INVESTMENT POLICY STATEMENT

Effective as of November 19, 2020

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Introduction

Missouri State Employees' Retirement System ("MOSERS" or the "System") is an instrumentality of the State of Missouri vested with the powers and duties specified in state law providing retirement, long-term disability, and life insurance benefits to its members, including most state employees, members of the Missouri General Assembly, elected state officials, judges, administrative law judges, and legal advisors. MOSERS is responsible for managing a portfolio of investments held in trust for the payment of member benefits (the "Defined Benefit Plan" or "Plan").[1] MOSERS also administers two defined contribution plans, the State of Missouri Deferred Compensation Plan (the "Defined Contribution Plan") for state employees and retirees and the College and University Retirement Plan ("CURP") for higher education faculty employees (the Deferred Contribution Plan and CURP are collectively referred to as the "DC Plans").[2]

I. Investment Policy Statement Purpose

A. This Investment Policy Statement ("IPS") sets forth the investment policies by which the System's assets will be managed. Its purpose is to provide a framework for the MOSERS Board of Trustees ("Board"), Staff, and investment consultants to fulfill their objectives with respect to the Plan's and DC Plans' investments.
B. This IPS is intended to be read in harmony with the applicable Revised Statutes of Missouri ("RSMo"), and to be binding on all persons with discretionary authority and control over MOSERS' investments. Unless specifically authorized in the IPS, deviation from the IPS is not permitted without explicit written permission, in advance, from the Board.
C. This IPS also is intended to be read in harmony with the MOSERS *Governance Manual*.

II. Mission and Vision Statements

To guide MOSERS, the Board has established the following mission and vision statements:

MOSERS Mission Statement

MOSERS exists to advance the financial security of its members.

MOSERS Vision Statement

We endeavor to:

- Exceed customer expectations
- Educate stakeholders
- Ensure sound investment practices
- Encourage responsible funding of the Plan through a commitment to *Excellence Always*

[1] Mo. Rev. Stat. Chapters 104, 105, 287, and 476.
[2] Mo. Rev. Stat. §§ 104.1200 to 104.1215; §§ 105.900 to 105.927.

These Mission and Vision Statements will guide the investment and management of MOSERS' assets.

III. Standard of Care and Conduct

A. Applicable Standard of Prudence

All participants in the investment process, including members of the Board, the Staff, investment consultants, investment managers and service providers, are expected to discharge their duties in the interest of the participants of the System, and shall act with the same care, skill, prudence, and diligence under the circumstances then prevailing that a prudent person acting in a similar capacity and familiar with those matters would use in the conduct of a similar enterprise and with similar aims.[3]

Investment and management decisions concerning individual assets will be evaluated not in isolation but in the context of the investment portfolio as a whole and as a part of an overall Board-approved investment strategy having risk and return objectives appropriate to the System.[4]

B. Standard of Conduct; Prohibition of Conflicts of Interest

All participants involved in the investment process will refrain from any activity that could conflict with the proper execution and management of the investment program, or that could impair their ability to make impartial recommendations and decisions. Each such participant is required to disclose to MOSERS, in writing, any relationship that could create or appear to create a conflict of interest in the participant's unbiased involvement in the investment process. When appropriate, the participant shall cure the conflict in a manner provided by MOSERS' *Standards of Ethics and Professional Conduct Policy* or participant's contract with MOSERS, as applicable.

IV. Investment Objectives and Philosophy

The purpose of MOSERS' investment program is to ensure that MOSERS' members and beneficiaries receive their benefits at a reasonable and predictable cost to the employers. Plan assets may be invested, reinvested, and managed by MOSERS Investment Staff or third-party investment managers, subject to the terms, conditions, and limitations provided by law[5] and contracts, where applicable. Specific investment objectives and investment philosophies that will guide efforts to achieve the purpose are as follows:

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[3] Mo. Rev. Stat. § 105.688 (1).
[4] Mo. Rev. Stat. § 105.688 (4).
[5] Mo. Rev. Stat. §§ 105.687 to 105.689.

