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Economic System Reform and Green Industry Development: China Perspective in the Context of Globalization

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Abstract: The relationship between economic system reform and green industry development is becoming increasingly intertwined in the context of economic globalization. As a nation that has rapidly advanced its green industry with notable achievements, China's experience offers valuable insights for the global green transformation. This paper, through the analysis of practical cases, concludes that the development of green industries and the implementation of corresponding policies exhibit a mutually reinforcing relationship. However, China's experience also highlights a series of challenges that arise during the process of economic greening, both in terms of industrial development and policy formulation. These derivative issues provide important lessons for other nations striving to align their economic systems with the global trend towards green transformation. China's approach not only offers a reference point for policy development and strategic direction but also underscores its significant contribution to global green development. By adapting these insights, countries worldwide can better navigate the complexities of economic reform and green industry growth within the broader framework of globalization.

Keywords: Green Industry Development, Economic System, Globalization.

1. Introduction

1.1. Research Background

In the context of global development, high-quality economic development is the common development goal pursued by all countries in the world. For developed countries with a certain development foundation and some well-developed developing countries, the high quality and sustainability of development have become the key factors of industrial development beyond development itself.

However, due to their inherent technological and trade disadvantages, developing countries have long been engaged in non-technology-intensive industries at the bottom of the global industrial chain [1]. This unequal situation presented by economic globalization has brought many economic and ecological consequences to a vast number of developing countries [1]. In addition, rapid industrialization has caused serious environmental pollution in many countries. Therefore, the development of green industries will significantly mitigate this consequence and enhance the economic sustainability of developing countries.

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As a developing country at the forefront of global development, China has focused on supporting the development of green industries in recent years. Its current development results cannot be separated from the continuous institutional reform and evolution in line with its own economic conditions. This paper takes China as a case, analyzes the specific impact and economic benefits of its system on the development of green industry, and provides reform experience and theoretical basis for developing countries.

1.2. Literature Review

In recent years, the relationship between economic system reform and green industry development under the background of globalization has attracted much attention from the academic circle. Liang analyzed the impact of institutions on green development based on the theory of new institutional economics [2]. Moreover, Wu found a relationship between the economic system, the traditional energy industry, and other industries [3]. In addition, Zhang & Lei have found out through empirical research that the green industry policy implemented by the government has a positive impact on the development of enterprises by promoting technological innovation [4]. Li, Zhang, and Jiang took China as a case to analyze the development concepts and specific problems of the country's green industry development and its policies and put forward relevant policy formulation suggestions [5]. All these studies provide the theoretical basis for this paper. At the same time, Shahbaz clarified that economic globalization has a positive impact on energy diversification. Shahbaz's research inspired the author to think deeply about the development trend of the energy industry under the background of globalization and conduct relevant exploration [6].

1.3. Research Gap

In past academic research, most scholars mainly studied the policy concept or system of green development and focused on the evaluation, reflection, and analysis of existing policies. In contrast, only a few scholars have paid attention to the impact of economic system reform on the development of green industries. There is less analysis of the green industry and its policies from the perspective of globalization. Therefore, on the basis of previous theories, this paper analyzes the relationship between economic system reform and green industry from the perspective of China under the background of globalization.

1.4. Research Framework

Based on the existing conclusions, this paper aims to supplement the relatively blank research field with a relatively diversified and conforming to the development trend.

First, this article will analyze the direction and focus of the reform of China's economic system under the development pattern of globalization based on the world economy. Secondly, summarize the status quo and trend of green industry development. Then, according to the implementation effect of China's relevant policies and examples of green industry development, the relationship between the two is analyzed. For example, the impact of economic system reform focuses on the development of green industries, the reaction of the market to policies, and so on. After that, the specific cases are summarized, and policy recommendations are made. It provides reference and basic ideas for the future policy formulation and development direction of many developing countries.

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2. Case Description

Under the background of globalization, China presents a unique Chinese perspective in the reform of the economic system and the development of the green industry. The two advanced synergistically and integrated closely.

