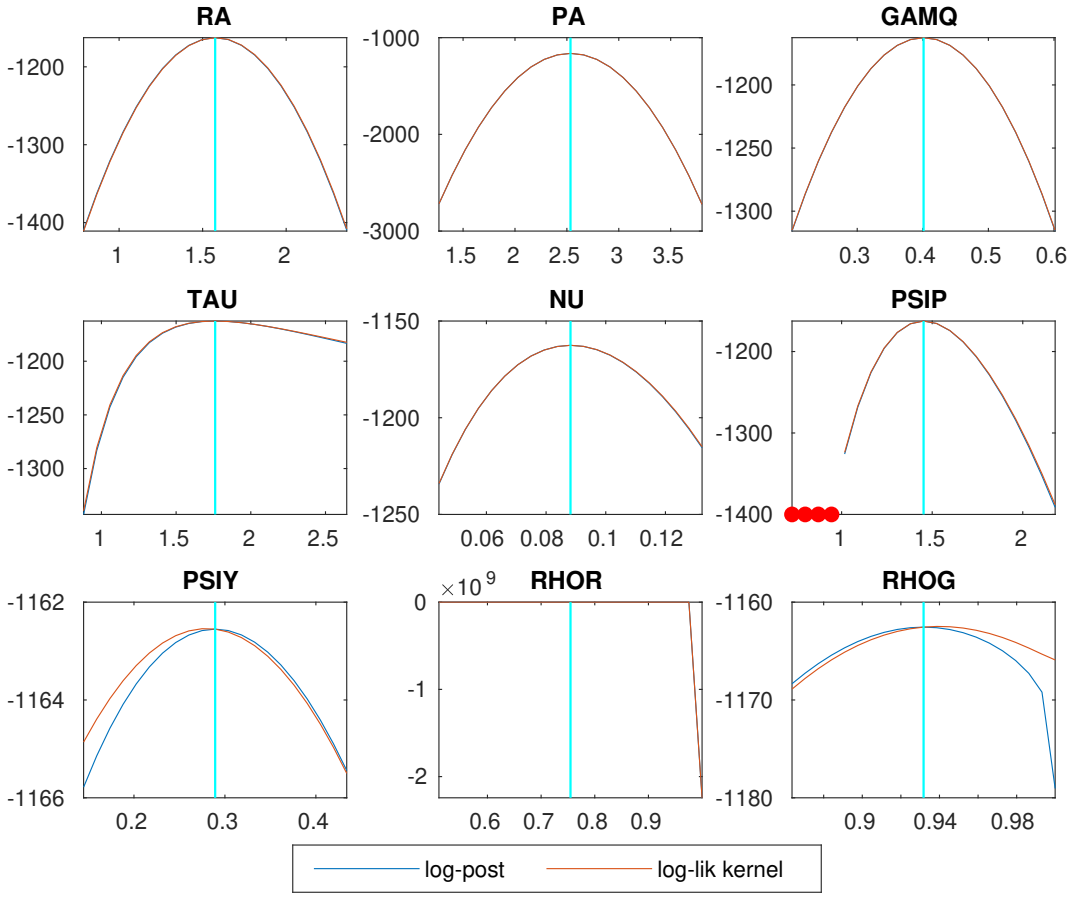

Figure 1: Check plots.

