Statement of Investment Policy



School Employees Retirement System of Ohio

Effective July 21, 2011

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I. Purpose of Policy Statement

The purpose of this Statement of Investment Policy (Policy Statement) is to set forth the investment philosophy and objectives of the Retirement Board (Board) for the School Employees Retirement System of Ohio (SERS).

This Policy Statement:

- A. incorporates and is subject to all restrictions and obligations set forth in Chapter 3309 of the Ohio Revised Code;
- B. establishes investment policies and describes the organization and division of responsibilities necessary to implement the Board's philosophy and objectives prudently; and
- C. establishes a framework for making investment decisions, and monitoring investment activity, and promotes effective communication between the Board, Staff, and other involved parties.

This Policy Statement is subject to change at any time by the Board. The Board will review the Policy Statement and revise it periodically to assure it continues to reflect the investment philosophy, objectives and strategies of the Board.

II. Investment Philosophy

The Board recognizes the need to prudently manage SERS assets (the Total Fund) to meet its statutory and fiduciary obligations and to achieve or exceed its objectives. The Board's investment philosophy is grounded in fundamental, prudent investment principles, incorporating modern portfolio theory and in-depth analyses and monitoring. The Board believes it can provide consistent, long-term performance at appropriate levels of risk. By delineating responsibilities and defining policy objectives, this Policy Statement reflects the Board's investment philosophy.

III. Investment Objectives

The Investment Objectives of SERS are:

- A. to assure that SERS provides statutorily-mandated retirement benefits,
- B. to earn a net-of-fees total return that equals or exceeds the Actuarial Assumed Rate approved by the Board over the long-term, and
- C. to enhance risk-adjusted investment returns of the Total Fund in a prudent and costeffective manner.

IV. Risk Management

- A. The Board evaluates risk in terms of the probability of not earning the actuarial assumed rate over the long-term. Diversification across asset classes, within asset classes, and across investment styles, sectors and securities will be employed to reduce overall portfolio risk and volatility.
- B. Other risks, including but not limited to those such as interest rate risk, credit risk, and liquidity risk will be managed and carefully monitored by Investment Managers and Investment Staff.

V. Implementation Approach

- A. The Board reserves certain responsibilities for itself, while delegating other responsibilities to the Executive Director, the Director of Investments, Investment Staff, Investment Managers, Investment Consultants, the Compliance Officer and other Investment Service Providers. These responsibilities are described in this Policy Statement.
- B. In fulfilling its fiduciary duties the Board utilizes a competent and qualified Staff to manage daily operations.
- C. The Board utilizes Investment Managers or Funds recommended or selected by Staff to invest most assets of the Total Fund. The Board recognizes that costs associated with external investment managers and funds are typically higher than costs associated with internal management. However, the Board believes external investment managers that act as fiduciaries possess specialized investment expertise and economies of scale, and can generate higher returns on a net-of-fee basis.
- D. The Board requires regular reporting on the Total Fund's investment program to ensure compliance with its Policy Statement.

VI. Investment Organization and Responsibilities

A. Responsibilities of the **Board**

The Board as a fiduciary is responsible for ensuring that Total Fund assets are managed prudently and effectively, in compliance with applicable laws and this Policy Statement, for the exclusive benefit of participants and beneficiaries.

Responsibilities of the Board include:

- 1. establishing controls and systems to ensure that Total Fund fiduciaries comply with applicable laws;
- 2. establishing asset allocation and investment policies for SERS assets;
- appointing and discharging the Executive Director, Board consultants, and Investment Managers and authorizing investments in Funds and full redemptions;
- 4. confirming or rejecting the Executive Director's proposed appointment of a Director of Investments;
- 5. designating the Director of Investments to be the Chief Investment Officer for SERS and then notify the Ohio Department of Commerce, Division of Securities in writing of the designation as required by the Ohio Revised Code;
- 6. monitoring and reviewing investment performance and policy compliance;
- 7. requesting, receiving and reviewing reports from Investment Staff, Board consultants and other entities, if applicable; and
- 8. reviewing, approving and revising an Annual Investment Plan (Annual Plan).

B. Responsibilities of **Staff**

Staff will administer Total Fund assets as fiduciaries, and in accordance with applicable federal and state laws and regulations, this Policy Statement, ethics laws, codes of professional conduct (in particular, the CFA Code of Ethics and Standards of Professional Conduct), and other applicable codes and/or regulations. Staff will establish plans, policies and procedures to carry out these duties.

