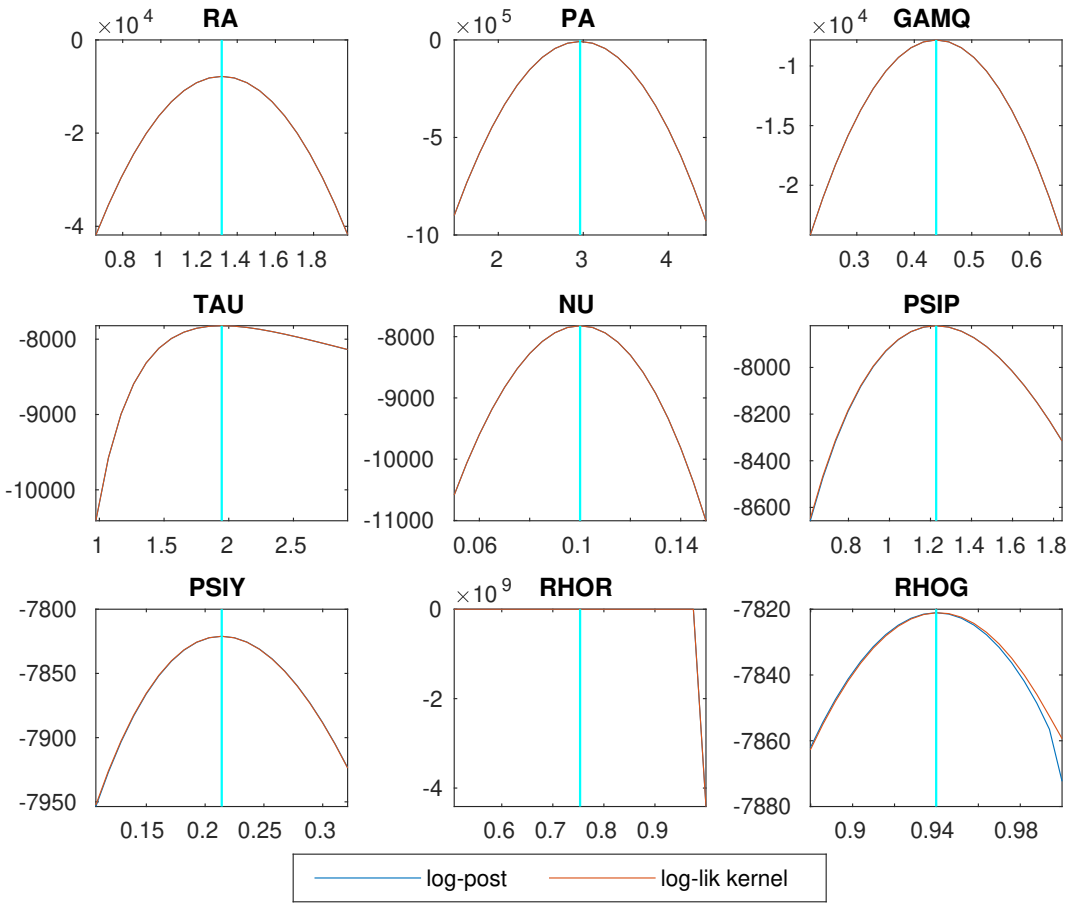

Figure 1: Check plots.

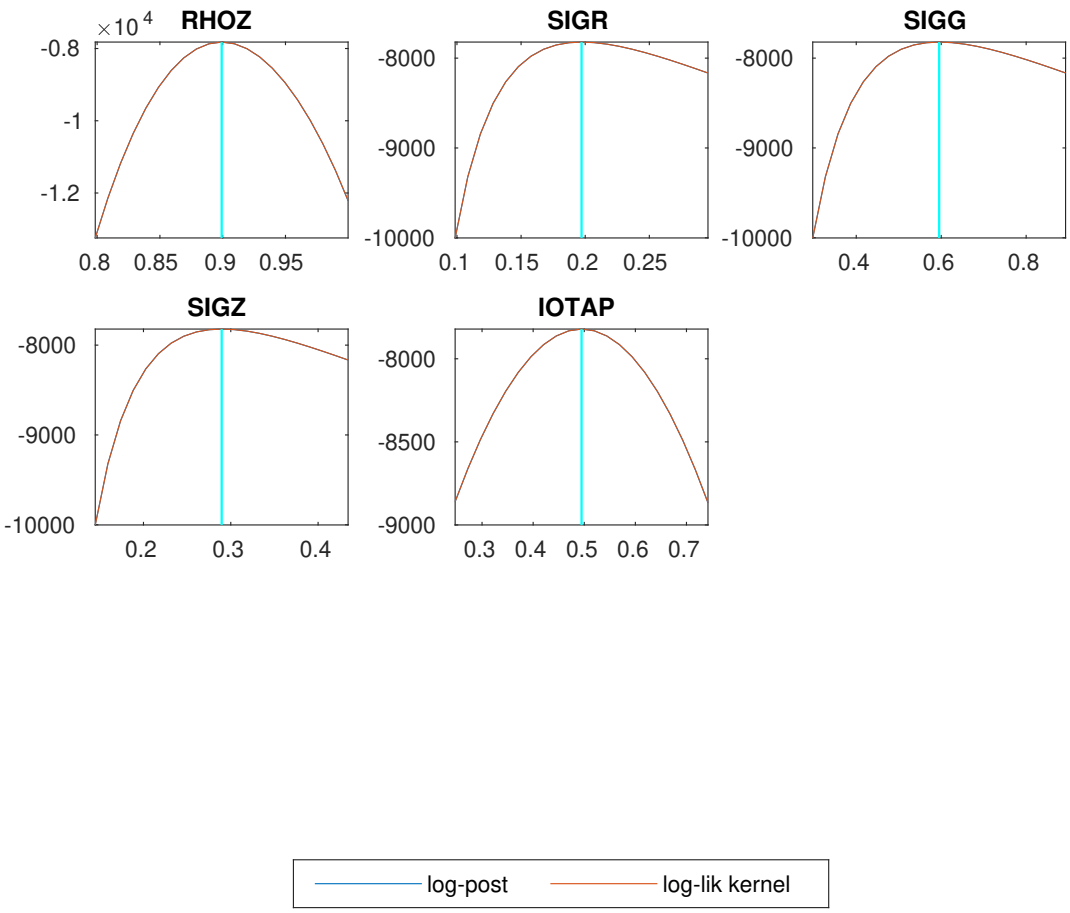

Figure 2: Check plots.

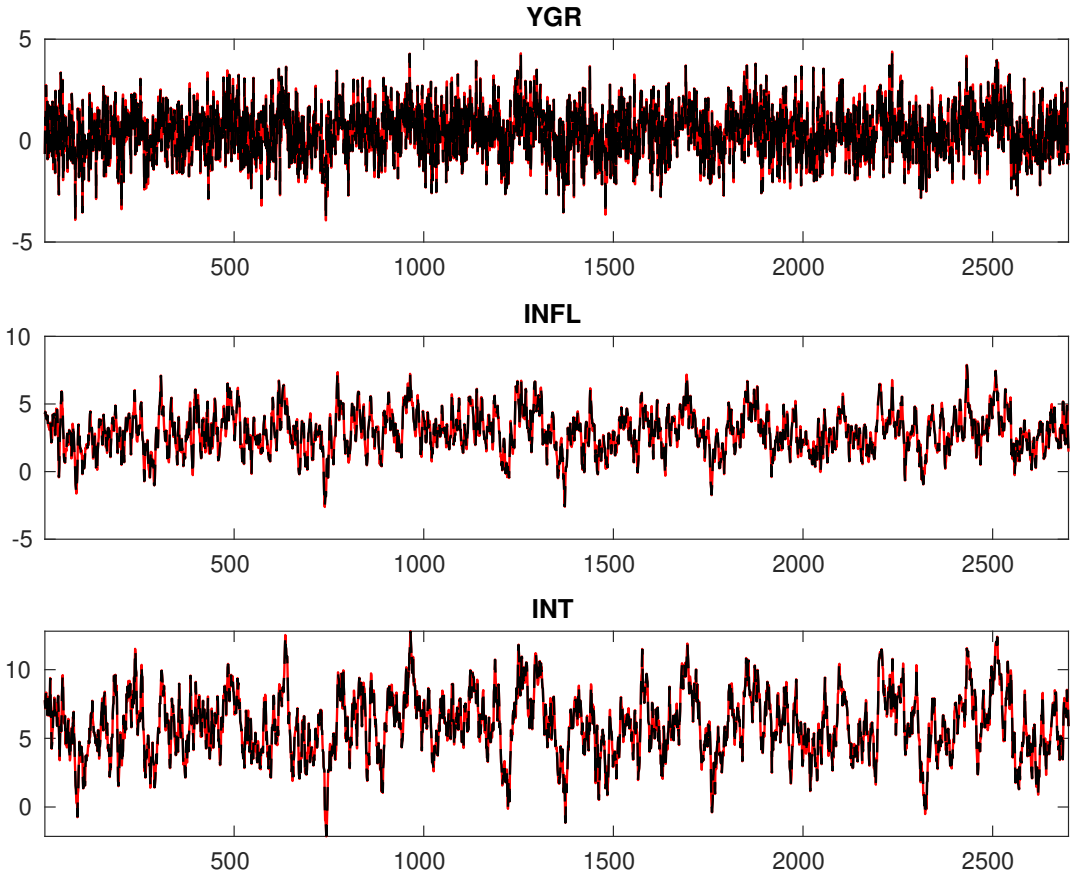

Figure 3: Historical and smoothed variables.

