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HOW DOES GREEN FINANCE AFFECT HAZE POLLUTION? EVIDENCE FROM GREEN FINANCE REFORM AND INNOVATION POLICY IN CHINA

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Abstract

With the rapid development of green finance, its potential environmental benefits have drawn increasing attention. Using panel data from 286 Chinese cities from 2010 to 2020, this study employs a difference-in-differences (DID) model to examine the causal relationship between green finance and the reduction of haze pollution, taking the 2017 implementation of Green Finance Reform and Innovation Pilot (GFRIP) as a quasi-natural experiment. The results indicate that the implementation of the GFRIP policy has a significant impact on reducing urban $PM_{2.5}$ concentrations, and these findings remain robust across multiple specification checks. Heterogeneity analysis reveals more significant haze reduction in cities with lower administrative levels, larger populations, and higher levels of traditional financial development. Mechanism analysis further indicates that green finance mitigates haze pollution primarily through three channels: green innovation, industrial upgrading, and environmental regulation. This study contributes empirical evidence on the environmental benefits of green finance and provides policy implications for optimizing green finance development and promoting better coordination between the financial and environmental regulatory systems.

Key words: Chinese cities, DID approach, GFRIP, green finance, $PM_{2.5}$

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