Investment Policy Statement for the San Francisco City and County Employees' Retirement System

Mission Statement

San Francisco City and County Employees' Retirement System is dedicated to securing, protecting and prudently investing the pension Trust assets, administering mandated benefit programs, and providing promised benefits.

SFERS
San Francisco Employees' Retirement System

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INTRODUCTION

This document provides the framework for the management of the assets of the San Francisco City and County Employees' Retirement System ("SFERS" or the "System"). The purpose of the Investment Policy Statement ("IPS") is to assist the Retirement Board (the "Board") to effectively supervise and monitor the assets of SFERS (the "Plan"). Specifically, the IPS will address the following issues:

- The goals of the investment program;
- The investment beliefs for managing plan assets;
- The policies and procedures for the management of the investments;
- Strategic asset allocations, rebalancing procedures and asset class definitions;
- Duties of responsible parties.

The Board establishes this investment policy in accordance with applicable Local, State, and Federal laws. The Board members exercise authority and control over the management of the Plan by setting policy that the Investment Staff executes with discretionary authority subject to policies established by SFERS. The Board oversees and guides the Plan and its policies subject to the following basic fiduciary principles:

- To act solely in the interest of, and for the exclusive purpose of providing benefits to, participants and their beneficiaries, minimizing contributions thereto, and defraying reasonable expenses of administering the Plan. The Board's duty to its participants and their beneficiaries shall take precedence over any other duty.
- To act with the care, skill, prudence and diligence under the circumstances then prevailing that a prudent expert acting in a like capacity and familiar with these matters would use in the conduct of an enterprise of a like character with like aims.
- To diversify the investments of the Plan so as to effectively trade off the risk of loss and appropriate rates of return. Diversification is applicable to the deployment of the assets as a whole and does not preclude the use of concentrated investment styles.

The IPS is designed to allow for sufficient flexibility in the management oversight process to capture investment opportunities as they may occur and to establish reasonable parameters to ensure prudence and care in the execution of the investment program.

INVESTMENT GOALS

SFERS' investment goals are:

1. To provide SFERS participants with retirement benefits as required by City and County Charter and applicable laws. This will be accomplished through a carefully planned and executed long-term investment program.

2. On an annualized net-of-fee basis, over a full market cycle, the total portfolio will be expected to:
    a. Exceed the assumed actuarial rate of return (currently 7.4%).
    b. Exceed the benchmark return based on SFERS' asset allocation policy and respective asset class component benchmark returns over rolling five-year periods.

3. To undertake all transactions for the sole benefit of SFERS members and beneficiaries, and for the exclusive purpose of providing benefits to them, minimizing contributions to the Plan and defraying reasonable administrative expenses associated with the Plan.

4. To set asset allocation policy in a manner that encompasses a strategic, long-term perspective of the capital markets, the nature and structure of SFERS' liabilities, as well as the impact on employee and employer contributions. SFERS recognizes that a strategic long-term asset allocation plan implemented in a consistent and disciplined manner will be the major determinant of the Plan's investment performance.

5. To make decisions and follow investment policies which comply with "prudent expert" standards.

INVESTMENT BELIEFS

1. Investment plan design should reflect a long-term horizon.

2. The power of compound returns and capital preservation is substantial and should be recognized.

3. Volatility in the short term can be substantial but diminishes over long periods of time.

4. Reducing the potential for investment loss that leads to increased employer and employee contributions is a priority.

5. Asset allocation is the primary determinant of risk and return.

6. Investment decisions should be made in a total portfolio context.

7. Superior returns are achieved through asset allocation, asset rebalancing, and manager and security selection.

8. To achieve its mission, SFERS seeks to partner with exceptional managers with identifiable investment skill and ability to recognize and exploit less efficient market segments.

9. Specialist managers tend to outperform generalists.

INVESTMENT POLICIES AND PROCEDURES

SFERS' assets will be managed on a total return basis. While SFERS recognizes the importance of the preservation of capital, it also adheres to the principle that varying degrees of investment risk are generally rewarded with compensating returns.

The policies and procedures of SFERS' investment program are designed to maximize the probability that the investment goals will be achieved.

1. Asset Allocation Policy

SFERS adopts and implements an asset allocation policy that is predicated on a number of factors, including:

- Actuarial projections of assets, liabilities, benefit payments, and the cost of contributions;
- Historical and expected long-term capital market risk and return behavior;
- An assessment of future economic conditions, including inflation and interest rate levels; and,
- The current and projected funding status of the Plan.

This policy provides for diversification of assets in an effort to maximize the investment return of the Plan consistent with market conditions and risk tolerance. Asset allocation modeling identifies asset classes the Plan will utilize and the percentage that each asset class will represent of the total Plan. The current long-term asset allocation targets and ranges for the investments of the Plan's assets are shown in the Appendix.