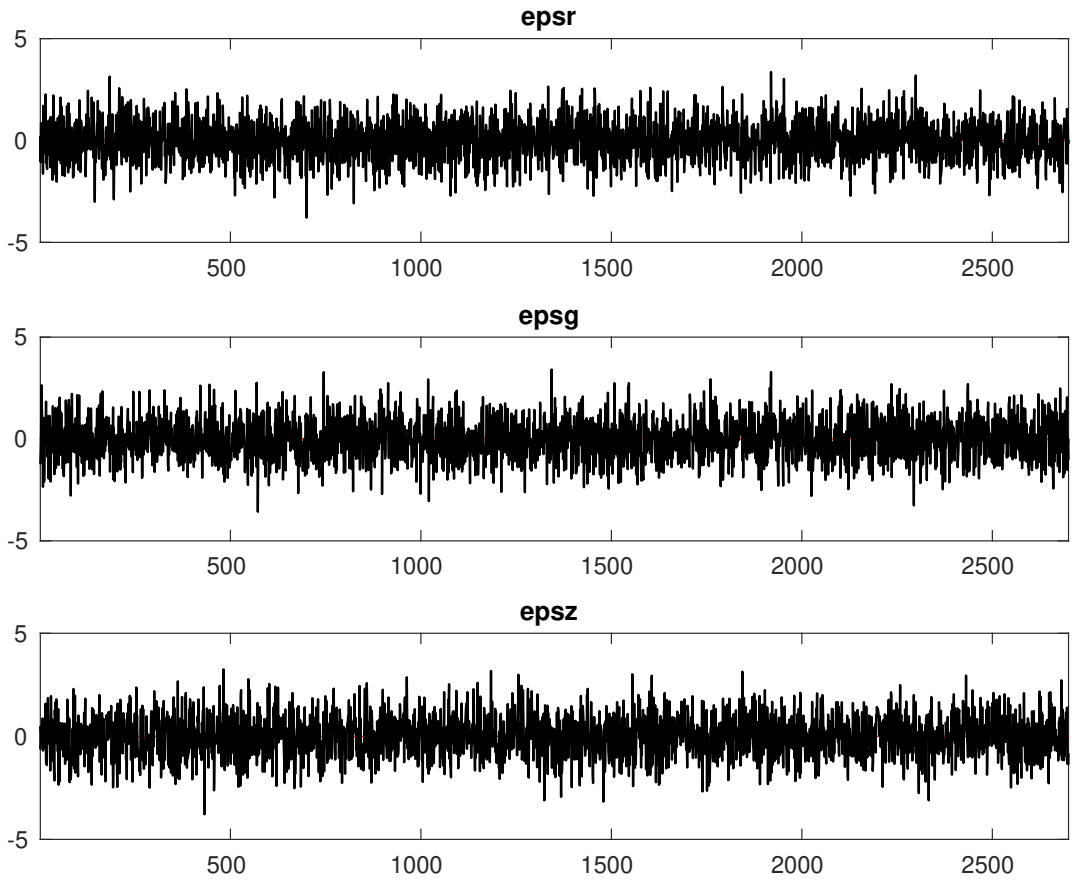

Figure 4: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
r_A	580.609	593.036	596.578	580.444
$\pi^{(A)}$	566.797	578.777	583.988	565.458
$\gamma^{(Q)}$	517.836	529.633	538.747	514.782
τ	342.734	337.739	346.298	323.867
ν	340.934	330.555	339.030	318.262
ψ_π	424.356	399.848	398.574	413.400
ψ_y	375.488	358.091	354.603	375.192
ρ_R	164.586	157.120	162.891	161.898
ρ_g	56.155	61.605	58.750	54.890
ρ_z	142.664	144.244	149.234	142.395
σ_R	77.913	73.514	74.440	74.327
σ_g	48.334	51.992	51.916	47.409
σ_z	113.693	117.514	121.254	113.087
ι_p	74.846	83.038	77.513	76.448

