

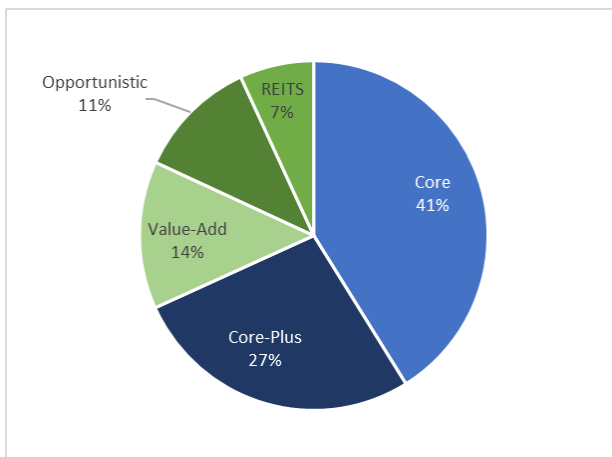
# Real Estate Investment Opportunities Overview

Investment Advisory Council  
September 14, 2022

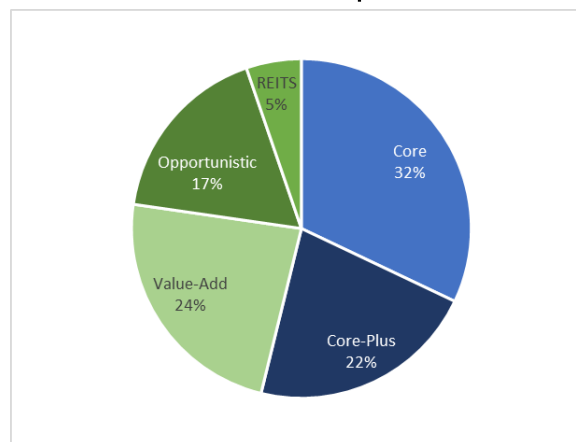
# Real Estate Investment Subsector

- Real Estate Investment's market value represented approximately 9.2% of the total CRPTF value as of March 31, 2022
  - The recommended 2022 strategic asset allocation plan is a target of 10%
- Non-Core weighting is currently 32% vs. target of approximately 60%
  - The 2022 pacing target is \$475-\$525 million per year to non-core
  - The exposure weighting to non-core appears better, but anticipated exits/will likely maintain near current weightings without rebalancing
  - Increased non-core investment combined with core rebalancing are needed to maintain target risk/return profile
- Market Conditions are strong in residential, industrial and some niche sectors
  - CRPTF Property type exposure heavily weighted to residential and industrial sectors, near target weighting. Looking to expand alternative/niche sectors with strong performance expectations
  - Current interest rate and capital market environments resulting in capital shortfalls, providing selective attractive risk adjusted return opportunities due to situational distress
  - Target top managers, with compelling strategies while reducing manager strategy overlap/manager count

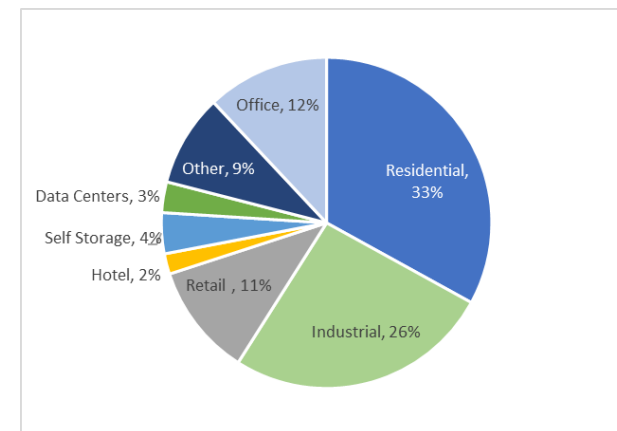
% Market Value\*



% Total Exposure\*



Property Type % Market Value\*



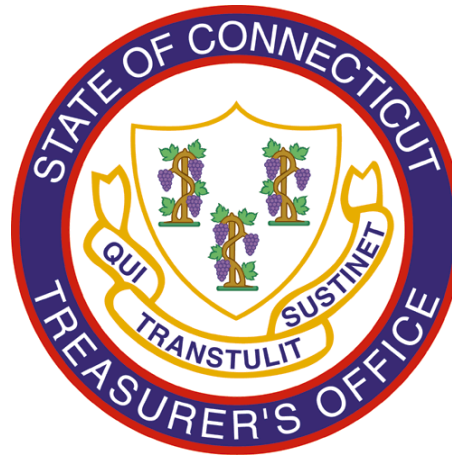


## Artemis Real Estate Partners IV \$125 Million Commitment

- Non-core, diversified fund
- Existing Manager with strong, risk-adjusted, return performance
- Ability to invest through the capital stack and adjust to changing market conditions
- Differentiator from existing investments:
  - Distress/capital market dislocation complemented by thematic approach within the lower end risk profile in the non-core space
  - Small, Middle market target investment size
  - Significant operating partner relationships

## IPI Partners III, LP \$125 Million Commitment

- Non-core, niche/data center focused fund
- Existing fund series investment with strong track record
- Current data center exposure: approximately 2%, target 5%
- Differentiators from existing investments:
  - Digital Real Estate (Data Center) focus, niche sector with favorable fundamentals and few specialists
  - Long-standing industry relationships with end-users in the data center space



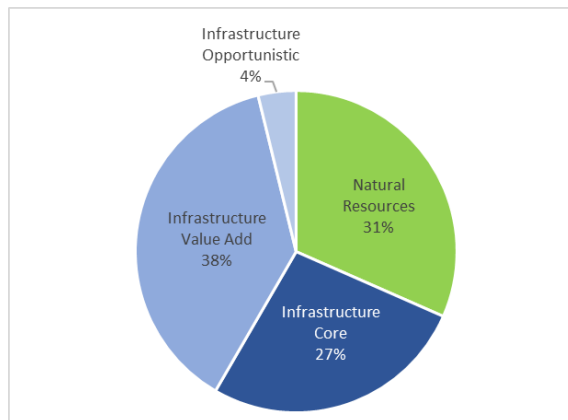
# Infrastructure/Natural Resources Investment Opportunities Overview

Investment Advisory Council  
September 14, 2022

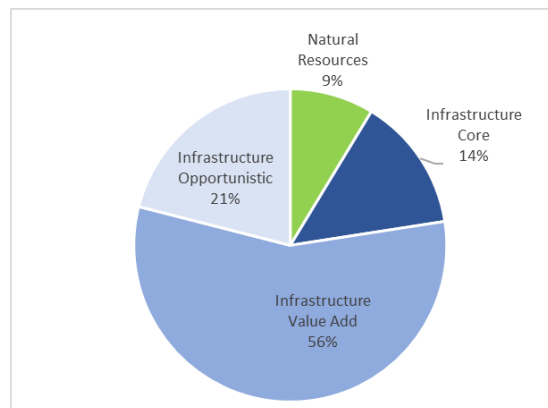
# Infrastructure/Natural Resources Investment

- Infrastructure/Natural Resources (INR) market value represented approximately 1.4% of the total CRPTF value as of March 31, 2022
  - The recommended 2022 strategic asset allocation plan, if approved, will increase the INR target allocation from 4.2% to 7%
  - INR current exposure (market value plus unfunded commitments) totals \$1.54 billion (3.4% of the total CRPTF)
- The portfolio is developing in line with the targeted exposure ranges established for each sub-strategy
  - The 2022 pacing target for the 4.2% allocation is \$525 million (“m”) per year to INR (\$250m Infra, \$225m NR, and \$50m co-investment)
  - Infrastructure Commitments for 2022 thus far have totaled \$225m and co-investment allocation totaled \$50m
- CRPTF current sector exposure is well balanced with the largest weightings to Fuels, Transportation Infra, Energy Equipment and Renewable Power
- CRPTF target top managers, with compelling strategies and limited manager strategy overlap

% Market Value\*

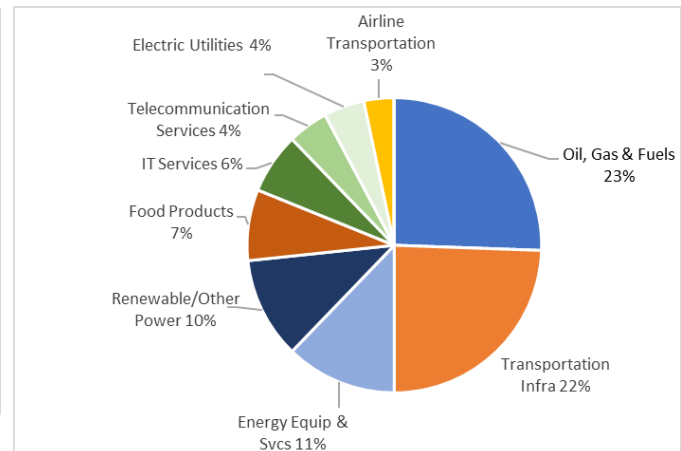


% Total Exposure\*



\*Estimated as of March 31, 2022

Sector % by Market Value\*\*



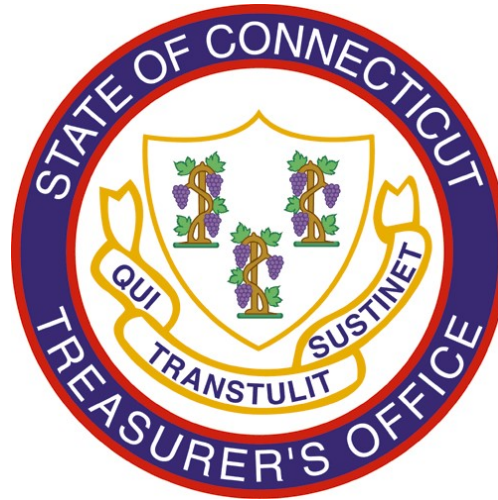
# Infrastructure/Natural Resources Investment Recommendations

## IFM Global Infrastructure Fund \$100 Million Commitment

- Open-end, core-plus, diversified fund
- Existing investment (\$200m) with strong, risk-adjusted, return performance and anticipated continued strong performance
- IFM's investment activity is concentrated in three key infrastructure sectors: transportation, midstream-energy, and utilities
- The open-end structure matches the long-term nature of core assets/investment and is expected to be fully invested in 6-12 months
- Additional investment reduces fees for entire investment and provides for co-investment rights

## Paine Schwartz Food Chain Fund VI \$150 Million Commitment

- Non-core, Natural Resource investment, complements existing Natural Resource Investments
- Exclusive focus on the food and agribusiness sector which exhibits favorable macro-economic tailwinds
- Strong track record investing across 26 platforms in the Agribusiness value chain
- Differentiated investment strategy with an opportunistic, private equity-like approach aimed at identifying growth-stage food and agribusiness platforms through a thesis-driven, high specialty market focus



# Private Credit Fund Investment Opportunities Overview

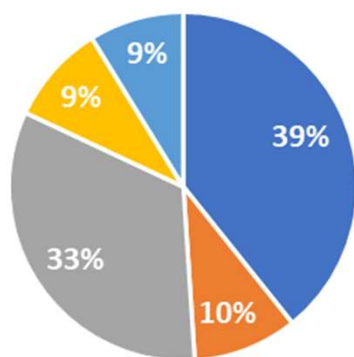
Investment Advisory Council  
September 14, 2022

# Private Credit Fund

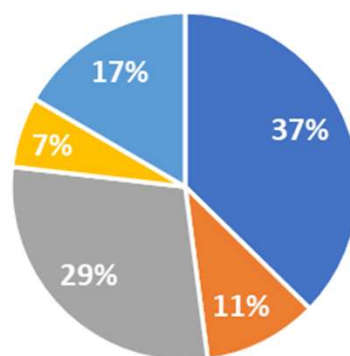
- The Private Credit Fund's market value represented approximately 2.5% of the total CRPTF value as of June 30, 2022.
  - The recommended 2022 strategic asset allocation plan would increase the PCF target allocation from 5% to 10%.
- The portfolio is developing in line with targeted sub-strategy exposure ranges established in the PCF strategic pacing plan: Senior Credit, Mezzanine, Special Situations, Distressed, and Co-Investments.
  - The CRTPF's Co-Investment program with HarbourVest is primarily focused on first lien, unitranche, second lien, and mezzanine/hybrid opportunities.
- The current market is generally positive for private credit managers due to a rising rate environment and tighter credit markets.
  - Managers can be more selective while benefitting from favorable terms and conditions.
  - Experienced managers best positioned to balance credit quality risks against return potential.
- The recommended commitments to Centre Lane Credit and SLR Capital will support the continued buildout of the PCF's core Senior Credit exposure, Vistria Credit will add to Mezzanine exposure, and all will contribute to increased portfolio diversification.

\*Estimated as of June 30, 2022.

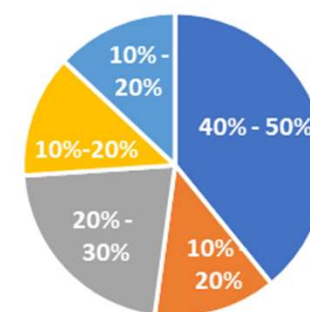
% Market Value\*



% Total Exposure\*



Strategic Plan  
Targeted Exposure Ranges



# Private Credit Investment Recommendations

## Vistria Structured Credit I

\$100 Million Commitment

- Junior capital (Mezzanine) strategy focused on U.S. middle market companies in the healthcare, knowledge and learning, and financial services sector.
- New credit strategy developed by Vistria, an existing PIF manager, to capture attractive, risk-reward credit and structured capital opportunities primarily available within its private equity portfolio and secondarily across its core sectors.
- The fund benefits from a strategic relationship with Guggenheim Partners affiliates, including a significant anchor investment and sub-advisory role.
  - Involvement of Guggenheim and unaffiliated lenders alleviate potential conflicts of interest between Vistria Private Equity and Credit.
- Opportunity to expand an existing core, private equity relationship and gain additional exposure to well-sponsored, private companies.

## SLR Capital-CRPTF Credit Partnership

\$300 Million Commitment

- Customized fund of one to provide the CRPTF with exposure to multiple Senior Credit strategies across the SLR platform.
- SLR is led by its co-founders and a broad senior team that have delivered strong returns with negligible losses over various market and economic cycles.
  - The firm has invested more than \$11 billion in its core strategies since inception, generating attractive gross unlevered returns in excess of 11% with a loss ratio approaching 0%.
- The firm has developed the expertise necessary to operate successfully in several less efficient and competitive markets, including lender finance, life science finance, and more complex asset-based lending.
- SLR has significant experience providing larger, institutional investors with high touch access to a robust investment and infrastructure platform.

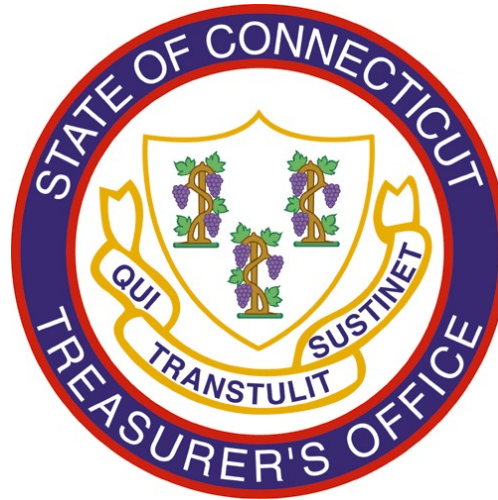
# Private Credit Investment Recommendations

## Centre Lane Credit Partners III

\$100 Million Commitment

- Senior Credit strategy focused on less competitive, middle market transactions generally involving complexity.
- The fund's strategy leverages the credit expertise of the dedicated Centre Lane Credit team as well as the strengths and resources of the Centre Lane platform, including:
  - Expertise in core strategies, a shared originations team, and access to the insights and experience of Centre Lane's private equity and portfolio operations professionals.
- The firm's strong due diligence and portfolio management practices have allowed Centre Lane Credit to generate attractive returns and limited losses despite a focus on more complex opportunities.
- A fund commitment would add complementary middle market Senior Credit exposure to the PCF portfolio, differentiated from more traditional direct lending strategies.





# Private Investment Fund Investment Opportunity Overview

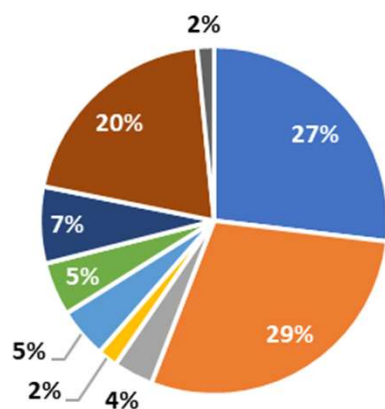
Investment Advisory Council  
September 14, 2022

# Private Investment Fund

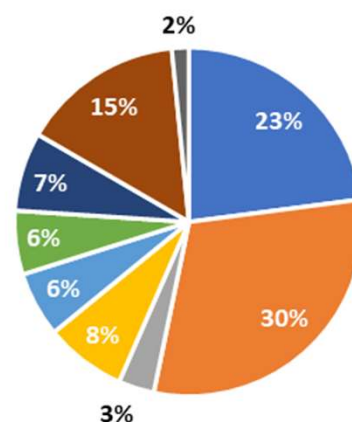
- The Private Investment Fund's market value represented approximately 11.7% of the total CRPTF value as of June 30, 2022.
  - The recommended 2022 strategic asset allocation plan would increase the PIF target allocation from 10% to 15%.
- Relative to targeted sub-strategy exposure ranges, the portfolio is underweighted to Small & Mid-Market Buyouts, Growth Equity, and Co-Investments.
  - The CRTPF's Co-Investment program with HarbourVest is primarily focused on buyout and growth equity opportunities, particularly in the mid-market.
- Private equity deal volumes are down due to a confluence of factors, including increased economic uncertainty, potential valuation gaps between buyers and sellers, and less accommodative credit markets.
- The recommended Bregal Sagemount IV opportunity is likely to benefit from current market conditions as growth-oriented, mid-market companies may favor less dilutive capital solutions.

\*Estimated as of June 30, 2022.

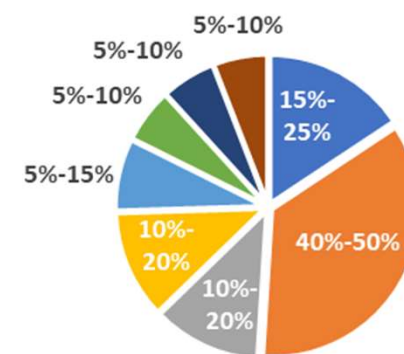
**% Market Value\***



**% Total Exposure\***



**Strategic Plan Target Exposure Ranges**



# Private Equity Investment Recommendations

## Bregal Sagemount Fund IV

\$125 Million Commitment

- Mid-market growth buyout and influential minority investment strategy.
- Experienced leadership team has successfully executed strategy at Sagemount as well as prior organizations where several partners previously worked together.
- Combining sector expertise, strong valuation and structuring disciplines, and proven value creation practices to generate attractive returns with downside protection.
  - Sagemount I & II have delivered top notch performance with an exceptionally low loss record.
- PIF portfolio would benefit from:
  - Differentiated exposure to growth-oriented companies – the majority of Sagemount’s investments involved structured capital in a company’s first institutional funding.
  - Being a meaningful investor with a proven yet ambitious team, providing the opportunity to grow relationship across the Sagemount platform.



SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

**M E M O R A N D U M**

**TO: Members of the Investment Advisory Council**

**FROM: Shawn T. Wooden, State Treasurer, and Council Secretary**

**DATE: September 8, 2022**

**SUBJECT: Investment Advisory Council Meeting – September 14, 2022**

Enclosed is the agenda package for the Investment Advisory Council meeting on Wednesday, September 14, 2022, starting at 9:00 A.M.

The following subjects will be covered at the meeting:

- Item 1: Approval of the Minutes of the July 20, 2022, and August 29, 2022, IAC Special Meetings**
- Item 2: Opening Comments by the Treasurer**
- Item 3: Update on the Market and Fiscal Year End 2022 CRPTF Performance**  
Ted Wright, Chief Investment Officer, will provide an update on the capital market environment and report on the 2022 fiscal-year end performance for the CRPTF.
- Item 4: Presentation and Consideration of Real Estate, Infrastructure and Natural Resource Opportunities**
- Item 4a: Presentation and Consideration of Artemis Real Estate Partners Fund IV**  
Denise Stake, Principal Investment Officer, will provide opening remarks and present Artemis Real Estate Partners Fund IV, a Real Estate Fund opportunity.

**Item 4b: Presentation and Consideration of IPI Partners Fund III**

Olivia Wall, Senior Investment Officer, will provide opening remarks and present IPI Partners Fund III, a Real Estate Fund opportunity.

**Item 4c: Presentation and Consideration of IFM Global Infrastructure Fund**

Denise Stake, Principal Investment Officer, will provide opening remarks and present an upsizing to our existing investment in IFM Global Infrastructure Fund, an Infrastructure Fund opportunity.

**Item 4d: Presentation and Consideration of Paine Schwartz Partners Food Chain Fund VI**

Olivia Wall, Senior Investment Officer, will provide opening remarks and present Paine Schwartz Partners Food Chain Fund VI, Natural Resources Fund opportunity.

**Item 5: Presentation and Consideration of Private Credit Opportunities**

**Item 5a: Presentation and Consideration of Vistria Structured Credit Fund I**

Mark Evans, Principal Investment Officer, will provide opening remarks and present Vistria Structured Credit Fund I, a Private Credit Fund opportunity.

**Item 5b: Presentation and Consideration of SLR Capital-CRPTF Credit Partnership**

Mark Evans, Principal Investment Officer, will provide opening remarks and present SLR Capital-CRPTF Credit Partnership, a Private Credit Fund opportunity.

**Item 5c: Presentation and Consideration of Centre Lane Credit Partners III**

Kan Zuo, Investment Officer, will provide opening remarks and present Centre Lane Credit Partners III, a Private Credit Fund opportunity.

**Item 6: Presentation and Consideration of Private Equity Opportunity**

**Item 6a: Presentation and Consideration of Bregal Sagemount Fund IV**

Mark Evans, Principal Investment Officer, will provide opening remarks and present Bregal Sagemount Fund IV, a Private Equity Fund opportunity.

**Item 7: Approval of the 2022 Strategic Asset Allocation for the Connecticut Retirement Plans and Trust Funds**

Call for approval by the IAC members of the Strategic Asset Allocation for the Connecticut Retirement Plans and Trust Funds.

**Item 8: Approval of the 2022 Investment Policy Statement for the Connecticut Retirement Plans and Trust Funds**

Call for approval of the IAC members of the Investment Policy Statement for the Connecticut Retirement Plans and Trust Funds.

**Item 9: Other Business**

Report on Corporate Governance activities for the quarter ended June 30, 2022

**Item 10: Comments by the Chair**

**Item 11: Adjournment**

We look forward to reviewing these agenda items with you at the September 14<sup>th</sup> meeting. Please confirm your attendance with Raymond Tuohey ([raymond.tuohey@ct.gov](mailto:raymond.tuohey@ct.gov)) as soon as possible.

STW/rt

Enclosures

**DRAFT VERSION – MINUTES OF THE INVESTMENT ADVISORY COUNCIL SPECIAL MEETING  
WEDNESDAY, JULY 20, 2022 – SUBJECT TO REVIEW AND APPROVAL  
FINAL VERSION OF THESE MINUTES WILL BE POSTED AFTER APPROVAL OF THE INVESTMENT  
ADVISORY COUNCIL AT THE NEXT MEETING, WHICH WILL BE HELD ON  
WEDNESDAY, SEPTEMBER 14, 2022**

**MEETING NO. 507**

**Members present:** D. Ellen Shuman, Chair  
Treasurer Wooden, Secretary  
Myra Drucker  
Thomas Fiore, representing Secretary Jeffrey Beckham  
William Murray  
Michael Knight  
Steven Muench

**Members absent:** Michael LeClair  
Patrick Sampson

**Others present:** Darrell Hill, Deputy Treasurer  
Ted Wright, Chief Investment Officer  
Raynald Leveque, Deputy Chief Investment Officer  
Kevin Cullinan, Chief Risk Officer  
Mark Evans, Principal Investment Officer  
John Flores, General Counsel  
Ginny Kim, Chief Compliance Officer  
Peter Gajowiak, Principal Investment Officer  
Denise Stake, Principal Investment Officer  
Paul Osinloye, Principal Investment Officer  
Michael Terry, Principal Investment Officer  
Christine Shaw, Principal Investment Officer  
Olivia Wall, Senior Investment Officer  
Kan Zuo, Investment Officer  
Raymond Tuohey, Executive Secretary

**Guests:** Public Line

With a quorum present, Chair D. Ellen Shuman called the Investment Advisory Council (“IAC”) special meeting to order at 9:05 a.m.

**Approval of the Minutes of the June 8, 2022, IAC Meeting and Minutes of the June 8, 2022,**

**IAC Asset Allocation Sub-Committee Meeting**

Chair Shuman called for a motion to accept the minutes of the IAC meeting on June 8, 2022, and the IAC June 8, 2022, IAC Asset Allocation Sub-Committee Meeting (collectively, the

“Minutes”). **Mr. Muench moved to approve the Minutes. The motion was seconded by Mr. Murray. There being no further discussion, the Chair called for a vote to approve the Minutes. The Chair called for a vote to accept the Minutes of the meetings and the motion passed.**

**Comments by the Treasurer**

Treasurer Wooden, welcomed the IAC members and began by sharing recent updates at the Office of the Treasurer (OTT). Treasurer Wooden announced he had decided to commit \$100 million to Reverence Capital Partners Fund V, a mid-market buyout fund with a primary focus on the financial services sector. In the private credit portfolio, the Treasurer approved two mandates; a commitment of \$250 million to Fortress Lending Fund and \$300 million to Sixth Street Lending Partners, noting both vehicles were focused on senior lending strategies in North America. Lastly, Treasurer Wooden provided a brief overview of the agenda.

**Presentation and Consideration of a Ci3 Private Markets Mandate: GCM Grosvenor**

Raynald Leveque, Deputy Chief Investment Officer, provided opening remarks and made a presentation to the IAC on the implementation of the Ci3 program in the Private Markets. Olivia Wall, Senior Investment Officer, presented a proposed custom mandate with GCM Grosvenor for the Ci3 Program.

**Presentation and Consideration of a Ci3 Private Markets Mandate: The RockCreek Group**

Kan Zuo, Investment Officer, provided opening remarks and made a presentation to the IAC regarding a proposed custom mandate with The RockCreek Group for the Ci3 Program.

**Roll Call of Reactions for GCM Grosvenor and The RockCreek Group**

Messrs. Steve Muench, Thomas Fiore, William Murray, Michael Knight, Myra Drucker and Chair Shuman provided feedback on GCM Grosvenor and The RockCreek Group. **There being no**



further discussion, Chair Shuman called for a motion to waive the 45-day comment period. A motion was made by Mr. Fiore, seconded by Mr. Murray, to waive the 45-day comment period for The GCM Grosvenor and The RockCreek Group. The Chair called for a vote, and the motion passed. Mr. Knight abstained.

**Connecticut Retirement Plans and Trust Funds 2022 Strategic Asset Allocation Update**

**Presentation**

Ted Wright, Chief Investment Officer, lead a discussion on final updates to the Strategic Asset Allocation for the Connecticut Retirement Plans and Trust Funds.

**Connecticut Retirement Plans and Trust Funds 2022 Investment Policy Statement Update**

**Presentation**

Christine Shaw, Principal Investment Officer, will present proposed revisions and updates to the Investment Policy Statement for the Connecticut Retirement Plans and Trust Funds.

**Other Business**

Chair Shuman noted there was a Request For Proposal for Investment Consulting Services for PFM.

**Meeting Adjourned**

There being no further business, Chair Shuman called for a motion to adjourn the meeting. **Mr. Fiore moved to adjourn the meeting, and the motion was seconded by Mr. Muench. There being no discussion, the motion passed and the meeting was adjourned at 12:46 p.m.**

**DRAFT VERSION – MINUTES OF THE INVESTMENT ADVISORY COUNCIL SPECIAL MEETING  
WEDNESDAY, AUGUST 29, 2022 – SUBJECT TO REVIEW AND APPROVAL  
FINAL VERSION OF THESE MINUTES WILL BE POSTED AFTER APPROVAL OF THE INVESTMENT  
ADVISORY COUNCIL AT THE NEXT MEETING, WHICH WILL BE HELD ON  
WEDNESDAY, SEPTEMBER 14, 2022**

**MEETING NO. 508**

**Members present:** D. Ellen Shuman, Chair  
Treasurer Wooden, Secretary  
Myra Drucker  
William Murray  
Michael Knight  
Steven Muench  
Patrick Sampson  
Michael LeClair

**Members absent:** Thomas Fiore, representing Secretary Jeffrey Beckham

**Others present:** Ted Wright, Chief Investment Officer  
Christine Shaw, Principal Investment Officer  
Kevin Cullinan, Chief Risk Officer  
Mark Evans, Principal Investment Officer  
John Flores, General Counsel  
Denise Stake, Principal Investment Officer  
Paul Osinloye, Principal Investment Officer  
Michael Terry, Principal Investment Officer  
Olivia Wall, Senior Investment Officer  
Kan Zuo, Investment Officer  
Raymond Tuohey, Executive Secretary

**Guests:** Public Line

With a quorum present, Chair D. Ellen Shuman called the Investment Advisory Council (“IAC”) special meeting to order at 12:05 p.m.

**Opening Comments by the Chair**

Chair Shuman provided brief comments regarding the draft Investment Policy Statement (“IPS”).

**Connecticut Retirement Plans and Trust Funds 2022 Investment Policy Statement Update**

**Presentation**

Christine Shaw, Principal Investment Officer, presented proposed final revisions and updates to the Investment Policy Statement for the Connecticut Retirement Plans and Trust Funds.

**After some discussion regarding the draft IPS, Chair Shuman called for a motion to affirm**

**INVESTMENT ADVISORY COUNCIL SPECIAL MEETING – DRAFT VERSION  
MONDAY, AUGUST 29, 2022**

**the draft IPS circulated for this special meeting as reflecting the recommendations of the Investment Advisory Council. Mr. Sampson moved to approve the draft IPS. The motion was seconded by Mr. Murray.** There being no further discussion, the Chair call for a vote to affirm the draft IPS as circulated for the meeting, and the motion passed. There was one no vote from Mr. Knight.

**Meeting Adjourned**

There being no further business, Chair Shuman called for a motion to adjourn the meeting. **Mr. Sampson moved to adjourn the meeting, and the motion was seconded by Ms. Drucker.** There being no discussion, the motion passed and the meeting was adjourned at 12:33 p.m.



SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 7, 2022

Members of the Investment Advisory Council ("IAC")

**Re: Consideration of Artemis Real Estate Partners Fund IV, L.P.**

Dear Fellow IAC Member:

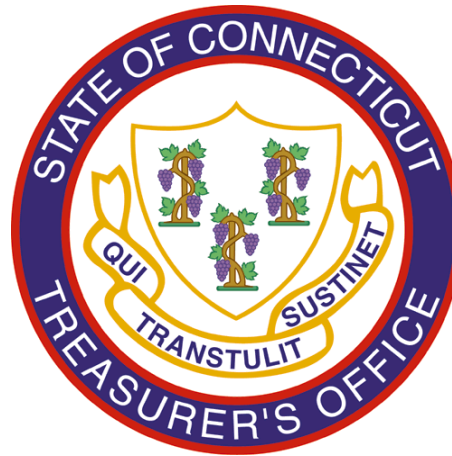
At the September 14, 2022 IAC meeting, I will present for your consideration a Real Asset Fund ("RAF") investment opportunity for the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): Artemis Real Estate Partners Fund IV, L.P. ("Artemis IV", or the "Fund"). Artemis IV has a target size of \$1.5 billion, with a \$1.8 billion hard cap, and is being raised by Artemis Real Estate Partners ("Artemis", or the "Firm").

I am considering a commitment of up to \$125 million in the Fund, which will seek to obtain value-add returns in middle-market real estate across the capital stack, including both debt and equity. The Firm focuses on the top 25 markets in the US. For sector targets, Artemis emphasizes distress, but with a thematic focus which currently includes industrial, residential, cold storage and aggregation. A Fund commitment would provide the CRPTF with additional exposure to the value-add segment, which is currently underweight, with an existing manager with broad capability to invest across the capital stack to take advantage of market dislocations in the current and projected near term environment.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer, and the due diligence report prepared by NEPC. I look forward to discussing these materials at the next meeting.

Sincerely,

Shawn T. Wooden  
State Treasurer



**Full Due Diligence Report**  
**Chief Investment Officer Recommendation**  
**September 7, 2022**

**Artemis Real Estate Partners Fund IV, L.P.**

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# Executive Summary

## Manager Overview

- Firm: Artemis Real Estate Partners (“Artemis”, or the “Firm”)
- Fund: Artemis Real Estate Partners Fund IV, L.P. ( “Artemis IV”, or the “Fund”)
- Year Founded: 2009
- Offices: Washington DC, New York, NY, Los Angeles, CA and Atlanta, GA
- Led by Deborah Harmon and Alex Gilbert, along with Rich Banjo and Anar Cudgar. Penny Pritzker is a co-founder and an owner, who currently serves in an advisory capacity.
- 65 employees including those at affiliated Great Falls and CRE.
- AUM: \$7.8 billion

## Fund Summary

- \$1.5 billion target/ \$1.8 billion hardcap
- Diversified, middle market real estate, both debt and equity
- Sector Target: emphasis on distress, with thematic focus, currently industrial, residential, cold storage and aggregation
- Geography Target: US only; top 25 markets
- Return Targets: Gross IRR 14-15%, Gross MOIC of 1.5x
- GP Commit: 5%, \$75 million as LP, all team members Managing Director and above
- Term: 8 years with two one-year extensions
- 1.5% Management Fee, 20% carry, 8% preferred return, 50/50 catchup; European Waterfall

## Strategic Fit

- Real Estate allocation in the Real Asset Fund (“RAF”)
- Recommended Commitment: \$125 million
- New/Existing Manager for the CRPTF: Existing
- Fund Structure: closed-end
- Real Estate Pacing Plan /Asset Allocation targets 10% allocation overall with 60% non-core
- Sub Strategy: Midmarket, US, Diversified
- Risk/Return: Value-add
- Current Allocation by Market Value as of June 30, 2022: 9.2%
- Long Term Real Estate Target Allocation: 10%

## Recommendation

- Based on the strategic fit in the Real Estate portion within the RAF portfolio, as well as the due diligence conducted by Pension Funds Management (“PFM”) investment professionals and consultant NEPC, the Chief Investment Officer of the Connecticut Retirement Plans and Trust Funds (“CRPTF”) recommends a commitment of up to \$125 million to Artemis Real Estate Partners Fund IV, L.P.

## Investment Considerations

- Experienced and Cohesive Management Team
- Extensive Industry Relationships
- Middle Market Focus – Inefficiencies and liquidity still exist in this segment of the market
- The aggregation strategy employed by Artemis provides potential exit pricing upside in this segment. Their focus on situational distress and proven ability to invest across the capital stack is opportune for the current market conditions.



## Firm History

- Artemis Real Estate Partners, LLC was formed on August 27, 2009.
- The Firm has four primary business lines (value-add discretionary commingled funds, vehicles focused on core/core-plus investments with emerging managers, healthcare-real estate specific funds, and core debt separate accounts) across 15 vehicles.
- In 2021, the Firm expanded its ownership to include an outside, passive minority ownership interest.

## Firm Leadership

- The Firms' ownership has grown from its co-founders, Deborah Harmon and Penny Pritzker, to include Artemis' Co-CEO, Alex Gilbert and Co-Presidents Rich Banjo and Anar Chudgar.
- Senior executive team has average management experience of 22 years.
- 7 of 14 senior managing directors and above have worked together for the past 16 years.
- The Investment Committee comprises eight senior team members. A majority vote is required to approve investment decisions and such majority must include at least one vote from Ms. Harmon or Mr. Gilbert.

## Firm Governance/Team

- Long-standing, cohesive team with few senior level departures since coming together in 2009.
- Carried interest is widely distributed across the Firm's senior associates and above to promote alignment of interest between team members and investors.
- 50% of employees are women and/or minorities, including subsidiary companies.
- The Firm includes affiliated firms CRE Legal Advisors and Great Falls Advisors; providing exclusive legal services and specialized asset management/accounting to reduce fees and create efficiency of operations.

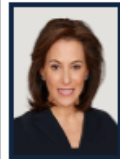
## THE ARTEMIS ORGANIZATION



### Cycle Tested & Experienced Team

- ✓ Senior executive team has average management experience of 22 years
  - ✓ 7 of 13 managing directors and above have worked together for the past 16 years
  - ✓ Diverse team of 65 people across four offices\*:
    - Washington, DC (Headquarters)
    - New York, NY
    - Los Angeles, CA
    - Atlanta, GA
  - ✓ ~50% of employees are women and/or minorities\*
  - ✓ Broad Promote Sharing
- Employees senior associate and above are eligible*

### Artemis Fund IV Investment Committee



**Deborah Harmon**  
Co-Founder & Co-CEO  
 ▪ Office Location: *Washington, DC*  
 ▪ Years of Real Estate Experience: 36  
 ▪ Education: *The Wharton School, University of Pennsylvania, MBA*



**Alex Gilbert**  
Co-CEO  
 ▪ Office Location: *Washington, DC*  
 ▪ Years of Real Estate Experience: 30  
 ▪ Education: *Harvard University, MBA*



**Rich Banjo**  
Co-President  
 ▪ Office Location: *Los Angeles, CA*  
 ▪ Years of Real Estate Experience: 22  
 ▪ Education: *University of Michigan, BBA*



**Anar Chudgar**  
Co-President  
 ▪ Office Location: *New York, NY*  
 ▪ Years of Real Estate Experience: 19  
 ▪ Education: *The Wharton School, University of Pennsylvania, BS*



**Kevin Nishimura**  
Senior Managing Director  
 ▪ Office Location: *Washington, DC*  
 ▪ Years of Real Estate Experience: 20  
 ▪ Education: *Georgetown University, BS*



**Michael Vu**  
Senior Managing Director  
 ▪ Office Location: *Washington, DC*  
 ▪ Years of Real Estate Experience: 16  
 ▪ Education: *Princeton University, BA*



**Jim Hurley<sup>(a)</sup>**  
Senior Managing Director & General Counsel  
 ▪ Office Location: *Washington, DC*  
 ▪ Years of Real Estate Experience: 16  
 ▪ Education: *Santa Clara University, JD/MBA*



**Chad Patterson**  
Senior Managing Director & CFO  
 ▪ Office Location: *Washington, DC*  
 ▪ Years of Real Estate Experience: 20  
 ▪ Education: *Harding University, BBA*

# Investment Strategy

## Sector Selection

- Artemis seeks to build a tactically diversified portfolio with anticipated benefits from thematic and distressed investment opportunities across the top 25 markets in the U.S.
- Thematic investment includes industrial development, residential housing and aggregation strategies.
- Distressed investing includes purchases, foreclosures, turnaround opportunities, and structured investment including mezzanine debt and preferred equity in the form of “rescue capital.”
- The Fund will primarily target assets in the major property sectors (multifamily, office, industrial and retail), as well as certain niche property sectors (healthcare, hospitality, and self-storage).

## Market Opportunity

- Artemis has the ability to invest throughout the capital stack and across product types which provides the ability to pivot with market changes.
- Artemis believes it is well positioned to capitalize on mispricing, disruption and distress.
- Artemis seeks to build a tactically diversified portfolio that benefits from thematic and/or distressed market opportunities.
- Artemis will remain focused on smaller, middle market investments where the market is more fragmented with less competition from institutional capital.

## Target Investment Characteristics

- The Fund is targeting a portfolio that will deliver long-term capital appreciation, with a gross IRR of 18-20% and gross MOIC of 1.6x-1.7x through equity and debt investments in a broad range of real estate and real estate-related businesses in the United States.
- Target leverage is less than 65% Loan to Value.
- The Fund will seek to identify attractive investment opportunities and will invest in mispriced, underperforming, distressed, overvalued or overlooked investment opportunities where assets or interests may be acquired below perceived market value and/or where the Fund is able to enhance value and mitigate risk through investment structuring and active asset management, including renovating, repositioning and releasing the asset.

## Extreme Volatility in the Market



Russia invasion of Ukraine



China maintains zero-Covid policy



Inflation at highest levels in decades



Consumer uncertainty



Onshoring accelerated exponentially



Significant housing shortage



Political uncertainty / Midterm elections

## Investment Strategies

### THEMATIC

#### INDUSTRIAL

- Rental rates continue to exceed expectations

#### RESIDENTIAL

- Favorable supply / demand trends after reduced production post-GFC

#### NICHE

- Increasing demand for cold-storage and manufactured housing

#### AGGREGATION

- Portfolio premiums for hard-to-scale products

### DISTRESSED

#### NEGATIVE LEVERAGE

- Increasing capital improvement costs

#### RATE HIKES

- Three to five more rate hikes expected in 2022; opportunity to provide "rescue financing"

#### PRICING VOLATILITY

- Private markets take time to correct; will look for ways to increase cash flows opportunistically

#### CAP RATE EXPANSION

- Without knowing the discount rate or the risk-free rate, difficult to predict cap rates

Artemis seeks to build a **tactically diversified portfolio**, with Artemis Fund IV anticipated to benefit from similar **thematic and distressed** investment opportunities as Artemis Fund III.

# Investment Strategy Continued

## Origination

- Artemis will utilize its extensive network of relationships with strategic operating partners, brokerage firms, commercial and investment banks, opportunity funds, institutional investors, law firms, government entities, industry advisors and other industry professionals to generate investment opportunities with a focus on off-market opportunities.
- Artemis invests with best-in-class niche operating partners with whom it seeks to develop programmatic joint venture relationships and invest for the long term. These operating partners not only provide local/regional operating expertise. They also provide access to “off-market” transactions, while Artemis retains control of decisions.

## Value Creation Strategy

- Artemis IV is expected to follow the same investment strategy as Funds I-III, emphasizing value creation and operational efficiency by seeking investments with the potential for increased returns driven by improvements in operating performance.
- Artemis employs rigorous underwriting focused on the fundamentals with an emphasis on underlying cash flows, current income, capitalization rates, replacement cost, local supply-demand trends and capital expenditures, combined with aggressive asset management and ongoing risk mitigation over the hold period and timely exits.

## Exits

- Overall, the Fund will typically seek to identify multiple exit strategies including possible upside strategies not included in the underwriting that can often allow an investment to outperform.
- Consistent with prior vehicles, Artemis will identify multiple exit strategies for each investment. Possible exit strategies may include but are not limited to selling individual assets and portfolios to institutional buyers, and to a lesser extent, non-institutional buyers. Primary potential sale targets include REITs, insurance companies and other real estate investment firms.

# Track Record and Performance

*Data as of March 31, 2022*

- Artemis' Fund I, II and III (the "Prior Funds") performance were compared against the Global Cambridge Fund Benchmark for all non-core for the applicable vintage year as shown in the below table. Fund I and III rank first and second quartile when compared to the Cambridge Associates Value Add Private Real Estate benchmark for IRR and TVPI. Fund II, a 2015 vintage fund, has third and fourth quartile performance in both measures, respectively. The sector selection in office, retail, hotel and healthcare (total 60%) dragged performance of this fund during the pandemic as well as the more conservative leverage levels relative to peers.
- Across over 120 investments in the Prior Funds, the Firm experienced realized losses in five investments which is reflective of the risk focused investment structures employed. Three of these five investments were in healthcare, and one was in retail: both of these sub-sectors had pandemic related events that precipitated losses. The fifth investment was a multi-story industrial property that had leasing challenges and is not a strategy going forward.
- Artemis IV holds four investments as of June 30, 2022. One was invested in December 2021, the remaining three between April through June 2022. Anticipated investment sectors include multi-family (20-25%), single family (15-20%), industrial (20-30%), hospitality (5-10%), office (5-15%) and niche sectors, including self storage, cold storage and manufactured housing (10-20%).

Investment	Vintage	Total Equity Raised (\$MM)	GP Commit ment (\$MM)	Committed Equity (\$MM)	Since Inception			Cambridge Vintage Year	Cambridge Vintage Year	Cambridge Vintage Year
					Net	Net	Net	Non-Core	Non-Core	Non-Core
					IRR	TVPI	DPI	IRR Quartile	TVPI Quartile	DPI Quartile
Value-Add Funds										
Artemis Fund I	2012	436	50.1	394	24%	1.6x	1.6x	1 <sup>st</sup>	2 <sup>nd</sup>	2 <sup>nd</sup>
Artemis Fund II	2015	580	50.0	630	10%	1.3x	1.1x	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>
Artemis Fund III	2018	1,010	50.2	1,043	35%	1.4x	0.3X	1 <sup>st</sup>	2 <sup>nd</sup>	2 <sup>nd</sup>

Source: Artemis and CRPTF.



## Artemis IV

- The recommended commitment would be categorized under the Value-add sub-category of the Real Estate allocation of the RAF.
- The Investment Policy Statement, adopted March 10, 2021, (the “IPS”) sets a target allocation within the Real Estate Portfolio of 15-35% Value-Add.
- As of March 31, 2022, CRPTF value-add exposure is 14% and total non-core exposure is 32%. Non-core target exposure is 50-60%.

A commitment to Artemis IV would be aligned with the RAF strategic pacing plan objectives.

- The CRPTF policy targets total exposure to Real Estate to be 10%.
- As of June 30, 2022, the CRPTF’s total exposure to Real Estate was 9.2%.
- CRPTF is underweight to non-core versus target and rebalancing core as value-add investments are funded.
- The goal of forming significant relationships with managers with proven track records and differentiated strategies, with disciplined investment approach to match the current market dynamics.



# Strengths and Rationale

## Experienced and Cohesive Team

- Senior Executive Team has average management experience of 22 years.
- 7 of 14 senior managing directors and above have been working and investing together for 16 years.
- Senior level turnover at the Firm has been minimal.
- Broad promote sharing and significant GP commitment.
- Deep Operating Partner relationships provides significant opportunity for repeat partnerships and limits operational risk.

## Investment Thesis Relative to Current Environment

- Artemis has shown investment discipline, with significant capital raised, but limited investments to date, as markets have been in flux and pricing of some properties are anticipated to be pressured downward. The Fund is well positioned to execute going forward.
- The focus on smaller size, middle market investments, provides for further opportunity to take advantage of pricing of assets in a more fragmented and historically leverage dependent capital base.
- Artemis has lower leverage level utilization relative to other non-core real estate funds (less than 65% loan to value) and should not be significantly impacted by the current debt market pullback.

## Broad Capability to Invest Through the Capital Stack

- Given the current volatile environment a manager with ability to invest throughout the capital stack can take advantage of risk/return opportunities as capital source shortfalls arise.
- In previous investments, Artemis has used debt, preferred equity, operating partnerships, and direct equity structures to invest. This allows the Firm to identify opportunities with favorable risk/return fundamentals given the market conditions.



# Key Risks and Mitigants

## Artemis IV is larger than previous funds

- Artemis IV is targeting a fund size of \$1.5 billion and likely closing commitments at, or near, the hard cap of \$1.8 billion. This is significantly larger than the previous funds. Such a significant fund size increase raises concerns that potential Fund returns could be adversely impacted by both the investment team's capacity to effectively deploy a larger pool of capital and the potential for style drift, including the pursuit of larger investments.
- These concerns are mitigated with the growth in staffing and the significant operator relationships that have been developed to provide deal flow. Average equity checks per investment and total investment size are expected to remain the same.

## Broad target investment mandate

- Artemis presents anticipated allocation ranges by sector but does not have any particular mandate. This limits CRPTF's ability to control portfolio exposures and can potentially lead to overweights.
- Artemis has broad experience investing across various property types and geography. They intend to maintain diversification across property types and sectors as in previous funds. This will limit the potential for sector overweights.
- The flexibility to react to changing market conditions over the investment period through thematic targets and situational distress opportunities provides a competitive advantage.

## Operating Partner Investment Model

- Artemis investments rely heavily on the operating partner model. This can limit control of assets depending on structure.
- In the three prior funds 103 of 120 investments were in partnership structures.
- Artemis structures operating partnerships to maintain control of major decisions to mitigate this risk.
- The operating model provides access to significant deal flow, often without auction.

# Fundraising and Key Terms Summary

Target Size / Hard Cap	• \$1.5 Billion/ \$1.8 Billion hard cap
GP Commitment	• \$75 million
Fundraising Status	• \$1.3 billion as of May 2022
Target Final Close	• November 2022
Fund Term	• 8 years, then up to two consecutive one-year extensions subject to LPAC Approval
Investment Period	• 3 years
Management Fee	• 1.5% of committed capital over investment period, then 1.5% over invested capital thereafter
Fee Discounts & Offsets	• Mgt fee discounts available for \$150 million and above
Carry & Waterfall Type	• 20%, Whole Fund/European waterfall
Preferred Return	• 8%
GP Catch-up	• 50%/50%
Clawback	• Yes
Other Key Provisions	• CT offered LPAC seat subject to successful legal negotiations and close of at least \$100 million

## Additional Provisions

- 65% Limit on Fund Leverage
- The Fund will target a diversified portfolio

## Artemis Real Estate Partners, LLC (“Artemis”)

- In its disclosure to the Office of the Treasurer, Artemis Real Estate Partners(the “Respondent”) states there have been no proceedings or governmental actions related to the firm in the last 5 years. Additionally, the Respondent states it has no errors and omissions insurance claims to report nor have there been any internal investigations of its personnel.
- The Respondent’s disclosure further notes that there have been no material changes to its corporate structure within the past two years or pending changes in its organization and corporate structure.
- The Respondent affirms that it has in place adequate internal investigation procedures.
- The Respondent's current ADV dated March 2022 is consistent with its disclosure to the Office of the Treasurer.

Artemis Real Estate Partners, LLC (“Artemis”)

## Review of Required Compliance Attachments

Artemis disclosed no third-party fees, campaign contributions, known conflicts or gifts

## Corporate citizenship in the State of Connecticut

Connecticut benefits from the pipeline programs that Artemis has been instrumental in creating, as described below (PREA, SEO, Toigo)

## Commitment to the diversity, education & training of the industry’s next generation

As an established, diverse real estate investment manager, that is majority women/minority-owned firm, Artemis believes they have a responsibility to support the talent pipeline for the industry.

9 years ago, the firm created a 5-week summer enrichment program to expose undergraduate students to the industry. The long tenure of the program and positive participant feedback is impressive. As a firm of 65 team members, the firm hosts more than 30 students each summer, including 5-10 interns from SEO.

The firm was instrumental in formation of the SEO/PREA real estate track. Artemis’ co-founders committed to the PREA Foundation at the highest level (\$500,000) in 2017 and have committed to another \$500,000 from 2022-2027. Artemis CEO Deborah Harmon served as PREA Foundation Board Chair in 2017. 100% of its emerging managers in the dedicated emerging manager program collectively committed over \$1.2 million to the PREA Foundation.

The firm has also created an internal training/mentorship program and partnership with the Urban Alliance, and the firm is currently in its 9<sup>th</sup> year of hosting an intern through the program. In 2020, Artemis introduced the PREA Foundation to the Urban Alliance and they piloted the PREA Foundation-funded Residential Real Estate Property Management Pathway in 2021 with more than 20 high school students.

Artemis also supports the Toigo Foundation, providing mentors to Fellows. One team member is a former Toigo Fellow.

## Support for women-owned, minority-owned or emerging businesses

The firm is a recognized leader in the Emerging and Diverse Manager Universe. The firm’s Mach Program maintains a database of over 600 emerging manager operating partner prospects. The firm has received numerous recognitions for its work, including most recently the 2020 Exelon Diversity and Inclusion partnership Program.

Artemis Real Estate Partners, LLC ("Artemis")

## Workforce Diversity

Artemis provided data as of March 31, 2022

- Total firm size (65 employees) dipped in 2021, but returned to 2020 levels in 2022

For the three-year reporting period

- Among professionals/managers, the firm promoted two minorities and ten females
- Proportion of Women and Minority Professionals increased significantly (while professionals overall remained constant)
- Proportion of Women executives decreased, and managers remained the same
- Proportion of Minority executives remained generally the same, but increased for managers and professionals

### WOMEN

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>23%</b> 3 of 13	<b>34%</b> 12 of 35	<b>55%</b> 12 of 22	<b>49%</b> 32 of 65
<b>2021</b>	<b>23%</b> 3 of 13	<b>29%</b> 10 of 34	<b>47%</b> 7 of 15	<b>44%</b> 25 of 57
<b>2020</b>	<b>29%</b> 4 of 14	<b>34%</b> 10 of 29	<b>45%</b> 10 of 22	<b>49%</b> 31 of 63

### MINORITIES<sup>1</sup>

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>31%</b> 4 of 13	<b>17%</b> 6 of 35	<b>32%</b> 7 of 22	<b>25%</b> 16 of 65
<b>2021</b>	<b>31%</b> 4 of 13	<b>12%</b> 4 of 34	<b>20%</b> 3 of 15	<b>19%</b> 11 of 57
<b>2020</b>	<b>29%</b> 4 of 14	<b>14%</b> 4 of 29	<b>23%</b> 5 of 22	<b>25%</b> 16 of 63

<sup>1</sup> 2022 Minority breakdown: 4 exec (1 Black, 3 Asian); 6 mgmt (2 Black, 4 Asian); 7 prof (4 Black, 1 Hispanic, 2 Asian)

# Environmental, Social and Governance Analysis

## Overall Assessment : Evaluation and Implementation of Sustainable Principles

Artemis' disclosure described a general integration of ESG factors in its investment processes, which seemed appropriate given their focus on middle-market joint ventures and constraints on their ability to control ESG integration with portfolio companies. Artemis is not a signatory to the UN PRI or any other sustainability-oriented groups identified by the Treasury, but has stated its ambition to sign on to the PRI and the Taskforce on Climate-Related Disclosures (TCFD). The ESG Committee oversees ESG investment considerations and ESG policy implementation. The firm holds an annual meeting with all employees to discuss its ESG policy and sources data from the utility-tracking platform, Measurabl. Artemis relies on third-party consultants to conduct research on potential investments.

Artemis does not have a formal policy with respect to civilian firearms retailers or manufacturers, given that it does not have any such relationships.

Overall, the firm's disclosure demonstrated some ESG integration, with room to improve on formal training and ongoing monitoring.

## SCORE

3

Criteria	Response
Firm has an ESG policy	Yes
If Yes, firm described its ESG policy	Yes
If Yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
Designated staff responsible for sustainability policies and research	Yes
Firm provides training/resources on sustainability issues, explained sources of ESG-related data	Yes
Signatory/member of sustainability-related initiatives or groups	No
Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	No*

Criteria	Response
Policy that requires safe and responsible use, ownership or production of guns	No*
Enhanced screening of manufacturers or retailers of civilian firearms	No*
Enhance screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impact	Yes
Merchant credit relationship with retailers of civilian firearms and accessories	No
If Yes, firm confirms compliance with laws governing firearms sales	N/A



SEPTEMBER 2022

# NEPC PRIVATE MARKETS INVESTMENT DUE DILIGENCE REPORT

ARTEMIS REAL ESTATE  
PARTNERS

*ARTEMIS REAL ESTATE  
PARTNERS FUND IV*



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# ARTEMIS REAL ESTATE PARTNERS FUND IV

## NON-CORE REAL ESTATE

### COVER PAGE

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<b>Firm Name</b>	Artemis Real Estate Partners, LLC
<b>Fund Name</b>	Artemis Real Estate Partners Fund IV
<b>Diverse-Owned/ Diverse-Led Manager</b>	Yes
<b>ESG Rating</b>	2
<b>Target Size/Max Size</b>	\$1.5 billion target / \$1.8 billion hard cap
<b>Amount Raised</b>	\$1.3 billion (as of June 6, 2022)
<b>Prior Fund Raise</b>	\$1.0 billion
<b>Minimum Investment</b>	\$10 million, lesser commitment amounts subject to GP discretion
<b>Target Final Close Date</b>	March 2023 anticipated
<b>Target Fund Return</b>	14% - 15% net IRR, 1.5x net equity multiple
<b>Management Fee &amp; Carry</b>	1.5% on committed capital during the investment period, 1.5% on invested capital afterward. 20% carry over 8% preferred return with 50% catch-up

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# ARTEMIS REAL ESTATE PARTNERS FUND IV

## NON-CORE REAL ESTATE

### EXECUTIVE SUMMARY

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Artemis Real Estate Partners, LLC (“Artemis,” the “Manager,” or the “Firm”) is a United States-based commercial real estate investment firm that manages four main real estate strategies: non-core diversified real estate, core/core-plus investments with emerging managers/operators, healthcare-focused real estate, and core real estate debt separate accounts.

Artemis is currently raising capital for their fourth fund in their flagship fund series, Artemis Real Estate Partners Fund IV (“Fund IV” or the “Fund”). This non-core real estate fund series began with Fund I, a 2012 vintage fund. Like prior funds, the Manager will aim to aggregate a portfolio of diverse real estate investments across the United States and across property types. Fund IV is also expected to be diversified across the capital structure, as Artemis seeks to remain flexible and to pivot across various debt and equity positions as they see fit based on the market environment. The composition of Fund III, for example, is about 90% equity positions and 10% various debt positions including preferred equity, first mortgage, and mezzanine debt.

Artemis is aiming to drive returns by making investment decisions with considerations to both thematic macroeconomic factors and situational distress opportunities they are seeing in the current market environment. Target real estate sectors they have set for Fund IV include a majority of capital invested in residential and industrial assets, with smaller allocations to office, hospitality, and niche property types. The Fund is targeting a 14% - 15% net IRR to investors and a 1.5x net equity multiple. As of June 6<sup>th</sup>, 2022, Artemis has raised \$1.3 billion in capital for the Fund. The Manager is targeting a \$1.5 billion fund raise with a hard cap at \$1.8 billion.



# ARTEMIS REAL ESTATE PARTNERS FUND IV

## NON-CORE REAL ESTATE

### Positives:

- **Experienced investment team:** The investment team responsible for the strategy has remained consistent throughout the first three funds raised in the strategy. Co-Founder and Co-CEO Deborah Harmon and Co-CEO Alex Gilbert have led the prior Funds alongside Co-President Rich Banjo. They have been supported by ten team members at the managing director level or above, and this same team plans to run Fund IV. Ms. Harmon, Mr. Gilbert, and Mr. Banjo have all been with the Firm for over 10 years and have an average of 29 years of real estate investment experience. NEPC believes that the robust experience and overall stability of the investment team is a strength for Artemis and should benefit Fund IV.
- **Ability to invest throughout the capital stack:** Fund IV has the flexibility to invest in positions across the capital structure, giving them a more robust pipeline of deals and presenting attractive investment opportunities that wouldn't necessarily be available in an equity- or debt-only strategy. NEPC believes this flexibility is important in an evolving real estate market presented with uncertainties. The Manager may target distressed, structured positions (e.g., distressed debt or preferred equity) if such opportunities arise, or can originate new structured positions if they identify opportunities with an attractive risk/reward profile. However, if markets normalize and experience limited volatility or distress, Artemis can also choose to focus primarily on equity investments (as they did in Fund III).
- **Dynamic approach to sector and geographic selection:** When raising capital for their value-add/opportunistic funds, Artemis presents target ranges for real estate sectors that they expect to allocate capital to. Since the first vintage of the fund series in 2012, these targets have changed as the US real estate markets have changed. For example, target allocations to office and retail properties have significantly dropped, while targets to residential, industrial, and other niche real estate sector targets like single-family rentals, manufactured housing, and self-storage, have increased. Artemis does not set geographic targets for the Fund, and has historically remained diversified and flexible in that regard as well. NEPC believes that the Manager's approach to continuously assess real estate markets and identify attractive sectors and geographies is compelling, and should work in favor of the Fund.



# ARTEMIS REAL ESTATE PARTNERS FUND IV

## NON-CORE REAL ESTATE

### Negatives:

- **Undetermined asset and investment exposures:** While NEPC ultimately views the broad mandate of the Fund (i.e., Artemis' flexibility to invest across the capital structure and across property types) as advantageous, it also could pose challenges for investors. Investors allocate to real estate and commit to specific real estate funds to fulfill a wide range of investment objectives, and the Manager's flexible investment mandate limits the ability to forecast or anticipate what types of exposure the Fund may provide. For investors with a focus on generating an attractive total return and with an existing diversified real estate portfolio, this is less of a concern. However, for clients sensitive to (or overweight) particular property types or those who seek to avoid debt investments, this may be more challenging. NEPC does note that Fund IV is branded as an "opportunistic" real estate fund and that the vast majority of deals in the first three funds in the series have been equity investments, but as there are no defined targets or restrictions, there is no guarantee that Fund IV will follow a similar allocation. Importantly, NEPC is comfortable with the investment team's experience and ability to navigate the real estate markets successfully.
- **Inconsistent track record:** For benchmarking purposes, NEPC compared Artemis' track record to the CJA Global Value-Add & Opportunistic Real Estate benchmark. We observe that Fund I and Fund III are generally performing well, with above-median returns on both an IRR and TVPI basis, and current IRRs that exceed their targets. However, Fund II (a 2015 vintage fund) is underperforming on both an IRR and TVPI basis (in the 3<sup>rd</sup> quartile on both of these metrics). Overall, we believe the Manager's track record is solid, but inconsistent at the fund-level. Looking at the underlying deal-level track record, Artemis has shown much better consistency, with roughly two-thirds of the investments generating between a 1.0x and 2.0x investment multiple (including unrealized investments). The Manager has only had five investments which experienced a realized loss of capital, suggesting that Artemis has done a good job protecting on the downside.
- **Potential overlap in mandates:** One of the main themes in Artemis' investment approach is being flexible in investing across the capital structure, including likely executing certain debt and equity investments in Fund IV. The Manager has indicated that Fund IV will have priority for any investment opportunities that fit the Fund's strategy, unless the Limited Partner Advisory Committee (LPAC) consents otherwise. This priority is not explicitly stated in the Fund's legal documents; however, Artemis explained that this can be addressed through investor side letters.

# ARTEMIS REAL ESTATE PARTNERS FUND IV

## NON-CORE REAL ESTATE

### FUND CHARACTERISTICS

<b>Investment Period</b>	Three years from final close
<b>Fund Term</b>	Ten years from final close
<b>Sponsor's Investment</b>	At least \$75 million
<b>Assets Under Management</b>	\$8.2 billion
<b>Investment Focus</b>	Diverse real estate implementing various equity and debt investments
<b>Geographic Focus</b>	United States
<b>Projected # of Investments</b>	40 - 50
<b>Deal Size</b>	Average equity check sizes of \$30 million
<b>Leverage</b>	65% LTV limit
<b>Annual Management Fee</b>	1.5% on committed capital during the investment period, 1.5% on invested capital afterward.
<b>Other Fees</b>	None
<b>Organizational Costs</b>	The Fund shall bear all Organizational Expenses incurred in the formation of the Fund, up to an amount not to exceed \$2 million.
<b>Carried Interest</b>	20%
<b>Preferred Return</b>	8%
<b>Distribution Waterfall</b>	<ul style="list-style-type: none"> <li>• 100% to LP's until they have received an annual compounded preferred return of 8% per annum;</li> <li>• 100% to LP's until they have received a return of all of their Capital Contributions;</li> <li>• 50/50 LP/GP split until the GP has received 20% of the sum of the distributions made to LPs;</li> <li>• 80/20 LP/GP split</li> </ul>
<b>ERISA Fiduciary</b>	No
<b>Fund Auditor</b>	PriceWaterhouseCoopers
<b>Fund Legal Counsel</b>	Paul Hastings, LLP
<b>Placement Agents</b>	None
<b>Website</b>	<a href="http://www.artemisrep.com">www.artemisrep.com</a>



# ARTEMIS REAL ESTATE PARTNERS FUND IV

## NON-CORE REAL ESTATE

### FIRM DESCRIPTION

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#### Firm Overview

Artemis Real Estate Partners, LLC was formed in August 2009 by Deborah Harmon and Penny Pritzker. Today, Artemis is majority-owned by 10 employee-partners, with a minority, non-controlling passive interest owned by a third party. Artemis is a majority diverse and woman-owned firm.

The Firm has grown from four team members at the time of its formation to approximately 65 team members as of the start of 2022, and has offices in New York City, Los Angeles and Atlanta, in addition to its headquarters in metropolitan Washington, DC.

Artemis has raised approximately \$8.2 billion of investor equity capital in four primary real estate business lines: value-add discretionary commingled funds, vehicles focused on core/core-plus investments with emerging managers, healthcare-real estate specific funds and core debt separate accounts. Artemis' sole focus is U.S. commercial real estate.

#### Team Overview

The Fund does not have a single person appointed as a portfolio manager; rather, there is a team of investment professionals that are responsible for leading the strategy. The team responsible for the strategy is run by Deborah Harmon, Co-founder and Co-CEO of Artemis, and Alex Gilbert, Co-CEO of Artemis, together with Rich Banjo, Co-President, and supported by ten team members managing director and above as well as the full resources of the Firm. This team has been responsible for leading the prior three funds in the strategy and will continue to be the management team for Fund IV. Ms. Harmon, Mr. Gilbert, and Mr. Banjo have all been with the Firm for over 10 years and have 39, 27, and 21 years of real estate investment experience, respectively.

Fund IV benefits from deal sourcing across the Artemis platform and has an eight-person Investment Committee consisting of Deborah Harmon, Alex Gilbert, Rich Banjo, Chad Patterson, Anar Chudgar, Jim Hurley, Kevin Nishimura, Michael Vu.