Due to the fluctuation of market values, actual weights within a specified range are acceptable and constitute compliance with the policy. It is anticipated that an extended period of time may be required to fully implement the asset allocation policy, and that periodic revisions will occur. SFERS' Investment Staff ("Staff") and external consultants will monitor and assess the actual asset allocation versus policy and will evaluate any variation deemed significant.

2. Environmental, Social, and Governance Policy

SFERS believes that environmental, social, and governance (ESG) factors can have a material impact on the value of companies and securities, as well as affect the macroeconomic environment more broadly. Consideration of material environmental, social, and governance (ESG) factors alongside traditional financial factors should therefore provide a better understanding of the risk and return characteristics of investments.

SFERS incorporates ESG factors into its management of the Plan in a manner that is consistent with the Retirement Board and Staff's fiduciary responsibilities to act in the best interests of the members, retirees, and beneficiaries of the Retirement System and consistent with SFERS' role as a prudent, long-term investor.

SFERS' specific practices related to ESG factors are described fully in the separate, "SFERS Environmental, Social, and Governance (ESG) Procedures".

3. Investment Manager Policy

The selection of investment managers will be accomplished in accordance with all applicable Local, State and

Federal laws and regulations. Each investment manager must function under a formal contract that delineates responsibilities, establishes guidelines, and articulates performance expectations.

SFERS shall follow the guidelines for evaluating and retaining managers in accordance with the guidelines for respective asset classes.

The managers responsible for a separately managed accounts (SMA's) on SFERS' behalf will be expected to acknowledge in writing that they are Plan fiduciaries and will have discretion and authority to determine investment strategy, security selection and timing within their assigned mandate, and subject to IPS guidelines and any other guidelines specific to their portfolio.

SMA investment managers, as prudent experts, will be expected to know SFERS' policies (as outlined in this and other appropriate documents) and any specific guidelines for their portfolios, and to comply with those policies and guidelines. It is each manager's responsibility to identify policies and guidelines that may have an adverse impact on performance, and to initiate discussion with Staff toward possible improvement of said policies or guidelines through Board action.

The Staff will also review each SMA investment manager's adherence to investment guidelines, and any material changes in the manager's organization (e.g., personnel changes, new business developments, etc.). The investment managers retained by SFERS will be responsible for informing SFERS Staff of all such material changes on a timely basis. Performance of each portfolio will be monitored and evaluated on a regular basis relative to a suitable benchmark and, where appropriate, relative to a peer group of managers with similar investment styles.

4. Selection Criteria for Investment Managers

Criteria will be established for each manager search undertaken by SFERS and will be tailored to SFERS' needs in each search.

In general, eligible managers will possess attributes including, but not limited to, the following:

- The firm must be SEC-registered or exempt from registration. Firms claiming exemption from registration requirements must provide appropriate documentation and disclosures indicating reasons for exemption.
- The firm or its senior investment professionals must be experienced in managing money for institutional clients in the asset class/product category/investment style specified by SFERS.
- The firm must display a record of stability in attracting and retaining qualified investment professionals, as well as a record of managing asset growth effectively, both in gaining and retaining clients.
- The firm must have an asset base sufficient to accommodate SFERS' portfolio. In general, firms should have at least $250 million of discretionary institutional assets under management, and SFERS' portfolio would generally make up no more than 20% of the firm's total asset base after funding. Exceptions may be made on a case-by-case basis.
- The firm must demonstrate adherence to the investment style sought by SFERS, and adherence to the firm's stated investment discipline.
- The firm's fees should be competitive with industry standards for the product category.
- The firm must comply with the "Duties of the Investment Managers" outlined herein and conform to

CFA Institute/Global Investment Performance Standards for performance reporting.

When making a recommendation to retain a manager, any exceptions to these attributes for a recommended manager shall be noted to the Board in writing by Staff and the appropriate asset class consultant.

5. Criteria for Investment Manager Termination

SFERS reserves the right to terminate an investment manager at any time for any reason.

Grounds for investment manager termination may include, but are not limited to, the following:

- Failure to comply with the guidelines agreed upon for management of SFERS' portfolio, including holding any restricted issues.
- Failure to achieve performance objectives specified in the manager's guidelines.
- Significant deviation from the manager's stated investment philosophy and/or process.
- Loss of key personnel or changes in ownership structure.
- Evidence of illegal or unethical behavior by the investment management firm or its principals.
- Lack of willingness to cooperate with reasonable requests by SFERS for information, meetings or other material related to its portfolios.
- Loss of confidence by the Board or Staff in the investment manager.
- A change in the Plan's asset allocation program, which necessitates a shift of assets to another sub-asset class or sector.

The presence of any one of these factors will be carefully reviewed by SFERS' Staff but will not necessarily result in an automatic termination.

6. Investment Manager and Consultant Authority

The investment managers shall have full discretion to direct and manage the investment and reinvestment of assets allocated to them for management on SFERS' behalf in accordance with this document, applicable Local, State and Federal statutes and regulations, individual investment management agreements, approved investment guidelines, and executed contracts.

