COMMONWEALTH OF PENNSYLVANIA
PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Private Markets Asset Class Policy

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Revision History

Private Markets Asset Class Policy **March 22, 2024**

This Policy represents the combination of the following five policies which were last approved by the Board on March 15, 2022:
- Private Equity
- Private Real Estate
- Private Credit
- Private Infrastructure
- Private Commodities

I. SCOPE

This Private Markets Asset Class Policy (the "Policy") applies to investments within the Private Equity, Private Real Estate, Private Credit, Private Infrastructure, and Private Commodities portfolios (the "Portfolios") within the Pennsylvania Public School Employees' Retirement System ("PSERS") Defined Benefit Fund (the "Fund").

II. PURPOSE

The Policy provides a broad strategic investment framework and certain limitations 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 Fund assets by providing exposure to private investments as part of the overall investable universe. Additionally, when compared to other investable opportunities, private markets investments are intended to provide exposure to higher potential returns, more direct oversight and control by the general partner, and better alignment of interests among limited partners, general partners and the operational organizations for each investment.

These Portfolios target risk-adjusted returns in excess of their benchmarks, net of fees, over a full market cycle. The benchmark for each Portfolio is identified within the IPS, except for Private Commodities which, to-date, is a relatively small / opportunistic allocation within PSERS' Private Real Assets allocation.

To maintain diversification across the Portfolios, PSERS pursues a global investment philosophy that incorporates various underlying investment strategies and collateral types across its External Managers pursuant to the strategic asset allocation set forth in the IPS. Investments in each Portfolio shall generally be diversified across fund size, sector, strategy, geography, and vintage year.

V. ASSET ALLOCATION

Asset allocation is a critical driver for the long-term success of PSERS. Given the long-term nature of these Portfolios, manager selection and commitment pacing, in relation to allocation targets, have heightened importance as tools to manage these allocations.

Long-term asset allocation targets have been developed with the assistance of PSERS' investment consultants and are detailed in the IPS, except for Private Commodities which, to-date, is relatively small / opportunistic allocation within PSERS' Private Real Assets allocation.

These Portfolios can be segmented by underlying asset class and then further segmented by strategy (see Section X).

VI. PERMISSIBLE INSTRUMENTS

A. Investment Types

PSERS will only consider private markets investment structures that provide limited liability to PSERS, limiting PSERS' potential losses to the amount committed plus reasonable, normal investment expenses.

B. Co-Investments, Secondary Investments, and Direct Real Estate Investments

Co-Investments: Co-Investments are only permitted to be entered into alongside existing External Managers (within the applicable Portfolio and strategy) in the Fund, except for Co-Investment opportunities located in Pennsylvania (PA Co-Investment Program). Co-Investment opportunities located in Pennsylvania are permitted with existing External Manager relationships where PSERS is a limited partner or the assigned investment consultant has vetted, underwritten and recommended the co-investment opportunity to PSERS.

Secondary Investments: For the purpose of this Policy, a secondary transaction refers to a scenario in which a fund investor sells all or a portion of its fund interest in the secondary market. PSERS is permitted to acquire additional fund interests via secondary transactions ("Secondary Investments") provided that, at the time of recommendation, PSERS holds an interest in a fund pursuing the same strategy sponsored by the same External Manager within the applicable Portfolio. Authorized Private Markets co-investment and Secondary Investment limitations are outlined below:

Table I: Co-Investment and Secondary Investments Authorized Limits

	Portfolio				
	Private Equity	Private Credit	Private Real Estate	Private Infrastructure	Private Commodities
Authorized Limit ($M)	1,500	500	500	1,000	250
Per Investment	75	75	75	150	75

Co-investment and Secondary Investments available capital is calculated as follows:

Applicable Portfolio Authorized Limit (per Table I)
(-)
Contributed Capital
(-)
Unfunded Commitments
(+)
Return of Principal
(=)
Available Capital

Direct Real Estate Investments: The Private Real Estate portfolio holds a small number of investments in real estate via holding companies wholly owned by PSERS or statutory trusts for the sole benefit of PSERS ("Direct Real Estate Investments"). New Direct Real Estate Investments are not permitted.