A. Investment Objectives

1. Develop a Real Return Objective[6] ("RRO") intended to keep contribution rates at a reasonable level over long periods of time absent changes in actuarial assumptions.[7]
2. Establish an asset allocation policy that is expected to meet the RRO while minimizing the impact of the Plan investments' volatility on the contribution rate.
3. Maximize long-term investment returns by exposing Plan assets to a prudent level of risk in order to support the goal of having sufficient funds available to meet projected benefit payment obligations.
4. Monitor costs associated with the efficient implementation of the asset allocation policy through the use of internal and external resources.

B. MOSERS Board Investment Philosophy

1. A key risk to the Plan is asset shortfall where assets are insufficient to meet promised benefit obligations. As a result, the Board will strive to minimize the potential for long-term impact from disproportionate drawdowns.
2. MOSERS is willing to take measured risks for which it expects to be compensated and will seek to avoid risks which may not be appropriately rewarded.
3. The Board will employ a disciplined, objective, and quantitatively-driven asset/liability analysis process, with the goal of determining the optimal asset allocation policy to meet the investment objectives.
4. In order to meet the RRO, it is necessary for the Plan to maintain a significant allocation to growth (i.e., equity) assets. As a result, equity risk is expected to be the key contributor to the overall risk of the Plan's investments ("Total Fund"). In recognition of this, the Board's asset allocation policy will seek to mitigate the risk from large equity market declines.
5. Strategic asset allocation is a significant factor influencing long-term investment performance and asset volatility. The asset allocation targets, determined by the Board, will be adhered to through clearly defined rebalancing guidelines.
6. The Board will seek to cause the Total Fund to be broadly diversified and risk-balanced in view of the fact that not all strategies will add value at all times, which should mitigate the impact of negative market environments over its long-term investment horizon.

[6] The Real Return Objective is the rate by which the total return exceeds the inflation rate as measured by the Consumer Price Index, U.S. City Average for All Urban Consumers (CPI-U).
[7] Mo. Rev. Stat. §§ 104.436, 104.1066.

7. Risk management and performance benchmarking are integral to the investment program. The Board will establish and regularly monitor appropriate absolute and relative return risk, as well as other key risks that affect the Total Fund.
8. The Board will employ industry-accepted benchmarks for all major asset classes, using published market indices where feasible.
9. Costs meaningfully impact investment returns and will be a consideration in all investment program decisions. Investment performance shall be reported net of fees to incorporate the full impact of fees and costs.

V. Roles and Responsibilities

A. Board of Trustees

The Board is responsible for the prudent oversight, governance, and management of the System's assets. The Board's responsibilities include the following:

1. Establishing investment objectives consistent with the Plan's funding needs;
2. Selecting and approving the RRO;
3. Establishing, approving, and updating written investment policies, including this IPS, consistent with identified objectives and applicable law;
4. Setting and approving an asset allocation strategy, including:
    a. Asset allocation rebalancing guidelines;
    b. Active risk target and reasonableness ranges, as set forth in Section IX. "Public Markets Active Risk Target" of this IPS;
    c. Total Fund policy-level financial leverage (as established by the asset allocation);
    d. Total Fund and asset class benchmarks; and
    e. Total Fund and asset class performance and risk monitoring.
5. Ensuring that an asset/liability study is conducted at least every five years;
6. Overseeing the DC Plans, including the investment structure;
7. Selecting, evaluating, and terminating the investment consultant(s) who advise the Board; and
8. Monitoring the investment program for prudent cost management.

B. Board Investment Committee

The Investment Committee will perform the duties and responsibilities outlined in the Investment Committee Charter, as then in effect.

C. Staff

Pursuant to its authority to delegate functions to employees of the System under Section 104.1069, RSMo., the Board delegates to the Executive Director the responsibility to manage the Staff that oversees and executes MOSERS' investment program. In addition to other requirements, the Board expects the System's Staff and external consultants to adhere to the following guidelines related to the investment program.

