

The Worst-Case Risk of a Portfolio

M. Lobo and S. Boyd

Unpublished technical report, September 2000.

- [risk_bnd.pdf](#)

We show how to compute in a numerically efficient way the maximum risk of a portfolio, given uncertainty in the means and covariances of asset returns. This is a semidefinite programming problem, and is readily solved by interior-point methods for convex optimization developed in recent years. While not as general, this approach is more accurate and much faster than Monte Carlo methods. The computational effort required grows gracefully, so that very large problems can be handled. The proposed approach is extended to portfolio selection, allowing for the design of portfolios which are robust with respect to model uncertainty.

Page generated 2018-11-24 09:00:15 PST, by jemdoc.