A third-party asset manager shall be selected to assist in the operations, monitoring, and disposition of each Direct Real Estate Investment. Contracts for third-party asset and property managers should include a termination for convenience option, and the term of the contracts should consider the projected hold period of the investment. The IOP will evaluate third-party asset and property managers at regular intervals during the life of the contract.

The IOP, or in the event of a statutory trust the investment advisor, shall review and authorize annual operating and capital budgets for all Direct Real Estate Investments. Annual capital budgets in excess of $25 million shall require Board approval. Direct Real Estate Investments will be audited and appraised annually, in accordance with industry standard methodologies.

VII. PERFORMANCE OBJECTIVES

The long-term objective for each Portfolio is to outperform its policy benchmark as set forth in the IPS, on a net-of-fees basis, over long-term time horizons.

VIII. RISK MANAGEMENT

Private investments do not easily lend themselves to traditional quantitative measures of risk, such as standard deviation and benchmark tracking error. Rather, risk is managed through a combination of quantitative and qualitative techniques. The following section identifies some of the primary risks associated with private investments and their methods of control.

A. Liquidity Risk

Private investments typically have extended holding periods. Early divestment, if feasible, may result in a sale at a significant discount to fair market value. Therefore, these investments are deemed to be illiquid.

PSERS' overall liquidity risk is managed by the Board within the Strategic Asset Allocation ("SAA") process. Liquidity risk in each Portfolio is managed at the SAA level while taking into account considerations documented in its annual pacing plan. The plan seeks to achieve the target allocation by balancing anticipated contributions and distributions from existing investments with future capital deployment. The annual pacing plan may be adjusted intra-year to reflect updated expectations around contributions, distributions, and/or future capital deployment activity, and is not intended to constitute a policy requirement or constraint.

Open-end funds generally offer quarterly liquidity in their fund documents; however, requests for redemptions go into a queue and are not always honored on a quarterly basis. Redemptions only take place when there is available cash flow. External Managers are typically not required to sell assets to meet redemption requests.

B. Blind Pool Risk

Capital commitments are typically made into closed-end funds. Most, and in some instances all, of the investments to be made by the External Manager within a closed-end limited partnership structure are unknown at the time PSERS commits to invest in the partnership. When PSERS invests into blind pools, due diligence is focused on evaluating numerous aspects of the investment opportunity including, but not limited to the: 1) External Manager track record, 2) firm capabilities, and 3) market opportunities.

C. Vintage Year Risk

A vintage year refers to the earlier of a fund's first cash flow date or the first investment made by a fund. Subject to total portfolio asset allocation considerations, irregular annual capital commitments should be minimized as it may lead to over- or under-concentration of investments in certain vintage years.

Vintage risk is managed via the annual pacing plan, as more fully described in the Liquidity Risk section.

D. Geographic and Sector Concentration

Over-concentration to any particular geography or sector can expose each Portfolio to unintended macro-level risks. As such, IOP strives to diversify investments across geographies and sectors. Geographic and sector concentration risk are considered during the due diligence process (see Non-Traditional Investments Due Diligence Policy).

E. Currency Risk

Investments may be denominated in foreign currencies. Significant movements in foreign currency values, relative to the U.S. Dollar ("USD"), may impact a portfolio's reported returns, which are denominated in USD. Currency exposure risk is often impractical to hedge at the investment level; however, it can be managed by the IOP in accordance with the Currency Hedging Policy.

F. Manager Risk

External Manager exposure risk is addressed as follows:

I. A commitment to a commingled vehicle is limited to the lesser of (i) 30% of the expected size of the commingled vehicle or (ii) Authorized Limit (A) of the Total Fund Net Asset Value as sourced from the most recent finalized Total Fund Report at the time of recommendation.
   - The foregoing does not apply to separate accounts / funds-of-one where PSERS is the sole limited partner or Co-Investment vehicles. However, the foregoing does apply to any commingled fund commitment held inside a separate account / fund-of-one.

