

The Causal Links Between Energy Consumption and Economic Growth of Tanzania: Vector Auto-Regressive Model approach.

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Abstract

Energy consumption is very crucial in any economy that aspires to reach a certain level of economic growth. Therefore, the study sought to examine the causal links between energy consumption and economic growth using the time series data covering the period between 1989 and 2014 in the case of Tanzania. We used electric power consumption as the proxy for energy consumption and the growth rate of GDP per capita to capture the level of economic growth. The study employed both pairwise Granger causality tests and Block exogeneity Wald approach under Vector Auto-Regressive (VAR) model to test the direction of causality. The study did not find any co-integration between the series under consideration. However, the results indicated a one-way Granger causality running from energy consumption to economic growth. Furthermore, the impulse response function showed that GDP per capita respond negatively to the shocks imposed on energy consumption in the first two periods and then positively in the remaining periods. The fluctuation in GDP per capita is mainly attributed to the shocks to GDP in the first periods and by energy consumption in the later periods. The results imply that energy policies designed by the country should focus on increasing production, procurement, transmission and distribution of environment friendly sources of energy in order to realize its impact on economic growth.

Keywords: Economic growth, Energy consumption, Granger causality, Tanzania