## FUND INVESTMENT STRATEGY

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### Investment Strategy

Similar to prior funds, the Manager's investment objective for Fund IV is to create a diversified portfolio that will deliver strong risk-adjusted returns to its investors by making and managing smaller and middle market equity and debt investments in real estate and real estate-related businesses across the United States. The Fund will seek to identify attractive investment opportunities and will invest in mispriced, underperforming, distressed, overvalued, or overlooked investment opportunities where assets or interests may be acquired below perceived market value and/or where the Fund is able to enhance value and mitigate risk through investment structuring and active asset management, including renovating, repositioning, and re-leasing the asset.

Artemis has developed a set of investment themes, many consistent with Funds I through III, that reflect the investment strategy that they will aim to follow when investing in Fund IV. The Manager seeks to be proactive in adjusting and refining the Fund's investment themes as the real estate cycle evolves and as market conditions warrant. The primary themes for the Fund are intended to focus on investment opportunities resulting from situations where Artemis believes it is well positioned to add value:

- **Middle Market Transaction Sizes:** Pursue middle market investments with targeted average equity check sizes of \$30 million, which are thought to be generally too small for larger funds to consider yet beyond the capability of high-net-worth investors, and therefore Artemis may see less competition.
- **Use of Operating Partners / Proprietary Deal Flow:** Utilize strategic relationships and programmatic joint venture platforms that the Manager has had experience and success working with across the US. Artemis believes that their competitive edge lies in their ability to provide capital to operating partners across the risk spectrum, particularly in smaller transaction sizes.
- **Single Asset Acquisitions with Temporary Flaws:** Pursue well-located, institutional-quality assets that suffer from temporary or correctable flaws. Temporary flaws may refer to tenancy, physical attributes, capital structure, market position and/or management. Artemis intends to exploit the pricing inefficiencies inherent in these assets and employ asset management strategies to correct the flaws and reposition the assets. These strategies may include situations where physical as well as operational changes, such as renovation, repositioning and re-leasing, are required, as well as modifying the capital stack.
- **Distressed Sellers and Unintended Owners Seeking Liquidity or Rescue Capital:** Identify distressed sellers seeking liquidity or who need rescue capital. Unintended owners of real estate, owners of overleveraged assets with upcoming debt maturities, and owner/operators requiring new sources of capital for various enhancements are all potential sources of real estate transactions.
- **Portfolio Acquisitions/Aggregations:** Pursue complex portfolio transactions in an effort to substantially limit the number of competitors that can effectively bid for and manage the underlying assets. Additionally, the Fund may continue the strategy of joint venturing with local operating partners to assemble focused, theme-oriented portfolios of similar assets with sales to REITs.
- **Non-Performing and Discounted Loans; Real Estate Owned ("REO"):** Invest in sub-performing, non-performing and heavily discounted performing loans. Although not abundant currently, Artemis believes distressed loan acquisitions may provide opportunities for the Fund to invest in fundamentally high-quality, well-located real estate that may not otherwise be available at attractive entry points in the capital structure.
- **Investing Throughout the Capital Stack:** Identify opportunities to provide mezzanine debt and/or preferred equity collateralized by high quality sponsors and infill projects. With a pullback of balance sheet lenders lending at higher loan-to-value ratios, Artemis believes that there will continue to be high demand for high yielding mezzanine debt and preferred equity from developers that are focused on retaining long-term control and sponsors looking to recapitalize their partners. The decreasing availability of construction financing and increases in construction costs are creating the opportunity to place attractive subordinate debt on urban infill developments at equity-like returns.

# ARTEMIS REAL ESTATE PARTNERS FUND IV

## NON-CORE REAL ESTATE

Fund IV may also seek to invest in operating companies, publicly traded REITs, and real estate technology solutions where the Manager sees fit for the strategy.

### Target Investment Types

Artemis plans to pursue middle market investments for Fund IV, with an expected average equity check of about \$30 million. The Fund will seek to make a wide range of investment types, including equity in existing assets, new ground-up development projects, and sub-performing, non-performing, or heavily discounted performing loans, among others. The Manager aims to invest across the capital stack and identify opportunities to provide mezzanine debt and/or preferred equity collateralized by high quality sponsors and infill development projects.

The Fund will primarily target assets in the primary property sectors (multifamily, office, industrial and retail), as well as certain niche property sectors (healthcare, hospitality, and self-storage). Artemis anticipates that about 55% to 75% of the Fund will be invested in residential (including multifamily and single family residential) and industrial real estate, 5% to 15% in office properties, and 10% to 20% in niche real estate sectors (including self-storage, cold storage, and manufactured housing). These targets are not rigid, however, and may shift as the market environment continues to evolve.

### Use of Leverage

The maximum portfolio leverage allowed for Fund IV is 65%, measured as loan-to-value. This is consistent with the prior three funds in the strategy and in-line with peers.

### Environmental, Social, and Governance Considerations

Artemis is making conscious and deliberate efforts to become a leader in ESG; they established an ESG committee in 2017 that reports directly to the owners of the Firm. The Firm has been a leader in the “S” portion of ESG since inception, as 50% of employees are women or people of color, and they have a formal DEI committee in place. Artemis invests in both equity and debt positions in their value-add/opportunistic strategy; although it is easier for them to manage asset-level ESG implementations on the equity side, they use the same ESG underwriting process for debt investments, where they evaluate assets and partners and promote ESG considerations during the life of the investment. Considering most day-to-day operations are run by operating partners, the Firm has less control over ESG than a more integrated firm, but NEPC believes the Manager makes deliberate efforts that impact ESG outcomes.

### Expected Fund Investor Base

The Manager anticipates Fund IV to reflect a similar composition of institutional capital as the prior Funds, with the majority to come from public pension plan investors.





# ARTEMIS REAL ESTATE PARTNERS FUND IV

## NON-CORE REAL ESTATE

### FUND ECONOMICS

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#### Management Fee

The management fee is 1.5% on committed capital during the investment period and 1.5% on invested capital afterward.

#### Performance Fee

The Fund will have a Fund-level or “back-ended” carried interest and waterfall structure, as opposed to a “deal-by-deal” distribution waterfall. Net distributable cash available to each Limited Partner (pro rata based on such Limited Partner’s percentage interest in the Fund) will be distributed in the following order of priority:

- a) First, 100% to such Limited Partner until it has received an annual compounded preferred return of 8% per annum, on its unreturned Capital Contributions;
- b) Second, 100% to such Limited Partner until it has received a return of all of its Capital Contributions;
- c) Third, 50% to such Limited Partner and 50% to the General Partner, until the General Partner has received a cumulative distribution equal to 20% of the sum of the distributions made to such Limited Partner; and
- d) Fourth, 80% to such Limited Partner and 20% to the General Partner.

#### Other Fees and Expenses

The Fund shall bear all Organizational Expenses incurred in the formation of the Fund, up to an amount not to exceed \$2 million. The Fund will bear fees of placement agents, if any, subject to the Management Fee otherwise payable being reduced by a like amount.



## **DISCLAIMERS AND DISCLOSURES**

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- Past performance is no guarantee of future results.
- The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.
- Information used to prepare this report was obtained directly from the investment manager, and market index data was provided by other external sources. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- NEPC may provide background information on fund structures or the impact of taxes but you should contact your legal counsel or tax professional for specific advice on such matters.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

In addition, it is important that investors understand the following characteristics of non-traditional investment strategies including hedge funds, real estate and private equity:

1. Performance can be volatile and investors could lose all or a substantial portion of their investment
2. Leverage and other speculative practices may increase the risk of loss
3. Past performance may be revised due to the revaluation of investments
4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms
5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value
6. These funds are not subject to the same regulatory requirements as registered investment vehicles
7. Managers may not be required to provide periodic pricing or valuation information to investors
8. These funds may have complex tax structures and delays in distributing important tax information
9. These funds often charge high fees
10. Investment agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy

# ARTEMIS REAL ESTATE PARTNERS FUND IV

## NON-CORE REAL ESTATE

### APPENDIX: ESG INTEGRATION EVALUATION

General Fund Information	
<b>Firm</b>	Artemis Real Estate Partners, LLC
<b>Fund</b>	Artemis Real Estate Partners Fund IV
<b>Strategy Type</b>	Diversified non-core real estate
<b>Diverse-Owned Firm</b>	Yes (woman co-founder and CEO)

ESG Rating
<b>ESG 2</b>
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.

Analyst Opinion
Artemis is making conscious and deliberate efforts to become a leader in ESG; they established an ESG committee in 2017 that reports directly to the owners of the Firm. The Firm has been a leader in the “S” portion of ESG since inception, as 50% of employees are women or people of color, and they have a formal DEI committee in place. Artemis invests in both equity and debt positions in their value-add/opportunistic strategy; although it is easier for them to manage asset-level ESG implementations on the equity side, they use the same ESG underwriting process for debt investments, where they evaluate assets and partners and promote ESG considerations during the life of the investment. Considering most day-to-day operations are run by operating partners, the Firm has less control over ESG than a more integrated firm, but NEPC believes the Manager makes deliberate efforts that impact ESG outcomes.

Evaluation Criteria and Commentary	
Firm-Level	
<b>Firm-Level Commitment</b>	Artemis has a formal ESG Policy that outlines the firm’s intentions, goals, and guidelines. The Policy is revised and modified on an annual basis as the Firm increases efforts and establishes new goals. The Firm has been taking steps toward signing on to GRESB, and is finalizing efforts to sign onto the UN PRI.
<b>Resources</b>	The Firm’s ESG committee comprises eight investment professionals; five members are broken out into each of the E, S, and G focuses, and three are responsible for oversight. The Firm also employs a DEI committee. Recently, Artemis hired two employees whose significant focuses are to work with partners on “E” considerations.
<b>Engagement Policies</b>	Most ESG considerations are more material in the diligence process of an asset, considering the majority (95%) of day-to-day operations at the asset level are run by Artemis’ investment partners on the deals they execute.
Strategy-Level	
<b>Overview</b>	The value-add/opportunistic strategy adheres to the overall ESG guidelines and Policy that the Firm publishes, and the Firm-wide ESG committee is responsible for this strategy. In general, strategy ESG initiatives and dedicated employees are universal across all strategies that Artemis offers.
<b>Integration Process</b>	ESG is considered throughout the entire investment process for each asset, from initial screening to asset management. During the process, the team assesses ESG risks involved with assets and considers ways to improve their footprints. Artemis aims to promote and influence ESG implementations by engaging the controlling entity during the life of the investment.
<b>Resources</b>	The Firm utilizes third parties to monitor and evaluate key ESG metrics on their assets. They are currently using Measurabl and SOL VISTA to track this data, which is part of their process to obtain information in order to sign onto GRESB and the UN PRI. Artemis is finalizing efforts to sign onto the PRI, and believes they will be able to sign onto GRESB in 2023.



(US\$ in Millions)

**Fund-Level Returns and Vintage Year Benchmarking Analysis**

<b>Fund-Level Returns</b>									
Fund	Vintage Year	Capital Committed	Capital Funded	Reported Value	Amount Distributed	Total Value, Net of Carry	TVPI Multiple	DPI Multiple	Current Net IRR
Artemis Real Estate Partners Fund I	2012	\$436.0	\$509.4	\$20.2	\$814.9	\$831.5	1.6x	1.6x	24.0%
Artemis Real Estate Partners Fund II	2015	\$580.0	\$635.1	\$120.4	\$712.2	\$812.4	1.3x	1.1x	10.0%
Artemis Real Estate Partners Fund III	2018	\$1,010.0	\$722.2	\$846.8	\$251.1	\$1,025.7	1.4x	0.3x	35.0%

**Vintage Year Benchmarking Analysis**

<b>Net IRR</b>					<b>Vintage Year Benchmark Net IRR Comparison</b>			
Vintage Year	Fund	Current Net IRR	Quartile		# Funds	Upper Quartile	Median	Lower Quartile
2012	Artemis Real Estate Partners Fund I	24.0%	1		41	15.5%	11.5%	7.4%
2015	Artemis Real Estate Partners Fund II	10.0%	3		46	16.5%	12.2%	8.9%
2018	Artemis Real Estate Partners Fund III	35.0%	1		44	26.2%	20.1%	10.6%
<b>DPI Multiple</b>					<b>Vintage Year Benchmark DPI Multiple Comparison</b>			
Vintage Year	Fund	DPI Multiple	Quartile		# Funds	Upper Quartile	Median	Lower Quartile
2012	Artemis Real Estate Partners Fund I	1.6x	1		41	1.5x	1.3x	1.0x
2015	Artemis Real Estate Partners Fund II	1.1x	2		46	1.3x	0.9x	0.6x
2018	Artemis Real Estate Partners Fund III	0.3x	3		44	0.7x	0.4x	0.1x
<b>TVPI Multiple</b>					<b>Vintage Year Benchmark TVPI Multiple Comparison</b>			
Vintage Year	Fund	TVPI Multiple	Quartile		# Funds	Upper Quartile	Median	Lower Quartile
2012	Artemis Real Estate Partners Fund I	1.6x	2		41	1.6x	1.5x	1.3x
2015	Artemis Real Estate Partners Fund II	1.3x	4		46	1.7x	1.4x	1.4x
2018	Artemis Real Estate Partners Fund III	1.4x	2		44	1.6x	1.4x	1.2x

Note: Benchmark data as of 03/31/2022. Benchmark is the Cambridge Associates Thomson One US Value-Add & Opportunistic Closed-End Real Estate fund benchmark.



# Artemis Real Estate Partners Fund IV

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State of Connecticut  
Investment Advisory Council (IAC)

September 2022

**CONFIDENTIAL**

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Interests in Artemis Fund IV will be illiquid, as there is no public market for such interests and no such market is expected to develop in the future. The interests will be subject to restrictions on transferability and resale and may not be transferred or resold except as permitted under the Securities Act of 1933 and applicable state securities laws.

In considering any prior performance or investment history information that may be contained in this presentation, prospective investors should understand that such information is neither a guarantee nor indicative of the future performance or investment returns of any Artemis sponsored investment vehicles future results, and actual events or conditions that will impact a future vehicles performance may not be consistent with, and may differ materially from, historical events or conditions. Additionally, this document contains certain information about previous real estate investments made by investment vehicles managed by Artemis or its affiliates. This information is included for discussion purposes only solely to illustrate the investment process and strategies which have been used by Artemis. Such information reflects Artemis’ assessment of the respective investments and related investment and improvement initiatives, are not representative of prior investments as a whole, and are not intended to reflect actual performance or project future performance. Similar investment opportunities may not be available to any future Artemis sponsored investment vehicle.

Please refer to the Endnotes, which contains important explanatory information regarding Artemis sponsored investment vehicle returns and performance metrics used in this document.

Any targets, forecasts and projections contained herein have been prepared for illustrative purposes only. Investors should bear in mind that target returns and/or projected performance of Artemis investments or fund performance is not necessarily indicative of future results, and there can be no assurance that these target and/or projected returns will be achieved or that Artemis sponsored investment vehicles will achieve comparable results or pursue similar investments. Target and/or projected returns are derived from Artemis’ current business plans for each investment, which contain a number of assumptions (including future projections of market rents, capitalization rates, indebtedness and development plans) that Artemis believes are reasonable under the circumstances. Not all relevant events or conditions may have been considered in developing such assumptions. However, the actual realized returns on unrealized investments will depend on, among other factors, future operating results, interest rates, economic and market conditions, and the value of the underlying assets at the time of disposition, any related transaction costs and the timing and manner of disposition, all of which may differ materially from the assumptions on which target returns and / or projections are based. An investor must realize that he or she could lose all or a substantial amount of his or her investment with Artemis.

There is no guarantee that the objectives or targets of Artemis or its affiliates that may be referenced in this presentation related to investments can be achieved or realized and there can be no assurance that any investment opportunities will materialize.

Statements contained herein (including those relating to current and future market conditions and trends in respect thereof) that are not historical facts are based on current expectations, estimates, forecasts, opinions and beliefs, and may constitute “forward-looking statements,” which can be identified by the use of forward-looking terminology such as “may,” “will,” “should,” “expect,” “anticipate,” “target,” “estimate,” “intend,” “continue,” or “believe,” or other variations thereon or comparable terminology. Due to various risks and uncertainties, actual events or results may differ materially from those reflected or contemplated in such forward-looking statements. Forward-looking statements are not a promise or guaranty about future events. Artemis and its affiliates have no obligation to disseminate any updates or revisions to forward looking statements in the event of any change in events, conditions or circumstances.

Artemis is a registered investment advisor. Registration does not imply a certain level of skill or training.





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Artemis Platform & Value-Add Fund Series

Value-Add Investment Themes & Opportunities

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- Appendix B: Responsible Investing & Corporate Citizenship

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## Artemis Overview

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Artemis' growth has been disciplined and intentional, all while maintaining a collaborative, diverse, and performance-driven culture.

**12+**  
Year Track  
Record

**\$8.2BN**  
Equity  
Raised<sup>1</sup>

**~95%+**  
Investor Re-  
Up Rate<sup>2</sup>

Artemis' diversified portfolios have delivered consistent risk-adjusted performance across four business lines since 2011.

**~\$12BN**  
Gross  
purchase  
price of  
real estate

**300+**  
Transactions  
across US

**~90%**  
Realizations  
exceeding  
target fund  
returns<sup>3</sup>

Data as of August 2022 unless otherwise noted. Past performance is not indicative of future results. Actual results may vary.

1. Total amount of capital committed since inception across all Artemis vehicles.

2. Reflective of institutional investors across all vehicles eligible for re-up, excludes HNWs and new investors to the Artemis platform within the last 24 months.

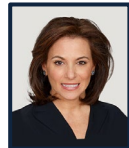
3. Based on target Fund net returns. Full track record available upon request.

## Cycle Tested & Experienced Team

- ✓ Senior executive team has an average investment management experience of ~25 years
- ✓ Majority of the Artemis senior team has worked together for the past 20 years
- ✓ Diverse team of ~70 people across four offices\*:
  - Washington, DC (Headquarters)
  - New York, NY
  - Los Angeles, CA
  - Atlanta, GA
- ✓ ~60% of employees are women and/or minorities\*
- ✓ Broad Promote Sharing

*Employees senior associate and above are eligible*

## Artemis Senior Team



**Deborah Harmon**

Co-Founder & Co-CEO

- Office Location: *Washington, DC*
- Years of Real Estate Experience: 36
- Education: *The Wharton School, University of Pennsylvania, MBA*



**Alex Gilbert**

Co-CEO

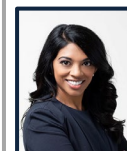
- Office Location: *Washington, DC*
- Years of Real Estate Experience: 30
- Education: *Harvard University, MBA*



**Rich Banjo**

Co-President

- Office Location: *Los Angeles, CA*
- Years of Real Estate Experience: 22
- Education: *University of Michigan, BBA*



**Anar Chudgar**

Co-President

- Office Location: *New York, NY*
- Years of Real Estate Experience: 19
- Education: *The Wharton School, University of Pennsylvania, BS*



**Gina Baker Chambers**

Senior Managing Director

- Office Location: *Washington, DC*
- Years of Real Estate Experience: 18
- Education: *Columbia Business School, MBA*



**Michael Vu**

Senior Managing Director

- Office Location: *Washington, DC*
- Years of Real Estate Experience: 16
- Education: *Princeton University, BA*



**Jim Hurley<sup>(a)</sup>**

Senior Managing Director & General Counsel

- Office Location: *Washington, DC*
- Years of Real Estate Experience: 16
- Education: *Santa Clara University, JD/MBA*



**Chad Patterson**

Senior Managing Director & CFO

- Office Location: *Washington, DC*
- Years of Real Estate Experience: 20
- Education: *Harding University, BBA*



**Kelly Sheehy**

Senior Managing Director

- Office Location: *Atlanta, GA*
- Years of Real Estate Experience: 19
- Education: *University of Virginia, BS*



**Kevin Nishimura**

Senior Managing Director

- Office Location: *Washington, DC*
- Years of Real Estate Experience: 20
- Education: *Georgetown University, BS*

## Artemis Resources\*

Investment Professionals

~40 Professionals

Accounting / Operational

~10 Professionals

Client Servicing / Admin Support

~15 Professionals

Legal / Compliance / Risk

~4 Professionals

Data as of August 2022 unless otherwise noted.

\*Includes employees of Artemis Real Estate Partners, Great Falls Advisors and CRE Legal Advisors.

(a) Employee of CRE Legal Advisors ("CRE"). CRE provides legal services exclusively to Artemis and its investment vehicles.

## Four Primary Business Lines

Artemis invests across the risk spectrum, product type, and geography throughout the US.

**\$8.2BN**

Total Equity Raised

**Value-Add  
Fund Series**

**\$3.4BN**

Total Equity  
Raised

*Target 14-15% Net IRR<sup>2</sup>*

**Core / Core  
Plus<sup>1</sup>**

**\$2.4BN**

Total Equity  
Raised

*Target 9-13% Net IRR<sup>2</sup>*

**Healthcare**

**\$1.6BN**

Total Equity  
Raised

*Target 11-14% Net IRR<sup>2</sup>*

**Core Debt**

**\$800MM**

Total Equity  
Raised

*Target 6-9% Net IRR<sup>2</sup>*

**Our  
Clients**

Public  
Pension

Private  
Pension

Endowments  
&  
Foundations

Insurance

Taft Hartley

HNW /  
Family  
Office

Fund of  
Funds

Data as of August 2022. Please refer to the Endnotes for a complete description of the returns and performance metrics used herein. Inclusive of all Artemis vehicles including the New York Common Separate Account advisory assignment. There is no guarantee that the investment objective or target returns can be achieved. Past performance is not indicative of future results. Actual results may vary.

1. Inclusive of MWBE Spruce Program. See endnote 4 for a full description of the MWBE Spruce Program.

2. Target reflective of target returns for most recent vehicle included in each strategy.

Artemis has purchased approximately \$12BN in gross purchase price of real estate across the US since inception.

	Investing Since	Transactions	Gross Purchase Price (\$MM)	Percent Realized	Average Leverage <sup>1</sup>
Value-Add	2011	160+	\$5,119	73% <sup>2</sup>	52%
Core-Plus	2012	80+	3,614	56%	49%
Healthcare	2016	30+	1,515	37%	44%
Core Debt	2021	10+	922	0%	--
Diverse Manager SMA	2016	10+	762	13%	50%
Total Value			\$12BN	59%	

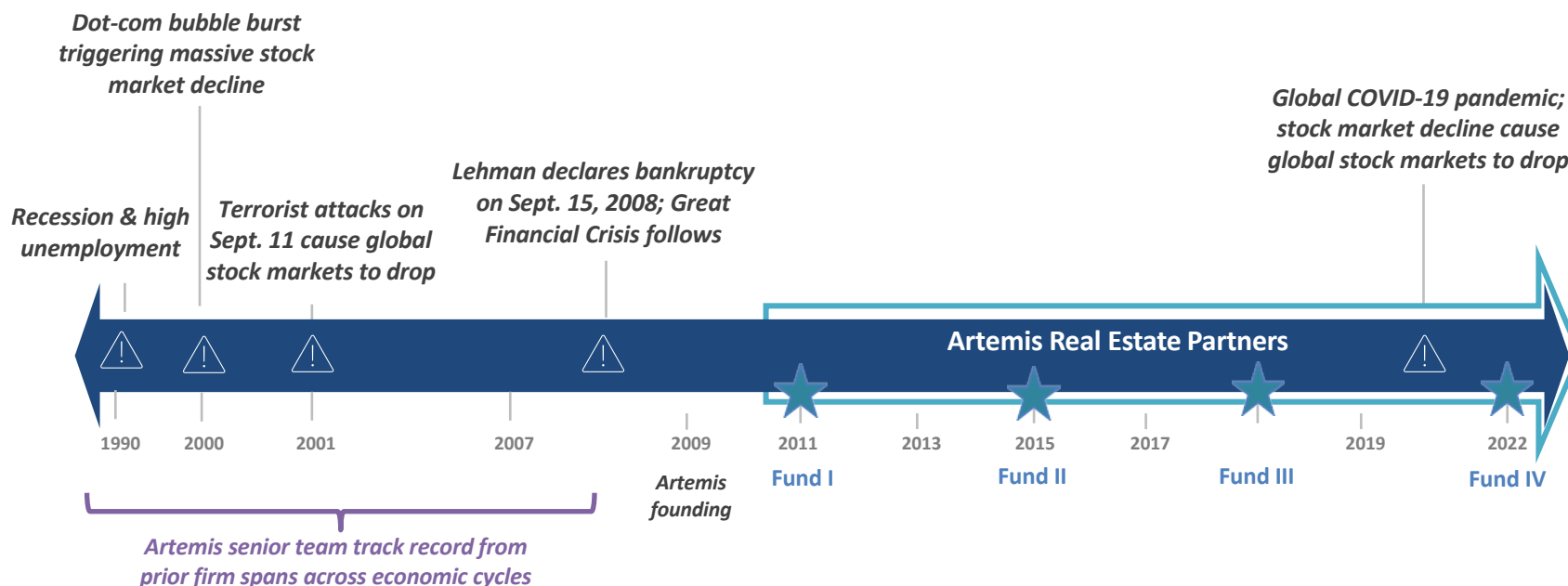
Data as of June 30, 2022. Past performance is not indicative of future results. Diversification does not assure a profit or protect against loss in a declining market. Please refer to Endnote 3 for further information regarding "synthetic" portfolios as well as Endnote 5 for further details regarding percent realized. Actual results may vary.

1. Excludes Artemis Fund IV, Artemis Income & Growth Sidecar, Artemis Healthcare II and Artemis Healthcare II co-invest as the funds are in the early stages of their life cycle and have deployed less than 75% of committed capital as of June 30, 2022. Average leverage represents the average of peak leverage for each investment and weighted by committed equity as of June 30, 2022. For Artemis Fund IV and Healthcare Fund II Co-Invest, actual Fund leverage at June 30, 2022 is shown.

2. Excludes Artemis Fund IV as the fund is in the early stages of its life cycle as of June 30, 2022.

# VALUE-ADD FUND SERIES TRACK RECORD ACROSS ECONOMIC CYCLES

The Artemis senior team has experience investing across multiple cycles and has a demonstrated track record pivoting across product type, geography and the capital stack during periods of economic uncertainty.



	Investing Since	Transactions	Gross Purchase Price	Average Leverage <sup>1</sup>
Value-Add Fund Series	2011	161	\$5.1BN	52%

Data is as of June 30, 2022. Past performance is not indicative of future results. Please refer to Endnote 3 for further information regarding "synthetic" portfolios. Full track record available upon request. Only investors that have invested in each of Funds I-IV may benefit from the returns and other metrics presented herein. Actual results may vary. Diversification does not assure a profit or protect against loss in a declining market.

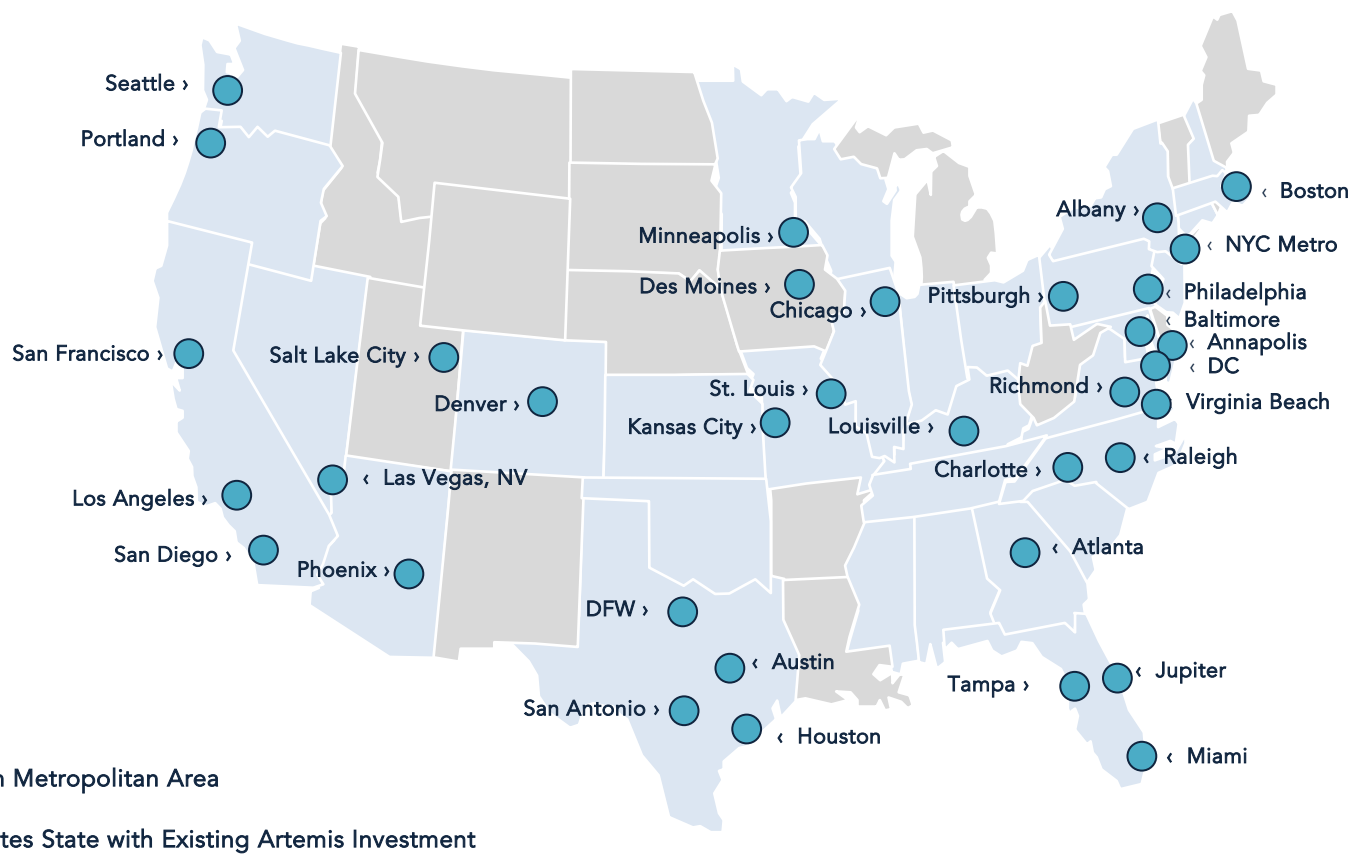
1. Excludes Artemis Fund IV as the fund is in the early stages of its life cycle and has deployed less than 75% of committed capital as of June 30, 2022.

# BROAD NETWORK OF OPERATING PARTNERS

Benefit from Regional and Local Expertise

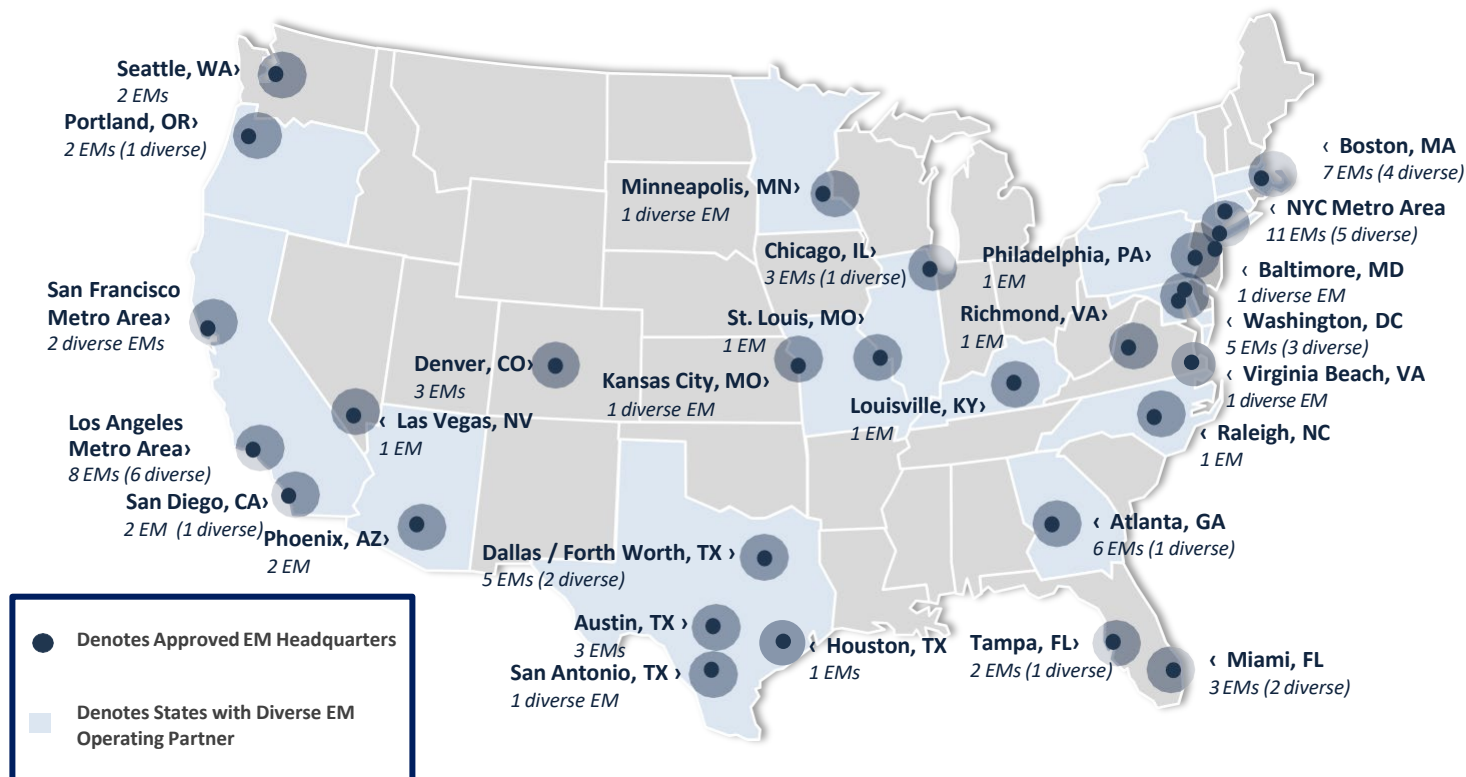
Artemis typically controls all decisions in joint venture partnerships.  
60%+ of transactions across all vehicles have been done with repeat operating partners.

## 120 OPERATING PARTNER HEADQUARTERS IN ~35 MSAs



# REPRESENTATIVE SAMPLE OF DIVERSE & EMERGING MANAGERS

Network of 75+ emerging manager operating partners, of which 46% are diverse-owned firms.



Data as of June 30, 2022. Photos represent selection of diverse emerging manager partners approved for the Income & Growth Strategy. There is no guarantee that the investment objective or target returns can be achieved. Past performance is not indicative of future results. Actual results may vary. Diversification does not assure a profit or protect against loss in a declining market.



## Artemis Platform & Value-Add Fund Series

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# VALUE-ADD FUND SERIES HIGHLIGHTS

## Demonstrated Track Record

Artemis' value-add fund series has a demonstrated track record across property type, geography, and the capital stack.



Industrial  
18.3M SF



Single-Family  
1.5K Units



Multi-family  
26K Units



Office  
9.3M SF



Hospitality  
2.2K Keys



Retail  
2.8M SF

Since 2011, Artemis' value-add fund series has made

**161** investments representing:

- **\$5.1 BN** gross purchase price
- **\$2.2 BN** of committed equity
- **\$1.8 BN** of returned proceeds

**115**

*Realizations<sup>1</sup>*

**73%**

*Realized<sup>1</sup>*

**70+**

*Operating  
Partners*

**52%**

*Average  
Leverage<sup>1</sup>*

**4-5 Year**

*Average  
Projected  
Hold Period*

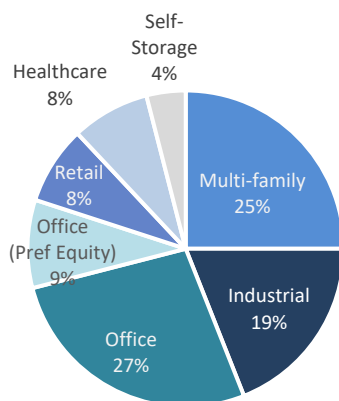
# VALUE-ADD FUND SERIES

## Portfolio Composition – Property Type

Artemis' flagship fund series benefits from the firm's ability to pivot across debt and equity while maintaining a consistent and disciplined approach to underwriting.

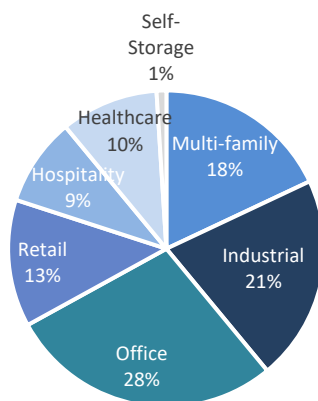
**Fund I**

*(2012 Vintage)*



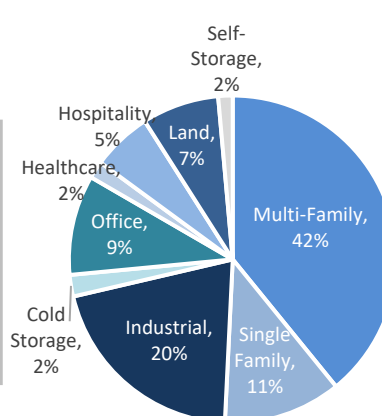
**Fund II**

*(2015 Vintage)*



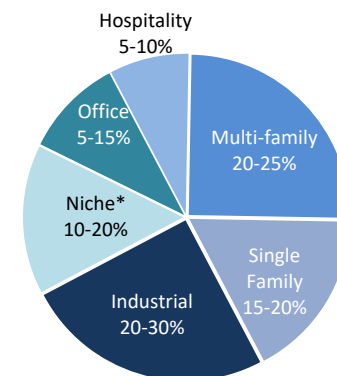
**Fund III**

*(2018 Vintage)*



**Fund IV Target**

*(2022 Vintage)*



\*Niche includes but is not limited to self-storage, cold storage, and manufactured housing

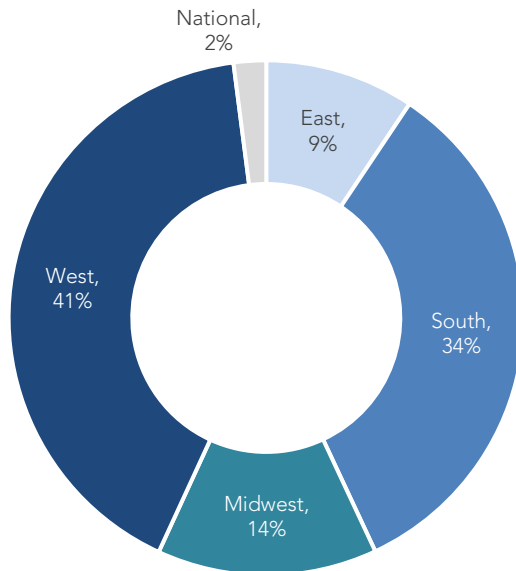
# ARTEMIS FUND III SNAPSHOT

## Tactically Diversified

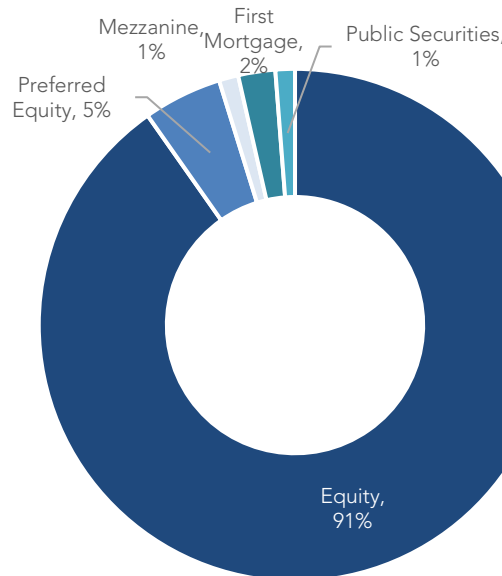
### Portfolio Characteristics

(% of Committed Equity)

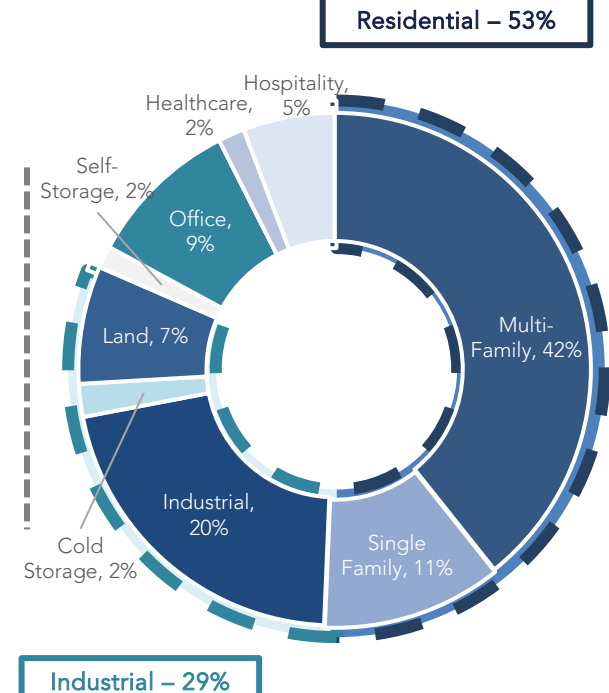
#### Geography



#### Investment Type



#### Property Type



**\$2.4BN**  
Gross Purchase  
Price

**47**  
Investments

**4**  
Recent Realizations/In  
the Market/Under  
Contract

**14**  
Realized/Partially  
Realized

Data as June 30, 2022. There is no guarantee that the investment objective can be achieved. Past performance is not indicative of future results. Actual results may vary. Diversification does not assure a profit or protect against loss in a declining market. Strategy percentages are shown as a percentage of total fund transactions and are approximate.

Approximately 50% of Artemis Fund III (2018 vintage) is realized or in the process of being realized.



## Residential



### Kirkland, WA

- **Committed Equity:** \$101MM
- **Gross Purchase Price:** \$115MM (\$281K/Unit)
- **Gross Sale Price:** \$242MM (\$592K/Unit)
- 409-unit, 2021-vintage, mid-rise apartment community situated in the Kirkland submarket of Seattle, WA



## Industrial



### Memphis, TN

- **Committed Equity:** \$17MM
- **Gross Purchase Price:** \$50MM (\$50/SF)
- **Gross Sale Price:** \$99MM (\$92/SF)
- 2021-vintage, 1.0M SF state-of-the-art bulk distribution center well located in Memphis, TN



## Aggregation Strategy



### Various

- **Committed Equity:** \$55MM
- **Gross Purchase Price:** \$169MM (\$209K/Unit)
- **Gross Sale Price:** \$168MM (\$260K/Unit)\*
- Rental townhome communities across the Southeast



## Industrial



### Tanner, AL

- **Committed Equity:** \$6MM
- **Gross Purchase Price:** \$15MM (\$71/SF)
- **Gross Sale Price:** \$25MM (\$118/SF)
- Class A, shallow bay warehouse proximate to regional transportation hubs and an auto-manufacturer

Note: Please refer to the Endnotes for important assumptions and disclosures related to performance. Transactions presented herein are examples of product types in which Artemis Fund IV may pursue. Such examples are Artemis Fund III investments that Artemis Fund IV will not invest in. Similar investments may not be available for Artemis Fund IV. Investments selected as representative four most recent realizations by product type within the last 12 months. Net returns are not applicable for individual investments. Past performance is not indicative of future results. There is no guarantee that the investment objective or target returns can be achieved. Full track record available upon request.

\* Sale price is reflective of the five realized properties in the Rental Townhome Portfolio as of June 30, 2022.

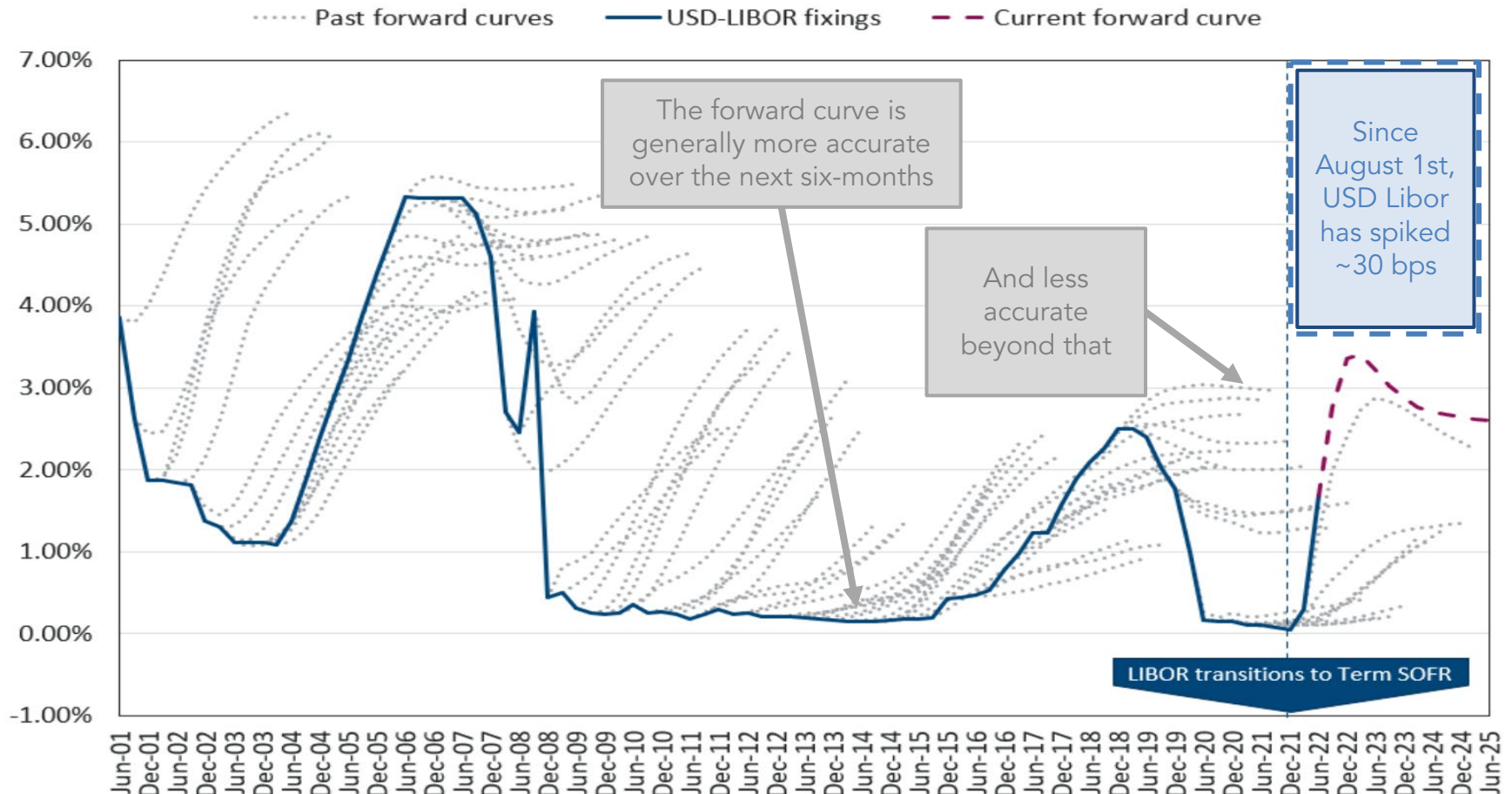
## Value-Add Investment Themes & Opportunities

---

# PREDICTIONS ARE NOT ALWAYS GUARANTEED

Over the past two decades, the market has overestimated the pace and likelihood of interest rate hikes.

## 1 Month USD Libor vs. Historical Forward Curve



Data as of June 30, 2022. The market information contained herein was obtained from sources that Artemis deems reliable and, while thought to be correct, is not guaranteed by Artemis. There is no guarantee that the investment objective can be achieved. Past performance is not indicative of future results. Actual results may vary.

1. <https://www.chathamfinancial.com/insights/libor-forward-curves-historical-accuracy>

# FUND IV

## Themes in Today's Market

Initial Fund IV strategies will be a continuation of Fund III.  
As market volatility persists, investment strategies will evolve.

### Thematic Factors

- Housing shortage
- E-commerce
- Capital inflows to niche sectors



INDUSTRIAL



NICHE



AGGREGATION



RESIDENTIAL

### Situational Distress

- Rising inflation & interest rates
- Uneven economic recovery
- Aggressive lending



HOSPITALITY



OFFICE



STRUCTURED



## Extreme Volatility in the Market



Russia invasion of Ukraine



China maintains zero-Covid policy



Inflation at highest levels in decades



Consumer uncertainty



Onshoring accelerated exponentially



Significant housing shortage



Political uncertainty / Midterm elections

## Investment Strategies

### THEMATIC

#### INDUSTRIAL

- Rental rates continue to exceed expectations

#### RESIDENTIAL

- Favorable supply / demand trends after reduced production post-GFC

#### NICHE

- Increasing demand for cold-storage and manufactured housing

#### AGGREGATION

- Portfolio premiums for hard-to-scale products

### DISTRESSED

#### NEGATIVE LEVERAGE

- Increasing capital improvement costs

#### RATE HIKES

- Three to five more rate hikes expected in 2022; opportunity to provide "rescue financing"

#### PRICING VOLATILITY

- Private markets take time to correct; will look for ways to increase cash flows opportunistically

#### CAP RATE EXPANSION

- Without knowing the discount rate or the risk-free rate, difficult to predict cap rates

Artemis seeks to build a **tactically diversified portfolio**, with Artemis Fund IV anticipated to benefit from similar **thematic and distressed** investment opportunities as Artemis Fund III.

# WHY ARTEMIS FUND IV?

## Opportunity Highlights

### HIGHLIGHTS

- Cycle tested experienced team and track record pursuing middle market transactions requiring \$20 - \$50 million of equity
- Consistent and disciplined investment approach led by senior team of 13 managing directors, 7 of whom have been together 16 years, averaging 21 years of industry and distressed expertise
- Power of the cross promote – historically, over 60% of transactions sourced with existing relationships
- Deep bench of operating partners, established and emerging, with demonstrated, realized track records

### FIRST MOVER ADVANTAGE

- Artemis' ability to invest throughout the capital stack and across product types provides a competitive advantage; early mover towards single family rental townhomes and tactically overweight industrial and multi-family
- Artemis believes it is well positioned to capitalize on the mispricing, disruption and distress caused by the global COVID-19 pandemic and related economic impacts

Early on, Fund IV will be a continuation of Fund III



### Fund IV Investment Period

Anticipate opportunity to pivot



As the market evolves, Artemis anticipates having the opportunity to pivot to distressed opportunities

## Appendix A: Operating Partner Case Study

---

# DIVERSE & EMERGING MANAGER SPOTLIGHT

Mid-Atlantic based, repeat, diverse manager that is a privately held, institutionally capitalized real estate investment firm investing in industrial, retail, and office assets.

**\$405.2MM**

Gross  
Purchase Price

**4**

Vehicles

**6**

Investments

**4**

Realizations

## Investments to Date Across Multiple Vehicles

*Increasing  
exposure  
to other asset  
classes*



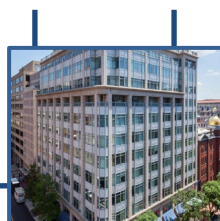
2015 2016 2017 2018 2019 2020 2021 2022



Investment A  
(NNN Retail)  
GPP: \$80.2MM



Investment C  
(Industrial)  
GPP: \$12.8MM



Investment E  
(Office)  
GPP: \$154.5MM

Investment B  
(Industrial)  
GPP: \$42MM



Investment D  
(Industrial)  
GPP: \$44.6MM



Investment F  
(Industrial)  
GPP: \$65MM



### Income & Growth Realization: Investment F in Baltimore, MD



**Total Committed Equity:**  
\$29.5MM

**Gross Purchase Price:**  
\$65.0MM

**Sale Price:** \$98.3MM

**JV Ownership:** 98%

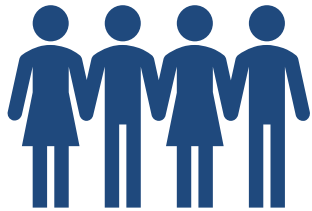
Acquired 1998-vintage, 900K SF, Class A distribution facility in 2020 and sold in June 2021.

## Appendix B: Responsible Investing & Corporate Citizenship

---

## Artemis' Guiding DEI Principles

### WALKING THE TALK – BUILDING A DIVERSE FIRM



- **One of the 1<sup>st</sup> majority-woman-owned** real estate investment management firms.
- **Approximately 60% of firm team members** are women and/or minorities from top to bottom and across function.<sup>1</sup>
- **Dedicated analyst program** diversifying entry-level talent and hiring from undergrad.

### TRANSFORMATIONAL ACCESS TO CAPITAL AND RESOURCES



- **Purchase over \$7BN in assets**, based on gross purchase price, across product types and the risk spectrum through Artemis' network of Emerging and diverse Managers.<sup>2</sup>
- **Competitive advantage** through scale of emerging and diverse partner network.

Past performance is not indicative of future results. Actual results may vary. Such recognitions are not indicative of Artemis' future performance.

1. Includes team members of Artemis Real Estate Partners, Great Falls Advisors, and CRE Legal Advisors.

2. Gross purchase price inclusive of transactions with emerging and diverse partners across the Artemis platform. Artemis defines MWBE firms as 25% or more MWBE ownership as of June 30, 2022; excluding Artemis direct investments.

Since inception, Artemis has been actively involved in creating leading talent pipeline programs through numerous industry partnerships.



Partnership to serve as mentors to Toigo Fellows and to support the Foundation.

**1,300** fellows to date

**20+** MBA programs reached

**30+** years of identifying and preparing top talent



Partnership to host interns at Artemis HQ. In 2021, Urban Alliance and PREA created the Residential RE Property Management and Leasing Pathway.

**35** interns in 2021 pilot year

**2x** program growth projected for 2022



Partnership to source candidates for Artemis' Summer Enrichment Program.

**2013** Artemis accepted first SEO intern

**76** students participated in Artemis SEP to date



Partnership started in 2017 with SEO to create real estate curriculum for undergraduates.

**\$18MM+** raised

**1,000** students

**83%** received real estate full-time offers

2009

2012

2013

2017

Timeline indicates start year of respective partnership; partnerships organized in chronological order based on the start year of the partnership as noted on the timeline. Past performance is not indicative of future results. Actual results may vary. Such recognitions are not indicative of Artemis' future performance and the above should not be interpreted as an organization's support of Artemis.

# COMMITMENT TO ESG EXCELLENCE

Seek to Integrate Performance and Impact

Artemis was founded with the vision to be a force multiplier for both performance and purpose, and was built on a foundation of performance, trust, and transparency. We aim to operate with the utmost standards of integrity and fiduciary discipline and believe that corporate citizenship and responsible investing creates long-term value for our investors.

Environment	Social	Corporate Governance
<ul style="list-style-type: none"><li>✓ Value sustainability, safety, and compliance.</li><li>✓ Strive to implement initiatives to reduce energy and water consumption as well as improve waste management both at the asset level and across the portfolio.</li><li>✓ Develop and modify ESG standards and practices to remain current.</li></ul>	<ul style="list-style-type: none"><li>✓ Commit to investing in and promoting workplace diversity and inclusion.</li><li>✓ Target strategic non-profit and philanthropic partnerships to increase diversity across the real estate industry.</li><li>✓ Consider the impact of investments on local communities and society.</li></ul>	<ul style="list-style-type: none"><li>✓ Follow strict policies to ensure oversight and control for audit, risk management, cybersecurity, financial crime and conflicts of interest.</li><li>✓ Demonstrate transparency of investment activities to investors.</li><li>✓ Execute Responsible Contractor Policy.</li></ul>

## Mobilizing the Artemis Team

- Artemis integrates its ESG Policy throughout the investment lifecycle of assets as commercially reasonable. During the evaluation of a prospective joint venture operating partner or investment, the Artemis investment team considers ESG risks and opportunities and documents considerations in the investment committee memorandum.
- Artemis' cross-functional ESG Committee hosts an annual seminar for all employees to update the firm on ESG achievements, best practices, and implementation, in addition to annual trainings on financial compliance policies, harassment, cybersecurity and additional seminars on ESG topics.
- The firm conducts outreach to all joint venture operating partners on ESG issues and Artemis policy, conducts select follow-up discussions on ESG implementation and practices, and distributes its ESG policy to all investors and operating partners.



## Endnotes

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- (1) **Target Returns:** The target returns are indicative of Artemis' internal transaction analysis regarding outcome potentials. They are based on Artemis' current view in relation to future events and financial performance of potential investments and various estimations and base case assumptions made by Artemis, including estimations and assumptions about events that have not occurred. While Artemis believes that these assumptions are reasonable under the circumstances and consistent with the fund terms, including expected hold period and life of the fund, they are subject to uncertainties and changes.
- (2) **Committed Equity:** represents the aggregate capital invested in, and committed to, such investment as of June 30, 2022, except as noted, and is calculated as the sum of the negative monthly cash flows (actual and projected) over the investment's actual and/or projected hold period, and, to the extent leverage was incurred or projected after acquisition, such leverage is deducted from the sum of the negative monthly cash flows (thereby reducing the investment's overall Committed Equity number).
- (3) **Synthetic portfolios:** These "synthetic" sector "portfolios" (e.g., depicting only value-add, healthcare or income & growth investment strategy related investments) are for illustrative purposes only, for the benefit of prospective investors who have been furnished with this presentation. Artemis believes such terms provide a meaningful basis for assessing its value-add investment performance and a means for prospective investors to understand what an investor in an actual pooled investment vehicle consisting solely of the portfolio companies presented in such portfolio could have received as gross returns for purposes of the performance information on this slide. Such performance will also be subject to various factors, including the performance of other investments in a given vehicle, the fees and expenses charged with respect to such vehicle the ability to source other investment opportunities, all of which will have a material impact on the performance information presented.
- (4) **Artemis discretion in the Artemis MWBE Spruce Program** is limited to transactions with operating partners that are at least 51% owned and controlled by women, minorities and/or persons with disabilities as defined by the Illinois pension code. For the first four years of the Artemis MWBE Spruce Program, the vehicle focused on lower risk, more core-like, stabilized small and middle-market opportunities with a cost of capital previously unavailable to many of our existing manager relationships. During this period, the Artemis MWBE Spruce Program made 10 investments, two of which are mezzanine positions that were originated in December 2016 and November 2018, respectively. Consequently, the two mezzanine deals reflect the return profile of a historically core-like portfolio; however, beginning with the 2020 allocation, the Artemis MWBE Spruce program is focused on identifying opportunities a more core-plus light return profile. On a go forward basis, the Artemis MWBE Spruce Program will target a minimum 11% net IRR while upholding the "best ideas" mandate to make equity and debt investments alongside diverse emerging manager operating partners.
- (5) **Percent realized:** Is calculated as total realized investments over total investments as of June 30, 2022.

## Endnotes

In considering the performance information contained in this presentation regarding investments made by Artemis sponsored investment vehicles, prospective investors should bear in mind that past or expected performance of these investments is not indicative of future results, and there can be no assurance that investment vehicles will achieve similar returns or that the expected returns will actually be achieved.

There can be no assurance that return objectives of Artemis sponsored investment vehicles will be achieved or that substantial losses will be avoided. Gross IRRs as reflected in this memorandum consist of actual and estimated internal rates of return presented on a gross basis without reduction for management fees, carried interest distributions or operating and transaction costs. Artemis sponsored investment vehicles expect to pay management fees and General Partner carried interest distributions and bear operating and transaction costs that are likely to substantially reduce returns to investors.

All performance results presented herein are unaudited and have been prepared for informational purposes only.

## IMPACT OF COVID-19 PANDEMIC

The rapid development and fluidity of this situation precludes Artemis from providing any meaningful prediction as to the ultimate impact of COVID 19 on the unrealized investments presented herein. However, all prospective investors should be aware that the projected return information reflected herein may differ materially from actual realized returns due to the ongoing impact of COVID 19. These projections may be adjusted at a later date to reflect the ongoing impact of COVID-19 to the extent practical.

# Contact

---

ARTEMIS REAL ESTATE PARTNERS, LLC  
5404 Wisconsin Avenue Suite 1150  
Chevy Chase, MD 20815

- ARTEMIS INVESTOR RELATIONS  
[InvestorRelations@ArtemisREP.com](mailto:InvestorRelations@ArtemisREP.com)



SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 7, 2022

Members of the Investment Advisory Council ("IAC")

**Re: Consideration of IPI Partners III, L.P.**

Dear Fellow IAC Member:

At the September 14, 2022 IAC meeting, I will present for your consideration an investment opportunity for the Real Assets Fund in the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): IPI Partners III, L.P. ("IPI II" or the "Fund"). This opportunity is sponsored by IPI Partners, a Chicago-based investment firm primarily focused on data centers and to a lesser extent, technology-related real assets (collectively, "Digital Real Estate").

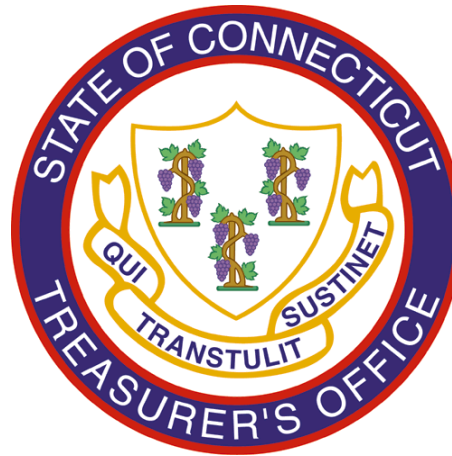
I am considering a commitment of up to \$125 million to the Fund which presents an opportunity for the CRPTF to add exposure to Digital Real Estate, a sector expected to outperform, with a team with broad experience, industry relationships and track record. The CRPTF previously invested \$100 million with IPI Partners II, L.P. IPI III is a closed-end commingled fund that will invest primarily on a global basis. The Fund, led by a team with deep experience in the sector, will focus on value-add and build-to-suit new development for hyperscale enterprise users.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer, and the due diligence report prepared by NEPC. I look forward to discussing these materials at the next meeting.

Sincerely,

A handwritten signature in blue ink, reading "Shawn T. Wooden".

Shawn T. Wooden  
State Treasurer



Full Due Diligence Report  
Chief Investment Officer Recommendation  
September 7, 2022

IPI Partners III, L.P.

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# Executive Summary

## Manager Overview

- Firm: IPI Partners, LLC (“IPI”, or the “Firm”).
- Fund: IPI Partners III, L.P. ( “IPI III”, or the “Fund”).
- General Partner: Iron Point-ICONIQ DC GP III, L.P. (“GP”, or the “General Partner”).
- Year Founded: 2016.
- Offices: Chicago, IL (HQ).
- IPI is equally owned by ICONIQ Capital, LLC (“ICONIQ”) and Iron Point DC Management, LLC, an affiliate of Iron Point Partners, LLC (“Iron Point”), jointly the (“Sponsors.”).
- The Firm is led by Matthew A’Hearn with support from 40 IPI employees.
- AUM: \$5.3 billion.

## Fund Summary

- \$4.0 billion target, no hardcap currently.
- Vertically integrated manager, targeting control equity investments.
- Primarily data centers, and secondly other technology connectivity-related assets (“Digital Real Estate”).
- Geography Target: OECD countries, formal cap of 25% to non-OECD.
- Return Targets: Net IRR 10-14%, Net MOIC of 1.5x-1.7x.
- GP Commit: Lesser of \$40 Million and 1% of aggregate capital commitments.
- Term: 12 years with two one-year extensions (subject to LPAC).
- 1.5% Management Fee, 20% carry, 7% (compounded annually) preferred return, European waterfall.

## Strategic Fit

- Real Estate (“RE”) allocation in the Real Asset Fund (“RAF”).
- Recommended Commitment: up to \$125 million (subject to 20% limit of total fund).
- New/Existing Manager for the CRPTF: Existing, CRPTF previously committed \$100 million to IPI Partners II, LP (“IPI II”) in Jan. 2021.
- Fund Structure: closed-end.
- Real Estate Strategic Pacing Plan:
  - Risk/Return: Opportunistic.
- Current Allocation by Market Value to Total RE as of June 30, 2022: 9.2%.
- Current Allocation to Total RE Long Term Target: 10%.



## Recommendation

- Based on the strategic fit in the Real Estate portion within the RAF portfolio, as well as the due diligence conducted by Pension Funds Management (“PFM”) investment professionals and consultant NEPC, the Chief Investment Officer of the Connecticut Retirement Plans and Trust Funds (“CRPTF”) recommends a commitment of up to \$125 million to IPI Partners III, L.P.

## Investment Considerations

- Extensive industry relationships within the Data Center, and other connectivity-related (collectively “Digital Real Estate”) space, including strong Firm ownership and in-house asset management.
- Favorable Digital Real Estate macroeconomic tailwinds and a global investment strategy focusing on top-tier markets, which is additive to the CRPTF portfolio.

## Firm History

- The Firm was established in 2016 by ICONIQ and Iron Point to execute a control-oriented data-center investment strategy focused on assets that are suited for global, hyperscale enterprise users. For such users, a global footprint, with high redundancy (to better avoid microseconds of downtimes), and strong operating and development capacity is paramount. The Firm was formed to take advantage of the opportunity to be a partner of choice for such entities.
- ICONIQ, headquartered in San Francisco, is a diverse private investment firm that serves as the family office for several prominent technology entrepreneurs. Iron Point, co-headquartered in Washington DC and Dallas TX, is a more traditional real estate private equity manager with a broad investable sector base, previously including data centers.

