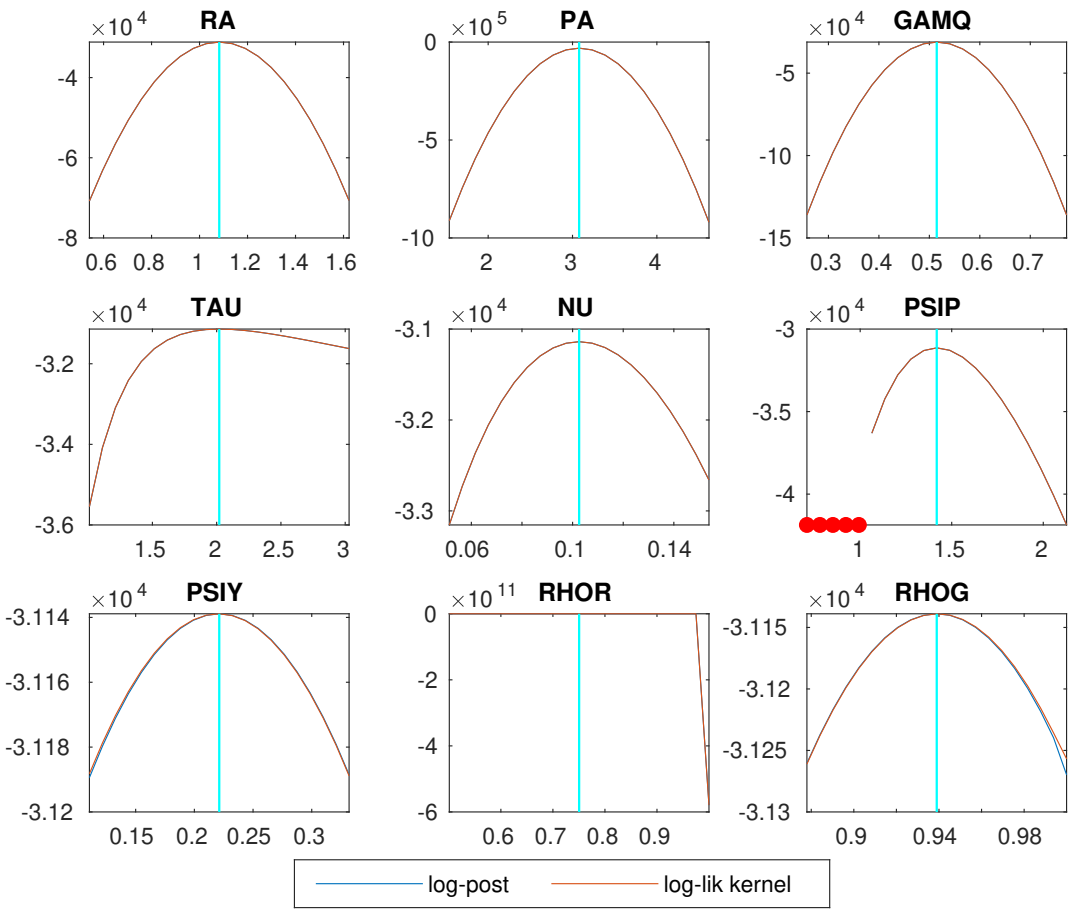

Figure 1: Check plots.

