

An Analysis of Stock Market Cycle with Markov Switching and Kink Model

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Abstract. The objectives of this paper are to study the regime changes in the stock market in the USA, Germany, and Japan and to study the relationship between various factors and return of the stock market in each regime. In this study, we use the Fama–French three-factor model to estimate the return of the stock market. In addition, we have applied the Markov Switching Regression Model and the Regression kink with an unknown threshold model to estimate the Fama–French three-factor model. The data were collected from the Thomson Reuter Data stream. The complete data set covered the period from March 1998 to January 2018. The monthly data returns of three factors in the Developed Market from Kenneth R. French from March 1998 to January 2018 in Europe, North America, and Japan. The empirical results showed that, in the USA and Germany, the factors that affect the stock market return are market factors and size factors. In Japan, all factors affect the stock market return. The use of the MSkink model for stock market analysis in the Fama–French three-factor model is more appropriate than the Linear model and the Markov switching model.