Commonwealth of Pennsylvania Public School Employees' Retirement System

DATE:

April 17, 2014

SUBJECT:

Absolute Return Policy

Investment Objectives and Guidelines Approval

TO:

Members of the Finance Committee

FROM:

Robert E. Little, CPA

Portfolio Manager

At the May Finance Committee meeting, staff will request that the Committee adopt the proposed revisions to the Investment Objectives and Guidelines for the Absolute Return Policy.

At the time the Policy was initially written in 2010, the Absolute Return Program was in the implementation phase. A number of the guidelines addressed various implementation issues. With this revision, these implementation guidelines have been removed.

Other proposed material changes are discussed below.

2. Objectives

The annualized return and annualized volatility targets have been adjusted to reflect the estimates as presented in the Hewitt EnnisKnupp 'Pension Asset Liability Study' that will be presented to the Finance Committee at the May meeting.

5. Asset Allocation

ii. Absolute Return Portfolio Asset Allocation

The Equity Long/Short Sector target range was reduced from 0%-35% to 0%-20%. While PSERS does not currently invest in equity long/short hedge funds, we will maintain the ability to invest in these funds should we would find a fund that meets our criteria. We are reducing the top end of the allocation to be in line with Aksia's target for a low beta model portfolio.

Included with this memo are a black-lined copy of the Investment Objectives and Guidelines, a clean copy of the Investment Objectives and Guidelines, and the resolution recommending the adoption of the proposed revisions. If you have any questions regarding these proposed revisions, please contact me at 717-720-4707.

PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM INVESTMENT OBJECTIVES AND GUIDELINES ABSOLUTE RETURN POLICY

ADDENDUM X2	

1. PURPOSE

The PSERS Investment Policy Statement provides guidelines for the management of the assets by or on behalf of the Board and establishes policies and guidelines for the investment practices of the Board.

This policy outlines objectives, goals, restrictions, and responsibilities to assure that:

- i. The Board, IOS, and the Absolute Return Investment Consultant (ARIC) clearly understand the objectives and policies of the Absolute Return Portfolio (ARP); and,
- ii. The Board has a meaningful basis for evaluating the investment performance of individual Absolute Return Investment Managers (ARIM), the ARIC, as well as the overall success of the ARP in meeting its objectives.

2. OBJECTIVES

The objectives of the ARP are as follows:

- reduce the risk and/or enhance the returns of PSERS' overall investment program through an investment in a diversified basket of ARIM portfolios (either separate accounts or Absolute Return Investment Funds (ARIF) (also referred to as hedge funds)); and,
- ii. generate an annualized return of 8.00% <u>LIBOR plus 3.5%</u> or more, with annualized volatility of 8.0% <u>9.0%</u> or less at the portfolio <u>ARP</u> level, over a full market cycle.

3. RESPONSIBILITIES

- i. PSERS' IOS is responsible for the following:
 - a. working with and monitoring the performance of the ARIC;
 - b. developing, implementing, and monitoring the ARP Asset Allocation plan;

ಈ <u>b.</u> ARIMs; and,	recommending and monitoring of ARIFs and
d. c.	reporting of investment results.

- ii. The ARIC is responsible for the following:
 - a. monitoring the absolute return market and the ARIMs in the market;
 - b. making recommendations of ARIFs and ARIMs;
 - c. on-going monitoring of PSERS ARP and each investment therein, including:
 - i. qualitative monitoring, which will include a review of each ARIMs performance, investment focus, and business developments;
 - ii. quantitative monitoring, which will attempt to analyze the ARP and each ARIM's risk and performance. This analysis may include various risk metrics including factor exposure, volatility, and correlations; and,
 - iii. quarterly reports to the Finance Committee on the ARP's performance and risk metrics and each investment therein; and,
 - d. development of a pacing plan more fully discussed below; and,
 - ed. performing investment and operational due diligence reviews on current and prospective ARIMs and ARIFs.

4. RISK MANAGEMENT

With regard to the ARP, There are two primary types of investment risk that are managed by the Board and IOS – systematic and unsystematic risk. Systematic risk is a risk that is inherent to the entire market or an entire market segment and is not diversifiable, such as risks associated with being invested in equities or bonds. The asset allocation decisions determine an acceptable amount of systematic risk. Unsystematic risk, also known as idiosyncratic risk or active/relative risk, refers to the return fluctuations around the benchmark return that result from active management decisions.

