GMM Estimation and Monte Carlo Simulation of the Competitive Storage Model

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Abstract

The purpose of this article is twofold: to test two implications of the competitive storage model with actual data using three alternative generalized method of moments (GMM) estimators; to investigate in the same context the small-sample properties of these estimators and the corresponding test statistics. Empirical evidence tends to be supportive of the competitive storage model. Simulation analysis suggests that at small sample size one economically important parameter is likely to be underestimated for all three estimators and the test statistics perform well when one of the estimators is used. The article provides some insight into the behaviors of GMM estimators in estimating the threshold of a two-regime commodity pricing model with one regime only occurring at small chance.