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ASSESSING THE IMPACT OF GREEN FINANCE REFORM ZONES ON CARBON TOTAL FACTOR PRODUCTIVITY: EMPIRICAL INSIGHTS FROM CHINA

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Abstract

Balancing economic expansion with environmental sustainability has emerged as a paramount policy imperative in the context of escalating global climate change. In this pursuit, the Chinese government has instituted Green Finance Reform and Innovation Pilot Zones (GFRIPZ) to facilitate a transformative shift towards a green economy. This study investigates the ramifications of GFRIPZ on Carbon Total Factor Productivity (CTFP) utilizing a Difference-in-Differences (DID) methodology applied to provincial panel data. Empirical findings indicate that the establishment of GFRIPZ substantially augments CTFP. Mechanism analyses elucidate that this enhancement is chiefly attributable to the optimization of industrial structures and the advancement of green technological innovations. Additionally, heterogeneity analyses demonstrate that the efficacy of GFRIPZ is heterogeneous across regions, exhibiting more pronounced effects in economically advanced provinces. These results furnish robust evidence supporting the role of green finance in promoting carbon-efficient productivity and highlight the critical need for region-specific policy tailoring. This research contributes to the expanding discourse on green finance, providing actionable insights for policymakers endeavoring to harmonize economic growth with environmental stewardship.

Key words: carbon total factor productivity, green finance, green finance reform and innovation pilot zones, green technological innovation, industrial structure optimization

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