IOS uses the guidelines noted below to manage these risks in the ARP. The following risks are determined to apply to the ARP as a whole, the ARIFs and, where applicable, the ARIMs. In cases where the System retains an ARIM to manage a separate account, a separate set of investment guidelines will be

agreed to by the IOS, ARIC, and ARIM. The management and on-going monitoring of these risks is also noted.

i. Systematic Risk

IOS and ARIC will endeavor to select ARIMs that have low systematic risk. IOS and ARIC will screen ARIM's historical returns, risk reports, and investment processes for systematic risks, specifically systematic long or short equity, credit, interest rate, or commodity beta positions. IOS and ARIC will endeavor to find ARIMs who generate their investment returns with low or no equity, credit, interest rate, or commodity beta over a full market cycle. IOS and ARIC will quantitatively monitor the systematic risk of each investment in the ARP on a quarterly basis.

ii. Unsystematic Risk

The following represent a list of unsystematic risks IOS will seek to manage (and ARIC will generally advise on) through initial and on-going investment and operational due diligence, on-going monitoring of the ARP and each ARIM therein, and diversification of the ARP by sector, strategy, ARIF, separate account, and ARIM:

- a. <u>Leverage Risk:</u> The risk that the ARIM uses either direct or indirect (derivatives) forms of leverage excessively. The System will use no leverage in ARIF positions and will manage the leverage used in separately managed accounts and overlay strategies through agreed upon guidelines with the ARIM.
- b. <u>Illiquidity Risk:</u> The Absolute Return strategies have the potential to be or to become illiquid. Absolute Return strategies should be considered a less liquid investment and viewed in the context of a longer time horizon. The liquidity terms appropriate for the <u>investment strategyARIF</u> within the ARP will be structured during the contracting period with the ARIM to ensure liquidity risk is understood and viewed in the context of the overall ARP and the System's overall liquidity profile.
- c. <u>Currency Risk:</u> All investments in ARIF will be in U.S. dollar share classes unless otherwise reported to the Finance Committee and the Board prior to the investment in the ARIF.
- d. <u>Concentration Risk:</u> For the ARP, concentration risk is considered to be overweight in one or more ARIFs, ARIMs, or Absolute Return Sectors (ARSs). The following guidelines will be followed in order to

manage concentration risk for the ARP in any single ARIM, ARIF, separate account, or ARS.

- i. Maximum allocation to any one ARIM: 15%
- ii. Maximum allocation to any one ARIF: 10%
- iii. Maximum allocation to any one separate account: 12%
- iv. Maximum and minimum allocations to any one ARS are discussed more fully in the Absolute Return Portfolio Asset Allocation guidelines below.

These limitations will be monitored by IOS and ARIC on a quarterly basis. IOS and ARIC will report on these limitations to the Board on a quarterly basis.

- e. Volatility Risk: The risk that the ARIM's strategies, or the implementation of these strategies, results in excess volatility. Absolute return investments exhibit varying degrees of volatility based upon each ARIM's strategy. One way that this risk can be measured is by calculating the portfolio's standard deviation of returns. While volatility of individual ARIFs or separate accounts can be in excess of 30% annually, the goal is to manage the standard deviation of the ARP to in total 8%9% or less at the total ARP level over a full market cycle. IOS and the ARIC will monitor this risk and report it to the Board on a quarterly basis.
- f. Counterparty Risk: The use of prime brokers and the use of OTC derivatives by the ARIM introduce counterparty risks to the ARIF or separate account. The ARIM takes on the risk that the pPrime brokers or OTC cCounterpartyies may not be able to perform meet the terms of their financial obligations. The ARIC shall review this risk annually through their operational reviews of the ARIM discussed below.
- g. Operational Risk: Operational risk can be summarized as human risk; it is the risk of an ARIM failing due to human error. IOS and ARIC will undertake a due diligence process on each recommended proposed investment, including both an investment review and operational review performed by the ARIC. Also, the ARIC will perform a quarterly qualitative review of each ARIM's business developments and perform a full updated operational

