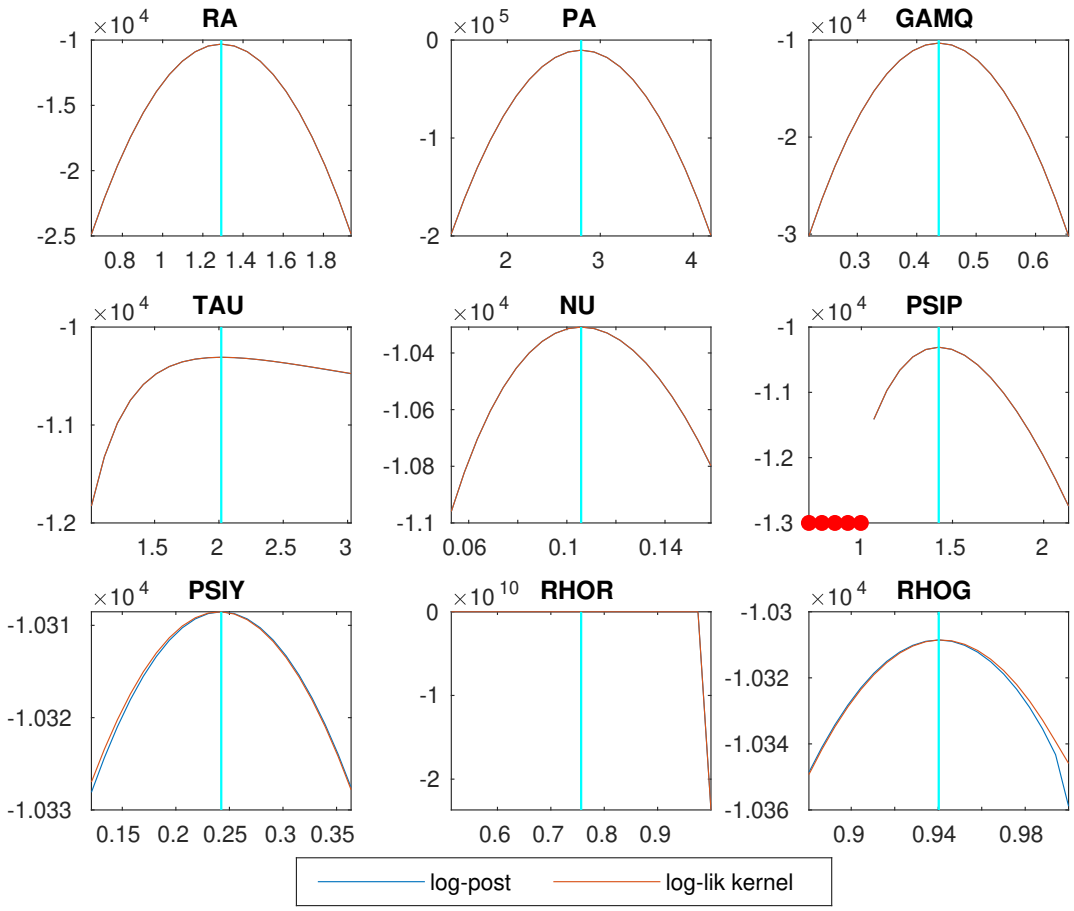

Figure 1: Check plots.