## Firm Leadership

- Matthew A'Hearn leads a team of 36 investment and operations professionals with broad real asset ecosystem expertise to directly manage the Fund's day-to-day activities, and execute its strategy thru sourcing, underwriting, and managing assets.
- IPI's deal flow and sector expertise is further supported through the sponsorship from ICONIQ and Iron Point, who both provide meaningful connections and insights into the broader technology landscape. Additionally, IPI serves as the only avenue for both of the Sponsors to deploy investment capital into the digital real estate space.

## Firm Governance/Team

- Senior leadership team remains strong and cohesive with no senior level departures on the investment team since IPI II.
- IPI's investment committee decisions are made by majority vote. The Firm's five-person investment committee spans representatives of IPI, ICONIQ and Iron Point, with the intension that diverse viewpoints are complementary. Divesh Makan and Jeffrey Felder stand on behalf of ICONIQ, Thomas Lynch and William Jane, on behalf of Iron Point, and Matthew A'Hearn is the representative for IPI.

# IPI Partners Team

Office Of The State Treasurer  
Pension Fund Management

## DEVELOPMENT



**Luke Gilpin**  
Director



**Sean Ivery**  
Managing Director



**Richard Redstone**  
Director, EMEA

+ 4 Vice Presidents  
+ 12 Associates

## IPI INVESTMENT COMMITTEE

ICONIQ



**Divesh Makan**  
Partner



**Jeff Felder**  
Head of Real Estate

IPI



**Matt A'Hearn**  
Partner

IRON POINT  
PARTNERS



**Bill Janes**  
Managing Partner



**Tom Lynch**  
Managing Partner

## ACQUISITIONS & INVESTMENT MANAGEMENT



**Josh Friedman**  
Managing Director



**Lauren Sullivan**  
Director



**Chris Jensen**  
Managing Director



**Robert Hartog**  
Managing Director,  
EMEA



**Alexey Teplukhin**  
Managing Director

## CAPITAL MKTS.

## ESG



**Bethany Gorham**  
Head of ESG

## INVESTOR RELATIONS



**Lee Lesley**  
Head of IR

## FINANCE & OPERATIONS



**Brad Berkley**  
CFO



**Jason Craig**  
CCO



**Nitin Sathe**  
General Counsel



**Louise Dietz**  
Senior Vice  
President

## INDUSTRY



**Jim Smith**  
Senior Advisor

## JOINT VENTURES



**Matt Weisberg**  
Director

## ASSET MGMT.



**Devin Donnelly**  
Director



**Alan Chen**  
Deputy CCO &  
Assoc. Counsel



**Megan Pirooz**  
Assoc.  
General  
Counsel

Source: IPI

## Sector Selection

- IPI III will continue the same strategy since the Firm's formation. The Firm focuses on top-tier global geographies and primarily considers (i) value-add income-producing assets, and (ii) build-to-suit (BTS) new development. The Fund is expected to also review stabilized data centers but given the Fund's target returns and the pricing of the current market, IPI III will likely have less exposure to this category, which is similar to the composition of IPI II.
- With regards to geography, the GP expects IPI III to have a similar geographic composition as IPI II. Discussions between PFM staff and the GP have indicated that IPI III will likely be 40% US/Canada, 40% Europe and 20% Asia Pacific. While IPI I was mainly North America, the Firm has since expanded its investment team and pursued growth in regions identified by their enterprise clients. Fund documents also limit non-OECD investments to 25%.

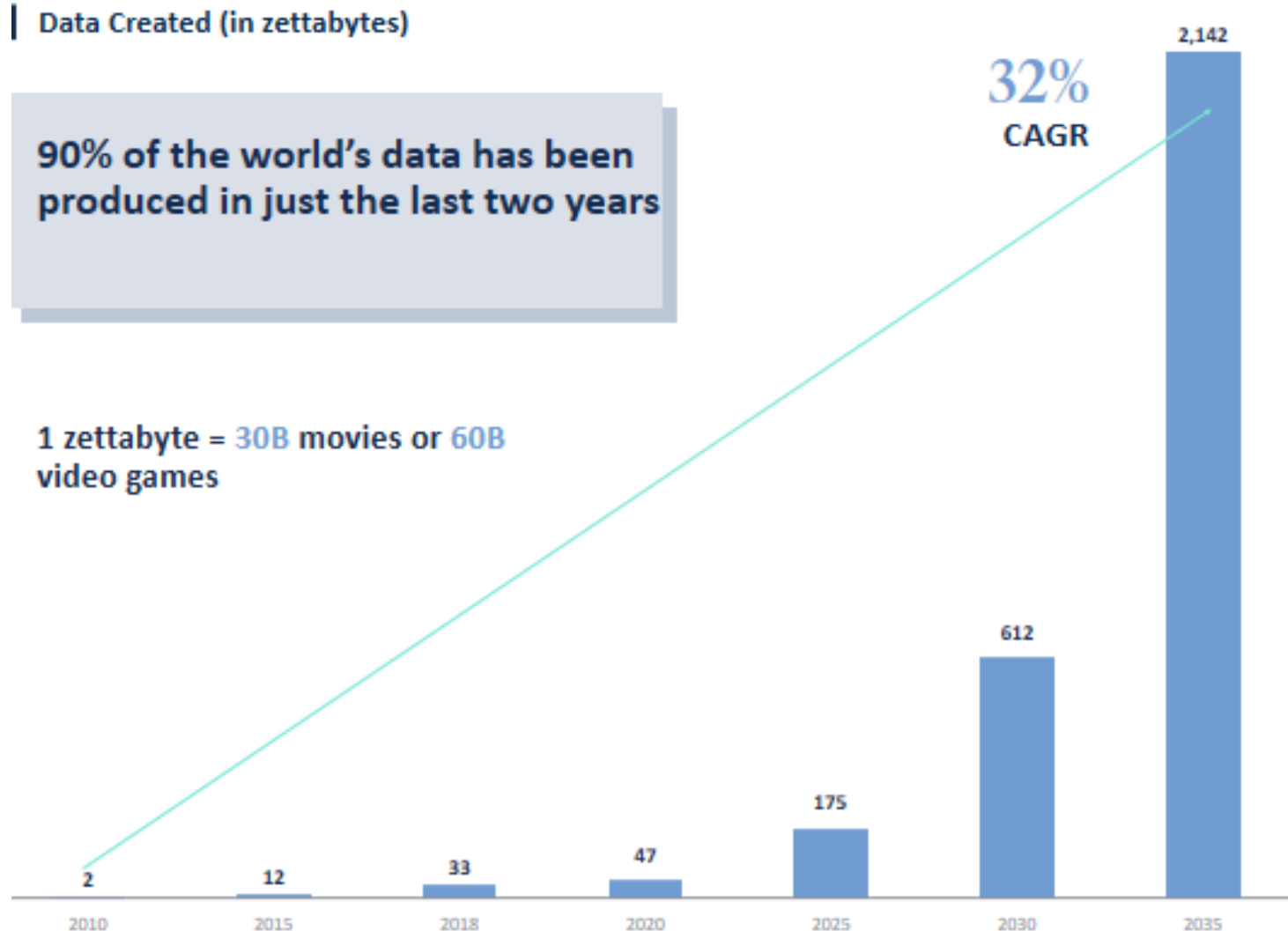
## Market Opportunity

- An ever-increasing amount of data currently generated by smart mobile devices, streaming video, and corporate data strategies to adopt cloud architectures is expected to have a CAGR of 32% by 2035 (as shown on page 8). Future demand growth is expected to be further generated by the increase in artificial intelligence/machine learning, virtual reality, the internet of things and 5G technologies.
- While there have been more entrants into the data center space over the last few years, IPI has maintained its ability to source and develop, given its in-house expertise and strong industry relationships. IPI views these relationships as a difficult-to-replicate competitive advantage, illustrated by the fact that these partnerships now generate investment opportunities on an ongoing basis. More specifically, IPI is able to structure custom deals that meet their return expectations, while also meeting the needs of their enterprise clients.

## Target Investment Characteristics

- IPI's focuses on long-term triple net leases with high quality tenants (81% investment grade) to help bolster a more predictable cashflow stream for investors. With regards to development, IPI's emphasis on build to suit and anchored developments also helps to de-risk investments for their investors.
- The Fund is targeting a net IRR between 10-14%, and TVM of 1.5x-1.7x net. Once stabilized, IPI targets an income range of about 7% per annum.
- Fund level leverage is capped at 65% stabilized value. However, leverage for both IPI I and II have historically been at the 40% range given the Firm's conservative management and desire for flexibility in a highly specialized asset class.

# Market Opportunity



Source: IPI

# Investment Strategy Continued

## Portfolio Construction

- IPI seeks to generate attractive risk-adjusted returns by building a portfolio of geographically diversified assets, combined with high occupancy, strong tenant credit profiles, customer diversity, and favorable long-term lease structures.
- IPI's portfolio composition included the following approximate attributes: the highest single geographic area concentration of under 30%, tenant occupancy of over 90%, long-term contracts (avg. over 10 years), and has sticky customers, with over 95% renewal rates. Furthermore, the Firm targets assets in top-tier markets that are difficult to replicate in order to better protect from over-supply risks.

## Value Creation Strategy

- IPI wholly-owns Stack Infrastructure, LLC ("Stack"), a global provider of data-center security, connectivity, and other technology needs specific to digital real estate tenants. Stack also provides customer functions in IPI's multi-tenant data centers given IPI's strategic emphasis on asset-level property management.
- IPI's vertically integrated relationship with Stack provides the Firm with proprietary deal flow and research which helps facilitate growth. More specifically, Stack provides management services in the fields of construction, development, asset management, marketing, leasing and other services to the Fund's investments.

## Originations and Exits

- Origination:

IPI, Iron Point and ICONIQ boast long-standing industry relationships with end-users and data center specialists, including a reputation for efficient execution. These relationships bolster IPI's ability to source and close proprietary and market deals vs. other new entrants in an increasingly competitive landscape. About 3/4 of investment opportunities have been sourced through the Firm's network across the prior two funds. A review of the Firm's pipeline suggests a similar figure for IPI III.

- Exits:

While there have been few realizations to date in IPI I (2016 vintage) and none in IPI II (2020 vintage), management expects future exit strategies, particularly for IPI I, to include either individual or portfolio sales to core institutional buyers or REITs.

# Track Record and Performance

Data as of March 31, 2022

- IPI I is a top quartile fund on a Total Value Multiple (“TVM”) and Internal Rate of Return (“IRR”) basis when compared to the Cambridge Associates Global Total Non-Core Real Estate benchmark (the “Benchmark”). While IPI I ranks as a third quartile fund on a Distributions to Paid in Capital (“DPI”) basis relative to the Benchmark, discussions between the GP and PFM staff have indicated that various liquidation strategies are currently being explored.
- IPI I and IPI II have no realized losses, and no assets in IPI I are held below cost.
- IPI II, a 2020 vintage, is ranked as a fourth quartile fund on both a TVM and IRR basis. IPI II is ranked third quartile on a DPI basis. PFM staff note that the returns for IPI II are j-curve driven. Essentially all of IPI II is held at either cost in cases where the assets are in USD, or cost with currency adjustments in cases where the assets are in a foreign currency. Regarding currency risk, IPI seeks to hedge as much as possible, and reevaluates on at least a quarterly basis. Further, IPI II has substantial exposure to development projects (about 60%) which further exacerbates the j-curve performance drivers. However, discussions between the GP and PFM staff have indicated that projected IPI II performance is expected to come in at the higher end of original expectations, despite the current conservative valuations.

IPI (millions, USD)								
Fund	Vintage Year	Fund Size	Fund Status	# Deals	Invested Capital	Realized Value	Unrealized Value	Total Value
IPI I	2016	\$1,484	Harvesting	9	\$1,324	\$630	\$1,993	\$2,623
IPI II	2020	\$3,805	Invested	14	\$1,369	\$28	\$1,332	\$1,359
<b>Total</b>		<b>\$5,289</b>		<b>23</b>	<b>\$2,693</b>	<b>\$658</b>	<b>\$3,324</b>	<b>\$3,982</b>

	Net			Quartile Rank		
	TVPI	IRR	DPI	TVM	IRR	DPI
IPI I	2.2x	26%	0.5x	1	1	3
IPI II	1.0x	-1%	0.0x	4	4	3

## IPI III

- The recommended commitment would be categorized under the Non-Core sub-category of the Real Estate (“RE”) allocation of the RAF.
- The Investment Policy Statement, adopted March 10, 2021, (the “IPS”) sets a target allocation of 50% for noncore real estate (which includes value-add and opportunistic opportunities) within the RE portfolio.
- The recommended commitment would be categorized as opportunistic.
- The opportunistic range for RE is currently 15%-35%.

A commitment to IPI III would be aligned with the RAF strategic pacing plan objectives.

- The current CRPTF policy targets total allocation to Real Estate to be 10%.
- As of June 30, 2022, the CRPTF’s total allocation by market value to Real Estate was 9.2%.
- As of June 30, 2022, the CRPTF’s total allocation by market value to non-core Real Estate was below the 50% target.
- The goal of forming significant relationships with strong managers to allow for re-ups and bring the overall manager count down. The CRPTF previously invested \$100 million in IPI II.



# Strengths and Rationale

## In-House Asset Management and Servicing

- IPI is the 100% owner of Stack, a branded platform that manages leasing and other asset-level property functions for many of IPI's multi-tenant data centers. While Stack is not operated as a profit-center, the platform allows IPI to better service the needs of its large enterprise-users on a consistent basis. IPI notes that such tenants are more service than price sensitive and value the consistency that such a vertically integrated relationship delivers.
- Stack's senior management team have extensive experience in the specialized data center industry, particularly with enterprise and hyperscale users that are the target of the Fund's strategy.

## Favorable Macroeconomic Tailwinds

- While digital real estate demand was growing rapidly prior to the Covid-19 pandemic, the health crisis has only reinforced the importance of data centers and cloud computing for society, and accelerated growth. Despite the waning of the pandemic, the Cloud is expected to represent 72% of global infrastructure spending by 2025, up from 39% in 2020 as adoption broadens.
- Global data creation and replication is projected to experience a compound annual growth rate of 23% from 2020 thru 2025. Over the same period, the installed base of global storage capacity is expected to more than double from 6.7 zettabytes in 2020 to 16 zettabytes in 2025.

# Key Risks and Mitigants

## Potential Technology Obsolescence

- With advances in technology, the underlying infrastructure of assets in which the Fund invests may become obsolete or require upgrades to power and cooling systems that may not be able to be done cost-effectively or at all. Technology equipment including server, storage, networking or other gear may require more frequent and expensive upgrades as advances take place.
- This concern is mitigated as IPI provides space, power, and cooling under long-term contracts (over 10 years). There are also few circumstances that enable a customer to break a lease before the end of the term. Contracts are structured as “take or pay” which essentially requires tenants to pay for the space and power they are leasing whether they use the space and power or not. Additionally, IPI limits tech risk resulting from equipment by not owning such gear. Therefore, customers generally assume tech risk with regard to this equipment and their networks.

## Large Unrealized Portfolio in Prior Funds

- The process of realizing the large unrealized portfolios of IPI I, and also implementing/monitoring the business plans of IPI II will require significant time and resources of staff. This concern is somewhat offset by the growth in number of staff across both the Firm and its captive operator, Stack.
- IPI has grown staff considerably since IPI II. With the raising of IPI III, the Firm employs over twice as many staff when compared to Fund II. Further, the number of employees within Stack, have grown over 25% over the same period and are in all local markets IPI invests in across the globe.

# Fundraising and Key Terms Summary

Target Size / Hard Cap	• \$ 4.0 billion / No hardcap established currently
GP Commitment	• Lesser of \$40 Million and 1% of aggregate capital commitments
Fundraising Status	• IPI expects to meet their target by 1Q2023.
Target Final Close	• Final closing target for 1Q2023
Fund Term	• 12 years, plus two one-year extensions (subject to LPAC)
Investment Period	• 4 years from final closing date
Management Fee	• 1.5% of committed capital over investment period, thereafter 1.5% over net invested capital
Fee Discounts & Offsets	• Mgt fee discounts available based on commitment size
Carry & Waterfall Type	• 20%, European waterfall
Preferred Return	• 7%
GP Catch-up	• 50%
Clawback	• Yes
LPAC	• Offered subject to commitment size

## Additional Provisions

- Delaware Limited Partnership
- Fund may not invest more than 20% of aggregate commitments in a single asset
- Fund may not invest more than 25% of aggregate commitments outside of outside of OECD countries
- Aggregate Fund leverage may not exceed 65%

## IPI Partners, LLC (“IPI”)

- In its disclosure to the Office of the Treasurer, IPI Partners, LLC (“IPI” or the “Company”), states that it has no material legal or administrative proceedings to report, no claims under its fidelity, fiduciary or E&O insurance policies, and no ongoing internal investigations to report. IPI states it has adequate procedures in place to undertake internal investigations of its employees, officers and directors.

IPI Partners, LLC (“IPI”)

## Review of Required Compliance Attachments

IPI disclosed no campaign contributions, known conflicts or gifts

Paine Schwartz disclosed no impermissible third-party fees

- Lazard Freres & Co. LLC and Lazard & Co. Limited are placement agents for the Fund. Paine does not anticipate that Lazard will render services in connection with the proposed investment by Connecticut.

## Corporate citizenship in the State of Connecticut

None reported

## Commitment to the diversity, education & training of the industry’s next generation

The firm formalized its DEI Policy in 2021. In addition, for the past two summers, all the firm’s summer interns have been diverse. The firm recently signed a five-year commitment to support the Pension Real Estate Association (PREA) SEO Real Estate Track.

## Support for women-owned, minority-owned or emerging businesses

None reported

# Compliance Review

IPI Partners, LLC ("IPI")

## Workforce Diversity

IPI provided data as of June 1, 2022

- 627 total employees, up 58% since 2020
- Includes data for IPI Partners, LLC, its sponsors (ICONIQ Capital and Iron Point Partners), and STACK Infrastructure, a service provider wholly owned by IPI's funds

For the three-year reporting period

- Among professionals/managers, 6 women managers/professionals and 9 minority managers/professionals received promotions
- Proportion of Women managers/executives increased significantly
- Proportion of Women professionals decreased despite growth in numbers (outpaced by growth in professionals overall)
- Proportion of Minority managers/executives increased
- Proportion of Minority professionals decreased despite growth in numbers (outpaced by growth in professionals overall)

### WOMEN

	EXEC	MGMT	PROF	FIRM
2022	19% 10 of 52	34% 60 of 178	41% 119 of 290	38% 241 of 627
2021	12% 5 of 52	32% 56 of 175	41% 103 of 252	37% 212 of 572
2020	8% 3 of 40	28% 40 of 145	45% 83 of 184	41% 162 of 398

### MINORITIES<sup>1</sup>

	EXEC	MGMT	PROF	FIRM
2022	19% 10 of 52	35% 62 of 178	41% 120 of 290	38% 238 of 627
2021	16% 7 of 43	34% 60 of 175	44% 112 of 252	37% 214 of 572
2020	13% 5 of 40	30% 43 of 145	47% 87 of 184	36% 143 of 398

<sup>1</sup> 2022 Minority breakdown: 10 exec (1 Black, 6 Asian, 3 Two+); 62 mgmt (2 Black, 9 Hispanic, 41 Asian, 10 Two+); 120 prof (13 Black, 20 Hispanic, 76 Asian, 2 Amer Ind, 9 Two+)

# Environmental, Social and Governance Analysis

## Overall Assessment : Evaluation and Implementation of Sustainable Principles

IPI's disclosure described a thorough integration of ESG in the firm's investment processes. The firm has been a signatory to the UN PRI since 2021, became a supporter of the TCFD in 2022, and uses frameworks from the Sustainability Accounting Standards Board (SASB) and Global Real Estate Sustainability Benchmark (GRESB) as guides for reporting and monitoring. IPI focuses on ESG issues that are material as defined by SASB and monitors several KPIs and target areas such as energy consumption, diversity and privacy. The firm's Head of ESG oversees all ESG initiatives and works in conjunction with the ESG committee to ensure the execution of IPI's responsible investment principles. The firm has provided climate risk training for all staff in the past and has charged the firm's Head of ESG with creating targeted firmwide trainings on a range of ESG topics.

IPI does not have a formal policy with respect to civilian firearms retailers and manufacturers from a vendor relationship perspective, given that it does not have any such vendor relationships.

Overall, the disclosure indicated the firm has thorough and meaningful ESG integration.

## SCORE

1

Criteria	Response
Firm has an ESG policy	Yes
If Yes, firm described its ESG policy	Yes
If Yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
Designated staff responsible for sustainability policies and research	Yes
Firm provides training/resources on sustainability issues, explained sources of ESG-related data	Yes
Signatory/member of sustainability-related initiatives or groups	Yes
Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	No*

Criteria	Response
Policy that requires safe and responsible use, ownership or production of guns	No*
Enhanced screening of manufacturers or retailers of civilian firearms	No*
Enhance screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impact	Yes
Merchant credit relationship with retailers of civilian firearms and accessories	No
If Yes, firm confirms compliance with laws governing firearms sales	N/A





SEPTEMBER  
2022

# NEPC PRIVATE MARKETS INVESTMENT DUE DILIGENCE REPORT

IPI Partners III  
*IPI Partners, LLC*



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# IPI Partners III

## Global Non-Core Real Estate: Data Centers

### EXECUTIVE SUMMARY

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IPI Partners, LLC (the “Firm,” the “Manager,” or “IPI”) is raising its third data center- focused real estate fund, IPI Partners III (“Fund III” or the “Fund”). The Fund will continue the strategy employed by Fund I and Fund II, focusing on providing data centers globally for large, high-quality enterprise end users. IPI will build a global portfolio consisting of a mix of income-producing properties and new development with a focus on build-to-suits. The Fund may employ leverage of up to 65% (in aggregate at the fund-level).

IPI was formed in July 2016 and is jointly owned and controlled by ICONIQ Capital, LLC (“ICONIQ”) and Iron Point DC Management, LLC, an affiliate of Iron Point Partners, LLC (“Iron Point”). IPI was formed to invest in digital real estate, in particular data centers that are suited for large, high-quality enterprise data center end users. The Firm brings to bear ICONIQ’s access to some of the world’s leading technology companies and innovators and Iron Point’s history of investing in data centers. IPI has approximately \$7.4 billion of assets under management, as of December 31, 2021, through its first two investment vehicles, IPI Partners I (“Fund I”) and IPI Partners II (“Fund II”).

IPI Partners is led by Matt A’Hearn, who is supported by both dedicated IPI professionals as well as the ICONIQ and Iron Point platforms. ICONIQ is a wealth management firm formed in 2011, which also manages direct investments across asset classes, with a specific focus on technology growth equity, private equity, venture capital, and real estate. ICONIQ is headquartered in San Francisco with offices in Palo Alto, California; New York, New York; London; and Singapore. Iron Point was formed in 2007 and has raised over \$2.5 billion of equity capital through five Iron Point Partners funds. Iron Point targets opportunistic investments across real estate sectors. Prior to forming Iron Point Partners, the principals managed RMB Realty, Inc. and its successor Oak Hill Realty, LLC, the real estate investment vehicles for Robert M. Bass.



# IPI Partners III

## Global Non-Core Real Estate: Data Centers

### Positives:

- **Robust secular growth** – Digital real estate has strong secular tailwinds resulting from the increase in demand and consumption of data, driving the need for more space and power. It is estimated that 90% of the world's data has been produced in just the last two years, and this is expected to grow at a rate of 32% until 2035, according to JLL Research. IPI believes that newer technologies (e.g., artificial intelligence, virtual reality, the internet of things) will continue to drive the next wave of data growth.
- **Strong, differentiated sponsorship** – The principals and ownership are highly committed to the success of the Firm. The sponsorship from ICONIQ and Iron Point are meaningful differentiators due to their data center investment experience coupled with connections and insights into the broader technology landscape.
- **Team experience investing in digital real estate** – IPI has assembled a team with broad expertise across multiple areas of the digital real estate ecosystem, led by Matt A'Hearn, Partner. Prior to IPI, Matt was at Moelis & Company, where he was primarily responsible for leading the firm's global investment banking practice in the communications infrastructure sector, which included coverage of data centers, fiber, and tower companies. The Firm has grown steadily, but quickly, since its formation, and has hired a number of seasoned investment professionals with meaningful experience in digital real estate. IPI presently has over 35 employees and is expected to continue to grow.
- **Captive Operating Company** – The IPI team can leverage the resources of Stack Infrastructure, Inc. ("Stack"), a branded platform that is jointly owned by Fund I and Fund II. Stack is a captive developer and operating platform, which NEPC believes provides a competitive advantage for IPI. Stack was formed in 2017 and initially focused on leasing and tenant-relation functions for some of IPI's stabilized assets. Today, Stack has expanded in both geographic scope and operational capabilities, covering 18 markets globally with the ability to execute on value-add projects and ground-up development. The Stack team consists of 15 senior leaders and approximately 400 professionals, distributed by geographic region. Stack's senior management team have extensive experience in the data center industry generally, but also particularly with enterprise and hyperscale users that are the target of the Fund's strategy.

### Negatives:

- **Rapidly expanding organization** – IPI has grown rapidly since inception in 2016, continuously adding headcount while leveraging the strategic relationships with ICONIQ and Iron Point. This collaborative culture appears to be working while the Firm is small and there is plenty of interaction across functions. As the Firm grows, a cultural shift may be required to add more specialists. Although there has been no material turnover yet, given the fast pace of the growth at the Firm, there is a risk there will be turnover as the transformation continues from an entrepreneurial to a more institutionalized firm.
- **Sector specific threats** – While NEPC believes that digital real estate is an attractive area for investment, the concentration of investments in a single sector means that any adverse conditions that may arise in this sector will not be offset by more favorable conditions that may be present in the broader real estate market.



# IPI Partners III

## Global Non-Core Real Estate: Data Centers

### FUND CHARACTERISTICS

<b>Investment Period</b>	4 years from Fund's final closing date
<b>Fund Term</b>	12 years from the final closing date with two consecutive 1-year extensions
<b>Sponsor's Investment</b>	Lesser of (a) \$40 Million and (b) 1% of aggregate capital commitments
<b>Assets Under Management</b>	\$7.4 Billion
<b>Investment Focus</b>	Data Centers and Technology related real estate
<b>Geographic Focus</b>	Global
<b>Projected # of Investments</b>	While the number of investments in the Fund will ultimately depend on investment size, IPI expects the Fund's portfolio to include ~10 to 20 investments.
<b>Deal Size</b>	The average investment size is expected to be approximately \$150 - \$350 million with a range of \$20 - \$800 million for individual assets or portfolios of assets.
<b>Leverage</b>	Up to 65% max
<b>Annual Management Fee</b>	The Fund's standard asset management fee is 150 basis points per year, calculated on Capital Commitments during the Commitment Period and on Invested Capital thereafter. Fee discounts may be available due to investment size or other considerations.
<b>Other Fees</b>	The Fund will bear certain legal and other expenses associated with the ongoing management and oversight of the Fund.
<b>Organizational Costs</b>	The Fund will bear certain legal and other expenses associated with the formation of the Fund.
<b>Carried Interest</b>	The Manager will earn carried interest, subject to a preferred return, as detailed in the Fund's legal and offering documents.
<b>ERISA Fiduciary</b>	The General Partner intends to conduct the operations of the Fund so that the assets of the Fund will not be considered "plan assets" of any plan investor.
<b>Fund Auditor</b>	KPMG LLP
<b>Fund Legal Counsel</b>	Gibson, Dunn & Crutcher LLP
<b>Placement Agents</b>	None
<b>Website</b>	<a href="http://www.ipipartners.com">http://www.ipipartners.com</a>



## FIRM DESCRIPTION

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### Firm Overview

Formed in July 2016, IPI is jointly owned and controlled by ICONIQ and Iron Point. IPI was formed to bring to bear ICONIQ's access to some of the world's leading technology companies and innovators and Iron Point's history of investing in data centers. IPI invests in digital real estate, in particular data centers that are suited for large, high-quality enterprise data center end users. IPI believes its sponsorship and ability to provide strategic capital to the sector are meaningful differentiators. Stack, IPI's branded captive operating platform, can manage leasing and other tenant-related functions instead of using third-party service providers. IPI has approximately \$7.4 billion of assets under management, as of December 31, 2021, through its first two investment vehicles.

The Fund will continue the strategy employed by Funds I and II, focusing on providing data centers globally for large, high-quality enterprise end users. IPI will build a global portfolio consisting of a mix of income-producing properties and new development with a focus on build-to-suits.

### Team Overview

The Firm presently has over 35 employees, including 12 senior investment professionals, and is led by Matt A'Hearn, Partner. IPI has assembled a team with broad expertise across multiple areas of the digital real estate ecosystem. The IPI team will perform the asset management responsibilities of the Fund. At present, IPI utilizes Iron Point and ICONIQ to perform certain back-office functions including certain HR, compliance, tax, IT, and risk management services and has retained a globally recognized fund administrator to perform all accounting, financial reporting and treasury services.

IPI's Investment Committee is responsible for approving all investments and major decisions made by the Firm and ensuring that investments are within the investment guidelines. All actions of the Investment Committee require an affirmative vote from one of each ICONIQ and Iron Point. Meetings are held on an as-needed basis. The members include: Matt A'Hearn, Managing Partner, IPI; Divesh Makan, Partner, ICONIQ; Jeff Felder, Partner, ICONIQ; Tom Lynch, Managing Partner, Iron Point; Bill Janes, Managing Partner, Iron Point.

### Recent Turnover/Key Departures

IPI has experienced no significant turnover since the Firm's inception.

### Succession Planning

IPI has no formal succession planning currently in place. Divesh Makan, Jeff Felder, Tom Lynch, and Bill Janes are named as the Fund's key persons. IPI believes that it has a growing base of senior leadership who could successfully implement the Firm's strategy.

### FUND INVESTMENT STRATEGY

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#### Investment Strategy

Fund III seeks to execute its investment strategy across three risk-return segments centered around end-user needs and market opportunities and where the IPI Team believes its model provides certain strategic advantages. The Fund may employ leverage of up to 65% (in aggregate at the Fund-level).

- **Stabilized Acquisitions:** The Fund will seek to acquire high-quality assets in top-tier data center markets. These will be stabilized properties with long-term leases and annual rent escalators that generate strong cash-on-cash yields.
- **Value-Add Acquisitions:** The Fund will source transactions with a “value-add” component that consists of modest lease-up and/or expansion capital expenditures. The focus is on quality assets in fortress markets.
- **Select New Development:** The Fund will pursue build-to-suit and other anchored developments. The focus will be on sourcing investments largely through proprietary tenant relationships.

#### Target Fund Size

\$4 billion, no hard cap is currently set.

#### Target Geographic Focus

The Fund is expected to be globally diversified, focused primarily on developed markets in the Americas, Europe, and Asia/Australia. No more than 25% of the Fund may be invested in non-OECD nations.

#### Target Deal Size

The average investment size is expected to be approximately \$150 - \$350. This size is generally consistent with that of Funds I and II where the equity commitments ranged from as little as ~\$20 million to upwards of \$800 million for individual assets or portfolios of assets. The smaller transactions were more strategic to gain control of sites suitable for build-to-suit opportunities.

#### Use of Leverage

Maximum LTV of 65% at Fund Level.

#### Manager’s View of Current Market Conditions

IPI observes powerful secular trends driving very strong growth of data and storage usage and demands globally, and anticipates this growth to continue. They cite data from IDC which estimates that global data creation and replication is projected to experience a compound annual growth rate of 23% from 2020 to 2025. This will in turn lead to a more-than-doubling of global data storage capacity. This growth will be fueled by the growth in existing established technologies as well as relatively newer technologies such as the internet of things, artificial intelligence, virtual reality, and autonomous vehicles.

#### Expected Fund Investor Base

IPI expects the investor base of Fund III to stay consistent with that of Funds I and II, which includes an array of LPs including; Endowments & Foundations, Family Offices, Insurance Companies, Private Sector Pensions, Public Pensions, as well as Sovereign Wealth Funds.

#### Current Fund Investments

The Fund has committed to close on one investment to date through June 30, 2022.



## FUND ECONOMICS

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### Management Fee

The Fund's standard asset management fee is 150 basis points per year, calculated on Capital Commitments during the Commitment Period and on Invested Capital thereafter. Fee discounts may be available due to investment size or other considerations.

### Carried Interest & Other Fees and Expenses

The Manager will earn carried interest, subject to a preferred return, as detailed in the Fund's legal and offering documents. Furthermore, the Fund will bear certain legal and other expenses associated with the formation of the Fund (i.e., Organizational Expenses) or ongoing management and oversight of the Fund.

## IPI Partners III

Global Non-Core: Data Center Real Estate

### APPENDIX A: FIRM TRACK RECORD

#### Prior Fund Track Record

##### Fund-Level Returns

Fund	Vintage Year	Capital Committed	Capital Funded	Reported Value	Amount Distributed	Total Value, Net of Carry	TVPI Multiple	DPI Multiple	Current Net IRR
IPI Partners I	2016	\$1,484.0	\$1,337.5	\$2,377.6	\$560.4	\$2,630.9	2.0x	0.4x	28.0%
IPI Partners II	2020	\$3,805.0	\$889.4	\$776.5	\$27.9	\$804.4	0.9x	0.0x	N/A

Note: \$ in millions. All data as of December 31, 2021. Performance for recent vintage years (i.e., 2020) less meaningful.

#### Track Record Benchmarking

Prior fund performances compared against the C/A Global Value-Add & Opportunistic Real Estate benchmark:

##### Vintage Year Benchmarking Analysis

Net IRR
Vintage Year
2016
2020

IPI Partners		
Fund	Current Net IRR	Quartile
IPI Partners I	28.0%	1
IPI Partners II	N/A	1

Vintage Year Benchmark Net IRR Comparison			
# Funds	Upper Quartile	Median	Lower Quartile
65	16.0%	12.4%	9.2%
31	32.9%	16.4%	4.5%

DPI Multiple
Vintage Year
2016
2020

IPI Partners		
Fund	DPI Multiple	Quartile
IPI Partners I	0.4x	3
IPI Partners II	0.0x	N/A

Vintage Year Benchmark DPI Multiple Comparison			
# Funds	Upper Quartile	Median	Lower Quartile
65	0.8x	0.6x	0.3x
31	0.0x	0.0x	0.0x

TVPI Multiple
Vintage Year
2016
2020

IPI Partners		
Fund	TVPI Multiple	Quartile
IPI Partners I	2.0x	1
IPI Partners II	0.9x	4

Vintage Year Benchmark TVPI Multiple Comparison			
# Funds	Upper Quartile	Median	Lower Quartile
65	1.6x	1.4x	1.3x
31	1.2x	1.1x	1.0x

Note: **GREEN** shaded cells indicate that the fund outperformed the respective quartile of the benchmark while **RED** shaded cells indicate that the fund under-performed the respective quartile of the benchmark. Amounts are net of fees, carried interest and expenses. All data is as of December 31, 2021. Performance for recent vintage years (i.e., 2020) less meaningful.



## IPI Partners III

Global Non-Core: Data Center Real Estate

### APPENDIX B: ESG INTEGRATION EVALUATION

General Fund Information	
<b>Firm</b>	IPI Partners, LLC ("The Firm", "The Manager", "IPI")
<b>Fund</b>	IPI Partners III ("Fund III", "IPI III" "The Fund")
<b>Strategy Type</b>	Non-Core Real Estate: Data Center Real Estate
<b>Diverse-Owned Firm</b>	No

ESG Rating
<b>ESG 2</b>
ESG Ratings are on a scale of 1 through 5, with 1 indicating a best in class approach and 5 indicating no integration.

Analyst Opinion
IPI has been diligent and ambitious in its ESG and sustainable framework and policies in the last 18 to 24 months and has the ability to be impactful in these efforts. However, as most of these initiatives have been in place since just 2020, they are untested and will be implemented for the first time in full underwriting procedures during IPI III. The Firm has a newly implemented head of ESG in Bethany Gorham, she will take charge of an existing ESG committee in place with several individuals alongside her to assist in the enforcement of these policies and processes at the fund level. NEPC recognizes the Firm's commitment within ESG so far, but remains poised for a report on the impact of this commitment.

Evaluation Criteria and Commentary	
Firm-Level	
<b>Firm-Level Commitment</b>	IPI became a signatory to the PRI in 2021 and plans to prepare annual transparency reports as part of that commitment. Since 2020 IPI has instilled numerous other initiatives at the Firm-level such as; adopted a model Responsible Contractor Policy, rolled out the IPI Cares Program, formalized long-term greenhouse gas emissions reduction goals, and much more.
<b>Resources</b>	IPI executives use their roles as portfolio company board members to monitor existing ESG initiatives through board reports and meetings, providing support for additional initiatives and encouraging companies to consider additional ways to make a positive impact on society.
<b>Engagement Policies</b>	IPI initiates the adoption of all Firmwide policy, as is appropriate, to each Fund vintage. For instance, all professionals now must complete climate change and ESG training courses, DEI strategy courses, and review the finalized Responsible Investment Policy created by IPI.
Strategy-Level	
<b>Overview</b>	IPI seeks out potential investments that have already implemented strong ESG practices and offer compelling environmental and economic benefits. In particular, prospective investments that present the opportunity to maximize positive environmental and economic impacts while minimizing any negative impacts. All companies and assets have low designed power usage effectiveness (PUE), a measure that describes how efficiently a data center uses energy.
<b>Integration Process</b>	IPI aims to direct investments toward sustainable digital infrastructure because it strengthens the business and protects our planet. The Firm has encouraged all portfolio companies to reduce their carbon emissions and can now report that all IPI companies now use 100% renewable energy. Beyond that, many portfolio companies now track their carbon emissions and renewable energy use, and regularly report their performance on these and other sustainability metrics to their boards.
<b>Resources</b>	Material ESG risks and opportunities are most often used to identify the most desirable investments and inform potential post-investment performance plans. IPI reports strategy, activities, and performance outcomes to the firm's investors, employees, and other key stakeholders on a regular basis.

## IPI Partners III

### Global Non-Core: Data Center Real Estate

## DISCLAIMERS AND DISCLOSURES

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- Past performance is no guarantee of future results.
- The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.
- Information used to prepare this report was obtained directly from the investment manager, and market index data was provided by other external sources. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.
- NEPC may provide background information on fund structures or the impact of taxes but you should contact your legal counsel or tax professional for specific advice on such matters.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

In addition, it is important that investors understand the following characteristics of non-traditional investment strategies including hedge funds, real estate and private equity:

1. Performance can be volatile and investors could lose all or a substantial portion of their investment
2. Leverage and other speculative practices may increase the risk of loss
3. Past performance may be revised due to the revaluation of investments
4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms
5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value
6. These funds are not subject to the same regulatory requirements as registered investment vehicles
7. Managers may not be required to provide periodic pricing or valuation information to investors
8. These funds may have complex tax structures and delays in distributing important tax information
9. These funds often charge high fees
10. Investment agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy







# IPI Partners

*Focused on Investing in Data Centers &  
Other Connectivity Related Real Assets*



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Presentation to the State of Connecticut  
September 2022





# Important Information

THE INFORMATION CONTAINED IN THIS PRESENTATION (THIS “PRESENTATION”) IS PROVIDED FOR INFORMATIONAL AND DISCUSSION PURPOSES ONLY AND IS NOT, AND MAY NOT BE RELIED ON IN ANY MANNER, AS LEGAL, TAX OR INVESTMENT ADVICE OR AS AN OFFER TO SELL OR A SOLICITATION OF AN OFFER TO BUY LIMITED PARTNER INTERESTS (THE “INTERESTS”) IN ANY INVESTMENT FUND MANAGED BY IPI PARTNERS, LLC (“IPI PARTNERS” OR “IPI”, AND ANY SUCH VEHICLE, AN “INVESTMENT VEHICLE”). THE INFORMATION CONTAINED IN THIS PRESENTATION WILL BE QUALIFIED IN ITS ENTIRETY BY REFERENCE TO THE APPLICABLE INVESTMENT VEHICLE’S CONFIDENTIAL PRIVATE PLACEMENT MEMORANDUM (AS AMENDED FROM TIME TO TIME), LIMITED PARTNERSHIP AGREEMENT AND SUBSCRIPTION DOCUMENTS (TOGETHER, THE “OFFERING DOCUMENTS”). NO PERSON HAS BEEN AUTHORIZED TO MAKE ANY STATEMENT CONCERNING ANY INVESTMENT VEHICLE OTHER THAN AS SET FORTH IN THE OFFERING DOCUMENTS AND ANY SUCH STATEMENTS, IF MADE, MAY NOT BE RELIED UPON.

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THE FOLLOWING (WHICH DOES NOT PURPORT TO BE A COMPLETE ENUMERATION OR EXPLANATION OF THE RISKS INVOLVED IN AN INVESTMENT IN AN INVESTMENT VEHICLE) ARE AMONG THE RISK FACTORS THAT INVESTORS SHOULD CONSIDER:

(I) THE INTERESTS WILL BE ILLIQUID, AS THERE IS NO SECONDARY MARKET FOR THE INTERESTS AND NONE IS EXPECTED TO DEVELOP; (II) THERE WILL BE RESTRICTIONS ON TRANSFERRING THE INTERESTS; (III) INVESTMENTS MAY BE LEVERAGED AND THE INVESTMENT PERFORMANCE MAY BE VOLATILE; (IV) FEES AND EXPENSES CHARGED IN CONNECTION WITH AN INVESTMENT IN AN INVESTMENT VEHICLE MAY BE HIGHER THAN FEES AND EXPENSES OF OTHER INVESTMENT ALTERNATIVES AND MAY OFFSET PROFITS, IF ANY; (V) INVESTORS SHOULD HAVE THE FINANCIAL ABILITY AND WILLINGNESS TO ACCEPT THE RISK CHARACTERISTICS OF AN INVESTMENT VEHICLE’S INVESTMENTS; (VI) AN INVESTMENT VEHICLE WILL HAVE TOTAL INVESTMENT AUTHORITY OVER SUCH INVESTMENT VEHICLE AND, THEREFORE, AN INVESTOR IN SUCH INVESTMENT VEHICLE WOULD NEED TO RELY ON IPI PARTNERS’ DECISION MAKING SKILLS; (VII) AN INVESTMENT VEHICLE COULD BE HIGHLY CONCENTRATED IN A GIVEN SECTOR OR INVESTMENT AND, THEREFORE, AN INVESTMENT IN SUCH INVESTMENT VEHICLE IS ONLY APPROPRIATE FOR A PORTION OF AN INVESTOR’S PORTFOLIO; (VIII) THE INSTRUMENTS IN WHICH AN INVESTMENT VEHICLE INVESTS MAY INVOLVE COMPLEX TAX STRUCTURES WHICH COULD RESULT IN DELAYS IN DISTRIBUTING IMPORTANT TAX INFORMATION TO INVESTORS; AND (IX) AN INVESTMENT VEHICLE AND IPI PARTNERS ARE SUBJECT TO CERTAIN POTENTIAL CONFLICTS OF INTEREST, AND THERE CAN BE NO ASSURANCE THAT ANY SUCH CONFLICT WILL BE RESOLVED IN FAVOR OF SUCH INVESTMENT VEHICLE OR ITS INVESTORS.

IN CONSIDERING ANY PERFORMANCE DATA CONTAINED HEREIN, INVESTORS SHOULD BEAR IN MIND THAT NEITHER PAST NOR PROJECTED PERFORMANCE (INCLUDING ANY PROJECTED PERFORMANCE FROM A THIRD-PARTY APPRAISAL OR VALUATION) IS INDICATIVE OF FUTURE RESULTS AND THERE CAN BE NO ASSURANCE THAT AN INVESTMENT VEHICLE WILL ACHIEVE COMPARABLE RESULTS OR BE ABLE TO AVOID LOSSES. THE MULTIPLES AND IRRS PRESENTED HEREIN THAT ARE PRESENTED ON A “GROSS” BASIS AND DO NOT REFLECT ANY MANAGEMENT FEES, CARRIED INTEREST OR ALLOCABLE EXPENSES BORNE BY INVESTORS IN A PRIVATE INVESTMENT FUND SUCH AS AN INVESTMENT VEHICLE WHICH, IN THE AGGREGATE, MAY BE SUBSTANTIAL. NOTHING CONTAINED HEREIN SHOULD BE DEEMED TO BE A PREDICTION OF FUTURE PERFORMANCE OF ANY INVESTMENT VEHICLE.

INVESTORS SHOULD MAKE THEIR OWN INVESTIGATIONS AND EVALUATIONS OF THE INFORMATION CONTAINED HEREIN. EACH INVESTOR SHOULD CONSULT ITS OWN ATTORNEY, BUSINESS ADVISER AND TAX ADVISER AS TO LEGAL, BUSINESS, TAX AND RELATED MATTERS CONCERNING THE INFORMATION CONTAINED HEREIN AND THE INTERESTS.

EXCEPT WHERE OTHERWISE INDICATED HEREIN, THE INFORMATION CONTAINED HEREIN, INCLUDING STATEMENTS CONCERNING FINANCIAL MARKET TRENDS, IS BASED ON MATTERS AS THEY EXIST AS OF THE DATE OF PREPARATION AND NOT AS OF ANY FUTURE DATE, AND WILL NOT BE UPDATED OR OTHERWISE REVISED TO REFLECT INFORMATION THAT SUBSEQUENTLY BECOMES AVAILABLE, OR CIRCUMSTANCES EXISTING OR CHANGES OCCURRING AFTER THE DATE HEREOF.



# Important Information (continued)

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REFERENCES HEREIN TO IRON POINT PARTNERS AS A SPONSOR OF IPI PARTNERS SHALL BE DEEMED REFERENCES TO AN AFFILIATE OF IRON POINT PARTNERS.

# IPI Partners at a Glance

WE BELIEVE IPI IS A PREMIER GLOBAL INVESTMENT PLATFORM WITH A SUCCESSFUL TRACK RECORD OF INVESTING IN DATA CENTERS AND COMPLEMENTARY REAL ASSETS

---

## Generational Global Opportunity

- Massive **explosion of data** driving **transformation of storage infrastructure** via Cloud Service Providers (CSPs)
- Key global markets evolving rapidly with need for **more facilities** and **larger deployments**
- **Attractive** economics with **many projects pre-leased** by high quality tenants

---

## Differentiated & Focused Investment Strategy

- **Deep partnerships and alignment with tech giants to solve their infrastructure problems** as they expand across markets  
**They grow – we both win**
- **Pure-play strategy** focused exclusively on investments in data centers and synergistic complementary assets since inception
- **Strategic capital** leveraging collective networks of ICONIQ and Iron Point, providing **valuable insights** into leading tech companies and growth of the Cloud

---

## Industry Leading Team & Performance

- **\$11.7 billion invested<sup>1</sup>** to date by existing funds
- IPI team includes 40+ investment professionals complemented by experienced operating professionals at controlled platforms

1. Includes capital invested in and reserved for IPI Fund I and IPI Fund II investments as of May 31, 2022. There can be no assurance that the capital reserved will be invested.  
2. The target return is neither a guarantee nor a projection of future performance. Please see "Important Information" beginning on page 2.

Notes: All metrics set forth herein are as of May 31, 2022. Neither post nor projected performance is indicative of future results. Please see "Important Information" beginning on page 2.

# IPI has Assembled one of the Largest Global Data Center Portfolios<sup>1</sup>



1. Portfolio data reflected above is as of June 30, 2022  
2. Switzerland includes Geneva, Zurich, and Avenches  
There can be no assurance that any data centers in development/planned development will be completed.



# IPI Team and Strategic Resources

20+ YEARS<sup>1</sup> OF INVESTMENT EXPERIENCE ON AVERAGE

## IPI INVESTMENT COMMITTEE

ICONIQ



**Divesh Makan**  
*Partner*



**Jeff Felder**  
*Head of Real Estate*

IPI



**Matt A'Hearn**  
*Partner*

IRON POINT  
PARTNERS



**Bill Janes**  
*Managing Partner*



**Tom Lynch**  
*Managing Partner*

## DEVELOPMENT



**Luke Gilpin**  
*Director*



**Sean Ivery**  
*Managing Director*



**Richard Redstone**  
*Director, EMEA*

## ACQUISITIONS & INVESTMENT MANAGEMENT



**Josh Friedman**  
*Managing Director*



**Lauren Sullivan**  
*Director*



**Chris Jensen**  
*Managing Director*



**Robert Hartog**  
*Managing Director, EMEA*

## CAPITAL MKTS.



**Alexey Teplukhin**  
*Managing Director*

## ESG



**Bethany Gorham**  
*Head of ESG*

## INVESTOR RELATIONS



**Lee Lesley**  
*Head of IR*

## FINANCE & OPERATIONS



**Brad Berkley**  
*CFO*

+ 4 Vice Presidents  
+ 12 Associates

## INDUSTRY



**Jim Smith**  
*Senior Advisor*

## JOINT VENTURES



**Matt Weisberg**  
*Director*

## ASSET MGMT.



**Devin Donnelly**  
*Director*

## COMPLIANCE



**Jason Craig**  
*CCO*

## LEGAL



**Nitin Sathe**  
*General Counsel*



**Louise Dietz**  
*Senior Vice President*



**Alan Chen**  
*Deputy CCO & Assoc. Counsel*



**Megan Pirooz**  
*Assoc. General Counsel*

6

NATIONALITIES

11

LANGUAGES

40+

EMPLOYEES

40%

MINORITIES<sup>2</sup>

1. Represents average years of investment experience of senior team (director and above)

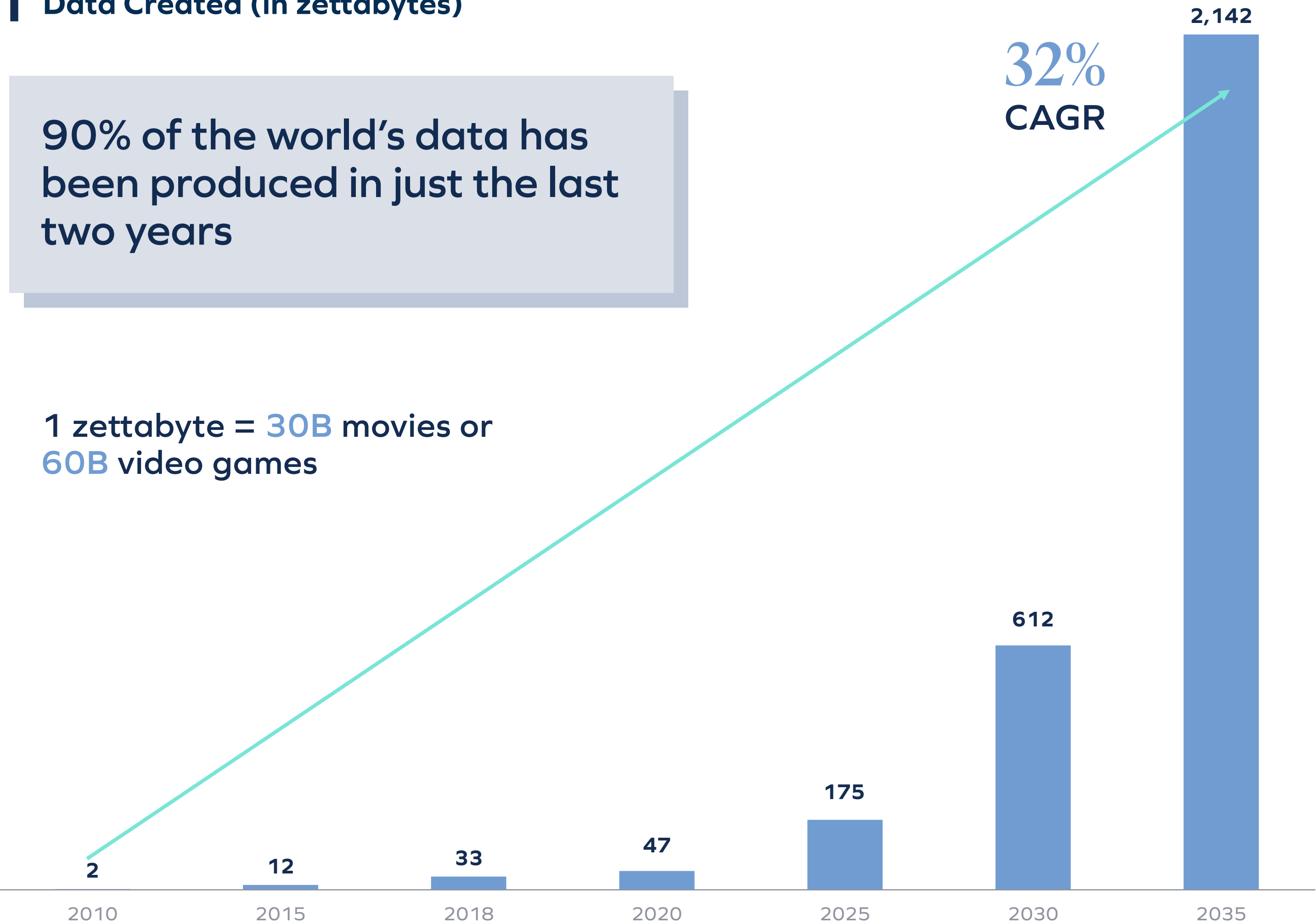
2. IPI collects diversity data from its employees as part of new hire onboarding and updates firm-wide statistics on a quarterly basis. All information shown represents underlying data that is self-reported by employees.

# The Data Explosion is Transforming Our World

## Data Created (in zettabytes)

90% of the world's data has been produced in just the last two years

1 zettabyte = 30B movies or 60B video games



Sources: U.S. Chamber of Commerce, "Big Data and What it Means" and Equinix Analyst Day Investor 2021 Executive Presentations.

1T

Devices Connected to the Internet by 2030

1.7MB

2020 Data Generated per Second

5x

Growth in Internet Traffic from 2017

65%

Percentage of World GDP Digitized by 2022

299B

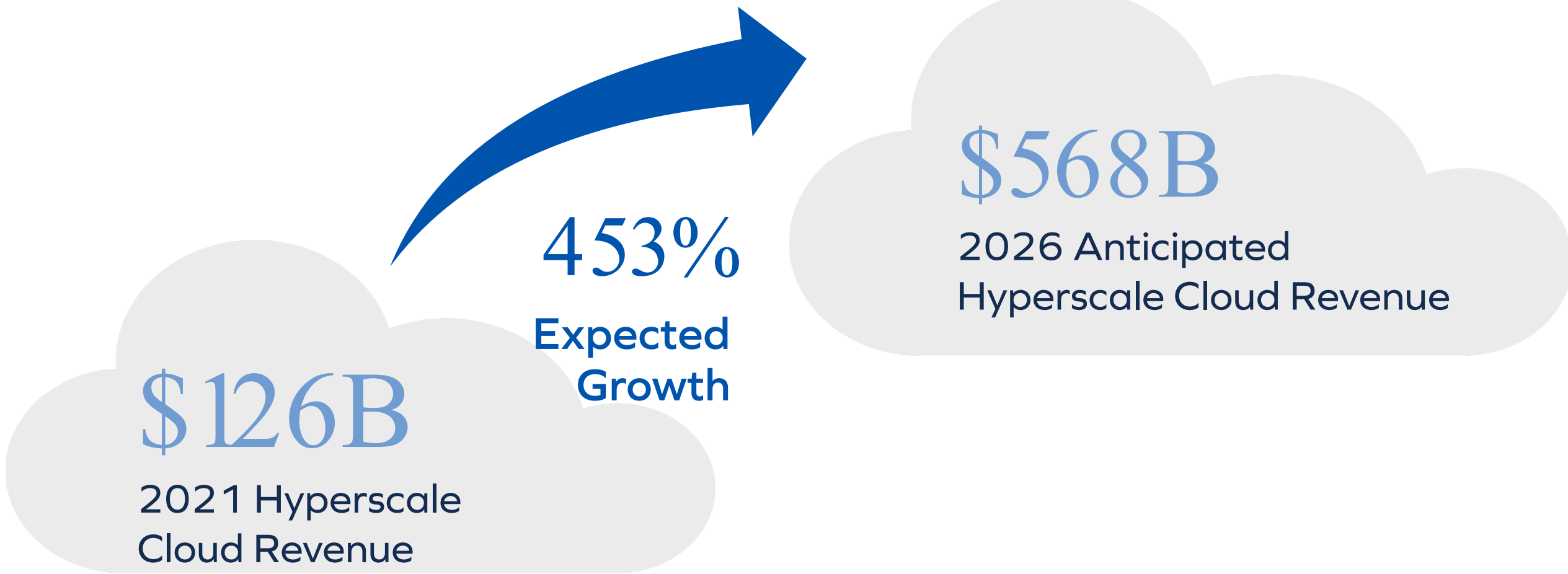
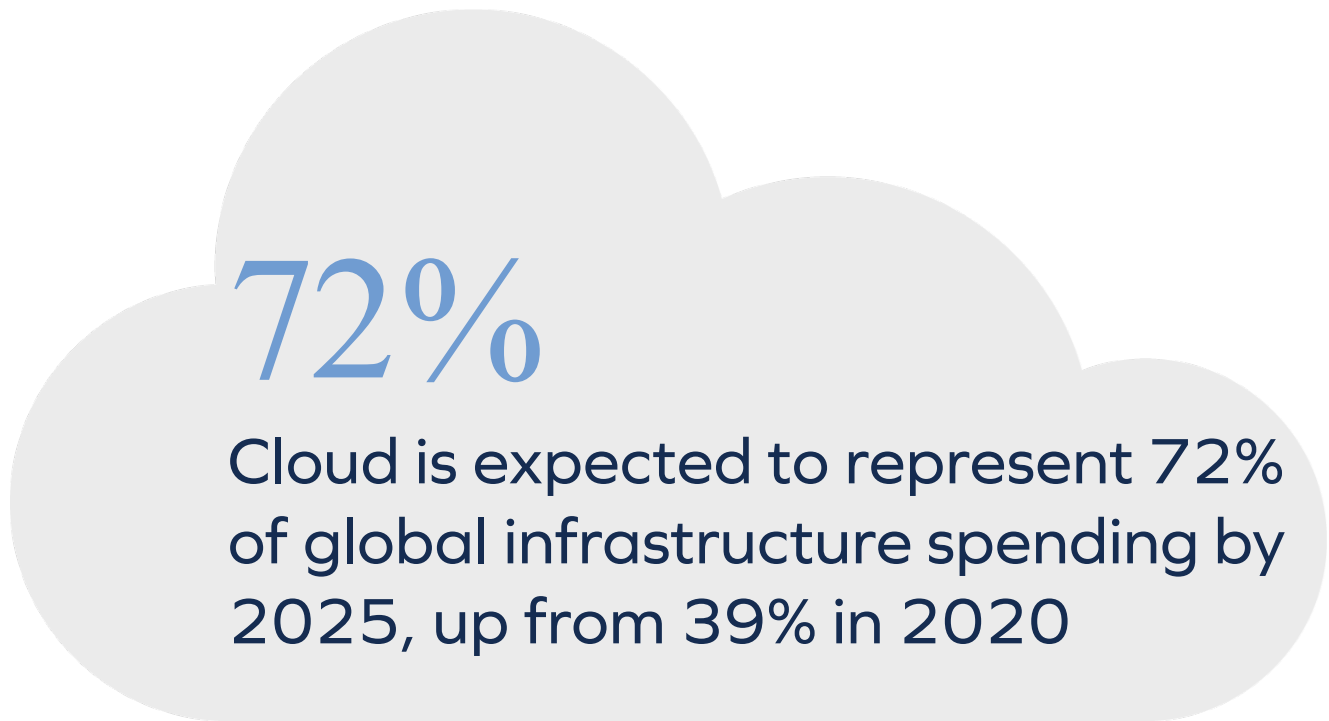
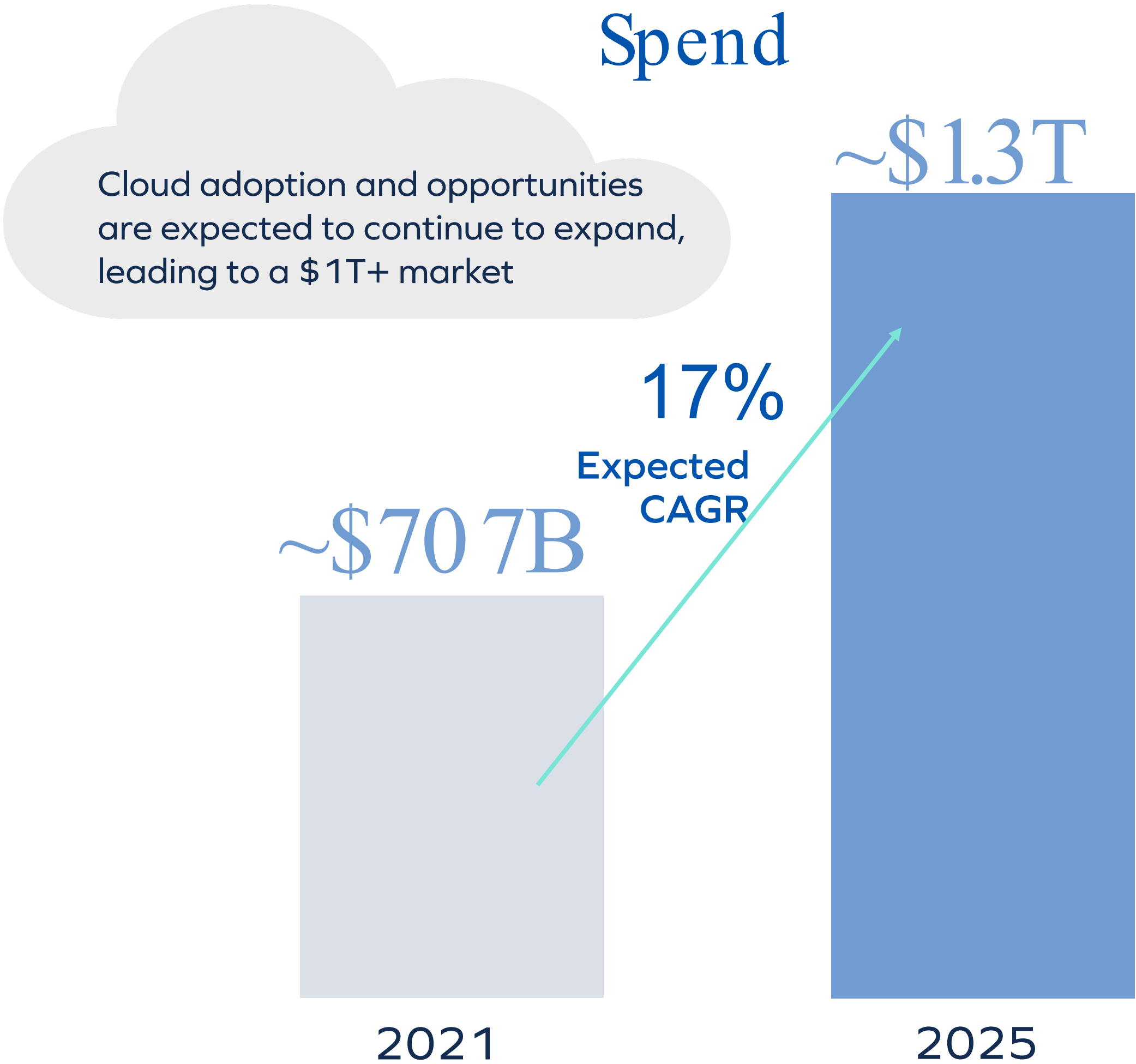
Apps Downloaded by 2023

1.4B

5G connections by 2023 (100x increase from 2019)

# Data is Going to the Cloud... the Cloud Lives in Data Centers

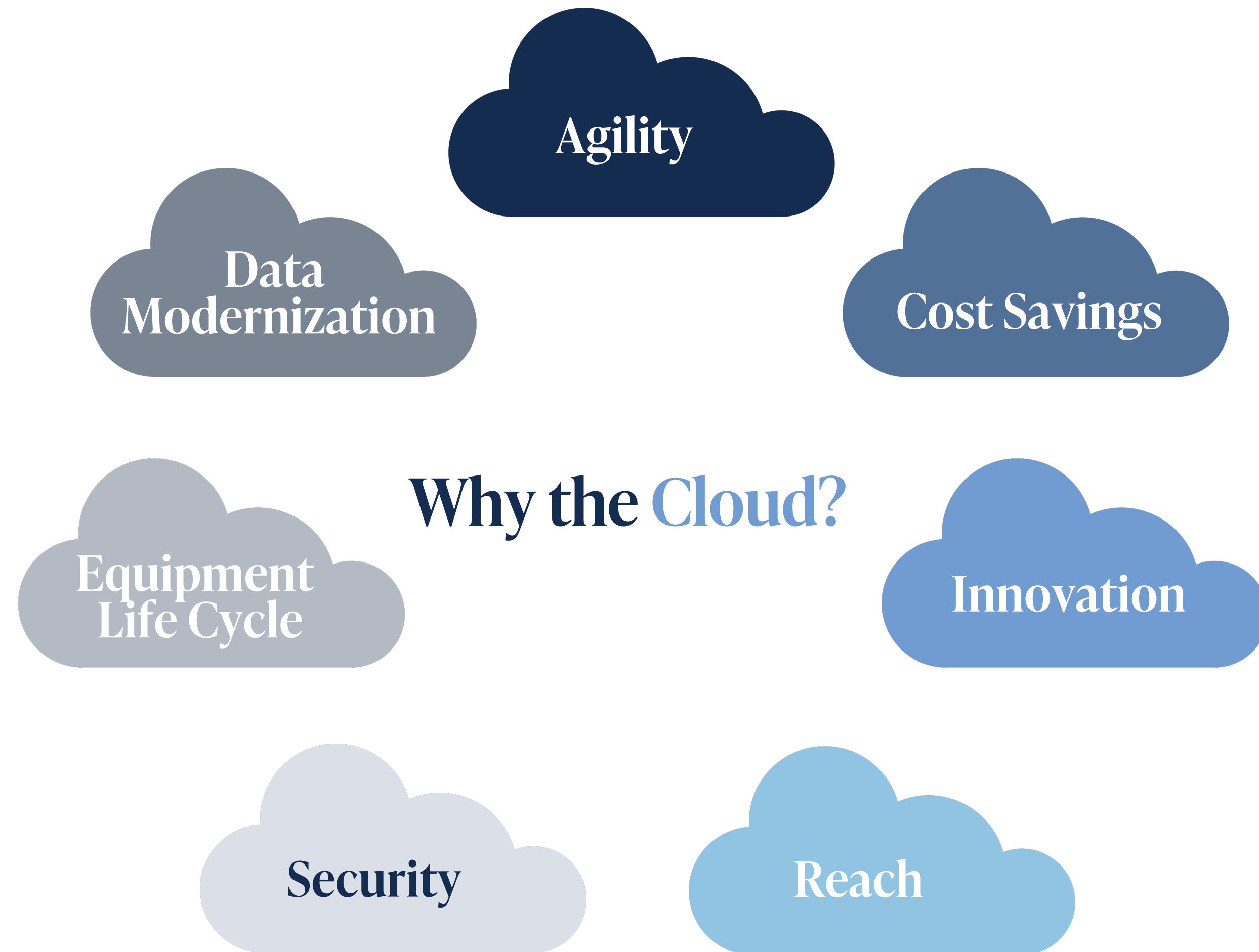
## Global Whole Cloud Spend



Sources: IDC, Structure Research as of 3Q 2021.



