

# **Referee Report on ‘Growth Prospects, The Natural Interest Rate, and Monetary Policy’**

## **1 Summary**

The paper provides a short review of the literature on i. long-run GDP growth and long-run ‘neutral’ or ‘natural’ real interest rates, ii. whether and if so by how much long-run neutral real interest rates have declined, and iii. implications for monetary policy. According to the empirical evidence reviewed in the paper it seems likely that long-run neutral real interest rates have declined in the industrialized world over recent decades, and several potential causes are discussed. It is emphasized that the long-run neutral real rate is a theoretical concept that cannot be observed in practice. Estimation uncertainty within a given model and across models is high. The authors are thus rather skeptical as regards the use of neutral real interest rate estimates for policy discussions. It is acknowledged that lower neutral real interest rates may imply that going forward nominal policy rates will hit their lower bounds more frequently than in the past. The authors bring forward some arguments why unconventional monetary policy measures might be of limited use to substitute for policy rate cuts, and also question the desirability of an expansionary monetary policy stance in an environment of persistently below-target inflation rates, referring to ‘negative side effects’. The authors conclude that central banks a. should put a relatively low weight on estimates of neutral real interest rates and output gaps in their policy rules and b. may have to accept negative deviations of inflation from their targets for longer periods of time than in the past.

## **2 Comments**

The paper addresses several interesting and policy relevant themes. The piece is overall well-written, though I’m skeptical about some of the policy conclusions.

Below I provide some more specific comments.

- **Alternative reasons for low nominal interest rates**

The authors argue that “precise estimates of the natural [real] interest rate would allow distinguishing low interest rate periods that are caused by a decrease of the natural interest rate from those that are caused by a persistently expansionary monetary policy.” This statement ignores that low nominal interest rates (and subdued economic activity and inflation) cannot only arise due to a change in the fundamentals of the economy—i.e. a decline in the natural real rate—but can also be the result of a self-fulfilling shift towards more pessimistic expectations about future economic conditions without a change in fundamentals—i.e. without a change in the natural real rate. See Benhabib, Schmitt-Grohé, and Uribe (2001), and, for a recent empirical investigation Aruoba, Cuba-Borda, and Schorfheide (2018). Note also that this type of equilibria allows for very long-lasting periods of low nominal interest rates. The paper should acknowledge this alternative possibility and discuss whether the empirical analyses reviewed in the paper has anything to say about this type of equilibria.

- **Policy implications**

- Section 4 on policy implications appears a bit too selective. For instance, the authors rightly refer to the ongoing policy debate on how to adjust existing monetary policy frameworks in an environment of persistently lower natural real rates of interest. But the only proposal that they discuss is raising central banks’ inflation targets. The authors are critical about this particular proposal. But there are several other proposals on how to augment or modify existing monetary policy frameworks to better deal with effective lower bound risk—for instance a (temporary) price-level targeting strategy, to name just one—and some of them are not prone to the disadvantages associated with increasing the inflation target. There is also a rich academic literature on monetary policy design in light of the lower bound that the authors might want to refer to.

- Second, the authors’ conclusion that “central banks may have to accept deviations from their inflation targets for longer periods than in the past” needs to be substantiated if kept in the paper. When postulating such a policy recommendation, the authors should, at a minimum, discuss the associated risk of a de-anchoring of long-run inflation expectations and the implications this would have for the frequency of lower bound events and inflation stabilization.
- Finally, the paper focuses exclusively on implications for monetary policy. What about fiscal policy? Again, there is a rich academic literature that addresses this question. To the extent that monetary policy becomes less effective when the lower bound is binding more frequently, fiscal policy might have to play a more prominent role as a stabilization tool, at least in the wake of large adverse disturbances.

- **Minor comments**

- Sections 2 and 3 could be better linked.
- Page 17: “to what extend...” → “to what extent”

## References

- ARUOBA, S. B., P. CUBA-BORDA, AND F. SCHORFHEIDE (2018): “Macroeconomic Dynamics Near the ZLB: A Tale of Two Countries,” *Review of Economic Studies*, 85(1), 87–118.
- BENHABIB, J., S. SCHMITT-GROHÉ, AND M. URIBE (2001): “The Perils of Taylor Rules,” *Journal of Economic Theory*, 96(1-2), 40–69.