Financial System Development and Economic Growth

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Summary

The paper considers maximum likelihood estimation of dynamic panel structural equation models with latent variables and fixed effects (DPSEM). This generalises the structural equation methods where latent variables are measured by multiple observable indicators and where structural and measurement models are jointly estimated to dynamic panel models with fixed effects. Analytical expressions for the covariance structure of the DPSEM model as well as the score vector and the Hessian matrix are given in a closed form, and a scoring method approach to the estimation of the unknown parameters is suggested.

We apply these methods to an empirical model of financial development and economic growth where financial development is measured by several observable indicators and the dynamic effects were incorporated in the model. The results suggest a different explanation of the finance-growth relationship to the one commonly reported in the mainstream empirical literature and stress the importance of modelling the measurement structure of the latent variables.