

Examining the heterogeneous regimes of stock market identified with two variants of B-B algorithms that differ in rigidity of specification

ABSTRACT

This paper studies the more prolonged type of heterogeneous regimes in the stock market identified with the non-parametric Bry and Boschan (1971) (B-B) algorithm. Specifically, the paper extracts and examines the statistical properties of these durations derived using two variants of B-B algorithms, namely the Lunde and Timmerman (2004) B-B algorithm and the Candelon, Piplack and Straetmans (2008) B-B algorithm. These two algorithms are contrasting extremes in terms of specification rigidity. The results show that the Candelon et al. (2008) B-B algorithm which is less rigid between the two, detects more frequent switching of regimes, has lower standard deviation and yields higher values of cumulative return and loss. The greater sensitivity, however, may not imply superiority as the fundamental aim of stock market regimes dating is to clearly detect the unobserved long-run structure of the market.