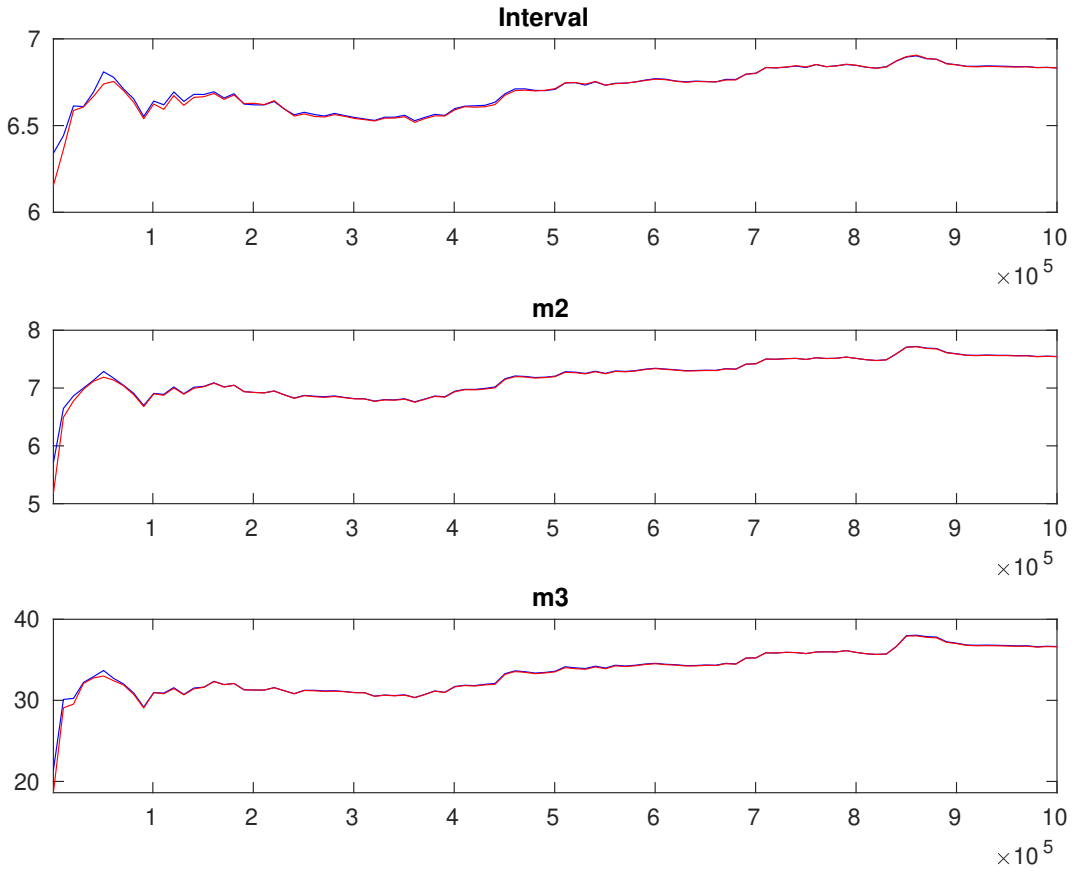

Figure 5: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

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	1.317	0.1436	1.0787	1.5461
$\pi^{(A)}$	gamm	4.000	2.0000	2.964	0.1107	2.7858	3.1464
$\gamma^{(Q)}$	norm	0.400	0.2000	0.439	0.0552	0.3493	0.5292
τ	gamm	2.000	0.5000	1.967	0.1066	1.7917	2.1405
ν	beta	0.100	0.0500	0.101	0.0037	0.0946	0.1067
ψ_π	gamm	1.500	0.2500	1.226	0.1162	1.0403	1.4210
ψ_y	gamm	0.500	0.2500	0.216	0.0451	0.1416	0.2894
ρ_R	beta	0.500	0.2000	0.754	0.0083	0.7407	0.7679
ρ_g	beta	0.800	0.1000	0.941	0.0067	0.9303	0.9523
ρ_z	beta	0.660	0.1500	0.900	0.0042	0.8929	0.9065
σ_R	invg	0.300	4.0000	0.197	0.0030	0.1923	0.2023
σ_g	invg	0.400	4.0000	0.596	0.0082	0.5827	0.6096
σ_z	invg	0.400	4.0000	0.291	0.0074	0.2784	0.3027
ι_p	beta	0.500	0.1500	0.496	0.0119	0.4758	0.5150

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
r_A	gamm	0.800	0.5000	1.3189	0.0293
$\pi^{(A)}$	gamm	4.000	2.0000	2.9625	0.0300
$\gamma^{(Q)}$	norm	0.400	0.2000	0.4381	0.0225
τ	gamm	2.000	0.5000	1.9458	0.0427
ν	beta	0.100	0.0500	0.1000	0.0017
ψ_π	gamm	1.500	0.2500	1.2277	0.0353
ψ_y	gamm	0.500	0.2500	0.2141	0.0188
ρ_R	beta	0.500	0.2000	0.7534	0.0064
ρ_g	beta	0.800	0.1000	0.9399	0.0060
ρ_z	beta	0.660	0.1500	0.8992	0.0028
σ_R	invg	0.300	4.0000	0.1972	0.0028
σ_g	invg	0.400	4.0000	0.5952	0.0078
σ_z	invg	0.400	4.0000	0.2896	0.0065
ι_p	beta	0.500	0.1500	0.4947	0.0110

