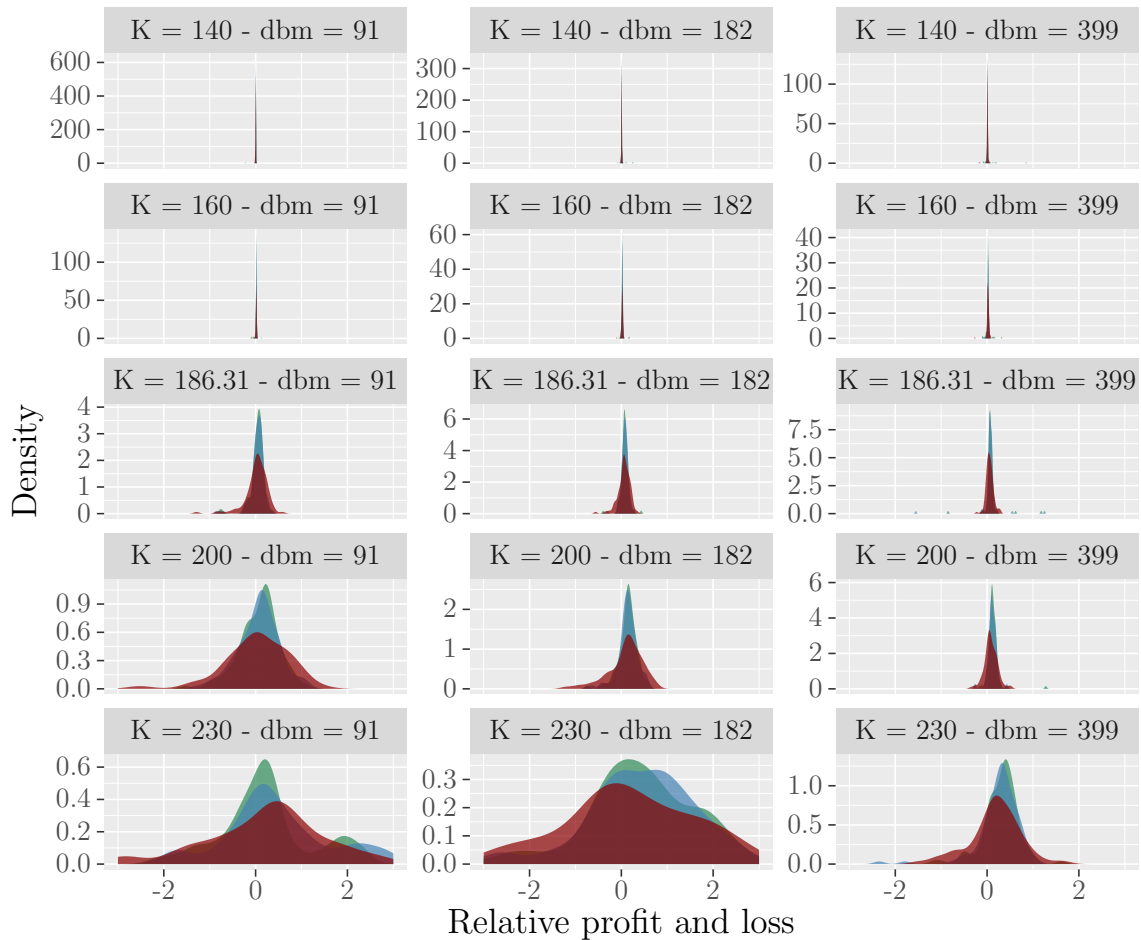


Appendix C

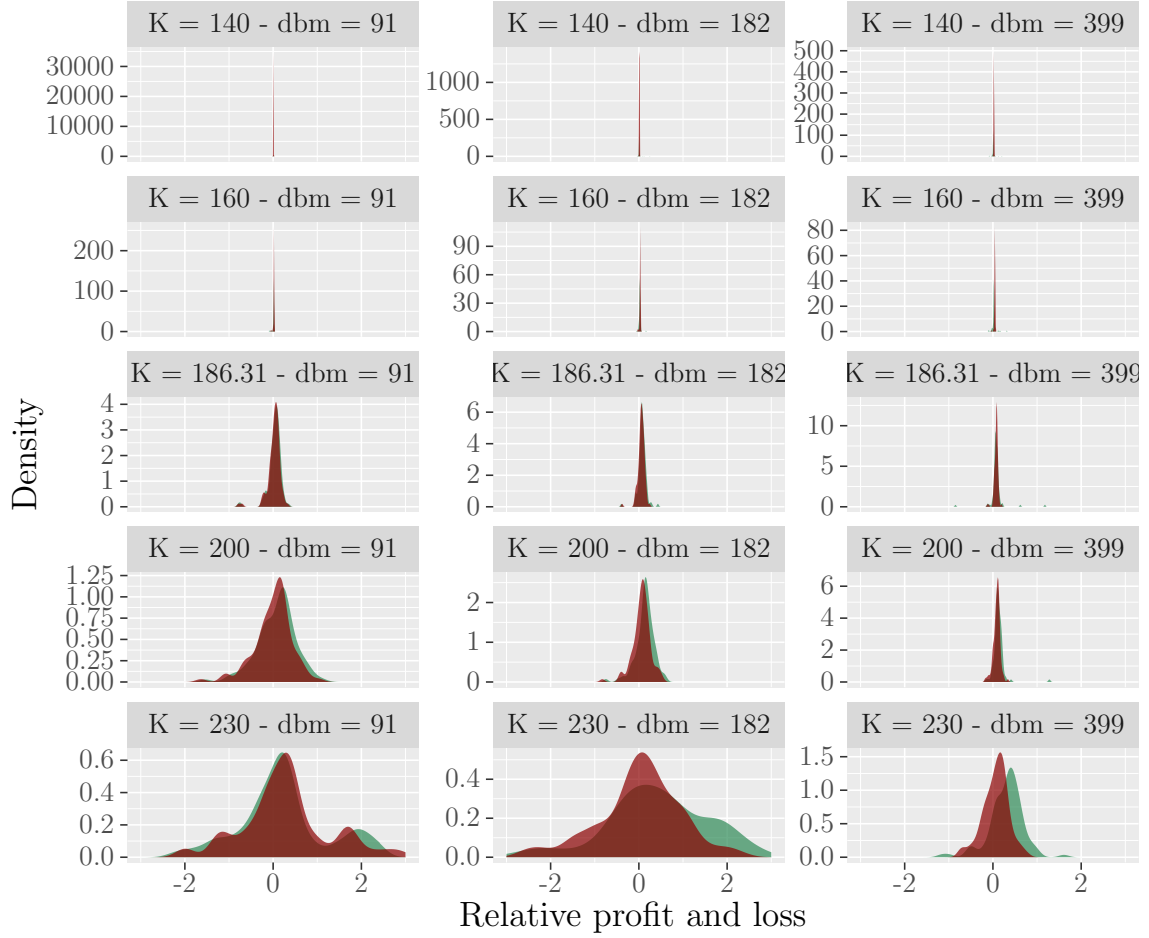
Analysis and results: Plots

Figure C.1: Relative profits and losses of delta-hedges concerning MJD processes split by prices and maturities: Impact of the balancing frequency