First of all, from the perspective of economic system reform, technological breakthroughs to promote industrial sustainability are the core of economic system reform for green industries [5]. In recent years, the Chinese government has continued to deepen reform and strive to build an open and inclusive green economic system. Due to China's political system, social reality, and historical factors, the country's economic system changes are highly self-revolutionary and exploratory [7]. Besides, as the traditional core policies of development in the past no longer meet the needs of today's green development, China has gradually made corresponding adjustments [5]. China has effectively promoted the development of green industries through the implementation of a series of policies, such as the construction of carbon trading markets and green finance policy support. In addition, the market environment of the green industry is constantly optimized through government actions.

Secondly, from the perspective of green industry development, the development trend within China has shown vigorous vitality. In the new energy, circular economy, environmental protection, and other fields, there is certain international competitiveness, and the company's technological innovation ability and popularity are continuing to expand. At the same time, China is committed to developing the related industrial chain of green industries and has invested a lot in the transformation and upgrading of industrial structures and sustainable development. The actual evolution of the development of the green industry also continuously affects policy adjustment. The government constantly corrects the market externalities to stabilize the green industry market and avoid market failure [5].

In general, the two aspects mentioned above influence each other and coordinate adjustment and progress. On the one hand, the economic transformation provides the institutional foundation and basic support for the development of green industry. On the other hand, the development of the green industry also reacts to the further optimization and improvement of the economic system. This is a virtuous circle, contributing Chinese wisdom and strength to the vigorous development of the global green economy.

3. Analysis on the Problem

The content of the 20th National Congress of the Communist Party of China has deeply integrated green development and green concepts into industrial development [8]. Many meetings have pointed out that economic system reform is the focus of comprehensively deepening reform, and the role of the market should be elevated to "decisive" rather than "fundamental" [9]. With the globalization of the economy, the rise of the green industry has become a common development trend. It is also an ongoing attempt in China and internationally to change the policy goal orientation of simply pursuing GDP growth [8].

The focus of China's industrial development in recent years is to optimize the allocation of resources, accelerate the transformation of traditional industries, and promote the vigorous development of emerging industries. Relatively low carbon and low pollution green industries are highly supported by government policies. China's seven departments, including industry and information technology, have issued documents proposing to accelerate the improvement of low-carbon systems and promote the green development of manufacturing [10]. It has also set a policy target of 40% of the total manufacturing output value of green factories by 2030 [10].

In the following, the author will specifically analyze several cases of China's green industry development.

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3.1. Influence Identified of New Energy Vehicle Industry

In the context of global climate change and energy transition, China, as the world's largest automobile market, has shown a very positive attitude in promoting the development of the new energy automobile industry. This development aims to reduce dependence on traditional fossil fuels, lower carbon emissions, and achieve a green transformation in the automotive industry.

3.1.1. Support for Economic System Change

First of all, the Chinese government has issued preferential policies for new energy vehicles, such as car purchase subsidies and exemption from purchase taxes. This greatly reduces the cost of consumers in the consumer market, enhances the willingness of consumers to buy the product, and promotes the improvement of market demand. In the series of new energy vehicle policies issued by The State Council in the first half of 2023, the purchase and use policy of new energy has been optimized. The Chinese government imposes a vehicle purchase tax on new-energy vehicles purchased within a certain period of time by half. From January 2012 to June 2023, a total of more than 10 billion yuan of new energy vehicle and vessel taxes were reduced, of which 860 million yuan was reduced in the first half of 2023, an increase of 41.2% [11].

Secondly, the policy points out that it is necessary to build a high-quality charging infrastructure system, improve the coverage and layout of charging facilities, and create high-quality industrial development guarantees. Promote the automobile charging pile to form a broad and reasonable layout network. Solve the charging problem for new energy vehicle consumers so as to promote consumption.

