

**PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM
INVESTMENT OBJECTIVES AND GUIDELINES
ACTIVE CURRENCY HEDGING OVERLAY PROGRAM**

ADDENDUM P

I. GENERAL

The Public School Employees' Retirement Board (the Board) is responsible for formulation of investment policy for the Public School Employees' Retirement Fund (the Fund). The Fund is the largest public pension fund in the Commonwealth of Pennsylvania and the custodian of the Fund's assets is the State Treasurer of the Commonwealth of Pennsylvania. The Board, as trustee for the Fund, has exclusive investment control of the Fund, and shall invest the moneys in the Fund as authorized by the laws of the Commonwealth of Pennsylvania. Part of this responsibility includes development of investment policy, informed selection and retention of investment advisors, and ongoing monitoring of investment results. All capitalized references to employment/agent titles (i.e. Consultants, Chief Investment Officer, etc.) shall refer to employees/agents of the Fund.

II. OBJECTIVES AND GOALS

This actively managed currency hedging overlay portfolio will consist of foreign exchange spot and forward contracts, currency futures, and currency options. The objectives are: 1) Hedge an underlying portfolio defined by the Board as a notional amount of the MSCI EAFE Index currencies to U.S. dollars, and 2) Earn incremental returns relative to the benchmark by actively managing the currency hedge.

It is required that this overlay portfolio be managed with the care, skill, prudence, and diligence, under such circumstances then prevailing, that a prudent investor acting in a like capacity and familiar with such matters would use in making its own investments of like character and with like aims.

Manager

The manager's continued adherence to their investment style that was presented to the Board at the time of their hiring is of major importance. Performance comparisons will be made quarterly against relevant market indices for reference purposes.

Notional Value of Portfolio

The Board will provide the manager with a notional value, in writing, prior to the funding of the portfolio. The Board will provide the manager with any changes in the notional value of the portfolio, in writing, at least two (2) business days prior to the effective date of the change, but it will otherwise remain constant. The portfolio will only be implemented over the notional value and not over any realized or unrealized gains or losses of the portfolio.

Benchmark

The base currency of the overlay portfolio is the U.S. dollar. The benchmark for performance measurement purposes is the currency contribution to return of a passively managed hedge of 100% of the MSCI EAFE Index, applied to the notional amount of the underlying portfolio.

Measurement Process

Active Managers

Each currency portfolio will be measured on a currency contribution to return basis each month. On a three-year annualized rolling return basis, results will be judged as follows, net of all manager fees and transaction costs:

A. Relative performance on a risk adjusted basis versus a peer manager universe as follows:

- | | |
|---------------------|-----------------------------|
| 1. Median and above | Acceptable |
| 2. Below median | Unacceptable; Watch Closely |

B. Information ratio (excess return/excess risk vs. the benchmark) as follows:

- | | |
|----------------------------------|-----------------------------|
| 1. Information ratio \geq 0.50 | Acceptable |
| 2. Information ratio $<$ 0.50 | Unacceptable; Watch Closely |

Quarterly performance will be evaluated to monitor progress toward attainment of these goals. It is understood that there are likely to be short-term periods during which performance deviates from market indices. During such times, greater emphasis shall be placed on performance comparisons with managers employing similar styles. Firms experiencing poor short-term performance or disruption at the organizational level will be monitored closely by the Finance Committee, Consultant and Chief Investment Officer. These include changes of ownership, significant personnel changes and substantial deviation from their investment style.

III. RISK

The Board judges the question of risk to be categorized into groups of concerns including potential loss of capital, target protection, credit or bankruptcy, liquidity and diversification. These are applied to the market, sectors of the market, and individual issues. To a varying degree, each of these points is addressed implicitly or explicitly in different sections of these guidelines, but for clarity, they are summarized as follows:

- A. **Capital Loss** - Preservation of capital is of major concern. It is the manager's responsibility to avoid, or minimize capital losses relative to the benchmark.
- B. **Target Protection** - The initial period of protection will be from the inception date as notified by the Board for one year. Subsequently, further one-year protection periods will apply with the same parameters, unless the manager receives written notification from the Board to the contrary. The target level of protection which the manager seeks to achieve over each annual protection period is 2% below the benchmark return.

- C. **Liquidity** - To insure the flexibility necessary to take defensive action when appropriate, positions should be in issues with sufficient float so as to facilitate, under most market conditions, prompt sale without severe market effect.
- D. **Counterparties** - The commercial and investment banks used for approved OTC futures, approved OTC options, or forward/spot currency transactions must be rated A3 or better by Moody's Counterparty Ratings, (if not rated by Moody's, then rated A- or better by Standard and Poor's Counterparty Ratings or rated A- or better by Fitch's Bank Individual Ratings). Net forward/spot contracts, futures contracts, and option exposures to any counterparty will not exceed 10% of the notional value of the portfolio (as defined below). Exposure is measured in net U.S. dollar equivalent terms (offsetting contracts will be netted for this purpose). Counterparty limits will not be applied to listed futures and options. Counterparty exposure is defined as the unrealized gain on positions with each counterparty at any point in time.