Approved December 10, 2010 Proposed May 1, 2014

review annually or partial updates more frequently when material changes are observed at the ARIM, as determined by the ARIC¹.

h. Business/Economic Risks:

i. Strategy Risk

Strategy Risk is the risk that an ARIM's strategy will be out of favor for a period of time generating returns below expectations, including losses. When an ARIM's expectations do not hold, positions that were initially structured to generate returns and/or reduce market risk may experience losses. This risk is managed by limiting exposure to individual ARIMs and ARSs.

ii. Agency Risk

Agency Risk is the risk that an ARIM will put his interests ahead of those of his investors. An extreme example of this type of risk is fraud. This risk is managed as noted in the Operational Risk section above.

iii. Tax/Regulatory Risk

Tax and regulatory regimes in the U.S. or elsewhere may change to the detriment of an Absolute Return strategy. This risk is monitored by IOS and ARIC monitoring industry trends that may be impacted by proposed tax and regulatory changes.²

5. **ASSET ALLOCATION**

The allocation of assets within the ARP will be driven by the desire to diversify across four primary sectors and strategies. These sectors, their underlying strategies, and the target allocation ranges are defined below:

i. Absolute Return Sectors and Strategies

¹ In the event that PSERS has submitted a full redemption request or is invested in an investment vehicle that has a self-liquidating structure and/or there is no opportunity to redeem, the ARIC will no longer provide annual

investment or operational reviews after the initial review.

² The ARIC will not be providing tax or legal advice. PSERS shall consult with its tax and legal advisors regarding such potential changes as deemed necessary.

All sectors and strategies of ARIFs are eligible for inclusion in the System's ARP. For purposes of definition and analysis, ARIFs are categorized into the following ARSs:

- a. Equity Long/Short Sector: Equity Long/Short managers typically invest long or short in the equity of publicly traded companies based on their estimate of a company's future prospects and the valuation of its stock. Such managers usually employ a bottom-up fundamental approach in which they may contact company management, suppliers, customers and competitors. Equity Long/Short managers can be broadly classified into strategies by their focus on industry(s) or region(s) or they may employ a multi-strategy approach. While many managers run low net exposure or market neutral strategies most Equity Long/Short managers maintain a net long exposure.
- b. Event Driven Sector: Event Driven managers focus on analyzing corporate events and credits to benefit from their analytical edge. Managers may also alter the return profile of their directional credit trades with derivative instruments such as credit default swaps (CDS.) Event Driven strategies may be focused on equities (e.g. merger arbitrage and special situations), credit (e.g. stressed and distressed securities), or emerging markets credits. Many Event Driven managers employ a multi-strategy approach. While many managers run fairly hedged strategies (e.g. long/short credit), and shorting is an important part of the strategy, most Event Driven managers have a net long credit and equity exposure.
- c. Relative Value Sector: Relative Value managers generally fall into three primary strategies: Convertible Arbitrage, Fixed Income, and Quantitative Strategies. Some Relative Value oriented managers follow a multi-strategy approach. Generally speaking, Relative Value strategies tend to be a blend of quantitative and qualitative processes. Typically, the objective of these strategies is to focus on trading relationships between similar assets. Since most strategies within the Relative Value category generally require at least some degree of leverage to generate returns, losses can be magnified in periods of illiquidity. While most Relative Value managers maintain little net long equity or credit exposure, the strategies can have elements of being short liquidity and susceptible to liquidity crises.

d. <u>Tactical Trading Sector</u>: The Tactical Trading sector can be broadly divided into Global Macro, Emerging Markets Macro, and CTA (Commodity Trading Advisor) strategies. Some Tactical Trading oriented managers employ a multi-strategy approach. Global Macro strategies typically involve making investment decisions designed to advantage of changing global market dynamics Global Macro managers can either be macroeconomic variables. quantitatively based (e.g. Tactical Asset Allocation) or discretionary and can run either concentrated or highly diversified programs. Global Macro managers as a whole are typically not highly leveraged, and often construct their portfolios with longer-term horizons in mind. CTA managers, who typically trade futures and forward contracts, can be broadly divided into two styles - trend-following and multi-process CTAs. Trend-followers base decisions on momentum-based indicators while multi-process CTAs are more diversified in terms of the signals and time frames they employ.

ii. Absolute Return Portfolio Asset Allocation

All allocations to the ARP shall be subject to the limits established by the Board through the Asset Allocation process described in the PSERS Investment Policy Statement. IOS is permitted to manage the allocation of capital to each ARS within the target ranges noted below. The CIO shall have discretion on the timing of reducing any ARS exceeding the maximum ranges approved below. However, the CIO is not permitted to allocate additional capital to those ARSs currently above the target ranges.

