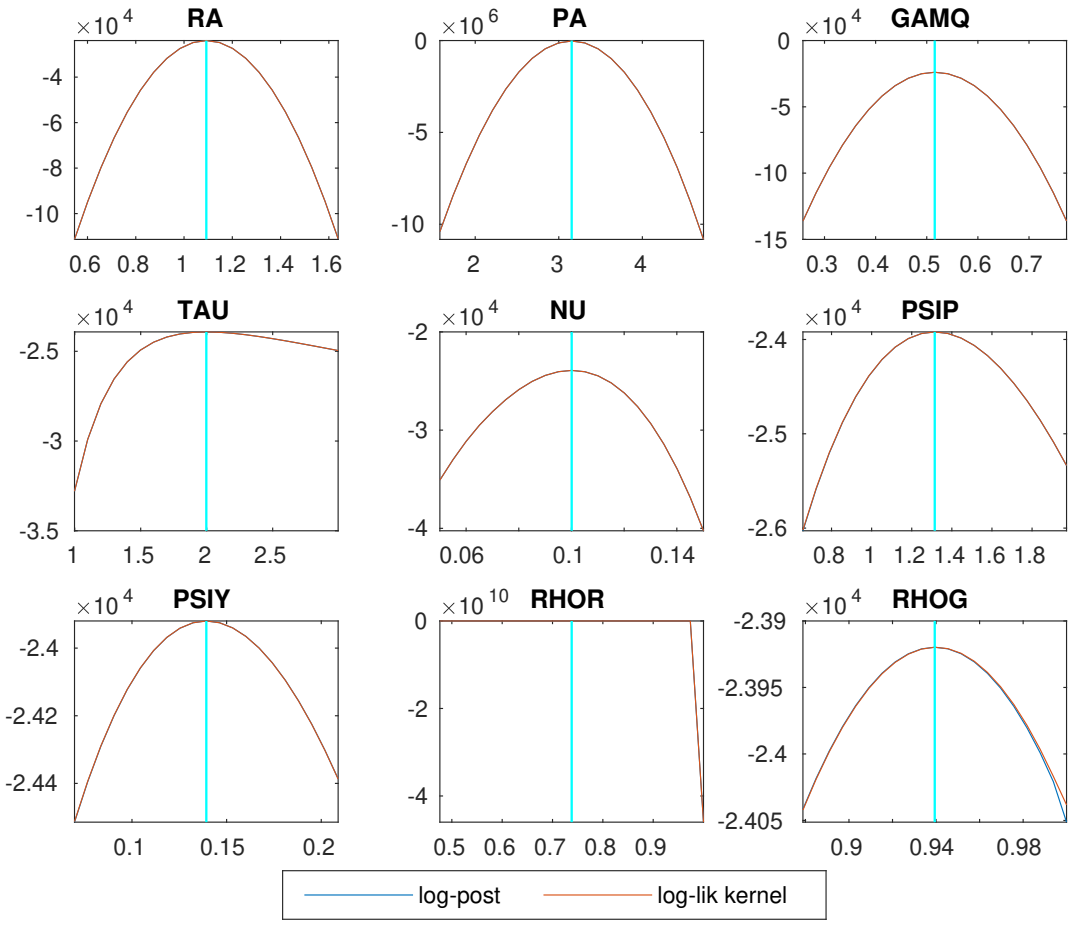

Figure 1: Check plots.

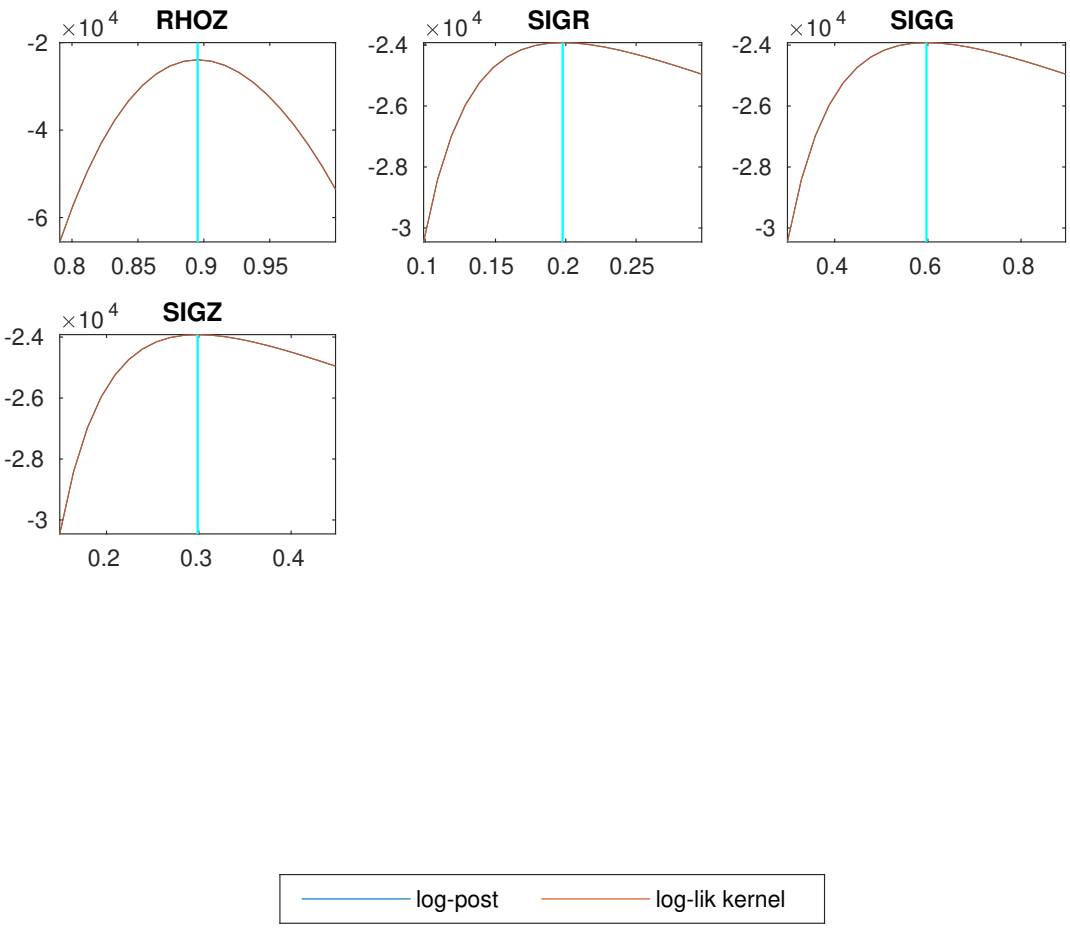

Figure 2: Check plots.

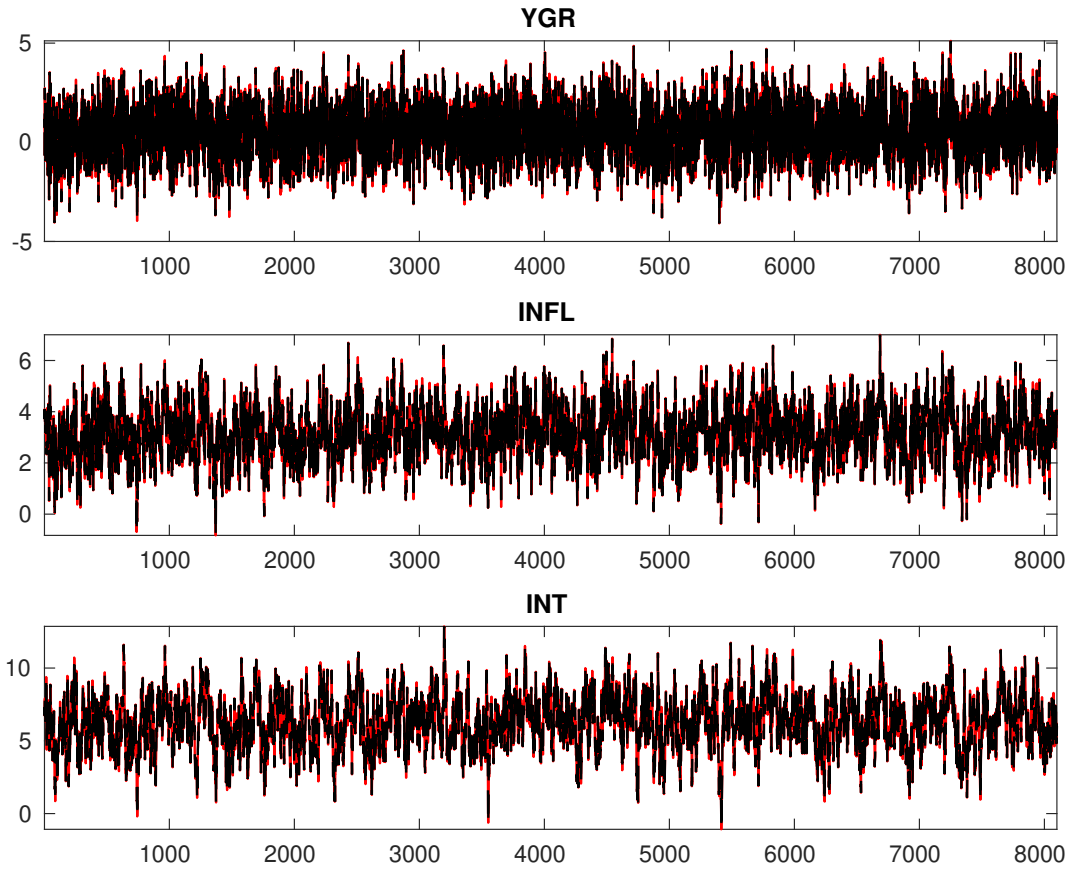

Figure 3: Historical and smoothed variables.

