UPDATING MULTI-FACTOR RISK MODELS AND PORTFOLIO UPDATES

S. Lo Cascio

J. Spronk

Department of Finance and Tinbergen Institute
Erasmus University Rotterdam

Abstract

Assuming a portfolio of securities described by means of a multi-factor risk model, we discuss problems and choices posed by incoming new information. We present the risk model and define variables and parameters used. In the following section, we describe a procedure for the evaluation of model adequacy. The choice of updating the model for the next period is discussed and, using new information, a procedure for the update is developed. A similar framework is applied to the decision process of updating the portfolio composition. The analysis is intended to give "advices" for organization and interpretation of available information, given the dominant role of the decision maker's preferences. In a technical appendix, different frequencies of model updating are analyzed theoretically.

To be presented at the Annual Conference Operational Research Society of Italy AIRO 1992.