National Congress of the Communist Party of China and describes the current stage of

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China's economic transformation. It refers to economic growth driven by innovation, characterized by high efficiency, environmental friendliness, and value-added output. True economic development inherently implies high quality.

High-quality development involves not only improving the quality of economic growth but also optimizing various dimensions, including people's livelihoods, resource and environmental sustainability, welfare levels, industrial structure, and regional disparities. It represents a more advanced stage of economic development-emerging when high-speed growth reaches its limits-where attention is paid to both economic and ecological benefits. Innovation becomes the key force for transforming traditional growth drivers. In this sense, high-quality economic development reflects stable economic growth, continuous structural optimization, improved living standards, environmental enhancement, and better resource allocation.

2. The Role of Green Finance in Advancing Regional Green Economic Development

2.1. Promoting Industrial Structure Optimization and Innovation

High-quality regional economic development necessarily involves the adjustment and optimization of industrial structures. A well-designed and rational industrial layout can stimulate regional vitality and promote long-term economic health (see Table 1). Green finance, as an emerging financial tool, plays a significant role in guiding financial resources toward sectors such as zero-carbon environmental protection, clean energy, green transportation, and sustainable architecture. It also supports innovation-driven and growth-oriented green industries, thus facilitating structural transformation[4-6].

With the push for ecological conservation and economic transformation, traditional energy-intensive industries have struggled to meet evolving social demands. To optimize these outdated industrial structures, financial support is essential. By leveraging green finance, idle societal capital can be channeled into production resources to support the transformation of conventional industries toward greener, more energy-efficient, and environmentally friendly models-achieving green upgrades of traditional sectors.

Table 1. The Impact of Green Finance on Industrial Structure Optimization and Innovation

Aspects	Content
Guide capital allocation	Green finance guides the allocation of financial resources in industries such as zero-carbon environmental protection, clean and efficient, green transportation and green buildings, and introduces capital into innovative, growth and green industries.
We will adjust industrial structure	Through the support of green finance, promote the transformation of industrial structure from the traditional mode dominated by energy consumption to the direction of green, energy saving and environmental protection, and realize the adjustment and optimization of industrial structure.
We will support the transformation of traditional industries	Green finance takes social idle funds as production capital to support the transformation of regional traditional industries toward green, energy saving and environmental protection, and realize the green upgrading of traditional industries.
We will stimulate regional economic vitality	Scientific and reasonable industrial structural adjustment can fully stimulate the vitality of regional economic development. As an important tool to promote this adjustment, green finance has a positive effect on the sustainable and healthy development of regional economy.

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2.2. Facilitating Regional Economic Innovation

In the context of the "new normal" economy-characterized by structural upgrading and transformation of growth drivers-innovation has become the core force driving regional economic progress. Beyond policy guidance, capital support is crucial for fostering regional innovation. As a financial tool, green finance can direct funding toward relevant green technologies and help spur industrial innovation, thereby contributing to regional economic breakthroughs.

Economic innovation is inseparable from the development of new industries. Issuing green bonds can provide substantial funding for high-tech green enterprises, ensuring their operations and supporting industry expansion. While fostering regional industrial growth, green finance also helps regional economies reach new milestones in innovation and development.

2.3. Accelerating the Improvement of Regional Ecological Environments

Since the launch of China's reform and opening-up policy, industrial development has yielded remarkable economic achievements. However, it has also led to intensifying resource constraints, declining environmental carrying capacity, and deteriorating living conditions-posing serious obstacles to further economic growth. Enhancing ecological conditions is therefore a prerequisite for achieving high-quality regional development[7-9].

On one hand, green finance can guide the flow of capital away from high-pollution, high-emission industries toward low-carbon, eco-friendly, and efficient sectors. On the other hand, under the framework of green finance, financial institutions can play dual roles in financing and intelligence by designing large-scale green projects to be accessible to private capital. These investments not only contribute to environmental protection but also help realize green, high-quality regional economic growth(Figure 1).

