

The Long-Run Impact of Financial Development on Greenhouse Gas Emissions in India: An Application of Regime Shift Based Cointegration Approach

Authors : Javaid Ahmad Dar, Mohammad Asif

Abstract : The present study investigates the long-run impact of financial development, energy consumption and economic growth on greenhouse gas emissions for India, in presence of endogenous structural breaks, over a period of 1971-2013. Autoregressive distributed lag bounds testing procedure and Hatemi-J threshold cointegration technique have been used to test the variables for cointegration. ARDL bounds test did not confirm any cointegrating relationship between the variables. The threshold cointegration test establishes the presence of long-run impact of financial development, energy use and economic growth on greenhouse gas emissions in India. The results reveal that the long-run relationship between the variables has witnessed two regime shifts, in 1978 and 2002. The empirical evidence shows that financial sector development and energy consumption in India degrade environment. Unlike previous studies, this paper finds no statistical evidence of long-run relationship between economic growth and environmental deterioration. The study also challenges the existence of environmental Kuznets curve in India.

Keywords : cointegration, financial development, global warming, greenhouse gas emissions, regime shift, unit root

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