Referee Report for the Paper:
Investigating Fiscal and Monetary Policies Coordination and Public Debt in Kenya: Evidence from regime-switching and self-exciting threshold autoregressive models
MS 3202
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The paper provides an insight into the nature of fiscal and monetary policy and its interaction with an application to Kenya. The authors construct a fiscal and monetary policy reaction function with fiscal balance and the real interest as the target variables, respectively, for annual data from 1963 to 2014. They estimate a Markov-switching model to allow for possible regime changes within money and fiscal policy. The respective regimes are identified by the signs of the parameters and are differentiated into active and passive regimes. The passive fiscal policy is labeled unsustainable if the coefficient on public dept of the previous period is negative. Due to the recurrent regime changes, the authors derive a coordination between fiscal and monetary policy. Their conclusion is that the passive and unsustainable fiscal policy dominates over the sample observed. Furthermore, they claim that active monetary policy sequentially responds to unsustainable fiscal policy based on the pattern in regime probabilities.

The authors address an important issue with this paper, especially for developing countries, which needs a detailed scientific investigation. However, some points in the paper are not convincing.

Main Comments:

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.

2. 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.

3. 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.

Overall, this paper concludes that policy regime changes explains monetary and fiscal policy in Kenya and that some sort of policy coordination is in place. However, the conclusions cannot be drawn based on the above-mentioned main problems. Therefore, as a minimum substantial parts of the empirical analysis need to be entirely re-written.