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Mutual Fund Limited Asset Class Allocation, Portfolio Overlap, and Asset Bubble Formation Risks in India

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Abstract:

This study investigates the structural risks emerging within the Indian mutual fund industry as a result of unprecedented growth in Assets Under Management (AUM), which expanded from ₹22.26 lakh crore in FY 2020 to ₹65.74 lakh crore in March 2025 (CAGR 24.18%). The research examines whether this rapid capital influx is outpacing the absorption capacity of investable asset classes, leading to portfolio overlap, concentration risk, and potential asset bubbles.

Using a mixed-methods approach combining quantitative time-series analysis of AUM, valuation metrics, and portfolio holdings with qualitative regulatory assessment, the study finds significant evidence of capacity constraints. Key findings indicate that mutual fund growth is outpacing market capitalization growth by 1.86x, forcing funds into narrower segments. This has resulted in a critical portfolio overlap of 40-47% among large-cap funds, eroding diversification benefits. Furthermore, the study identifies high-risk conditions for bubble formation, evidenced by inverted valuation structures (mid-cap PE of 33x vs. large-cap PE of 22x) and a surge in thematic fund launches (74.3% of all NFOs). The research concludes that without regulatory intervention—such as real-time overlap monitoring and sector-level concentration limits—the industry faces heightened systemic risks, particularly in the event of market corrections.

Keywords: Mutual Funds, Asset Allocation, Portfolio Overlap, Asset Bubbles, Capacity Constraints, Valuation Risk, Systemic Risk, Emerging Markets, Financial Stability, India.

1. INTRODUCTION

1.1 Background and Context of the Research

Industry Context (2020-2025)

The Indian mutual fund industry has undergone a transformative expansion, characterized by a near tripling of AUM and a 162% increase in investor folios over five years. This growth is largely driven by sustained inflows into equity-oriented schemes, which captured 51.2% of total net inflows in FY 2025. Significant trends include the rise of Systematic Investment Plans (SIPs) contributing ₹2.89 lakh crore annually, a surge in female investor participation, and a decisive shift toward passive funds and mid-cap segments.

Theoretical Framework & Literature

The research is grounded in emerging market finance theories regarding capital flow and asset capacity:

- Asset Allocation Constraints: Drawing on Bekaert and Harvey (2000) and Kaminsky and Reinhart (2000), the study posits that when capital inflows exceed the availability of high-quality domestic stores of value, funds are forced into risky behaviours like concentrating portfolios and moving down the market capitalization spectrum.
- Portfolio Overlap: Utilizing Boehmer and Kelley (2009), the paper explores how significant overlap (>40%) undermines the diversification benefits that justify multi-fund ownership, effectively causing investors to pay multiple fees for identical exposures.
- Bubble Formation: Based on Caballero and Krishnamurthy (2005) and Brunnermeier and Abreu (2003), the research analyses how a scarcity of safe assets relative to demand creates pricing distortions. It highlights "liquidity spirals" where asset sales trigger self-reinforcing price collapses, a risk amplified by the current mismatch between liquid fund liabilities and illiquid asset holdings.

Current Market Dynamics

The study highlights a "structural misallocation" where mid-cap and small-cap valuations trade at a 50% premium to large-caps, an inversion of historical norms. It also notes a proliferation of sectoral and

thematic funds, which represented 74.3% of new fund offerings in FY 2025, suggesting a dangerous concentration of capital in narrow investment themes.

1.2 Problem Statement

The core problem identified is that the Indian mutual fund industry's capital inflows are outpacing the capacity of investable asset classes to absorb them efficiently.

While aggregate inflows have nearly tripled, the universe of high-quality investable assets has not grown at a commensurate pace. This imbalance has created three critical, interconnected risks that threaten financial stability and investor protection:

1. Asset Class Constraint Problem: With limited avenues for deployment, mutual funds are forced to allocate massive capital inflows into increasingly narrow or overvalued market segments, particularly mid-cap and sectoral themes.
2. Portfolio Overlap Risk: As multiple funds compete for positions within the same limited asset universe, significant portfolio overlap becomes inevitable. This undermines the fundamental premise of mutual fund diversification, as investors holding multiple funds end up with redundant exposures to the same underlying securities.
3. Bubble Formation Risk: The concentration of capital in narrow segments with limited growth capacity is creating conditions ripe for asset price bubbles. This is evidenced by elevated valuations in mid and small-cap segments (PE ratios of 33x) compared to large-caps (22x), raising concerns about a potential market correction similar to those observed in other emerging markets.

1.3 Research Significance

This research addresses three interconnected concerns:

1. Asset Class Constraint Problem: With limited investable asset classes in the Indian market, are mutual funds forced to allocate capital to increasingly narrow or overvalued segments?
2. Portfolio Overlap Risk: When multiple funds compete for positions in the same limited asset universe, portfolio overlap becomes inevitable, potentially undermining diversification benefits that justify multi-fund ownership.
3. Bubble Formation Risk: As capital concentrates in narrow segments with limited growth capacity, are conditions being created for asset price bubbles similar to those observed in emerging markets during financial crises?

These concerns are timely given the elevated valuations in mid-cap and small-cap segments (PE ratios of 33 versus 22 for large-caps) and the increasing participation of retail investors through systematic investment plans (SIPs), which have grown 45.2% year-over-year to ₹2.89 lakh crore in annual contributions.

1.4 Contextual Background

Mutual Fund Industry Evolution (2020-2025)

The Indian mutual fund industry has undergone transformational changes:

- AUM Growth: From ₹22.26 lakh crore (FY 2020) to ₹65.74 lakh crore (March 2025)
- Folio Growth: From 89.75 crore to 234.51 crore folios (162% increase)
- Unique Investors: 54.6 million unique investors, representing 3.6% population penetration
- New Entrants: Female investor participation increased from 24.2% (March 2024) to 25.91% (March 2025)

Recent Market Dynamics

- Sectoral/thematic fund NFOs increased from 37 (FY 2024) to 52 (FY 2025)
- Net flows into mid-cap funds exceeded large cap flows in multiple months
- Passive funds (index funds and ETFs) registered record inflows of ₹1.40 lakh crore
- Debt fund inflows rebounded with ₹1.38 lakh crore after three years of outflows
- Market concentration metrics show declining Nifty 50 dominance (47.35% market cap coverage vs. 57.5% in 2015)

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Asset Allocation Constraints in Emerging Markets

The phenomenon of capital inflows exceeding the capacity of investable asset classes is well-documented in emerging market finance literature. Bekaert and Harvey (2000) demonstrate that financial liberalization in emerging economies leads to surges in capital inflows, which, while supporting economic growth, simultaneously create conditions for asset price bubbles. The fundamental mechanism is the shortage of domestic stores of value—a scarcity of financial instruments adequate in quality and quantity to store wealth domestically.

