



SOCIETY OF ACTUARIES

Article from:

ARCH 2013.1 Proceedings

August 1- 4, 2012

Rina Ashkenazi, Sandra Paterlini, Francesco Pattarin

Optimal Asset Allocation for Endowment Management

Rina Ashkenazi¹, Sandra Paterlini² and Francesco Pattarin³

¹University of Minnesota, Minneapolis, USA; ashke004@umn.edu

²Univ. of Modena and Reggio E., Modena, Italy; sandra.paterlini@unimore.it

³Univ. of Modena and Reggio E., Modena, Italy; francesco.pattarin@unimore.it

The management of educational endowment or other income-producing portfolio requires determining the endowment asset allocation and the spending rule. We aim to propose a quantitative framework, which jointly considers the endowment spending policy and the asset allocation decision a-la Markowitz. In particular, we propose a new asset allocation framework to determine the optimal spending rule given a probability of ruin (the so-called Sustainable Spending Rate Portfolio), or, the optimal probability of ruin given a spending rule (the so-called Safety First Portfolio). Models are validated by empirical data.