

# **OPTIMAL ASSET ALLOCATION BASED ON UTILITY MAXIMIZATION IN THE PRESENCE OF MARKET FRICTIONS**

## **Abstract**

We develop a model of optimal asset allocation based on a utility framework. This applies to a more general context than the classical mean-variance paradigm since it can also account for the presence of constraints in the portfolio composition. Using this approach, we study the distribution of a measure of wealth compensative variation, we propose a benchmark and portfolio efficiency test and a procedure to estimate the implicit risk aversion parameter of a power utility function. Our empirical analysis makes use of the S&P 500 and industry portfolios time series to show that, although the market index cannot be considered an efficient investment in the standard mean-variance metric, in our framework the wealth loss associated with such an investment is rather small (lower than 0.5%), and is not statistically different from zero when the risk aversion is small. The wealth loss is at its minimum for a representative agent with a constant risk aversion index not higher than 5. Furthermore we show that, for reasonable levels of risk aversion, the use of an equally weighted portfolio is surprisingly consistent with an expected utility maximizing behavior.

*JEL classification codes:* C15, D14, G11