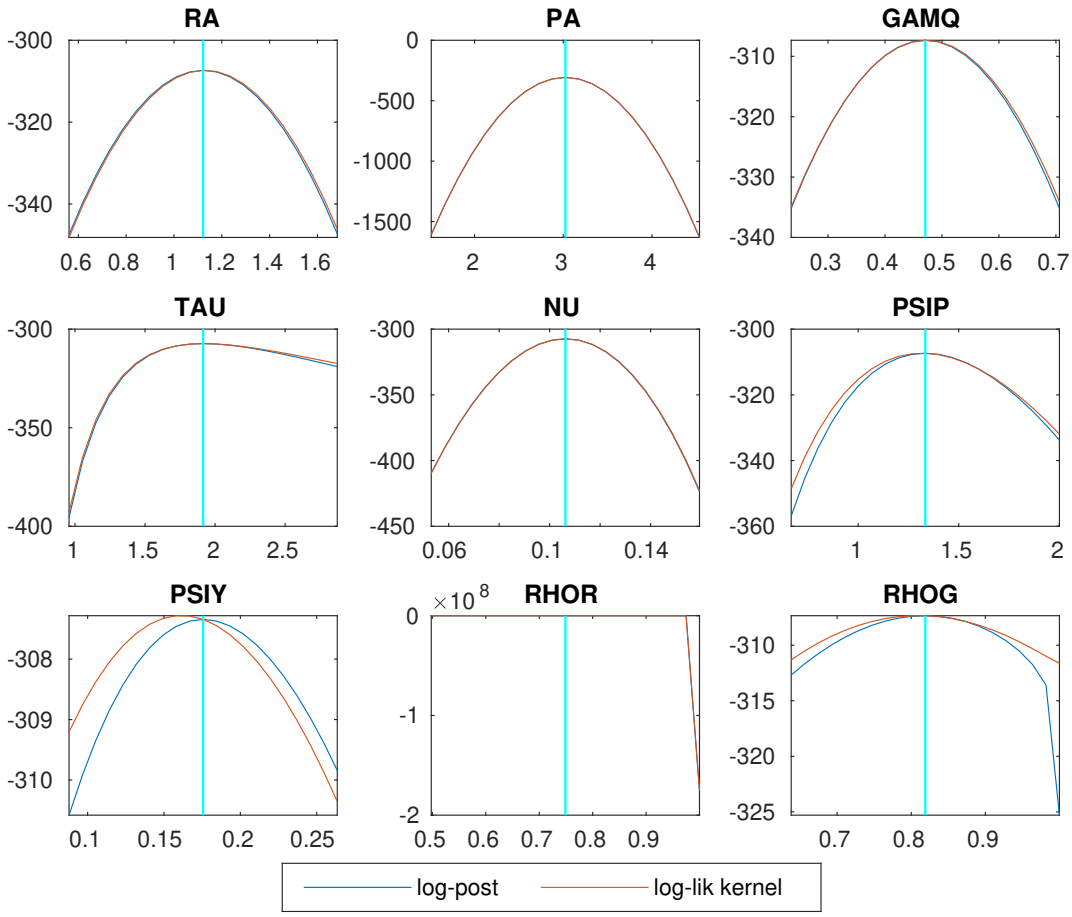

Figure 1: Check plots.

