MODELING EXCHANGE RATE VOLATILITIES IN CROATIA

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Abstract

Modeling and forecasting exchange rate volatility has important implications in a range of areas in macroeconomics and finance. A number of models have been developed in empirical finance literature to investigate this volatility across different regions and countries. Well known and frequently applied models to estimate exchange rate volatility are the autoregressive conditional heteroscedastic (ARCH) model advanced by Engle (1982) and generalized (GARCH) model developed independently by Bollerslev (1986) and Taylor (1986). This paper examines the performance of several ARCH models for EUR and USD against the HRK on daily data sets within time period from 1997 to 2015. Evaluating the models through standard information criteria showed that GARCH (2,1) is the best fitted model for EUR/HRK and GARCH (1,1) for USD/HRK daily return volatility. In accordance to the estimated models there is no empirical evidence that negative and positive shocks imply a different next period volatility of daily EUR/HRK as well as USD/HRK exchange rate return.

JEL: C3, C53, G11, G17

Keywords: GARCH model, Heteroscedasticity, Exchange rate volatility, Croatia

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