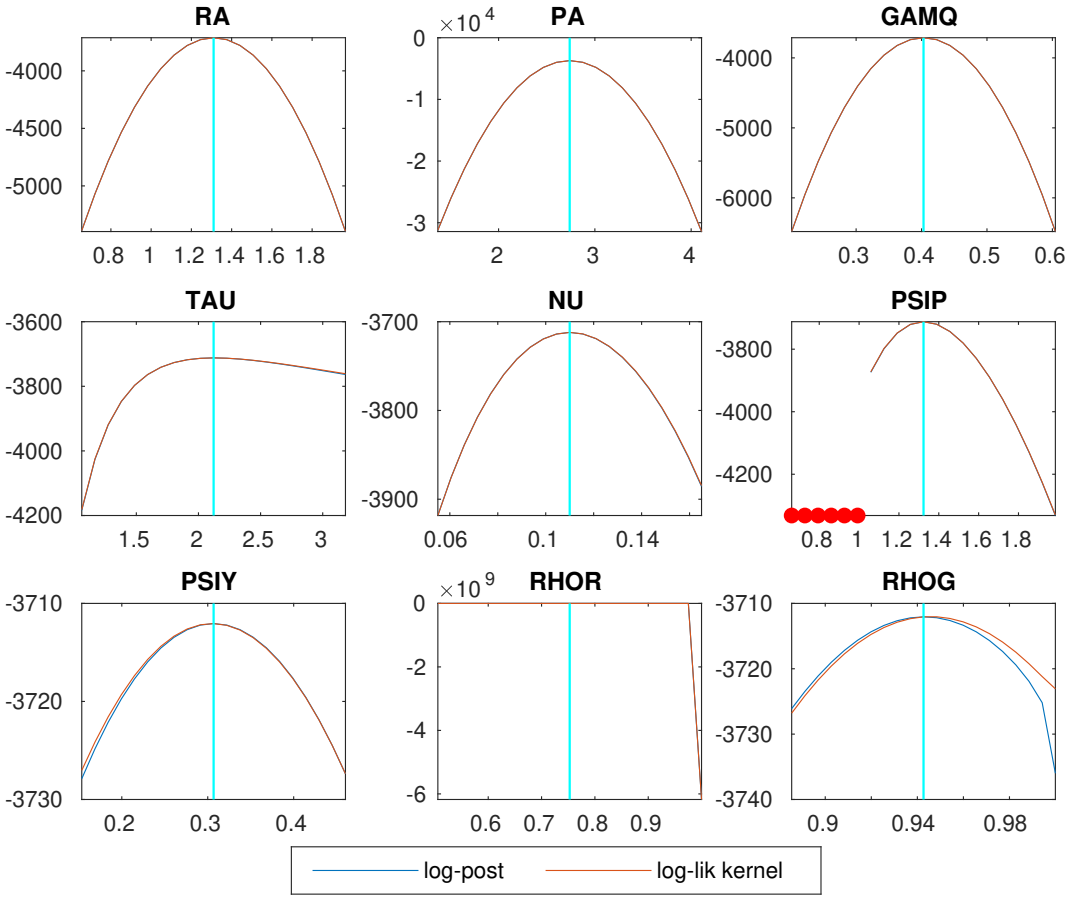

Figure 1: Check plots.