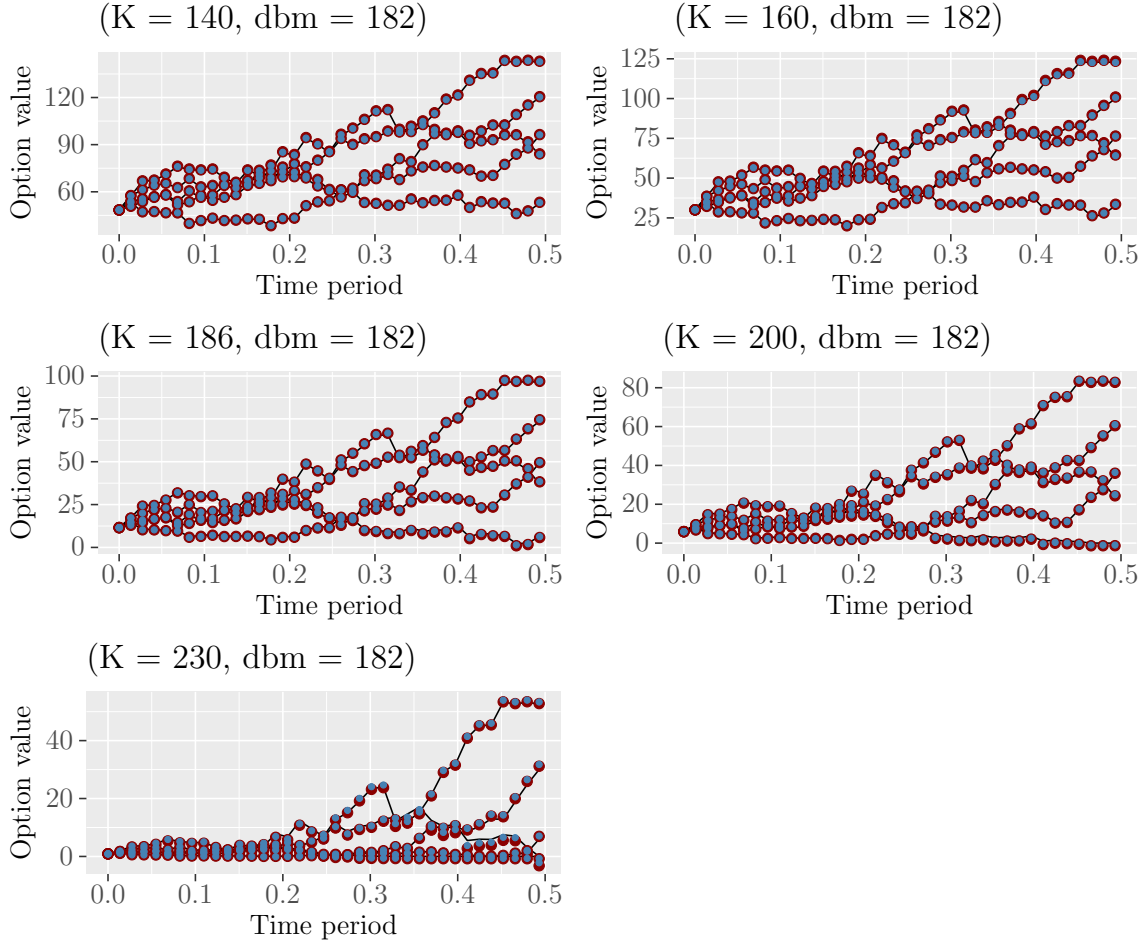
Notes. The above densities have been constructed on the hedges of options, computed by means of the function *mjd_call*, with the following parameters $\sigma = 0.1858$, $\lambda = 0.1031$, $\mu = -0.2974$, $\delta = 0.1955$. While the underlying asset followed different dummy paths constructed through the function *mjd_ts* taking as arguments: $S(0) = 186.31$, $T = 1.0932$, $\sigma = 0.1021$, $\alpha = 0.4817$, $\lambda = 99.5434$, $\mu = -0.0007$, $\delta = 0.01610$.

Figure C.2: Relative profits and losses of delta-hedges concerning MJD processes split by prices and maturities: Impact of the delta used.



