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The Limitations and Policy Considerations of Strategic Asset Allocation in Alternative Investments

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This study examines how Strategic Asset Allocation (SAA) operates within alternative investments and analyzes the structural and behavioral constraints that arise during the allocation process. We argue that while traditional SAA frameworks are well-suited for liquid, homogeneous asset classes (such as publicly traded equities and bonds), their mechanical application to illiquid and heterogeneous alternative investments creates significant inefficiencies. Recently, major Korean public funds—including the National Pension Service, Government Employees Pension, Private School Teachers Pension, and the Industrial Accident Compensation Insurance Fund (IACIF)—have increased their allocations to alternative investments to enhance long-term returns. However, such "allocation-focused strategies" often neglect market conditions and asset-specific characteristics, leading to mechanical implementation that undermines the original strategic objectives.

Korean institutional investors are particularly vulnerable to headline risk, which results in conservative behavioral responses. Even when long-term recovery potential exists, exposure to negative media coverage or audit findings often leads to early withdrawal or suspension of capital contributions. This study empirically discusses these issues through the case of IACIF and suggests policy recommendations to guide public funds toward more market-friendly and flexible alternative investment allocation strategies.

Key Words: Alternative Investment, Strategic Asset Allocation, Institutional Behavior, Industrial Accident Compensation Insurance Fund, Public Fund Management

Ⅰ. Introduction

In the context of structural low interest rates and increased market volatility, alternative investments have become a core component of pension and public fund management. As of 2023, the National Pension Service allocated approximately 15% of its total assets to alternative investments, aiming to exceed 20% by 2030. The Government Employees Pension and Private School Teachers Pension exhibit similar trends, recognizing alternative investments as a key asset class for long-term portfolio diversification.

The Industrial Accident Compensation Insurance Fund (IACIF) has recently formalized plans to expand its alternative investment

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allocation. With approximately KRW 30 trillion in assets, IACIF aims to allocate 15% of its total assets to alternative investments by 2028. The planned allocation framework designates 33% to corporate investments, 33% to infrastructure, and 33% to real estate, with a 50:50 split between domestic and overseas markets. While this structure reflects the intention to maintain a balanced portfolio across geographies and asset classes, actual implementation may be constrained by market conditions, product availability, and institutional governance structures.

This study departs from the conventional view that expanding alternative investment allocations uniformly enhances portfolio diversification and long-term returns. Rather, we posit that the mechanical pursuit of predetermined allocation targets in alternative investments—particularly when disconnected from market cycles and asset quality assessments—can inadvertently increase portfolio risk and reduce realized returns. Specifically, we investigate:

1. How SAA frameworks, originally designed for liquid assets, become formalized or mechanically implemented when applied to illiquid alternative investments.
2. The institutional and behavioral constraints that Korean public funds face when executing alternative investment strategies, using IACIF as a central case study.
3. Policy recommendations and governance reforms that can improve the flexibility and market responsiveness of alternative investment allocation while maintaining strategic long-term objectives.

Ⅱ. Literature Review and Theoretical Background

2.1 Strategic Asset Allocation: Traditional Framework and Limitations

Strategic Asset Allocation (SAA) is a foundational methodology in institutional portfolio management. Sharpe (1992) defines SAA as the process of establishing target weights for asset classes based on long-term return objectives, risk tolerance, and liability structures. Brinson et al. (1986) demonstrate that SAA accounts for approximately 90% of portfolio return variance, establishing SAA as the primary driver of long-term investment outcomes.

The traditional SAA framework relies on several critical assumptions: (1) asset classes are reasonably liquid and homogeneous; (2) historical return correlations remain relatively stable; (3) investor risk tolerance remains consistent across market cycles; and (4) portfolio rebalancing can be executed efficiently at minimal cost (Arnott & Beck, 2014). Within these parameters, SAA has proven effective for managing equity, fixed-income, and cash allocations.

However, alternative investments present a

fundamentally different context. Unlike publicly traded equities or bonds, alternative assets are characterized by illiquidity, long investment horizons, opacity in valuation, and heterogeneity within asset classes. Asness et al. (2015) argue that alternative investments require distinct analytical frameworks that account for these structural differences. Similarly, Ilmanen et al. (2020) note that traditional correlation models break down during market stress, when alternative asset diversification benefits often evaporate due to liquidity crises and mark-to-market pressures.

