

An alternative GARCH-in-mean model

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Abstract

We generalize the semi-parametric GARCH-in-mean model of Christensen, Dahl and Iglesias (2012). The generalized model allows one to take the asymmetric factor into account when describing the conditional volatility. The improved estimation adopts the local polynomial approximation, which is of more flexibility as compared to the original local constant approximation. Under some regularity conditions, it can be shown that the parametric estimator is consistent. Simulations show that the estimation works well and empirical studies justify the model generalization.