

Pennsylvania Municipal Retirement Systems

Investment Policy Statement

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INTRODUCTION

This Investment Policy Statement (“IPS”) is designed to provide a framework within which to manage the investments for the Pennsylvania Municipal Retirement System (“PMRS”). This document will assist the Pennsylvania Municipal Retirement Board (“PMRB”) in fulfilling its fiduciary responsibility. The provisions of this IPS are intended to aid PMRS employees and financial professionals retained by the PMRB in making decisions about investment matters related to the assets of the PMRS.

Background

The PMRS is a state affiliated agency created by the Pennsylvania General Assembly and authorized by Act 15 of 1974 “Pennsylvania Municipal Retirement Law”. Its purpose is to administer public pension plans for municipalities and political subdivisions as authorized by Section 110: Management and Investment of Fund; Interest Credits, of the aforementioned Act. The Treasurer of the Commonwealth of Pennsylvania is custodian of the Fund and has retained a third-party custodian bank to custody the Fund’s assets. The third-party Custodian(s) shall be responsible for safekeeping of the Fund. This responsibility includes all security transaction settlements and deliveries, recordkeeping and reporting.

The Pennsylvania Municipal Retirement System was enacted in 1974. The PMRB is required to establish the regular interest it will credit the accounts on an annual basis in advance of the fiscal year. In determining this rate, the PMRB takes into consideration expected future returns of the portfolio net of all expenses over a typical market cycle (5-10 years). This rate is reviewed annually by the PMRB and updated within **Attachment I** of these guidelines. Excess investment earnings are allocated to plan members on an equalized basis after netting administrative expenses. Policies for determining the amount and allocation of any excess investment earnings is specified in the PMRB policy statement (Excess Interest Award Process) and PMRB policy statement (Allocation of Excess Interest) respectively. Both documents can be found on the PMRS website.

Purpose

This IPS has been adopted by the PMRB in order to:

- Define and generally assign the responsibilities of all involved parties.
- Establish a clear understanding of the investment goals and objectives of the Fund.
- Establish the relevant investment horizon for which the Fund’s assets will be managed.
- Establish a target asset allocation and re-balancing procedures for the Fund.
- Offer guidance and limitations to all third-party investment funds/managers (“Investment Managers”) regarding the investment of assets.
- Establish a basis for evaluating the Fund’s investment results.

In developing this IPS, the PMRB considered pertinent factors such as plan liquidity requirements, investment diversification, actuarial assumptions and the financial impact (including the possibility of significant loss) of a range of asset allocations. This IPS will be updated from time to time as determined by the PMRB within their discretion. Further, changing market conditions, economic trends or business needs may necessitate modification to this IPS. In addition, PMRB may also include a study of portfolio design for optimal diversification and comparisons with peer practices. For this purpose, any such modifications shall be deemed to be made part of this IPS as of the date deemed appropriate by the PMRB.

In general, the purpose of this IPS is to outline a philosophy which will guide the investment management of the Fund's assets toward the desired outcomes. It is intended to be sufficiently specific, yet flexible enough to be practical and to ensure that sufficient prudence and care are exercised in the investment program. This IPS is intended to serve as a reference tool, an operating code, and a communication link between and among the PMRB, plan staff, the Investment Consultant and the Investment Managers. As appropriate, the Investment Fiduciaries will consult with the Funds' actuary(ies) to align investment decisions with the funding obligations of the PMRS.

Scope

This IPS applies to all assets within the PMRS Fund. The investment strategy for the Fund reflects a unique application of the principles of Prudent Person investing, crafted specifically to balance the investment criteria in an appropriate manner for the Fund investors.

This IPS is not intended, and shall not be deemed, to expand the duties of the Funds' fiduciaries or to create duties that do not exist under applicable law or the documents governing the PMRS. If any term of this IPS conflicts with applicable law or those documents, applicable law and the governing Plan documents shall control.

For purposes of this IPS, "Investment Fiduciary(ies)" means any individual or group of individuals that exercise authority or control over the management, disposition or administration of the Plan which includes but is not limited to: the PMRB, plan staff, the Investment Consultant, Investment Managers and Custodian.

STANDARD OF CARE

Prudence

Guidelines respecting prudence have been developed in light of investment objectives related to the Fund. Current actuarial, investment, economic, and market conditions are factors that affect meeting those objectives. Accordingly, these guidelines are, as a part of this IPS, intended to present broad and balanced considerations to guide incumbent and successor PMRB trustees and all other parties concerned, seeking appropriate investment, safekeeping, monitoring and evaluation of the Fund assets.