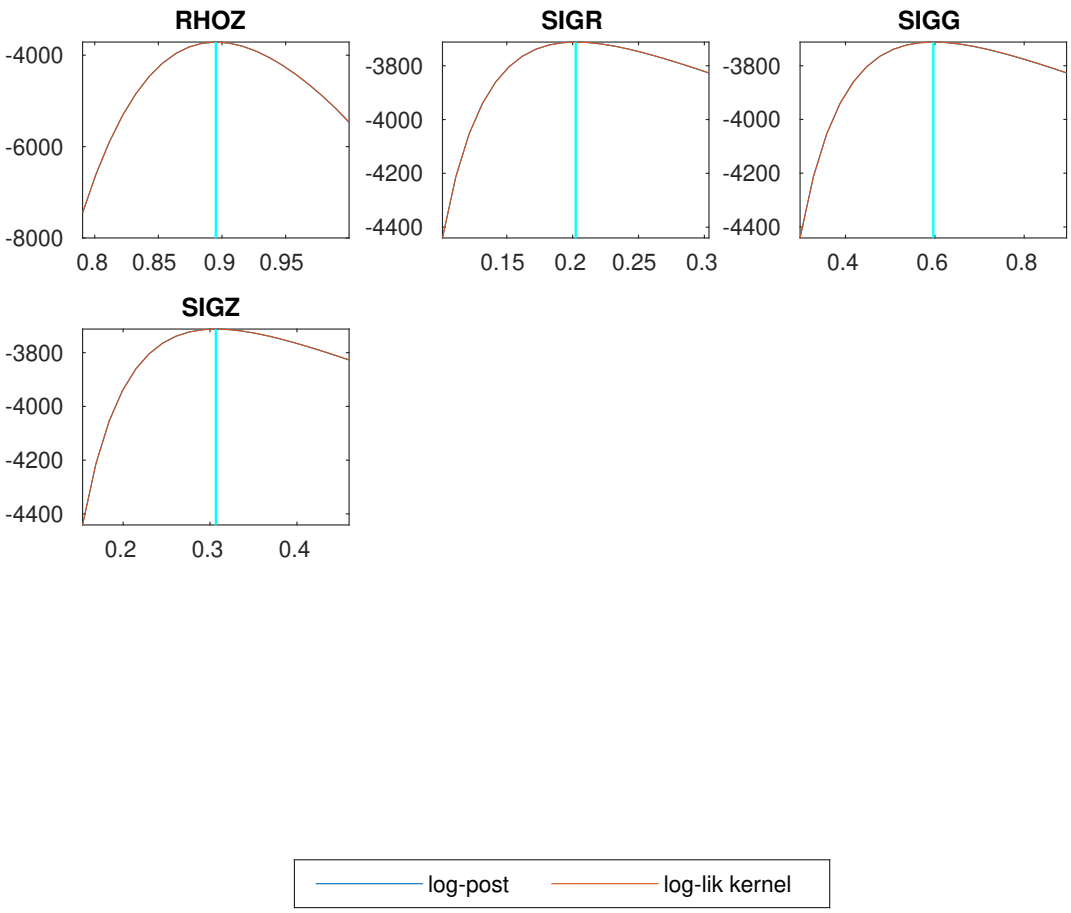

Figure 2: Check plots.

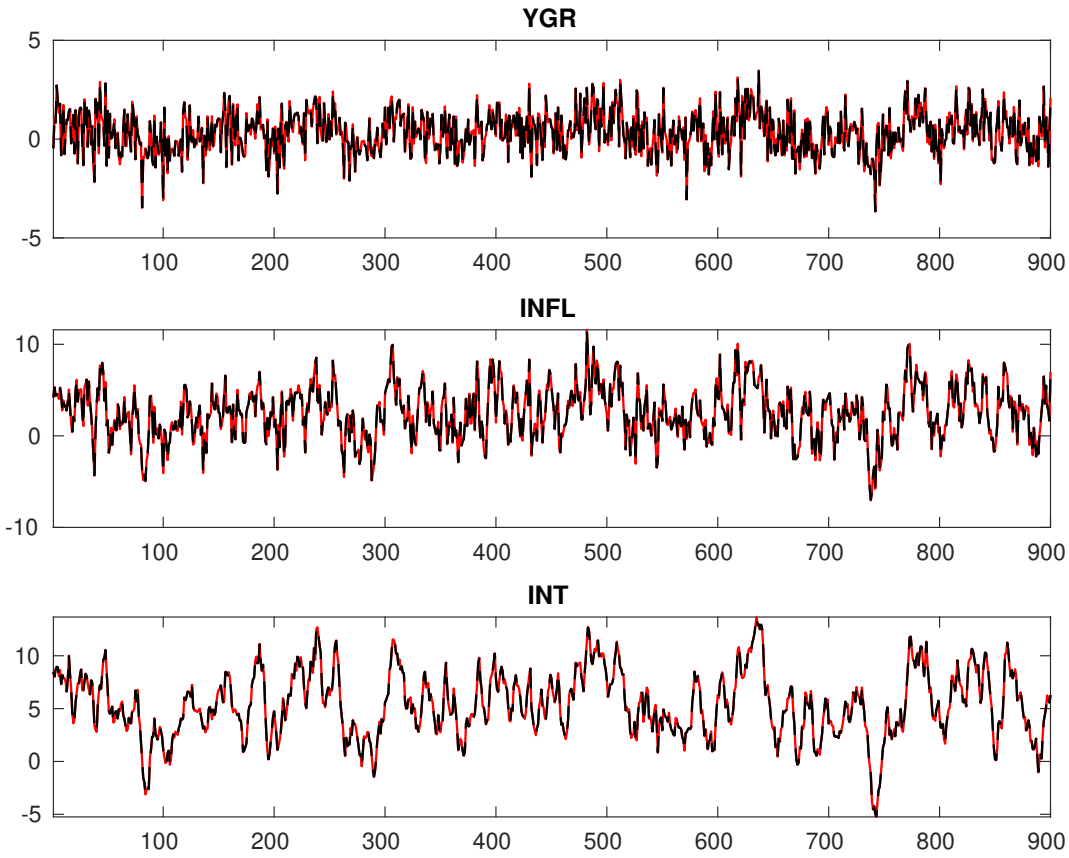

Figure 3: Historical and smoothed variables.