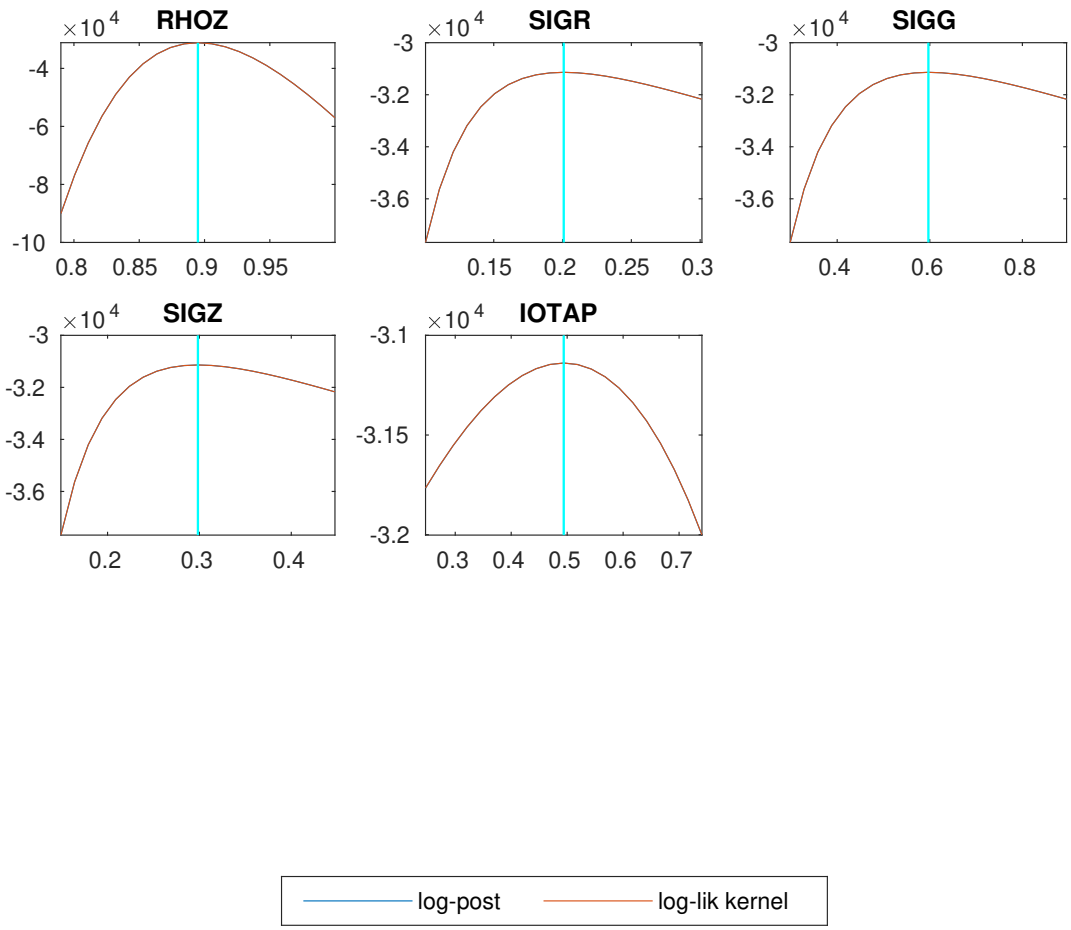

Figure 2: Check plots.

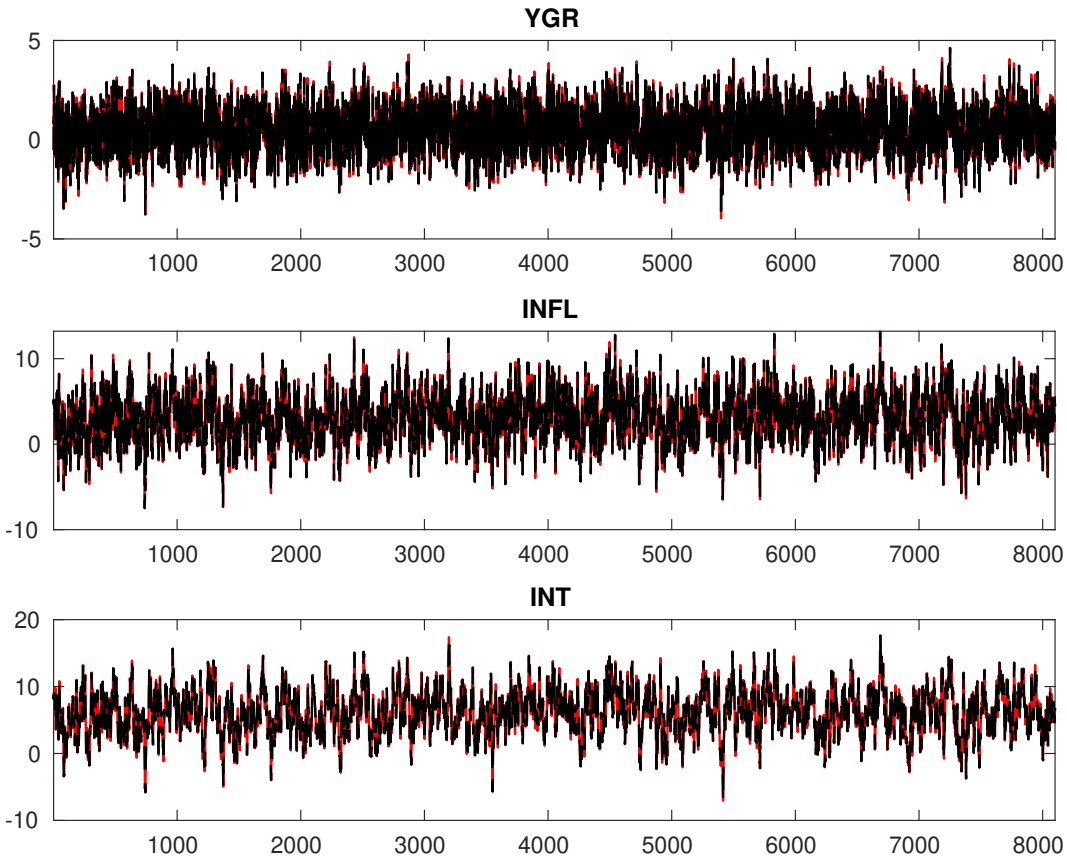

Figure 3: Historical and smoothed variables.