Plan fiduciaries shall discharge their responsibilities and assets shall be invested in a manner consistent with this IPS, and generally accepted fiduciary standards. All transactions undertaken on behalf of the Fund shall be solely in the interest of Plan participants and their beneficiaries.

In making investments for the Fund, the PMRB is charged with exercising that degree of judgment and care that experienced investors of prudence, discretion, and intelligence employ in the management of their own affairs regarding permanent disposition of their assets. Implementation of this investment standard, commonly called the Prudent Person test (20 Pa. C.S. § 7301), requires the exercise of careful judgment in determining those investments that are appropriate for the Fund based upon income needs, cash flow requirements, investment time horizons, risk tolerance, and other investment criteria. Investment decisions must also reflect any legal standards that authorize or limit the particular kinds of investments that the Fund may hold.

Ethics and Conflicts of Interest

PMRB members and PMRS employees involved in the investment process shall refrain from any personal business activity that could conflict with the proper execution and management of the Fund or that could impair their ability to make impartial decisions. PMRB members and PMRS employees shall

provide all disclosures required by 65 Pa.C.S. § 1101 et seq., commonly known as the Public Official and Employee Ethics Act, which prohibits by way of example PMRS employees receiving anything of value from a vendor or anyone doing business with the PMRS. Financial professionals shall disclose in writing to the PMRB any material interests they hold in financial institutions with which they conduct business or any other sources of potential conflicts of interest. Such written disclosure shall be made immediately upon discovery of the potential conflict.

Delegation of Authority

Authority to manage the Fund assets is granted to the Investment Manager(s). Investment Manager(s) shall act as an agent of the PMRS and must abide by the same ethics and standards as the PMRB. No person may engage in an investment transaction except as provided under the terms of this IPS and/or the Investment Manager Agreement(s). The Investment Manager(s) shall be responsible for all transactions undertaken and shall establish a system of controls to regulate the activities of subordinate officials.

DISTINCTION OF RESPONSIBILITIES

Responsibilities of the PMRB

The PMRB is charged with overall responsibility for investment of the Fund. To assist the PMRB in this function, the PMRB is authorized and permitted to appoint Investment Manager(s), Investment Consultant(s) and other financial experts, including for this purpose: banks, insurance companies, and firms registered under the Investment Advisers Act of 1940 and/or Delaware law, to manage, acquire and dispose of the Plan's assets. The PMRB may consult with legal counsel as necessary.

Any Investment Manager(s) and Investment Consultant the PMRB appoints must agree to act in accordance with all applicable state and federal laws as now apply or may apply in the future.

The PMRB shall develop policies and guidelines regarding Fund investments. These policies and guidelines shall include (but are not restricted to) establishment of:

- Investment Objectives, Investment Policy, Investment Guidelines, Strategic Asset Allocation and Review Procedures as set forth herein.
- Standards for measuring, monitoring, evaluating, and comparing investment performance of the Fund and appointed Investment Managers.
- Procedures for authorization, reporting, control, review and general governance to ensure that Fund investment policies and guidelines are reviewed on a regular basis.
- A management structure and contractual relationships which will ensure appropriate investment management, custody, and compliance procedures.

The PMRB shall examine this statement no less than annually and make appropriate revisions, if necessary. All modifications of policies and/or guidelines shall be in writing, signed by appropriate PMRB signatories.

Responsibilities of the Investment Committee

The Investment Committee consists of the Treasurer of the Commonwealth of Pennsylvania and no less than three current PMRB members. The Investment Committee's purpose is to assist the PMRB in fulfilling its investment responsibilities and has been delegated all necessary power and authority by the PMRB to assist in performing specific investment functions for the PMRB including (but not limited to):

- Review of the Investment Policy, Investment Guidelines and Strategic Asset Allocation.

- Monitoring, evaluating, and comparing investment performance of the Fund and appointed Investment Managers.
- Review of plan procedures and general governance including Proxy Voting.
- Monitoring of management structure and contractual relationships to ensure appropriate investment management, custody, investment advisement and compliance procedures are adequately met.

The Investment Committee shall meet at least four times annually and present summary reports of their activities, findings, recommendations, and other relevant issues to the PMRB.