In addition, the Chinese government has implemented a dual-point policy for new energy vehicle enterprises. This policy encourages enterprises to increase investment in the research and development of energy-saving technology for fuel vehicles and actively promote the expansion of the production scale of new energy vehicles. Promote the transformation and upgrading of more traditional automobile enterprises. Studies have shown that the dual-point policy can also effectively promote other industries in the industrial chain (such as battery suppliers, etc.) to invest in R&D and improve the level of innovation [12]. Expanding the market demand for new energy also increases the price and income of related products and improves the profits of supply chain members. It has effectively promoted the coordinated development of the industrial chain [12].

3.1.2. Industrial development status

With the strong support of government policies, China's new energy vehicle production and sales have ranked first in the world for many consecutive years.

Table 1: Production and Sales of New Energy Vehicles in China, 2020-2023 [13]

Year	Yield	Sales
2020	1.366M	1.367M
2021	3.545M	3.521M
2022	7.058M	6.887M
2023	9.587M	9.455M

From the data in Table 1, it can be seen that from 2020 to 2023, the production and sales volume of China's new energy vehicles shows an increasing trend year by year, with good industrial development prospects and huge development potential. According to statistics from the China Association of Automobile Manufacturers, China's annual sales of new energy vehicles in 2022

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reached 6.887 million, with a market share of 25.6%, 12.1 percentage points higher than the previous year, and global sales accounted for more than 60%.

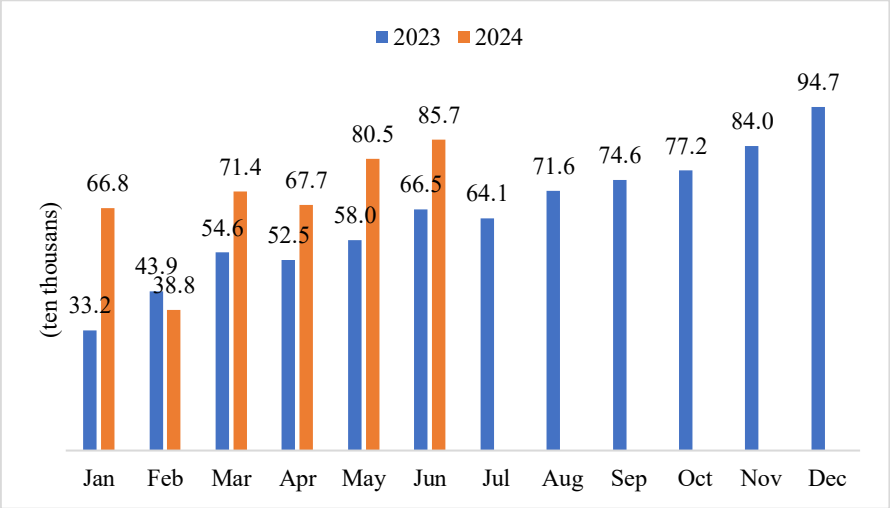

Figure 1: The Monthly Sales Volume of NEVs in China from 2023 to the First Half of 2024 [13].

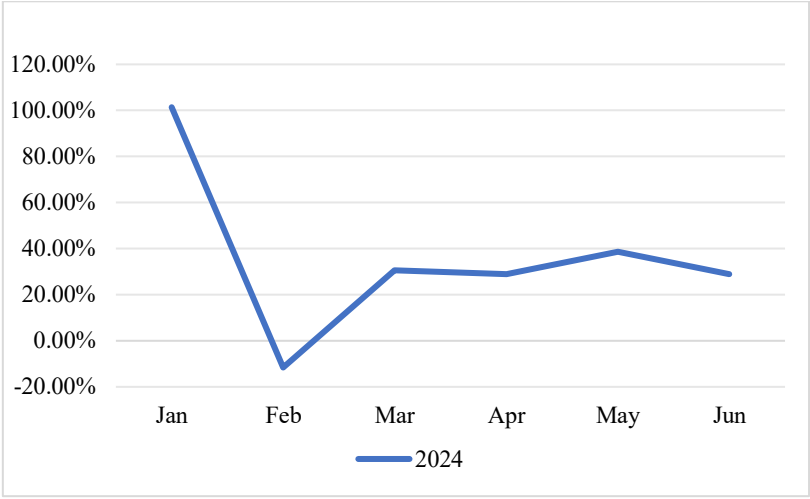

Figure 2: The Year-on-year Growth Rate of Monthly Sales of New Energy Vehicles in China in the First Half of 2024 [13].