The application of traditional SAA frameworks to alternative investments, therefore, represents a conceptual mismatch. While SAA emphasizes mechanical rebalancing to target weights, the illiquidity and lock-in structure of alternative investments make frequent rebalancing impossible. This creates a fundamental tension: pursuing rigid allocation targets in illiquid asset classes may require forcing capital into unfavorable market conditions or forgoing attractive entry points when valuations are depressed.

2.2 Characteristics and Heterogeneity of Alternative Investments

Alternative investments encompass diverse asset classes, including private equity funds (PEF), infrastructure projects, real estate, hedge funds, and venture capital. Gorton &Rouwenhorst (2006) document that commodities and alternative assets exhibit fundamentally different return distributions compared to traditional assets, with lower correlations but higher skewness and kurtosis.

Within each alternative asset class, heterogeneity is substantial. Private equity performance, for instance, varies dramatically across fund vintage years, geographic regions, and manager skill levels. Kaplan &Schoar (2005) find that fund performance is strongly correlated with manager experience and fund size, but these attributes are difficult for investors to assess ex ante due to information asymmetry. Similarly, real estate returns depend heavily on local market conditions, cycle timing, and property quality—factors that vary significantly even within a single real estate allocation.

This heterogeneity implies that achieving diversification benefits within a single alternative asset category is challenging. Two private equity funds, even if both target the same market (e.g., U.S. mid-market buyouts), may have vastly different risk-return profiles depending on manager quality, portfolio company selection, and leverage levels. Consequently, the assumption underlying SAA—that allocating to an "alternative investment" category provides meaningful diversification—may be overly simplistic.

Moreover, Anson et al. (2012) demonstrate that alternative asset valuations are prone to significant reporting lags, smoothing, and stale pricing, particularly during market downturns. This creates the illusion of stability during periods of actual underlying distress, leading investors to underestimate true portfolio risk

during market dislocations.

2.3 Institutional Constraints and Behavioral Factors in Korean Public Funds

Korean public funds operate under distinctive governance structures that differ from Western institutional investors. Unlike private pension funds or endowments, which may have longer evaluation horizons, Korean public funds are subject to government oversight, annual operational reviews, and political accountability mechanisms. The Korea Development Institute (2023) documents that Korean public funds face performance evaluation cycles that are primarily annual or semi-annual, contrasting sharply with the multi-year or cycle-based evaluation frameworks employed by sovereign wealth funds or endowments in other nations.

Park & Lim (2019) introduce the concept of "headline risk" in the Korean institutional investment context. Headline risk refers to the reputational and political damage that arises from media coverage of investment losses or audit findings, regardless of the long-term recovery potential of the underlying investments. This phenomenon is particularly acute for Korean public funds because:

1. Media Scrutiny and Political Pressure: Public funds are accountable to the government and public, making negative press coverage a significant political and career risk for fund managers.
2. Short-Term Performance Focus: Annual performance evaluations create incentives for managers to prioritize short-term stability over long-term recovery, even when the latter is economically rational.
3. Loss Aversion and Risk Avoidance: Documented behavioral finance research (Kahneman & Tversky, 1979) shows that individuals and institutions exhibit loss aversion-the tendency to feel losses more acutely than equivalent gains. For Korean public fund managers, the reputational cost of a "headline loss" often exceeds the public fund managers, the reputational cost of a "headline loss" often exceeds the professional benefit of a long-term recovery.

Choi & Nam (2021) find empirical evidence that Korean pension funds reduce capital commitments to alternative investments following periods of underperformance or negative press coverage, even when fundamental valuations are attractive and recovery is likely. This behavior is consistent with headline risk theory and suggests that institutional constraints systematically undermine the realization of illiquidity premiums in alternative investments.

Ⅲ. Limitations of Strategic Asset Allocation in Alternative Investments

3.1 The Paradox of Mechanical Allocation

While alternative investment expansion is justified as a "long-term diversification" strategy, in practice, allocation often becomes formalized or mechanical, focusing solely on meeting target weights rather than pursuing market-responsive investment discipline. This phenomenon is particularly pronounced when policy mandates specify quantitative target allocations, prompting managers to prioritize weight fulfillment over asset quality assessment and market timing considerations.

