

**ABSTRACT:**

This work investigates the performance of several estimation techniques in a dynamic panel data framework. The first chapter of the thesis compares existing approaches to dynamic panel data estimation using an exhaustive simulation study and declares the performance winners in different settings. The second chapter introduces a new "Empirical Likelihood" technique as an alternative to GMM estimation. The findings of this chapter show that Empirical Likelihood outperforms its counterparts in terms of bias and should be used instead of GMM in the presence of persistent data. My final chapter applies the simulation findings to a macro panel by analysing the effect of financial intermediary development on economic growth. It is shown that Empirical Likelihood supplies more robust estimates and it is more reliable in terms of detecting invalid instruments than GMM type estimators