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The heterogeneous effect of democracy, economic and political globalisation on renewable energy

Oleksiy Lyulyov¹, Tetyana Pimonenko^{1*}, Alexey Kwilinski² and Yana Us¹

¹ Department of Marketing, Academic and Research Institute of Business, Economics and Management, Sumy State University, Rymskogo-Korsakova st. 2, 40007 Sumy, Ukraine

² The London Academy of Science and Business, Baker St. 120, W1U 6TU, London, England

* Corresponding author: tetyana_pimonenko@econ.sumdu.edu.ua

Abstract

This paper summarises the arguments and counterarguments within the scientific discussion on international cooperation's role in combatting climate change and its impacts. The primary purpose of the research is to determine renewable energy development reliance on democracy and globalisation levels. The objects for analysis are Ukraine and countries with different democracy regimes: full democracy (Finland, Denmark, Spain), flawed democracy (Poland, Slovakia, Hungary, and the Czech Republic) and hybrid democracy (Ukraine, Turkey and Montenegro). To gain the research goal, the authors examined data on the share of renewable energy, GDP per capita, labour force and gross fixed capital formation from 2012 to 2019. The data was retrieved from the Eurostat database, World Data Bank, KOF Swiss Economic Institute and the Economist Intelligence Unit. The following methods and tests were used: Levin, Lin, and Chu test; Augmented Dickey-Fuller Fisher and PhillipsPerron Fisher unit root test; Im, Pesaran, Shin's panel unit root tests. The authors used the Pedroni test to cointegration among variables. The Fully Modified OLS and Dynamic OLS panel cointegration techniques were applied to evaluate a statistically significant longer-term relationship between variables. The findings confirmed that for countries with the hybrid regime, the changes in political and economic globalisation provoked the rapid growth of renewable energy compare with countries from full and flawed democracy.

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