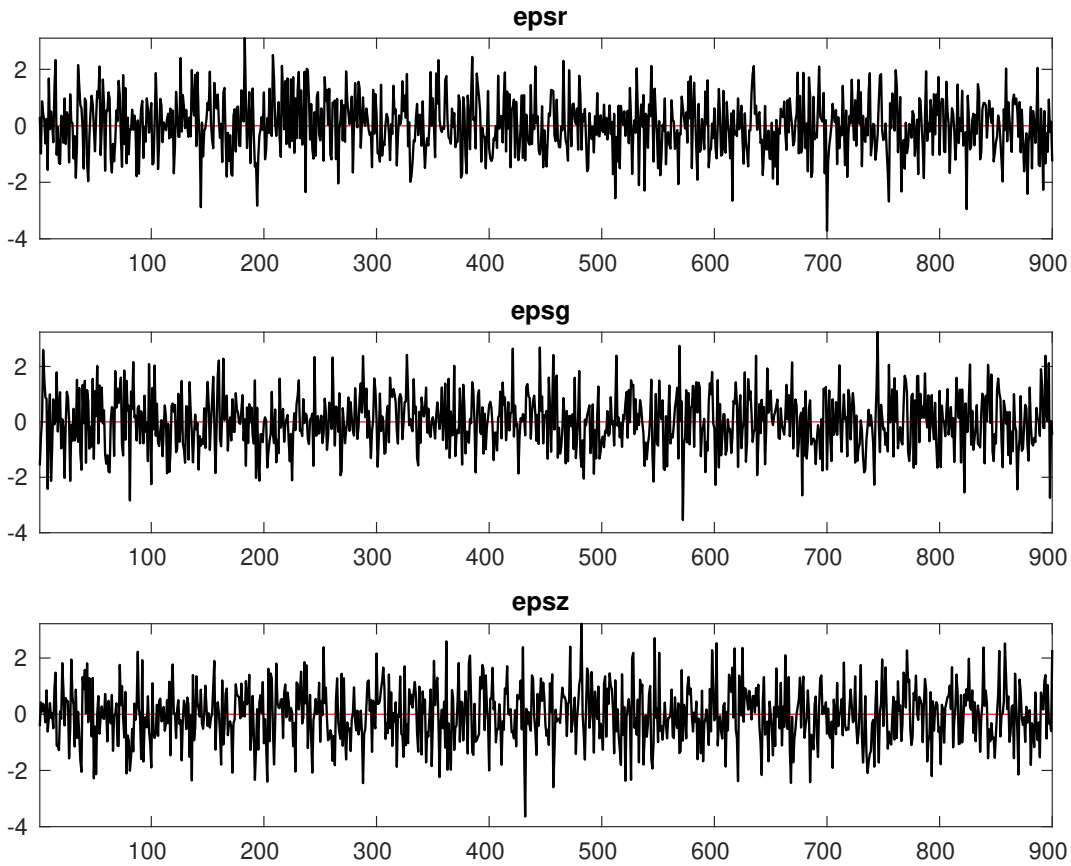

Figure 4: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
r_A	572.419	575.721	568.314	547.517
$\pi^{(A)}$	584.376	583.481	577.855	558.476
$\gamma^{(Q)}$	566.559	560.981	555.324	535.255
τ	303.027	312.743	325.378	319.453
ν	269.120	271.802	282.603	279.773
ψ_π	407.188	399.871	401.287	389.306
ψ_y	473.853	461.558	466.842	453.036
ρ_R	239.320	213.915	205.945	215.922
ρ_g	45.876	44.096	43.200	44.296
ρ_z	88.177	84.891	90.135	85.568
σ_R	136.940	125.905	142.817	123.525
σ_g	45.703	43.551	45.546	41.013
σ_z	127.701	130.917	133.362	121.101

