Alex Plastun, Inna Makarenko, Yuliia Yelnikova, Asiiat Sheliuk

Crisis and financial data properties: A persistence view

Abstract. This paper investigates persistence in Ukrainian financial data during the recent local crisis of 2013-2015. Using R/S analysis with the Hurst exponent method and its dynamic modification we show that data properties (case of persistence) are unstable and vary over time. Persistence increases dramatically during the crisis periods. These results can be used both to predict crises at early stages and to model financial data with the appropriate methods: to determine models for the cases of persistent data and stochastic ones for the cases of non-persistent data. It is concluded that financial markets become less efficient during crises.