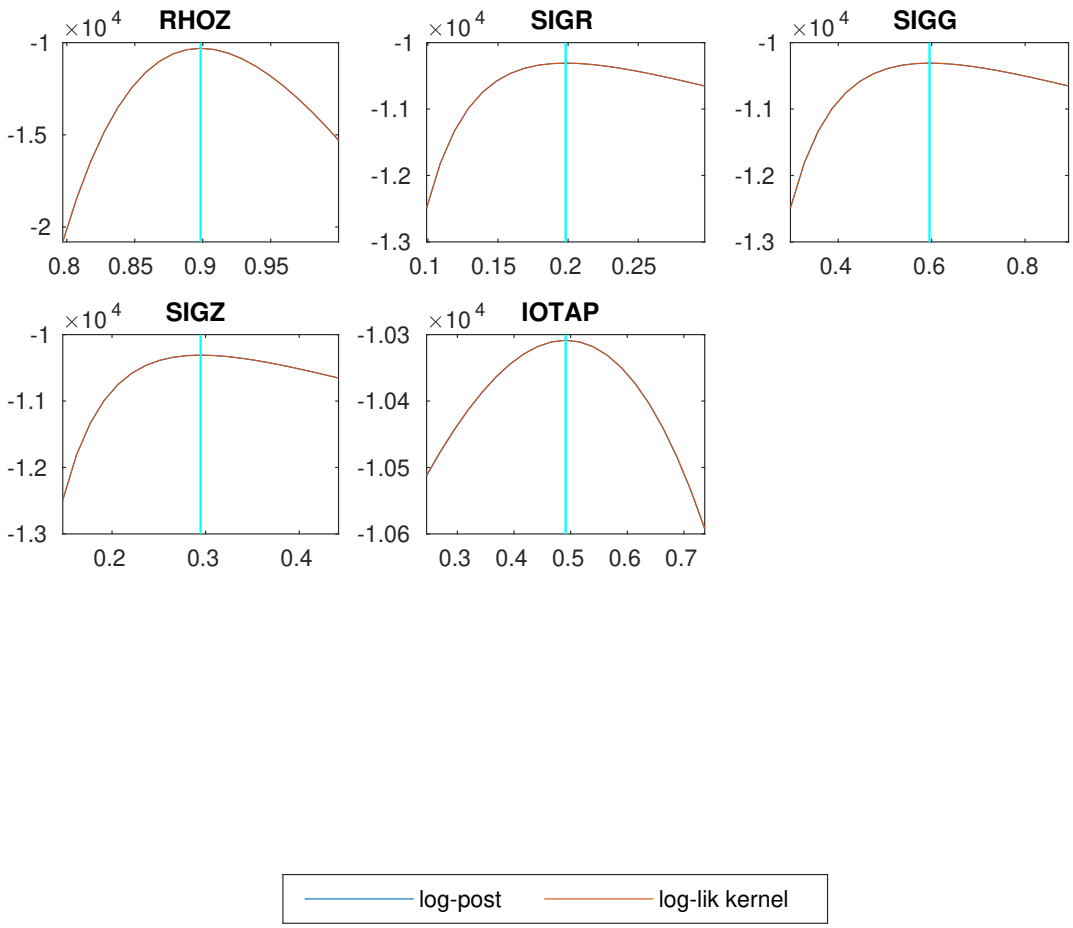

Figure 2: Check plots.

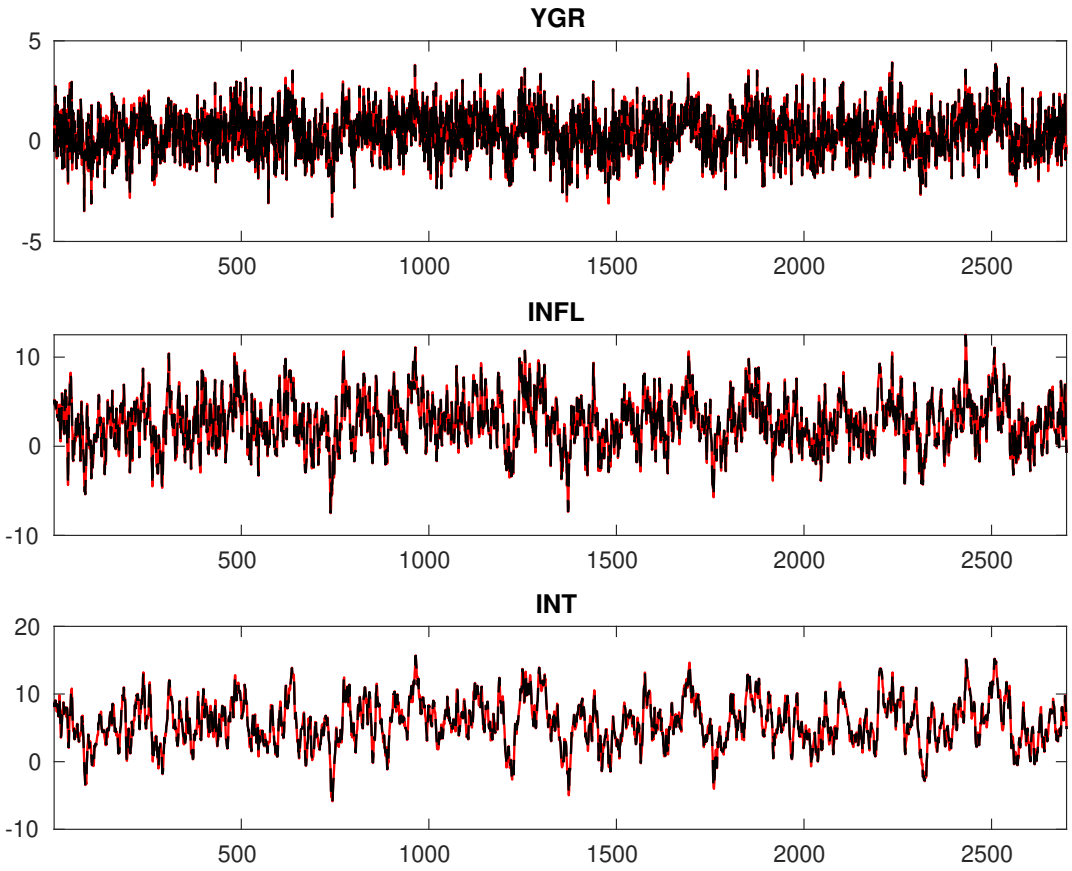

Figure 3: Historical and smoothed variables.