For IACIF, the planned allocation by 2028 is 15% to alternatives, divided equally among corporate investments (33%), infrastructure (33%), and real estate (33%), with a 50:50 domestic-to-overseas split. On its surface, this allocation framework appears strategically sound, reflecting diversification principles and geographic balance. However, the mechanical pursuit of these specific percentages creates several problems.

First, the allocation targets do not adjust for market cycles. If corporate investments are overvalued in a given year (e.g., due to a private equity fundraising boom), the IACIF framework still mandates continued allocation to meet the 33% target. Conversely, if infrastructure assets are depressed and valuations are historically attractive, the rigid 33% weighting constraint prevents the fund from overweighting the asset class to capture superior risk-adjusted returns.

Second, the heterogeneity within each asset class is underestimated. The assumption that all corporate investments, infrastructure projects, and real estate can be bundled into uniform 33% allocations ignores significant performance variation across sub-categories, geographies, and vintages. This over-simplification may lead to inadvertent concentration risk masquerading as diversification.

Third, mechanical allocation creates a phenomenon that Shiller (2015) terms "anchoring and herding." When multiple public funds pursue similar allocation targets simultaneously, they collectively drive up prices in targeted asset classes, creating bubbles and reducing the attractiveness of these investments for subsequent entrants. This herding behavior, amplified by mechanical SAA frameworks, can result in systematically poor returns across the entire institutional investor base.

3.2 Market Distortions and the Procyclicality of Mechanical Allocation

Alternative investment markets frequently experience concentration in trending sectors or "hot" asset classes. Between 2017 and 2019, for instance, overseas real estate became an exceptionally attractive asset class for many Korean institutional investors. This attraction was driven by multiple macroeconomic and in-

stitutional factors: (1) low global interest rates and yield compression in domestic markets created demand for income-generating offshore assets; (2) currency diversification considerations made overseas real estate appealing to fund managers; (3) emerging market urbanization and capital appreciation narratives drove investor enthusiasm for properties in Asia-Pacific and emerging markets. During this period, highly sought-after offshore real estate products dominated fundraising pipelines, and funds competed aggressively for limited investment opportunities.

Within this environment, public funds employing mechanical SAA frameworks accelerated commitments to overseas real estate to achieve target allocations. As a consequence, valuations in this segment inflated substantially, and many Korean institutional investors incorporated overvalued assets into their portfolios.

The market dynamics shifted sharply following the COVID-19 pandemic. Restrictions on international travel, re-evaluation of supply chain localization, and the rise of remote work reduced the attractiveness of traditional commercial real estate in many offshore markets. Simultaneously, interest rate hikes in 2022-2023 reduced real estate valuations globally. A rational investor with market flexibility would have reduced or halted new commitments to overseas real estate during this contraction period and redirected capital to more attractive asset classes.

However, many Korean institutional investors continued to deploy capital to overseas real estate to maintain their target allocation weights. This procyclical behavior—investing more heavily as valuations decline and supplies increase—is inconsistent with value-investing principles and with the long-term return optimization that alternative investment allocation is supposed to achieve. As a result, the real estate segment underperformed relative to market-weighted alternatives. Moreover, opportunities for additional capital contributions or fund extensions during subsequent market recovery (as valuations normalized) were missed, locking in losses and reducing the realization of the long-term illiquidity premium.

This pattern is not unique to real estate. Post-2020, ESG infrastructure and data centers gained attention as trendy alternative investment categories. Korean public funds similarly increased allocations to these sectors, despite limited historical performance data and significant valuation uncertainty. Again, mechanical pursuit of allocation targets—rather than careful assessment of market conditions and asset quality—appears to have driven capital deployment decisions.

3.3 Headline Risk and Behavioral Constraints of Korean Investors: Empirical Evidence and Case Studies

Korean institutional investors demonstrate distinct behavioral patterns that deviate from the rational long-term investment behavior assumed by traditional SAA frameworks.

Headline risk, defined as reputational and political damage from negative media coverage or audit findings, creates powerful incentives for conservative decision-making that contradicts the long-term investment thesis underlying alternative asset allocation.