# The Cloud Plays a Critical Role in the Digital Economy



“The next tail event may not be a pandemic, but whatever it is, we know that digital technology will be key to resilience and transformation.”

SATYA NADELLA (CEO OF MICROSOFT), 4Q 2021

“Our deep investment in AI technologies continues to drive extraordinary and helpful experiences for people and businesses, across our most important products and our Cloud business continues to grow strongly.”

SUNDAR PICHAI (CEO OF GOOGLE), 4Q 2021

“AWS has seen a reacceleration of revenue growth as customers have expanded their commitment to the cloud and selected AWS as the cloud partner”

BRIAN OLSAVSKY (CFO OF AMAZON), 3Q 2021

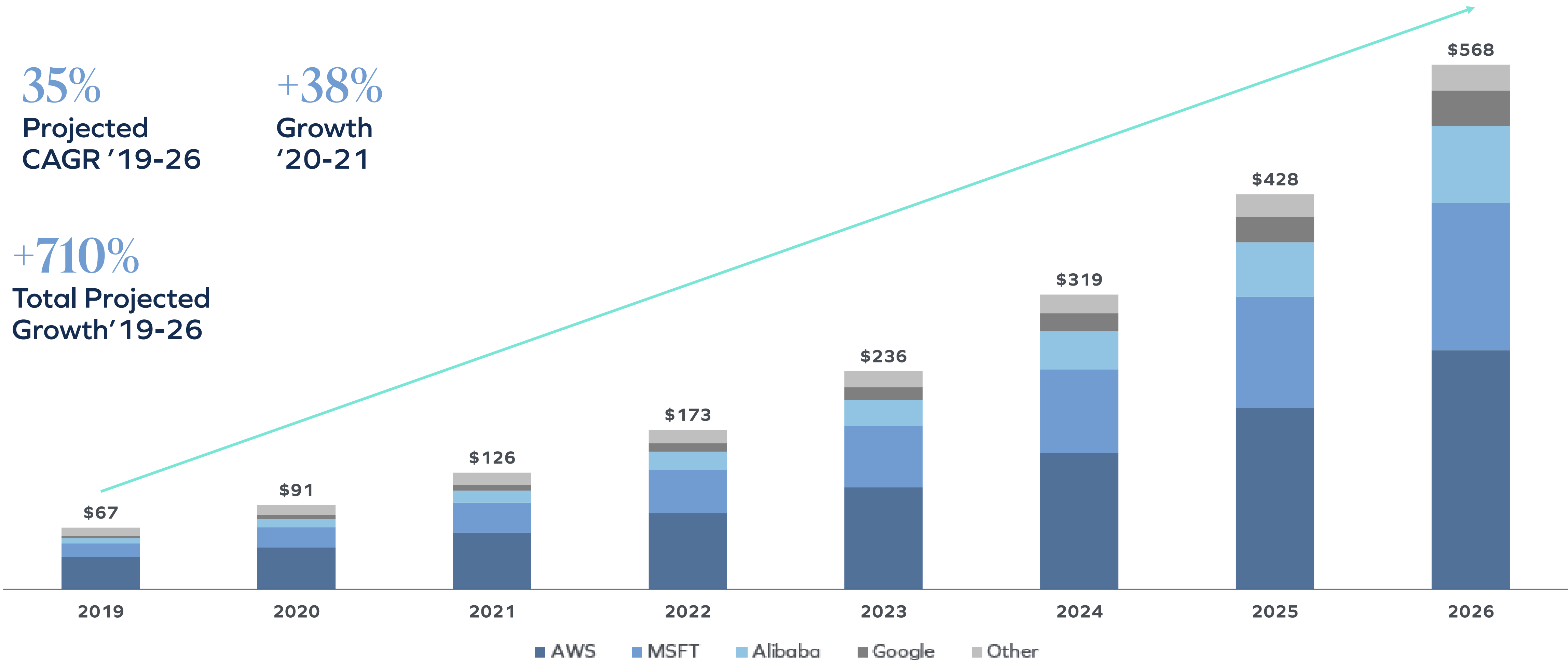
“We believe that now is the right time to increase our investments to capture market share. As such, we expect to roughly double our cloud capex spend in FY 2022. We are confident that the increased return in the cloud business more than justifies this increased investment and our margins will expand over time.”

SAFRA CATZ (CEO OF ORACLE), 3Q 2021

# The Cloud is Growing and Scaling Rapidly

THE HYPERSCALE CSPS ARE PROJECTED TO GROW REVENUE BY 35% UNTIL 2026

## Hyperscale CSP Revenue (\$B)



Source: Structure Research Market Share Series: Hyperscale Cloud 3Q 2021.

# Why We Believe IPI Wins

## Hyperscale Partnerships



- A preferred partner for the largest hyperscalers
- Deep, multi-level alignment to solve infrastructure problems across markets
- Aims to be a trusted partner with demonstrated execution

## Proprietary Relationships



- Technology is in our DNA
- Alignment with tech industry
- Strategic relationships and insight
- Seeks proprietary opportunities

## Vertical Integration



- Differentiated IPI team
- Proven captive developer and operator - STACK Infrastructure
- Local presence and experience in top global markets
- Platforms with deep industry experience

## Investment Flexibility



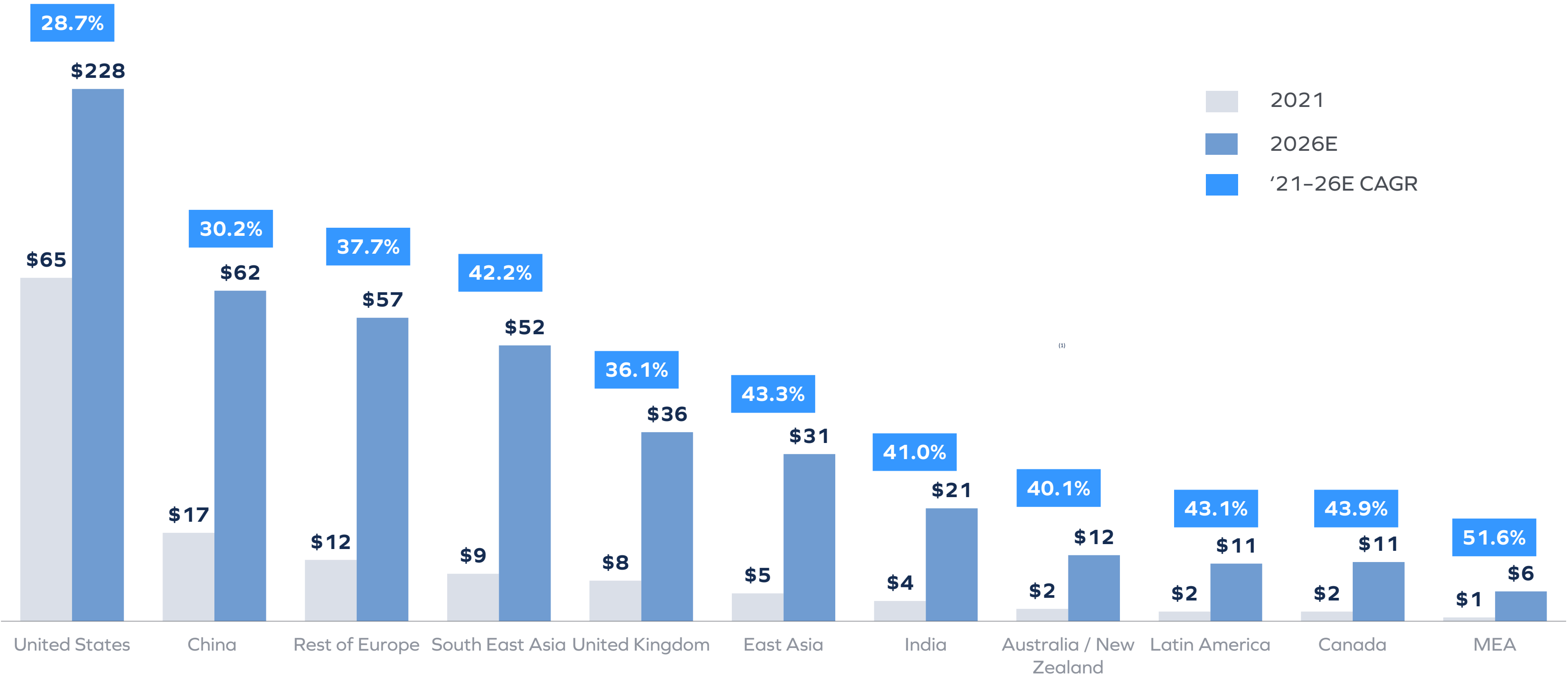
- Multiple solutions for capacity and timing needs
- Strategic land holdings
- Creative structuring with partners / JVs

# Opportunity Driver: Globalization

OUR CUSTOMERS ARE CONTINUING TO GLOBALIZE RAPIDLY AND NEED PARTNERS TO HELP THEM MEET THEIR CAPACITY REQUIREMENTS

## Hyperscale Cloud Revenue by Region 2021 – 2026E

While U.S. markets are anticipated to continue growing at a healthy ~28.7% CAGR through 2026, emerging markets in Europe and Asia are anticipated to maintain higher CAGR

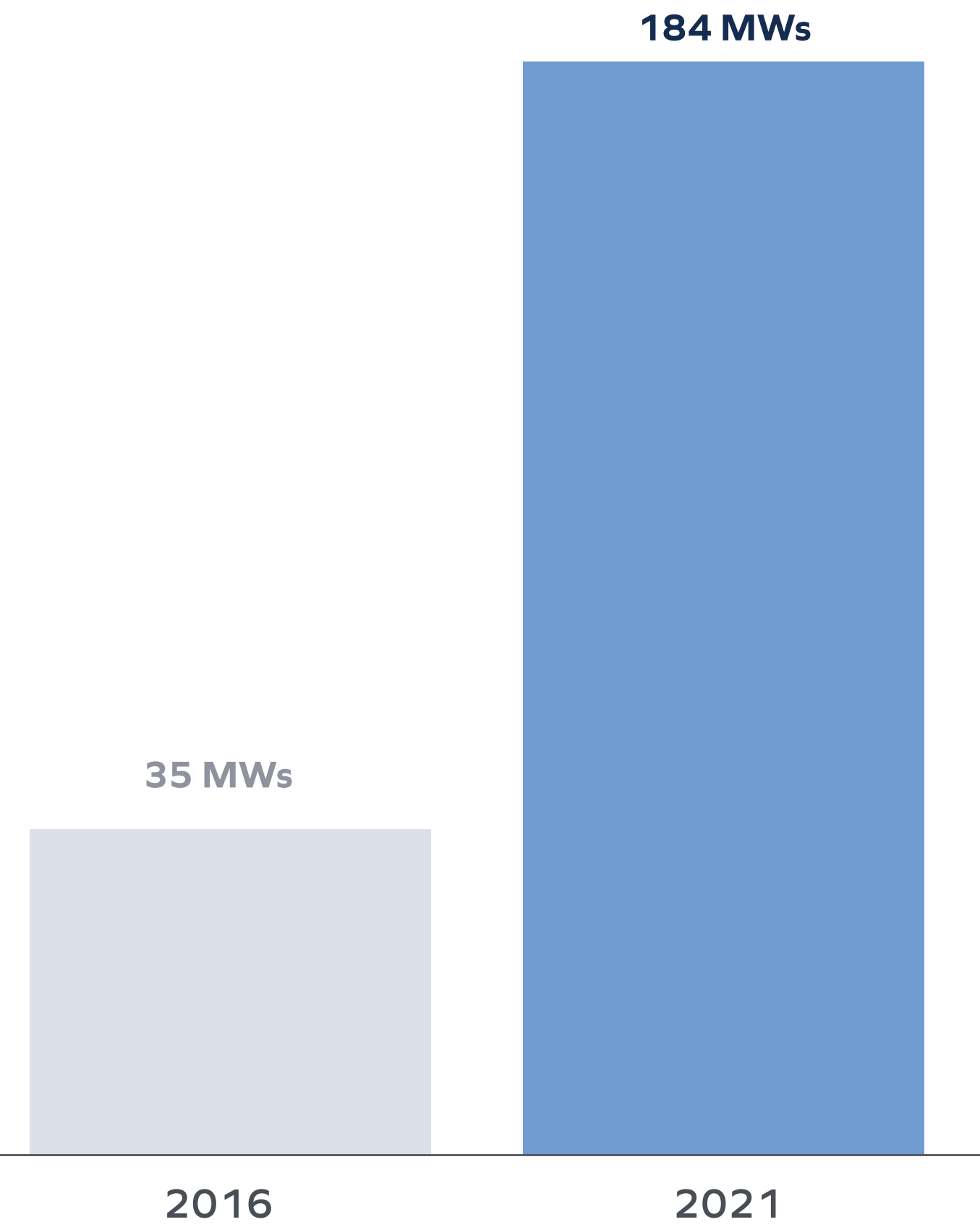


Sources: RBC – Data Center Markets

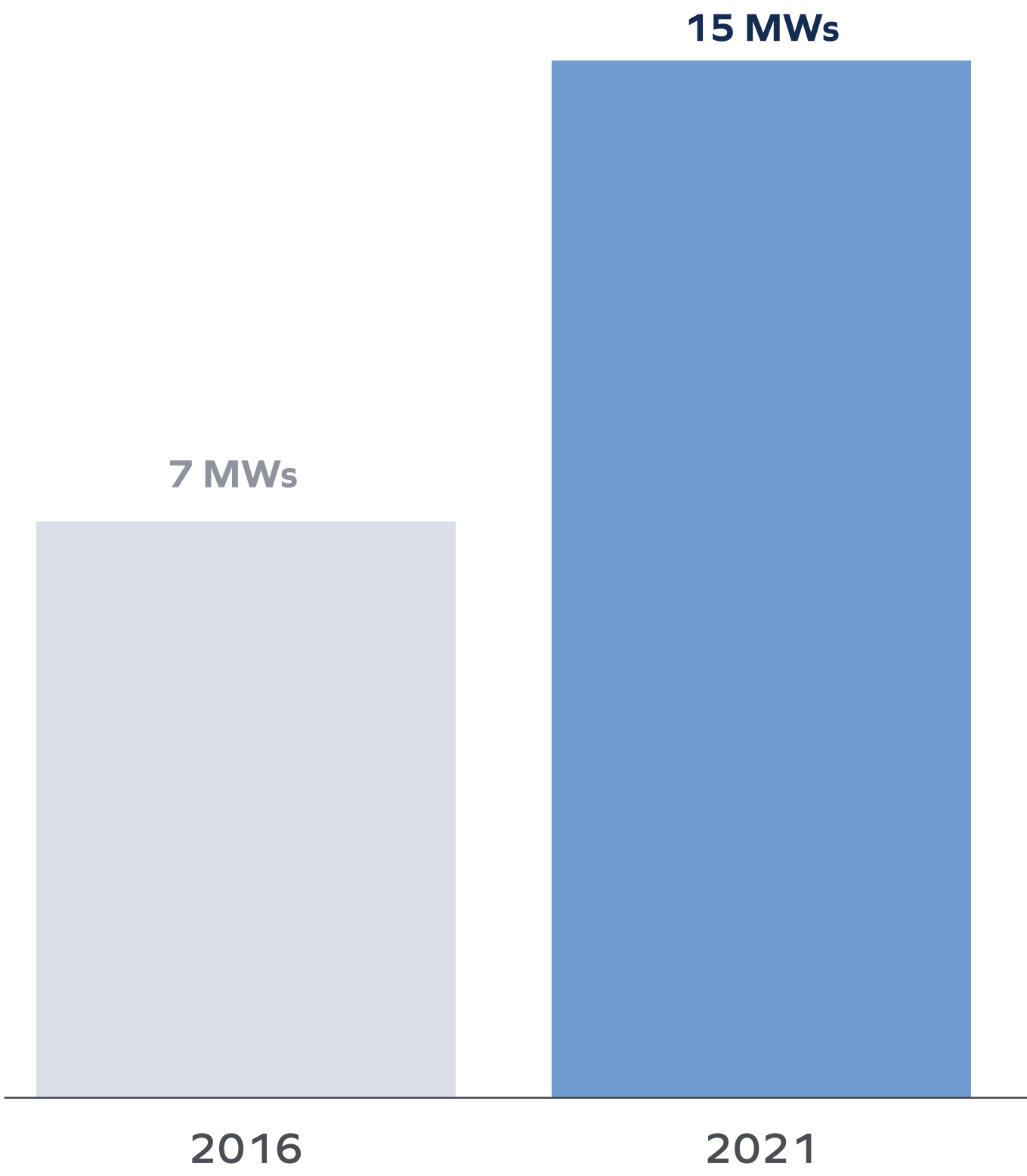
# Opportunity Driver: Increasing Scale of Projects

FACILITY SIZES HAVE SCALED RAPIDLY WITH CUSTOMERS LOOKING TO PROVEN PARTNERS LIKE IPI FOR EXECUTION

**Largest Industry Wide Wholesale Leases**



**Industry Wide Average Lease Size**



Source: Kerrigan Lease Data  
Notes: Neither past nor projected performance is indicative of future results. Please see "Important Information" beginning on page 2.



# Opportunity Driver: Limited Supply

FUNDAMENTALS SUPPORT DEVELOPMENT IN MARKETS ACROSS THE GLOBE

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## Strong Absorption & Pre-Leasing

Strong absorption levels and healthy pre-leasing are common characteristics across Tier I markets

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## Record Low Vacancy Rates

Tier I data center markets across the globe continue to experience record low vacancy rates

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## Supply Constraints

Many Tier I global markets increasingly face supply constraints with scale and sector expertise becoming a competitive advantage

## Ground-Up Development

Market fundamentals suitable for new ground-up development in Tier I global markets, but require access to land, power, and the ability to execute on an expedited timeline

With global scale, a far-reaching network, and an extensive development track record, IPI is well positioned to successfully develop new data centers in targeted markets

# We Seek to be an Industry Leader in Responsible Data Center Investing

WE BELIEVE MANAGEMENT OF ESG ISSUES AND RESPONSIBLE INVESTMENT ARE ESSENTIAL FOR CREATING VALUE FOR INVESTORS, SOCIETY & OUR EMPLOYEES

## Environmental

- Supported significant strides across our portfolio:
  - STACK operates its portfolio on 100% renewable energy and completed first green financing
  - DigiPlex’s data centers utilize 100% renewable power
  - SUPERNAP Italia provides 100% certified green energy through Guaranteed Origin (GO) certificates
- Dedicated meaningful resources to optimizing design to minimize water usage and utilize renewable energy and sustainable construction materials

## Social Impact

- Formulated a Diversity, Equity and Inclusion Policy
- Signed 5-year pledge to the Pension Real Estate Association (“PREA”), to support the growth and development of diverse talent in the real estate sector
- Sponsored a summer internship program aimed at providing college students from underrepresented backgrounds with exposure to real estate careers
- Launched IPI Cares, a volunteering and charitable donation matching program, encouraging and supporting employee generosity and community involvement
- Founded a Women’s Leadership initiative in partnership with STACK to increase visibility and promote advancement of women in the data center sector

## Governance



- Issued IPI’s inaugural Responsible Investment Annual Report in 2022
- Became a signatory to the Principles for Responsible Investment (PRI) and further integrated ESG initiatives into our overall business activities
- Required all IPI platform companies to report on ESG performance to their respective boards utilizing a common framework
- Implemented a responsible contractor policy and worked with our supply chain to incorporate ESG principles and accountability into third party contracting decisions

Our Values

**Partnership:** Relationships are at the center of everything we do; we are committed to absolute respect, trustworthiness and integrity

**Intellectual Curiosity:** We believe we always have more to learn; we ask questions and seek to inspire innovation

**Inclusion:** Promoting Diversity, Equity and Inclusion betters our firm, our industry, and our communities, while strengthening our competitive advantage

# Investment Highlights

## Generational Global Opportunity

- Massive growth in data creation driving need to more facilities and larger deployments
- Key global markets undergoing rapid transformation driven by hyperscale companies
- Attractive development margins with many projects pre-leased by high quality tenants
- We believe IPI is well positioned to address globalization and larger scale of projects

## Differentiated & Focused Investment Strategy

- Pure-play strategy focused exclusively on investments in data centers and complementary assets
- Alignment with tech giants to solve their infrastructure problems globally – as they grow, we both win
- Strategic capital leveraging collective networks of ICONIQ and Iron Point

## Industry Leading Team & Performance

- 40+ investment professionals complemented by a team of experienced operating professionals
- Existing funds are fully committed with the foundation established for a growing international footprint









SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 7, 2022

Members of the Investment Advisory Council ("IAC")

**Re: Consideration of IFM Global Infrastructure Fund (U.S.), L.P.**

Dear Fellow IAC Member:

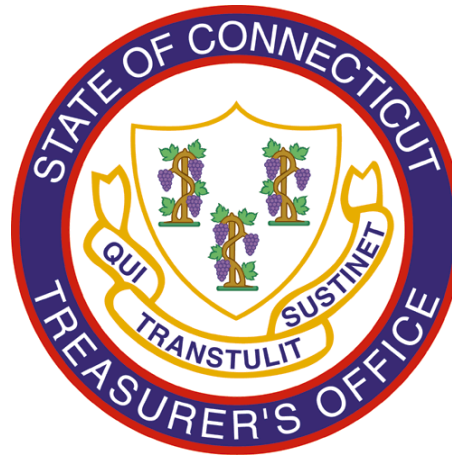
At the September 14, 2022 IAC meeting, I will present for your consideration a Real Asset Fund ("RAF") investment opportunity for the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): IFM Global Infrastructure Fund (U.S.), L.P. ("GIF", or the "Fund"). GIF is an open-end fund managed by Industry Funds Management ("IFM," or the "Firm").

I am considering an additional commitment of up to \$100 million in the Fund, which will bring the CRPTF's total commitment up to \$300 million (following a \$200 million investment the CRPTF closed in December 2019). The Fund is focused on core, and core-plus infrastructure investments within three sectors: (i) transportation, (ii) energy/energy transition, and (iii) utilities, with a global geographic focus. GIF targets high-quality infrastructure assets and takes an active management approach to improve the performance of the assets over the long term. The Fund has attractive net long-term performance and allows for additional exposure to an existing real assets portfolio, immediate portfolio cash yield upon capital draw, and the reduction of blind pool risk. The investment will increase CRPTF's core infrastructure exposure towards its target allocation.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer, and the due diligence report prepared by Meketa. I look forward to discussing these materials at the next meeting.

Sincerely,

Shawn T. Wooden  
State Treasurer



**Full Due Diligence Report**  
**Chief Investment Officer Recommendation**  
**September 7, 2022**

**IFM Global Infrastructure Fund (U.S.), L.P.**

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# Executive Summary

## Manager Overview

- Firm: Industry Funds Management (“IFM”, or the “Firm”)
- Fund: IFM Global Infrastructure Fund (U.S), L.P. ( “GIF”, or the “Fund”)
- Year Founded: 1994
- Offices: Australia (Melbourne and Sydney), North America (New York), Europe (London, Berlin, Zurich and Amsterdam), and Asia (Tokyo, Hong Kong and Seoul).
- Led by Kyle Mangini, Global Head of Infrastructure, Julia Garcia, Head of Infrastructure N. America, Christian Seymour, Head of Infrastructure Europe and Michael Hanna, Head of Infrastructure Australia.
- 679 employees at IFM, of which 110+ are investment professionals on the Infrastructure team
- AUM: \$136 billion across four asset classes; \$64.3 billion in Infrastructure Equity

## Fund Summary

- \$44.2 billion as of June 30, 2022
- US Dollar denominated
- Core focus targeting high quality, long life, stable inflation protected investments that benefit from economic growth
- Sector Target: utilities, energy/energy transition, and transportation
- Geography Target: Global
- Return Targets: Net 8-12%
- GP Commit: The General Partner does not commit to the Fund. However, IFM Investors' pension fund owners directly invest in the Fund and currently represent ~30% of global assets
- Term: Open-end
- Management Fee: 0.77% on NAV

## Strategic Fit

- Infrastructure and Natural Resources (“INR”) allocation
- Recommended Commitment: additional \$100 million (bringing the total to a \$300 million commitment)
- New/Existing Manager for the CRPTF: Existing
- Fund Structure: open-end
- Infrastructure and Natural Resources Strategic Pacing Plan
- Sub Strategy: Infrastructure
- Risk/Return: Core
- Current Allocation by Market Value as of June 30, 2022: 1.6%
- Long Term Infrastructure and Natural Resources Target Allocation: 4.2%



## Recommendation

- Based on the strategic fit in the Infrastructure portion within the RAF portfolio, as well as the due diligence conducted by Pension Funds Management (“PFM”) investment professionals, and INR consultant Meketa, the Chief Investment Officer of the Connecticut Retirement Plans and Trust Funds (“CRPTF”) recommends a “top off” commitment of up to \$100 million to IFM Global Infrastructure Fund (U.S.), L.P.
- At a \$100 million commitment, the CRPTF would provide additional investment in the core infrastructure sector to a high conviction manager, reduce fees and would likely be fully invested in 6-12 months.

## Investment Considerations

- GIF pursues global investments in infrastructure assets with a long-term focus.
- Open-end structure matches long term nature of core assets/investment, supports potential for add-on investments, limits blind pool risk and provides strong cash yield.
- Experienced and cohesive team with investment, operating and specialist technical expertise within the IFM team and supported by senior advisors. This provides industry insight as well as deal sourcing advantages.
- Strong track record, existing core infrastructure manager. Increasing investment lowers fees and provides for co-investment rights.

## Firm History

- IFM operates four asset class segments: Infrastructure, Debt Investments, Private Equity, and Listed Equities.
- IFM launched the IFM Australian Infrastructure Fund in 1995 to provide Australian pension funds with diversified exposure to Australian infrastructure investments.
- In 2004, IFM launched the IFM Global Infrastructure Fund (IFM GIF) to invest in opportunities in international infrastructure.
- GIF has invested in core infrastructure since inception.

## Firm Leadership

- IFM is owned by 19 Australian Pension Funds.
- Kyle Mangini, Global Head of Infrastructure, has overall responsibility for the Infrastructure Team. Kyle has been with the Firm for an average of over fourteen years and has over 30 years experience.
- IFM has a seven-member Investment Committee with an average of 25+ years experience that approves all investments over A\$100m; a two-person Board Investment Committee with over 30+ years experience, for transactions over A\$500 million. Investment Committee decisions are approved if more than 60% of Investment Committee members vote in favor. Each investment proposal is reviewed by the Investment Committee at least three times, with investment reviews and supporting documents provided at each stage.

## Firm Governance/Team

- IFM's Global Infrastructure Team includes over 110 investment and asset management professionals in North America, Europe, and Asia.
- 23 senior advisors are retained who provide infrastructure advice exclusively to IFM
- Average tenure at IFM Investors: 11 years
- Average industry experience: 24 years

# Global Infrastructure Team



An experienced team of 110+ infrastructure professionals with diverse industry backgrounds



**Kyle Mangini**  
Global Head  
of Infrastructure



**24** years  
average  
industry  
experience <sup>(1)</sup>



**11** years  
average  
tenure at IFM  
Investors<sup>(1)</sup>



**30%**  
female  
investment  
team staff



**20+**  
Languages  
Spoken



**300+**  
support staff  
across Legal,  
Tax & Ops

## North America

 Julio Garcia Head of Infra – Nth A.	 Tom Osborne Exec. Director	 Michael Kulper Exec. Director	 Adrian Croft Exec. Director
 Jim Wierstra Exec. Director	 Wei-Sun Teh Exec. Director	 May Soh Exec. Director	 Aaron McGovern Exec. Director
 David Sparrow Investment Director	 Joseph Braun Investment Director	 Ashish Thomas Investment Director	 David Seelbinder Vice President
 William Docherty Vice President	 Ian Pearson Vice President	 Brennan Hudson Vice President	 Lee Wright Vice President
 Owen Scrivener Senior Associate	 Matthew Wallis Senior Associate	 Bryan Lothrop Senior Associate	 Luis De Segovia Senior Associate
 Maria Surilas Associate	 Brielle Perez Associate	 Jeffrey So Associate	 Henry Stevenson Associate
 Dennis Mou Associate	 Kevin McKinnon Associate	 Daniel Vasquez Associate	 Jungbin Cho Associate
 Rodrigo Bazzi Analyst			

## Europe

 Christian Seymour Head of Infra – EUR.	 Manoj Mehta Exec. Director	 Deepa Bharedwaj Exec. Director	 Werner Kersch Exec. Director
 Lars Bespolka Exec. Director	 Deepu Chintamani Exec. Director	 Albena Vassileva Exec. Director	 Mandeep Mundae Investment Director
 Guillaume Camus Investment Director	 Jaime Siles Investment Director	 David Stinton Vice President	 Giovanni Stroeckx Vice President
 Felix Schmidt Vice President	 Renato Pizzolla Vice President	 Annika Kruzite Senior Associate	 Drummond Clark Senior Associate
 Gail Pakalinskiene Senior Associate	 Aniruddh Chandrasekar Senior Associate	 Mehmet Kirtman Senior Associate	 Jaime Salazar Rosado Senior Associate
 Derek Boyse Senior Associate	 An-Cecile Vo Associate	 Tomas Knapp Associate	 Aymeric Lubino Associate
 Jose Alberto Marin Associate	 Anna He Associate	 Shruti Upadhyay Analyst	 Edyta Zacharska Analyst
 Stella Jingyi Li Analyst			

## Asia

 Jamie Cemm Exec. Director	 Neil Doherty Exec. Director	 Debbie Fan Investment Director	 Jay Kim Investment Director
 Amy Zhu Vice President	 Soo Lee Vice President	 Wing Chung Vice President	 Victor Ly Senior Associate
 Zoe Ouyang Associate			

## Australia

 Michael Hanna Head of Infra – AUS.	 Ashley Barker Exec. Director	 David Dawson Exec. Director	 Michael Landman Ex. Director, Portfolio
 Jill Rossouw Exec. Director	 Marigold Look Exec. Director	 Aaron McGovern Exec. Director	 Josh Crane Investment Director
 Mark Turner Investment Director	 Antony Tee Vice President	 Joshua Norton Vice President	 Julian Gray Vice President
 Achwin Mathur Vice Pres., Portfolio	 Abbie Sui Snr Assoc., Portfolio	 Kalle Fung Snr Assoc., Portfolio	 Vivien Cheung Senior Associate
 Calvin Ker Senior Associate	 Brian Chitty Senior Associate	 Kit Lee Senior Associate	 Emmanuel Heretakis Associate, Portfolio
 Jack Davey Associate	 Dean Lee Associate	 Matthew Tsiglopoulos Analyst, Portfolio	 Alexis Liberg Analyst
 Bryan Sim Analyst, Portfolio	 Nga Nguyen Graduate Intern	 Jodie Eldridge Knowledge Manager	

## Global Asset Management Specialist Team

 Sebastián Domenech Exec. Director	 Kittredge Zuk Exec. Director	 Nicole Zhang Vice President	 Eric Ainspan Associate
 Catherine Gerkis Associate	 Nicholas Rivera Associate	 Michael Williams Analyst	

 Duncan Symonds Exec. Director	 Maximilian Fieguth Director	 Rayan Taleb Vice President	 William Phillips Senior Associate
 Victoria Driskill Associate	 Cristina Pena Rincon Associate	 Caroline Gayed Analyst	 Lucy Stewart Analyst

 Danny Elia Exec. Director	 Peter Hannam Director	 Timothy May Director	 Josh Sucharov Senior Associate
 Clara Martin Senior Associate	 Marina Skocic Analyst		

(1) Representative of employees who are Director and above in title.



# Investment Strategy

## Sector Selection

- While there are no specific sector limitations, IFM's investment activity is concentrated in three key infrastructure sectors: transportation, midstream-energy, and utilities.
- IFM invests globally, focusing primarily on countries with investment-grade long-term credit ratings, established regulatory environments and strong rule-of-law with an active approach in Europe and the Americas. The Firm has a tactical approach to other regions.

## Market Opportunity

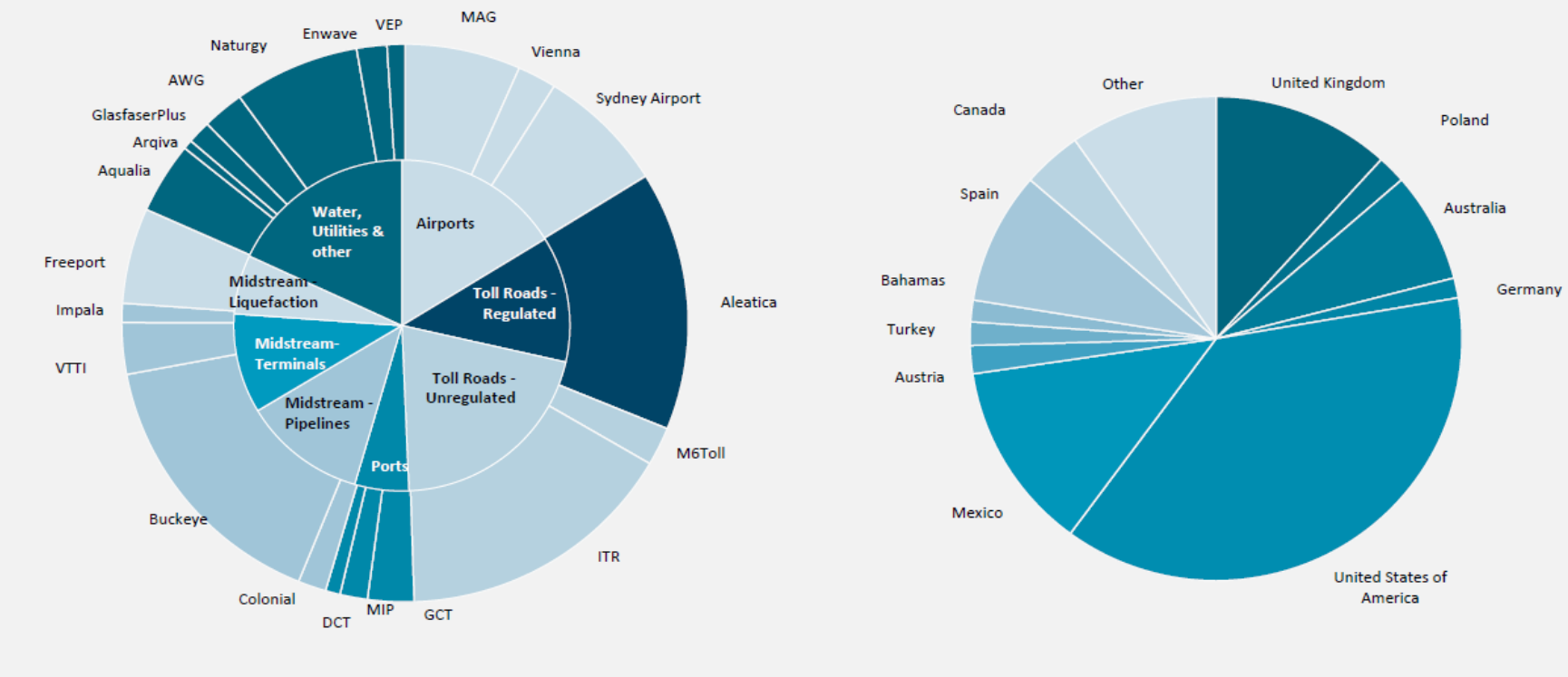
- Investment in GIF provides the opportunity to invest in a portfolio of existing, high quality core infrastructure assets with stable and increasing revenue characteristics within the transportation, energy and utility sectors.
- These investments, which generate stable cash flows with potential for capital growth, are long-duration, often with a life of 30+ years. They offer some degree of inflation protection, are not correlated with the other asset classes, and offer less volatility.
- The large size of IFM allows investment in controlling to full ownership interests and differentiated investment opportunities than smaller and mid-market funds.

## Target Investment Characteristics

- IFM's Global Infrastructure Fund strategy is to manage a diversified portfolio of global infrastructure investments with a net target return of 8-12% over the long-term.
- IFM Investors has an active ownership style and targets board representation for every asset to help ensure hands-on, proactive asset management.
- Typical investments have low risk profiles through monopoly-like characteristics, strong market positions, a reliable regulatory environment, high barriers to entry, limited demand-elasticity, exposure to inflation and economic growth, and /or long lives.

# GIF Portfolio Composition

## Portfolio Composition



As at 31 March 2022. Portfolio companies have been allocated to sub-sectors based on core exposures, some portfolio companies do have assets in multiple sectors.



# CRPTF Infrastructure Portfolio Composition

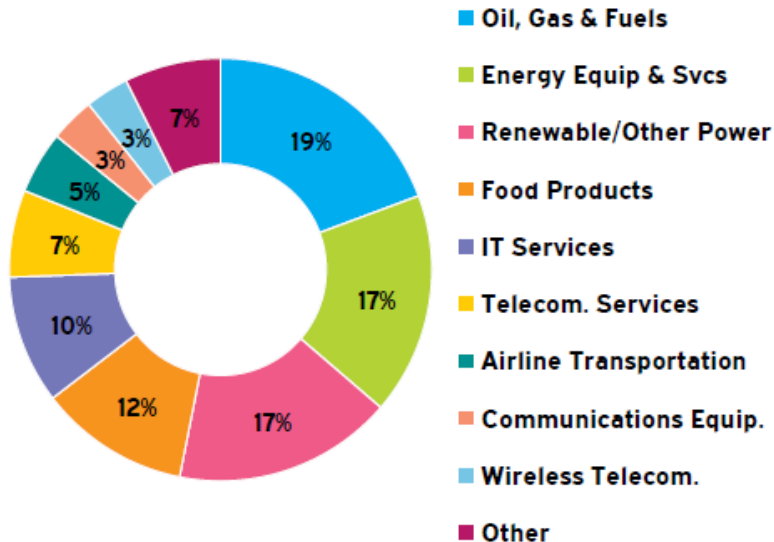
Office Of The State Treasurer  
Pension Fund Management



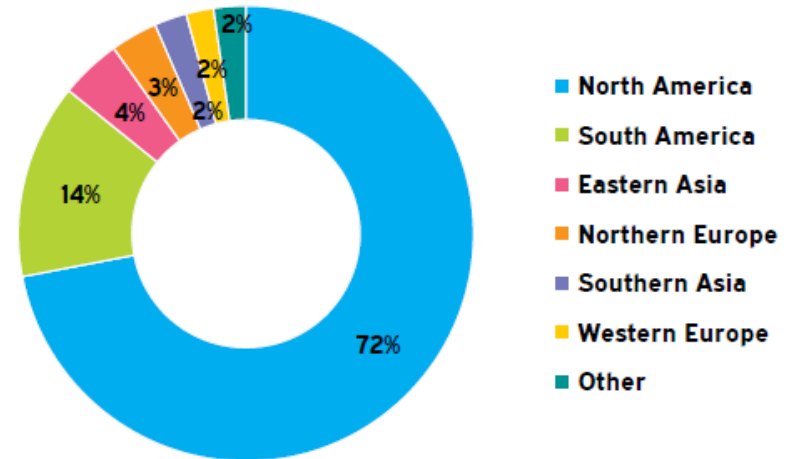
## CT Consolidation of Investment Funds Real Assets Program

Asset Diversification | As of December 31, 2021

By Sector  
Percent of FMV



By Geography  
Percent of FMV



# Investment Strategy Continued

## Origination

- IFM Investors maintains strong relationships with corporations, governments, co-investors and advisers globally in order to align and work cooperatively with strategic operators, governments and financial firms.
- IFM reviews a steady stream of opportunities that include a number of proprietary investments. The portfolio companies across the Australian Infrastructure Fund and IFM Global Infrastructure Fund, which cover a significant range of infrastructure sub-sectors, provide access to deals and information.
- The origination capabilities are supported by the Funds' open-ended structure and the focus on larger, more complex transactions. The large infrastructure team and pool of senior advisors further enhance origination.

## Value Creation Strategy

- The Asset Management Framework is structured with the goal of maximizing the long-term value while minimizing risks through:
- **Strategic Asset Management** - IFM participates actively in asset level annual business plans. Through the representation on asset level boards, the asset management team participates in budget reviews, drives business objectives and identifies business risks to drive each asset's long-term value.
- **Capital Management** - IFM has a strong in-house expertise to due diligence financial conditions and leverage positions to determine optimal levels. The team takes a long-term view centered on sustainable capital structures within a variety of economic and industry environments.
- **Operational Management** - Investing in high quality assets and proactively focused on management team success to drive earnings growth.

## Exits

- Due to the open-end and core focus, sales/exits are not the target of a business plan. Rather, IFM expects every asset to perform successfully over many decades and deliver steady investment returns over the long term. IFM consistently evaluates the market for divestment opportunities. Exits of assets on a selective basis are done and may do so in the future when:
  - Another party offers to buy an asset based on a valuation significantly above IFM's.
  - A sub-sector becomes heavily competitive and there is the opportunity to sell at a price well above market norms.
  - IFM's outlook on an industry becomes negative or the relevant regulatory regime proves to be unreliable or uneconomic.
  - The ownership structure of a company changes and makes the asset less attractive to IFM Investors or difficult to govern effectively.
  - A company fails to perform or finds itself in circumstances which prevent it from achieving investment goals over time.

# Track Record and Performance

Data as of June 30, 2022

- GIF Master Fund was launched in 2004. The GIF Class A US LP shares, which is the vehicle CRPTF invests through, have returned 12.0%, net of fees, since opening in January 2016 and the GIF Master Fund has returned 9.2%, net of fees, since inception.
- GIF seeks a significant contribution of return from cash yield over the medium to longer term. The cash yield since inception has been 7.2% annually since inception (2016). However, the cash distribution does vary from year to year and has been lower in recent years as new investments have impacted the available cash.
- GIF has outperformed its objective (8-12% net) since inception and the CRPTF Infrastructure benchmark of CPI + 400 in all periods but the one-year. Additionally, IFM GIF has outperformed the public DJ Brookfield Global Infrastructure index during all time periods.

	Net Returns				
	One-Year	Three-Year	Five-year	10-year	Since Inception
IFM GIF (2004 Inception)	12.8%	10.5%	12.4%	11.1%	9.2%
IFM GIF Class A US Shares (2016 Inception)	12.8%	10.5%	12.6%	NA	12.0%
Average Annual Cash Yield (2016 inception)	1.4%	2.9%	7.7%	NA	7.2%
CPI + 400 (2016 inception)	13.1%	9.0%	7.9%	6.6%	7.7%
DJ Brookfield Global Infrastructure Index	2.2%	10.1%	4.5%	5.7%	6.0%

Source: IFM, Meketa and CRPTF



## IFM GIF

- The recommended commitment would be categorized under the Infrastructure sub-category of the Infrastructure and Natural Resource (“INR”) allocation of the RAF.
- The Investment Policy Statement, adopted March 10, 2021, (the “IPS”) sets a target allocation of 50-70% for Infrastructure investments within the INR portfolio.
- The recommended commitment would be categorized as core/core plus.
- The IPS sets a target allocation of 40-60% for core Infrastructure investments within the INR portfolio.

A commitment to GIF would be aligned with the RAF strategic pacing plan objectives.

- The current CRPTF policy targets total exposure to Infrastructure and Natural Resources to be 4.2%.
- As of June 30, 2022, the CRPTF’s total allocation by market value to Infrastructure and Natural Resources was 1.6%.
- The goal of forming significant relationships with strong and differentiated managers as the CRPTF builds out its INR sleeve.
- The opportunity of near-term investment (6-12 months) into an existing pool of high-quality infrastructure investments with strong, near-term fundamentals.

# Strengths and Rationale

## Experienced Team/Ownership Structure

- The GIF investment/asset management team is comprised of approximately 110 dedicated infrastructure professionals in Australia, Europe, Asia and North America. The team has extensive expertise in operations, deal structuring, capital management, asset management and portfolio management.
- 20 dedicated and well credentialed global advisors with diverse industry expertise further support the organizational strength.
- The Fund's ownership by 19 pension funds offers strong alignment with similarly situated investors who have retirement funding liabilities or other long-term funding obligations.

## Open-end Structure

An open-ended fund structure with significant operating history provides benefits which include:

- Immediate exposure to a quality real asset portfolio including immediate portfolio cash yield through a pre-specified pool of 20+ portfolio companies.
- Attractive economics with lower fees than typical closed-end funds and reduced investment transaction costs without sale requirements. Core assets are only sold when not expected to be accretive to the portfolio (rather than for term limits in a closed-end fund).
- Ability to invest incrementally in more moderate risk investments, while maintaining an overall lower risk portfolio.

## Global, Large Fund

- The broad geographic footprint provides for multiple outlets for investment opportunities/expansion of existing platforms.
- The large size of the Fund allows for less constraints on investment due to diversification concerns.
- The option to make large investment provides ability to take control positions in most assets.

# Key Risks and Mitigants

## Global Market Risk

- With a global focus, GIF is not restricted in terms of global market investment and can invest in countries that carry additional sovereign risk which exposes the Fund to changes in the political, taxation, and legal environment that can potentially impact the investment performance.
- The geographic focus is primarily on OECD member countries, with a tactical approach to other locations that have investment-grade credit ratings, established regulatory environments, and a strong rule-of-law. GIF is well-diversified geographically, with assets in over 20 countries in North America, Europe, South America, and Asia Pacific.
- The Fund endeavors to have all non-USD currencies hedged back to USD.

## Fund Exposure to Transportation Sector and Regulated Industries

- Nearly 60% of NAV is currently invested in the Transportation Sector and approximately 27% of NAV has regulated revenue which is subject to a range of local, state and federal regulations. Unanticipated changes in policies could have an impact on performance.
- The Transportation Investments are diversified across a number of different subsectors including airports, toll roads and ports and multiple countries limiting the concern. Toll roads are the largest sector with approximately 34% of the portfolio with 22 toll roads across US, Europe, and Latin America.
- Similarly, the regulated industries cross multiple sectors (water, tolls, energy) and are also diversified by regulatory agencies/countries. In general, limited volume and price risk is anticipated.

## Potential Timing of Capital Draw

- While the estimated draw of the additional investment from CRPTF is anticipated in the next six to twelve months, there is no guarantee and is dependent on GIF's investment capital requirements.
- Currently the GIF pipeline under review is robust with approximately \$10 billion in equity in various stages of due diligence.
- The current entry queue is the lowest it has been in years, with 50% earmarked with investments underway; providing expectation that the capital will be drawn on the shorter end of the time estimate.

# Fundraising and Key Terms Summary

Target Size / Hard Cap	• \$44.2 billion as of June 30, 2022
GP Commitment	• N/A; IFM pension fund owner's investment represent ~30% of GIF NAV
Fundraising Status	• Entry Queue of approximately \$4 billion, \$2 billion earmarked with current investments underway
Target Final Close	• N/A, open-ended fund
Fund Term	• N/A, open-ended fund
Investment Period	• N/A, open-ended fund; estimated 6-12 month timing to draw capital
Management Fee	• 0.77%, annually, based on NAV for commitments below US\$300 million
Fee Discounts & Offsets	• 0.65%, annually, based on NAV for commitments equal to or exceeding US\$300 million.
Carry & Waterfall Type	• 10%, Whole Fund; paid annually
Preferred Return	• 8%
GP Catch-up	• 33%
Clawback	• 50% held back each year to cover under performance in subsequent years
Other Key Provisions	• Fees reduction will be retroactive to additional investment (December 2021)

## Additional Provisions

- The IFM Global Infrastructure Fund (Master Fund) is a Cayman Islands master unit trust. Investors will subscribe for interests in a limited partnership (Feeder Fund). The Feeder Fund makes its investment by acquiring units in the Master Fund.

## IFM Investors Pty Ltd (“IFM”)

In its disclosure to the Office of the Treasurer, IFM Investors Pty Ltd (“IFM” or the “Company”), discloses the following matters:

- In May of 2022, IFM was named as a defendant in a suit by a shareholder of a company being acquired by an affiliate of IFM, alleging self-dealing and breach of fiduciary duties. IFM believes the claim is without merit.
- IFM and/or IFM’s parent company have been named in three lawsuits in Mexico in 2018, 2019, and 2020, respectively, in connection with 2017 and 2018 tender offers for shares of a Mexican publicly traded company. One of the cases was discontinued on procedural grounds, which is being appealed. Another was dismissed and is being appealed. The third is still pending. IFM believes the claims for all three suits are without merit.
- In 2019, an IFM affiliate was named as a defendant in a suit brought by shareholders of a company being acquired by said affiliate. The allegations are that IFM aided and betted the acquired company in violating securities laws, breaching their fiduciary duties, and that the IFM affiliate was unjustly enriched. The federal securities claims were dismissed by a federal court in 2021, and the plaintiffs filed state law claims in state court. IFM believes the claims are without merit.

IFM states there are no material claims under its fidelity, fiduciary or E&O insurance policies, and that it has no ongoing internal investigations to report. IFM states it has adequate procedures in place to undertake internal investigations of its employees, officers and directors.

IFM Investors Pty Ltd (“IFM”)

## **Review of Required Compliance Attachments**

IFM disclosed no third-party fees, campaign contributions, known conflicts or gifts

## **Corporate citizenship in the State of Connecticut**

None reported. The firm’s offices are in NYC and San Mateo, CA

## **Commitment to the diversity, education & training of the industry’s next generation**

The firm has recently embarked on several initiatives in recruiting, retention, training and developing talent. The firm supports a number of industry organizations focused on increasing diversity of the industry. In NYC, the firm sponsors high school students of color through “Prep-for-Prep” which includes support through college and generally includes 8-10 week internships at the firm.

## **Support for women-owned, minority-owned or emerging businesses**

The firm encourages staff to consider use of social enterprise when procuring goods and services at a local level, which may include female owned and minority-owned businesses.

# Compliance and Diversity Review

IFM Investors Pty Ltd ("IFM")

## Workforce Diversity

IFM provided data as of December 31, 2021

- 107 total employees, up 20% since 2020
- Overall, firm growth outpaced growth in Women and Minority employees

For the three-year reporting period

- Among professionals/managers, the firm promoted three minorities and two females
- Proportion of Women managers/executives remained constant
- Proportion of Women professional decreased significantly despite growth (outpaced by growth in professionals overall)
- Proportion of Minority executives remained constant but decreased significantly for managers
- Proportion of Minority professionals also decreased despite growth (outpaced by growth in professionals overall)

### WOMEN

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>40%</b> 2 of 5	<b>38%</b> 11 of 29	<b>31%</b> 22 of 71	<b>36%</b> 39 of 107
<b>2021</b>	<b>40%</b> 2 of 5	<b>40%</b> 10 of 25	<b>38%</b> 25 of 65	<b>42%</b> 41 of 97
<b>2020</b>	<b>40%</b> 2 of 5	<b>37%</b> 11 of 30	<b>38%</b> 20 of 53	<b>40%</b> 36 of 89

### MINORITIES<sup>1</sup>

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>60%</b> 3 of 5	<b>28%</b> 8 of 29	<b>41%</b> 29 of 71	<b>39%</b> 42 of 107
<b>2021</b>	<b>60%</b> 3 of 5	<b>32%</b> 8 of 25	<b>43%</b> 28 of 65	<b>43%</b> 42 of 97
<b>2020</b>	<b>60%</b> 3 of 5	<b>37%</b> 11 of 30	<b>45%</b> 24 of 53	<b>46%</b> 41 of 89

<sup>1</sup> 2021 Minority breakdown: 3 exec (1 Black, 1 Hispanic, 1 Asian); 8 mgmt (1 Black, 3 Hispanic, 4 Asian); 29 prof (4 Black, 8 Hispanic, 17 Asian)



# Environmental, Social and Governance Analysis

## Overall Assessment : Evaluation and Implementation of Sustainable Principles

IFM's disclosure described a comprehensive integration of ESG in the firm's investment processes. The firm employs an ESG policy and Responsible Investment Charter to guide the due diligence process of investments. IFM is a signatory to several responsible investment initiatives including the UN PRI and the Net Zero Asset Managers Initiative. The firm is also a member of multiple sustainability-oriented groups such as the Carbon Disclosure Project (CDP) and the Ceres Investor Network. IFM is in the process of bringing together teams that focus on ESG policies and integration across the firm, while the Investors' Group Risk Committee is responsible for the ESG policy in place. The firm provides Responsible Investment compliance trainings for investment staff and offers training via the PRI Academy.

IFM does not have a formal policy with respect to civilian firearms retailers and manufacturers from a vendor relationship perspective, given that it does not have any such vendor relationships.

Overall, the disclosure indicated the firm has meaningful ESG integration.

## SCORE

2

Criteria	Response
Firm has an ESG policy	Yes
If Yes, firm described its ESG policy	Yes
If Yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
Designated staff responsible for sustainability policies and research	Not clear
Firm provides training/resources on sustainability issues, explained sources of ESG-related data	Yes
Signatory/member of sustainability-related initiatives or groups	Yes
Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	No*

Criteria	Response
Policy that requires safe and responsible use, ownership or production of guns	No*
Enhanced screening of manufacturers or retailers of civilian firearms	No*
Enhance screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impact	Yes
Merchant credit relationship with retailers of civilian firearms and accessories	No
If Yes, firm confirms compliance with laws governing firearms sales	N/A

**Private Markets Investment Memorandum**

**IFM Global Infrastructure (U.S.), L.P.**

August 3, 2022

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## **Portland Office**

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## Executive Summary

### Diligence Process

Meketa Investment Group (“Meketa”) first initiated an evaluation of Industry Funds Management’s (“IFM”) Global Infrastructure Fund (“GIF” or the “Fund”) in 2008 and completed the initial underwrite of IFM in August 2012 when the Fund had a Net Asset Value (“NAV”) of approximately \$3.7 billion across seven assets. After the initial client commitments, Meketa has recommended IFM to additional clients over the years and continues to monitor the Fund through in-person and virtual meetings and quarterly reporting. Meketa updated the underwriting in 2019 and 2021 and has again now in 2022.

Meketa clients are invested in the IFM Global Infrastructure (US), L.P. Partnership, which is the parallel vehicle for US investors. This vehicle is further divided into Class A and Class B shares. Class A shares are currency hedged by IFM and is open to new investors while Class B shares are unhedged and is no longer open to new investors.

### Manager Background

Fund Name	Manager	Office Location(s)	Target Market	Target Geography
IFM Global Infrastructure (US), LP	Industry Funds Management Pty Ltd. (“IFM”)	Melbourne, Sydney, London, Berlin, Zurich, Amsterdam, New York, Tokyo, Hong Kong, Seoul	Core/Core-plus Infrastructure	OECD markets, primarily North America & Europe

The history of IFM dates back to 1990 when four Australian pension funds established the Development Australia Fund (“DAF”) to invest in Australian private companies, public companies, and infrastructure. In 1995, IFM launched the IFM Australian Infrastructure Fund for Australian pension funds seeking exposure to Australian infrastructure investments. In 2004, IFM launched the IFM Wholesale Trust (“Predecessor Fund”) for Australian pension funds to invest in international infrastructure. In 2008, the Predecessor Fund was restructured to form the GIF Master Fund as an investment vehicle for global investors to participate in the underlying portfolio of assets, through feeder funds in Australia, the U.K., and the US, with the latter two structured as Limited Partnerships. Since 1990, IFM’s ownership has expanded from the initial four to 19 Australian pension funds. In aggregate, as of June 30, 2022, IFM manages \$137 billion across four asset classes, including \$64 billion in infrastructure equity, \$44 billion in debt investments, \$27 billion in listed equities, and \$839 million in private equity. Each asset class has its own dedicated team.



## Offering Terms

Fund Size	Management Fee <sup>1</sup>	Carry and Carry Structure	Preferred Return	Fee Income	Inv. Period and Total Term
\$50 billion <sup>2</sup>	0.65% to 0.77%	10%	8%	100% off-set	Open-end, perpetual

## Strategy

GIF invests in core and core-plus infrastructure assets across the Americas and Europe, with a tactical approach to other regions that have investment-grade credit ratings, established regulatory environments, and a strong rule-of-law. The Fund targets individual investments of at least \$500 million to \$1.5 billion, and often significantly larger, in primarily brownfield infrastructure assets while taking an active management approach to improve asset performance over the long term. While the team continues to be active looking for new opportunities, the team is also heavily focused on using existing investments as platforms for growth, through expansionary capex, acquiring additional equity stakes, or merger and acquisition transactions. Currently, the Fund has 22 portfolio companies and plans to execute two to three new investments per year.

The Fund is focused on four broad infrastructure sectors—transportation, energy midstream, communications, and utilities—but does not have sector targets or limitations. The current portfolio of assets includes airports, ports, toll roads, pipelines, LNG terminals, fiber-to-the-home, district heating systems, and water and wastewater utilities. GIF has also committed \$500 million to IFM Net Zero Infrastructure Fund with target sectors including renewable power, energy storage, electric transport infrastructure, low carbon fuels, and carbon capture. While deals in the transportation and energy midstream sectors have meaningful GDP linkage, IFM focuses on assets that exhibit core infrastructure characteristics, including being monopolistic in nature, and having high barriers to entry, long useful lives, and demonstrated cash flow resiliency. In most cases, the assets have regulatory or long-term contracts in place that provide downside protection.

<sup>1</sup> 0.77% of NAV for investors whose NAV or total commitment is under \$300 million; 0.65% of NAV for investors whose NAV or total commitment is equal to or greater than \$300 million.

<sup>2</sup> This includes NAV of the Master fund plus undrawn investor commitments as of June 30, 2022.



## Track Record

GIF's since inception performance, and returns for specific trailing periods, is at the high end of or above the Fund's target return of 8% to 12% net. In the tables below, net returns exceed gross returns due to the inception dates of the calculations. The gross portfolio level IRR is calculated from the inception of the Master Fund in 2004 and the net returns are calculated using US LP Class A feeder cash flows, which began in 2016. The net return IRR for the Master Fund has exceeded the public market return benchmark by 660 basis points since inception.

The net and time-weighted returns ("TWR") are shown for US LP Class A feeder vehicle, which has an inception of 2016. This is a hedged feeder fund that is the vehicle available to US investors. US LP Class B was an unhedged feeder that is no longer available to new investors and is therefore no longer relevant. IFM has had strong consistent TWR performance from the inception of the US Class A feeder vehicle with a 14.3% net return. The US LP Class A feeder has also exceeded the Dow Jones Brookfield Global Infrastructure Index for all time periods on a TWR basis.

### IFM Global Infrastructure Fund As of June 30, 2022 (\$ in Millions)

Fund	Year of First Investment	Number of Investments	Invested Capital (\$)	Realized Value (\$)	Unrealized Value (\$)	Total Value (\$)
GIF	2004	28	35,277	13,993	44,241	58,234

Fund	Gross IRR (%)	Net IRR <sup>3</sup> (%)	PME <sup>4</sup> (%)	Gross TVM <sup>5</sup> (X)	Net TVM <sup>7</sup> (X)	PME <sup>8</sup> (X)	Loss Ratio <sup>6</sup> (%)
GIF	11.8	12.6	6.0	1.7	1.4	1.2	3.0

### Time-Weighted Investment Performance As of June 30, 2022

(%)	Quarter	One Year	Two Year	Three Year	Five Year	Since Inception 2016
US LP Class A (total net return)	2.8	13.3	13.9	11.0	14.1	14.3
DJ Brookfield Global Infrastructure Index	-0.1	2.2	10.1	4.5	5.7	6.0

<sup>3</sup> Net IRR and TVPI are for IFM GIF US Class A, which has an inception date of June 1, 2016..

<sup>4</sup> PME represents the public market equivalent return assuming equivalent cash flows were instead invested in the Dow Jones Brookfield Global Infrastructure Index. IFM GIF US Class A net cash flows were used in this analysis.

<sup>5</sup> Total Value Multiple (TVM) equals Realized Value plus Unrealized Value, then divided by Invested Capital.

<sup>6</sup> Loss Ratios represent the proportion of invested capital that has resulted in realized and unrealized losses in a portfolio. The Ratio is calculated by taking the sum of lost capital (invested capital minus an investment's total value) for all investments that have generated a negative return, then dividing that amount by total invested capital across the entire portfolio.



## Investment Analysis

### Strengths

- The Fund has posted strong net returns on a short and long term basis at or above target range.
- IFM GIF is well-diversified geographically, with assets in over 20 countries in North America, Europe, South America, and Asia Pacific.
- IFM uses a proactive asset management approach implemented by its 100+ investment professionals and 21 C-suite senior advisors.
- The portfolio has realized strong opportunistic exits in past years, taking advantage of a favorable sellers' market for core assets in the selected industries.
- IFM has the ability to invest with a long-term mindset of maximizing the value of its portfolio companies with an open-end vehicle.
- The Fund's ownership by 19 pension funds offers strong alignment with similarly situated investors who have retirement funding liabilities or other long-term funding obligations.

### Weaknesses

- The Fund is heavily exposed to the transportation sector, with nearly 60% of its NAV in those assets, although several sub-sectors are represented.
- Three assets account for 48% of the Fund's exposure—Aleática, Buckeye Partners, and Indiana Toll Roads.
- Although still considered a core infrastructure fund, GIF has exhibited an increasing risk-return profile with selected recent acquisitions, and may sacrifice some cash yield to invest in its businesses.
- The Fund's NAV at over \$40 billion means that IFM is generally having to find larger and more complex transactions in order to meet its scale and return targets.
- The queue for a new investor is typically 12 to 18 months, which is longer than some other open-end fund options.

## Opportunities

- The Fund's target markets need significant capital globally: transportation; water and wastewater; and renewables and conventional power.
- As closed-end infrastructure funds wind down and seek to exit investments, there could be buying opportunities for the Fund, which has a lower cost of capital than most closed-end funds.
- LNG and other alternative fuels are expected to comprise an increasing percentage of the global energy mix over the next decade, driving the need for export and terminals will continue to grow.
- Global trade and travel needs, even in the face of COVID, continue to create demand for new and expanded logistics and intermodal infrastructure assets.

## Threats

- There continues to be growing demand for core infrastructure assets by institutional investors, which puts upward pressure on entry multiples.
- IFM has assets in regulated industries, which are subject to a range of local, state, and federal decision-making that can adversely impact asset values and cash yield.
- As seen during the COVID-19 pandemic, a slowdown in global economic activity leading to a decline in freight traffic, passenger travel, energy use, etc. depresses revenues and asset values.
- Not all OECD countries have the same risk factors—some carry additional sovereign, political, and economic risks which need to be managed or avoided.



## Conclusion

IFM as an organization has a long successful track record of infrastructure investing dating back to 1990, which differentiates it from its peers. The Firm's ownership comprises 19 Australian pension funds, which is somewhat unique in the industry and offers a potential for strong alignment with investors. The Global Infrastructure Fund continues to perform well and deliver at or above its target returns. The Fund's quality of assets continues to be a major strength for IFM, offering investors diversified exposure across multiple geographies and industry sub-sectors. Through its proactive asset management approach implemented by team of investment and asset management professionals, IFM is able to make incremental improvements as well as fund large capex projects to better position the assets for further enhancement, revenue growth, and resiliency during economic slowdowns.

Considerations and concerns include the current portfolio being heavily weighted towards the transportation sector, a trend towards higher risk/return profile assets, and significant growth of the Firm over the last 10 years.

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## Investment Strategy

The Global Infrastructure Fund seeks investments of at least \$500 million to \$1.5 billion, and often significantly larger, in primarily brownfield infrastructure assets while taking an active management approach to improve asset performance over the long term. While the team continues to actively look for new opportunities, they also remain heavily focused on using existing investments as platforms for growth, through expansionary capex, acquiring additional equity stakes, or merger and acquisitions transactions. In certain cases, IFM will implement large scale projects funded by internal cash flow and or additional capital from the Fund to better position the asset for growth. The Fund will look to invest enough equity to ensure control, or at least, to secure meaningful oversight of each infrastructure asset. In several cases, IFM was able to negotiate disproportionately higher voting rights than what its economic interest would entitle. The Fund targets an 8% to 12% net IRR and a 4% to 6% annual cash yield. By following the Fund's objective to increase the total return of the Fund over the long run, not all assets will distribute proceeds as cash, which instead may be held back and re-invested into the asset.

