

The Recognition and Analysis of Potential Risks in China's Carbon Emission Trading Market

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Overview

China formally launched the carbon trading pilots in 7 provinces and cities in 2013. This thesis compares and analyzes, based on the operating situation of Chinese and foreign carbon emission trading market, the potential risks in the European Union Emission Trading Scheme, the California's cap-and-trade system and the seven regional carbon trading pilots in China. It mainly recognizes market operation risks, risks of uncertain policy expectation and risks of uncertain mechanism design existing in Chinese carbon trading pilots. The risks of carbon market are not good for the formation of rational price signals, making it difficult in guiding enterprises to make low-carbon technology investment, and would affect the effectiveness and functions of carbon market. Thus the national emission reduction goals can not be achieved. Currently China has launched the national carbon emission trading scheme. And while building the national carbon trading scheme, it is important to fully refer to the experiences of foreign carbon markets and domestic carbon trading pilots and strengthen the recognition, control and supervision of carbon market risks, to promote the healthy development of national carbon trading scheme.

Methods

Literature research method; Qualitative analysis method.

Results

Trading Scheme, the California's cap-and-trade system and the seven regional carbon trading pilots in China. It mainly recognizes market operation risks, risks of uncertain policy expectation and risks of uncertain mechanism design existing in Chinese carbon trading pilots.

Conclusions

Inside the carbon market, taking the EU ETS as an example. when allowances were free at stage I, due to the severe information asymmetry, the various national governments were lack of enterprise emission data and distribution experiences, the cap setting by various countries were too high, and then the free allowances distributed to enterprises were excessive. That caused oversupply of allowances. In this condition, enterprises could realize emission goals under current technology conditions, so the carbon market was unable to form constraints on enterprise emission. Therefore the carbon price had drastic drop from €30/t at the end of 2005 to €10/t at the beginning of 2006. Besides, the EU regulated that allowance can't be saved for subsequent periods, which directly caused price risk. As a result, at the end of stage I, the carbon price dropped to almost zero. Meanwhile inside the carbon market, a complete legal system is the effective guarantee of stable and orderly operation of market. While in market operation, if the information disclosure mechanism is incomplete, market participants would be unable to timely obtain the needed information, which would lead to fewer participation by third-party institutions and low participation by market entities, so as to cause liquidity risk. And the lack of liquidity would also cause

severe carbon price fluctuation and price risk, so as to impact the activeness of participants, and causing further decline of market liquidity.

Outside the carbon market, macroeconomic operating situation and energy consumption market situation are important factors to cause carbon market risks (He, et al, 2009; Chevallier, 2011). After the beginning of stage II of EU ETS, the economic crisis caused the rapid decline of EU economy with enterprises' emission naturally decreased, which caused lagging adoption of low carbon technologies by enterprises. The price fluctuation of energy market is easy to incur carbon price fluctuation (Zhang, 2016). Then when the carbon price is at high level, enterprises would choose investing in emission reduction technology. But when carbon price has severe fluctuation, because the prospect of carbon market is uncertain, enterprises are in hesitation, which would impede enterprises from making investment and financing activities of low carbon technology. The mutual transmission among various risks would make carbon market risks even more complicated, which needs more attention from market regulators.

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