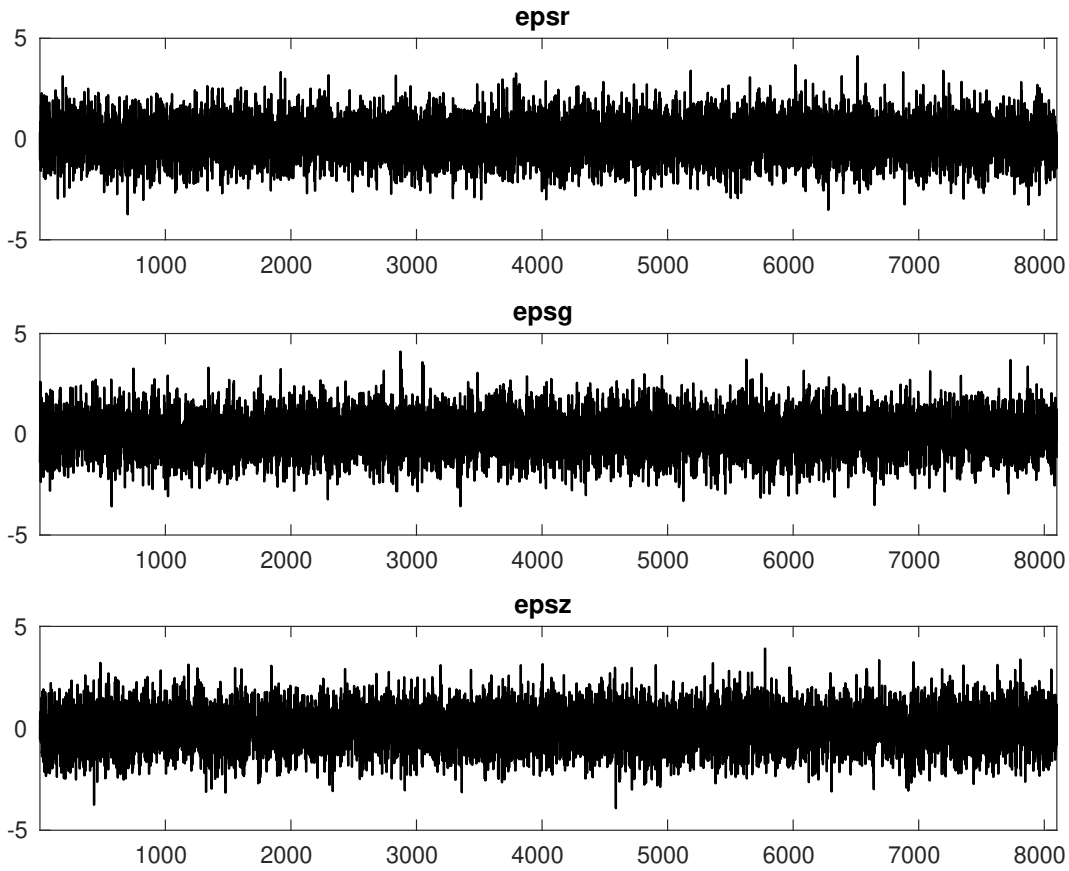

Figure 4: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
r_A	620.404	600.120	635.441	624.551
$\pi^{(A)}$	632.772	614.545	646.593	635.901
$\gamma^{(Q)}$	612.864	593.805	628.503	617.295
τ	271.864	271.755	280.751	279.072
ν	112.973	112.932	127.049	117.971
ψ_π	347.655	333.501	346.237	317.503
ψ_y	482.994	472.455	480.444	455.133
ρ_R	334.587	323.879	331.024	312.889
ρ_g	43.299	42.967	45.880	44.545
ρ_z	72.504	69.224	74.346	72.278
σ_R	248.106	231.527	236.402	214.397
σ_g	42.624	41.371	39.572	38.868
σ_z	245.599	243.314	239.058	240.659
ι_p	169.415	167.503	170.720	170.589