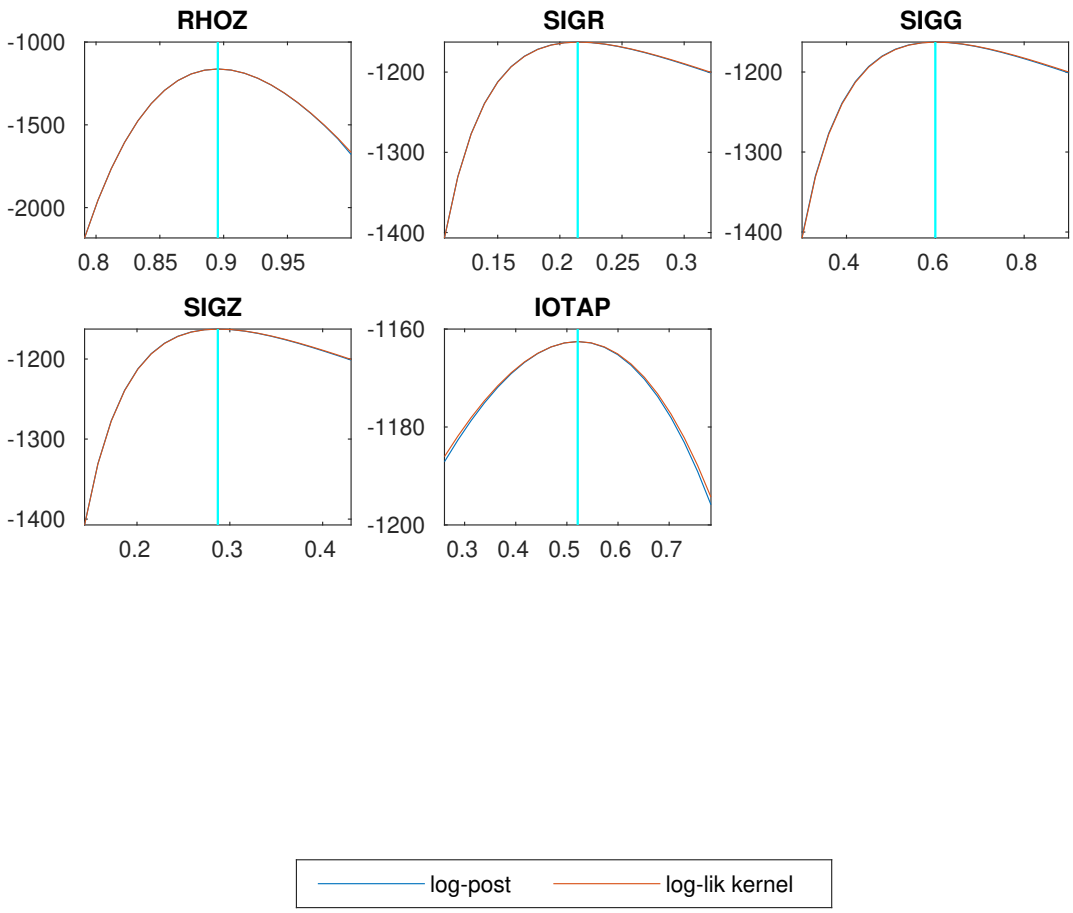

Figure 2: Check plots.

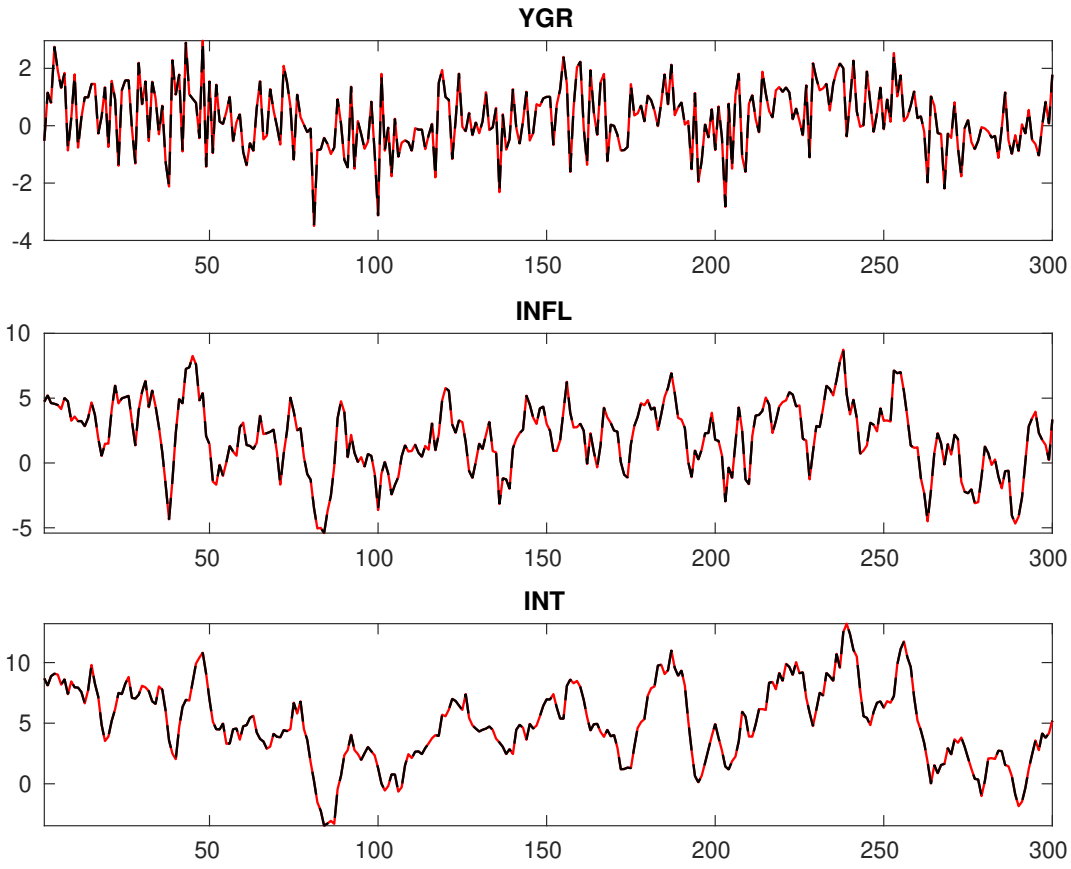

Figure 3: Historical and smoothed variables.