- 1. The *Executive Director* is responsible for:
 - a. ensuring that reports of the Total Fund's investment performance are presented on a timely basis;
 - b. retaining vendors, consultants and advisors as necessary to assist Staff;
 - c. approving for Board consideration the recommendation of the Director of Investments' and Investment Staff to appoint or discharge Investment Managers or to invest in or redeem from Funds;
 - d. discharging Investment Managers and redeeming from Funds on an emergency basis in accordance with paragraph VI.G., below, following a recommendation by the Director of Investments, the Investment Staff and with the concurrence of the Investment Consultant;
 - e. appointing and discharging Investment Director and Investment Staff; and
 - f. overseeing the investment function.
- 2. The *Director of Investments* is responsible for:
 - a. overseeing the Investment Program and keeping the Executive Director advised;
 - b. preparing and presenting the Annual Plan to the Board for approval;
 - c. implementing the Annual Plan;
 - d. investigating and researching new and emerging investment concepts and strategies, and recommending or implementing appropriate strategies;
 - e. informing Investment Managers, Investment Consultants and others providing investment services to SERS about the requirements of applicable laws and Board policies, and monitoring their compliance with said laws and policies;
 - f. adjusting allocations to Asset Classes, Investment Managers and Funds as needed, subject to any maximum allocation amounts established by the Board;
 - g. recommending the appointment or discharge of Investment Managers and investment in or redemption from Funds to the Executive Director and the Board, as needed;
 - h. discharging Investment Managers and redeeming from Funds on an emergency basis in accordance with paragraph VI.G., below following a recommendation by Investment Staff and with the concurrence of the Investment Consultant and approval by the Executive Director;

- i. activating backup investment managers previously approved by the Board, following the backup investment manager's presentation to the Board;
- j. approving investment manager style changes and additions and advising the Board at its next scheduled meeting; however, any change in mandate requires prior Board approval;
- k. supervising Investment Staff;
- I. monitoring and evaluating the effectiveness of executed securities transactions and reporting annually to the Board the performance of agents who execute securities transactions on behalf of SERS;
- m. periodically reporting proxy voting activity to the Board; and
- n. regularly reporting the status of the Total Fund and its multi-period performance to the Board. Performance will be calculated on a gross-of-fees basis.
- 3. The *Investment Staff* is responsible for:
 - a. promptly voting, or instructing Investment Managers to vote, proxies and related actions, and maintaining detailed records of proxy votes and related actions for the Director of Investments;
 - b. regularly reporting the status of the Total Fund and its multi-period performance to the Director of Investments;
 - c. meeting and speaking with existing or potential Investment Managers periodically to review and assess the quality of their investments and management of assets;
 - d. performing ongoing due diligence to evaluate and monitor Investment Manager capabilities relative to managing Total Fund assets;
 - e. recommending to the Director of Investments additions or withdrawals from Investment Manager accounts or Funds, or rebalancing of asset class allocations;
 - f. recommending to the Director of Investments and the Board the appointment or discharge of Investment Managers and investment in or redemption from Funds;
 - g. investing assets of the Cash Equivalents portfolio;
 - h. investigating and researching new and emerging investment concepts and strategies, and recommending or implementing those strategies to the Director of Investments;
 - i. preparing regular periodic reports for the Director of Investments on the performance of agents who execute securities transactions on behalf of SERS; and
 - j. maintaining a list of Ohio-qualified Investment Managers and their investment products.

C. Responsibilities of *Investment Service Providers*

Investment Service Providers who do business or seek to do business with SERS will act in the best interest of SERS when providing services to SERS or the Total Fund. Investment Service Providers will:

- 1. comply with all applicable federal and state laws and regulations, with this Policy Statement, and with all applicable professional codes and regulations;
- 2. have established ethics and conflict of interest policies and procedures, and proper internal compliance controls in place if applicable;
- 3. disclose to Investment Staff any actual or potential conflict of interest at the earliest opportunity;
- 4. disclose any investigation of, or litigation involving its operations, to Investment Staff as permitted by law; and
- 5. provide annual or other periodic disclosures as required.

The Director of Investments will adopt procedures as appropriate to implement this section.

