

Path Exploration and Risk Prevention and Control of China's Economic Transformation Under the Dual Carbon Target

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Abstract:The proposal of dual carbon policy is conducive to the adjustment of China's economic structure and is of great significance to China's low-carbon economic development. This paper studies how different regions in China carry out top-level design for their own economic bases under the dual carbon target, explores different paths of low-carbon economic transition, and puts forward corresponding risk prevention and control measures.

Key Words:double carbon policy; economic restructuring; low carbon economy

I. Background of the dual carbon policy

In 1992, China became one of the first signatories to the United Nations Framework Convention on Climate Change. Since then, China has not only established a national coordinating body on climate change, but also adopted a series of policies and measures related to climate change in accordance with the requirements of the national sustainable development strategy, making positive contributions to the mitigation and adaptation of climate change. The Chinese government ratified the Kyoto Protocol in 2002. In 2007, the Chinese government formulated the National Plan for Addressing Climate Change, which sets out the specific goals, basic principles, key areas, policies and measures for addressing climate change by 2010, and requires that energy consumption per unit OF GDP in 2010 be reduced by 20% compared with 2005. In 2007, the Ministry of Science and Technology, the National Development and Reform Commission and 14 other government departments jointly formulated and released China's Special Action on Science and Technology to Address Climate Change, which set out the goals, key tasks and guarantee measures for scientific and technological development and improvement of independent innovation capacity in addressing climate change by 2020. In November 2013, China issued the National Strategy for Climate Change Adaptation, the first strategic plan specifically aimed at climate change adaptation, to make all institutions and policies in response to climate change more systematic. In June 2015, China submitted to the UNFCCC Secretariat the document "Intensifying Action on Climate Change -- China's Nationally Determined Contribution", which set out its voluntary action targets by 2030: to peak carbon dioxide emissions around 2030 and strive to peak as early as possible; Carbon dioxide emissions per unit of GDP will be

reduced by 60 to 65 percent from 2005; non-fossil energy will account for about 20 percent of primary energy consumption; and forest stock will increase by about 4.5 billion cubic meters from 2005.

In September 2020, At the general debate of the 75th SESSION of the United Nations General Assembly, President Xi Jinping stated that the Paris Agreement on Climate Change represents the general direction of the global green and low-carbon transition, is the minimum action needed to protect the planet, and all countries must take decisive steps. It also announced that China will increase its nationally determined contribution (NDCS) and adopt more effective policies and measures to peak CO₂ emissions by 2030 and achieve carbon neutrality by 2060. The proposal of the dual carbon target is a manifestation of China's continuous efforts to promote environmental protection. It demonstrates China's responsibility as a major responsible country and its determination to achieve low-carbon economic transformation, which is conducive to the transformation and upgrading of the economic structure.

II. Realization path of low-carbon economic transformation

Low-carbon economic transformation should be carried out from both production and consumption.

In terms of production, we should adjust the production mode of the primary and secondary industries according to the economic characteristics of the eastern and western regions. At present, carbon emission in the eastern region of China has always occupied a dominant position in the whole country. The proportion of carbon emission in the central region of China shows a trend of steady decline. Although the proportion of western regions is small, it basically maintains a rising trend. Therefore, it is necessary to accelerate the evolution rate of industrial structure in order to slow down the total growth of regional primary energy consumption and improve the primary energy supply structure of each region to the greatest extent. Strengthen technological innovation, improve the replacement rate of clean energy in the energy industry, and improve the carbon emission trading market and the carbon emission trading system according to the characteristics of each region.

In terms of consumption, should need to industrial and urban green transition economy overall decarbonization in parallel, the urban energy structure into the "transformation" between the old and the new cycle continues to improve low carbon system guarantee and policy incentives, to play the positive role of the third industry, and to guide the masses to set up the good environmental protection consciousness, strengthen policy education, raise the proportion of clean energy consumption. Compared with the tax levied from the producer responsibility side, the carbon tax levied from the consumer responsibility side can greatly reduce the negative impact on the competitiveness of the less developed regions and related industries, while not causing the extra burden of the economically developed regions and related industries to increase too much. Therefore, when regional and industrial carbon emission responsibility sharing is carried out, it should not only stop at producer responsibility, but also introduce consumer responsibility, which not only meets the requirement of fairness of responsibility sharing, but also can coordinate the interests of all parties to achieve the best emission reduction effect.

Risk prevention and control

In the era of COVID-19, the transition to a low-carbon economy will encounter many difficulties. China is bound to experience the pain of transformation and upgrading, which is the price of industrial restructuring. However, we can mitigate the possible negative impact in advance.

Domestic commercial banks need to pay attention to the development process of new technologies that may have a disruptive impact on the petrochemical industry chain when providing support. A carbon finance pilot demonstration zone will be built to provide convenient financial services for the "dual carbon" goal. First, government departments need to improve the construction of carbon finance system, industry standards and market mechanism to meet climate targets. Improving carbon finance system and standard construction is not only an important guarantee for the sound development of carbon finance business, but also an inevitable requirement to prevent being controlled by others in the international market competition. Second, financial institutions should properly handle the transformation and withdrawal of high-carbon customers and do risk prevention and control. Smooth transition as the goal, to promote the high carbon industry in order to better serve the customers to implement low carbon transformation, Banks and other financial institutions shall establish a professional team, a thorough understanding of different industries cycle regularity, resources endowment and the technical features, timetable and roadmap in areas, transformation, providing special funds to support the upgrade, the carbon emissions as credit basis. For customers facing the risk of elimination or withdrawal in the process of transformation, stress tests, risk assessment and effective risk control should be carried out in advance, and risk isolation mechanism should be established to prevent the transmission of exit risk of customers in a single high-carbon industry in the industrial chain, so as to realize the coordinated development of carbon financial service innovation and market regulation.

Reference

- [1] Kexiang, HuaChandrashekar, Raghutlab, Krishna, ReddyChittedic, RuiZhangd, Mansoor Ahmed Koondhar, The effect of energy resources on economic growth and carbon emissions: A way forward to carbon neutrality in an emerging economy1, [J].Journal of Environmental Management,Volume 293, 2021. PP 112908-112908
- [2] Xiangfeng,JiaYusongZhang,NawazishMirza,MuhammadUmar,Syed Kumail ,AbbasRizvi The impact of carbon neutrality on the investment performance: Evidence from the equity mutual funds in BRICS[J].Journal of Environmental Management,Volume 297,1 November 2021, 113228
- [3] XuefengShao,YifanZhong,Yameng Lic,Mehmet Altunta Does environmental and renewable energy R&D help to achieve carbon neutrality target? A case of the US economy[J].Journal of Environmental Management,Volume 296,15 October 2021, 113229
- [4] RanTao,Muhammad Umara,Ahsan Naseera,Ummara Razi The dynamic effect of eco-innovation and environmental taxes on carbon neutrality target in emerging seven (E7) economies[J].Journal of Environmental ManagementVolume 299,1 December 2021, 113525
- [5] Juan lin,Yijuan Shen,Xin Li,Amir Hasnaoui BRICS carbon neutrality target: Measuring the impact of electricity production from renewable energy sources and globalization[J].Journal of Environmental Management, Volume 298,15 November 2021, 113460
- [6] Ya Cheng,Avik SinhabVinit,GhoshcTuhin,Senguptabd,Huawei LuoCarbon tax and energy innovation at crossroads of carbon neutrality: Designing a sustainable decarbonization policyJournal of Environmental ManagementVolume 294,15 September 2021, 112957.