A Markov-switching approach for investigating stock market dynamics

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In this paper we propose a Markov-switching approach based on a two-step procedure for deriving new insights about financial returns. The first step refers to the asset’s long term features and consists in achieving a time-invariant classification of stocks into homogenous groups under the risk-return profile. In the second step, we investigate the dynamic behavior of the stocks belonging to each group by using multivariate Markov-switching models. We provide innovative measures of expected return and risk and we find evidence of different dynamic features across groups of stocks and common dynamic properties within groups which can be exploited for both interpretative and predictive purposes.

Keywords: Markov-switching; risk-return profile; stock market dynamics; mixture models.