D. Responsibilities of Investment Managers

Investment Managers and Investment Staff managing assets internally are responsible for prudently investing Total Fund assets as fiduciaries. In addition to those applicable responsibilities described in VI.C., Investment Managers and internal staff members will:

- 1. manage assets within their control in compliance with all applicable federal and state laws and regulations, including but not limited to applicable ethics requirements, this Policy Statement, contractual obligations, and applicable professional codes of conduct;
- inform the Director of Investments and Investment Staff of any substantial changes in investment strategy, portfolio structure, asset value, and of any organizational changes, including that of ownership, affiliation, organizational structure, financial condition, or changes in professional personnel staffing in the investment management organization;
- 3. present in-depth reports to Investment Staff;
- 4. recommend to Investment Staff changes to investment guidelines the Investment Manager believes would enhance investment performance on a risk adjusted basis; and
- 5. select such agents for the execution of transactions, at such prices, and at such commission rates as in the good faith judgment of the Investment Manager will be in the best interest of the Total Fund's assets, taking into consideration in the selection of such agents not only the available prices and rates of brokerage commissions, but also other factors relevant to the transaction.

E. Responsibilities of *Investment Consultants*

Investment Consultants will:

- 1. provide services as a fiduciary and in accordance with all applicable federal and state laws and regulations including, but not limited to, applicable ethics requirements; in accordance with this Policy Statement; and with all applicable professional codes and/or regulations;
- 2. provide independent and unbiased research, information and advice to the Board and Staff;
- 3. assist in the development and amendment of this Policy Statement;
- 4. assist in the development of investment guidelines as may be requested by Staff;
- 5. assist in the development of strategic asset allocation targets and ranges;
- 6. assist in the development of performance measurement standards;
- 7. monitor and evaluate Investment Manager and Fund performance as appropriate on an ongoing basis;
- 8. recommend the retention or discharge of Investment Managers and investment in or redemption from Funds to Staff or the Board as appropriate;
- 9. collaborate with Investment Staff in the due diligence of potential Investment Managers and Funds, and existing Investment Managers and Funds, as requested by Staff;
- 10. assist in the development of criteria for and procedures to be utilized in the selection of Investment Managers and Funds;
- 11.provide research, information and advice on investment topics and strategies considered relevant by the Investment Consultant, or when requested by the Board or Investment Staff;
- 12. provide those services delineated in the Advisory or Consultant Agreement;
- 13. provide any other advice or services that the Board, Executive Director or Director of Investments determines from time to time are necessary, useful or appropriate to fulfill the objectives of this Policy Statement; and
- 14. Regularly report the status of the Total Fund and its multi-period performance to the Board. Performance will be calculated on a net-of-fee basis.

F. Responsibilities of the Compliance Officer

The Compliance Officer is responsible for:

- 1. monitoring and reporting compliance with this Policy Statement and Board Resolutions;
- 2. ensuring that investment management agreements and related contracts comply with the Policy Statement;
- 3. ensuring that Investment Service Providers and Investment Managers comply with Sections VI.C. and D., herein; and

4. identifying and, in concert with Investment Staff, resolving compliance violations by Investment Managers and Investment Staff relative to their respective investment guidelines. Staff will ensure that those accounts with guideline violations are efficiently and effectively brought back into compliance.

G. Emergency Situations

The Board authorizes the Executive Director and the Director of Investments to discharge investment managers without Board approval in emergency situations where immediate action is necessary to protect the interests of the Total Fund. In such emergency situations the Executive Director or the Director of Investments will notify the Chairman or Vice Chairman of the Board prior to taking action, if possible, and will notify the Board of its actions by email within one business day of said discharge. Staff will address the situation with the Board at its next scheduled meeting.

VII. Implementation Strategies

A. Asset Allocation

The Board will conduct an asset and liability study every three to five years, sooner if necessary, in order to establish allocation targets and ranges for asset classes within distinct capital markets.

In order to identify the investment horizon of SERS and its cash flow requirements, liability considerations will include but not be limited to current and expected future values of the benefits, contributions and total assets.