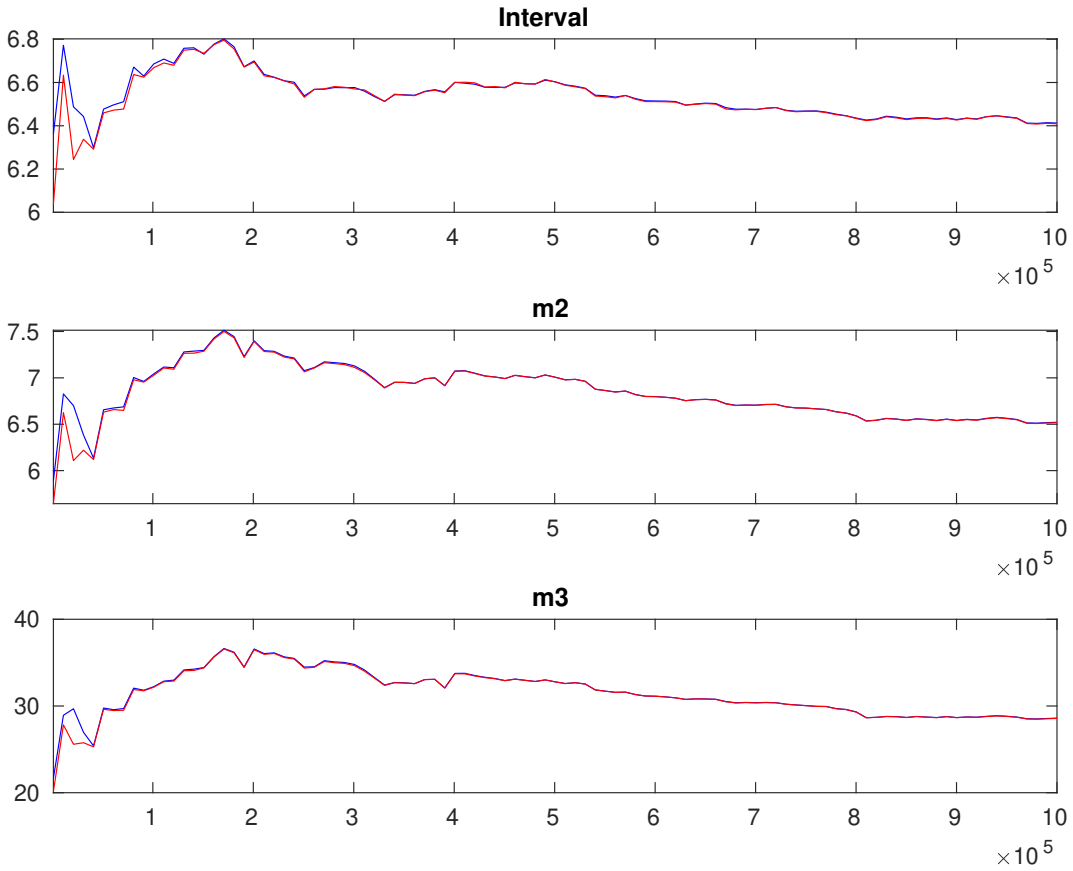

Figure 5: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

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	1.311	0.2133	0.9653	1.6644
$\pi^{(A)}$	gamm	4.000	2.0000	2.739	0.2882	2.2713	3.2185
$\gamma^{(Q)}$	norm	0.400	0.2000	0.403	0.0858	0.2612	0.5437
τ	gamm	2.000	0.5000	2.190	0.2116	1.8411	2.5338
ν	beta	0.100	0.0500	0.114	0.0134	0.0920	0.1356
ψ_π	gamm	1.500	0.2500	1.299	0.0968	1.1381	1.4555
ψ_y	gamm	0.500	0.2500	0.364	0.1576	0.1063	0.6078
ρ_R	beta	0.500	0.2000	0.757	0.0130	0.7355	0.7782
ρ_g	beta	0.800	0.1000	0.946	0.0110	0.9280	0.9643
ρ_z	beta	0.660	0.1500	0.896	0.0065	0.8857	0.9072
σ_R	invg	0.300	4.0000	0.204	0.0058	0.1943	0.2131
σ_g	invg	0.400	4.0000	0.599	0.0142	0.5754	0.6221
σ_z	invg	0.400	4.0000	0.309	0.0117	0.2898	0.3283

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
r_A	gamm	0.800	0.5000	1.3104	0.0398
$\pi^{(A)}$	gamm	4.000	2.0000	2.7385	0.0499
$\gamma^{(Q)}$	norm	0.400	0.2000	0.4030	0.0200
τ	gamm	2.000	0.5000	2.1219	0.0684
ν	beta	0.100	0.0500	0.1100	0.0061
ψ_π	gamm	1.500	0.2500	1.3234	0.0440
ψ_y	gamm	0.500	0.2500	0.3068	0.0463
ρ_R	beta	0.500	0.2000	0.7527	0.0094
ρ_g	beta	0.800	0.1000	0.9427	0.0115
ρ_z	beta	0.660	0.1500	0.8952	0.0060
σ_R	invg	0.300	4.0000	0.2023	0.0053
σ_g	invg	0.400	4.0000	0.5966	0.0139
σ_z	invg	0.400	4.0000	0.3067	0.0104