Consultants shall have no discretionary authority (unless such authority is delegated contractually by the Board and the Consultant) and shall be co-fiduciaries to the Plan. Consultants shall be responsible for making timely and appropriate recommendations on investment policy issues, for monitoring managers, and for reporting on manager and total fund performance (or asset class composite level performance for specialty consultants) on a quarterly basis. The Board and Staff will consider the comments and recommendations of Consultants in conjunction with other available information in making informed, prudent decisions.

7. Fiduciary Responsibilities

All investments implemented through separately managed accounts (SMAs) must be managed by a qualified investment manager acting in a fiduciary capacity to SFERS. Once retained, an investment manager must acknowledge in writing the manager's fiduciary responsibility to SFERS and acknowledge the objectives and policies contained in this Policy. It is expected that, at all times, the manager(s) will conduct themselves as fiduciaries in conformance with the California Constitution, Article XVI, Section 17 and Charter Section 12.100, unless a lesser standard of fiduciary duty is necessary because of generally prevailing industry standards for an investment of that type and nature. Any such generally prevailing industry standard shall be established upon the written advice of the investment consultant responsible for that asset class.

8. Emerging Business Enterprises

SFERS Staff, its investment managers, and its consultants shall make a good faith effort to retain and utilize the services and/or products of qualified Emerging Business Enterprises on a sub-contracting and/or joint venture basis when those services/products are provided consistent with the fiduciary responsibilities of the Board.

SFERS will also, to the extent possible, use and encourage the use by its managers of brokerage services offered by emerging brokerage firms, particularly certified San Francisco-based firms.

SFERS has also adopted a policy regarding emerging investment managers.

9. Custody of Assets

With the exception of assets invested in commingled funds or assets invested in an investment program approved to use one or more Prime Brokers, the assets of the Plan shall be held in a custody/record-keeping account in a master custody bank located in a national money center and in the international sub-custodian banks under contract with the custodian bank.

Staff shall be responsible for reviewing the cost-effectiveness and performance of the custodian on a regular basis (at least every five years), with input from SFERS' consultants as needed.

10. Derivatives

Derivatives may be employed by SFERS' investment managers if permitted in the manager's written guidelines. The purpose of derivatives shall be to control portfolio risk, aid in liquidity management, augment return, and/or execute portfolio strategies in a timely and cost-effective manner. Derivatives are contracts or securities whose returns are derived from the returns of other securities, indices or instruments including, but not limited to futures, forwards, options, options on futures and private swaps. Examples of appropriate applications of derivative strategies include hedging interest rate and currency risk, executing a passive management style, maintaining exposure to a desired asset class while effecting asset allocation changes, and adjusting portfolio duration of fixed income portfolios.

Unless permitted to do so in their written guidelines, SFERS' investment managers are not allowed to utilize derivatives for speculative purposes. SFERS' managers typically shall not borrow funds to purchase derivatives; any exceptions shall be specified in the investment manager's written guidelines. No derivatives positions can be established that create portfolio characteristics outside of portfolio guidelines. Managers must ascertain and carefully monitor the creditworthiness of any third parties involved in derivative transactions.

11. Short Sales and Leverage

Short sales of securities and leverage may be allowed only if permitted in the investment manager's written guidelines and shall typically be subject to expressed limits.

12. Credit Facilities

Credit Facilities for the Trust are allowed with the following conditions:

a) The facility is reviewed and approved by the Board and General Investment Consultant.

b) The total amount of all outstanding loans at any given time is less than $250 million.

c) The initiation of any loan through a credit facility is approved by both the Chief Investment Officer and the Executive Director, after careful consideration of other potential sources of liquidity.

d) Detailed reporting through monthly CIO reports and annual review to the Board is provided in line with SFERS' Processes and Procedures.

ASSET ALLOCATION INVESTMENT GUIDELINES AND REBALANCING PROCEDURES

SFERS' long-term Strategic Asset Allocation is specified in the Appendix. The composite benchmarks are used:

- To assess the risk/return characteristics for each asset class,
- To estimate expected returns for each asset class,
- For public markets, to outline the investable universe.

Asset Class Definitions

SFERS will utilize the following portfolio components to fulfill the asset allocation targets and total fund performance goals established elsewhere in this document.