Having given due consideration to an asset and liability study conducted by the Investment Consultant, which study met the requirements of this Policy Statement, the Board hereby recognizes and reaffirms the following asset allocation for SERS:

ASSET CLASS	TARGET	RANGE
<u>Equity</u>	55%	50% 60%
Global Equities Global Private Equity	45% 10%	35% 55% 5% 15%
Fixed Income	30%	25% 35%
Global Bonds Global Real Estate Cash Equivalents	19% 10% 1%	14% 24% 5% 15% 0% 5%
<u>STRATEGY</u>	TARGET	RANGE
Global Hedge Funds	15%	10% 20%

B. Derivatives

The Board authorizes the use of derivatives in the Total Fund and authorizes the Director of Investments with the advice and assistance of the Investment Consultant to develop and implement derivatives strategies as needed. The Director of Investments will adopt a derivatives policy setting forth general guidelines for derivatives use.

C. Leverage

The Board authorizes the use of leverage in the Total Fund and authorizes the Director of Investments with the advice and assistance of the Investment Consultant to develop and implement certain leverage strategies. The Director of Investments will adopt a leverage policy setting forth general guidelines for the use of leverage.

D. Rebalancing

The Director of Investments will adopt a rebalancing strategy for the Total Fund which ensures adherence to the asset allocation strategy in Section VII.A. The strategy may delegate certain authority to Investment Staff.

E. Currency Hedging

The Board authorizes currency hedging in the Total Fund and authorizes the Director of Investments with the advice and assistance of the Investment Consultant to develop and implement currency hedging strategies as needed.

F. Transition Management

The Board authorizes the Executive Director and the Director of Investments to hire Transition Managers as needed.

G. Proxy Voting

The Board authorizes Investment Staff to vote proxies of common stock owned by SERS and to hire proxy services as required to implement this strategy. The Director of Investments will adopt and implement procedures for voting proxies as described in the Proxy Voting Procedures.

H. Securities Lending

The Board authorizes Investment Staff to develop and implement a securities lending program which may involve the appointment or discharge of third party securities lending agents by the Executive Director or the Director of Investments. The Board recognizes that while the practice of securities lending can generate meaningful income for the Total Fund, it is not without investment risk. To mitigate investment risk the securities lending program will focus on intrinsic value lending and use conservative collateral reinvestment guidelines similar to current SEC 2a-7 guidelines. If Staff determines the risk reward relationship of the program no longer is advantageous for the Total Fund, the program will be discontinued.

I. Opportunistic Investments

The Board authorizes Investment Staff to invest up to 5% of Total Assets in Opportunistic Investment Strategies, which investments will comply with the Opportunistic Investment Policy approved by the Board.

J. Investment Managers and Funds

The Board will approve and discharge Investment Managers and Funds and Backup Investment Managers based upon recommendations of Investment Staff or Investment Consultants as may be appropriate, and discussions with some Managers during Board presentations. Allocations to approved Investment Managers and Funds will be determined or adjusted by the Director of Investments in accordance Section VI.B.2.f. Allocations and adjustments are subject to any maximum allocation amounts established by the Board.

Investment Managers will adhere to investment guidelines established by Investment Staff, as well as all applicable laws and policies. The Director of Investments is authorized to establish and amend said investment guidelines as needed.

It is a goal of the Board to increase the utilization of Ohio-qualified Investment Managers when an Ohio-qualified Investment Manager offers quality, services and safety comparable to other Investment Managers available to the Board, and the use of such Investment Manager is consistent with the Board's fiduciary duties.

The Board will require that a list of Ohio-qualified Investment Managers and their investment products be maintained, and that public notice be given to Ohio-qualified Investment Managers of Investment Manager searches and search criteria.

SERS will give equal consideration to minority owned and controlled firms, and firms owned and controlled by women.

K. Approved Brokers

Brokers (or broker/dealers) who may provide execution of securities transactions for SERS will be evaluated on the basis of financial soundness, underwriting capabilities, research services, execution costs, and any other capabilities necessary in the execution of such transactions. Investment Managers which use such brokers will use their good faith judgment to ensure that said brokers will perform in the best interest of the Total Fund.

It is a goal of the Board to increase its utilization of Ohio-qualified brokers for the execution of domestic equity and domestic fixed income trades when an Ohio-qualified broker offers quality, services, and safety comparable to other brokers available to the Board or its Investment Managers, and the use of such broker is consistent with the Board's fiduciary duties.

SERS will give equal consideration to minority owned and controlled firms, and firms owned and controlled by women.

L. Securities Litigation

SERS will follow the securities litigation policy and procedures as approved by the Board in setting out a course of action that best represents the interests of SERS' participants and beneficiaries.