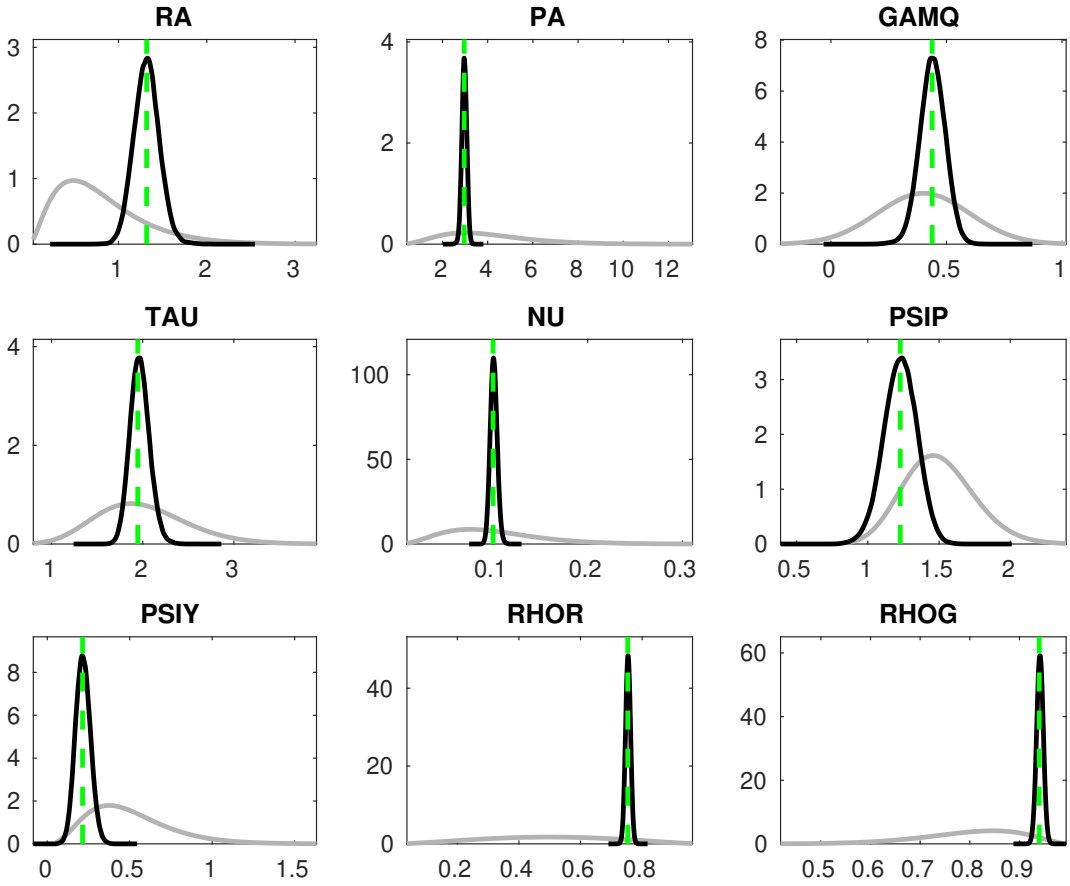

Figure 6: Priors and posteriors.

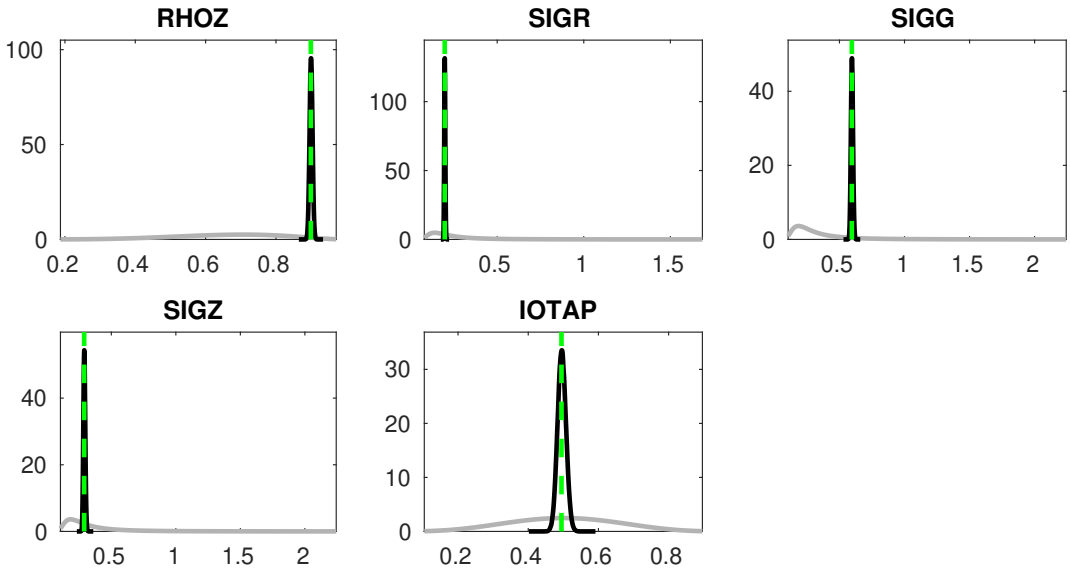

Figure 7: Priors and posteriors.