1. **Growth** – The Growth/Capital Appreciation portfolio will serve as the long-term growth engine of the portfolio. This portfolio will be the primary source of return as well as risk (volatility) for the portfolio. The Plan's Growth portfolio may be comprised of different market segments and approaches, including:

- **Public Market Equity –** SFERS anticipates that long-term total returns for equities will be higher than total returns for fixed income securities and may be subject to greater volatility. SFERS' equity holdings will be well diversified with respect to region, capitalization ranges and investment styles. The public market equity components in the Plan's asset allocation mix are:

    - **US Equity** – This segment of the portfolio will provide broadly diversified exposure to the US equity market, in both large and small cap market segments, as well as diversified exposure to different style segments (e.g., growth and value). Passive, enhanced passive and, active management strategies may be used in US equity holdings.
    - **Developed (ex-US) Equity** – This portfolio provides access to equity markets outside the US and consequently plays a significant role in diversifying SFERS' domestic equity portfolio. A core international segment will concentrate on larger companies in developed non-US equity markets while a small capitalization segment will ensure exposure to the smaller companies that are primarily located in developed markets. Both passive and active management may be used in the core international equity portfolio, although active strategies will be emphasized.
    - **Emerging Markets Equity** - An emerging markets equity portfolio further diversifies the developed market segments by investing in developing markets that have lower correlations with developed economies.
    - **Global Equity –** A global equity portfolio will invest in both US and non-US companies, including emerging markets. Managers will have the discretion to allocate between US and non-US companies depending on their view of opportunities, valuations, and growth prospects.
    - **Opportunistic and Specialty strategies** may also be included in the Public Market Equity segment for the purpose of enhancing return, managing risk, and/or taking advantage of management approaches or hybrid securities that embody equity as well as other characteristics.

As specified in their investment guidelines, active managers may be given discretion to hedge currency exposure in their portfolios.

- **Private Equity –** The Private Equity portfolio seeks to deliver long-term, risk-adjusted returns superior to those of comparable public markets. Investments in the asset class are achieved primarily through commingled fund and SMA partnerships managed by investors who focus on specific segments of the market. Private Equity investment strategies include buyout, venture capital, growth capital, and special situations. Other investment strategies that may be pursued on an opportunistic basis include direct / co-investments, secondary transactions, and other credit-based strategies such as mezzanine financing. Given the increased risk, illiquidity and management expense inherent in private investments, the Private Equity portfolio is expected to provide higher returns over the long term than publicly traded equity securities.

  The primary objective of the Private Equity portfolio is to provide a substantial return premium (300 basis points or more) over public equity markets over rolling 10-year periods.

2. **Income –** The Income/Capital Preservation portfolio is intended to provide income and "downside protection" to the portfolio in periods of financial market duress or disinflation by providing a stable return. Income allocation also aids in the diversification of the Plan's assets. The Income/Capital Preservation portfolio may be comprised of different market segments and approaches, including:

- **Private Credit** – The Private Credit portfolio will invest in a variety of strategies including, but not limited to, senior debt/direct lending, mezzanine loans, specialty finance, real estate debt, distressed debt, and special situations. The primary objective of Private Credit is to provide a return premium (150 basis points or more) over Liquid Credit. The Private Credit portfolio invests in commingled funds, co-investments and SMA's.

- **Public Market Fixed Income/ Liquid Credit** – The primary role of the Liquid Credit portfolio is to generate added yield compared to Treasuries over a full market cycle and provide diversification for the Plan. SFERS' Liquid Credit portfolio will be well diversified, and may include, but is not limited to, investment grade and non-investment grade corporate debt, emerging market debt, and asset-backed securities.

- **Public Market Fixed Income/ U.S. Treasuries** - The primary role of the U.S. Treasuries portfolio is to provide capital preservation, liquidity, and to increase the diversification of the Plan as a whole. Active, enhanced passive, and passive management strategies may be employed. SFERS' Treasuries portfolio will be well diversified. Subject to appropriate risk constraints and in keeping with the stated objectives for the Treasuries portfolio, out of benchmark issuers, positions, and holdings may be permitted if authorized in a Manager's Investment Guidelines.

- **Cash** - Cash will be segmented into three categories:

  - **Cash needed for Payment of Benefits and Expenses** – This is cash that will be set aside for the specific purpose of paying benefits and expenses. This cash should generally not be used to meet capital calls or other investment funding requirements. The amount of cash "set aside" for this purpose should not be less than one or more than four months funding requirement, with a target of three months.

  - **Cash Available for Investment** – This is cash which is available for investment following SFERS' Investment Guidelines contained herein. As a matter of principle, SFERS will strive to maintain a "zero cash" policy, i.e., all funds available for investment should be kept invested in accordance with this Investment Policy. Cash Available for Investment should not exceed 5% of

Plan assets, with a target of 0%.

- **Cash Overlay** - It is common for institutions such as SFERS to set an Asset Allocation target for cash at 0.0%, since cash is expected to underperform other asset classes over the long term. In order to make benefit payments and meet capital calls, however, it is necessary to hold a minimal amount of cash. Over time, cash causes a drag on performance. The process of rebalancing physically held securities to target causes additional performance drag due to transaction costs and market exposure gaps. These costs can be minimized, and liquidity and efficiency can be increased, by a cash overlay program that uses liquid index futures to maintain portfolio exposures and reduce the number of physical security transactions.

