

CAUSAL RELATIONSHIP BETWEEN ENERGY CONSUMPTION AND ECONOMIC GROWTH: A PANEL DATA ANALYSIS OF EU-28 COUNTRIES

Aynur Pala, Bilgin Orhan Örgün

Finance-Banking and Insurance Department,
Foreign Trade Department
Okan University

Abstract

This paper aims to investigate the relationship between energy consumption and economic growth in EU-28 countries. For this purpose, we used panel cointegration, panel Granger causality and panel vector error correction model over the period 1996 to 2013. Panel cointegration test outcomes support the long-run equilibrium link among economic growth, energy consumption, labor force, capital formation and trade openness. The consequences obtained from panel vector error correction model suggest that there is evidence of a uni-directional causality from energy consumption to economic growth in the short-run. A long-run causality is not found between energy consumption and economic growth. These results indicate that the EU-28 countries are energy-dependent countries and the growth hypothesis is valid for EU-28 countries. Policy makers in EU-28 countries should consider the impact of energy consumption on growth while employing conservative energy policies.

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