

Strategies and Optimization Analysis of International Trade Development in the Context of Low-carbon Economy

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Abstract

In today's world, with continuous economic development and technological progress and innovation, this has led to the emergence of global ecological problems. The problem of carbon emissions exceeding standards urgently needs to be solved. How to achieve a dual balance between economic and ecological benefits has become a difficult problem that domestic and foreign scholars urgently need to solve. In this context, the term Low-carbon economy came into being. This paper focuses on international trade, explores the relationship between Low-carbon economy and its influencing factors, and puts forward strategies for optimizing international trade under the development of Low-carbon economy.

Keywords

Low-carbon Economy; International Trade; Optimization Strategy.

1. Introduction

The term "Low-carbon economy" is an inevitable outcome of the economic development of human society to a certain stage. It represents the transformation of economic upgrading in various countries from a simple profit oriented and revenue oriented to an ecological oriented and win-win oriented. It reflects the measurement standards and development direction of governments around the world for people to live and work in peace and contentment. It will bring about a huge reform and innovation covering all walks of life in the world.

The development of Low-carbon economy has put forward basic requirements and codes of conduct for governments, foreign trade enterprises, social individuals, etc. Through putting forward major requirements for technology, trade, industry, etc., the "Low-carbon economy" with "low carbon, low energy consumption and low pollution" as the core development essence has started a battle in many countries starting from developed countries in Europe and the United States, and will have a far-reaching impact on the world's green and sustainable development.

On this basis, taking the development of international trade in various countries around the world as the research object and foreign trade enterprises as the entry point, exploring the impact of low-carbon background on China's international trade development, the requirements for international trade enterprises, and possible development paths and strategies is a hot topic of concern for many domestic and foreign scholars.

2. Noun Analysis

2.1. Low-carbon Economy

Low-carbon economy is a new economic form that has sprung up at the right time following the transformation of human society from agricultural civilization to industrial civilization. It is to solve the existing global warming, acid rain, waste gas pollution, serious natural environment

damage and other problems in the world today through the rational use of old energy and the rational development of new energy.

Specifically, guided by the concept of sustainable development, we aim to reduce energy consumption and unreasonable utilization through technological innovation, industrial transformation, and other means, further reducing greenhouse gas emissions such as carbon dioxide, in order to achieve the development requirements of win-win economic and ecological benefits[1]. It was first proposed by the British government in 2003 and has become an urgent economic form for countries around the world to develop and form in just 20 years.

2.2. International Trade

International trade refers to goods and services transactions across borders, including Import and export trade, so it is also called import and export trade. Import and export trade is an important component of a country's trade development. According to the theory of resource endowment, the initial production of import and export trade originates from the differences in the quantity of production factors between countries. Production factors tend to shift from countries with abundant resources to countries with scarce resources, resulting in cross-border transactions.

The import and export of these products and services all follow this theory. Through international trade, the production factors of each country can flow internationally, and the resources of production factors worldwide can be fully utilized and distributed to the greatest extent, promoting economic activities between countries [2], and improving the income level and happiness index of domestic and foreign residents. In participating in international trade among countries around the world, we need to comprehensively consider differences in the needs of domestic and foreign people, policy impacts, changes in economic systems, and the form of trade between host countries.

3. Impact of Low-carbon Economy on International Trade Development

3.1. Promote the Transformation and Restructuring of Trade Structure

The rapid development of the economy has accelerated the acceleration and renewal of the international trade process, and the trade competition between regions has become increasingly fierce. The proposal of Low-carbon economy has provided a new reference path for multinational trade competition, and has gradually become an influential factor that cannot be ignored in import and export trade.

In the short term, the "Low-carbon economy" will bring many problems such as the increase of production costs of foreign trade enterprises, the prominence of technical barriers, and the difficulty of entering the host country. But in the long term, the emergence and development of the Low-carbon economy is in line with the inevitable trend of world economic development.

From the perspective of trade structure, according to the China Energy Statistical Yearbook, the proportion (%) of raw coal, crude oil, and natural gas in China's total energy production from 2011 to 2020 is shown in Figure 1. In the past ten years, the proportion of raw coal and crude oil in the total energy production has gradually declined, while the proportion of natural gas has gradually increased, from 4.3% in 2011 to 6.8% in 2020. It can be seen that China's traditional Primary energy production mining output has also changed to cleaner natural gas. Low carbon products in export trade have become the mainstream trend and become a new trend in the development of world foreign trade.