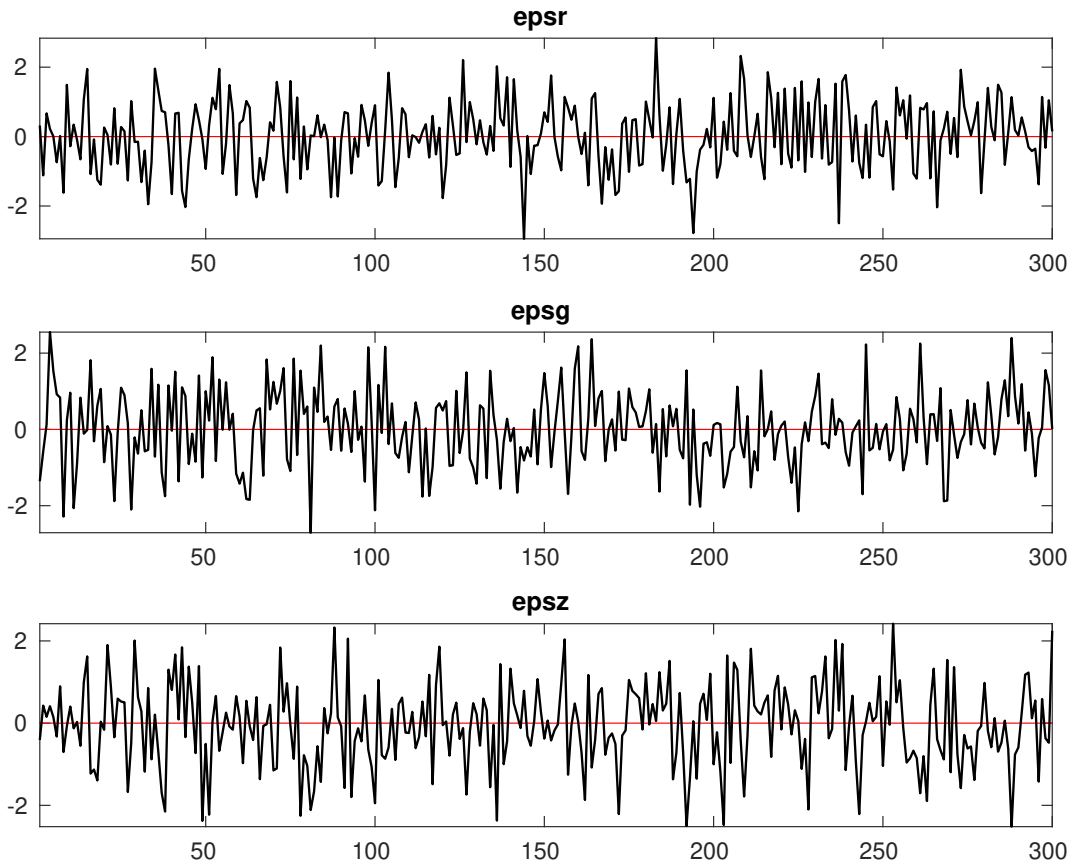

Figure 4: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
r_A	62.132	67.900	70.255	67.295
$\pi^{(A)}$	64.473	68.670	70.300	68.486
$\gamma^{(Q)}$	63.370	65.755	68.383	66.117
τ	70.454	65.995	69.983	70.181
ν	66.529	64.255	63.216	61.287
ψ_π	63.852	60.394	62.850	62.804
ψ_y	65.970	66.942	76.886	63.830
ρ_R	66.230	64.491	71.607	65.086
ρ_g	70.890	70.673	73.759	67.592
ρ_z	66.925	64.896	73.101	66.100
σ_R	63.679	64.638	64.813	60.847
σ_g	54.547	55.511	59.008	58.039
σ_z	66.888	65.600	68.367	67.529
ι_p	67.499	64.948	69.852	64.463