IV. PORTFOLIO DEFINITION

It is required that the account be continuously managed. This does not imply continuous activity. It requires staying current at all times with the objectives of the manager's investment policy for discretionary currency portfolios and the requirements of these Guidelines.

Within that framework, the fact that this portfolio is to be currency in nature, and within the following limitations, the manager has the discretion to make portfolio changes to accomplish the stated objectives.

General

- A. The overlay portfolio will be managed in accordance with the target level of protection.
- B. The target hedge ratio range for the Overlay Portfolio will be 0% to 110% of the notional value. Intentional leverage of the Underlying Portfolio outside the hedge ratio range by the manager is not permitted. Exchange rate fluctuations may cause unintentional leverage which will be eliminated when the Underlying Portfolio is next rebalanced. The manager uses a "tracking basket" of currencies to simulate closely the actual foreign currency exposures of the Underlying Portfolio. The size of the hedge on a particular currency included in the tracking basket may exceed its exposure in the Underlying Portfolio, when that currency is being used to proxy another currency in the Underlying Portfolio
- C. Active (long and short) currency positions in countries not in the MSCI World Index are prohibited without the written permission of the Chief Investment Officer.

Cash and Cash Equivalents

Cash, in any, in the portfolio shall be invested in the Fund's STIF account.

Derivatives

Unless written permission is obtained from the Chief Investment Officer or unless otherwise described below, derivative investments, including, but not limited to, interest only and principal only strips, options, swaps, structured notes, swaptions, etc. are prohibited. The use of any form of derivative security or investment strategy that leverages the portfolio is prohibited. For purposes of these guidelines, leverage is defined as the net currency exposure of the portfolio.

Options

The portfolio shall be permitted to establish and maintain long and short currency positions in listed and over the counter options on currencies.

Forward Contracts

The portfolio shall be permitted to establish and maintain long and short currency forward commitment positions.

Futures

The portfolio shall be permitted to establish and maintain long and short positions in listed currency futures contracts. All futures trades must be cleared through clearing brokers who have contracts with the Fund.

Insurance

Each manager must maintain Errors and Omissions coverage of at least \$10 million and Fidelity Bond coverage of at least \$5 million with an insurer with a financial strength rating of A- or better by A.M. Best. The Fidelity Bond must name the Board as a loss-payee. The Errors and Omissions coverage and Fidelity Bond must provide that the Board be given 30 days notice prior to any cancellation or change. The maximum deductible on both the Errors and Omissions coverage and the Fidelity Bond shall be either: (a) no greater than \$500,000 if the manager has less than \$1 billion in assets under management and no greater than \$1 million if the manager has \$1 billion or more in assets under management, or (b) no greater than 10% of the manager's retained earnings (equity) as disclosed in the manager's annual audited balance sheet which must be provided to the Board annually in a timely fashion. Insurance coverage may be in the name of the manager's parent organization as long as the manager is named in that policy or bond as an insured party.

Mutual/Commingled Funds and Unit Investment Trusts

Mutual funds (both closed and open-ended), commingled investment funds, unit investment trusts (i.e. SPDRs, HOLDRs, ishares, etc.), or any equivalent fund type funds are prohibited without the written permission of the Chief Investment Officer.

Market-Driven Breaches of Guidelines

PSERS recognizes that the portfolio will always be subject to fluctuations in market value. Market-driven breaches of the guidelines (breaches that occur due to market fluctuations) shall not be considered a violation of the guidelines as long as the manager corrects these breaches

within 10 business days (unless an extended period of time is granted elsewhere in the guidelines and/or written permission is received from the Chief Investment Officer providing an extended period of time). Active breaches (breaches that occur due to purchase and sale activity) shall be considered a violation of the guidelines and must be corrected as soon as prudently possible.

Absolute Restrictions

Unless otherwise covered in these investment guidelines, all other investments are strictly prohibited without the written permission of the Chief Investment Officer. The following are examples of some of the prohibited types of transactions and is not meant to be an all-inclusive list: letter stock, private placements (excluding 144A securities), commodities, etc.