General Provisions

1. The Executive Director is responsible for monitoring the investment program compliance with the IPS.
2. Upon learning of any breach of this IPS, the Executive Director will notify the Chief Counsel promptly, but in any event within three business days.
3. The Executive Director will select, evaluate, and terminate the CIO, except that (a) the Executive Director will consult, as appropriate, with the Board regarding selection and evaluation of the CIO and (b) the Board must approve the Executive Director's proposed termination of the CIO.
4. Staff will report in an accurate, transparent, and timely manner.
5. Staff will develop, document, and implement risk based due diligence procedures designed to detect potential or continuing investments, whether direct or indirect, in an entity which:
    a. Is designated by the U.S. Department of State as a (1) foreign terrorist organization or (2) state sponsor of terrorism;
    b. Aids, directly or indirectly, any entity designated by the U.S. Department of State as a (1) foreign terrorist organization or (2) state sponsor of terrorism; or
    c. Conducts operations or maintains a place of business in a country designated by the U.S. Department of State as a state sponsor of terrorism and is reported by the Office of the Director of National Intelligence as set forth in Section XIII. "Anti-Terrorism" of this IPS.
6. Staff will engage a third-party cost benchmarking consultant to annually report on its analysis of MOSERS' cost profile compared to peers on a net-of-cost, risk-adjusted, and value-added basis;

Specific Requirements

7. The CIO will be responsible for:
    a. Developing overall strategy for the System's investment program consistent with the asset allocation and other policies adopted by the Board; and

   b. Selecting individual strategy benchmarks to assess performance of the various categories of the System's investments.

8. The CIO will be responsible for developing and executing the System's investment implementation strategies and maintaining a detailed investment implementation manual;
9. The CIO is responsible for monitoring the performance of, and hold due diligence meetings with, all external money managers at least semi-annually. Exceptions to the frequency of the due diligence meetings follow:
   a. For multi-year partnership arrangements that offer less than annual liquidity, due diligence meetings shall be conducted annually;
   b. For investment accounts where MOSERS has requested full redemption and there is less than $5 million in remaining MOSERS assets, no due diligence report is required; and
   c. For investment accounts in distribution phase having less than $5 million in MOSERS assets under management, no due diligence report is required.
10. The CIO will develop and oversee the execution of strategies with respect to Total Fund-level financial leverage;
11. In the event the CIO hires a staff investment consultant or the master custodian, the CIO shall:
    a. Follow a process that is based on a competitive Request for Proposal (RFP) with established selection criteria unless under the circumstances it is not prudent to do so, in which case the exception must be agreed to by the Executive Director;
    b. Document the proposed action by describing the decision making process, expectations, and rationale for the decision; and
    c. Obtain the Executive Director's certification that the proposed engagement is in compliance with the IPS.
12. In the event the CIO hires an external investment manager, the CIO shall:
    a. Use a hiring process, with established selection criteria, to choose from a set of candidates, as determined by the CIO;
    b. Document the proposed action by describing the decision making process, expectations, and rationale for the decision;
    c. Confirm that the appropriate staff investment consultant agrees to the engagement in writing; and
    d. Obtain the Executive Director's certification that the proposed engagement is in compliance with the IPS.