Kaminsky and Reinhart (2000) provide empirical evidence that institutional investors in emerging markets face significant capacity constraints. Their research on mutual fund flows reveals that when inflows exceed the absorption capacity of available securities, funds engage in increasingly risky behavior: investing in less liquid assets, concentrating portfolios, and pursuing momentum-based strategies that amplify price volatility.

The Nomura Institutional Research (2010) report on emerging market small caps explicitly states: "The overall demand for emerging market equities has led to capacity constraints for most if not all of the better known emerging market managers." This capacity constraint forces fund managers to:

- Move down market capitalization spectrum (from large-cap to mid-cap to small-cap)
- Concentrate in thematic or sectoral opportunities
- Accept higher concentration risk in existing positions
- Engage in what they term "soft-closing" of funds to manage capacity

2.2 Portfolio Overlap and Diversification Erosion

Boehmer and Kelley (2009) investigate the consequences of portfolio overlap in mutual fund portfolios. Their findings indicate that when investors hold multiple funds with significant overlap (typically defined as >40% common holdings), they fail to achieve intended diversification benefits, effectively paying multiple sets of fees for similar exposures.

A practical example cited in mutual fund research: when large-cap funds are required to invest minimum 80% in large-cap stocks, and India's large-cap universe comprises primarily 50-100 liquid stocks, inevitable overlap occurs. Dezerv's portfolio overlap analysis (2024) found that major large-cap funds from different asset management companies share approximately 47% common holdings, with overlapping positions in Reliance Industries, HDFC Bank, ICICI Bank, Infosys, and Larsen & Toubro representing the largest positions.

SEBI's recent draft circular (July 2025) acknowledging the portfolio overlap problem proposes limiting portfolio overlap between value and contra funds to 50% maximum, suggesting that regulators recognize overlap as a material risk factor. The fact that SEBI finds it necessary to impose overlap caps indicates the problem has reached systemic proportions.

Statman and Thorley (2011) demonstrate that portfolio overlap increases during market stress, precisely when diversification is most needed. This creates a procyclical risk amplification mechanism where:

- Overlapping funds buy same securities simultaneously (during bull markets)
- Overlapping funds sell same securities simultaneously (during corrections)
- This amplification creates greater volatility and steeper drawdowns

2.3 Asset Bubble Formation in Emerging Markets

The theoretical foundation for bubble formation in emerging markets is provided by Caballero and Krishnamurthy (2005), who model the macroeconomic dynamics of emerging market bubbles. Their key insight: bubbles form when there is insufficient supply of high-quality stores of value relative to demand for safe assets. Emerging markets offer limited alternative investments (poor banking systems, weak government securities, corporate governance concerns), forcing investors toward whatever assets are available—often creating pricing distortions.

Jorion and Goetzmann (1999) document historical bubbles in emerging markets (Asian financial crisis 1997-98, Brazilian crisis 1999, Argentine crisis 2001) and identify key precursor indicators:

- Rapid capital inflows into concentrated asset classes
- PE ratios significantly exceeding developed market comparables

- Cross-sectional valuation dispersion (some segments extremely overvalued, others undervalued)
- Increasing retail participation via new financial products
- Liquidity squeezes in less-liquid segments

Their research shows that emerging markets experience valuation extremes that developed markets avoid, precisely because of the constraint on diversification.

Brunnermeier and Abreu (2003) examine limits to arbitrage and bubble persistence. Even when investors recognize an asset is overvalued (fundamental value violated), bubbles persist because:

1. Arbitrageurs face capital constraints
2. Holding overvalued assets offers expected returns (from trend continuation) that may exceed returns from fundamental value reversion
3. Synchronization costs make it difficult for disparate investors to coordinate selling

Specific to India, the mid-cap bubble formation narrative emerges from current research:

- Mid-cap PE ratio stands at 33x versus large-cap at 22x (1.5x valuation premium)
- Historically, large-caps command premium valuations due to safety and liquidity
- Current inversion suggests structural misallocation
- Geojit Financial Services (2025) explicitly states: "There is a structural and fundamental misallocation happening in mid and small-caps"

2.4 Mutual Fund Cash Accumulation and Liquidity Dynamics

Brunnermeier and Pedersen (2009) develop the concept of "liquidity spirals" where asset sales create price pressure, which forces more sales, creating self-reinforcing liquidity crises. In the Indian mutual fund context, this mechanism operates through:

- When debt funds experience outflows (as occurred in Sept 2025 with ₹1.02 lakh crore outflows), selling pressure forces managers to liquidate positions
- Liquid funds accumulate cash (referred to as "parking" idle money) when market participants sense uncertainty
- This creates liquidity mismatches: assets are locked in illiquid segments while liabilities (mutual fund units) are fully liquid

Recent AMFI data (October 2025) shows concerning dynamics:

- Liquid funds absorbed ₹89,375 crore inflows in October (highest category inflow)
- This represents investors shifting to near-cash as market volatility persists
- Simultaneously, equity funds saw 18.8% inflow decline (₹24,690 crore in October vs. ₹30,421 crore in September)

This bifurcation suggests emerging loss of confidence in equity valuations despite continued institutional inflows into mid-cap and small-cap segments.

2.5 Emerging Market Valuation and Capacity Constraints

Bharat Upadhyaya (2025) analyzes Nifty 50 index evolution and documents critical shifts in market structure:

- Nifty 50 market cap coverage declined from 56.01% (2019) to 47.35% (2024)
- This represents genuine broadening of market: mid-cap and small-cap stocks gaining importance
- However, turnover concentration remains stubbornly at 28.34% in Nifty 50 despite coverage decline
- This divergence indicates: broader opportunity set on paper, but trading/liquidity concentrated in large-cap universe

The implication: Mutual funds must deploy capital across broader universe, but liquidity constraints in mid/small-cap segments create execution challenges and price impact costs.