II. Within a Portfolio, PSERS' maximum total exposure (defined as net asset value plus unfunded commitments) to all investments sponsored by a single External Manager, is limited to (B) of the Total Fund Net Asset Value, as sourced from the most recent finalized Total Fund Report at the time of recommendation.
   - The foregoing applies to all External Manager commitment recommendations.

Note, External Manager exposure risk limits are tested for at the time of investment recommendation, using authorized limits outlined in Table II below:

Table II: Manager Exposure Risk – Authorized Limits

	Portfolio				
Authorized Limit	Private Equity	Private Credit	Private Real Estate	Private Infrastructure	Private Commodities
A	1.5%	1.5%	1.5%	1.5%	1.5%
B	3.5%	3.5%	3.5%	3.5%	3.5%

For the avoidance of doubt, the breaching of any limit outlined in Table II due to NAV growth of existing investments does not compel PSERS to reduce exposure to cure the breach. Rather, prospective investments resulting in a breach of any applicable authorized limit will not be considered for recommendation, unless otherwise authorized by the Board.

In the event it is unclear as to which limit applies to a prospective investment, the IOP will seek the opinion of the Head of Risk and Compliance for final determination. Such opinion shall be appended to the recommendation materials accordingly.

G. Leverage Risk

External Managers may finance a portion of their asset purchases with debt. Leverage constraints are identified in the governing documents at the underlying investment and fund levels. The use of debt to finance asset purchases has the potential to enhance the asset's return on equity but also has the potential to magnify losses. PSERS seeks to invest with External Managers that have demonstrated the prudent use of leverage. Monitoring leverage risk includes scrutiny over External Managers' usage of subscription facilities.

H. Valuation Risk

Private assets are typically illiquid and are not traded frequently, or in many cases not traded at all. As a result of a lack of observable inputs of trading activity, a reliable market price of such investments may not be available, and consequently a fair value of these assets cannot be determined by readily observable inputs. In such cases, assets may be valued by the External Manager, third-party appraisers, or some combination thereof.

I. Counterparty Risk

The use of prime brokers, leverage providers, servicers, custodians, derivatives, and other third-party service providers introduces counterparty risk in the Portfolios. If counterparties are not able to meet their obligations, losses may occur. The IOP, in conjunction with the Investment Consultant, will review this risk through operational due diligence reviews of the External Managers.

J. Legal Risk

Private investment structures are often complex and typically contain nuanced terms and conditions. For these reasons, all investment structures and associated legal documentation (including terms and conditions) must be reviewed by PSERS' legal counsel to ensure that the necessary legal protections are addressed and acceptable to the Investment Office, PSERS' Office of Chief Counsel, and the Office of Executive Director. Investment structures should be commensurate with a given investment's objectives and risks.

IX. MONITORING AND REPORTING

See Monitoring and Reporting section of the IPS.

X. STRATEGY SEGMENTATION

A. Private Equity

Strategy	Description
Buyouts (Corporate Finance)	This category is commonly referred to as leveraged buyouts or corporate finance. Capital is typically invested in more established companies that are further along in the business cycle. Companies in this PE category tend to have positive EBITDA (earnings before interest, taxes, depreciation and amortization) along with positive cash flow
Venture Capital	This sub-asset class in PE is targeted at companies in early phases of the business cycle. Venture capital investments may be classified as seed, early, middle or late stage. These companies are generally not yet profitable and therefore higher on the risk spectrum.
Growth Equity	This private investment category consists of companies with fast revenue growth, free cash flow generation and typically are profitable. Growth equity investments tend to have little or no debt in their capital structures
Special Situations	Special Situations investments typically encompass many "outside the box" strategies such as: - Distressed debt-for-control strategies that seek to invest in debt that is low relative to intrinsic value and which may convert to equity via balance sheet restructuring. - Mezzanine investments can be a combination of subordinated debt and equity securities (including preferred equity) and generally are in the middle of the capital structure between senior debt and equity in terms of priority of repayment. Within the Private Equity Portfolio, Mezzanine investments refer to strategies that realize a substantial portion of expected investment returns from back-ended payments via equity realizations, rather than current cash-pay interest.