Figure 1 shows the monthly sales volume of NEVs in China from 2023 to the first half of 2024. Figure 2 shows the year-on-year growth rate of monthly sales of new energy vehicles in China in the first half of 2024. Combined with the data from the two charts above, the development status of new energy vehicles in China is generally good. The government's policy support for the industry has effectively increased market demand and promoted the development of the industry.

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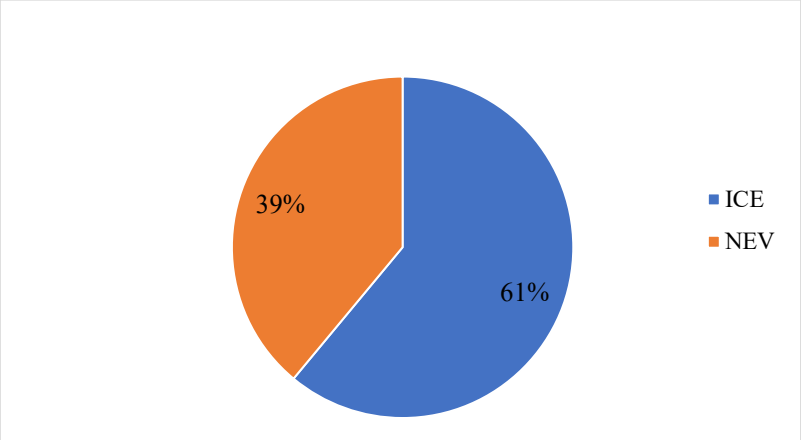

Figure 3: Sales Ratio of ICE and NEV in China in the First Half of 2024 [13]

As can be seen from Figure 3, although the sales proportion of new energy vehicles in China's automobile market is lower than that of Internal Combustion Engine, the sales market share of 39% is already considerable data for an emerging industry. Emerging industries such as new energy vehicles have unlimited potential, which does not eliminate them in such a huge and highly competitive country as China.

3.2. International Field and Global Perspective: Green Partnership between China and Germany

The Green partnership between China and Germany has been advancing cooperation since the signing of the Agreement on Environmental Protection Cooperation in 1994. For example, under the framework of China-Germany energy efficiency cooperation, the China-Germany demonstration project on energy conservation in urbanization will be implemented. At the first high-level dialogue of the China-Germany Dialogue and Cooperation Mechanism on Climate Change and Green Transition held on June 22, 2024, further green cooperation was reached, including the establishment of cooperation between provinces and states and the formulation of the work plan of the China-Germany Energy Efficiency Cooperation Group [14]. In a series of relevant cooperation, both sides are benefiting from various aspects of development. The two sides have jointly developed a circular economy, conducted cooperation on energy-saving technologies, and achieved fruitful results in low-carbon development, such as industrial carbon reduction and energy transformation. Under the green cooperation between the two countries, both sides have made significant contributions to the global response to climate change and sustainable development [14].

3.3. Problem Identified Analysis

3.3.1. Support Policies are not Flexible Enough

In the green industry policy, the government often provides policy support and economic subsidies for the development of enterprises with uniform standards. However, the development status of the green industry has individual differences, and the development direction and stage between different industries and enterprises are not completely equal. Therefore, uniform policy support does not necessarily have a consistent effect on all enterprises. Its promoting effect on development is quite different. The enterprises whose policies are perfect enough to fill their own shortcomings will achieve rapid development, while the rest of the enterprises will open the gap with the former to varying degrees, leading to the development imbalance between and within the industry. This will

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break the fairness of the market, thus reducing the efficiency of resource allocation, damaging the interests of consumers, and causing social problems and other negative effects.