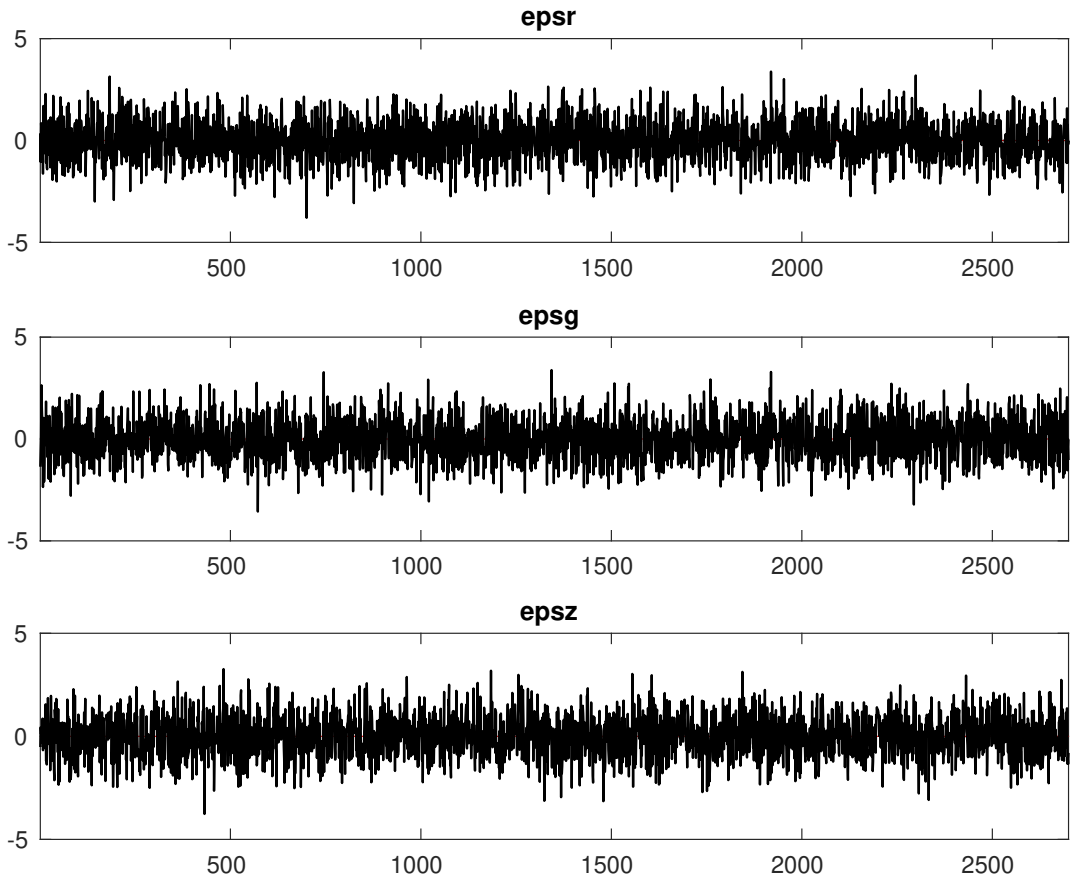

Figure 4: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
r_A	574.874	569.330	574.269	598.404
$\pi^{(A)}$	579.531	575.422	579.181	605.366
$\gamma^{(Q)}$	553.927	550.321	555.101	583.563
τ	456.468	454.982	443.377	475.557
ν	328.858	329.356	321.516	350.713
ψ_π	230.644	243.213	244.581	261.137
ψ_y	325.902	346.935	352.001	360.596
ρ_R	268.325	281.299	291.328	298.831
ρ_g	40.674	40.169	42.769	39.646
ρ_z	112.983	114.567	118.654	118.828
σ_R	119.972	132.117	133.163	135.190
σ_g	40.574	41.496	41.362	42.070
σ_z	212.652	207.943	200.862	226.526
ι_p	90.486	96.892	89.684	98.573

