

## عنوان مقاله:

The Stock Returns Volatility based on the GARCH (1,1) Model: The Superiority of the Truncated Standard Normal Distribution in Forecasting Volatility

## محل انتشار:

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## خلاصه مقاله:

In this paper, we specify that the GARCH(1,1) model has strong forecasting volatility and its usage under the truncated standard normal distribution (TSND) is more suitable than when it is under the normal and student-t distributions. On the contrary, no comparison was tried between the forecasting performance of volatility of the daily return series using the multi-step ahead forecast under GARCH(1,1) ~ TSND and GARCH(1,1) ~ normal and student-t distributions, until lately, to the best of my understanding. The findings of this study show that the GARCH(1,1) model with the truncated standard normal distribution gives encouraging results in comparison with the GARCH(1,1) with the normal and student-t distributions with respect to out-of-sample forecasting performance. From the empirical results it is apparent that the strong forecasting performances of the models depend upon the choice of an adequate forecasting performance measure. When the one-step ahead forecasts are compared with the multi-step ahead forecasts, the forecasting ability of the former GARCH(1,1) models (using one-step ahead forecast) is superior to the forecasting potential of the latter GARCH(1,1) model (utilizing the multi-step ahead forecast). The results of this study are highly significant in risk management for the short horizons and the volatility forecastability is notably less relevant at the longer horizons.

## کلمات کلیدی:

Keywords: Volatility, Financial Time Series, Truncated Standard Normal Distribution, ARCH/GARCH Models, Forecasting. JEL Classification: C53, C58

## لینک ثابت مقاله در پایگاه سیویلیکا:

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