

RA

DELTA

ALPHA

Figure 1: Check plots.

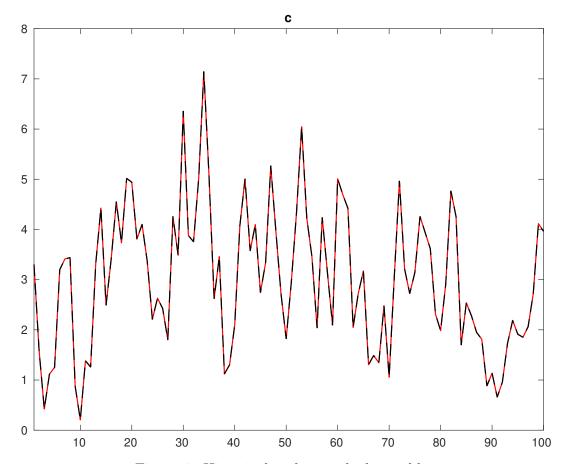


Figure 2: Historical and smoothed variables.

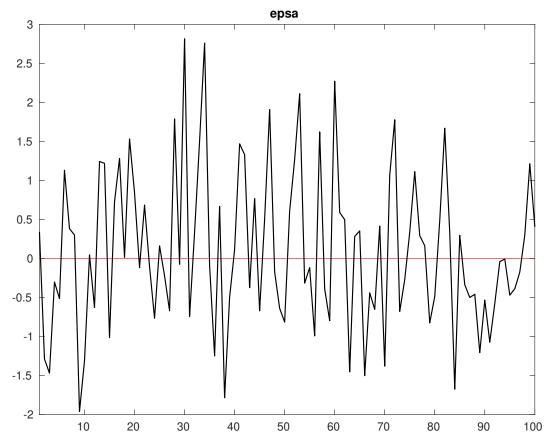


Figure 3: Smoothed shocks.

Table 1: MCMC Inefficiency factors per block

Parameter	Block 1	Block 2	Block 3	Block 4
α	262.636	203.797	266.399	237.921
r_A	36.078	36.245	34.792	34.287
δ	433.515	356.721	490.178	412.359
$ ho_A$	38.398	38.248	36.845	38.440
σ_A	138.154	117.525	173.199	138.294
θ	52.918	50.001	46.317	46.349
κ	106.596	85.025	110.514	112.308

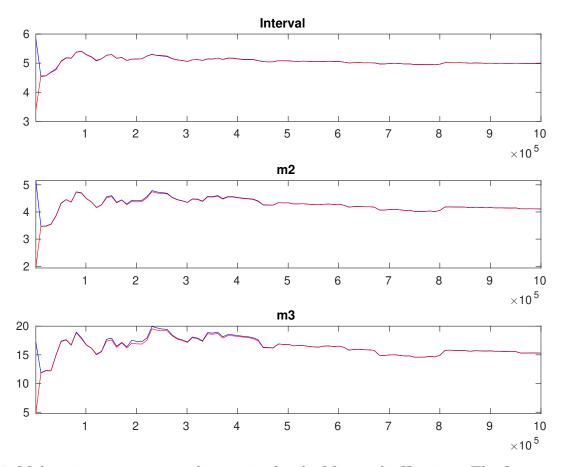


Figure 4: Multivariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments. The different parameters are aggregated using the posterior kernel.

Table 2: Results from Metropolis-Hastings (parameters)

	Prior			Posterior			
-	Dist.	Mean	Stdev.	Mean	Stdev.	HPD inf	HPD sup
α	norm	0.300	0.0500	0.326	0.0449	0.2498	0.3979
r_A	gamm	2.000	0.2500	2.002	0.2484	1.5954	2.4077
δ	unif	0.500	0.2887	0.017	0.0125	0.0000	0.0342
ρ_A	beta	0.500	0.1000	0.547	0.0652	0.4367	0.6513
σ_A	invg	0.600	2.0000	0.390	0.0672	0.2889	0.4860
θ	gamm	1.500	0.7500	1.502	0.7470	0.3488	2.5985
κ	gamm	2.000	1.5000	1.991	1.4682	0.0559	4.0054

Table 3: Results from posterior maximization (parameters)