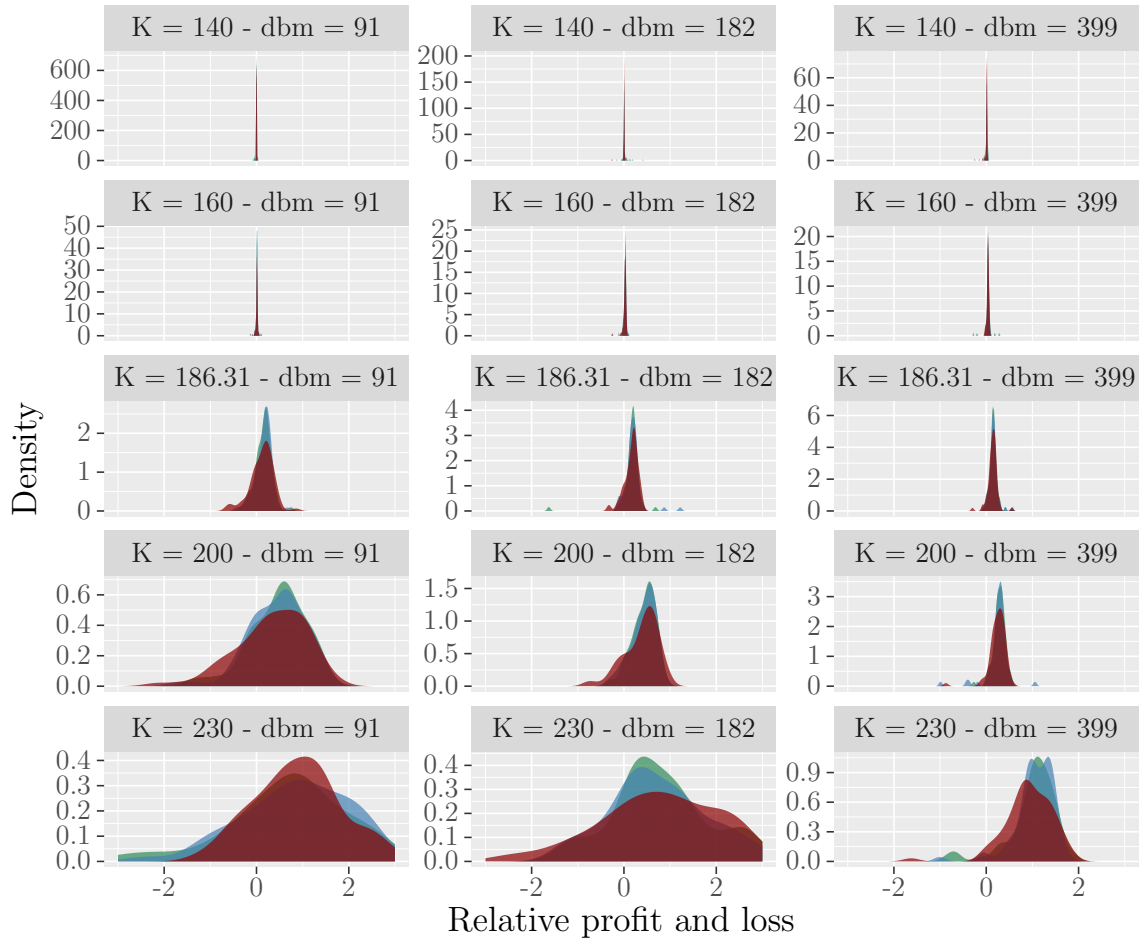
Notes. The above densities have been constructed on the hedges of options, computed by means of the function *mjd_call*, with the following parameters $\sigma = 0.1858$, $\lambda = 0.1031$, $\mu = -0.2974$, $\delta = 0.1955$. While the underlying asset followed different dummy paths constructed through the function *mjd_ts* taking as arguments: $S(0) = 186.31$, $T = 1.0932$, $\sigma = 0.1021$, $\alpha = 0.4817$, $\lambda = 99.5434$, $\mu = -0.0007$, $\delta = 0.01610$. The associated delta function was the BSM delta for the red densities and MJD delta for those filled in green.

Figure C.3: Samples of delta-neutral portfolios built with different functions of delta(BSM vs MJD)