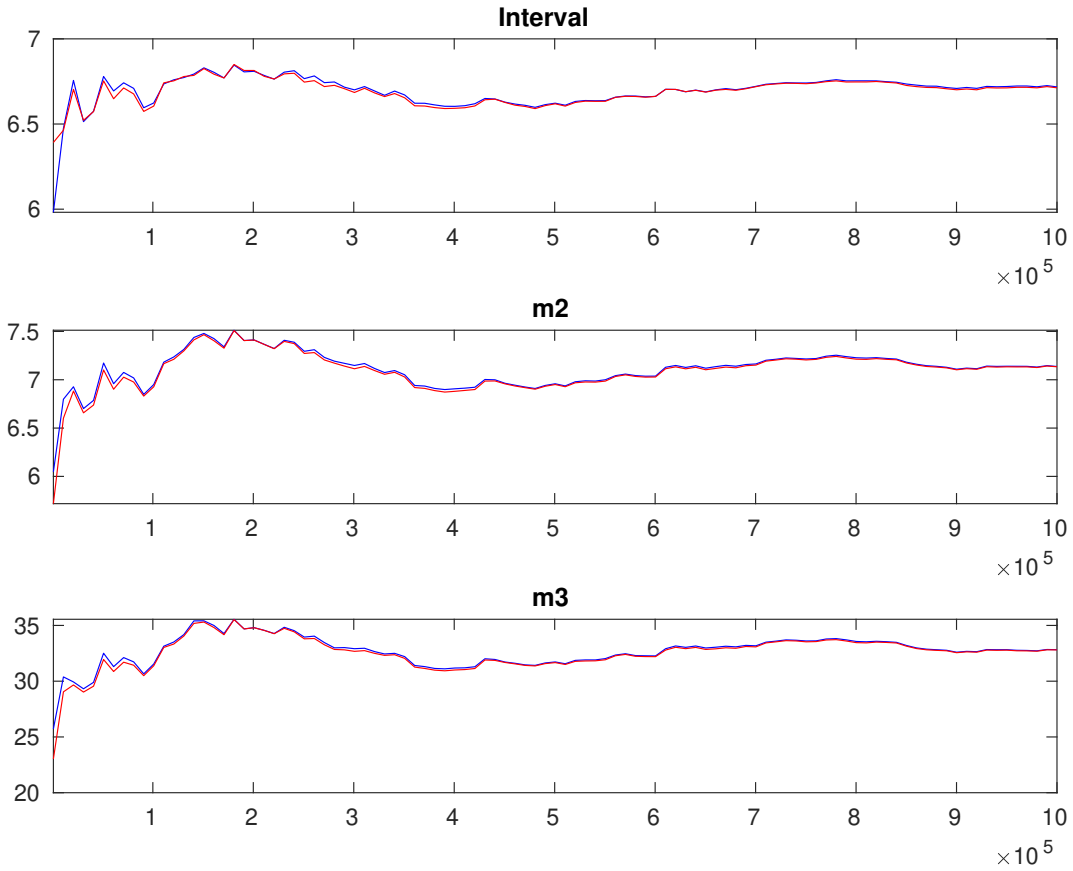

Figure 5: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

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	1.286	0.1255	1.0809	1.4917
$\pi^{(A)}$	gamm	4.000	2.0000	2.803	0.1826	2.5035	3.1013
$\gamma^{(Q)}$	norm	0.400	0.2000	0.440	0.0532	0.3534	0.5275
τ	gamm	2.000	0.5000	2.037	0.1114	1.8529	2.2181
ν	beta	0.100	0.0500	0.107	0.0073	0.0951	0.1189
ψ_π	gamm	1.500	0.2500	1.421	0.0406	1.3552	1.4876
ψ_y	gamm	0.500	0.2500	0.257	0.0851	0.1197	0.3951
ρ_R	beta	0.500	0.2000	0.758	0.0090	0.7433	0.7728
ρ_g	beta	0.800	0.1000	0.941	0.0067	0.9304	0.9524
ρ_z	beta	0.660	0.1500	0.899	0.0037	0.8928	0.9049
σ_R	invg	0.300	4.0000	0.199	0.0036	0.1927	0.2045
σ_g	invg	0.400	4.0000	0.596	0.0081	0.5829	0.6096
σ_z	invg	0.400	4.0000	0.296	0.0077	0.2827	0.3081
ι_p	beta	0.500	0.1500	0.491	0.0251	0.4496	0.5319

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
r_A	gamm	0.800	0.5000	1.2916	0.0226
$\pi^{(A)}$	gamm	4.000	2.0000	2.7940	0.0387
$\gamma^{(Q)}$	norm	0.400	0.2000	0.4371	0.0168
τ	gamm	2.000	0.5000	2.0180	0.0277
ν	beta	0.100	0.0500	0.1058	0.0039
ψ_π	gamm	1.500	0.2500	1.4245	0.0220
ψ_y	gamm	0.500	0.2500	0.2424	0.0330
ρ_R	beta	0.500	0.2000	0.7567	0.0055
ρ_g	beta	0.800	0.1000	0.9402	0.0070
ρ_z	beta	0.660	0.1500	0.8984	0.0030
σ_R	invg	0.300	4.0000	0.1982	0.0031
σ_g	invg	0.400	4.0000	0.5953	0.0081
σ_z	invg	0.400	4.0000	0.2947	0.0059
ι_p	beta	0.500	0.1500	0.4912	0.0206