M. Other

The strategies listed herein are not meant to constrain the Director of Investments from prudently managing the Investment Program. The Director of Investments may develop and implement additional investment strategies as needed.

VIII. Performance

A. Performance Measurement Standard

Performance evaluation for the Total Fund will focus on total return, on an accrual accounting basis, including realized and unrealized capital gains and losses, and income. Valuations are to be made at least on a quarterly basis and period returns are

to be geometrically linked. Private market asset returns may be reported one quarter in arrears. Cash and cash equivalents will be included in the portfolio's return. Performance will be calculated on a gross-of-fee and net-of-fee basis.

B. Performance Benchmark – Total Fund

Performance of the Total Fund relative to benchmarks will be examined monthly, and will be reported for multiple time periods as needed. The Board's Investment Consultant will calculate and report performance net-of-fees on a quarterly basis.

The performance benchmark for the Total Fund will be the target-weighted average of the performance benchmark for each asset class and strategy grouping.

C. Performance Benchmarks – Asset Classes and Strategies

The long-term performance benchmark for each asset class is shown below. Performance benchmarks are determined as appropriate for SERS in cooperation with SERS' Investment Consultant. For purposes of this section, long-term refers to rolling three to five year periods. Performance in each asset class should meet or exceed the Benchmark measure.

Asset Class	Benchmark Measure
Global Equities	50% Russell 3000 Index; 50% MSCI ACWI ex U.S. Index with a 50% currency hedge for developed countries
Global Private Equity	Standard & Poor's 500 Index plus 300 basis points (one quarter in arrears)
Global Fixed-Income	Barclays Capital U.S. Aggregate Bond Index
Global Real Estate	NCREIF Property Index (one quarter in arrears)
Cash Equivalents	Citigroup 30-day T-Bill Index
Strategy	Benchmark Measure
Global Hedge Funds	HFRI Fund of Funds Composite Index

D. Performance Benchmarks – Individual Investment Managers

Investment Staff will establish performance benchmarks for each Investment Manager based on its respective style.

IX. Review and Evaluation

The Board will review and evaluate periodic reports on the investment performance of Total Fund assets. Greater emphasis will be placed on three to five year results. The intended frequency for review and evaluation, subject to change by the Board, is as follows:

A. Monthly – Investment Report including Total Fund market value, asset allocation, performance of the Total Fund and each asset class, and the Total Fund's compliance with this Policy Statement.

B. Quarterly – Summary Investment Report presented by the Investment Consultant, including highlights and commentary about market conditions, investment performance, asset composition and characteristics for each asset class, and relevant manager level information.

This policy supersedes the policy adopted August 2, 1985 and all revised policies dated 07/01/10; 02/01/09; 08/01/08; 02/21/08; 10/01/07; 10/20/05; 09/15/00; 10/23/98; 6/19/98; 12/12/97; 7/25/97; 3/21/97;12/20/96; 11/22/96; 6/21/96; 4/25/96; 9/15/95; 7/28/95; 6/16/95; 3/17/95; 1/20/95; 10/21/94; 5/20/94; 3/06/92; 4/07/89; 9/04/87; 1/09/87.

Appendix I – Glossary of Terms

Active Risk – also known as Tracking Error, describes how a portfolio's performance is different from its benchmark; and is measured by the standard deviation of the differences in returns of the actual portfolio and the benchmark portfolio.

Active Share – the Active Share of a fund represents the percent of portfolio holdings that differ from the (declared) benchmark index holdings.

Actuarial Assumed Rate – also referred to as the actuarial discount rate. This rate is used to value a pension fund's liabilities, and is also used as a long-term investment return objective.

Alpha – the premium an investment portfolio earns above a certain benchmark (such as the Standard & Poor's 500 Index). A positive alpha indicates the investor earned a return in excess of the index return.

Asset and Liability Study – a study to determine the appropriate level of overall investment risk for a pension plan, based on future liabilities and funding resources. The study helps maximize the probability that the return on plan assets exceeds the growth of plan liabilities.

Asset Allocation Decision – choosing among broad asset classes and strategies such as equities, fixed-income securities, real estate and hedge funds.

Backup Investment Manager – an investment manager approved by the Board, but not initially funded. As an approved manager, a Backup Investment Manager (also referred to as a "Backup Manager") may be activated by Investment Staff immediately after said Backup Investment Manager makes a presentation to the Board if the need arises, avoiding a potentially costly and lengthy search process.

