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# FINANCIAL DEVELOPMENT AND CARBON EMISSION

# INTENSITY

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## Abstract

Theoretic and empirical literature provides debate relationships between financial development and carbon emissions. Does financial development matters for carbon emissions? This study considers two additional aspects into the field. First is to consider a comprehensive measure of financial development that takes the functions of financial depth, efficiency, and access into account. Second, the nonlinear finance-carbon relationships build on the different development stages of financial system is considered. Considering the above two dimensions, this study explores the dynamic effects of financial development on carbon emissions utilizing pooled mean group estimator (PMG). By analyzing a panel of data for 82 countries from 1991 to 2020, we conclude that the effect of financial development. We find that financial access and

financial efficiency are two critical functions reduce carbon emission intensity, while financial depth has an ambiguous effect on carbon emission intensity. To ensure environmental quality, this study stresses that financial system should provide broadly affordable financial services and increases efficiency.

### Keywords

Financial Development, Carbon Emissions, Pooled Mean Group Estimator, Dynamic Effects, Financial Efficiency.

JEL classification: C33; F30; G22; O16; O43