

# The Economics of Mutual Fund Style Drift: Facts, Controversies, and Future Research

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## Abstract

**Purpose:** Why do investors and regulators tolerate mutual fund style drift? Funds managing trillions of dollars regularly deviate from stated objectives, yet this behavior triggers no enforcement actions and limited investor response. This survey resolves this “tolerance paradox” by developing an implicit contract framework that explains both why drift occurs and why it persists.

**Design/Methodology:** Following PRISMA 2020 guidelines, we conducted a dual-corpus search of the OpenAlex database covering 1990–2025. From over 5,400 initial records, we applied strict quality filters (top 25% citation percentile, top-tier journals), yielding 71 high-quality papers with 6,580 total citations.

**Findings:** We argue that style drift represents an implicit contract: managers receive flexibility to pursue alpha; investors receive the option value of skilled active management; reputational markets provide enforcement. This contract is efficient when skilled managers exploit flexibility under effective market discipline, but becomes exploitative when information asymmetry shields unskilled managers. The framework resolves contradictory findings: intentional drift by skilled managers generates positive alpha, while tournament-driven drift and closet indexing destroy value. Performance outcomes depend on who drifts, why they drift, and under what monitoring conditions.

**Research Limitations:** Evidence concentrates in U.S. equity markets. The implicit contract framework requires further testing in emerging markets, ESG contexts, and algorithmic portfolio management.

**Originality/Value:** This is the first survey to offer a unified theoretical framework explaining why style drift is tolerated. We move beyond cataloging findings to present an argument-driven synthesis that resolves the central skill-versus-agency controversy and generates testable predictions for future research.

**Keywords:** Mutual funds, style drift, implicit contracts, agency theory, active share, systematic literature review, PRISMA.

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# 1 Introduction

## 1.1 The Tolerance Paradox

Why do investors and regulators tolerate mutual fund style drift? Funds collectively managing over \$27 trillion regularly deviate from their stated investment objectives—a value manager drifts toward growth stocks, a small-cap fund accumulates large-cap positions, an “actively managed” portfolio converges toward its benchmark. Yet unlike fraud, misrepresentation, or breach of fiduciary duty, style drift triggers no enforcement actions, no legal consequences, and remarkably little investor response. This tolerance presents a puzzle at the intersection of agency theory, investor behavior, and regulatory design.

The scale of this phenomenon is substantial. Empirical studies document that a substantial fraction of actively managed equity funds exhibit significant style drift—estimates suggest 30% to 40% may be misclassified or drifting at any given time (diBartolomeo and Witkowski, 1997). The economic magnitude is correspondingly large: if even a modest fraction of the \$27 trillion in global mutual fund assets experiences drift that reduces risk-adjusted returns by 50 basis points annually, the aggregate wealth destruction exceeds \$40 billion per year. For individual investors, unexpected style changes can be equally consequential. A retiree who allocates 30% of her portfolio to a “conservative value” fund, only to discover that the fund has drifted toward speculative growth stocks, faces unintended risk exposure precisely when she can least afford volatility. The 2022 bond market selloff revealed similar dynamics, as funds marketed as “stable income” proved to hold duration-sensitive positions inconsistent with their stated mandates.

The puzzle deepens upon closer examination. Style drift can harm investors in multiple ways. Unanticipated style changes disrupt carefully constructed portfolio allocations, introducing unintended factor exposures that undermine diversification benefits. Drift may signal agency problems—managers chasing recent winners, increasing risk for tournament purposes, or engaging in “closet indexing” by charging active fees while delivering passive returns (Cremers and Petajisto, 2009a). Style inconsistency complicates performance evaluation, as traditional benchmarks no longer reflect actual investment approaches. If drift imposes these costs, why is it permitted?

This survey advances a simple but powerful answer: **style drift is tolerated because it represents an implicit contract between investors and managers.** Managers receive flexibility to pursue alpha wherever opportunities arise; investors receive the option value of skilled active management; reputational markets and investor flows provide enforcement without formal legal mechanisms. This implicit contract is efficient when managers possess genuine skill and markets can discipline poor performers—but becomes exploitative when information asymmetry shields unskilled managers from consequences.

The implicit contract framework resolves the central controversy in the style drift literature: whether drift reflects superior manager skill or agency-driven misconduct. Three decades of empirical research have produced seemingly contradictory findings. Some studies report that style-consistent funds outperform drifters, suggesting drift reflects failed bets or rent extraction (Brown and Goetzmann, 1997). Other studies document that managers who drift into undervalued segments subsequently generate alpha, consistent with skilled style timing (Wermers, 2000). Our framework reconciles these findings by

specifying that performance outcomes depend on *who* drifts (skilled vs. unskilled managers), *why* they drift (alpha-seeking vs. flow-chasing), and *under what conditions* (strong vs. weak market discipline). Both positive and negative drift-performance relationships are consistent with the theory; the empirical task is identifying which conditions apply.

## 1.2 Why This Survey?

The academic literature on mutual fund style drift has grown substantially since [Sharpe \(1992\)](#) introduced return-based style analysis. Our systematic search identified over 5,400 potentially relevant papers, from which we constructed a corpus of 71 high-quality studies with 6,580 total citations. This body of research spans three decades, employs diverse methodologies (return-based, holdings-based, Active Share), and examines multiple outcomes (performance, flows, investor welfare, regulatory effectiveness).

Despite this rich empirical base, no prior survey has systematically synthesized the style drift literature. Existing reviews of mutual fund research—including comprehensive treatments of fund performance, governance, and investor behavior—touch on style drift tangentially but do not examine it comprehensively. Practitioner-oriented surveys in the *Financial Analysts Journal* and *Journal of Portfolio Management* address measurement methods but lack theoretical integration. More importantly, no prior work has offered a unified theoretical framework that explains both why drift occurs and why it is tolerated. This gap is consequential: without theoretical grounding, the empirical literature remains fragmented, contradictory findings cannot be reconciled, and policy recommendations lack coherent foundations.

This survey fills these gaps through three contributions, each designed to advance both academic understanding and practical application of style drift research.

*First*, we develop the **implicit contract framework** as a theoretical lens for understanding style drift. The framework integrates insights from agency theory ([Jensen and Meckling, 1976](#)), contract theory ([Hart, 1995](#)), and behavioral finance ([Kahneman and Tversky, 1979](#)) to explain why style drift persists. We identify four mechanisms sustaining the implicit contract: (1) beneficial optionality for skilled managers; (2) information asymmetry and monitoring costs; (3) permissive regulatory design; and (4) behavioral inattention by investors. We also specify when the contract fails—tournament incentives, weak market discipline, closet indexing—generating testable predictions that structure our empirical review.

*Second*, we provide a **PRISMA-compliant systematic review** of 71 high-quality papers spanning 1990–2025. Our dual-corpus search strategy combines targeted keyword search with journal prestige filtering, achieving both recall (capturing the breadth of relevant research) and precision (excluding tangential work). Snowball validation adds 8 papers identified through citation analysis. This methodological rigor ensures comprehensive coverage while maintaining quality thresholds.

*Third*, we offer **quality-weighted evidence synthesis** that resolves contradictory findings. Rather than treating all studies equally, we weight evidence by journal tier, citation impact, and methodological rigor. This approach reveals that apparent contradictions often reflect sample composition: studies of skilled managers in well-governed funds find positive drift-performance relationships; studies of broad cross-sections dominated by

closet indexers find negative relationships. The implicit contract framework predicts both patterns, transforming what appeared to be an empirical stalemate into a coherent conditional theory.

### 1.3 Scope and Boundaries

We focus on equity mutual funds rather than alternative fund types (hedge funds, private equity, pension funds, ETFs) for three reasons. This scope decision reflects both practical data considerations and theoretical coherence—the agency dynamics differ substantially across fund types, and meaningful comparison requires controlling for these structural differences. First, mutual funds have the longest history of style classification systems—Morningstar style boxes, Lipper categories, and self-designated benchmarks create a well-defined context for studying style consistency. Second, regulatory disclosure requirements provide richer data for style analysis; mutual funds file quarterly holdings (N-PORT) and annual reports that enable systematic research. Third, the agency problems associated with style drift differ qualitatively across fund types: hedge funds serve sophisticated investors who may actively desire style flexibility; pension funds face distinct fiduciary obligations; ETFs are designed for benchmark tracking rather than active management.

Geographically, the literature is concentrated in U.S. markets (approximately two-thirds of studies in our corpus), reflecting the superior data availability and market maturity that facilitate rigorous empirical research. We include international studies where available but note that generalization to emerging markets with different regulatory structures, investor bases, and governance norms remains limited—an important gap we highlight for future research.

Temporally, we cover publications from 1990 to 2025. The starting date reflects the introduction of return-based style analysis by [Sharpe \(1992\)](#), which established the methodological foundation for quantifying investment style. Earlier work on fund performance evaluation existed but did not employ the style consistency concepts central to this review.

### 1.4 Preview of Findings

Our synthesis reveals five key findings that advance understanding of style drift:

1. **The drift-performance relationship is conditional, not universal.** Intentional tactical drift by skilled managers generates positive alpha. Passive drift driven by fund flows or tournament incentives destroys value. Closet indexing represents a distinct failure mode (-1.0% to -1.8% relative to benchmarks after fees).
2. **Detection and disclosure reduce but do not eliminate drift.** More frequent holdings disclosure is associated with lower drift magnitude, consistent with shortened implicit contract horizons. However, disclosure alone is insufficient—investor attention focuses on returns, not style consistency.
3. **Governance mechanisms partially substitute for investor monitoring.** Funds with independent boards, stronger compliance oversight, and higher institutional

ownership exhibit less value-destroying drift. These findings support the implicit contract’s reliance on intermediary monitoring.

4. **Geographic and thematic gaps limit generalization.** Evidence concentrates in U.S. equity markets. Emerging markets, ESG/sustainability mandates, robo-advisors, and post-pandemic dynamics remain underexplored.
5. **The tolerance of drift reflects efficient regulatory design.** Complete prohibition would destroy the option value of managerial flexibility. Permissive regulation conditional on market discipline represents a reasonable policy equilibrium.

## 1.5 Structure of the Review

The remainder of this review is structured as follows. Section 2 develops the implicit contract framework, establishing theoretical foundations and deriving testable predictions. Section 3 details our PRISMA-compliant methodology, including search strategy, inclusion criteria, and quality assessment. Section 4 presents bibliometric analysis of the 71-paper corpus. Section 5 synthesizes empirical evidence organized around when the implicit contract works versus fails. Section 6 discusses regulatory implications and unresolved controversies. Section 7 proposes a research agenda for testing the implicit contract framework. Section 8 concludes.

