UNPUBLISHED APPENDICES TO

Are Bayesian Fan Charts Useful?

The Effect of Zero Lower Bound and Evaluation of Financial Stability Stress Tests

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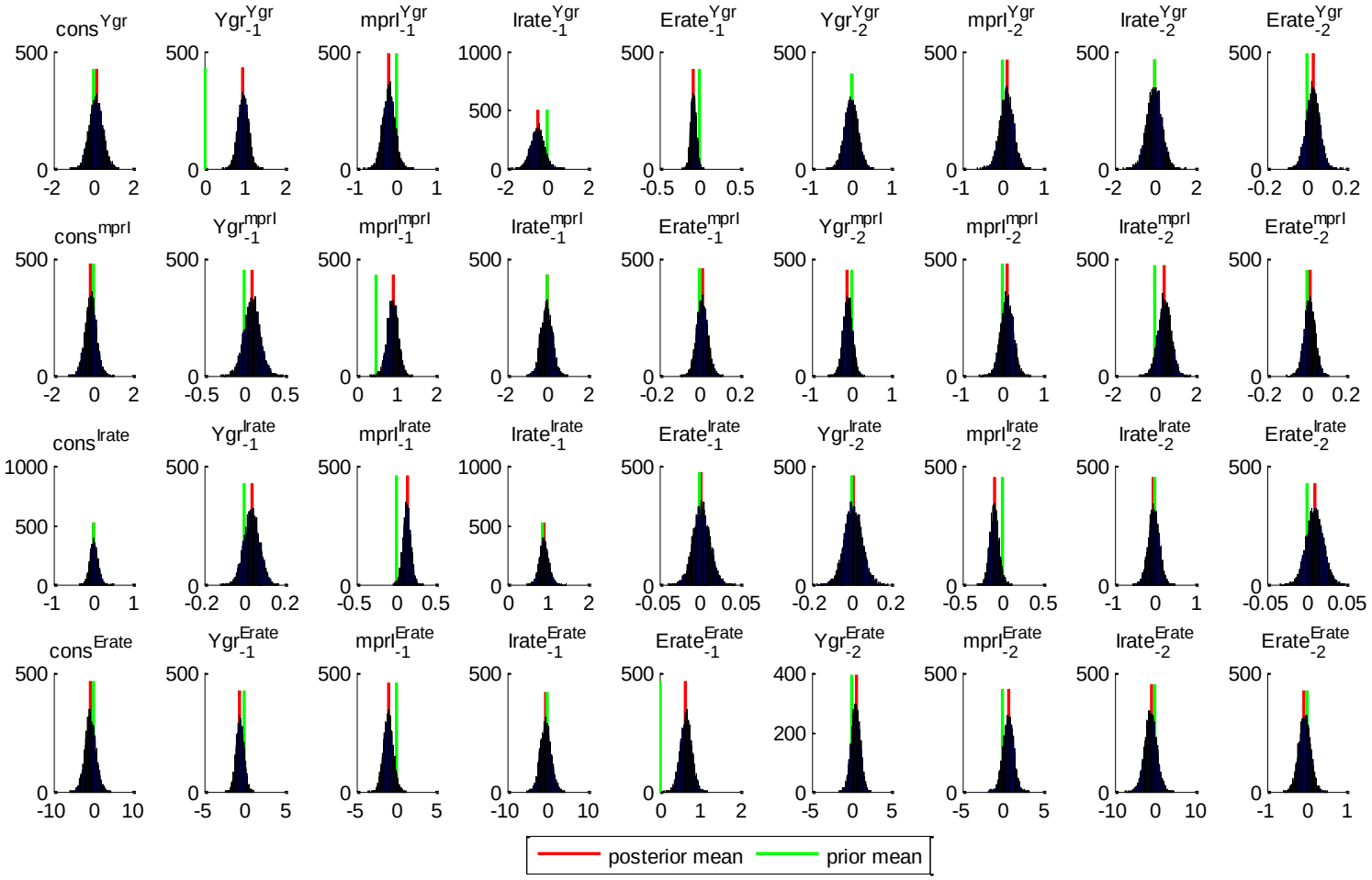
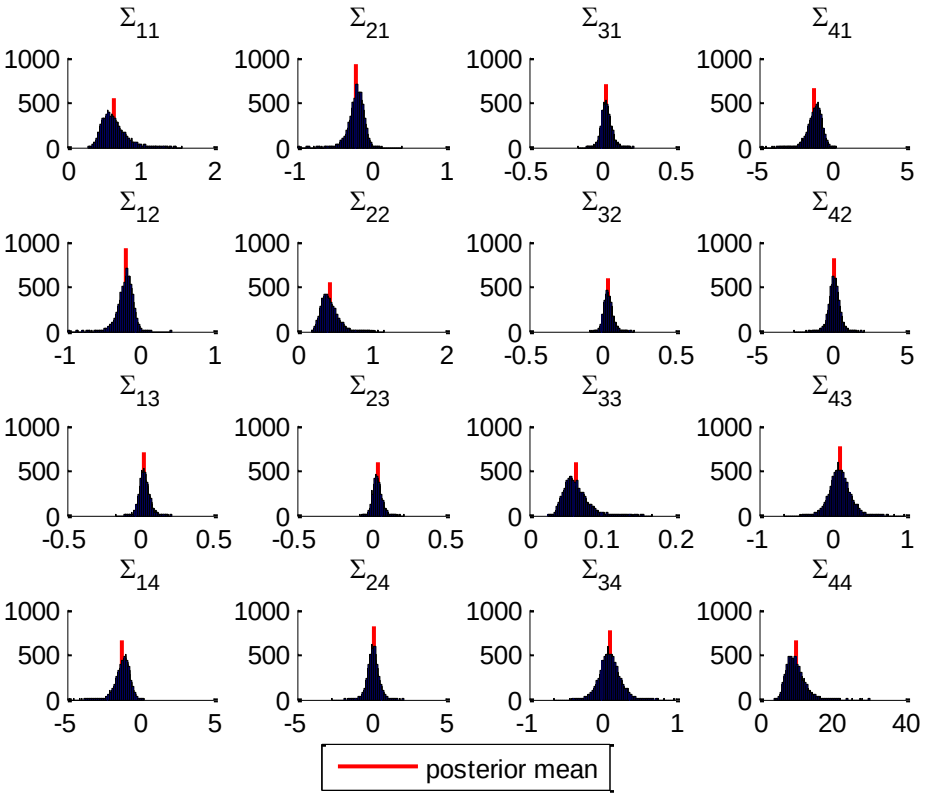
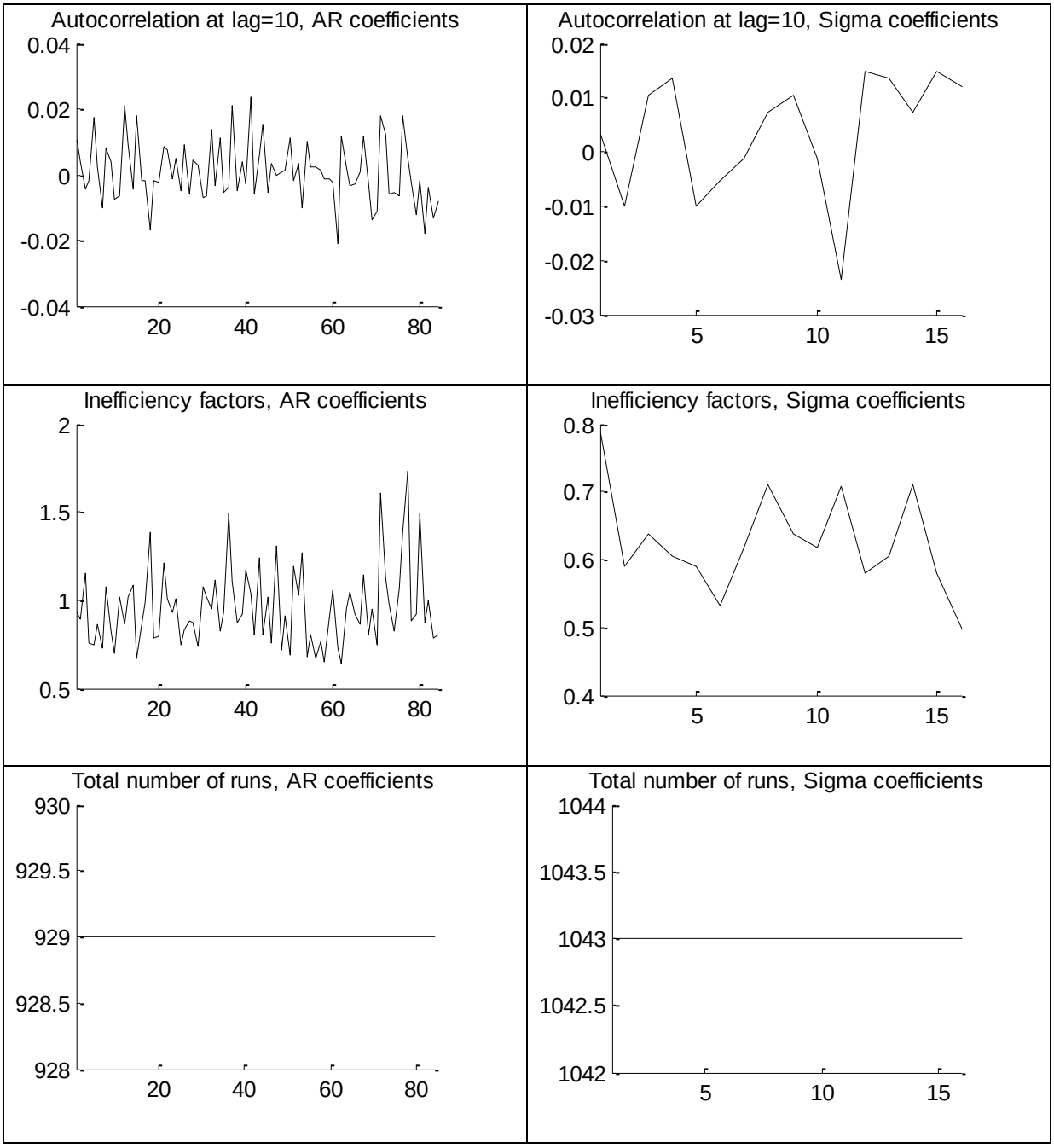
Appendix A: Post-estimation diagnostics for the BVAR model

This appendix presents the post-estimation diagnostics of the reduced form BVAR(5) estimated on the full data set covering the period 1998Q2–2012Q2. The first figure presents the simulated posterior distribution of the autoregressive parameters and the prior and posterior means of the distributions. The coefficient notation is as follows: $Irate_{-2}^{mprI}$ denotes the coefficient on the second lag of the interest rate in the equation for monetary-policy relevant inflation (mprI). To save space, only the coefficients for the first two lags are presented. The figure suggests that the data are informative, i.e., the prior and posterior distributions differ. The second figure presents the posterior distribution for the coefficients of the error covariance matrix Σ. The prior mean is not reported, as the diffuse prior is assumed.


cons Ygr
Ygr -1 Ygr
mprl -1 Ygr
Irate -1 Ygr
Erate -1 Ygr
Ygr -2 Ygr
mprl -2 Ygr
Irate -2 Ygr
Erate -2 Ygr
cons mprl
Ygr -1 mprl
mprl -1 mprl
Irate -1 mprl
Erate -1 mprl
Ygr -2 mprl
mprl -2 mprl
Irate -2 mprl
Erate -2 mprl
cons Irate
Ygr -1 Irate
mprl -1 Irate
Irate -1 Irate
Erate -1 Irate
Ygr -2 Irate
mprl -2 Irate
Irate -2 Irate
Erate -2 Irate
cons Erate
Ygr -1 Erate
mprl -1 Erate
Irate -1 Erate
Erate -1 Erate
Ygr -2 Erate
mprl -2 Erate
Irate -2 Erate
Erate -2 Erate
posterior mean
prior mean


Σ11
Σ21
Σ31
Σ41
Σ12
Σ22
Σ32
Σ42
Σ13
Σ23
Σ33
Σ43
Σ14
Σ24
Σ34
Σ44
1000
500
0
posterior mean

Appendix B: Convergence diagnostics of the Gibbs sampler



The figure presents usual statistics to assess the convergence of the Gibbs sampler. First, the autocorrelation of the sequence of draws of model parameters at a lag equal to 10 is presented. Low autocorrelations indicate the efficiency of the sampling algorithm. Second, the inefficiency factor, which is defined as $1+2\Sigma_{k=1}^{\infty}\rho_k$ for ρ_k denoting the k-th autocorrelation of

the sequence of draws, is presented. According to Primiceri (2005), values below 20 are considered satisfactory. Finally, the Raftery and Lewis (1992) statistics provide the number of Gibbs sampler runs necessary to achieve a certain degree of precision. The number of suggested runs is well below the number set for the estimation of the model.

Appendix C: Autocorrelation of residuals of the model

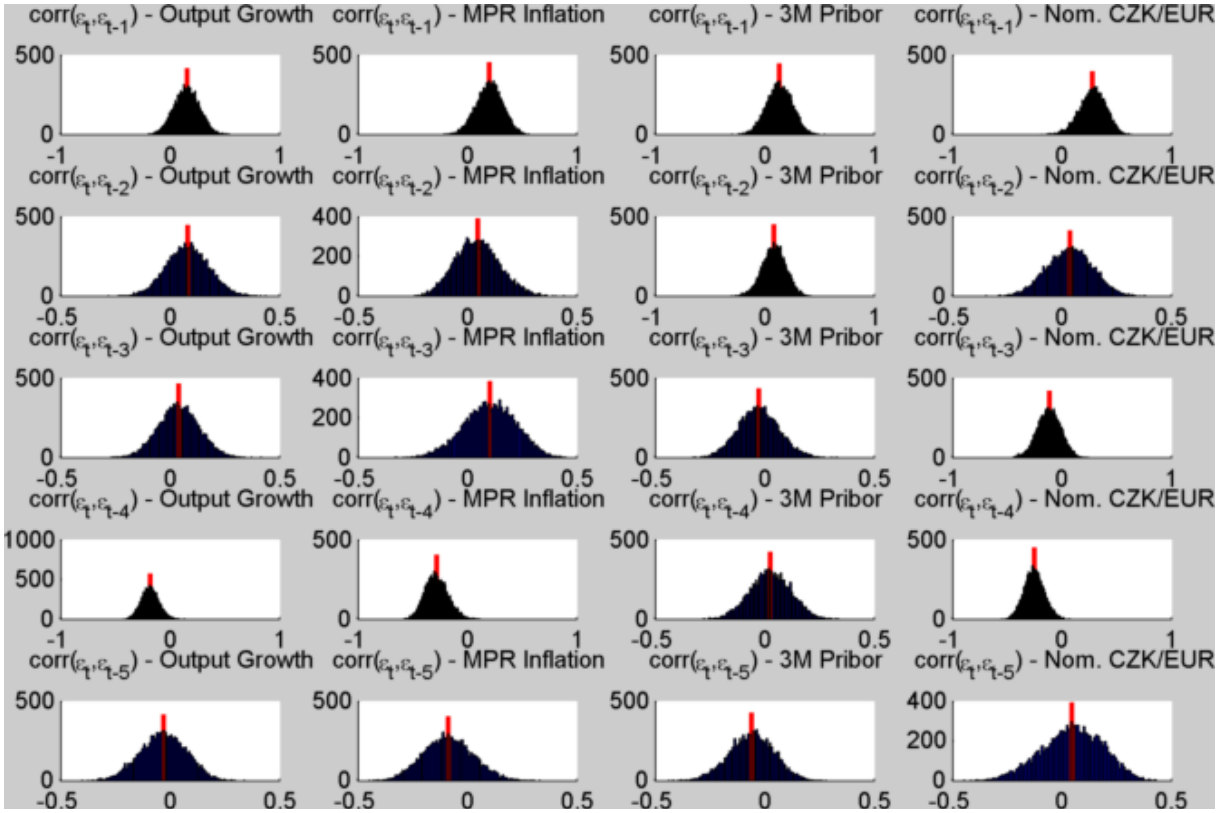


Figure C1. The model with five lags.

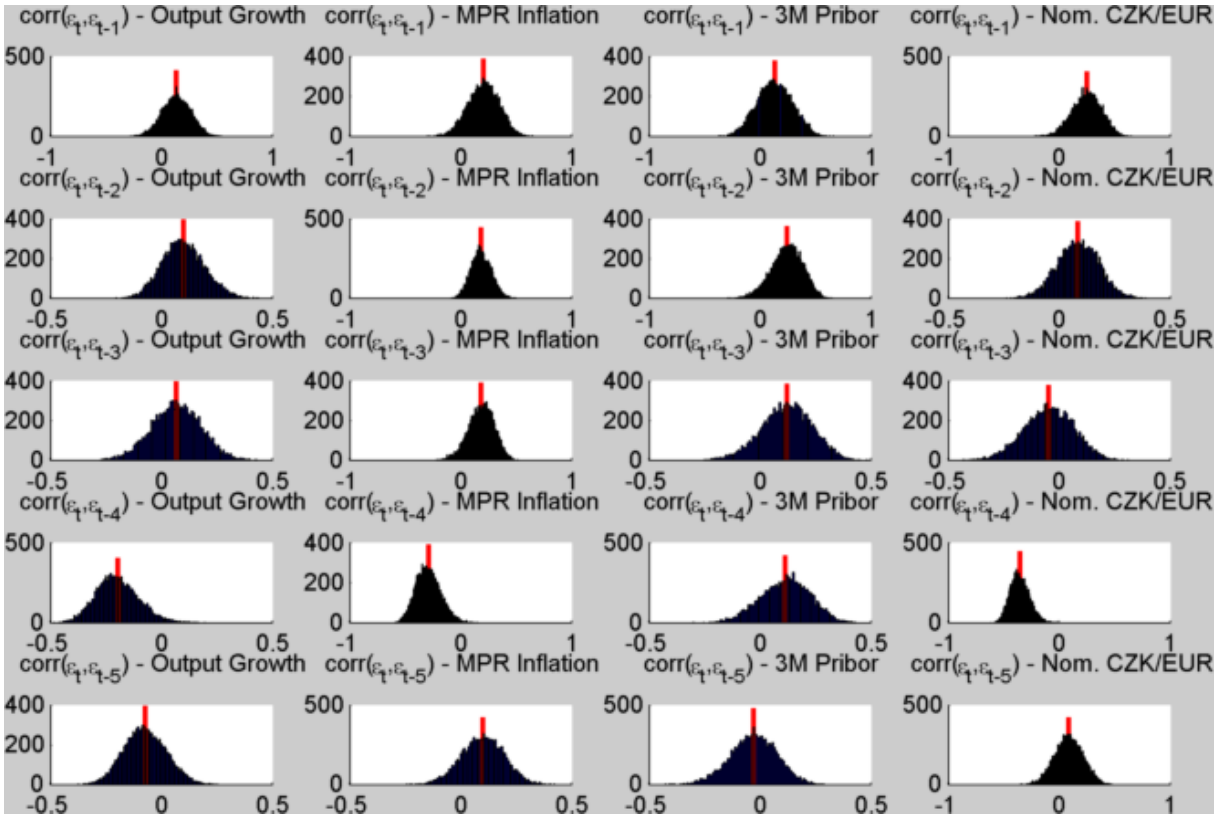


Figure C2. The model with four lags.

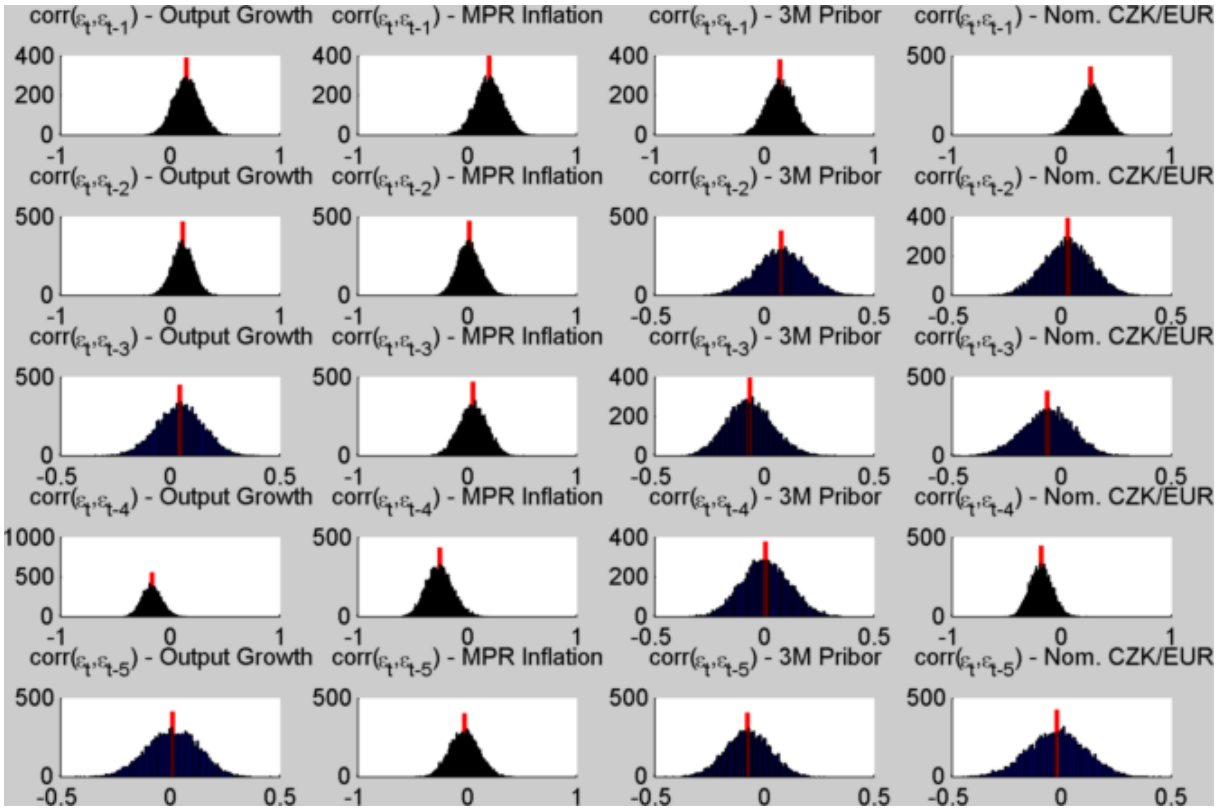


Figure C3. Model with six lags.

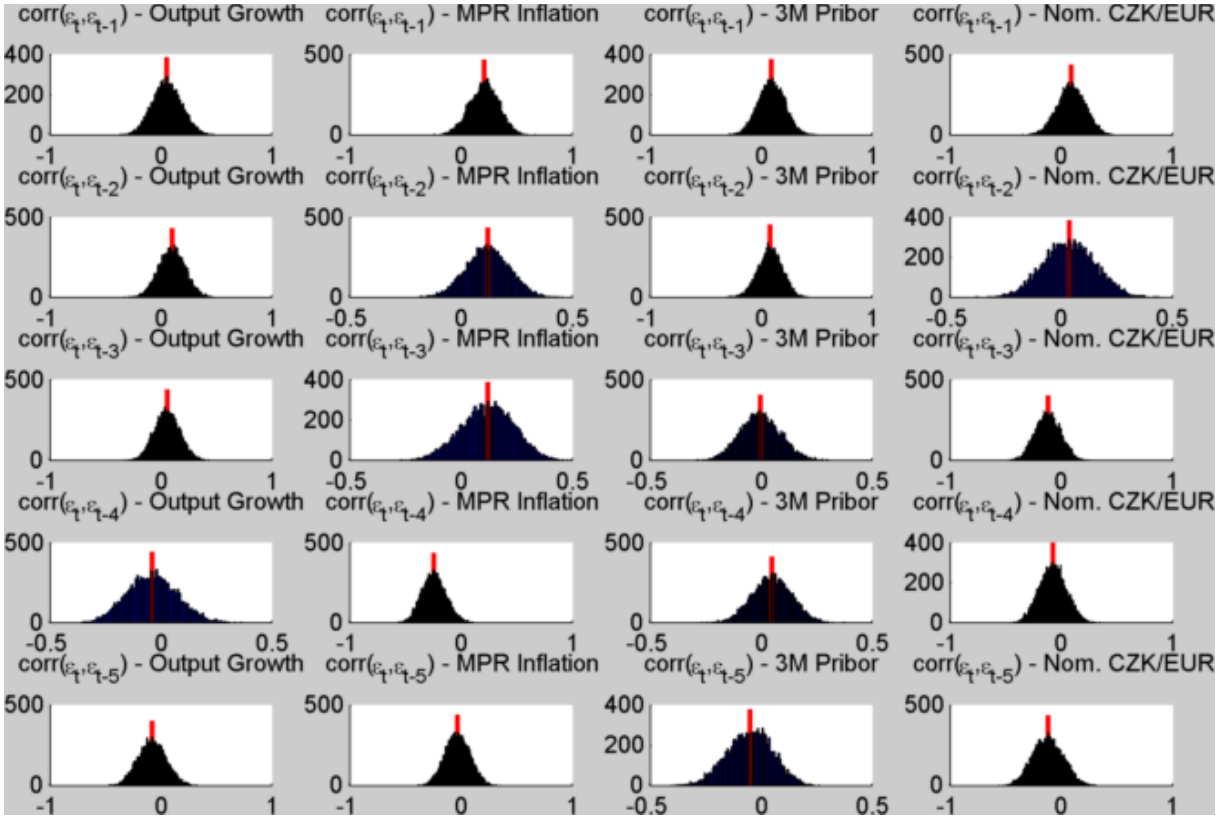


Figure C4. Model in q-o-q growth of output and exchange rate with five lags.

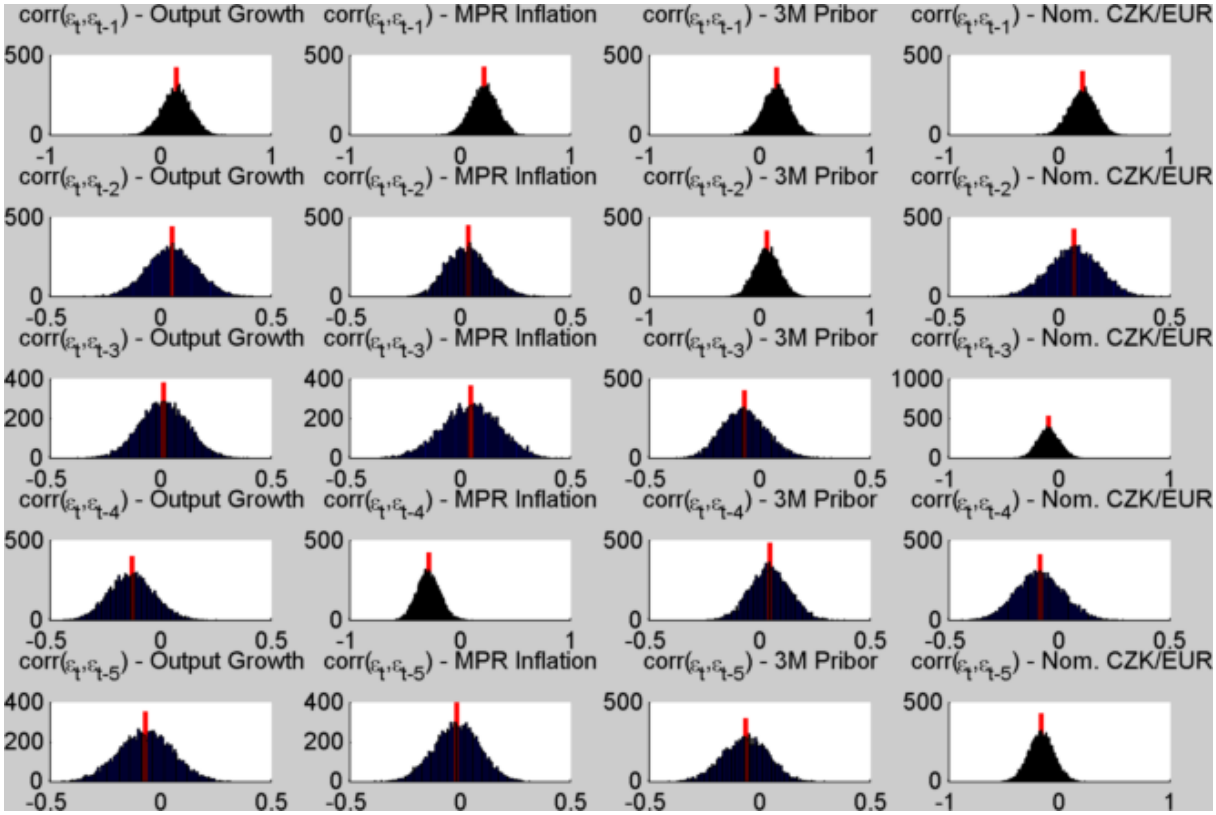


Figure C5. Model in y-o-y growth of output and the level of exchange rate with five lags.