Costs and Benefits of Crash Hedging

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The worst–case scenario portfolio problem which has been introduced by Korn and Wilmott (2002) will be considered in this talk. In the setting of Korn and Wilmott, approximations for the optimal crash hedging strategy will be derived. Furthermore, the costs and benefits of using the optimal crash hedging strategy instead of the classical optimal portfolio strategy will be calculated. Additionally, we compute the efficiency of the optimal crash hedging strategy and derive the break even crash size, that is the crash size where the investor is indifferent in either using the optimal crash hedging strategy or the classical optimal portfolio strategy.

Keywords: *Optimal portfolios, crash modelling, worst–case scenario, efficiency, costs and benefits of crash hedging, break even crash sizes, logarithmic utility*

References:

[1] Korn, R. and Menkens, O. (2005). Worst-case scenario portfolio optimization: A new stochastic control approach. *Journal of Mathematical Methods of Operations Research* **62**(1):123–140.

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