Current Data Comparison of BCA IRFs

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Replication of the Bootstrapped VARs

Using a resampled bootstrap method (drawing from VAR errors with replacement), the bootstrapped IRFs look very close to the original BCA IRFs.

The original BCA paper also bias-adjusts their bootstraps, through a method called bootstrap-after-bootstrap. Implementing this makes the replicated IRFs almost exact to the original BCA IRFs.

Classical VAR

Targetting business cycle frequencies in frequency domain.

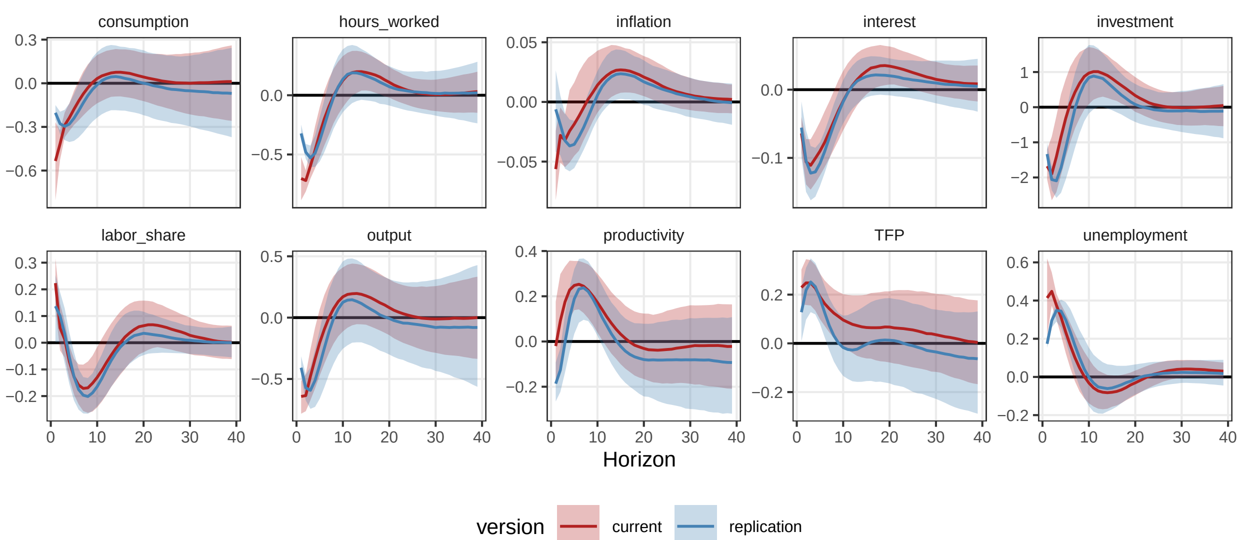

Figure 1: Comparison of Replicated IRF to Original, Resample Bootstrap, Bias adjusted

Bayesian VAR

Targetting business cycle frequencies in frequency domain.