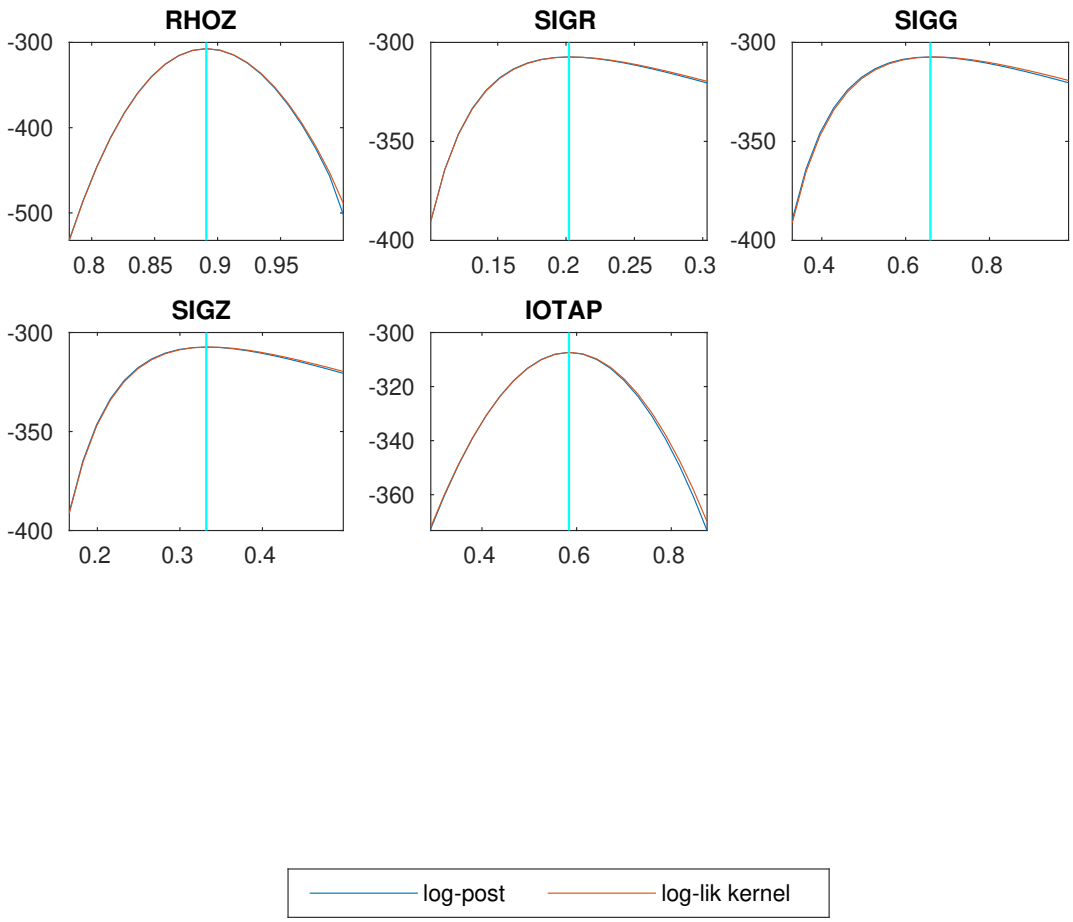

Figure 2: Check plots.

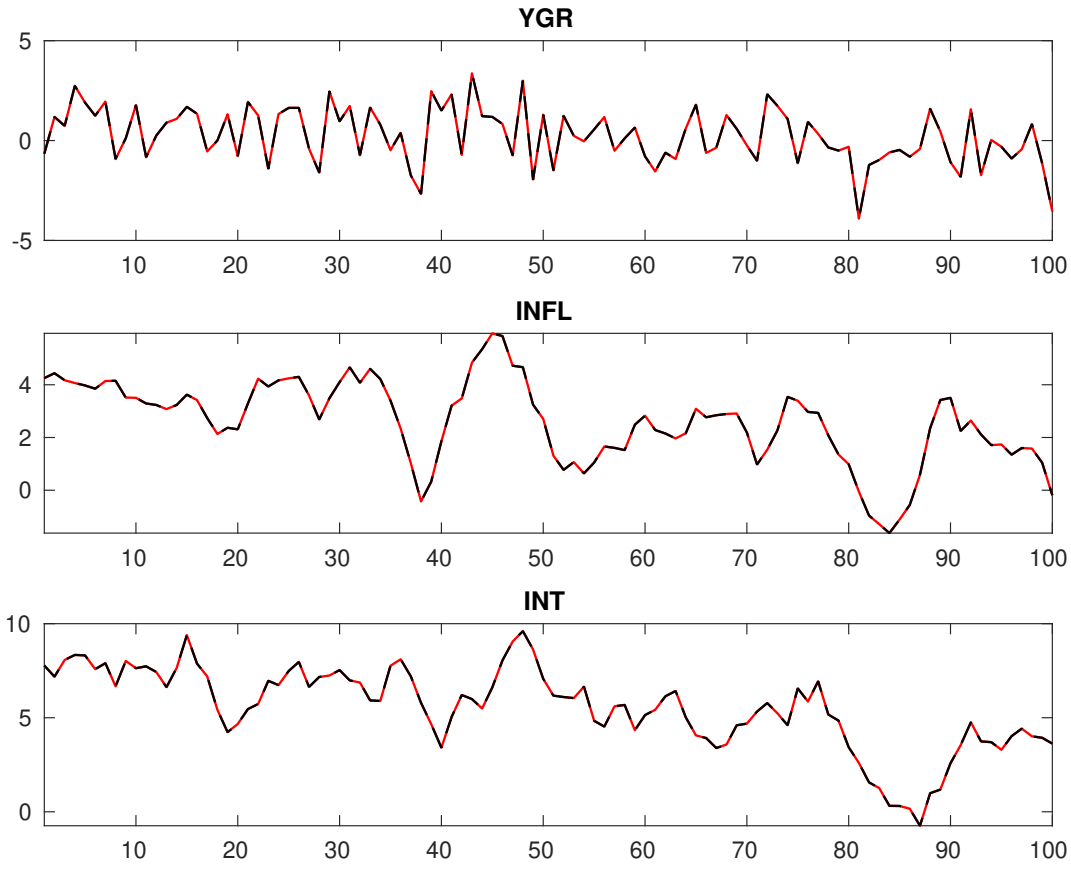

Figure 3: Historical and smoothed variables.