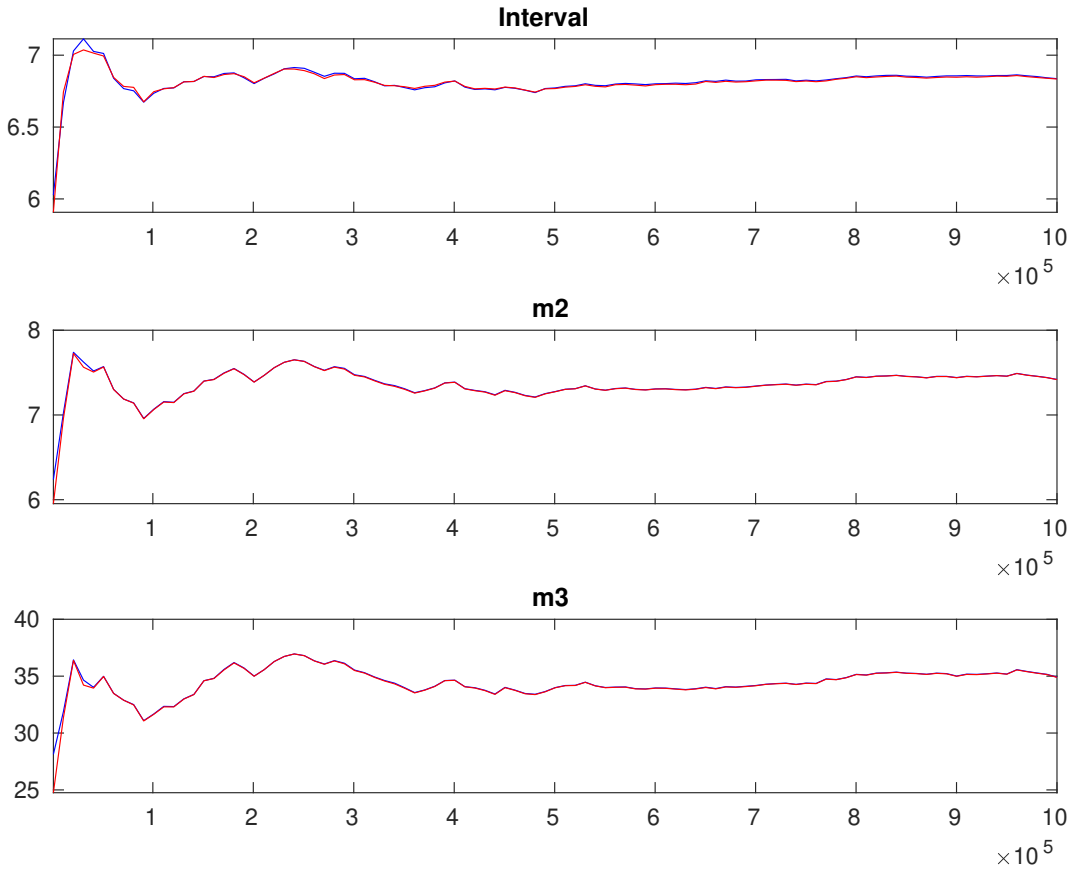

Figure 5: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

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	1.565	0.2815	1.1031	2.0293
$\pi^{(A)}$	gamm	4.000	2.0000	2.551	0.3935	1.9059	3.1984
$\gamma^{(Q)}$	norm	0.400	0.2000	0.407	0.1192	0.2123	0.6042
τ	gamm	2.000	0.5000	1.863	0.2558	1.4418	2.2695
ν	beta	0.100	0.0500	0.094	0.0167	0.0661	0.1200
ψ_π	gamm	1.500	0.2500	1.446	0.1030	1.2791	1.6173
ψ_y	gamm	0.500	0.2500	0.355	0.1636	0.0991	0.6006
ρ_R	beta	0.500	0.2000	0.762	0.0204	0.7280	0.7948
ρ_g	beta	0.800	0.1000	0.939	0.0201	0.9062	0.9722
ρ_z	beta	0.660	0.1500	0.898	0.0119	0.8784	0.9174
σ_R	invg	0.300	4.0000	0.218	0.0108	0.1998	0.2350
σ_g	invg	0.400	4.0000	0.607	0.0251	0.5664	0.6486
σ_z	invg	0.400	4.0000	0.292	0.0218	0.2568	0.3281
ι_p	beta	0.500	0.1500	0.527	0.0726	0.4094	0.6462

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
r_A	gamm	0.800	0.5000	1.5751	0.2828
$\pi^{(A)}$	gamm	4.000	2.0000	2.5348	0.4090
$\gamma^{(Q)}$	norm	0.400	0.2000	0.4012	0.1271
τ	gamm	2.000	0.5000	1.7614	0.2434
ν	beta	0.100	0.0500	0.0882	0.0171
ψ_π	gamm	1.500	0.2500	1.4525	0.1040
ψ_y	gamm	0.500	0.2500	0.2893	0.1696
ρ_R	beta	0.500	0.2000	0.7548	0.0203
ρ_g	beta	0.800	0.1000	0.9318	0.0191
ρ_z	beta	0.660	0.1500	0.8954	0.0119
σ_R	invg	0.300	4.0000	0.2144	0.0106
σ_g	invg	0.400	4.0000	0.6000	0.0252
σ_z	invg	0.400	4.0000	0.2871	0.0214
ι_p	beta	0.500	0.1500	0.5212	0.0720