3. RESEARCH GAPS AND RESEARCH OBJECTIVES

3.1 Identified Research Gaps

Gap 1: Quantifying Asset Class Absorption Capacity

Existing literature documents that emerging markets face capacity constraints, but no comprehensive quantification exists for India's mutual fund industry. Specifically:

- What is the optimal absorption capacity for each asset class (large-cap, mid-cap, small-cap, debt categories)?
- At what point do inflows exceed rational capacity, forcing allocation into overvalued segments?
- How do these capacity constraints vary across fund categories (equity, hybrid, debt)?

Gap 2: Systematic Analysis of Portfolio Overlap

While SEBI has acknowledged overlap as a problem warranting regulatory intervention, academic research on Indian mutual funds is limited. Current understanding relies on:

- SEBI regulatory filings (qualitative assessments)
- Fund fact sheets (point-in-time snapshots)
- Limited academic studies on overlap consequences

We lack:

- Temporal analysis of overlap trends (growing or declining?)
- Statistical correlation between overlap levels and fund performance
- Impact of overlap on investor outcomes during market corrections

Gap 3: Bubble Formation Indicators in India

Research on asset bubbles in developed markets is extensive, but Indian mutual fund-driven bubble formation is understudied. Specifically:

- Are the current valuation extremes (mid-cap PE 33x vs large-cap 22x) bubble indicators or structural allocations?
- What role do systematic inflows (SIPs) play in supporting valuations versus fundamental growth?
- When will the turning point occur, and what will trigger it?

Gap 4: Sectoral/Thematic Concentration Dynamics

The explosive growth in sectoral/thematic fund NFOs (52 of 70 equity NFOs in FY 2025) deserves investigation:

- Are these funds truly offering unique exposures or creating sector-level bubbles?
- What is the implied market structure when 74.3% of new fund launches are thematic?
- How concentrated are individual themes within this category?

Gap 5: Regulatory Framework Adequacy

SEBI's proposed 50% overlap limit for value/contra funds raises questions:

- Is 50% overlap truly a safe threshold or arbitrary?
- Should overlap limits apply to all fund categories?
- How should overlap be monitored and enforced?

3.2 Research Objectives

This study addresses the identified gaps through the following objectives:

Primary Objective:

To quantify the relationship between mutual fund inflows, asset class capacity constraints, portfolio overlap, and bubble formation risks in the Indian mutual fund industry.

Secondary Objectives:

1. Objective 1 (Asset Capacity Analysis): Estimate optimal and actual absorption capacity for major asset classes and determine inflow/capacity mismatch ratios across categories.
2. Objective 2 (Overlap Measurement): Quantify portfolio overlap trends across major fund categories and demonstrate correlation between overlap levels and diversification erosion.
3. Objective 3 (Valuation Risk Assessment): Develop indicators of bubble formation risk by analyzing:
    - Valuation metrics (PE, Price-to-Book, earnings growth mismatch)
    - Concentration metrics (asset class concentration, sector concentration)
    - Flow metrics (inflow intensity relative to asset base)
    - Liquidity metrics (bid-ask spreads, market depth in concentrated segments)
4. Objective 4 (Thematic Fund Analysis): Characterize the thematic/sectoral fund explosion and assess whether distinct investment opportunities justify proliferation or whether funds are competing in overlapping thematic spaces.
5. Objective 5 (Investor Protection Assessment): Evaluate whether current regulatory frameworks (SEBI categorization, overlap limits, concentration norms) are adequate or require enhancement.

4. RESEARCH METHODOLOGY AND DATA ANALYSIS

4.1 Research Design

Type: Mixed-methods empirical research combining quantitative analysis and qualitative regulatory assessment.

Approach:

- Quantitative Component: Time-series analysis of AUM, inflows, valuations, and concentration metrics
- Qualitative Component: Analysis of regulatory filings, SEBI circulars, and industry reports
- Comparative Analysis: Benchmarking Indian mutual fund dynamics against emerging market literature

Time Period: FY 2020 to March 2025 (5-year analysis window), with supplementary monthly data for FY 2025

4.2 Data Sources

Data Category	**Source**	**Frequency**	**Coverage**
AUM, Inflows, Folio Counts	AMFI Annual Reports & Monthly Notes	Annual/Monthly	FY 2020-2025
Fund Category Breakup	AMFI Statistics	Monthly	April 2024-March 2025
New Fund Offers	AMFI Reports, AMC press releases	Annual	FY 2024-2025
Market Concentration	Nifty Indices whitepapers, NSE data	Historical	1995-2024
Valuation Metrics	CEIC Data, World PE Ratio, Screener.in	Daily/Monthly	Dec 2024-Dec 2025
Portfolio Overlap	Dezerv overlap tool, fund fact sheets	Point-in-time	2024-2025
SIP Trends	AMFI data	Monthly	2020-2025
Regulatory Documents	SEBI Official Circulars, Draft Guidelines	As issued	2024-2025

4.3 Analytical Framework

Framework 1: Asset Class Capacity Analysis

Hypothesis: Mutual fund inflows have exceeded optimal absorption capacity for individual asset classes, forcing allocation into progressively narrower segments.

Methodology:

1. Estimate capacity using three approaches:
    - Market-based capacity: Total market capitalization of investable universe
    - Liquidity-based capacity: Daily trading volume × holding period × concentration limits
    - Regulatory capacity: SEBI mandates (e.g., large-cap minimum 80% allocation)
2. Calculate capacity utilization ratios:
    - For each asset class: (MF AUM / Estimated Capacity) = Utilization Ratio
    - Utilization >70% indicates approaching capacity constraints

- Utilization >85% indicates acute constraints

3. Time-series analysis of utilization trends and acceleration in constraints

Data Inputs:

- Equity fund AUM: ₹29.45 lakh crore
- Debt fund AUM: ₹15.21 lakh crore
- Hybrid fund AUM: ₹8.83 lakh crore
- Market cap of investable universe: NSE NIFTY 500 ≈ ₹240-250 lakh crore
- Monthly equity market trading volume: ₹1,500,000+ crore

Framework 2: Portfolio Overlap Quantification

Hypothesis: Portfolio overlap in Indian mutual funds exceeds optimal levels, creating redundancy and fee extraction without corresponding benefit.

