

# Improvement Measures for Green Finance from the Perspective of Law and Economics

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**Abstract:** *In recent years, ecological and environmental issues have become increasingly severe, and various industries have also been linked to environmental protection. Green finance, as a new branch of finance, emphasizes the social benefits brought by financial behavior. Green finance can guide the priority allocation of resources in the field of environmental protection through economic means, achieving the goal of carbon reduction. However, at the same time, it is difficult to define the degree of punishment or reward that some industries with externalities should receive, and there is also controversy over which party should allocate this benefit. Therefore, it is necessary to introduce legal and economic analysis methods based on the "Coase Theorem" and analyze them using the Kaldor-Hits efficiency standard to achieve efficiency and fairness in the practice of green finance.*

**Keywords:** *law and economics; Green finance; Property rights; Kaldor-Hits efficiency*

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In the process of economic development, there is bound to be varying degrees of damage to natural resources, especially in earlier years when various countries and regions prioritized rapid economic development. However, in recent years, with the deepening of research on the environment, everyone has begun to pay more attention to environmental issues. At the Hangzhou G20 Summit in September 2016, green finance became an important topic for the first time, and China reached a consensus with major economies around the world on the development of green finance. Subsequently, a series of documents from various governments also promoted the development of green finance.

However, green finance is not an absolute public welfare undertaking, and how to improve the operational capacity of green finance and the efficiency of supporting green industries is a key research issue. The use of legal and economic research methods is most appropriate for addressing key issues such as legislative hierarchy, unclear powers and responsibilities, and lack of reward and punishment mechanisms. Therefore, this article will use the research methods of operation and economics, based on the "Coase Law" and combined with transaction cost theory, to analyze using the Kaldor Hits efficiency standard, and provide reasonable suggestions for the efficiency of the green finance system and the desired resource allocation.

## I. Current Situation and Problems of Green Finance

Green finance refers to financial institutions that consider green concepts in their business processes, focus on environmental protection and pollution prevention, and support the development of green industries while balancing fairness and efficiency. National green finance activities guide social capital to flow into green industries, achieve positive externalities, and promote coordinated development of the economic environment. Therefore, green finance has put forward new requirements for financial institutions when investing, such as considering environmental factors in decision-making, increasing the implementation cost of pollution projects, and also considering environmental factors in risk control.

Therefore, green finance has the following characteristics. The first point is that green finance focuses on ecological benefits. By changing the operating costs of environmentally friendly enterprises, regulating their entry and exit through market economy mechanisms, and guiding enterprises to consciously pay attention to the impact of their economic activities on the environment, colleagues who change their business paradigm can achieve the optimization of the economic structure of the entire society and promote sustainable development. The second point is to balance economic efficiency. Unlike previous environmental policies, they do not solely use administrative and legal means, but instead choose more efficient methods to assist in optimizing industrial structure, achieving coordinated development of the economy and environment, and advocating for society to pursue economic efficiency improvement while paying attention to environmental protection. The third point is the need for policy support. The environment belongs to public goods, while institutions such as commercial banks belong to for-profit institutions. Therefore, considering the low profit return rate and high initial investment costs of the green industry in the short term, commercial banks do not have the motivation to provide financial

services to the green industry. Therefore, the development of green finance must be supported by government policies. The subsidies, tax reductions, and other policies provided by the government are conventional external internalization measures that can compensate for the profit losses of financial institutions in promoting green finance, and guide the green industry of capital finance.

Developing countries are in a backward position in the development of green finance, but with the encouragement and support of government policies and documents, they have achieved certain results with their latecomer advantages. The framework of green finance is gradually improving, with an increase in the number and types of green finance products, and an increasing trend in the number of green loans. Nevertheless, there are still many shortcomings in the development of green finance.

### 1.1 Weak legal foundation

The green finance legislation in developing countries is still developing, but it has not been able to achieve a complete green finance system. For example, in the field of green finance legislation in China, relevant policies are mostly issued by the State Council and are mostly scattered suggestions, lacking the specialized green finance law formulated by the highest authority of the country. Considering that the development of green finance requires policy support, and from the perspectives of law and economics, it is necessary to cooperate with laws with clear organization and clear responsibilities in order to achieve the desired balance between fairness and efficiency that green finance aims to achieve.

### 1.2 Unclear responsibilities

Because financial institutions often aim for profitability, even with green finance initiatives, banks still choose to extend loans to environmentally hazardous enterprises. Although Chinese legal documents emphasize the need for banks to conduct credit process audits, the lack of clear punishment and reward plans makes it difficult to achieve the desired results. And it is difficult to determine who the polluted ecological environment belongs to for behaviors related to negative externalities. It is even more difficult to promote the development of green finance when the rights and responsibilities are unclear.

## **II. Introduction and Application of Law and Economics**

Law and economics, as an interdisciplinary discipline founded in 1960, aim to use the analytical framework of economics to discuss legal issues. The economy will pursue benefits under the guidance of the "invisible hand", but its means and methods are difficult to control. The refinement of legal work can effectively prevent such situations. Therefore, the disciplines of law and economics have developed.