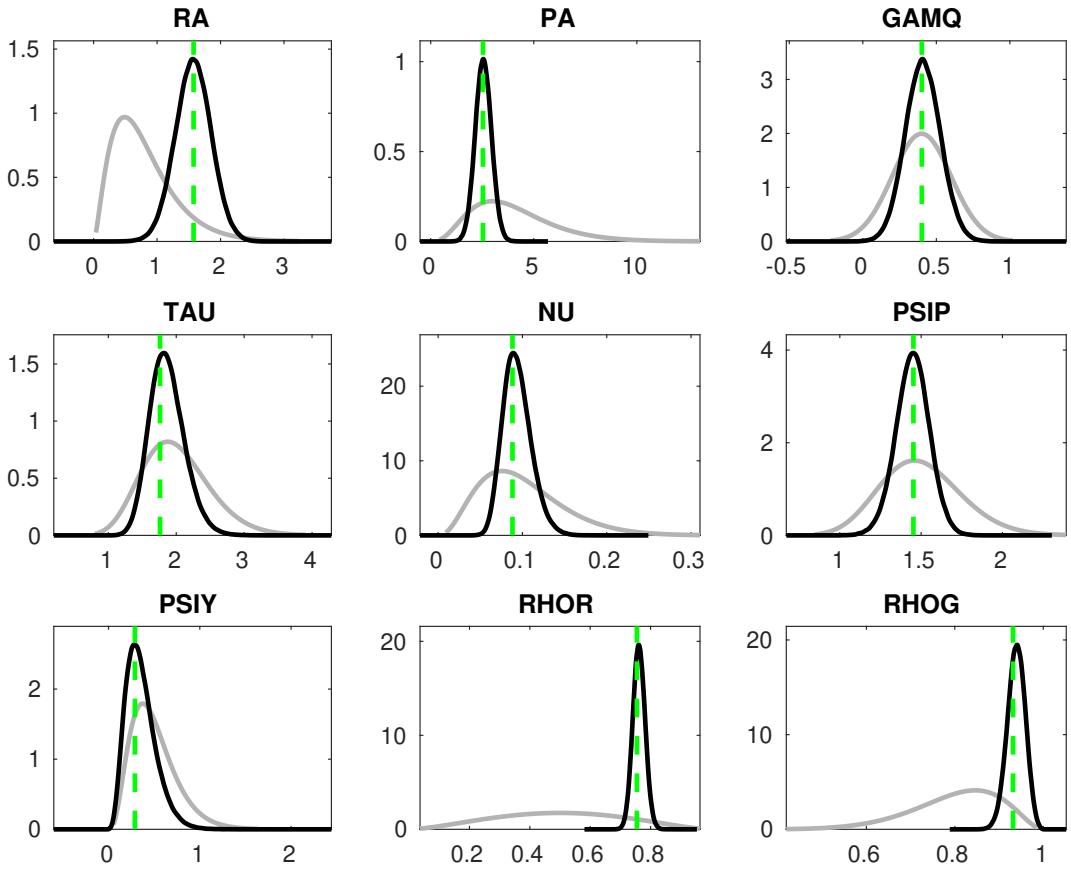

Figure 6: Priors and posteriors.

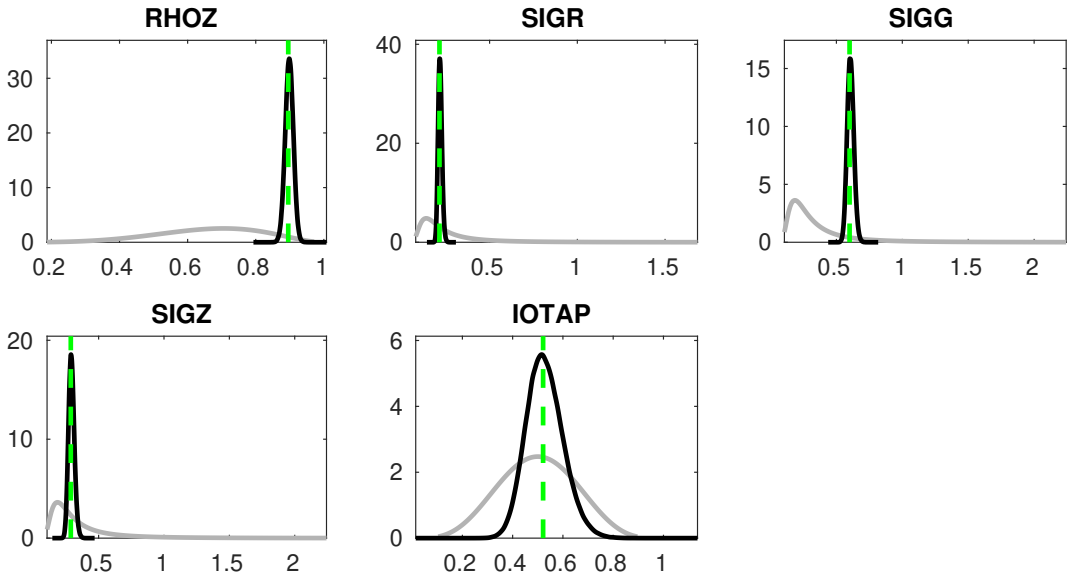

Figure 7: Priors and posteriors.