Barclays Capital U.S. Aggregate Bond Index – a market capitalization weighted U.S. bond index published by Barclay's Capital. Most U.S. traded investment grade bonds are represented in the index. SERS' global fixed income policy benchmark.

Basis Point – one hundredth of one percent. For example, an addition of 40 basis points to a yield of 7.50 percent would increase the yield to 7.90 percent. Basis points are normally used when quoting yields or returns, alpha, or fees paid to investment managers.

Benchmark – a gauge in the securities market by which investment performance can be measured, such as the Standard & Poor's 500 Index.

Beta – for purposes of this document, Beta is that portion of total performance attributable to market movements, as measured by a market index (e.g., S&P 500).

Broker – an individual or firm authorized to act on behalf of another, such as by executing a transaction. The broker does not assume any financial risk in the transaction, as a dealer would.

Brokerage Commission – fee paid to a Broker for the purchase and sale of securities.

Broker/dealer – any individual or firm in the business of buying and selling securities for itself and others. Broker/dealers must register with the SEC. When acting as a broker, a broker/dealer executes orders on behalf of a client. When acting as a dealer, a

broker/dealer executes trades for the firm's own account. Securities bought for the firm's own account may be sold to clients or other firms, or become a part of the firm's holdings.

Cash Securitization – Cash securitization is a method used to obtain asset-like returns on short-term cash investments in equity, fixed income or other accounts by overlaying the short-term cash investments with relevant futures. Securitization of Equity cash is referred to as Cash Equitization.

Cash Equivalents – highly liquid, safe investments with maturities of 397 days or less, which easily can be converted into cash. Examples include Treasury Bills, money market funds, and quality commercial paper. The Cash Equivalents asset class serves as a liquidity pool for SERS.

Chapter 3309, Ohio Revised Code – the Ohio statute governing the School Employees Retirement Board and School Employees Retirement System of Ohio.

Citigroup 30-day T-Bill Index – an index that measures the rate of return for 30-day U.S. Treasury Bills, which are considered representative of the performance of short-term money market instruments. The Citigroup 30-day T-Bill index is SERS' policy benchmark for Cash Equivalents.

Co-investment – a direct investment in a single asset of a multi-asset Fund, made alongside the Fund's investment in the asset; typically involves more attractive terms and shorter time-frames than those of the Fund.

Conflict of Interest – a direct or indirect pecuniary interest or a relationship (without regard to whether the relationship is personal, private, commercial, or business) and the interest or relationship could diminish the Investment Service Provider's independence of judgment in the performance of its responsibilities to SERS; or bias the Investment Service Provider's evaluation of, or advice with respect to, a transaction or assignment on behalf of SERS.

Credit Risk – the possibility that a bond issuer will default, by failing to repay principal and interest in a timely manner.

Currency Hedging – also known as Currency Management. A technique or strategy used to address foreign exchange fluctuations which affect investment returns on international investments. Currency hedging can be active, passive, or a combination of active and passive. Passive hedging is a strategy to neutralize fluctuations between US and Non-US currencies to a predetermined level. Active hedging is a strategy to manage currency fluctuations in an effort to generate returns.

Default Risk – see Credit Risk.

Derivatives (Derivative Instruments) – financial instruments (securities or contracts) whose values are derived from underlying financial assets, indices or other instruments. Derivative performance is based on the performance of assets, interest rates, currency exchange rates, and various domestic and foreign indices underlying the instruments.

Diversification – spreading a portfolio over many investments to avoid excessive exposure to any one source of risk.

Due Diligence – an investigation or audit of a potential or existing investment.

Equity Investment – claims held by the residual owners of a firm. May also be referred to as common stock. Investments in Real Estate and certain Private Markets classifications may also be considered equity.

External Management – the management or investment of fund assets by investment managers.

Fiduciary – a person, company or association holding assets in trust for a beneficiary. One who can exercise discretionary authority or can control important aspects of a pension plan's management.

Firm Level – as used in this Policy Statement, Firm Level refers to an Investment Management Firm and includes all investment products, strategies or styles offered by the firm.

Fixed Income Investment – a security issued by a borrower that obligates the issuer to make specified payments to the holder over a specific period. May also be referred to as "debt" or "bonds."

Foreign Currency Risk – incurred by investing in foreign countries. Fluctuations in exchange rates between domestic and foreign currencies impact total returns. Impacts may be positive or negative.

