LONG MEMORY IN RUPIAHS EXCHANGE RATE DATA TO UNITED STATES DOLLARS (USD)

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ABSTRACT

Previous studies have shown that regular series the rupiah against USD long memory or long-term dependence. In this study the research conducted using the method ARFIMA (Auto-regressive Fractionally Integrated Moving Average) to model the simultaneous dependence of short-term and long-term data on the rupiah against the U.S. dollar. Parameter prediction method used was the EML while the best method of selection criteria are AIC and MSE for the in sample and MAPE for out of sample. Analysis results obtained from the best model is the ARFIMA ([1,6,11,29,31]; 0.499679; [1.6]). Since the assumption of residual normality and homogeneity residual variance are not met, then the modeling followed by adding a dummy variable for the outlier and GARCH models.

Keywords: long memory, ARFIMA, outlier, GARCH