The impact of oil prices on soybeans commodity prices: asymmetric cointegration evidence

ABSTRACT

The increases in soybean commodity prices are attributed to increase in oil prices which have affected the prices of agricultural grains commodity products such as soybean oil price. The study investigates asymmetric relationship between soybeans commodity price and crude oil price using most recent data. In order to account for possible asymmetric effect of oil price on soybeans commodity price, the paper uses momentum threshold autoregressive (MTAR) models, developed by Enders and Siklos (2001). Empirical results reveal that soybeans commodity prices and crude oil prices are cointegrated and the adjustment process is asymmetric in MTAR-consistent result. Our findings confirm that increase in crude oil prices affects the soybeans commodity prices in an asymmetric ways. Specifically, soybeans commodity prices rise faster when crude oil price increases but there is no immediate offsetting effect when the crude oil price decrease. In other words, the asymmetric effect of oil price of oil price stokes is greater when oil price increases than when oil price decreases. Policymakers may use these results to design appropriate policies to curb the inflationary consequences of oil prices.

Keyword: Global soybeans price; Price index; Crude oil price; Asymmetric cointegration; Asymmetric error correction