

**A SMOOTH TRANSITION AUTOREGRESSIVE APPROACH TO INVESTIGATING THE MARKET TIMING
ABILITY OF FUND MANAGERS**

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ABSTRACT

We derive a logistic smooth transition autoregressive (LSTAR) beta process to replace the dichotomous beta of Merton (1981). Fund betas follow an autoregressive process and most managers switch from one autoregressive regime to another in response to movements in the market condition indicator. We model beta directly using realized monthly betas and apply the LSTAR model and associated nonlinearity testing methodology to the realized betas. A serially correlated beta series seems to suggest passive variation in the betas with transition from one regime to another in response to the market indicator. We find that most funds are well represented by the LSTAR form and that sixteen percent of the funds exhibit the correct adjustment in their exposure to the market.

Keywords: *Market Timing; Logistic Smooth Transition Regression*