

코로나-19 팬데믹 동안 기술주에 나타난 버블 분석

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Analyzing Bubbles in Technology Stocks During the COVID-19 Pandemic

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Abstract

The purpose of this paper is to identify whether there are bubbles in the global technology stocks during the COVID-19 pandemic, and to identify the timing of bubble and crash periods. We analyse the monthly indices of technology sector using the GSADF(the generalized sub-ADF). The dataset consists of 30 indices including 9 indices in the North America region, 12 indices in the European region, 6 indices in the Asian region, and 3 indices in the Middle East and Africa region. The analysis period is from starting date of each index to December 2022. As a result of the analysis, the COVID-19 bubble have come and gone in 8 out of 9 indices in North America, 7 out of 12 indices in Europe, and 3 out of 9 indices in other regions. There are differences in the strength and duration of bubbles depending on the region and the sector. The bubbles tended to develop in indices composed mainly of IT-related sectors. The duration of bubbles are about 27 months in North America, about 20 months in Europe, and about 14 months in Asia and Africa. In addition, there are differences depending on the market participants. Especially in China, the COVID-19 bubble develops in the HSCIIT index of the Hong Kong market, which has a lot of foreign investment, while the bubble did not develop in the SSEINT index, SZIFI index, and SZTSI index, which are indices in the Shanghai and Shenzhen markets, respectively. From this, it is thought that the bubble occurrence probability in the stock price is higher in a stock market where global investors are actively trading.

Keywords: GSADF, COVID-19 bubbles, Technology sector index, Stock Market

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