

April 30, 2015

Fund Strategy

 Private Markets and Real Estate Co-Investments, in assets located in Pennsylvania from funds where PSERS or Portfolio Advisors are already a Limited Partner

Co-Investment Team

- 1. Charles Spiller, Managing Director of Private Markets & Real Estate
- 2. Darren Foreman, Portfolio Manager in Private Markets
- 3. William Stalter, Portfolio Manager in Real Estate
- 4. Laurann Stepp, Portfolio Manager in Real Estate
- 5. Portfolio Advisors

Review Committee

- 1. James Grossman, Chief Investment Officer (CIO)
- 2. Charles Spiller, Managing Director of Private Markets & Real Estate
- 3. Robert Devine, Managing Director of Fixed Income
- 4. Gerard Smith, Managing Director of Equities
- 5. John Kemp, Managing Director of Investment Operations & Risk

Unanimous approval is required to approve an investment

Overview: PSERS' Pennsylvania Co-Investment Program

Goal:

• Enhance the ability of PSERS to access attractive co-investments in companies and properties headquartered and located in Pennsylvania

Deal sourcing:

- The collective sponsor relationships of PSERS and Portfolio Advisors
- A pre-existing relationship with a sponsor, where either PSERS or Portfolio Advisors has committed to one or more of a sponsor's funds or has made co-investments with a sponsor, would be a prerequisite to considering a potential co-investment for review ("Pre-Existing Relationship")

Portfolio Advisors' Roles/Responsibilities:

- Non-discretionary advisor
- Sourcing Deal Flow
- Screening Transactions
- Performing Due Diligence
- Preparing Recommendations for PSERS Review Committee
- Ongoing Monitoring as requested by PSERS
- Reporting & Administration

Portfolio Advisor Fee:

\$300,000 per annum

Why Invest In-house?

- Cost savings
- Strong relationships with GPs which should aid deal flow for co-investments
- Adds additional due diligence with the GP
- Potential for better returns with no or low fee and carry co-investments
- Current trend in the industry

Reporting to PSERS Finance Committee

- Every quarter a report will be given informing the Finance Committee of activity in the program since the last meeting
- A performance update will be given quarterly in Executive Session

Program Structure

- PSERS deal flow will be administered internally exactly as the existing inhouse programs are handled
- Portfolio Advisors deal flow will be set up as a fund of one with Portfolio Advisors administering at no additional fees except costs to set up

Recommendation

- We are recommending that \$250 million be allocated as a first tranche to the Private Markets and Real Estate Pennsylvania Co-Investment Program
- The range of investment will be up to \$25 million per investment

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PENNSYLVANIA PUBLIC SCHOOL EMPLOYEES' RETIREMENT SYSTEM INVESTMENT OBJECTIVES AND GUIDELINES PRIVATE MARKETS AND REAL ESTATE PENNSYLVANIA IN-HOUSE CO-INVESTMENT INVESTMENT POLICY

ADDENDUM X5

I. GENERAL PROVISIONS

A. PRUDENT PERSON STANDARD

The selection of private markets, real estate and venture capital investments will be guided by Section 8521 of the Public School Employees' Retirement Code ("Code"), 24 Pa.C.S.

B. MAXIMUM LIMITATION

The Pennsylvania Public School Employees' Retirement System (identified hereafter as "PSERS", "Fund", or "System") Asset Allocation Policy limits the amount of the Fund's assets allocated to private market and real estate investments.

C. IMPLEMENTATION

1. PSERS Staff Requirements

Appropriate staff will be assigned as the workload is determined. The timing and types of investments will be determined by the availability of staff.

2. Legal Counsel

PSERS will use internal legal counsel. In addition, due to the complex structure of private markets and real estate co-investments, expert outside legal counsel may be retained.

3. Investment Process

Co-Investment opportunities located in Pennsylvania from Funds where PSERS and/or Portfolio Advisors is a limited partner will first be vetted by Portfolio Advisors. The opportunities recommended by Portfolio Advisors will then be vetted by PSERS Co-Investment Team and presented to PSERS Internal Review Committee. The Review Committee will consist of the Managing Directors in the Investment Office, the Deputy CIO, and the Chief Investment

Officer ("CIO"). The Review Committee must unanimously approve the co-investment.

4. Action Plan

Co-Investments are offered by Fund Sponsors, where either PSERS or Portfolio Advisors is a Limited Partner, on a case-by-case basis. PSERS' Private Markets and Real Estate Staff will continue to build strong relationships with General Partners in the industry which should enable strong co-investment deal flow.

Co-Investments will be sourced only from funds where PSERS or Portfolio Advisors is already an LP ("Limited Partner").

5. Procedures

Any procedures in addition to those adopted by the Board will be developed by PSERS' PM and RE staff.