3. **Diversifying –** The Diversifying portfolio consists of assets that provide investors with a better hedge against loss of purchasing power than traditional asset classes including equities and bonds. Moreover, these strategies maintain lower correlation to traditional asset classes, providing diversification benefits. The Plan's Diversifying portfolio may be comprised of different market segments and approaches, including:

- **Real Assets –** The Real Assets portfolio seeks to provide portfolio diversification, current income, and protection against unanticipated inflation. SFERS' Real Assets team will generally focus on alpha generating, higher returning private investment strategies in real estate, natural resources, and opportunistically in other real assets strategies rather than publicly traded securities such as TIPS, REITs, commodities indices, and natural resource equities. SFERS' Real Assets portfolio invests in commingled fund, SMAs, direct and co-investments.

  Private real estate is a global asset class that can provide portfolio diversification as well as attractive levels of current income and capital appreciation. Even when the core segment of the asset class is fairly or over valued in prime locations around the world, there are compelling investment opportunities in non-core and opportunistic real estate segments, particularly in less efficient niche property sectors or markets that can provide investors with more attractive risk-adjusted returns. SFERS' Real Assets team will seek to partner with exceptional managers who specialize in specific property types or geographic regions, favoring those who have the operating capabilities to improve assets and drive net operating income.

  Private investment in natural resources – energy, metals and mining, timberland, and agriculture – can provide attractive return prospects and significant portfolio diversification. Natural resources have historically had low correlation with traditional public market asset classes. Despite the long-term attractiveness of the global natural resources industry, market cyclicality and short-term price volatility can still exist. SFERS' Real Assets team will seek to partner with experienced investment managers who can take advantage of short-term price dislocations – which often react to factors unrelated to long-term industry fundamentals – to capture value and deliver superior returns. Other diversifying strategies such as infrastructure that complement real estate and natural resources may be opportunistically considered as well. Similar to real estate and natural resources, the Real Assets team will seek to partner with high quality managers that have the ability to create alpha and drive returns.

- **Absolute Return –** SFERS' Absolute Return portfolio invests in commingled funds, co-investments and SMAs. The objectives of the total portfolio are to generate an attractive absolute and risk-adjusted rate of return with low performance volatility and low correlation to global equity and fixed income markets, over a full market cycle; preserve capital during prolonged equity market drawdowns; and enhance total Fund alpha through exposure to sources of return and risk that differ meaningfully from traditional equity, fixed income and private market investments. The portfolio investment strategies trade in a wide range of securities and other instruments (including, but not limited to, equities and fixed income securities, currencies, commodities, futures contracts, options and other derivative instruments). Hence, absolute return has characteristics of both diversifying assets and capital preservation. The investment approach is to achieve broad diversification across global capital markets and strategies, which include Equity, Credit, Macro, Emerging Markets, Quantitative, Multi-Strategy, Special Situations/Other, and Commodities.

Rebalancing

A rebalancing process, implemented on a regular basis when asset allocation ranges are breached, or when cash flows occur (e.g., for benefit payments or funding new investments), or for other reasons judged to be in the best interests of the Plan and its beneficiaries, will be used to maintain or to move asset allocations within their appropriate allowable ranges as delineated in the Appendix of this Investment Policy Statement.

The Chief Investment Officer ("CIO"), supported by the Managing Directors, shall be responsible for undertaking rebalancing at the broad asset class level. The Senior Portfolio Managers ("SPMs") and Directors shall be responsible for making rebalancing recommendations to the appropriate Managing Director for their respective asset class(es) and for implementing those recommendations subject to approval from the CIO. Rebalancing decisions will take into consideration a combination of various factors including but not limited to: cash needed for benefit payments and expenses, cash needed for investments, asset allocation shifts and weights relative to targets and permissible ranges, capital markets conditions, and the performance, organizational and investment attributes of individual managers.

When broad asset class ranges are breached, the System will rebalance assets such that asset allocation is brought to within the ranges specified in the Appendix. Subject to approval by the appropriate Managing Director and the CIO, Staff will also have discretion on how to redeploy assets within their asset class in accordance with applicable ranges. The Board recognizes that from time to time ranges may be breached for a period of time due to the absence of an appropriate manager and/or Staff judgment that an existing manager(s) should not be allocated additional assets, or when, in the judgment of Staff, market conditions are not favorable to rebalancing activities.

The CIO shall report to the Board monthly on the System's rebalancing activities, including any exceptions to policy.

GENERAL INVESTMENT OBJECTIVES AND GUIDELINES FOR PUBLIC MARKET SECURITIES

Public Market Equity

The public equity portfolio will be managed on a total return basis, will employ a variety of investment styles, and may be implemented by way of both SMA's and commingled funds. Allocations will be evaluated on an on-going basis against representative market benchmarks determined in advance and specified in the written guidelines governing each SMA. Where such comparisons are applicable, investment results will also be compared to returns of a peer group of managers with similar styles. These benchmarks may also be modified, as appropriate to the manager's investment style, to exclude restricted stocks.