13. In the event the CIO terminates an outside service provider described in paragraph 11 or 12:
    a. If the outside service provider is an external investment manager, confirm that the appropriate staff investment consultant agrees to the termination in writing; and
    b. Obtain the Executive Director’s certification that the proposed termination is in compliance with the IPS.
14. The CIO will be responsible for selecting the investment structure for participants of the DC Plans designed to allow participants to build a diversified investment portfolio at a competitive cost. In doing so:
    a. The appropriate staff investment consultant must agree to the structure in writing; and
    b. The Executive Director must certify that the proposed structure is in compliance with the IPS.
15. The CIO will be responsible for selection, evaluation and termination of the third-party plan administrators for the DC Plans under the same procedures applicable to other service providers;
16. The CIO will be responsible for negotiation of the fees and costs of all service providers and external managers to ensure that they are appropriate and reasonable in relation to the System’s assets, the purpose of the engagement, and the complexity/skill required;
17. The CIO will be responsible for monitoring the performance of all external service providers for the DC Plan, including the holding of due diligence meetings with such providers annually;
18. The CIO will establish a proxy voting policy, if and when participating in proxy voting, which ensures that the interests of the System are adequately protected;
19. The CIO will establish a securities lending policy, if and when utilizing securities lending agreements, including with respect to prudent investment of collateral, which ensures that the interests of the System are adequately protected; and
20. The CIO will designate a staff member (for purposes of this policy referred to as the “Risk Manager” to oversee the risk monitoring function for the System, including implementing, managing, and monitoring adequate risk management measures and maintaining risk reporting for Staff and Board use and report directly to the Board on such matters.

D. External Providers

1. Board Investment Consultant (“BIC”)

   The BIC’s primary responsibility is to provide the Board independent and objective investment advice and assist the Board in making informed decisions and overseeing the investment program. The BIC has the following responsibilities:

   a. Assist the Board in investment policy development;

   b. Assist the Board in exercising effective oversight of the investment program;

   c. Advise and recommend asset allocation policy to the Board via an asset/liability analysis process;

   d. Conduct an annual asset allocation review to ensure consistency with the RRO and other stated objectives;

   e. Oversight of the internally managed portfolios, including performing an annual due diligence meeting and reporting the result to the Board;

   f. Produce an annual report letter;

   g. Provide the Board with updates and training designed to enhance Board members’ knowledge of investment practices and emerging trends;

   h. Perform special or ad hoc projects as requested by the Board; and

   i. Promptly advise the Board and the Executive Director about any material deviation from prudence, guideline adherence, objectivity, or any other matter of concern observed by the BIC involving Staff or another service provider to MOSERS.

2. Staff Investment Consultants (“SICs”)

   The primary responsibilities of the SICs are to provide independent and objective investment advice to the Staff. Among other duties, as applicable, each SIC will agree in writing to the CIO’s proposed hiring or termination of external investment management firms and third-party plan administrators.

3. External Investment Management firms (“Managers”), including Securities Lending Agents.

   Among other specific duties, Managers will manage System assets in compliance with account guidelines and any applicable provisions of this IPS.

VI. Asset Allocation Policy

The Board recognizes that the most important determinant of long-term return and risk is the asset allocation decision. The Strategic Target Allocation is designed to provide the highest probability of meeting or exceeding the Plan’s investment objectives at a controlled level of risk and with liquidity that is acceptable to the Board.

A. General Guidelines

1. In setting the Strategic Target Allocation, the Board will consider the System's ability to withstand not only the long-term risk of underperforming its RRO, but also short- and intermediate-term volatility in investment performance and fluctuations in the financial condition of the Plan.
2. The Board will use a five-year window to evaluate the Strategic Target Allocation.
3. The risk assumptions regarding capital markets models used by the Board in setting the Strategic Target Allocation and Active Risk Target should be internally consistent with the Board's overall investment risk philosophy and risk analytics used for monitoring portfolio risk.

B. Process

1. The Board will determine the Strategic Target Allocation through an asset/liability review process ("A/L Study"). An A/L Study will be undertaken at least every five years. The purpose of an A/L Study is to evaluate the current asset allocation policy in light of changes in capital market expectations and the Plan's liabilities, in order to determine whether the current asset allocation policy remains optimal.
2. The BIC will advise the Board with respect to the A/L Study, with input from the CIO. The BIC will work with MOSERS' actuary to incorporate the Plan's liabilities into the BIC's asset allocation models. These models utilize various tools, including mean variance analysis and Monte Carlo simulations per industry practice for asset allocation analysis. The BIC will also engage in analytical techniques, such as stress tests and scenario analyses for the current policy and potential policy alternative portfolios, to evaluate how the financial condition of the Plan may be affected by changes in assumptions about future capital market conditions.
3. The BIC is expected to present to the Board asset allocation alternatives, including a recommended Strategic Target Allocation.