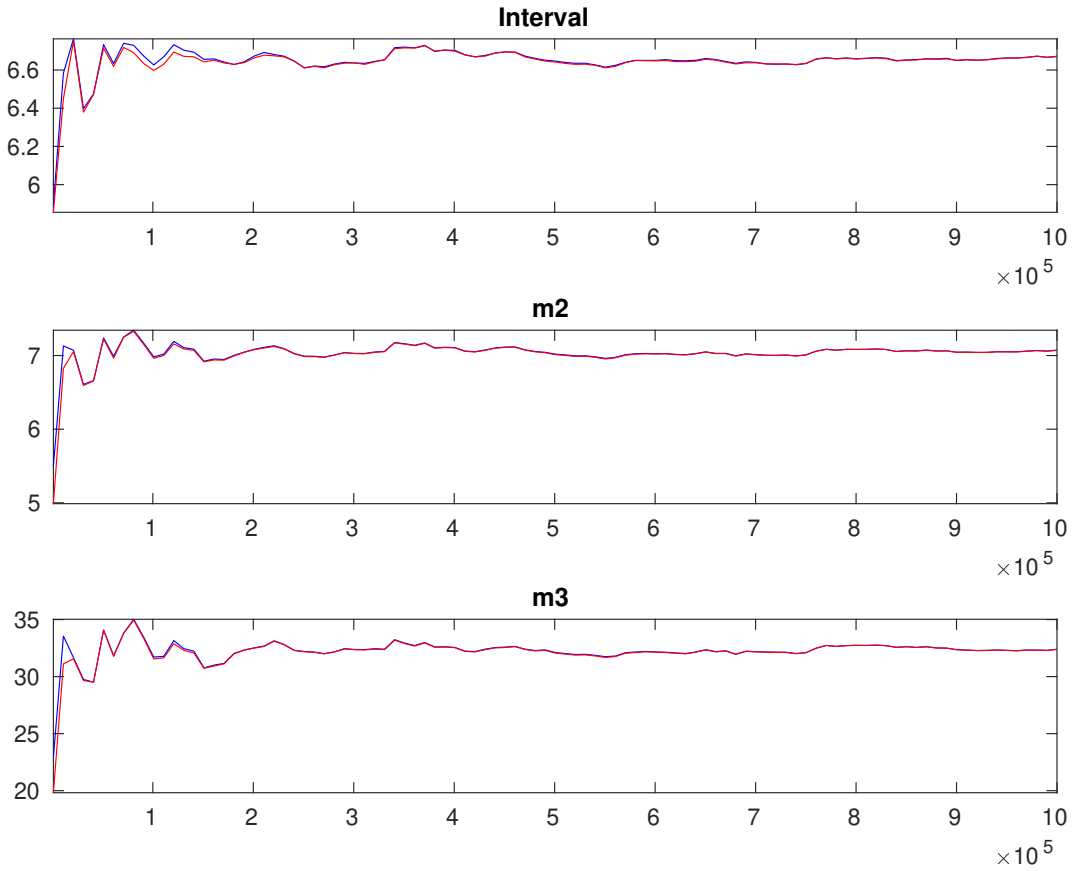

Figure 5: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

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	1.080	0.0777	0.9511	1.2084
$\pi^{(A)}$	gamm	4.000	2.0000	3.082	0.1114	2.8990	3.2688
$\gamma^{(Q)}$	norm	0.400	0.2000	0.516	0.0323	0.4614	0.5684
τ	gamm	2.000	0.5000	2.027	0.0644	1.9205	2.1310
ν	beta	0.100	0.0500	0.103	0.0041	0.0963	0.1096
ψ_π	gamm	1.500	0.2500	1.417	0.0247	1.3764	1.4573
ψ_y	gamm	0.500	0.2500	0.227	0.0544	0.1394	0.3176
ρ_R	beta	0.500	0.2000	0.751	0.0057	0.7415	0.7603
ρ_g	beta	0.800	0.1000	0.939	0.0039	0.9330	0.9458
ρ_z	beta	0.660	0.1500	0.895	0.0021	0.8916	0.8986
σ_R	invg	0.300	4.0000	0.201	0.0022	0.1974	0.2046
σ_g	invg	0.400	4.0000	0.597	0.0047	0.5894	0.6049
σ_z	invg	0.400	4.0000	0.299	0.0045	0.2914	0.3061
ι_p	beta	0.500	0.1500	0.494	0.0145	0.4700	0.5177

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
r_A	gamm	0.800	0.5000	1.0821	0.0144
$\pi^{(A)}$	gamm	4.000	2.0000	3.0785	0.0134
$\gamma^{(Q)}$	norm	0.400	0.2000	0.5146	0.0067
τ	gamm	2.000	0.5000	2.0201	0.0297
ν	beta	0.100	0.0500	0.1026	0.0033
ψ_π	gamm	1.500	0.2500	1.4182	0.0118
ψ_y	gamm	0.500	0.2500	0.2212	0.0113
ρ_R	beta	0.500	0.2000	0.7504	0.0032
ρ_g	beta	0.800	0.1000	0.9390	0.0036
ρ_z	beta	0.660	0.1500	0.8949	0.0018
σ_R	invg	0.300	4.0000	0.2009	0.0017
σ_g	invg	0.400	4.0000	0.5970	0.0045
σ_z	invg	0.400	4.0000	0.2984	0.0027
ι_p	beta	0.500	0.1500	0.4939	0.0120