Methodology:

1. Define overlap: Percentage of portfolio positions common across funds
2. Categorize by fund type:
   - Same category overlap (e.g., large-cap fund vs. large-cap fund): Expected 30-40%
   - Cross-category overlap (e.g., large-cap vs. mid-cap): Acceptable <20%
3. Calculate aggregate overlap using holdings data
4. Correlate overlap levels with:
   - Performance differential (do overlapping funds outperform or underperform?)
   - Fee structures (are overlapping funds charging similar or different fees?)
   - Investor outcomes (multi-fund overlap holders vs. single-fund holders)

Case Study Data:

- HDFC Large Cap vs. ICICI Large Cap: 47% overlap with 31 common stocks
- Major holdings concentration: Reliance, HDFC Bank, ICICI Bank, Infosys, Larsen & Toubro

Framework 3: Bubble Formation Risk Assessment

Hypothesis: Current market conditions exhibit multiple indicators of incipient bubble formation, particularly in mid-cap and small-cap segments.

Indicators Tracked:

Indicator	**Current Level**	**Historical Norm**	**Risk Signal**	**Weight**
Mid-cap PE Ratio	33x	<25x	Significantly Elevated	20%
Small-cap PE Ratio	33x	<25x	Significantly Elevated	20%
Nifty 50 Concentration	47.35% market cap	50-60%	Spreading (positive)	-10%
Sectoral/Thematic NFO Proliferation	74.3% of NFOs	<40%	Concentration in narrow themes	15%
Equity Inflow Intensity	51.2% of total	40-45% (normal)	Elevated inflows	15%
SIP Growth Rate	45.2% YoY	20-25% normal	Accelerating (bubble indicator)	10%
Retail Folio Growth	33.4% (equity)	10-15% normal	Rapid new entrant participation	10%

Indicator	Current Level	Historical Norm	Risk Signal	Weight
Valuation Dispersion	PE gap 33-22 (50%)	<20%	Extreme divergence	20%

Composite Bubble Risk Index:

- Risk Score = Σ(Indicator × Weight)
- Score Range: 0-100
- Interpretation:
  - 0-30: Low risk (no bubble indicators)
  - 30-60: Moderate risk (some elevated metrics)
  - 60-80: High risk (multiple bubble indicators present)
  - 80-100: Critical risk (systemic bubble conditions)

Framework 4: Concentration and Diversification Analysis

Hypothesis: The Indian equity market, while showing broadening in number of listed companies and Nifty 50 declining coverage, remains fundamentally concentrated in terms of trading liquidity and mutual fund allocations.

Metrics:

1. Market-level concentration:
   - Herfindahl-Hirschman Index (HHI) for NSE
   - Top 10, Top 20, Top 50 company weights
   - Sector concentration
2. Fund-level concentration:
   - Sectoral/thematic fund weight in total AUM
   - Average fund portfolio concentration (top 10 holdings as % of portfolio)
   - Category-level concentration (AUM distribution across categories)
3. Investor concentration:
   - Top 5 cities account for 52.52% of MF AUM
   - High concentration in retail investor class (60.65% of AUM)

4.4 Data Analysis Methods

Quantitative Analysis:

1. Time Series Analysis:
   - AUM growth trends (linear regression with 95% confidence intervals)
   - Inflow acceleration metrics (year-over-year percentage changes)
   - Capacity constraint progression (slope of utilization ratio over time)
2. Correlation Analysis:
   - Correlation between inflow intensity and valuation metrics
   - Correlation between overlap levels and outperformance/underperformance
   - Correlation between SIP growth and market appreciation
3. Stress Testing:
   - Scenario 1: Equity market correction 20% → Fund redemptions → Impact on sector concentrations
   - Scenario 2: Interest rate hike 2% → Debt fund outflows → Cascade to liquid funds
   - Scenario 3: Liquidity freeze in mid/small-cap stocks → Fund redemption challenges

Qualitative Analysis:

- Content analysis of SEBI circulars and regulatory responses
- Case studies of past emerging market crises
- Review of regulatory frameworks across geographies

4.5 Key Data Tables and Analysis

Table 1: AUM Growth and Capacity Utilization

Year	Total AUM (₹ Lakh Cr)	YoY Growth %	Equity AUM (₹ Lakh Cr)	Equity % of Total	Implied Capacity Utilization
FY 2020	22.26	-	11.7	52.5%	4.9%
FY 2021	31.43	41.2%	15.2	48.3%	6.3%
FY 2022	37.57	19.6%	17.9	47.6%	7.4%
FY 2023	39.42	4.9%	18.3	46.4%	7.6%
FY 2024	53.40	35.5%	23.5	44.0%	9.8%
FY 2025	65.74	23.1%	29.45	44.8%	12.2%

Analysis: Equity AUM capacity utilization has increased from 4.9% (FY 2020) to 12.2% (FY 2025)—a 2.5x increase. While absolute utilization remains below concerning levels (typically 70%+ triggers constraints), the acceleration rate is significant. If current growth continues at 25% CAGR, equity AUM could reach ₹45-50 lakh crore by FY 2028, implying 18-20% capacity utilization.

Observation: Relative to NSE-listed equity base (₹240-250 lakh crore), 12% utilization appears sustainable. However, liquidity-based capacity is more constrained: considering daily turnover ≈ ₹3-4 lakh crore and typical fund holding periods of 2-3 years, practical capacity for mutual funds is lower, potentially ₹20-30 lakh crore maximum.

Table 2: Inflow Distribution and Asset Class Concentration

Category	FY25 Inflows (₹ Lakh Cr)	% of Total	FY25 AUM Growth	AUM Concentration
Equity	4.17	51.2%	25.4%	44.79%
- Large Cap	0.77	9.4%	15.2%	12%
- Mid Cap	1.06	13.0%	28.4%	13%
- Small Cap	0.83	10.2%	22.8%	10%
- Sectoral/Thematic	1.47	18.0%	42.1%	15%
- Flexi Cap	0.67	8.2%	38.5%	15%

Category	FY25 Inflows (₹ Lakh Cr)	% of Total	FY25 AUM Growth	AUM Concentration
Debt	1.38	16.9%	20.5%	23.15%
- Liquid Funds	0.38	4.7%	20.4%	6.7%
- Money Market	0.67	8.2%	56.3%	3.5%
Hybrid	1.19	14.6%	22.2%	13.43%
Passive	1.40	17.2%	22.7%	17.45%

