Editorial Review: Banda

Thank you for a highly original submission. The editor and both reviewers found your model intriguing and we look forward to further progress as you detail how this system is processing information. Before proceeding with publication, please address comments by the two reviewers, as well as the editorial feedback below.

* More discussion interpreting your results would greatly enhance the impact of this paper. In particular:
  + Fig. 1 – where do interactions with Firm A, where the perturbation was introduced in the initial condition, lie in your distribution of TE? Are high information events associated with this Firm? Low ones? Or in the middle? Where is Firm N which is the largest distance from Firm A?
  + Fig 3 – In the free model, why do you think Firm A has the lowest AI? Are B and C also low since they are neighbors of A or for a different reason?
  + It is difficult to directly compare the magnitude of Fig. 1 & 3 with that of 2 &4 since you have a different binning size for the measures in each model. Can you normalize these for a more effective comparison? (say do log base 4 for the government model if that is your number of states such that the y-axis runs 0-1?).
  + Fig 2 has a different shape than Fig.1, presumably because of the presence of the government, but more insights into how the government is affecting the distribution would be helpful. Where are node pairs involving the government in this distribution? Does that provide any insights?
  + Fig. 4, more insights into why introduction of the government removes the asymmetries of active information among nodes would be helpful. Because of the scaling of the y-axis, it is in particular not readily apparent if the Firms A-N do in fact change that much (relative to one another) with respect to AI (all firms fall in a range of 0.5 bits in both distributions but Fig. 3 has more detail since the y-axis only runs over this range). Please confirm whether the distributions are in fact different and if so, what your interpretation is of the difference.
* Discussion of the above points would greatly strengthen your conclusions section.
* You mention in the introduction that the dynamics of firms should depend on the size of the economy, any conjectures on how the properties of your model system should scale with size?
* Using US dollar currency does not seem to make so much sense in the context of the work presented (would it really cost $.25 to bail out a firm?). You can use dimensionless units or discuss what you anticipate to be the scale of your model relative to real economic value.
* Please clarify what fractional values mean in the context of the model.
* You note that 34% of nodes have causal edges in the forced model, and 35% in the free. This fact is likely not so significant since the only difference between the two is the addition of one node. I would remove unless you plan to discuss interpretation of your results related to these numbers.