

IMPACT OF OIL PRICE ON TURKISH MACROECONOMIC VARIABLES

Esra Balli Cukurova University, FEAS, Department of Economics, Adana, Turkey,
esraballi@cu.edu.tr

Mehmet Fatih Tras, Cukurova University, FEAS, Department of Econometrics, Adana,
Turkey, mftras@cu.edu.tr

Ciler Sigeze, Cukurova University, FEAS, Department of Econometrics, Adana, Turkey,
csigeze@cu.edu.tr

ABSTRACT

Turkish economy is heavily dependent on oil and natural gas, as the latest figures from International Energy Agency (IEA) show that Turkey imports 90% of its total liquid fuels. Therefore a more volatile oil price can have consequences on macroeconomic variables in Turkey. It is empirically evident that an increase in oil prices followed by deterioration in macroeconomic variables while a decrease in oil price has relatively lower expansionary effect on macroeconomic variables. This paper analyzes the economic effects of oil price on the major Turkish macroeconomic variables, including Gross Domestic Product (GDP), Consumer Price Index (CPI) and Real Effective Exchange Rate (REER) on the basis of quarterly data from 2003Q1 to 2015Q3. Firstly, ADF, KPSS, PP unit root tests and Zivot-Andrews, Lumsdaine Papellunit root tests allowing for structural breaks are used to characterize the time series. Additionally, Granger causality test is performed to give a clearer picture of how these variables are related. The results show that Gross Domestic Product, Oil Price and Consumer Price Index are stationary, while Real Effective Exchange Rate have unit root in Turkey. Test results indicate that, there is a casual relationship from oil price to GDP and to CPI. Furthermore, there exist a bidirectional causality between GDP and CPI in Turkey.

Keywords: Causality, consumer price index, oil price, real effective exchange rate, Turkey