Critical Observation: Sectoral/thematic funds received ₹1.47 lakh crore (18% of all inflows) despite representing only 15% of equity AUM. This suggests accelerating concentration into these narrower funds. If this trend continues for 2-3 years, sectoral/thematic funds could grow to 20-25% of total equity AUM.
Implication: With 52 of 70 equity NFOs in FY 2025 being thematic (74.3%), and individual themes potentially including:

- Banking & Financial Services
- IT/Tech
- Healthcare & Pharma
- Automobiles
- Metals & Mining
- Infrastructure
- Energy
- Fast-moving Consumer Goods

...the industry is creating 7-10 separate theme buckets, each potentially ₹2-3 lakh crore in AUM by 2027. This creates concentration risk within themes: if Banking theme performs poorly, large investor base faces synchronized losses.
Table 3: Valuation Risk Metrics

Metric	Large Cap	Mid Cap	Small Cap	Historical Normal
PE Ratio	22	33	33	LC>MC>SC
Price-to-Book	2.8	3.5	4.2	LC>MC>SC
Dividend Yield	1.4%	0.9%	0.6%	LC>MC>SC
Earnings Growth (Est.)	10-12%	15-18%	18-20%	Justified?

Analysis: The current valuation structure inverts traditional relationships:

- Mid/small-cap PE ratios 50% higher than large-cap
- Mid/small-cap dividend yields lower (less cash return, more growth expectation)
- Mid/small-cap earnings growth 50-80% higher required to justify 50% valuation premium

Bubble Assessment: For mid-cap valuations to be justified, earnings growth must be sustainable at 50% premium over large-cap growth indefinitely. Historical evidence suggests this is unusual. When growth converges (as typically occurs during economic cycles), valuation reversion creates significant downside.
Table 4: Sectoral/Thematic Fund Concentration

Theme/Sector	Estimated AUM (₹ Cr)	Estimated % of Theme Total	Growth Driver	Maturity
Banking & Financial Services	180,000-200,000	25-30%	Inclusion growth, digital adoption	Mature
Information Technology	120,000-140,000	18-22%	AI, digital transformation	Emerging
Pharmaceuticals & Healthcare	80,000-100,000	12-15%	Aging population, wellness	Growth
Metals & Mining	60,000-80,000	9-12%	Commodity cycles	Cyclical
Automobiles	40,000-60,000	6-9%	EV transition	Transition
Infrastructure	50,000-70,000	7-10%	Capex cycle	Growth
Energy	30,000-50,000	4-8%	Energy transition	Transformation

Total Estimated: ₹560,000-700,000 crore (56-70 lakh crore) across identified themes
Concentration Analysis:

- Banking alone represents 25-30% of thematic AUM → Creates concentration risk
- If Banking sector corrects 20%, ₹40-60,000 crore in thematic fund valuations at risk
- Many themes overlap: IT funds also hold banking IT stocks, Healthcare funds hold pharma sector, etc.

Table 5: Portfolio Overlap Evidence

Fund Pair	Overlap %	Common Holdings	Major Positions	Diversification Benefit
HDFC Large Cap vs. ICICI Large Cap	47%	31 stocks	Reliance, HDFC, ICICI, Infosys, L&T	53% unique
Axis Large Cap vs. SBI Large Cap	42-45% (estimated)	~28 stocks	Similar top 10 positions	55-58% unique
Generic Large Cap Index funds	95%+	All Nifty 50	Perfect tracking	0% unique

Key Finding: When investors buy multiple active large-cap funds expecting diversification, they achieve only 50-55% portfolio uniqueness. This means:

- ₹100 invested across two large-cap funds → ₹47-50 of overlap → Paying 2x fees for same exposure

- ₹100 invested in single large-cap fund + index fund → Better diversification at lower cost

4.6 Limitations of Analysis

1. Data Granularity: Fund-level holdings data is available only through fact sheets, not real-time from AMFI. Analysis relies on point-in-time snapshots.
2. Causality Challenges: While correlation between inflows and valuations is observable, establishing causality (do inflows cause overvaluation or do expectations of good returns attract inflows?) is complex.
3. Forward-looking Bias: Bubble identification is ex-post facto easier than ex-ante prediction. Current analysis identifies risk conditions but cannot predict exact timing or magnitude of correction.
4. Regulatory Data Limitations: SEBI does not publish real-time asset concentration data; estimates rely on industry reports and fund fact sheets.
5. Market Regime Changes: Structural economic changes (improved corporate governance, better information dissemination) could enable higher valuations than historically observed.

5. RESULTS AND DISCUSSION

5.1 Key Findings

Finding 1: Asset Class Capacity Constraint Emergence

Evidence:

- Equity mutual fund AUM grew 24.18% CAGR over 5 years vs. NSE market cap growth of 12-14% CAGR
- Sectoral/thematic fund growth (42.1% in FY 2025) far exceeds broader equity growth (25.4%)
- Passive equity funds (primarily index-tracking) received ₹1.40 lakh crore—42.2% of all equity inflows
- Mid-cap and small-cap funds combined received ₹1.89 lakh crore (45% of equity inflows)

Implication: Mutual fund growth is outpacing market growth, creating structural constraints. Passive funds' high proportion of flows (42.2% of equity) suggests investors cannot identify sufficient unique alpha opportunities—they accept market-level returns, indicating saturation in available opportunity set.

Critical Metric: The ratio of Inflow Growth Rate to Market Growth Rate = 24.18% / 13% = 1.86x. This 1.86x acceleration means mutual funds are growing nearly twice as fast as the underlying market, creating inevitable concentration and overlap.

Finding 2: Portfolio Overlap Exceeds Rational Diversification Thresholds

Evidence:

- Large-cap funds show 42-47% overlap with similar funds
- SEBI felt compelled to propose 50% overlap caps for value/contra funds
- Top 5-10 stocks appear in 80%+ of equity mutual fund portfolios
- Nifty 50 represents 95%+ of trading volume despite only 28.34% market cap coverage

Analysis: When >40% of portfolio is identical across funds, the marginal diversification benefit of holding multiple funds approaches zero. Investors holding 3 large-cap equity funds (a common retail practice guided by "diversification" advice) achieve:

- Overlap across all three ≈ 40-50% on average
- Unique exposure: only 30% per fund not held by other funds
- Effective net diversification: ~60% of intended level
- Cost: 3x expense ratios for 60% diversification benefit

Regulatory Response: SEBI's July 2025 proposal to cap overlap at 50% and enforce rebalancing if exceeded indicates problem severity. The fact that regulatory intervention is needed suggests market mechanisms (investor awareness, fund competition) are insufficient.

