Original Research Article

Research on fiscal and tax policies to promote green, low carbon and high quality development

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Abstract: With the further promotion of China's "double carbon" goal and high-quality development becoming the theme of the times,fiscal and taxation policy, as a key tool of national macro-control,plays a central role in guiding resource allocation,stimulating green transformation and promoting coordinated regional development. This study proposes three optimization paths through the current green and low-carbon fiscal policy system in China,aiming to provide theoretical reference and practical guidance for building a precise and coordinated fiscal policy framework.

Keywords: green and low carbon; high quality development; double carbon target; policy synergy; ecological compensation

1. Introduction

Entering the closing year of the 14th Five-Year Plan, China has made remarkable achievements on the road of promoting an all-round green transformation of economic and social development, but it also faces profound structural challenges. "Carbon peak,carbon neutralization" is not only a broad and profound energy technology revolution,but also a systematic economic and social transformation,the core of which lies in realizing the "decoupling" of economic growth and carbon emissions and embarking on a green and low-carbon high-quality development path.As the foundation and important pillar of modern national governance system,fiscal and taxation policy plays a particularly important role in guiding,encouraging and regulating.By constructing and perfecting green fiscal and taxation policy system,it can effectively internalize environmental external costs,encourage market subjects to carry out green technology innovation and production mode reform,guide social capital to flow to green and low-carbon fields,thus providing continuous impetus for high-quality development.Since the"double carbon"goal was proposed,China has initially formed a multi-dimensional policy framework covering tax incentives,fiscal subsidies and government green procurement. However,as the green transition enters a critical period,the existing policy system still needs to be improved in terms of systematicness,synergy and precision.Therefore,this paper will sort out China's current green and low-carbon fiscal policy system,and put forward three optimization paths:constructing cross-department governance system,increasing technical incentives and perfecting ecological compensation,so as to provide decision-making reference for deepening policy reform in the future.

2. China's current green and low-carbon fiscal policy system

2.1. Both incentives and constraints,overall planning to be improved

China's green tax policy system has achieved remarkable results in raising pollution costs and reducing green investment and consumption costs by means of "positive incentives" and "negative constraints."

Environmental protection tax and resource tax play prominent roles in "reverse constraint". Environmental protection tax will be levied in 2018,which will be linked with the emission permit system.Local fixed tax rates will be implemented on the basis of pollution equivalents.Local governments can adjust taxes according to environmental carrying capacity.In 2023, about 20.5 billion yuan will be put into storage,and mechanisms such as "multi-row and multi-payment" will encourage enterprises to control pollution and reduce emissions.Resource

taxes tax mineral resources and salt mining,increase development costs,and guide the economical use of resources[1]. In recent years,the reform has been deepened.Most taxable items have been changed from quantity to ad valorem.In 2023,the revenue reached 307 billion yuan,promoting the sustainable use of resources.However,tax policy and environmental protection,resource management and other departments need to be strengthened in data sharing and policy coordination.For example,when determining tax standards,how to combine environmental monitoring and resource reserves and other information for scientific adjustment needs to be explored.

"Positive incentives" are embodied through a series of preferential tax policies. In terms of enterprise income tax,the income from qualified pollution prevention and control projects will be "three exemptions and three halves", and the third-party pollution control enterprises will be levied at a reduced tax rate of 15%. VAT is levied and refunded immediately on the sale of self-produced resources comprehensive utilization products,etc.,and encourages waste recycling.The consumption end shall be exempted from vehicle purchase tax and vehicle and vessel tax of new energy vehicles,so as to promote carbon reduction and emission reduction and consumption upgrading of automobile industry.The R&D expense deduction policy has been strengthened to reduce innovation costs.In 2025,the preferential tax policies for green industries will be upgraded,and a new system of"three exemptions and three halving+dynamic incentives"will be initially formed to connect with international rules[2]. However,the synergy between preferential tax policies and green development policies of other departments is insufficient,such as the connection with green technology R&D support policies of science and technology departments to be optimized to form policy synergy.In addition,due to the differences in local implementation and supporting policies,enterprises in different regions have unbalanced green transformation power regions,which affects the overall transformation effect.

