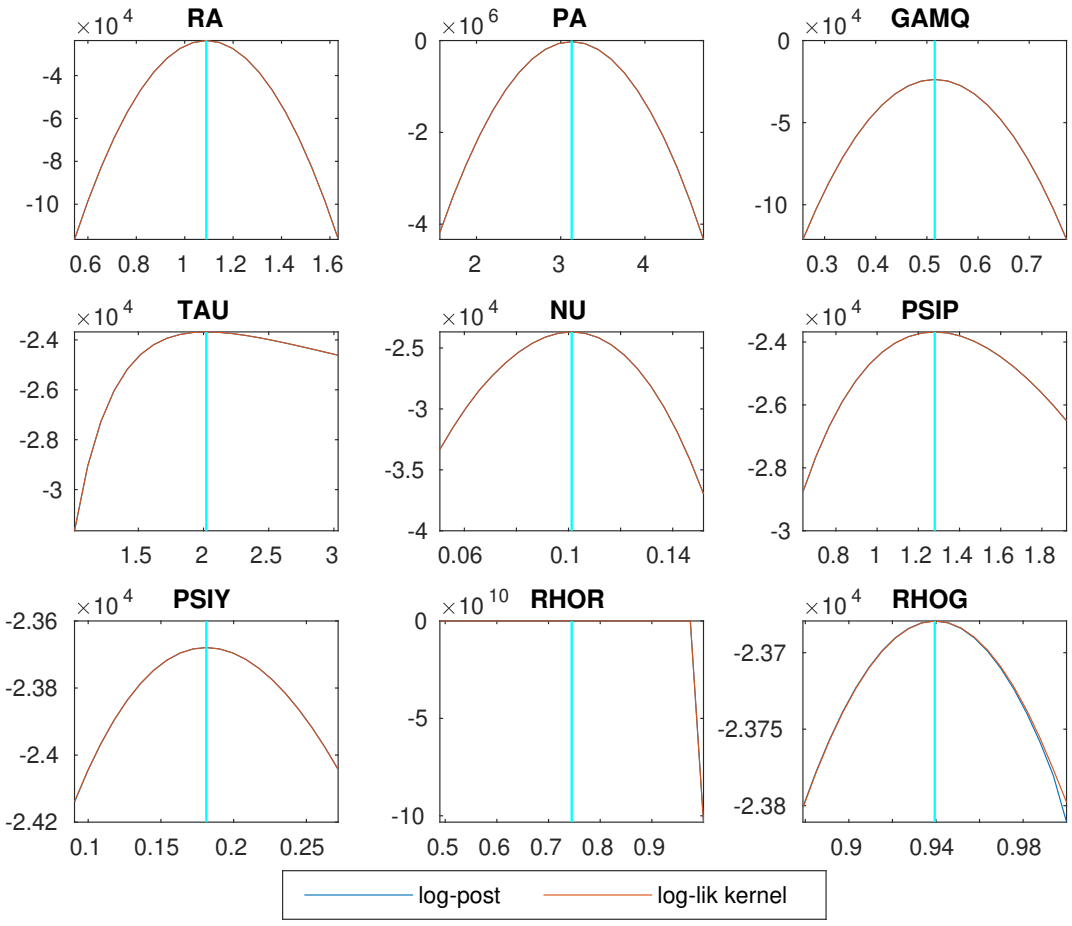

Figure 1: Check plots.

