Review for Economics 1073: "Evolutionary model of the bank size distribution"

The paper presents a model that that aims at reproducing the empirical size distribution of banks as measured by deposits: a combination of a lognormal distribution with a pareto tail. It does so by combining two processes, a slow money creation process and a fast deposit exchange process. Overall, bank size evolution has four components: fiat money creation takes place via newly granted loans and repayments. Deposit exchange among banks is split into three categories: deposit exchange due to economic activity, deposit shifts from customers changing banks, and deposit shifts due to restructuring processes. Of these, deposit exchange due to economic activity is assumed to be the fastest process, and money creation via loans the slowest. Of these four processes, loan growth via credit creation is the one that sets apart the large banks from the small banks: In the long run, the model yields a lognormal distribution for small banks since loan growth is not significant for them, and a Pareto distribution for large banks.

Overall, the paper is well-written. The basic idea of the model is easy to grasp, and also the technical details are quite accessible. With respect to the topic, generative models for bank size distributions are a very good complement to the – still small – empirical literature on the topic. The paper breaks – at least according to the knowledge of this reviewer – new ground on a very important topic in the analysis of banking systems. In order to make the paper more robust, it would be good if the author made a stronger case for the most important assumptions he made.

Main comments:
- Equation 10 states that alpha is of order epsilon as opposed to beta and eta. Given the importance of this crucial assumption for getting the desired model outcome, it would be helpful to make a stronger case for why deposit growth is a "slower" process than, for example, restructuring.
- Equation 3 states that the change in bank deposits due to economic activity is the only component of bank size evolution that is not proportional to current deposits. It would be good to provide an economic argument for why this is the case. Similarly, an argument for the size-dependence for deposit migration in Eq (6) would help.
- In equation 20, I think the free parameter should not be a function of s.
- I perceived the concept of potential deposits in Appendix A as somewhat confusing.
- In the conclusions: the last sentence (on liberalization) is a very general statement. Furthermore, it stands in contrast to the technical / theoretical discussion of the Pareto exponent in the paragraph. Given the technical nature of the paper it might be worthwhile to either provide a more solid motivation for the statement and thus a detailed discussion of liberalization, how it would be represented in your framework and what the implications are, or leave it out.

Minor points:
- The references are incomplete: Janicki & Prescott 2006 is missing.
- Equation 16 should be an identity.
- In the conclusion, it should be exchange and *creation* of money, not exchange and growth of money. Overall, some minor grammatical and spelling errors.