

Investigating the Asymmetric Effects of Changes in Oil Prices and Interest Rates on Unemployment Rate in Iran, NARDL Approach

Maryam Ebrahimi

Kambiz Hojabr Kian

Abstract

Unemployment rate is one of the economic indicators that has always been considered by policy makers and economists. Numerous factors and economic variables affect this index. Given the economic conditions of Iran as an oil exporter and the imposition of economic sanctions as well as the Islamic banking system, it is necessary to study the impact of oil prices and interest rate as two key variables. In this study, in order to investigate the effects of oil price changes and interest rates on employment, the linear autoregressive distributed lag (ARDL) of Pesaran et al. (2001) and the asymmetric nonlinear NARDL model of Shin et al. (2013) were used. Asymmetry in the nonlinear model is represented via positive and negative partial sum decomposition of oil price and interest rate. ARDL suggests that although oil price and interest rate changes have minor short run effects but they have significant long run effects in all the cases. The NARDL model presents a different picture of the effects of changes in oil prices and interest rates on the unemployment rate. While in the short run, the changes of oil price have no effect on the unemployment rate and only changes in interest rates affect it, in the long run, in addition to interest rates, rising oil prices also affect the unemployment rate. The results of the study show that in the short and long term, falling interest rates have more effects than increasing it and increasing oil prices have more effects than reducing it.

Keywords: *Changes in oil prices, Interest rates, Unemployment Rates, Cointegration, NARDL Model*

JEL Classification: C22, E24