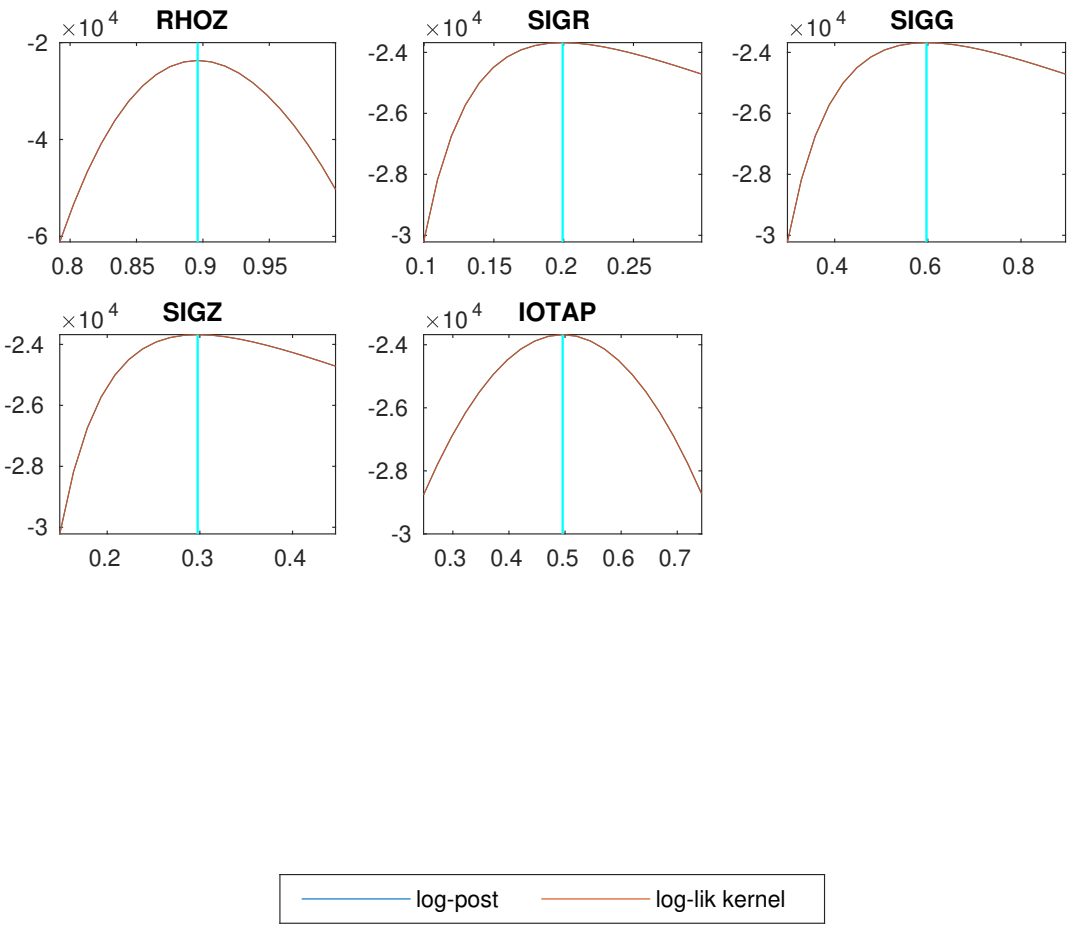

Figure 2: Check plots.

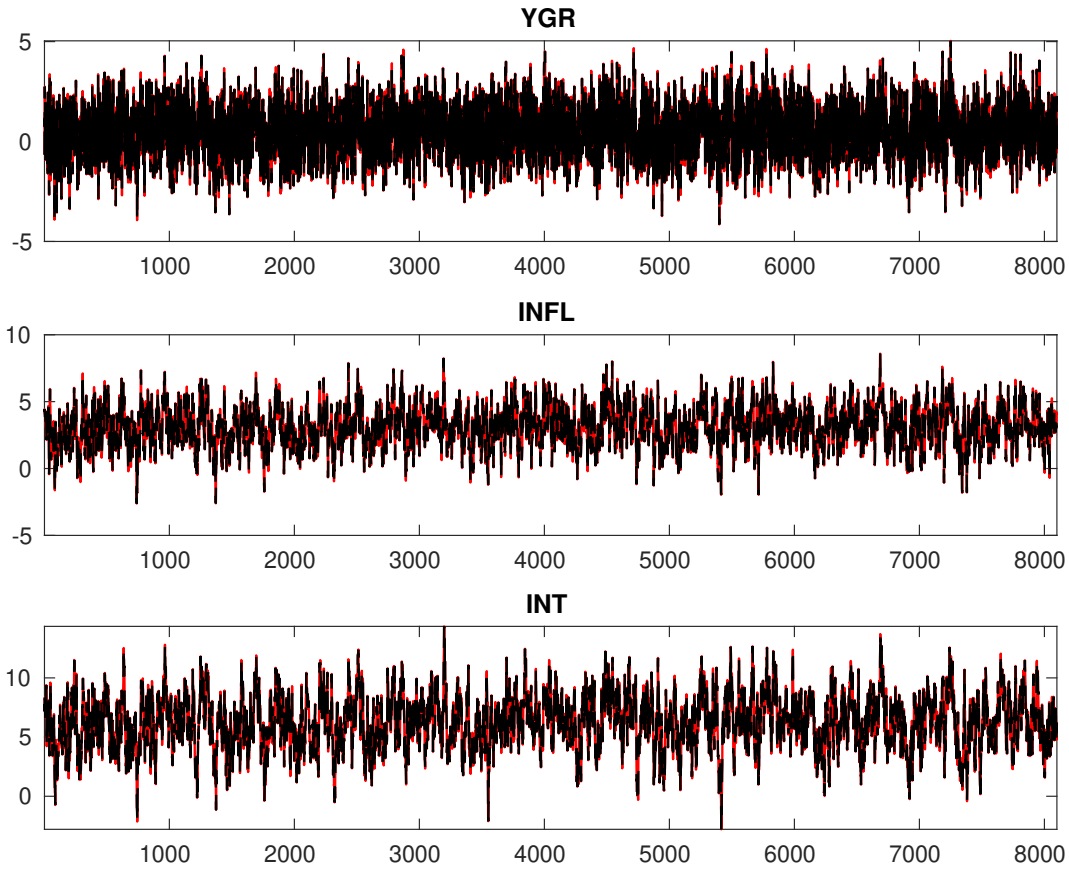

Figure 3: Historical and smoothed variables.

