

# A Low Carbon Economy on China's Export Trade of the Pros and Cons

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## Abstract:

With the development of world economy, low-carbon economy is quickly coming to us. The characteristics of low-carbon economy are low energy consumption, low pollution and low emissions, but most of China's exports are energy-consuming and high-polluting. These are all the long-term facts which hinder the development of low-carbon economy in China.

This article analyzed on China's trade scale, export commodity structure as well as the international competiveness of China in the background of low-carbon economic development using comparative method. The analysis leads to the suggestions.

## 1. Abstract of Low-carbon economy

Low-carbon economy virtually is a way to improve efficiency of energy utilization, to develop clean energy, to create clean energy structure and to seek green GDP. The core is concept of the fundamental transformation of energy technology and emission reduction technology innovation, industrial structure and system innovation and human survival and development. Can say, the development of low carbon economy is a field involving values, national interests, the production way of life of the global revolution.

"Low-carbon economy" is a kind of new economic concept, which was first proposed in 2003 by the British government, who released an energy white paper called "Our energy future: to create a low-carbon economy". The historical background of "Low carbon economy" is proposed is that the severe challenge of the global climate warming to human survival and development. The main measure of retarding global warming is to reduce carbon emissions, and to develop low carbon economy.

## 2. The development and present state of low-carbon economy

From 1951 to 2000, the developed nations, with about 20% of the world's population, exhausting greenhouse gases account for 77% of total emissions. They are the most important greenhouse gas emitters. Most developing countries all around the world, in which including china, the increasing of carbon dioxide are less than developed countries who released during 1951-2000 years. However, the European Union, Germany, Italy, Australia, the United States, Japan, and other countries have token several measures to transform economic growth pattern and reduce carbon emissions, which achieved good effects in recent years.



As the 2nd most carbon emissions country in the world, China is amenable to reduce carbon emissions and develop low carbon economy. In November 2004, the Chinese government promulgated the "Medium- and Long-Term Plan for Conserving Energy Resources ". In February 2005 and, China officially promulgated the "Renewable Energy Law of the People's Republic of China.

June 6 2007, China formulated the China national plan to respond to climate change ". By the end of 2009, China's first publicly announced emission reduction goals: to 2020 Chinese carbon emissions intensity than 2005 decreased by  $40\% \sim 45\%$ . In May 2010, the Chinese government issued the state council on further intensify efforts to ensure the realization of "Eleventh five-year plan" of energy saving and emission reduction target notice, fully shows that the Chinese government's determination to energy conservation and emissions reduction.

#### 3. The impacts of low-carbon economy on China's export trade influence

#### **3.1** Extent of export trade

Domestic emission regulation and measures, on China's export trade size bigger influence is possible future implementation of carbon tax policy. Blind a carbon tax will increase the cost of the enterprise. On the other hand, the improvement of enterprise cost will eventually make products export in price lose competitiveness, thus affect China's export trade scale. In addition, as developing countries, especially China's carbon emissions, increasing the "Kyoto Protocol" entered into force, the developing countries to determine the emissions reduction responsibility, China's trade scale will also affected.

Comprehensive speaking, the short term, China's trade scale reduction regulation and measures at home and abroad, and the influence of trade scale will reduce; on long turns, the export scale will increase.

#### **3.2 Export commodity structure**

According to the standard international trade classification method is the third revision SITC Rve. 3 classification standards, the products were divided into 10 categories, as is shown in table 1.



STICO	Food and live animals	STIC5	Chemical products and related products
STIC1	Drink and smoke class	STIC6	According to the raw material classification of manufactured goods
STIC2	Non-food raw materials (fuel except)	STIC7	Machinery and transport equipment
STIC3	Mineral raw materials, oil and related raw materials	STIC8	Miscellaneous products
STIC4	Animal and plant oil and wax	STIC9	Unclassified products

Source: according to the Chinese statistics yearbook finishing

The development of low carbon economy will change China export commodity structure. The long term, high energy consumption, environmental pollution own products in the export commodity structure proportion in decline, low energy consumption, low pollution, low carbon production to expand export increase in export structure, the proportion of the growing; Export commodity structure increasingly by the resource intensive, mainly labor-intensive to technology-intensive and knowledge-intensive transformation. In a word, the development of low carbon economy will optimize China's export commodity structure, and make China's export products in the international market more competitive.

