IIE Transactions ›
Volume 37, 2005 - Issue 10

Original Articles

Mean-absolute deviation model

Hiroshi Konno & Tomoyuki Koshizuka

Pages 893-900 | Published online: 23 Feb 2007

We survey the Mean-Absolute Deviation (MAD) portfolio optimization model, which was first introduced in 1990 to cope with very large-scale portfolio optimization problems. The MAD model is in fact used to solve huge portfolio optimization models including the internationally diversified investment model, the long-term asset liability management (ALM) model and the mortgage-backed security portfolio optimization model. It was recently shown that the MAD model possess several advantageous theoretical properties. In particular, all capital asset pricing model (CAPM)-type relations for the mean-variance model also hold for the MAD model. Furthermore, the MAD model is more compatible with the fundamental principle of rational decision-making.