The Alpha of a Market Timer*

Georges HÜBNER†
HEC Management School – University of Liège, Belgium
School of Business and Economics, Maastricht University, the Netherlands
Gambit Financial Solutions Ltd, Belgium
EDHEC, France

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Abstract

Portfolio managers claim to be able to generate abnormal returns through either superior asset selection or market timing. The Treynor and Mazuy (TM) model is the mostly used return-based approach to isolate market timing skills, but all existing corrections of the regression intercept can be manipulated by a manager who can trade derivatives. We revisit the TM model by applying the original option replication approach proposed by Merton. We exploit both the linear and the quadratic coefficients of the TM regression to assess the replicating cost of the cheapest option portfolio with the same convexity. The application of the new correction on two samples of market timing funds delivers particularly encouraging empirical results. The portfolio replication approach reveals that the performance of market timing funds increases with their convexity level, and the effect is larger and significant for positive market timers. All other classical corrections of the TM model underestimate the necessary adjustment for the fund's convexity, leaving positive timers with negative performance and vice-versa. This bias explains the converging conclusion of most studies based on the TM model that market timers do not outperform the market. Furthermore, inadequate correction methods weaken the link between the magnitude of market timing and the associated performance. Such results suggest that a correction of alpha based on an arbitrage argument clarifies the role of market timing in the generation of performance.

Keywords: Performance measurement, market timing, Treynor and Mazuy, option replication, mutual fund performance.

JEL codes: G10, G12

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†Corresponding author. University of Liège, HEC Management School, Department of Finance. Rue Louvrex 14, Bldg N1, B-4000 Liège, Belgium. Phone: +32 42327428. E-mail: G.Hubner@ulg.ac.be