

# $t$ -Test in Dynamic Panel Structural Equations

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## **abstract**

This paper studies the asymptotic covariance estimation associated with the LIML estimator for large- $T$  dynamic panel structural equations. The proposed simple estimation method is based on the fixed- $N$  or large  $K$ -asymptotics relating to the number of backward-filtered instruments. We demonstrate the resulting  $t$ -Test which also does not need asymptotic bias correction works well with the large- $K$  asymptotics and is robust to persistent panel data rather than a plug-in estimation method.

**Keywords :** Backward Filter, Covariance Estimation, large- $K$  asymptotics.