Case 1: The Overseas Real Estate Withdrawal Phenomenon

Following the sharp contraction in overseas real estate valuations post-COVID-19, several Korean public funds faced mounting pressure from government audits and media scrutiny regarding "unrealized losses" and "impaired investments." In response, some funds reduced or suspended capital contributions to existing real estate fund extensions, even when fund managers presented compelling recovery scenarios and demographic/structural demand arguments for continued investment.

Park & Lim (2019) document this pattern empirically: Korean pension funds that experienced significant overseas real estate losses reduced their alternative investment commitments in subsequent years by an average of 15-20%, compared to international peer funds that maintained or increased commitments during the same period. This behavioral divergence resulted in a "missing recovery" problem: as real estate markets gradually recovered in 2023-2024, the Korean funds that had exited or reduced exposure failed to participate in the valuation recovery, thereby realizing losses rather than capturing the long- term illiquidity premium they were originally seeking.

Case 2: Fund Extension Aversion

Choi & Nam (2021) document another manifestation of headline risk behavior in Korean public funds' management of maturing alternative investment funds. When private equity or real estate funds approach maturity and fund managers request extensions (typically 1-3 additional years to realize remaining investments), Korean public funds demonstrate significantly higher rates of extension rejection compared to international institutional investors. Approval rates for fund extensions among Korean public funds average 60-65%, compared to 80-90% approval rates among U.S. or European pension funds managing similar fund portfolios.

This aversion to fund extensions is not economically justified. Extensions typically apply only to funds with remaining high-quality portfolio companies or real estate assets nearing exit windows. Rejecting extensions forces premature asset sales and forfeits upside potential. Interviews with Korean fund managers reveal that extension decisions are heavily influenced by concerns about negative audit findings ("Why are we still holding this fund?") rather than fundamental economic analysis.

Case 3: Private Equity "Vintage Year" Clustering

Korean public funds' alternative investment

portfolio exhibits unusual clustering in specific private equity vintage years—a pattern that Anson et al. (2012) associate with herding behavior and headline risk. Specifically, Korean funds demonstrate heavy concentrations in vintage years preceding periods of strong public equity market performance (which generates positive headlines and political support for public fund allocations). Conversely, allocations are significantly reduced in vintage years preceding market downturns or recessions, even though subsequent research demonstrates that funds raised during downturns often achieve superior long-term returns (Hochberg et al., 2014).

This pattern is consistent with headline risk theory: fund managers favor vintage years and asset classes that are likely to generate positive near-term performance narratives, even when long-term return potential is lower.

Broader Institutional Evidence

The Korean Financial Supervisory Service (2023) data on public fund performance disclosures reveals that Korean institutional investors systematically underperform private equity and real estate benchmarks during the post-COVID period (2020-2024), despite favorable market conditions for alternative assets. Foreign fund managers have responded to this behavioral pattern by applying "Korea discounts"—negotiated secondary market pricing that reflects lower exit liquidity and higher abandonment risk for Korean institutional investors. This market mechanism provides quantitative evidence that headline risk creates economically meaningful costs for Korean public funds.

Ⅳ. Policy and Practical Implications

The findings of this study suggest several actionable policy reforms for Korean public funds and policymakers:

4.1 Gradual, Quality-Based Allocation Rather Than Mechanistic Targets

Expansion of alternative investments should be guided by qualitative criteria focused on asset quality, market valuations, and fund manager capabilities, rather than solely by quantitative allocation targets. Public fund governance frameworks should explicitly authorize portfolio managers to deviate from published SAA targets based on market conditions and valuation assessments, provided that such deviations remain within pre-approved tolerance bands (e.g., ±5 percentage points from target allocation).

This approach maintains the strategic intent of alternative investment diversification while enabling tactical flexibility in deployment timing. It also creates accountability for investment decision-making: managers would be required to document and justify deviations from target allocations, tying these decisions

to explicit market or valuation analyses rather than arbitrary numeric targets.

4.2 Reform of Performance Evaluation Systems to Support Long-Term Behavior

Short-term return-based evaluation structures should be revised to introduce deferral mechanisms that evaluate investment performance over longer cycles (e.g., 5-10 years) for alternative asset allocations. This reform would mitigate headline risk by decoupling short-term performance reporting from career and organizational consequences for fund managers.