IFM expects to invest predominantly in the Americas and Europe, with a tactical approach to other regions that have investment-grade credit ratings, established regulatory environments, and a strong rule-of-law. The Fund is focused on four broad infrastructure sectors—transportation, energy midstream, communications, and utilities—but does not have sector targets or limitations. The current portfolio of assets includes airports, ports, toll roads, pipelines, LNG terminals, fiber-to-the-home, district heating systems, and water and wastewater utilities. GIF has also committed \$500 million to IFM Net Zero Infrastructure Fund with target sectors including renewable power, energy storage, electric transport infrastructure, low carbon fuels, and carbon capture. While deals in the transportation and energy midstream sectors have meaningful GDP linkage, IFM focuses on assets that exhibit core infrastructure characteristics, including being monopolistic in nature, and having high barriers to entry, long useful lives, and demonstrated cash flow resiliency. In most cases, the assets have regulatory or long-term contracts in place that provide downside protection.

The Fund currently has 22 portfolio companies and plans to execute on two to three new investments per year. During the formative years, the Fund took smaller equity positions, mainly in the range of \$100 million to \$500 million, but since 2010 has sought larger equity stakes as the size of the Fund has grown, now targeting \$500 million to \$1.5 billion or more positions, as noted above. This has allowed the Firm to participate in larger, complex transactions, which are arguably subject to less competition. The Fund is also able to go after a range of opportunities meeting its criteria with less concern for skewing its diversification metrics.

While as an open-end Fund, IFM does not face the pressure to exit investments on a certain timeline, it takes an opportunistic approach to divestments. For example, IFM divested several utility assets to capitalize on strong acquisition bids by listed corporate utilities. As part of the annual review of every asset, consideration is given to whether exiting an asset will be beneficial to investors. IFM may consider an asset sale in several cases, including: (1) the investment is no longer anticipated to achieve the target return and yield over the medium to long-term; (2) the risk profile of an asset has changed (i.e., an



asset with a long-term contract expires and is not replaced); and/or (3) another party offers to buy an asset based on a valuation significantly above IFM's carrying value.

## Pipeline

IFM is currently working on a number of opportunities totaling approximately \$10 billion of required equity. The investment pipeline includes airports, midstream energy, digital, utilities and ports across North America, Europe, and Latin America. Opportunities have been sourced by leveraging existing investments and the investment team's expertise.



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## Manager Background

The history of IFM dates back to 1990, with the formation of the Development Australia Fund (“DAF”), created by four Australian pension funds to invest in Australian private and public companies and infrastructure. In 1995, IFM launched the IFM Australian Infrastructure Fund (“AIF”) for Australian pension funds seeking exposure to Australian infrastructure investments. The AIF Fund held 16 portfolio companies as of June 30, 2022, including Sydney Airport that which is held by both AIF and GIF. In 2004, IFM launched the IFM Wholesale Trust (“Predecessor Fund”), for Australian pension funds to invest in international infrastructure. In 2008, the Predecessor Fund was restructured to form the Global Infrastructure Fund (“GIF”) as an investment vehicle for global investors to participate in the underlying portfolio of assets, through feeder funds in Australia, the U.K., and the US, with the latter two structured as Limited Partnerships. In 2011, IFM invested significantly in global marketing and distribution functions resulting in the growth of the investor base from approximately 40 investors in 2012 to now over 550 investors in GIF as of June 30, 2022. IFM is also marketing a newly formed open-end Net Zero Infrastructure Fund (“NZIF”), with an initial target of \$3 billion that will include \$500 million investment from GIF. Adding to its existing offices in Melbourne, Sydney, London, and New York, IFM also opened up offices in Berlin, Tokyo, Hong Kong, Seoul, Zurich, and Amsterdam from 2013 to 2021 mainly to support the investor relations function, but also to expand the investment and asset management staff footprint. A few professionals are also based out of Houston to oversee the Freeport LNG terminal asset.

IFM is a subsidiary of Industry Super Holdings Pty. Ltd, which is wholly owned by a group of Australian pension funds. Over the years, that ownership group expanded from the original four to now 19 not-for-profit Australian pension funds. However, IFM is independently run, having its own independent Board of directors and an executive team that ultimately reports to the Board. In aggregate, as of June 30, 2022, IFM manages \$137 billion across four asset classes, including \$64 billion in infrastructure equity, \$44 billion in debt investments, \$27 billion in listed equities, and \$839 million in private equity. Each asset class has its own dedicated investment team, but shares middle and back-office support functions.

## Investment Resources and Experience

The IFM Infrastructure Team consists of over 100 investment and asset management professionals, 35 of which are based in North America, 35 in Europe, nine in Asia, and 32 in Australia, including the Global Head of Infrastructure. The Global Asset Management team, consisting of seven professionals in North America, seven in Europe, and five in Australia, is responsible for providing support in executing business plans and capitalizing on portfolio wide initiatives that can benefit from economies of scale. Certain members on the investment team or asset management team may also be seconded to a portfolio company to help with budgeting and treasury functions. For example, in one case an IFM employee served as interim CFO at a portfolio company. These appointments are made on an as needed basis.

IFM manages three infrastructure equity funds: AIF; GIF; and NZIF. The Australian team primarily focuses on AIF, but is also responsible for Sydney Airport, which is in both AIF and GIF. They may also source NZIF renewable and energy transition opportunities. Meanwhile, the North American, Europe, and Asia teams are responsible for sourcing opportunities for GIF and NZIF.

IFM also currently retains 21 senior advisors to advise the Infrastructure Team on an exclusive basis (pertaining to anything infrastructure related), on a range of asset management, commercial, and investment issues. In addition to advisory work, they can participate on specific deal teams, and serve on portfolio company boards of directors.

### Senior Investment and Asset Management Professionals

Name	Title	Years At Manager	Total Years' Experience	Relevant Experience/Degree
Kyle Mangini	Global Head of Infrastructure	15	32	→ CSFB; SBC Warburg → BA, Wesleyan
<b>North America</b>				
Julio Garcia	Head of Infrastructure	15	27	→ Viant Capital; Bank of America; Robertson Stephens; Gemini Consulting → BA, Stanford; MBA, Stanford
Tom Osborne	Executive Director	10	31	→ UBS; Credit Suisse First Boston; PaineWebber Incorporated → BA, Virginia
Michael Kulper	Executive Director	9	32	→ Transurban; Credit Suisse → Univ. of Sydney
Adrian Croft	Executive Director	13	25	→ Credit Suisse; Credit Suisse First Boston → Univ. of Sydney
Jim Wierstra	Executive Director	5	17	→ Macquarie Capital; Macquarie Infrastructure and Real Assets → BBA, Wilfrid Laurier Univ.; Master of Finance, INSEAD; CFA





Name	Title	Years At Manager	Total Years' Experience	Relevant Experience/Degree
Wei-Sun Teh	Executive Director	13	18	→ Commonwealth Bank of Australia; PricewaterhouseCoopers → Univ. of Melbourne; CFA
Sebastian Domenech	Executive Director, Asset Management	6	25	→ LATAM Airlines; Booz & Company; ExxonMobil; Techint; Pirelli Tires → Univ. of Buenos Aires; MBA, Michigan
Kittredge Zuk	Executive Director, Asset Management	11	17	→ Blue Source LLC; Banc of America Securities → BA, Washington and Lee
Aaron McGovern	Executive Director	8	15	→ UBS → Univ. of Melbourne
May Soh	Executive Director	11	15	→ Crown Limited; Macquarie Capital → Univ. of Melbourne
Joseph Braun	Investment Director	6	16	→ Hastings Funds Management → Clemson University; MBA, Univ. of South Carolina
David Sparrow	Investment Director	8	17	→ Latham & Watkins → Dartmouth College; Doctor of Law, George Washington Univ.
Ashish Thomas	Investment Director	3	12	→ Macquarie Group → McGill Univ.
<b>Europe</b>				
Christian Seymour	Head of Infrastructure – Europe	18	31	→ Duke Energy; Santos; BHP Billiton; Bechtel; Woodside → Univ. of Queensland; MBA, Queensland Univ. of Technology
Manoj Mehta	Executive Director	15	27	→ Transport for London; Citigroup; Boston Consulting Group → Univ. of Cambridge; HEC School of Management, France
Deepa Bharadwaj	Executive Director	5	34	→ Standard Chartered Bank → St. Stephen's College; MBA, New York Univ.
Lars Bepolka (Berlin office)	Executive Director	14	28	→ Credit Suisse → BS, MIT
Werner Kersch (Zurich office)	Executive Director	16	21	→ PricewaterhouseCoopers; KPMG → Fachhochschule Wiener Neustadt, Austria; Victoria Univ. of Technology, Australia; CFA
Deepu Chintamaneni	Executive Director	14	18	→ Citigroup → Univ. of Bombay; MS, Standord Univ.
Albena Vassileva (Amsterdam office)	Executive Director	2	24	→ Advent International; ABN AMRO Capital → Erasmus Univ.; Univ. of National and World Economy, Master of Int'l Finance, Univ. of Amsterdam
Duncan Symonds	Executive Director, Asset Management	6	18	→ WSP Group; Laing O'Rourke; Transport for London → Univ. of Manchester; MBA, Cranfield School of Management, UK
Mandeep Mundae	Investment Director	12	22	→ Herbert Smith Freehills; Ashurst → Univ. of Melbourne



Name	Title	Years At Manager	Total Years' Experience	Relevant Experience/Degree
Guillaume Camus	Investment Director	10	12	→ Nomura → ESCP Europe, European School of Management; Univ. of Paris
Jaime Siles	Investment Director	10	11	→ Bouygues → Universidad Politécnica de Valencia, Ecole Nationale des Ponts et Chaussées; Executive MBA, College des Ingénieurs
Maximilian Fieguth	Director, Asset Management	6	14	→ McKinsey; Bechtel → Imperial College, London; MBA, INSEAD
<b>Australia</b>				
Michael Hanna	Head of Infrastructure, Australia	16	31	→ Victorian Department of Treasury and Finance → Queen's University Belfast; Masters, University of Strathclyde
Danny Elia	Executive Director, Global Asset Management	11	30	→ South Australian Health Partnerships; Leighton Contractors; Linfox Asia Pacific → University of Melbourne
Ashley Barker	Executive Director	9	23	→ Hastings Funds Management; Bupa Australia; Credit Suisse → University of Melbourne
David Dawson	Executive Director	9	31	→ Hastings Funds Management; ANZ; Rothschild in London → Southampton University
Jill Rossouw	Executive Director	18	28	→ PricewaterhouseCoopers; GE Capital → University of Natal; Masters, University of Cambridge
Marigold Look	Executive Director	16	21	→ Wilson HTM; PricewaterhouseCoopers → Monash University
Michael Landman	Executive Director, Portfolio Management	15	28	→ BHP Billiton → University of Melbourne
Mark Turner	Investment Director	9	13	→ Lazard → University of Melbourne
Josh Crane	Investment Director	10	17	→ Major Projects Victoria; Herbert Smith Freehills → Monash University; Masters, Macquarie University
Timothy May	Investment Director	12	13	→ KPMG → University of Melbourne
Peter Hannam	Director, Asset Management	6	20	→ OZ Minerals; Telstra → University of Melbourne; Executive MBA, Melbourne Business School
<b>Hong Kong</b>				
Jamie Cemm	Executive Director	12	21	→ Macquarie Capital Funds → Univ. of Melbourne
Neil Doherty	Executive Director	14	17	→ ANZ; KPMG → Univ. of Melbourne; CFA
Debby Fan	Investment Director	1	19	→ Social Impact Partners; HSBC → BA & Masters, University of Cambridge



Name	Title	Years At Manager	Total Years' Experience	Relevant Experience/Degree
Jay Kim	Investment Director	1	17	→ Credit Suisse; GIP; Macquarie Capital → BA & Masters, University of Cambridge

## Firm Diversity

US Staff Demographics	Male (%)	Female (%)	Minority (%)	Non-Minority (%)
Entire Staff	64	36	40	60
All Investment Professionals	76	24	35	65
Senior Investment Professionals	74	26	26	74
Firm Ownership	N/A	N/A	N/A	N/A

Demographics are provided for IFM's US employees only. IFM does not require employees outside of the US to self-identify for diversity metrics. Firm ownership is also not applicable as IFM is owned by 19 Australian pension funds.

## Personnel Summary

IFM has seen modest turnover with the infrastructure team, with a majority of the departures coming from Vice President and below. There have only been two turnovers above the Vice President level over the past three years after five Directors departed in 2019, three of which were in the Melbourne office, which primarily focuses on the Australian Infrastructure Fund. To the best of IFM's knowledge, the departures of junior staff primarily include those who returned to business school, changed industries, or moved to a different role within IFM. The investment team at the senior level has remained relatively stable with those at the Director level averaging over 10 years at IFM. Meanwhile, the Global Head of Infrastructure and the regional Heads of Infrastructure have been on the Infrastructure Team for an average of 15 years.

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## Investment Process

IFM's investment process is divided into several steps, consisting of the stages described below. One notable aspect of IFM's process is the use of InFRAME, its proprietary portfolio construction tool. Established in 2012, InFRAME, is used to constantly evaluate the investment portfolio through an integrated risk and revenue stream approach. The tool enhances the team's monitoring of the risk profile of each infrastructure investment, as well as the portfolio's overall exposures.

### Deal Sourcing

IFM's Infrastructure Team of over 100 investment professionals maintain relationships with corporations, governments, co-investors, and advisers to source opportunities. Industry relationships are an important tool for sourcing investment opportunities. In particular, the investment team relies heavily on relationships it has developed with industrial strategics with which they have worked on prior IFM transactions.

### Initial Screening

A transaction team of Directors, Vice Presidents, Associates, and Analysts work together on each deal at the origination and bid stages, final negotiations, and financial close. Members at the Director level take a Deal Lead role with Vice Presidents and Associates taking on a project management role. Teams can range from five to 15 people. Acquisition processes typically last around three months, but some have taken up to two years. The same deal team stays on investment post-acquisition and is responsible for delivery of the business plan alongside dedicated asset management professionals, who are brought in to provide additional support. The current 19 member Global Asset Management team is responsible for providing support in executing business plans and capitalizing on portfolio wide initiatives that can benefit from economies of scale.

The initial screening process consists of a high level overview of the merits and risks of investment opportunities and their potential impact on the portfolio. For opportunities that are perceived to have attractive risk-adjusted returns, the deal is presented to the Investment Sub-Committee, which consists of the global head and each of the three regional heads. This sub-committee can approve transactions that are up to A\$100 million (approximately \$70 million as of July 2022 exchange rates). Potential investment opportunities are also analyzed using InFRAME, a proprietary portfolio construction tool that assists in quantifying investments according to key characteristics to help evaluate risks and optimize the portfolio.



## Detailed Due Diligence

The next stage of the process consists of evaluating all commercial aspects of the potential investment, including the market, industry, competitive landscape, regulatory regime, management team, operating characteristics and forecast cash flows. The team also assesses investment risks, proposed capital structure and financing requirements, expected return, sensitivities, legal and tax considerations. To complement internal diligence, IFM may also appoint independent technical experts on an as needed basis. IFM's exclusive network of Senior Advisors can also be brought in for their expertise.

The Investment Committee ("IC") currently comprises seven individuals: Joshua Lim, Acting Chair of Investment Committee and Deputy Chief Executive; Kyle Mangini, Global Head of Infrastructure; Susan Oliver, Independent Member; Richard Randall, Global Head of Debt Investments; Esperanza Cerdan, Chief Risk Officer; Aidan Puddy, Global Head of Listed Equities; and Stuart Wardman-Browne, Global Head of Private Equity.

The IC reviews and approves transactions above A\$100 million, with transactions above A\$500 million requiring review and approval by the IFM Board Investment Committee, which consists of at least two IFM Investors Board Members (these translate to approval thresholds of approximately \$70 million and \$350 million as of July 2022 exchange rates). This Board serves as the governing body of IFM and each board member is independent in that they do not hold any executive positions within IFM and do not hold equity in the firm. The Board typically meets eight to nine times per year.

## Post Transaction

The transition plan is implemented for the first 100 days from acquisition, reviewing risk, regulatory, return, and capital expenditure plans. A more formal report is provided, generally after six to 12 months to the IC and Board IC on the transition of the asset. IFM takes an active ownership approach in its investments and will seek board representation for every asset. In every deal, IFM ensures sufficient protections and governance structures are in place. The IFM investment team, asset management team, along with the Firm's senior advisors, will have influence over business strategy, acquisitions and divestments, capital structure, risk management frameworks, and capital expenditures. Each investment will be assessed quarterly as part of the quarterly valuation and reporting process, as well as on an annual basis, as part of the ongoing asset management program. IFM will continue to be opportunistic when it comes to divestments, and as part of the annual review of every asset, consideration is given to whether exiting an asset will continue to be beneficial to investors.



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## Historical Performance

GIF's since inception performance, and returns for specific trailing periods, is at the high end of or above the Fund's target return of 8% to 12% net. Overall, the portfolio has invested in 28 platforms with a gross return of 11.8% since 2004. In the tables below, net returns exceed gross returns due to the inception dates of the calculations. The gross portfolio level IRR is calculated from the inception of the Master Fund in 2004 and the net returns are calculated using US LP Class A feeder cash flows, which began in 2016. The net return IRR for the Master Fund vehicle has exceeded the public market return benchmark by 660 basis points since inception. The Fund has exited six investments to date, resulting in a realized aggregate of 10.9% IRR and 1.9x gross multiple. The current portfolio of 22 investments is marked at an 12.0% gross IRR and a 1.6x gross multiple. The loss ratio stands at a low 1.1% ratio on the current investments and a 3.0% including realized investments.

The net and time-weighted returns ("TWR") are shown for US LP Class A feeder vehicle, which has an inception of 2016. This is a hedged feeder fund that is the vehicle available to US investors. US LP Class B was an unhedged feeder that is no longer available to new investors and is therefore no longer relevant. IFM has had strong consistent TWR performance from the inception of the US Class A feeder vehicle with a 14.3% net return. The US LP Class A feeder has also exceeded the Dow Jones Brookfield Global Infrastructure Index for all time periods on a TWR basis.



**IFM Global Infrastructure Fund**  
**As of June 30, 2022**  
**(\$ in Millions)**

Fund	Year of First Investment	Number of Investments	Invested Capital (\$)	Realized Value (\$)	Unrealized Value (\$)	Total Value (\$)
GIF	2004	28	35,277	13,993	44,241	58,234

Fund	Gross IRR (%)	Net IRR <sup>7</sup> (%)	PME <sup>8</sup> (%)	Gross TVM <sup>9</sup> (X)	Net TVM <sup>7</sup> (X)	PME <sup>8</sup> (X)	Loss Ratio <sup>10</sup> (%)
GIF	11.8	12.6	6.0	1.7	1.4	1.2	3.0

**Time-Weighted Investment Performance**  
**As of June 30, 2022**

(%)	Quarter	One Year	Two Year	Three Year	Five Year	Since Inception 2016
US LP Class A (total net return)	2.8	13.3	13.9	11.0	14.1	14.3
DJ Brookfield Global Infrastructure Index	-0.1	2.2	10.1	4.5	5.7	6.0

<sup>7</sup> Net IRR and TVPI are for IFM GIF US Class A, which has an inception date of June 1, 2016.

<sup>8</sup> PME represents the public market equivalent return assuming equivalent cash flows were instead invested in the Dow Jones Brookfield Global Infrastructure Index. IFM GIF US Class A net cash flows were used in this analysis.

<sup>9</sup> Total Value Multiple (TVM) equals Realized Value plus Unrealized Value, then divided by Invested Capital.

<sup>10</sup> Loss Ratios represent the proportion of invested capital that has resulted in realized and unrealized losses in a portfolio. The Ratio is calculated by taking the sum of lost capital (invested capital minus an investment's total value) for all investments that have generated a negative return, then dividing that amount by total invested capital across the entire portfolio.





## Summary of Partnership Terms

Provision	Terms
Fund Size	IFM GIF is an open-end fund with a current value of over \$40 billion
GP Commitment	IFM staff do not have the opportunity to invest in IFM GIF but Senior Infrastructure Team members receive 60% of the Fund's performance fee. Rather than pay this to the team immediately, their share is reinvested directly in the Fund alongside investors for a total of eight years.
Investment Period	The team has historically tried to fully draw down capital within 18 months of investors committing to the Fund.
Total Term	Perpetual
Diversification Limits	Maximum exposure (total value of the Fund plus undrawn capital commitments) is subject to the following limitations: <ul style="list-style-type: none"><li>• No more than 50% to a specific infrastructure sector</li><li>• No more than 30% to social infrastructure</li><li>• No more than 25% to a single asset</li></ul>
Management Fee	0.77% of NAV for investors whose NAV or total commitment is under \$300 million; 0.65% of NAV for investors whose NAV or total commitment is equal to or greater than \$300 million
Preferred Return	8% per annum above NAV (net of the Management Fee)
Carried Interest	10% on the net realized and unrealized appreciation in NAV, in excess of the 8% per annum threshold return (net of the Management Fee)
Carry Structure	Whole-Fund
Catch-Up Provision	33.3%
Fee Income	IFM does not charge monitoring, transaction, or other similar fees to its portfolio companies, so there has never been a situation where such fees have offset management fees.
Key Person Provision	A Key Person Event will be triggered if any of the following are not active for over 60 consecutive days: (i) any three of Kyle Mangini, Julio Garcia, Christian Seymour, and Michael Hanna; (ii) within a 12-month period, over 50% of the Infrastructure Team; (iii) within a 12-month period, over 50% of the Investment Directors (including all Executive Directors). If triggered, the Partnership will suspend all drawdowns until replacements have been approved by the Investor Advisory Committee.
No-Fault Termination	IFM does not have a no-fault termination clause. Limited Partners can "exit" the Fund by redeeming on a quarterly basis.

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# Environmental, Social, and Corporate Governance

## ESG Policy and Program

IFM's ESG effort is led by Executive Director of Responsible Investment, Chris Newton. The primary governing documents are the ESG Policy updated in 2021 and Responsible Investment Charter updated in 2017. Additionally, IFM has been a signatory of the United Nations Principles of Responsible Investment ("UNPRI") since 2008.

A core principle of IFM's Responsible Investment Charter states "climate change is real, and we all have a shared responsibility." IFM believes that for markets to grow and prosper over the long term, it needs to play its role of considering the impact its investments have on climate change. In 2017, IFM undertook its first carbon footprint assessment of investments across its Global Infrastructure Fund and Australian Infrastructure Fund. Since then, IFM prepares a Carbon Footprint Report annually that reports on the carbon emissions of its portfolio of assets and details tangible actions that portfolio companies are taking to reduce their carbon footprint. In addition, IFM is a member of investor groups and industry bodies who collaborate to understand and address climate change risks including, as noted above UNPRI, as well as, Climate Action 100+, Ceres, CDP, and the Australian Council of Superannuation Investors, among others.

The Infrastructure Team works with the Executive Director of Responsible Investment to assess infrastructure investment and asset management risks against IFM's ESG policy criteria and incorporate the evaluation into the investment process. IFM developed a proprietary, detailed ESG due diligence framework that includes a checklist guide that highlights ESG issues that may not be readily identified during the course of routine due diligence. The checklist has over 80 comprehensive questions on topics such as greenhouse gas emissions, water supply, waste, environmental pollution, labor and community relations, governance and workplace safety. Additionally, IFM routinely engages environmental, legal, commercial and other technical consultants to assist in due diligence.

ESG issues within the existing portfolio are managed through a number of internal processes as described below.

- Annual ESG plans: Each year IFM develops an initiatives list for each of the Fund's assets that reflect ESG challenges and goals specific to the asset. Through board membership, the team monitors progress.
- Asset review process: After an asset is acquired, there is a formal six and 12 month report on the transition of the asset and whether any new or unexpected information, including ESG information, has affected the performance of the asset (both positive and negative).

- Formal asset reviews: These are performed on an annual basis as part of the ongoing asset management process. The identification and analysis of key ESG risks and opportunities, as well as broader risks and opportunities, are documented as part of this asset review process.
- Active asset management: Via board and committee representation, IFM Investors participates in the governance and strategic direction of the portfolio assets and brings a strong ESG culture.

## Responsible Contractor Policy

IFM has had a Responsible Contractor Policy (“RCP”) since 2009 that guides the Fund in seeking to ensure that portfolio companies’ and their contractors comply with legal employment requirements and observe the laws pertaining to employee collective bargaining and union representation rights. The RCP will apply to all US infrastructure equity investment in which the Fund owns a 50% or greater ownership and exercises a controlling interest. For investments in which the Fund has less than 50% or non-controlling interest, IFM will encourage the portfolio company Managers and/or their Contractors, as applicable, to make good faith efforts to comply with their policy. In 2014, IFM engaged James Hale as a senior level advisor to the Global Infrastructure Fund to assist IFM in both understanding the US labor market and to facilitate labor interaction. Mr. Hale has an extensive background in labor issues from a life-long career with the Laborers' International Union of North America (LIUNA), where he rose to the position of Vice President on the LIUNA General Executive Board.

## Operations

### Organization

The IFM infrastructure team, which comprises over 100 investment professionals, is supported by an independent operations team. The operations team has clear separation from the investment team and covers information technology, transaction management, investment operations and services, business transformation, investment accounting, and investment risk and execution oversight. Operations is led by Chief Operating Officer.

### Finance and Accounting

Meketa's diligence for the Fund included an Operations Review of existing practices relating to: cash flow management; and accounting, policies, controls, and auditing. Overall, the Fund's procedures are suitable for the investment vehicle and well documented, including policies for valuation, accounting, and compliance. The Firm has historically performed all accounting and cash management functions in-house.

Cash flow management strengths include those listed below.

- IFM has a tiered structure to approve transactions and move cash, potentially going through six levels depending on the size and nature of the transaction.
- A member of the Operations team internally reconciles incoming Capital Calls with the Finance team to ensure monies are being funded into the correct investment vehicle and incoming funds match the final notices sent out to Investors.
- IFM utilizes the Investran system to maintain capital call/distribution information.
- The Firm has never experienced an incident related to the misappropriation of funds.

Accounting-related strengths include those listed below.

- Quarterly and annual reports are robust, providing detailed information on the performance of the Fund, the individual assets held within it as well as the underlying investment exposure and sector allocation
- An annual audit is conducted by the Fund's independent auditors, which includes carry payments and allocations associated with the Fund.
- No material risks have been identified or disclosed from internal or external audits.

IFM will issue Capital Account statements to Limited Partners on a monthly basis, while quarterly reports are issued on a quarterly basis. The quarterly reports provide detailed information on the performance of the Fund, the individual assets held within it as well as the underlying investment exposure and sector allocation. Additionally, information is provided on the Partnership and Master

Fund activity. The report also provides insight into Environmental, Social and Governance issues, economic conditions alongside transaction activity, and outlook for the Fund's investments.

Meketa's Operations Review of the Fund included a review of reporting-related information in DDQs, examples of capital call and distribution documents, and materials provided by IFM on Accounting, Financial Reporting, and Internal Controls. Overall, Meketa is comfortable with the Firm's reporting practices and accuracy.

## Valuation

IFM represents that the Fund will comply with US Generally Accepted Accounting Principles (GAAP) accounting standards. Portfolio companies in the Fund are valued at the end of each quarter by independent valuation firms drawn from a pool of independent valuers, which are rotated every three years by a tender process. All valuations are reviewed annually by Deloitte, the Fund's auditor. Valuations may also be refreshed during any quarter following the occurrence of a significant revaluation event. Each quarter, valuers provide the Fund with a "Low/Mid/High" scale of values for an asset. IFM typically adopts the Mid-point valuation. In some cases, the Low-point will be used if IFM believes there is some uncertainty with respect to the performance of an asset. This recommendation is made by the Global Head of Infrastructure to the Group Risk Committee for consideration and approval. A High-point value would generally only be adopted if there was a recent transaction price that supported this value. Any recommendation to adopt a High-point value must be approved by the Board of IFM Investors. Meketa's review of the most recently available valuations for the 22 portfolio companies found IFM's discount rates and valuations are in line with the independent appraisals and appear appropriate.

## Legal and Compliance

The Firm has been a registered investment adviser with the US Securities Exchange Commission ("SEC") (CRD#: 146366, SEC#: 801-69597). In June 2020, the SEC began conducting a routine examination of IFM Investors (US) Advisors. The examination was completed with no further action required.

## Technology Infrastructure

IFM's information technology support is the responsibility of IFM Investors' Information Technology Team. The management of hardware, network, patching, security, and service desk is outsourced to Optus Business. IFM's core IT infrastructure is a network connected set of servers, primarily virtual Windows Servers running under VMWare and which reside across two data center locations. The core databases are run on dedicated serves, using SQL Server.

The following systems support IFM Investors' processes:

- Portfolio accounting and unit pricing – FIS (previously SunGard) Investran platform; and
- Infrastructure – predominantly Excel to support detailed IRR and valuation models.

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## Other Items

### Legal Issues

IFM was involved in a legal matter that reached a settlement in April 2019. Across 2018 and 2019, IFM and an employee of IFM had been the subjects of workplace misconduct claims before the Employment Tribunal of London, UK. IFM and the accused individual initially disputed the claims, with IFM responding that it takes allegations of workplace misconduct extremely seriously. However, ultimately the parties settled the matter before Tribunal oral submissions were to have been heard on April 17, 2019. Following the incident, IFM initiated a Firm-wide culture review and has instituted additional training courses on workplace behavior. The accused subject departed IFM later in 2019.

Aside from the matter described above, IFM has reported no material matters involving the firm or any member of the team respecting any pending or threatened litigation, regulatory, legal proceeding, government investigation or inquiry.

Within GIF, there are three portfolio companies that have pending material litigation in which IFM is named as a defendant, as described below.

#### **Aleática**

In May 2018, Aleática's publicly listed Mexican subsidiary ("Aleática Mexico") was served with a lawsuit by a Mexico City State court, naming IFM Investors, Pty Ltd, IFM GIF, Global Infracore, S.a.r.l., Global Infracore NL Coöperatief, U.A., Global Infracore Spain S.L.U., Industry Super Holdings Pty Ltd, IFM Investors (US), LLC as well as several other defendants. The lawsuit alleges breaches of law in connection with the 2017 and 2018 tender offers for Aleática Mexico shares. The plaintiff is a purported former shareholder of Aleática Mexico who tendered in the 2017 tender offer and is seeking damages and a judicial resolution confirming its claims. The same plaintiff filed additional similar claims in 2019 and 2020. The IFM Defendants believe that the lawsuits are without merit and intend to defend themselves and their firms vigorously.

#### **Buckeye**

In May 2019, a subsidiary of the IFM GIF announced it had agreed to acquire Buckeye Partners, LP ("Buckeye"), a US publicly traded master limited partnership, through a merger of a subsidiary of the IFM GIF with Buckeye (the "Acquisition"). Shortly thereafter, purported unitholders of Buckeye filed eight separate class action lawsuits on behalf of all Buckeye unitholders against Buckeye and its members of the board of directors (the "Buckeye Defendants") alleging various claims in connection with the merger. All of these lawsuits except In Re Buckeye Partners L.P. Merger Litigation has since been dismissed. In November 2019, the Acquisition of Buckeye was completed.

In December 2019, a purported former Buckeye unitholder filed an amended class action complaint in In Re Buckeye Partners L.P. Merger Litigation against the Buckeye Defendants. The plaintiff alleges violations of securities laws, breaches of fiduciary duties, and a breach of Buckeye's Limited Partnership

Agreement. From August 2020 through early 2022, the case made its way through the United States District Court for the Southern District of Texas, the U.S. District Court for the District of Delaware, and the Delaware Court of Chancery, the latter of which in February 2022, granted the defendant's motion to dismiss. The plaintiff has appealed to the Chancery Court's decision to the Delaware Supreme Court. The IFM Defendants believe that this lawsuit is without merit and intend to defend themselves vigorously.

### DigitalBridge

On May 11, 2022, IFM Investors and DigitalBridge Group entered into a definitive agreement to acquire all outstanding shares of Switch, a publicly traded company, through a merger of an indirect jointly owned subsidiary of IFM and DigitalBridge. On May 26, 2022, a shareholder of Switch filed a class action complaint based upon self-dealing and breach of fiduciary against Switch, DigitalBridge, and IFM. The IFM Defendants believe that this lawsuit is without merit and intend to defend themselves vigorously.

## Potential Conflicts

IFM offers several fund products, including Infrastructure Equity (both Global and Australia-only), Debt Investments, Listed Equities, and Private Equity. Each asset class has its own dedicated investment team and the strategies are clearly delineated, so there are no concerns on allocation of deals among the products.

However, the same team currently investing the GIF will soon be responsible for investing the new Net Zero fund that is also a portfolio investment of GIF. An additional product managed by the same team raises time commitment concerns. The revenue and risk profile, size, and geography of the assets in both funds' deal flow will determine which fund any deal would be allocated.

Already, GIF and the Australian Fund see some deal overlap, but importantly do not share investment teams. In general, the priorities over infrastructure opportunities sourced by IFM will be as follows:

- The Australian Fund has priority over Australian domiciled infrastructure assets and businesses;
- GIF has priority over non-Australian domiciled infrastructure assets and businesses that fit its investment and guidelines that are outside investment objectives and guidelines for the IFM Net Zero Infrastructure Fund ("NZIF"); and
- NZIF has priority over non-Australian domiciled infrastructure investments and businesses that fits its investment objectives and guidelines.

IFM also manages two separately managed accounts ("SMAs") of approximately \$1.6 billion on behalf of one of IFM's largest shareholders and a third-party investor. The committed capital has an overlapping strategy to GIF; however, the mandate is of second priority to GIF and to GIF Investors who have co-investment rights. In practice, this means that once an investment has been identified, GIF will determine its preferred allocation, with any excess offered to GIF co-investors and the remainder to the SMA. The team also manages three other investments on behalf of clients held in two SMAs with Australian pension funds to manage four separate global infrastructure investments.





## Distribution/Marketing

IFM has an in-house Global Relationship Group responsible for marketing and fundraising activities. IFM stated that it has not and will not engage placement agents for purposes of marketing its products. There is no compensatory relationship between Meketa and IFM.

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## Analysis and Conclusions

### Due Diligence Basis

Meketa has carefully evaluated the Fund's manager, investment professionals' experience and qualifications and related resources, strategy, existing investments and pipeline, investment process, historical track record, and other aspects of this opportunity as described in prior sections of this investment memorandum.

Overall, we find IFM GIF an attractive opportunity that we can generally recommend for client infrastructure portfolios, and specifically where it is consistent with a client's investment policy, pacing plan, and other infrastructure portfolio goals and objectives. Our finding is based on our evaluation of this offering's primary advantages, balanced with any concerns or considerations, along with Meketa's and the Manager's view of the investment thesis relative to market opportunities and potential strategy execution challenges. These elements of our findings are documented below, along with our overall conclusion and recommendation.

### SWOT Analysis

#### Strengths

- **Strong returns that are within or above targeted range:** The GIF Master Fund's portfolio performance, is 11.8% gross IRR since inception (December 2004). The Class A hedged vehicle, which is now the only vehicle open to US investors, has also performed well, achieving a 12.6% net IRR since inception (June 2016). Both funds' returns are within or exceed IFM's long term target range of 8% to 12% per annum net to investors.
- **Diversified geographic, regulatory, and contractual exposure:** The Fund offers exposure to 22 investments in over 20 countries in North America, Europe, South America, and Asia Pacific. These assets have revenues that are regulated/contracted as well as revenues that are linked to GDP growth, with exposures to a variety of regulatory and political regimes.
- **Asset-management capabilities:** Through its proactive asset management approach implemented by its 100+ investment professionals and 21 C-suite senior advisors, IFM is able to make incremental improvements as well as fund large capex projects to better position the assets for growth and operational efficiency.
- **Strong opportunistic exits:** Back in 2017 and 2018, the utilities sector was attractive for sellers and IFM saw an opportunity to exit several of its utility assets, including selling Duquesne Light in 2017 for a 2.3x gross multiple and 50Hertz in 2018 for an 11.0x multiple.

- **Open-end structure:** The open-end structure gives IFM the ability to invest with a long-term mindset of maximizing the value of its portfolio companies, allowing for better alignment between IFM and Limited Partners and also between IFM and its co-investors. IFM is seen as a partner of choice for partial sellers, and consortia in proprietary deals and in broad auctions given the Fund's open-end structure and their long-term focus.
- **Alignment of Firm ownership:** The Fund's ownership by 19 Australian pension funds offers strong alignment with similarly situated investors who have retirement funding liabilities or other long-term funding obligations (e.g., pension funds, sovereign wealth funds, and endowments and foundations).

## Weaknesses

- **Heavy transportation sector concentration:** The Fund has nearly 60% of its NAV in transportation assets, including approximately one third in three toll roads. This represents significant GDP exposure.
  - Mitigating factor(s): IFM has diversification within transportation with airports, marine terminals, and ports to go along with the toll roads. IFM had multiple attractive deals within this sector, which put a large portfolio weight towards the sector the past few years. With a few large transactions in utilities in 2021 and 2022, the overall exposure to transportation has been decreasing.
- **Large single asset concentration exposure:** Three assets account for nearly 50% of the Fund's exposure, Aleática, Buckeye Partners, and Indiana Toll Roads (ITR), which account for 15%, 16%, and 17% of the Fund's NAV, respectively.
  - Mitigating factor(s): Aleática, a diversified portfolio of toll roads, ports, light rail system and airport across five countries, has a majority of its revenues contracted with governments. Buckeye has a coverage area comprising approximately 130 million people across the northeast and Midwest US, representing 6,000 miles of pipeline and 115 liquid petroleum products terminals. Buckeye is critical in serving the energy needs of these communities. Meanwhile, ITR is a core asset with a strong competitive position serving as a critical part of the U.S freight distribution and US national transportation network.
- **Increasing risk-return profile:** Recently acquired assets seem to be moving higher on the risk-return spectrum, as some have emerging market exposure, less contracted cash flows, shorter term contracts, and large capex plans. The portfolio also has increased exposure to assets with revenues linked to GDP, resulting in less relative exposure to revenues that are contracted and or regulated.

- Mitigating factor(s): IFM has purposely shifted its portfolio to what it considers economic infrastructure, which has more GDP-linked exposure as it believes there are more attractive risk-return opportunities in this sector. These assets continue to display the hallmarks of a core asset, including monopolistic characteristics and high barriers to entry.
- **Significant growth of IFM's AUM:** GIF now stands at over \$50 billion in AUM. On the private side, in addition to an existing private equity business and an infrastructure debt practice, IFM recently launched IFM Net Zero Infrastructure Fund, an open-end vehicle targeting the energy transition sector that will be invested by the same infrastructure team as GIF.
  - Mitigating factor(s): The Fund's size has allowed it to participate in larger, complex transactions, which are arguably subject to less competition. IFM has also consistently grown its team globally as the Fund continues to grow and new products are added such as NZIF.

## Opportunities

- **Need for infrastructure spending globally:** The Fund's target markets need significant capital globally: transportation (e.g., airports, roads, and bridges); water and wastewater (e.g., municipal upgrades and concessions); and renewables and conventional power.
- **Opportunistic buying:** As closed-end infrastructure funds wind down and seek to exit investments, there could be buying opportunities for the Fund, which has a lower cost of capital than most closed-end funds.
- **Increasing Alternative Fuel demand.** Alternative fuels, including LNG, are expected to comprise an increasing percentage of the global energy mix over the next decade. As countries shift to more efficient fuels, the need for export and terminals will continue to grow.
- **Strong need for more transportation infrastructure:** Opportunities in the transportation sector (such as the rise of e-commerce driving trade volumes, increasing supply chain complexities, and deteriorating public and private infrastructure assets) offer a combination of both efficiency and cyclical entry points as asset leasing, logistics, and intermodal infrastructure assets currently have significant capital requirements and room for increased optimization that has been unmet by banks, governmental entities, and strategic investors who focus on higher return targets and shorter hold periods. These types of assets would add to, but also further diversify IFM's transportation sector exposures.

## Threats

- **Competition:** There continues to be growing demand for infrastructure assets by institutional investors, such as pensions, sovereign wealth funds, and insurance companies, which has led to many infrastructure firms launching a core product. As of August 2022, Prequin reported over \$180 billion in dry powder across core and core plus infrastructure funds; this puts upward pressure on entry multiples, for proprietary and auctioned deals.
  - Mitigating factors(s): With a large queue and significant fund size, IFM is able to target larger transactions that many competitors cannot.
- **Regulatory risk:** IFM has assets in regulated industries, which are subject to a range of local, state, and federal regulations. If regulators reduce the price that utilities can charge (allowed return on equity), then asset values and cash yield may be negatively impacted.
  - Mitigating factors(s): This is mitigated by having a diversified portfolio with assets and projects that carry differential regulatory risk, or none at all. IFM has also actively reduced its exposure in this area.
- **Global or regional economic slowdown:** As seen during the pandemic, a slowdown in economic growth globally can lead to a decline in traffic, travel, energy use, and allowed return on equity imposed on utilities by their respective local and federal governments. A good portion of IFM's assets have revenue exposures that are dependent on continued GDP growth.
  - Mitigating factors(s): This can be partially mitigated by having assets and projects with contracted revenues.
- **Sovereign Risk:** There is a meaningful variation in risk/return profile among OECD countries. For example, Turkey and Poland carry additional sovereign risks, compared to the U.K. and Canada.
  - Mitigating factors(s): Both Turkey and Poland account for just 3.3% of the overall portfolio value.

## Conclusion

IFM as an organization has a long successful track record of infrastructure investing dating back to 1990, which differentiates it from its peers. The Firm's ownership comprises 19 Australian pension funds, which is somewhat unique in the industry and offers a potential for strong alignment with investors. The Global Infrastructure Fund continues to perform well and deliver at or above its target returns. The Fund's quality of assets continues to be a major strength for IFM, offering investors diversified exposure across multiple geographies and sub-sectors. Through its proactive asset management approach implemented by team of investment and asset management professionals, IFM is able to make incremental improvements as well as fund large capex projects to better position the assets for further enhancement. Considerations and concerns include the current portfolio heavily weighted towards the transportation sector, a trend towards higher risk/return profile assets, and significant growth of the Firm.



## Appendices

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## Professional Biographies

### **Kyle Mangini, Global Head of Infrastructure**

Kyle is responsible for implementing IFM's infrastructure investment strategy and has ultimate investment responsibility for the Australian Infrastructure Fund and the Global Infrastructure Fund. Kyle is also a member of the IFM Investors Investment Committee. Kyle has more than 25 years' experience in investment banking and asset management, including senior roles with CSFB and SBC Warburg. He has infrastructure experience in Asia, Australia, Europe as well as North and South America. His relevant transaction experience includes the execution of mergers, acquisitions, divestitures, initial public offerings, public bond offerings, private placements, commercial bank facilities and derivatives. Bachelor of Arts (Economics and Government) (Wesleyan Univ.).

### **North America**

#### **Julio Garcia, Head of Infrastructure, North America**

Julio is responsible for IFM Investors' infrastructure investment business in North America and manages the New York Infrastructure Team. Julio is also a member of the Infrastructure Investment Sub Committee. Julio's experience includes senior roles in deal sourcing, investment evaluation, transaction execution, asset management, investment banking and strategy. Julio has led several major infrastructure investments and has been director on the boards of various infrastructure companies, including the Port of Brisbane, NSW Ports, Ecogen Energy, NT Airports and Wyuna Water. Prior to joining IFM Investors, Julio held positions with Viant Capital, Bank of America, Robertson Stephens and Gemini Consulting. Bachelor of Arts (Public Policy) (Stanford Univ.), MBA (Stanford Univ. Graduate School of Business), Graduate Member of Australian Institute of Company Directors.

#### **Tom Osborne, Executive Director**

Tom is responsible for the origination, analysis, structure and execution of IFM Investors' global infrastructure investments. Prior to joining IFM Investors, Tom was Head of Americas – Infrastructure in the Investment Banking Division of UBS. In this role, Tom was the founding group head of the Americas Infrastructure advisory practice with responsibility for strategic advice, mergers and acquisitions, lending and capital markets finance for major investors. At UBS, he also held the roles of Co-Head of US Infrastructure and Managing Director – Power and Utilities. Previously, Tom worked as a Director in the Power and Utilities Group at Credit Suisse First Boston and as a First Vice President – Utilities Group at PaineWebber Incorporated. Bachelor of Arts (Hons) (Univ. of Virginia).

#### **Michael Kulper, Executive Director**

Michael is responsible for relationship development as well as the origination, analysis, structure and execution of global infrastructure investments. Prior to joining IFM Investors, Michael spent a decade



as the founding president of Transurban's North American toll roads concessions business. Under Michael's leadership, Transurban developed into a leader in the North American toll road business by successfully establishing, developing and delivering operations for a \$3 billion portfolio of toll road concessions. As a member of Transurban's Executive Committee, he reported through the Chief Executive to the Board and his responsibilities included management of the overall business. Prior to Transurban, Michael spent eleven years at Credit Suisse, rising to the level of Director, Investment Banking, where he originated and executed M&A and capital raisings. Michael represents IFM Investors as a Director on the boards of Indiana Toll Road and OHL. Bachelor of Economics (Hons) (Univ. of Sydney).

### **Adrian Croft, Executive Director**

Adrian is responsible for the evaluation, implementation and management of infrastructure investments across the Americas. Adrian has represented IFM Investors as director on the boards of NSW Ports; Port of Brisbane; Darwin, Alice Springs and Tennant Creek airports; and Essential Power. Before he joined IFM Investors in 2009, Adrian was Vice President, Leveraged Finance for Credit Suisse in Tokyo, where he managed leveraged and structured financings for corporate and private equity clients. He worked for Credit Suisse First Boston in New York and Melbourne in the advisory and financing groups prior to his appointment to the Tokyo office. Bachelor of Economics (Hons) & Bachelor of Laws (Hons) (Univ. of Sydney).

### **Jim Wierstra, Executive Director**

Joined IFM Investors in August 2017 Jim is responsible for advancing IFM Investors' investment operations in North America, including sourcing investment opportunities, executing transactions and managing assets. He has extensive investment banking, equity investment and asset management experience in the infrastructure, power, utilities, PPP and real estate sectors. Prior to joining IFM Investors, Jim was a Managing Director at Macquarie Capital, where he was Head of Canadian Infrastructure and Sponsor Coverage. At Macquarie, Jim also served as Head of North American PPPs, with responsibility for PPP financial advisory, equity investment and development business in the US and Canada. Prior to working at Macquarie Capital, Jim worked in investment management at Macquarie Infrastructure and Real Assets, where he had asset management responsibilities in the toll road sector. Jim represents IFM Investors as a Director on the Board of Colonial Pipeline and GCT Terminals. Bachelor of Business Administration (honours with distinction) (Wilfrid Laurier Univ.), Master of Finance (with distinction) (INSEAD), CFA.

### **Wei-Sun Teh, Executive Director**

Wei-Sun is responsible for the origination, analysis, structure and execution of fund investments, along with the ongoing management of assets. Wei-Sun has been involved with a number of transport and energy transactions for both the Australian Infrastructure Fund and the Global Infrastructure Fund, including Port of Brisbane, Manchester Airport Group, Freeport LNG and VTTI. Prior to joining IFM Investors, Wei-Sun held the role of an equities analyst with the Commonwealth Bank of Australia, providing research coverage on Australian listed companies in the utilities and toll road sectors. Wei-

Sun also held prior roles at PricewaterhouseCoopers. Wei-Sun represents IFM Investors as a Director on the Board of Freeport LNG. Bachelor of Commerce & Bachelor of Information Systems (Univ. of Melbourne), CFA.

### **Sebastian Domenech, Executive Director, Asset Management**

Sebastian is responsible for identifying and implementing value creation opportunities across our portfolio of global infrastructure assets. Sebastian also assists with the implementation of global best practice asset management initiatives. Sebastian has more than 15 years' experience improving business processes across several industries and functions. Before joining IFM Investors, he held senior operations roles with LATAM Airlines in Santiago, Chile. His final role there saw him responsible for the Aircraft Maintenance Network, which employed more than 4,000 people across 25 countries. Prior to working at LATAM, Sebastian was with Booz & Company, where he advised clients in the energy industry. Sebastian's prior experience also includes human resource process transformation at ExxonMobil, project evaluation at Techint and manufacturing at Pirelli Tires. Bachelor's degree (Industrial Engineering) (Univ. of Buenos Aires), MBA (Univ. of Michigan).

### **Kittredge Zuk, Executive Director, Asset Management**

Kittredge is responsible for supporting the development and execution of IFM Investors' asset management strategy and implementing value creation opportunities across our portfolio. Kittredge joined IFM Investors in 2011 as a member of the Infrastructure Team and was responsible for transaction execution, research and asset management. Before she joined IFM Investors, Kittredge was Director of Business Development for Blue Source LLC, where she was responsible for the evaluation and execution of investment opportunities for Blue Source's Carbon Infrastructure Investment Fund. Prior to this, Kittredge worked as both an Analyst and Associate for Banc of America Securities (in London and New York) and gained significant M&A transaction experience in the power and utilities sector. Bachelor of Arts (Economics and Russian Area Studies) (Washington and Lee Univ.).

### **Aaron McGovern, Executive Director**

Aaron is responsible for the origination, analysis, structure and execution of fund investments, along with the ongoing management of assets, including Colonial Pipeline, Conmex and OHL Mexico. Aaron has worked on transactions in the US, Mexico and South America in the transportation, energy and utilities sectors. Prior to joining IFM Investors, Aaron held the role of Director at UBS, where he worked with the investment banking team in New York and Melbourne. While at UBS, Aaron gained significant M&A transaction experience with corporate and private equity clients across a range of sectors. He also gained experience in equity, debt and hybrid financings, ratings advisory and capital management. Aaron represents IFM Investors as a Director on the Board of OHL. Bachelor of Commerce (Hons) and Bachelor of Laws (Hons) (Univ. of Melbourne), Associate of the Institute of Actuaries of Australia.

**May Soh, Executive Director**

May is responsible for the origination, analysis, structure and execution of fund investments, along with the ongoing management of assets. May has been involved with a number of transactions for the Australian Infrastructure Fund and the Global Infrastructure Fund, including NSW Ports and VTTI. Before she joined IFM Investors, May worked in an International Business Development & Investor Relations role for Crown Limited, where she was responsible for consulting on various business improvement projects for Crown's key assets. Prior to this, May worked as an executive for Macquarie Capital, where she helped with transactions that included buy-side mergers and acquisitions, debt and equity financings. Bachelor of Engineering (Hons) and Bachelor of Commerce (Univ. of Melbourne).

**Joseph Braun Investment Director**

Joseph is currently seconded to the Infrastructure Equity team, with key responsibilities in relation to the financing activities and asset management of Aleatica. Joseph was previously in the role of Investment Director on the Debt Investments team and was responsible for originating, executing and managing infrastructure debt investments across North America and South America. He brings over 10 years of 5 combined industry and financial services experience to the team. He was previously an Associate Director at Hastings Funds Management where he focused on origination and execution of infrastructure debt transactions in North America. Prior to that, Joe held corporate banking and project finance roles at RBC Capital Markets and BBVA, where he was responsible for relationship management as well as structuring and executing of corporate and project finance transactions, including regulated utilities, independent power producers and financial sponsors. He also formerly held a number of roles in the EPC industry, including field and project engineer roles with CB&I in the oil and gas space as well as project management positions on commercial construction projects for JE Dunn.

**David Sparrow Investment Director**

David is responsible for the origination, analysis, structure and execution of fund investments, along with the ongoing management of portfolio assets. David has worked on a number of energy and transport transactions and assets for the IFM Global Infrastructure Fund, including Freeport LNG, VTTI, Colonial Pipeline, Indiana Toll Road, and OHL Concesiones. Prior to joining IFM Investors, David spent seven years with Latham & Watkins LLP in New York, where he gained significant M&A transactional experience with corporate and private equity clients across a range of sectors. David is a board member of Buckeye and Freeport.

**Ashish Thomas Investment Director**

Ashish is responsible for the origination, analysis, structure and execution of infrastructure investments, along with the ongoing management of assets. Prior to joining IFM Investors, Ashish was Vice President in the Infrastructure and Energy team at Macquarie Group in New York. Ashish also previously worked at CIBC in project finance and infrastructure.

## Hong Kong

### **Jamie Cemm, Executive Director**

Jamie sources investment opportunities, develops acquisition strategies, evaluates investment proposals and completes transactions. He also manages existing portfolio investments. Before he joined IFM Investors, Jamie worked with Macquarie Capital Funds in Sydney, London and New York as an Asset Manager focused on the acquisition, development and management of new and existing assets within the European, North and Latin American portfolios. Prior to Macquarie, Jamie spent seven years in commercial management roles in the construction industry, with a focus on the delivery of civil, mining and industrial projects throughout Australia. Jamie represents IFM Investors as a Director on the boards of Freeport LNG and VTTI. Bachelor of Engineering (Univ. of Melbourne)

### **Neil Doherty, Investment Director**

Neil is responsible for the origination, analysis, structure and execution of fund investments, along with the ongoing management of portfolio assets. Neil has worked on a number of transactions for the IFM Global Infrastructure Fund, including Indiana Toll Road, Freeport LNG, VTTI, Impala Terminals and Veolia Energia Polska. Following the acquisition of Indiana Toll Road, Neil was seconded into the asset as interim Chief Financial Officer and led a US\$1.1 billion refinancing of acquisition debt. Prior to joining IFM Investors, Neil held roles at ANZ and KPMG. Bachelor of Commerce (Univ. of Melbourne), CFA.

### **Jay Kim, Investment Director**

Jay is responsible for the origination, analysis, structure and execution of fund investments, along with the ongoing management of portfolio assets. Prior to joining IFM Investors, Jay was an investment banker specializing in M&A and capital markets transactions, most recently with Credit Suisse in Korea. Prior to that, Jay was with GIP and Macquarie Capital in New York, where he gained significant experience investing in infrastructure assets.

### **Debby Fan, Investment Director**

Debby is responsible for origination, analysis, structure and execution of infrastructure investments. Prior to joining IFM Investors, Debby was a Director at Social Impact Partners, a venture philanthropy firm in Hong Kong. She was also an Associate Director at HSBC in the Resources and Energy Advisory Group. She started her infrastructure career at Macquarie's Renewable Energy & Climate Change team in London, where she was a Vice President. Debby has particular skills in renewables investment.

## Europe

### **Christian Seymour, Head of Infrastructure, Europe**

Christian is responsible for the infrastructure business in Europe and for oversight of IFM Investors' European infrastructure portfolio. Christian is also a member of the Infrastructure Investment SubCommittee. Christian has a background in acquisitions, marketing, project development and operations management of energy and related infrastructure developments. For more than 20 years, he has worked for companies including Duke Energy, Santos, BHP Billiton, Bechtel and Woodside on medium to large-scale projects, successfully leading multi-disciplinary project teams. Christian represents IFM Investors as a Director on the boards of Arqiva and Manchester Airports Group. Bachelor of Engineering (Hons) (Univ. of Queensland), Master of Commercial Law (Univ. of Melbourne), MBA (Queensland Univ. of Technology).

### **Manoj Mehta, Executive Director**

Manoj is responsible for the evaluation, implementation and management of European infrastructure investments. Before he joined IFM Investors, Manoj was Principal, Corporate Finance with Transport for London, where he led the financial and commercial structure of major transport projects, including the Thames Gateway Bridge and the East London Line Extension. Prior to that, Manoj was Vice President in the Infrastructure Advisory Group at Citigroup, where he advised on large infrastructure transactions, including the restructure and sale of Railtrack. He also advised industrial sponsors on the structure and finance of large public-private partnership projects and power plants. Manoj also spent three years with the Boston Consulting Group in Paris, where he was involved in strategy consulting assignments within the telecommunications, pharmaceuticals, finance, consumer products and power industries. Manoj represents IFM Investors as a Director on the boards of Anglian Water, Manchester Airports Group and M6toll. Master of Arts (Engineering) (Hons) (Univ. of Cambridge), Master of Management (HEC School of Management, France).

### **Deepa Bharadwaj, Executive Director**

Deepa has senior level responsibility for sourcing and evaluating investment opportunities, transaction execution, asset management, and developing client relationships. Deepa has extensive global expertise in the infrastructure and energy sectors, having worked in the US, Asia, the Middle East, Africa and Europe. Her 13 years at Standard Chartered Bank in Singapore included senior leadership roles, most recently as Global Head for Power, Transportation and Infrastructure. Over the course of her career, Deepa has successfully concluded several billion dollars in advisory and financing transactions in power, utilities, renewable energy, infrastructure and transportation. She also has extensive experience in diversity and inclusion initiatives. Deepa is a board member of Mersin International Port and Veolia Energia Polska, and was previously a board member of Brisbane Airport.

### **Lars Bespolka, Executive Director**

Lars sources, structures and executes global infrastructure investments and assists with ongoing asset management. He has been critical in the transition of new Global Infrastructure Fund investments, and acted as interim Chief Financial Officer for Essential Power in 2008 and 50Hertz Transmission in 2010. Lars joined IFM Investors after a 15-year career as a banker with Credit Suisse, where he covered the energy and utilities sectors, among others, and worked in New York, Melbourne, Sydney, Hong Kong and Singapore. As group head of Credit Suisse's power and project finance group in Asia-Pacific, he was responsible for a wide range of transactions, including mergers and acquisitions, bank and capital market financings, equity capital raisings, restructurings and structured deals. Lars represents IFM Investors as a Director on the board of Vienna Airport. Bachelor of Science (Economics) (Massachusetts Institute of Technology)

### **Werner Kerschl, Executive Director**

Werner is responsible for the origination and execution of infrastructure transactions and the related asset management. During his time at IFM Investors, Werner has worked on numerous successful global acquisitions including Anglian Water Group (UK), 50Hertz Transmission (Germany), Duquesne Light Holdings (USA) and the Defence Headquarters PPP (Australia). More recently, Werner was leading the acquisition of a stake in Vienna Airport (Austria). Prior to joining IFM Investors, Werner worked in the valuations team at PwC in Melbourne and the corporate finance team at KPMG in Vienna. Werner represents IFM Investors as a Director on the board of Vienna Airport. Master of Business Consultancy (Fachhochschule Wiener Neustadt, Austria), Graduate Certificate in Business (Victoria Univ. of Technology, Australia), CFA Charterholder.

### **Deepu Chintamaneni, Executive Director**

Deepu is responsible for the origination and execution of infrastructure transactions as well as asset management of IFM Investors' existing European investments. She played a key role in the recent acquisitions by IFM Investors in Europe, including the acquisition of M6toll, Vienna Airport and Manchester Airports Group. She spent nearly a year on a secondment to Manchester Airports Group following acquisition to assist with the integration of London Stansted Airport into the group and other broader. Bachelor of Engineering (Computer Science and Engineering) (Univ. of Bombay), Master of Science (Management Science and Engineering) (Stanford Univ.).

### **Albena Vassileva, Executive Director**

Albena is responsible for the sourcing, execution and management of infrastructure investments across Europe, alongside leading IFM's newly set up Amsterdam activities. Albena has an extensive Private Equity track record, leading a range of investments, transformations and exits across industry sectors and geographies, as well as supporting the growth of portfolio companies at Board level. Albena worked as Managing Director at Advent International, where she was also instrumental in setting up a new regional 15 hub covering several countries. Prior to that, she held a senior investment role with ABN AMRO Capital focusing on investments in Telecommunication, Media and Technologies.

Immediately prior to joining IFM, Albena led the M&A Advisory team for Natural Resources at ABN AMRO, covering the Energy, Maritime, Commodities and Chemicals value chains.

### **Duncan Symonds, Executive Director, Asset Management**

Duncan is responsible for the identification and implementation of asset management initiatives across our existing portfolio of infrastructure assets, and for the development and execution of transition plans for new investments. Prior to joining IFM Investors, Duncan was the UK Head of Infrastructure at WSP Group, where he was responsible for delivering asset management initiatives, growth of the rail and highways business, and new service lines. Previously, he worked as the Operations Director at Laing O'Rourke, where he led a team that managed a diverse portfolio of projects in the transport and utilities sectors, and also worked as a Business Development Manager and Project Lead. As Chief of Staff at Transport for London, Duncan led on a broad range of governance and operational work streams including the development of the £16bn Crossrail project. Duncan brings an extensive track record in the engineering, construction and transport industries to his role at IFM Investors. Duncan represents IFM Investors as an Alternate Director on the Board of Anglian Water Group. Bachelor of Engineering (Hons) (Univ. of Manchester), Masters of Business Administration (Cranfield School of Management, UK).

### **Guillaume Camus, Investment Director**

Guillaume researches and prepares infrastructure investment strategies and helps execute transactions. Before he joined IFM Investors, Guillaume worked as an analyst with Nomura. He has also held internships at Rothschild, Societe Generale and HSBC France. Master of Finance (ESCP Europe, European School of Management), Master of Management (Univ. of Paris).

### **Jaime Siles, Investment Director**

Jaime specializes in transaction origination and execution and in asset and portfolio management. Jaime has worked on transactions in Europe and LatAm in the airports, toll roads and energy sectors. Before he joined IFM Investors, Jaime was a Senior Analyst at Bouygues' project finance team. Jaime is fluent in Spanish, German, French and English. Master of Civil Engineering (Universidad Politécnica de Valencia, Ecole Nationale des Ponts et Chaussées), Executive MBA (College des Ingénieurs).

### **Maximilian Fieguth, Director, Asset Management**

Max is responsible for identifying and implementing value creation opportunities across infrastructure portfolios and supporting the delivery of key global best practice initiatives. Prior to joining IFM Investors, Max was a Senior Associate at McKinsey in the Operations Practice and Capital Projects & Infrastructure Group, specializing in capital projects delivery with a secondary focus on Advanced Industries. His experience includes long-term cost optimization programs as well as turnarounds and quality improvement programs. Max started his career with Bechtel as a Mechanical Engineer. Masters in Mechanical Engineering (Imperial College, London), MBA (INSEAD, France & Singapore).



## Manager Meetings

In addition to the diligence meetings listed below occurring over 2017 through 2022, Meketa participates in a number of investor quarterly calls, webinars, and client presentations offered by IFM.

**Meeting Location:** Zoom  
**Date:** May 23, 2022  
**Manager Attendees:** David Altshuler, Gary Harrison  
**Meketa Attendees:** Adam Toczyłowski, Lisa Bacon  
**Purpose of Meeting:** Update on the queue, portfolio companies, and performance.

**Meeting Location:** Zoom  
**Date:** January 19, 2021  
**Manager Attendees:** David Altshuler, Chris Rahe  
**Meketa Attendees:** Adam Toczyłowski, Lisa Bacon, Danny Chan  
**Purpose of Meeting:** Update on the market and portfolio companies.

**Meeting Location:** Conference Call  
**Date:** March 30, 2020  
**Manager Attendees:** Adrian Croft, Chris Nicolls, Lars Bespolka, Kyle Mangini  
**Meketa Attendees:** Lisa Bacon  
**Purpose of Meeting:** Update on the portfolio, team, and COVID impact

**Meeting Location:** Carlsbad, Meketa office  
**Date:** April 4, 2019  
**Manager Attendees:** Paul Burraston, Christopher Falzon  
**Meketa Attendees:** Danny Chan  
**Purpose of Meeting:** Discussion regarding IFM's US Infrastructure Debt Fund while also following-up on topics regarding the Global Infrastructure Fund.

**Meeting Location:** New York, NY, IFM's Offices  
**Date:** March 14, 2019  
**Manager Attendees:** Julio Garcia, Jim Wierstra, Wei-Sun The, May Soh, Giovanni Stroeckx, Rentao Pizzolla, David Seelbinder, Regina Chung, Paul Burraston, Aaron McGovern  
**Meketa Attendees:** Danny Chan and Adam Toczyłowski  
**Purpose of Meeting:** Formal On-Site Due Diligence. Agenda topics included: firm update and personnel changes, new fund products, investment strategy and process, track record, and updates on current assets



**Meeting Location:** London, IFM's Offices  
**Date:** December 4, 2018  
**Manager Attendees:** Manoj Mehta, Frederic Michael-Verdier, David Stirton  
**Meketa Attendees:** Jed Constantino  
**Purpose of Meeting:** On-site at IFM's London office. Agenda topics included: team, investment strategy and process, track record, and updates on current assets.

**Meeting Location:** Carlsbad, Meketa office  
**Date:** May 11, 2017  
**Manager Attendees:** Paul Burraston, Aaron McGovern, Tom Osborne  
**Meketa Attendees:** Lisa Bacon  
**Purpose of Meeting:** Update on the market and portfolio companies.

# IFM Investors

## IFM Global Infrastructure Fund

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**Liquidity-** An investment in the Partnership provides limited liquidity since withdrawal rights are not unqualified and Interests may not be transferred without the prior written consent of the General Partner, which may be withheld in its absolute discretion. Although portfolio investments may generate some current income, they are expected to be generally illiquid.

**Valuation-** Most of the portfolio investments will be highly illiquid and will most likely not be publicly traded or readily marketable.

**Economic conditions-** Interest rates, general levels of economic activity, the price of securities and participation by other investors in the financial markets may affect the value of portfolio investments made by the Master Fund or considered for prospective investment.

**Leverage-** Portfolio investments may include businesses whose capital structures may have significant leverage.

An infrastructure investment is subject to certain risks including but not limited to: the burdens of ownership of infrastructure; local, national and international economic conditions; the supply and demand for services from and access to infrastructure; the financial condition of users and suppliers of infrastructure assets; changes in interest rates and the availability of funds which may render the purchase, sale or refinancing of infrastructure assets difficult or impractical; changes in environmental and planning laws and regulations, and other governmental rules; environmental claims arising in respect of infrastructure acquired with undisclosed or unknown environmental problems or as to which inadequate reserves have been established; changes in energy prices; changes in fiscal and monetary policies; negative economic developments that depress travel; uninsured casualties; force majeure acts, terrorist events, under insured or uninsurable losses; and other factors beyond reasonable control. Please consult the constituent documents for more information on risks specific to infrastructure investing. An investment in any of these investment programs should be made only after careful review of the risk factors described in the related offering documents.

## ESG Disclosure

Investing on the basis of sustainability/ESG criteria involves qualitative and subjective analysis. There is no guarantee that the determinations made by the adviser will align with the beliefs or values of a particular investor. Companies identified by an ESG policy may not operate as expected, and adhering to an ESG policy may result in missed opportunities.

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3	Asset Management & Responsible Investment	17





# IFM Investors Firm Overview

GIF portfolio company  
Freeport LNG (United States)



# Firm Overview

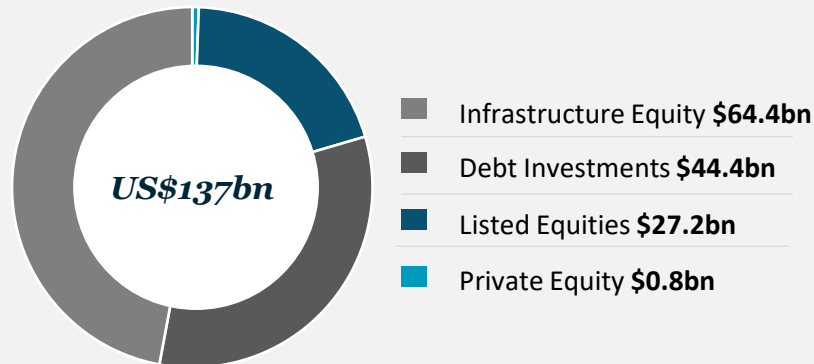


IFM is a global infrastructure specialist with 27 years of experience in the infrastructure sector investing on behalf of long-term, like-minded investors

*Established & owned  
by pension funds*



*US\$137 billion across  
four asset classes<sup>(1)</sup>*



*10 global locations*



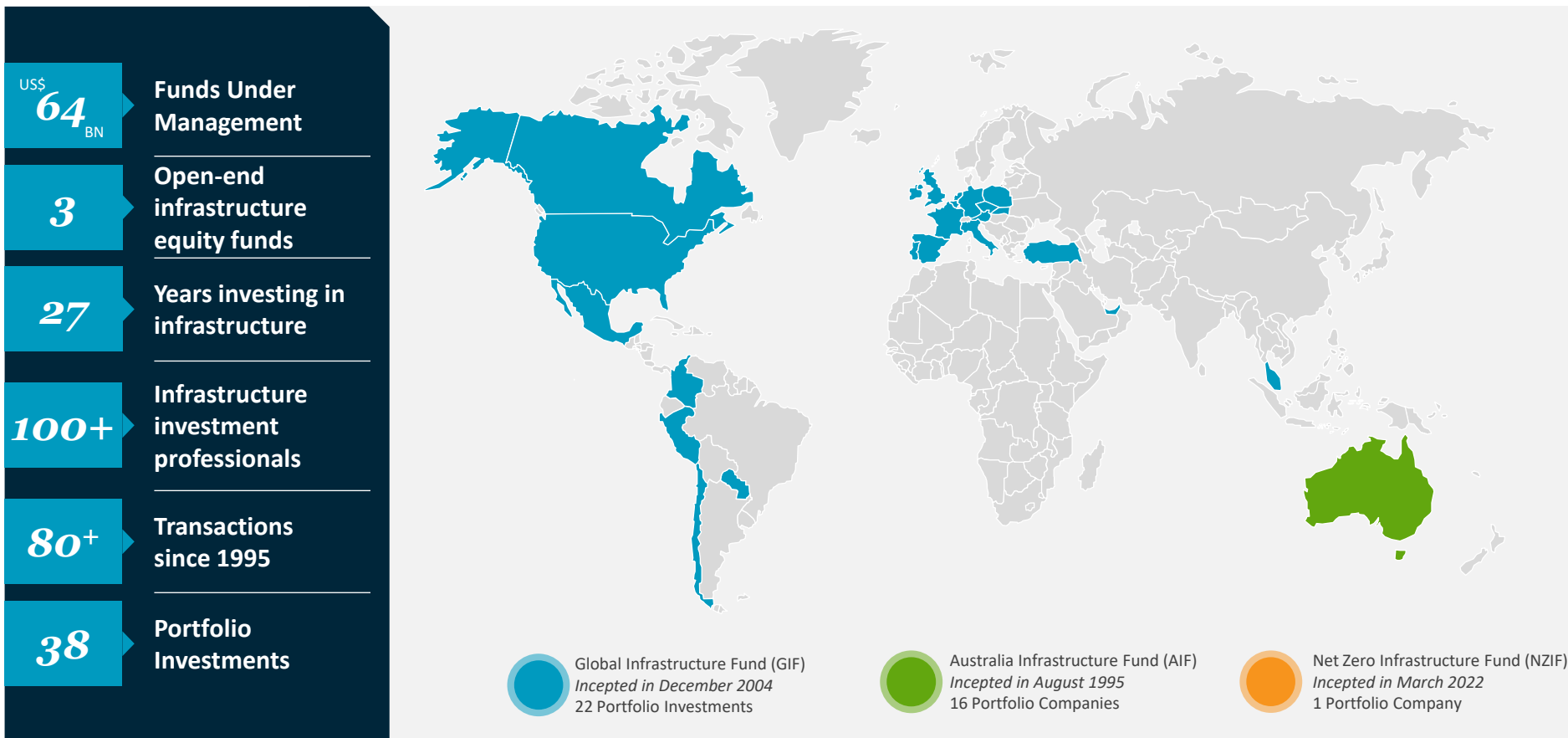
*To protect & grow our investors' long-term capital*

(1) As at 30 June 2022. US \$137bn represents the FUM of investments and undrawn investor commitments. Differences may be due to rounding.

# Infrastructure Equity



*With a track record over two decades, IFM Investors is an established infrastructure equity manager with global scale*



# GIF Investor Base

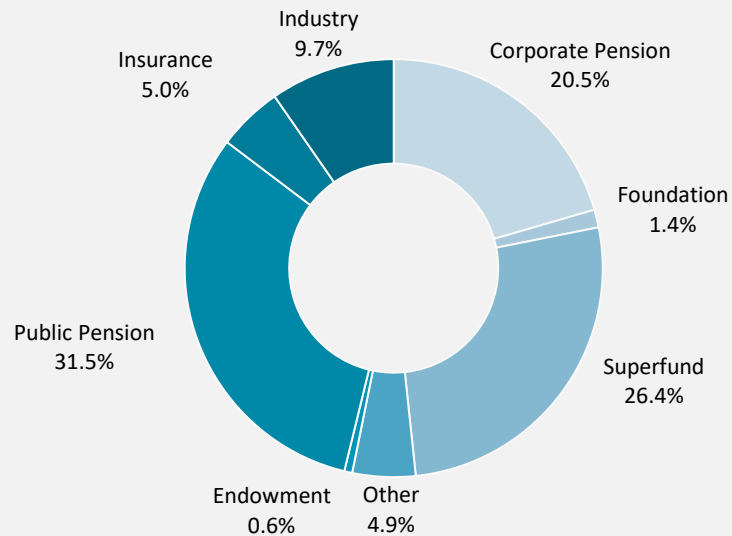


**IFM Investors manages infrastructure investments for long-term institutional investors globally, with impacts on our investors' 120 million members and retirees.**

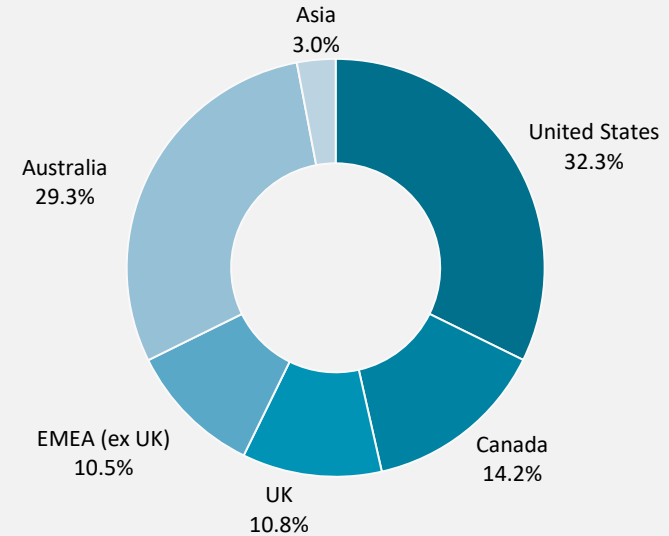


*Serving 552 investors*

*FUM by Investor Type <sup>(1)</sup>*



*FUM by Investor Region <sup>(1)</sup>*



As at 30 June 2022.

(1) FUM represents total NAV of the IFM Global Infrastructure Master Fund plus all undrawn investor commitments and cash available for investment in USD. Differences due to rounding. Past returns are not indicative of future performance.



# IFM Global Infrastructure Fund



# IFM Global Infrastructure Fund (GIF)



**IFM GIF's strategy is to manage a diversified portfolio of global infrastructure investments with a net target return of 8-12% over the long term <sup>(1)</sup>**

**Net Asset Value: \$44.9 bn**

**Weighted Average Discount Rate: 10.2%**

**Weighted average leverage: 34.1%**

	1-Year	3-Year	5-Year	7-Year	10-Year	Since Inception (2004)
<b>GIF Net Return<sup>(2)</sup></b>	<b>12.8%</b>	<b>10.5%</b>	<b>12.4%</b>	<b>12.8%</b>	<b>11.1%</b>	<b>9.2%</b>

***5.8% net cash yield since inception <sup>(3)</sup>***

GIF's total return seeks a significant contribution from cash yield over the medium to long term.

Past returns are not indicative of future performance. All figures as at 30 June 2022.

(1) There is no guarantee that target returns will be realized. Actual returns may vary materially from target and past returns as a result of changes in the portfolio composition, such as acquisitions, divestments or material changes in business plan forecasts for individual assets. Returns are reported on an annualized basis.

(2) The IFM Global Infrastructure Fund ("Master Fund") has been investing in core infrastructure assets globally since December 1, 2004 (including investments made through predecessor vehicles). The return series shown above is time-weighted, reported on an annualized basis, and reflects the aggregated performance of each asset's respective local currency performance at the Master Fund level, weighted by the USD proportionate equity value of each asset. In order to show net returns for the Master Fund return series, the highest Class A management and performance fees structure has been applied on a pro-forma basis. The Master Fund return series does not reflect the impact and costs of hedging and other expenses charged to the fund, which will further reduce returns. No representation is being made that the Master Fund return series reflects the returns of any feeder fund or the returns of an actual investor in the fund. Actual net feeder performance is available upon request. This information is provided for illustrative purposes only. Investment decisions should not be made solely based on the returns series shown above. Past performance is not indicative of future performance.

(3) Cash yield for the IFM Global Infrastructure Master Fund represents aggregate feeder cash yield to investors on a NAV basis net of management and performance fees. Since inception cash yield is calculated as of the Fund's first distribution to investors on June 1, 2012. Returns are reported on an annualized basis.

# Global Infrastructure Team



**Kyle Mangini**

Global Head of Infrastructure



**Julio Garcia**

Head of North America



**Christian Seymour**

Head of Europe



**Michael Hanna**

Head of Australia

**11**  
years average tenure  
at IFM Investors<sup>(1)</sup>

**24**  
years average industry  
experience<sup>(1)</sup>

**30%**  
Women

**20+**  
Languages Spoken

**300+**  
Support staff across  
Legal, Tax & Ops

**110+**  
Professionals

## **80+** Investment Team

### Infrastructure specialists

- ▶ Origination and agile transactional capability
- ▶ Deal team continues to be responsible for asset management, ensuring alignment and continuity
- ▶ Deep sector knowledge

## **20** Asset Management Specialists

### Support investment team for value creation across portfolio

- ▶ Managing key asset risks
- ▶ Enhancing asset performance
- ▶ Leveraging portfolio's scale to generate synergies

## **7** Portfolio Management

### Improving efficiency of portfolio

- ▶ Portfolio insight
- ▶ Determining optimal asset allocations
- ▶ FX, structuring and liquidity management

## Diverse Skill Set



IB/ Capital Markets



Operations



Regulation/  
Government  
/ Legal



Project Management



HR/Labour Relations

(1) Representative of employees who are Director and above in title.

# What Does GIF Invest In?

**IFM GIF seeks to invest in essential infrastructure assets primarily in OECD countries**

## *Key target sectors*



### *Utilities*



Gas & Electric



Water



Telecom



### *Energy*



Terminals&LNG



Pipelines



Renewables



### *Transportation*



Toll Roads



Airports



Seaports

## *We focus on assets with distinct characteristics:*

01

Strong market positions/ High barriers to entry

02

Long asset/ concession life

03

Inflation protection

04

Benefit from regional/global economic growth

05

Stable and predictable revenues

06

Stable regulatory environment

07

Targeting investment-grade financing



## IFM GIF is focused on building and managing a diversified portfolio of essential infrastructure assets to deliver stable long-term returns

Key building blocks of our investment strategy include specific goals through the investment cycle:



### *Buy Well*

- ▶ A long-term partner aligned with government entities and strategics
- ▶ Opportunities sourced through 100+ dedicated specialists and senior advisors, extended sourcing network through portfolio companies' industry relationships
- ▶ Current portfolio is a platform for bolt on acquisitions and capital reinvestment

### *Manage Intensively*

- ▶ Strong governance and active board representation
- ▶ Integrated Asset Management Specialist team driving global knowledge sharing and best practice
- ▶ Prudent and conservative approach towards leverage
- ▶ ESG principles embedded in investment decision and asset management

### *Sell Opportunistically*

- ▶ Create value with a long-term return focus
- ▶ Sell to capture one-off market opportunities
- ▶ Partial divestments to rebalance portfolio and partner with strategic sponsors

GIF portfolio company:  
Global Container Terminals (US)

# GIF Open-end Fund Benefits



*IFM Investors seeks to match long-term infrastructure investment to investors' long-term liabilities*



Investments in infrastructure are subject to various risks including regulatory risk and market risk, which are outlined in further detail on the "Important Disclosures" page. Prior to making an investment in any infrastructure strategy, investors should refer to the offering documents for a complete discussion of risks.

# Portfolio Evolution

Buy and manage strategy with opportunistic exits



Since 2017, we've executed 18 acquisitions and follow-ons, representing ~US\$22.4bn+ <sup>(1)</sup>

## 14 New Acquisitions

c. \$20.8bn



VTTI (Global)  
& Follow-on



OHL Mexico  
(Mexico)



M6toll  
(UK)



Mersin Port  
(Turkey)



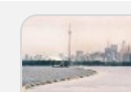
FCC Aqualia (Spain,  
Czech Republic)



GCT Terminals  
(US and Canada)



DCT Gdańsk  
(Poland)



Enwave Energy  
Corporation  
(Canada)



GlasfaserPlus GmbH  
(Germany)



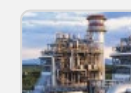
Impala Terminal  
(Peru, Spain & Mexico)



Aleatica  
(Global)



Buckeye Partners  
(US)



Naturgy Energy  
Group<sup>(1)</sup>  
(Spain)



Sydney Airport  
(Australia)

## 4 Follow-ons/ Expansion

c. \$1.6bn



Conmex  
(Mexico)



Freeport  
Notes 2 (US)



Indiana Toll Road  
(US)



VTTI  
(Global)

2017

2018

2019

2021

2022

## Divestitures



Freeport Notes,  
Full (US)



Duquesne Light,  
Full (US)



Conmex,  
Partial (Mexico)



50Hertz,  
Full (Germany)



Freeport  
Notes 2 (US)



VTTI,  
Partial (Global)



Indiana Toll Road,  
Partial (US)

## Main Reasons for divestiture



Portfolio Diversification



Strategic Considerations



Opportunistic Exit

(1) Investments made since 2017 have been included. This is not a representation of all investments completed since the inception of the Global Infrastructure Fund. It should not be assumed that the investments shown herein will be profitable or that investments made in the future will be profitable or will equal the performance of the investments shown herein. A complete list of historical investments in the portfolio is available upon request.

# IFM Global Infrastructure Fund

Diversified portfolio of investments



21 portfolio companies across 20+ countries<sup>(1)</sup>



As at 30 June 2022. Portfolio holdings shown are as of the date noted, may not represent all of the portfolio's current holdings, and are not representative of future investments.

Note: Year indicates initial acquisition year. Certain assets have subsequent transactions (follow-on investments or partial divestments).

(1) Country exposures outlined here reflect material asset exposures (based on contribution to total EBITDA) across our portfolio companies. GIF has assets located in 45+ countries, of which 93% are OECD.





# Asset Management & Responsible Investment

# Asset Management Framework



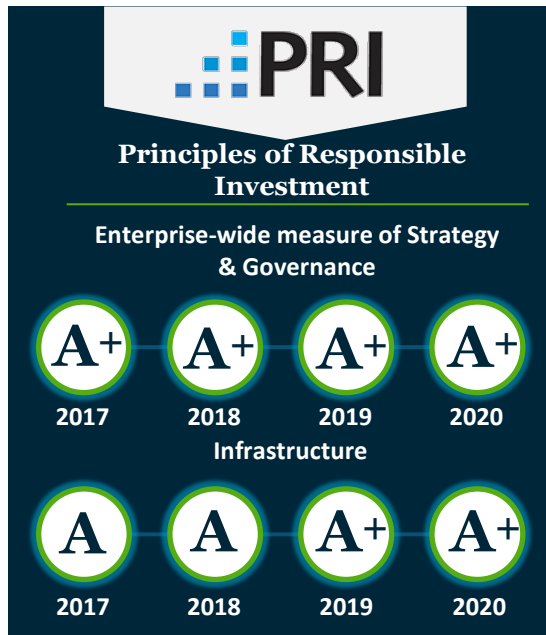


# Approach to Responsible Investment



**IFM Investors has been a signatory to the UNPRI since 2008**

We focus on delivering investment returns over the long term in a socially responsible and ethical manner



## Net Zero Asset Managers Initiative

The Net Zero Asset Managers initiative is an international group of asset managers committed to supporting the goal of net zero greenhouse gas emissions by 2050 or sooner

**236 Signatories**  
**US\$57.5tn in AUM**



## Dedicated team of responsible investment (RI) professionals



**Serena de Kretser**  
*Acting Executive Director*

Serena manages the RI team, working closely with each investment team. She helps ensure responsible investment considerations are embedded in IFM Investors' investment, asset management and reporting frameworks.



**Julia Kaczynska**  
*Director*



**Ashley Kopczynski**  
*Associate Director*



**Lauren Owens**  
*Senior Associate*



**Mattia Taboga**  
*SFDR Project Manager*



**Hiroka McGregor**  
*Associate Director*



**Kaimani Hendry**  
*Intern*





# Asset Management Initiatives



*IFM takes an active approach to managing its portfolio companies and leverages the experience of its investment professionals across finance, operations, engineering, and regulatory management to optimise outcomes for its investors*

## Asset Level Initiatives

## Portfolio-Wide Initiatives

### **Protect**

Manage risks & deliver investment case

Safety Improvements



Governance Improvements



Information Flows



*Cyber Security Assessment*

### **Enhance**

Actively improve the value of individual assets

Capital Program



Storage Acquisitions



Follow-On Investments



*Technology Disruption Review*

### **Exceed**

Seek returns above what seems possible from individual assets

Project Brickyard



Knowledge Sharing



Construction Management



*Global Insurance Facility*



*One purpose. Shared prosperity.*

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**IFM (US) Securities, LLC**

**Member: FINRA/SIPC**

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SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 7, 2022

Members of the Investment Advisory Council ("IAC")

**Re: Consideration of Paine Schwartz Food Chain Fund VI, L.P.**

Dear Fellow IAC Member:

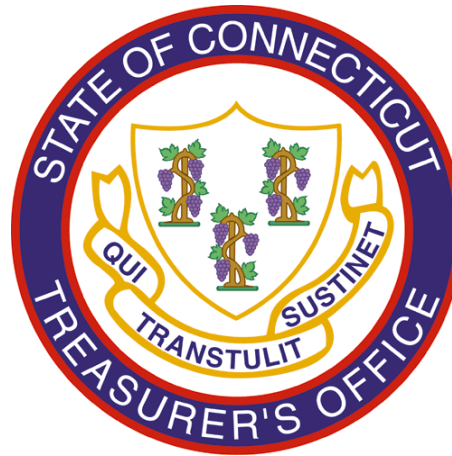
At the September 14, 2022 IAC meeting, I will present for your consideration a Real Asset Fund ("RAF") investment opportunity for the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): Paine Schwartz Food Chain Fund VI, L.P. ("Fund VI", or the "Fund"). Fund VI has a target size of \$1.5 billion, with a \$2.0 billion hard cap, and is being raised by Paine Schwartz Partners, LLC ("Paine Schwartz" or the "Firm").

I am considering a commitment of up to \$150 million in the Fund, which will seek to obtain opportunistic returns in middle-market food and agribusiness companies in the U.S., Europe, and Australia/New Zealand. The Fund seeks value creation opportunities by targeting founder-led opportunities to achieve accelerated growth through tuck-in acquisitions, and operating enhancements. A Fund commitment would provide the CRPTF with additional Natural Resource exposure, with a differentiated focus on investments in smaller, high-growth agribusiness opportunities.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer, and the due diligence report prepared by Meketa. I look forward to discussing these materials at the next meeting.

Sincerely,

Shawn T. Wooden  
State Treasurer



Full Due Diligence Report  
Chief Investment Officer Recommendation  
September 7, 2022  
Paine Schwartz Food Chain Fund VI, L.P.

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# Executive Summary

## Manager Overview

- Firm: Paine Schwartz Partners, LLC (“Paine Schwartz”, or the “Firm”)
- Fund: Paine Schwartz Food Chain Fund VI, L.P. ( “Fund VI”, or the “Fund”)
- General Partner: Paine Schwartz Food Chain Fund VI GP, L.P., (the “GP”, or the “General Partner”)
- Year Founded: 1997
- Offices: New York, NY (HQ), and San Mateo, CA
- Led by Kevin Schwartz (CEO) and Angelos Dassios (CIO) with senior level leadership support from Alex Corbacho and Dr. Lutz Goedde (the “Senior Team”)
- 50 employees including 17 investment professionals with support from 8 additional, non-employee operating partners, and 6 senior advisors
- AUM: \$4.8 billion as of June 2022
- Single strategy Firm, offering only this flagship Fund

## Fund Summary

- \$1.5 billion target/ \$2.0 billion hardcap
- Private equity approach, primarily targeting control buyout positions (75%), and growth equity (25%)
- Sector Target: food and agribusiness (“Agribusiness”) middle market firms
- Geography Target: OECD countries with an emphasis on North America (70%), Western Europe, and Australia/New Zealand (30%)
- Return Targets: Gross IRR 25%, Gross MOIC of 2.5x
- GP Commit: at least 2.0% of the aggregate Capital Commitments
- Term: 10 years with two one-year extensions (subject to LPAC)
- 2% Management Fee, 20% carry, 8% preferred return, cumulative realized deal-by-deal waterfall

## Strategic Fit

- Infrastructure and Natural Resources (“INR”) allocation in the Real Asset Fund (“RAF”)
- Recommended Commitment: up to \$150 million (subject to 20% limit of total fund)
- New/Existing Manager for the CRPTF: New
- Fund Structure: closed-end
- Infrastructure and Natural Resources Strategic Pacing Plan:
- Sub Strategy: Natural Resources
- Risk/Return: Opportunistic
- Current Allocation by Market Value as of June 30, 2022: 1.6%
- Current Allocation Long Term Infrastructure and Natural Resources Target Allocation: 4.2%

## Recommendation

- Based on the strategic fit in the Natural Resources portion within the RAF portfolio, as well as the due diligence conducted by Pension Funds Management (“PFM”) investment professionals and INR consultant Meketa, the Chief Investment Officer of the Connecticut Retirement Plans and Trust Funds (“CRPTF”) recommends a commitment of up to \$150 million to Paine Schwartz Food Chain Fund VI, L.P.
- At a \$150 million commitment, the CRPTF would be provided the opportunity for co-investments at favorable economic terms if desired.

## Investment Considerations

- Experienced and cohesive team with investment, operating and technical expertise. The Senior Team have extensive industry experience, with the CEO and CIO having worked together for 20 years.
- Exclusive focus on the food and agribusiness sector which exhibits favorable macro-economic tailwinds.
- Differentiated investment strategy with an opportunistic, private equity-like approach aimed at identifying growth-stage food and agribusiness platforms through a thesis-driven, high specialty market focus.
- Strong track record investing across 26 platforms in the Agribusiness value chain, while avoiding upstream production businesses with commodity price exposure and avoiding consumer branding reliant businesses.



## Firm History

- The Firm's predecessor organization (Fox Paine and Company, LLC) was founded in 1997 by Saul Fox and Dexter Paine to pursue a generalist strategy: no Agribusiness investments were completed in Fox Paine Capital Fund LLC ("Fund I"), and two were completed in Fox Paine Capital Fund II LLC ("Fund II"). Kevin Schwartz joined the organization in 2001 and led the Fund II Agribusiness investments which represented 33% of invested capital.
- In 2006 Dexter Paine and Kevin Schwartz co-founded Paine Schwartz Partners, LLC (formerly Paine & Partners, LLC) after Saul Fox separated from the organization. Paine Schwartz Food Chain Fund III, L.P. ("Fund III") ultimately invested 64% of capital into the Agribusiness sector. Following the global financial crisis, and the results of thematic research, the Firm determined to focus solely on Agribusiness given its domain expertise for all future funds post Fund III. Starting with Paine Schwartz Food Chain Fund IV, L.P. ("Fund IV"), Dexter Paine transitioned to the role of Chairman and starting with Fund VI will not be a member of the Investment Committee.

## Firm Leadership

- Led by CEO Kevin Schwartz and CIO Angelos Dassios (joined Firm in 2002) with senior level leadership support from Alex Corbacho (joined Firm in 2012) and Dr. Lutz Goedde (joined Firm in 2021); all four individuals make up the investment committee.
- Angelos Dassios previously worked with Kevin Schwartz at Goldman Sachs. Alex Corbacho previously worked in the UBS investment bank, and Dr. Lutz Goedde, former senior partner of McKinsey, joined the Firm in August 2021, but has supported the Firm on company engagements for several years and has been in the agribusiness space for over 25 years.

## Firm Governance/Team

- Senior leadership team remains strong and cohesive despite the reduced role of Dexter Paine, which the Firm has been planning and preparing for the last few years. Although PFM staff note the departure of four senior level professionals in the last two years, PFM staff believe the Firm was able to backfill candidates appropriately.
- The investment team is supported by the six-person Portfolio Excellence Platform ("PEP") team, lead by Dr. Lutz Goedde. The PEP team is a key component of the Firm's value-creation process.
- The Firm's Advisory and Operating network (depicted on slide 6) assist in providing various industry insights, including add-on and deal sourcing. Further, the 9-person operating team is exclusive to the Firm and provides guidance and senior leadership to portfolio companies. Moreover, the Firm also partners with thought leaders such as McKinsey & Company to augment its industry trends research. McKinsey & Company intends to also be a limited partner in Fund VI.

# Paine Schwartz Partners Team

Office Of The State Treasurer  
Pension Fund Management

## Investment Committee



**Kevin Schwartz**  
Chief Executive Officer  
Managing Partner



**Angelos Dassios**  
Chief Investment Officer  
Managing Partner



**Alex Corbacho**  
Partner



**Lutz Goedde**  
Partner



**Dexter Paine**  
Chairman

## Investment Team

(18)



**Steven Bierschenk**  
Managing Director



**John Novak**  
Managing Director  
Head of Investment Development and  
Capital Markets



**Spencer Swayze**  
Managing Director

2 Directors, 5 Principals, 2 Senior  
Associates, 2 Associates  
+ 2 Incoming Associates in Summer 2022

## Portfolio Excellence Platform

(7)



**Colleen Akehurst**  
Managing Director



**Renata Dinkelmann**  
Managing Director  
Head of Human Capital



**Steve Padgette**  
Managing Director  
Technology

1 Principal, 1 Senior Associate, 1  
Associate

## Firm Administration

(26)



**Natalya Michaels**  
Managing Director  
Head of Investor Relations



**Renata Malavazzi**  
General Counsel and Chief  
Compliance Officer



**Robert Meyer**  
Chief Financial Officer

23 Supporting Professionals

## Food Chain Advisory Board

6 Total

## Operating Directors

9 Total

Source: Paine Schwartz

# Paine Schwartz Partners Team

Office Of The State Treasurer  
Pension Fund Management

## Food Chain Advisory Board

**syngenta**



**John Atkin<sup>1</sup>**  
Former COO of  
Syngenta

**nutreco**  
**Rabobank**



**Wout Dekker**  
Former CEO of  
Nutreco; Former  
Chairman of  
Rabobank

**Kraft**



**Betsy Holden**  
Former Co-CEO of  
Kraft Foods

**Driscoll's**  
Only the Finest Berries



**Miles Reiter**  
Chairman and CEO  
of Driscoll's

**McKinsey  
& Company**



**Sunil Sanghvi**  
Former Senior Partner  
at McKinsey focused  
on agricultural projects

**THE ROCKEFELLER  
FOUNDATION**  
**USAID**



**Rajiv Shah**  
Former USAID  
Administrator;  
President  
of the Rockefeller  
Foundation

## Operating Directors

**Sunrise  
Growers** **Sun Lee**



**Ed  
Haft**

Former CEO of  
Sunrise Growers and  
President of the Sara  
Lee Frozen Bakery

**GHIRARDELLI**



**Jack  
Anton**

Former Chairman and  
CEO of Ghirardelli  
Chocolate and Carlin  
Foods

**Cargill**



**Peter  
Hawthorne**

Former VP –  
Corporate Strategy &  
Development at Cargill

**DSM**  
**MONSANTO**



**Rick  
Greubel**

Former CEO of  
Kaiima, President Human  
Nutrition & Health at DSM  
and President of Monsanto  
Brazil

**Elanco**



**Rich  
Shuler**

Animal Health  
Entrepreneur: Pro Vet,  
VetLife, Ivy Animal  
Health, AgSpan  
Analytics

**HOLCIM**



**Martin  
Foreman**

APAC Agribusiness  
Expert & PhD in Plant  
Physiology

**VERDESIAN**

**Nufarm**



**JJ  
Grow**

Former CEO  
Verdesian & EVP  
Sales NuFarm

**ATKINS** **DANONE**  
THE PLANT AND HEALTH



**Mark  
Rodriguez**

Former CEO Danone  
Waters and Specialty  
Foods, Atkins  
Nutritionals, Beech-Nut  
Nutrition

Source: Paine Schwartz

Note: 1) John Atkin is also an Operating Director.

# Investment Strategy

## Sector Selection

- Consistent with Fund IV and Fund V, the GP has an exclusive focus on the global food and agribusiness sector thru fast-growing middle market companies across the production value chain (total equity investments, inclusive of co-investment, ranging from \$50 million to \$500+ million in size).
- The Fund will focus making equity investments in sustainable food chain investing to identify value-added and differentiated companies underpinned by two core investment themes (i) enhancing productivity and sustainability, or (ii) Increasing health and wellness.
- Targeted sub-sector investments are identified through deep dive investment research initiatives and currently include crop productivity, controllable environment agriculture, animal productivity, agribusiness software, ingredients, value-added processing and food & beverage products.

## Market Opportunity

- The demand for Agribusiness is expected to continue to grow given projections for global population growth, coupled with increased constraints around land, water and weather.
- Despite Agribusiness making up 8.6% of total global economic output, the GP notes that in 2021, less than 3% of total buyout capital, and less than 5% of total growth equity capital were invested in Agribusiness. Further, the Firm continues to view the sector as highly fragmented and underinvested by private capital which creates favorable pricing and sourcing dynamics for the GP.

## Target Investment Characteristics

- The GP targets predominately buyout investments in companies with business models conducive to strong growth, low market cyclicality, and risk adjusted returns. The Fund may also seek control and non-control growth equity investments, expected to be between 20%-25% of the Fund. The Fund is targeting gross returns of 2.5-3.0x MOIC and 20%-25% IRR.
- The Firm seeks to acquire companies at lower acquisition multiples, vs. the market, portfolio companies are averaging approximately 7x EBITDA vs. a market average of 11x according to Meketa research.
- Paine Schwartz is also modest with the use of leverage vs. the market; half of Fund V portfolio companies have either no debt, and only two have debt greater than 4x EBITDA vs. a market average of 6x according to Meketa research.

# Investment Strategy Sector Selection

- The Firm's investment strategy targets differentiated products, services, and technologies in segments with limited commodity exposure and private equity competition.
- Historically, the Firm has focused more on segments highlighted in orange below which target the productivity & sustainability upstream, and health & wellness downstream.



Source: Paine Schwartz

# Investment Strategy Continued

## Origination

- Paine Schwartz utilizes the network and relationships of its team, Operating and Advisory network, and its own research focused offsite conferences in partnership with McKinsey, to first source investment themes and then deals that support their research. In 2020, the Firm established a dedicated investment development function within the Firm, which has resulted in a more formal and organized approach to pipeline development and broadened the Firm's intermediary relationships.
- Paine Schwartz is often the first institutional investor, having been the first institutional capital in over 60% of deals, and deal sourcing is primarily off-market. About 60% of investment opportunities have been sourced through the Firm's network, and an additional 20% have been part of a limited auction. The Firm expects 70% of investments to be in North America. For non-USD exposures, the firm enters into FX contracts to provide hedges on foreign investments when possible.

## Value Creation Strategy

- Fund VI is expected to follow the same Agribusiness investment strategy as Fund IV and Paine Schwartz Food Chain Fund IV, L.P. ("Fund V") deploying into on average three portfolio investments per year.
- After a rigorous proprietary research process, the investment team seeks out corresponding firms in which value can be maximized thru growth, and/or operating process improvements. During and after underwriting, the investment team works with the PEP team to design/implement business plans, materials sourcing/procurement, value-chain optimizing, sales, pricing, research and development, and human capital management.

## Exits

- Overall, the Fund will typically seek to invest in platforms during their growth phase with the expectation that they will become larger and more mature portfolio company investments on exit, attracting a broad range of strategic and financial buyers. Historically, exits have tilted toward strategic Agribusiness buyers, and to a much lesser extent to the IPO market.
- Discussions between PFM investment staff and the GP suggest notable rigor surrounding the sales process. Potential exit strategies are discussed during initial underwriting, in the crafting of business plans, and reviewed during portfolio reviews. Although business plans tend to target 5 year holds, should a company meet/exceed targets prior to the 5 year mark, exit strategies may be accelerated.

# Track Record and Performance

Data as of March 31, 2022

- PFM investment staff note that the Firm's exclusive dedication to the Agribusiness strategy began with Fund IV. Therefore, all Agribusiness deals prior to Fund IV are analyzed on an aggregated gross basis ("Pre-Dedicated Fund"). As can be seen in the table below, these deals have strong, and mostly realized performance.
- The Agribusiness track record across 26 deals since the Firm's first Agribusiness deal in 2003 has low realized losses. Realized losses amount to about 6%, which is low when compared to Hamilton Lane buyout research. Discussions between the GP and PFM investment staff around 'lessons learned' identified that most of those poorer performing deals suffered from production-oriented issues, including cyclicity, seasonality, commodity and biological life exposures. Going forward the GP has stated that the Firm will generally avoid production driven investments to limit direct commodity exposure and instead focus on companies with a more controllable value creation plan. A review of the deals in Fund V, and a \$150 million warehoused deal earmarked for Fund VI demonstrates the move away from commodity exposures.
- Fund IV and Fund V rank as first and second quartile funds across all three relevant metrics, except for TVM in Fund IV, when compared to the Cambridge Associates Global Natural Resources closed-end fund benchmark. PFM staff acknowledge that both Fund V and Fund IV still have significant unrealized investments, and that ultimate performance may still change. Further, while Fund IV, a 2015 vintage, on a TVM basis is ranked 3rd quartile, PFM staff acknowledge that a net TVM of 1.5x (vs. the 1.4x listed below) would have resulted in a second quartile rank.

Paine Schwartz Partners (millions, USD)									
Fund	Vintage Year	Fund Size	Co - Investment	Fund Status	# Deals	Invested Capital	Realized Value	Unrealized Value	Total Value
Pre-Dedicated Fund	NA	NA	\$363	NA	9	\$762	\$1,366	\$93	\$1,459
Fund IV	2015	\$893	\$478	Harvesting	8	\$672	\$548	\$633	\$1,181
Fund V	2019	\$1,429	\$472	Invested	9	\$1,059	\$34	\$1,526	\$1,560
<b>Total</b>		<b>\$2,322</b>	<b>\$1,313</b>		<b>26</b>	<b>\$2,493</b>	<b>\$1,948</b>	<b>\$2,252</b>	<b>\$4,200</b>

	Gross/Net			Quartile Rank		
	TVM	IRR	DPI	TVM	IRR	DPI
Pre-Dedicated Fund	1.9x / NA	157% / NA	1.8x / NA	NA	NA	NA
Fund IV	1.8x / 1.4x	15% / 10%	0.8x / 0.6x	3	2	1
Fund V	1.5x / 1.4x	68% / 37%	0.1x / 0.1x	1	1	1



## Fund VI

- The recommended commitment would be categorized under the natural resources sub-category of the Infrastructure and Natural Resources (“INR”) allocation of the RAF.
- The Investment Policy Statement, adopted March 10, 2021, (the “IPS”) sets a target allocation of 30-50% for Natural Resources investments within the INR portfolio.

A commitment to Fund VI would be aligned with the RAF strategic pacing plan objectives.

- The current CRPTF policy targets total exposure to Infrastructure and Natural Resources to be 4.2%.
- As of June 30, 2022, the CRPTF’s total allocation by market value to Infrastructure and Natural Resources was 1.6%.
- The goal of forming significant relationships with strong and differentiated managers as the CRPTF builds out its INR sleeve.
- The opportunity of obtaining co-investment opportunities to enhance performance, as the GP estimates that Fund VI will likely produce about \$0.50 for every \$1 in fund investments.

# Strengths and Rationale

## Experienced Team with Deep Sector Knowledge

- The Agribusiness value chain is complex due to the variability of market structures across hundreds of different agricultural commodities and varies within each of those commodities by geography. This inherent complexity creates an opportunity for sector experts such as Paine Schwartz.
- The Firm has invested in the Agribusiness sector for 17 years, although within the last 7 years has done so on an exclusive basis. This focus has resulted in deep knowledge and experience in operation, deal sourcing and has allowed for the creation of an extensive network of senior industry experts. In particular, the Firm's strong operational and investment reputation has also allowed it to source unique ideas, and gain access to the senior leadership of various potential portfolio companies years before they consider third-party capital. Lastly, the Firm's research collaborative with McKinsey provides another avenue for providing the latest technologies, trends and processes to existing and prospective portfolio companies.

## Favorable Macroeconomic Tailwinds

- Agriculture continues to have favorable macro tailwinds. Agriculture innovation is needed to feed a growing population within increasing land and climate resource constraints. The global population is projected to grow ~9% over the next decade and reach 8.5 billion by 2030. Further, average per person global calorie consumption is also projected 13% given growth in the middle class, and higher meat consumption.
- Consumers and governments are also increasingly focused on food safety, tractability and global supply chain verification/tracking, which also increases the need for improved agricultural technologies.

# Key Risks and Mitigants

## Senior Team Changes

- Over the last two years, notable changes amongst the senior staffing team, including the stepping down by founder Dexter Paine and four senior level departures, suggests potential concerns over investment strategy continuity, and a lack of strong leadership.
- This concern around Dexter Paine is offset given long existing succession plans, coupled with Dexter Paine remaining chairman. Further, PFM staff note that Dexter Paine did not source any deals in Fund IV and Fund IV. The concern around the other four senior level departures is also mitigated following discussions between the GP and PFM investment staff. PFM staff view that the Firm has been able to backfill those roles with strong candidates. Further, the Firm further enhanced its senior team with the addition of Dr. Lutz Goedde as partner in 2021. Dr. Goedde has over 25 years of experience in the food and agribusiness sector, most recently servicing as Global Leader of McKinsey's Agriculture and Food Practice where he advised companies including Paine Schwartz for about a decade. Further, Dr. Goedde and Kevin Schwartz have known each other on a professional basis since 2005, which limits concerns around team cohesiveness.

## Large Unrealized Portfolio in Prior Funds

- The process of realizing the large unrealized portfolio will require significant time and resources of staff. This concern is somewhat offset by the growth in size, and caliber of the Firm's staffing.
- Pre-Dedicated Fund Investments are essentially all realized with the remaining investments managed almost exclusively by Dexter Paine. However, Fund IV remains 54% unrealized, and Fund V, a 2019 vintage, is 98% unrealized. PFM staff reviewed staffing levels between Fund IV through Fund V and note that total staffing increased by roughly 50% since 2015. Further, the GP has also recently hired managing director level professionals to oversee the PEP and fund administration roles. PFM investment staff view that the Firm is adequately staffed for Fund VI given recent headcount growth.

# Fundraising and Key Terms Summary

Target Size / Hard Cap	• \$ 1.5 billion / \$2.0 Billion
GP Commitment	• At least 2% of commitments
Fundraising Status	• \$465 million as of early August 2022
Target Final Close	• March 2022, sooner if hardcap is reached
Fund Term	• 10 years, plus two one-year extensions (subject to LPAC)
Investment Period	• 5 years
Management Fee	• 2% of committed capital over investment period, then 2% over net invested capital thereafter
Fee Discounts & Offsets	• Mgt fee discounts available based on size
Carry & Waterfall Type	• 20%, cumulative realized deal-by-deal
Preferred Return	• 8%
GP Catch-up	• 50%
Clawback	• Yes
LPAC	• Offered subject to fund commitment size

## Additional Provisions

- Cayman Islands Limited Partnership
- Fund may not invest more than 25% of aggregate commitments in a single platform including bridge financing
- Fund may not invest more than 20% of aggregate commitments outside of outside of OECD countries
- Fund may not invest more than 20% in growth equity investments

## Paine Schwartz Partners, LLC (“Paine Schwartz”)

- In its disclosure to the Office of the Treasurer, Paine Schwartz Partners, LLC (“Paine Schwartz” or the “Company”), discloses the following matters:
- In October of 2018 two minority shareholders of a Fund III platform investment created in 2012 by Paine Schwartz filed a lawsuit with such claims as breach of duties and mismanagement in connection with various historical acquisitions and other matters. In 2019 a motion to dismiss filed by Paine Schwartz was granted in substantial part. Paine Schwartz is vigorously defending the remaining claims. Paine Schwartz sold the platform investment to a private equity firm in 2021.
- In June of 2022 the SEC notified Paine Schwartz of a routine examination of a holding company, CZAM, part of the investment structure of a Fund III investment. Due to the 2008 financial crisis, CZAM terminated all employees, and there are no operations or employees since, so Paine Schwartz states it will mostly respond with “not applicable” to document requests. Nonetheless, they have outside counsel assisting.
- Paine Schwartz states that it is not permitted to advise of any material claims under its fidelity, fiduciary or E&O insurance policies due to confidentiality constraints, and that it has no ongoing internal investigations to report. Paine Schwartz states it has adequate procedures in place to undertake internal investigations of its employees, officers and directors.

Paine Schwartz Partners, LLC ("Paine Schwartz")

## Review of Required Compliance Attachments

Paine Schwartz disclosed no campaign contributions, known conflicts or gifts

Paine Schwartz disclosed no impermissible third-party fees

- Lazard Freres & Co. LLC and Lazard & Co. Limited are placement agents for the Fund. Paine does not anticipate that Lazard will render services in connection with the proposed investment by Connecticut.

## Corporate citizenship in the State of Connecticut

None reported. The firm's offices are in NYC and San Mateo, CA

## Commitment to the diversity, education & training of the industry's next generation

The firm has recently embarked on several initiatives in recruiting, retention, training and developing talent. The firm's Summer 2022 internship program is 60% minority men and/or women.

## Support for women-owned, minority-owned or emerging businesses

None reported

Paine Schwartz Partners, LLC ("Paine Schwartz")

## Workforce Diversity

Paine Schwartz provided data as of May 31, 2022

- 54 total employees, up 13% since 2020

For the three-year reporting period

- Among professionals/managers, the firm promoted three minorities and two females
- Proportion of Women managers/executives and professionals increased significantly
- Proportion of Minority executive remained constant but overall managers and professionals decreased
- While firm size grew, number of minority employees did not

### WOMEN

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>27%</b> 4 of 15	<b>19%</b> 4 of 21	<b>44%</b> 8 of 18	<b>48%</b> 26 of 54
<b>2021</b>	<b>21%</b> 3 of 15	<b>15%</b> 3 of 20	<b>40%</b> 8 of 20	<b>42%</b> 22 of 53
<b>2020</b>	<b>14%</b> 2 of 14	<b>11%</b> 2 of 18	<b>33%</b> 6 of 18	<b>40%</b> 19 of 48

### MINORITIES<sup>1</sup>

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>13%</b> 2 of 15	<b>14%</b> 3 of 21	<b>28%</b> 5 of 18	<b>20%</b> 11 of 54
<b>2021</b>	<b>14%</b> 2 of 14	<b>15%</b> 3 of 20	<b>25%</b> 5 of 20	<b>21%</b> 11 of 53
<b>2020</b>	<b>14%</b> 2 of 14	<b>11%</b> 2 of 18	<b>39%</b> 7 of 18	<b>23%</b> 11 of 48

<sup>1</sup> 2022 Minority breakdown: 2 exec (2 Hispanic); 3 mgmt (2 Hispanic, 1 Asian); 5 prof (1 Black, 1 Hispanic, 3 Asian)



# Environmental, Social and Governance Analysis

## Overall Assessment : Evaluation and Implementation of Sustainable Principles

Paine Schwartz's disclosure described a meaningful integration of ESG factors with an emphasis on the UN Sustainable Development Goals (SDGs). As a food and agribusiness investor, the firm focuses on the core investment themes of Productivity & Sustainability and Health & Wellness, which align with several SDGs. Paine Schwartz is a signatory to the UN PRI and the Taskforce on Climate-related Financial Disclosures (TCFD). The firm works to align its reporting framework with the Institutional Limited Partners Association's ("ILPA") ESG Data Convergence Project and the Sustainability Accounting Standards Board (SASB). Paine Schwartz's ESG Committee, chaired by the CEO, oversees all ESG policies and integration. The firm regularly provides ESG trainings for staff that leverage third-party partners for guidance on ESG trends. The firm engaged the Global Reporting Initiative ("GRI") in 2021 and 2022 to conduct a gap assessment, to understand how it could improve its disclosures.

Paine Schwartz does not have a formal policy with respect to civilian firearms manufacturers, given that it does not have relationships with firms in this sector.

Overall, the disclosure indicated a comprehensive approach to ESG integration.

## SCORE

1

Criteria	Response
Firm has an ESG policy	Yes
If Yes, firm described its ESG policy	Yes
If Yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
Designated staff responsible for sustainability policies and research	Yes
Firm provides training/resources on sustainability issues, explained sources of ESG-related data	Yes
Signatory/member of sustainability-related initiatives or groups	Yes
Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	No*

\*No, given that the firm does not invest in civilian firearms manufacturers or retailers.

Criteria	Response
Policy that requires safe and responsible use, ownership or production of guns	No*
Enhanced screening of manufacturers or retailers of civilian firearms	No*
Enhance screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impact	Yes
Merchant credit relationship with retailers of civilian firearms and accessories	No
If Yes, firm confirms compliance with laws governing firearms sales	N/A

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**Private Markets Investment Memorandum**

**Paine Schwartz Partners  
Food Chain Fund VI, L.P.**

May 13, 2022

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## Executive Summary

### DILIGENCE PROCESS

Meketa Investment Group ("Meketa") initiated its due diligence of Paine Schwartz Partners ("PSP") and Paine Schwartz Food Chain Fund VI L.P. (the "Fund" or "Fund VI") in March 2022. In 2019, several Meketa clients committed capital to PSP's prior fund, Paine Schwartz Food Chain Fund V, L.P. ("Fund V").

We have conducted a thorough review of the Fund's private placement memorandum, PSP's response to Meketa's due diligence questionnaire, and PSP's virtual data room. Our due diligence was supplemented with several virtual meetings with the PSP team. While physical on-sites for Fund VI were precluded due to Meketa's travel restrictions in place due to the coronavirus pandemic, Meketa investment professionals have previously conducted on-site meetings at PSP's California and New York offices, participated regularly in the quarterly updates and annual general meetings, and in-person update meetings.

PSP is targeting a first close with existing and new investors in the third quarter 2022.

### MANAGER BACKGROUND

Fund Name	Manager	Office Location(s)	Target Market	Target Geography
Paine Schwartz Food Chain Fund VI	Paine Schwartz Partners	San Mateo, CA; New York, NY	Agribusiness	Global

Fox Paine & Company ("FP"), the predecessor organization to PSP, was founded in 1997 by Saul Fox and Dexter Paine. Messrs. Fox and Paine were previously partners at private equity firms KKR and Kolberg & Co., respectively. FP executed a diversified leveraged buyout strategy that invested across financial services, semiconductors, agribusiness, healthcare, energy, telecom, and consumer goods. FP raised \$509 million in 1998 for Fox Paine Capital Fund ("Fund I"), \$1.0 billion in 2000 for Fox Paine Capital Fund II ("Fund II"), and \$1.2 billion in 2007 for Fox Paine Capital Fund III ("Fund III"). In 2001, Kevin Schwartz joined the team and led its agribusiness investment activities. FP Fund II and Fund III invested 33% and 64% of their capital, respectively, in the food and agribusiness sector.



Dexter Paine and Kevin Schwartz co-founded Paine & Company in 2006 which was subsequently renamed Paine Schwartz Partners. In 2014, PSP raised a total of \$893 million for Paine & Partners Capital Fund IV (“Fund IV”), its first fully dedicated agribusiness fund, and in 2019, PSP raised \$1.4 billion for Paine Schwartz Food Chain Fund V.

## OFFERING TERMS

Fund Size	Management Fee	Carry And Carry Structure	Preferred Return	Fee Income	Inv. Period And Total Term
\$1.5 billion	2.0%	20%; cumulative realized deal-by-deal	8%	100%	5 years; 10 years

## STRATEGY

The Fund seeks to continue PSP’s sector-focused strategy of investing across the global food and agribusiness value chain. PSP utilizes a top-down, thesis driven approach that leverages a joint research initiative with McKinsey’s agriculture team to identify and prioritize certain investment themes within the food and agribusiness sector. Currently, PSP has identified the following areas of focus (“hunting grounds”) as investment themes for the Fund: crop productivity and sustainability; controllable environment and high value agriculture; animal productivity and sustainability; food and agriculture software and business services; ingredients; value-add processing; and food and beverage products.

PSP will primarily make investments in OECD countries with an emphasis on North America, Western Europe, and the Australia/New Zealand geographies. Historically, over two-thirds of PSP’s investments have been located in North America. PSP will use a platform approach and effect growth through internal initiatives and add-on acquisitions. The Fund will focus on control buyout transactions but may invest up to 20% in select control or non-control growth equity investments where existing management teams are still involved and retain a meaningful portion of the equity. The expected transaction size of the Fund ranges from \$50 million to \$500 million, inclusive of co-investment opportunities. PSP has typically acquired companies at low acquisition multiples with its portfolio average at approximately 7.0x EBITDA. PSP generally uses modest amounts of leverage based on a company’s financial condition. For example, half of Fund V companies have no debt, and only two have debt greater than 4x EBITDA versus the private equity industry average of 6x EBITDA. The Fund is targeting gross returns of 2.5x to 3.0x and 20% to 25% IRR.



## TRACK RECORD

### PAINE SCHWARTZ HISTORICAL PERFORMANCE AS OF DECEMBER 31, 2021 (\$ IN MILLIONS)

Fund	Vintage Year	Invested (\$)	Realized Value (\$)	Total Value (\$)	Net IRR <sup>1</sup> (%)	Net TVM (X)
Pre-Dedicated Fund	2003	761.6	1,363.2	1,436.8	NA	NA
Fund IV	2015	670.2	545.0	1,155.8	9.6	1.4
Fund V	2019	919.7	26.5	1,319.0	37.4	1.2
<b>Total</b>		<b>2,351.5</b>	<b>1,934.7</b>	<b>3,911.5</b>		

## INVESTMENT ANALYSIS

### Strengths

- The PSP team has been investing in the agriculture sector for approximately 20 years and has established a wealth of industry experience and relationships. Additionally, the research collaborative with McKinsey and the network of the Food Chain Advisory Board provide unique industry insights and deal sourcing contacts.
- PSP has a deep team with a long history working together and a breadth of resources across its investment, Portfolio Excellence Platform (“PEP”), and Operating Directors.
- PSP’s PEP team works closely with management teams to establish strategic growth plans, improve operational efficiencies, reduce costs, and recruitment and human capital, among other initiatives.
- PSP has produced attractive risk-adjusted investment returns with the agribusiness sector with an investment history within the space dating back almost 20 years.

### Weaknesses

- PSP has some notable senior team changes since the raising of Fund V with Dexter Paine stepping into a Chairman role and four senior departures in 2020 and 2021.
- Fund V is largely unrealized with 64% of capital invested but just 2% returned to date.

<sup>1</sup> Net returns not available. Since these agribusiness investments were part of diversified strategy funds, fund level expenses cannot be directly attributed to individual portfolio company investments.





## **Opportunities**

- Global demand for food and agricultural products is increasing with rising populations and an expanding middle class.
- The COVID-19 pandemic and the Russia/Ukraine war has highlighted the vulnerabilities of global supply chains. Companies are making investment to make their supply chains more robust, leverage data to make real time informed decision, and vertically integrate to capture more value chain.
- Consumers are increasingly focused on health and wellness which are influencing the ingredients, food, and beverages they purchase and consume. Organics, clean-label, and nutritious foods are becoming important consumption factors in developed economies.
- The food and agriculture sector has the potential to drive positive ESG impact by feeding the world and providing people with nutritious and healthy foods and beverages.
- Relative to other sectors, there is less private equity capital targeting the agriculture and agribusiness sector resulting in less competition for deals.

## **Threats**

- Global inflationary pressures have impacted almost all sectors of the global economy including the food and agriculture sector.
- Constraints across the food and agriculture supply chain have increased transportation, food processing, and the movement good including inputs and food products.



## **CONCLUSION**

Fund VI represents a compelling opportunity to invest alongside an experienced investment team with over 20 years of experience within the industry. Fund VI will provide access to a diversified global portfolio of food and agribusiness investments across the value chain. The team currently has identified key investment themes for the Fund including: crop productivity and sustainability; controllable environment and high value agriculture; animal productivity and sustainability; food and agriculture software and business services; ingredients; value-add processing; and food and beverage products. Primary strengths related to Fund VI include: PSP's strong industry relationships; a deep team with a breadth of resources across its investment, PEP, Operating Directors, and Food Chain Advisory Board; value-add approach to portfolio development, attractive historical returns, and a less competitive sector over other private equity sectors.

Key considerations related to a potential commitment to Fund VI include: the number of team senior team changes over the past three years including the retirement of Dexter Paine and four senior level departures; and Fund V still being largely unrealized.

## Investment Strategy

In the coming decades, the demand for agricultural and food products is expected to increase significantly driven by global population growth, expansion of the global middle class, and changing consumer habits. The agriculture sector is one well positioned to generate attractive investment returns while also contributing positively to ESG considerations, such as enabling secure food supplies, climate and environmental matters, and supporting access to healthier more nutritious, and safer food. PSP seeks to capture these macro trends within its identified investment themes to drive favorable risk-adjusted returns and deal flow activity for the Fund.

PSP utilizes a top-down, thesis driven approach that leverages a joint research initiative with McKinsey's agriculture team to identify and prioritize certain investment themes within the food and agribusiness sector. Like its past fund, Fund VI will focus on opportunities that revolve around its core investment themes: Productivity and Sustainability; and Health and Wellness. The elements and focus of these themes are outlined below.

### Productivity and Sustainability

- Develop plant or animal traits that promote higher yields or quality.
- Inputs that improve crop yields and food sustainability.
- Decrease waste with products and technologies that improve shelf life and reduce spoilage.
- Data analytical technologies that assist with supply chain decisions.
- Robotic equipment that increases efficiency and reduces labor requirements.

### Health and Wellness

- Food safety products or services that enable verification, traceability, and process management across the supply chain.
- Ingredients that provide nutritional and functional benefits in food or supplement form.
- Vertically integrated fresh fruit and vegetable producers.
- Vertically integrated food and beverage products that promote a healthier or more sustainable alternative to conventional products.

PSP will primarily make investments in OECD countries with a primary emphasis on North America, Western Europe, and the Australia/New Zealand geographies. Historically, over two-thirds of PSP's investments have been located in North America. PSP may use foreign exchange



contracts and derivatives to provide downside protection on foreign currency exposure on a case-by-case basis.

PSP will implement a platform approach and effect growth through internal initiatives and add-on acquisitions. The Fund will focus on control buyout transactions but may invest up to 20% in select control or non-control growth equity investments where existing management teams are still involved and retain a meaningful portion of the equity. The expected transaction size of the Fund ranges from \$50 million to \$500 million, inclusive of co-investment opportunities. PSP has typically acquired companies at lower acquisition multiples, relative to the market, with its portfolio averaging approximately 7x EBITDA. The industry average for leveraged buyouts since 2015 is nearly 11x EBITDA<sup>2</sup>. PSP generally uses modest amounts of leverage based on a company's financial condition. For example, half of Fund V companies have no debt, and only two have debt greater than 4x EBITDA versus the private equity industry average of 6x EBITDA.

PSP typically targets companies with established businesses where its investment and operating team can help guide strategy, grow revenues, reduce cost, and increase EBITDA. PSP will work closely with the management teams of its portfolio companies. PSP will leverage its Portfolio Excellence Platform ("PEP") team to readily embed its internal team of operating professionals at portfolio companies to assist with growth strategy, cost optimization, human capital, operational improvements, and research and development. PEP professionals typically work with portfolio companies between three to six months but may be involved for longer periods depending on the complexity of a business. PSP will generally position companies for sale to strategic buyers but may consider other exit options to maximize investment returns. The Fund is targeting gross returns of 2.5x to 3.0x and 20% to 25% IRR.

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<sup>2</sup> Source: S&P



## **EXISTING INVESTMENTS AND PIPELINE**

PSP has a robust pipeline of potential investment transactions in various stages of due diligence that its team has been cultivating over time. There are ten deals comprising a total of \$2.4 billion of equity needs (inclusive of co-investment) of which four are in more advanced stages. The furthest along is Project Kimmea.

- **Project Kimmea** – This represents a potential \$150 million investment in a family-owned, North American fresh mushroom producer with a biogenetics platform. PSP has been in discussions with the family for a while on value-add improvements including operations and capex investment. This deal is scheduled to close in mid-May 2022 and is expected to be warehoused by PSP until a first closing.



## **Manager Background**

Fox Paine, the predecessor organization to Paine Schwartz Partners, was founded in 1997 by Saul Fox and Dexter Paine. Messrs. Fox and Paine were previously partners at private equity firms KKR and Kolberg & Co., respectively. FP executed a diversified leverage buyout strategy that invested across multiple sectors including financial services, semiconductors, agribusiness, healthcare, energy, telecom, and consumer goods. Fox Paine raised a total of \$509 million of commitments for its inaugural fund, Fox Paine Capital Fund I, in 1998. In 2000, FP raised a total of \$1.0 billion for its second fund, Fox Paine Capital Fund II.

Paine & Partners (subsequently renamed to Paine Schwartz Partners) was established in 2006 by Dexter Paine and Kevin Schwartz and raised its third fund with approximately \$1.2 billion in 2007. The earlier Fox Paine vehicles were fully diversified buyout funds, and Fund III began a shift to a portfolio of agribusiness and energy investments. Approximately 33% of Fund II and 64% of Fund III was invested in agribusiness opportunities consistent with the strategy of the Fund. Recognizing the significant investment opportunity within the agribusiness sector, PSP raised its first fully dedicated food and agribusiness fund, Paine & Partners Capital Fund IV, in 2014 with a total of \$893 million of commitments. In 2019, PSP raised \$1.4 billion for Paine Schwartz Food Chain Fund V.

In 2019, Angelos Dassios, Partner, assumed the role of Chief Investment Officer after almost 20 years with the Firm. In 2021, Alex Corbacho was promoted to Partner after almost 10 years with the Firm. Also in 2021, Lutz Goedde joined as a Partner from McKinsey where he previously led the agriculture practice and worked with PSP. The PSP management company is owned by the five partners: Kevin Schwartz, Dexter Paine, Angelos Dassios, Alex Corbacho, and Lutz Goedde.

As previously mentioned, PSP has a joint collaborative partnership with McKinsey's agriculture team to identify and prioritize certain investment themes within the food and agribusiness sector. For Fund VI, McKinsey will become more aligned with PSP and Fund VI by becoming a contributing Limited Partner and will have capital at risk, whereas in the past it only participated in carry.

## Investment Resources and Experience

PSP is headquartered in New York, NY and has an additional office in San Mateo, CA. Kevin Schwartz leads the New York office, and Angelos Dassios heads the California office. Chairman Dexter Paine continues to support the Managing Partners but is no longer active in a management role within the Firm. In his role as CIO, Mr. Dassios leads the 17 person investment team that includes one partner, three managing Directors, one director, five principals, one senior associate, and five associates. PSP also has six Portfolio Excellence Platform (“PEP”) members, 22 administration professionals, six Food Chain Advisory Board members, and eight Operating Directors.

PEP, led by Lutz Goedde, is an internal team focused on operational improvements and cost reductions at portfolio companies. The typical value-add opportunities may include materials sourcing, procurement, value-chain optimizing, sales, pricing, and recruitment. The Food Chain Advisory Board is comprised of former industry executives and professionals (e.g., with experience at Syngenta, Kraft Foods, Driscoll’s, Nutreco, McKinsey) that assist PSP with implementation of industry best practices, forming investment themes, and providing industry contacts and relationships for deal sourcing.

### INVESTMENT PROFESSIONALS

Name	Title	Years At Manager	Total Years’ Experience	Relevant Experience/Degree
Kevin Schwartz	Managing Partner & CEO	21	25+	→ Managing Director at Fox Paine → Associate at Freemont Partners → Financial Analyst at Goldman Sachs → BS: University of Illinois
Angelos Dassios	Managing Partner & CIO	21	25+	→ Director at Fox Paine → Financial Analyst at Goldman Sachs → BA: Dartmouth College
Alex Corbacho	Partner	10	15	→ Leveraged Finance at UBS Investment Bank → BS: Boston University
Steven Bierschenk	Managing Director	3	22	→ Global Strategy Lead at Monsanto → MBA: Syracuse University → BS: Iowa State University
John Novak	Managing Director	12	22	→ Vice President at Swander Pace Capital → Analyst at Banc of America Securities → BA: Vanderbilt University



**PAINE SCHWARTZ PARTNERS FOOD CHAIN FUND VI, L.P.**

*Private Markets Investment Memorandum  
Investment Resources and Experience*

Name	Title	Years At Manager	Total Years' Experience	Relevant Experience/Degree
Spencer Swayze	Managing Director	5	17	→ Director at UTIMCO → Vice President at Ceres → MBA: Texas → BBA: Oklahoma State University
Brian Thies	Director	8	12	→ Senior Analyst at WireCo WorldGroup (a Fund III portfolio company) → BS & Masters of Accounting: University of Kansas
Will Kaplan	Principal	2	10	→ Engagement Manager at McKinsey & Company → BA: Duke University
Lin Ouyang	Principal	3	14	→ Senior Associate at Prospect Capital Management → MBA: University of Pennsylvania → BA & BS: Boston University
Alex Puglisi	Principal	2	8	→ Senior Associate at Centerbridge Partners → Associate at H.I.G. Capital → BS: Boston University
Hywel Robinson	Principal	3	9	→ Senior Associate at The Sterling Group → Associate at AEA Investors → BA: Yale University
John Gallotta	Principal	5	10	→ Manager at KPMG → BS: Boston College



## PORTFOLIO EXCELLENCE PLATFORM PROFESSIONALS

Name	Title	Years At Manager	Total Years' Experience	Relevant Experience/Degree
Lutz Goedde	Partner	1	26	<ul style="list-style-type: none"> <li>→ Senior Partner at McKinsey &amp; Company</li> <li>→ Deputy Director at Bill and Melinda Gates Foundation</li> <li>→ PhD: University of Bonn</li> <li>→ MBA: Dartmouth College</li> </ul>
Colleen Akehurst	Managing Director	1	24	<ul style="list-style-type: none"> <li>→ CEO at Incredible Foods</li> <li>→ CEO at AIEn USA</li> <li>→ SM: MIT</li> <li>→ BS: Cornell University</li> </ul>
Renata Dinkelmann	Managing Director	3	20	<ul style="list-style-type: none"> <li>→ Head of Executive Recruiting at Kraft Foods</li> <li>→ Consultant at Egon Zehnder</li> <li>→ MBA: Columbia Business School</li> <li>→ BS: University of Virginia</li> </ul>
Steve Padgette	Managing Director	6	38	<ul style="list-style-type: none"> <li>→ Vice President at Monsanto</li> <li>→ MBA: Kellogg School of Management</li> <li>→ BS &amp; PhD: Georgia Institute of Technology</li> </ul>
Ryan Wood	Principal	3	14	<ul style="list-style-type: none"> <li>→ Director at AlixPartners</li> <li>→ Consultant at Celerant Consulting</li> <li>→ Columbia University</li> </ul>

## FIRM DIVERSITY

Staff Demographics (%)	Male	Female	Minority	Non-Minority
Entire Staff	52	48	22	78
All Investment Professionals	83	17	17	83
Senior Investment Professionals	80	20	10	90
Firm Ownership	100	0	0	100

PSP has a Diversity, Equity, & Inclusion (“DE&I”) policy that is committed to awareness at both the firm and portfolio companies. PSP is in the process of developing a refined DE&I strategy which will seek to include measurable goals and a realistic timeline for implementation. The firm also became a signatory of ILPA’s Diversity in Action Initiative in March 2022. Since raising Fund V, four out of the five senior leadership hires have been female, and over the last three years at least 50% of the associate classes were females.



## **PERSONNEL SUMMARY**

PSP continues to strengthen its senior leadership and has experienced several changes since the Fund V closing. Dexter Paine has transitioned to a Chairman role and will not be a member of the investment committee for Fund VI. At this time, Angelos Dassios assumed the role of Chief Investment Officer and leads the San Mateo office, while CEO Kevin Schwartz moved to lead the New York office. The team also added two new partners with the promotion of Alex Corbacho and the hiring of Lutz Goedde from McKinsey. All aspects of the Firm have grown since the last fundraise including the investment team, portfolio excellence platform, and operations.

PSP continues to strengthen its team with the last four senior hires bolstering operations and PEP. Renata Dinkelmann was hired in 2019 as Head of Human Capital and was promoted to Managing Director in 2022. Renata Malavazzi joined in 2020 and is the Firm's General Counsel and Chief Compliance Officer ("CCO"). Colleen Akehurst began in 2021 as a Managing Director of the PEP and brings over 20 years of operating experience to the firm. Lastly, Natalya Michaels was brought in this year as a Managing Director and Head of Investor Relations. PSP also is looking to hire at least one senior professional on the investment team and has three new Associates starting soon.

## Investment Process

Paine Schwartz Partners utilizes the network and relationships of its team, as well as its own research focused offsite conferences and its partnership with McKinsey, to source deals. PSP conducts two offsite conferences annually involving its team, Food Chain Advisory Board, Senior Advisors, and McKinsey to explore various sub-sectors and specific companies of the food and agribusiness industry. PSP has also partnered with McKinsey to complete Ag 2020 and Ag 2025, two proprietary and comprehensive industry analyses that identify investment themes and opportunities within the industry and focus on attractive investment opportunities, in addition to sourcing deals. These research efforts have led to over 100 “deep dives” resulting in 26 food and agribusiness platform investments. McKinsey also has a vested economic interest in the Fund as a Limited Partner and carried interest recipient.

In 2020, PSP established more formal deal sourcing resources headed by John Novak, Head of Investment Development & Capital Markets. Mr. Novak works with the investment team to identify and prioritize potential transaction opportunities. Once an opportunity is sourced, it flows into PSP’s formal, multi-stage Investment Committee (“IC”) process referred to as the “stage-gate process.” The process takes opportunities from Pre-Gate A through Gate C, needing certain criteria to be approved by the Investment Committee before moving to the next stage, as described below. The IC for Fund VI will include Kevin Schwartz, Angelos Dassios, Alex Corbacho, and Lutz Goedde. Additionally, Renata Malavazzi and Robert Meyer will serve as observers on the Fund VI Investment Committee.

- Pre-Gate A is a pre-screening process ensuring opportunities possess qualities such as a proprietary or auction deal, a control investment, and is in a core vertical of PSP’s strategy.
- Gate A includes preliminary due diligence consisting of a detailed review of the market, product, technology and intellectual property (as relevant), a careful review of the business’ financials and legal entity documentation, consideration of management and the board, preliminary valuation modeling, and deal structuring.
- Gate B involves formal due diligence on finance, tax, legal, and ESG matters.
- Gate C represents the final step following the acceptance of the term sheet inclusive of outstanding due diligence items, final documentation, and working sessions with the management team to create a value creation plan and associate KPIs and incentives. A final investment recommendation is presented to the Investment Committee at Gate C.

PSP actively monitors its portfolio companies and seeks to add value at all stages of the investment’s life through management team development, market expansion, and broadening customer bases. The



Fund will leverage PSP's PEP platform to drive growth strategy, cost optimization, human capital, operational improvements, and research and development at the portfolio company level. PEP works directly with the management teams to execute the plan crafted at Gate C.

PSP has historically focused on exiting investments through sales to strategic buyers but may opportunistically consider other options such as IPOs. The exit strategy is initially discussed during the initial review of the opportunity and frequently updated throughout the holding period. PSP creates five-year plans for each company that outlines the goals and growth objectives during this period. When a company reaches the determined level, which could happen sooner than five years, the investment will be reevaluated as to future growth sustainability or whether a sale is more appropriate in the given market environment. The PSP team has been disciplined in initiating sales processes once these figures have been achieved.

## Historical Performance

### Paine Schwartz Agribusiness Track Record<sup>3</sup>

As of December 31, 2021

(\$ in Millions)

Fund	Year of First Investment	Number of Investments	Invested Capital (\$)	Realized Value (\$)	Unrealized Value (\$)	Total Value (\$)
Pre-Dedicated Fund	2003	9	761.6	1,363.2	73.6	1,436.8
Fund IV	2015	8	670.2	545.0	610.7	1,155.8
Fund V	2019	8	919.7	26.5	1,292.5	1,319.0
<b>Total</b>		<b>25</b>	<b>2,351.5</b>	<b>1,934.7</b>	<b>1,976.8</b>	<b>3,911.5</b>

Fund	Gross IRR (%)	Net IRR <sup>4</sup> (%)	Gross TVM <sup>5</sup> (x)	Net TVM (x)
Pre-Dedicated Fund	156.9	NA	1.9	NA
Fund IV	15.5	9.6	1.7	1.4
Fund V	75.7	37.4	1.4	1.2
<b>Total</b>				

PSP is a sector-specific private equity manager that generally acquires companies at lower valuation multiples and more conservative use of debt relative to typical LBO managers. This has led to favorable risk-adjusted returns with an emphasis on downside risk as represented with its low loss ratios.

<sup>3</sup> Fund V performance reflects the use of a credit facility to initially fund invested capital before calling capital from the fund. The Gross IRR would be 39% based on the actual investment date in each portfolio company.

<sup>4</sup> Net returns not available. Since these agribusiness investments were part of diversified strategy funds, fund level expenses cannot be directly attributed to individual portfolio company investments.

<sup>5</sup> Total Value Multiple (TVM) equals Realized Value plus Unrealized Value, then divided by Invested Capital.



## Summary of Key Partnership Terms

PROVISION	TERMS
Fund Size & Hard Cap	\$1.5 billion target
GP Commitment	2%
Investment Period	5 years
Total Term	10 years
Diversification Limits	Without Advisory Board approval, the Fund will not: invest more than 20% in any one portfolio company excluding bridge financing; invest more than 25% in any one portfolio company including bridge financing; invest in blind pool funds or vehicles in which a fee or carried interest is paid; invest more than 25% in portfolio companies organized outside of OECD countries; or invest more than 20% in growth equity investments
Management Fee	2.0%
Preferred Return	8%
Carried Interest	20%
Carry Structure	Cumulative realized deal-by-deal
Catch-Up Provision	50% to the General Partner
Fee Income	100% offset
Key Person Provision	Kevin Schwartz has been identified as the Key Person for Fund VI.
No-Fault Termination	Limited Partner interest comprising 75% of the Fund may either limit new investments or terminate the Fund without cause.



# Environmental, Social, & Corporate Governance

## ESG POLICY AND PROGRAM

PSP understands that an increasing focus on sustainability is required as the world's resources come under pressure from expanding global populations and a scarcer food supply due to increasing consumption levels and climate change. The global food and agribusiness sector requires significant amounts of land, water, and human resources. However, these sectors also provide solutions which support economic growth, secure food supplies, address adverse environmental impacts, promote fair labor standards, and provide safe and healthy products to consumers. As part of its strategy, PSP invests in opportunities across the food value chain that support these solutions and address sustainability challenges.

PSP has a formal ESG policy, and ESG considerations are incorporated in its investment process from pre-investment, value-creation, and ultimate exit. PSP also became a signatory of the United Nations Principles of Responsible Investment ("UNPRI") in April 2019 and is a supporter of the Task Force on Climate-related Financial Disclosures. The Firm also seeks to align its framework and reporting processes with the American Investment Council's Guidelines for Responsible Investing and the Institutional Limited Partners Association's ("ILPA") ESG Data Convergence Project.<sup>1</sup> Additionally, the Firm became a signatory of ILPA's Diversity in Action Initiative in 2022.

Where management of ESG issues are a concern for an investment, PSP will work closely with portfolio company management to develop a corrective action plan. PSP tracks, monitors, and reports material ESG issues to its investors. PSP also prepares an annual Sustainability Report which provides an overview of its ESG systems and processes and key initiatives across its portfolio companies. The report also tracks and reports key performance indicators ("KPIs") relating to ESG measurements. In the 2021 report, PSP introduced new KPIs focused on enhanced initiatives around Diversity, Equity & Inclusion ("DEI"). A few of the KPIs measured in 2020 within this initiative were women share of the total workforce, women in management positions, racial/ethnic diversity, and racial/ethnic diversity by gender. PSP aims to continue to expand and collect data within DEI areas now that a baseline has been set and can set goals for improvement.



To improve the accountability structure of their ESP programs and policies, PSP established an ESG Committee. The committee meets monthly and provides stewardship and oversight for the firm and portfolio companies regarding ESG initiatives and progress. The committee also approves the firm's ESG reporting and Sustainability Report. In addition, the committee will design and update PSP's strategy and formal policies relating to ESG. The committee is chaired by Kevin Schwartz and includes Lutz Goedde, Renata Dinkelmann, Renata Malavazzi, and Will Kaplan.

Meketa reviewed PSP's ESG-related materials and found that PSP follows its stated policies.

## **RESPONSIBLE CONTRACTOR POLICY**

Paine Schwartz does not have a defined labor policy.

# Operations

## ORGANIZATION

PSP has evolved from a diversified buyout manager to becoming a sector specific agribusiness focused fund manager. PSP is raising its third fully dedicated agribusiness fund and has over 15 years of investment experience within the space. The Firm continues to grow and evolve with the organization now led by Managing Partners Kevin Schwartz and Angelos Dassios who have worked together for over 20 years. Dexter Paine has gradually stepped back from day-to-day operations as Chairman and leaving management to the Co-Managing Partners. PSP continues to build its Portfolio Excellence Platform that had two members at the closing of Fund V. Today, there are six PEP members led by Partner Lutz Goedde, who joined from McKinsey & Company.

## FINANCE AND ACCOUNTING

Meketa's due diligence for the Fund included an Operations Review of existing practices relating to: cash flow management; and accounting, policies, controls, and auditing. The Firm has historically performed all cash flow management and accounting-related functions in-house. Meketa also has clients in Fund V and have been reviewing the quarterly reporting since 2018. PSP currently has eight finance/accounting/operations professionals that work in conjunction with Rob Meyer, Chief Financial Officer ("CFO"), and KPMG to handle all of the accounting-related needs of the Firm.

Cash flow management strengths include:

- All cash flows are approved using a multi-tier approach for creation and verification.
- Template excel workpapers designed specifically for each Fund are utilized by Fund Accounting Managers to compile and calculate sources and uses of cash movement.
- The cash reconciliation process for capital calls has a concurrent review process by different members of the finance team to ensure correct application of funds. The Fund Accounting Manager will review all incoming wire transfers and mark them as 'received' against the specifically allocated general ledger entries assigned to limited partners within the Allvue module.
- There has been no misappropriation of funds in the Firm's history.

Accounting-related strengths include:

- Neither the Firm nor any of its portfolio companies has received a qualified audit opinion.
- Externally, KPMG performs annual audits for the Firm. Internally, the Fund Accounting Managers are responsible for the day-to-day accounting for their respective funds and report directly to the CFO. The CFO reviews all workpapers and provides comments. Once comments are cleared, financials are presented to the COO for review and approval. Upon COO approval, financials are presented to the Investment Committee for review and approval.

## **VALUATION**

The Fund appears to meet best practices for accounting and valuation policies, which are deemed appropriate for this investment vehicle. We were able to identify that the valuation methodologies used are in line with the policies of the Manager and are in line with industry standards. The financial statements will be audited by KPMG and prepared according to United States generally accepted accounting standards.

Each respective portfolio company deal team prepares a valuation memorandum documenting the factual data and assumptions used to determine the estimate of fair value of the portfolio company. The valuation memorandum and data used in the analysis are provided to the Chief Financial Officer once the valuation memo is completed and approved. Each portfolio company valuation and supporting memorandum is reviewed by an individual (either a Principal, Director, or Senior Associate) independent of the team that prepared the valuation. In addition to the Peer Review, each valuation will be reviewed by a Partner that is not currently on the Board of the portfolio company.

## **LEGAL AND COMPLIANCE**

PSP's legal and compliance functions appear to meet industry standards. Renata Malavazzi was hired in 2020 to be PSP's Chief Compliance Officer and General Counsel. As CCO, Ms. Malavazzi is responsible for administering the policies and procedures of their Compliance Manual and Code of Ethics. On an annual basis, the CCO will undertake a review of the Firm's compliance program and policies to determine the adequacy and effectiveness of PSP's implementation.



## TECHNOLOGY INFRASTRUCTURE

PSP's Compliance Manual includes an Information Security Policy where it outlines its approach to developing, implementing, and maintaining a comprehensive information security program that incorporates physical, electronic, and administrative safeguards that are designed to protect confidential information of the Firm and its funds. The information security program is coordinated and maintained by the Firm's CCO and Information Technology ("IT") personnel. On an annual basis, the CCO assesses whether information security risks have in material ways. The IT service providers and the CCO shall then work together to address any newly identified vulnerabilities.

PSP also has a Contingency and Disaster Recovery Plan ("CDRP") that outlines a plan and response to emergency situations, protect employees, minimize disruptions to investor services and portfolio management activities, and protect the assets of the Firm, its clients, and investors. The CCO has been identified as the initial Emergency Coordinator to oversee the implementation of the CDRP, and if the CCO is unavailable, the highest ranking employee at a location will act as the coordinator. Testing of the CDRP is conducted at least annually.

PSP's books and records are backed up in real time to redundant servers. Backups are kept indefinitely through constant replication. The Firm's computer systems are protected with UPS systems. PSP's IT personnel and Gravitas Technologies can reconstitute records from backups if necessary.

## Other Items

### LEGAL ISSUES

On October 12, 2018, two minority shareholders of Verdesian, a Fund III investment involved with patented biological, nutritional seed treatment, and inoculant technologies, filed a lawsuit against Verdesian and certain of its Managers and Directors alleging breach of duties and mismanagement in connection with various historical acquisitions. In January 2019, the plaintiffs added PSP as a defendant. In March 2019, PSP filed a motion to dismiss, and the motion was granted in substantial part, dismissing the majority of the claims. PSP believes the lawsuit is baseless and without merit and continues to defend itself. In February 2021, PSP sold Verdesian to AEA Investors.

### POTENTIAL CONFLICTS

PSP investment professionals dedicate the majority of their business time to the activities of the Firm and the funds it manages. The Partners spend a small portion of their time on outside activities. Kevin Schwartz is a board council member of the national non-profit Hope for the Warriors and Angelos Dassios is a member of the board of the Hillsborough School Foundation. Both memberships require limited time commitment.

The Fund will establish an Advisory Board comprised of at least three Limited Partners of the Fund to advise, review, and approve any potential conflicts of interest that may arise involving the Firm, its funds, the team, and its investors.

### DISTRIBUTION/MARKETING

PSP has engaged Lazard Freres & Co (“Lazard”) as a placement agent to assist with fundraising efforts for the Fund. No compensatory relationship exists between Meketa and Lazard or PSP. PSP has also engaged Mitsui & Co. Alternative Investment Limited to market the Fund to certain Japanese investors. For Fund V, PSP utilized Credit Suisse as a placement agent.

# Analysis & Conclusions

## DUE DILIGENCE BASIS

Meketa has carefully evaluated the PSP as the Fund's manager, the experience and qualifications of its team and resources, investment strategy, existing investments and pipeline, investment process, historical track record, and other aspects of this opportunity as described in prior sections of this investment memorandum.

Overall, we find Paine Schwartz Food Chain Fund VI an attractive opportunity that we can generally recommend for client natural resources portfolios. This finding is based on our evaluation of the Fund's primary advantages, balanced with any concerns or considerations, along with Meketa's and the manager's view of the investment thesis relative to market opportunities and potential strategy execution challenges. These elements of our findings are documented below, along with our overall conclusion and recommendation.

## SWOT ANALYSIS

### Strengths

**Industry Experience** – PSP and its team have been investing in the agriculture sector for approximately 20 years and has established a wealth of industry experience and relationships. As sector specialists, they are often seen as a partner of choice by management teams to help further grow a company. Additionally, the research collaboratives with McKinsey and the Food Chain Advisory Board provide unique industry insights into deal sourcing contacts.

**Team** – PSP has a deep team and breadth of resources across its investment, PEP, Operating Directors, and the Food Chain Advisory Board. Many senior investment professionals have a long history of working together at PSP and its predecessor organization, as well as other organizations. PSP continues to grow its team through internal promotions and external hires, and there are no obvious succession challenges with the organization.

**Value-Add Approach** – PSP's PEP team works closely with management teams to establish strategic growth plans, improve operational efficiencies, reduce costs, and recruitment and human capital, among other initiatives. PSP appears to generate favorable risk-adjusted returns with its disciplined investment approach and conserve use of leverage, resulting in a low loss ratio.



**Performance** – PSP has produced attractive risk-adjusted investment returns within the agribusiness sector. Prior to forming a dedicated fund, the team invested in nine food and agribusiness companies with a gross IRR of 150%+ and 1.9x multiple. Fund IV currently has a net IRR of 10% and returned 80% of invested capital to date. Fund V is still in the development stage, but has an unrealized gross IRR of 76%.

## Weaknesses

**Team Changes** - PSP has experienced some notable senior team changes since the raising of Fund V with Dexter Paine stepping into a Chairman role and four senior level departures in 2020 and 2021.

- Mitigating factor(s): The reduced role for Mr. Paine has been in the planning since Fund V, and Angelos Dassios, who has been with the Firm for 20 years, was promoted to Chief Investment Officer and runs the San Mateo office. The Firm currently employs 17 senior investment and portfolio excellence professionals compared to 14 during Fund V fundraise. While there were four departures in 2020 and 2021, the Firm has continued to grow and strengthen the senior team with high quality professionals.

**Large Unrealized Portfolio** - Fund V is largely unrealized with 64% of capital invested but just 2% returned to date.

- Mitigating factor(s): Although Fund V is a 2019 vintage fund, it initially had a slower deployment pace due to COVID-19. The portfolio is showing early signs of success and all investments are at or above cost. Also, portfolio company SNFL recently announced a partial realization that will return approximately its invested capital with further upside potential.

## Opportunities

**Need for Higher Agricultural Productivity** – Global demand for food and agricultural products is increasing with rising populations and an expanding middle class. Agriculture inputs, animal nutrition, genetic intellectual property, data management, and robotics and automation are potential solutions to increase productivity in a sustainable manner, and these are areas of focus for PSP.

**Production and Supply Chain Solutions** – The COVID-19 pandemic and the Russia/Ukraine war has highlighted the vulnerabilities of global supply chains. Companies are making investment to make their supply chains more robust, leverage data to make real time informed decision, and vertically integrate to capture more value chain. Additionally, food safety and traceability are becoming more important to mitigate food borne illness risks.

**Increasingly Discerning Consumers** – Consumers are increasingly focused on health and wellness which are influencing the ingredients, food, and beverages they purchase and consume. Organics, clean-label, and nutritious foods are becoming important consumption factors in developed economies. Additionally, animal alternatives, such as meats and dairy products, are becoming more popular with the mass markets.

**ESG** – The food and agriculture sector has the potential to drive positive ESG impact by feeding the world and providing people with nutritious and healthy foods and beverages. The broad industry has a meaningful carbon footprint, and reductions could be achieved with investment in different processes, waste reduction, efficient use of inputs such as fertilizers, and meat alternatives to reduce methane emissions from livestock.

**Less Competition** – Relative to other sectors, there is less private equity capital targeting the agriculture and agribusiness sector resulting in less competition for deals. While increasing interest in the sector will likely lead to increased competition in the future, PSP's deep team, extensive experience, and track record provide it with competitive advantages.

## Threats

**Higher Input Costs** – Global inflationary pressures have impacted almost all sectors of the global economy including the food and agriculture sector. Notably, increased energy and transportation costs, a shortage of labor availability, and a global shortage of fertilizer have driven up costs for companies and has the potential to impact profit margins.

- Mitigating factor(s): Increased investment in mechanization and capacity expansions can help mitigate some of the issues longer term. In order to reduce the impact of rising energy costs, further investment in traditional and renewable energy will be necessary to bring on additional "friendly" supply to meet increasing global demand.

**Supply Chain Disruptions** – Constraints across the food and agriculture supply chain have increased transportation, food processing, and the movement good including inputs and food products.



## **CONCLUSION**

Fund VI represents a compelling opportunity to invest alongside an experienced investment team with over 20 years of experience within the industry. Fund VI will provide access to a diversified global portfolio of food and agribusiness investments across the value chain. The team currently has identified key investment themes for the Fund including: crop productivity and sustainability; controllable environment and high value agriculture; animal productivity and sustainability; food and agriculture software and business services; ingredients; value-add processing; and food and beverage products. Primary strengths related to Fund VI include: PSP's strong industry relationships; a deep team with a breadth of resources across its investment, PEP, Operating Directors, and Food Chain Advisory Board; value-add approach to portfolio development, attractive historical returns, and a less competitive sector over other private equity sectors.

Key considerations related to a potential commitment to Fund VI include: changes to the senior team over the past three years including the retirement of Dexter Paine and four senior level departures; and Fund V still being largely unrealized.



## **Appendices**

# Professional Biographies

## INVESTMENT TEAM

### **Kevin Schwartz, Managing Partner, Chief Executive Officer (47):**

Kevin Schwartz has been an investor in the food and agribusiness industry for more than two decades. Today he leads Paine Schwartz Partners as Chief Executive Officer and Managing Partner. He is further the Chairman of Paine Schwartz Partners' ESG Committee driving a truly differentiated approach to sustainable food chain investing with material emphasis on the development of positive impacts.

Mr. Schwartz was raised in the town of Moline on the border of Illinois and Iowa, a region known for its agricultural activities and the headquarters of John Deere. His great grandparents were subsistence farmers in Iowa and his grandfather was an assemblyman at the John Deere tractor works in Des Moines after serving in the military. Kevin's uncle and his father both spent their entire careers at John Deere. Having grown up with this family connection to such an important industry and witnessing personally both its challenges and opportunities, food and agribusiness captured Mr. Schwartz's attention and has been his career focus ever since.

Mr. Schwartz began his career at Goldman Sachs in the late-1990s, where he worked alongside fellow Managing Partner and CIO Angelos Dassios, starting a professional partnership that has spanned 25 years. At Goldman Sachs, Mr. Schwartz worked on numerous transactions covering mergers, acquisitions, divestitures, public and private financings, and other corporate transactions within the Investment Banking Division. From there, Kevin moved into private equity working for two organizations, Fremont Partners and American Industrial Partners, before coming to the Predecessor Organization in 2001. Mr. Schwartz immediately made his mark on the firm by leading the first two deals in the agribusiness space, two critically important and technology rich seed companies named Seminis and Advanta. Having identified the opportunity to invest as a sector-focused expert in the fundamentally important and attractive agribusiness and food industry, Mr. Schwartz drove the transformation of the Predecessor Organization. Kevin emphasized proprietary primary research, proactive thesis development, deep domain expertise, operating excellence and business transformation capabilities, and the wisdom of direct sector leadership experience from a group of world-class industry executives, to develop the premier investment firm in the industry.

Mr. Schwartz has served on the boards of many Paine Schwartz Partners companies over the years, including Advanta, Costa, FoodChain ID, Seminis, Sunrise Growers, and Verisem, which span the

spectrum from upstream agricultural businesses to downstream branded food companies. He currently serves on the boards of Advanced Agrilytics, AgroFresh Solutions, Axiota, Lyons Magnus, SNFL Group, Suja, and Urban Farmer. He is also a board council member of the national non-profit Hope for the Warriors. Mr. Schwartz is a graduate of the University of Illinois (Bachelor of Science in Accountancy).

**Angelos Dassios, Managing Partner, Chief Investment Officer (47)**

Angelos Dassios has been a private equity investor for more than two decades, with material emphasis on, and passion for, sustainable food chain investing. Today he leads the investing activities of Paine Schwartz Partners as Chief Investment Officer and Managing Partner.

Mr. Dassios was raised in Chicago, Illinois to a family of Greek descent who helped instill core values of fairness, utility, and continuous improvement. His father was raised primarily in the small town of Karystos on the island of Evia during a tense time in history that involved foreign occupation on the island. At the time, Mr. Dassios' grandfather, for whom he is named, organized the first farmers' cooperative in Karystos to compete against a company that had been taking advantage of local farmers. Mr. Dassios credits the many life lessons and philosophies learned from his upbringing as the foundation for a long and successful career in the private equity industry.

Mr. Dassios began his career at Goldman Sachs in the late-1990s, where he worked alongside fellow Managing Partner and CEO Kevin Schwartz, starting a professional partnership that has spanned 25 years. Mr. Dassios spent several years at Goldman Sachs, working in both the Principal Investment Area and the Investment Banking Division. During his time in the Principal Investment Area, he assisted with the investment and management of the GS Capital Partners group of private equity funds in both Silicon Valley, focusing on businesses with more of a technology angle, and New York, concentrating on investment opportunities in more traditional industry sectors including food and beverage. In 2002, Paine Schwartz Partners CEO Kevin Schwartz recruited Mr. Dassios to join the Predecessor Firm which helped build upon their shared professional history. Over the ensuing years, Mr. Dassios has helped reshape Paine Schwartz Partners' investment activities with intense focus on repeatable processes for long-term success.

Mr. Dassios has served on the boards of many Paine Schwartz Partners companies over the years, including Costa, FoodChain ID, and Verisem, that span a broad spectrum across the value chain. He currently serves on the boards of Kynetec, Lyons Magnus, Registrar, and Sterilex, and has taken a keen interest in services and related technologies, among other industry segments. He is also a member of

the board of the Hillsborough School Foundation. Mr. Dassios is a graduate of Dartmouth College (Bachelor of Arts in Applied Mathematics, summa cum laude, Phi Beta Kappa).

### **Alexander Corbacho, Partner (33)**

Alex Corbacho is a Partner at Paine Schwartz Partners. Mr. Corbacho joined Paine Schwartz Partners in 2012. Prior to Paine Schwartz, Mr. Corbacho worked at UBS Investment Bank in the Firm's leveraged finance origination and financial sponsor coverage groups. While there, he worked to provide debt financing, capital structure solutions, and advisory services for a variety of companies and financial sponsors, including Paine Schwartz Partners.

Mr. Corbacho serves on the boards of AgroFresh Solutions, SNFL Group, and Verisem. Previously, he served on the board of Verdesian Life Sciences. He is a graduate of Boston University, and was raised in Wellesley, Massachusetts.

### **Steven Bierschenk, Managing Director (57)**

Steven Bierschenk is a Managing Director at Paine Schwartz Partners. Mr. Bierschenk has more than 30 years of management experience in the life sciences and agribusiness industries, driving growth and creating operational value. From 2000 until its acquisition by Bayer AG, he held a variety of senior management positions at Monsanto. During this time, Mr. Bierschenk led marketing, business development efforts, and commercial license operations. Following Monsanto's acquisition of Fund II portfolio company, Seminis, he engineered a substantial restructuring and integration with several other vegetable seed businesses. He also led competitive intelligence and strategy, long-term strategy development, and engaged in a range of M&A activities within Monsanto's Global Strategy team. Prior to Monsanto, Mr. Bierschenk worked for Procter & Gamble from 1992 to 2000, where he held several brand management and customer marketing positions within the healthcare category. Before Procter & Gamble, he spent his early career in the animal genetics industry.

Mr. Bierschenk serves on the boards of Advanced Agrilytics, Prima Wawona, and Kynetec. He was raised in rural Iowa and is a graduate from Iowa State University (Bachelor of Science) and Syracuse University (MBA).

### **John Novak, Managing Director, Head of Investment Development and Capital Markets (43)**

John Novak is the Head of Investment Development and Capital Markets at Paine Schwartz Partners. Mr. Novak joined Paine Schwartz Partners in 2010 as a member of the Firm's Investment Team. In 2020, he was appointed to the position of Head of Investment Development and Capital Markets where he



primarily focuses on identifying new investment opportunities, as well as strengthening the Firm's relationships with industry stakeholders and optimizing capital markets and financing activities.

From 2004 to 2010, Mr. Novak was a member of Swander Pace Capital, a middle-market private equity firm in San Francisco where he focused on investing in manufacturers, marketers and distributors of consumer products. He began his career at Banc of America Securities in their consumer and retail investment banking group in Chicago. He is a graduate of Vanderbilt University (Bachelor of Arts in Economics) and was raised in Fairfield, Connecticut.

### **Spencer Swayze, Managing Director (45)**

Spencer Swayze is a Managing Director at Paine Schwartz Partners. Mr. Swayze joined Paine Schwartz Partners in January 2017. Prior to joining Paine Schwartz Partners, he was a Director of Investments in the Natural Resources group at the University of Texas Investment Management Company (UTIMCO), where he helped lead natural resources investment activities across all asset classes with a focus on agribusiness and infrastructure private equity. While at UTIMCO, he was responsible for monitoring a portfolio of investments as well as sourcing, assessing, and executing new natural resources investment opportunities, including fund commitments and co-investments. Prior to joining UTIMCO, Mr. Swayze worked at Ceres, Inc. an agricultural biotech seed company, where he was the Vice President of Business Development with responsibility for strategic planning and deal execution. Before Ceres, he was a Venture Fellow Associate at PTV Healthcare Capital, a healthcare-focused venture capital and growth equity fund. He also spent four years in sales at Merck & Co.

Mr. Swayze currently serves on the boards of Axiota Animal Health and AgBiTech. He received an MBA from the University of Texas at Austin McCombs School of Business and a BBA from Oklahoma State University. He is a CFA® Charterholder and member of the CFA® Institute.

### **Brian Thies, Director (35)**

Brian Thies is a Director at Paine Schwartz Partners. Mr. Thies joined Paine Schwartz Partners in 2014. Prior to joining the Firm, he worked at WireCo WorldGroup, a Fund III portfolio company, as a Senior Analyst, and then Manager in Corporate Development and Strategy. While there, he worked on a wide range of both internal strategic priorities and financial transactions including acquisitions and debt financings. He began his career at KPMG, LLP as an audit associate.

Mr. Thies currently serves on the board of Sterilex. He is a graduate of the University of Kansas (Master of Accounting, Bachelor of Science in Accounting, with distinction) and was raised in Overland Park, Kansas.

## **PERFORMANCE EXCELLENCE PLATFORM**

### **Lutz Goedde, Partner**

Lutz Goedde is a Partner at Paine Schwartz Partners. Dr. Goedde joined Paine Schwartz Partners in 2021 bringing over 25 years of experience in the food and agribusiness sector. Prior to Paine Schwartz, Dr. Goedde served as a Senior Partner in McKinsey & Company's Denver office as the Global Leader of the Firm's Agriculture and Food Practice. He advised companies on developing growth strategies, implementing commercial excellence initiatives and executing on operational improvement, in addition to working with private equity firms, including Paine Schwartz Partners, and institutional investors on strategies for investing in the Agriculture and Food Sector across developed and emerging markets. Before joining McKinsey, Dr. Goedde was a member of the leadership team that built the agricultural development program at the Bill & Melinda Gates Foundation entrusted with a \$2+ billion grant envelope. He also spent several years running a global agribusiness operation as CEO of Alta Genetics, a cattle genetics improvement company based in Canada. In his early career, Dr. Goedde worked for Bayer Crop Science in Central America and South Africa in sales and marketing. He also served in the past on the boards of the Global Institute for Food Security (GIFS) and the Global Alliance for Livestock Veterinary Medicine (GALVmed).

Dr. Goedde is fluent in English, German and Spanish and has extensive work experience in North America, Latin America, Europe, Southern Africa and Southeast Asia. He is also a member of the Firm's ESG Committee. Dr. Goedde holds a Ph.D. in Agricultural Economics from the University of Bonn in Germany and an M.B.A. from the Tuck School of Business at Dartmouth College. Dr. Goedde was raised in Dortmund, Germany.

### **Colleen Akehurst, Managing Director, Portfolio Excellence**

Colleen Akehurst is a Managing Director at Paine Schwartz Partners. Ms. Akehurst has over 20 years of experience in the consumer goods industry, most recently serving as CEO of a food technology start-up, Incredible Foods. Prior to this role, Ms. Akehurst served as the CEO of a family-owned branded CPG company, delivering growth through market expansion and new product introductions. Prior to the CEO roles, Ms. Akehurst held a variety of marketing and global strategy leadership roles at Heinz and Mondelez. In these roles she delivered growth for small and large brands, executed turnaround

activities, and led strategic portfolio reviews. Prior to Heinz and Mondelez, Ms. Akehurst was a consultant at McKinsey & Company focusing on operational and organizational transformations. She began her career with Procter & Gamble in several engineering and plant management roles. Ms. Akehurst holds engineering degrees from MIT (SM) and Cornell University (BS), and was born and raised in the Baltimore area.

### **Renata Dinkelmann, Managing Director, Head of Human Capital**

Renata Dinkelmann is the Head of Human Capital at Paine Schwartz Partners. Ms. Dinkelmann joined Paine Schwartz Partners in 2019. Prior to Paine Schwartz Partners, she led the global executive recruiting function at Kraft Heinz. From 2012 to 2018, Ms. Dinkelmann worked as a consultant recruiting and assessing talent at global executive search firm Egon Zehnder. Ms. Dinkelmann has held executive roles at Patria Investimentos and BRMALLS and began her career at JPMorgan's Investment Banking and Private Banking groups.

Ms. Dinkelmann serves on the board of Urban Farmer. She is also a member of the Firm's ESG Committee. Ms. Dinkelmann received an MBA degree from Columbia Business School, and a B.S. in Commerce from the McIntire School of Commerce at The University of Virginia. She was born and raised in Rio de Janeiro, Brazil.

### **Stephen R. Padgette, Managing Director, Technology Portfolio Excellence**

Steve Padgette is a Managing Director at Paine Schwartz Partners. Dr. Padgette is a former Vice President of R&D Investment Strategy at Monsanto Company, and joined Paine Schwartz Partners as an Operating Director in 2016. He brings over thirty years of experience in agricultural technology, R&D management, strategic planning, operations, and works with Paine Schwartz Partners to identify new investment opportunities and assist current portfolio companies in executing their strategies.

Dr. Padgette had a distinguished career at Monsanto, where in his last role he worked to develop the company's growth strategies and investments focusing on biologicals and precision agriculture. He also launched the Monsanto Growth Ventures corporate venture capital group, which by early 2016 had delivered over 20 investments in biologicals, imaging, chemistry, precision agriculture, biotechnology, and robotics. Earlier in his career, he served as Vice President of Biotechnology at Monsanto, and was a co-inventor of Roundup Ready® technology, the most widely used crop biotechnology trait in history. From 1998 to 2011, Dr. Padgette was Vice President, Biotechnology at Monsanto, and during his tenure Monsanto Biotechnology strengthened its industry-leading position in the discovery, development, and commercialization of crop biotechnology traits in corn, soybean, cotton, canola and other crops. Prior

to that, he served in various roles at Monsanto, including as Co-Director, Global Soybean Business, Center of Excellence Leader, Biopolymers/Oils, Program Leader, Roundup Ready® Crops and Research Scientist.

Dr. Padgett is the co-inventor of the gene that confers the Roundup Ready® trait, led the regulatory science studies for the safety approvals of the Roundup Ready® soybean, cotton and canola, and co-wrote the successful FDA and USDA regulatory submissions for the Roundup Ready® soybean. Dr. Padgett serves on the External Advisory Board of the Georgia Institute of Technology Department of Chemistry and Biochemistry. Additionally, he currently serves on the Board of Directors of Advanced Agrilytics and Axiota Animal Health. Dr. Padgett received his MBA from the Kellogg School of Management of Northwestern University, and a B.S. and Ph.D. in Chemistry from the Georgia Institute of Technology.

## OTHER LEADERSHIP

### Dexter Paine, Chairman

Dexter Paine is the Chairman at Paine Schwartz Partners. Prior to co-founding Paine Schwartz Partners in 2006, Mr. Paine co-founded the Predecessor Firm, Fox Paine & Company, in 1997, and served as President from its inception until December 2007. Previously, he was with Kohlberg & Company, which he joined in 1994 to establish and head that firm's West Coast office. He began his professional career in 1983 at Bankers Trust Company in New York and, in 1984, joined its Structured Finance Group in Los Angeles, California. Mr. Paine has over 25 years of investment experience in the food and agribusiness sectors and 35 years in the private equity industry.

Mr. Paine serves on the boards of Capital Z, Cevian, ScanBio Marine Group, and WireCo. Previously, he also served on the boards of directors of Advanta, Icicle, Meadow Foods, Rivulis, Seminis and Spearhead. He is the past chairman of the board of the U.S. Ski and Snowboard Association and currently a Vice President of the International Ski Federation (FIS). He also serves on the US Olympic and Paralympic Committee Board of Directors.

Mr. Paine is a graduate of Williams College (Bachelor of Arts in Economics) and was raised in North Conway, New Hampshire.



## Manager Meetings

### **Meeting Location: Virtual Onsite**

Date: May 9, 2022

Manager Attendees: Kevin Schwartz, Natalya Michaels, Alison Connors, Will Kaplan

Meketa Attendees: Gerald Chew, Adam Toczyłowski, Sarah Christo

Purpose of Meeting: Update on team changes, compensation, ownership, changes in terms from Fund V, and pipeline update

### **Meeting Location: 2021 Year-end Update**

Date: March 23, 2022

Manager Attendees: Kevin Schwartz, Angelos Dassios

Meketa Attendees: Gerald Chew

Purpose of Meeting: Russia/Ukraine conflict comments, pipeline overview, Fund V portfolio company updates, Fund VI fundraising update.

### **Meeting Location: Q3 2021 Quarterly Update**

Date: November 17, 2021

Manager Attendees: Kevin Schwartz, Angelos Dassios, Matt Hershenson

Meketa Attendees: Gerald Chew

Purpose of Meeting: Fund V update, Project Beach summary, Fund VI fundraising update.

### **Meeting Location: Update Meeting**

Date: September 8, 2021

Manager Attendees: Kevin Schwartz, Matt Hershenson

Meketa Attendees: Gerald Chew

Purpose of Meeting: Market update, Fund V portfolio review, pipeline review, team updates, Fund VI preview.

### **Meeting Location: 2021 Virtual Annual Meeting**

Date: June 21, 2021

Manager Attendees: Kevin Schwartz

Meketa Attendees: Adam Toczyłowski

Purpose of Meeting: Fund V portfolio company updates and performance, market and macro commentary, team updates, pipeline update and Project Woodspeen (new investment in Kynetec).



**PAINE SCHWARTZ  
PARTNERS**

SUSTAINABLE FOOD CHAIN INVESTING

## Presentation to the State of Connecticut Retirement Plans and Trust Funds



September 14<sup>th</sup>, 2022



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## Provided upon the specific request of and for the exclusive use of the State of Connecticut Retirement Plans and Trust Funds

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# Firm Overview



# A Global Leader in Sustainable Food & Agribusiness Investing

Investing successfully in one of the most cyclically-insulated and fastest-growing global sectors for the past 20+ years

**Attractive  
Underserved  
Market**

**\$13.5T**

Total Global  
Gross Output<sup>1</sup>

**#1**

Fastest Growing Sector  
With a 5% CAGR  
From 2006-2020<sup>1</sup>

**<3%**

of PE Investment<sup>2</sup>

**Strong and  
Experienced  
Team**

**60+**

Investment and Operating  
Professionals

**11**

Former CEOs within the  
Organization

**500+**

Years  
Combined Industry Experience

**Differentiated  
Investment  
Experience**

**\$3.8B**

Total Equity  
Invested

**\$1.3B+**

Total Co-Invest  
Generated

**26**

Platform  
Investments

**73**

Total  
Investments

**Demonstrated  
Results**

**2.0x MOIC**

**35% IRR**

Realized Gross IRR  
& MOIC

**Paine Schwartz Food Chain Fund VI is targeting \$1.5 billion in capital commitments**

1. Source: McKinsey & Company. IHS Global Insight Industry Database, January 2021. Note: "Food & Agribusiness" includes (i) Agriculture, Forestry, and Fishing, (ii) manufacturing of food, beverages, and tobacco, (iii) manufacture of fertilizers and nitrogen compounds, (iv) manufacture of pesticides and other agrochemical products, (v) manufacture of agricultural and forestry machinery, and (vi) manufacture of machinery for food, beverage, and tobacco. CAGR represents data from 2006 to 2020.
2. PitchBook. Note: Pitchbook search criteria includes the following industry categories: Business Products and Services (B2B), Commercial Products > Distributors/Wholesale, Industrial Supplies and Parts, Machinery (B2B), Commercial Services > Logistics; Consumer Products and Services (B2C) > Consumer Non-Durables > Food Products, Beverages; Materials and Resources > Agriculture, Chemicals and Gases > Agricultural Chemicals, Containers and Packaging. Includes only transactions with disclosed deal values.



PAINE SCHWARTZ PARTNERS

Note: In 1997 W. Dexter Paine, III co-founded a private equity firm known as Fox Paine & Company (the "Predecessor Firm"). Kevin Schwartz was a Managing Director at the Predecessor Firm before co-founding Paine Schwartz Partners with Dexter Paine. Includes investment activity completed by Paine Schwartz after the March 31, 2022 marking period, as well as the Predecessor Firm as of December 2007. Exact Net MOIC and IRR for subsets of investments cannot be calculated without making arbitrary assumptions regarding allocation of fees, expenses and carried interest attributable to each investment. Please refer to the Food & Agribusiness Track Record on slide 14 for fund-by-fund performance information. There can be no assurance that co-investment opportunities will be made available to any limited partners of Fund VI.

# Differentiated Investment Strategy

Proactive, thesis-driven approach to capital deployment across the food & agribusiness value chain, with a focus on two core investment themes – (i) increasing productivity & sustainability and (ii) health & wellness



## Thesis-Driven

*All platform investments to date identified through proprietary research process, with 75%+ of historical investments in family-owned companies*



## Value Chain Focus

*Focus on high quality operating businesses addressing core themes: productivity & sustainability upstream, and health & wellness downstream*



## Sustainability

*Investment themes are aligned and synergistic with key sustainability objectives, enhanced by strong ESG practices across the investment lifecycle*



## Flexible Investor

*Structurally flexible strategy with control orientation*



## \$50M-\$500M+

*Range of equity capital deployed per investment with ability to offer meaningful co-investment*



## Global Orientation

*OECD-focused platform investment strategy with primary emphasis on North America, Western Europe and Australia/New Zealand*



# Paine Schwartz Partners Team

60+ employees and advisors that operate on a fully integrated basis to systematically develop investment theses, deploy capital, and drive equity value creation across the portfolio

## Investment Committee



**Kevin Schwartz**  
Chief Executive Officer  
Managing Partner



**Angelos Dassios**  
Chief Investment Officer  
Managing Partner



**Alex Corbacho**  
Partner



**Lutz Goedde**  
Partner



**Dexter Paine**  
Chairman

## Investment Team (18)



**Steven Bierschenk**  
Managing Director



**John Novak**  
Managing Director  
Head of Investment Development  
and Capital Markets



**Spencer Swayze**  
Managing Director

**2 Directors, 5 Principals, 2 Senior Associates, 2 Associates**  
+ 2 Incoming Associates in Summer 2022

## Portfolio Excellence Platform (7)



**Colleen Akehurst**  
Managing Director



**Renata Dinkelmann**  
Managing Director  
Head of Human Capital



**Steve Padgette**  
Managing Director  
Technology

**1 Principal, 1 Senior Associate, 1 Associate**

## Firm Administration (26)



**Natalya Michaels**  
Managing Director  
Head of Investor Relations



**Renata Malavazzi**  
General Counsel and Chief  
Compliance Officer



**Robert Meyer**  
Chief Financial Officer

**23 Supporting Professionals**

## Food Chain Advisory Board

6 Total

## Operating Directors

9 Total





# Operating & Advisory Network

Includes PSP's Food Chain Advisory Board, thought leaders from across the global food & agribusiness, and Operating Directors, executive-level professionals supporting opportunity identification and strategy development

## Food Chain Advisory Board

**syngenta**



**John Atkin<sup>1</sup>**  
Former COO of Syngenta

**nutreco**  
**Rabobank**



**Wout Dekker**  
Former CEO of Nutreco; Former Chairman of Rabobank

**Kraft**



**Betsy Holden**  
Former Co-CEO of Kraft Foods

**Driscoll's**  
Only the Finest Berries™



**Miles Reiter**  
Chairman and CEO of Driscoll's

**McKinsey & Company**



**Sunil Sanghvi**  
Former Senior Partner at McKinsey focused on agricultural projects

**THE ROCKEFELLER FOUNDATION**  
**USAID**



**Rajiv Shah**  
Former USAID Administrator; President of the Rockefeller Foundation

## Operating Directors<sup>2</sup>

**Sunrise Growers**  
**Sara Lee**



**Ed Haft**  
Former CEO of Sunrise Growers and President of the Sara Lee Frozen Bakery

**GHIRARDELLI**



**Jack Anton**  
Former Chairman and CEO of Ghirardelli Chocolate and Carlin Foods

**Cargill**



**Peter Hawthorne**  
Former VP – Corporate Strategy & Development at Cargill

**DSM**  
**MONSANTO**



**Rick Greubel**  
Former CEO of Kaiima, President Human Nutrition & Health at DSM and President of Monsanto Brazil

**Elanco**



**Rich Shuler**  
Animal Health Entrepreneur: Pro Vet, VetLife, Ivy Animal Health, AgSpan Analytics

**HOLCIM**



**Martin Foreman**  
APAC Agribusiness Expert & PhD in Plant Physiology

**VERDESIAN**

**Nufarm**



**JJ Grow**  
Former CEO Verdesian & EVP Sales NuFarm

**ATKINS**  
**DANONE**



**Mark Rodriguez**  
Former CEO Danone Waters and Specialty Foods, Atkins Nutritionals, Beech-Nut Nutrition



PAINE SCHWARTZ PARTNERS

As of August 9, 2022.

- 1) John Atkin is also an Operating Director.
- 2) Operating Directors are expected to receive compensation directly or indirectly from the relevant portfolio companies or funds to which they provide services, and no such amounts will offset or reduce the management fee.



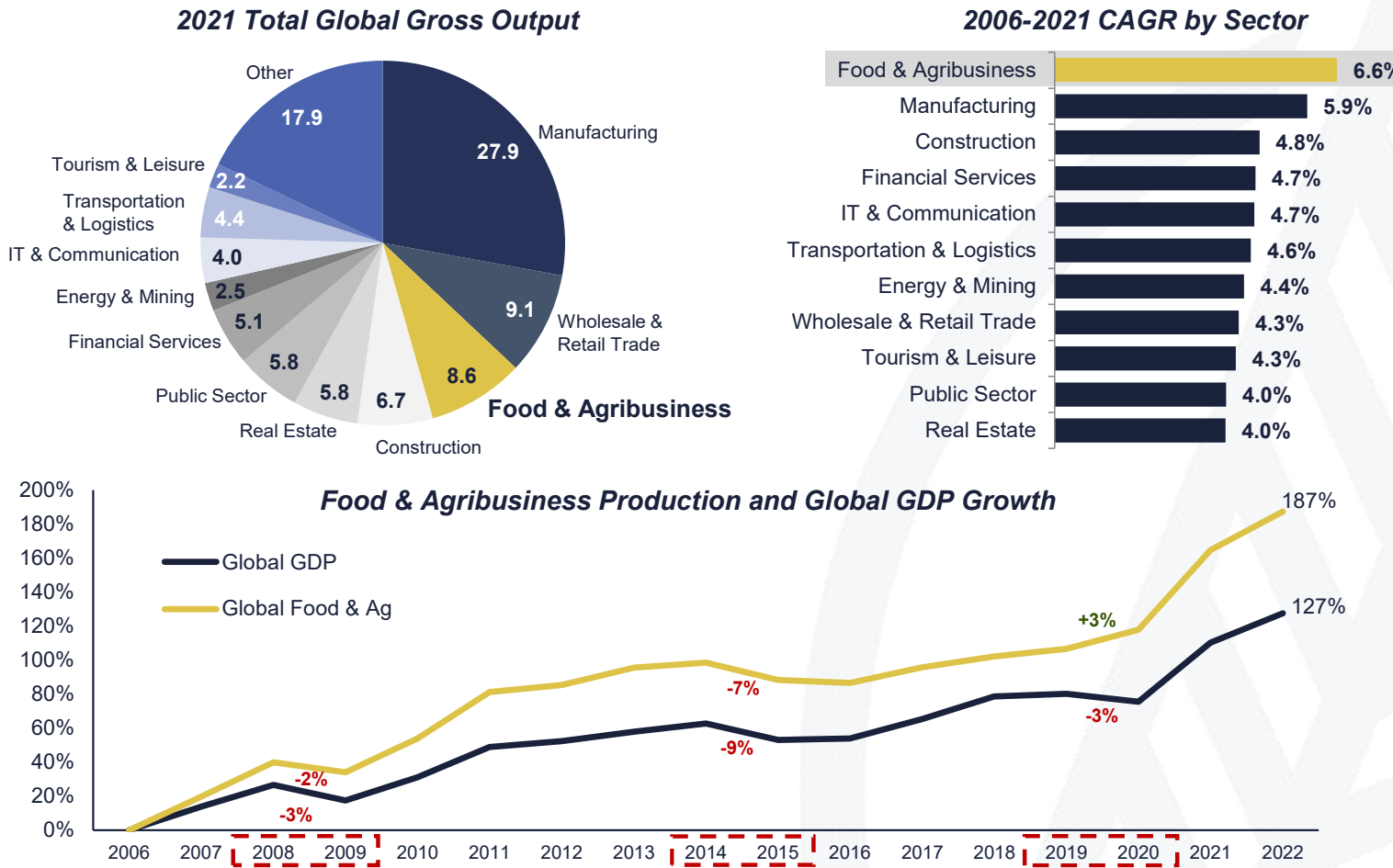
# Investment Thesis and Strategy



# Food & Agribusiness Investment Opportunity

While food & agribusiness comprises 8.6% (\$13.5T) of total global gross output, has been the #1 fastest growing sector since 2006, and has consistently demonstrated insulation from cyclical volatility, the sector remains significantly underinvested relative to size

## Food & Agribusiness Size, Growth, and Resiliency



## Share of Investment

2.8%

Share of buyout capital invested in 2021<sup>1</sup>

4.4%

Share of growth equity capital invested in 2021<sup>1</sup>

Note: "Food & Agribusiness" includes (i) Agriculture, Forestry, and Fishing, (ii) manufacturing of food, beverages, and tobacco, (iii) manufacture of fertilizers and nitrogen compounds, (iv) manufacture of pesticides and other agrochemical products, (v) manufacture of agricultural and forestry machinery, and (vi) manufacture of machinery for food, beverage, and tobacco. CAGR represents data from 2006 to 2021.



PAINE SCHWARTZ PARTNERS

Source: McKinsey & Company, IHS Global Insight Industry Database. As of June 2022. There can be no assurance that historical trends will continue during the life of any fund.  
 1) PitchBook. Note: Pitchbook search criteria includes the following industry categories: Business Products and Services (B2B), Commercial Products > Distributors/Wholesale, Industrial Supplies and Parts, Machinery (B2B), Commercial Services > Logistics; Consumer Products and Services (B2C) > Consumer Non-Durables > Food Products, Beverages; Materials and Resources > Agriculture, Chemicals and Gases > Agricultural Chemicals, Containers and Packaging. Includes only transactions with disclosed deal values. As of Nov. 2021.



# Investment Thesis Derived from Durable Global Trends

PSP's strategy is driven by two core themes which we believe are associated with uncorrelated long-term growth

## Core Investment Themes

### Productivity and Sustainability



Investing in businesses which enhance agricultural productivity while limiting resource consumption

### Health and Wellness



Investing in businesses which provide access to healthier, more nutritious, safer food

## Hunting Grounds

Crop Productivity & Sustainability

Controllable Environment & High-Value Agriculture

Animal Productivity & Sustainability

Food & Ag Software & Business Services

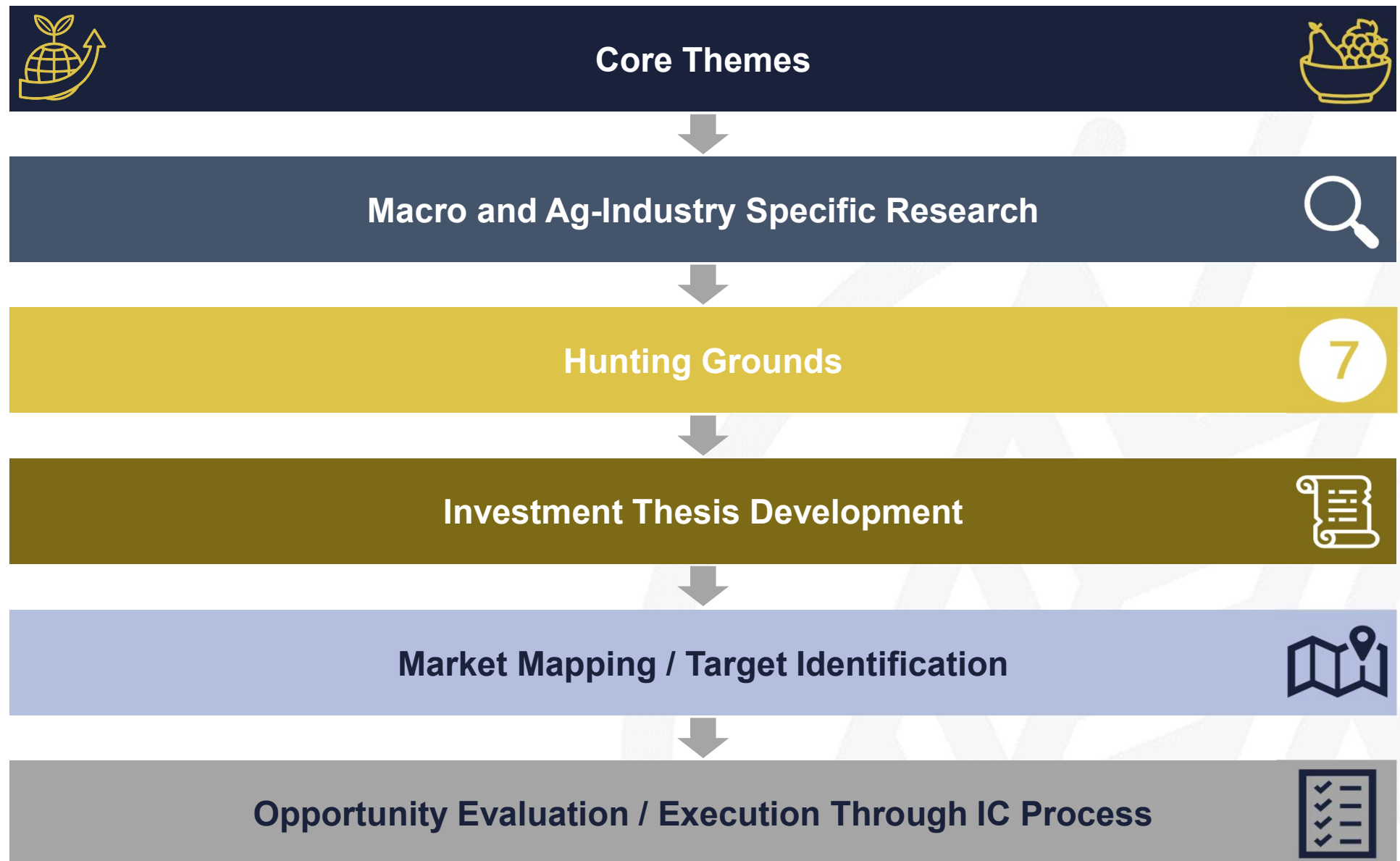
Ingredients

Value-Added Processing

Food & Beverage Products



# Repeatable and Consistent Sourcing Process

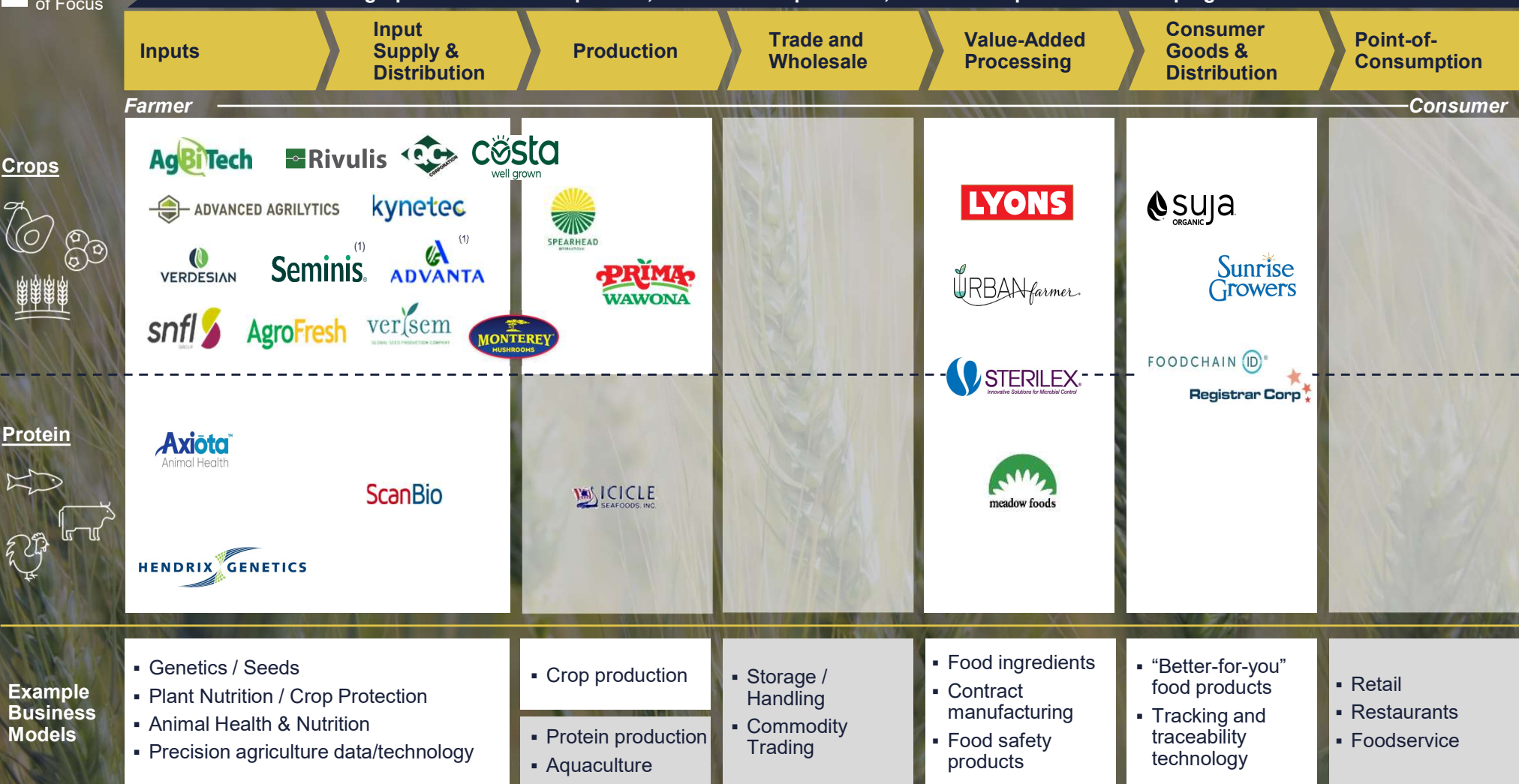


# Consistent Thesis-Driven Approach has Led to Focused Value Chain Investment Strategy

PSP's investment strategy targets differentiated products, services, and technologies in segments with limited commodity exposure and private equity competition

PSP Area of Focus

Geographies: OECD headquarters, international operations, derivative exposure to developing countries



# Performance



# Food & Agribusiness Track Record

Strong sector-focused performance over more than two decades of investing across the food & agribusiness value chain, with 26 platform investments and 73 total investments



## \$3.8B of total equity deployed in food & agribusiness

- ~\$2.4B fund equity and ~\$1.3B+ of co-invest (~\$50M of co-investment generated for every \$100M of fund equity invested)



## 35% Gross IRR and 2.0x Gross MOIC on realized food & ag investments

- 34% Gross IRR and 1.7x Gross MOIC on total food & ag investments (including approximately \$340M of Fund V invested capital held at cost using first 12 months convention)



## Food & Agribusiness-Focused Funds Performance Summary

FUND	VINTAGE	SIZE	INVESTED CAPITAL	VALUE			GROSS		NET	
				REALIZED	UNREALIZED	TOTAL	MOIC	IRR	MOIC	IRR
Fund V <sup>1</sup>	2019	\$1,425	\$1,059	\$34	\$1,526	\$1,561	1.5x	68%	1.4x	37%
Fund IV <sup>2</sup>	2014	\$893	\$672	\$548	\$633	\$1,181	1.8x	15% <sup>3</sup>	1.4x	10%

Past performance is not indicative of future results. \$ in millions. Numbers may not add due to rounding. IRRs are calculated on a monthly basis. Aggregate returns calculated as of March 31, 2022, using time-zero methodology, excluding co-invest. Using conventional methodology, gross fund IRR would be 161%. Net returns cannot be provided for individual investments or for the aggregate of investments in the food & agribusiness sector because the fees and expenses associated with individual investments and other activities are applied in the aggregate at the level of the fund. Fund-level net returns as of March 31, 2022 are as follows: Fund I has generated a 1.4x net MOIC and a 7% net IRR. Fund II has generated a 2.1x net MOIC and a 33% net IRR. Fund III has generated a 1.2x net MOIC and a 3% net IRR. Pursuant to U.S. Generally Accepted Accounting Principles, the valuation data reflected above has not been adjusted for any transaction costs that may occur upon exit. Net figures are calculated after giving effect to the deduction of fund-level fees (including management fees), expenses and carried interest as March 31, 2022.

1) Reflects aggregate of Fund V, Fund V B, Fund V C and Fund V D. Gross IRRs are reflected based upon the date of called capital. If based upon the invested date, total Gross IRR would be 38%.

2) Reflects aggregate of Fund IV and Fund IV Co-Investors. Gross IRRs are reflected based upon the date of called capital. Net returns include a mark-to-market put option FX asset of \$3M.

3) If Fund IV were to have made use of a capital call facility consistent with Fund V, gross IRR would be 18% and net IRR would be 11%







# Commitment to ESG and DE&I

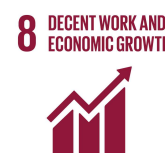


# Leading Platform in ESG and Sustainability

Of any industry, we believe food and agribusiness presents perhaps the greatest opportunity to simultaneously create value and drive positive impact through responsible investment practices

**Thematic Investment Strategy Aligned with UN SDGs**

- The food and agribusiness industry is one of the most critical areas to drive positive change due to its impact on key global challenges. For example:
  - **Food Supply:** Current agricultural practices may be insufficient to feed the planet by 2050
  - **Climate:** Farming and food processing drives almost 1/3 of the global carbon footprint
  - **Health and Nutrition:** Poor diet is the #1 risk factor for deaths in the majority of countries of the world
  - **Social:** Agriculture represents 40% of worldwide employment, and 70% of the “bottom billion”
- PSP’s investment thesis is based on a fundamental belief in the growth and value creation opportunity for businesses that help address these challenges, and thus aligns naturally with several UN SDGs



- PSP seeks to maximize the impact of its thematic investment strategy through robust integration of ESG practices through its processes, including firmwide governance, thematic alignment of its sourcing efforts, investment due diligence, and portfolio company objective setting / tracking
- PSP measures and reports its progress through its annual Sustainability report, where portfolio companies report on their strategy and progress against specific ESG KPIs, including:
  - GHG Emissions (Scope 1 and 2)
  - Energy Consumption
  - Waste
  - Water
  - Employee Safety
  - Diversity

	2019	2020	2021	YoY Change
Scope 1 and 2 (w/fertilizer) (MT GHG/\$000 Revenue)	0.071	0.059	0.047	-20.9%
% Waste diverted from landfill	25.8%	19.6%	21.0%	7.0%





# Advancement of Diversity Equity & Inclusion (DE&I)

PSP is in the process of expanding its DE&I program through the development of a robust strategy & roadmap

Became a signatory to the ILPA  
Diversity in Action Initiative

Diversity in  
Action



**5** of the last **6**  
senior hires are **women**

all **3** incoming associates in  
2022 are **women**

Hosting **No Veteran Left Behind –  
A Race for the Warriors** Fundraiser



Target: \$500k



Participating in the W.K. Kellogg  
Foundation Expanding Equity  
Program



**Collecting demographics data**  
for both PSP and  
our portfolio companies



# Summary of Key Terms



# Fund VI Summary Terms

<b>Fund Name</b>	Paine Schwartz Food Chain Fund VI
<b>Target Size</b>	\$1.5 billion ( <i>\$2 billion hard cap</i> )
<b>GP Commitment</b>	2%
<b>Term</b>	10 years from final closing, subject to extension
<b>Investment Period</b>	5 years from final closing
<b>Preferred Return</b>	8%
<b>Carried Interest</b>	20%
<b>Management Fee</b>	2% of commitments during commitment period; 2% of net invested capital thereafter <i>Fee discounts for size available</i>



All terms subject to the fund's final limited partnership agreements.





