

Figure 1: Check plots.

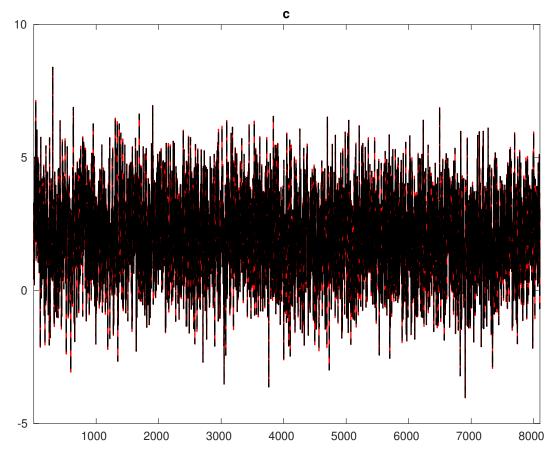


Figure 2: Historical and smoothed variables.

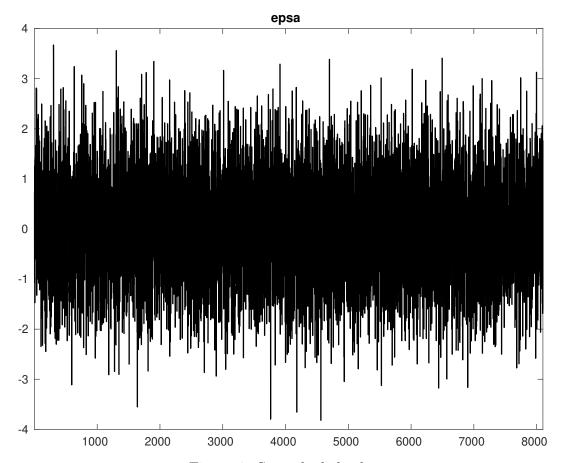


Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	Block 1	Block 2	Block 3	Block 4
α	469.932	627.025	419.384	578.167
r_A	102.488	104.064	91.612	89.531
δ	511.885	666.445	455.565	614.854
$ ho_A$	100.627	126.990	95.321	99.871
σ_A	456.114	439.174	313.892	422.835
θ	127.863	127.552	123.845	110.016
κ	385.389	410.240	327.186	373.746

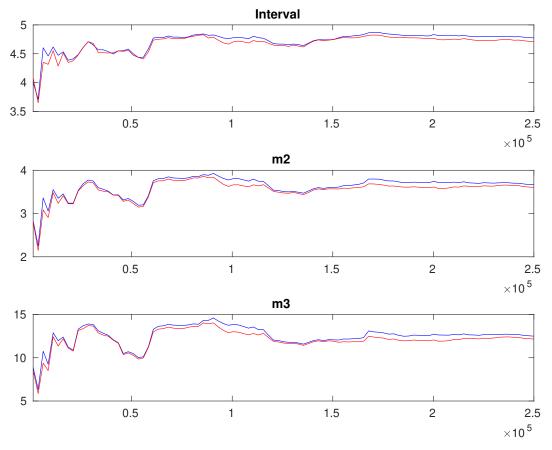


Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
α	norm	0.300	0.0500	0.282	0.0398	0.2179	0.3501
r_A	gamm	2.000	0.2500	1.999	0.2504	1.5870	2.4074
δ	unif	0.500	0.2887	0.021	0.0112	0.0036	0.0387
ρ_A	beta	0.500	0.1000	0.517	0.0097	0.5006	0.5324
σ_A	invg	0.600	4.0000	0.580	0.0458	0.5026	0.6533
θ	gamm	1.500	0.7500	1.389	0.7141	0.2880	2.4131
κ	gamm	2.000	1.5000	2.849	1.6349	0.2603	5.1926

Table 3: Results from posterior maximization (parameters)