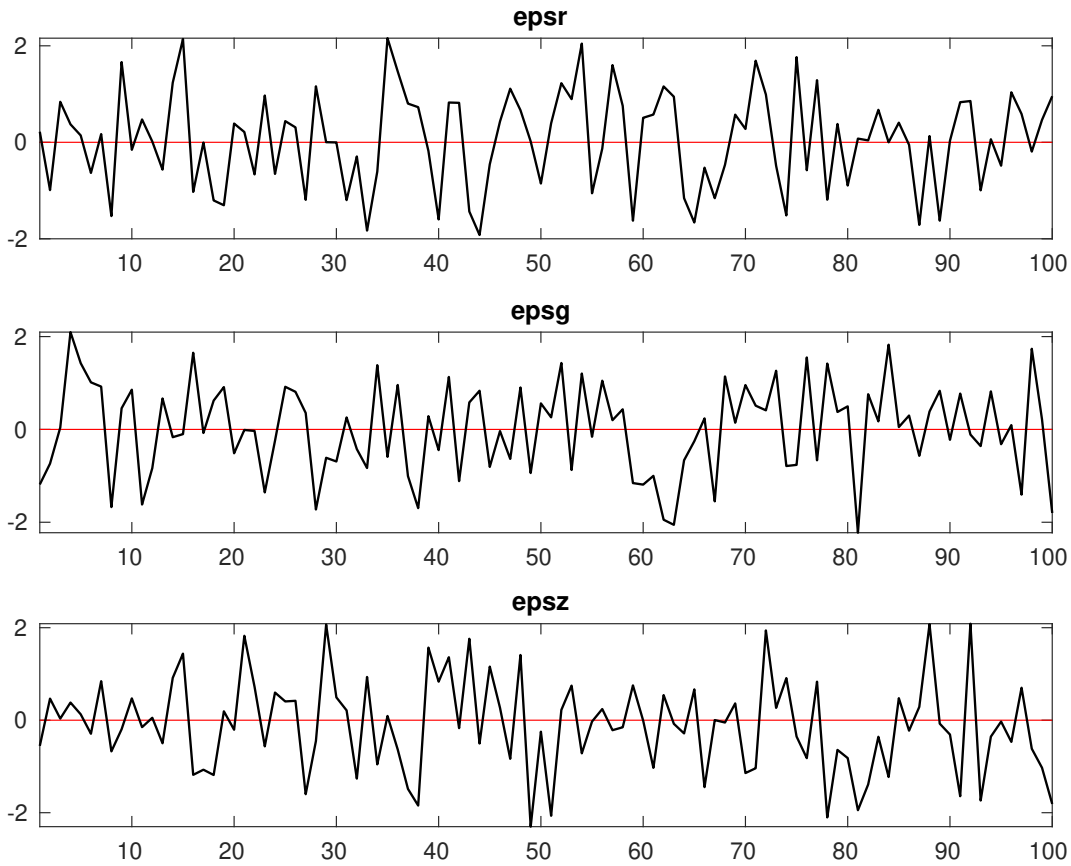

Figure 4: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
r_A	65.163	67.352	68.065	68.083
$\pi^{(A)}$	67.502	67.066	72.601	67.206
$\gamma^{(Q)}$	67.480	68.386	71.483	67.979
τ	77.254	81.305	77.497	77.348
ν	74.989	80.207	74.663	78.195
ψ_π	70.762	71.490	70.423	70.788
ψ_y	67.031	64.366	71.034	79.947
ρ_R	75.096	81.053	77.046	81.122
ρ_g	66.610	72.684	74.214	72.336
ρ_z	80.783	88.773	80.793	78.806
σ_R	71.798	71.510	73.457	79.646
σ_g	68.419	66.351	62.449	69.130
σ_z	77.574	76.391	82.082	76.260
ι_p	73.046	74.832	76.837	72.904