D. REVIEW AND MODIFICATION OF INVESTMENT POLICY STATEMENT

In the Investment Policy Statement, the Chief Investment Officer has the authority to interpret the guidelines to meet individual portfolio needs and to determine the appropriateness of the investment. All interpretations of material policy issues and dollar amounts will be reported to the Finance Committee at the next regularly scheduled meeting.

The Board will review the Policy Statement from time to time to determine if modifications are necessary or desirable.

II. DIRECT PRIVATE PLACEMENTS

Direct private placements will be referred to the Review Committee for evaluation and will be administered like any other private markets or real estate partnership.

III. PRIVATE MARKETS AND REAL ESTATE PARTNERSHIP INVESTMENT POLICY

A. PHILOSOPHY

1. Fund Objectives

Private markets and real estate co-investments provide an appropriate addition to the System's portfolio. Although considered an illiquid investment, viewed from a total portfolio perspective, the

risk/return tradeoff as well as the diversification potential makes this a suitable choice for the Fund.

Private markets and real estate co-investments are compatible with the general objectives of the Fund, which include:

- a. Providing a means to pay benefits to the System's participants and to their beneficiaries.
- b. Investing to produce a return on investment that is based on levels of liquidity and investment risk that are prudent and reasonable.
- c. Attaining an adequate real return over the expected rate of inflation.
- d. Earning a return over the assumed actuarial rate of interest.
- e. Complying with all applicable laws and regulations concerning the investment of pension assets.

2. Conflicts of Interest

a. Corporate Governance

It does not appear that there are any conflicts of interest between private markets or real estate partnership investments and the corporate governance standards of one share, one vote.

b. Current Holdings

As a limited partner in a co-investment in which PSERS has no discretion, a conflict would not appear to exist. As a sole limited partner or one in which PSERS exerts some influence, conflicts could be avoided at PSERS discretion.

3. Reasons to Invest in Co-Investments of Private Markets and Real Estate Partnerships

High Rate of Return

Total rates of return for private markets and real estate coinvestments are expected to be greater than those that are expected from conventional partnership investments. The management fee and carried interest on co-investments will either not be charged, or will be reduced.

b. Diversification

Private markets and real estate co-investing have a low correlation to other investment classes and will therefore contribute to reduction of risk and the enhancement of returns on a portfolio basis.

B. OBJECTIVES

1. Portfolio Co-Investment Performance Objective

The performance objective for private markets or real estate coinvestment is a total return which represents a 3% premium above public market comparables over a 10 year period.

2. Risk Management

a. Standard Deviation

The standard deviation of returns, one measure of the risk or volatility of private markets co-investments is assumed to be similar to that of venture capital, or approximately 40%. The standard deviation of real estate co-investments is assumed to be approximately 20%.

b. Business/Economic Related Risks include:

- (i) Buyers overpaying for assets.
- (ii) Investment has operational problems, reducing capital available for debt service.
- (iii) If interest rates rise, poorly structured, highly leveraged deals may be strained.
- (iv) A severe recession might cause a business, or asset, that had been acquired recently to fail under its debt load.

c. Political/Tax

Legislature and/or regulators may change the rules that helped make restructuring possible.

d. Lack of Liquidity

The time horizon for private markets and real estate coinvestments is 3 to 7 years. Private markets and real estate investments should therefore be considered an illiquid investment.

3. Co-Investments Portfolio Diversification

In order to reduce the risks associated with private markets or real estate co-investments a well-diversified portfolio is highly desirable. Each investment should be evaluated relative to the characteristics within the existing portfolio.

The following types of diversification should be considered:

- a. Preferred Investment
 - (i) private markets or real estate transactions
 - (ii) Medium companies with revenues between \$250 million and \$1 billion
- b. Size of Restructured Companies (private markets)
 - (i) Large companies with revenues in excess of \$1 billion
 - (ii) Medium companies with revenues between \$250 million and \$1 billion
 - (iii) Small companies with revenues below \$250 million
- c. Sectors Private markets investments will be diversified among industry groupings. Real estate investments will be diversified by asset type. Non-cyclical investments will be favored over cyclical investments.
- d. Maximum Investment an investment by PSERS will be limited to no more than \$25 million.
- e. Time PSERS will endeavor to invest in a consistent manner over time, unless markets are extremely over-valued.

f. Initial investment per year – The initial cap on investments will be \$250 million.

4. Total Portfolio Diversification

Correlation with the returns of other asset classes is low although the private markets asset class has become more correlated to the public equity market since the implementation of FASB 157.