Fund – Fund means a limited partnership, trust or commingled investment vehicle in which SERS invests or may invest (e.g., hedge fund, private equity fund, or real estate fund).

Global Equities – reflects the consolidation of what had been treated by SERS as US Equity and Non-US Equity asset classes; includes equities of US and non-US origin, equities of various capitalizations (e.g., large cap, small cap, mid cap, etc), equities from developed, emerging and frontier markets, growth and value equities, and passive and active strategies. Investments in Global Equities strategies are made in accordance with investment allocation guidelines established, and amended as necessary, by mutual agreement between the Director of Investments and the Investment Consultant.

Guidelines – refers to an Investment Manager's "Investment Guidelines," established between the Investment Manager and Staff as part in an investment management agreement. Guidelines may be general or specific.

Hedge – an investment made to reduce the risk of adverse price movements in a security by taking an offsetting position in a related security, such as an option or a short sale.

Hedge Fund – a private investment partnership or an off-shore investment corporation in which the general partner has made a substantial personal investment, and whose offering memorandum allows for the fund to take both long and short positions, using leverage and derivatives, and invest in many markets. Hedge funds often use strategies involving program trading, selling short, swaps, and arbitrage. Hedge funds often are used to create alpha pools for portable alpha strategies.

HFRI Fund of Funds Composite Index – Published by Hedge Fund Research, Inc., the HFRI Fund of Funds Composite Index is an equally weighted index of over 800 constituent funds of hedge funds, offshore and onshore. Funds in the index must have at least \$50 million under management or must have been trading actively for at least 12 months.

Indexing – the weighting of investments that are in line with one of the major market indices, such as the Standard & Poor's 500 Index. Also referred to as Passive investing.

Interest Rate Risk – the risk that an investment's value will change due to a change in the absolute level of interest rates.

Internal Management – the management or investment of fund assets by Investment Staff.

Intrinsic Value Lending – lending that produces returns based upon the securities loan itself, with little incremental benefit from collateral reinvestments.

Investment Consultant – any consultant hired by the Board or by Staff to advise or assist with the Investment Program in accordance with this Policy Statement. Board investment consultants must be approved by the Board. Staff investment consultants shall be approved by the Executive Director.

Investment Manager – a manager or potential manager of SERS assets, both public market and private market. Includes, but is not limited to managers of equity, fixed income, private equity, real estate, hedge funds, commodities and cash.

Investment Program – the implementation of SERS' investment responsibilities and the Board's Investment Policy Statement by fund fiduciaries.

Investment Service Provider – an entity or person, other than a Retirement Board member or SERS employee, who provides investment advice to SERS intended to affect or form a basis for investment or fund management decisions by SERS, including but not limited to (a) investment consultants, (b) investment managers, (c) agents, (d) broker/dealers, and (e) master record keepers.

Investment Staff – members of the investment department of SERS, including the Director of Investments, State Retirement System Investment Officers (SRSIO), and other department personnel.

Left Tail Risk – describes a possibility that the portfolio could generate a negative return that graphically plots on the left side and at least three standard deviations from the mean of the distribution graph.

Leverage – in investments, this is the control of a large amount of money by a smaller amount of money, such as buying on margin. In finance, this is the relationship of debt to equity on a company's balance sheet in the form of the debt/equity ratio.

Liquidity Risk – the risk that a given security or asset cannot be traded quickly enough in the market to prevent a loss or make the required profit.

Long-only – a phrase used to describe traditional public market investment strategies which invest almost exclusively in long securities positions.

Long-term – in the context of SERS liability and investment horizons, long-term is assumed to be 10 years.

Mandate – mandate is the macro or high level strategy employed by a manager. Examples of macro strategies would be US versus Non-US; large cap versus small cap; real estate versus private equity; etc.

Master Record Keeper – the master accountant used by SERS.

Modern Portfolio Theory – a theory about how rational investors can construct portfolios in order to optimize market risk for expected returns, emphasizing that risk is an inherent part of higher reward. According to the theory, it is possible to construct an "efficient frontier" of optimal portfolios offering the maximum possible expected return for a given level of risk. This theory was pioneered by Harry Markowitz in his paper "Portfolio Selection," published in 1952 by the *Journal of Finance*.