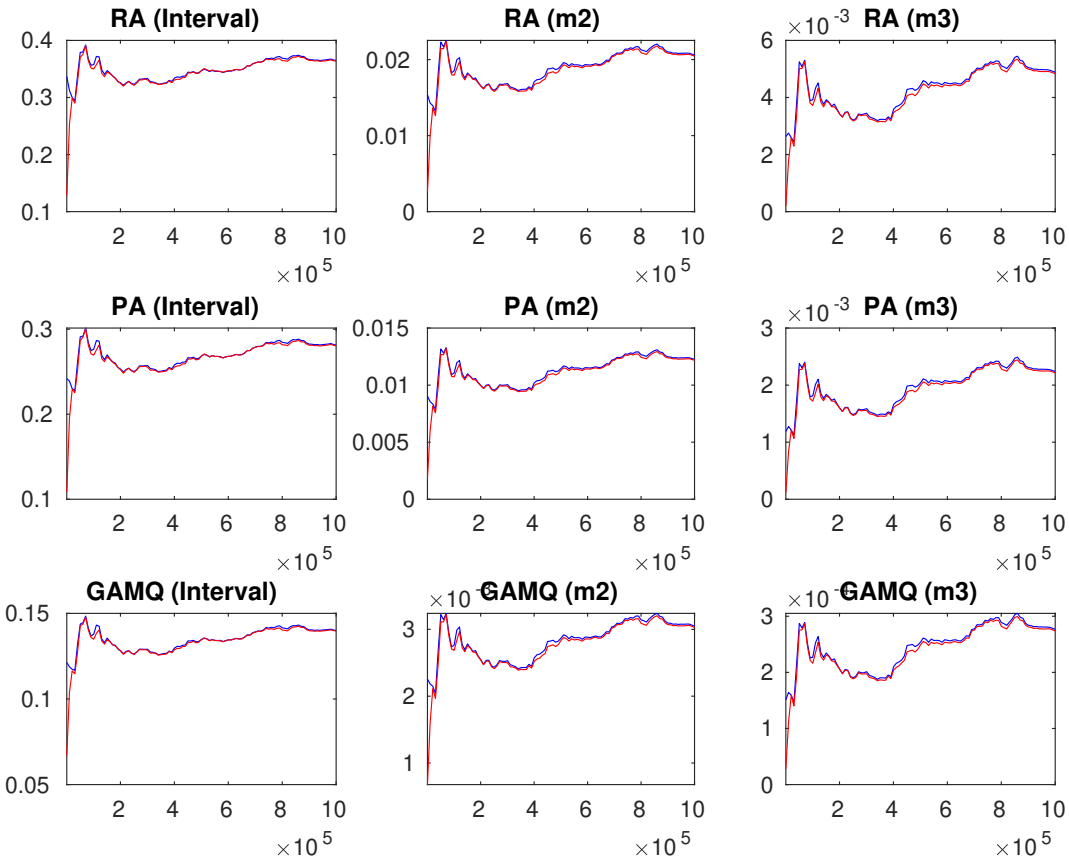

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

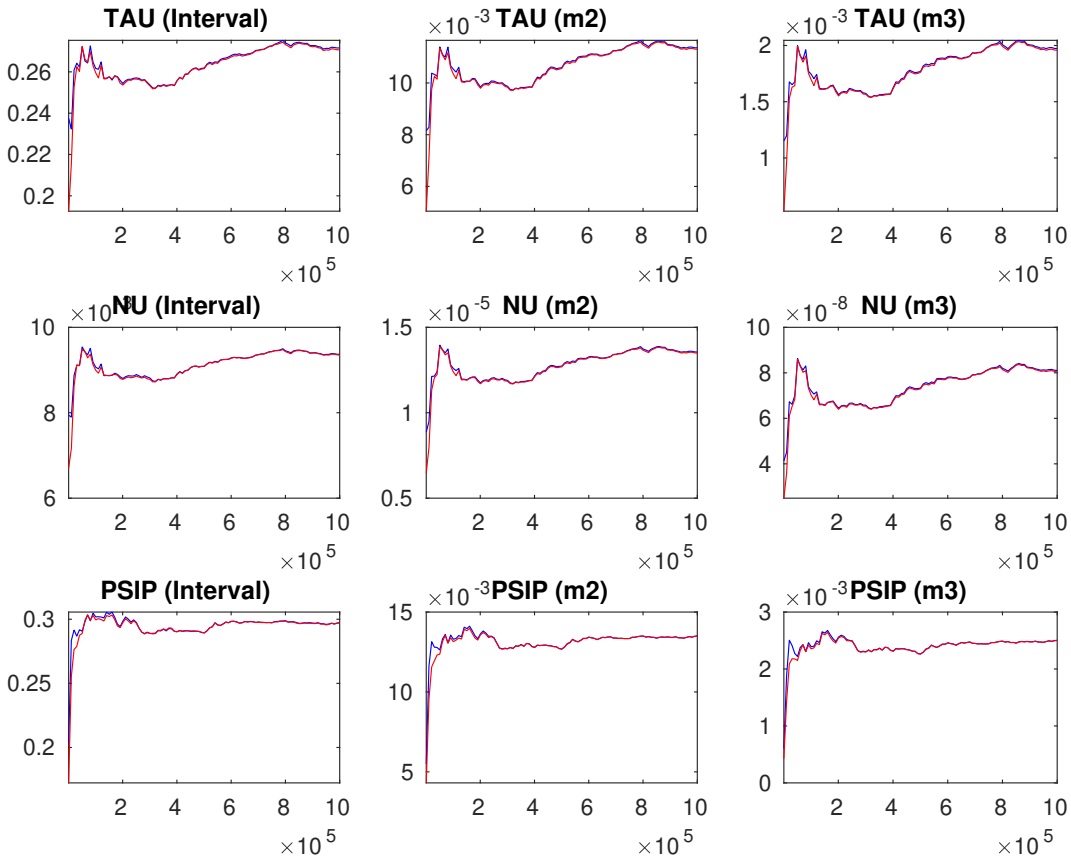

Figure 9: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

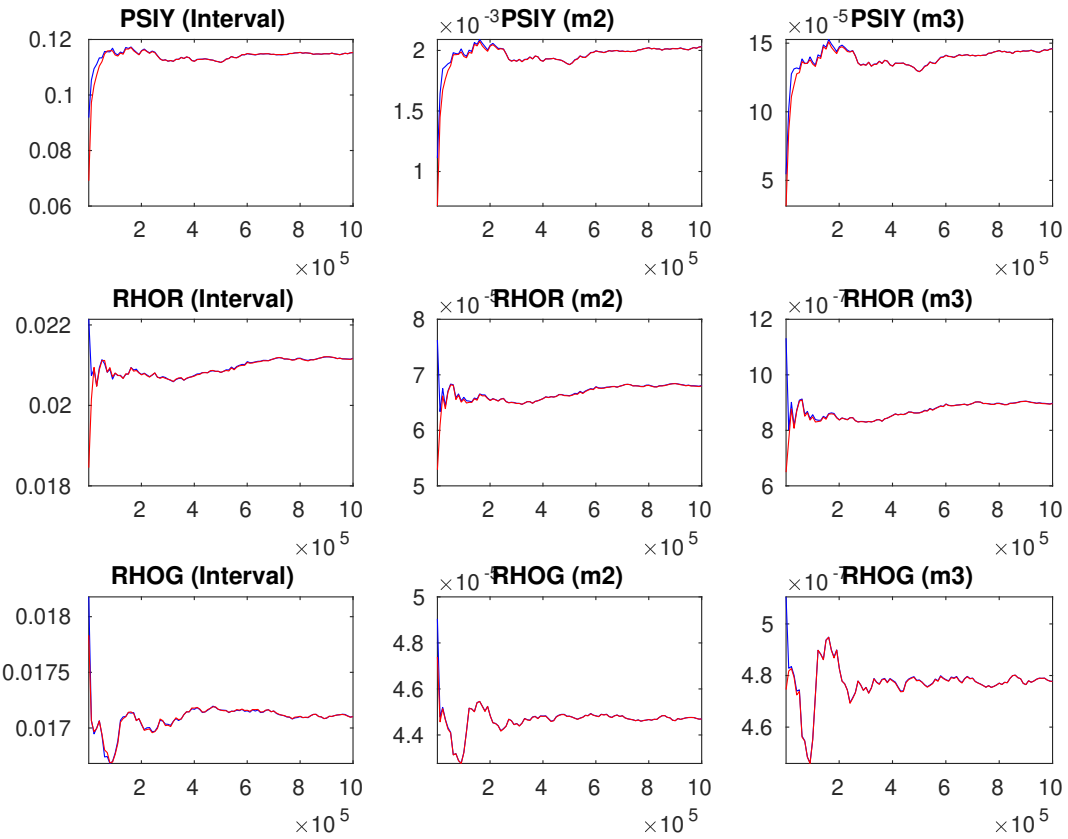

Figure 10: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

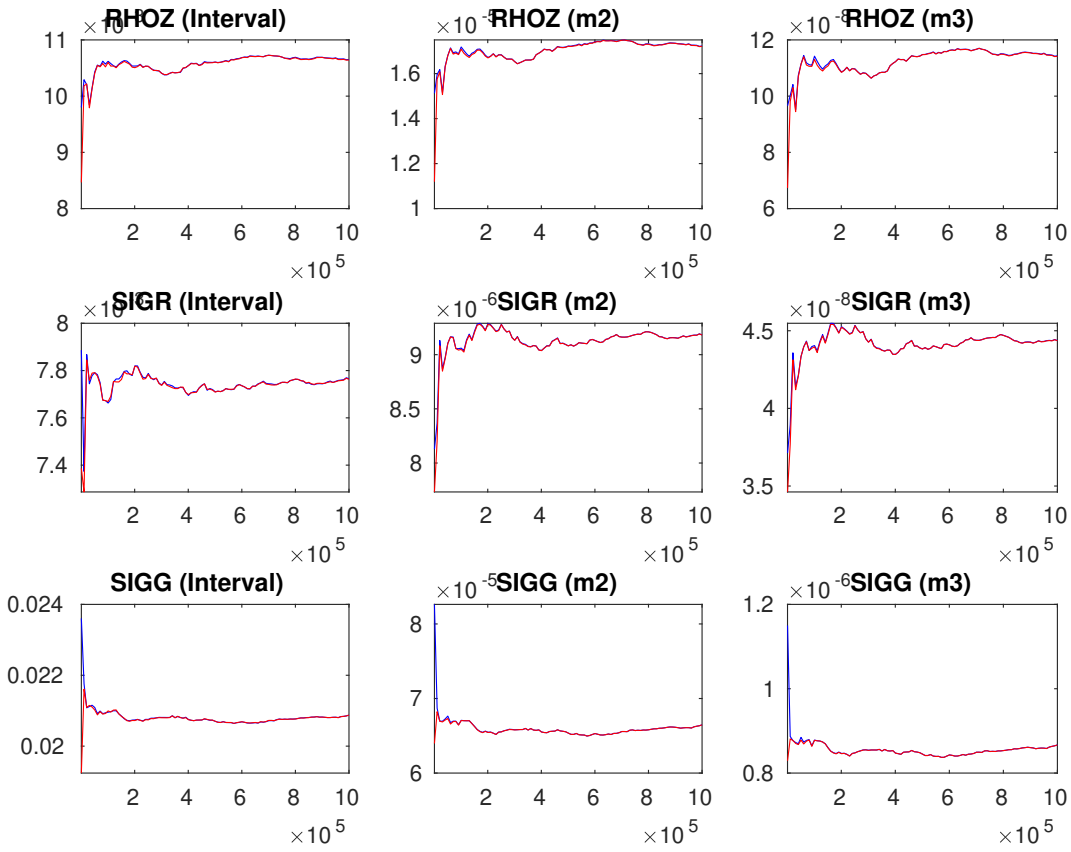