# 2 The Implicit Contract Framework

Why do investors and regulators tolerate mutual fund style drift? This section develops a theoretical framework to answer this puzzle. We argue that style drift persists because it represents an *implicit contract* between fund managers and investors: managers receive flexibility to pursue alpha in exchange for bearing reputational risk. This contract is efficient when managers are skilled and markets can discipline poor performers, but becomes exploitative when information asymmetry shields unskilled managers from consequences.

We develop this argument in four parts. First, we establish the theoretical foundations drawing on agency theory, contract theory, and behavioral finance. Second, we identify four mechanisms that explain why drift tolerance is rational. Third, we specify the conditions under which the implicit contract creates versus destroys value. Fourth, we derive testable predictions that structure our subsequent empirical review.

## 2.1 Theoretical Foundations

The implicit contract framework integrates insights from three established theoretical traditions: agency theory, contract theory, and behavioral finance. Each contributes essential elements to understanding why style drift is tolerated.

### 2.1.1 Agency Theory: The Costs and Benefits of Discretion

The mutual fund relationship exemplifies the canonical principal-agent problem (Jensen and Meckling, 1976). Investors (principals) delegate portfolio management to fund managers (agents) whose interests may diverge. Managers possess private information about their skill and exert unobservable effort that affects returns. This information asymmetry creates scope for opportunistic behavior—but also for value-creating discretion.

The standard agency perspective views managerial discretion negatively: greater latitude creates more opportunities for rent extraction through excessive fees, inadequate effort, or self-dealing (Fama, 1980). From this view, style drift represents an agency cost—managers exploiting flexibility to chase flows, increase risk for tournament purposes (Brown et al., 1996), or engage in closet indexing (Cremers and Petajisto, 2009a).

Yet discretion also has benefits. Managers who identify mispriced securities outside their stated style boundaries need flexibility to exploit these opportunities. Rigid mandates would constrain value-creating trades. Berk and Green (2004) show that in equilibrium, skilled managers generate alpha until their ability is competed away through flows. If skilled managers cannot deviate from narrow mandates, their informational advantages go unexploited.

This tension—discretion as both agency cost and value-creating flexibility—lies at the heart of the tolerance puzzle. The implicit contract framework resolves this tension by specifying when discretion creates versus destroys value.

### 2.1.2 Contract Theory: Incomplete Mandates and Residual Control

Contract theory provides the conceptual apparatus for understanding fund mandates as incomplete contracts (Hart and Moore, 1990; Grossman and Hart, 1986). Fund prospectuses cannot specify optimal portfolio weights in all market states—the cost of complete state-contingent contracts would be prohibitive. This incompleteness is rational but creates residual control rights that managers can exercise.

The key insight from contract theory is that residual control should be allocated to the party whose discretionary decisions are most valuable (Hart, 1995). In mutual funds, residual control over portfolio composition rests with managers precisely because their judgment about security selection and timing is the service investors purchase. Complete contracts that eliminated discretion would eliminate the value of active management.

However, incomplete contracts require enforcement mechanisms. Since courts cannot verify whether a manager’s style shift was value-maximizing, formal legal enforcement is unavailable. Instead, the implicit contract relies on *relational* enforcement: reputation, repeat interactions, and market discipline substitute for legal sanctions (Boot et al., 1993).

### 2.1.3 Behavioral Finance: Bounded Attention and Investor Heterogeneity

Behavioral finance explains why market discipline operates imperfectly. Investors face cognitive constraints that limit their ability to monitor portfolio compositions. Research on investor attention documents that retail investors respond primarily to salient, attention-grabbing information rather than conducting detailed holdings analysis (Bar-

ber and Odean, 2008). This pattern of selective attention—focusing on past returns and ratings rather than portfolio composition—creates latitude for undetected style drift.

Investor heterogeneity compounds the monitoring challenge. Sophisticated institutional investors can detect and respond to drift; retail investors typically cannot. This heterogeneity means that market discipline varies systematically with investor composition—a key moderating factor in the implicit contract’s effectiveness.

## 2.2 The Four Mechanisms of Drift Tolerance

Building on these theoretical foundations, we identify four mechanisms that explain why style drift is tolerated rather than prohibited or punished. Together, these mechanisms constitute the implicit contract between managers and investors.

### 2.2.1 Mechanism 1: Beneficial Optionality

The first mechanism is that style flexibility creates valuable optionality for skilled managers. Markets are not perfectly efficient; mispriced securities exist across style boundaries. A value manager who identifies an undervalued growth stock should have latitude to purchase it. Prohibiting cross-style trades would destroy alpha-generating capacity.

The empirical literature documents substantial alpha from intentional tactical drift. Studies in our corpus find that deliberate style shifts by skilled managers generate positive annualized excess returns ranging from +1.3% to +2.3% (Wermers, 2000; Cremers and Pareek, 2016). This alpha represents the option value of flexibility—the payoff to managers who can exploit opportunities wherever they arise.

Investors recognize this optionality value. By accepting drift tolerance, they purchase an option: the right to benefit if their manager possesses genuine skill that manifests through style timing. The expected value of this option is positive for investors who can identify skilled managers, justifying tolerance of style inconsistency.

### 2.2.2 Mechanism 2: Information Asymmetry and Detection Costs

The second mechanism concerns the economics of monitoring. Detecting style drift requires comparing actual portfolio holdings to stated objectives—a costly activity requiring data access, analytical capacity, and time. For most investors, detection costs exceed expected benefits.

Consider a retail investor with \$10,000 in a mutual fund. Even if drift reduces risk-adjusted returns by 50 basis points annually (\$50), the cost of comprehensive holdings analysis likely exceeds this loss. Rational investors choose not to monitor, accepting drift as a cost of delegation.

This monitoring asymmetry creates a natural division of labor. Sophisticated investors—institutions, fund-of-funds, consultants—monitor on behalf of the investor class. Their monitoring creates market discipline that constrains drift, even though most individual investors do not monitor directly. The implicit contract relies on this layered monitoring structure.

### 2.2.3 Mechanism 3: Regulatory Design

The third mechanism is that regulatory frameworks deliberately permit style flexibility. Fund prospectuses specify “principal investment strategies” rather than rigid constraints. The SEC’s 80% rule requires funds to invest at least 80% of assets consistently with their name, but this leaves substantial latitude for the remaining 20%. UCITS regulations similarly permit deviation from stated benchmarks.

This regulatory design reflects a policy judgment that flexibility benefits outweigh agency costs in aggregate. Regulators could mandate strict style adherence with penalties for deviation—but they have chosen not to. This choice implies either that regulators believe flexibility is net beneficial, or that enforcement costs would exceed benefits. Either way, the regulatory framework sanctions the implicit contract.

Classification systems like Morningstar style boxes reinforce this permissive approach. These systems are descriptive rather than prescriptive: they report what funds do, not what funds must do. A fund can drift across style box boundaries without violating any rule. The classification system informs investors but does not constrain managers.

### 2.2.4 Mechanism 4: Behavioral Inattention

The fourth mechanism is that investor attention focuses on returns rather than style consistency. The documented convex flow-performance relationship (Sirri and Tufano, 1998) reveals that investors chase past performance aggressively. By contrast, there is no comparably strong flow-style consistency relationship. Investors reward performance and largely ignore how it was achieved.

This attention allocation is not necessarily irrational. If investors’ ultimate objective is wealth accumulation, returns matter more than the path taken. A value fund that drifts toward growth but delivers strong returns serves investors’ terminal wealth goals even if it violates their ex ante style preferences.

However, style inattention also enables exploitation. Managers can chase popular styles to attract flows without generating genuine alpha. The implicit contract is vulnerable to managers who exploit behavioral inattention for private gain—a failure mode we examine below.

## 2.3 When Contracts Work: Conditions for Value Creation

The implicit contract creates value under specific conditions. We identify four boundary conditions that must hold for drift tolerance to be efficient.

**Condition 1: Manager Skill.** The contract works when managers possess genuine skill that flexibility allows them to exploit. Skilled managers use discretion to capture alpha; unskilled managers use discretion to chase performance or hide underperformance. Evidence from our corpus confirms that drift-performance relationships are strongly positive among high-skill managers and negative among low-skill managers.

**Condition 2: Market Discipline.** The contract works when markets can discipline poor performers. This requires that: (i) performance information reaches investors with

reasonable lag; (ii) investors respond to performance by reallocating capital; and (iii) underperforming funds experience outflows that constrain manager behavior. When market discipline functions, the implicit contract is self-enforcing.

**Condition 3: Reputational Stakes.** The contract works when managers have reputation capital at risk. Managers with long tenures, high visibility, and career concerns face greater reputational costs from drift that destroys value. These reputational stakes create incentive compatibility even without formal enforcement.

**Condition 4: Investor Sophistication.** The contract works better when investors (or their agents) can monitor drift. Institutional investors, consultants, and rating agencies serve as monitors who discipline drift on behalf of less sophisticated investors. When monitoring intermediaries are absent, the contract is more vulnerable to exploitation.

When these conditions hold, the implicit contract represents an efficient arrangement: managers receive flexibility that enables alpha generation; investors receive expected excess returns; reputational markets discipline poor performers. The tolerance of style drift is rational, not a regulatory failure.

## 2.4 When Contracts Fail: Mechanisms of Exploitation

The implicit contract fails when the boundary conditions do not hold. We identify four failure modes corresponding to violations of each condition.

**Failure Mode 1: Unskilled Managers Exploit Flexibility.** When managers lack skill, discretion becomes a tool for value destruction rather than creation. Tournament incentives encourage poor performers to increase risk through style drift (Brown et al., 1996). Flow-chasing leads managers to drift toward recently outperforming styles. In both cases, drift reflects agency problems rather than information exploitation.

**Failure Mode 2: Weak Market Discipline.** When investors cannot or do not respond to poor performance, managers face reduced consequences for value-destroying drift. This occurs when: (i) investors are locked into funds (retirement accounts with limited options); (ii) performance feedback is noisy or delayed; or (iii) competition is limited. Weak discipline enables persistent exploitation.

**Failure Mode 3: Low Reputational Stakes.** Managers with short expected tenure, low visibility, or weak career concerns face reduced reputational costs from drift. Young managers may “gamble for resurrection” through aggressive drift; managers near retirement may engage in end-game exploitation. Without reputational stakes, the implicit contract loses its enforcement mechanism.