2.2. The key investment is large

The central and western regions support the fiscal expenditure to be strengthened as a direct means for the government to support green and low-carbon development.Social capital is guided to the fields of ecological environment protection and green industry through special funds,financial subsidies and transfer payments.In recent years,the central government has invested between 500 billion and 650 billion yuan annually in ecological protection and green development,providing financial guarantee for pollution prevention,ecological restoration and energy transformation.

Currently,fiscal expenditures are directed to several priority areas[3]. First,air,water and soil pollution prevention and control.The central government has set up special funds to support comprehensive pollution control in key regions,river basins and industries.The second is ecological protection and restoration,which supports the protection and restoration of important ecological spaces through transfer payments for key ecological functional areas and funds for ecological protection and restoration of forestry and grassland. Third,clean and low-carbon energy transformation,vigorously supporting the development of renewable energy,clean and efficient utilization of traditional energy,and research and development and demonstration of cutting-edge technologies.Fourth,support the development of green industries,and leverage financial and social capital into relevant industries by setting up green development funds and providing loan discounts for green projects.In addition,the central finance also enhances the ability of local governments to provide basic public services such as ecological environment through general and special transfer payments.However,in terms of policy support in the central and western regions,the ecological function of the central and western regions is important but the financial capacity is weak.Although the central finance has transfer payment support,compared with the eastern region,there are still deficiencies in fund matching and policy inclination in some green industry development projects.For example,in the development of renewable energy industry,the eastern region develops rapidly by virtue of capital,technology and market advantages.Although the central and western regions have resource advantages,they face certain difficulties in project landing and industrial supporting facilities.Policy support needs to be further strengthened to narrow the regional green development gap.

2.3. The framework is perfect, and the industrial chain leadership needs to be strengthened

As a demand-side management tool,government procurement creates a stable market for green and low-carbon products and services by setting green standards and giving priority to compulsory procurement,and guides the green transformation of production.

In terms of policy system,the Ministry of Finance,jointly with relevant departments,issued a series of detailed item standards,such as the Government Procurement Demand Standard for Green Buildings and Green Building Materials and the Government Procurement Demand Standard for New Energy Vehicles,which embedded green and low-carbon requirements into the whole procurement process and promoted the transformation of green procurement from "policy requirements" to "institutional guarantees". At the implementation level,the government procurement list system for energy-saving products and environmental labeling products continues to play a role,and the scale and proportion of government green procurement are increasing year by year.In 2024,the proportion of energy-saving and water-saving products compulsorily and preferentially purchased nationwide accounts for more than 92%of the procurement scale of similar products,and the proportion of environmentally friendly products preferentially purchased accounts for nearly 88%.In key areas,government procurement supports green building materials to promote the expansion of the pilot scope of building quality improvement,and the proportion of new energy vehicles in the field of official vehicles is required to increase year by yea[r[4]]. In the future,it is the policy direction to incorporate low-carbon indicators such as carbon footprint and carbon label into government procurement demand standards. However,at present,the coordination between government procurement and industrial departments in the formulation of green product standards and quality supervision needs to be strengthened in terms of cross-department coordination,so as to ensure that the purchased green products truly meet the requirements of green development.At the same time,in terms of leading the greening of the whole industrial chain,although the policy direction is clear,the green driving effect on the upstream and downstream enterprises of the industrial chain has not been fully released in the actual implementation.Therefore,it is necessary to further strengthen the policy implementation strength and coverage scope,and improve the leading efficiency of the greening of the whole industrial chain.

3. Optimization path of fiscal and tax policy for green, low-carbon and high-quality development

3.1. Building a cross-departmental green governance system

The formulation and implementation of green fiscal and taxation policies involve many departments such as finance,taxation,ecological environment,development and reform,science and technology, industry and information technology,etc.However,problems such as poor data sharing among departments, disjointed standard connection and weak action coordination seriously restrict the overall effectiveness of policies.In order to build an effective cross-sectoral green governance system, the following measures need to be taken.