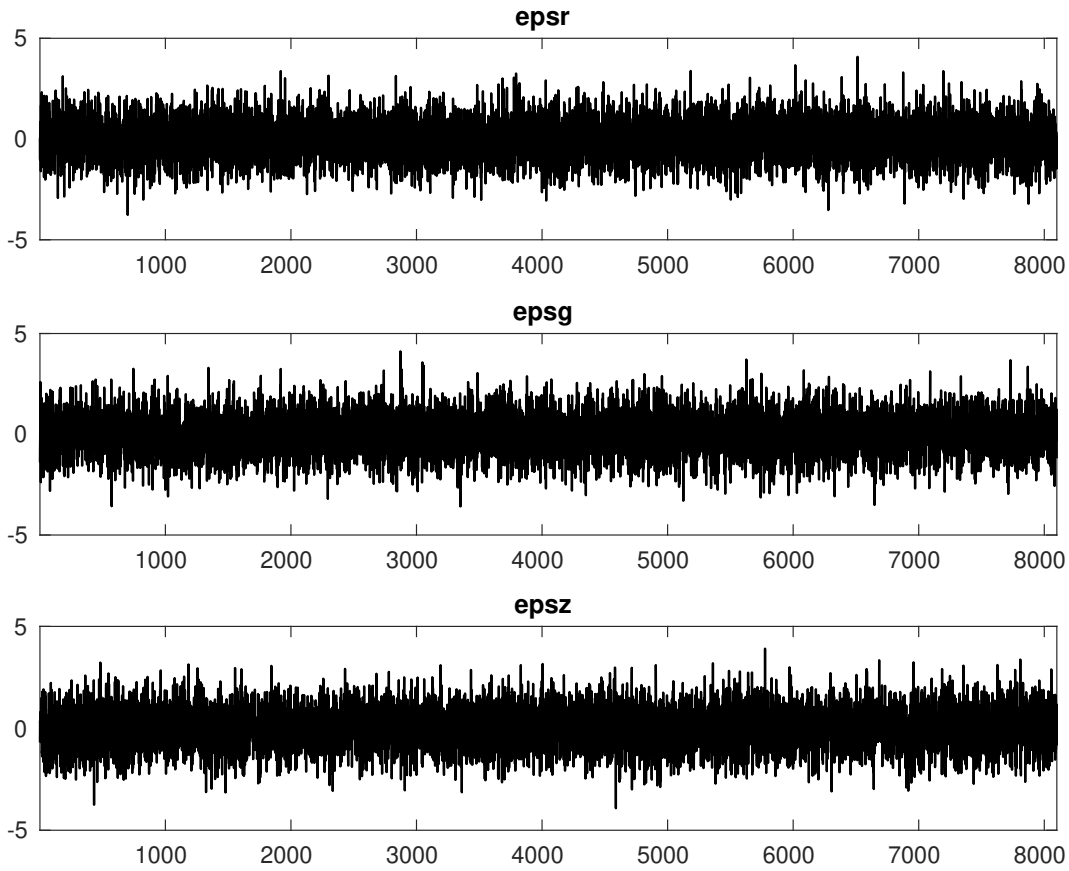

Figure 4: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	*Block* 1	*Block* 2	*Block* 3	*Block* 4
r_A	684.786	687.855	676.662	680.978
$\pi^{(A)}$	681.421	684.852	672.932	677.472
$\gamma^{(Q)}$	646.758	650.746	634.561	639.988
τ	557.004	595.550	574.076	584.027
ν	509.202	552.455	527.027	536.188
ψ_π	652.558	624.710	641.265	647.918
ψ_y	642.517	610.901	630.448	636.793
ρ_R	212.727	243.755	223.041	229.496
ρ_g	45.445	44.437	39.562	42.423
ρ_z	286.407	344.065	311.723	320.075
σ_R	62.768	70.652	69.089	67.094
σ_g	47.701	49.892	49.134	52.640
σ_z	114.497	127.216	116.128	112.378