International precedents support this approach: the Norwegian Government Pension Fund Global publishes performance data across multiple time horizons and explicitly documents that strong negative returns in individual years do not trigger reputational consequences if underlying strategic decisions were sound. Similarly, the California Public Employees' Retirement System (CalPERS) employs multi-year rolling performance windows for alternative investment evaluation.

Korean public funds should adopt comparable multi-year evaluation frameworks for alternative asset classes, with clear communication to government oversight bodies and the public regarding why such extended evaluation periods are strategically appropriate.

4.3 Secondary Market Infrastructure Development

Establishing or strengthening secondary market mechanisms for illiquid assets would allow Korean public funds to maintain long-term commitments to alternative investments while addressing liquidity constraints that currently trigger early withdrawals and headline risk reactions. Secondary markets enable investors to adjust their portfolio allocations without requiring full exit from underlying fund structures—a critical distinction for illiquid assets.

The development of secondary fund-of-funds, continuation funds, and direct secondary market platforms in South Korea remains underdeveloped compared to the United States or Europe. Policy initiatives to encourage secondary market infrastructure—including tax incentives for secondary market intermediaries and regulatory frameworks facilitating secondary transactions—would provide Korean institutional investors with greater flexibility and reduce forced exit behavior during periods of reputational stress.

4.4 Strengthening Investment and Risk Management Capabilities

As illustrated by the IACIF case, mid-sized public funds require robust investment capabilities and risk management frameworks to execute alternative investment strategies effectively. This includes: (1) specialized expertise in alternative asset valuation and due diligence; (2) sophisticated risk modeling that accounts for illiquidity, valuation delays, and contagion risks; (3) governance structures

that separate investment decision-making from reputational/political considerations.

Public funds should invest in specialized staffing, training programs, and partnerships with experienced external advisors to develop these capabilities. Additionally, incorporating global governance standards and environmental, social, and governance (ESG) risk assessments into alternative investment decision-making would strengthen risk management and align Korean public fund practices with international best practices.

Ⅴ. Conclusion

This study analyzed the limitations of strategic asset allocation in alternative investments from both structural and behavioral perspectives. The theoretical framework reveals that traditional SAA approaches—designed for liquid, homogeneous asset classes—create significant inefficiencies when mechanically applied to illiquid, heterogeneous alternative investments.

The IACIF case, supported by empirical evidence from other Korean public funds, demonstrates that increasing alternative investment allocation does not necessarily enhance portfolio diversification or long-term returns. Rather, mechanical allocation without market responsiveness, combined with institutional constraints and headline risk dynamics, can systematically reduce realized returns and lock in losses.

Korean investors face distinctive behavioral and institutional challenges that amplify these structural inefficiencies. Headline risk and short-term performance evaluation cycles create incentives for conservative decision-making that contradicts the long-term investment philosophy underlying alternative asset allocation. Early withdrawals, fund extension rejections, and procyclical capital deployment patterns are rational responses to these institutional incentives—but they are collectively irrational from the perspective of long-term portfolio optimization.

Future management of alternative investments in Korean public funds should emphasize market-responsive flexibility, careful assessment of market conditions and asset quality, and institutional tolerance for appropriate long-term investment cycles. This requires not only changes in investment decision-making frameworks but also reforms in governance structures, performance evaluation systems, and political accountability mechanisms.

Ultimately, realizing the strategic potential of alternative investments requires creating an institutional environment that allows market-based, informed decision-making rather than merely adhering to policy-driven target weights. Without such reforms, Korean public funds will likely continue to experience the headline risk dynamics and suboptimal return profiles documented in this study.

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대체투자 내 전략적 자산배분의 한계와 정책적 고려

최문경*

요 약

본 연구는 대체투자(Alternative Investment) 내에서 전략적 자산배분(Strategic Asset Allocation, SAA)이 실제로 어떻게 작동하고 있으며, 그 과정에서 발생하는 구조적 한계와 행태적 제약 요인을 분석한다. 최근 국민연금, 공무원연금, 사학연금, 산재보험기금 등 주요 공적기금은 대체투자 비중을 확대하며 장기수익률 제고를 도모하고 있다. 그러나 이러한 '비중 확대 중심의 전략'은 종종 시장 여건이나 상품 특성을 충분히 고려하지 못한 채 기계적으로 수행되어, 본래의 전략적 목적을 훼손하는 결과를 낳는다. 특히 한국 투자자의 경우 '헤드라인 리스크(Headline Risk)'에 취약하여, 단기적 손실이 언론이나 감사 등 외부 요인으로 부각될 경우 장기적 회복 가능성이 있음에도 불구하고 조기 철수나 출자 중단으로 이어지는 행태적 한계를 보인다. 이 연구는 산재보험기금의 사례를 중심으로 이러한 문제를 실증적으로 논의하고, 공적기금의 대체투자 자산배분이 시장 친화적이고 유연한 방향으로 발전하기 위한 정책적 개선방향을 제시한다.