- SFERS' holdings by all managers in aggregate in a single stock shall not constitute more than 10% of the outstanding voting stock of any company.
- Unless authorized in SMA guidelines, an equity manager's cash holdings shall not exceed 10% of portfolio market value.
- American Depositary Receipts or other depository receipts listed on a major stock exchange or on the NASDAQ are permitted if specified in the manager's guidelines.
- Convertible securities may be held in equity portfolios if authorized in guidelines and shall be considered equity holdings.
- Securities must be traded on a regulated stock exchange or listed on the NASDAQ or a comparable foreign market operation.
- Up to 5% of the public equity portfolio may be invested in non-publicly traded securities.
- Forward or futures contracts for foreign currencies may be entered into for hedging purposes or pending the selection and purchase of suitable investments in or the settlement of any such securities transactions only in portfolios designated specifically to hold these types of securities (i.e., currency overlay).
- The total equity portfolio shall have the following liquidity guidelines:
    - Less than 1 month: 20% minimum
    - Greater than 12 months: 10% maximum
- Long/short equity strategies shall be permitted.
- The total public equity portfolio's net long exposure shall be in a range of 75%-100%; gross long exposure shall be in a range of 75%-150%; and gross short exposure shall be in a range of 0%-50%.
- The total public equity portfolio shall have an expected tracking error target of 3%, with a range of 1%-4%.

Public Market Fixed Income Portfolios

The Public Market Fixed Income portfolio is comprised of separate allocations to U.S. Treasuries and Liquid Credit.

The U.S. Treasuries portfolio will be managed to provide diversified exposure to the U.S. Treasury market while the Liquid Credit portfolio will be managed on a total return basis, providing exposure to either specific investment styles or multiple fixed income sectors.

Fixed income allocations may be implemented by way of both SMA's and commingled funds. Allocations will be evaluated on an ongoing basis against representative market benchmarks determined in advance and specified in the written guidelines governing each SMA. Where such comparisons are applicable, investment results will also be compared to returns of a peer group of managers with similar styles.

Permissible securities for each investment manager will be determined based on their investment style and risk and return objectives. Permissible holdings shall include, but are not limited to, government and government agency bonds, corporate bonds (including convertible bonds), floating rate loans, securitized instruments (such as asset-backed and mortgage-backed securities), and cash equivalents. Derivatives may be used to control risk and augment return, or to effect portfolio management decisions in a timely, cost-effective manner. Short positions are also permissible.

Any exemption from these general guidelines requires the approval of the CIO, Managing Director for Asset Allocation, Risk Management, and Innovative Solutions, and General Consultant, and shall be reported to the Board.

DUTIES OF RESPONSIBLE PARTIES

Duties of the SFERS Board

The Board will adhere to the following procedures in the management of SFERS' assets:

- The Board's primary responsibility is to set the policy framework in which the implementation of SFERS' investment program will take place. Staff will be responsible for the timely implementation and administration of the Board's policy decisions.
- The Board shall formally review SFERS' investment structure, asset allocation and financial performance at least every three years, or more frequently should capital markets or the financial condition of the Plan undergo a material, long-term change necessitating such a review. The review will include recommended adjustments to the long-term, strategic asset allocation to reflect any changes in applicable regulations, long-term capital market assumptions, actuarial assumptions or SFERS' financial condition.
- The Retirement Board shall review SFERS' investment results at least quarterly,[1] or more often as needed, to ensure that policy guidelines continue to be met. The Board shall monitor investment returns on both an absolute basis and relative to appropriate benchmarks and peer group comparisons. The sources of information for these reviews shall include Staff, outside consultants, the custodian, the performance measurement provider, and SFERS' investment managers.
- The Board may retain investment consultants to provide such services as conducting performance and manager reviews, asset allocation, and investment research. The comments and recommendations of the consultants will be considered in conjunction with other available information to aid the Board in making informed, prudent decisions. In selecting external consultants, the Board shall consider the recommendations of Staff.
- The Board shall be responsible for taking appropriate action if investment objectives are not being met or if policies and guidelines are not being followed.
- The Board shall direct Staff to administer SFERS' investments in a cost-effective manner subject to Board approval. Investment-related costs include, but are not limited to, management, consulting and custodial fees, transaction costs and other administrative costs chargeable to SFERS.
- The Board shall be responsible for selecting a qualified custodian with advice from Staff, and from the Consultant(s) if directed by the Staff or the Board.
- The Board shall provide oversight of the effectiveness of Staff's implementation of its policy directives.

