Subsampling Inference in Threshold ARMA Models

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This paper considers subsampling inference for threshold autoregressive and move-average (TARMA) models. Of main interest is inference for the threshold parameter. It is well known that the limiting distribution of the corresponding estimator is non-normal and very complicate. We show that valid inference can be drawn by using the subsampling method. The subsampling inference can also be used for other regression parameters. Simulation studies evaluate small sample performance and an application illustrates how the methodology does work in practice.

Key Words: Confidence intervals, Discontinuous, Least squares estimation, Subsampling, Threshold ARMA models.