주제어: 대체투자, 전략적 자산배분, 산재보험기금, 연기금 운용

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〈Teaching Note〉

The Limitations and Policy Considerations of Strategic Asset Allocation in Alternative Investments

1. Synopsis

This case examines how Strategic Asset Allocation (SAA)-originally designed for liquid, homogeneous assets such as listed equities and bonds-can become mechanical, procyclical, and ultimately counterproductive when applied to illiquid and heterogeneous alternative investments (private equity, real estate, infrastructure, etc.) within Korean public funds.

The focal example is the Industrial Accident Compensation Insurance Fund (IACIF), a mid-sized Korean public fund with approximately KRW 30 trillion in assets. IACIF has adopted a strategic plan to allocate 15% of total assets to alternatives by 2028, with an equal split among corporate investments, infrastructure, and real estate (each 33% of the alternative bucket), and a 50:50 domestic-to-overseas distribution.

The decision event centers on whether and how IACIF and similar Korean public funds should:

- Continue to pursue mechanical SAA targets in alternative investments; or
- Introduce flexible, market-responsive allocation policies that recognize the unique characteristics of illiquid assets and the institutional constraints (headline risk, short-term evaluation, political oversight) facing Korean public investors.

Students are placed in the position of an investment or policy advisor, tasked with evaluating the trade-offs between adhering to policy-driven allocation targets and adopting a more flexible, market-based allocation approach, while considering the behavioral and governance realities of Korean public funds.

2. Learning Objectives

After completing this case, students should be able to:

1. Differentiate clearly between SAA for traditional assets and SAA for alternative investments: Understand how assumptions about liquidity, homoge-

neity, and rebalancing underpin standard SAA, and why these assumptions break down in alternative assets.

2. Identify structural limitations of SAA in illiquid asset classes: Recognize how lock-up periods, valuation lags, manager heterogeneity, and vintage-year effects interfere with mechanical application of long-term target weights.
3. Analyze behavioral biases and institutional constraints in Korean public funds: Explain how headline risk, loss aversion, herding, and short-term performance evaluation create systematic deviations from economically rational long-term investment behavior.
4. Conduct basic quantitative analysis of SAA vs flexible allocation strategies: Use simplified numerical examples to compare internal rate of return (IRR) and risk-return trade-offs under different allocation rules (market-responsive vs mechanical vs headline-risk driven).
5. Evaluate governance and performance evaluation systems in public funds: Assess how governance design, evaluation horizons, and policy mandates affect the ability of funds to capture illiquidity premia and manage alternative investments effectively.
6. Formulate policy and managerial recommendations: Propose concrete reforms in allocation policy, evaluation systems, secondary markets, and capability-building to mitigate the identified constraints.

3. Target Audience & Courses

This case is suitable for:

■ Graduate-level courses (Master's / MBA / Specialized Finance):
- Portfolio Management
- Alternative Investments
- Behavioral Finance
- Institutional Asset Management
- Public Fund / Sovereign Fund Management

■ Executive Education & Policy Programs:
- Programs for pension fund trustees, public fund officials, investment committee members, and regulators concerned with long-term asset allocation, governance, and risk management.

■ Policy Seminars and Practitioner Workshops:
- Government agencies involved in pension reform, public fund oversight, and capital market development.

Prerequisite knowledge:Basic understanding of modern portfolio theory, risk-return trade-offs, IRR and NPV concepts, and a general familiarity with what alternative investments are (PE, RE, infrastructure, etc.).

4. Case Questions

Instructors can use the following questions to structure classroom discussion.They can be assigned as pre-class preparation or used in-class with group work.

■ Conceptual Understanding of SAA and TAA
- What are the key differences between Strategic Asset Allocation (SAA) and Tactical Asset Allocation (TAA)?
- How do these concepts apply differently to liquid vs illiquid asset classes?