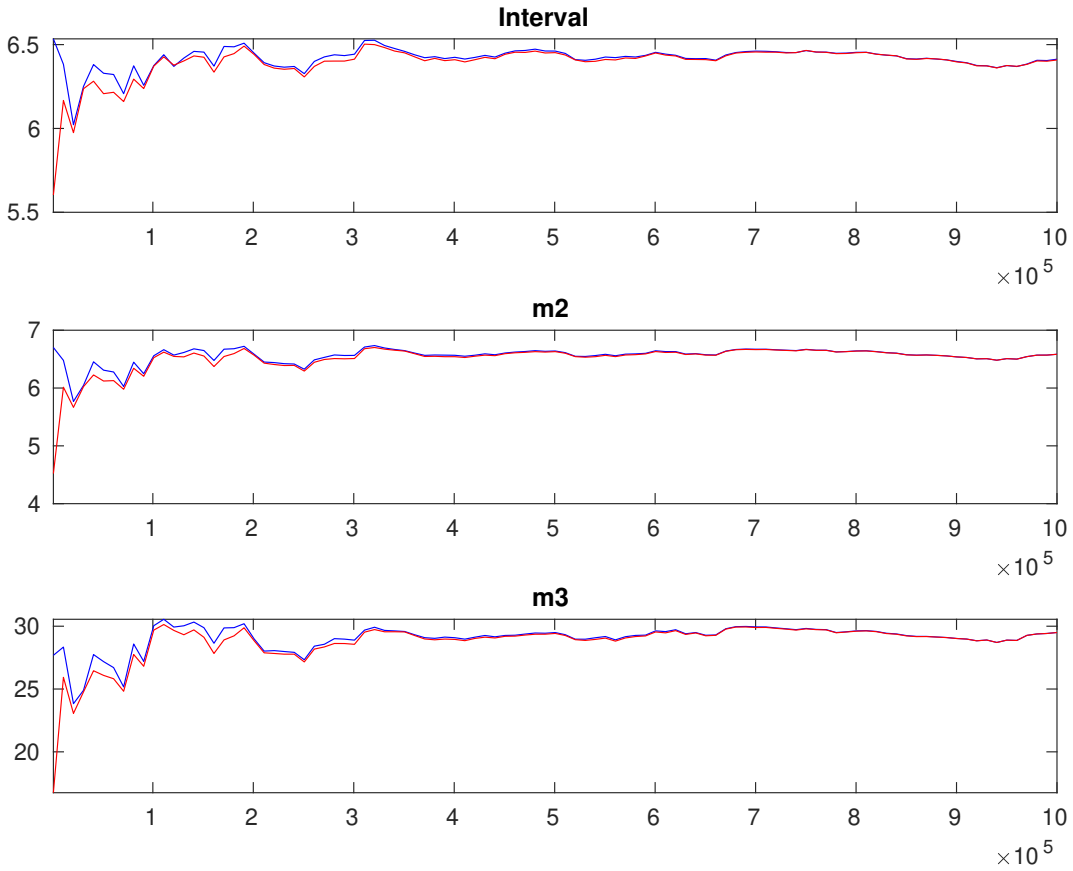

Figure 5: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

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	1.093	0.0887	0.9472	1.2361
$\pi^{(A)}$	gamm	4.000	2.0000	3.154	0.0429	3.0846	3.2244
$\gamma^{(Q)}$	norm	0.400	0.2000	0.515	0.0321	0.4624	0.5673
τ	gamm	2.000	0.5000	2.001	0.0577	1.9046	2.0953
ν	beta	0.100	0.0500	0.100	0.0021	0.0967	0.1037
ψ_π	gamm	1.500	0.2500	1.312	0.1746	1.0271	1.6003
ψ_y	gamm	0.500	0.2500	0.140	0.0339	0.0842	0.1955
ρ_R	beta	0.500	0.2000	0.738	0.0053	0.7298	0.7471
ρ_g	beta	0.800	0.1000	0.940	0.0039	0.9334	0.9462
ρ_z	beta	0.660	0.1500	0.895	0.0024	0.8916	0.8995
σ_R	invg	0.300	4.0000	0.198	0.0017	0.1951	0.2006
σ_g	invg	0.400	4.0000	0.597	0.0047	0.5897	0.6052
σ_z	invg	0.400	4.0000	0.299	0.0028	0.2942	0.3034

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
r_A	gamm	0.800	0.5000	1.0923	0.0094
$\pi^{(A)}$	gamm	4.000	2.0000	3.1544	0.0051
$\gamma^{(Q)}$	norm	0.400	0.2000	0.5156	0.0076
τ	gamm	2.000	0.5000	1.9972	0.0096
ν	beta	0.100	0.0500	0.1001	0.0007
ψ_π	gamm	1.500	0.2500	1.3147	0.0261
ψ_y	gamm	0.500	0.2500	0.1393	0.0081
ρ_R	beta	0.500	0.2000	0.7381	0.0054
ρ_g	beta	0.800	0.1000	0.9394	0.0036
ρ_z	beta	0.660	0.1500	0.8953	0.0021
σ_R	invg	0.300	4.0000	0.1978	0.0016
σ_g	invg	0.400	4.0000	0.5971	0.0044
σ_z	invg	0.400	4.0000	0.2987	0.0024