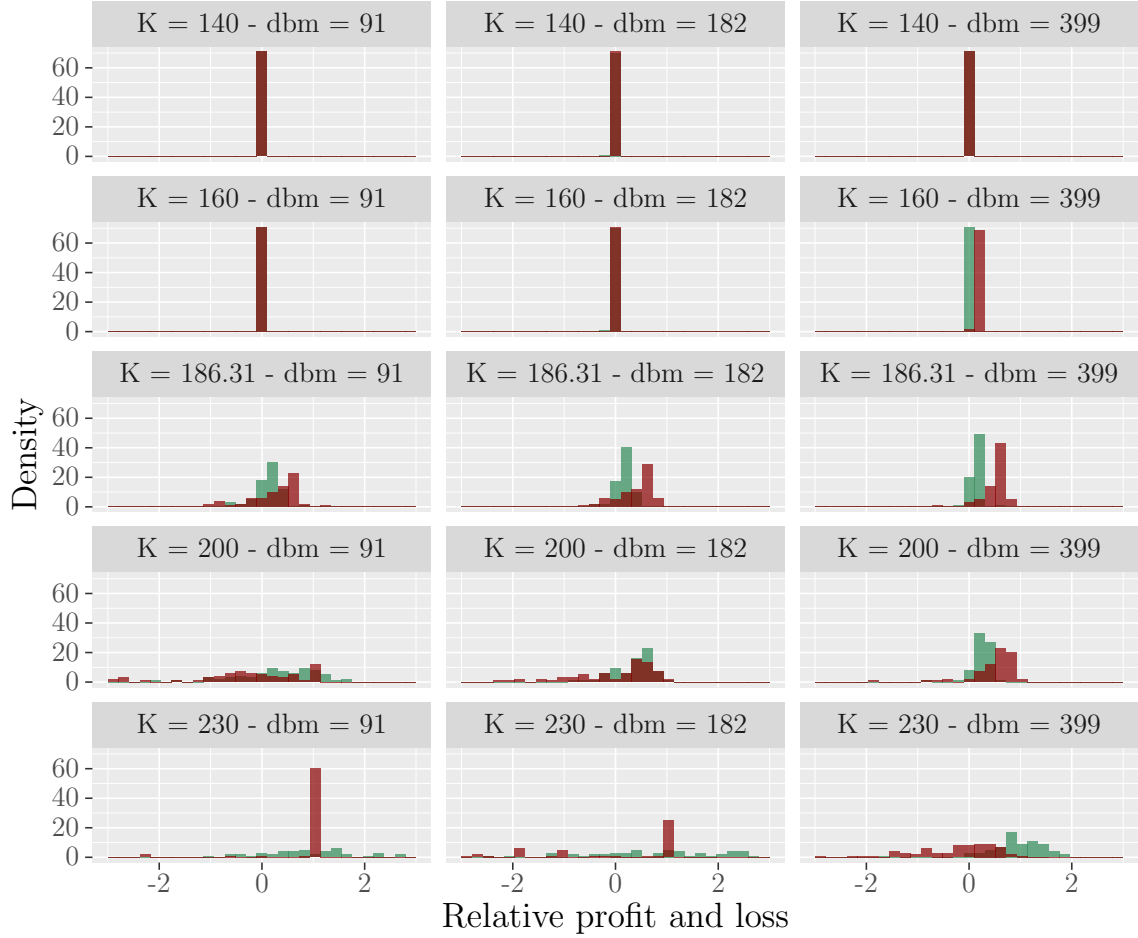
Notes. Hedging of options, computed by means of the function *mjd_call*, with the following parameters $\sigma = 0.1858$, $\lambda = 0.1031$, $\mu = -0.2974$, $\delta = 0.1955$. While the underlying asset followed different dummy paths constructed through the function *mjd_ts* taking as arguments: $S(0) = 186.31$, $T = 1.0932$, $\sigma = 0.1021$, $\alpha = 0.4817$, $\lambda = 99.5434$, $\mu = -0.0007$, $\delta = 0.01610$. The associated delta function was the BSM delta for the red circles and MJD delta for those in blue.

Figure C.4: Relative profits and losses of delta-hedges concerning HSV processes split by prices and maturities: Impact of the balancing frequency