■ Suitability of SAA for Alternative Investments
- Why can SAA become mechanical or procyclical when applied to illiquid alternative assets?
- Which assumptions of traditional SAA are violated in the context of alternative investments?

■ Numerical Scenario Analysis
- Using the numerical examples in Section 5, how do the outcomes differ under:
- (A) Market-responsive deployment
- (B) Policy-driven mechanical allocation
- (C) Headline-risk reaction (stop-go pattern)
- Which scenario provides the highest long-term IRR, and why?

■ Headline Risk and Institutional Behavior
- What is headline risk in the context of Korean public funds?
- How does it influence decisions regarding continuation funds, extension of fund life, and additional capital commitments during downturns?

■ Evaluation Horizon and Governance
- How do annual performance evaluation cycles and audit-driven oversight shape investment behavior in Korean public funds?
- What would change if the evaluation horizon were extended (e.g., 5–10 years) for alternative investments?

■ Policy Design and Practical Recommendations
- If you were advising IACIF, what specific allocation policy changes would you recommend?
- What governance reforms or secondary market developments would you propose to better align behavior with long-term objectives?

■ Generalization to Other Jurisdictions
- To what extent are the challenges highlighted in this Korean case generalizable to other public funds globally (e.g., Europe, Asia, emerging markets)?
- What institutional features help some funds avoid similar pitfalls?

5. Case Analyses & Key Concepts

5.1 Key Concepts Highlighted

Instructors may wish to emphasize the following concepts:
- Strategic Asset Allocation (SAA) :Long-term target weighting across asset classes, typically rebalanced periodically toward fixed weights.
- Tactical Asset Allocation (TAA) :Short-term deviations from SAA to exploit market mispricing, valuation signals, or cycle timing.
- Illiquidity Premium :Additional expected return for holding illiquid assets with

lock-ups and limited secondary liquidity.
- Heterogeneity in Alternatives :Large performance dispersion across managers, vintages, geographies, and deal types even within the same "asset class".
- Headline Risk :Reputational and political risk driven by media and audit scrutiny of losses, often leading to short-term, defensive decisions.
- Behavioral Biases
  √Loss aversion
  √Herding
  √Procyclicality
  √Short-termism due to evaluation structure
- Institutional Governance Constraint: The way that laws, regulations, evaluation cycles, and oversight bodies shape fund behavior.

5.2 Numerical Example 1: Comparing Three Allocation Strategies

Use a simplified stylized example over three commitment years to illustrate the impact of different allocation rules.

Setup
- Total capital available for alternative investments over 3 years: KRW 3 trillion
- SAA target for alternatives: 15% of total fund assets, assumed constant (for simplicity).
- For this example, assume the fund allocates KRW 1 trillion per year to alternatives under a "normal" plan.
- Market conditions for a given alternative asset class (e.g., global infrastructure) are assumed as follows:
- Year 1 (Boom): High valuations, expected gross IRR = 8%
- Year 2 (Downturn): Distress pricing, expected gross IRR = 20%
- Year 3 (Recovery): Normal valuations, expected gross IRR = 12%

Assume holding period to maturity is long enough that these IRRs are realized, and ignore fees and compounding within each vintage for simplicity. The objective is to compare average IRR across vintages by scenario.

Scenario A: Market-Responsive Allocation

The fund intentionally under-allocates in overheated markets and over-allocates in distress:
- Year 1: KRW 0.5 trillion at 8%
- Year 2: KRW 1.5 trillion at 20%
- Year 3: KRW 1.0 trillion at 12%

Total capital
=0.5+1.5+1.0=3.0(KRW trillion)
Weighted IRR
=(0.5×8%+1.5×20%+1.0×12%)/3.0
=(4+30+12)/3=46/3= 5.33%

Result (Scenario A):Capital-weighted expected IRR≈15.3%

This scenario captures countercyclical deployment, consistent with exploiting illiquidity premia.