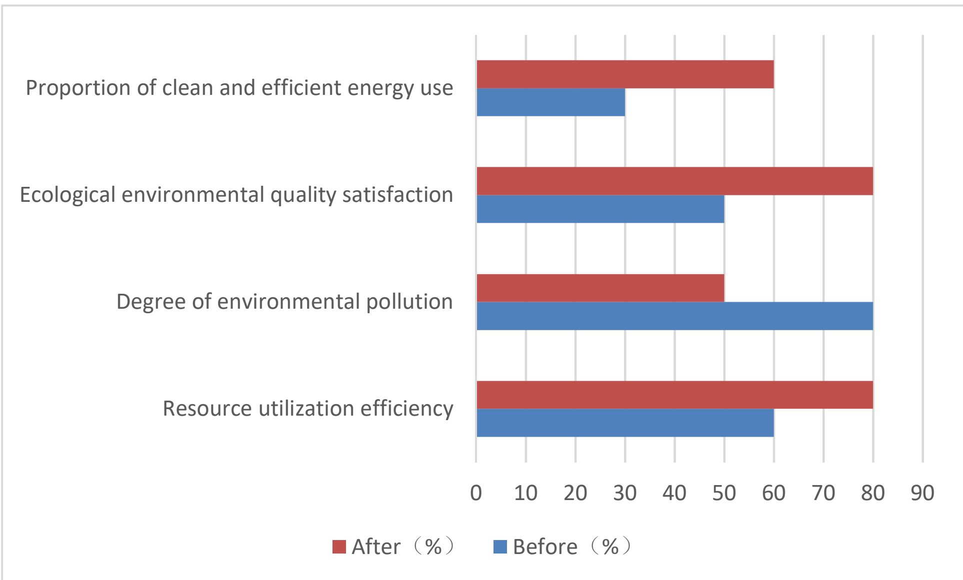

Figure 1. Comparison of Ecological Environment Improvement through Green Finance

3. Strategies for Promoting Regional Economic Green Development through Green Finance

3.1. Promoting Innovation in Green Financial Products

Currently, China's green finance development relies heavily on the banking sector, particularly in providing financial services for energy-saving and environmentally friendly enterprises and

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their small and medium-sized projects, which serve as important pillars for green development. However, financing difficulties and high costs have long plagued small and medium-sized enterprises (SMEs), especially as their energy-saving and environmental protection projects are often long-term and capital-intensive. Therefore, banks should innovate specialized green financial products to meet the financing needs of various green projects and support high-quality economic development.

Customized green financial products must effectively serve green enterprises, particularly SMEs that lack sufficient collateral. Banks can develop a variety of green credit products such as energy-saving financing, franchising pledge financing, and energy performance contracting financing to meet enterprises' varying capital needs in terms of amount and duration. For example, structured financial products can be designed for large enterprises with industry advantages and quality assets, offering flexible-term and large-amount financing through trusts, asset management, and other channels. Tailoring green finance solutions to meet diverse corporate needs can significantly support the development of green projects and the overall green economy.

3.2. Improving the Environmental Information Disclosure System

China's current environmental information disclosure mechanism remains underdeveloped, and "greenwashing" behaviors-where companies misrepresent their environmental actions-still occur. Strengthening environmental disclosure can effectively mitigate such misconduct and help investors assess environmental risks, identify authentic green projects, and attract more social capital into sustainable investments.

With the increasing emphasis on ESG (Environmental, Social, and Governance) investment principles, investors now focus more on a company's social responsibility, environmental performance, and governance rather than profitability alone. By enhancing environmental information transparency, companies allow investors to better understand environmental costs and risks, thereby facilitating responsible investment. Moreover, for companies themselves, disclosing environmental data serves as a powerful self-regulatory tool to drive their green transformation. Enterprises and financial institutions should work together to improve the environmental disclosure framework by introducing third-party evaluations, establishing a centralized environmental information database, and enhancing related policies to ensure data authenticity and credibility[10]. Such improvements will help resolve information asymmetry between capital providers and recipients, reduce greenwashing, and boost investor confidence in green projects.

3.3. Strengthening Government Policy Guidance

To meet the legislative demands of a modern financial system, environmental protection principles should be incorporated into laws such as the "SME Promotion Law," the "Securities Law," and the "Insurance Law." This will help create a robust legal framework for the growth of green finance and the green economy. Specifically, the establishment of sound regulatory frameworks, incentive mechanisms, and internal supervision systems will ensure the sustainable development of green financial services.