Morgan Stanley Capital International – All Country World Free (MSCI-ACWI) Index – an equity index representing 45 developed and emerging international markets. "Free" indicates the index reflects actual investable opportunities for global investors by taking into account local market restrictions on share ownership by foreigners. The MSCI-ACWI Index with a 50% currency hedge for developed countries is SERS' policy benchmark for International Equities.

NCREIF Property Index (NPI) – a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only. The NCREIF Property Index is a component of SERS' Global Real Estate Policy Benchmark.

Opportunistic Investments – refers to compelling tactical or non-traditional investment opportunities that may be short-term or otherwise time-constrained, or may not fit within the generally accepted risk/return parameters of specific asset classes.

Portable Alpha – describes active strategies which generally hedge out market beta, and transport (or port) the investments' alpha to another strategy, usually by overlaying an index. Portable Alphas strategies often are implemented using Hedge Funds.

Portfolio – a collection of investments owned, managed, or overseen by an individual or investment manager, a board or an organization. Portfolio can mean a manager account or subset thereof (e.g., Goldman Sachs Core Plus account), an asset class (e.g., U.S. Equity), or the entire fund (e.g., SERS' total fund).

Private Market Assets – broadly defined as those assets of alternative mandates utilizing either publicly- or privately-traded securities or other investment instruments. These include, but are not limited to, real estate, private equity or hedge funds.

Proxy – an agent legally authorized to act on behalf of another party. Shareholders not attending a company's annual meeting may choose to vote their shares by proxy by allowing someone else to cast votes on their behalf. Management often encourages shareholders to vote by proxy so that ownership interests are fully represented even if shareholders are unable to attend the company's annual meetings in person.

Prudent (Prudent Person) – this phrase generally refers to the prudent person rule which is a legal maxim restricting the discretion in a client's account to investments only in those securities that a prudent person seeking reasonable income and preservation of capital might buy for his or her own investment.

Rebalancing – the action of adjusting allocations relative to their targets or ranges to adjust for actual or anticipated market movements.

Redeeming – Redeeming is to submit a redemption request to take money out of a Fund. In this Policy when referring to the Board authorizing redemptions, it is in reference to full redemptions. Partial redemptions are within the authority of the Director of Investments. **Re-up** – a new Fund investment with a current manager.

Right Tail Risk – describes a possibility that the portfolio could generate a positive return that graphically plots on the right side and at least three standard deviations from the mean of the distribution graph.

Risk – the chance that an investment's actual return will be different than expected. This includes the possibility of losing some or all of the original investment. It is usually measured by calculating the standard deviation of the historical returns or average returns of a specific investment.

Risk-adjusted Return – a measure of how much risk a fund or portfolio takes on to earn its returns, usually expressed as a ratio. Usually expressed by a Sharpe Ratio or Information Ratio calculation.

Russell 3000 Index – a market-value weighted equity index published by the Frank Russell Company. The index measures the performance of the 3,000 largest U.S. companies in terms of market capitalization. The Russell 3000 Index is SERS' Domestic Equity Policy Benchmark.

Securities Lending – the temporary loan of a security from an institutional investor's portfolio to a broker/dealer or dealer bank to support that firm's trading activities. These trading activities include short selling, selling on margin or the satisfaction of some other type of transaction. Loaned securities are generally collateralized, reducing the lender's credit exposure to the borrower. Except for the right to vote proxies, the lender retains entitlement to all the benefits of owning the original securities, including the receipt of dividends and interest.

Securities Litigation – for a definition of Securities Litigation please refer to SERS' Securities Litigation Policy.

SMID – refers to the range of market capitalization (cap) that includes both small and midsized companies.

Standard & Poor's 500 Composite Index (S&P 500) – a market-value weighted equity index published by Standard & Poor's. The index measures the performance of 500 U.S. companies thought to represent the stock market as a whole. A component of SERS' Global Private Equity policy benchmark.

Style – Style refers to an investment product, strategy or style offered by an Investment Management Firm and reflects how the assets are invested. For example, value versus growth; core versus value added; quantitative versus fundamental; etc.

Total Fund – Total Fund refers to SERS' total investment assets.

Total Return – the return on an investment, including income from dividends and interest, as well as appreciation or depreciation in the price of the security, over a given time period.

Tracking Error – a divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark. Calculated as the standard deviation of the difference in returns between a portfolio and its benchmark.

Transition Management – management of the transition of assets from one portfolio to another by a transition manager.