QML and GMM estimators of stochastic volatility models: Response to Andersen and Sørensen

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I agree that there is a mistake in my paper and that this changes some of the conclusions. However, looking at designs 5, 6, and 7 of Table 1 of the preceding Anderson and Sørensen (A-S) note, it seems that when there is high persistence in volatility the QML estimator is asymptotically more efficient than the GMM estimator. When analysing real daily financial time series, ϕ usually takes values bigger than 0.95. Moreover, the random walk model for volatility, which A-S find empirically less plausible, is analogous to the IGARCH model which is often estimated in empirical studies. Consequently, the important point, which is confirmed by the results of A-S, is that QML appears to dominate GMM for the parameter values which typically arise with daily data.

In any case, I agree with A-S that a more extensive analysis is needed to obtain more definitive conclusions on the relative efficiency between the GMM and QML estimators of stochastic volatility models.