A. Baseline parametrization:  $\alpha=0.36$ ,  $\beta=0.96$ Value for N Std. dev. loss function Value loss function Value loss function (last periods) Cumulative execution time (sec)  $10^{-2}$ bc-MC N\*, T=100  $10^{-4}$  $10^{-2}$ bc-MC N=100, T=100  $10^{-3}$ 15.0 bc-MC N=20, T=100  $10^{-3}$  $10^{-5}$  $10^{-4}$ bc-MC N=2, T=100 12.5 $10^{-4}$  $10^{-5}$ 10.0  $10^{-6}$  $10^{-5}$  $10^{-6}$ 7.540  $10^{-6}$  $10^{-7}$  $10^{-7}$ 5.0  $10^{-7}$  $10^{-8}$ 2.5 $10^{-8}$ 0 3000 3000 2600 2800 3000 Iterations Iterations Iterations Iterations Iterations B. Parametrization  $\alpha = \beta = 0.99$ Value loss function (last periods) Value for N Std. dev. loss function Value loss function Cumulative execution time (sec)  $10^{-1}$  $10^{-2}$  $10^{-3}$ 12 80  $10^{-6}$  $10^{-2}$ 60  $10^{-9}$  $10^{-3}$  $10^{-12}$ 40  $10^{-3}$  $10^{-15}$  $10^{-18}$ 0 2000 3000 3000 2600 3000 1000 2000 1000 20003000 1000 1000 2000 2800 0 3000 **Iterations** Iterations Iterations Iterations **Iterations** C. Parametrization  $\alpha = \beta = 0.995$ Value for  ${\sf N}$ Std. dev. loss function Value loss function Value loss function (last periods) Cumulative execution time (sec)  $10^{-1}$  $10^{-1}$  $10^{-3}$ 12 80  $10^{-6}$ 10  $10^{-2}$  $10^{-2}$ 60  $10^{-9}$  $10^{-12}$ 40  $10^{-3}$  $10^{-3}$  $10^{-15}$ 1000 2000 3000 0 2000 3000 1000 20003000 26002800 3000 0 1000 2000 3000 0 Iterations Iterations Iterations Iterations Iterations D. Parametrization  $\alpha = \beta = 0.999$ Value for  ${\sf N}$ Std. dev. loss function Value loss function Value loss function (last periods) Cumulative execution time (sec)  $10^{-1}$ 100  $10^{-1}$ 12 80  $10^{-4}$  $10^{-2}$  $10^{-3}$ 10  $10^{-7}$ 60  $10^{-3}$  $10^{-10}$  $10^{-4}$ 40  $10^{-13}$  $10^{-4}$  $10^{-16}$ 20  $10^{-5}$  $10^{-19}$ 1000 1000 2000 2600 2000 3000 2000 3000 0 3000 2800 3000 0 1000 2000 3000 0 1000Iterations Iterations Iterations Iterations Iterations