COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Public Markets Asset Class Policy

TABLE OF CONTENTS

Revision History

Public Markets Asset Class Policy — **March 22, 2024**

This Policy represents the combination of the following six policies which were last approved by the Board on the dates below:
- Public Equity (March 5, 2021)
- Public Fixed Income (March 5, 2021)
- Public Commodities (March 5, 2021)
- Public Infrastructure (March 5, 2021)
- Public Real Estate (March 5, 2021)
- Absolute Return (March 15, 2022)

Public Markets Asset Class Policy — **May 31, 2024**

This Policy revision integrates the Cash Policy (March 6, 2020).

I. SCOPE

The Public Markets Asset Class Policy ("Policy") applies to investments within the Public Equity, Public Fixed Income, Public Commodities, Public Real Estate, Public Infrastructure, Absolute Return, and Cash asset classes (the "Portfolios") within the Pennsylvania, Public School Employees' Retirement System ("PSERS") Defined Benefit Fund (the "Fund").

II. PURPOSE

This Policy provides a broad strategic investment framework for managing investments within the Portfolios.

III. ROLES AND RESPONSIBILITIES

Roles and Responsibilities related to this Policy are identified within PSERS' Investment Policy Statement ("IPS").

IV. INVESTMENT PHILOSOPHY

PSERS seeks to diversify its assets by providing exposure to investments in public markets as part of the overall investable universe. Additionally, when compared to other investable opportunities, investments in public markets have relatively low investment management fees and are generally more liquid, with relatively low transaction costs and market impact from entering and exiting investments. This liquidity allows for increased flexibility to (i) rebalance portfolios, (ii) address market conditions and market dislocations, and (iii) implement the strategic objectives of the Fund.

Portfolios target attractive risk-adjusted returns relative to their benchmarks, net of fees, over a full market cycle. The benchmark for each Portfolio is identified within the IPS.

To maintain diversification within each Portfolio and/or across the Portfolios as a whole, PSERS pursues a global investment strategy that may incorporate various strategies, styles, regions, sectors, market capitalization segments, underlying asset types, and internal and external management.

Investments in each Portfolio may be implemented through closed-end funds, partnerships, limited liability companies, open-end funds, and separate accounts, and co-investments.

Each asset class in Public Markets plays a strategic role within the Fund as follows:

<u>Public Equity</u> investments are expected to provide a return premium over inflation, thereby preserving and enhancing the real value of the Fund, and by performing well when economic growth is stronger than expected or inflation is lower than expected.

Public Fixed Income has a number of sub- asset classes. Investment grade bonds are anticipated to serve as a hedge against lower inflation and weak economic growth, produce current income in the form of periodic interest payments, and provide liquidity to meet the Fund's obligations. Inflation-protected bonds serve as a hedge against higher inflation and weaker economic growth and provide liquidity. Credit-related securities such as emerging market debt and high yield bonds generate higher current income relative to investment grade debt and tend to do well when economic growth is stronger than expected.

Public Commodities typically provide a hedge against unanticipated inflation and diversification benefits. Commodity investments consist of energy, precious metals, industrial metals, and agricultural products. The prices of commodities are determined primarily by near-term events in global supply and demand conditions and are positively related with both the level of inflation and changes in the rate of inflation.

Public Real Estate generally provides steady returns and cash yields, inflation protection, defensive growth, capital preservation, liquidity and diversification benefits.

Public Infrastructure generally provides steady returns and cash yields, defensive growth, inflation protection, capital preservation, liquidity and diversification benefits. Public Infrastructure investments target stable, defensive investments with steady cash flows primarily within the energy, power, water, and transportation sectors.

Cash as an asset class, which excludes cash collateral managed per the Securities Lending Policy, provides liquidity to the Fund for the timely payment of benefits, commitments, and other obligations in addition to being a source of liquidity for asset allocation changes as a result of market dislocations. The majority of the assets are highly liquid, short duration, fixed income instruments managed consistent with rules governing money market funds (SEC Rule 2a7). A small portion of these fixed income assets fall outside of these parameters to provide enhanced risk adjusted returns and diversification to the overall Fund. These assets are referred to as Enhanced Cash.

V. ASSET ALLOCATION

The IPS details allocation targets and permissible ranges around targets for investments in the following Public Markets asset classes and sub-asset classes, along with defining (via benchmarks) each asset class:

Public Equity
- U.S. Equity
- Non-U.S. Equity

Public Fixed Income
- Investment Grade
- Credit-Related
- Inflation-Protected

Public Real Assets
- Public Infrastructure
- Public Commodities
- Public Real Estate

Net Leverage
- Cash

Absolute Return includes strategies that do not otherwise correspond to the other allocations described above.

Allocations may include strategies ranging from fully broadly diversified, passive to concentrated, actively managed strategies, implemented internally and externally. Active management seeks to produce risk-adjusted returns in excess of the benchmark, net of expenses. Passive management aims to replicate an index at minimal cost and minimal tracking error.

VI. PERMISSIBLE INSTRUMENTS

Investments in Public Markets assets shall be in financial instruments that provide the desired asset class returns with a similar risk profile. Instruments used may be exchange-traded or non-exchange-traded and may be physical securities or derivatives (see Derivatives and Leverage Policy).

