

Research on Green Tax System Optimization under the Background of "Carbon Peak and Carbon Neutral"

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Abstract

China's "carbon peak, carbon neutral" strategy is an important embodiment of the development of green and low-carbon economy. The high consumption of traditional fossil energy, the immaturity of low-carbon technology and the large-scale growth of population will hinder the development of China's green economy to a certain extent. The fiscal and taxation policy is an important means of government regulation of market, due to the existing tax system of a tax on carbon emissions and the use of forest resources restrictive enough, encourage the development of low carbon tax preferential policies to promote sexual inadequacy, now in our country currently in view of the low carbon development carry out specific analysis on the deficiency of the green tax system, and puts forward related Suggestions.

Keywords

Carbon up to Peak; Low Carbon Economy; Demand Side; The Green Tax System.

1. Introduction

With the advent of the post-epidemic era, global climate issues and health issues are the two major problems in the current economic development. We are facing unprecedented challenges. It is an inevitable choice for all countries to jointly face environmental deterioration and develop a green and low-carbon economy together. After the "brown economy" of the industrial society, coal plays an indelible role in promoting economic development, but the excessive consumption of fossil energy and greenhouse gas emissions such as carbon dioxide seriously exceed the standard, resulting in a long-term linear decline in air quality and global warming. Countries around the world are gradually realizing that the climate problems such as the greenhouse effect seriously hinder the sustainable development of the society, and gradually begin to pay attention to the green and low-carbon economy and successively carry out climate governance actions. In 2003, the UK was the first to focus on the development of low-carbon economy, and the first issued the white paper, "Our Energy Future: Developing a Low-carbon Economy", which opened the door to green and low-carbon economic development. In 2016, 175 countries, including China signed the Paris Agreement to uphold climate justice and shift the responsibility for developing a low-carbon economy from morality to law.

2. The Current Green Tax System under the Background of Carbon Neutrality and Carbon Peak

Carbon peak refers to the process in which carbon dioxide emissions no longer grow at a certain point, peak, and gradually fall back after a period of platform period. Carbon neutrality means that the total amount of greenhouse gases such as carbon dioxide produced directly or indirectly produced by overall human activities in a certain period is just offset by the total amount of carbon dioxide such as greenhouse gases removed through afforestation and other means. China is currently actively promoting the green and low-carbon economy, but because

China's green and low-carbon economic development road is a few years later than other countries, the current economic situation will need to be strengthened.

In 2021, The State Council issued the Guiding Opinions on Accelerating the Establishment and Improvement of a Green, Low-carbon and Circular Economic Development System, which made it clear that fiscal and tax support should be increased, use fiscal funds and budgetary investment to support environmental capital construction, and promote the development of green and low-carbon economy. As an important means for the government to regulate the market, fiscal and tax policies play an important role in promoting the green and low-carbon economic development.

The atmospheric environment has the property of quasi-public goods, which will produce certain "negative externalities". It is difficult to achieve effective purposes solely by relying on the market mechanism regulation, so the government needs to adopt market intervention and regulation through tax policies. The fiscal and tax policies adopted by China to promote the development of green economy can be divided into restrictive fiscal and tax policies for high-energy-consuming industries and promoting fiscal and tax policies for new energy products.

2.1. Restricted Fiscal and Tax Policies

Restrictive fiscal and tax policies mainly include taxation by levying taxes to restrain market entities to reduce carbon emissions, such as resource tax, environmental protection tax, consumption tax, carbon tax and other green tax systems. Although China has not yet levied a carbon tax, China began to implement the resource tax on September 1, 2020, including natural gas, coal mines, crude oil and other energy and minerals in the scope of the tax, to curb carbon emissions from the source to some extent. At the same time, China has included air pollutants, water pollutants and solid waste in the environmental protection tax tax and tax items, and listed key pollution sources as tax targets. In addition, considering that the main components of passenger vehicle exhaust include carbon dioxide, passenger vehicle and vessel tax, and consumption tax on automobiles and motorcycles are mainly designed according to the tax elements, reduce greenhouse gas emissions such as carbon dioxide, and promote the development of green and low-carbon economy.

2.2. Promoting Fiscal and Tax Policies

In addition to the restrictive tax policies to promote the development of green and low-carbon economy, the promoting fiscal and tax policies can also promote the development of green and low-carbon economy.

