

# Review of: "A VAR Framework of Exchange Rates, Interest Rates, and Inflation Through COVID-19 in Turkey: Empirical Evidence From Linear Cointegration and Causality Analysis"

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Potential competing interests: No potential competing interests to declare.

Dear Author,

The study offers much-needed insight into an ongoing debate, and it utilizes all the necessary tools to examine the topic at hand. However, I am concerned with two things.

First, the study explains the impact of economic fluctuations between 2016 and 2019, along with the failed coup attempt of FETO and the US embargo. Even though they have a considerable effect on the economy, the fiscal and monetary policy of the Turkish economy underwent important policy changes which economists describe as unconventional. The study offers nothing about these policy changes, and thus, the readership of the article might find the paper biased. Furthermore, due to this excluded part in the introduction, the unit root test results look random in terms of reported structural break dates. I believe the author should describe the period better and explain the structural breaks.

Second, there is an obvious model specification error in the ARDL modelling. I believe we do not need to restrict ourselves to econometric models with solid theoretical backgrounds. However, econometric models should be carefully evaluated by the researcher if they do not have those theoretical backgrounds. In this case, the reported pairwise correlation coefficients show that there is almost a 92% correlation between LNPPPI and LNDSR. Thus, multivariate linear dependency should be tested before adding them to the equation as explanatory variables. Since the correlation coefficient is 92%, I believe the  $R^2$  of a restricted regression model between LNPPPI and LNDSR will be over 80%, and  $VIF = (1/(1-R^2))$  will be over 5, which leads us to believe that the estimated coefficients and other statistics from the ARDL model might be superficial and cannot be trusted. I believe the author should carry out a multivariate linear dependency test between the explanatory variables and construct the equation regarding the findings.

As a last note, the economic interpretation of coefficient estimations was wrong (for example: "A 1% increase in LNTIBOR will result in a 14.39% increase in LNCPI and vice-versa."). In log-log regression models, the impacts of the right-hand side variables on the dependent variable are interpreted like "1% increase/decrease in x will result in a  $\beta\%$  increase/decrease in y". Therefore, a 1% increase in LNTIBOR will actually result in a 0.1439% increase in LNCPI (the coefficient proposes only a one-way relationship, and we can't say anything regarding the vice-versa.)

Kind regards,

