

Energy consumption and real GDP nexus: a Malaysian case demonstrating the importance of trade openness

ABSTRACT

The energy issue has been hotly debated whether is about the production, consumption or price due to its major importance in our daily lives where its use is inevitable. The primary objective of this paper is to investigate the long-term relationship between energy consumption and economic output in Malaysia when including trade openness. This focus is motivated by the concern regarding the narrowing gap between energy consumption and production as well as the importance of the export-led growth strategy. Furthermore, this study investigates the role of trade openness in the energy consumption and economic growth nexus. The annual data gathered from 1980 until 2014 utilized the Fully Modified Ordinary Least Square (FMOLS) as the main method and applied the Dynamic Ordinary Least Square (DOLS) for robustness check. The finding shows that energy is a restrictive factor for economic development and any export-led growth strategy implemented must contribute to the vital role of trade openness in order to become a stimulus for real economic growth. Moreover, the result indicates the importance of trade openness in facilitating the impact of energy consumption on economic growth.

Keyword: Cobb-Douglas production function; Dynamic OLS; Energy consumption; Fully-modified OLS; Trade openness; Malaysia