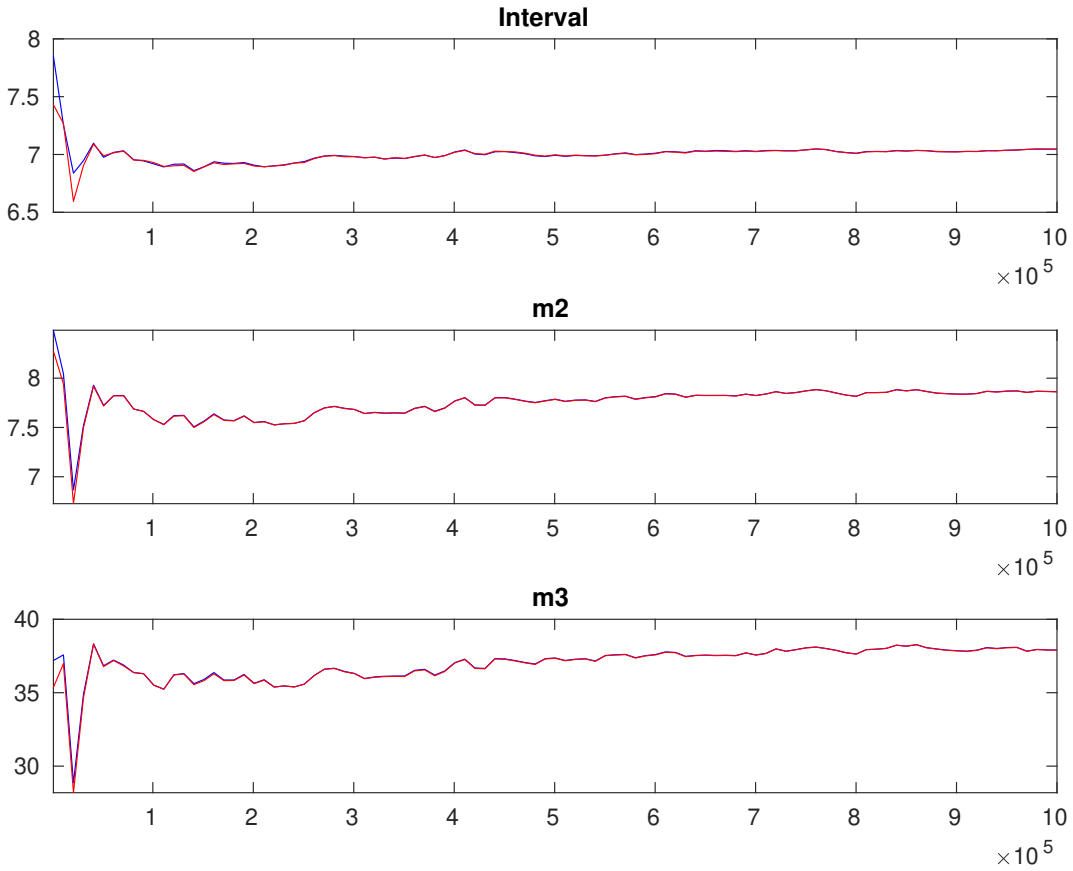

Figure 5: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

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	1.160	0.4045	0.4887	1.8174
$\pi^{(A)}$	gamm	4.000	2.0000	2.996	0.2960	2.5201	3.4905
$\gamma^{(Q)}$	norm	0.400	0.2000	0.461	0.1489	0.2183	0.7080
τ	gamm	2.000	0.5000	2.092	0.3917	1.4580	2.7155
ν	beta	0.100	0.0500	0.111	0.0145	0.0870	0.1340
ψ_π	gamm	1.500	0.2500	1.355	0.1888	1.0450	1.6623
ψ_y	gamm	0.500	0.2500	0.223	0.1005	0.0651	0.3715
ρ_R	beta	0.500	0.2000	0.759	0.0375	0.6981	0.8212
ρ_g	beta	0.800	0.1000	0.846	0.0565	0.7548	0.9403
ρ_z	beta	0.660	0.1500	0.893	0.0224	0.8569	0.9299
σ_R	invg	0.300	4.0000	0.209	0.0161	0.1821	0.2345
σ_g	invg	0.400	4.0000	0.684	0.0496	0.6029	0.7647
σ_z	invg	0.400	4.0000	0.353	0.0467	0.2786	0.4270
ι_p	beta	0.500	0.1500	0.600	0.0578	0.5056	0.6951

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
r_A	gamm	0.800	0.5000	1.1220	0.4227
$\pi^{(A)}$	gamm	4.000	2.0000	3.0235	0.3075
$\gamma^{(Q)}$	norm	0.400	0.2000	0.4708	0.1563
τ	gamm	2.000	0.5000	1.9149	0.3803
ν	beta	0.100	0.0500	0.1062	0.0141
ψ_π	gamm	1.500	0.2500	1.3340	0.1854
ψ_y	gamm	0.500	0.2500	0.1757	0.1126
ρ_R	beta	0.500	0.2000	0.7489	0.0360
ρ_g	beta	0.800	0.1000	0.8190	0.0612
ρ_z	beta	0.660	0.1500	0.8910	0.0217
σ_R	invg	0.300	4.0000	0.2021	0.0153
σ_g	invg	0.400	4.0000	0.6591	0.0515
σ_z	invg	0.400	4.0000	0.3320	0.0470
ι_p	beta	0.500	0.1500	0.5838	0.0569

