

Dear Reviewer,

Thank you for your comments. Please below find our responses

1. "Estimating (1) on the equation-by-equation basis would not be adequate due to endogeneity of particular variables." I don't think that's correct as we simply have a VAR. Therefore, I don't think (2) yields substantive differences.

(1) The comment says "I don't think that's correct as we simply have a VAR". As a matter of fact, the model that we propose is quite different from VAR in every sense. The main advantage of our approach is the following. Estimating a model requires a positive number of degrees of freedom, yet if any MLE or other estimator with only asymptotically "nice properties" is involved, keeping the df only slightly positive is obviously insufficient. We do have a considerable number of potential regressors to be involved and our approach is not just to subjectively eliminate them but to try to involve them in the model. Hence, in the Bayesian averaging procedure any process of dropping a variable is supposed to be the result of statistical results, not subjective preselection. With over 20 exogenous regressors it is not feasible to estimate a VAR (even the simplest one) without assuming the non-existence of a number of variables in some equations (for the GDP, unemployment or CPI) since we have less than 70 observations in the series. That's why we limit the number of time series of exogenous variables. What is possible, it is the process that we performed:

- (1) Bayesian model averaging. As described in the paper, the idea is to estimate a number of equations (models) keeping just a few of the potential regressors in each of them and afterwards - to average the estimates of parameters (we perform a few variations of the last part of the process);
- (2) Dynamic factor approach, which follows the logic of factor models, where the number of variables is reduced in order to extract common information underlying the data generating process of time series from tendency survey data.

The result is, that particular models of interest do not suffer from the low degrees of freedom as we estimate the equations separately (performing something 2SLS-like) equation by equation and in each case drawing only a few regressors for the given equation (in dynamic factor approach a constant number of obtained dynamic factors). Thus in each iteration we get a structure with approximately $df=60$. That is not much, however, the OLS applied to each equation separately does not require asymptotics and furthermore: a VAR with the three endogenous variables and all the regressors of interest would have a $df < 0$ enforcing the process of imposing constraints of a number of parameters being equal to zero. This is not what we want to do as this approach is no more strictly atheoretical - as is the idea.

2. Isn't the number of variables and lags far too large for the type of exercise attempted here? I think Stochastic Search Variable Selection (SSVS) would have been more efficient.

(2) We would like to disagree with the comment. The answer is actually very similar as to the previous question. Please note, that in the procedure we include only a few of the regressors in each of the

estimated equations. Naturally, it is possible - and it is done sometimes - to test all the possible subsets of the set of potential regressors at once. However, it is not always possible - for example in the case of Sala-I-Martin, Doppelhofer and Miller (2004) they would need to estimate 2^{67} models. Instead they estimated roughly a million - any further attempts simply made no changes and thus made no sense. The same applies here. We can have practically as many regressors in the candidate set, as we want, as long as the number of regressors in each estimated equations is drawn in such a way so that the df would remain anyhow sensible.

In the corrected version of the paper we plan to extend discussion to depict this data selection procedure as an alternative to the one employed in our paper.

3. Page 10: The point of the factor model is, primarily, to have the same factor(s) in all three equations.

(3) Yes, in each equation of the predictive model the factors were constructed from the same variables and in each model all of them appear. In our approach, estimated parameters indicating importance of different factors for evolution of a variable of interest differ between equations.

We suggest emphasizing this feature in the text to make it more visible for readers of the text.

4. Forecast combination is alright but isn't it desirable to compare with univariate forecasting methods as well?

(4) Comparison of the accuracy of forecasts obtained from the models discussed in the presented paper with forecasts generated on the basis of other models was not the primary goal of this article. Yet, such comparisons were made (although not included in the paper) and the reader may find them in the extended version of the study, which served as prerequisite for this article. The study was conducted within the framework of the Polish National Bank grant (NBP Working Paper 191/2014),

http://www.nbp.pl/homen.aspx?f=/en/publikacje/materialy_i_studia/2014_en.html.

We suggest adding a footnote or extending the current text with adding the results stemming from the analyses.

Best regards,

Authors