

Do Derivatives Shape Mutual Fund Returns? A Systematic Review and Research Agenda

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Abstract

This study consolidates the fragmented literature on equity derivatives usage by mutual funds and its impact on fund performance, and derives an integrated conceptual framework to guide future empirical research at this intersection.

Design / Methodology / Approach: The study employs the SPAR-4-SLR protocol (Paul et al., 2021) for systematic review, the PRISMA 2020 framework (Page et al., 2021) for transparent article screening, the Bibliometrix R package (Aria and Cuccurullo, 2017) for bibliometric analysis, and the TCCM framework (Paul and Rosado-Serrano, 2019) for qualitative synthesis. Drawing on both Scopus and Web of Science, 2,387 records were merged using mergeDbSources() with automated deduplication, yielding 1,872 unique articles. After rigorous PRISMA-based screening, 1,558 articles published between 1967 and 2023 across 670 journals were retained for bibliometric review. A subset of 50 articles was selected using a hybrid weighted-citation and qualitative approach for in-depth TCCM coding.

Findings: Mutual fund performance and portfolio management have been extensively studied, but the intersection with equity derivatives remains under-explored: only 8.3% of the reviewed corpus directly discusses derivatives in a fund-management context, and a mere 2.6% of papers are India-affiliated (41 of 1,558) despite the National Stock Exchange of India being the world's largest derivatives exchange by contract volume. The TCCM synthesis identifies Agency Theory (12 papers), Merton-style option-theoretic models (11 papers), and Positive Hedging Theory (7 papers) as the dominant theoretical frameworks, while regression-based methods (27 papers) and panel data approaches (9 papers) dominate methodologically. Substantively, derivatives usage does not affect average performance (Koski and Pontiff, 1999), but consistent option use raises risk-adjusted performance by approximately 45 basis points per year (Natter et al., 2016), with directional speculative bets destroying value while income and hedging strategies break even or add value (Cici and Palacios, 2015); active monetisation of tail-risk hedges outperforms passive hold-to-maturity (Bhansali, 2020), and protection efficacy decays beyond approximately six months of sustained drawdown (McQuinn et al., 2021).

Originality / Contribution: The study contributes in four ways. First, it provides among the first dedicated systematic reviews at the equity-derivatives × mutual-fund-performance intersection, using dual-database coverage. Second, it proposes the Equity Derivatives–Mutual Fund Performance (ED-MFP) Framework, an integrated conceptual model that links derivatives usage to fund performance through four mediating mechanisms (tail-risk reduction, flow-risk mitigation, transaction-cost reduction, option income generation) and five moderating conditions (market regime, regulatory framework, fund characteristics, strategy intent, manager characteristics), each anchored to a specific theoretical lens. Third, it derives six testable propositions (P1–P6) that operationalise the framework for empirical work, including an India-specific proposition that anchors the broader doctoral programme. Fourth, it identifies under-utilised theoretical lenses (Upper Echelons, Prospect, Institutional) and methodological frontiers (machine-learning classification of derivatives positions, mediation analysis) that future researchers can take up.

Keywords

Bibliometric analysis, conceptual framework, equity derivatives, fund performance, hedging, mutual funds, portfolio management, systematic literature review, TCCM framework.

JEL Classification: G11; G23; G13; G28.