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Zervoudi, Evanthia K.

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## The equity premium puzzle: new evidence on the optimal holding period and optimal asset allocation

The equity premium puzzle

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Evanthia Zervoudi

Department of International and European Economic Studies, Athens University of Economics and Business, Athens, Greece, and Spyros Spyrou

Department of Accounting and Finance, Athens University of Economics and Business, Athens, Greece Received 5 December 2014 Revised 25 January 2015 Accepted 27 January 2015

## Abstract

**Purpose** – The purpose of this paper is to report new original evidence on optimal holding periods and optimal asset allocations (Benartzi and Thaler, 1995).

**Design/methodology/approach** – The authors employ a number of different value functions, a recent dataset, different markets, and varying investment horizons.

**Findings** – The authors report original evidence across markets and over-time, employing different value functions and varying investment horizons. The results results indicate that, during the past decades, the optimal holding period (seven months during the whole period and four/five months during crises) is not affected by the value function employed, is in accordance with the Myopic Loss Aversion hypothesis, is consistent across markets, but is sensitive to economic crises and shorter to that reported in Benartzi and Thaler (12 months). The optimal asset allocation is also different to that of Benartzi and Thaler during crises periods and/or assuming value functions with probability distortion. **Originality/value** – The paper employs a number of different value functions, with and without probability distortion; it compares investor behavior in three important international markets (USA, UK, Germany); as a further robustness test the authors use various investment horizons.

Keywords Equity premium puzzle, Probability distortion, Prospect theory

Paper type Research paper

## 1. Introduction

One of the most interesting puzzles in financial economics is the equity premium puzzle, i.e. the observation that equity returns during the past century tend to be higher that bond returns. Many studies suggest that the premium is about 6 percent (Mehra and Prescott, 1985). The puzzle lies with the fact that the premium is so large that it cannot be explained by investor risk aversion. As discussed in Benartzi and Thaler (1995) a relative risk aversion coefficient of over 30 could explain the puzzle; however, theoretical and empirical estimates indicate that the coefficient is around 2. In other words, there is not a reasonable risk aversion parameter that can explain the puzzle (see also, Siegel, 1999). Benartzi and Thaler (1995) attempt to explain the puzzle employing prospect theory (PT) and the notion of myopic loss aversion (MLA). They separate the planning horizon (investment horizon) and the evaluation period (how frequently an investment is evaluated). For example, an investor with a long investment horizon and a three-month evaluation period will behave more as if she had an investment horizon of three months, rather than a long-term investor. They show that the magnitude of the equity premium is consistent with PT, if investors evaluate their portfolios annually.



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