C. CONSTRAINTS AND GUIDELINES

1. Evaluation Criteria

- a. A due diligence review by the staff comprising the following, as deemed appropriate:
 - (i) Review of whether the proposed investment falls within PSERS' investment plan, constraints and guidelines, and if it complies with applicable investment policies.
 - (ii) Discussions with principals of the proposed investment.
 - (iii) Review and analysis of all pertinent offering documents including: (1) offering memoranda, (2) subscription agreements, (3) private placement memoranda, and (4) operative investment agreements.
 - (iv) Consideration of potential conflicts of interest, if any, posed by the proposed investment and prior investments and activities of the principals.
 - (v) Review and analysis of investment:
 - Concept including entry and exit strategies
 - Terms including fees, principal participation, structure
 - (vi) Review of news articles regarding principals, prior investments, and concepts.
 - (vii) Discussions with other investors, peers, and industry associates (reference checks).

- (viii) Review and analysis of performance for prior and current investments.
- (ix) Consideration of the percentage of capital commitment available to PSERS.
- (x) Investigation of special terms and side letter agreements with past, present, or future investors.
- b. Additional critical diligence items to be examined include:
 - (i) A summary of the investment opportunity which includes: company/asset information, company/asset research, market research that includes competitive analysis, and internal due diligence materials generated by the general partner
 - (ii) Expected process timeline
 - (iii) Current valuation with details
 - (iv) Deal structure which includes all debt and equity investors; and amounts of each
 - (v) Expected fees and carry paid for co-investing (if any)
 - (vi) Debt covenant schedule and maturity profile
 - (vii) Capital needs of the company for the next five years
 - (viii) Amount senior management is investing in the deal
 - (ix) A list of the Board of Directors and other Advisors
 - (x) List of other co-investors and amounts invested by each
 - (xi) A copy of any third party due diligence reports
 - (xii) Expected value creation
 - (xiii) Expected holding period until an exit
 - (xiv) Expected mode of exit
 - (xv) Expected return multiple and IRR
- c. Portfolio Advisors Investment
 - (i) Non-discretionary advisor
 - (ii) Sourcing Deal Flow
 - (iii) Screening Transactions
 - (iv) Performing Due Diligence
 - (v) Preparing Recommendations for PSERS Review Committee
 - (vi) Ongoing Monitoring as requested by PSERS
 - (vii) Reporting & Administration

2. Guidelines

a. Method of Participation

PSERS and Portfolio Advisors will generally participate as a limited partner in co-investments of professionally managed funds in which PSERS and Portfolio Advisors is already an investor.

b. Types of Authorized Investments

Domestic and foreign private markets and real estate partnerships involved in equity investments.

c. Fees

Private markets co-investments should be subject to no or reduced management fee or carried interest. Real Estate co-investments should, at a minimum, have a reduced management fee and reduced carried interest.

d. Program Structure

PSERS deal flow will be administrered internally exactly as the existing in-house programs are handled. Portfolio Advisors deal flow will be set up as a fund of one with Portfolio Advisors administering at no additional fees except costs to set up.

D. STRATEGY

- 1. **Allocation** PSERS should endeavor to invest on a consistent basis. Initial allocation for investments will be capped at \$250 million.
- 2. **Method of Participation** PSERS should secure a core holding in this asset class attained through investment in large, well established private market funds, with participation in smaller partnerships or direct investments to follow.
- Size of Partnerships All types of private market partnerships should be considered, including smaller partnerships, though diversity in size is recommended overall.

E. MONITORING

1. Performance

Performance will be assessed relative to:

- a. Objectives established by the general partners or the principals managing the investment.
- b. Risks undertaken.
- c. The general private and real estate markets.
- d. An internal rate of return ("IRR") and compared to other cointestment completed.

2. Adherence to Strategy

The actual strategy employed by the partnership or the investment will be judged relative to the stated objectives and strategies.

3. Frequency and Types of Monitoring Reports

Reports required from private market and real estate coinvestments will be negotiated by staff.

4. Board Reports

Reports on the co-investments will be provided to the Board quarterly.

V. AMENDMENTS AND ACCEPTANCE

It is the Board's intention through the investment staff to review investment compliance with this document quarterly, and if the guidelines are changed in any way, the foregoing will be modified.

If at any time the Managing Director of Private Markets & Real Estate, the Portfolio Manager of Private markets and/or the Portfolio Manager of Real Estate determines that the objectives cannot be met, or the guidelines constrict performance, the CIO should be notified in writing. The Managing Director of Private Markets & Real Estate, the Portfolio Manager of Private Markets and/or the Portfolio Manager of Real Estate are encouraged to suggest changes in these guidelines at any time. By signature the Managing Director of Private markets & Real Estate agrees to these Investment Policy Statement, Objectives, and Guidelines and shall perform in accordance herewith.

Pennsylvania Public School Employees' Retirement System

Managing Director Signature	Chief Investment Officer
Managing Director Name	Chief Investment Officer Name
Managing Director Name	Office investment officer italite
Date Accepted	Date Proposed