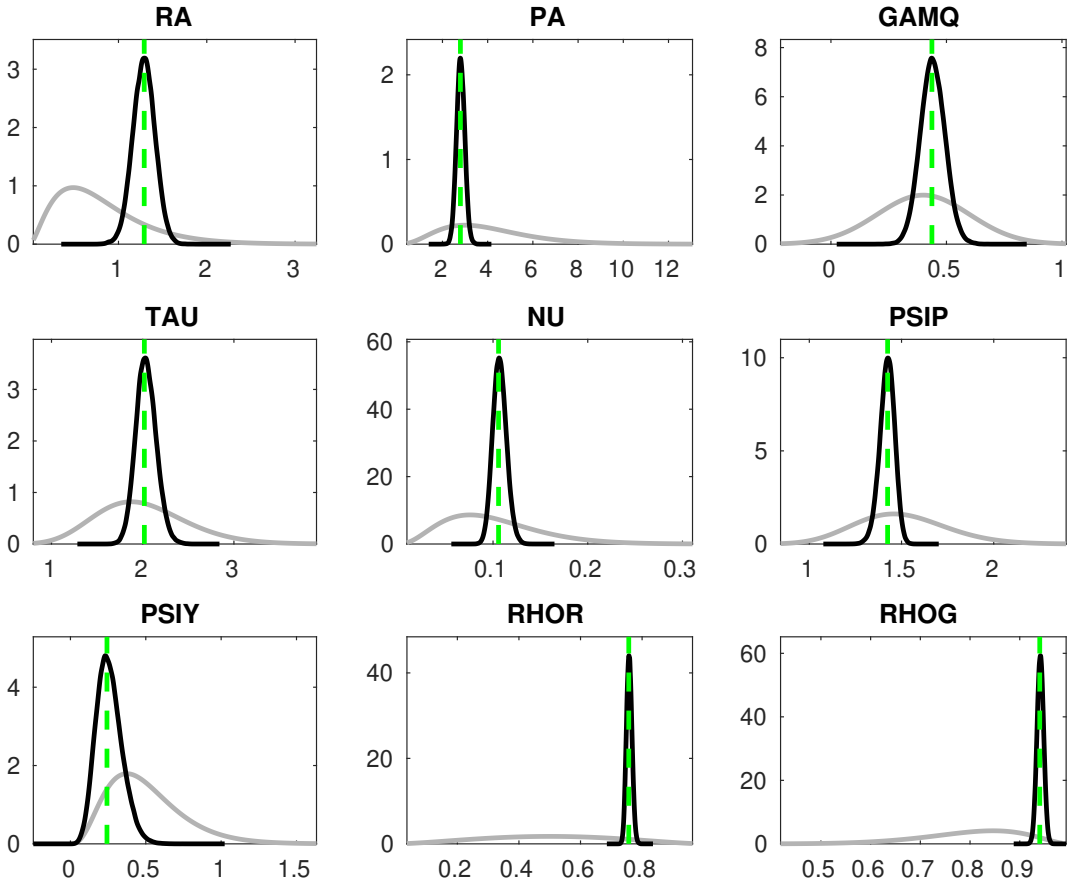

Figure 6: Priors and posteriors.

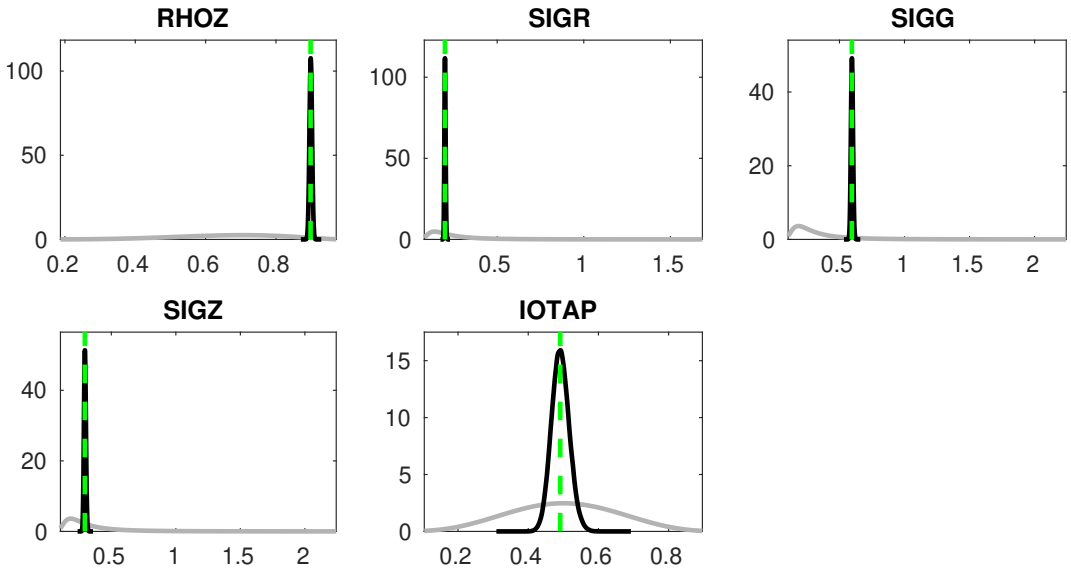

Figure 7: Priors and posteriors.

