

Nonlinear serial dependence and the weak-form efficiency of Asian emerging stock markets

Abstract

The objective of this paper is to re-examine the weak-form efficiency of 10 Asian emerging stock markets. Using a battery of nonlinearity tests, the statistical results reveal that all the returns series still contain predictable nonlinearities even after removing linear serial correlation from the data. The next stage of sub-sample analysis using the Hinich [Hinich, M., 1996. Testing for dependence in the input to a linear time series model. *Journal of Nonparametric Statistics* 6, 205-221] bicomrelation test shows that the 10 Asian series follow a pure noise process for long periods of time, only to be interspersed with brief periods of strong nonlinear dependence. The exploratory investigation found that the cross-country differences in nonlinear departure from market efficiency can be explained by market size and trading activity, while the transient burst of nonlinear periods in each individual market can be attributed largely to the occurrence of economic and political events. © 2007 Elsevier B.V. All rights reserved.