

An analysis of the Japanese stock market at key moments of the last ten years

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Abstract

We analyze the Japanese stock market in three different levels, and at different times. The first level is the global level, in which we analyze the position of the Japanese Nikkei index with respect to other 92 indices of stocks markets around the world. The second level is based on the study of stocks of countries of Asia Pacific and Oceania, plus stocks of the USA, where the stocks are those that are used in the calculation of the main indices of those stock markets, organized according sector and industry. The third level is a deep study of the Japanese stock market itself, using all stocks of the Tokyo Stock Exchange that present some minimum level of liquidity.

All three levels are studied around key moments in the Japanese economy in the last ten years: the crisis of 2008, the aftermath of the massive earthquake that hit Japan in 2011, and the introduction of the Qualitative and Quantitative Monetary Easing by the Bank of Japan in 2013. These periods will be analyzed by means of two instruments: the first one is the correlation between indices and stocks, which reveal the structure of indices and stocks that behave similarly, and the second is Transfer Entropy, which is a measure of the information flowing from the price of an index or stock to the price of another.