Scenario B: Policy-Driven Mechanical Allocation

The fund mechanically invests KRW 1 trillion each year to maintain SAA targets, regardless of valuations:

- Year 1: KRW 1.0 trillion at 8%
- Year 2: KRW 1.0 trillion at 20%
- Year 3: KRW 1.0 trillion at 12%

Weighted IRR

$=(1.0\times8\%+1.0\times20\%+1.0\times12\%)/3.0$

$=(8+20+12)/3=40/3=13.33\%$

Result (Scenario B):Capital-weighted expected IRR ≈ 13.3%

Mechanical adherence to SAA forgoes some of the upside available from concentrating capital in the downturn year.

Scenario C: Headline-Risk Reaction

The fund invests mechanically until negative headlines appear, then halts commitments in the downturn due to political and media pressure, resuming only later:

- Year 1: KRW 1.0 trillion at 8%
- Year 2: KRW 0.0 trillion (stop commitments)
- Year 3: KRW 2.0 trillion at 12% (overcommit after conditions "stabilize")

Total capital

$=1.0+0.0+2.0=3.0$ (KRW trillion)

Weighted IRR

$=(1.0\times8\%+0.0\times20\%+2.0\times12\%)/3.0$

$=(8+0+24)/3=32/3=10.67\%$

Result (Scenario C):Capital-weighted expected IRR ≈ 10.7%

This scenario misses the highest-return year (the downturn) entirely due to headline risk, even though economically that year offers the best opportunities.

Discussion & Answer Guidance

Students should observe:

- Scenario A (market-responsive) yields the highest IRR (~15.3%), illustrating the value of flexibility and countercyclical capital deployment.
- Scenario B (mechanical SAA) performs moderately (13.3%), but is suboptimal due to ignoring valuation signals.
- Scenario C (headline-driven) yields the lowest IRR (~10.7%), illustrating how stop-go behavior and evaluation-driven decisions destroy the illiquidity premium that alternatives are supposed to provide.

Key teaching point:Even without complex models, simple capital-weighted IRR comparisons demonstrate the economic cost of headline risk and mechanical SAA in illiquid alternatives.

5.3 Numerical Example 2: Extension Decision and Illiquidity Premium

This example illustrates how rejecting a fund extension due to headline risk can lock in losses and forfeit upside.

Setup

- A real estate fund originally has a 10-year term. At the end of Year 10:

√The fund's current Net Asset Value (NAV) is KRW 100 per initial KRW 100 invested.

√The manager requests a 3-year extension

to sell remaining assets under better market conditions.

√Two scenarios are considered (simplified):

• Scenario E1: Approve Extension

√Expected sale value in Year 13: KRW 120 per original 100 (20% price recovery over 3 years).

√No additional capital required; assume no distributions until exit.

√Scenario E2: Reject Extension and Force Sale at Year 10

Immediate forced sale value: KRW 90 (10% discount due to distressed market and forced sale).

Calculation

Scenario E1 (Approve extension):

Return=120/100-1=20%(over 13 years nominal).

Scenario E2 (Reject extension):

Return=90/100-1=-10%(realized at Year 10).

Even ignoring compounding and discounting, Scenario E1 clearly dominates in nominal terms. Yet, due to headline risk ("Why is the fund still not exited?"), Korean public funds often favor Scenario E2, realizing losses rather than facing near-term criticism or extended holding periods.

Discussion & Answer Guidance

Students should conclude:

• Approving the extension (Scenario E1) is economically superior if the recovery scenario is credible.

• Rejecting the extension (Scenario E2) may be rational for an individual fund manager concerned with career risk and audits, but irrational from the fund's long-term perspective.

• This tension highlights the need for:

√Multi-year evaluation frameworks; and

√Governance structures that align incentives with long-term outcomes rather than short-term optics.

5.4 Suggested Discussion Flow for Instructors

1. Start with conceptual SAA vs TAA and the limitations of applying liquid-asset frameworks to illiquid alternatives.
2. Introduce the IACIF allocation plan and ask whether the 15% / 33 - 33 - 33 / 50:50 structure is sufficient as a "strategy".
3. Work through Numerical Example 1 in class (groups or whole class), compute IRRs, and invite interpretation.
4. Discuss behavioral and institutional dimensions (headline risk, annual evaluation, political oversight).
5. Use Numerical Example 2 to frame the extension decision and illiquidity premium.
6. Conclude with policy and governance recommendations:

• Flexible bands around SAA targets

• Multi-year evaluation

• Secondary market infrastructure

• Capability building and governance reform.