Table 1. The proportion of raw coal, crude oil, and natural gas in China's total energy production from 2012 to 2020

	2012	2013	2014	2015	2016	2017	2018	2019	2020
Total production of raw coal/energy(%)	81	80.4	79.2	78.2	76.7	76.6	76.6	76.2	75.4
Total crude oil/energy production(%)	9	8.9	9	9.2	9	8.4	7.9	7.6	7.6
Total natural gas/energy production(%)	4.4	4.7	5	5.2	5.7	6	6	6.3	6.8

3.2. Changed the International Trade Landscape

Firstly, the traditional international trade pattern is dominated by high carbon and low technology products, and has broad demand space. However, with the progress of the economy and technological innovation, the ecological problems caused by human economic activities have become increasingly serious, which has triggered an urgent demand for "low-carbon" products. Therefore, the "Low-carbon economy" has become a new measurement and pricing standard for international trade. Low carbon and low-energy products will replace the original international trade products in people's production and consumption and become the new mainstream trade products [3].

Second, the Low-carbon economy has also put forward new requirements for energy conservation and consumption reduction technologies of global international trade enterprises, and this trend will certainly drive the reset of regional trade patterns. Developed countries are the first to recognize the importance of Low-carbon economy and take measures. Their energy conservation and emission reduction technologies are also in the leading position in the world. Foreign trade enterprises in developing countries suffer from trade barriers for high-end products due to the lack of advanced technologies, and the regional trade pattern will tilt to high-tech regions.

3.3. Generate a Large Number of Low-carbon and New Energy Industries

The development of China's three industries has experienced the transition from the Primary sector of the economy to the Secondary sector of the economy and then to the Tertiary sector of the economy. The Primary sector of the economy, with Plantation, animal husbandry, forestry and other industries as its main industries, was once a necessary pillar for our people to survive. However, with the promotion of reform and opening up and cultural diversification, the proportion of the Primary sector of the economy has declined, and the Secondary sector of the economy, with industrial manufacturing as its main industry, has also highlighted many problems.

At this time, the Tertiary sector of the economy with service and technology as its core emerged and flourished. In foreign trade activities, "carbon" in the Tertiary sector of the economy has become particularly important, which has led to the development of low-carbon industries. China's carbon dioxide emissions have increased year by year in the past decade. It is urgent to pay attention to the Tertiary sector of the economy, scientific and technological progress and rational use of energy, so as to provide a solid guarantee for the healthy and green development of the Low-carbon economy.

4. Optimization of International Trade Development in the Context of Low Carbon

4.1. Improve Low-carbon Related Incentive Policies

At present, China is still in a developing country, with relevant technologies restricted by people, and relevant industries at the middle and low end of the industrial chain. Compared with

developed countries such as Europe and the United States, the importance of Low-carbon economy needs to be increased. But as carbon tariffs and carbon barriers gradually become global trade trends, we must attach importance to improving relevant incentive systems, guided by the concept of green, low-carbon, and sustainable development, introduce relevant policies [4], gradually promote the technological creativity and enthusiasm of enterprises, gradually improve the carbon content of products in China's import and export trade, enhance the export competitiveness of our products, promote green economic transformation, and improve people's quality of lives.

4.2. Optimize Trade Structure

When the trend of changes in the international trade structure and regional trade structure brought about by the Low-carbon economy is inevitable, we need to appropriately reduce the adverse impact of the decline in the trade structure, actively optimize the trade structure, reduce the impact of green trade barriers on international trade [5], and turn trade disadvantages into trade advantages.

China has a wide range of natural resources. In foreign trade, products from the Secondary sector of the economy and Tertiary sector of the economy are represented, and manufacturing in the Secondary sector of the economy is the most abundant. However, China's manufacturing industry is facing difficulties such as insufficient intensity and inaccurate accuracy. However, the continuous development of the global economy has put forward new requirements for the Tertiary sector of the economy. We need to pay attention to the development and support of the Tertiary sector of the economy, especially the energy, technology and low-carbon industries, break through the shackles of excessive exploitation of traditional Primary energy on foreign trade enterprises in international expansion, and promote the sound development of China's foreign trade cause.

4.3. Strengthening International Cooperation

Deepening regional and international cooperation on low-carbon emission reduction is an effective means to promote low-carbon technologies worldwide. Reducing carbon emissions is a common challenge facing the world. China actively participates in international exchanges on the world stage with an open attitude, promotes green friendly forums with the European Union, Japan, the United States and other developed countries, promotes international trade carbon emission standards and rules that meet the interests of all countries and low-carbon requirements, reduces the adverse effects caused by carbon content and carbon barriers Injecting green energy into trade exchanges between RCEP and other organizations, developing green trade, and promoting the process of global green and low-carbon trade.

5. Conclusion

At present, the global climate and ecological crisis is becoming more and more serious, and the Low-carbon economy is a tentative response to this by the economic society. Its essence is to require the economies of all countries in the world to reduce the unreasonable exploitation and utilization of high energy consuming resources such as fossil fuels, and instead seek cleaner and low-carbon energy utilization technologies and processing services. The Low-carbon economy is particularly evident in international trade. The Low-carbon economy has a significant impact on international trade, which will significantly change the pattern of import and export trade products and promote the development of more low-carbon, low energy consumption and high-tech industries. China needs to take a series of necessary measures to promote the construction of a more harmonious and orderly international trade environment.

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