C. Strategic Target Allocation

Effective July 19, 2018, the Strategic Target Allocation and acceptable ranges as determined by the Board to achieve the investment objectives within acceptable risk parameters are reflected in Figure 1. As of the effective date of the Strategic Target Allocation, the System maintains a Beta Balanced legacy asset allocation policy. The Board has adopted a plan to guide the transition pace and management of legacy assets ("Transition Plan"). The legacy asset allocation policy, legacy policy benchmarks, and legacy investment guidelines are reflected in the Transition Plan.

FIGURE 1. BOARD-APPROVED STRATEGIC TARGET ALLOCATION AND ACCEPTABLE RANGES (AS OF JUNE 20, 2019)

Asset Bucket	Strategy Type	Board Approved Policy Allocation	Minimum	Maximum
Growth		**45%**	**35%**	**55%**
	Global Public Equities	30%	15%	45%
	Global Private Equities	15%	5%	20%
Income		35%	30%	40%
	Long Treasuries	25%	20%	30%
	Core Bonds	10%	5%	15%
Inflation Hedge		**40%**	**35%**	**45%**
	Commodities	5%	0%	10%
	TIPS	25%	20%	30%
	Private Real Assets (Core and Value Add)	5%	0%	10%
	Other Public Real Assets	5%	0%	10%
Alternative Betas/Absolute Return		**20%**	**15%**	**25%**
	Direct Hedge Funds	5%	0%	10%
	Alternative Beta	10%	5%	15%
	Private Credit	5%	0%	10%
Cash		**0%**	**0%**	**2%**
Total Fund		140%	130%	150%

VII. General Investment Guidelines

The following guidelines are applicable to the Total Fund. Individual portfolio guidelines will be set forth in the investment implementation manual.

A. Portfolios may utilize cash instruments or derivatives in their investment strategy. All investments used will be subjected to MOSERS' risk monitoring processes.

B. No single investment product may comprise more than 5% of the Total Fund market exposure or provide more than a 10% contribution to Total Fund risk, whichever is lower. An exception is for passively managed index products where there is no limitation.

C. Total assets held at a single investment firm (other than the custodian bank) may not comprise more than 20% of the Total Fund market exposure. An exception is for passively managed assets held at a single investment firm where there is no limitation.

VIII. Rebalancing Policy

The Board will employ rebalancing range limits for each strategy type in which the Plan invests. The maximum and minimum exposures defining the current rebalancing ranges are provided in Figure 1. The CIO will develop a written plan for all rebalancings (mandatory or discretionary) which will detail the specific dollar amounts to be moved and the reason for the rebalancing. All rebalancing activity will be reported to the Board by the CIO, in arrears, on a quarterly basis.

A. Mandatory Rebalancing

Rebalancing must occur immediately whenever an individual range limit is exceeded for an asset class. The CIO will be responsible for managing the Plan to avoid exceeding a limit and monitoring compliance with the individual range limits on a daily basis. The CIO shall not permit any asset class to exceed the applicable range limit under any circumstances, except for instances of extraordinary market volatility (i.e., price movement greater than two standard deviations from historical norm). Action taken to comply with this requirement is considered mandatory rebalancing. When a mandatory rebalancing is required, assets will be rebalanced back to the policy allocation target based upon a written timeline and rebalancing plan developed by the CIO, which the CIO will report to the Executive Director promptly, but in any event within three business days of when the rebalancing obligation is triggered.

An exception to mandatory rebalancing is private-market or other liquidity-constrained assets. In the case of a private-market assets rebalancing, the CIO will develop a plan for orderly rebalancing in recognition of the fact that the Board does not wish to force illiquid asset purchases or sales which could unnecessarily reduce returns to the Plan. When a private-market asset rebalancing is required, the CIO will communicate the rebalancing plan for these types of assets to the Executive Director promptly, but in any event within three business days of when the rebalancing obligation is triggered. The Board acknowledges that private-market asset rebalancing could require an extended period of many months or even years before it is possible to prudently reach the policy allocation.