Responsibilities of the Investment Consultant

PMRB may select and retain the services of an Investment Consultant for the purpose of:

- Investment policy development.
- Asset allocation studies and recommendations on strategic asset allocation.
- Investment manager due diligence, screening, recommendation for selection and termination.
- Advice on implementing the investment policy and asset strategy.
- Recommendations for rebalancing the assets.
- Evaluating and reviewing investment performance of the Fund and appointed Investment Managers.
- Providing results through monthly reporting and prepare topical studies (as needed).

The observations and recommendations of the Investment Consultant will be considered by the PMRB in conjunction with other available information for the purpose of making informed and prudent decisions.

The Investment Consultant must agree to act in accordance with all applicable state and federal laws as now apply or may apply in the future. The Investment Consultant must adhere to the applicable Investment Consultant Contract and perform all duties required of the Investment Consultant under such contract.

Responsibilities of any Investment Manager(s)

The management of the Fund and the responsibilities for investment decisions are delegated to the appointed Investment Manager(s). Any Investment Manager(s) shall exercise complete discretion, consistent with the Investment Objectives, Investment Policies, and Investment Guidelines set forth in this Statement, over the Fund assets that have been assigned, within the limits established by this Statement and their Investment Manager contract. Accordingly, the Investment Manager shall comply with all laws and regulations in effect during the term of their agreement. Particular attention should be given to the fiduciary duties established by the prudent person doctrine.

Investment Manager(s) must agree to act in accordance with all applicable state and federal laws as now apply or may apply in the future.

Investment Manager(s) must be currently registered and maintain registration as an investment advisor under the Investment Advisors Act of 1940 (the “Act”), a bank (as defined in the Act), or an insurance company qualified to perform investment management services under the laws of more than one state unless otherwise approved on an exception basis.

Applicable terms, conditions, limitations, and restrictions notwithstanding, any Investment Manager(s) serving the Fund shall:

- Discharge all duties relating to the Fund solely in the interest of Plan participants and beneficiaries.
- Diversify the investments of any Fund portfolio(s) so as to minimize the risk of substantial loss.

Any Investment Manager shall also consider the composition of the Investment Manager's portfolio(s) with regard to:

- Diversification.
- Liquidity relative to the Plan's cash flow requirements.
- Projected total return relative to benchmark and peer group.
- Potential losses and gains.

All investment performance data submitted by, or on behalf of, any Investment Manager to the PMRB or the PMRB's designee, shall conform with the Performance Presentation Standards and/or Global Investment Performance Standards established by the CFA Institute.

PMRB has retained a proxy voting service, to vote all domestic proxies on behalf of the Fund. International Investment Manager(s) must exercise the proxy voting rights related to securities held in its portfolio in a manner consistent with the economic best interests of the Fund and in line with the PMRS proxy voting policy statement which is located on the PMRS website.

Any Investment Manager(s) shall demonstrate insurance coverage and bonding at such levels as set by the PMRB from time to time.

Investment Managers shall comply with reasonable requests without delay, including document production requests, from the PMRB.

If, at any time, an Investment Manager(s) believes this Statement inhibits its ability to effectively perform its investment assignment, it is the Investment Manager's responsibility to communicate this view to the PMRB and Investment Consultant.

Any Investment Manager will promptly notify the PMRB and Investment Consultant, in writing, regarding all material matters or significant changes including but not limited to:

- Changes in investment strategy, portfolio structure, tactical approaches, and market value of managed assets.
- Material changes in ownership, organizational structure, financial condition, and/or professional staff of the investment firm.
- All material legal, SEC, and/or other regulatory proceedings affecting the firm.

Responsibilities of the Custodian

The Treasurer of the Commonwealth of Pennsylvania serves as statutory custodian of the funds of virtually all state agencies, with the responsibility for monitoring and safeguarding money and securities, according to the Fiscal Code 72 P.S. § 303. The Treasurer has broad authority to place these moneys in any investments subject to a standard of prudence and diligence. PMRS is required by law to utilize the Pennsylvania State Treasury as the depository.

The Treasurer of the Commonwealth of Pennsylvania has retained a third-party custodian bank to custody the Fund's assets. The Custodian(s) shall be responsible for safekeeping of the Fund. This

responsibility includes all security transaction settlements and deliveries, recordkeeping and reporting. Recordkeeping and reporting shall include providing ready access to information to the PMRB and staff and any custom recordkeeping, record retention, or reporting reasonably required by the PMRB or staff. Transaction records shall be maintained on a trade date basis. Nationally accepted asset pricing should be daily and reported not less often than monthly.