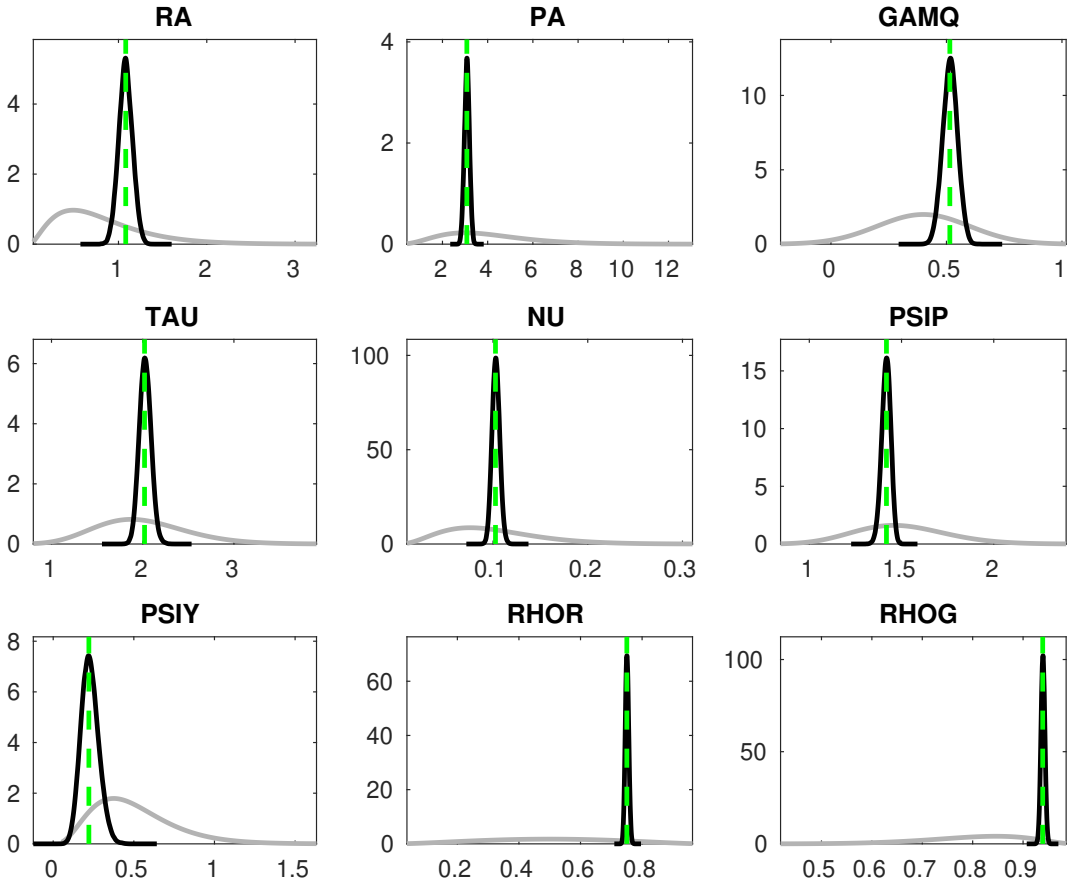

Figure 6: Priors and posteriors.

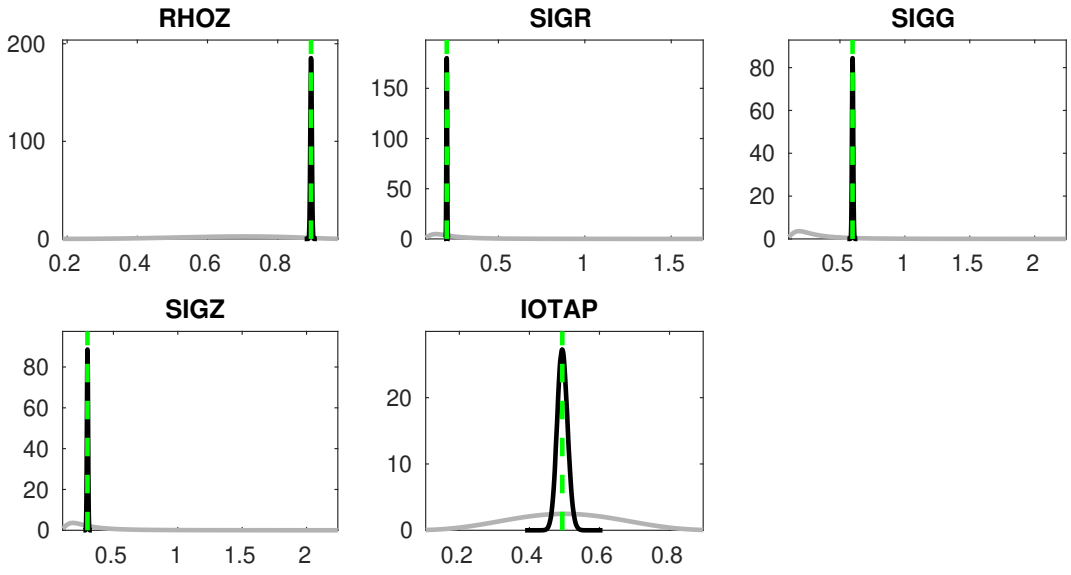

Figure 7: Priors and posteriors.