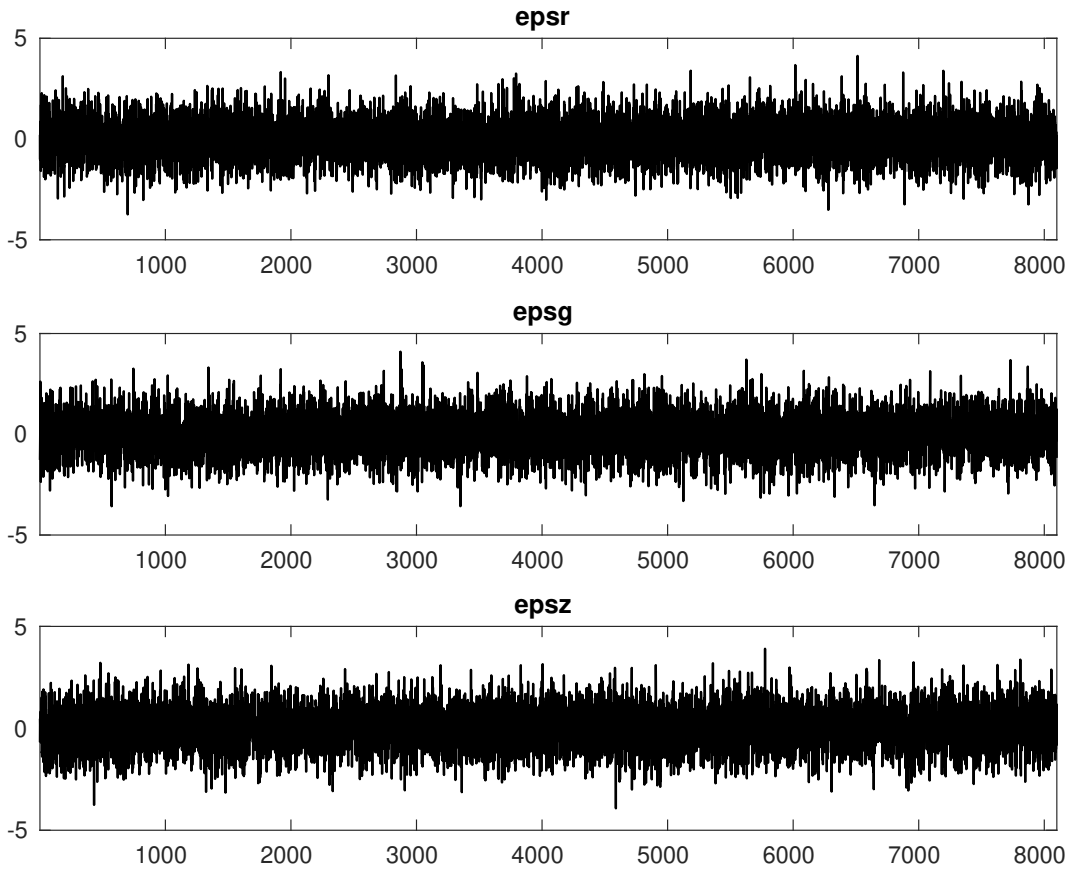

Figure 4: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
r_A	517.376	527.217	520.542	531.976
$\pi^{(A)}$	522.358	533.637	523.972	538.472
$\gamma^{(Q)}$	502.974	515.799	501.892	521.496
τ	624.936	624.381	632.302	623.815
ν	566.789	564.106	571.447	563.057
ψ_π	606.522	612.288	614.427	617.049
ψ_y	560.803	566.081	566.625	573.228
ρ_R	197.117	198.423	193.487	206.536
ρ_g	40.482	45.716	43.539	40.781
ρ_z	178.634	175.406	179.729	178.585
σ_R	110.698	106.340	119.558	107.598
σ_g	39.369	49.028	42.456	39.049
σ_z	310.674	301.022	310.629	303.209
ι_p	230.970	240.336	233.295	241.204

