

## **Response to the Editor-in-chief**

We wish to thank the Editor-in-chief for her comments.

In response:

- Please find a point-to-point response to the comments.
- Major changes that we made are: we added the DOI for the references, or the URL whether the former was not available; we entirely modified the printing of the summary of the VLSTAR estimation.

We have uploaded the following documents.

- A copy of the revised manuscript.
- A point-by-point response to the comments by the Editor-in-chief.

## Response to the Editor-in-chief

DOIs need to be added to the references.

*Response: DOIs have been added to the references. We used the URL in case the DOI was not available.*

The fitting is slow, could the example have fewer iterations, and still be useful?

```
fit.VLSTAR <- VLSTAR(techchol[-1,], p = 1, m = 2, st = st[,5],  
+ starting = stvalues, method = 'NLS', n.iter = 30, ncores = 4)
```

*Response: Thank you for the comment. As already stated in the ‘Example’ section, the algorithm converges within 7 iterations, even if the limit is set to 30. Limiting the number of iterations would lead to a non-optimal solution in the estimation problem. Furthermore, it should be considered that this value is very small for a non-linear model estimation. Also, since the algorithm already converges in 7 steps, setting `n.iter` to (for example) 5 would reduce the computational time of a very small amount of time. For these reasons, we believe that the number of iterations should not be limited.*

Do you really need two pages for for printing out parameter estimates.

*Response: Thank you for the comment. We changed the estimation output showing only the estimated parameters with the related significance. Furthermore, we separated the coefficients of each regime within the single equation and added the log-likelihood for each equation. This is more in line with similar packages, such as `tsDyn` and `vars`. Printing is now reduced to little more than one page. Version 1.1.10 of the package with the modified version of the summary has been already published on the CRAN.*

We still find many small grammatical errors, and recommend that you at the least run it through some automatic grammar checker, like <https://grammarly.com/>.

Remove the blue text, and check your article against the checklist at <https://rjournal.github.io/share/proofreading-checklist.pdf>. You should NOT have to tick anything on this list of your paper is satisfactorily revised.

*Response: We removed the text in blue, removed the grammatical errors (also using the automatic grammar checker suggested) and checked the paper against the checklist.*