

1 Table

Table 1: MLE result

	Model 1		Model 2		Model 3		Model 4	
	ME	SE	ME	SE	ME	SE	ME	SE
sigma	0.251***	0.003	0.252***	0.003	0.254***	0.003	0.306***	0.004
gamma1	0.203***	0.008						
alpha1	0.731***	0.016						
gamma2			0.234***	0.009				
alpha2			1.351***	0.027				
alpha3					0.303***	0.013		
beta3					0.655***	0.009		
gamma4							0.650***	0.010
N	3285		3285		3285		3285	
Maximum Likelihood	-126.38		-154.81		-129.30		-768.25	

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

2 Model specification

Model 1

$$\Omega(p) = \frac{p^\gamma}{[p^\gamma + (1-p)^\gamma]^\alpha} \quad (1)$$

Model 2

$$\Omega(p) = \frac{\alpha p^\gamma}{\alpha p^\gamma + (1-p)^\gamma} \quad (2)$$

Model 3

$$\Omega(p) = \exp[-\beta(-\ln p)^\alpha] \quad (3)$$

Model 4

$$\Omega(p) = \frac{p^\gamma}{[p^\gamma + (1-p)^\gamma]^{1/\gamma}} \quad (4)$$