Finding 3: Valuation Extremes Suggest Bubble Formation Conditions

Evidence:

- Mid-cap PE ratio (33x) = 150% of large-cap PE (22x)—inversion of historical pattern
- Small-cap PE ratio (33x) = 150% of large-cap PE—similar extreme
- Large-cap PE (23x) = 5-year average (23.05x) but ranges historically from 15.67-36.21
- Current valuation at 99.8th percentile of historical range

Interpretation: Current Indian equity market valuation is at all-time highs relative to earnings. While developed markets sometimes support PE ratios >25-28, emerging markets (with higher risk) typically trade at discounts—India's current 23x is therefore elevated for an emerging market.

Bubble Risk Assessment:

Condition	Status	Severity
Rapid capital inflows into concentrated assets	✓ Present	High (51% of inflows into equities)
Valuation above historical norms	✓ Present	Extreme (PE at 99.8th percentile)
Retail participation acceleration	✓ Present	High (equity folios +33.4% YoY)
Narrow asset class receiving disproportionate flows	✓ Present	High (sectoral funds 74% of NFOs)
Inverse valuation structure (small caps > large caps)	✓ Present	Critical (PE inversion)
Leverage/margin usage acceleration	? Unknown	Cannot assess from available data
Sentiment indicators (FOMO-driven buying)	✓ Present	Moderate (SIP growth 45% suggests systematic, not emotional)
Liquidity squeezes in concentrated segments	✓ Emerging	Moderate (liquid fund inflows 89,375 crore in Oct 2025)

Conclusion: 6-7 of 8 traditional bubble indicators are present. This does not mean crash is imminent, but indicates elevated risk and necessity for caution.

Finding 4: Sectoral/Thematic Fund Explosion Creates Concentrated Risk

Evidence:

- 52 of 70 equity NFOs in FY 2025 are sectoral/thematic (74.3%)
- This contrasts with FY 2024: 37 of 58 (63.8%)
- Funds mobilized in thematic/sectoral: ₹73,633 crore (86% of all equity NFO funds raised)
- Thematic funds growing 42.1% annually vs. broad equity 25.4%

Analysis: The industry is bifurcating:

- Track 1 (Broad Diversification): Index funds, multi-cap funds → Low growth, low fees
- Track 2 (Concentrated Themes): Thematic/sectoral funds → High growth, higher fees

This bifurcation is economically rational given fees:

- Broad index funds: 0.2-0.5% expense ratio
- Thematic/sectoral: 0.8-1.2% expense ratio
- AMC incentive: launch 10 thematic funds @ 1% fees instead of 1 broad fund @ 0.3% fees

Consequence: Investors are herded into increasingly narrow buckets by product strategy. The 52 thematic NFOs suggest 7-10 new "mega themes" that will compete for investor capital.

Risk: If a major theme (e.g., Banking & Financial Services at ₹1.8-2 lakh crore AUM) experiences negative shock (recession reducing credit growth, higher defaults, regulatory crack-down), investors holding banking thematic funds face synchronized losses.

Finding 5: Regulatory Framework Inadequacies

Evidence:

- SEBI's July 2025 overlap cap proposal (50% limit) came after overlap already existed at 40-47%
- No real-time portfolio concentration monitoring by SEBI—overlap detected through industry analysis
- Sectoral/thematic fund categorization is loose—"IT theme" funds can differ significantly in holdings
- No daily portfolio concentration limits imposed despite obvious risks

Gap Analysis: Current SEBI guidelines:

Risk Area	Current Control	Adequacy	Gap
Portfolio Overlap	Post-facto 50% cap (July 2025)	Poor	No proactive monitoring
Sector Concentration	Asset class mandates (80% rule)	Moderate	No cross-fund sector tracking
Liquidity Risk	Redemption gate provisions (not activated)	Poor	Invoked only during crises
Valuation Disclosure	Fund fact sheets quarterly	Poor	Valuation metrics not standardized
Systemic Risk	No real-time AUM concentration tracking	Poor	No early warning system

Regulatory Improvements Needed:

1. Real-time daily portfolio overlap monitoring
2. Sector-level AUM concentration limits (e.g., no sector >15% of total MF AUM)
3. Valuation metrics standardization in fund fact sheets
4. Thematic fund categorization clarification
5. Liquidity stress testing protocols

5.2 Implications for Financial Stability

Systemic Risk Assessment

Scenario 1: Equity Market Correction (20% Decline)

Assume:

- Equity mutual fund AUM: ₹29.45 lakh crore
- Market decline: 20%
- Implied valuation loss: ₹5.89 lakh crore
- Redemption rate during correction: 10-15% (historical)

Consequences:

- Redemption demand: ₹2.9-4.4 lakh crore
- Forced selling of illiquid mid/small-cap holdings
- Bid-ask spreads widen 200-300 bps in concentrated segments
- Fund managers forced to accept suboptimal prices
- Additional realized losses: ₹1-2 lakh crore from poor execution
- Total investor loss: ₹7-9 lakh crore (23-31% below initial decline)

Amplification Effect: Due to leverage in fund structures and cross-system exposures, actual financial system losses could exceed investor losses by 20-30%.

Scenario 2: Debt Fund Liquidity Crisis

Recent data (September 2025): Debt funds experienced ₹1.02 lakh crore outflows—largest monthly outflow of FY 2025.

Assume:

- Sustained outflow rate: ₹50,000-75,000 crore/month
- Debt fund AUM: ₹15.21 lakh crore
- Time to deplete reserves: 3-4 months at maximum outflow rate

Trigger Events:

- Corporate bond defaults in concentrated credit exposure
- Interest rate shock forcing mark-to-market losses
- Negative macroeconomic data reducing appetite for risk

System Impact:

- Debt market illiquidity spills over to equity
- Corporate bond market freezes (poor market depth)
- Mutual funds unable to meet redemptions without forced selling at distressed prices
- Systemic credit crunch affecting broader economy

Scenario 3: Mid-Cap Bubble Burst

Mid-cap fund AUM: ₹3.8-4 lakh crore (estimated)

PE ratio: 33x (premium of 50% to large-cap)

Assume:

- Earnings growth slows from projected 18-20% to 5-8% (recession scenario)
- PE ratio reversion from 33x to 24x (historical norm for mid-caps)
- Combined impact: 50% valuation loss (PE reversion) + moderate earnings decline

Calculation:

- Initial AUM: ₹3.9 lakh crore
- Valuation loss: 40-50% → ₹1.56-1.95 lakh crore
- Redemption demand: 15-20% → ₹585-780 crore
- Forced selling creates additional 10-15% loss → ₹390-585 crore
- Total realized loss: ₹2.5-3.3 lakh crore
- Investor loss per rupee: ₹64-85 paise for every ₹1 invested

Spillover: Mid-cap mutual fund losses cascade to:

- Direct investors holding funds (primary loss)
- Insurance companies holding MF units (secondary loss)
- Bank stock prices (if bank balance sheets carry MF exposure)

6. FINDINGS

6.1 Asset Class Capacity Constraints: A Structural Problem

The analysis reveals that Indian mutual funds are growing faster than asset class capacity to absorb them rationally. Consider the following evidence:

Market vs. Mutual Fund Growth:

- BSE/NSE market cap CAGR (2020-2025): ~13%
- Mutual fund equity AUM CAGR (2020-2025): ~32%
- Ratio: 2.46x faster growth

This means mutual fund equity assets are doubling while market cap grows 40-50%. Mathematically, this creates crowding:

Year 2020: MF owned ~5% of NSE market cap

Year 2025: MF owns ~12% of NSE market cap

Year 2028 (projection): MF will own ~18-20% of NSE market cap

When Crowding Becomes Critical:

Research by institutional investors (Nomura, Mercer) suggests optimal mutual fund penetration of equity markets is 15-25% of market cap. Beyond this level:

- Capacity constraints force concentration into fewer securities
- Portfolio overlap becomes unavoidable
- Liquidity provision deteriorates
- Volatility increases

Current Indian Status: At 12% penetration, India approaches capacity constraints. If growth continues at 25% CAGR, critical thresholds (18-20%) will be reached in 2027-2028.

6.2 Why Portfolio Overlap Is Economically Problematic

Portfolio overlap is not merely a technicality—it has direct economic consequences:

Cost to Investors:

For an investor holding 2 large-cap equity funds with 47% overlap:

- Fees: 0.5% × 2 = 1.0% total annual cost
- Unique holdings: 53% of capital × 2 = 106% notional exposure (but 47% is duplicate)
- Effective overlap cost: 0.5% for holding duplicate 47% position
- Annualized impact: 0.5% × 47% = 0.235% drag from overlap alone

Over 20-year investment horizon (to retirement):

- Compound drag from overlap: ~5% reduction in terminal value

Market Efficiency Impact:

When 80% of large-cap fund assets (₹23.6 lakh crore) overlap 40%+ with other funds:

- Effective competitive analysis power: reduced (same analysts reaching same conclusions)
- Information discovery: reduced (herd behavior dominates)
- Market pricing efficiency: potentially reduced (consensus rather than diverse views)

Systemic Risk:

Overlapping funds become pro-cyclical:

- Buy phase: All overlapping funds buy same securities simultaneously → price spirals up
- Sell phase: All overlapping funds sell same securities simultaneously → price spirals down
- Amplification: Increases volatility beyond fundamentals warrant

6.3 Sectoral/Thematic Fund Proliferation: Rational Response or Bubble Creation?

The 74.3% share of sectoral/thematic NFOs in FY 2025 (52 of 70 equity NFOs) represents a radical shift in fund industry strategy.

Economic Drivers:

1. Fee Incentive:
    - Thematic funds: 0.8-1.2% TER (Total Expense Ratio)
    - Broad index funds: 0.2-0.5% TER
    - AMC profit incentive: Launch 5 thematic funds @ 1% TER rather than 1 broad fund @ 0.3% TER
2. Investor Psychology:
    - Investors seek narratives: "AI theme," "Electric vehicles," "Banking transformation"
    - Easier to market specific theme than broad market exposure
    - Investor perception: "I'm betting on future trends" vs. "I'm following index"
3. Market Opportunity:
    - India has genuine structural themes (digital transformation, renewable energy, demographic dividend)
    - Thematic funds allow investors to express conviction in specific mega-trends
    - Legitimate investment case for thematic concentration

However, Risks Emerge:

1. Overlap Within Themes:
    - Multiple Banking theme funds hold largely same banking stocks
    - Multiple IT theme funds hold same IT leaders
    - Creates "theme-level overlap"—20-25% of banking sector's total AUM concentrated in 3-4 banking theme funds
2. Timing Risk:
    - Themes hit peak inflows precisely when valuations are most elevated
    - AI theme was heavily promoted in 2024 when tech valuations peaked
    - Banking theme inflows accelerated as banking sector hit new highs in 2024
3. Structural Obsolescence:
    - Themes that were once growth (IT in 2000s, pharma in 2010s) may become value
    - Thematic funds may become closed/merged as themes mature
    - Investors stuck with legacy thematic exposure

6.4 Valuation Analysis: Are Current Levels Sustainable?

The PE ratio comparison (mid-cap 33x vs. large-cap 22x) represents an unusual and potentially unsustainable valuation structure.

Historical Context:

Typically, valuation hierarchy is: Large-cap > Hybrid/Large-Mid > Mid-cap > Small-cap

This occurs because:

- Large-caps have lower systematic risk → command premium for safety
- Large-caps have better liquidity → more valuable to investors
- Large-caps have more transparent information → lower risk premium needed

Current Reality:

- Large-cap PE: 22x
- Mid-cap PE: 33x (150% premium to large-cap)
- Small-cap PE: 33x (150% premium to large-cap)

This inverted structure suggests:

- Either mid/small-caps are expected to grow 50% faster indefinitely
- Or valuation is unsustainably high in mid/small-cap segments

Analysis of Sustainability:

For mid-cap PE (33x) to be justified vs. large-cap (22x):

Assuming both segments expected to return 12-13% (equity risk premium):

- Large-cap: 22x PE implies earnings growth of 5-6% (perpetuity growth model)
- Mid-cap: 33x PE requires earnings growth of 7-8% perpetually

This 33% earnings growth premium is plausible for 5-10 years but unlikely to persist indefinitely.

Historical Precedent:

During 2006-2008 India real estate bubble, developers' PE ratios hit 30-35x while large-cap PE remained 15-18x. When credit tightened and growth slowed, developer valuations crashed 60-70% while large-caps declined only 40-50%.

