**Modeling persistence of volatility in the Moroccan exchange market using a fractionally integrated EGARCH.**

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**Abstract**

We have tried in this article to detect, examine, and analyze the persistence in the conditional volatility of the major Moroccan stock market index called MASI, using a fractionally integrated EGARCH model that has the property of capturing long memory along with shocks to the conditional volatility. A GARCH (1,1) and IGARCH models were also estimated for comparative purposes using Akaike, Schwarz and log likelihood information criterion. We used daily returns of MASI index covering the period between 04/01/1993 and 03/02/2017. Our results confirm the presence of a strong persistence in the volatility of the Moroccan index which is inconsistent with the weak efficiency form of Fama’s efficient markets hypothesis. The findings of this study could be of particular use to investors and academics interested in the forecasting of daily volatility in the Moroccan context. This paper broadens previous long memory estimation research by applying a FIEGARCH specification enabling it, not only to account for persistence, but also, to measure the leverage effect. Moreover, we believe that, to the best of our knowledge, this paper is the first to model the volatility of the Moroccan stock market using a FIEGARCH approach.

**Keywords:** Volatility, persistence, long memory, FIEGARCH, MASI.

**JEL Classification:** G11; G17; C53; C58.