

# Conditional Forecast in Large Bayesian VARs with Multiple Soft and Hard Constraints a Discussion

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## Why I liked this paper:

The authors propose a uniform setup to estimate conditional forecasts allowing for:

- ▶ Imposing hard constraints
- ▶ Imposing soft constraints
- ▶ constraining observables
- ▶ constraining structural shocks
- ▶ doing scenario analysis

**This is a very ambitious task**

And using a precision-based sampler, it is also quite (time) efficient.

## Things I would have liked to read:

- ▶ A clear explanation of where the improvement comes from: (in my understand it comes from using) the algorithm by Chan & Jeliazkov (2009) **for which you need** to derive the conditional forecasting distribution in terms of inverse covariance matrix. Is this correct?

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- ▶ The theoretical part of the paper aims to be an unified framework that allows for all the way one wants to do conditional forecasting. However, it gets a bit lost in all the sections. In particular...

## Questions:

- ▶ In equation (9) the authors pick one restriction:

$$\boldsymbol{\mu}_\varepsilon = \left( RH^{-1} \right)^+ \left( \mathbf{r} - RH^{-1}\mathbf{c} \right)$$

$$\boldsymbol{\Psi}_\varepsilon = \left( RH^{-1} \right)^+ \left( \boldsymbol{\Omega} - R(\mathbf{H}'\mathbf{H})^{-1} \right) \left( RH^{-1} \right)^{+'}$$

Why did you pick this one? How restrictive is this choice?

Can I use other restrictions? I see in the application that you use another one so I imagine no, but it would have been nice to read this early on.

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- ▶ In the application, several things are going on: choice of prior, shrinkage, constraints...what is the impact of each of these on the improved forecast accuracy?

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**You should consider to use this method if:**

You are interested in conditional forecasting especially under soft constraint using large VARs (which is the ongoing task policymakers face). When can we have the code?