First, establish a national-level green low-carbon development data sharing and policy coordination platform.The platform should integrate pollution monitoring data from the ecological environment sector,resource reserves and utilization information from the natural resources sector, tax collection data from the tax authorities and macroeconomic data from the statistics sector. Through data interconnection, it provides scientific basis for dynamic adjustment of tax standards for environmental protection tax, resource tax and other taxes,so as to ensure accurate matching between tax constraints and ecological environment carrying capacity.At the same time,the platform should serve policy simulation and evaluation,so that incentive tools such as financial subsidies and tax preferences can be designed and coordinated with policies such as industry,science and technology and finance to avoid policy fragmentation or mutual offset.Secondly,improve the cross-department green standard unification and certification mutual recognition mechanism.The Ministry of Finance, the National Development and Reform Commission,the General Administration of Market Supervision, the Ministry of Industry and Information Technology and other departments need to work together to speed up the improvement and unification of the green low-carbon standard system covering the whole life cycle of products,especially the carbon footprint accounting and carbon labeling system.On this basis,the authoritative green certification results will be directly used as the basis for admission or bonus points for government procurement,tax preferences and financial subsidies,opening up the chain from standard formulation to policy application.This will not only reduce the cost of enterprises responding to different sectoral standards,but also ensure that fiscal incentives are accurately invested in products and technologies that truly meet the requirements of green development. Finally,implement a"policy package"pilot and regional collaboration mechanism based on sectoral collaboration.

Select key areas or river basins,coordinate by high-level governments,package and integrate fiscal,industrial,land,financial and other policies,and carry out systematic green transformation pilot projects across administrative regions and departments.For example,in Beijing-Tianjin-Hebei,Yangtze River Delta and other regions,we can explore the establishment of a fiscal and taxation benefit coordination mechanism for ecological environment co-construction and sharing,encourage local governments to coordinate governance through tax sharing and horizontal ecological compensation,so as to extend departmental coordination to regional coordination and comprehensively improve the integrity of green governance system[5].

3.2. Increase green technology subsidies and tax incentives

The government needs to reduce the cost of green technology innovation to accelerate technological breakthrough,and its R&D and application are the core driving force of high-quality development.Although the existing policies have inclusive support,they do not provide enough incentives for the transformation of cutting-edge and common key technologies and achievements,and the optimization path should focus on the whole chain of technological innovation.

First,set up and strengthen the national green technology research and development and application of special funds,the implementation of the"unveiling"type of subsidies.The fund should focus on supporting the low carbon zero carbon negative carbon technology,energy storage technology,key technology of circular economy and other frontier and common technology research.Enterprises or consortia undertaking major national technological breakthrough projects shall be given a high proportion of direct subsidies for R&D costs. At the same time,application promotion subsidies shall be provided to the purchasers and applicators of the first set(set)of major green technology equipment to accelerate technology iteration and cost reduction with market traction.Second,optimize and iterate the preferential tax policy system related to green technology to enhance its accuracy and dynamics."In terms of corporate income tax,in addition to extending the"three exemptions and three halved"preferential treatment for pollution prevention and control projects,the preferential scope shall be further expanded to include the R&D and commercialization projects of emerging carbon reduction technologies such as carbon capture,utilization and storage,hydrogen energy storage and transportation.In terms of value-added tax,the policy of immediate refund can be extended from products produced by comprehensive utilization of resources to intermediate products and terminal consumer goods produced by low-carbon processes or recycled materials.The key is to establish a dynamic evaluation and adjustment mechanism of preferential tax policies,regularly update the preferential catalogue and strength according to the technology maturity and emission reduction contribution,and ensure that the policies always aim at the most potential green technologies. Third,strengthen the green technology innovation of small and medium-sized enterprises tilt support.Small and medium-sized enterprises are an important source of innovation,but they face financial constraints.Fiscal and tax policies should provide more targeted support,for example,small and medium-sized enterprises are allowed to enjoy faster accelerated depreciation or one-time pre-tax deduction for purchasing special equipment for energy conservation and carbon reduction;for green technology achievement transformation projects participated by small and medium-sized enterprises,a higher proportion of R&D expenses shall be deducted or direct achievement transformation subsidies shall be granted.Through these measures,the green innovation vitality of a wider range of market entities will be stimulated.

