Abstract

A sample of 13 CEE countries from 2000 to 2019 is used to investigate the total, direct, and indirect effects of financial development on carbon dioxide emissions. This study introduces four mediating effects of financial development on carbon dioxide emissions, i.e. economic growth, industrial structure, technology innovation, and the combined effect. To assess mediating effects and decompose total effect, GMM-SYS methods and bootstrap are employed. The empirical results entail that the total effect of financial development on CO_2 emissions is inverted U-shaped. The mediating effects of economic growth, technology innovation, and the combined effect are enhancing mediating effects, with contributions to the total effect of 7.12%, 1.74%, and 3.29%, respectively. On the contrary, the mediating effect of industrial structure is a suppressing effect, with a 44.42% contribution rate. Therefore, industrial structure turns out to be the primary mediators through which financial development influences CO2 emissions in CEE countries. These findings give additional empirical evidence for the mediational model and Environment Kuznets Curve hypothesis from the perspective of financial development, and also provide new ideas for CEE policy makers to reach carbon neutrality objective by 2050.