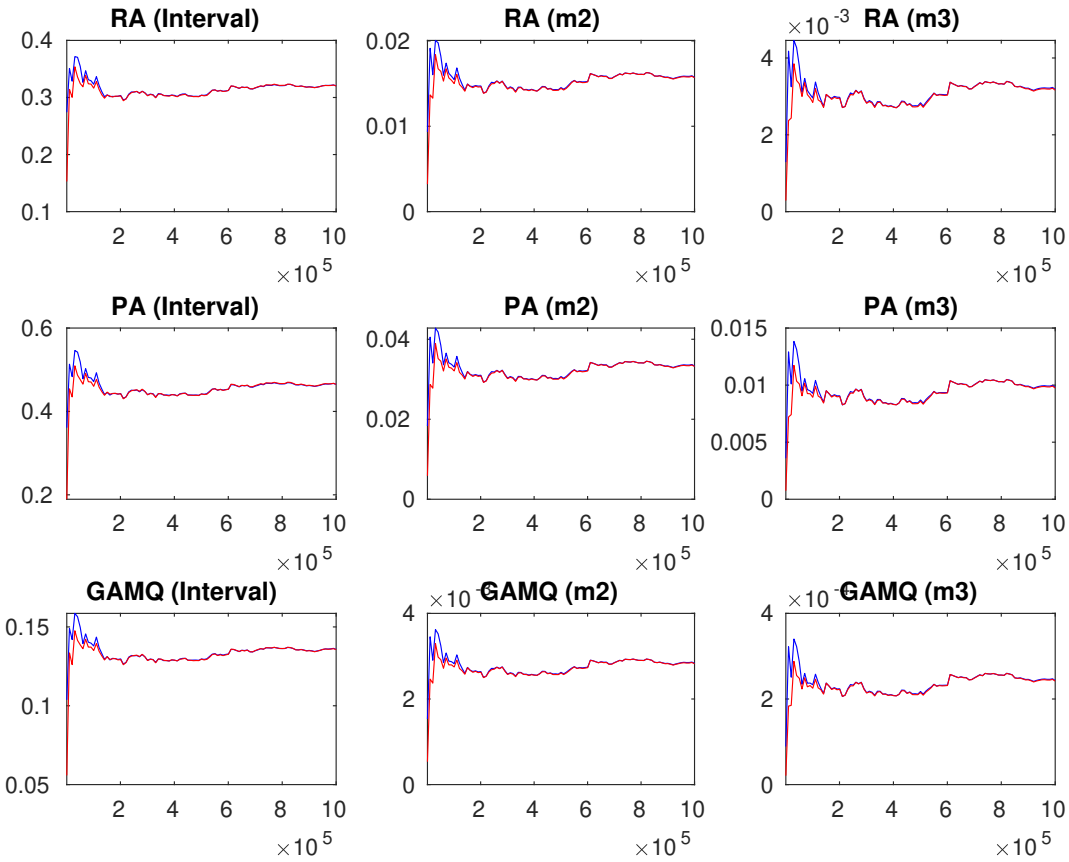

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

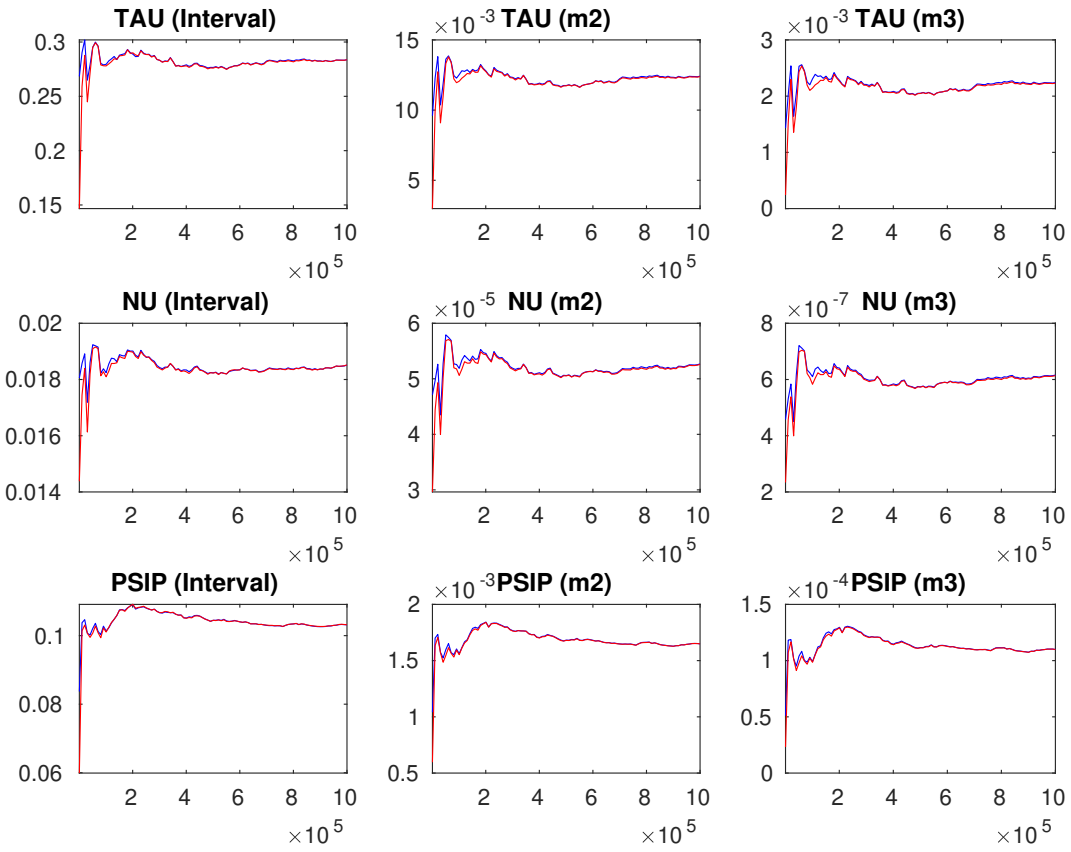

Figure 9: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

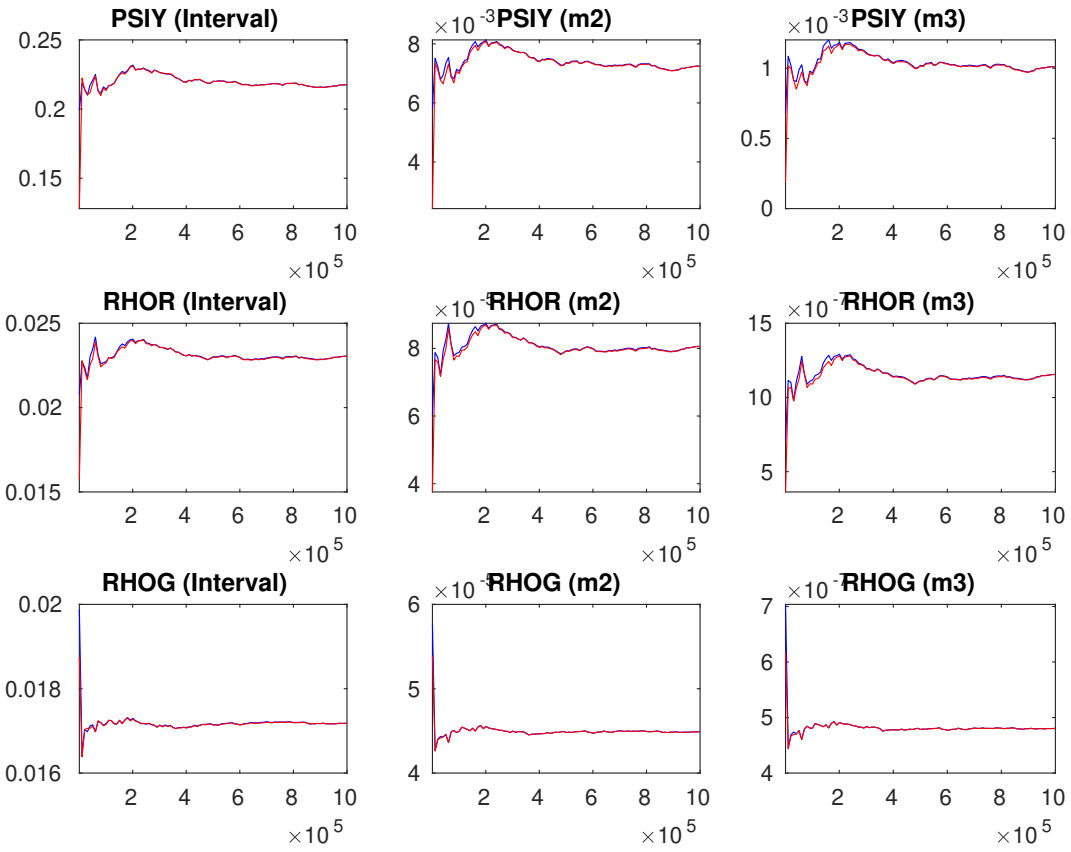

Figure 10: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

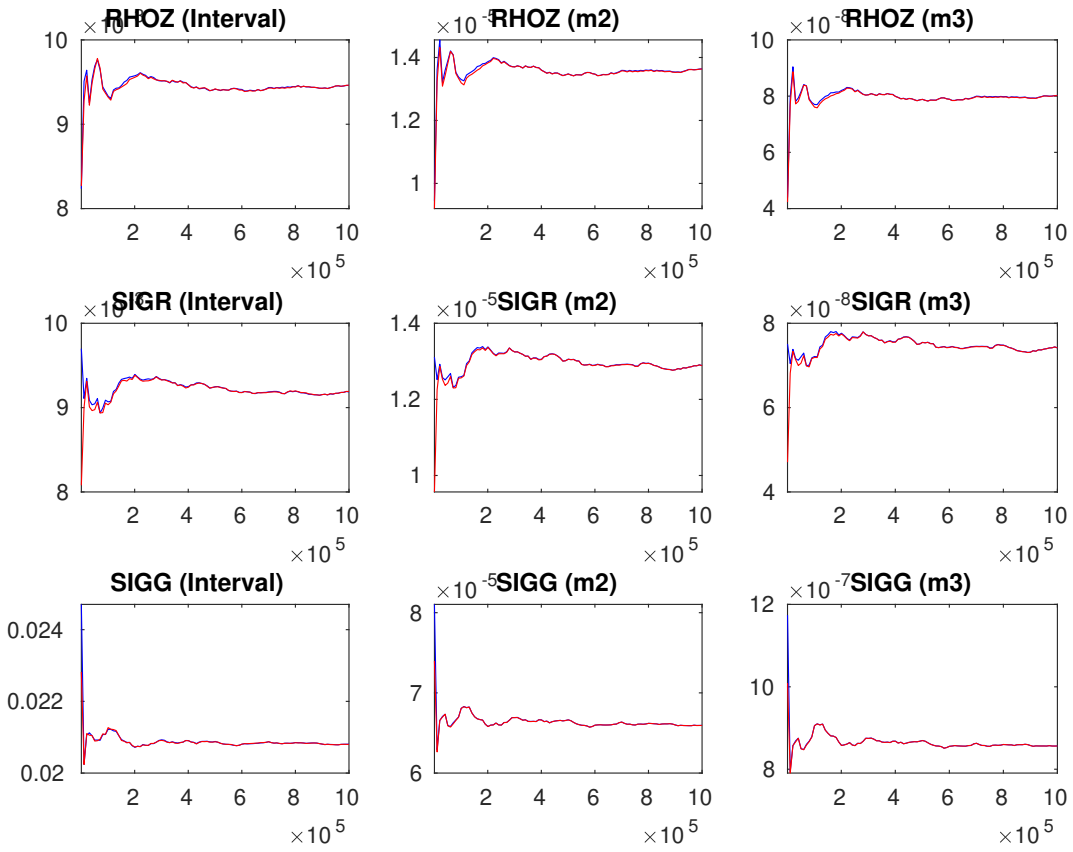