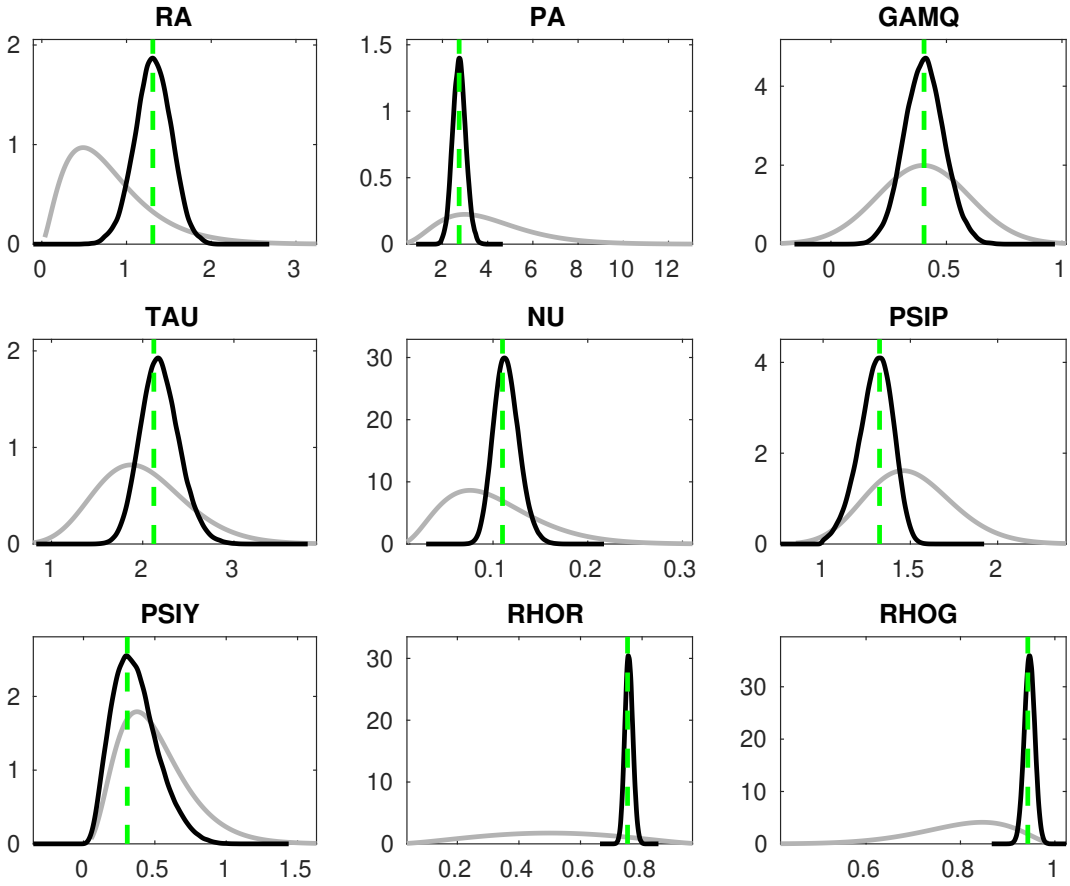

Figure 6: Priors and posteriors.

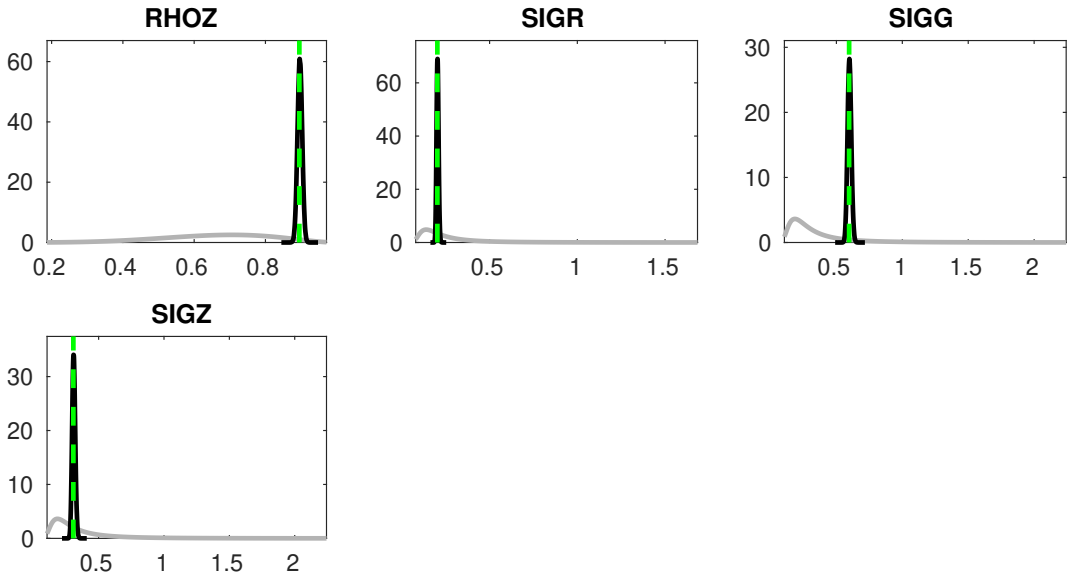

Figure 7: Priors and posteriors.