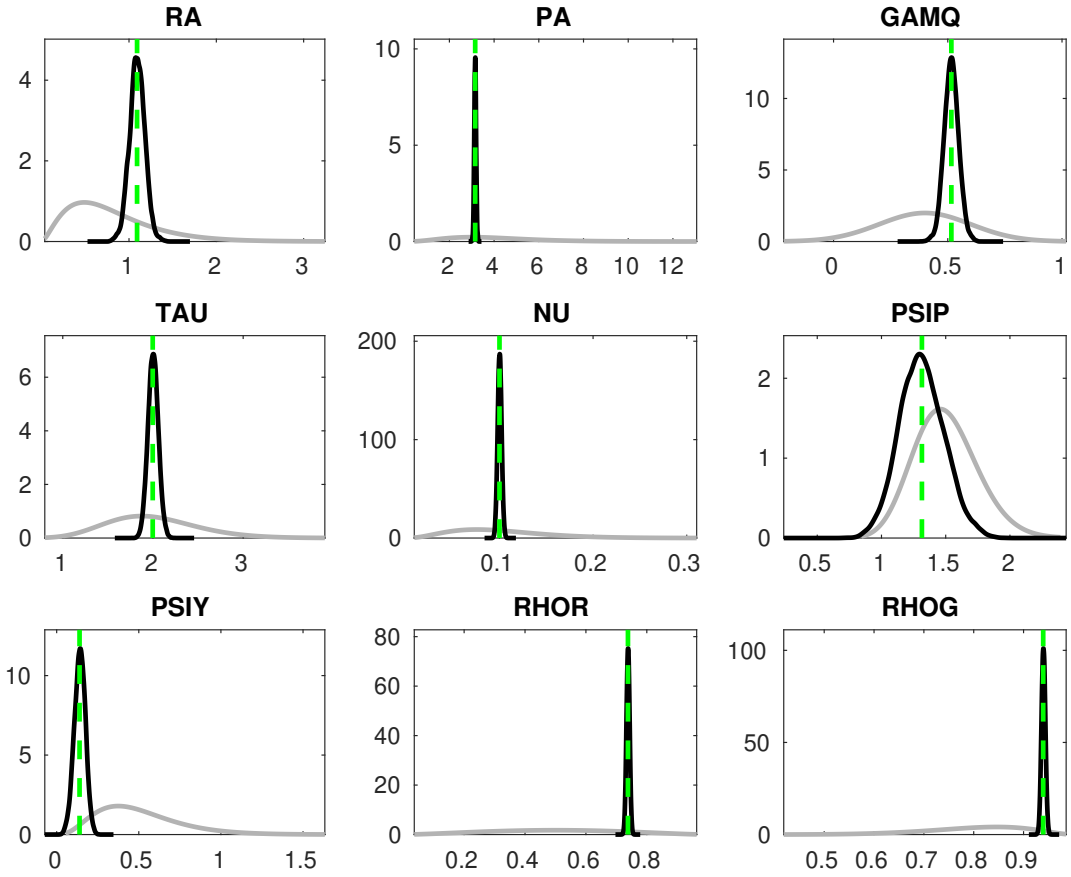

Figure 6: Priors and posteriors.

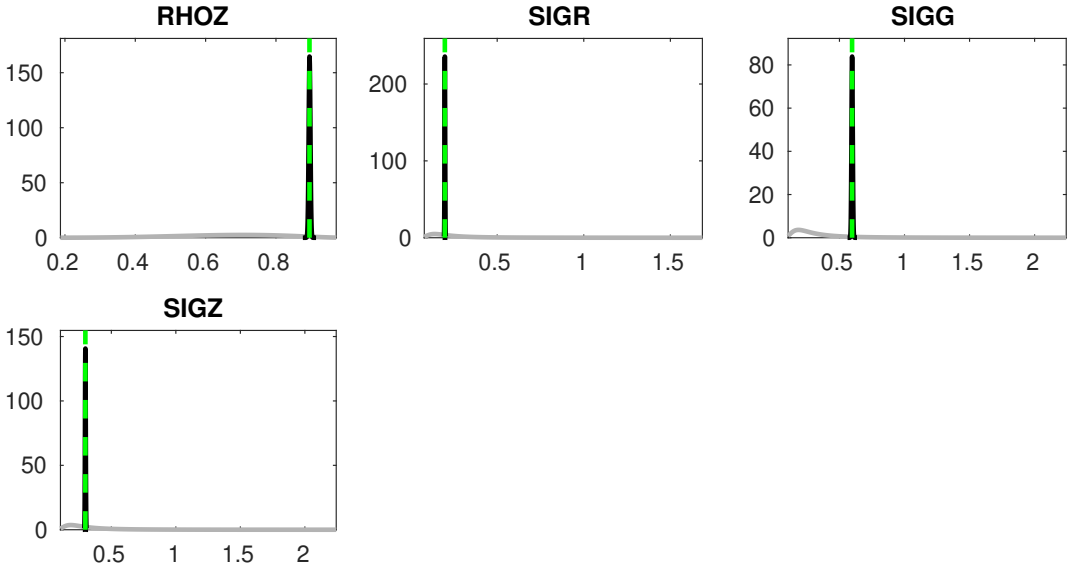

Figure 7: Priors and posteriors.

