

## **Referee report on “Evaluating Inflation Targeting Using a Macroeconometric Model” by Ray C. Fair**

### **E-conomics: MS# 33-1**

This paper uses a structurally estimated multicountry macroeconometric (MC) model using US data to evaluate monetary policy rules. The main message of the paper is that price level targeting is not a good idea according to the results of the model. I think this is a quite important message because many theoretical model based on the New Neo Classical Synthesis (NNCS) are actually suggesting price level targeting as a possible optimal policy rule. This prescription follows from the fact that the main distortion in these latter models comes from price dispersion.

### **Main Comment**

The paper is not and should not be a methodological paper. It makes a nice point, and it should focus on it. In the current version the paper devotes 16 pages and a half to a methodological comparison between NNCS models and the MC model of Fair (1974, 2004). I think the author should completely abstract from that. The NNCS models are well-known and they are now a workhorse for theoretical model. On a theoretical basis, no evidence on RMSE (see Table I) could convince anyone to abandon NNCS model, for the type of model as MC. MC is a model with very big caveats: it has a lot of *ad hockery*, expectations are not rational, and the Lucas critique is definitely biting. From a theoretical perspective, it is illogical to use a model with no forward-looking components (so that announcements of new policy rules have no effects) to judge exactly what happens when there is a change in the monetary policy rule.

So the author should rather focus on describing the MC model, which is empirically performing ok, and it is much more disaggregated than standard small scale NNCS. Moreover, the comparison does not seem to be fair, in the sense that by now there are also medium scale NNCS models (see Christiano et al., JPE 2005, or Schnitt-Grohè and Uribe, NBER Macro Annual, 2005) that seems top be performing rather well also from an empirical viewpoint. And for many NNCS model it is not true that they ignore wages (p.13), since many models feature wage stickiness. The author should use instead the

first 16 pages to spell out much more precisely the features of the MC model, which is not well-known in the literature. In particular:

- how is disequilibrium treated? If there is disequilibrium, then, it must be that price and wages are prevented to adjust, so footnote 3 needs to be re-written, I think
- what does it mean that agents never learn the true model? Not even at infinitum, like in a converging learning process that is E-stable?
- How much is disaggregated?

And so on...

Then he should stress (as he does also in the current version) the main weakness of this approach (*ad hoc*ery, treatment of expectations, no forward-lookingness) compare to a more theoretical based one. Explain that these features are empirically based, that is, they are needed to match empirical evidence. Then, whether the Lucas critique is important or not for this approach, it is an empirical issue (while it is certainly important from a theoretical perspective).

Hence, assuming that the Lucas critique is not empirically important, it is then interesting to do a sort of analysis similar to the standard NNCS model on monetary policy rules, to check the robustness of the main results of this popular literature.

Bottom line, I view this paper as saying: 1) there is wide literature by now on NNCS and monetary policy rules; 2) let us see if the same results hold in models built with a very different philosophy: the large macroeconometric models, as the MC model. 3) the main message is then that an important prescription of NNCS models, such as price level targeting, is not robust to more empirically based models. Hence, it may be dangerous for policy makers to fully follow the NNCS prescription.

Minor point: Why not put also the values of  $H$  in Table 8 so that we have an (*ad hoc*) metric to judge the distance between the optimal rules and the price level or the inflation targeting rules?