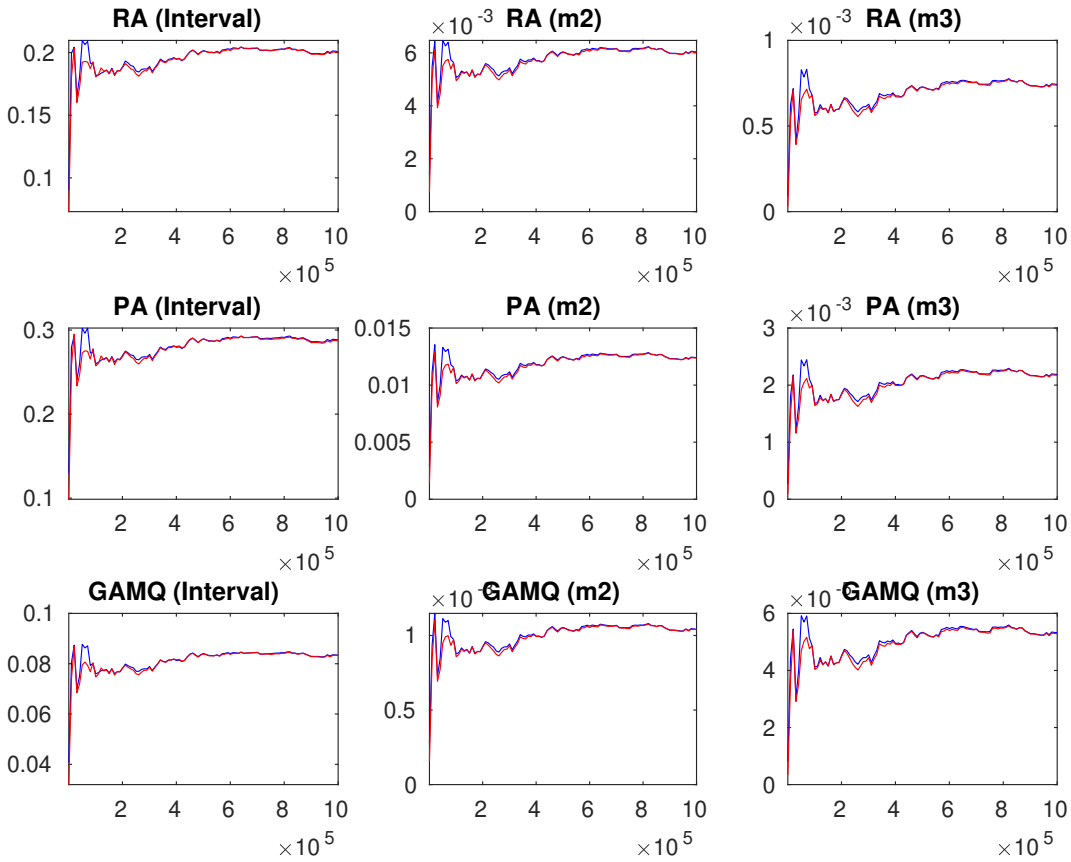

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

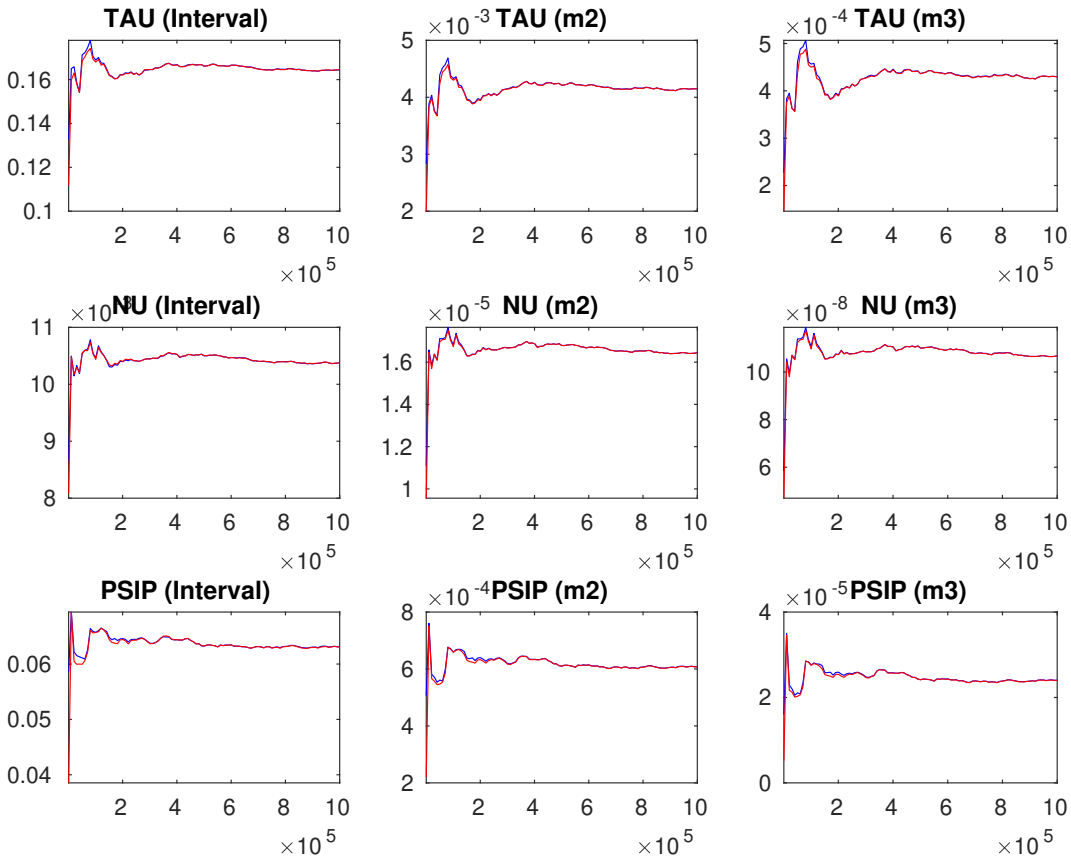

Figure 9: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

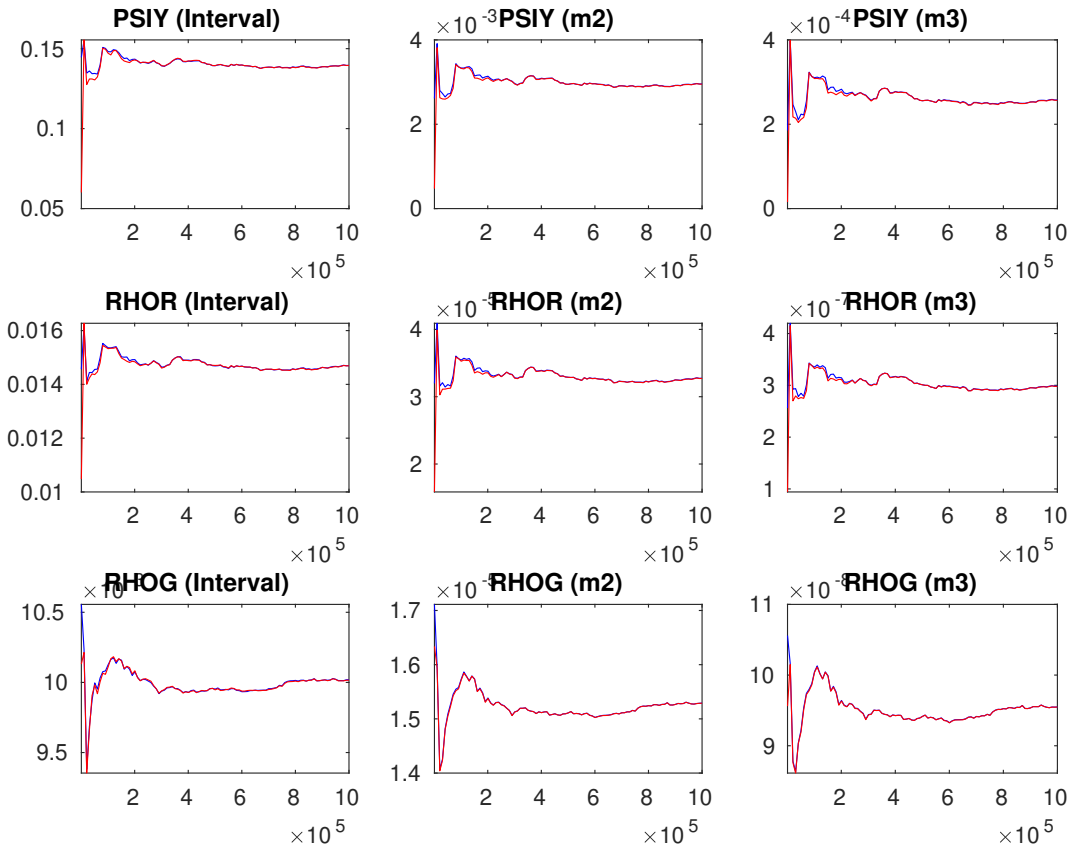

Figure 10: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

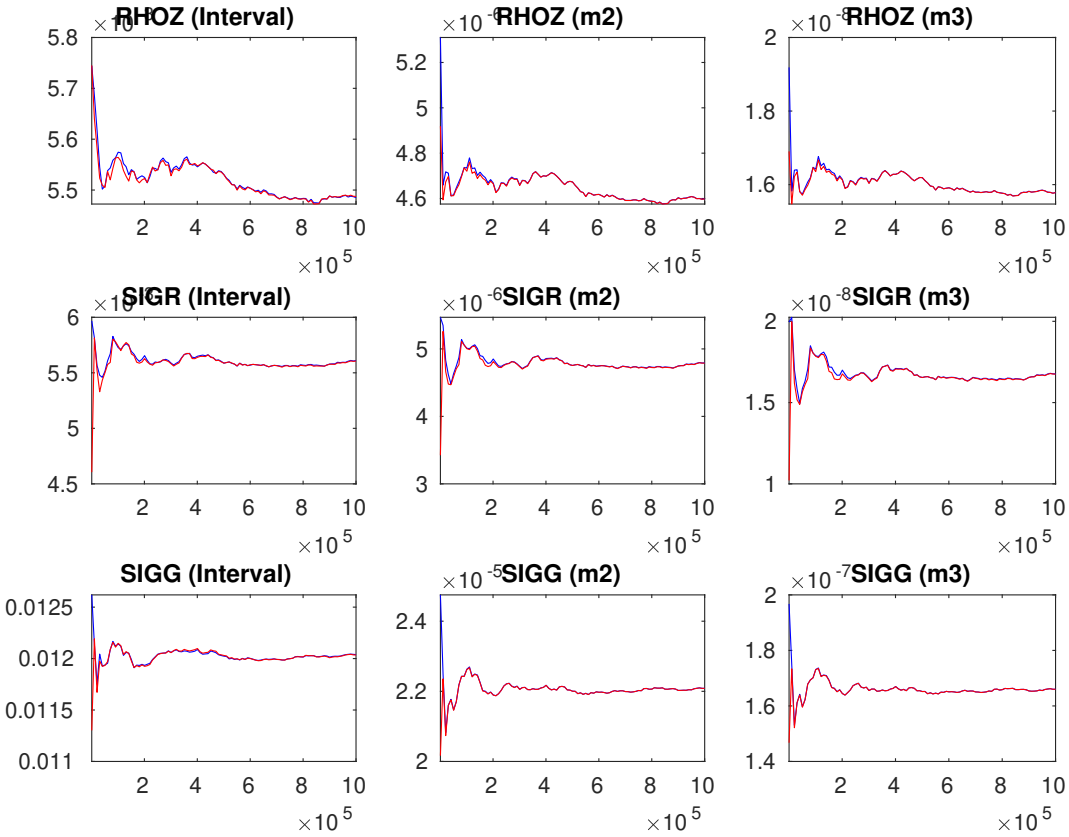