Duties of the Investment Staff

SFERS' Investment Staff plays a significant role in the management and oversight of the Plan and is responsible for the timely implementation and administration of the Board's policy decisions. The Board shall monitor the performance of the Investment Staff in carrying out the duties, which include:

- Managing investment funds according to written investment policies and guidelines as directed by the Board.
- Carrying out rebalancing activity in accordance with the policy stated in this document.
- Monitoring external managers for adherence to SFERS' written policies and guidelines, and in

[1] Performance of Private Equity, Real Assets, and Private Credit are reviewed annually.

accordance with respective asset class guidelines. Reviews for portfolios managed by external managers will focus on:

1. Compliance with the investment guidelines.
2. Compliance with the terms of the contracts, and the manager's ability to provide the System with timely, accurate and useful information.
3. Manager's ability to continue to achieve its objectives given its investment process and resources.
4. Material changes in a manager's organization. This may include, but is not limited to changes in investment philosophy, personnel or ownership, acquisitions or losses of major accounts, etc. The manager will be responsible for advising SFERS' Staff of any material changes in personnel, investment strategy, or other pertinent information potentially affecting performance.
5. Investment performance relative to each manager's stated performance benchmark(s) as set forth in the manager's investment guidelines as well as the manager's rankings in an appropriate peer group comparison.

- Providing due diligence, oversight, and investment recommendations regarding all investment portfolios with assistance from the respective Consultant(s).
- Identifying, measuring and evaluating risk in SFERS' holdings across all asset classes.
- Evaluating and managing relationships with the Consultant(s) to the Plan to ensure that the Consultant(s) are providing all the necessary assistance to Staff, and the Board as set forth in their service contracts and meeting the needs of the System.
- Making recommendations to the Board regarding retention of Consultant(s).
- Conducting manager searches with assistance from Consultant(s).
- Managing portfolio restructurings resulting from manager terminations with the assistance of Consultants, managers, or other parties, as needed.
- Conducting, directing Consultants and/or managers to conduct, or participating in any special research required to manage the Plan more effectively and in response to any questions or issues raised by the Retirement Board.
- Reviewing the cost-effectiveness and performance of the custodian on a regular basis (at least every five years), with input from SFERS' Consultants as needed or as directed by the Board.
- Monitoring and reviewing the System's securities lending program (if any) on an ongoing basis in accordance with SFERS' processes and procedures including annual update to the Board of program's performance, activity, and initiatives.
- Monitoring and reviewing the System's credit facilities (if any) on an ongoing basis in accordance with SFERS' processes and procedures including annual update to the Board of program's cost, utilization, and initiatives.
- In collaboration with SFERS' Consultants, Staff will present to the Board annual updates for Asset Allocation and Risk Management, ESG, Public Fixed Income, Public Equity, Absolute Return, Private Credit, Real Assets, and Private Equity. Updates will provide an overview of each area's strategic plan, performance (as appropriate), activity, and initiatives.

Duties of the Investment Managers

The duties of the Investment Managers shall include:

- Provide the Plan with a written agreement to invest within the guidelines established.
- Provide the Plan with proof of liability and fiduciary insurance coverage on an annual basis.
- Be an SEC-Registered Investment Advisor under the 1940 Act or exempt from registration and be recognized as providing demonstrated expertise over a number of years in the management of

institutional, tax-exempt assets within a defined investment specialty.
- Adhere to the investment management style, concepts and principles for which they were retained, including, but not limited to, developing portfolio strategy, performing research, and purchasing and selling securities.
- Execute all transactions for the benefit of the Plan with brokers and dealers qualified to execute institutional orders on an ongoing basis at the best net cost to the Plan.
- Reconcile monthly accounting, transaction and asset summary data with custodian valuations, and communicate and resolve any significant discrepancies with the custodian.
- Maintain frequent and open communication with the System on all significant matters pertaining to the Investment Plan, including, but not limited to, the following:

  1. Major changes in the Investment Manager's investment outlook, investment strategy and portfolio structure;
  2. Significant changes in ownership, organizational structure, financial condition or senior personnel;
  3. Any changes in the Portfolio Manager(s) or other personnel assigned to the Plan;
  4. Each client which terminates its relationship with the Investment Manager, and whose assets represent 5% or more of the firm's AUM and/or 10% or more of assets in the strategy in which SFERS invests, within 30 days of such termination;
  5. All pertinent issues which the Investment Manager deems to be of significant interest or material importance to its investment process; and
  6. Meet with the Staff or the Board on an as-needed basis.

Duties of the Master Custodian

The Master Custodian shall be responsible for the following actions:

- Provide complete global custody and depository services for the designated accounts.
- Manage, if directed by the Board, a Short-Term Investment Fund for investment of any cash not invested by managers, and to ensure that all available cash is invested in this or other fixed income vehicles approved by the Board for this purpose. If the cash reserves are managed externally, full cooperation must be provided to the external cash manager.
- Provide in a timely and effective manner a monthly report of the investment activities implemented by the investment managers and the performance of each portfolio.
- Collect all income and principal realizable, including timely processing and collection of tax reclaims, and properly report its regular accounting statements.
- Provide monthly and fiscal year-end accounting statements for the portfolio, including all transactions; these should be based on accurate security values for both cost and market. These reports should be provided within acceptable time frames.
- Report to SFERS' Staff situations where accurate security pricing, valuation and accrued income is either not possible or subject to considerable uncertainty.
- Provide regular performance reports including performance attribution of SFERS' asset class composites and total assets, and a check on guideline compliance and adherence to investment style and discipline; performance calculations shall conform to the CFA Institute's Global Investment Performance Standards.
- Reconcile monthly with SFERS investment managers on price variance and portfolio valuation.
- Provide assistance to the Plan to complete such activities as the annual audit, proxy voting, transaction verification or other unique issues as required by the Board.
- Manage a securities lending program to enhance income if directed to do so by the Board. The custodian may also be called upon to manage the cash collateral associated with the securities lending

program. If a securities lending program is managed externally, full cooperation must be provided to the external securities lending agent. Provide credit facilities options to enhance liquidity management if directed to do so by the Board.