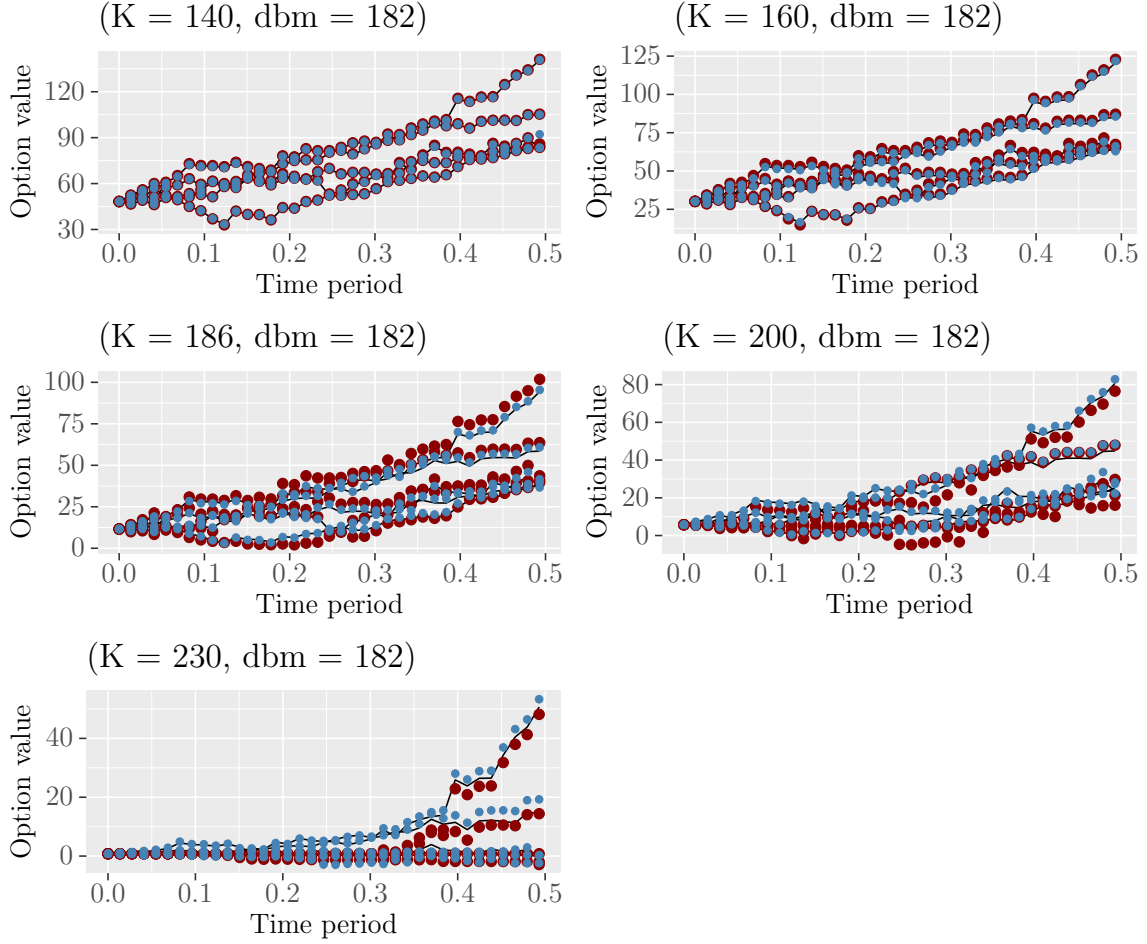
Notes. The above densities have been constructed on the hedges of options, computed by means of the function *hsv_call*, with the following parameters $V(0) = 0.03798218$, $\theta = 0.04871543$, $\sigma = 0.50378803$, $\rho = -0.39877827$, $\kappa = 4.00105546$. While the underlying asset followed different dummy paths constructed through the function *hsv_ts* taking as arguments: $S(0) = 186.31$, $T = 1.0932$, $V(0) = 0.03798$, $\theta = 0.0205$, $\sigma = 0.50379$, $\rho = -0.3988$, $\kappa = 9.4894$ and $\alpha = 0.4823$.

Figure C.5: Relative profits and losses of delta-hedges concerning HSV processes split by prices and maturities: Impact of the delta used.



Notes. The above densities have been constructed on the hedges of options, computed by means of the function *hsv_call*, with the following parameters $V(0) = 0.03798218$, $\theta = 0.04871543$, $\sigma = 0.50378803$, $\rho = -0.39877827$, $\kappa = 4.00105546$. While the underlying asset followed different dummy paths constructed through the function *hsv_ts* taking as arguments: $S(0) = 186.31$, $T = 1.0932$, $V(0) = 0.03798$, $\theta = 0.0205$, $\sigma = 0.50379$, $\rho = -0.3988$, $\kappa = 9.4894$ and $\alpha = 0.4823$. The associated delta function was the BSM delta for the red densities and HSV delta for those filled in green.

Figure C.6: Samples of delta-neutral portfolios built with different functions of delta(BSM vs HSV)



Notes. Hedging of options, computed by means of the function *hsv_call*, with the following parameters $V(0) = 0.03798218$, $\theta = 0.04871543$, $\sigma = 0.50378803$, $\rho = -0.39877827$, $\kappa = 4.00105546$. While the underlying asset followed different dummy paths constructed through the function *hsv_ts* taking as arguments: $S(0) = 186.31$, $T = 1.0932$, $V(0) = 0.03798$, $\theta = 0.0205$, $\sigma = 0.50379$, $\rho = -0.3988$, $\kappa = 9.4894$ and $\alpha = 0.4823$. The associated delta function was the BSM delta for the red circles and HSV delta for those in blue.