New evidence of oil price fluctuations and manufacturing output in Saudi Arabia, Kuwait and United Arab Emirates

ABSTRACT

Oil is used as an essential source of energy because it is one of the significant inputs of production especially in manufacturing sectors. This study employs symmetric and asymmetric Autoregressive Distributed Lag Model to explore oil price effect on manufacturing output over 1985-2017 in Saudi Arabia, Kuwait and United Arab Emirates. The results of the linear model show that oil price effect manufacturing output negatively in short-run and long-run. The detection of asymmetric behavior of oil price in linear ARDL model show insufficient ability, and this study further estimated the model through the non-linear model and decompose oil price into positive and negative changes. In the non-linear model, the results show that negative oil price changes encourage manufacturing output, while the positive oil price hurts manufacturing output. The study also apply the Granger causality test, and results show one-way causality from oil price to manufacturing output in Saudi Arabia and Kuwait. Based on the findings, the government officials of these countries should take steps in shifting these economies from huge extraction of oil and concentrate on manufacturing, and policymakers should understand the linkage of oil price with manufacturing sector for diversification of theireconomy and escape from Dutch Disease.