

# Letter by way of reply to the Editors and Reviewers on the invitation to revise manuscript Ref: MS 3202

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Thank you for your insightful comments and suggestions. We are humbled by the encouraging review. Please find our response to comments and action against each of the suggestions as captured below.

## ***Referee Report 1***

- 1. Empirical model: Specifying a Taylor-type monetary policy reaction function might be appropriate for the United States, for instance, but it is less clear whether this also holds true for Kenya 1963-2014. It could be helpful to add a short historical section that comments on the conduct of monetary policy in Kenya in past decades.*

## ***Referee Report 2***

- 1. Table 4 labels the first regime as an active monetary policy regime, though all coefficients, a part from the constant, are statistically insignificant. Thus, there is no statistical evidence for an operant policy by the central bank with respect to the reaction function. Notably, the coefficient on inflation is negative in both regimes. Hence, none of the two regimes correspond to the Taylor rule by addressing potential inflation with an increase in the interest rate, although the central bank of Kenya conducts monetary policy to achieve and maintain price stability.*

## ***Reaction from Authors***

- As is evident in the results, and while I agree that more needs to be done to demonstrate the applicability of the Taylor rule Kenya, it is my humble view that the insignificance of the coefficients during the active regime maybe explained by the laggish reaction of real variables to policy variables. This lack of instantaneous response is a normal occurrence in developing countries. However, I concur that this can be further elaborated upon in the introduction and the literature review as captured below.*
- Lastly, Please note that the focus of this paper is not on whether Taylor rule holds in the different regimes, but to observe the monetary reaction functions during different inherent regimes.*

## ***Referee Report 1***

- 1. Empirical model: The authors should motivate their choice of a Markov Switching model more explicitly. It would also be helpful to add references to related econometric papers in the main text as well as some more technical details of the model in the appendix.*

2. *Empirical results: For comparison, the authors should also report the results of a simple OLS regression. Such a simpler model would also allow checking the temporal stability of the results by additionally running the regression based on a shorter sample that starts in 1980, for example. Furthermore, it would also be interesting to see the results when dropping the expenditure gap as explanatory variable (given revenues minus expenditures as dependent variable).*

### ***Referee Report 2***

1. *The authors should have started with linear reaction functions and then, based on for instance an information criterion, select a non-linear specification if appropriate.*

### ***Reaction from Authors***

- *I agree that a linear specification would have been prudent. However, the choice of a non-linear specification was informed by the fact that Markov switching models uses the log-likelihood to test whether regime switching parameters are viable and whether the observed state variables are independent. The existence of independent state was established justifying the use of a non-linear approach as a viable option.*

### ***Referee Report 1***

- (1) *Empirical results (monetary policy): How can we interpret the negative coefficient (albeit not statistically significant) for the inflation rate even in the active regime? Is this estimate a contradiction to what is stated in the abstract?*
- (2) *Empirical model: The authors should discuss (and deal with) potential endogeneity issues (e.g. the problem of simultaneity when having the output gap on the right hand side of the equation). Moreover, the estimation might suffer from serial correlation of the errors.*

### ***Referee Report 2***

- (1) *Both reaction functions according to equation (6) and (7) include the endogenous variable from the other equation as one of its exogenous regressors. Thus, both equations inherent an endogeneity problem and hence, biased estimates.*

### ***Reaction from Authors***

- *Please note that the two reaction functions were estimated separately and, in each equation, the Hausman test was used to test for endogeneity.*
- *In this regard, and in order to guide the interpretation based on the primary objective captured above, the study only introduced the figure (figure 3) to compare transition*

*probabilities of the two models to trace out the reaction functions across the regimes. Therefore, simultaneity and endogeneity in our view may not be a problem.*

- *For heteroscedasticity and serial correlation, the study deployed Huber-White standard errors which yield consistent estimates are robust.*

### ***Referee Report 1***

- (1) *Introduction: The authors often cite unpublished manuscripts but rarely refer to the most seminal articles in this field (Sargent and Wallace are briefly mentioned in Section 2.2 but not included in the list of references).*
- (2) *Introduction: The authors should explain their contribution to the literature in more detail. What are the most closely related papers and how exactly do they add to this literature? Why is Kenya an interesting country to look at in comparison to other developing economies?*
- (3) *Formatting: Page numbers are missing. Figures often lack labeling of the y-axis.*

### ***Reaction from Authors***

- *These comments are well received by the authors, and as advised, upon receiving the go-ahead, the revised manuscript will revamp the introduction and the literature review to incorporate these concerns. The study will also be revised to address the formatting gaps highlighted above.*

**It is our sincere hope that this reaction will address the reviewer's comments and we look forward to your subsequent suggestions.**