3.3.2. Defining the Scope of Policy Coverage

The positioning of the green industry by the government and market departments may be different from the actual list of sustainable development industries. Some marginalized green industries may be excluded from the list, while some marginalized non-green industries may be included in the list. The division of some more marginalized industries, such as the high-tech industry, artificial intelligence industry, and cultural industry, may affect the implementation of the policy. Unclear or unfair positioning and division may result in international or inter-industry inequity.

3.3.3. Impact on the Development of Traditional Industries

The government's support for green industries will, to a certain extent, lead to a decline in the income of traditional industries. Due to the vigorous development of green industries, the market share of traditional industries of the same type will be reduced to varying degrees. Consumers' preference for products produced by green industries increases, thus reducing their preference for and consumption of goods from traditional industries. This will cause market instability to a certain extent and may seriously lead to the collapse of enterprises with difficulties in the development of traditional industries, resulting in the rise of unemployment.

4. Suggestions

4.1. Policy Flexibility

4.1.1. Differentiated Policy Support

The government can make differentiated policy adjustments and economic subsidies according to the specific development stage and individual differences of different green industries. For example, the tax share and the amount of economic subsidies should be set in steps according to the stage of industrial development or the amount of annual profits. So that enterprises or industries in the early stage of industrial development can get more policy and economic support and consolidate the foundation for development. For industries with a certain level of development, deeper support can be implemented. For example, the construction of the industrial chain expands the market and other aspects of deepening its policy effectiveness.

4.1.2. Set the Dynamic Adjustment Mechanism

Government departments can dynamically evaluate the development status of various green industries by establishing real-time market monitoring. Provide real-time feedback on market conditions and industry developments through data or visualization. To ensure the flexibility and fairness of policy implementation, it also enables government support to maximize the effective effect on various industries and enterprises. More importantly, this mechanism will create a fair market competition environment and reduce the phenomenon of some enterprises exploiting the system. We will further strengthen the balance of development and the rationality of resource allocation.

4.2. Clear Positioning of Green Industry

First of all, the relevant departments should further clarify the specific positioning of each industry and give a green industry classification standard that is unified with the international standard.

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Secondly, the list of green industries should be updated in real-time according to the actual development trend and market demand of green industries to ensure the timeliness of the policy. Moreover, relatively marginalized green industries that meet the criteria should be actively included in the list, while those industries that no longer meet the criteria should be excluded. This approach can enable the industry to develop more fully and fairly and reduce the negative influence factors of policy implementation.

4.3. Traditional Industries Correlation

4.3.1. Transformation and Upgrading of Traditional Industries

At the same time as the development of green industries, the development of traditional industries cannot be ignored both internally and internationally. While promoting the development of the green industrial chain, the transformation and upgrading of traditional industries should be supported and encouraged. Similar to green industry policies, traditional industries can be provided with specialized policy economic and technical support. On the basis of the original, to encourage its green transformation and technological innovation, it effectively enhances its market competitiveness.

4.3.2. Transitional Protection Policy

For traditional industries, giving some transitional protection policies can make them gradually transition to the green process to get a certain market buffer. This can reduce the social instability brought by market fluctuations. In addition, relevant departments can provide some enterprise development training and technical support in industrial transformation and upgrading, giving traditional industries more diversified transformation possibilities. Furthermore, we should actively deal with the wave of unemployment caused by the rise of green industries and the decline of traditional industries. Re-employment training and re-employment policy support can be provided to unemployed workers or employees to help them make the career transition. Such preferential policies not only reduce the social risk of unemployment but also reduce the social unemployment rate.

5. Conclusion

5.1. Key Findings

Under the background of globalization, the relationship between the reform of the economic system and the development of green industry is increasingly close. Through an in-depth analysis of the Chinese perspective of economic system reform and green industry development, it can be found that there is a positive interaction between the two. At the same time as their own development, the two also play a vital role in promoting further optimization and improvement on the other side. Two case studies on the development of the new energy automobile industry and China-Germany green cooperation strongly support the above conclusions. At the same time, the flexibility of the green industry policy, the industrial positioning, and the impact on the traditional industry are all realistic problems in the development and implementation of the green industry. Therefore, differentiated policy support, dynamic adjustment mechanisms, clear industrial positioning, and the promotion of the green transformation of traditional industries are necessary concerns in the process of developing a green economy.