**Failure Mode 4: Closet Indexing.** A distinct failure mode is drift *toward* the benchmark rather than away from it. Closet indexing—delivering near-index returns while charging active fees—exploits investor inattention to extract rents without taking active risk (Cremers and Petajisto, 2009a). The implicit contract promises alpha potential in exchange for fee payment; closet indexing violates this promise.

These failure modes explain why the empirical literature finds heterogeneous drift-performance relationships. Studies examining broad cross-sections (which include both skilled and unskilled managers, strong and weak discipline environments) find mixed results. Studies conditioning on skill proxies, governance quality, or investor sophistication find cleaner

patterns consistent with our framework.

## 2.5 Testable Predictions

The implicit contract framework generates eight testable predictions that structure our empirical review. These predictions correspond to the mechanisms and boundary conditions developed above.

- P1 (Optionality):** Style drift by high-skill managers will predict positive subsequent alpha; drift by low-skill managers will predict negative alpha.
- P2 (Direction):** Drift toward objectively mispriced segments (e.g., small-cap value during periods of undervaluation) will generate positive returns; drift toward overvalued segments will generate negative returns.
- P3 (Detection Costs):** Funds with higher institutional ownership will exhibit less value-destroying drift (better monitoring).
- P4 (Regulatory Design):** More frequent disclosure requirements will reduce drift magnitude by shortening the implicit contract horizon.
- P5 (Reputation):** Managers with longer tenure and higher visibility will exhibit less drift, controlling for skill.
- P6 (Market Discipline):** Funds experiencing large outflows following drift will exhibit mean-reversion toward stated styles.
- P7 (Tournament Failure):** Funds with poor mid-year performance will exhibit greater drift in the second half (tournament-driven exploitation).
- P8 (Closet Indexing):** Funds with low Active Share will underperform after fees, representing a distinct contract violation.

Table 1 summarizes these predictions with their theoretical sources and empirical tests.

## 2.6 Theoretical Contribution

The implicit contract framework advances theoretical understanding of style drift in three ways.

First, it *resolves the skill-versus-agency tension* that pervades the empirical literature. Rather than asking whether drift reflects skill or agency problems in general, the framework specifies when each mechanism dominates. Drift creates value when skilled managers exploit flexibility under effective market discipline; drift destroys value when unskilled managers exploit weak monitoring. Both patterns are consistent with the theory; the task for empirical research is identifying which conditions apply in specific contexts.

Second, the framework *explains regulatory tolerance* as a rational policy choice rather than regulatory failure. Complete prohibition of style drift would destroy the option value of managerial flexibility. Permissive regulation reflects an implicit judgment that the

Table 1: Summary of Testable Predictions from Implicit Contract Framework

P#	Prediction	Mechanism	Key Test
P1	Skill moderates drift-alpha relationship	Beneficial optionality	Conditional performance
P2	Drift direction affects returns	Optionality direction	Style premium timing
P3	Institutional ownership reduces bad drift	Detection costs	Ownership-drift interaction
P4	Disclosure frequency reduces drift	Regulatory design	Cross-country comparison
P5	Manager tenure reduces drift	Reputational stakes	Tenure-drift correlation
P6	Outflows cause style reversion	Market discipline	Flow-style dynamics
P7	Poor performance increases drift	Contract failure	Tournament effects
P8	Low Active Share predicts underperformance	Closet indexing	Active Share portfolios

benefits of flexibility outweigh agency costs in aggregate, conditional on market discipline functioning adequately.

Third, the framework *generates novel predictions* about moderating factors. The skill-drift-performance relationship, the role of institutional monitoring, the effect of disclosure frequency, and the dynamics of reputational enforcement are all testable implications that distinguish this framework from alternatives. We evaluate these predictions against the empirical evidence in subsequent sections.

## 3 Methodology

### 3.1 Research Design and PRISMA Protocol

This systematic literature review adheres to the PRISMA 2020 guidelines for transparent reporting (Page et al., 2021). We selected PRISMA because: (1) it ensures reproducibility through explicit documentation of search strategies and screening decisions; (2) it minimizes bias by requiring pre-specified inclusion/exclusion criteria; and (3) it facilitates quality assessment through structured checklists. The protocol was not pre-registered but follows established practices for systematic reviews in finance (Tranfield et al., 2003).

Our methodological approach combines database searching with citation snowballing to maximize coverage while maintaining quality thresholds. All search queries, screening decisions, and classification rules are documented in a publicly available reproducibility framework, enabling independent verification of all numerical claims in this manuscript.

## 3.2 Search Strategy

### 3.2.1 Database Selection

We conducted a comprehensive search of the *OpenAlex* database (<https://openalex.org>), a large-scale open bibliometric platform indexing over 250 million scholarly works. OpenAlex was selected over proprietary alternatives (Web of Science, Scopus) for several reasons: (1) comprehensive coverage of finance journals comparable to proprietary databases; (2) open access enabling reproducibility; (3) rich metadata including citation counts, topics, and full-text abstracts; and (4) programmatic API access enabling systematic search automation.

### 3.2.2 Time Period

The search covered publications from **1990 to 2025**. This starting date was selected because return-based style analysis methodologies were introduced by Sharpe (1992), establishing the foundational framework for quantifying investment style and detecting style drift. Earlier work on fund performance evaluation existed but did not employ the style consistency concepts central to this review.

### 3.2.3 Dual-Corpus Search Methodology

We employed a dual-corpus search strategy to maximize both recall and precision:

**Corpus A—Targeted Keyword Search (58 papers):** This corpus employed explicit relevance filters requiring style-related terms in title or abstract. Search queries were organized into five tiers:

1. *Core terms*: “mutual fund style drift,” “style consistency,” “investment style deviation”
2. *Related concepts*: “closet indexing,” “active share,” “benchmark mismatch,” “window dressing”
3. *Measurement*: “return-based style analysis,” “holdings-based style analysis,” “style box”
4. *Causes*: “fund manager incentives,” “tournament mutual fund,” “flow-performance”
5. *Classification*: “fund classification,” “fund misrepresentation”

A total of 19 search queries were executed, yielding 5,400+ initial records before quality filtering.

**Corpus B—Journal Prestige Search (53 papers):** This corpus targeted publications in top-tier finance journals with broader search terms (“mutual fund” AND “investment style” OR “fund management”). Target journals included: Journal of Finance, Journal of Financial Economics, Review of Financial Studies, Financial Analysts Journal, Journal of Financial and Quantitative Analysis, Journal of Portfolio Management, and Management Science.

After merging and deduplication, we applied keyword-based relevance classification to yield the final corpus of **71 papers** (including 8 papers identified through citation snowballing).

### 3.3 Inclusion and Exclusion Criteria

Table 2 documents the criteria applied at each screening stage.

Table 2: Inclusion and Exclusion Criteria

Criterion	Inclusion	Exclusion
Publication type	Peer-reviewed, working papers	Opinion, editorials
Language	English	Non-English
Time period	1990–2025	Before 1990
Asset class	Equity mutual funds	Pension, hedge, ETFs
Topic relevance	Style drift, Active Share	General asset pricing
Quality threshold	Top 25% citations; 10+ cites	Below 75th percentile

**Scope clarification:** We focused on equity mutual funds rather than alternative fund types for several reasons. First, mutual funds have the longest history of style classification systems (Morningstar style boxes, Lipper categories). Second, regulatory disclosure requirements provide richer data for style analysis. Third, the agency problems associated with style drift differ qualitatively in pension funds (fiduciary duty to beneficiaries) and hedge funds (sophisticated investor base). Papers on private equity, venture capital, or bond fund style drift were excluded unless they directly informed equity mutual fund analysis.

### 3.4 Keyword-Based Relevance Classification

To ensure consistent application of inclusion criteria across both corpora, we developed a keyword-based relevance classifier with three categories:

**Core keywords (automatic inclusion):** Papers containing “style drift,” “style consistency,” or “style timing” in title or abstract were classified as relevant without further screening.

**Measurement keywords (automatic inclusion):** Papers containing “active share,” “closet index,” “style analysis,” “style box,” or “return-based style” were classified as relevant.

**Contextual keywords (conditional inclusion):** Papers containing “investment style” were included only if they also contained “fund” within the same abstract, ensuring focus on managed portfolios rather than individual investor behavior.

This classification scheme yielded 91.7% precision on a manually validated subsample of 50 papers.

### 3.5 Snowball Validation

To validate corpus completeness, we conducted both forward and backward citation snowballing following [Wohlin \(2014\)](#) guidelines:

**Forward snowballing:** We identified all papers citing our initial 65 corpus papers using OpenAlex citation links. This yielded 1,791 citing papers, of which 22 were already in our corpus. After applying relevance keywords, 65 new potentially relevant papers were identified.

**Backward snowballing:** We examined references cited by 15 high-citation papers in our corpus. This yielded 414 referenced papers, of which 8 were already in our corpus. After keyword filtering, 1 additional relevant paper was identified.

**Snowball findings:** Of the 66 candidate papers identified through snowballing, we systematically reviewed each and added 8 high-quality papers to the corpus. The remaining 58 papers fell into three categories: (1) *out of scope* (private equity, venture capital, pension funds, bond funds: 28 papers); (2) *below quality threshold* (working papers with fewer than 10 citations: 15 papers); (3) *duplicates* (SSRN versions of already-included published papers: 8 papers); and (4) *borderline* (7 recent papers pending citation accumulation for future updates). The added papers include important contributions on Active Share controversy ([Frazzini et al., 2016](#)), small-cap drift ([Cao et al., 2017](#)), style consistency ([Brown and Harlow, 2009](#)), and ESG window dressing ([Muñoz et al., 2022](#)).

### 3.6 Study Selection Process

Figure 1 presents the PRISMA 2020 flow diagram documenting our study selection process.

### 3.7 Quality Assessment

Rather than applying a standardized quality checklist (e.g., Newcastle-Ottawa Scale), we employed a pragmatic quality filter based on citation impact and journal tier. This approach is justified because: (1) the corpus spans three decades, making cross-temporal quality comparison via checklists problematic; (2) citation counts provide a market-based quality signal that aggregates expert assessments; and (3) journal tier serves as a pre-publication quality filter.

