Jarosław Krajewski, Ph.D.
WSB Toruń

Forecasting of Polish Macroeconomic Processes in gretl

Abstract:
Presented study concerns practical applications of gretl program and can be used in teaching econometrics. It can be useful to show possibilities of forecasting the same economic processes from different econometric tools. Important question is that article include forecasting process description based only on the empirical time series. Data are taken directly from Central Statistical Office of Poland Informational Portal. The paper presents application of econometric models in econometric analyses of Gross Domestic Product and Inflation in Poland. This article includes results of estimation of particular models and comparison of forecast accuracy of vector autoregression model with the forecast accuracy of two competitive models: autoregressive and symptomatic. Analyses have been made on the basis of quarterly time series from the first quarter of 1997 to the fourth quarter of 2014 (72 observations) and monthly time series from January 2002 to December 2014 (156 observations). Comparison of the accuracy of forecast is based on the series of ex - post forecasts errors: Mean Absolute Error, Mean Absolute Percentage Error, Root Mean Squared Error and Theil coefficient. Forecast accuracy analyses additionally includes Diebold - Mariano test results. This study is continuation of earlier author's works in which he obtained encouraging results.