The custodian bank is acting in a fiduciary capacity in the performance of its duties. The Custodian Bank shall exercise the same care and diligence that it would devote to its own property in like circumstances.

INVESTMENT OBJECTIVES

Return Objectives

Investment objectives are long-term in nature. All parties recognize securities markets can be volatile and unlikely to provide consistently favorable investment conditions when assessing on a shorter-term basis.

Given this, long-term objectives are:

- The performance objective of PMRS is to meet or exceed the regular interest rate of return net of all program fees, documented in **Attachment I**, over a full market cycle, with a level of risk deemed appropriate by the PMRB.
- Total annualized net investment return from all investments of the Funds and each asset class of the Funds is expected to meet or exceed the annualized return of the designated benchmark/s over a full market cycle.

Investment performance objectives for the Funds are, as stated above, long-term in nature. Concern respecting market value or investment return volatility and other measures reflecting investment uncertainty, will be addressed through asset (class) allocations, investment management processes or “styles”, portfolio diversification, and other investment management guidelines and/or restrictions.

Risk Tolerance

The PMRB recognizes that some level of risk is necessary to produce long-term investment results sufficient to meet the goals and objectives of this IPS. However, the Investment Managers are to make reasonable efforts to control risk, and they will be evaluated regularly by the Investment Consultant to ensure that the risk taken is commensurate with the given investment style and their stated objectives. With that background in mind, the PMRS’s risk tolerance is outlined below:

- Accept prudent levels of short and long-term volatility consistent with the near-term cash flow needs, and the long-term liability structure of PMRS.
- Tolerate appropriate levels of downside risk relative to the PMRS target rate of return. In doing so, the Investment Consultant, in conjunction with the PMRB, will attempt to minimize the probability of underperforming the target rate of return over the long-term and to minimize a funding shortfall in the event such underperformance occurs.
- Accept certain variances in the asset allocation structure of PMRS relative to the broader financial markets and peer groups.
- Tolerate certain levels of short-term underperformance by the Investment Managers if comfortable with the causes for the underperformance.

INVESTMENT POLICY

Investment Policy delineates controls and the associated monitoring intended to enhance the likelihood of meeting Investment Objectives.

Asset Allocation

Asset class allocation decisions are intended to identify an appropriate investment approach for achieving PMRS's Investment Objectives while limiting investment risk through diversification (and other factors deemed relevant by the Investment Fiduciaries). The asset class targets delineated in **Attachment I** provide a framework through which the Plan's investments may be adjusted to meet economic and/or investment market conditions while continuing to be invested within the broader allocation framework deemed appropriate to the PMRS's long-term Investment Objectives. The progression from current asset class targets to the ones delineated in **Attachment I** is intended to be a thoughtful and deliberate process.

Rebalancing and Evaluating the Asset Allocation

The asset allocation range established by this investment policy represents a long-term perspective. As such, rapid unanticipated market shifts or changes in economic conditions may cause the asset mix to fall outside the policy range. These divergences should be of a short-term nature. The PMRB, along with assistance from the Investment Consultant, will monitor the asset allocation in relation to the Funds long-term strategic asset allocation. The Fund will be rebalanced back to strategic asset allocation targets at the end of each quarter and in circumstances when total equities exceed +/-5% of their target allocation. Under/over weights to illiquid investments will be allocated to both equity and fixed income in proportions consistent with their overall risk/return characteristics.

At any time, the PMRB may adjust cash flows or assets to achieve appropriate allocation levels to meet the immediate needs of the fund.

Diversification

Investments must be broadly diversified to minimize the risk of substantial loss unless under the circumstances it is clearly not prudent to do so. Significant diversification can be accomplished through asset allocation, portfolio structure, and the selection of unique Investment Managers (among other things). This IPS includes certain restrictions intended to optimize investment diversification.

Diversity, Equity and Inclusion Diversity is a critical risk management tool, which will be applied to the PMRS portfolio and its partners in implementing our investment objectives. Numerous studies have found an association between diversity and improved financial performance and corporate governance. In an effort to identify and mitigate potential issues of enterprise risk stemming from a lack of diversity, and to be consistent with the Commonwealth's Department of General Services procurement policies, PMRS will include diversity among the factors considered when selecting investment partners and service providers. In addition, ongoing due diligence of and reporting by Investment Managers will include the gender, racial, and ethnic diversity of various aspects (ownership, management, and employee base) of these firms.