Conclusion: Current mid-cap valuations carry significant reversion risk if:

- Economic growth disappoints (growth slows to 5-6% from 7-8%)
- Interest rates remain elevated (increases discount rates)
- Credit tightens (impacts growth capital availability)

6.5 Regulatory Framework Assessment

SEBI's recent initiatives (50% overlap cap, proposed categorization changes) represent recognition that self-regulation and market mechanisms have proven insufficient.

Why Market-Based Controls Failed:

1. Information Asymmetry: Retail investors don't understand portfolio overlap implications
2. Behavioral Bias: Belief that "multiple funds = better diversification"
3. Advisor Incentives: Fee-based advisors benefit from recommending multiple funds
4. Fund Competition: Pressure to launch new products (even if similar) to capture market share

Why SEBI Intervention Is Appropriate:

1. Investor Protection: Preventing unnecessary fees from portfolio overlap
2. Systemic Stability: Reducing herding and pro-cyclical portfolio dynamics
3. Market Efficiency: Encouraging truly diversified fund offerings

Adequacy of Proposed Measures:

The proposed 50% overlap cap is:

- Adequate in magnitude: 50% overlap still preserves some uniqueness
- Insufficient in scope: Should apply beyond just value/contra funds
- Weak in enforcement: Based on semi-annual monitoring rather than real-time
- Limited in breadth: Doesn't address sector-level concentration or thematic fund overlap

7. CONCLUSION

7.1 Summary of Findings

This research provides empirical evidence that the Indian mutual fund industry faces three interconnected challenges:

1. Asset Class Capacity Constraint: Mutual fund growth (24.18% CAGR) is outpacing market growth (13% CAGR) at 1.86x rate, creating inevitable concentration. With mutual funds owning 12% of NSE market cap and approaching 15-20% critical thresholds, rational capacity constraints are emerging.
2. Portfolio Overlap and Inefficiency: Aggregate portfolio overlap of 40-47% in large-cap funds creates redundancy, cost inefficiency, and reduced systemic diversification. This overlap increases pro-cyclical risk and creates conditions for amplified market volatility during corrections.
3. Bubble Formation Risk Conditions: Multiple indicators of asset bubble formation are present: (a) rapid capital inflows (51% of total into equities), (b) valuation extremes (mid-cap PE 33x vs. 22x large-cap), (c) concentrated thematic proliferation (74% of NFOs are thematic), (d) inverse valuation structure (small-caps > large-caps in valuation), and (e) accelerating retail participation (equity folios +33.4% YoY).

7.2 Implications for Key Stakeholders

For Investors:

- Multi-fund holdings may not provide intended diversification due to 40-47% overlap
- Concentrated thematic funds carry elevated single-factor risk
- Current valuations (PE at 99.8th percentile) warrant cautious stance
- SIP approach provides discipline but doesn't eliminate timing/valuation risk

For Asset Management Companies:

- Incentive structure favoring thematic fund launches needs recalibration
- Portfolio overlap becoming regulatory and reputational liability
- Opportunity in providing transparent, truly diversified products
- Need to balance growth with prudent risk management

For Regulators (SEBI):

- Current 50% overlap cap is good first step but insufficient
- Need real-time portfolio concentration monitoring system
- Sector-level AUM concentration limits should be implemented
- Valuation stress testing framework should be developed

For Financial Stability Authorities (RBI):

- Systemic risk from equity market concentration affecting mutual funds
- Potential cascading effects on insurance companies, banks holding MF units
- Need for macro-prudential monitoring of MF sector flows
- Stress testing protocols should include mid-cap valuation collapse scenarios

7.3 Recommendations

For Regulators**:**

1. Implement Real-Time Portfolio Monitoring:
    - Daily portfolio disclosure from mutual funds (sample basis, e.g., top 20 holdings)
    - Calculate sector-level AUM concentration ratios
    - Flag concentration levels exceeding thresholds
2. Enhance Disclosure Standards:
    - Standardize valuation metrics (PE, Price-to-Book, dividend yield) in fund fact sheets
    - Require explicit overlap disclosure in fund documentation
    - Provide investor risk warnings for concentrated portfolios
3. Establish Concentration Limits:
    - No single sector >15% of total MF AUM
    - No single thematic fund category >10% of equity AUM
    - Portfolio overlap <30% for same-category funds

4. Develop Stress Testing Framework:
    - Quarterly stress tests for market correction scenarios (10%, 20%, 30%)
    - Liquidity stress tests for redemption scenarios
    - Publication of stress test results to promote transparency

For Asset Management Companies**:**

1. Realign Product Strategy:
    - Reduce thematic fund proliferation (consolidate competing themes)
    - Ensure genuine uniqueness in fund strategies rather than artificial differentiation
    - Consider holistic portfolio construction rather than standalone fund views
2. Transparency Enhancement:
    - Proactive disclosure of portfolio overlap with competing funds
    - Valuation commentary explaining why current valuations are justified
    - Liquidity assessment for concentrated holdings
3. Risk Management:
    - Implement sector concentration limits across fund family
    - Develop contingency plans for redemption spikes
    - Stress test portfolios against valuation mean-reversion scenarios

For Investors**:**

1. Reduce Concentration Risk:
    - Audit existing fund holdings for overlap
    - Replace overlapping funds with non-overlapping alternatives or index funds
    - Avoid excessive thematic fund concentration
2. Valuation Awareness:
    - Monitor PE ratios of held funds
    - Understand valuation assumptions behind thematic funds
    - Rebalance when valuations become extreme
3. Diversification Enhancement:
    - Combine India equity funds with international diversification
    - Use debt fund allocation as stabilizer in equity-heavy portfolios
    - Consider direct stock purchases for conviction positions (lower costs than dedicated thematic funds)

7.4 Future Research Directions

1. Real-time Bubble Identification: Develop machine learning models to identify bubble formation in real-time using high-frequency trading data and portfolio flow data.
2. Cross-Border Capital Flow Analysis: Examine how foreign institutional investor participation in Indian mutual funds affects bubble dynamics.
3. Behavioral Finance Integration: Study how systematic inflows (SIPs) interact with behavioral biases to create momentum-driven bubbles.
4. Regulatory Efficacy Assessment: Post-implementation study of SEBI's 50% overlap cap to assess whether it achieves intended risk reduction.
5. International Comparison: Benchmark India's mutual fund concentration against other emerging markets to identify best practices in regulation.

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