Unemployment and output dynamics in CIS countries: Okun's law revisited

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Abstract

© 2016 Informa UK Limited, trading as Taylor & Francis Group. Okun's law is a well-known relationship between the change in the unemployment rate and output growth. The main objective of this article is to provide a rigorous econometric analysis of Okun's law for several CIS countries using different models and theoretically justified econometric methods. The traditional approach to Okun's law estimation using OLS regressions does not account for possible endogeneity of regressors and the implied inconsistency of the estimates obtained. These problems point out to incorrectness of applications of the standard OLS estimation techniques. Our study addresses these issues by using econometrically justified instrumental variable regression methods. The article provides the results and discussions on practical use of Okun's relationships for evaluation of average effects of economic growth on the unemployment rate, and vice versa; importance of accounting for confidence intervals in applications of Okun's models to economic development analysis and cross-country comparisons and evaluation of effects of crises and other structural shocks on the economies considered. We also discuss in detail the results of formal econometric tests and economic motivation for validity of instrumental variables used in the study. The formal econometric tests, together with economic arguments, allow us to determine the most appropriate Okun-type models for each of the CIS countries under consideration.

Keywords

exogenous and endogenous variables, GDP growth, instrument relevance, instrumental variable regressions, instrumental variables, Okun's law, robust standard errors, seasonality, the 2008 global economic and financial crisis, unemployment

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