Proxy Voting

The PMRB takes full responsibility for exercising the voting privilege contained in proxy solicitations generated by companies domiciled in the United States per its proxy voting policy statement. The PMRS has retained a proxy voting service, to vote all domestic proxies on behalf of the Fund. Proxy solicitations by non-United States domiciled companies shall be handled by the investment manager that holds the security of that company in their portfolio.

The PMRB may enter into contracts with third party providers of research relating to the issues for which the PMRB's vote is being solicited. The PMRS staff shall report at least annually to the PMRB on the proxies voted. The PMRB shall adopt specific guidelines for staff guidance. The proxy guidelines as adopted and hereafter amended shall be considered an integral part of these investment guidelines.

INVESTMENT MANAGER SELECTION CRITERIA

The PMRB, with consultation from the Investment Consultant and the PMRS Investment Committee, will select, assess, and replace Investment Managers to invest the assets of PMRS, done in a prudent manner and for the exclusive benefit of the PMRS. If the PMRB determines that an Investment Manager should be selected or replaced, the below criteria will be used as a guide (among other factors the PMRB deems prudent) to evaluate potential alternatives:

- Overall firm strength.
- Investment professional's tenure and depth of the investment manager's team.
- Well-articulated and consistent application of investment philosophy and process.
- Portfolio characteristics and sector weightings relative to style benchmark.
- Consistent long-term performance relative to style benchmark and style universe.
- Portfolio's long-term risk/reward profile compared to style benchmark and industry style universe.
- Investment management fees compared to industry average.

The PMRB recognizes further opportunities to achieve its investment goals by diversification by manager selection and/or scoring investment managers similar to the Commonwealth's Department of General Services small diverse program. Diversification by manager is defined as including minority- and/or woman-owned investment management firm in which ownership is more than 50% *Black, Latino, Pacific Islander, or Native American, or female*. To achieve said manager diversity, the Board may employ the Small/Diverse Business guidelines as promulgated by the Commonwealth's Department of General Services, or a derivative thereof.

Notwithstanding any other provision of this IPS to the contrary, the PMRB may place any Investment Manager under formal performance review, or the Investment Manager can be immediately terminated at any time and for any reason.

INVESTMENT GUIDELINES

General

The Investment Manager(s) shall conform to the Investment Guidelines set forth below. Any departure from the Guidelines must be submitted in writing to the PMRB and Investment Consultant for formal approval, as must any change in the "style" or investment philosophy, process, or practices approved by the PMRB at the time any Investment Manager was retained to serve PMRS.

- Each Investment Manager shall select investments in conformity with criteria normally applied in its decision-making process and previously reviewed and approved by the PMRB.
- Any security purchased in compliance with the standards cited in this Statement or in the Investment Manager (s) contract, but no longer meeting Investment Guideline standards and/or causing portfolio non-compliance, may, in lieu of immediate sale, be reported by any

Investment Manager (s) to the PMRB and Investment Consultant, with background information and an intended future course of action. The PMRB may, upon review, approve temporary or indefinite retention or, in the PMRB's best judgment, order disposition of the security and a return to full compliance. For any individual Investment Manager, securities retained under such circumstances shall constitute no more than five (5) percent of the market value of securities of the assets managed by the Investment Manager (5 percent "basket clause").

- Any Investment Manager (s) managing active portfolios will be assigned indices or other types of benchmarks deemed suitable for their investment assignment and agreed upon with the PMRB, PMRS staff and Investment Consultant. As a general expectation investment performance of those Investment Managers should exceed their assigned benchmarks, net of fees, on an annualized basis over a full market cycle.

Equities

The objective of equity investments is return generation either through dividend income or capital appreciation while displaying reasonable amounts of risk. Investment Manager(s) are expected to purchase marketable equity securities listed on national securities exchanges. Equity investments can be made through separately managed accounts, commingled investment trusts, exchange-traded funds (ETFs), mutual funds and/or pooled trusts (and such other forms deemed appropriate by the PMRB and Investment Manager(s)).

