

## Referee Report

*e-conomics*

### **Bayesian averaging v. dynamic factor models for forecasting economic aggregates with tendency survey data**

The paper focuses on forecasting key Polish macroeconomic aggregates using reduced formed models. The authors employ several model averaging techniques as well as dynamic factor models using survey data. They conclude that the model averaging techniques, specifically Bayesian averaging of classical estimates (BACE) yields superior results. I found the idea of comparison of model combination techniques and dynamic factor models based on their forecasting performance interesting. However, I have difficulties in understanding the flow of the text. The paper is poorly written, not very well motivated and, there are several typos all around the text. More fundamentally, I find the motivation of "atheoretical" models vs. theoretical models redundant as there are not any theoretical models competing with the models in the paper. From execution point of view, I have doubts on the accurateness of the methodology and the execution could be improved in many directions. In general, there are many ad hoc decisions during the execution of the methodology, which should be motivated nicely.

## Comments

1. On the motivation of "atheoretical" models vs. theoretical models: Many of the models in the paper can be thought as reduced form models derived from structural models. Perhaps more importantly, many of the seminal papers on this issue such as Sims (1980) are not cited, which makes the discussion very loosely grounded.
2. Closely related to the first bullet, I think the motivation should be rather on the forecasting methodology, i.e. model averaging vs. factor models and the use of tendency survey data.
3. The term "economic situation indicators" can be replaced by another term potentially "coincident" or "leading" indicators.
4. The ordering in equations (2) is key for the paper as it is followed throughout the paper and therefore, it requires more discussion. It would be also nice

to see the forecasting results using, for example, an alternative ordering that yields the best results compared to other remaining alternatives.

5. Regarding to equations (2) which particular variables are subject to endogeneity: If these are the GDP, UNE and CPI, then the question is on the efficiency of the use of equation-by-equation estimation. As the error terms are correlated and, as far as it can be understood from the exposition of equations (2), the system seems not to be just identified, an efficient way of estimation would be system estimation. Finally, if the authors would want to impose a specific ordering then why not using structural VAR instead these equations?
6. It would be nice to include a brief outline of details of Bayesian model averaging.
7. On page 7, when introducing the methods of averaging, the third method that takes collinearity into account is surprising. It should be better motivated maybe at earlier stages why the authors also use this method.
8. On page 8, I think some of the indicators are not used at all. This should be indicated explicitly with the reasoning behind why it was dropped. There should be a sensitivity check on the potential effects of these ad hoc choices.
9. On page 8, the table-ish display of the indicators should be replaced by a nice table or should be moved totally to the appendix with some explanations in the main text.
10. My impression from the information in the text is that the factors are estimated using the principal components rather than likelihood based inference. In this sense, what is the use of dynamic evolution of the factors displayed at the bottom of page 10 in the forecasting exercise.
11. Table 1 should be replaced with more informative table including not the mnemonics but the description of the variables.
12. Why not extracting the factors from the complete set of indicators rather than splitting the information set into three parts? In this case what is the forecasting performance of these models. It should be provided a sensitive check on this choice.

## References

Sims, C. A. (1980), Macroeconomics and Reality, *Econometrica*, 48, pp. 1–48.