	Prior			Posterior	
	Dist.	Mean	Stdev	Mode	Stdev
α	norm	0.300	0.0500	0.2610	0.0377
r_A	gamm	2.000	0.2500	1.9989	0.2520
δ	unif	0.500	0.2887	0.0142	0.0087
ρ_A	beta	0.500	0.1000	0.5175	0.0097
σ_A	invg	0.600	4.0000	0.5986	0.0499
θ	gamm	1.500	0.7500	1.4975	0.8841
κ	gamm	2.000	1.5000	2.0008	1.6445

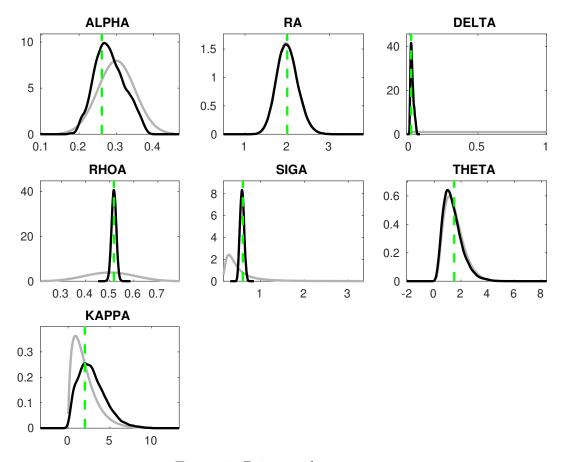


Figure 5: Priors and posteriors.

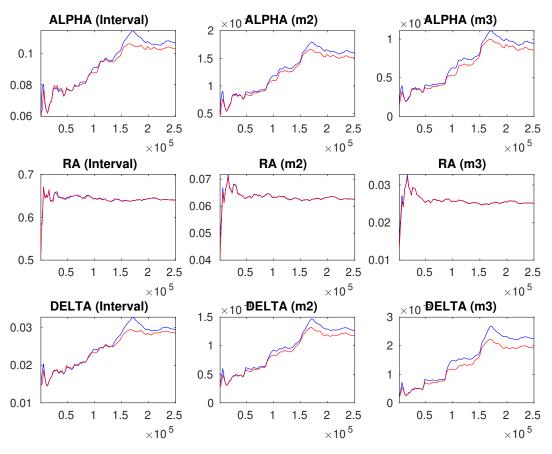


Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

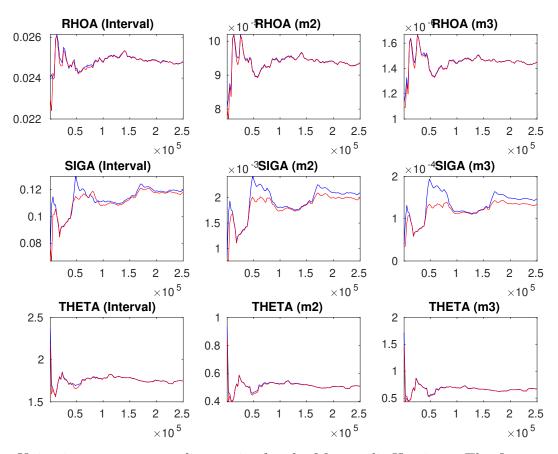


Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

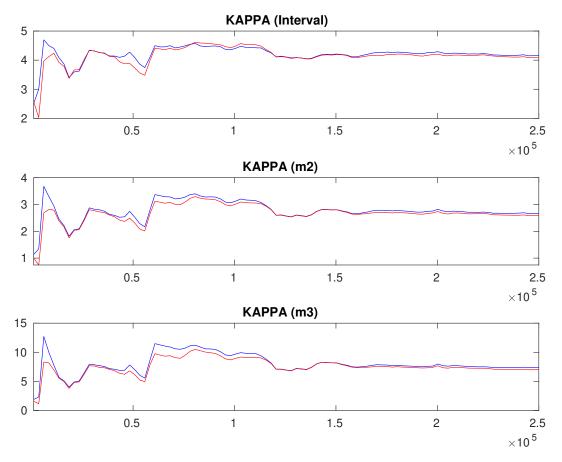


Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments.