

Report From the Investment Department

Oct. 19, 2023



- Matters requiring board action:
 - None
- Educational or scheduled updates and reviews requiring no action today:
 - Summary of Investment Activity Report, September 2023
 - Initial review of the Statement of Investment Objectives and Policy and Statement of Fund Governance
 - Alternative investment review
 - Callan comments
 - Review of September investment transactions
- Summary of requests



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Summary of Investment Activity Report



- Highlights
- September returns and activity

September Returns and Activity



- The preliminary total fund net return for September was -2.29%
- The preliminary fiscal year to date net total fund return is -1.72%
 - Major asset classes negative returns; liquidity reserves positive
- Investors continue to evaluate monetary policy and economic growth
- Rebalancing activity
 - Allocated \$550 million to domestic equities
 - Reduced fixed income by \$500 million
- Total investment assets ended September at \$87.5 billion
 - Lower by \$2.6 billion during the first quarter



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Initial Review of the Statement of Investment Objectives and Policy and Statement of Fund Governance



- Initial review; final adoption at December 2023 meeting
- Board recently approved changes December 2022
- Most changes proposed are updates and fiduciary audit recommendations

Updated Capital Market Assumptions



Exhibit 2: Asset Mix Policy and Return Expectations for STRS Ohio Total Fund

Asset Class	Target Allocation ⁵ (%)	Rebalancing Range (%)	Expected 10- Year Policy Returns ¹ (%)	Expected Management Net Returns ² (%)	Expected Total Return (%)
Equity					
Domestic	26	21-31	<u>7.376.60</u>	0.25	<u>7.62</u> 6.85
International	22	17-27	7.45 _{6.80}	1.00	<u>8.45</u> 7.80
Alternatives -Private Equity -Opportunistic/Div	19 ⁴ 9 ⁴ 10 ⁴	0-5	8.197.38 8.538.00 6.785.73		8.197.38 8.538.00 6.785.73
Fixed Income	22	13-29	<u>4.23</u> 1.75	0.35	<u>4.58</u> 2.10
-Core	17	13-22			
-Liquid Treasury	5	0-7			
Real Estate	10	6-13	5.75	1.00	6.75
Liquidity Reserve	1		<u>2.77</u> 1.00		<u>2.77</u> 1.00
Total Fund	100		7.17 6.03	0.40	7.576.43 ³

Updated Capital Market Assumptions



4.5 From the 2022 Asset Liability Study, the 6.03% expected asset mix 10-year policy return was developed with reference to the observed long-term relationships among major asset classes. The Board believes this return expectation is reasonable but recognizes that the actual ten-year asset mix policy return can deviate significantly from this expectation – both positively and negatively. The volatility level associated with this asset mix is approximately 12.90%. The Board's investment consultant updates capital market assumptions on an annual basis. The most recent updated capital market assumption results in a 7.17% expected asset mix 10-year policy return and associated volatility level for the asset mix of approximately 12.78%.

Revision / Approval Dates



Revised/Approved Dates (current and past five years):

December 14, 2023

December 15, 2022

May 19, 2022

March 18, 2021

December 19, 2019

December 13, 2018

Fiduciary Audit Recommendation



4.0 Investment Decisions Delegated to Investment Staff

- 4.1 The Board, through the Executive Director, has delegated to qualified STRS Ohio investment staff the following investment management and implementation decisions:
 - Buying, selling, managing, and monitoring individual securities, real assets, and/or other investment transactions to achieve the total fund and asset class investment objectives approved by the Board;

(e) Investment staff will determine the most suitable fund management approach, internal or external, by assessing internal capabilities, comparing costs and benefits, and considering potential external collaborations.

established parameters and risk revers, and,

- (d) Preparing, negotiating, and executing external investment manager mandates, guidelines and fee agreements.
- (e) Investment staff will determine the most suitable fund management
 approach, internal or external, by assessing internal capabilities, comparing
 costs and benefits, and considering potential external collaborations.
- 4.2 In making these decisions, STRS Ohio investment staff seeks the advice, guidance, and recommendations of Board-retained investment consultants, external investment managers and other experts and sources as considered prudent by STRS Ohio staff.

Fiduciary Audit Recommendation



5.0 Board Oversight

- 5.1 The Board requires investment staff to prepare and deliver an Annual Investment Plan that explains how STRS Ohio assets will be managed in order to achieve the Boardestablished investment objectives. This provides the Board a focused opportunity to:
 - Question and comment on staff's investment management plans;
 - (b) Request additional information and support about staff's investment intentions;
 and
 - (c) Express its confidence in the Annual Investment Plan.

5.4 External management fees are reviewed annually by the board. To facilitate this review staff and consultants prepare and deliver an annual review.

performance. Performance is monitored and evaluated with respect to risk and return objectives established by the Board.

- (a) Investment risks are monitored and evaluated quarterly by comparing total fund and asset class risk characteristics relative to suitable benchmarks.
- (b) Investment returns are monitored monthly and evaluated quarterly by comparing total fund and asset class returns relative to suitable benchmarks.
- 5.4 External management fees are reviewed annually by the board. To facilitate this review staff and consultants prepare and deliver an annual review.
- 5.5.4 Before approving or amending the criteria for monitoring and evaluating investment decisions, the Board seeks advice, guidance, and recommendations from STRS Ohio investment staff, Board-retained investment consultants, and other experts and sources as considered prudent by the Board.

Callan

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www.callan.com

October 19, 2023

Mr. Dale Price, Chair State Teachers Retirement Board of Ohio 275 East Broad Street Columbus, OH 43215-3771

Dear Mr. Price,

The purpose of this letter is to share Callan's comments regarding proposed modifications to the STRS Ohio Statement of Investment Objectives and Policy and Statement of Fund Governance recently prepared by STRS Ohio Staff.

The Statement of Investment Objectives and Policy (SIOP) covers elements of investment strategy such as long-term investment goals, asset allocation strategy, asset class risk budgets, rebalancing, and benchmarking. Modifications included in the latest version of this document include changes that reflect Callan's 2023 capital market assumptions. As we discussed with the Board in March, Callan's 10-year forecast of asset returns increased meaningfully from our 2022 forecasts due to the significant change in macroeconomic conditions experienced in 2022. The SIOP currently covers all invested assets overseen by STRS Ohio but future versions will be created with distinct policies planned for each separate asset pool: Defined Benefit, Health Care, and Defined Contribution. This planned future change is based on explicit recommendations from Funston Advisory Services (Funston) to establish distinct policies covering each asset pool.

The Statement of Fund Governance (SFG) is evaluated in tandem with the SIOP. This document establishes critical governance functions at STRS Ohio, including delegation by the Board to the Investment Staff and crucial Board oversight activities. Two changes are included in the proposed draft and both relate to recommendations made by Funston. The first proposed addition to the SFG clarifies the Investment staff's role in evaluating whether internal or external investment management will be relied upon for certain investment strategies. The second proposed addition to the SFG clarifies that external investment management fees will be evaluated by the Board at least annually.

The SIOP and SFG are of critical importance in overseeing the investment function and understanding the many reports received by the Board on a periodic basis. Callan has reviewed the proposed changes to the Statements and discussed the proposed changes with STRS Ohio Staff. In addition to being comfortable with the proposed changes, Callan continues to feel the SIOP and SFG appropriately reflect



Callan

STRS Ohio October 19, 2023

the high-level investment strategies set by the Board and provides for suitable oversight and monitoring of those investment decisions delegated to STRS Ohio Staff.

Callan recommends the Board approve the Statement of Investment Objectives and Policy and Statement of Fund Governance prepared by STRS Ohio Staff.

Regards,

Brady O'Connell, CFA, CAIA Senior Vice President



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Asset Class Presentation — Alternative Investments

Aaron DiCenzo

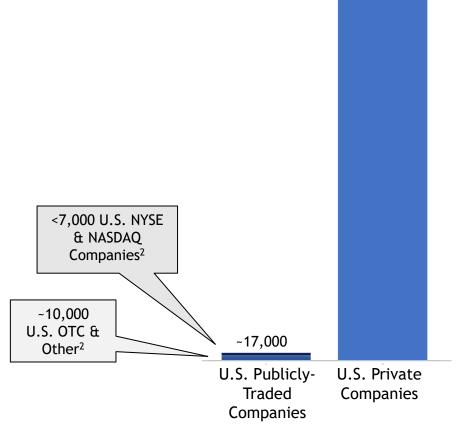
Oct. 19, 2023

What is an 'Alternative' Asset?



6,000,000+1

- 6,000,000+ U.S. private companies
- <7,000 U.S. public companies listed on NYSE / NASDAQ exchanges
 - Down from peak of 8,000+ in 1990s



What is an 'Alternative' Investment?



Publicly-Traded Financial Assets

Alternative Investments

• Stocks

Private company stock

• Bonds ————

Private lending

Alternative Investments Market Continues to Expand



- Estimated \$10.2 trillion addressable market in 2022¹
- Broadly diversified by strategy, asset class and investor type



¹ As of 6/30/2022; excludes real estate; Source: McKinsey & Company; Prequin

Alternative Investments' Purpose within Total Fund



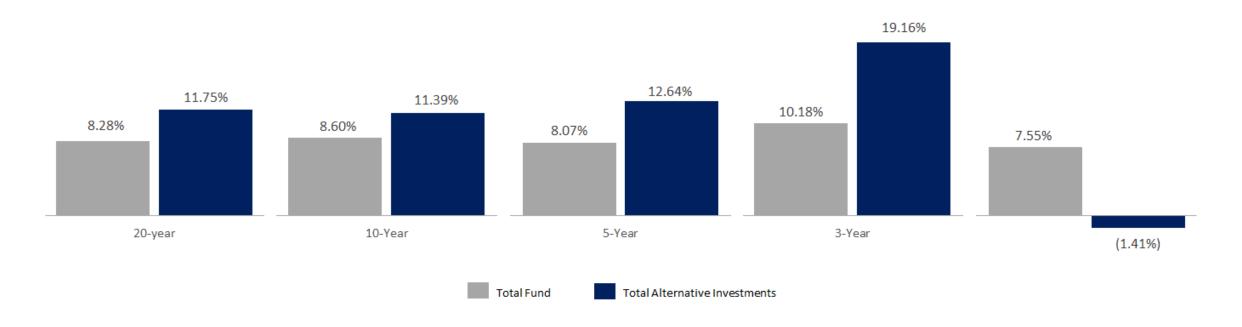
- Growth
- Income
- Diversification

Alternative Investments' Purpose within Total Fund



Alternative Investments increases Total Fund returns

Comparative Historical 20-, 10-, 5-, 3- and 1-Year Total Fund Returns, net¹ vs Alternative Investments Returns² (as of June 30, 2023)

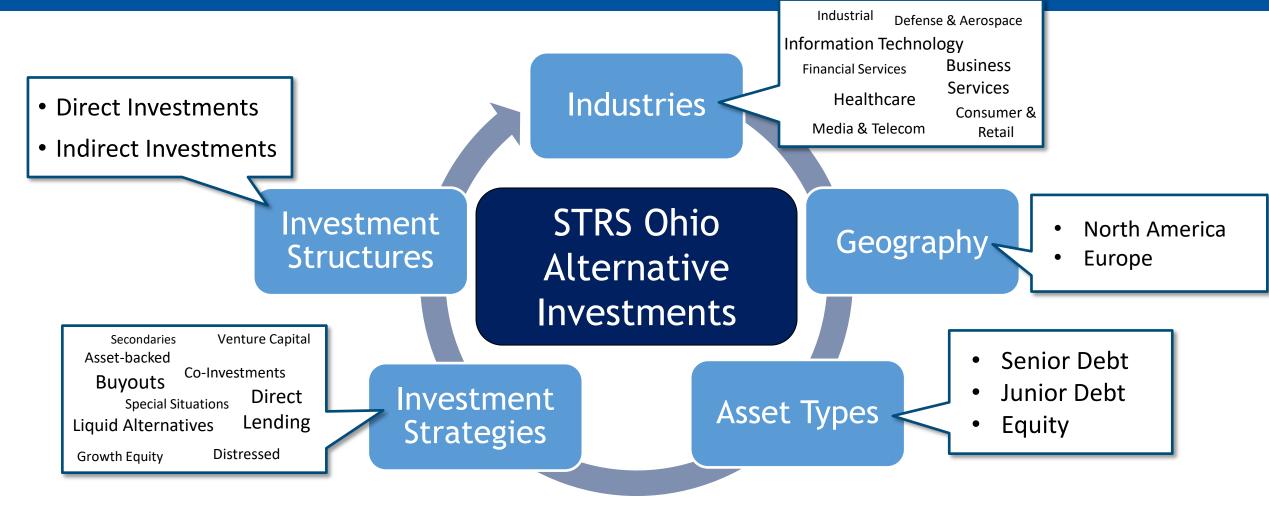


¹ STRS Ohio Total Fund, net returns are net of all internal and external investment management fees and costs, including carried interest and other fund expenses.

² STRS Ohio alternative investments returns are net of all external investment management fees and costs, including carried interest and other fund expenses.

Alternative Investments' Purpose within Total Fund





Highly diversified portfolio of 100+ managers, 400+ investments, 5,000+ companies

Alternative Investments Business Model



The Ohio Model

Funds

- Private equity
- Venture capital

Generalist Teams

- Asset allocation
- Diversification
- Manager selection
- Sourcing by relationships

Specialty Funds

- Opportunistic
- Thematic
- Sector

Generalist Teams

- Asset allocation
- Diversification
- Distinct themes
- Manager selection
- Sourcing by relationships

Direct Investment Capabilities

- Private equity
- Private credit
- Liquid alternatives

Generalist-Specialist Teams

- Asset allocation
- Diversification / Distinct themes
- Direct investment discretion
- Lower-cost
- External sourcing based on reputation and relationships

Dedicated Administrative Resources

- · Dedicated internal counsel
- Third party fee validation
- Third party administration

Lead Private Capital Investors

- Majority-owners of private companies
- Lead private lenders
- Active private capital markets participation

Specialist Teams

- Asset allocation established
- · Diversification established
- Specialist teams aligned with distinct themes
- Distinct investments
- Internal sourcing preferred

Enhanced Administrative Capabilities

- Operations
- Dedicated internal legal staff
- Third party fee validation
- Externally-facing administrative capabilities

Investors that are active at each level:

LPs, SWF, InsuranceCo, Endowments/Foundations

LPs, SWF, InsuranceCo, Endowments/Foundations

LPs, SWF, InsuranceCo, Money Managers Lead Private Capital Investors, Money Managers

Experience & intuition: Total cost declines; governance and transparency improves; competition for deals and investment talent increases; number of investment staff and compensation increases; dedicated non-investment staff increases

Direct & Co-Investments Strategic Initiative



Board strategic initiative

- Investment objectives
 - Generate good risk-adjusted returns
 - Build a diversified portfolio
 - Lower investment costs by paying lower or no fees

- Operating objectives
 - Build and maintain skilled investment staff
 - Expand capabilities

Investing at a Significantly Lower Cost

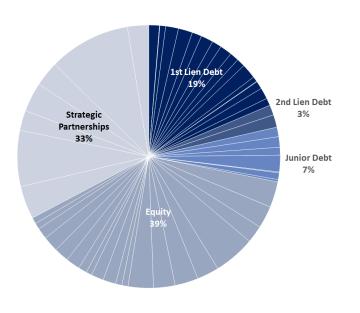


- Significant Direct & Co-Investment theme cost savings by investing directly in transactions
- 0.02%-0.05% estimated internally-managed Direct & Co-Investment cost
- Compared to private capital managers:
 - -Typically ~1.00%-2.00% managements fees, plus
 - -Additional costs associated with fund investments
 - -Carried interest typically 10%-20% of excess profits

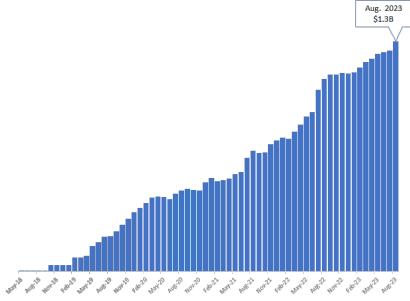
Direct & Co-Investments Update



Direct & Co-Investments by Security Type



Illustrative Direct & Co-Investments Net Asset Value 2018-23



- \$1.3 billion in current net asset value
 - Over \$1.4 billion invested
 - Over \$500 million returned
- 12%+ inception-todate return

Diversified portfolio, demonstrated asset growth & 12%+ inception-to-date returns

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Alternative Investments Reporting & Transparency



 STRS Ohio Board receives regular reporting and has access to significant information to devise policy and exercise oversight

Data Available for Investment and Management

- Detailed due diligence / access to market research
- All governing documentation
- Portfolio company-level reporting
- Fund financial & investment reporting
- Direct access to investment managers and company / asset owners
- Recently-added resources:
 - Albourne fee validation services provider
 - Hamilton Lane third party administrator

AI-Related Board Resources & Reporting

- Board independent investment consultant
- Board independent Alternative Investments consultant
- Third party assurance providers
- Board Reporting & Analysis
 - Monthly investment reporting
 - Quarterly performance reporting
 - Quarterly Alternative Investment ("Stoplight") Report
 - Ad hoc board requests
- Investment Strategy
 - Annual Investment Plan
 - Asset class board presentations

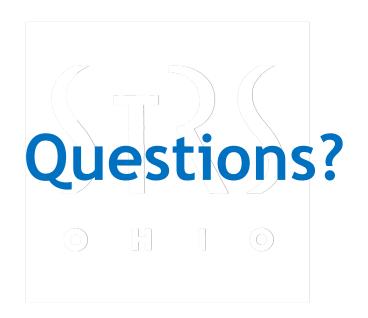
SEC Private Fund Adviser Rule Summary Overview



Topic	Private Fund Adviser Compliance Date		
Quarterly Reporting	18 months		
Audited Financial Statements	18 months		
Adviser-Led Secondaries	>\$1.5b AUM - 12 months <\$1.5b AUM - 18 months		
Disclosures and Consents	>\$1.5b AUM - 12 months <\$1.5b AUM - 18 months		
Preferential Treatment	>\$1.5b AUM - 12 months <\$1.5b AUM - 18 months		

New SEC rules increase transparency to and fairness among private fund investors





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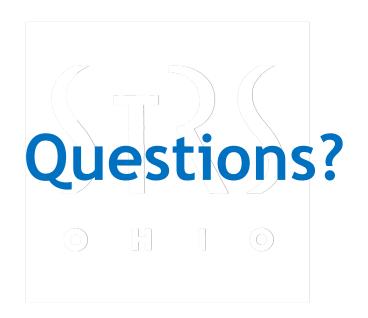


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