To advance green finance effectively, it is essential to improve legal and regulatory systems, standardize and optimize credit procedures, simplify approval and auditing processes, and increase penalties for polluting enterprises. Internal governance mechanisms within financial institutions also need to be enhanced to foster innovation and better management in green finance operations. Relevant departments must recognize the strategic importance of green development funding, intensify guidance and public awareness, revise outdated regulatory constraints, and strengthen market supervision. These efforts can guide SMEs toward adopting

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environmentally friendly production methods and ensure the sustainable and healthy development of the environmental economy.

3.4. Building a Green Asset Trading Platform

Although China's green finance market has expanded rapidly, green credit and bond instruments often have short maturities, which are poorly matched with the long-term nature of green projects. Additionally, exit channels for green funds are limited, resulting in substantial funding gaps. Under green finance policies, financial institutions have increased investments in green projects, growing the scale of green assets. However, these assets often lack liquidity and have low capital utilization efficiency.

A green asset trading platform can consolidate various green financial products and establish a market-oriented circulation mechanism to enable product liquidity and asset realization. By offering diversified investment options and flexible exit mechanisms, such a platform can lower the investment thresholds and transaction costs for financial institutions, attract more participation, and improve the overall efficiency of green capital utilization (see Figure 2). Therefore, the government should take the lead in establishing green asset trading platforms and set regulations regarding transaction scope, methods, and participants to optimize resource allocation.

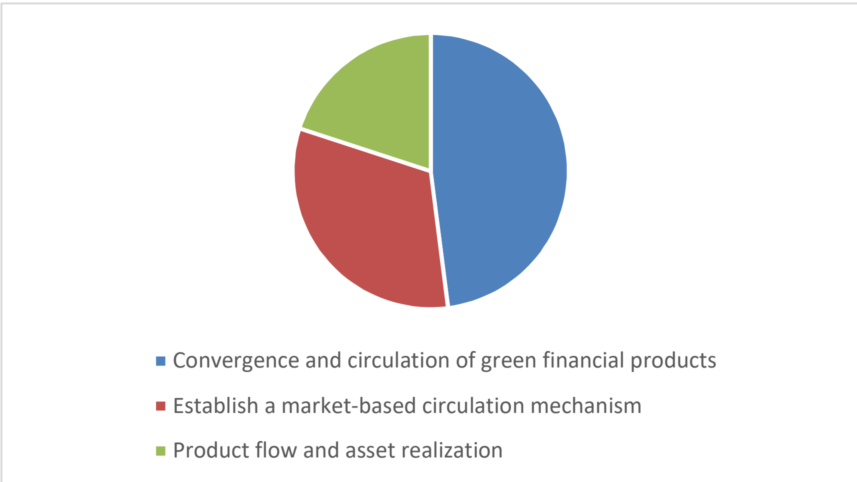

Figure 2. Functional Distribution of the Green Asset Trading Platform

3.5. Sharing Regional Green Finance Information

At present, due to the lack of a standardized system for information sharing, as well as the absence of specialized information collection agencies and management platforms, communication inefficiencies hinder the implementation of green finance policies. Financial institutions, such as commercial banks, primarily rely on limited sources like annual reports, government bulletins, or media coverage to access corporate environmental information. This may lead to information asymmetry, resulting in policy execution difficulties and misjudgments of green projects.

Banks and environmental authorities should increase the frequency of public disclosure and communication of environmental and accounting information to eliminate policy delays in green finance[11-13]. A comprehensive internet-based information-sharing platform should be developed to enhance transparency and efficiency in green finance and strengthen institutions' ability to withstand risks. Government departments should also coordinate environmental information gathering, compile enterprise environmental statistics, and increase the frequency of green information disclosure. These steps will improve the accuracy of financial decision-making, prevent environmental risks, ensure targeted green finance policy implementation,

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and promote the vigorous development of the green finance industry, thereby supporting the broader green transformation of the economy and society.

4. Conclusion

In conclusion, green finance plays a vital role in advancing high-quality economic development. It serves as a key tool for optimizing regional financial structures, addressing overcapacity issues, and promoting regional innovation and collaborative growth. However, due to current limitations, the full potential of green finance has yet to be realized. Based on practical development needs, it is essential to accelerate green financial product innovation, improve environmental information disclosure systems, establish green asset trading platforms, and promote regional green finance information sharing. Only through such comprehensive measures can green finance fully support regional high-quality economic development and contribute to building a green, low-carbon, and sustainable future.

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