Figure 11: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

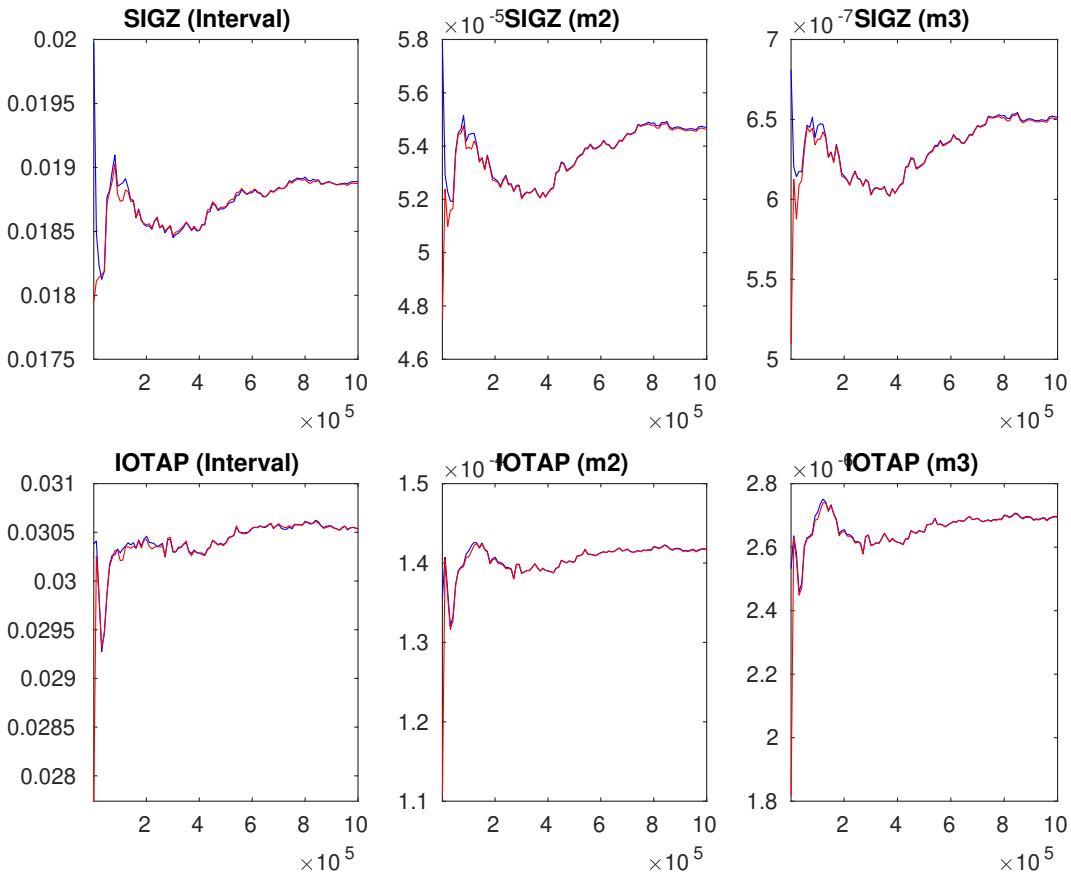

Figure 12: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.