B. Discretionary Rebalancing

The CIO may engage in asset rebalancing to reduce or increase active risk or to minimize asset allocation drift from the policy. This is considered discretionary rebalancing. In these circumstances, it is not necessary to rebalance back to the policy target. As long as discretionary rebalancing does not result in rebalancing-range targets being breached, the CIO may engage in discretionary rebalancing designed to enhance the management of the Plan’s assets.

IX. Public Markets Active Risk Target

The Plan will employ a combination of passive and active strategies within the public markets component of the asset allocation. The Board has ultimate responsibility for how much either is utilized, because active risk impacts Total Fund returns and risk and, thus, is strategic in nature. “Active risk” is the risk associated with the efforts of active strategies to add value above their respective benchmarks, or small deviations from benchmarks caused by imperfect tracking by passive investments as well as intentional deviations away from policy targets. Active risk is defined as the standard deviation of active returns (i.e., manager alpha). The public markets active-risk target will reflect the level of additional risk beyond that associated with the Strategic Target Allocation that the Board is willing to tolerate from active-strategy implementation.

A. Process

1. A risk-budgeting process, based on advice by the BIC working with the CIO, will be employed to identify the public markets active-risk target and the reasonable range for expectations around that target.
2. This process will be a "bottom-up" process, as opposed to the "top-down" process used to set the asset allocation policy, as risk budgeting will take into consideration the individual public markets strategies being utilized for implementation of the asset allocation policy. As such, this process will occur after the Board sets the asset allocation.
3. The Board will approve an ex-post[8] public markets active-risk target at the Total Fund level and reasonableness range.

B. Target and Range

The current public markets ex-post active risk target is 2% and the reasonableness range is between 0.5% to 3.5%.

C. Monitoring and Reporting

1. The Board will monitor actual public markets active risk compared to the public markets active risk target, over rolling three-year periods on a quarterly basis.
2. The Board understands that anomalous capital market volatility events can occur, which could cause the target range to be exceeded; as a result and under those circumstances, exceptions to this policy are to be expected, although on an infrequent basis. Upon learning of any instance, including a market-driven exception, where the active risk exceeds the range, the CIO will promptly provide the Executive Director within three business days, a written explanation of the exception and any remedial action intended to bring the Plan back into compliance.

X. Monitoring and Reporting

The Board will regularly review investment performance and risk at the Total Fund level and at the major asset class category level. This review process will provide feedback to the Board as to whether the Total Fund is on track to meet investment objectives. While the Board will receive reports on a quarterly and annual basis, the Board's primary focus will be on longer term results (i.e., five- and ten-year periods). The Board recognizes that relatively short periods of anomalous results can skew the longer-term analysis on which the Plan should be managed.

Results will be attributed to various decisions using three categories as follows:

- Policy (Policy Benchmark Return minus RRO plus actual inflation[9]);

[8] Ex post risk is realized risk based on actual portfolio performance.
[9] Actual inflation is measured as the annualized level of the CPI-U, non-seasonally adjusted.

- Strategy ((Actual Weights times Strategy Benchmark Return) minus (Policy Allocation Weights times Policy Benchmark Return)); and
- Implementation (Actual Return minus Strategy Returns).

A. Quarterly Reporting

1. The BIC's written report will provide performance analysis including analysis of the causes of outcomes observed and any key performance and risk drivers.
2. The CIO's written report will evaluate investment decisions in light of the three categories above.
3. The Risk Manager will provide a written report that addresses Total Fund risk-management findings and initiatives ("Risk Report"), which includes detail on Total Fund leverage levels, cash levels, cash replenishment initiatives, active risk, and various other risk statistics.

