

# ABSTRACT

Most of the former literature on environmental governance in China focuses on the bilateral relationship among local governments and polluters, and contributes the environmental degradation to the “shelter effects” of local governors, however, ignoring the principle-agent relationship among the central governments and the local governors. In this doctoral study, I investigate the pollution mitigations in China from a multiple-stakeholder perspective, including the central governments, the local governors as well as the polluters. The central government plays an essential role in environmental policy drafting and designing, through which it intends to motivate the effective implementation by the local governors and the pollution mitigation by the polluters; The local governors, however, as *homo economicus*, tends to gain political promotions through economic development at the costs of environmental degeneration; Therefore, the polluters will avoid juridical punishments from pollution through political coalitions with local governors, while ignoring the environmental requirements from the central governments.

Consequently, the research question of my doctoral thesis is that, to what extent the environmental policy would be effective, when considering the hierarchical, multi-stakeholder feature in the environmental governance in China.

The advert of this study is to confirm the environmental determination of the Chinese central government by examining the impact of “the State Enterprises Advance, the Private Sectors Retreat” trend(*Guo Jin Min Tui*). This trend is always criticized for threatening the efficiency of the economy. However, few studies focus on its impacts on the environment. In this study we employ a dataset of 159 Chinese cities from 2003 to 2009, to explore its impacts on the industrial SO<sub>2</sub> emission patterns. The findings are as follows: (1) State ownership is positively associated with the city-level SO<sub>2</sub> emission according to the Fix-Effect model. Nevertheless, it also has a positive impact on SO<sub>2</sub> removal rates. The dynamic panel model confirms the results of the Fix-Effect model. (2) Moreover, the outperformance of State-Owned Enterprises(SOEs) in desulfurization cannot be explained by the size effect and the profitability effect. (3) A further comparison between the effectiveness of the re-centralization trends and the desulfurization subsidy policy shows that the market-based subsidy policy has much larger impacts than re-centralization trends. More interestingly, compared with their

private counterparts, SOEs respond significantly less to the subsidy policy. To sum up, our results suggest that desulfurization is to some extent a political mission for the SOEs, which is beyond the profit-seeking considerations.

The second essay is an empirical study on the green finance policy which is a typical policy designed and implemented by the Chinese central government. On the one hand, the financial institutes are regulated by the *China Banking Regulatory Commission* which is directly affiliated to the central government. The central government designed the green requirements for borrowers from banks to promote pollution mitigations. On the other hand, credit decisions of banks are usually influenced informally by the local governors, and political connections of private enterprises would promote their access to bank loans. Therefore, in this study, I employ the National Private Enterprises Survey and empirically analyze the tripartite relationship of political connections, access to formal finance, and the pollution mitigations of private enterprises in China. Through mediating model, I prove that politically connected private firms invest more in pollution mitigation, and the formal finance would act as a mediator on the positive relationship between political connections and mitigation efforts.

The third essay is empirical research on the policy of mandatory environmental information disclosure and its heterogeneous impacts on polluters with and without political connections. Information disclosure has been regarded as best practice in environmental policy framework which might lay the pressure of consumers, investors, communities, as well as governments upon polluters. Lack of public accountability mechanism in China, the central government promote the information sunshine policy to break the collusions between the local governors and polluters. However, most of the former literature finds it ineffective. In this study I use a unique measure of city-level information disclosure, combined with the National Private Enterprises Survey, to test the heterogeneous impacts of the sunshine policy on the environmental governance of polluters. I find that EID only exerts a significant influence on non-politically connected polluters, and, by contrast, politically connected firms are less susceptible to the EID policies. In one word, this research indicates that the Chinese EID policy fails mainly due to the shelter effects of local protectionism for connected polluters.

Through this study, it is clearly shown that effectiveness of Chinese environmental policy hinges on the hierarchical structure of environmental governance. The central government concerns more on the national environmental degradations due to its role

as a social planner, who needs to balance economic development and environmental protection. The local cadres are more likely to be motivated by local economic growth due to the “promotion tournament” mechanism. Therefore, the recentralization of environmental governance could improve the enforcement and implementation of pollution targets in theory and practice.

Moreover, this research also suggests that the recentralization policy should be carefully designed, especially in its accountability, or it will lose its effectiveness. For instance, the green finance policy works well in promoting the mitigation investments, for that it effectively strengthens the supervision of environmental impacts, and such supervision is beyond the influence of local cadres; By contrast, the national environmental information disclosure policy failed to promote corporate environmental performance, for that the disclosure policy is implemented by the local governments as many former policies. The local cadres would exert their influence in protecting the polluters within the coalitions.

**Keywords:** Environmental Governance in China, Principal-Agent problem, Political Coalition, Vertical Governance, Re-Centralization, Federalism, Local Government-Firm Collusion, Green Finance, Environmental Information Disclosure