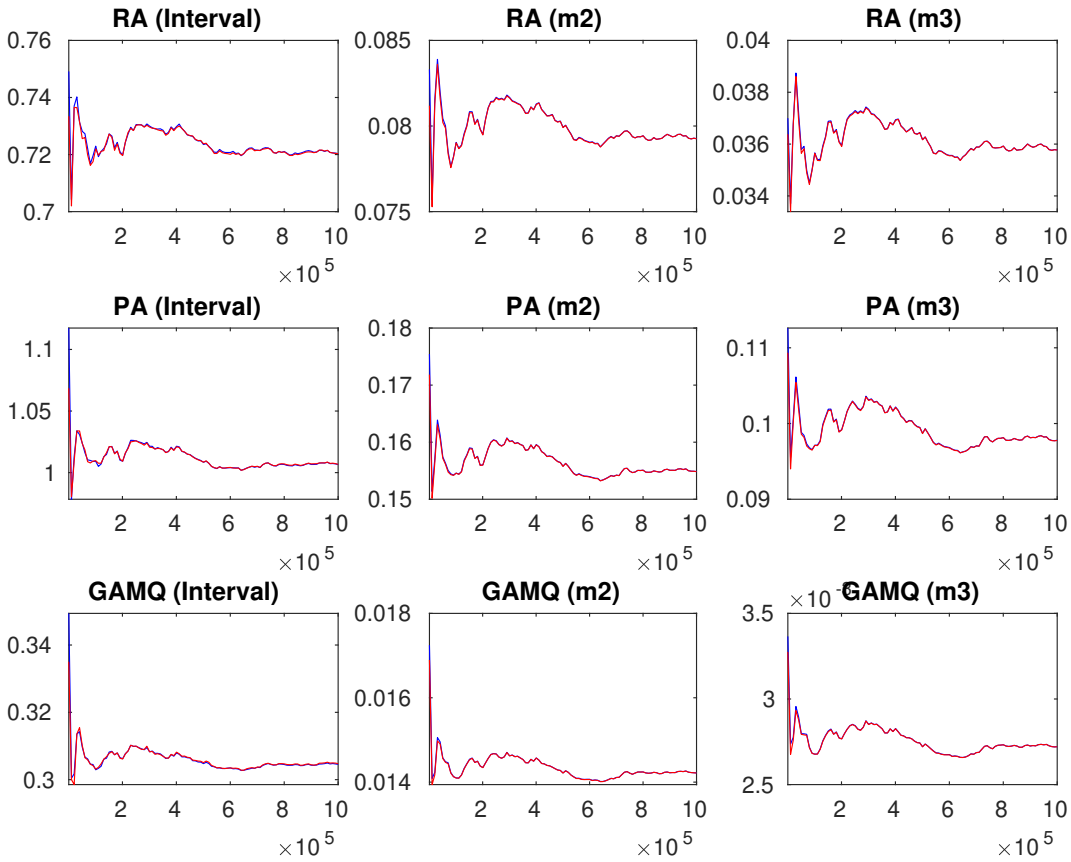

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

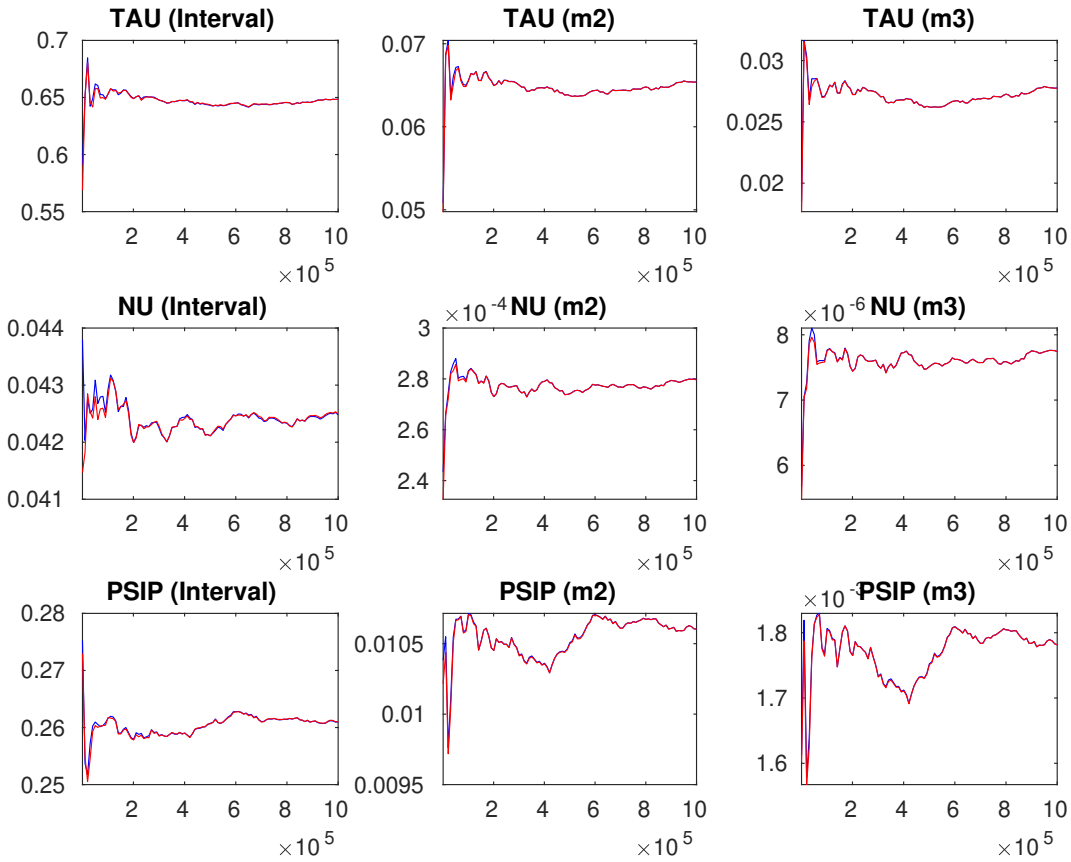

Figure 9: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

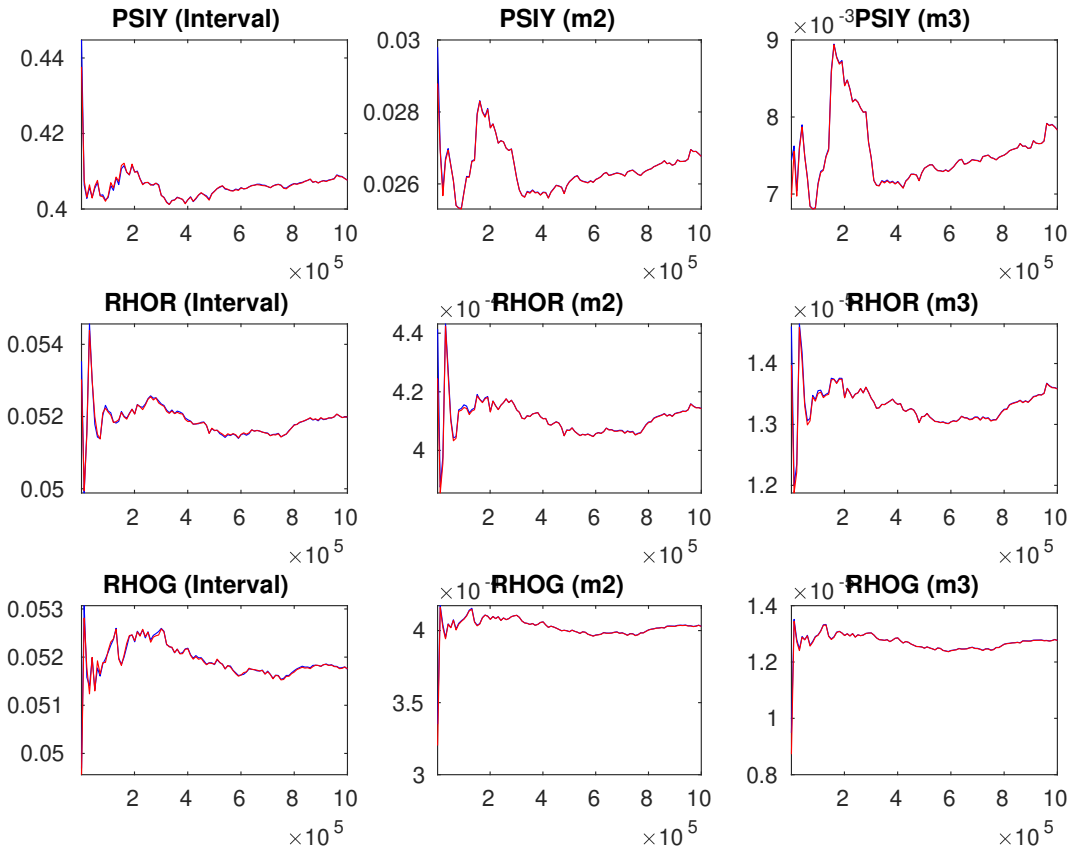

Figure 10: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

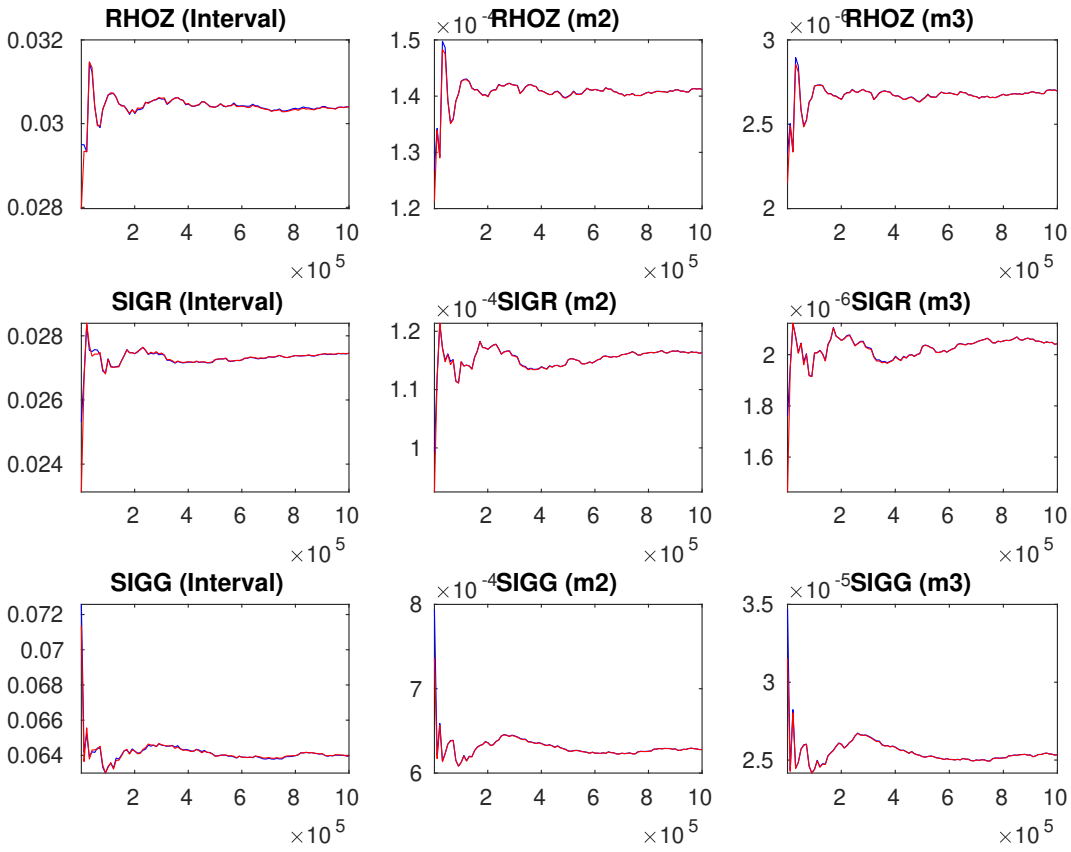