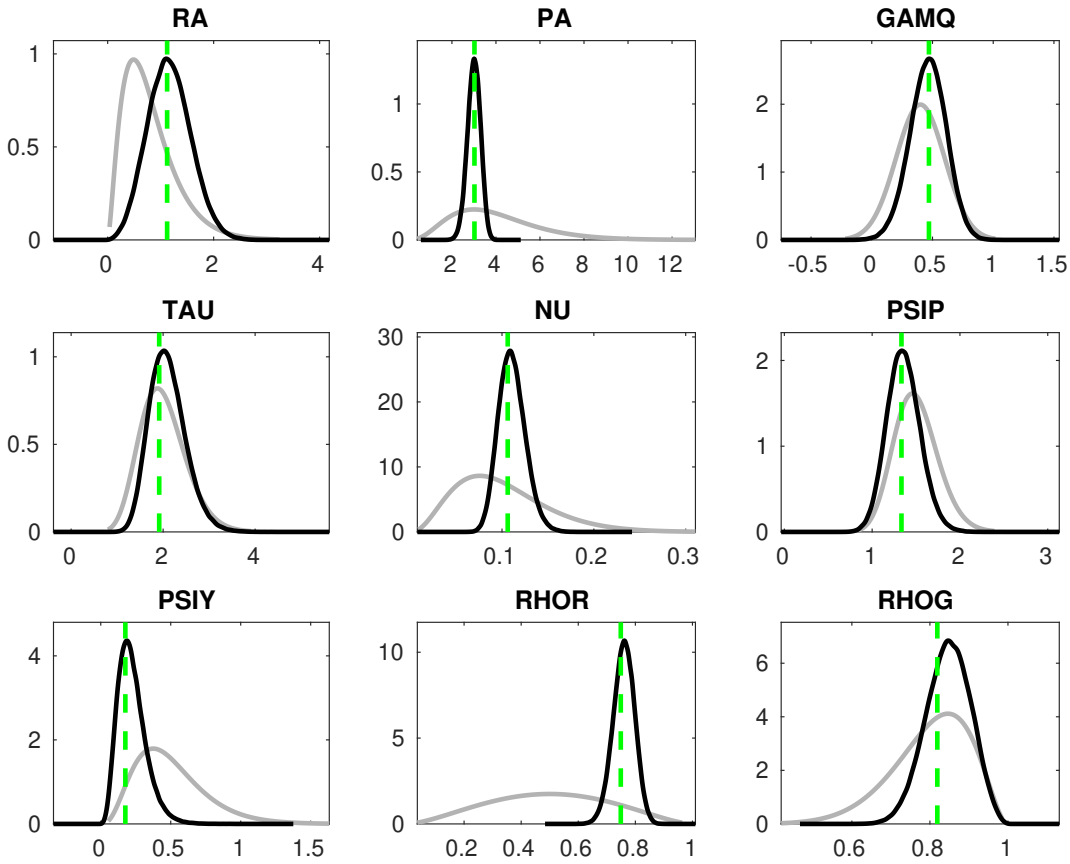

Figure 6: Priors and posteriors.

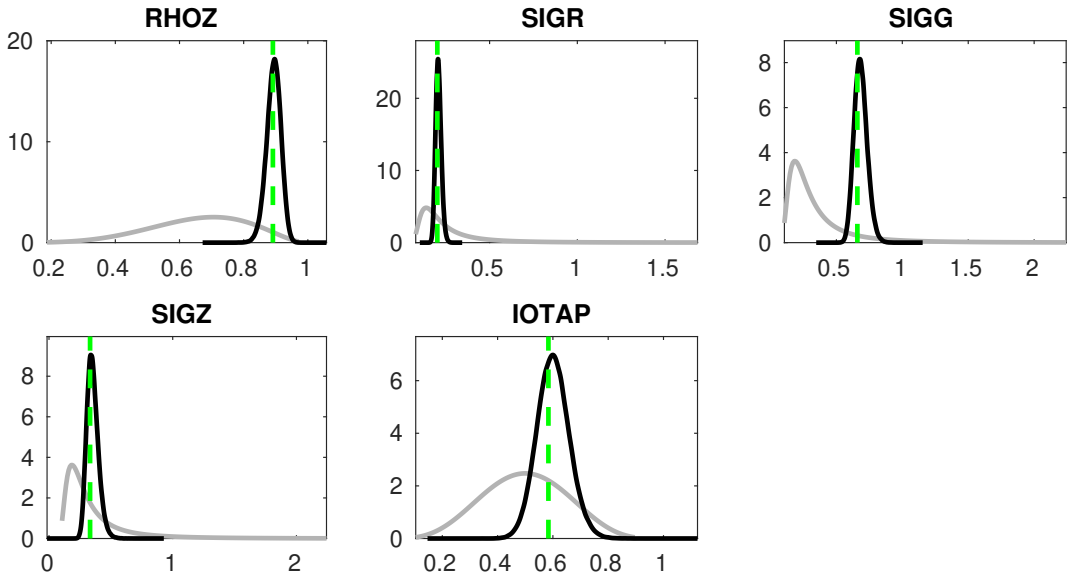

Figure 7: Priors and posteriors.