Promotional tax policies mainly include tax incentives when taxed, government fiscal and tax subsidies, fiscal expenditure, and government green procurement and investment. China stimulates residents and enterprises to consume electric vehicles, fuel cells and other new energy vehicles by reducing or collecting value-added tax and enterprise income tax in line with contracted energy management projects and energy conservation and environmental protection enterprises. At the same time, our country is very concerned about backward capacity, the Ministry of Finance has issued relevant management measures, the industrial enterprise structure adjustment arrangement special fund compensation, subsidies for wind, photovoltaic power generation of new energy power generation, in 2020 revision of the energy conservation and emission reduction subsidy fund management interim method, increase the subsidies for energy conservation and emissions reduction and renewable energy projects. In addition, for government procurement, the Notice on Adjusting the Government Procurement List of Environmental Marked Products issued in 2008 clearly stipulates that the government's procurement of energy-saving products must be purchased within the scope of the "government procurement list of energy-saving products" to ensure that the proportion of government procurement of low-carbon products increases year by year. At present, local pilot

areas of green finance reform and innovation have issued relevant special loans and discount interest policies for green projects, combined with local banking and other financial institutions to give rewards and subsidize products in green finance and other fields, vigorously support low-carbon technology innovation, and actively promote the development of green and low-carbon economy.

3. The Shortage of the Current Green Tax System under the Background of Carbon Peak and Carbon Neutrality

Since realizing the importance of ecological civilization construction and putting forward the goal of "carbon peak and carbon neutrality", fiscal and tax policies have been providing strong support for the development of green and low-carbon economy. In recent years, the Ministry of Finance has made rapid and steady progress in the green and low-carbon economy by increasing financial subsidies and promoting the further development of the government-private capital cooperation (PPP) in the field of ecological and environmental construction, and adjusting the tax reform. Although the fiscal and tax policies have deepened the reform in many aspects to promote the development of green and low-carbon economy, there are still many deficiencies to further accelerate the process of "dual-carbon" in China, which has entered the stage of high-quality development.

3.1. The Fiscal Budget is not Effectively Integrated with the "Two-Carbon" Goals

At present, the proportion of coal in China's energy consumption is still very high, the use of traditional fossil fuels is the main factor for the aggravation of carbon emissions in China, reducing the use of fossil fuels is the top priority to achieve green and low-carbon economy. To achieve the "dual-carbon" goal, we need to shift the energy industry from traditional fossil fuels to new green and clean energy. In recent years, our country has been supporting the development of new energy, zero carbon energy, clean energy, on the one hand, the fiscal spending end of new energy projects, low carbon technology innovation enterprises give many preferential tax policies, various financial subsidies and other special funds support, on the other hand, the fiscal revenue end of energy-intensive industry punitive tax revenue. Support the green low carbon economy budget need government fiscal expenditure and fiscal revenue "bidirectional", but the budget is not the fiscal expenditure and revenue end comprehensive consideration, lead to the next stage in the field of green low carbon spending cannot budget, cannot accurately formulate the financial special funds arrangement, did not give full play to the role of the green financial security.

3.2. The Existing Tax System has a Limited Role in Regulating Carbon Emissions

3.2.1. Green Tax: the Tax Burden is Relatively Light

In terms of resource tax, the adopted amplitude proportional tax rate of coal mines in China is from 2% to 10%. The specific applicable tax rate is proposed by the people's governments of provinces, autonomous regions and municipalities directly under the Central Government and submitted to the Standing Committee of the People's Congress of the National People's Congress and the State Council for the record; the fixed proportional tax rate of natural gas and crude oil is 6%. China is rich in coal resources, coal historical value to China's economic development is irreplaceable, in the face of high quality development of China, the coal resource tax is introduced to curb coal mining and use, speed up the use of traditional fossil fuel enterprise transformation, but most provinces, autonomous regions and municipalities directly under the central government coal tax rate is less than 6%, coal tax burden is lower than natural

gas and crude oil, is not conducive to enterprises, residents to reduce the use of coal, coal resource tax cannot play a good role of tax regulation.

For environmental protection tax, in 2018 will environmental tax legislation, but in 2019 environmental protection tax revenue accounted for only 0.14% of tax revenue, the same year total energy consumption has grown rapidly to 4870 million tons, green tax revenue is less, the environmental protection tax tax burden, tax regulation is not obvious, there are certain problems on tax system design, such as tax classification is not clear, low tax rate.

3.2.2. Less Differential Tax Rate Design

In terms of vehicle purchase tax, China's current exemption from new energy vehicle vehicle purchase tax is conducive to guiding enterprises and other members of society to consume new energy vehicles and promoting the development of green and low-carbon economy. However, the vehicle purchase tax is uniformly levied according to the proportional tax rate of 10%, which does not distinguish between the displacement size of taxable vehicles, and the motorcycle with an exhaust volume of more than 150ml is also levied according to the proportional tax rate of 10%. To achieve the goal of "carbon peak and carbon neutral", the vehicle purchase tax rate is not strong enough to play the role of green tax regulation.

