

Yu, Lian; Zhang, Shuzhong; Zhou, Xun Yu

A downside risk analysis based on financial index tracking models. (English) [Zbl 1143.91348](#)
Grossinho, Maria do Rosário (ed.) et al., Stochastic finance. Selected papers based on the presentations at the international conference on stochastic finance 2004, Lisbon, Portugal, September 26–30, 2004. New York, NY: Springer (ISBN 0-387-28262-9/hbk). 213-236 (2006).

Summary: This paper is mainly concerned with a single-stage financial index tracking problem under the downside risk constraint where short-selling is allowed. First, we formulate the portfolio selection model with the downside probability constraint to track the financial index. Due to the convexity of this problem, the optimal portfolio is derived analytically by applying the Karush-Kuhn-Tucker optimality conditions. Moreover, we extend the risk measure to higher order moment of the downside and study the corresponding portfolio optimization problem.

For the entire collection see [\[Zbl 1134.60005\]](#).

MSC:

91B30 Risk theory, insurance (MSC2010)
91B28 Finance etc. (MSC2000)

Cited in 5 Documents