3.3. Perfect ecological compensation and transfer payment mechanism

China's interregional ecological function and financial capacity mismatch,the central and western ecological protection responsibility is heavy,but the development of green industry is limited.Relevant departments should give full play to the redistribution function of fiscal and taxation tools,make up the gap and realize common transformation.

On the one hand,we should take core measures,namely,vigorously strengthen and optimize the transfer payment to key ecological functional areas,and construct a distribution mechanism linked to"ecological performance".The central finance should continuously increase the transfer payment to the important ecological barrier areas in the central and western regions,and thoroughly reform the fund allocation method.When allocating the transfer payment quota,it should not only be based on fixed factors such as ecological protection area and population,but also closely related to dynamic performance indicators such as improvement of

ecological environment quality and enhancement of carbon sink capacity.For areas with outstanding ecological protection effects,extra rewards should be given to form a strong incentive of"the better the protection effect,the more compensation will be obtained",so as to effectively transform green water and green mountains into valuable resources.

On the other hand,we should innovate ecological compensation mechanism,including both horizontal compensation and market-oriented compensation,so as to broaden the compensation fund channel.Under the premise of taking the central financial vertical transfer payment as the leading factor,actively promote horizontal compensation in beneficiary areas and ecological protection areas.For example,economically developed provinces in the lower reaches of the Yangtze River and Yellow River are encouraged to negotiate with upstream water conservation areas to establish horizontal compensation agreements.Compensation funds can be used to develop green industries and improve people's livelihood in upstream areas.In addition,we should actively explore the market-oriented compensation mode based on carbon emission right,energy use right,emission right and other environmental rights and interests trading,so that the value of ecological products can be reflected through market trading and attract social capital to invest in ecological protection and restoration work.

In addition,the implementation of regionally differentiated green industry support policies to improve the endogenous development capacity of the central and western regions.For the green industry investment fund and loan discount policies of the central finance,relevant departments should give higher supporting proportion or lower application threshold to the central and western regions.In view of the resource advantages of the central and western regions in renewable energy,ecotourism and characteristic agriculture,special support funds should be set up to support them to improve the supporting infrastructure of the industrial chain and public services.With the help of this mechanism combining"blood transfusion"and"hematopoiesis",It can compensate for the cost of ecological protection,empower it to cultivate green economic growth poles,and finally achieve a virtuous circle of ecological protection and green development and regional coordination.

4. Conclusion

Fiscal and taxation policy is the key driving force to promote the transformation of China's economy towards green,low-carbon and high-quality development,and its strategic position is extremely critical.Under such circumstances,the reform and innovation of fiscal and taxation policies will not stop,but will continue to develop.Policy makers need to adhere to the system concept,continuously explore the implementation effect of fiscal and taxation policies in the process of practice,do a good job in evaluating relevant work,and adjust them in time according to the actual situation,so that the fiscal and taxation policy system can dynamically adapt to the inherent requirements of green,low carbon and high quality development.Only in this way can fiscal and taxation forces become powerful engines,leading China to embark on a new journey of modernization in which man and nature coexist harmoniously.

References

[1] Liu Kai. Analysis of fiscal and taxation policies to promote green,low-carbon and high-quality development[J]. Administrative Business Assets and Finance, 2025,(18):32-34.

[2] Shandong:Carry out the mission of leading area construction and create a green and low-carbon-oriented fiscal and taxation policy system[J].China Finance, 2025,(02):9-10.

[3] Shen Jianfei, Gao Jialin. Mechanisms, problems and countermeasures of fiscal and taxation policies to promote green and low-carbon development in China[J]. Theoretical Exploration, 2025,(01):158-164.

[4] Lin Ping, He Weigang, Li Meimei, et al. Distributive Effects of Green and Low Carbon Transition--Based on Justice Transition Perspective[J]. Financial Economics Research, 2024,39(06):162-178.

[5] Huang Jiangyu, Tong Zhipeng,Yang Jianchun. Research on Tax Promotion of Green and Low-carbon Consumption under the Goal of High-quality Development[J]. Journal of Party School of Guiyang Municipal Committee, 2024,(01):42-50.