Figure 11: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

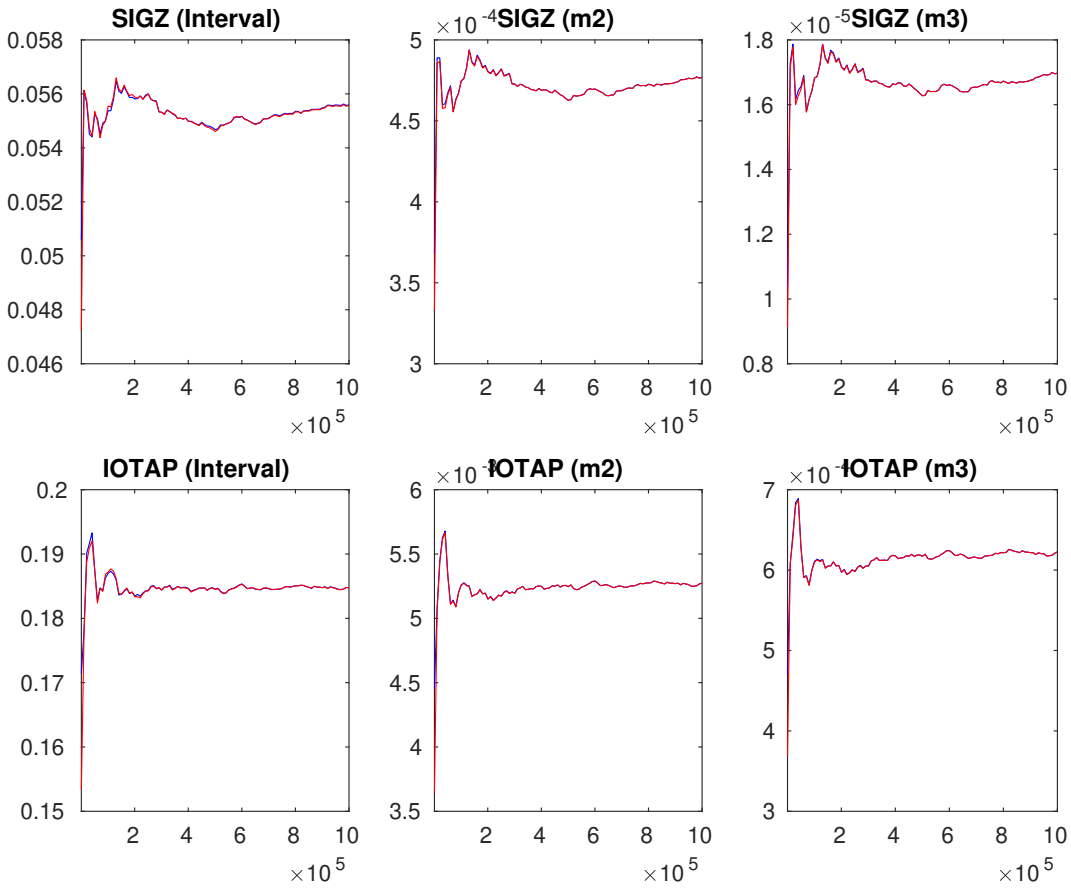

Figure 12: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.