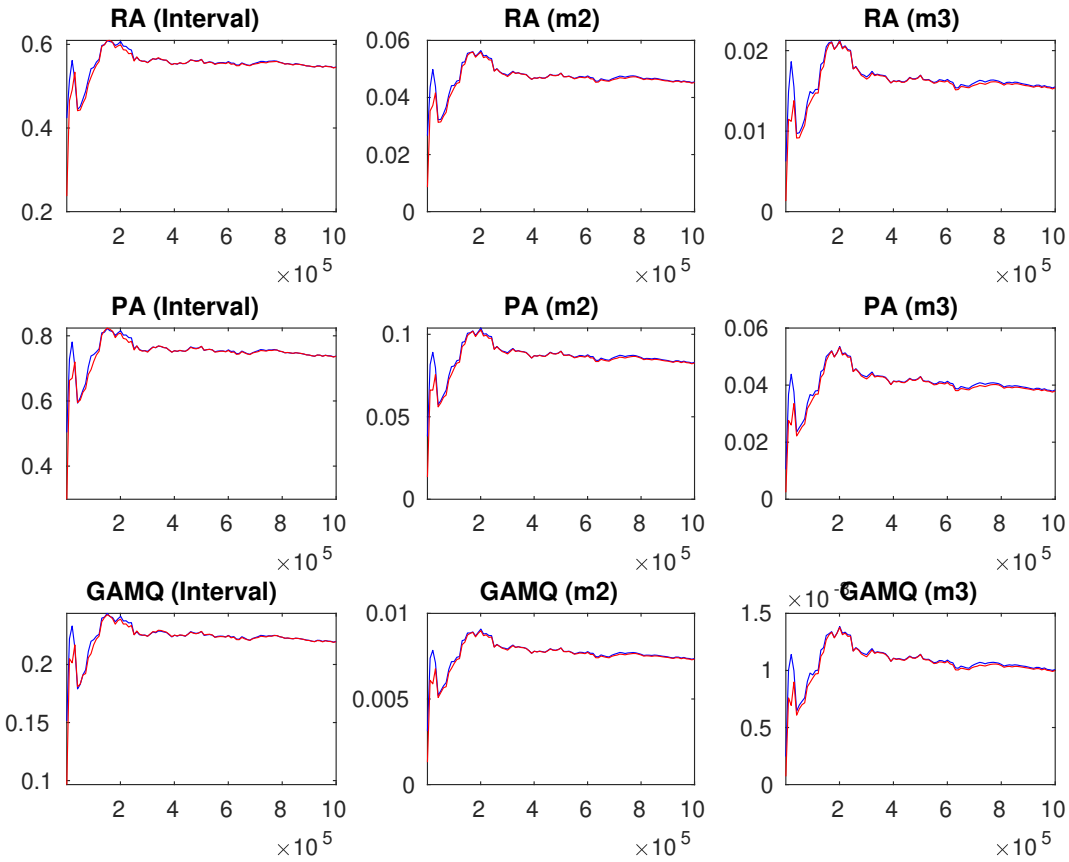

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

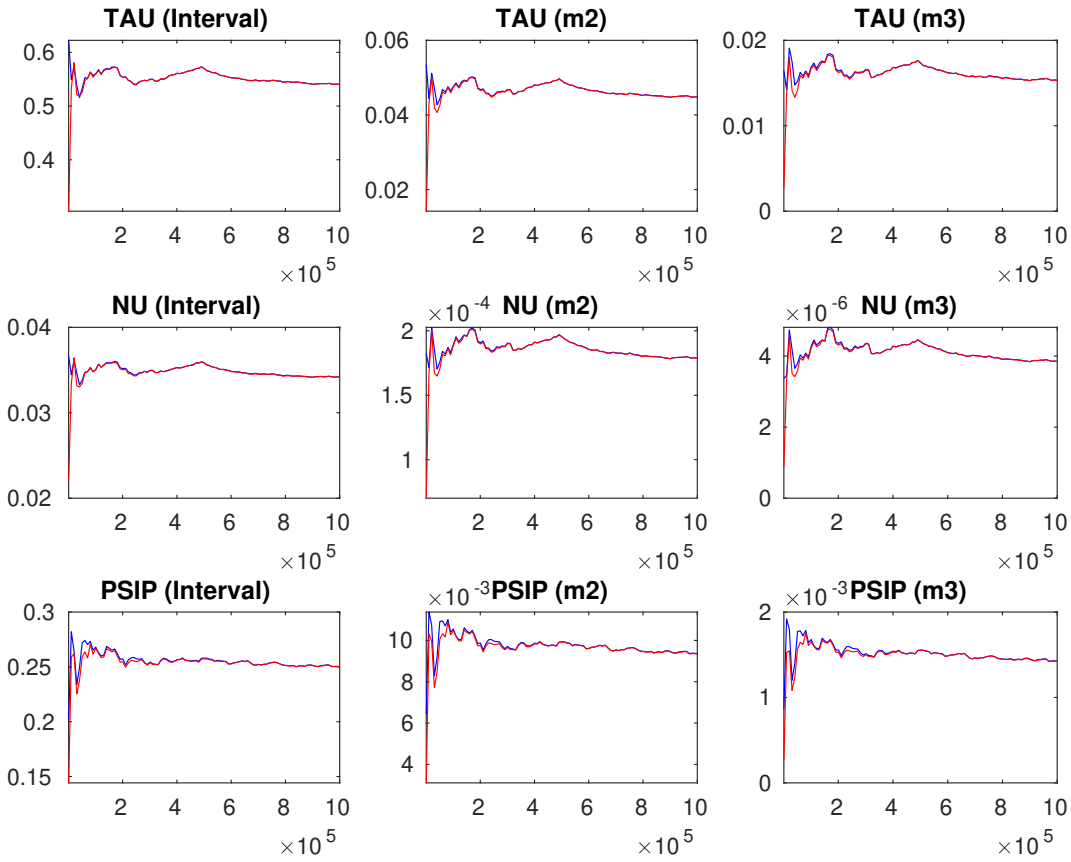

Figure 9: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

