

Do Asian stock market prices follow random walk? A revisit

Abstract

This study re-examines the price behaviour of Asian stock markets in light of the random walk hypothesis. With a new statistical tool, namely the Brock-Dechert-Scheinkman (BDS) test, it is possible for researchers to detect more complex form of dependencies in series of financial returns that often appear completely random to standard statistical tests, such as serial correlation tests, runs test, variance ratio test and unit root tests. Our results suggest that all the returns series in general do not follow a random walk process. This conclusion holds in both sub-periods (pre- and post-crisis) for Bangkok S.E.T.(BSET), Jakarta SE Composite (JSE), Kuala Lumpur SE Composite (KLSE), Korea SE Composite (KSE), and the Philippines SE Composite (PSE). For Hong Kong Hang-Seng (HKHS), the empirical results support our conjecture that the Asian financial crisis in 1997 adversely affected the market's ability to price stocks efficiently, thus preventing stock prices from following a random walk process. In particular, the price behaviour of this market experienced a dramatic change from random walk in the pre-crisis period to non-random during the crisis.