Target Ranges as a

	Percentage of the ARP
Equity Long/Short Sector	0% - 35% 20%
Event Driven Sector	0% - 50%
Relative Value Sector	0% - 65%
Tactical Trading Sector	0% - 65%

For purposes of these above guidelines, any "overlay strategies", if used, will be assigned "fund equivalent weightings", by mutual agreement of IOS and the ARIC in each case.

The Board delegates to the CIO the duty of rebalancing sector allocations which result from market value fluctuations. IOS will review the sector allocations on a monthly basis. Any sector that falls outside the target ranges described above will be rebalanced to within the target range within a reasonable and prudent period of time by the CIO. The CIO also has the authority to tactically allocate between sectors as long as the amount allocated to each sector is within the policy ranges described above. Any account may be increased or decreased to achieve the rebalancing objective based on the judgment of the CIO. When a rebalancing is required, consideration will be given to the unique characteristics of each ARIM or ARIF, the degree of over/underweight, liquidity characteristics, current market conditions, and any other relevant considerations to ensure prudence and care.

6. MANAGER SELECTION

The primary emphasis of IOS and the ARIC on selecting an ARIM will be on the quality and experience of the ARIM. IOS and ARIC will emphasize investments in recognized, well-established ARIMs. Participation in ARIFs managed by smaller or newer ARIMs to-will be implemented opportunistically, primarily in the Public Market Emerging Investment Manager Program (PMEIM Program).

The IOS shall consider the following factors as a guideline for selecting ARIMs and ARIFs:

- Assets under management by the ARIM should be sufficient to support the infrastructure <u>and investment personnel</u> required to execute the investment strategy;
- The ARIM must have a meaningful reported track record managing investments under the same strategy or a broadly similar strategy to the one being considered, either at the current firm or at a previous firm;
- c. The ARIF must use independent service providers (i.e. custodian, third party administrator, auditor);
- d. The liquidity terms must be appropriate for the investment strategy; and,

e. As deemed applicable, PSERS will require, in a side letter, a Key Person(s) provision that gives PSERS the option to redeem investments in an ARIF prior to the conclusion of the lock-up period.

In cases where a new ARIM is to be hired, the following steps shall be taken:

- a. The ARIC will provide the IOS with ARIM suggestions, or the IOS may be contacted directly by an ARIM.
- b. If the ARIM has characteristics desirable for inclusion in the ARP, and it is decided to proceed, then (1) the ARIC shall perform due diligence on the prospective ARIM; (2) the IOS may will have a follow-up meeting(s) with the ARIM; and (3) the IOS will complete its due diligence, possibly including an onsite meeting at the ARIM's office.
- c. If the IOS decides to recommend an investment with the ARIM, the ARIC will prepare a recommendation memo (assuming the ARIM/ARIF receives a favorable investment rating and, if applicable, operations rating from the ARIC) and, subject to agreement, the <u>DEPM_Portfolio Manager, Non-Traditional Investment Strategies</u> will enter into contract and side-letter negotiations with the ARIM.
- d. Assuming a successful conclusion to the negotiation process above, the Finance Committee and the Board are required to approve the investment prior to the execution of the contract with the subject ARIM.

Legal matters to be considered when entering into an agreement with an ARIF are discussed below:

- a. While it is the System's position that Unrelated Business Taxable Income (UBTI) is not an issue, nonetheless, investments should be structured to minimize UBTI.
- b. Plan Assets Many fund documents contain language that addresses ERISA's rules concerning "Plan Assets." While these regulations do not directly apply to the System, it may be affected by such ERISA-related language and will be reviewed by IOS and ARIC during the due diligence process.
- c. Method of Participation/Types of Authorized Investments The System will generally participate as a limited partner in a domestic based fund; as a shareholder in an offshore corporation; as a limited partner or

- shareholder in a "fund of one"; or as a sole owner of a separately managed account.
- d. Fees Fees should be negotiated where prudent and without creating offsetting adverse effects.

