

Electricity consumption and economic activity in Cyprus using an asymmetric cointegration technique

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Abstract

This paper examines whether deviations from the equilibrium have a different degree of persistence when shocks are positive or negative. To this end, the paper employs, for the first time in the electricity-growth literature, an asymmetric cointegration (threshold adjustment) technique using data for Cyprus. Results from the asymmetric technique suggest that positive discrepancies from the long-run are eliminated faster compared to negative ones. Furthermore, the elasticity of electricity consumption to income appears to be higher than unity. Electricity consumption is found to be relatively inelastic to financial development and relative energy prices, while trade openness is statistically insignificant in the long-run. The above findings bear important implications, especially for forecasters and system administrators.

Keywords: threshold adjustment, electricity, growth, cointegration

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