Settlement

The manager will advise PSERS' Investment Office and Investment Accounting Division at least five business days prior to the forward contract settlement date of the estimated value of the settlement amount payable from the counterparty banks. The Manager will follow up with an exact cash amount no later than one full business day prior to the settlement date. The Manager will advise PSERS' Investment Office and Investment Accounting Division at least one full business day prior to the forward contract settlement date of the estimated value of the settlement amount receivable for the counterparty banks.

The manager will advise the PSERS' Investment Office and Investment Accounting Division of the purchase of currency options. The requirement for the settlement of option premium will be two business days from the date of the transaction.

Once advised of the settlement amount, PSERS will be responsible for sweeping the appropriate amount receivable from the portfolio or for funding the portfolio with the appropriate amount payable for settlement of currency derivative contracts to the portfolio, as applicable.

V. COMMUNICATIONS

The Board requires continual awareness of the portfolio manager's activity and position, both absolute and relative. To accomplish this, the following should be provided:

A. Daily - To Pennsylvania Treasurer's designated sub-custodian bank:

1. Confirmation of all trades.
2. On an as-needed basis, information for the Treasury Department to perform their pre-audit function.

B. Promptly -

1. When requested by the Chief Investment Officer and/or PSERS compliance staff - a complete listing of all holdings, pending trades, transaction history and any additional related information related to the portfolio.

2. Notification of any compliance exceptions for the portfolio as they relate to these policies and applicable amendments to the Chief Investment Officer and the Director of External Public Markets, Risk & Compliance.
3. Notification of any material personnel or organizational change that could reasonably affect the management of PSERS portfolio.

C. Monthly- To Consultant and Chief Investment Officer:

1. End of month valuations in accordance with PSERS' requested format or, if PSERS does not request a specific format, the manager's usual format, containing cost and market valuations by security (including FX forward and spot positions), holdings by sector and country segmentations, and transaction summary register (purchases, sales, interest, other receipts/distributions). These reports should be in electronic form (i.e. Microsoft Excel, Adobe Acrobat files, etc.) and should be e-mailed to PSERS and PSERS' consultant. Written permission must be received from the Chief Investment Officer to send reports other than by e-mail.
2. Written and/or oral reports shall be supplied by the manager, in sufficient detail commentary so the Chief Investment Officer is apprised of fund status and any changes in philosophy or investment strategy. Periodic meetings shall be held with the manager to discuss performance results, economic outlook, investment strategy, organizational changes and other pertinent matters.

D. Monthly - To Director of External Public Markets, Risk & Compliance:

1. Performance reports for the month, quarter-to-date, year-to-date, rolling one-year, rolling three-year, and portfolio-to-date (since inception) as well as benchmark performance figures for each of those periods. Information is to be sent via e-mail to a designated Internet address within 5 business days from the end of each month.

E. Quarterly – To Director of External Public Markets, Risk & Compliance:

1. Provide written confirmation of adherence to these investment objectives and guidelines in the format provided by the Fund within 30 days from the end of each calendar quarter.
2. Provide a detailed attribution of returns for the portfolio for the previous quarter and year versus the established benchmark for the portfolio.
3. Provide a quarterly report showing the dispersion of the Fund's returns versus a representative composite return for the quarter, rolling one-year, rolling three-year, and since inception in a format provided by the Director of External Public Markets, Risk & Compliance.

F. Other - To Consultant and Chief Investment Officer:

Promptly telephone and/or letter advice should be forthcoming from the manager when information of an important nature, such as a change in ownership of the advisor, a change in the portfolio manager(s) managing the Fund's portfolio, or unusual market activity (oil embargo, monetary crisis, etc.) that is causing, or may reasonably cause, material impact on the Fund.

VI. AMENDMENTS AND REVIEW

It is the Board's intention through the consultant and Investment Staff to review manager compliance with this document monthly and if the guidelines are changed in any way, the foregoing will be so amended.

In the application and implementation of the Investment Objectives and Guidelines, the Chief Investment Officer has the authority to interpret the guidelines to meet individual portfolio needs and to determine the appropriateness of any investment. On material policy issues and amounts, the Chief Investment Officer and/or the Executive Director, in conjunction with the Chair of the Finance Committee and/or Chair of the Board, will evaluate and determine the appropriateness of any investment. All interpretations of material policy issues and dollar amounts will be reported to the Finance Committee at the next regularly scheduled meeting.

If at any time the manager feels that the objectives cannot be met, or the guidelines constrict performance, the Chief Investment Officer should be notified in writing. The manager is encouraged to suggest changes in these guidelines at any time. By signature the manager agrees to these Investment Objectives and Guidelines and shall perform in accordance herewith.

Company Name

**Pennsylvania Public School Employees'
Retirement System**

Portfolio Manager Signature

Chief Investment Officer

Portfolio Manager Name

Date Accepted

Date Proposed