B. Annual Reporting

1. The BIC's written report will focus on asset allocation with an opinion as to the continued appropriateness of the Strategic Asset Allocation. This report will be supplanted by a formal A/L Study when performed.
2. The CIO's written report will discuss the Total Fund's strategic positioning and implementation changes made during the year, as well as fiscal year performance.

C. Other Reports

Other routine reports to be provided to the Board are listed in Section XVI of this IPS.

XI. PERFORMANCE BENCHMARKING

The Board approves performance benchmarks to facilitate periodic reporting and to provide a relative measure to gauge success. Effective July 19, 2018, the approved performance benchmarks for each asset class ("Policy Benchmarks") are reflected in Figure 2 below. As of the date of the adoption of the Policy Benchmarks, the System maintains legacy policy benchmarks relative to the Beta Balanced legacy asset allocation policy. The Board's adopted Transition Plan guides the transition pace and management of legacy assets. The Transition Plan also states the legacy asset allocation, legacy policy benchmarks, and legacy investment guidelines.

FIGURE 2. POLICY BENCHMARKS

Asset Bucket	Strategy Type	Recommended Benchmarks
Growth		***33% Burgiss All Equity Universe + 67% MSCI ACWI***
	Global Public Markets	MSCI ACWI
	Global Private Markets	Burgiss All Equity Universe (weighted by vintage year)
Income		***30% BB Aggregate + 70% BB Long Treasury***
	Long Treasuries	BloombergBarclays Long Treasury
	Core Bonds	BloombergBarclays Aggregate Bond (BB Agg)
Inflation Hedge		***12.5% BCOM + 62.5% BB 1-10 TIPS + 12.5% NCREIF ODCE + 12.5% NAREIT Index***
	Commodities	Bloomberg Commodity Index (BCOM)
	TIPS	BloombergBarclays 1 - 10 yr TIPS
	Private Real Assets (Core and Value Add)	NCREIF ODCE
	Other Public Real Assets	NAREIT Index
Alternative Betas/Absolute Return		***25% HFRI + 50% HFRX Macro/CTA + 25% S&P/LTSA LL + 2%***
	Direct hedge funds	HFRI Fund Weighted Composite Index
	Alt. Beta -- Beta	HFRX Macro/CTA
	Private Credit	S&P/LSTA U.S. Leveraged Loan Index + 2%
Total Fund		**45% Growth + 35% Income + 40% Inflation Hedge + 20% Alternative Betas**

XII. Investment Risk Management

The Board recognizes that to meet the Plan's RRO, the Plan must take risk to achieve sufficient returns. The Board expects an assessment of the Plan's investment risk using multiple metrics on both an absolute and relative basis at all relevant levels (i.e., Total Fund, asset class and portfolio), including downside risk metrics identified through stress-testing and scenario analyses in the asset allocation setting process and on an on-going basis.

Risks to be assessed include (but are not limited to):

1. Market risk: risk of drawdowns or swings in volatility;
2. Valuation risk: trending toward or reaching extremes (e.g., historically wide credit spreads), lack of pricing integrity;
3. Event risk: major unanticipated or unusual developments such as sovereign downgrade, Lehman bankruptcy, Asian currency crisis, etc.;
4. Liquidity risk: inability to quickly and cost-effectively raise funds to support leveraged and synthetic exposures, asset/liability mismatch;
5. Counterparty risk: risk of counterparty default or otherwise failing to meet its obligation to MOSERS; and
6. Operational risk: risk of failure in risk measurement/monitoring processes, systems, controls or personnel responsible for managing and/or monitoring risk exposures.

XIII. Anti-Terrorism

This Anti-Terrorism section is intended to avoid: (1) punishing companies whose activities abroad are supported by the U.S. government; (2) punishing companies whose activities abroad do not further terrorism; (3) unnecessarily harming U.S. companies and jobs; and (4) compromising the Board's fiduciary duties for prudently investing the Plan assets.