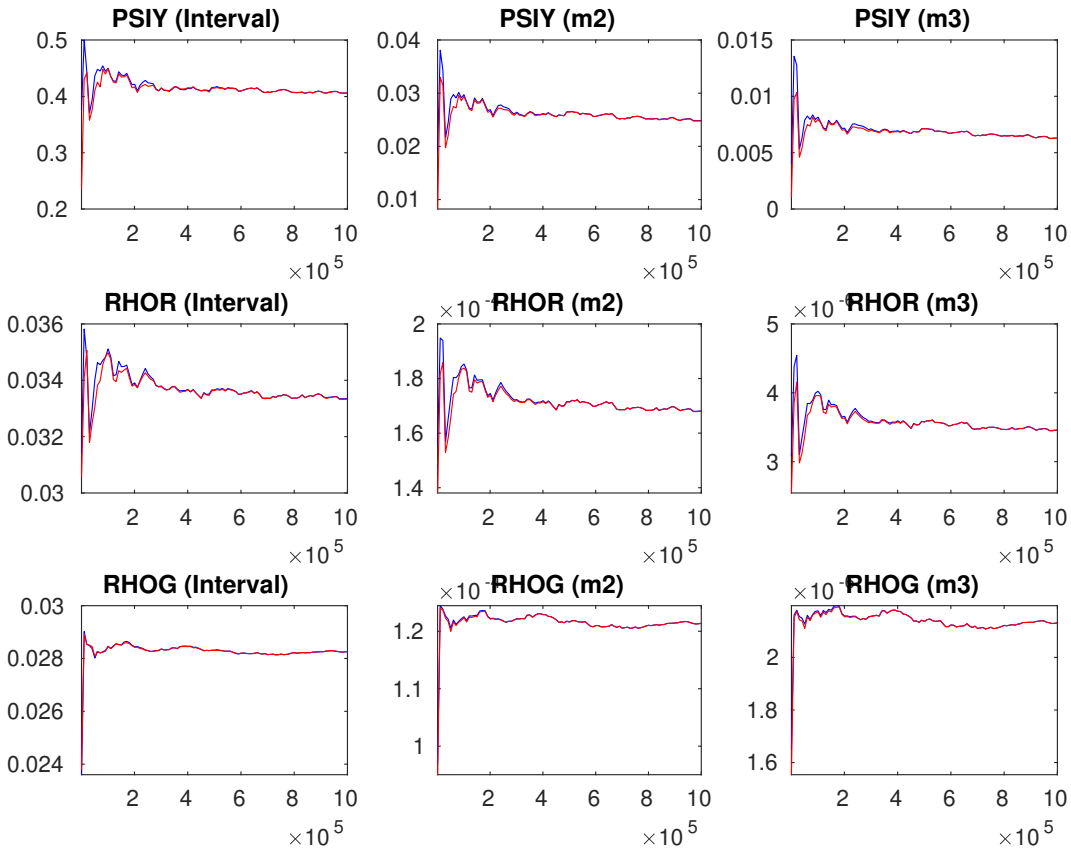

Figure 10: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

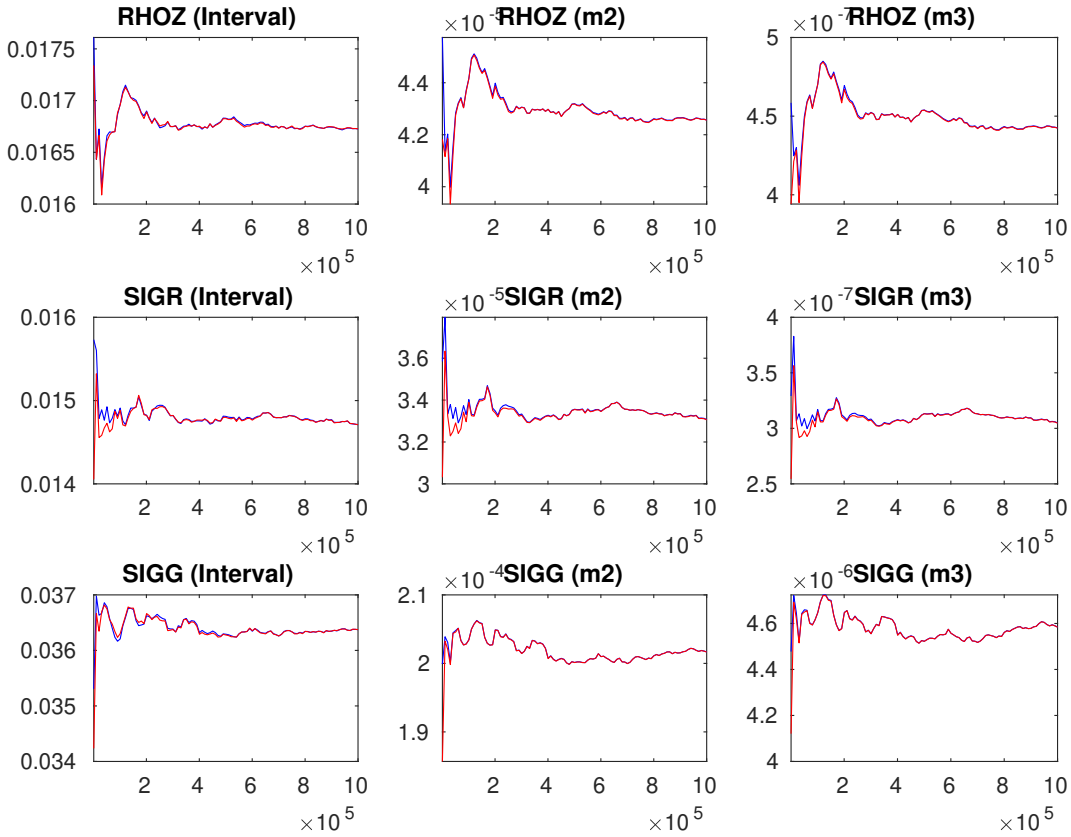