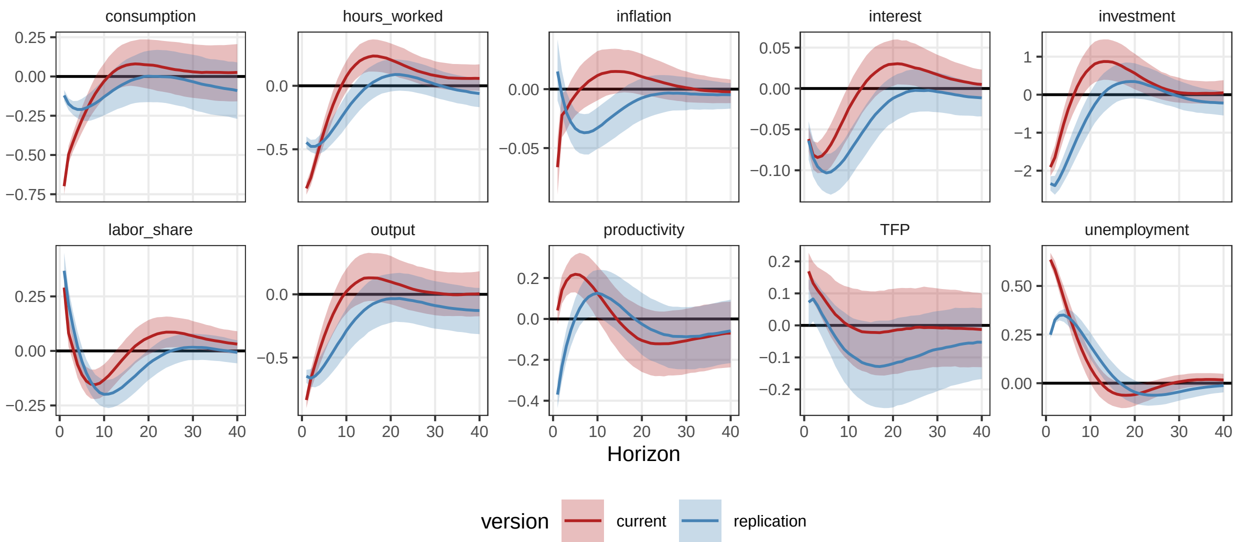

Figure 2: Comparison of Replicated IRF to Original, Resample Bootstrap, Bias adjusted

Targetting horizon of 4 in time domain. Still looks very similar to the frequency domain targetting.

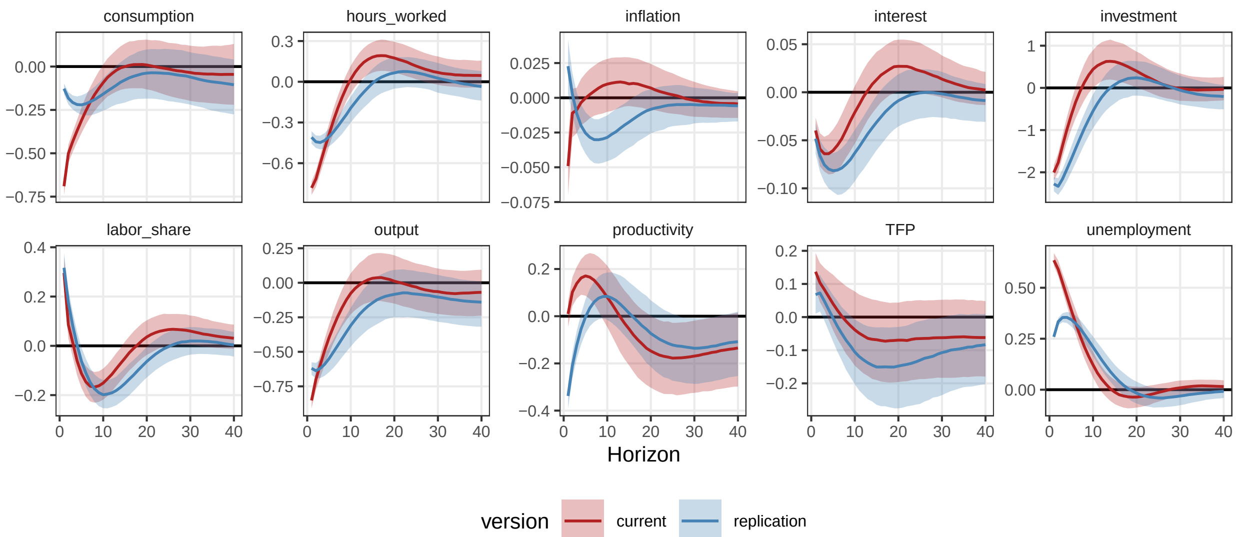

Figure 3: Comparison of Replicated IRF to Original, Resample Bootstrap, Bias adjusted