A. General Provisions

Annually, the Office of Internal Audit will perform the following tasks and provide a report to the Board:

1. Contact the Office of the Director of National Intelligence and any other federal agency deemed to have useful information in accurately identifying entities designated as supporting terrorism. Specifically, Staff will request guidance from these agencies on countries and, more specifically, entities that are designated as supporting terrorism. Once the information is received, Staff will compare the list of entities with the Plan's current holdings. In the event that the Plan has invested in one of these entities, Staff will immediately contact the manager of the specific investment account to bring the situation to their attention and discuss appropriate actions for divesting from the entity. In addition, Staff will forward on all information received from any of these federal government agencies to our investment managers so they can avoid making initial investments or divest of existing investments in entities designated as supporting terrorist activities.
2. Obtain from the custodian bank a letter of confirmation that the custodian bank maintains appropriate policies, procedures, and controls to comply with all U.S. and applicable non-U.S. economic sanctions programs including the use of the Office of Foreign Assets Control Specially Designated Nationals and Blocked Persons List (commonly referred to as the "OFAC list").
3. Summarize Staff exchanges with the System's investment managers regarding terrorism and investing and identify any investment actions taken due to links to terrorist activities or links to U.S.-designated state sponsors of terrorism.
4. Evaluate compliance with the anti-terrorism due diligence procedures.

B. Additional Measures

1. The Board may, as often as it deems prudent, contract with an external vendor to screen the System's portfolio for investments in entities which are, or aid entities which are, designated by the U.S. Department of State as a (1) foreign terrorist organization or (2) state sponsor of terrorism.

2. The System may use alternative measures, as necessary, to aid in anti-terrorism due diligence, including subscribing to relevant databases, providing Staff training on open-source investigations, or hiring additional Staff.

XIV. Personal Trading Policy

See the *Personal Trading Policy* in the MOSERS Governance Manual.

XV. Pay-to Play Policy

See the *Pay-Play Policy* in the MOSERS Governance Manual.

XVI. Routine Investment Program Reporting

The Board has ultimate responsibility for oversight of the activities and performance of MOSERS' investment program. Staff or external service providers will provide the Board with routine reports, according to the frequency specified below.

Report Name	Frequency	Prepared By	Description and Purpose of Report
1. Summary Performance Report	Quarterly	External	Presents investment performance for the Total Fund, for each asset class, and by investment manager. Provides analysis based on return over various periods (3 months, 1 year, 3 years, 5 years, etc.).
2. Summary Performance Report	Quarterly	Staff	Presents detail on investment decisions with respect to Policy, Strategy, and Implementation.
3. Risk Report	Quarterly	Staff	Presents detail on Total Fund leverage levels, cash levels, cash replenishment initiatives, active risk, and various other risk statistics.
4. Due Diligence	Quarterly/ Annually	Staff	Provides a summary of due diligence meetings held throughout the quarter. The CIO will annually certify that due diligence requirements have been met.
5. Rebalancing Report	Quarterly	Staff	Presents a record, in arrears, of rebalancing transactions by the CIO.
6. Investment Fee/Cost Report	Quarterly	Staff	Presents the fees/costs of all investment management.
7. Investment Cost Effectiveness	Annually	Third-Party provider selected by CIO	Evaluates the costs of the investment program and compares them to the appropriate peer group.
8. Anti-Terrorism Investment	Annually	Staff	Summarizes due diligence performed by Office of Internal Audit regarding terrorism and investments.
9. DC Plans Due Diligence	Annually	Staff	Report to the Board of the results of due diligence meetings.
10. DC Plan Report	Annually	Staff	Provides an overview of investment options, service providers, fees, and educational efforts.
11. Asset and Liability Study	At least every 5 years	External	A study of the relationship between MOSERS' assets and liabilities to determine the appropriateness of MOSERS' asset allocation policy.

XVII. Policy Review and History

1. This policy will be reviewed by the Board, at least annually, and either reaffirm it or amended it as necessary.
2. The Board adopted this IPS on November 15, 2018. The Board approved changes to this IPS on June 19, 2019 and November 19, 2020.