Bubble Occurrence and Landing[1]

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Abstract

Firstly, we show the necessary and sufficient conditions of bubble occurrence within one period and multiple periods, and find that bubble premium is necessary and that rational bubble grows faster than the risk-free asset because bubble premium is required by a risk-neutral investor. Secondly, we show that some regimes and tax policies can prevent bubble occurrence by excluding one of the necessary conditions, and that some policies can hard- and soft-land the bubble. Thirdly, bubble tests show that there were bubbles in the stock prices of South Sea during 1718-1722, of the U.S. during 1871-2017 and of Japan during 1952-2018, as well as in daily prices of Bitcoin during April 28, 2013-April 24, 2018, respectively, and bubble premium was identified and significantly raised in the South Sea Bubble which was considered of a natural experiment. Fourthly, dividend yields in the U.S. and Japan were significantly lower than the risk-free interest rates, hence capital gains from stock bubbles could explain the equity premium puzzles in those markets. Finally, due to different colonial rulers in Tsingtao and Shanghai during 1898-1911 and new land law in Zhejiang in 1931, also regarded as social experiments, land prices were significantly decreased by anti-speculation policy such as taxes.

Main reference

Wan, Junmin (2017) Prevention and Landing of Bubble. *International Review of Economics and Finance,* open access. https://doi.org/10.1016/j.iref.2017.10.024