Duties of the Investment Consultants

The selection of Consultants will be accomplished in accordance with all applicable Local, State and Federal laws and regulations. Each Consultant shall be a co-fiduciary to the Plan and must function under a formal contract that delineates responsibilities and appropriate performance expectations.

Consultants shall have no discretionary authority (unless such authority is delegated contractually by the Board and the Consultant). They shall be responsible for making timely and appropriate recommendations on investment policy issues, for monitoring managers, and for reporting on performance results on a quarterly basis. The Board and Staff will consider the comments and recommendations of Consultants in conjunction with other available information in making informed, prudent decisions.

Each Consultant shall abide by The Code of Ethics and The Standards of Professional Conduct established by the CFA Institute (formerly the Association for Investment Management and Research) in carrying out its responsibilities with respect to SFERS.

The General Investment Consultant shall be responsible to the Board for the following actions:

- Assist SFERS Staff in making recommendations to the Board regarding investment policy and strategic asset allocation, including sub-asset class structure.
- Assist SFERS Staff in the selection of qualified public markets investment managers and making recommendations to the Board and Staff on manager selection and manager guidelines.
- Assist Staff in the oversight of existing managers, including monitoring changes in personnel, organization, ownership, the investment process, compliance with guidelines, and other issues likely to affect performance.
- Assist Staff in the selection of a qualified custodian (including a securities lending agent and/or a cash manager) if directed by the Board and Staff.
- Assist Staff in the evaluation and selection of appropriate credit facilities if directed by the Board and Staff.
- Prepare quarterly performance summaries regarding SFERS' manager, composite, and total plan results and make recommendations addressing any performance issues.
- Provide topical research and education on investment subjects that are relevant to SFERS.
- Other tasks as requested by the Board or Staff consistent with the function served by the General Investment Consultant.

Private Market (Private Equity, Private Credit, and Real Assets) Investment Consultant(s) shall be responsible for the following:

- Assist SFERS Staff in making recommendations to the Board regarding investment policy and strategic asset allocation as they pertain to private markets.
- Assist SFERS Staff in the selection of qualified private market investment managers and making recommendations to the full Board on manager selections.
- Assist SFERS Staff in the oversight of existing managers (including any public market securities managers related to the private equity portfolio), including monitoring changes in personnel, ownership and the investment process.

- Assist SFERS Staff in preparing an annual asset class updates that will provide an overview of performance, activity, pacing plans, and initiatives.
- Provide topical research and education on private market investment subjects that are relevant to SFERS.
- Other tasks as requested by the Board or Staff consistent with the function served by the Private Market Consultant(s).

APPENDIX: STRATEGIC ASSET ALLOCATION

	Long-Term Target	Allowable Range	Composite Benchmark
Growth/Capital Appreciation	**49%**	38-70%	
Public Equity	*31%*	*25-50%*	*MSCI ACWI Investable Market Index ($, ND)*
Private Equity	*18%*	*13-23%*	*75% Russell 3000/25% MSCI ACWI ex-US + 300 bps*
Diversifying Assets	**32%**	**19-37%**	
Real Assets	*17%*	*12-22%*	*50% NCREIF-ODCE/50% Cambridge Associates' NR Index*
Absolute Return	*15%*	*5-17%*	*90 Day T-Bill + 500 bps*
Income/Capital Preservation	**19%**	**6-35%**	
Liquid Credit	*3%*	*0-10%*	*Bloomberg Barclays U.S. Aggregate Bond Index*
Private Credit	*10%*	*3-15%*	*50% Credit Suisse Leveraged Loan Index/50% BofA ML US HY BB-B constrained + 150 bps*
Treasuries	*6%*	*3-10%*	*Bloomberg Barclays Intermediate U.S. Treasury Index*
Cash	*0%*	*0-5%*	*90 day T-Bill*
Total Fund Composite	**100%**		**Benchmarks Weighted by Strategic Allocation Targets**

Note: Asset Allocation Long-Term Targets Approved: September 13, 2017. The Interim Policy Benchmark will be based on actual asset allocation as of September 30, 2017, plus net additional capital deployment to Private Markets and Absolute Return. Recognition of changes from the Interim Policy Benchmark to the Long-Term Targets will be made by the General Consultant.