A Test for Bubbles in Prices of Equities with Irregular Dividend Distribution, and an Application to the Israeli Stock Market

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Abstract

Recently developed econometric tests for bubbles (e.g., Phillips, Shi and Yu (2015)), when applied to equity prices, point to explosive behavior in the price-to-dividend ratio as evidence of a bubble. However, in some markets, dividends are not distributed on a regular basis, posing a challenge for the above methods, which require a continuous dividend stream. In this paper, we offer a theoretical justification for how the issue of irregular dividend distribution can be overcome by applying these tests to the more readily available Book-to-Market ratio data. In such a case, the explosive departure of market value from book value is interpreted as evidence of a bubble. To illustrate, we provide an empirical application to the Israeli stock market, where irregular dividend distribution is typical. Our sample period covers July 1996 through November 2014, and in this period the test results do not unambiguously indicate a bubble in any industry or index in Israel’s stock market.