7. MEASUREMENT AND REPORTING CRITERIA

Quantitative monitoring will analyze the ARP and each ARIM's risk and performance. This analysis may include various risk metrics including factor exposure, volatility, and correlations.

Performance will be assessed relative to performance of similar alternative investments and the general absolute return indices. The actual strategy employed by the ARIM will be judged relative to the stated objectives and strategy performance. In addition, the reports required from ARIM will be negotiated by staff, with quarterly reports being provided to the Board by the ARIC.

8. PORTFOLIO IMPLEMENTATION AND DESIGN

The ARP will be implemented using a Pacing Plan developed by the ARIC. The ARP Pacing Plan will include:

- i. goals for any changes to sector allocations;
- ii. goals for any changes to strategy allocations;
- iii. goals for any changes in manager diversification and concentration; and,
- iv. any new initiatives

The Pacing Plan is intended to be a working document and not a policy document. The Pacing Plan may be revised by ARIC and IOS due to changing opportunities or due to feedback and suggestions from IOS.

<u>Grace Period</u> – The ARP was established prior to the adoption of the above guidelines. To the extent that the ARP violates any of the above guidelines as of

the acceptance date of this document, a grace period of 9 months will be allowed to bring the portfolio into compliance with the above guidelines.

9.8. DEFINITIONS

Key words used in the policies are defined in PSERS Definitions contained in PSERS' Investment Policy, Statement, Objectives and Guidelines.

9. ACKNOWLEDGEMENT

We acknowledge the receipt of the Absolute Return Policy for the Pennsylvania Public School Employees' Retirement Board.

Aksia, LLC	Pennsylvania Public School Employees' Retirement System
Signature	Chief Investment Officer
Authorized Signor	
Date Accepted	Date Proposed

PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM INVESTMENT OBJECTIVES AND GUIDELINES ABSOLUTE RETURN POLICY

ADDENDUM X2	

1. PURPOSE

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This policy outlines objectives, goals, restrictions, and responsibilities to assure that:

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- ii. The Board has a meaningful basis for evaluating the investment performance of individual Absolute Return Investment Managers (ARIM), the ARIC, as well as the overall success of the ARP in meeting its objectives.

2. OBJECTIVES

The objectives of the ARP are as follows:

- reduce the risk and/or enhance the returns of PSERS' overall investment program through an investment in a diversified basket of ARIM portfolios (either separate accounts or Absolute Return Investment Funds (ARIF) (also referred to as hedge funds)); and,
- ii. generate an annualized return of LIBOR plus 3.5% or more, with annualized volatility of 9.0% or less at the ARP level, over a full market cycle.

3. RESPONSIBILITIES

- i. PSERS' IOS is responsible for the following:
 - a. working with and monitoring the performance of the ARIC;
 - b. recommending and monitoring of ARIFs and ARIMs; and,
 - c. reporting of investment results.

- ii. The ARIC is responsible for the following:
 - a. monitoring the absolute return market and the ARIMs in the market;
 - b. making recommendations of ARIFs and ARIMs;
 - c. on-going monitoring of PSERS ARP and each investment therein, including:
 - i. qualitative monitoring, which will include a review of each ARIMs performance, investment focus, and business developments;
 - ii. quantitative monitoring, which will attempt to analyze the ARP and each ARIM's risk and performance. This analysis may include various risk metrics including factor exposure, volatility, and correlations:
 - iii. quarterly reports to the Finance Committee on the ARP's performance and risk metrics and each investment therein; and,
 - d. performing investment and operational due diligence reviews on current and prospective ARIMs and ARIFs.

4. RISK MANAGEMENT

With regard to the ARP, there are two primary types of investment risk that are managed by the Board and IOS – systematic and unsystematic risk. Systematic risk is a risk that is inherent to the entire market or an entire market segment and is not diversifiable, such as risks associated with being invested in equities or bonds. The asset allocation decisions determine an acceptable amount of systematic risk. Unsystematic risk, also known as idiosyncratic risk or active/relative risk, refers to the return fluctuations around the benchmark return that result from active management decisions.