Investment Managers are given latitude in security selection subject to the following:

- Permissible equity investments include, but are not limited to, common equity, convertible securities, publicly traded REITs and American Depositary Receipts.
- Sector, industry, regional and individual security diversification should be maintained.
- Active Investment Managers shall not invest on a market value basis more than (the greater of seven and five-tenths (7.5%) percent of their assigned portfolio in the security (-ies) of a single corporation or group of directly affiliated corporations. If a particular security's weighting within the Investment Manager(s) benchmark is greater than 7.5%, the Investment Manager(s) can invest up to 10% greater than the weighting of the security within the index. For example, if a security has a 10% weighting within their respective index, the Investment Manager(s) may invest up to 11% of their portfolio in that security. If this level is breached, the Investment Manager must notify the Investment Consultant and PMRS staff.
- No active Investment Manager may use assigned funds to make or maintain an investment equaling or exceeding ten (10) percent ownership of the outstanding equity security(-ies) of a single corporation, or group of directly affiliated corporations.
- Stock options may be utilized by an Investment Manager(s) managing U.S. equity securities in "covered" or hedging postures but not in "naked" or speculative postures, provided it is specifically part of the investment mandate the manager was hired to execute;
- Hedging to protect against currency impact upon a security position is permissible. Nevertheless, the purchase of speculative or "naked" currency contracts (i.e., currency trading or related risk taking), undertaken without a demonstrable exposed investment position to be hedged in a specific currency, is prohibited.

Fixed Income

The objective of investment grade "Core" fixed income investments is to provide income generation and pricing stability in periods of heightened market volatility. The objective of below investment grade "Sub-IG" fixed income investments (rated below Baa) is to provide income generation, diversification and moderate capital appreciation over a full market cycle.

Allowable fixed income investments shall be marketable securities including, but are not limited to, U.S. Treasury and Federal agency securities including agency mortgage backed securities “MBS”, municipal securities, Non-U.S. sovereign government securities and agency securities, marketable debt securities of U.S. and non-U.S. corporations, non-agency asset backed securities “ABS” and non-agency mortgage backed securities “MBS”, domestic and Yankee certificates of deposit, banker’s acceptances, commercial paper, fixed and floating rate loans, collateralized loan obligations, convertible bonds, as well as derivatives that track the value of any of the aforementioned securities to gain market exposure or other generally utilized money market or cash equivalent investments, including money market mutual funds meeting the quality standards delineated below. Fixed income investments may also include any of the above security types issued pursuant to Rule 144a. Fixed Income investments can be made through separately managed accounts, commingled investment trusts, exchange-traded funds (ETFs), mutual funds and/or pooled trusts (and such other forms deemed appropriate by the PMRB and Investment Manager(s)).

Core Manager Guidelines:

- The portfolio effective duration for all active managers shall be no more than ten (10) percent greater nor twenty (20) percent less than the effective duration of their stated policy benchmark.
- No issuer, other than the U.S. Government or Federal agencies, may represent more than five (5) percent of the total market value of the fixed income portfolio managed by any Investment Manager(s).
- There is no limit upon investment in U.S. Treasury securities as a percentage of fixed income investments, except that any single issue thereof may constitute no more than twenty-five (25) percent of any Investment Manager(s)’ fixed income investments at market value and any single Treasury zero coupon issue ten (10) percent at market value. Federal Agency securities are hereby limited to twenty-five (25) percent per agency, and to ten (10) percent, at market value, per any single Federal Agency issue.
- Non-investment grade bonds (below Baa) are permissible but may not constitute more than twenty (20) percent of their fixed income portfolio. Within the below investment grade bond allocation, there is a maximum allowable allocation of ten (10) percent in Bank Loans, ten (10) percent in Emerging Markets Debt and ten (10) percent in High Yield.
- Cash and equivalents are the only permissible form of investment that is to be used for operating capital necessary for daily operations and reserves. Investments in cash and equivalents shall be in U.S. dollars in either:
 - Money market mutual funds or,
 - FDIC-insured Deposit Accounts or,
 - Cash sweep vehicles or money market mutual funds held within SIPC-protected brokerage accounts.
- Non-U.S. dollar denominated securities are permissible at a maximum position of five (5) percent.
- Exchange traded and over-the-counter derivatives such as agency MBS TBAs, futures, options and swaps are permissible investments to manage risks within the portfolio. All derivatives must be fully hedged with cash or securities within the manager’s portfolio at all times.

Opportunistic Credit Guidelines:

- This mandate allows managers discretion to tactically shift their portfolio amongst high yield corporates, leveraged loans, structured credit, convertible bonds, preferred stocks, emerging markets debt and other investment grade and below investment grade publicly traded bonds,

based on the overall opportunity set they deem most attractive on a risk adjusted basis within markets.