Figure 11: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

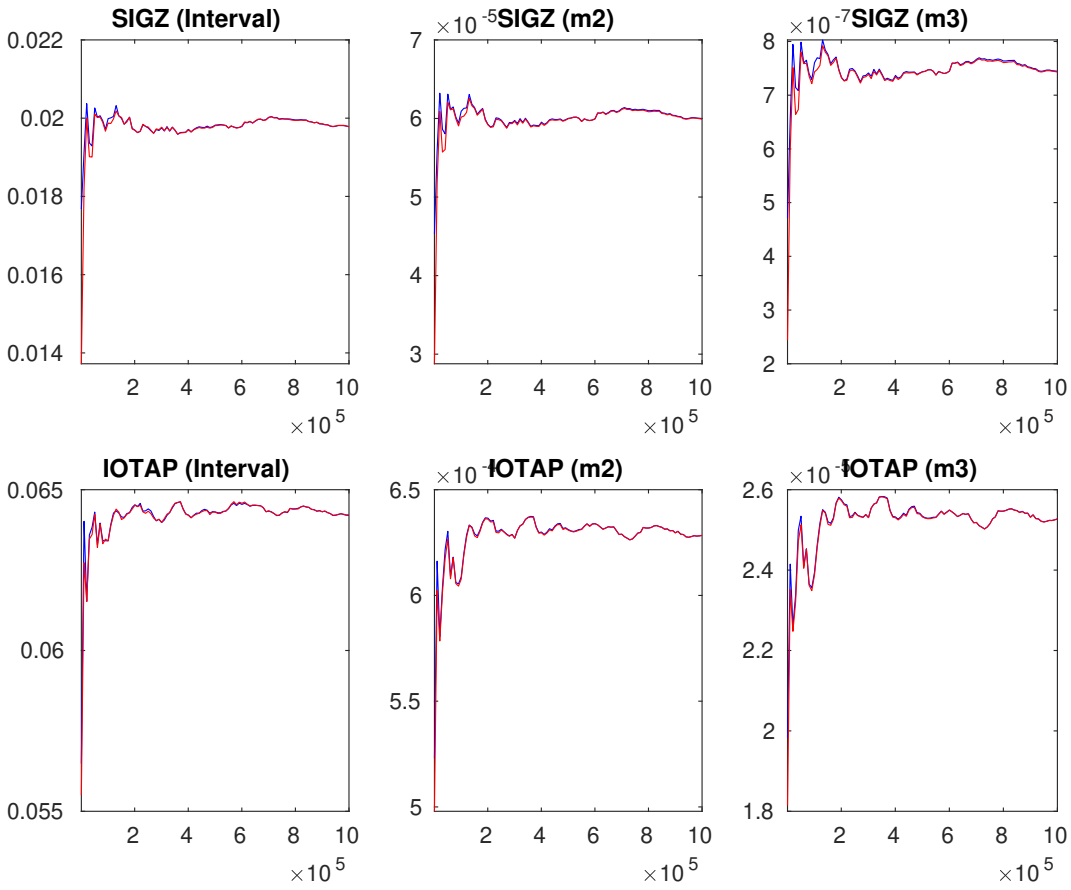

Figure 12: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.