Figure 11: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

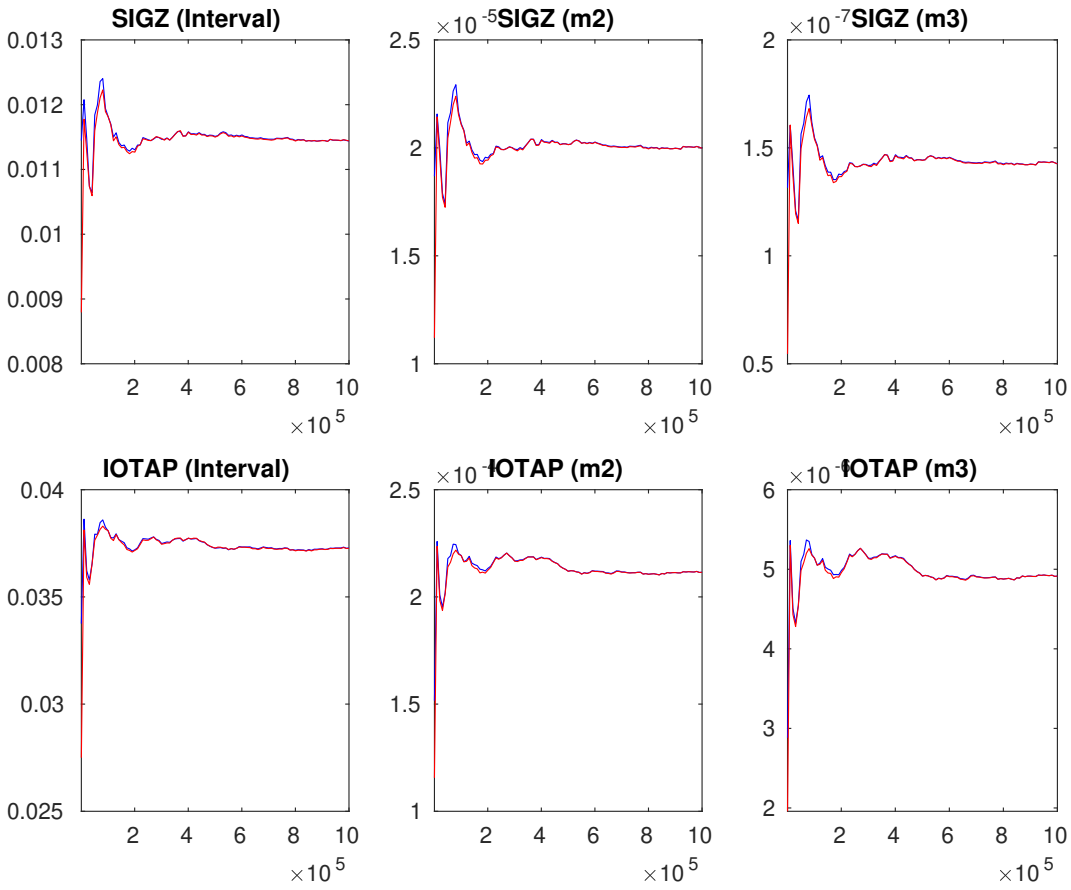

Figure 12: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.