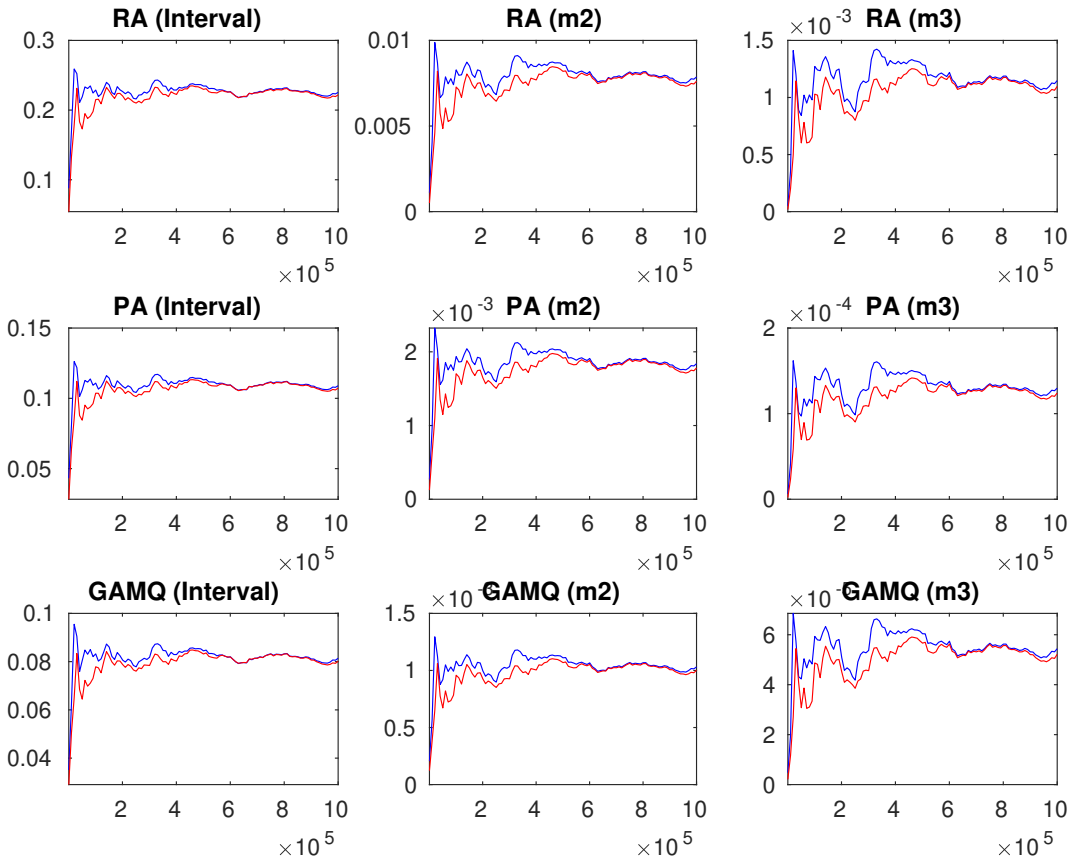

Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

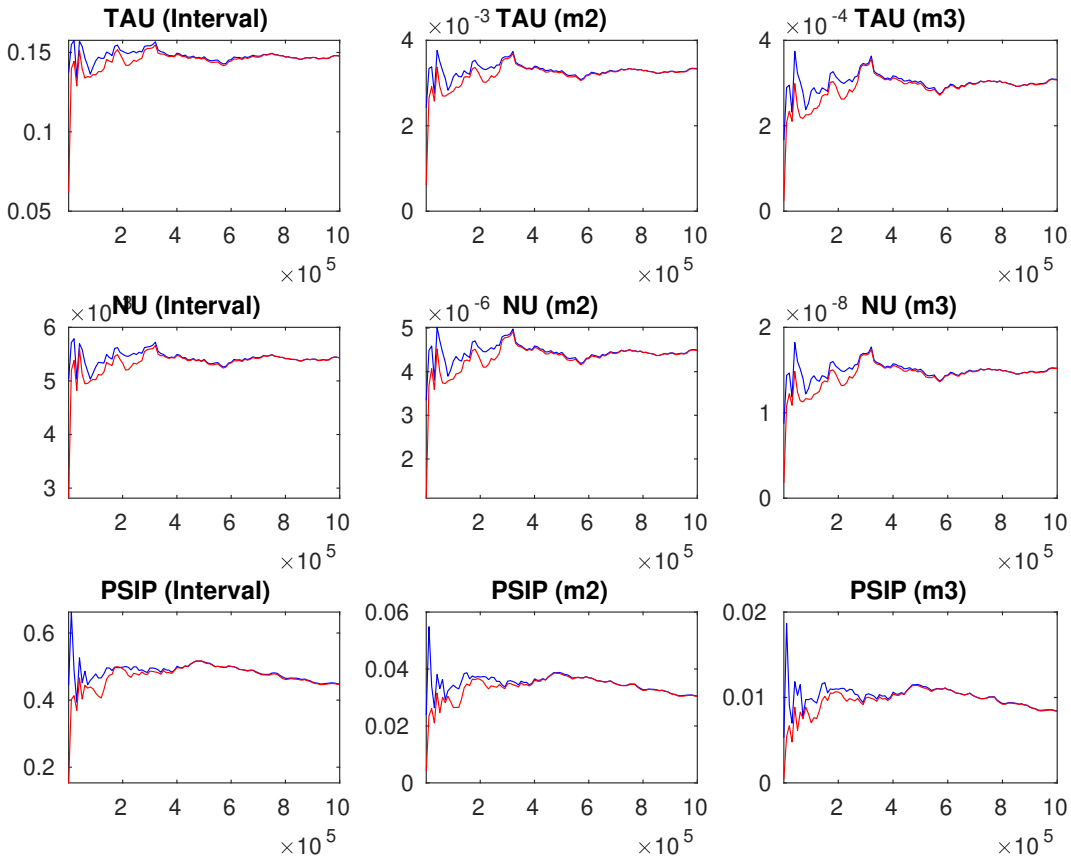

Figure 9: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