For consumption tax, consumption tax on cars and motorcycles in passenger cars to take differential proportional tax rate, can play a role of green tax regulation, but for China, which is currently in the stage of high quality development, to early achieve the goal of "carbon peak, carbon neutral", the regulation of consumption tax still needs to be strengthened.

3.2.3. Green Taxes are not Taxed Wide Enough

The environmental protection tax does not include forest resources in the scope of the tax. Although the consumption tax includes disposable wooden chopsticks and solid wood floors, the exploitation and utilization scope of forest resources is far more than these two items. Forest resources can effectively absorb and discharge carbon dioxide and release oxygen, which has a huge effect in alleviating the greenhouse effect. China should focus on the protection of forest resources.

At the same time, the consumption tax is an only tax on refined oil products, and other fossil fuels, such as coal, are not included. As is known to all, the burning of traditional fossil fuels is the main source of greenhouse gases such as carbon dioxide, coal occupies half of our energy consumption, not consumption tax on fossil fuels such as coal, from the point of view of "carbon peak, carbon neutral", consumption tax scope is not wide, not well play the role of the green tax system.

3.3. Lack of a Carbon Tax Specifically for Carbon Emission Reduction Targets

Although China spends a lot of fiscal spending to promote the development of low-carbon technologies, new energy and clean energy, Lower the cost threshold for clean energy, Attract more businesses and other members of society willing and able to invest or use low carbon technologies, new energy, clean energy, But if traditional fossil energy is cheap and inexpensive, Most companies consider the experience, sunk costs and other factors, More willing to stay in the traditional industries, therefore, To better achieve the green and low-carbon transformation in industries, In addition to the concern for supporting and supporting the development of low-carbon technologies, new energy and clean energy, Also focus on adjusting and raising the prices of traditional fossil fuels, Increase the usage costs, Encourage businesses and other members of society to spontaneously find alternative energy sources, Independent transition to green and low-carbon industries.

Adjusting the price of traditional fossil energy is the short board of China's fiscal and tax policies. The main reason for the whole result is the lack of carbon tax and the imperfection of the national carbon emission trading market.

China has not yet levied a carbon tax, but it has implemented a carbon emission trading system. The carbon market provides an effective way to properly handle the relationship between economic development and carbon emission reduction. The national carbon emission trading market is a major institutional innovation to use the market mechanism to control and reduce greenhouse gas emissions and promote green and low-carbon development. It is also an important policy tool to implement China's carbon dioxide emission peak target and the vision of carbon neutrality.

Taking carbon emission right as a new financial tool, although targeted policy tools that can stimulate the vitality of market carbon emission reduction can be selected to form a new market trading system with carbon emission as the main body, the carbon emission trading system is likely to face the risk of market failure. In the United States, the first carbon emission trading system, and in 2009 to 2013, the function of transmitting price signals basically disappeared. At present, China's carbon emission trading market is in the early stage of listing, and the trading mechanism is not perfect, and there is great uncertainty in the market operation. Carbon tax has advantages over the carbon emission trading market in terms of economic efficiency, market transparency and price stability. Therefore, in order to make up for the shortage of the carbon emission trading market, we can consider timely levying a carbon tax under the existing carbon emission trading system.

4. Suggestions for Improving the Green Tax System in the Background of Carbon Peak and Carbon Neutrality

At present, our country is in the stage of high-quality development, is the key period of economic development and green industry transformation, in order to achieve the "carbon peak, carbon neutral" goal, we need to improve the existing fiscal and tax policies, promote the effective integration of green low carbon and economic development, to achieve the coordinated development of green production and life.

4.1. Introduce the Carbon Emission Reduction Budget in Due Time

Can refer to the British "carbon budget" policy, according to China's macroeconomic, energy consumption, environment status and other factors, comprehensive consideration, the carbon emissions cap in nearly five years, and for the budget to determine the corresponding green fiscal expenditure and fiscal revenue plan, build a complete green budget system. Under this system, from now to the fifth year to individuals, enterprises, government units all social emissions of each ton of greenhouse gases, in the case of the total greenhouse gas emissions, an industry of greenhouse gases more than the budget standards, so another one or several industries of greenhouse gases must be reduced, in order to achieve the overall balance. At the same time, in the process of regulation, should try to make fiscal expenditure and fiscal revenue basic dynamic balance, the next year's government budget will be adjusted on the basis of the previous year budget, accurate spending budget, promote green low carbon economic development, to ensure that 2030 "carbon peak" goals and "carbon neutral" in 2060.