Additional constraints may be applied in the investment manager portfolio guidelines.

VII. PERFORMANCE OBJECTIVES

Each asset class and sub-asset class is designed to match or outperform its respective benchmark over the long term, while operating within the risk parameters set forth in this Policy.

The performance benchmark for each asset class or sub-asset class is shown in the IPS. A manager may be assigned a benchmark that is different than the asset class or sub-asset class benchmark shown in the IPS if the manager's mandate is to one or more specific regions, sectors, market capitalization segments, and/or other benchmark component.

VIII. RISK MANAGEMENT

The primary approach to managing risk is to monitor key quantitative and qualitative risk factors relative to risk benchmarks while continuing to pursue the objective of the respective strategy, asset class, or sub-asset class. The following sections identify certain significant risks of investments in Public Markets and their methods of control.

A. Active Risk

Active Risk or tracking error is a statistical measure of the potential variability of a portfolio's return relative to that of the assigned benchmark. For purposes of this Policy, tracking error is defined as ex-post tracking error calculated as the annualized standard deviation of monthly returns relative to the benchmark over the last 36 months.

The following table provides the expected ranges for tracking error.

Note that tracking error, by design and computation, cannot encompass 100% of the expected outcomes for an asset class, sub-asset class, or specific investment manager mandate. Instances of realized tracking error in excess of these ranges shall not be considered a policy violation, but rather an indication of market events to be communicated to the Investment Committee through the established reporting channels.

Asset or Sub-Asset Class	Tracking Error Range Expectation (bps)	Single Active External Manager Allocation Limit (% of Fund NAV**)
Public Equity		
US Equity	0-150	3.0%
Non-US Equity	0-400	2.0%
Global Equity*	0-250	3.0%
Public Fixed Income		
Investment Grade		
U.S. Core Fixed	0-300	3.0%
U.S. Long Treasury	0-50	3.0%
Credit Related		
Emerging Markets Debt	0-800	2.0%
High Yield Bonds	0-700	2.0%
Inflation Protected		
U.S. Inflation Protected	0-250	3.0%
Public Commodities		
Diversified Commodities	0-400	2.0%
Gold	0-50	NA
Public Real Estate	0-250	2.0%
Public Infrastructure	0-250	2.0%
Absolute Return	NA	1.5%
Cash and Enhanced Cash Composite		NA
Cash	0-75	
Enhanced Cash	0-150	

* The Global Equity tracking error range expectation is only applicable if the IPS benchmark for Public Equity changes from the combination of US Equity and Non-US Equity to Global Equity. If this occurs, then the US Equity and Non-US Equity tracking error range expectations are not applicable.
**Fund NAV is the Total Fund Net Asset Value, as sourced from the most recent finalized Total Fund Report.

B. Liquidity Risk

Liquidity limits shall be defined in manager guidelines where applicable and are to be consistent with the Liquidity Policy.

Enhanced Cash shall not exceed the lower of $1.0 billion or the amount equal to 30% of the combined Cash and Enhanced Cash Composite.

C. Single Security, Sector / Industry, and Country Risk

Single security, sector / industry, and country concentration limits shall be defined in the manager guidelines where applicable.

D. Currency Risk

Some asset classes and sub-asset classes hold non-US dollar denominated instruments which involve risk related to foreign currency exposure. Managers of these strategies generally do not hedge currency risk. Currency risk will be managed by PSERS in accordance with the Currency Hedging Policy.

E. Manager Risk

The allocation to a single active External Manager mandate, within each asset class, is limited on an ongoing basis to a percentage of the Fund's NAV as shown in the table above in Section VIII. A.

The allocation to a single External Manager of a passive exposure, including the directed beta overlay program, is not subject to the concentration limits above but shall be limited by Board Resolution.

The CIO shall have discretion on the timing and reduction of any External Manager exposure exceeding the limit and will communicate any such over-allocation to the Board. Lastly, the CIO is not permitted to allocate additional exposure to portfolios with allocations above the limit.

F. Derivatives Risk

Derivatives usage and limitations as well as risk management are specified in manager guidelines and shall comply with the Derivatives and Leverage Policy.

G. Counterparty Risk

Counterparty risk will be as prescribed and evaluated in the Derivatives and Leverage Policy.

H. Leverage Risk

Leverage usage and limitations as well as risk management controls are specified in manager guidelines and shall comply with the Derivatives and Leverage Policy.

I. Proxy Voting

Proxy votes are considered assets of PSERS. All proxies received shall be voted in accordance with the Proxy Voting Policy.

J. Interest Rate Risk

Interest rate risk shall be addressed and monitored in the manager guidelines where applicable.

K. Credit Risk

Credit risk shall be addressed and monitored in the manager guidelines where applicable.

L. Delivery Risk

In investing in Public Commodities, there is the risk of a commodity asset being subject to delivery to the Fund upon the expiration of commodities futures contracts, resulting in the need for storage/warehousing of the asset. All Public Commodity investments will be managed and monitored so as to not result in delivery of the physical commodity.

IX. MONITORING AND REPORTING

See Monitoring and Reporting section of the IPS.