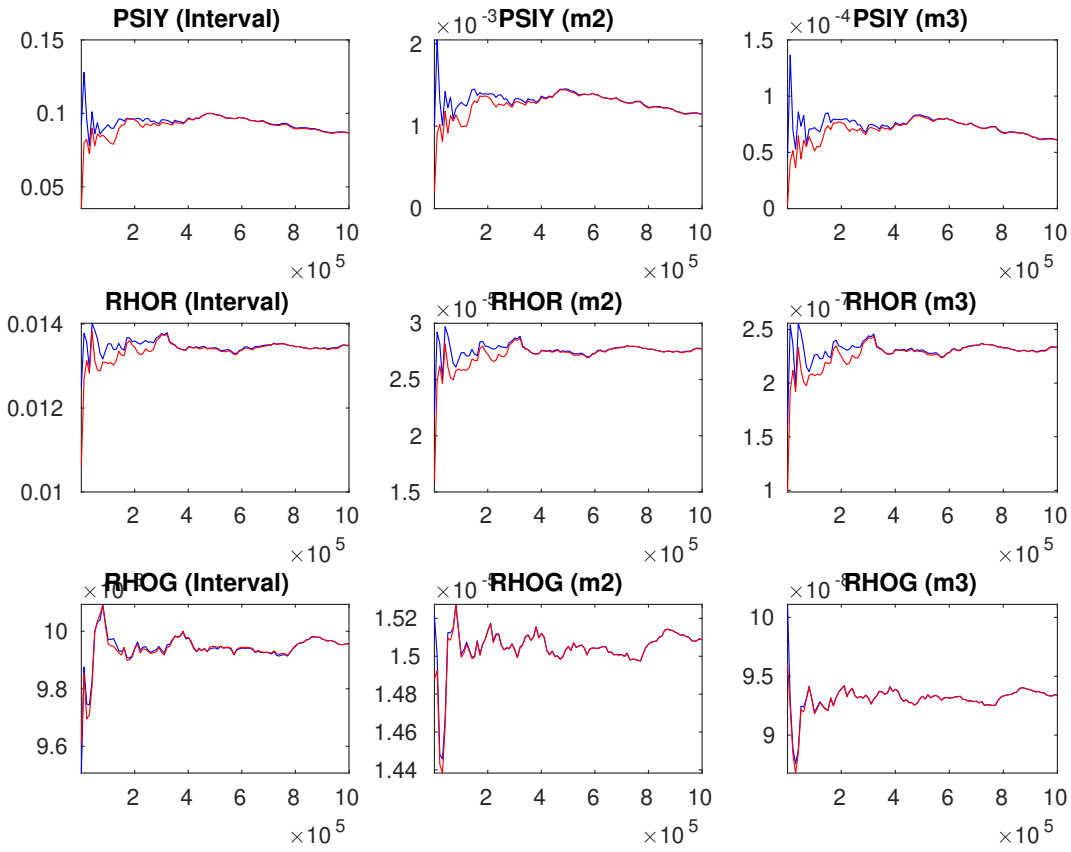

Figure 10: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

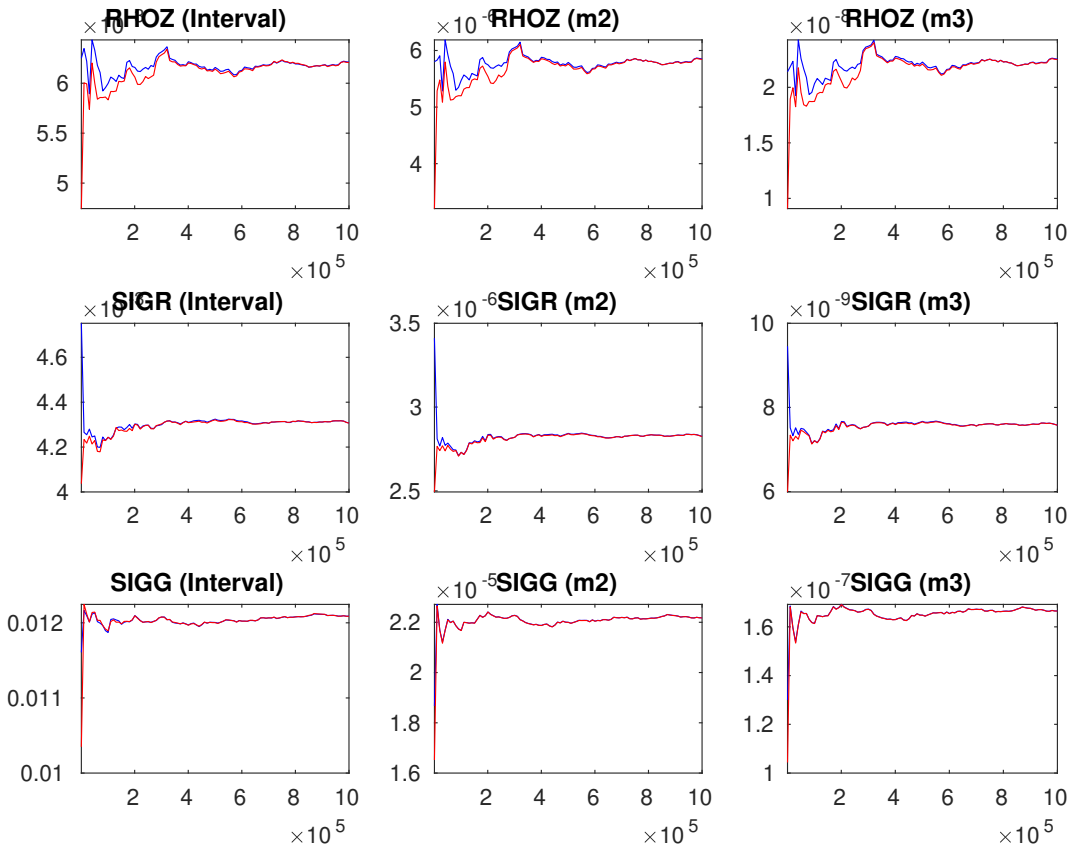