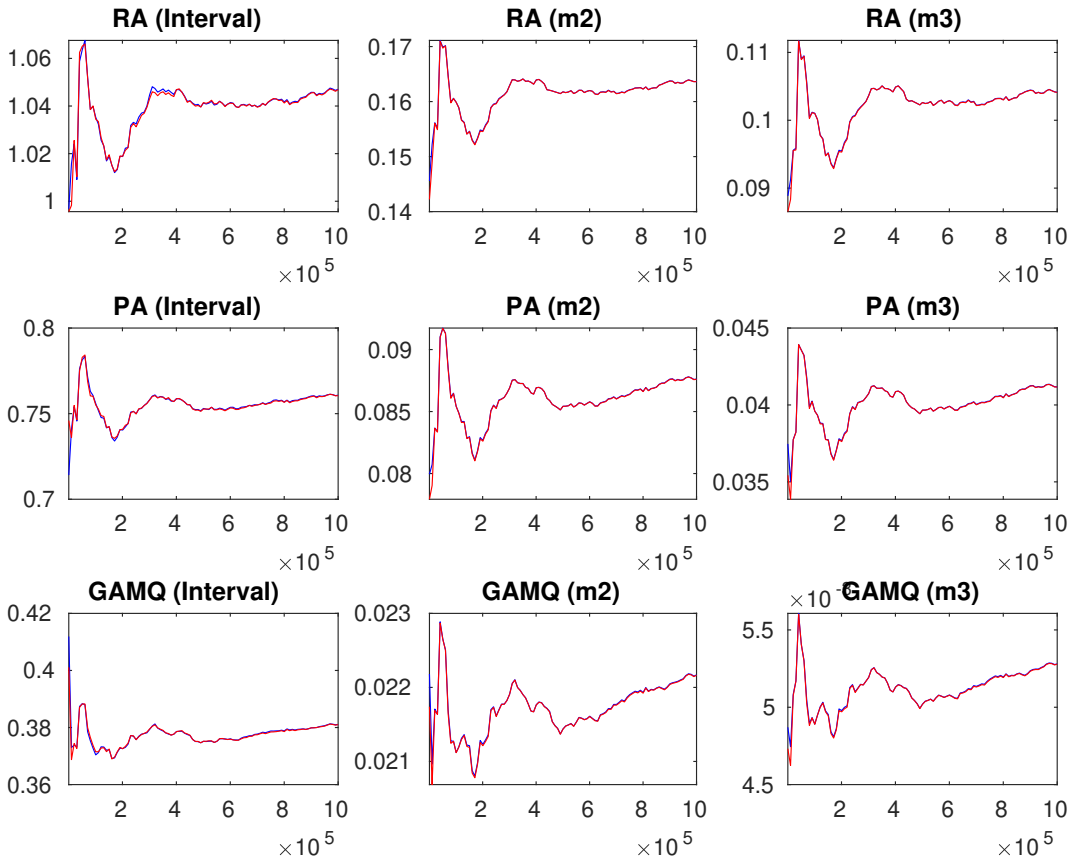

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

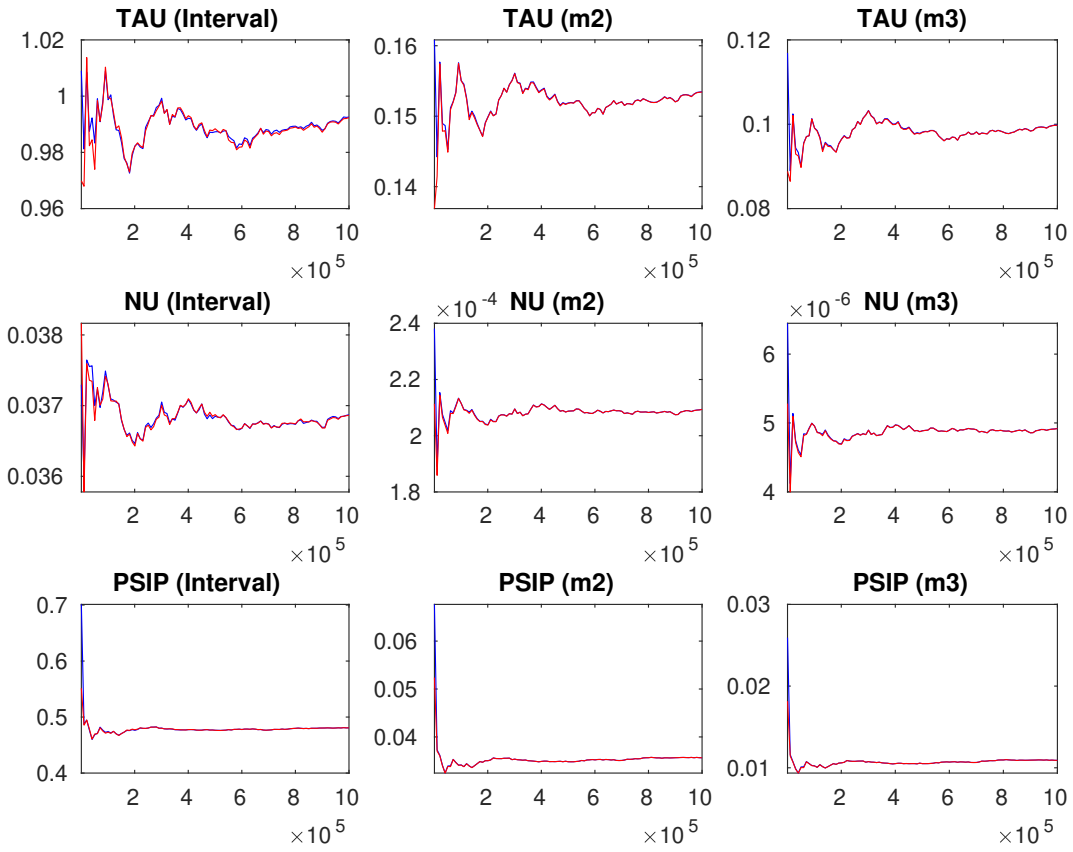

Figure 9: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

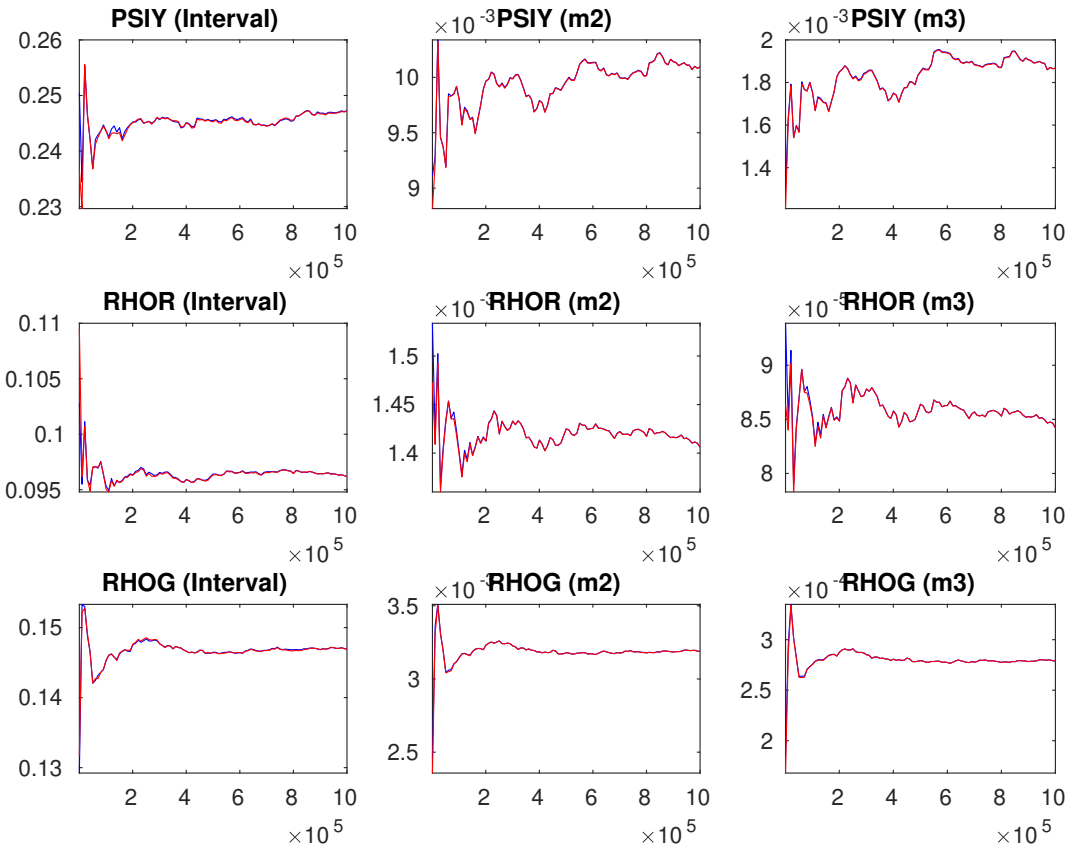

Figure 10: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

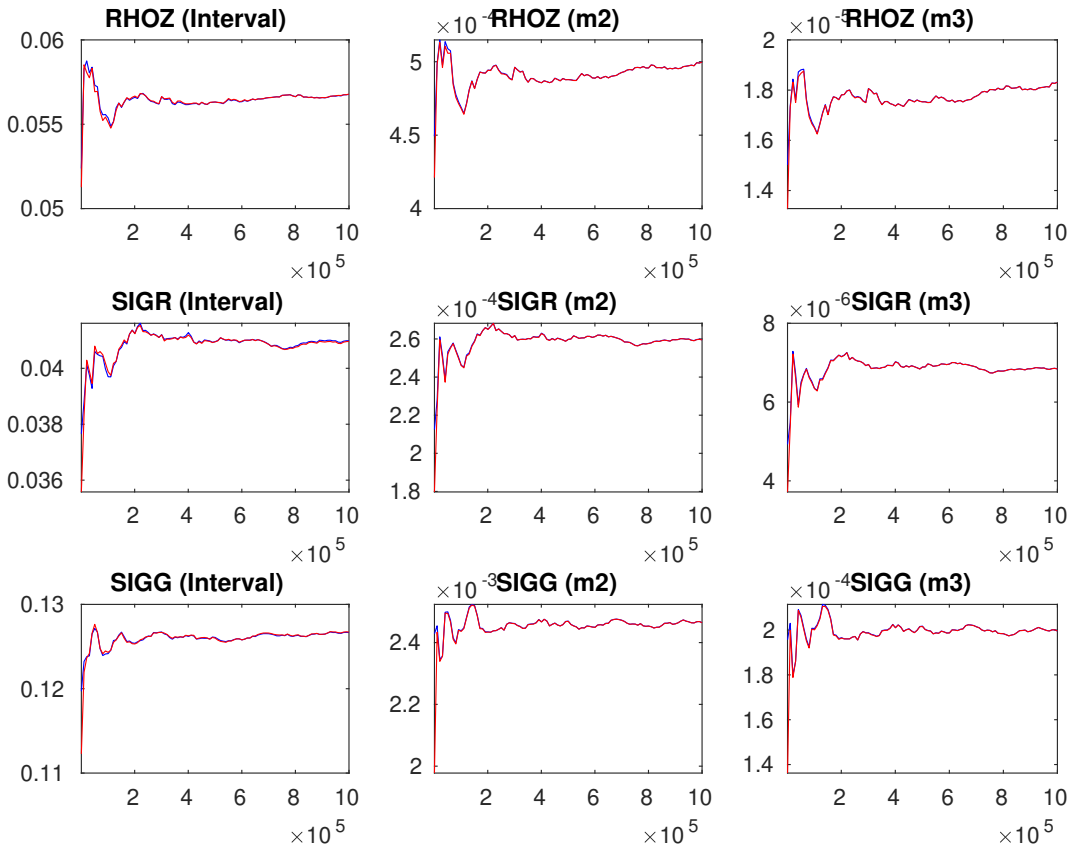

Figure 11: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

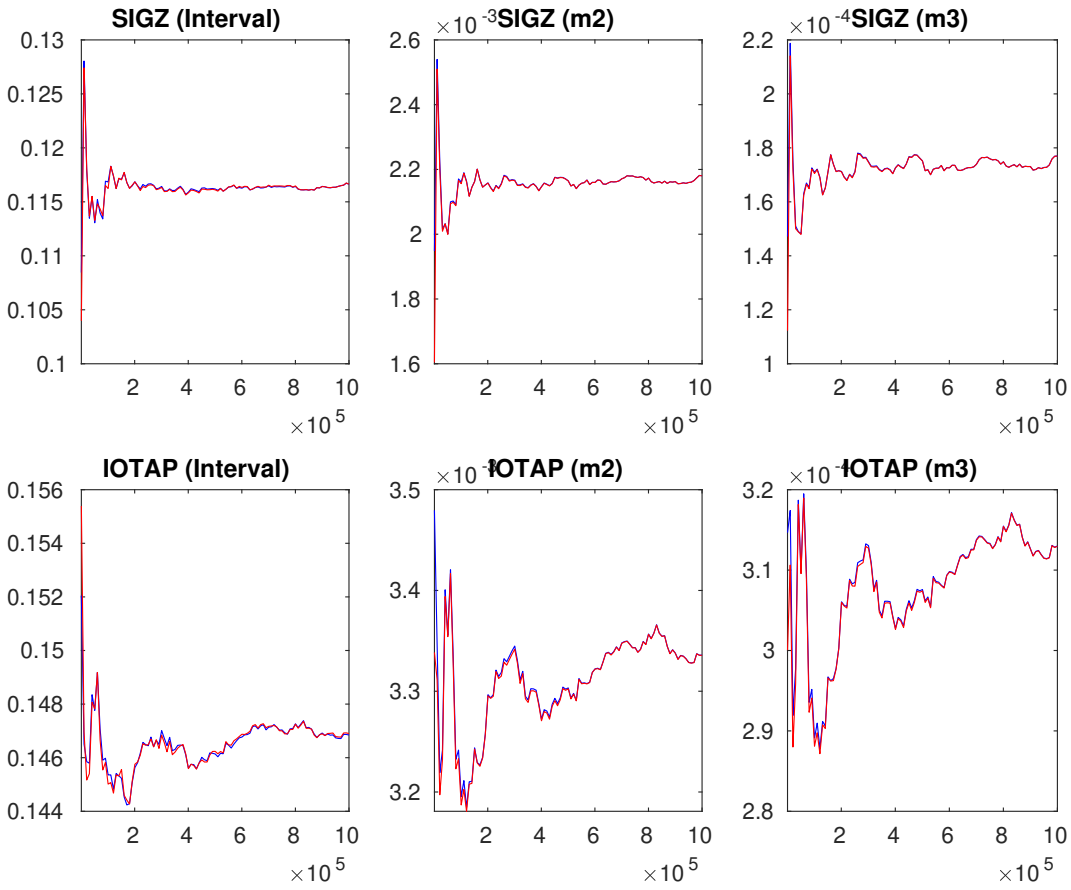

Figure 12: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.