- No issuer, other than the U.S. Government or Federal agencies, may represent more than five (5) percent of the total market value of the Opportunistic Credit portfolio managed by any Investment Manager(s).
- Within each manager's allocation, there is a maximum allowable allocation per manager of sixty (60) percent in high yield corporates, sixty (60) percent in leveraged loans, forty (40) percent in convertible bonds, twenty (20) percent in emerging markets debt, twenty (20) percent in investment grade fixed income, fifteen (15) percent in collateralized loan obligations, fifteen (15) percent in other below investment grade publicly traded fixed income securities such as special situation investments include acquisition targets, tender offers, liquidations, spin-offs, reorganizations, distressed securities or similar type of transactions.
- Non-U.S. currency exposure will not surpass twenty (20) percent of the Opportunistic Credit manager's portfolio.
- Managers are limited to a maximum of twenty-five (25) percent in any one sector, there is no minimum investment per sector.
- There are no duration constraints for Opportunistic Credit managers. Historically, Opportunistic Credit managers have maintained an effective duration shorter than Core managers.
- The Opportunistic Credit manager may use options, short sales and other derivatives for hedging purposes or to implement their investment strategy for total return purposes but all positions must be covered by cash or securities.

Real Estate

The objective of the real estate portfolio is to provide portfolio diversification and stable cash flows with modest asset appreciation over a full market cycle. Real estate assets are currently held through direct equity participation in separately managed accounts and open-ended commingled funds. The PMRS may also invest in publicly traded Real Estate Investment Trusts (REITs) or closed-end private real estate commingled funds. Specific investment processes as well as specific investment constraints will be identified in the individual real estate contract.

Separately managed mandates will focus on income generation and proper portfolio diversification in terms of number of assets, sector and geographic allocation. A proposed investment shall exhibit institutional quality which is defined as like investments made by similar style pension funds. All investments shall be underwritten, managed by and (when necessary) disposed of by a qualified real estate investment manager. Property acquisition, management and disposition shall be guided by the prudent expert standard.

Pooled real estate investment funds will diversify their exposures by property type and location in an attempt to limit exposure to any single property type or to any single geographic area. It is expected that at various points in time, the portfolio may be more heavily exposed to a single property type or location by virtue of opportunities in the market that are expected to generate excess return above long-term expectations.

All real estate investments shall be valued by a qualified independent appraiser(s) at regular intervals, but no less often than annually. Managers shall estimate the market value of each property investment in those periods independent appraisals are not performed and this manager valuation shall be used for performance measurement purposes. The firm/appraiser must be a state certified general real estate appraiser for the state in which the property to be appraised is located. For purposes of tracking value and performance, an annual update appraisal in each of the two interim years shall also be conducted. The

same independent appraiser who performs the comprehensive appraisal may also perform the update appraisals. The same firm/appraiser may not perform successive comprehensive (non-update) appraisals.

The diversification of all real estate portfolios will be compared to the composition of its peer benchmark the NCREIF ODCE Index. Limited use of leverage is permissible to enhance investment returns and to mirror the NCREIF ODCE Index as laid out in each of the manager's contracts.

Timber

The objective of timber assets is to provide stable cash flows with modest property appreciation over a full market cycle. Investment in timber assets are currently owned through direct equity participation but the PMRS could also invest in closed or open-end private timber commingled funds. The portfolio should maintain diversification through types of timber and geographic locations.

All timber shall be managed by and disposed of (if necessary) by a qualified timber investment management organization (TIMO). Acquisition, management, and disposition of investments shall be guided by the prudent expert standard. All timber properties shall be valued by an independent third-party appraiser annually and changed at least once every three years. The firm/appraiser selected must be a state certified general real estate appraiser for the state in which the timber to be appraised is located. For purposes of tracking value and performance, an annual update appraisal in each of the two interim years shall also be conducted. The same independent appraiser who performs the comprehensive appraisal may also perform the update appraisals. The same firm/appraiser may not perform successive comprehensive (non-update) appraisals.

The diversification of the timber portfolio will be compared to the composition of its peer benchmark the NCREIF Timberland Property Index.

Commingled Funds

Given the nature of commingled fund investment vehicles (commingled investment trusts, mutual funds, limited partnerships, etc.), it is recognized that there may be deviations between the objectives, intent or specific requirement of this IPS and the stated objectives, intent or content of any commingled fund. However, reasonable efforts shall be made, to the extent practical, prudent and appropriate, to select commingled funds that have investment objectives and policies that align with this IPS. For such investments, the investment manager must adhere to their manager guidelines detailed within their corresponding private placement memorandum, prospectus or investment management agreement at all times.