#### 3.3 International competitiveness

First, the internalization of environment cost has improved the production cost and product price. The strength of the environmental protection, the low carbon standard is higher, cost and price increase of the corresponding high.

Second, a low carbon economy by stimulating technology innovation, make the production efficiency, to a certain extent reduce the production cost and product price. Because of technical innovation behavior generation existence period effect and strength effect, the cost and price increase offset function in general long-term will appear.

Third, the macro aspect, due to the low carbon economy implementation will affect the price of the product, the price chain transfer effect and affect the whole society's price level and the level of consumption, to the whole of the macro economy will bring a certain degree of adverse effect. And, the adverse effect of the short-term effect than long-term effect. But if the government supports, the industrial complementary factors into account, the effect would be very weak.



Fourth, the general view, production industry is higher than any other industry, the low carbon economy in terms of the influence of the industry is larger, the output will have varying degrees of decline.

Fifth, low carbon economy will influence the level of the country's foreign trade. If the country is to adopt the new trade protectionism and in turn will weaken the adverse effect. Whether in the short or long term, high in our country the international competition ability of the product is falling; Low carbon products in the short term because of the limitation of the technology innovation, trade competitiveness change is not big, but in the long term, due to technical progress, low carbon products trade competitiveness will be improved.

#### 4. Countermeasure and suggestion

#### 4.1 The government drew out the policy and improved the legal system

Of China's sustainable development policy, planning to sift, low carbon economy as an important content of the related policy, from the economic policy, industrial policy, fiscal policy, environmental policy, trade policy and the policy of science and technology in all support low carbon economic development. Make full use of market this "invisible hand" to promote the low carbon economic development.

# **4.2** Change export growth models for china increase grow and Optimizing and upgrading industrial structures

To seek the sustainable development of the export trade, China must change the past "high investment, high pollution, high emission and low output" export growth way, takes a technology content high, the economic efficiency is high, low resources consumption, little environmental pollution, the human resources superiority obtains the full display the new road to industrialization. Adjustment of industrial structure, the development of low carbon economy is the important way. The developed countries of modern service industry in the proportion of GDP is as high as 60% ~ 70%, China's modern service industry has a lot of will to rise, and services has low energy consumption, low pollution characteristics, therefore, the development of service industry and so on has the characteristics of low carbon industry on China's export trade and economic development has a very important role.

# **4.3** Research and Development of Virtual Assembly Technique of low carbon and improve the international competitiveness

In order to strengthen our country in low carbon economic and technical aspects of the international competitiveness, first of all, to enhance their ability of independent innovation, and increase in low carbon development road suitable for the technical research and development strength; Perfect human capital development, strengthen personnel training and talent base construction, for renewable energy development to provide talent support and reserve; Constructing carbon financial service system, support the energy technology innovation. Carbon finance is based on carbon trading derivatives financial services, including direct investment, financing, carbon index trading and bank loans, etc. At present our country commercial bank in this trial implementation effect is good.



In strengthen the independent innovation ability of our country at the same time, to strengthen our country's technology absorption capacity. Pay attention to outside capital and the introduction of advanced technology, to make up for the development of our country's low carbon economy, transforming export trade growth mode in the capital, and the lack of technology.

# 4.4 Continue to play an active role in the international arena and maintains close contact with its international partners.

China's development of low carbon economy should actively participate in international affairs and strengthen the publicity. In the meeting of leaders, international conferences and other occasions, and actively promote China to cope with climate change, the development of low carbon economic measures and achievements, improve the relevant international affairs in the leadership and to the international public opinion influence, for our export enterprise to gain the initiative, reduce the pressure of enterprise energy conservation and emission reduction, and enhance the competitiveness of their products. At the same time, our country should actively participate in international carbon trading for carbon trading in China, get rid of the initiative in international trade in a passive position, to prevent foreign by low carbon name set new green barriers and trade barriers, the establishment of early warning and rapid response mechanism, improve risk prevention mechanism.

In concluded, China should abandon the traditional "high investment, high pollution and low output" of the mode of economic development, out of a "low investment, low pollution, high out of the way, and promote the sustainable development of China's export trade.

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