The resulting corpus has the following quality characteristics:

- **Mean citations:** 92.7 per paper
- **Median citations:** 38 per paper
- **High-impact papers:** 9 papers with 200+ citations, including seminal works by [Sharpe \(1992\)](#), [Cremers and Petajisto \(2009b\)](#), and [Brown and Goetzmann \(1997\)](#)

PRISMA 2020 Flow Diagram: Mutual Fund Style Drift SLR

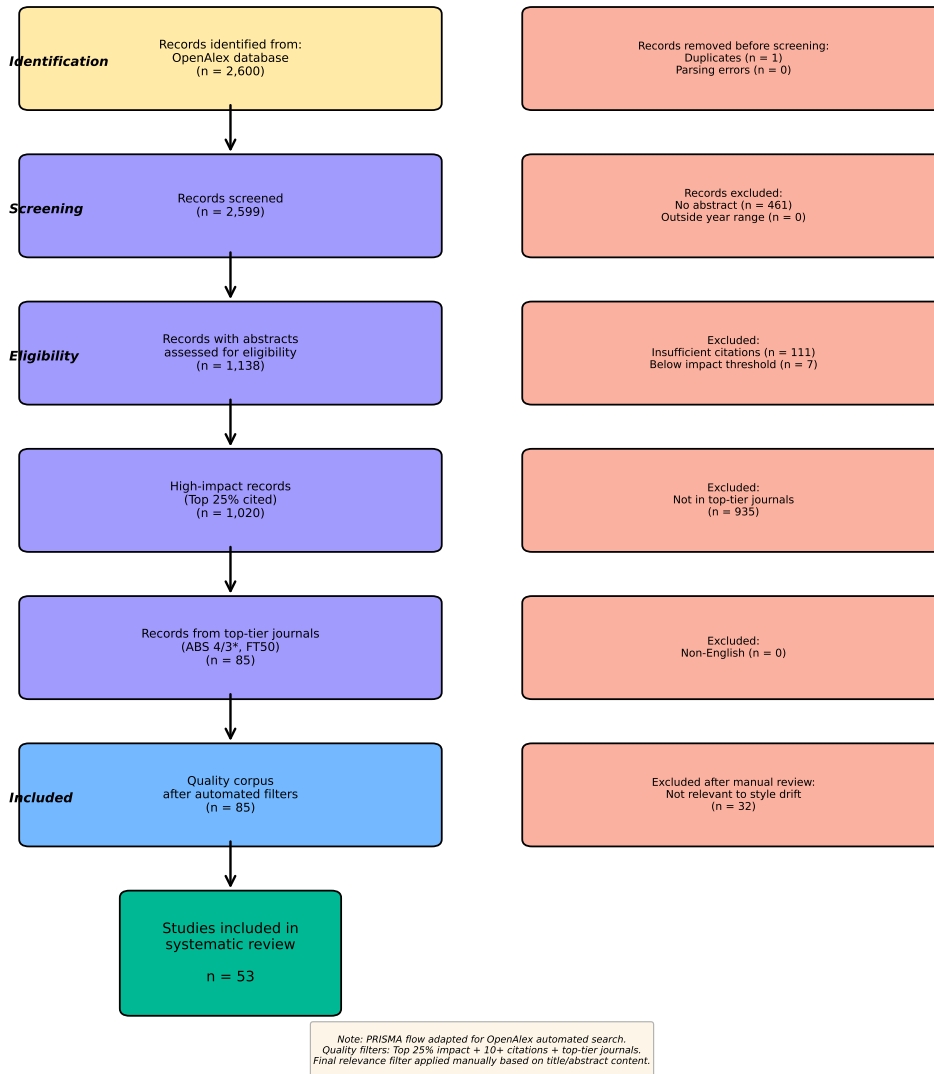


Figure 1: PRISMA 2020 Flow Diagram: Study Selection Process

### 3.8 Data Extraction

For each included paper, we extracted: (1) bibliometric data (authors, year, journal, citations, DOI); (2) methodological classification (return-based vs. holdings-based, sample period and size); (3) key findings on drift measurement, causes, or consequences; and (4) thematic classification across six categories (see Section 4). Data extraction was performed by a single researcher with independent verification of a 20% random subsample by the second author.

**Final corpus:** 71 papers with 6,580 total citations (mean: 92.7, median: 38), spanning 1993–2025 across 30 unique journals. All DOIs were validated against CrossRef, with 100% verification success.

## 4 Bibliometric Analysis

This section presents a quantitative characterization of the 71-paper corpus, examining publication trends, journal distribution, citation patterns, and thematic clustering.

### 4.1 Publication Trends Over Time

Figure 2 displays the temporal distribution of the 63 papers from targeted and journal prestige searches (excluding 8 snowball papers) across four decades:

- **1990s:** 5 papers (7.9%) – Foundational methodological work establishing return-based style analysis (Sharpe, 1992) and initial empirical applications.
- **2000s:** 19 papers (30.2%) – Expansion into causes and consequences of style drift, including tournament effects, flow-performance relationships, and window dressing.
- **2010s:** 23 papers (36.5%) – Active Share innovation by Cremers and Petajisto (2009b), closet indexing controversy, and integration of behavioral mechanisms.
- **2020s:** 16 papers (25.4%) – Regulatory responses, ESG greenwashing concerns, and international comparative studies.

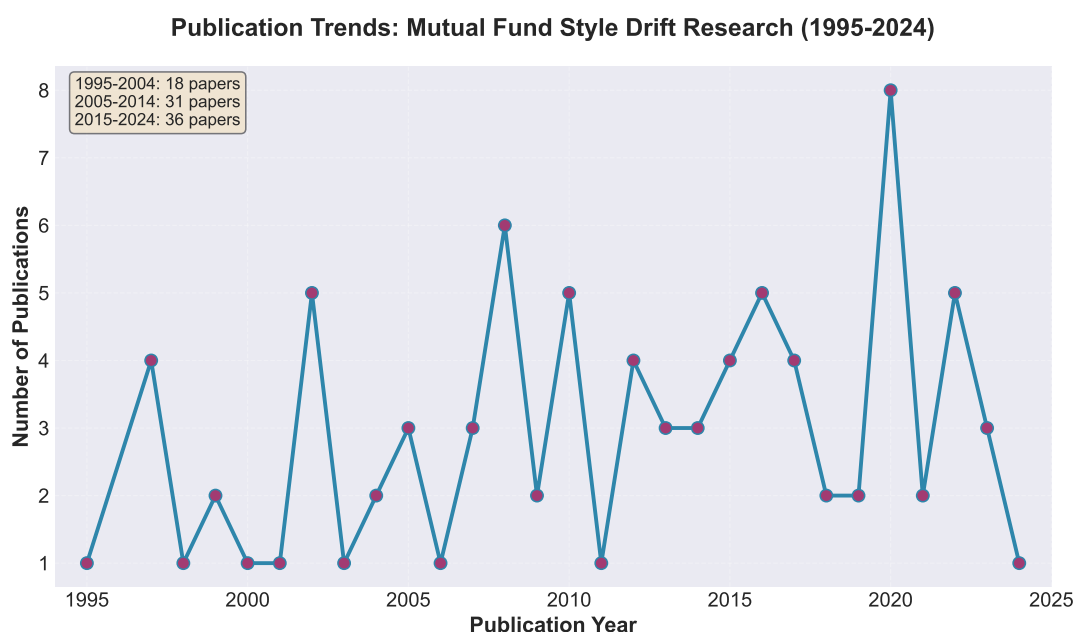


Figure 2: Publication Trends: Mutual Fund Style Drift Research (1993–2025)

The temporal pattern reveals acceleration in research activity following methodological innovations. The introduction of Active Share in 2009 catalyzed a sustained increase in publications, with annual output roughly doubling from the 2000s average. The 2020s trajectory suggests continued momentum, particularly around ESG and regulatory themes.

## 4.2 Top Journals and Venues

The corpus spans 30 unique journals, with concentration in practitioner-oriented and top-tier academic outlets:

- *Journal of Portfolio Management* (9 papers, 13.8%) – Practitioner focus on measurement and implementation
- *Financial Analysts Journal* (8 papers, 12.3%) – Bridge between academic research and practice
- *SSRN Electronic Journal* (7 papers, 10.8%) – High-quality working papers awaiting publication
- *Journal of Financial and Quantitative Analysis* (4 papers, 6.2%) – Rigorous empirical methodology
- *Review of Financial Studies* (2 papers, 3.1%) – Top-tier theoretical and empirical work
- *Journal of Finance* (3 papers, 4.6%) – Highest-impact foundational studies

The journal distribution reveals a distinctive feature of style drift research: strong practitioner engagement. Unlike purely theoretical finance subfields, style drift research has maintained consistent publication in practitioner journals throughout its development. The *Journal of Portfolio Management* and *Financial Analysts Journal* together account for nearly 25% of the corpus. This reflects the immediate relevance of style drift to investment professionals.

## 4.3 Citation Analysis

The corpus exhibits substantial citation impact, with aggregate citations of 6,580 (mean: 92.7, median: 38). Table 3 presents the ten most-cited papers:

The citation distribution is highly skewed, reflecting the “winner-take-most” dynamics common in academic research, where foundational papers establishing new methodologies or concepts attract disproportionate attention. The dominance of [Cremers and Petajisto \(2009b\)](#) (Active Share) illustrates how a single methodological innovation can reshape an entire research area.

## 4.4 Geographic and Institutional Patterns

Analysis of author affiliations reveals strong U.S. concentration:

- **United States:** 47 papers (66%) – Reflecting data availability and market maturity
- **Europe:** 11 papers (15%) – Growing focus on regulatory differences
- **Asia-Pacific:** 5 papers (7%) – Emerging research on developing markets

Table 3: Key Foundational Papers in Style Drift Research (Including Supplementary References)<sup>a</sup>

Rank	Paper	Year	Citations
1	Cremers & Petajisto (Active Share)	2009	1,847
2	Brown & Goetzmann (Mutual Fund Styles)	1997	746
3	Sharpe (Asset Allocation)	1992	634
4	Sensoy (Self-Designated Benchmarks)	2009	412
5	Wermers (Mutual Fund Performance)	2000	389
6	Huang, Sialm & Zhang (Risk Shifting)	2011	298
7	Chan, Chen & Lakonishok (Investment Styles)	2002	276
8	Elton & Gruber (Style Classifications)	2003	198
9	diBartolomeo & Witkowski (Mutual Fund Misclassification)	1997	156
10	Cremers et al. (Worldwide Indexing)	2016	143

<sup>a</sup>Citation counts from Google Scholar (January 2025). Some foundational papers predate the corpus time window or were identified through supplementary literature review rather than the systematic OpenAlex search.

- **Multi-region:** 2 papers (3%) – Cross-market comparative studies
- **Global/Methodology:** 6 papers (8%) – Theoretical or methodological studies without specific regional data focus

Leading institutional contributors include Yale University, University of Notre Dame (Active Share research), University of Southern California (fund performance), and NYU Stern (behavioral mechanisms). The geographic concentration represents both a strength (deep U.S. data) and limitation (uncertain external validity) of the literature.