Portfolio Transition Management

In periods of portfolio transitioning into and out of investment managers, the PMRB may hire transition managers to assist with portfolio trades to alleviate possible negative trading impact on the portfolio. These transition managers will adhere to their specific manager guidelines.

Prohibited Investments

Securities having the following characteristics, unless stated within this investment policy statement for a specific asset class or otherwise in an investment management agreement, are not authorized and shall not be purchased: letter stock and other unregistered securities, commodities or commodity contracts where the Funds are a counterparty, short sales, and margin transactions. Further, derivatives, options, futures, or any other investment for the sole purpose of direct portfolio leveraging are prohibited. Direct ownership of oil, gas or mineral rights (outside of the mineral rights that come with the purchase of timber lands) and the purchase of collectibles is also prohibited.

Notwithstanding anything in the Investment Guidelines to the contrary, only an investment permitted by applicable law may be considered and, then, only if such investment is determined to be prudent and in the best interests of Plan participants and beneficiaries.

REVIEW PROCEDURES

Review of Investment Objectives

The Investment Consultant shall periodically review and report to the PMRB, not less frequently than annually, the appropriateness of this IPS for achieving the PMRS's stated objectives. It is not expected that this IPS will change frequently. In particular, short-term changes in the financial markets generally should not require an adjustment in this IPS.

Review of Investment Performance

The Investment Consultant shall report on a monthly basis to the PMRB to review the investment performance of PMRS. In addition, the Investment Consultant will be responsible for keeping the PMRB and PMRS staff advised of any material change in investment strategy, Investment Managers, and other pertinent information potentially affecting performance of PMRS.

The Investment Consultant shall compare the investment results on a quarterly basis to appropriate peer universe benchmarks, as well as market indices in both equity and fixed income markets.

Review of Investment Consultant and Other Service Providers

The PMRB shall periodically, and not less frequently than annually, review the performance of the Investment Consultant and other service providers to PMRS.

SIGNATURES

The effective date of this Investment Policy Statement is March 17, 2022.


Adopted by the Pennsylvania Municipal Retirement System Board on March 17, 2022.

ATTEST

**BOARD OF THE PENNSYLVANIA
MUNICIPAL RETIREMENT SYSTEM**



Signature



Name

ADDENDUM

**PENNSYLVANIA MUNICIPAL RETIREMENT SYSTEMS
INVESTMENT POLICY STATEMENT**

DATED: March 18, 2021
AMENDED: May 20, 2021

DOCUMENT CHANGES:

1. Asset Allocation Guidelines.....Attachment 1

Decreased Equity target allocation by 10%

- Decreased U.S. Equity target allocation by 7.5%
- Added 5% target allocation to Global Equity with benchmark set to MSCI ACWI Minimum Volatility Index
- Decreased International Equity target allocation by 7.5%

Decreased Real Estate target allocation by 2.5%

Decreased Timber target allocation by 2.5%

Increased Fixed Income target allocation by 15%:

- Increased Investment Grade target allocation by 9%
- Added 5% target allocation to Opportunistic Credit with benchmark set to 50% BBG Barclays US High Yield and 50% CS Leveraged Loan Index
- Added 1% target allocation to Cash

Adopted Date: 3/17/2022

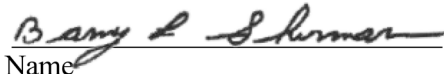
Effective Date: 3/17/2022

ATTEST

**BOARD OF THE PENNSYLVANIA MUNICIPAL
RETIREMENT SYSTEM**



Signature



Name

ATTACHMENT I – Pennsylvania Municipal Retirement System

<u>Asset Class</u>	<u>Minimum, %</u>	<u>Target, %</u>	<u>Maximum, %</u>	<u>Benchmark</u>
Equities	45.0	55.0	65.0	
Domestic	27.0	32.5	38.0	Russell 3000
Global	0.0	5.0	10.0	MSCI ACWI Min Vol
International	12.0	17.5	23.0	MSCI ACWI ex U.S. IMI (net)
Real Estate	5.0	10.0	15.0	NCREIF ODCE
Timber	0.0	5.0	10.0	NCREIF Timberland
Fixed Income	25.0	30.0	35.0	Bbg Barclays Aggregate
Investment Grade	19.0	24.0	29.0	Bbg Barclays Aggregate
Opportunistic Credit	0.0	5.0	10.0	50% BBG Barc US High Yield/50% CS Lev Loans
Cash	0.0	1.0	5.0	BofAML 90-Day T-Bill

*Note current crediting rate is 5.25%