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Non-Linearity Effect of Energy Consumption on Economic Growth: Panel ASEAN-4 Countries

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Abstract

The aim of the study is to investigate the impact of energy consumption on economic growth in ASEAN-4 countries as a whole. In addition, the effect of the non-linearity of the relationship between energy consumption and growth is examined using Threshold Analysis method for the period of 1980 to 2014. Empirical findings indicate that energy consumption has significant positive impact on economic growth in ASEAN-4 countries in the long-run. Furthermore, the non-linearity results show that the impact of the energy consumption on growth become greater when the energy consumption is above the threshold level. This implies that more usage of energy may contribute to the economic growth.

Keywords: Energy Consumption, ASEAN-4, Non-Linearity.

Introduction

Energy demand remain as critical issue in the developed and developing countries, especially in Association of Southeast Asian (ASEAN) region due to the need of energy for development purpose. According to World Energy Outlook 2017 report, the energy demand for ASEAN countries indicating growth of 70% since 2000 and accounted for 5% of total global energy demand.