

This article considers the problem of testing for latent factors or reduced rank in a broad class of (multivariate linear stationary) time-series models, wherein model errors have autocorrelation and heteroskedasticity of unknown form. It is easy to motivate these models and methods in the context of finance models, and we illustrate with a familiar macromodel of asset returns, proposed previously by Chen, Roll, and Ross. Unfortunately, previously used tests for reduced rank are not sufficiently robust, so we examine two heteroskedasticity and autocorrelation-consistent (HAC) methods, a HAC version of Hansen's GMM test and a lesser known but more user-friendly minimum-distance or ratio of asymptotic densities (RAD) test. We recommend the RAD test, for which we supply computer code. In application, the tests lend more HAC-robust support to the hypothesis that multiple factors drive the link between the macroeconomy and the returns on bonds and stocks.