_		Prior			Posterior		
	Dist.	Mean	Stdev	Mode	Stdev		
α	norm	0.300	0.0500	0.2953	0.0496		
r_A	gamm	2.000	0.2500	1.9693	0.2481		
δ	unif	0.500	0.2887	0.0078	0.0081		
ρ_A	beta	0.500	0.1000	0.5405	0.0645		
σ_A	invg	0.600	2.0000	0.3714	0.0510		
θ	gamm	1.500	0.7500	1.1226	0.6494		
κ	gamm	2.000	1.5000	1.0615	5 1.0951		

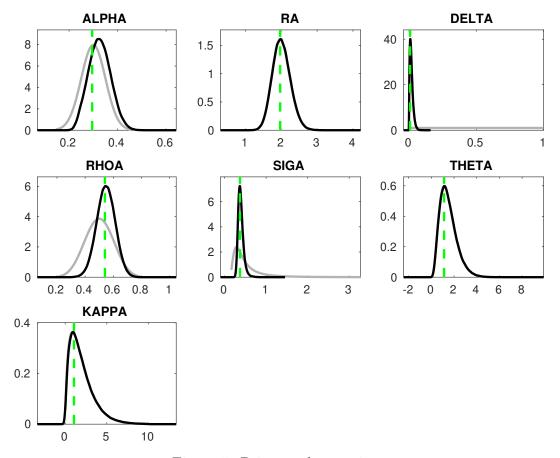


Figure 5: Priors and posteriors.

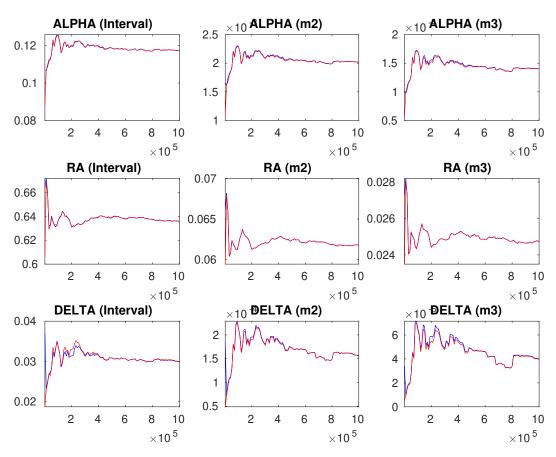


Figure 6: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

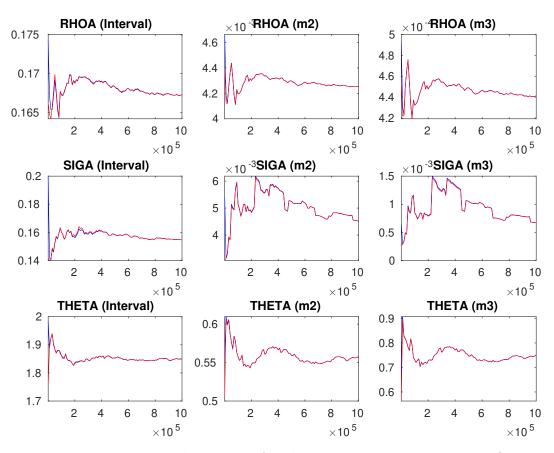


Figure 7: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third columns are respectively the criteria based on the eighty percent interval, the second and third moments.

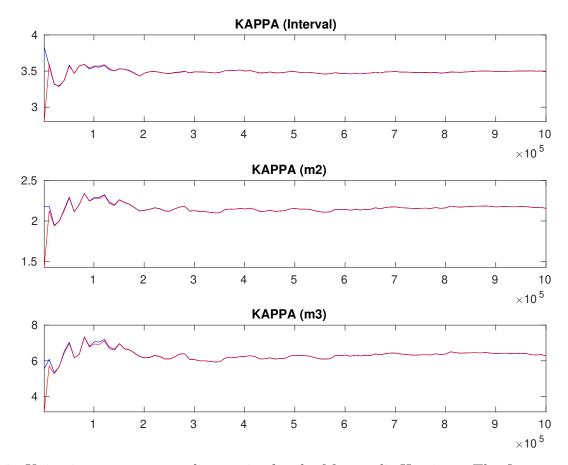


Figure 8: Univariate convergence diagnostics for the Metropolis-Hastings. The first, second and third rows are respectively the criteria based on the eighty percent interval, the second and third moments.