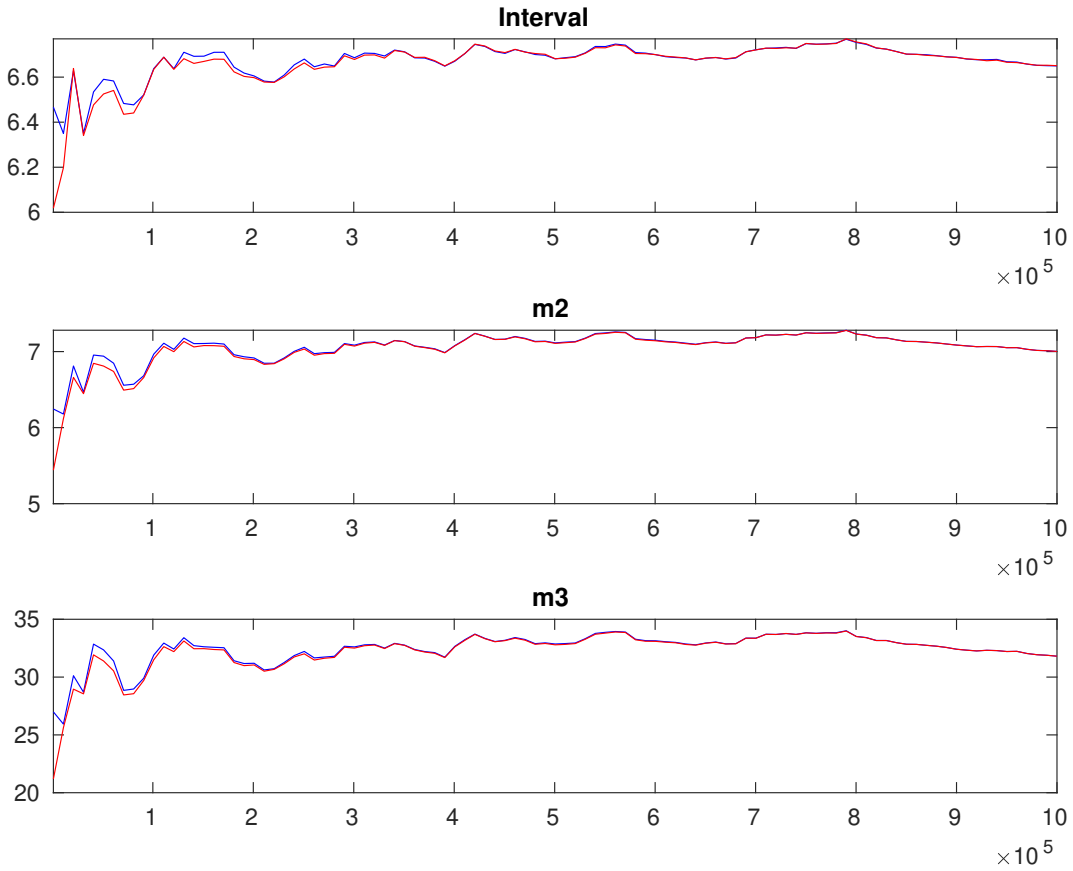

Figure 5: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
r_A	gamm	0.800	0.5000	1.088	0.0822	0.9548	1.2252
$\pi^{(A)}$	gamm	4.000	2.0000	3.132	0.0625	3.0290	3.2345
$\gamma^{(Q)}$	norm	0.400	0.2000	0.516	0.0310	0.4646	0.5663
τ	gamm	2.000	0.5000	2.025	0.0617	1.9224	2.1254
ν	beta	0.100	0.0500	0.101	0.0021	0.0978	0.1047
ψ_π	gamm	1.500	0.2500	1.281	0.0734	1.1600	1.4035
ψ_y	gamm	0.500	0.2500	0.181	0.0284	0.1342	0.2280
ρ_R	beta	0.500	0.2000	0.745	0.0049	0.7370	0.7532
ρ_g	beta	0.800	0.1000	0.940	0.0039	0.9335	0.9462
ρ_z	beta	0.660	0.1500	0.896	0.0024	0.8922	0.9000
σ_R	invg	0.300	4.0000	0.199	0.0018	0.1964	0.2023
σ_g	invg	0.400	4.0000	0.597	0.0047	0.5895	0.6050
σ_z	invg	0.400	4.0000	0.298	0.0043	0.2908	0.3050
ι_p	beta	0.500	0.1500	0.496	0.0071	0.4843	0.5076

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
r_A	gamm	0.800	0.5000	1.0893	0.0147
$\pi^{(A)}$	gamm	4.000	2.0000	3.1305	0.0109
$\gamma^{(Q)}$	norm	0.400	0.2000	0.5153	0.0066
τ	gamm	2.000	0.5000	2.0215	0.0081
ν	beta	0.100	0.0500	0.1012	0.0007
ψ_π	gamm	1.500	0.2500	1.2797	0.0120
ψ_y	gamm	0.500	0.2500	0.1812	0.0095
ρ_R	beta	0.500	0.2000	0.7448	0.0044
ρ_g	beta	0.800	0.1000	0.9394	0.0040
ρ_z	beta	0.660	0.1500	0.8960	0.0019
σ_R	invg	0.300	4.0000	0.1993	0.0017
σ_g	invg	0.400	4.0000	0.5971	0.0044
σ_z	invg	0.400	4.0000	0.2976	0.0028
ι_p	beta	0.500	0.1500	0.4957	0.0049

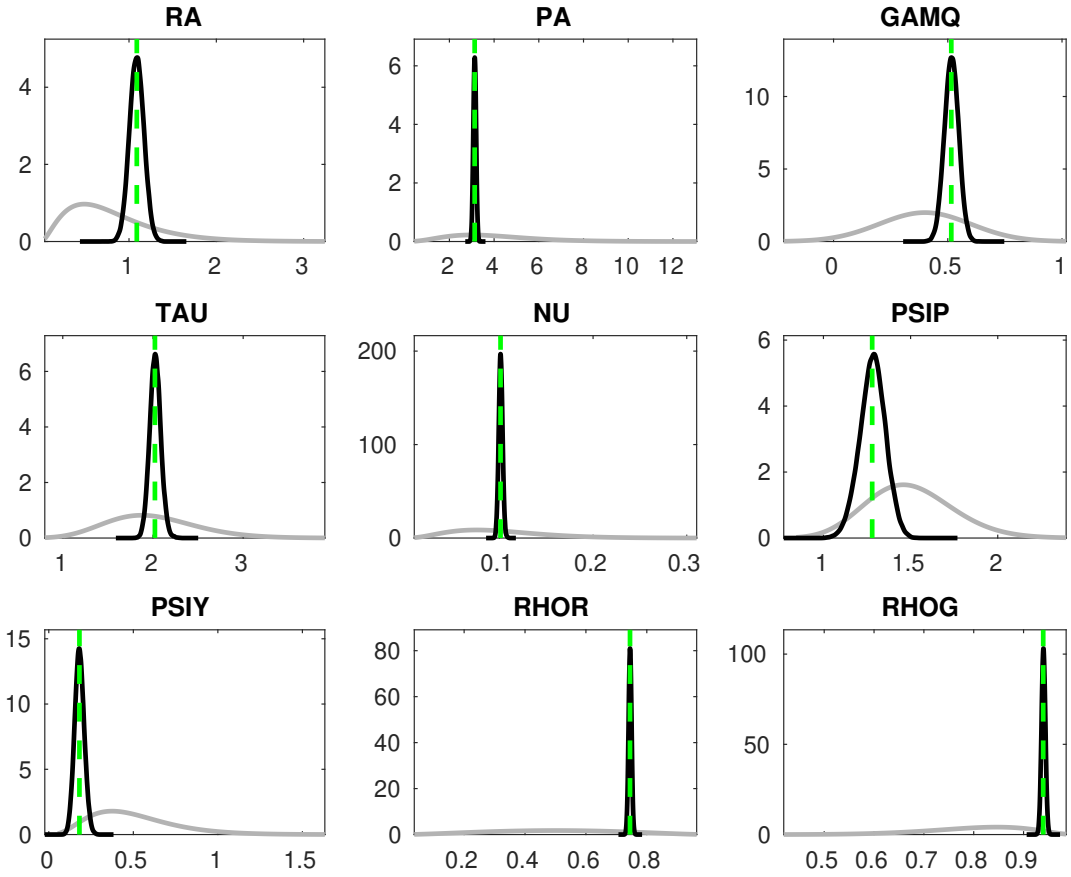

Figure 6: Priors and posteriors.

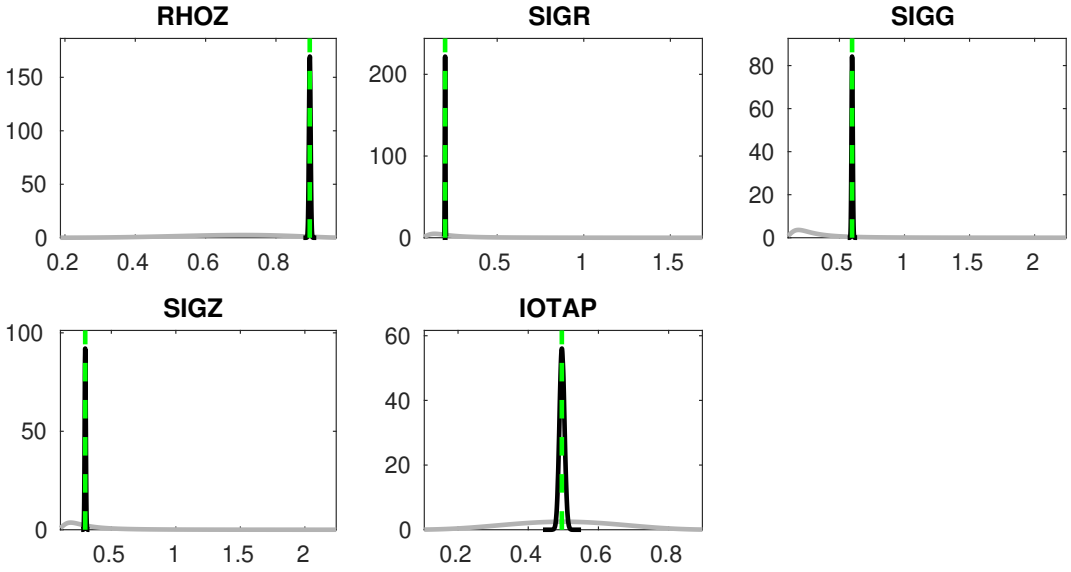

Figure 7: Priors and posteriors.

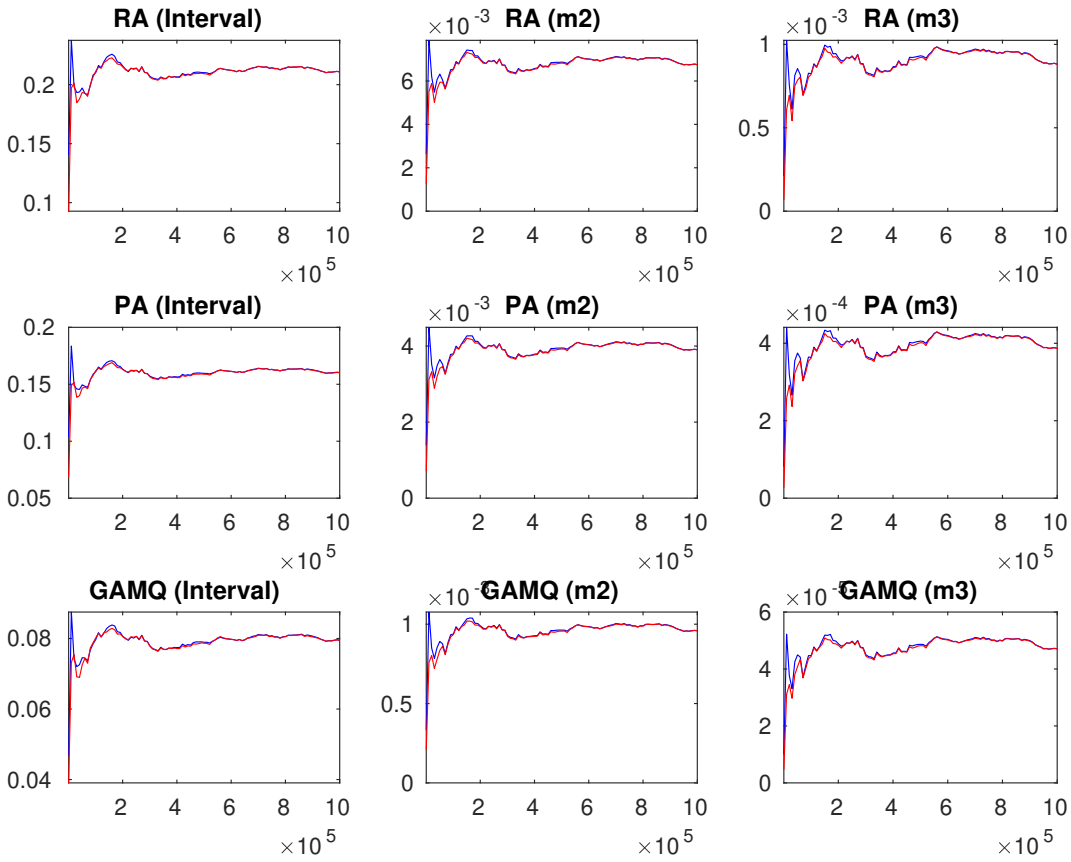

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

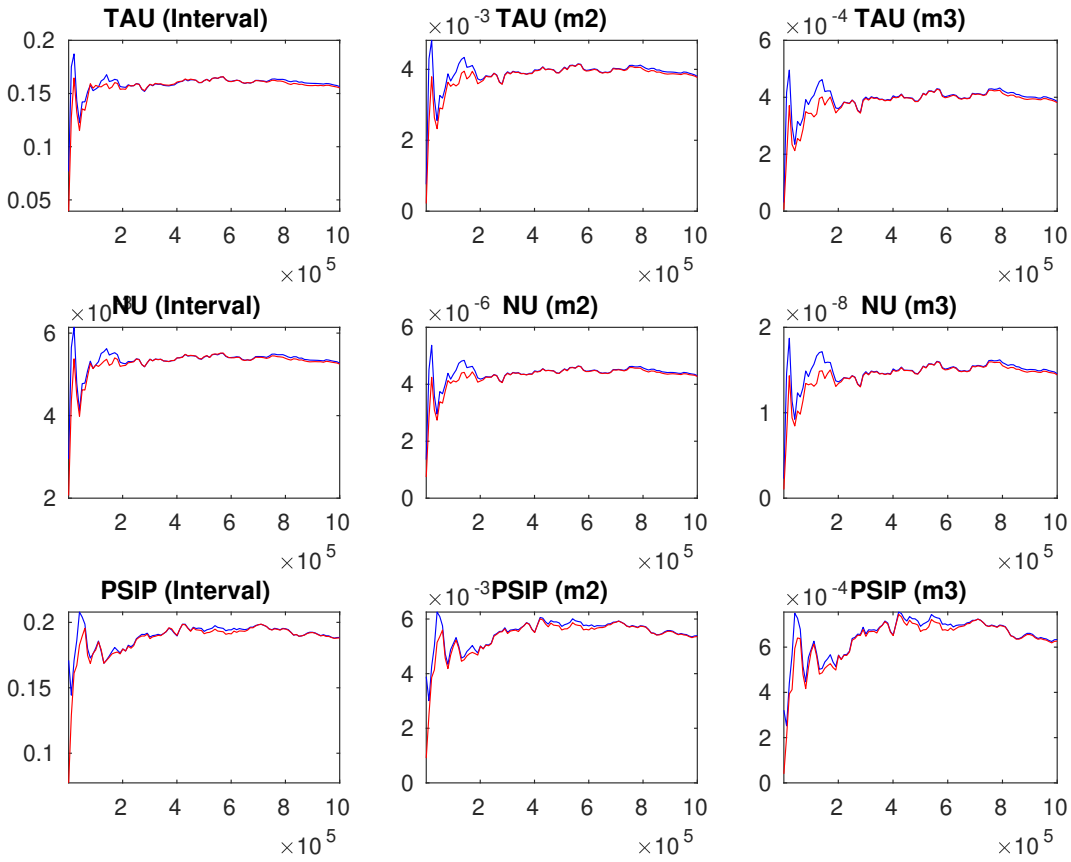

Figure 9: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

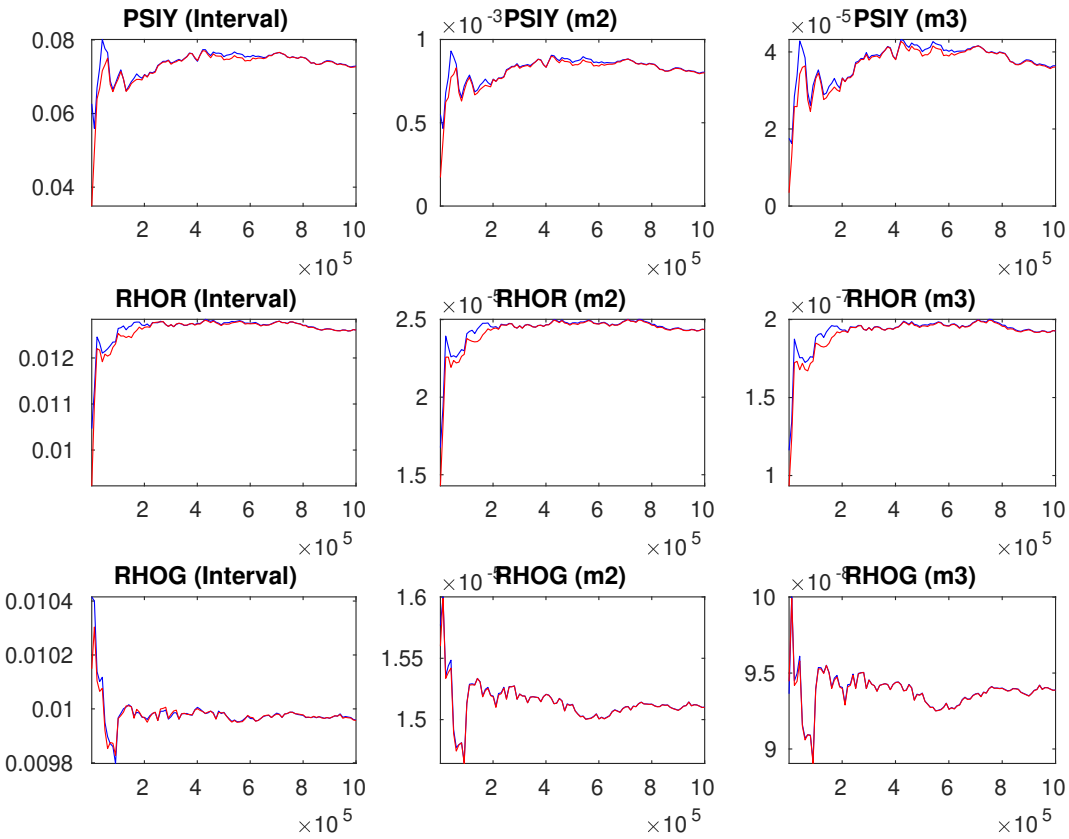

Figure 10: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

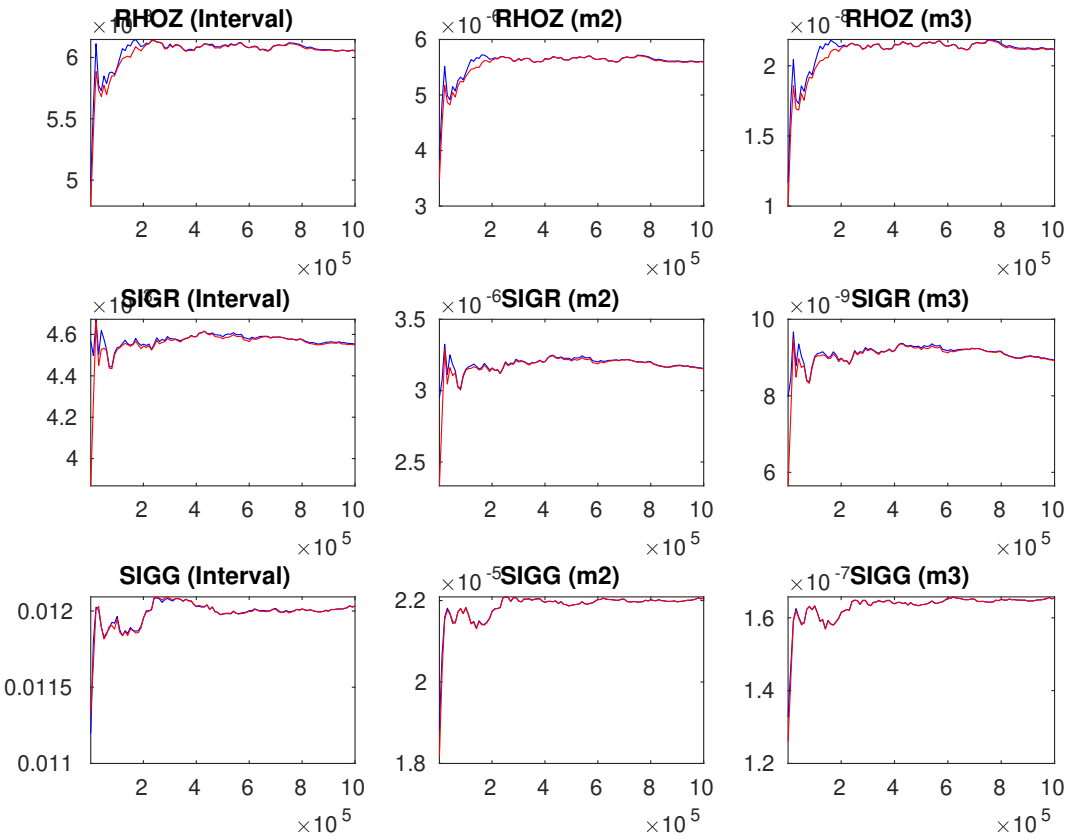