According to Posner (1997), law and economics are disciplines that comprehensively apply the theoretical and empirical methods of economics to the analysis of legal systems. Based on "personal rationality" and measured by "efficiency". The main analysis method is the "cost benefit" analysis method. At the practical application level, there are three theories that are most important.

### 2.1 Coase theorem

Coase (1959) proposed that the problem of mutual interference should be solved by clarifying property rights and market transactions. Specifically, if there are no transaction costs, then any initial allocation plan will not affect social welfare. However, transaction costs are common in reality, where initial property rights affect social welfare, and adjustments require costs. Therefore, if a law is effective, defining property rights and constraining the behavior of the subject, society will produce more efficient improvements.

### 2.2 Transaction Cost Theory

Transaction cost is the core of law and economics, including the cost of obtaining information, the cost of negotiation, and the cost of marketization uncertainty. Meanwhile, Arrow (1969) proposed to define transaction costs using the operating costs of economic systems. The new concept of transaction cost includes the formulation, implementation, supervision, and transformation of the system itself. Based on this theoretical foundation, a good system from the perspectives of law and economics will significantly reduce transaction costs, thereby affecting the efficiency of resource allocation and promoting the development of green finance.

### 2.3 Kaldor-Hits efficiency

Kaldor (1939) proposed that the only standard for measuring social welfare is the "virtual compensation principle". Hicks proposed the "principle of long-term natural compensation" based on his foundation. Improved Kaldor's virtual compensation, believing that any improvement in society is efficient as long as the benefits increased by the beneficiaries outweigh the benefits reduced by the beneficiaries. This is Kaldor Hits efficiency. In the traditional perspective of welfare economics, Pareto improvement requires that no one's interests in society

are harmed, and this prerequisite is too harsh. Therefore, Kaldor Hits efficiency is more in line with the reality. However, there is also a flaw in this theory itself, which is whether the beneficiaries will compensate the beneficiaries in the long run. Therefore, policy support from a legal perspective is even more important.

### **III. The Application of Law and Economics in Green Finance**

Combining the problems faced by green finance in China mentioned earlier, as well as the application of law and economics. This article will be based on the Coase theorem and analyze from the perspective of "cost benefit" in conjunction with reality, based on the Kaldor Hits efficiency theory.

According to Coase's theorem, there are transaction costs in reality, and the initial state of resources and equity is not easily changed. Therefore, if we hope to improve the welfare of society, such as through green finance to optimize the environment, we need to minimize transaction costs as much as possible. According to the cost-benefit theory, if society wants change, it needs to consider whether the cost of change exceeds the benefits. Considering that green finance is essentially a public good, the public can enjoy the benefits brought by green finance, but no one is willing to bear the costs alone, thus requiring the support of the government and the rule of law. From the perspectives of law and economics, the main costs of green finance include legislation, law enforcement, and compliance. They represent the total amount of resources consumed in these three stages. From a revenue perspective, green finance has increased social welfare.

Therefore, from the perspectives of law and economics, the development of green finance cannot be achieved without the support of laws and policies. With the support of legal policies, transaction costs will be reduced, which in turn affects the execution of decisions. At the same time, if there are long-term economic boosting measures, it can provide a good way for the party with damaged interests to improve their utility in the short term. This improvement is in line with the Kaldor Hits efficiency theory and will also comply with the Pareto improvement after a period of time.

### **IV. Conclusion and Suggestions**

Based on the above analysis of green finance and the application of law and economics, summarize the actual situation and propose suggestions.

The development foundation of green finance in developing countries is relatively weak, and the economy also relies heavily on industry, which has constraints on the development of green finance. But at this stage, if green finance can be used to boost the green economy, the environmental improvement effect will be very significant. This article analyzes from the perspectives of law and economics, and there are mainly two aspects to promote green finance. Firstly, it is to reduce various transaction costs and promote the implementation of green finance methods with lower transaction costs. Secondly, it is to ensure the interests of all parties in the process and provide appropriate compensation for the damaged parties. Therefore, two suggestions are proposed based on the conclusion.

#### **4.1 System optimization**

In order to reduce transaction costs and improve the development speed of green finance, optimization should be carried out from an institutional perspective. If we should establish a sound and complete green certification system, conduct audits through credit rating to ensure openness and fairness in the certification process. Identify false green industries and eliminate the phenomenon of free riding. At the same time, appropriate incentive plans should be developed, such as tax reduction, franchise rights, honors, etc. By compensating for the green industry in this way, resources are driven to flow towards the green industry. From a financial perspective, it is also necessary to establish a green finance index, develop related derivatives, and guide investors to make reasonable investments in green industries. And relevant infrastructure should be supplemented, such as regulatory agencies and emission trading markets. This approach can reduce the costs of related enterprises and promote the willingness of all parties to develop green finance through the redistribution of benefits.

#### **4.2 Legal Improvement**

Currently, laws related to green finance are still in a relatively scarce state, so it is necessary to establish a basic law for green finance. The Basic Law should be based on the Constitution, with published and implemented policy documents as the main content, combined with social background and needs, and supplemented with new content. Improve the legal system related to green finance, including specific legal provisions in areas such as green certification review, green credit, green securities, and green insurance. Reasonable regulation of the green finance field through legislative means, severe punishment of illegal enterprises, increased pollution costs, and legal means to safeguard the interests of the environmental protection industry.

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