B. Private Real Estate

Strategy	Description
Core	• Stabilized, income-producing properties typically located in primary markets • Returns primarily driven by current income, with modest appreciation • Higher levels of occupancy • Lower levels of leverage (50% or less)
Value-Add	• Properties in need of renovation or repositioning • Returns split between current income and appreciation • Lower levels of occupancy • Moderate levels of leverage (typically 50% to 75%)
Opportunistic	• Ground up development, distressed situations, or properties requiring major repositioning • Returns primarily driven by appreciation, with modest levels of current income • Varying levels of occupancy • Higher levels of leverage (up to 85%)
Agriculture	• High-quality agricultural land assets in primary farming regions • Returns primarily driven by current income, with modest appreciation • Strategies may include permanent and annual crops • Leverage up to 75%

C. Private Credit

Strategy	Description
Direct Lending	Set of strategies focused on providing senior capital (including unitranche, stretch senior, second lien, and "last-out" loans) to middle-market businesses. Debt capital is generally used to finance buyouts, for refinancings/recapitalizations, and for growth initiatives.
Mezzanine	Set of strategies focused on providing subordinated debt capital (include second lien, mezzanine, bonds, "last-out" loans) to private businesses. Debt capital is often utilized in conjunction with private equity buyout transactions or balance sheet recapitalizations/refinancings. Mezzanine-focused General Partners often co-invest in equity alongside buyout managers in leveraged buyouts ('LBOs') to enhance returns.
Distressed & Special Situations	Set of strategies focused on issuing loans to companies undergoing financial or operational challenges or purchasing publicly-listed, stressed securities. Distressed and special situation strategies include corporate distressed, opportunistic structured credit, real estate distressed, non-performing loans ("NPLs"), capital solutions and private credit special situations.
Specialty Finance	Set of niche lending strategies that provide financing to consumers, small businesses, and other borrowers. Specialty finance strategies include consumer & SME lending, factoring & receivables, insurance linked, litigation finance, private equity portfolio finance, stretch asset-based lending ("ABL"), rediscount lending, regulatory capital relief, royalties, healthcare lending, diversified specialty finance and venture lending.

Real Estate Credit	Set of lending strategies focused on commercial real estate ('CRE') collateral or residential mortgage origination. Real estate credit sub-strategies include, but are not limited to, transitional lending, core lending, bridge lending, CRE structured credit and residential mortgages.
Real Assets Credit	Set of strategies focused on providing debt capital to companies operating within the real asset space with loans typically secured by real assets. Real asset credit strategies include agricultural lending, energy credit, transportation, infrastructure lending, metals & mining finance, and trade finance

D. Private Infrastructure

Strategy	Description
Core	Lowest risk/return strategy in infrastructure, focused on investment in stabilized, high-quality projects and/or companies. Most of return expected from current income rather than capital appreciation. Investment vehicles typically structured as open-ended, offering periodic liquidity.
Core+	Relatively lower risk/return strategy in infrastructure, focused on investment primarily in high-quality projects and/or companies with a minimal-to-modest use of value-added initiatives (e.g., development of existing pipeline, M&A or other growth initiatives, etc.) and utilizing modest leverage levels. Return profile expected to be split between current income and capital appreciation. Investment vehicles structured as either open-ended (periodic liquidity) or closed-ended (finite lives).
Value-Add	Modest risk/return strategy in infrastructure focused primarily on various value-added initiatives (e.g., development, M&A, de-risking through extending or securing additional contracts, etc.), seeking to enhance value of the assets to later exit to a "core" buyer. Return profile expected to be split between current income and capital appreciation. Investment vehicles typically structured as closed-ended.
Opportunistic	Highest risk/return strategy in infrastructure, focused on a variety of initiatives including speculative development/redevelopment, repowering older assets, distressed properties and "loan-to-own" acquisitions. Return profile expected to be primarily driven by capital appreciation. Investment vehicles typically structured as closed-ended