IOS uses the guidelines noted below to manage these risks in the ARP. The following risks are determined to apply to the ARP as a whole, the ARIFs and, where applicable, the ARIMs. In cases where the System retains an ARIM to manage a separate account, a separate set of investment guidelines will be agreed to by the IOS, ARIC, and ARIM. The management and on-going monitoring of these risks is also noted.

i. Systematic Risk

IOS and ARIC will endeavor to select ARIMs that have low systematic risk. IOS and ARIC will screen ARIM's historical returns, risk reports, and investment

processes for systematic risks, specifically systematic long or short equity, credit, interest rate, or commodity beta positions. IOS and ARIC will endeavor to find ARIMs who generate their investment returns with low or no equity, credit, interest rate, or commodity beta over a full market cycle. IOS and ARIC will quantitatively monitor the systematic risk of each investment in the ARP on a quarterly basis.

ii. Unsystematic Risk

The following represent a list of unsystematic risks IOS will seek to manage (and ARIC will generally advise on) through initial and on-going investment and operational due diligence, on-going monitoring of the ARP and each ARIM therein, and diversification of the ARP by sector, strategy, ARIF, separate account, and ARIM:

- a. <u>Leverage Risk:</u> The risk that the ARIM uses either direct or indirect (derivatives) forms of leverage excessively. The System will use no leverage in ARIF positions and will manage the leverage used in separately managed accounts and overlay strategies through agreed upon guidelines with the ARIM.
- b. <u>Illiquidity Risk:</u> The Absolute Return strategies have the potential to be or to become illiquid. Absolute Return strategies should be considered a less liquid investment and viewed in the context of a longer time horizon. The liquidity terms appropriate for the ARIF within the ARP will be structured during the contracting period with the ARIM to ensure liquidity risk is understood and viewed in the context of the overall ARP and the System's overall liquidity profile.
- c. <u>Currency Risk:</u> All investments in ARIF will be in U.S. dollar share classes unless otherwise reported to the Finance Committee and the Board prior to the investment in the ARIF.
- d. <u>Concentration Risk:</u> For the ARP, concentration risk is considered to be overweight in one or more ARIFs, ARIMs, or Absolute Return Sectors (ARSs). The following guidelines will be followed in order to manage concentration risk for the ARP in any single ARIM, ARIF, separate account, or ARS.
 - i. Maximum allocation to any one ARIM: 15%
 - ii. Maximum allocation to any one ARIF: 10%
 - iii. Maximum allocation to any one separate account: 12%

iv. Maximum and minimum allocations to any one ARS are discussed more fully in the Absolute Return Portfolio Asset Allocation guidelines below.

These limitations will be monitored by IOS and ARIC on a quarterly basis. IOS and ARIC will report on these limitations to the Board on a quarterly basis.

- e. <u>Volatility Risk</u>: The risk that the ARIM's strategies, or the implementation of these strategies, results in excess volatility. One way that this risk can be measured is by calculating the portfolio's standard deviation of returns. While volatility of individual ARIFs or separate accounts can be in excess of 30% annually, the goal is to manage the standard deviation of the ARP to 9% or less at the total ARP level over a full market cycle. IOS and the ARIC will monitor this risk and report it to the Board on a quarterly basis.
- f. <u>Counterparty Risk:</u> The use of prime brokers and the use of OTC derivatives by the ARIM introduce counterparty risks to the ARIF or separate account. Prime brokers or Counterparties may not be able to meet the terms of their financial obligations. The ARIC shall review this risk annually through their operational reviews of the ARIM discussed below.
- g. Operational Risk: IOS and ARIC will undertake a due diligence process on each proposed investment, including both an investment review and operational review performed by the ARIC. Also, the ARIC will perform a quarterly qualitative review of each ARIM's business developments and perform a full updated operational review annually or partial updates more frequently when material changes are observed at the ARIM, as determined by the ARIC¹.

h. Business/Economic Risks:

i. Strategy Risk

Strategy Risk is the risk that an ARIM's strategy will be out of favor for a period of time generating returns below expectations, including losses. When an ARIM's expectations do not hold,

¹ In the event that PSERS has submitted a full redemption request or is invested in an investment vehicle that has a self-liquidating structure and/or there is no opportunity to redeem, the ARIC will no longer provide annual investment or operational reviews after the initial review.

positions that were initially structured to generate returns and/or reduce market risk may experience losses. This risk is managed by limiting exposure to individual ARIMs and ARSs.

