

Does Malaysian gold bullion coin prices follow mean reversion or random walk?

Abstract

Mainly past studies used security prices to test the random walk theory. Not much attention is given to gold bullion coin prices. Furthermore, past literature emphasised on the developed countries' markets to test the random walk theory for gold prices. However, the evidence for developing countries' markets is lacking. In addition to this, several important events happened in the past decade seem to have affected the gold prices. Therefore, the purpose of this study is to test for the presence of a random walk in the series of Malaysian gold bullion coin (1oz) daily prices, ranging from July 18th 2001 to May 11th 2012, by incorporating the structural break in the series. Past studies on testing the random walk theory of gold prices used traditional unit root tests without incorporating structural breaks. In contrast, this study applies Zivot and Andrews (1992) one-break and Lumsdaine and Papell (1997) two-break unit root tests. Furthermore, we also provided the empirical evidences based on traditional unit root tests to compare the results with the prior studies on this topic. The main finding is that Malaysian gold bullion coin prices follow mean reversion, implying that the market is inefficient and the impact of shocks is transitory. We also capture important break dates in the series. The finding has implications for econometric modelling, in particular forecasting and structural breaks. The structural breaks captured in the series reflect that investors are responsive to market sentiment. Furthermore, as our empirical results show mean reversion, therefore, investors can exploit past price trend to get abnormal profit. This paper adds to the literature on random walk theory of gold prices, by providing the evidence on Malaysian gold bullion coin prices. In our knowledge, no previous research tested the random walk theory of gold prices on Malaysia, by using structural break unit root tests.