Figure 11: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

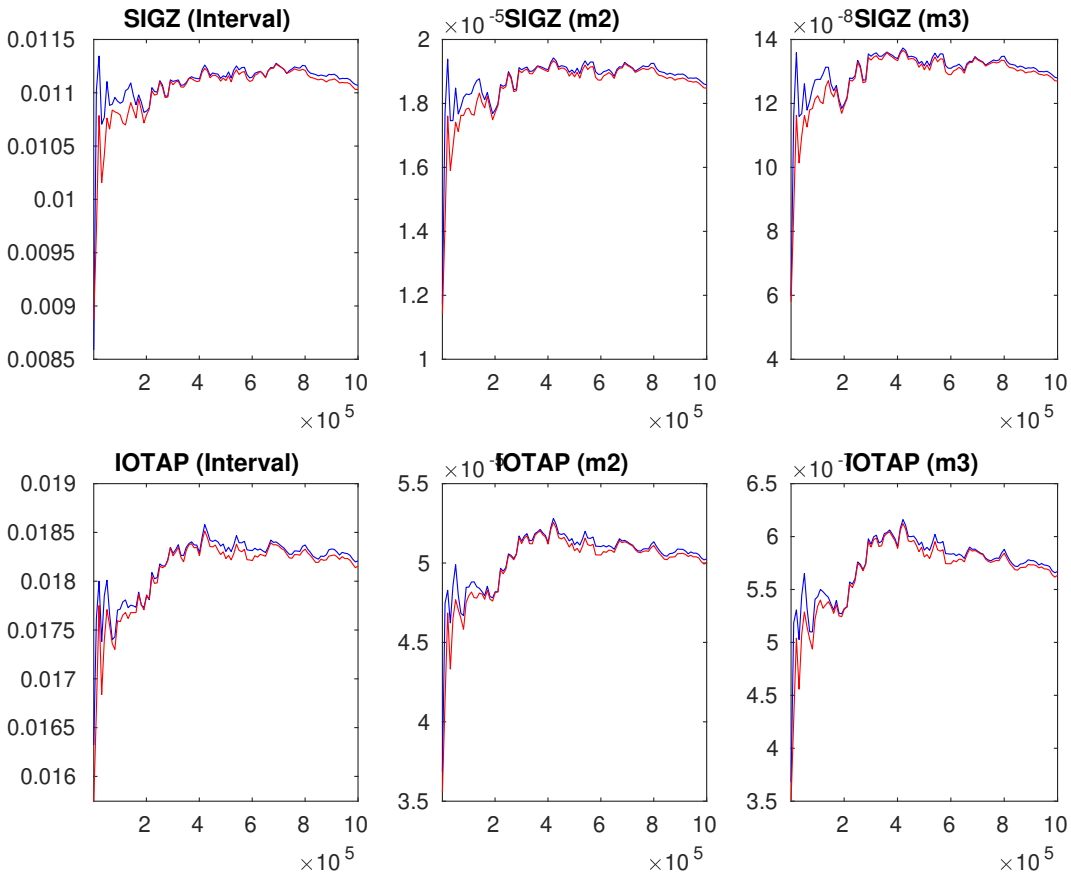

Figure 12: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.