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iii. Tax/Regulatory Risk

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5. ASSET ALLOCATION

The allocation of assets within the ARP will be driven by the desire to diversify across four primary sectors and strategies. These sectors, their underlying strategies, and the target allocation ranges are defined below:

Absolute Return Sectors and Strategies

All sectors and strategies of ARIFs are eligible for inclusion in the System's ARP. For purposes of definition and analysis, ARIFs are categorized into the following ARSs:

a. Equity Long/Short Sector: Equity Long/Short managers typically invest long or short in the equity of publicly traded companies based on their estimate of a company's future prospects and the valuation of its stock. Such managers usually employ a bottom-up fundamental approach in which they may contact company management, suppliers, customers and competitors. Equity Long/Short managers can be broadly classified into strategies by their focus on industry(s) or region(s) – or they may employ a multi-strategy approach. While many managers run low net exposure or market neutral strategies – most Equity Long/Short managers maintain a net long exposure.

² The ARIC will not be providing tax or legal advice. PSERS shall consult with its tax and legal advisors regarding such potential changes as deemed necessary.

- b. Event Driven Sector: Event Driven managers focus on analyzing corporate events and credits to benefit from their analytical edge. Managers may also alter the return profile of their directional credit trades with derivative instruments such as credit default swaps (CDS.) Event Driven strategies may be focused on equities (e.g. merger arbitrage and special situations), credit (e.g. stressed and distressed securities), or emerging markets credits. Many Event Driven managers employ a multi-strategy approach. While many managers run fairly hedged strategies (e.g. long/short credit), and shorting is an important part of the strategy, most Event Driven managers have a net long credit and equity exposure.
- c. Relative Value Sector: Relative Value managers generally fall into three primary strategies: Convertible Arbitrage, Fixed Income, and Quantitative Strategies. Some Relative Value oriented managers follow a multi-strategy approach. Generally speaking, Relative Value strategies tend to be a blend of quantitative and qualitative processes. Typically, the objective of these strategies is to focus on trading relationships between similar assets. Since most strategies within the Relative Value category generally require at least some degree of leverage to generate returns, losses can be magnified in periods of illiquidity. While most Relative Value managers maintain little net long equity or credit exposure, the strategies can have elements of being short liquidity and susceptible to liquidity crises.
- d. Tactical Trading Sector: The Tactical Trading sector can be broadly divided into Global Macro, Emerging Markets Macro, and CTA (Commodity Trading Advisor) strategies. Some Tactical Trading oriented managers employ a multi-strategy approach. Global Macro strategies typically involve making investment decisions designed to take advantage of changing global market dynamics macroeconomic variables. Global Macro managers can either be quantitatively based (e.g. Tactical Asset Allocation) or discretionary and can run either concentrated or highly diversified programs. Global Macro managers as a whole are typically not highly leveraged, and often construct their portfolios with longer-term horizons in mind. CTA managers, who typically trade futures and forward contracts, can be broadly divided into two styles - trend-following and multi-process CTAs. Trend-followers base decisions on momentum-based indicators while multi-process CTAs are more diversified in terms of the signals and time frames they employ.

ii. Absolute Return Portfolio Asset Allocation

All allocations to the ARP shall be subject to the limits established by the Board through the Asset Allocation process described in the PSERS Investment Policy Statement. IOS is permitted to manage the allocation of capital to each ARS within the target ranges noted below. The CIO shall have discretion on the timing of reducing any ARS exceeding the maximum ranges approved below. However, the CIO is not permitted to allocate additional capital to those ARSs currently above the target ranges.

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Event Driven Sector	0% - 50%
Relative Value Sector	0% - 65%
Tactical Trading Sector	0% - 65%

For purposes of these above guidelines, "overlay strategies", if used, will be assigned "fund equivalent weightings", by mutual agreement of IOS and the ARIC in each case.

