Referee report on "Information Stickiness in General Equilibrium and Endogenous Cycles" by ORLANDO GOMES

The paper extends the "Sticky-Information General Equilibrium model" by Mankiw and Reis in two directions. One direction is, based on a linear, determinisitc version of the SIGE model, that the assumption of perfect foresight is relaxed so that the agents expect a future variable to be a linear combination of the perfectly foreseen one and the steady-state level. The other direction of extension is that the information updating rule is endogenized so that a strong nonlinearity is introduced into the otherwise linear original model. The main result of the paper suggests by computer simulations that the new model is capable of nonlinear phenomena such as endogenous periodic cycles and chaos, which is not capable in the original Mankiw-Reis type model.

I think that the contribution of the paper is potentially significant. The newly added assumptions on expectations formation and information updating seem a little bit far-fetched. Furthermore, the parts of dynamic analysis of the model seem correct but rather unsatisfactory in that the analysis is limited to the elementary level, perhaps because the shapes of dynamic functions are too complicated to deal with. However, the author's finding of the occurrence of chaotic behavior in a version of the SIGE model itself interests me a lot, because it is new to the literature (excl. the author's other papers). I expect that the paper will stimulate further research from the perspective of nonlinear dynamics in such a macroeconomic framework, and therefore I believe that the paper or at least the findings of the paper should be published somewhere and somehow, maybe on this journal with some minor revisions.

Minor suggestions for possible revision:

In any Propositions, the concept of `stability' should be much clearer: `stability in the model' does not make sense to me. Does this mean the asymptotic stabilty of the steady state (in the local/global sense)?

In Figure 1, the horizontal and vertical axes should be renamed properly.

I would add another diagram of the largest Lyapunov exponent, accompanied by Figure 4, which is routinely used to show the occurrence of chaos.