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Efficient Estimation with Time-Varying Information and the New Keynesian Phillips Curve*

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Abstract

Empirical evidence suggest that many macroeconometric and financial models are subject to both instability and identification problems. We address both issues under the unified framework of time-varying information, which includes changes in instrument strength, in second moment of instruments, and in the variance of moment conditions. Our new estimation method exploits these changes for increased efficiency of the estimates of the (stable) structural parameters. We also propose a multivariate estimator for common changes in a system of linear equations. We obtain more precise estimates of the price indexation and output gap parameters than standard methods in a NKPC model.

Keywords: GMM; Weak instruments; Break-point; Change in identification strength.
JEL classification: C13, C22, C26, C36, C51.

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