5.2. Research Significance

The research of this paper deeply analyzes the hidden problems and social risks in the development of a green economy and related policies. This provides important experience and development ideas

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for developing countries that are facing or will soon face a green transition. It can also greatly reduce the number of similar economic or social problems in other countries during the transition process. On the other hand, China's experience also shows that the positive interaction between economic system reform and green industry development can contribute to the vigorous development of the global green economy.

5.3. Limitations

However, this study has some limitations. First of all, most of the data and policy-related data collected by the research come from the recent five years and are mostly secondary data, which may lack the collection and research of early development data. It mainly refers to the relevant research methods and conclusions of Chinese scholars and has relatively little reference to the research results and research methods of other countries. In future studies, the author will pay more attention to international research results and methods, combine more early data, and conduct more surveys and interviews to obtain first-hand data, as well as further access to international perspectives and more comprehensive research.

References

[1] *Zhou, W. (2024). Building a Community with a Shared Future for Mankind: A Chinese proposal for Promoting New Economic Globalization. National Governance (06), 2-6.*

[2] *Liang, Y. C. (2023). Institutional analysis of China's green development and construction of institutional indicators. Chinese Collective Economy (02), 82-86.*

[3] *Wu, J. J. (2018). Analysis on the relationship between economic system reform and economic benefits of coal enterprises. Modern industrial economy and Informatization (04).*

[4] *Zhang, W.Y., Lei, L. (2023). Government behavior incentive, Green Industry Policy and Enterprise technological innovation. Technical Economics and Management Research (05), 96-101.*

[5] *Li, X.P., Zhang, Y.J., Jiang, F.T. (2019). Green Industrial Policy: Theoretical evolution and Practice in China. Research in Economics and Economics (08), 4-27.*

[6] *Shahbaz, M. (2024). Economic Globalization-Energy Diversification Nexus and Implications for Environmental Management in China. PubMed, 360(121174).*

[7] *Zhang, D.G. (2022). The logic of economic institutional change and the reform of China's economic system. Academic Monthly (01), 58-67.*

[8] *Zhu, C.H., Ma, T. (2011). Research on development effect evaluation of regional green industry. Research in Economics and Management (03), 64-70.*

[9] *Xie, X.Y., Yan, F.J., Zhou, Y. (2024) Injecting strong impetus into promoting high-quality development: A review of economic reform achievements since the Third Plenary Session of the 18th CPC Central Committee. Xinhua net. Retrieved from http://www.news.cn/politics/20240626/16c3bf8f49d84662a80da4ed11ab424d/c.html*

[10] *Wang, Y. Y., Zhang, X. X. (2024). China aims to make the output value of green factories account for more than 40% of the total output value of manufacturing in 2030. Xinhua net. Retrieved from http:// www.news.cn/20240301/ eaeacec3ce044164bdebd7d28fe9eecd/c.html*

[11] *Ma, Y. (2024). Analysis of new energy automobile industry from the perspective of fiscal and taxation policies. Hebei Enterprise (07), 107-109.*

[12] *Zhu, X.Q., Luo, L., Lu, Z.P., Quan, J.R. (2023). Research on the impact of "double integral" policy on R&D input of new energy vehicle supply chain. Journal of Guangxi Vocational and Technical College (04), 1-13.*

[13] *(2024). CPCA. statistics. Retrieved from http://data.cpcadata.com/TotalMarket*

[14] *Liu, Y.Y. (2024). China and Germany will cooperate on climate change and green transformation. Science and technology journal. Retrieved from http://digitalpaper.stdaily.com/http_www.kjrb.com/kjrb/html/2024-06/28/ content_573790.htm?div=-1*