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Portfolio performance under dynamic systematic risk and conditional betas: the South African unit trust market

This study examines whether South African unit trust managers can outperform the market and demonstrate distinct market-timing abilities under systematic dynamic risk. A conditional portfolio evaluation method is used under dynamic systematic risk. The BEKK-MGARCH model is applied to estimate the time-varying CAPM beta. The sample of the study includes 86 unit trust funds for the hardly studied multi-asset class between 2010 and 2019 in South Africa. The findings of the study show positive evidence that portfolio managers in the South African unit trust market possess some skills for market timing and outperformance. These results differ from most of the outcomes obtained through model-free performance-evaluation methods. The significant contribution of this study to the literature is in conditioning beta to both time and economic variables within the same asset pricing model, and then applying it to the emerging market of South Africa. Another strength of this paper is maintaining patient and formal adherence to econometric requirements of model validation. The empirical findings of the study should benefit portfolio managers, investors, and regulators with updated insight into the importance of considering both risk variability and changing economic factors in portfolio evaluation.

Keywords: portfolio performance evaluation; dynamic systematic risk; unit trust.
JEL classification: C58; G10; G11.

1. Introduction

The South African unit trust industry attracted USD 5.63 billion net inflows during the second quarter of 2020 at a time of very little economic activity caused by the global coronavirus pandemic, among other things. An industry of such magnitude and activity calls for continuous performance evaluation in the interests of investors and other stakeholders. Underperforming portfolio managers are likely to experience negative flows (Berk, Green, 2004; Arendse et al., 2018). In tandem with the ground-breaking work of Markowitz (1952, 1959, 1976, 2005, 2009), the early pioneers had a common vision, seemingly, to develop risk-adjusted performance measures such as the Capital Asset Pricing Model (CAPM) for practical application (Treynor, 1961; Sharpe, 1964; Lintner,1965; Mossin, 1966). The problem with the original CAPM was that it assumed static risk evolution, which is inconsistent with the dynamic economic environment

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