Figure 11: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

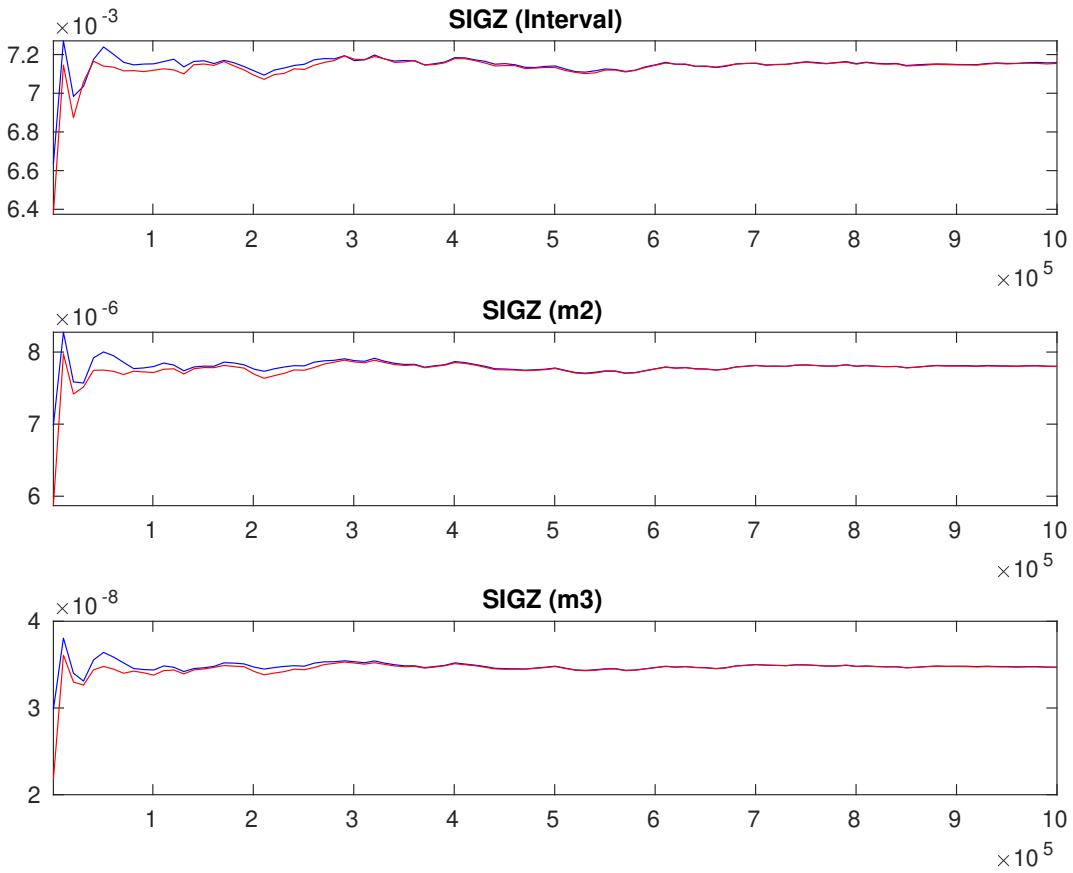

Figure 12: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments.