Price Bubble in Selected ASEAN Agricultural Exports: An Application of the Generalized Supremum Augmented Dickey-Fuller

Karlo Martin C. Caramugan and Purisima G. Bayacag
University of Southeastern Philippines

Abstract

Typical economic theory suggests that price volatility, especially the upswings in food price in the commodity market, is driven by market fundamentals, i.e., the demand and supply for the commodity. The recent behavior of the world food commodity prices has experienced several large spikes with the 2007–2008 episodes as the most dramatic. The prolonged rise of global commodity prices, which peaked in mid-2008, had been seen to fall sharply and bottomed out in early 2009. This price increase, which strongly deviated from its intrinsic value, was characterized as explosive, indicating a price bubble. The study investigated the existence of a price bubble in selected key ASEAN exports, i.e., rice, coconut oil, rubber, and palm oil. Using the generalized supremum augmented Dickey-Fuller (GSADF), results reveal multiple bubbles from 1980 to 2015. Furthermore, through descriptive correlation, these price bubbles were observed to form with some important local and international economic and political scenarios at the backdrop. With these findings, it is recommended that key exporting countries cooperate in creating an international supply management system to ensure the sufficiency and sustainability of the supply of the key agricultural products. It is also recommended that the current market information systems should be improved to reduce price volatility. ASEAN countries can reduce the price transmission from international markets through the use of trade controls and buffer stocks. In the long run, exporting countries need to invest more in their agricultural sector to make it more productive and efficient. This will make food more affordable for the poor and reduce price volatility.

Keywords
- ASEAN
- fundamental price
- generalized supremum augmented Dickey-Fuller
- price bubble

Correspondence
School of Applied Economics, University of Southeastern Philippines, Bo. Obrero, Davao City 8000, Philippines
T +63 82 227 8192 loc. 226
E karlocaramugan@gmail.com