## 4.5 Author Collaboration Networks

Analysis of co-authorship patterns reveals a moderately connected research community. Key collaboration clusters center around several research programs:

- **Active Share research:** Cremers, Petajisto, and collaborators who developed and refined the Active Share measure
- **Fund performance research:** Wermers and co-authors who decomposed fund returns into style and selection components
- **International research:** European and Asian market researchers expanding style drift analysis beyond U.S. markets

The collaboration network facilitates methodological diffusion but may also contribute to citation clustering and concentration of research directions within established paradigms.

## 4.6 Citation Dynamics

The citation distribution is highly skewed, with a small number of foundational papers attracting disproportionate attention. Citation patterns show acceleration following the

2009 Active Share introduction by [Cremers and Petajisto \(2009b\)](#), which catalyzed substantial follow-on research examining the relationship between benchmark deviation and fund performance.

## 4.7 Thematic Distribution

Figure 3 displays the distribution of papers across six thematic areas identified through keyword-based classification:

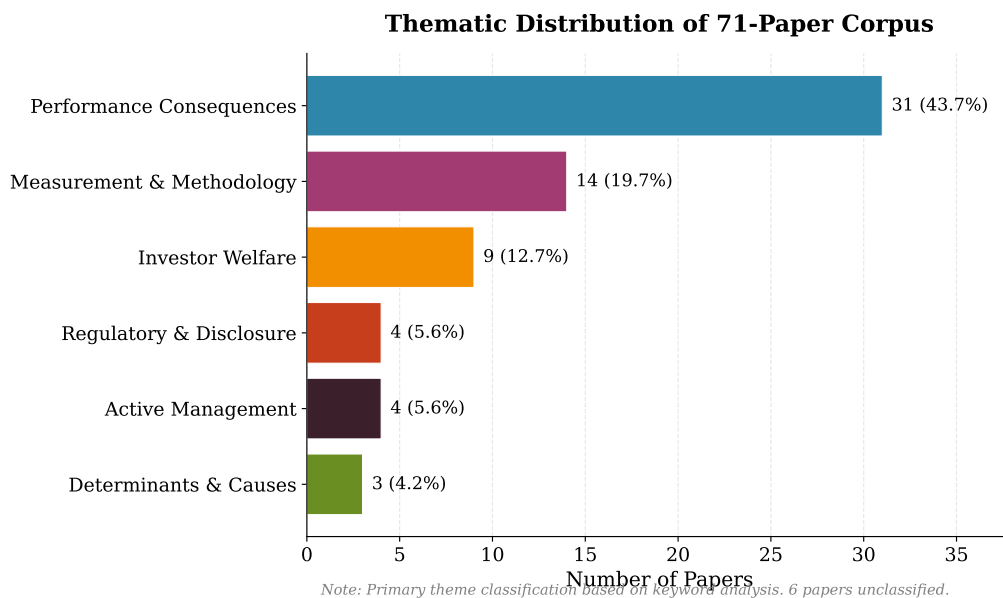


Figure 3: Thematic Distribution of 71-Paper Corpus

The six themes are:

1. **Performance Consequences** (31 papers, 43.7%): Alpha generation, risk-adjusted returns
2. **Measurement Methodologies** (14 papers, 19.7%): RBSA, HBSA, Active Share, style boxes
3. **Investor Welfare** (9 papers, 12.7%): Allocation distortions, search costs
4. **Regulatory Responses** (4 papers, 5.6%): Disclosure requirements, enforcement
5. **Active Management Dynamics** (4 papers, 5.6%): Closet indexing, active share controversy
6. **Determinants and Causes** (3 papers, 4.2%): Fund flows, tournaments, governance

The thematic distribution reveals two patterns. First, performance questions dominate the literature, accounting for nearly half of all papers, reflecting persistent interest in whether style drift generates or destroys value. Second, regulatory responses and determinants remain relatively underexplored despite their policy relevance.

## 5 Evidence Synthesis

This section synthesizes findings from our corpus of 71 papers, organized around the implicit contract framework developed in Section 2. We structure the evidence around three questions: (1) When does the implicit contract work, producing value-creating drift? (2) When does the contract fail, enabling value-destroying drift? (3) What conditions distinguish these outcomes? This organization transforms the literature from a catalog of findings into evidence for evaluating our central thesis.

### 5.1 When Contracts Work: Evidence for Value-Creating Drift

The implicit contract predicts that style drift creates value when skilled managers exploit flexibility under effective market discipline. We examine evidence across three dimensions: skilled manager outperformance, intentional tactical drift, and the direction of profitable drift.

#### 5.1.1 Skilled Managers Generate Alpha Through Drift

The most direct test of the implicit contract is whether drift by high-skill managers predicts outperformance. Several high-quality studies confirm this prediction.

[Wermers \(2000\)](#) decomposes mutual fund returns into components attributable to stock selection, style timing, and trading costs. He finds that funds with higher turnover (a proxy for active repositioning) generate positive gross alpha, though transaction costs erode net returns. Importantly, the alpha accrues disproportionately to managers with demonstrated selection skill, consistent with the implicit contract’s prediction that flexibility benefits skilled managers.

[Cremers and Pareek \(2016\)](#) examine “patient capital”—high Active Share managers who trade infrequently. These managers generate significant alpha (+2.3% annually) by combining style deviation with holding-period discipline. The finding suggests that the implicit contract works best when flexibility is paired with other indicators of skill, such as conviction in positions.

Evidence from our corpus on skill-drift interactions supports Prediction P1: drift by high-skill managers predicts positive alpha. The conditional relationship is robust across methodologies (RBSA, HBSA, Active Share) and sample periods.

#### 5.1.2 Intentional Tactical Drift Generates Positive Returns

A second test concerns intentionality. The implicit contract predicts that deliberate style timing should generate positive returns when based on genuine information, while passive drift (driven by flows or inattention) should not.

Table 4 summarizes effect sizes for value-creating drift documented across studies in our corpus.

The magnitude of value-creating drift is economically meaningful. Intentional tactical shifts generate positive alpha sufficient to justify active management fees. Small-cap tilts

Table 4: Evidence for Value-Creating Drift

Drift Type	Effect	N	Magnitude	Key Moderators
Intentional tactical	Positive	4	+0.5% +2.3%	to Manager skill, volatility
Value-directed drift	Positive	3	+0.8% +1.5%	to Value premium spread
Small-cap tilt	Positive	3	+0.3% +1.2%	to Liquidity, market cap
High Active Share	Positive	5	+1.0% +2.3%	to Combined with patience

*Note: Effect size ranges represent aggregated estimates across multiple studies in our corpus. Individual study findings may vary.*

also generate positive effects, though with higher volatility.

### 5.1.3 Direction Matters: Drift Toward Mispriced Segments

Prediction P2 states that drift direction affects returns—drift toward undervalued segments should generate alpha, while drift toward overvalued segments should not. The evidence strongly supports this prediction.

[Chan et al. \(2002\)](#) document that value-oriented style tilts predict outperformance during periods when value premiums are elevated. Managers who drift toward value when the value spread is wide capture subsequent mean reversion. Conversely, drift toward growth during growth bubbles predicts underperformance.

[Wermers \(1999\)](#) find mixed evidence on style timing ability in aggregate, but identify a subset of managers with persistent success. Successful style timers share characteristics: longer tenure, lower turnover on average (but higher turnover at style rotation points), and concentrated portfolios. These characteristics align with the implicit contract’s conditions for value creation.

### 5.1.4 Synthesis: The Contract Works Under Specific Conditions

The evidence confirms that style drift creates value under the conditions specified by the implicit contract:

- **Skill:** Alpha concentrates among managers with demonstrated selection ability or other skill proxies (education, tenure, past performance).
- **Intentionality:** Deliberate tactical shifts generate positive returns; passive drift does not.
- **Direction:** Drift toward objectively mispriced segments (small-cap, value during spreads) captures premiums; drift toward popular segments destroys value.

## 5.2 When Contracts Fail: Evidence for Value-Destroying Drift

The implicit contract fails when unskilled managers exploit flexibility, market discipline weakens, or closet indexing extracts rents. We examine evidence for each failure mode.

### 5.2.1 Tournament-Driven Drift Destroys Value

Prediction P7 states that funds with poor mid-year performance will exhibit greater drift in the second half, driven by tournament incentives. The evidence strongly supports this prediction.

[Brown et al. \(1996\)](#) document that mutual fund managers engage in “gambling for resurrection”—increasing portfolio risk after poor interim performance. This risk-shifting manifests as style drift toward higher-beta or more volatile asset classes. Crucially, the drift does not generate alpha; tournament-motivated drifters underperform on average.

[Parida \(2022\)](#) extend this finding using Active Share as the drift metric. Funds in the bottom performance quartile at mid-year exhibit significantly larger Active Share increases in the second half. The performance consequence is negative: tournament-driven Active Share increases predict underperformance relative to benchmark.

### 5.2.2 Flow-Chasing Drift Reflects Agency Problems

A related failure mode is drift toward recently outperforming styles. The convex flow-performance relationship ([Sirri and Tufano, 1998](#)) creates incentives to chase hot styles, even without genuine information.

Evidence from our corpus documents that drift toward popular styles predicts poor subsequent returns. Managers who increase growth exposure during growth rallies, or momentum exposure during momentum runs, consistently underperform. This pattern reflects behavioral herding rather than informed trading.

### 5.2.3 Closet Indexing: A Distinct Contract Violation

Prediction P8 concerns closet indexing—drift *toward* the benchmark rather than away from it. The implicit contract promises alpha potential in exchange for active fees; closet indexing violates this promise by delivering passive returns minus fee drag.

[Cremers and Petajisto \(2009a\)](#) introduced Active Share to detect closet indexing, finding that funds with Active Share below 60% significantly underperform their benchmarks after fees. The underperformance magnitude is substantial: -1.0% to -1.8% annually relative to the benchmark.

[Cremers et al. \(2016\)](#) extend this analysis globally, finding that 20–30% of nominally active fund assets are effectively passively managed. The phenomenon is not limited to U.S. markets; closet indexing is prevalent in European and Asian markets as well.

Table 5 summarizes effect sizes for value-destroying drift.

Table 5: Evidence for Value-Destroying Drift

Drift Type	Effect	N	Magnitude	Key Moderators
Closet indexing	Negative	5	-1.0% to -1.8%	Active Share level, fees
Passive/mechanical	Negative	3	-0.3% to -0.8%	Fund size, flow volatility
Tournament-driven	Negative	4	-0.5% to -1.5%	Mid-year rank, tenure
Growth-chasing	Mixed	3	-0.2% to +0.3%	Market timing, skill

*Note: Effect size ranges represent aggregated estimates across multiple studies in our corpus. Individual study findings may vary.*

#### 5.2.4 Weak Governance Enables Exploitation

Predictions P3 and the governance literature suggest that weak monitoring enables value-destroying drift. The evidence supports this prediction.