Figure 11: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

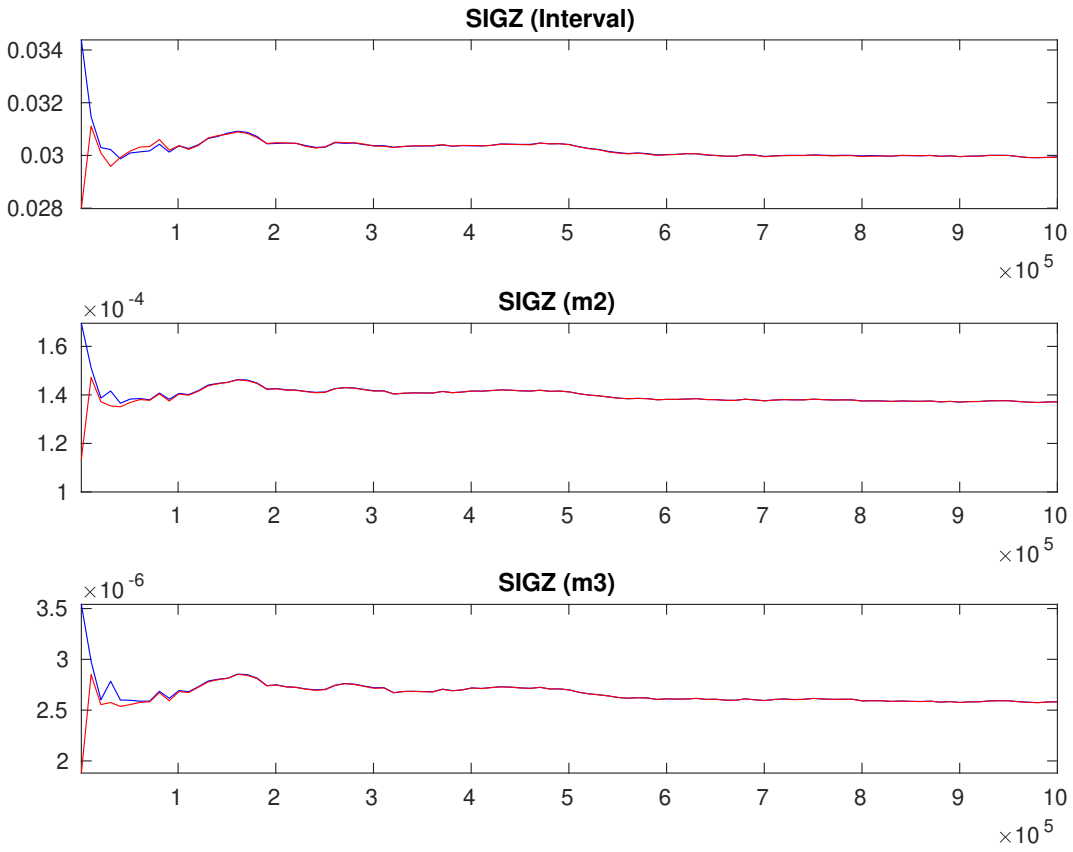

Figure 12: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments.