

Reply to referee 1

Once again the referee has read the paper carefully and given excellent comments, which for the most part I have incorporated in the latest revision of the paper.

Comment 1

The changes to the model have indeed made gift-giving an equilibrium. Thank you for pointing this out. In a more recent paper I have adjusted the model so that every agent can get some trivial value, ϵ , from consuming their endowment. This will eliminate the gift giving equilibrium in a fairly natural way. I have not altered the model in the present paper, but I have added a discussion of the gift-giving equilibrium to the conclusion.

I am not entirely sure that I fully understand the environment in the second part of comment one. Because buyers and sellers are randomly chosen in each period and we are working with a continuum of agents, the law of large numbers tells us that one half of last period's buyers will be buyers again this period. Thus in every period each buyer is given one indivisible unit of money. However, the buyers are trading with sellers who have different quantities of the good to exchange. While all of the sellers will indeed be willing to trade their endowments for the one unit of money, the indivisibility of money will mean that the buyers necessarily end up with different quantities of goods. A similar phenomenon takes place in the second sub-period. The distribution of goods will depend on how trade is organized. My point is that with indivisible money in short supply, a price taking equilibrium appears to be impossible. Furthermore, from the description of the environment (which I'm not sure I fully understand) I think that allowing agents to get some small value, ϵ , from consuming their endowment will be sufficient to destabilize the equilibrium. As noted above I have begun to explore an environment with this property in a more recent paper.

This objection to indivisible money above can be overcome by giving every buyer Y units of money in every period. Now there is enough indivisible money in the economy for each unit of good to trade for 1 unit of money, and in a price taking equilibrium we can expect that all buyers will end up with the same quantity of goods. Notice, however that the sellers, because they started with different endowments, have different money holdings at the start of the second sub-period, and therefore in a price taking equilibrium will consume different amounts. Thus this monetary policy can implement an equilibrium where the buyers always consume the same quantity of the good, but the sellers consume according to their endowments. This equilibrium is indeed ex post efficient, but it is not ex ante efficient, and therefore does not meet the efficiency standard that we have chosen to investigate in the paper. I agree that a study of ex post efficiency in the paper's environment is worthwhile, but it is beyond the scope of the present paper.

Comment 2

I do think that the model can be extended to address equilibrium default and I have added a discussion of this to the conclusion of the paper. As long as consumer default takes place in a predictable manner, banks can hold capital reserves or make profits from the interest rate spread

that are sufficient to cover the costs of default. Furthermore the model can be extended to address equilibrium bank default, as long as we specify how consumers react to bank default.

I have also extended the discussion of the coexistence of fiat money and credit in section 3 of the paper.

Comment 3

I removed the discussion of histories from the main text of the paper when defining the Pareto optimal allocations.

I thank the referee for a report that gives me many ideas for further exploring the model.