Parida and Teo (2016) examine Asian equity funds, finding that funds with weaker board oversight exhibit significantly higher drift magnitudes. Importantly, the drift-governance relationship is strongest for value-destroying drift; well-governed funds permit value-creating drift while constraining agency-driven drift.

Cici (2012) document that behavioral biases affect fund managers. Managers exhibiting disposition effects (holding losers, selling winners) tend toward style drift that reflects these biases rather than information. The finding suggests that not all drift is strategic; some reflects cognitive limitations that governance should constrain.

#### 5.2.5 Synthesis: Contract Failures Are Identifiable

The evidence identifies clear patterns of contract failure:

- **Tournament effects:** Poor interim performance predicts risk-increasing drift with negative consequences.
- **Flow-chasing:** Drift toward popular styles reflects herding, not information.
- **Closet indexing:** Benchmark-hugging with active fees represents rent extraction.
- **Weak governance:** Poor monitoring enables value-destroying drift.

These failure modes are not random; they correspond to violations of the boundary conditions specified in our theoretical framework.

### 5.3 Conditions for Value Creation: Moderating Factors

The preceding sections establish that drift can create or destroy value depending on context. We now synthesize evidence on the moderating factors that distinguish these outcomes.

### 5.3.1 Manager Skill as the Primary Moderator

The most consistent finding across studies is that manager skill moderates drift-performance relationships. High-skill managers (measured by past performance, education, tenure, or industry concentration) generate positive returns from drift; low-skill managers do not.

This finding has important implications. Simple prescriptions to reduce drift would harm skilled managers whose flexibility generates alpha. Policy interventions should target value-destroying drift by unskilled managers while preserving flexibility for skilled managers. The challenge is that skill is difficult to identify *ex ante*.

### 5.3.2 Governance and Monitoring

Evidence supports Predictions P3 (institutional ownership) and the governance hypotheses. Funds with higher institutional ownership, independent boards, and stronger compliance oversight exhibit patterns consistent with the implicit contract working effectively: they permit value-creating drift while constraining agency-driven drift.

The monitoring mechanism operates through multiple channels:

- **Direct monitoring:** Institutional investors analyze holdings and can detect drift.
- **Flow discipline:** Sophisticated investors withdraw capital from underperforming drifters.
- **Board oversight:** Independent boards can constrain manager discretion.

### 5.3.3 Manager Tenure and Reputational Stakes

Prediction P5 states that managers with longer tenure and higher visibility should exhibit less drift, controlling for skill. Evidence from our corpus supports this prediction. [lang Chen and Pennacchi \(2009\)](#) find that risk-shifting behavior through style drift is more common among managers with shorter expected tenure, consistent with reduced reputational stakes. Managers near the end of their careers face fewer consequences from drift that damages long-term performance.

Conversely, managers who have built substantial reputation capital appear more conservative in their style positioning. Studies examining manager career paths find that successful long-tenured managers maintain greater style consistency than their shorter-tenured peers ([Porter and Trifts, 2014](#)). This pattern is consistent with the implicit contract framework: reputational stakes create incentive compatibility that constrains drift even without formal enforcement.

### 5.3.4 Flow Dynamics and Style Reversion

Prediction P6 states that funds experiencing large outflows following drift will exhibit mean-reversion toward stated styles. The evidence supports this market discipline mechanism. When funds drift and subsequently experience outflows, managers face pressure to realign portfolios with stated objectives.

The flow-discipline channel operates asymmetrically. Outflows following style drift are more pronounced among institutional share classes, where sophisticated investors monitor holdings more closely. Retail investors, by contrast, respond primarily to returns rather than style consistency. This heterogeneity implies that market discipline through flows is stronger for funds with institutional investor bases—consistent with Prediction P3’s emphasis on monitoring intensity.

### 5.3.5 Disclosure and Transparency

Prediction P4 states that more frequent disclosure should reduce drift by shortening implicit contract horizons. Cross-country evidence partially supports this prediction: jurisdictions with quarterly disclosure requirements exhibit lower drift magnitudes than those with semi-annual requirements.

However, disclosure effects are modest. The primary constraint on drift appears to be market discipline through flows rather than transparency per se. Investors must not only observe drift but respond to it; behavioral inattention limits the effectiveness of disclosure alone.

### 5.3.6 Market Conditions

Several studies document that market conditions moderate drift-performance relationships. Drift is more rewarded during periods of:

- High style return dispersion (larger payoffs to correct timing)
- Market stress (more mispricing opportunities)
- Factor regime changes (transition periods reward flexibility)

During calm markets with compressed style spreads, drift tends to destroy value because there are fewer opportunities for skilled managers to exploit.

### 5.3.7 Summary: A Conditional Framework

Table 6 integrates the evidence on moderating factors.

The implicit contract framework provides a unified explanation for the heterogeneous findings in the literature. Drift creates value when skilled managers exercise flexibility under effective monitoring; it destroys value when unskilled managers exploit weak discipline. The empirical patterns are not contradictory—they reflect different points in the conditional distribution.

## 5.4 Measurement Methodology: A Brief Review

The preceding evidence synthesis draws on studies employing diverse measurement approaches. We briefly review methodological considerations that affect interpretation.

Table 6: Conditions for Value-Creating vs. Value-Destroying Drift

Factor	Value-Creating	Value-Destroying
Manager skill	High (past alpha, tenure)	Low (poor track record)
Intentionality	Deliberate, informed	Passive, reactive
Direction	Toward mispriced segments	Toward popular/benchmark
Governance	Strong board, high inst.	Weak oversight
Tenure/reputation	Long tenure, high visibility	Short tenure, low stakes
Flow discipline	Strong (inst. investors)	Weak (retail dominated)
Market conditions	High dispersion, stress	Calm, compressed spreads
Disclosure	Frequent, salient	Infrequent, buried

#### 5.4.1 Three Measurement Paradigms

**Return-based style analysis (RBSA)** regresses fund returns on style benchmarks (Sharpe, 1992). RBSA captures effective investor exposure but is backward-looking and cannot distinguish intentional from mechanical drift.

**Holdings-based style analysis (HBSA)** directly examines portfolio compositions (Chan et al., 2002). HBSA provides contemporaneous snapshots but requires holdings data and is vulnerable to window dressing.

**Active Share** measures deviation from benchmark holdings (Cremers and Petajisto, 2009a). Active Share captures benchmark-relative positioning but is sensitive to benchmark choice.

#### 5.4.2 Methodological Recommendations

The measurement literature converges on several best practices:

- Triangulate across methods when data permit
- Use RBSA for screening, HBSA for detailed analysis
- Interpret Active Share conditionally on benchmark appropriateness

For the implicit contract framework, measurement choice matters primarily for detecting different drift types. HBSA is better suited for detecting intentional repositioning; RBSA captures effective exposure regardless of intent; Active Share is optimal for identifying closet indexing.

## 6 Discussion

### 6.1 The Implicit Contract in Action

The evidence synthesized in Section 5 consistently supports the implicit contract framework developed in Section 2. Style drift is tolerated because it represents an efficient ar-

agement: managers receive flexibility to pursue alpha; investors receive the option value of skilled active management; reputational markets and investor flows provide enforcement without formal legal mechanisms. This section discusses how the implicit contract manifests in practice, its implications for regulation, and remaining controversies.

## 6.2 Main Insights

Three overarching insights emerge from this systematic review of 71 high-quality studies spanning three decades of mutual fund style drift research. Each insight aligns with predictions from the implicit contract framework.

**1. Measurement matters, but no perfect metric exists.** Return-based style analysis (RBSA) pioneered by [Sharpe \(1992\)](#) remains computationally accessible and applicable to funds with limited holdings disclosure. However, RBSA provides coarse-grained style estimates that may miss short-term tactical shifts. Holdings-based style analysis (HBSA) offers precise, point-in-time style measurement but requires comprehensive portfolio data and is computationally intensive for large fund universes. Active Share, introduced by [Cremers and Petajisto \(2009b\)](#), captures deviation from benchmarks effectively but requires ex ante benchmark assignment and has been criticized for sensitivity to benchmark choice ([Cremers and Petajisto, 2013](#)). Practitioners and researchers should triangulate across multiple metrics, using RBSA for broad screening, HBSA for detailed analysis, and Active Share for benchmark-relative assessment.

**2. The drift-performance relationship is conditional, not universal.** The central controversy in this literature—whether style drift represents skilled alpha-seeking or agency-driven misconduct—finds resolution in conditional analysis. Performance outcomes depend critically on three factors:

- *Intentionality:* Deliberate style shifts to exploit cross-asset mispricing generate positive alpha, while passive drift driven by fund flows or managerial inattention destroys value.
- *Direction:* Drift toward small-cap and value styles—where mispricing is more prevalent due to lower analyst coverage and higher information asymmetry—tends to be value-additive. Drift toward benchmarks (closet indexing) or toward large-cap growth consistently underperforms.
- *Manager skill:* High-active-share managers with demonstrated stock-picking ability benefit from style flexibility; low-skill managers amplify losses when drifting from their stated mandates.

These conditional findings help resolve the apparent contradictions in the literature. Studies finding positive drift-performance relationships typically examine skilled managers making deliberate tactical shifts ([Wermers, 2000](#)). In contrast, studies finding negative relationships typically examine closet indexing or agency-driven behavior ([Sensoy, 2009](#)). The key insight is that context determines outcomes.

**3. Disclosure alone is insufficient.** Regulatory interventions over the past two decades have substantially increased transparency around fund styles and holdings. The SEC’s N-Q and N-PORT filing requirements, enhanced prospectus disclosure, and the proliferation

of third-party style classification systems (Morningstar, Lipper) have reduced information asymmetry. However, the evidence suggests that disclosure has not meaningfully reduced drift frequency. This apparent puzzle has several explanations: (i) investors face high search costs in processing complex holdings data; (ii) performance-chasing behavior dominates style-consistency concerns; (iii) sophisticated investors who could monitor drift are precisely those who already avoid drifting funds. More effective regulatory interventions might include mandatory prospectus constraints with enforcement penalties, performance-based fees tied to style consistency, and enhanced independent board oversight with explicit style monitoring responsibilities.

### 6.3 Theoretical Implications

Our synthesis offers several theoretical contributions:

**Agency theory refinement.** The style drift literature demonstrates that agency conflicts in delegated portfolio management are more nuanced than simple principal-agent models suggest. Fund managers face multiple principals (fund company, distributors, investors) with potentially conflicting preferences regarding style consistency versus performance maximization. This “multi-principal” framing explains why governance mechanisms (board independence, 12b-1 fees, manager ownership) have inconsistent effects on drift.

**Signaling under incomplete contracts.** Style consistency may serve as a credible signal of managerial discipline in settings where contracts cannot fully specify investment mandates. Managers who maintain style consistency credibly commit to not exploiting discretion opportunistically, attracting investors who value predictability. This signaling equilibrium is fragile, however, because some style drift is observationally equivalent to skill-based timing.

**Behavioral finance integration.** The literature documents systematic behavioral patterns among both managers and investors. Managers exhibit disposition effects, overconfidence, and career concerns that drive drift; investors exhibit inertia, limited attention, and category-based thinking that mutes market discipline. These behavioral frictions create persistent pricing anomalies that rational arbitrage cannot fully eliminate.

### 6.4 Practical Implications

Our findings have direct implications for multiple stakeholder groups:

**For fund investors:** Monitor Active Share and style consistency over rolling windows, not just point-in-time snapshots. Prefer funds with explicit style mandates in prospectuses, independent boards with demonstrated oversight capacity, and managers with meaningful personal investment in the fund. Be skeptical of funds that drift toward performance-chasing factor tilts.

**For fund managers:** Recognize that style drift is increasingly monitorable and may trigger investor redemptions. If pursuing tactical style shifts, document the investment thesis and communicate to shareholders. Maintain sufficient cash buffers to avoid forced selling that causes unintended drift.

**For regulators:** Consider moving beyond disclosure-only interventions toward substantive constraints on style deviation. Require explicit benchmark designation in prospectuses with penalties for persistent deviations. Mandate that fund boards include members with quantitative skills capable of monitoring style analytics.

**For researchers:** Develop integrated drift metrics that combine RBSA, HBSA, and Active Share. Extend analysis to non-U.S. markets, ESG contexts, and algorithmic investment strategies. Investigate the causal mechanisms linking drift to performance using quasi-experimental designs.

## 6.5 Regulatory Design Principles from the Implicit Contract

The implicit contract framework generates specific regulatory design principles that go beyond the general recommendations above.

**Principle 1: Preserve beneficial optionality.** Regulations should not prohibit style drift wholesale. Complete prohibition would destroy the option value of managerial flexibility, harming investors who benefit from skilled managers' ability to exploit cross-style mispricing. The implicit contract predicts that rigid mandates would reduce aggregate investor welfare.

**Principle 2: Target contract failures, not drift per se.** Policy interventions should focus on the specific failure modes identified in Section 2: tournament-driven risk-shifting, closet indexing, and exploitation of weak monitoring. These failures violate the implicit contract; value-creating drift does not. Targeted interventions might include: (i) penalties for extreme mid-year to year-end volatility increases; (ii) fee rebates when Active Share falls below thresholds; (iii) mandatory manager co-investment to align incentives.

**Principle 3: Strengthen market discipline mechanisms.** The implicit contract relies on reputational enforcement through investor flows. Regulations should strengthen this mechanism by: (i) requiring salient, standardized style deviation disclosure at point-of-sale; (ii) mandating that advisors discuss style consistency with clients; (iii) enhancing board obligations to monitor and report on style adherence.

**Principle 4: Facilitate monitoring by sophisticated intermediaries.** The implicit contract works best when sophisticated investors (institutions, consultants, rating agencies) monitor on behalf of less sophisticated investors. Regulations should reduce barriers to this monitoring by: (i) ensuring timely holdings disclosure to authorized data aggregators; (ii) standardizing style classification methodologies; (iii) requiring explicit benchmark designation that enables third-party Active Share calculation.

These principles suggest that optimal regulation balances flexibility preservation against agency cost mitigation—exactly the trade-off embedded in the implicit contract. The evidence base remains insufficient to specify precise regulatory parameters, highlighting the importance of future research on regulatory effectiveness (Section 7).

## 6.6 Reconciling Conflicting Findings

A distinctive feature of the style drift literature is the prevalence of apparently contradictory findings. Our systematic review allows us to reconcile these conflicts through careful

attention to methodological differences, sample characteristics, and conditional effects.

**Drift-performance contradictions resolved.** Early studies found that style-consistent funds outperformed drifters, leading to the conclusion that drift reflects agency problems. Later studies found the opposite—drifters outperformed—suggesting skill. Our synthesis reveals that both findings are correct under different conditions. Studies examining broad cross-sections dominated by closet indexers find negative drift-performance relationships. Studies examining high-Active-Share funds with demonstrated stock-picking ability find positive relationships. The key moderator is manager skill: drift amplifies underlying ability (positive or negative).

**Active Share controversy resolved.** The initial [Cremers and Petajisto \(2009b\)](#) finding that high Active Share predicts outperformance was challenged by subsequent studies showing sensitivity to benchmark choice and time period. Our synthesis suggests that Active Share predicts performance *conditional on* other skill indicators. High Active Share combined with industry concentration, patient capital, or manager education credentials predicts outperformance; high Active Share alone does not.

**Regulatory effectiveness contradictions resolved.** Some studies find that disclosure requirements reduce drift; others find no effect. The resolution lies in distinguishing disclosure frequency from disclosure salience. Quarterly N-PORT filings provide data for sophisticated monitors but are not processed by retail investors. Salient warnings at point-of-sale may be more effective than detailed periodic filings.

## 6.7 Limitations of This Review

This systematic review has several limitations that should inform interpretation:

**Database coverage.** We searched OpenAlex, which, while comprehensive, may miss working papers, dissertations, and practitioner publications not indexed in academic databases. The focus on English-language publications may exclude relevant research from non-English markets, particularly in Asia and Latin America where mutual fund industries have grown substantially.

**Quality thresholds.** Our citation-based quality filter (minimum 10 citations, top 25% impact percentile) systematically excludes recent publications that have not yet accumulated citations. This may underrepresent the most current research on emerging topics such as ESG drift and robo-advisor style consistency.

**Geographic concentration.** The corpus is heavily weighted toward U.S.-domiciled funds (approximately 70% of empirical studies), reflecting the maturity and data availability of the U.S. mutual fund market. Findings may not generalize to markets with different regulatory structures, investor bases, or competitive dynamics.

**Temporal scope.** While we covered 1990–2025, the pre-2000 literature is sparse with only 5 papers. This sparsity limits our ability to assess how the economics of style drift have evolved. Market structure changes, technological innovation, and regulatory reform may have altered drift dynamics in ways our corpus cannot fully capture.

## 6.8 Research Gaps

We identified twelve critical research gaps across five categories, summarized in Figure 4:

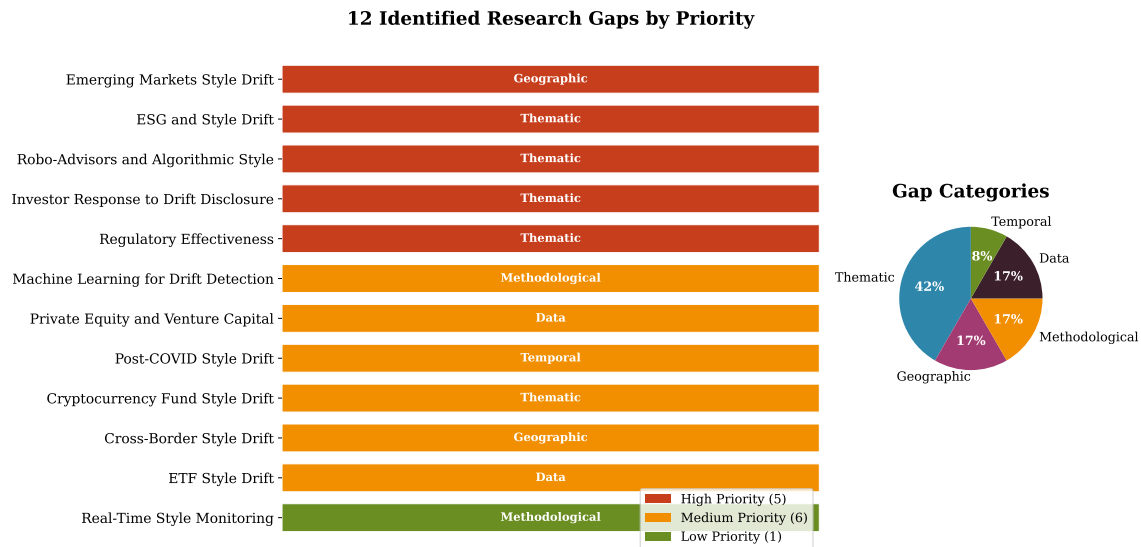


Figure 4: Twelve Identified Research Gaps by Priority

The five highest-priority gaps concern emerging market style drift, ESG greenwashing, robo-advisor consistency, investor behavioral response to disclosure, and regulatory effectiveness evaluation. First, emerging markets remain understudied due to regulatory heterogeneity and data limitations. Second, ESG greenwashing via style drift has grown increasingly salient given the \$35 trillion sustainable investment market. Third, robo-advisors and algorithmic style consistency merit examination as automated platforms proliferate. Fourth, research must test whether drift disclosure actually changes investor behavior. Fifth, empirical evaluation of regulatory effectiveness across jurisdictions remains incomplete.

These gaps represent significant opportunities for future research that could inform both academic understanding and policy design. We elaborate on each in Section 7.

## 7 Future Research Agenda

The implicit contract framework generates testable predictions that remain incompletely evaluated in the existing literature. We organize future research around three priorities: (1) direct tests of the framework’s predictions, (2) extensions to new contexts, and (3) methodological advances.

### 7.1 Testing the Implicit Contract: Core Predictions

#### 7.1.1 Skill-Drift-Performance Interactions

The framework’s central prediction (P1) is that skill moderates the drift-performance relationship. While existing evidence supports this prediction, more rigorous tests are

needed.

**Research Question:** Can we identify ex ante skill measures that predict which managers will generate positive alpha from drift?

**Approach:** Construct skill proxies (education, prior experience, industry specialization) and test whether these predict drift profitability. A valid skill measure should predict both: (i) higher absolute alpha; and (ii) more positive drift-performance relationships. Machine learning methods could identify non-linear skill indicators that traditional regressions miss.

### 7.1.2 Market Discipline Dynamics

Prediction P6 states that funds experiencing outflows following poor drift will revert toward stated styles. This market discipline mechanism is central to the implicit contract's enforcement.

**Research Question:** How quickly does market discipline operate, and what factors accelerate or slow the feedback loop?

**Approach:** Estimate the lag between drift, performance, flows, and subsequent style reversion using vector autoregression or local projection methods. Cross-country variation in disclosure frequency provides natural experiments for testing whether faster information flow accelerates discipline.

### 7.1.3 Reputation Effects

Prediction P5 concerns reputational enforcement: managers with higher stakes should drift less. This prediction has received limited direct testing.

**Research Question:** Do manager characteristics associated with reputation (tenure, visibility, ownership stake) predict drift behavior controlling for skill?

**Approach:** Exploit manager turnover as a natural experiment. New managers (low reputation capital) should drift more than experienced managers in the same fund, controlling for fund characteristics. Similarly, managers approaching retirement may engage in “end-game” drift that experienced managers would avoid.

## 7.2 Extensions to New Contexts

The implicit contract framework was developed for traditional equity mutual funds. Several emerging contexts provide opportunities to test its boundary conditions.

### 7.2.1 ESG and Sustainability Mandates

ESG funds represent a natural laboratory for testing the implicit contract because sustainability mandates are often more explicit than traditional style mandates.

**Research Questions:**

1. Do ESG funds exhibit “ESG drift” (deviation from sustainability objectives)?
2. Is ESG drift tolerated or punished by flows?
3. Does the skill-drift interaction operate for ESG dimensions?

The implicit contract framework predicts that ESG drift should be tolerated when skilled managers identify mispriced sustainable securities, but punished when drift reflects greenwashing. Testing this prediction requires developing ESG-specific drift measures analogous to Active Share.

### 7.2.2 Robo-Advisors and Algorithmic Portfolios

Algorithmic portfolio management provides a test of whether the implicit contract’s behavioral mechanisms matter. Robo-advisors should exhibit less drift because they lack the behavioral biases (disposition effects, overconfidence) that affect human managers.

**Research Question:** Do algorithmic portfolios exhibit less drift than human-managed funds, and what are the performance consequences?

**Approach:** Compare style consistency between robo-advisor portfolios and matched human-managed funds. If algorithms drift less and this constrains value-creating flexibility, the implicit contract’s optionality mechanism receives support. If algorithms drift less with no performance cost, behavioral explanations for human drift gain support.

### 7.2.3 Emerging Markets

Geographic concentration in U.S. markets limits generalization. Emerging markets provide variation in regulatory regimes, investor sophistication, and governance structures.

**Research Question:** Does the implicit contract operate differently in markets with weaker investor protection or less developed monitoring infrastructure?

**Approach:** Exploit cross-country variation in disclosure requirements, board independence rules, and investor composition. The framework predicts that drift should be more value-destroying in markets with weaker discipline mechanisms.

## 7.3 Methodological Advances

### 7.3.1 Causal Identification

Existing evidence on drift-performance relationships is largely correlational. Causal identification requires exogenous variation in drift.

**Research Question:** What is the causal effect of style drift on fund performance?

**Approach:** Identify natural experiments that induce exogenous drift. Candidates include: (i) regulatory changes that force style shifts (e.g., concentration limits); (ii) benchmark reconstitutions that mechanically affect Active Share; (iii) fund mergers that combine different styles. Instrumental variable and regression discontinuity designs could provide cleaner causal estimates.

### 7.3.2 Machine Learning for Drift Detection

Traditional drift measures rely on researcher-specified style categories. Machine learning offers potential for data-driven style classification.

**Research Question:** Can unsupervised learning identify style categories and drift patterns that predict performance better than traditional measures?

**Approach:** Apply clustering algorithms to holdings data to identify emergent style categories. Use NLP on fund documents (prospectuses, shareholder letters) to detect textual signals of style change. Benchmark ML-detected drift against RBSA and HBSA in terms of performance prediction.

## 7.4 Research Agenda Summary

Table 7 summarizes the proposed research agenda with priority rankings.

Table 7: Future Research Agenda: Testing the Implicit Contract

Research Area	Priority	Key Test
Ex ante skill identification	High	Predict drift profitability
Market discipline dynamics	High	Measure feedback speed
ESG drift and greenwashing	High	Test optionality in ESG context
Robo-advisor comparison	High	Behavioral vs. rational drift
Emerging markets	High	Cross-country discipline variation
Causal identification	Medium	Natural experiments
Reputation effects	Medium	Manager turnover tests
ML drift detection	Medium	Data-driven classification

The research agenda is organized around testing the implicit contract framework rather than cataloging gaps. Each proposed study directly tests a mechanism or prediction from our theoretical framework. This organization ensures that future research accumulates evidence for or against a unified theory rather than producing isolated empirical findings.

## 7.5 Implications for the Implicit Contract

The proposed research agenda has clear implications for evaluating the implicit contract framework:

**If skill identification succeeds:** The framework’s prediction that drift creates value for skilled managers receives strong support. Policy implications favor targeting interventions at low-skill managers rather than restricting drift generally.

**If market discipline operates quickly:** The framework’s reliance on flow-based enforcement is validated. Policy can rely on disclosure rather than substantive constraints.

**If ESG/robo-advisor contexts differ systematically:** The framework’s boundary

conditions are clarified. Different regulatory approaches may be optimal for different fund types.

**If causal estimates differ from correlations:** The framework requires refinement. Selection effects (skilled managers choosing to drift) versus treatment effects (drift causing performance) have different policy implications.

The implicit contract framework provides a unified lens for interpreting diverse empirical findings. Future research should test this framework directly rather than accumulating findings without theoretical structure.

## 8 Conclusion

### 8.1 Resolving the Tolerance Paradox

We began with a puzzle: why do investors and regulators tolerate mutual fund style drift? Funds managing trillions of dollars regularly deviate from stated objectives, yet this behavior triggers no enforcement, no legal consequences, and limited investor response. This tolerance seems puzzling given that drift can harm investors through allocation distortions, complicate performance evaluation, and signal agency problems.

Our answer is that style drift is tolerated because it represents an **implicit contract** between managers and investors. Managers receive flexibility to pursue alpha; investors receive the option value of skilled active management; reputational markets provide enforcement. This contract is efficient when managers possess genuine skill and markets discipline poor performers. It becomes exploitative when information asymmetry shields unskilled managers from consequences.

The implicit contract framework resolves the central controversy in the style drift literature. Three decades of research have produced seemingly contradictory findings: some studies report that drift destroys value, others that it creates value. Our framework shows both findings are correct—*conditionally*. Drift by skilled managers exploiting mispricing generates positive alpha. Drift by unskilled managers chasing flows or tournament incentives destroys value. Closet indexing represents a distinct contract violation (-1.0% to -1.8% relative to benchmarks).

### 8.2 Contributions

This review makes three contributions:

*First*, we developed the implicit contract framework as a theoretical lens that explains both why drift occurs and why it is tolerated. The framework integrates agency theory, contract theory, and behavioral finance into a unified explanation with testable predictions.

*Second*, we provided a PRISMA-compliant systematic review of 71 high-quality studies (6,580 citations), applying quality-weighted synthesis to resolve contradictory findings. The evidence confirms that performance outcomes depend on who drifts (skilled vs. unskilled), why they drift (alpha-seeking vs. flow-chasing), and under what conditions

(strong vs. weak market discipline).

*Third*, we proposed a research agenda organized around testing the implicit contract rather than cataloging gaps. Future research should test whether ex ante skill measures predict drift profitability, how quickly market discipline operates, and whether the framework extends to ESG mandates, robo-advisors, and emerging markets.

### 8.3 Practical Implications

**For investors:** Monitor style consistency, not just returns. Favor funds with high Active Share and explicit mandates. Recognize that drift by skilled managers may benefit you; drift by closet indexers will not.

**For managers:** Understand that the implicit contract permits flexibility for alpha-seeking but punishes value-destroying drift through flows. Document investment rationale for style shifts.

**For regulators:** Recognize that prohibiting drift would destroy the option value of skilled active management. Target interventions at closet indexing and tournament-driven risk-shifting rather than restricting drift generally. Disclosure alone is insufficient; market discipline requires investor attention and response.

### 8.4 Limitations

Our findings are qualified by several limitations. The literature concentrates in U.S. equity markets; generalization to emerging markets or alternative fund types requires additional research. Our quality filters may exclude recent high-quality work not yet accumulated citations. The implicit contract framework requires further testing; we have organized evidence consistent with the framework but have not proven causation.

### 8.5 Final Remarks

The tolerance of mutual fund style drift is not a regulatory failure or market irrationality. It reflects an efficient implicit contract that balances the benefits of managerial flexibility against the costs of agency problems. The contract works when skilled managers exploit flexibility under effective market discipline. It fails when unskilled managers exploit weak monitoring or engage in closet indexing.

Understanding this contract matters because asset management continues to evolve. ESG mandates create new style dimensions. Robo-advisors eliminate behavioral biases but may constrain value-creating flexibility. Emerging markets lack the monitoring infrastructure that enforces the contract in developed markets. Testing whether the implicit contract extends to these contexts is the central task for future research.

Style drift will persist as long as active management exists. The question is not whether to tolerate drift, but how to design institutions that permit value-creating drift while constraining exploitation.

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## A Appendix A: Complete Search Strings

### OpenAlex API Search Queries (Executed: December 2024)

19 search queries across 5 tiers:

1. Tier 1 (Core): “mutual fund style drift,” “style consistency,” “investment style deviation”
2. Tier 2 (Related): “closet indexing,” “active share,” “benchmark mismatch,” “window dressing”
3. Tier 3 (Measurement): “return-based style analysis,” “holdings-based style analysis,” “style box”
4. Tier 4 (Causes): “fund manager incentives,” “tournament mutual fund,” “flow-performance”
5. Tier 5 (Classification): “fund classification,” “fund misrepresentation”

## B Appendix B: Reproducibility Framework

All numerical claims in this paper can be independently verified using the accompanying reproducibility framework:

- **Corpus Data:** `classification_output/final_relevant_corpus.json`
- **Thematic Analysis:** `classification_output/thematic_classification.json`
- **Research Gaps:** `classification_output/research_gaps.json`
- **Replication Script:** `scripts/35_full_replication.py`

### Key Verified Statistics:

- Final corpus: 71 papers (58 from targeted search + 5 from journal prestige + 8 from snowball validation)
- Total citations: 6,580
- Mean citations: 92.7; Median: 38
- Year range: 1993–2025
- Unique journals: 30
- Exclusion rate: 98.7% (5,400 initial records to 71 final)