4.2. Strengthen the Role of the Green Tax System in Regulating Carbon Emissions

Tax policy is an important policy means to realize the economic goal of regulating the market and realizing the economic goal. Optimizing the green tax system is an inevitable requirement to achieve the goal of "carbon peak, carbon neutral" and promote the development of green economy.

First of all, the mining and use costs of traditional fossil fuels such as coal should be appropriately raised, and the price threshold should be raised. The tax rate of coal resources in the resource tax shall be higher than that of natural gas and energy fuels such as crude oil,

making the tax burden of coal resources higher than other energy sources; raise the environmental protection tax rate to increase the cost of environmental damage.

Secondly, increase the differential proportion of the tax rate design system. The purchase tax rate of passenger vehicles and motorcycles that meet the tax requirements determines the proportional tax rate: larger taxable vehicles must produce more than smaller taxable vehicles such as carbon dioxide, according to the tax fair principle, the tax burden should be heavier than that of ordinary cars, so as to realize wealth distribution, and increase the degree of green tax regulation and promote the development of green and low-carbon economy.

Third, increase the green tax items of green taxes. Including other manufactured goods of forest resources (not just disposable wooden chopsticks and solid wood floors) within the taxable scope of the consumption tax, Further protect forest resources; Excluding the refined oil products, Traditional fossil fuels such as coal can also be included in the consumption tax category, Increase the tax burden of mining and using traditional fossil fuels, Curb the consumption of traditional fossil energy sources, such as coal; at the same time, Some tax incentives for new energy, zero-carbon energy, clean energy-related equipment and technology, Reduce the tax burden on new energy, zero-carbon energy and clean energy, To encourage taxpayers to voluntarily abandon traditional fossil energy sources, Focus on development on new energy, We will promote the green and low-carbon transformation of enterprises.

Finally, increase the degree of green tax incentives. With China's gradual attention to the green and low-carbon economy, The rapid development of professional equipment such as energy conservation, water saving, production safety and environmental protection, We can consider to timely and regularly supplement and update the relevant green equipment in the Enterprise Income Tax Preferential Catalogue for Energy-saving and Water-saving Special Equipment every year, To ensure that the enterprises producing green equipment can actually enjoy the preferential tax policies, Reduce the tax burden on enterprises; The tax exemption policy of contracted energy management projects in VAT will be changed to tax refund immediately, Allow energy-using units to achieve input tax deduction, Encourage energy-using units to actively participate in projects, Effectively promote the energy conservation and emission reduction process, At the same time, the VAT rebate preferential policy of selling homemade wind power generation equipment can also be extended to other clean energy, zero-carbon energy equipment, For example, the resumption of the 2018 invalid photovoltaic power generation VAT rebate policy.

4.3. Timely Introduction of a Carbon Tax

The carbon tax is the most representative restrictive fiscal and tax policy and a key step in achieving carbon emission reduction and carbon neutrality goals. In October 2011, the pilot carbon emission trading program was launched in 7 provinces and cities, including Beijing, Shanghai, Chongqing and Tianjin; On July 16, 2021, the national carbon emission trading market was officially launched; As of September 30, 2021, the national carbon market emission quota was about 17.65 million tons, and the cumulative transaction amount was about 801 million yuan, and the carbon emission trading market was running smoothly. China can consider the existing carbon emission trading system and learn from the experience of levying carbon tax in other countries to design a characteristic and feasible carbon tax in line with China's economic system.

Carbon tax has been levied in many countries. The main carbon tax design scheme can be divided into two categories: one is to determine the carbon tax rate according to the carbon content of fossil energy from the source; the other is to directly collect a low-carbon tax system from the results.

From the perspective of "carbon peak, carbon neutrality", China should be more suitable for levying a carbon tax directly on carbon emissions. Although according to the carbon content of

fossil energy to determine the rate of carbon emissions real-time detection technology requirement is not high, more efficient on tax collection and administration, but our country vigorously develop low carbon technology: from low carbon technology to zero carbon technology to carbon technology, if only from the source of carbon content to determine the tax rate, is equivalent to deny the significance of low carbon technology, inhibit the enterprise to the use of low carbon technology will, is not conducive to the development of green low carbon economy. However, imposing carbon taxes directly based on carbon emissions can not only reduce energy consumption and curb carbon dioxide emissions, but also encourage enterprises to green upgrade their equipment and promote low-carbon technologies and carbon capture technologies.

Carbon dioxide is the main source of greenhouse effect in our country, our country can set up a tax alone or increase a tax in the environmental protection tax, the concentration reaches a certain amount of carbon dioxide as a tax object, according to the concentration level set differential tax rates, effectively curb carbon dioxide emissions, protect the environment, promote the development of green low carbon and economy, to achieve "carbon peak, carbon neutral" strategic goals.

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