The Board delegates to the CIO the duty of rebalancing sector allocations which result from market value fluctuations. IOS will review the sector allocations on a monthly basis. Any sector that falls outside the target ranges described above will be rebalanced to within the target range within a reasonable and prudent period of time by the CIO. The CIO also has the authority to tactically allocate between sectors as long as the amount allocated to each sector is within the policy ranges described above. Any account may be increased or decreased to achieve the rebalancing objective based on the judgment of the CIO. When a rebalancing is required, consideration will be given to the unique characteristics of each ARIM or ARIF, the degree of over/underweight, liquidity characteristics, current market conditions, and any other relevant considerations to ensure prudence and care.

6. MANAGER SELECTION

The primary emphasis of IOS and the ARIC on selecting an ARIM will be on the quality and experience of the ARIM. IOS and ARIC will emphasize investments in recognized, well-established ARIMs. Participation in ARIFs managed by smaller or newer ARIMs will be implemented opportunistically, primarily in the Public Market Emerging Investment Manager Program (PMEIM Program).

The IOS shall consider the following factors as a guideline for selecting ARIMs and ARIFs:

- Assets under management by the ARIM should be sufficient to support the infrastructure and investment personnel required to execute the investment strategy;
- b. The ARIM must have a meaningful reported track record managing investments under the same strategy or a broadly similar strategy to the one being considered, either at the current firm or at a previous firm;
- c. The ARIF must use independent service providers (i.e. custodian, third party administrator, auditor);
- d. The liquidity terms must be appropriate for the investment strategy; and,
- e. As deemed applicable, PSERS will require, in a side letter, a Key Person(s) provision that gives PSERS the option to redeem investments in an ARIF prior to the conclusion of the lock-up period.

In cases where a new ARIM is to be hired, the following steps shall be taken:

- a. The ARIC will provide the IOS with ARIM suggestions, or the IOS may be contacted directly by an ARIM.
- b. If the ARIM has characteristics desirable for inclusion in the ARP, and it is decided to proceed, then (1) the ARIC shall perform due diligence on the prospective ARIM; (2) the IOS will have a follow-up meeting(s) with the ARIM; and (3) the IOS will complete its due diligence, possibly including an onsite meeting at the ARIM's office.
- c. If the IOS decides to recommend an investment with the ARIM, the ARIC will prepare a recommendation memo (assuming the ARIM/ARIF receives a favorable investment rating and operations rating from the ARIC) and, subject to agreement, the Portfolio Manager, Non-Traditional Investment

- Strategies will enter into contract and side-letter negotiations with the ARIM.
- d. Assuming a successful conclusion to the negotiation process above, the Finance Committee and the Board are required to approve the investment prior to the execution of the contract with the subject ARIM.

Legal matters to be considered when entering into an agreement with an ARIF are discussed below:

- a. While it is the System's position that Unrelated Business Taxable Income (UBTI) is not an issue, nonetheless, investments should be structured to minimize UBTI.
- b. Plan Assets Many fund documents contain language that addresses ERISA's rules concerning "Plan Assets." While these regulations do not directly apply to the System, it may be affected by such ERISA-related language and will be reviewed by IOS and ARIC during the due diligence process.
- c. Method of Participation/Types of Authorized Investments The System will generally participate as a limited partner in a domestic based fund; as a shareholder in an offshore corporation; as a limited partner or shareholder in a "fund of one"; or as a sole owner of a separately managed account.
- d. Fees Fees should be negotiated where prudent and without creating offsetting adverse effects.

7. MEASUREMENT AND REPORTING CRITERIA

Quantitative monitoring will analyze the ARP and each ARIM's risk and performance. This analysis may include various risk metrics including factor exposure, volatility, and correlations.

Performance will be assessed relative to performance of similar alternative investments and the general absolute return indices. The actual strategy employed by the ARIM will be judged relative to the stated objectives and strategy performance. In addition, the reports required from ARIM will be negotiated by staff, with quarterly reports being provided to the Board by the ARIC.

8. **DEFINITIONS**

Key words used in the policies are defined in PSERS Definitions contained in PSERS' Investment Policy, Statement, Objectives and Guidelines.

9. ACKNOWLEDGEMENT

We acknowledge the receipt of the Absolute Return Policy for the Pennsylvania Public School Employees' Retirement Board.

Aksia, LLC	Pennsylvania Public School Employees' Retirement System
Signature	Chief Investment Officer
Authorized Signor	
Date Accepted	 Date Proposed