## Appendix: Case Study





# FoodChain ID | Realized Case Study

## Overview

<b>Fund</b>	IV
<b>Value Chain Placement</b>	Consumer Goods & Distribution
<b>Location</b>	U.S.
<b>Investment Date</b>	September 2016
<b>Invested Capital<sup>(1)</sup></b>	\$92 million
<b>Total Realized Value</b>	\$249 million
<b>Gross MOIC<sup>(2)</sup></b>	2.7x
<b>Gross IRR<sup>(2)</sup></b>	28%

## Business Overview

- A market leading platform dedicated to providing the global food industry with technology enabled food safety, quality, and sustainability solutions
- Offers a portfolio of testing, inspection, certification, and consulting services, which helps companies navigate the increasingly regulated global food economy demanding higher levels of transparency, accountability, safety and sustainability
- Provides supply chain mapping for more than 100,000 products and serves more than 30,000 customers across 100 countries, including all top 10 Fortune 500 Food Brands

## Investment Thesis

- FoodChain ID was identified during primary research on the sector at one of PSP's semi-annual offsites
- Strong food safety market tailwinds from increased focus on food supply chain and regulations to drive growth
- Leading reputation in GMO testing and certification space as first mover in Non-GMO Project label program
- Best-in-class testing technology is well-positioned in niche markets and is supported by customer demand for fast and reliable results

## Value-Add

- Augmented FoodChain ID's senior management team, re-prioritized its strategic focus, and refinanced its capital structure to provide greater flexibility for long-term growth
- Facilitated six add-on acquisitions that expanded the Company's strategic offering and its global reach
- Increased both revenue and EBITDA by nearly 300% under Paine Schwartz's ownership through enhanced capabilities, an expanded customer base and access to new markets

*Past performance is not indicative of future results.*

1) Includes initial PSP investment of ~\$77M plus follow-on investment of ~\$15M.

2) Represents performance as of exit date of 12/08/2020.





SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 8, 2022

Members of the Investment Advisory Council ("IAC")

Re: **Vistria Structured Credit Fund I**

Dear Fellow IAC Member:

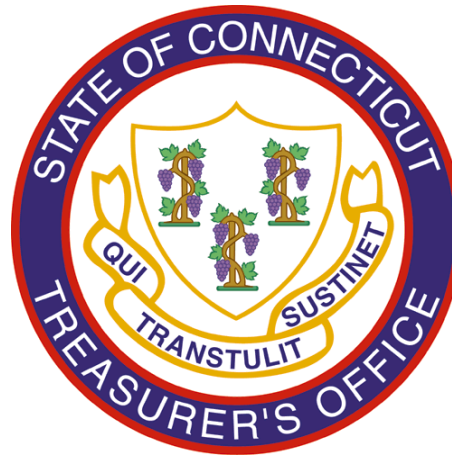
At the September 14, 2022 meeting of the IAC, I will present for your consideration an investment opportunity for the Private Credit Fund ("PCF") in the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): Vistria Structured Credit Fund I, LP ("VSCF I" or the "Fund"). VSCF I has a target size of \$700 million and is being raised by an affiliate of The Vistria Group ("Vistria" or the "Firm"), a Chicago, IL-headquartered private investment management firm.

I am considering a commitment of up to \$100 million to VSCF I, which will invest primarily in higher yielding, private credit opportunities generated through Vistria's private equity portfolio companies and the Firm's broader sourcing network. The Vistria credit strategy will target investments in the healthcare, knowledge and learning, and financial services sectors to benefit from Vistria's investment, operating, and policy expertise in these core markets. The strength of the Vistria platform will be complemented by the strategic involvement of Guggenheim Partners and its affiliates, which will serve as the Fund's anchor investor and sub-advisor. The recommended VSCF I commitment would provide the CRPTF the opportunity to expand a successful, existing relationship with Vistria while gaining differentiated exposure to Vistria-backed companies.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer, and the due diligence report prepared by Hamilton Lane. I look forward to our discussion of these materials at next week's meeting.

Sincerely,

Shawn T. Wooden  
State Treasurer



Full Due Diligence Report  
Chief Investment Officer Recommendation  
September 7, 2022

Vistria Structured Credit Fund I, LP





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# Executive Summary

## Manager Overview

- The Vistria Group, LP (“Vistria” or the “Firm”)
- Founded in 2013
- Chicago, IL headquarters
- More than 80 employees, including 38 investment professionals
- Led by Kip Kirkpatrick and Martin Nesbitt, co-founders and co-Chief Executive Officers
- Vistria Credit is led by Katie Hockman, Partner and Head of Debt Capital Markets
- Vistria has more than \$8 billion of private capital assets under management

## Fund Summary

- Vistria Structured Credit Fund I, LP (“VSCF I” or the “Fund”)
- Private Credit
  - Direct Lending in North America
  - Target/Hard Cap: \$750 million
  - GP Commitment: \$20 million
  - Management Fee: 1.50% on invested capital during investment period; thereafter, 1.25% on net invested capital
  - Carried Interest/Waterfall: 15%/Deal by Deal (American)
  - Preferred Return: 6%

## Strategic Fit

- Private Credit Fund (“PCF”)
- Recommended Commitment: \$100 million
- IPS Category: Mezzanine
  - IPS Range for Mezzanine: 0% to 30% of total PCF exposure
  - Mezzanine Exposure: approximately 13% as of March 31, 2022
- PCF Strategic Pacing Plan
  - Long-term Mezzanine targeted exposure: 10% to 20% of total PCF exposure

## Recommendation

- Based on the strategic fit within the PCF portfolio, as well as due diligence done by Pension Funds Management (“PFM”) investment professionals and Hamilton Lane, the Chief Investment Officer of the Connecticut Retirement Plans and Trust Funds (“CRPTF”) recommends consideration of a commitment of up to \$100 million to Vistria Structured Credit Fund I.

## Investment Considerations

- The Vistria Credit strategy will leverage the investment, operating, and policy expertise of The Vistria Group to identify investment opportunities offering a favorable risk-reward profile.
- The recommended commitment provides the CRPTF an opportunity to gain differentiated exposure to Vistria’s private equity-backed companies.
- The Fund will benefit from the support and resources of Guggenheim Partners’ well-established, corporate credit investment platform.

## Firm History

- Vistria was co-founded by Kip Kirkpatrick and Martin Nesbitt, who lead the Firm as co-Chief Executive Officers.
  - Kirkpatrick previously co-founded private equity firm Water Street Healthcare Partners, was one of the establishing members of One Equity Partners, and served as the CEO of a middle market financial services firm.
  - Nesbitt was previously the President and CEO of a middle market company, which he co-founded after holding real estate investment roles with the Pritzker Realty Group and LaSalle Partners.
- The Firm is 100% owned by the co-CEOs and is headquartered in Chicago, IL with satellite offices in Dallas, TX and New York, NY (planned).

## The Vistria Platform

- The Firm's investment activities are focused on the healthcare, knowledge and learning, and financial services sectors.
- Vistria has developed its middle-market investment strategies to leverage the team's expertise in investment management, operations, and government and policy.
- The Firm has grown to more than 80 employees, including 38 investment professionals, 14 operating professionals, and more than 20 team members leading the Firm's investor relations, human capital, legal and compliance, finance, and administrative infrastructure.
- Vistria also has access to the resources of more than 50 operating partners and senior advisors, comprised of senior leaders with significant experience in Vistria's core sectors as well as policy and government.

## Vistria Credit

- Vistria launched its Credit strategy in 2021 as a complement to the Firm's flagship control-oriented private equity strategy.
- Co-CEOs Kirkpatrick and Nesbitt oversee Vistria Credit, which is led by Katie Hockman who joined Vistria in 2022 as Partner and Head of Debt Capital Markets.
- Hockman joined Vistria from Antares, where she spent twenty years as a private credit investment professional focused on middle market, private equity sponsored companies.
- The Credit team will leverage the resources of the broader Vistria platform with near-term plans to add two professionals dedicated to the Credit strategy.

## Guggenheim Partners Strategic Relationship

- An affiliate of Guggenheim Partners (“Guggenheim”) is the anchor investor in the Fund.
  - Guggenheim is an asset management firm established in 2001. The firm had more than \$228 billion in assets under management as of June 30, 2022, including more than \$100 billion of assets managed across investment grade and high yield credit, bank loans and private debt.
  - Guggenheim, independently owned, is headquartered in Chicago and New York, with more than 2,000 professionals across 25 offices globally.
- A Guggenheim affiliate is the Fund’s sub-advisor and its private debt investment professionals will be responsible for Guggenheim’s review and underwriting investment opportunities considered for the Fund.

## Involvement of Guggenheim Leadership

- Mark Walter, co-founder and CEO of Guggenheim, will serve as a senior advisor to VSCF I and its Investment Committee.
- Kevin Gundersen and Joseph McCurdy will serve on the VSCF I Investment Committee.
- Gundersen is a Senior Managing Director and head of Guggenheim’s private debt investment team. He has been with Guggenheim since 2002 and is the former Head of Guggenheim’s Corporate Credit Group.
- McCurdy is a Senior Managing Director and Head of Origination for the Corporate Credit Group. He has been with Guggenheim since 2004 and was previously Co-Head of Research.

## Guggenheim Private Debt

- Guggenheim’s private debt platform focuses on providing credit solutions to middle market companies that are private equity sponsored or non-sponsored.
- The private debt investment team has more than 100 professionals dedicated to origination, underwriting, execution, portfolio management, legal, trading, etc.
- Guggenheim private debt has invested over \$6 billion in more than 110 investments since 2012, generating attractive returns in line with the Fund’s targeted return profile.
- The firm has entered into several strategic relationships similar to the Vistria Credit partnership to gain access to attractive investment opportunities involving value-added managers.

## Investment Committee & Conflict Management

- The Fund's Investment Committee ("IC") is comprised of two representatives from Vistria and two representatives from Guggenheim.
- IC decisions must be approved by a majority of its members unless the decision involves an existing or prospective Fund investment in an existing or prospective portfolio company of a Vistria Private Equity fund (a "Flagship Company Investment").
  - If an IC matter concerns a Flagship Company Investment, the Vistria Investment Committee Members will be recused from voting and all decisions will require the unanimous approval of the Guggenheim IC members.
  - If an existing Flagship Company Investment becomes distressed or defaults, Guggenheim will lead the Fund's negotiations with the lender group and the Vistria IC members would be recused from any related IC decisions on the Fund's investment.

## CRPTF Relationship

- Vistria is an existing manager in the Private Investment Fund ("PIF") portfolio.
- A summary of Connecticut's existing commitments to Vistria Fund III and Vistria Fund IV is provided in the table below.

(US\$ in millions, as of June 30, 2022)

Fund	Vintage Year	Status	Connecticut Commitment	Unfunded Commitment	NAV	Total Exposure	Net		
							IRR	TVM	DPI
Vistria Fund III	2020	Harvesting	\$75	\$9	\$87	\$96	20.8%	1.32x	0.00x
Vistria Fund IV	2021	Investing	\$150	\$86	\$67	\$153	8.4%	1.05x	0.00x

Source: Connecticut returns from State Street/Solovis. TVM is total value multiple. DPI is distributions to paid in capital.

## Flexible, Junior Credit Focus

- The Vistria Credit strategy was developed with a primary focus on capturing the attractive, risk-adjusted credit opportunities available through Vistria Private Equity portfolio companies.
  - If the Fund invests in a Vistria Private Equity portfolio company, it will only do so as a minority investor participant in a transaction led, structured, and negotiated by a third-party lender or lender group.
- The Vistria Credit team will seek to identify the most attractive risk-return opportunities by pursuing a flexible credit-oriented strategy, with targeted gross unlevered yields of 10% to 13%.
- While the Fund will consider senior credit investments, the GP expects to focus on higher yielding unitranche and junior debt opportunities with or without equity participation.

## Target Companies

- The Fund will focus its investments in the healthcare, knowledge and learning, and financial services sectors to leverage Vistria's investment, operating, and policy expertise in these core markets
- Consistent with Vistria Private Equity's target market, VSCF I will seek private credit and related investments in middle market companies, primarily those headquartered in North America.
- Target companies will generally have revenue of \$50 million to \$500 million and EBITDA between \$10 million and \$50 million.

## Sourcing & Portfolio Construction

- Vistria expects 80% to 90% of the Fund's capital to be invested in Vistria Private Equity portfolio companies, with the balance sourced by the Credit team, through the Vistria platform, or Guggenheim.
- Vistria Credit anticipates building a diversified Fund portfolio of approximately 20 investments of \$25 million to \$75 million per company.
- The general partner expects to use a prudent level of leverage once the VSCF I portfolio is more established, with leverage capped at 30% of total commitments.



# Track Record and Performance

- VSCF I made its first investment in September 2021. As of June 30, 2022, the Fund had invested \$191.8 million in five Vistria Private Equity portfolio companies.
  - Consistent with the Fund's strategy, the capital was invested in four term loans, three preferred equity financings, and one common equity investment across companies in all three of Vistria's core sectors.
  - All VSCF I companies are performing to expectations and all investments were held at or above cost as of June 30, 2022. The summary performance of VSCF I is shown in the table below.
- PFM investment professionals also reviewed the track records of Katie Hockman and Guggenheim's private debt team.
  - From 2011 through her departure from Antares in 2022, Hockman had a primary role in more than 250 private credit investments representing approximately \$10 billion and \$15 billion of capital invested and committed, respectively. These investments delivered gross yields consistent with Antares' senior and unitranche lending strategies with an exceptionally low loss ratio.
  - Guggenheim invested more than \$6.5 billion in over 110 investments across its 2012 and 2016 private debt vehicles. Similar to the Fund's strategy, Guggenheim seeks to optimize the risk-return profile of its private credit investments and deployed capital into a variety of structures, including first and second lien, unsecured debt, holdco PIK, preferred and common equity. The Guggenheim vehicles generated returns in line with the Fund's targeted returns, even though Guggenheim's portfolios are generally more weighted toward first lien investments.

(US\$ in millions, as of June 30, 2022)

The Vistria Group									
Investment Performance Summary - Private Credit									
Fund	Vintage Year	Fund Size	# Deals	Invested Capital	Realized Value	Unrealized Value	Total Value	TVM	IRR
VSCF I	2021	\$545	8	\$192	\$3	\$198	\$201	1.05x	10.50%

Source: Vistria.



## Vistria Structured Credit Fund I

- The Vistria Structured Credit Fund I investment strategy falls under the Mezzanine sub-strategy allocation of the PCF.
  - The IPS sets a target allocation of 0% to 30% for Mezzanine investments within the PCF portfolio based on total exposure, defined as market value plus unfunded commitments.
  - Mezzanine strategies represented approximately 13% of the PCF's total exposure as of March 31, 2022.

The recommended commitment to Vistria Structured Credit Fund I aligns well with several PCF strategic pacing plan objectives as noted below.

- ✓ Supporting the PCF's long-term targeted exposure to Mezzanine investments of 10% to 20%.
- ✓ Partnering with high-quality firms that possess the deep sector expertise, investment acumen, and operating resources to execute a compelling strategy.
- ✓ The opportunity to access a new and complementary credit strategy through a core manager in the PIF portfolio.

# Strengths and Rationale

## Vistria-Guggenheim Partnership

- The Fund will benefit from the strength of Vistria's Private Equity platform as well as the size and scale of Guggenheim's corporate credit platform.
- Vistria's investment, operating and policy insights, thematic research, and networks are a competitive advantage for the Firm in its core sectors and will be leveraged for the benefit of the Fund.
- The scale and scope of Guggenheim's Corporate Credit platform, with more than \$100 billion of assets under management and strong credit research, underwriting, and portfolio management practices will also benefit the Fund.

## Multi-Party Underwriting

- The Fund's strategy is focused on Flagship Company Investments, which would be independently reviewed, underwritten, and approved by several different investment teams before a Fund investment is made.
  - The Vistria Private Equity team's due diligence would have concluded that the company's equity return potential was compelling.
  - A lead lender or lender group would have to be satisfied with the credit quality, structure, and terms of the opportunity.
  - The Vistria Credit team would have completed a positive underwriting of the company from a credit financing perspective.
  - Guggenheim's private debt team would have completed independent diligence, resulting in a positive recommendation to the Guggenheim private debt investment committee.

## Strong Alignment of Interests

- Through capital committed to the Fund as well as the investment to build out a dedicated Credit team, Vistria's interest in the success of VSCF I are well aligned with those of the Fund's investors.
- Guggenheim's substantial capital commitment to the Fund closely aligns its interest with those of the other VSCF I limited partners. Guggenheim's capital commitment to the Fund will represent more than 70% of expected total committed capital.

# Key Risks and Mitigants

## First Time Fund

- VSCF I is the first credit fund raised by Vistria. First-time funds can present risks related to team competencies, sourcing capacity, and whether an adequate level of capital can be raised.
  - These concerns are substantially alleviated by the strength of the Vistria platform and the extensive credit investment experience of Katie Hockman, who is leading the execution of the Vistria Credit strategy.
  - Vistria's strategic relationship with Guggenheim, which will serve as the Fund's anchor investor and sub-advisor, further reduces concerns associated with a more traditional first-time fund.

## Potential Conflicts of Interests

- The Fund's investment activities will be focused on Flagship Company Investments. Having Vistria Credit and Vistria Private Equity invested in the same company, particularly in different levels of the capital structure, creates the opportunity for significant conflicts of interests. Vistria has developed robust practices to address these concerns, including the following.
  - The Fund will only invest as a participant in credit opportunities involving a Vistria Private Equity company and the financing must be led by an unaffiliated lead lender or lender group.
  - The Vistria representatives on the Fund's Investment Committee will recuse themselves from any decisions involving the Fund and an existing or prospective Vistria Private Equity investment.
  - Guggenheim will represent the Fund and work with the lender group to address any challenges that may arise between the creditors and a Vistria Private Equity company.

# Fundraising and Key Terms Summary

Target Size / Hard Cap	<ul style="list-style-type: none"><li>• \$750 million</li></ul>
GP Commitment	<ul style="list-style-type: none"><li>• \$20 million</li></ul>
Fundraising Status	<ul style="list-style-type: none"><li>• First close in July 2021; the Fund has closed on a total of \$525 million of limited partner commitments</li></ul>
Target Final Close	<ul style="list-style-type: none"><li>• October 2022</li></ul>
Fund Term	<ul style="list-style-type: none"><li>• Ten years from the effective date (July 2021), with two, one-year extensions at the GP's discretion</li></ul>
Investment Period	<ul style="list-style-type: none"><li>• Four years from the effective date</li></ul>
Management Fee	<ul style="list-style-type: none"><li>• 1.5 % per annum on net invested capital during investment period; thereafter, 1.25% per annum on net invested capital</li></ul>
Fee Discounts & Offsets	<ul style="list-style-type: none"><li>• Management fees offset by 100% of any transaction fees</li></ul>
Carry & Waterfall Type	<ul style="list-style-type: none"><li>• 15% / Deal by Deal (American)</li></ul>
Preferred Return	<ul style="list-style-type: none"><li>• 6%</li></ul>
GP Catch-up	<ul style="list-style-type: none"><li>• 100%</li></ul>
Clawback	<ul style="list-style-type: none"><li>• Yes</li></ul>
Other Key Provisions	<ul style="list-style-type: none"><li>• Connecticut has been offered a seat on the Vistria Structured Credit fund I limited partner advisor committee</li></ul>

## The Vistria Group, LP (“Vistria”)

- In its disclosure to the Office of the Treasurer, The Vistria Group, LP (“Vistria”), states that it has no material legal or administrative proceedings to report, no claims under its fidelity, fiduciary or E&O insurance policies, and no ongoing internal investigations to report. Vistria states it has adequate procedures in place to undertake internal investigations of its employees, officers and directors.

The Vistria Group LP (“Vistria”)

## **Review of Required Compliance Attachments**

Vistria disclosed no third-party fees, campaign contributions, known conflicts or gifts

## **Corporate citizenship in the State of Connecticut**

Vistria is active in its surrounding Chicago community and supports national organizations

## **Commitment to the diversity, education & training of the industry’s next generation**

Historically, the firm hosts 3 interns each summer, all of whom are women or minorities. The firm typically partners with Toigo or Management Leadership for Tomorrow. The firm also helps fund scholarships through donations to various charitable organizations. In addition, the firm’s mission as a firm is to make an impact through its investment portfolio.

## **Support for women-owned, minority-owned or emerging businesses**

None reported



# Compliance and Diversity Review

The Vistria Group LP ("Vistria")

## Workforce Diversity

Vistria provided data as of March 29, 2022

- 44 employees, up 47% since 2020
- The firm is 51% Black-owned, 100% male-owned

For the three-year reporting period

- Among professionals and above, the firm promoted 2 minorities and 2 women
- Exceptional progress as a firm: Proportion of minorities and women increased substantially across all levels
- Exceptional increases in professionals: Minorities more than doubled while women tripled (at parity with men)
- Proportion of Black at both executives and overall manager levels are above 10%, which is rare

### WOMEN

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>19%</b> 3 of 16	<b>27%</b> 6 of 22	<b>50%</b> 7 of 14	<b>45%</b> 20 of 44
<b>2021</b>	<b>17%</b> 2 of 16	<b>36%</b> 9 of 25	<b>14%</b> 1 of 7	<b>41%</b> 15 of 37
<b>2020</b>	<b>9%</b> 1 of 11	<b>22%</b> 4 of 18	<b>14%</b> 1 of 7	<b>33%</b> 10 of 30

### MINORITIES<sup>1</sup>

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>31%</b> 5 of 16	<b>36%</b> 8 of 22	<b>36%</b> 5 of 14	<b>36%</b> 16 of 44
<b>2021</b>	<b>25%</b> 3 of 12	<b>32%</b> 8 of 25	<b>29%</b> 2 of 7	<b>30%</b> 11 of 37
<b>2020</b>	<b>27%</b> 3 of 11	<b>28%</b> 5 of 18	<b>14%</b> 1 of 7	<b>23%</b> 7 of 30

<sup>1</sup> 2022 Minority breakdown: 5 exec (3 Black, 1 Hispanic, 1 Asian); 8 mgmt (3 Black, 1 Hispanic, 4 Asian); 5 prof (1 Black, 4 Asian)



# Environmental, Social and Governance Analysis

Office Of The State Treasurer  
Pension Funds Management

## Overall Assessment : Evaluation and Implementation of Sustainable Principles

Vistria's disclosure described a thorough integration of ESG in the firm's investment process. The firm is a signatory to the UN PRI and strives to align its standards with frameworks from the Sustainability Accounting Standards Board (SASB) and Global Impact Investing Network (GIIN).

Vistria's Impact Policy emphasizes the focus on material impact throughout the life cycle of its investments in the healthcare, education, and financial services sectors. The firm's Director of Policy and Impact and one of the firm's Partners split the responsibility of overseeing the Impact Program and all ESG integration. Vistria engages in numerous thought leadership convenings and provides internal staff with periodic updates on best practices. The firm sources data from the UNPRI, GIIN, and SASB.

Vistria does not have a formal policy with respect to civilian firearms retailers and manufacturers from a vendor relationship perspective, given that it does not have any such vendor relationships. Overall, the disclosure indicated the firm has comprehensive ESG integration.

## SCORE

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Criteria	Response
Firm has an ESG policy	Yes
If Yes, firm described its ESG policy	Yes
If Yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
Designated staff responsible for sustainability policies and research	Yes
Firm provides training/resources on sustainability issues, explained sources of ESG-related data	Yes
Signatory/member of sustainability-related initiatives or groups	Yes
Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	No*

Criteria	Response
Policy that requires safe and responsible use, ownership or production of guns	No*
Enhanced screening of manufacturers or retailers of civilian firearms	No*
Enhance screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impact	Yes
Merchant credit relationship with retailers of civilian firearms and accessories	No
If Yes, firm confirms compliance with laws governing firearms sales	N/A

\*No, given that the firm does not invest in civilian firearms manufacturers or distributors.





Hamilton Lane

# Vistria Structured Credit Fund I, LP

Recommendation Report

August 2022

All information contained within this report has been gathered from sources believed to be reliable, including but not limited to the general partner(s), other industry participants and the Hamilton Lane Investment Database, but its accuracy cannot be guaranteed.

The information contained in this report may include forward-looking statements regarding the fund presented or its portfolio companies. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the fund or the portfolio companies, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect our current judgment, which may change in the future.

The past performance information contained in this report is not necessarily indicative of future results and there is no assurance that the fund will achieve comparable results or that it will be able to implement its investment strategy or achieve its investment objectives. The actual realized value of currently unrealized investments will depend on a variety of factors, including future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of sale, all of which may differ from the assumptions and circumstances on which the current unrealized valuations are based.

Any tables, graphs or charts relating to past performance included in this report are intended only to illustrate the performance of the fund or the portfolio companies referred to for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.

By accepting receipt of this investment report and in consideration of access to the information contained herein (together with the investment report, the “Confidential Information”), the recipient agrees to maintain the strict confidentiality of any and all Confidential Information in accordance with the terms of this paragraph. The recipient acknowledges that (i) the Confidential Information constitutes proprietary trade secrets, and (ii) disclosure of any Confidential Information may cause significant harm to Hamilton Lane Advisors, L.L.C. (“Hamilton Lane”), its affiliates or any of their respective businesses. Unless otherwise required by law, the recipient shall not disclose any Confidential Information to any third party. If required by law to disclose any Confidential Information, the recipient shall provide Hamilton Lane with prompt written notice of such requirement prior to any such disclosure so that Hamilton Lane may seek a protective order or other appropriate remedy. Prior to making any disclosure of any Confidential Information required by law, the recipient shall use its reasonable best efforts to claim any potential exemption to such requirement and otherwise shall limit disclosure only to such information that is necessary to comply with such requirement.

The calculations contained in this document are made by Hamilton Lane based on information provided by the general partner (e.g. cash flows and valuations), and have not been prepared, reviewed or approved by the general partner.

Stacked bar charts or pie charts presented in the Strategy section in this report may not equate to 100% per the data labels on the charts due to rounding; however, all stacked bar charts and pie charts equate to 100% using exact proportions.

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## Fund Information

Organization Overview	Fund Overview	Portfolio Construction
<p><b><u>General Partner:</u></b> The Vistria Group, LP (“General Partner”), (“Vistria”)</p> <p><b><u>Firm Inception:</u></b> 2013</p> <p><b><u>Team:</u></b><sup>1</sup> 3 credit investment professionals and 2 Guggenheim investment committee members</p> <p><b><u>Senior Partners:</u></b> Martin Nesbitt, Kip Kirkpatrick and Katie Hockman</p> <p><b><u>Locations:</u></b> Chicago (headquarters) and Dallas</p>	<p><b><u>Fund:</u></b> Vistria Structured Credit Fund I, LP (“Fund”)</p> <p><b><u>Target Size/Hard Cap:</u></b> \$750 million/\$750 million</p> <p><b><u>Asset Class:</u></b> Private debt</p> <p><b><u>Strategy:</u></b> Mezzanine</p> <p><b><u>Substrategy:</u></b> Opportunistic</p> <p><b><u>Geography:</u></b> United States</p> <p><b><u>Industries:</u></b> Healthcare, education and financial services</p>	<p><b><u>Enterprise Values:</u></b> Up to \$500 million</p> <p><b><u>Equity Investments:</u></b> \$25 million to \$75 million</p> <p><b><u>Target Number of Investments:</u></b> Approximately 15</p> <p><b><u>Max Single Investment Exposure:</u></b> 20%</p> <p><b><u>Expected Hold Period Per Investment:</u></b> 3 to 5 years</p> <p><b><u>Target Returns:</u></b> Levered: 10% to 13% gross IRR Unlevered: 8% to 10% gross IRR</p>

<sup>1</sup> Credit investment professionals include Martin Nesbitt and Kip Kirkpatrick, who oversee the broader organization and are members of the investment committee of the Fund

## Net Performance and Benchmarks

The Vistria Group, LP								HL Benchmark			PME Benchmark	
Prior Investment Performance <sup>1</sup>								Credit			S&P LSTA Leveraged Loan Index	
As of 3/31/22								As of 3/31/22			As of 3/31/22	
(\$mm)	Vintage	Fund Size	% Drawn <sup>2</sup>	DPI	TVPI	Net IRR	Quarters to Break J-Curve	Spread vs. Top-Quartile			Spread vs. PME	
Fund								DPI	TVPI	Net IRR		
Fund I	2021	\$525	17%	0.0x	1.0x	-2.4%	n/a	-0.2x	-0.1x	-2141 bps	-257 bps	

- While the Fund represents the first dedicated credit vehicle for Vistria, Ms. Hockman has an extensive track record of investing across market cycles and has demonstrated her ability to invest in the targeted space

## Fundraise Update

- First close held on 7/27/21 on \$500 million of commitments from Guggenheim Corporate Funding, LLC (“Guggenheim”)
- Second close held on 12/14/21 on \$25 million of commitments
- In addition to Limited Partner commitments, the General Partner has committed \$20 million to the Fund
- Final close expected in October or November 2022

<sup>1</sup> Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee-paying limited partners and exclude any cash flows from the General Partner’s commitment

<sup>2</sup> Percent drawn is calculated from the cash flows of the limited partners and represents a percentage of the target fund size



Key Terms<sup>1</sup>

Term	Summary
Investment Period	4 years; + 1 one-year extension with limited partner approval
Fund Term	10 years; + 2 one-year extensions at the discretion of the General Partner
GP Commitment	\$20 million
Management Fee <sup>2</sup>	1.5% of aggregate commitments stepping down to 1.25% of invested capital during the post-investment period
Fee Discount	None
Fee Offset	100%
Organization Expenses	\$2 million
Carry <sup>2</sup> /Preferred Return	15%/6%; deal-by-deal
GP Catch-up <sup>3</sup>	100%
Clawback	Yes

<sup>1</sup> Refers to the terms proposed by the General Partner as of October 2021; terms are subject to change and further negotiation during fundraising

<sup>2</sup> Guggenheim Corporate Funding, LLC is expected to receive 50% of the management fee and carried interest allocation

<sup>3</sup> Vistria and Guggenheim Corporate Funding, LLC are both subject to a 50% GP Catch-Up

## Investment Thesis

### Nascent credit platform supported by broader resources

- While nascent, Vistria intends to build out a dedicated credit team and has strategically partnered with Guggenheim, an established credit manager, to leverage its credit expertise and investment professionals throughout the investment lifecycle
- The credit team is led by credit investor Katie Hockman, with Co-CEOs Martin Nesbitt and Kip Kirkpatrick lending insight and serving on the investment committee
- The dedicated team is expected to benefit from Vistria's institutionalized platform and vertical-specialized professionals for enhanced expertise and deal flow

### Flexible investment approach with consistent middle-market and sector focus

- Vistria is expected to target middle-market opportunities with a flexible approach across the capital structure, creating an attractive risk-adjusted return profile
- The General Partner intends to invest primarily in the debt of its flagship companies, continuing its focus on opportunities in the healthcare, education and financial services sectors, which it has pursued through its flagship fund since inception
- Vistria plans to leverage the expertise of its private equity team and the broader Guggenheim credit platform to augment its origination and underwriting capabilities

### Developing, albeit early, performance that is in line with expectations

- While early in its development, the Fund is stable and has gained meaningful traction, with several investments completed to date
- As of July 2022, Vistria had deployed \$191.8 million in the Fund across five investments, all of which were held at or above cost
- While the General Partner has yet to fully deploy a fund dedicated to the strategy, Ms. Hockman possesses significant credit investment experience in the targeted space and has demonstrated her ability to invest across market cycles at prior roles

## Investment Considerations

### The General Partner will appropriately build out the credit investment team

- The dedicated credit investment team solely comprises Ms. Hockman, who was recently hired in July 2022
- Vistria intends to scale the investment team in the near term
- The credit investment team is supported by several dedicated Guggenheim professionals and the broader Vistria platform, increasing the underwriting and execution capabilities of the group

### Vistria will successfully execute the strategy alongside Guggenheim

- The General Partner is partnering with Guggenheim to invest a new strategy and intends to collaborate throughout the due diligence and decision-making processes
- Vistria and Guggenheim expect deal teams to proactively interact throughout the due diligence process and leverage resources across both platforms, leading to cohesion throughout the diligence process
- The investment committee is equally comprised of Vistria and Guggenheim professionals, enhancing collaboration and uniformity in decision-making

### The General Partner will effectively deploy the fund and generate attractive performance

- Vistria has yet to fully deploy a fund dedicated to the strategy; as such, its ability to generate attractive performance in the credit space remains unproven
- Ms. Hockman possesses a credible track record of private credit investing in prior roles and has demonstrated her ability to invest across market cycles
- While the Fund remains early in its development, it has gained meaningful traction and the General Partner expects to develop an actionable pipeline of opportunities in the medium term

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**Recommendation**

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Based on the analysis and information presented herein, Hamilton Lane believes that a commitment to Vistria Structured Credit Fund I, LP works towards achieving the goals set forth for the Connecticut Retirement Plans and Trust Funds. A commitment to the Fund will maintain a relationship with a high-quality General Partner. Taking into account the investment strategy and portfolio diversification objectives of the Private Credit Fund, Hamilton Lane recommends a commitment to the Fund.

**Expected build out of investment team led by Katie Hockman**

- The credit investment team will be led by Ms. Hockman, who possesses significant credit investing experience from her 20-year tenure at Antares Capital
- Although the credit platform remains nascent, the General Partner intends to build out the dedicated credit team in the near term

**Investment team supported by the Guggenheim partnership and broader Vistria platform**

- Vistria is expected to benefit from its strategic partnership with Guggenheim by leveraging its investment professionals and broader credit platform to enhance its investment capabilities throughout the due diligence process
- The credit team is supported by the broader Vistria platform, which includes vertical-specialized private equity investment professionals and additional resources, augmenting its domain expertise and market coverage

**Broad distribution of economics across the platform enhances collaboration**

- The General Partner intends to thoughtfully distribute carried interest across the private credit and private equity teams, which is expected to promote collaboration across the platform
- Additionally, Vistria and Guggenheim share equally in economics, further enhancing the alignment of interests between the organizations

- The General Partner was founded in 2013 by Messrs. Nesbitt and Kirkpatrick to invest exclusively in the healthcare, education and financial services spaces at the intersection of the private and public sectors
- In 2021, Vistria established the Fund to target debt investments in middle-market companies within its targeted industries
  - The General Partner hired Ms. Hockman as Partner & Head of Debt Capital Markets in July 2022 to lead the Fund and intends to build out the dedicated credit investment team in the near term
    - Prior to joining Vistria, Ms. Hockman acquired significant investment experience at Antares Capital
    - In July 2021, Vistria engaged a Guggenheim affiliate to serve as the Fund's sub-advisor
- In addition to the Fund, the General Partner manages its flagship fund line, which targets buyout transactions of middle-market businesses across its targeted sectors

**Snapshot:<sup>1</sup>****Inception/Founders:**

2013/Martin Nesbitt and Kip Kirkpatrick

**AUM:**

\$6.7 billion

**Management Company:**

Private

**Locations:**

Chicago (headquarters) and Dallas

**Headcount:**<sup>2</sup>

3 credit investment professionals, 27 additional investment professionals, 4 Strategy & Growth Team professionals, 11 Portfolio Resources Group professionals and 20 back-office professionals

**Strategies/Product Lines:**

Corporate finance/buyout and private debt

**Current Leadership:**

Martin Nesbitt and Kip Kirkpatrick

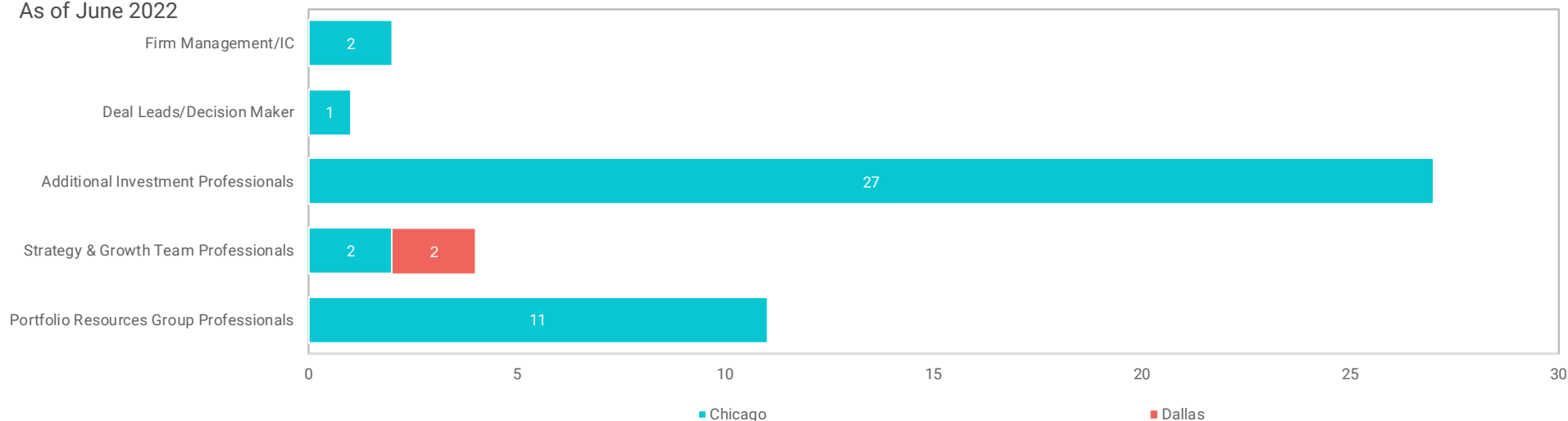
<sup>1</sup> As of July 2022

<sup>2</sup> Credit investment professionals include Martin Nesbitt and Kip Kirkpatrick, who oversee the broader organization and are members of the investment committee of the Fund

- The credit investment team currently consists of Ms. Hockman, with oversight from Messrs. Nesbitt and Kirkpatrick
  - The General Partner intends to hire credit investment professionals with expertise in the targeted verticals to support Ms. Hockman
- The broader Vistria platform is expected to support the credit team throughout the investment lifecycle, including vertical-dedicated private equity investment professionals, Strategy & Growth Team professionals, Portfolio Resources Group professionals and back-office professionals
- In September 2021, the General Partner opened an office in Dallas to expand its geographic presence and provide additional support to its portfolio companies
  - Partner & Head of Strategic Relationships Bill Macatee and Senior Associate of Strategic Relationships Drew Johnson comprise the Dallas office

## Investment & Portfolio Resources Teams by Role/Region

As of June 2022





- The senior investment professionals are highly experienced investors and operators, averaging over 30 years of experience
  - Prior to founding the firm, Mr. Nesbitt held senior leadership roles at The Parking Spot, Pritzker Realty Group, and Mr. Kirkpatrick held senior leadership roles at United Shore, Water Street Healthcare Partners and One Equity Partners
  - Prior to joining the General Partner, Ms. Hockman served as a Managing Director at Antares, in addition to tenures at BlueStar Ventures and ABN AMRO Inc.
- The investment committee is comprised of Messrs. Nesbitt and Kirkpatrick, in addition to Kevin Gundersen and Joseph McCurdy from Guggenheim
  - Investment decisions require majority approval from the investment committee; however, Messrs. Nesbitt and Kirkpatrick do not have a vote on deals in which Vistria is in the equity position
  - Messrs. Gundersen and McCurdy maintain the ability to veto investment decisions, including both Vistria-backed and non-Vistria deals
    - Within Guggenheim, Mr. Gundersen is a Portfolio Manager & Corporate Credit Investment Committee Member and Mr. McCurdy is Head of Origination; collectively, they average 23 years of total experience and 19 years at Guggenheim
- The General Partner expects to ultimately expand the investment committee to include Ms. Hockman and an additional Guggenheim professional, with the investment committee remaining equally weighted between Vistria and Guggenheim professionals

Name	Title	Tot. Exp. (yrs.)	Tenure (yrs.)	2013	2014	2015	2016	2017	2018	2019	2020	Fund I	2022
Martin Nesbitt <sup>1,2</sup>	Co-CEO & Senior Partner	38	9										
Kip Kirkpatrick <sup>1,2</sup>	Co-CEO & Senior Partner	29	9										
Katie Hockman	Partner & Head of Debt Capital Markets	27	<1										

<sup>1</sup> Denotes members of the investment committee

<sup>2</sup> Denotes non-dedicated professional

 = Tenure with The Vistria Group, LP

 = Total Experience

- In addition to Messrs. Gundersen and McCurdy participating on the investment committee, the General Partner intends to leverage the Guggenheim platform, including several professionals focused on the Fund
- Messrs. Gundersen and McCurdy are supported by a team of 10 investment professionals who are expected to be leveraged for due diligence and opportunistic origination for the Fund
- Guggenheim deal teams are typically comprised of Messrs. Gundersen and McCurdy, who oversee each transaction, along with one originator from the team and two analysts from Guggenheim's research team to assist in underwriting
- CEO Mark Walter, with whom Vistria has a longstanding relationship, plans to serve as Senior Advisor to the Fund
- In its role as sub-advisor, Guggenheim will participate throughout the diligence process for investment opportunities; however, sourcing responsibilities will primarily be implemented by Vistria professionals
- Guggenheim professionals may opportunistically originate investment opportunities within their respective networks
- In cross-fund investment opportunities with Vistria's flagship vehicle, Messrs. Nesbitt and Kirkpatrick will recuse themselves from making investment decisions to mitigate potential conflicts between the flagship vehicle and the Fund
- Guggenheim professionals will co-underwrite opportunities alongside the Vistria team and serve as the ultimate investment decision-making authority
- In the event that a cross-fund investment with the flagship vehicle is in default or financial distress, Messrs. Gundersen and McCurdy are expected to become the sole-decision making authorities on the investment committee
- In the event that investment opportunities have available capital in addition to that of the Fund, Guggenheim may participate with capital from its own vehicles; however, priority of allocation goes first to the Fund

Guggenheim Investment Professionals				
Name	Title	Tot. Exp. (yrs.)	Tenure (yrs.)	Prior Experience
Kevin Gundersen	Portfolio Manager & Corporate Credit Investment Committee Member	25+	19	• Geotrust
Joseph McCurdy	Head of Origination	20	18	• Guggenheim Partners Europe, Vice President

- The Vistria platform includes broader in-house resources such as the Strategy & Growth Team (“SGT”) and the Portfolio Resources Group (“PRG”), which interact with portfolio company management teams
  - The SGT and PRG are primarily leveraged by the private equity professionals but may assist Ms. Hockman with sourcing and supporting portfolio companies
- The SGT is led by Partner & Head of Strategic Relationships Bill Macatee and Partner & Head of Investment Strategies Mona Sutphen and focuses on developing and maintaining portfolio company and other strategic relationships of the firm
- The PRG is led by Partner & Co-Heads of PRG Tory Ramaker and John Samuels and supports the investment team in performing diligence and monitoring portfolio companies
  - PRG professionals are organized by functional expertise across the Growth & Operations, People, Impact and Policy spaces
- The General Partner intends to distribute its allocation of carried interest thoughtfully across the expected credit team, as well as to professionals across the Vistria platform
- Vistria and Guggenheim will share equally in the Fund’s carried interest; Guggenheim is also expected to receive 50% of the management fee from the Fund

## Consistent focus on United States-based companies in its targeted sectors

- The General Partner seeks to invest in the healthcare, education and financial services sectors, where it has focused exclusively since inception
- In line with its flagship vehicle, Vistria intends to invest in companies headquartered in the United States, where it maintains a geographic presence

## Flexible investment approach across the capital structure captures a broad opportunity set

- Vistria plans to target opportunities across the capital structure, including senior debt, unitranche and mezzanine positions as well as equity participation, creating a portfolio with an attractive risk-adjusted return profile
- The General Partner intends to generate its returns primarily through yield and current interest in addition to leverage, equity, warrants and PIK

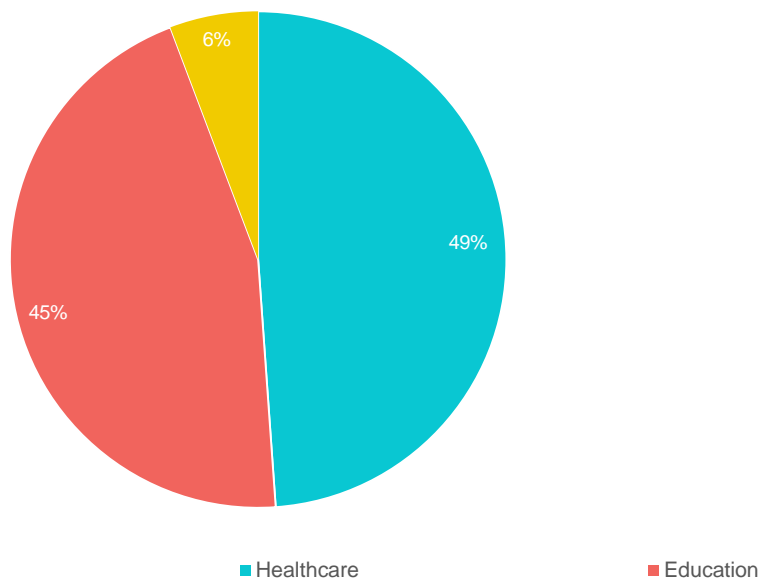
## Deal flow across the middle market driven by deep networks and strategic partnerships

- The General Partner focuses on the middle market, where it has established a strong reputation and developed significant expertise
- Vistria intends to leverage its broader platform to source and originate attractive investment opportunities, driving access to substantial deal flow

- Consistent with its flagship strategy, Vistria exclusively targets companies operating within the healthcare, education and financial services industries
- The General Partner expects to invest approximately 50% of the Fund in healthcare, 35% in education and 15% in financial services
- The General Partner intends to invest the Fund primarily in United States-based companies, where it has also focused for its flagship vehicle
- Vistria has the ability to invest up to 15% of the Fund in opportunities based outside of the United States, but does not expect to do so for the Fund

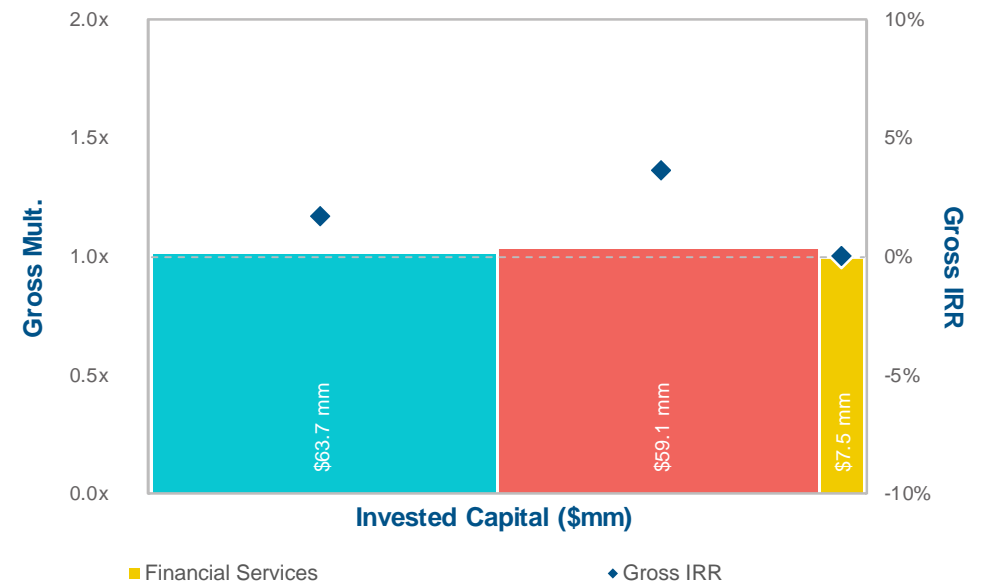
## Fund I Investments - % by Sector

As of 3/31/22



## Aggregate Performance – by Sector

As of 3/31/22



- The General Partner seeks to opportunistically invest in senior debt, unitranche and mezzanine debt positions, targeting levered returns of 10% to 13% gross IRR
  - Vistria ultimately expects the Fund to be allocated more heavily towards unitranche and mezzanine investments and lesser towards senior debt investments
- Vistria also intends to supplement the Fund with equity participation, warrants and PIK, allowing for additional upside
- The General Partner expects to invest in approximately 15 portfolio companies with check sizes between \$25 million and \$75 million
- Vistria anticipates LTV and portfolio company leverage profiles to be in line with the market, but generally expects between 40% and 50% LTV
- The General Partner seeks middle-market companies with enterprise values of up to \$500 million
  - Vistria expects to invest in companies generating \$50 million to \$500 million of revenue and \$10 million to \$50 million of EBITDA
- Vistria employs a proactive sourcing approach, utilizing the extensive networks and deep domain expertise of its professionals to drive access to attractive deal flow; as such, the credit team intends to leverage the broader platform for deal flow
  - To date, the Fund primarily consists of debt investments in existing deals from the private equity platform, in conjunction with recapitalizations and LBOs, with the exception of one new investment that was sourced through an auction process
- The General Partner may also invest in opportunities in which it is brought in by other general partners as a strategic partner and capital provider

- The General Partner expects the Fund to be primarily comprised of Vistria portfolio companies where it has invested equity capital through the flagship fund, with the intention of increasing its allocation to more non-Vistria deals in subsequent funds
- In instances of non-Vistria deals, Vistria maintains the flexibility to invest in both sponsored and non-sponsored opportunities; however, the General Partner intends to primarily invest in sponsor-backed deals
- In the event of a potential conflict of interest between its equity and credit strategies, Vistria and Guggenheim, in conjunction with a leading third-party lender outside of the aforementioned firms, will drive negotiations between the creditors and the equity funds
- The General Partner intends to primarily act as a participant in deals, while opportunistically leading or co-leading investment opportunities
  - Vistria will not act as the lead lender in cross-fund investment opportunities; a third-party lender will drive loan terms and negotiations
  - In cross-fund investments with its flagship buyout vehicle, the General Partner seeks to acquire significant board representation through the equity fund to seek operational control and drive management decisions; however, it does not expect to obtain board seats through the Fund



**Developing performance in line with expectations**

- The Fund, while early in its development with an average hold period of less than four months, is stable and has developed meaningful traction
- The General Partner expects to enhance performance through fund management best practices, including fund-level leverage and a short-term credit facility

**Stable gross performance with ability to identify attractive opportunities**

- As of 3/31/22, the unrealized portfolio remained healthy, with all investments held at or above cost
- Ms. Hockman has an extensive track record of investing across market cycles and has demonstrated her ability to invest in the targeted space

**Active early deployment**

- As of 3/31/22, Vistria had made four investments within the Fund
- The General Partner also completed an additional investment subsequent to 3/31/22 and expects to further develop a pipeline of actionable opportunities in the medium term

- As of 3/31/22, the Fund remains early in its development, with four total investments and an average hold period of 0.3 years
- Vistria intends to utilize between 20% and 30% of fund-level leverage with a maximum ability of up to 50%, or 1:0.5, including a short-term line of credit, which is primarily used to bridge capital calls and expenses
  - The General Partner does not expect to hold capital on the line outstanding for more than 90 days
- The General Partner maintains the ability to recycle capital throughout the investment period but does not expect to do so frequently, consistent with its approach in the flagship vehicle
- While the Fund represents the first dedicated credit vehicle for Vistria, Ms. Hockman has an extensive track record of investing across market cycles and has demonstrated her ability to invest in the targeted space

The Vistria Group, LP								
Prior Investment Performance <sup>1</sup>								
As of 3/31/22								
(\$mm)	Vintage	Fund Size	Capital Drawn	Capital Distributed	NAV	DPI	TVPI	Net IRR
Fund								
Fund I	2021	\$525	\$126.9	\$0.0	\$125.1	0.0x	1.0x	-2.4%

HL Benchmark			PME Benchmark
Credit			S&P LSTA Leveraged Loan Index
As of 3/31/22			As of 3/31/22
Top-Quartile			PME IRR
DPI	TVPI	Net IRR	
0.2x	1.1x	19.0%	0.1%

<sup>1</sup> Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee-paying limited partners and exclude any cash flows from the General Partner's commitment

- As of 3/31/22, Vistria completed four investments in the Fund, all of which were held at or above cost
- The General Partner began deploying the Fund in 2021 and expects to fully invest the Fund in three to five years
  - Vistria maintains a pipeline of several deals from its private equity vehicle and Ms. Hockman expects to build a pipeline of non-Vistria deals in the medium term
- As of July 2022, the Fund was had deployed \$191.8 million across five investments
- Vistria expects to deploy additional capital in the near term through follow-on activity within the existing portfolio

The Vistria Group, LP Prior Investment Performance As of 3/31/22									
(\$mm) Fund	Vintage	# of Inv.		Fund Size	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
		Total	Real.						
Fund I	2021	4	0	\$525	\$130.3	\$0.6	\$132.9	1.0x	4.4%

The Vistria Group, LP Realized Investment Performance As of 3/31/22						The Vistria Group, LP Unrealized Investment Performance As of 3/31/22					
(\$mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR	(\$mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
Fund I	\$0.0	\$0.0	\$0.0	n/a	n/a	Fund I	\$130.3	\$0.6	\$132.9	1.0x	4.4%

- The General Partner is a signatory to PRI and is in the process of becoming TCFD compliant; Vistria established its commitment to ESG in its founding memorandum and maintains both an Impact Policy and Climate Policy, in addition to aligning or collaborating with several organizations including the Global Impact Investing Network (“GIIN”), Impact Management Project (“IMP”), the Sustainability Accounting Standards Board (“SASB”) and the United Nations’ Sustainable Development Goals (“UNSDGs”)
- Vistria integrates ESG due diligence throughout its investment process and value creation planning at portfolio companies, leveraging its PRG and impact professionals to work alongside management teams; however, its governance through the credit strategy is more limited
- The General Partner actively promotes diversity throughout the firm and actively seeks to recruit diverse talent; in addition, Vistria works with portfolio companies to establish DEI policies and increase diversity throughout management teams

## ESG Summary

ESG Policy	Yes	Integration in Decision Making	Integrates ESG during investment committee meetings
ESG-Dedicated Professionals	2 impact professionals; expect to hire a Head of DEI and Head of Impact in the near term	ESG Focus – Planning	ESG is included in strategic planning
Signatories	PRI, GIIN, IMP, SASB and UNSDGs; working towards TCFD	Monitoring	Monitors ESG & impact during due diligence and value creation plans
Environmental Focus	Working towards TCFD compliance; climate dedicated due diligence	Reporting	Annual Impact Report and reporting of portfolio impact KPIs
Diversity	37% female/63% male across all professionals 36% minority/64% majority across all professionals 38% minority/62% majority across all investment professionals 51% minority/49% majority in ownership	Requirements of Portfolio Companies	The GP works with management teams to develop an ESG & impact value creation plan and incentivizes increased ESG & DEI efforts
ESG in Due Diligence Process	ESG due diligence for all investment opportunities		



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## Appendices

Experience of Investment Professionals				
Name	Title	Tot. Exp. (yrs.)	Tenure (yrs.)	Prior Experience
Martin Nesbitt	Co-CEO & Senior Partner	38	9	<ul style="list-style-type: none"> <li>• The Parking Spot, Founder</li> <li>• Pritzker Realty Group, Executive</li> <li>• LaSalle Partners, Vice President</li> </ul>
Kip Kirkpatrick	Co-CEO & Senior Partner	29	9	<ul style="list-style-type: none"> <li>• United Shore, CEO</li> <li>• Water Street Healthcare Partners, Co-Founder</li> <li>• One Equity Partners, Partner</li> </ul>
Katie Hockman	Partner & Head of Debt Capital Markets	27	<1	<ul style="list-style-type: none"> <li>• Antares Capital LP, Managing Director</li> <li>• GE Antares, Managing Director</li> <li>• General Electric, Senior Vice President</li> </ul>

Benchmark Analysis:	An analysis that compares the net IRR of the prior funds to the top-quartile net IRR benchmarks for similar funds (based on strategy and vintage) as reported by the Cobalt LP database. The benchmark data shown is the most recent data available at this time
DPI:	Distributed-to-Paid In = (Amount of Distributions Received)/(Total Amount of Capital Paid-In)
ESG:	Environmental, Social and Governance
Gross IRR:	Internal Rate of Return (“IRR”) of investments at the “fund level,” excludes fees paid by LPs to the General Partner such as management fees and carried interest. For investments held less than one year, Hamilton Lane nominalizes the IRR to match the hold period of the investment in order to represent a more meaningful number
Investment Pacing:	An analysis of the total capital invested during the given years. Includes all prior investments, realized or unrealized
J-curve Benchmark:	Peer (median by age) is calculated by taking the median IRR of similar funds (based on strategy and vintage) in Hamilton Lane’s database at each quarter, which are simulated as investing at the same point in time. The length of time to break the J-curve is calculated from inception to the first time each fund generated a positive net IRR
Loss Ratio Analysis:	An analysis of the capital invested in realized transactions generating different multiples of invested capital
Net IRR:	Annualized Internal Rate of Return (“IRR”) of investments at the LP level inclusive of fees such as management fees and carried interest paid to the General Partner
Net Returns to Limited Partners:	The performance of the General Partner’s prior investment vehicles at the net LP level, inclusive of all fees, carried interest and expenses. Performance data is as reported by the General Partner using actual capital contributions, distributions and net asset value for either all limited partners, or a sample set of limited partners, in the respective funds
Outlier Analysis:	An analysis of the gross returns of investments in prior funds, comparing overall performance against the performance when certain ‘outlier’ transactions are excluded. Outliers are defined as transactions that generate exceptionally positive or negative results
PME Analysis:	Calculated by taking the fund’s monthly cash flows and investing them in the relevant Total Return Index (where all dividends are re-invested). Contributions were scaled by a factor such that the ending portfolio balance would be equal to the private equity net asset value (equal ending exposures for both portfolios). This prevents shorting of the public market equivalent portfolio in order to match the performance of an outperforming private equity portfolio. Distributions were not scaled by this factor. The IRRs were then calculated based on these adjusted cash flows. The selected PME represents the most relevant public market benchmark
Realized Attribution Analysis:	Analysis of the capital invested in, and performance of, the prior realized transactions according to the criteria indicated
Realized Investments:	Hamilton Lane classifies investments as “realized” if it has: i) an unrealized value of less than 20% of the total value; ii) a carrying value that has been written to zero or has been previously written-off; or iii) been fully exited and the GP has no remaining interest in the company
RVPI:	Remaining Value-to-Paid In = (Current Net Asset Value)/(Total Amount of Capital Paid-In)
TVPI:	Total Value-to-Paid In = (Amount of Distributions Received + Current Net Asset Value)/(Total Amount of Capital Paid-In)



Time-Zero IRR:	Represents the gross IRR calculated as if every investment were initiated on the same date
Write-Down Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 1.0x their original cost basis, divided by the total capital invested in all realized investments
Write-Off Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 0.5x their original cost basis, divided by the total capital invested in all realized investments

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HIGHLY CONFIDENTIAL

VISTRIA  
STRUCTURED  
CREDIT FUND I, LP

Q3 2022





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An investment in Interests in the Fund is subject to substantial risks and uncertainties, including the risk that the investor will lose its entire investment. There can be no assurance that the Fund will return any capital contributed by an investor. See “Important Information” below in this Presentation.

This Presentation was not intended or written to be used, and cannot be used by any taxpayer, for the purpose of avoiding penalties that may be imposed on the taxpayer under U.S. federal tax law. This Presentation was written to support the promotion or marketing of the Fund. Each taxpayer should seek advice based on the taxpayer’s particular circumstances from an independent tax advisor.

# The Vistria Group Overview

- Founded in 2013 and headquartered in Chicago with offices in Dallas and New York (expected to open in 2023)
- Focused on delivering attractive financial returns and positive societal impact through a middle-market, sector focused strategy (healthcare, knowledge & learning, and financial services)
- Collectively 300+ years of seeing each targeted industry from the following three perspectives: a disciplined investor, a middle-market operator, and a high-level government/policy perspective (“Power of Three”)
- “Hands-on” approach as a control investor with middle-market companies by leveraging extensive operating partner network and in-house operations team

## EVOLUTION OF THE FIRM

2013 Vistria Founded	TOTAL VISTRIA AUM <sup>3</sup>	TOTAL VISTRIA AUM+ CO-INVEST
2014 Fund I \$400M	\$400M	\$686M
2017 Fund II \$872M	\$1.3B	\$2.4B
2019 Fund III \$1.1B	\$2.4B	\$3.7B
2021+ Fund IV \$2.7B	\$5.6B <sup>2</sup>	\$7.0B <sup>2</sup>

1. Forecasts are inherently uncertain and subject to change. Actual results may vary.

2. Includes \$500M+ from Structured Credit fund

3. “AUM” refers to assets under management



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# FLAGSHIP PRIVATE EQUITY STRATEGY

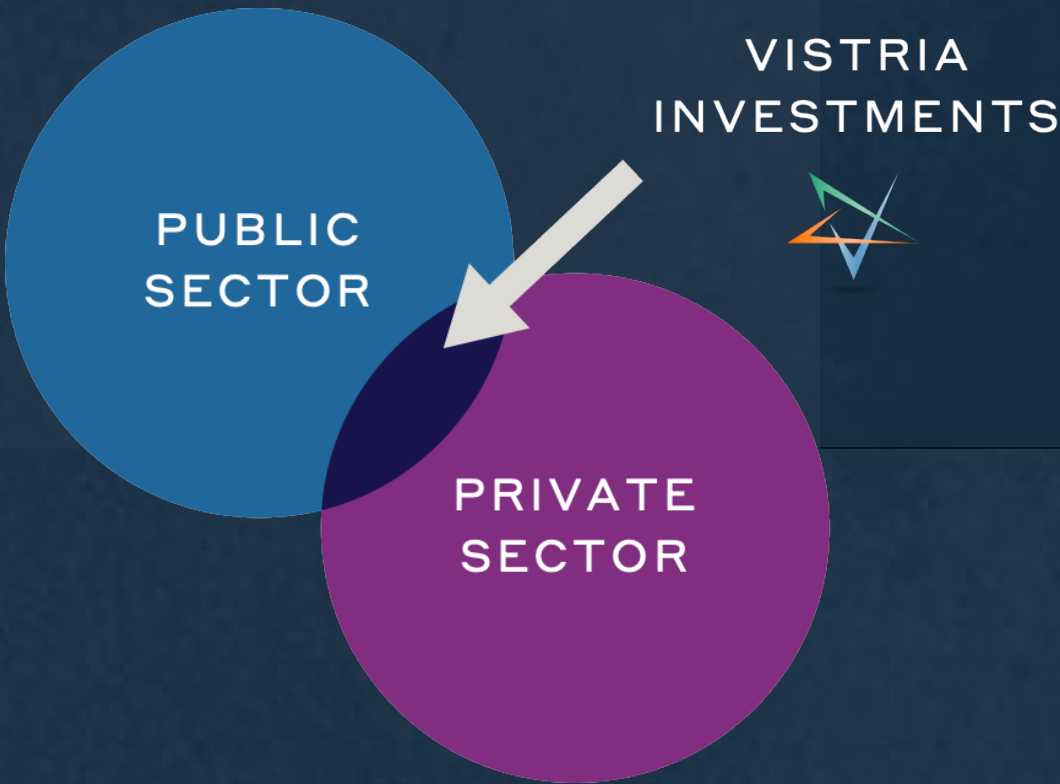


VISTRIA™



# Targeted Industries are Attractive for Investment

We believe Vistria’s Targeted Industries are at the nexus of the public and private sectors and are of strategic importance to the long-term economic success of the United States



“Healthy, Wealthy & Wise”



HEALTHCARE



KNOWLEDGE & LEARNING



FINANCIAL SERVICES



Vistria is focused on making control investments in the U.S. middle market companies and expects to invest in companies with \$10-\$100 million in EBITDA across three Targeted Industries.

- Partners to management
- 3 "Targeted Industries": Healthcare, Knowledge & Learning, Financial Services
- 80+ person team of investment professionals, value creation support and operations
- 35+ current and former portfolio companies (completed 55+ transactions)
- In-house operations team (Portfolio Resources Group) to support portfolio companies in value creation planning and transformational growth
- Expansive operating partner and senior advisor network
- To align interests with its limited partners, The Vistria Group's investment team, operating partners and senior advisors have committed ~\$460 million across its equity, debt and continuation funds

1. Figures are as of May 31, 2022.



# Portfolio Companies



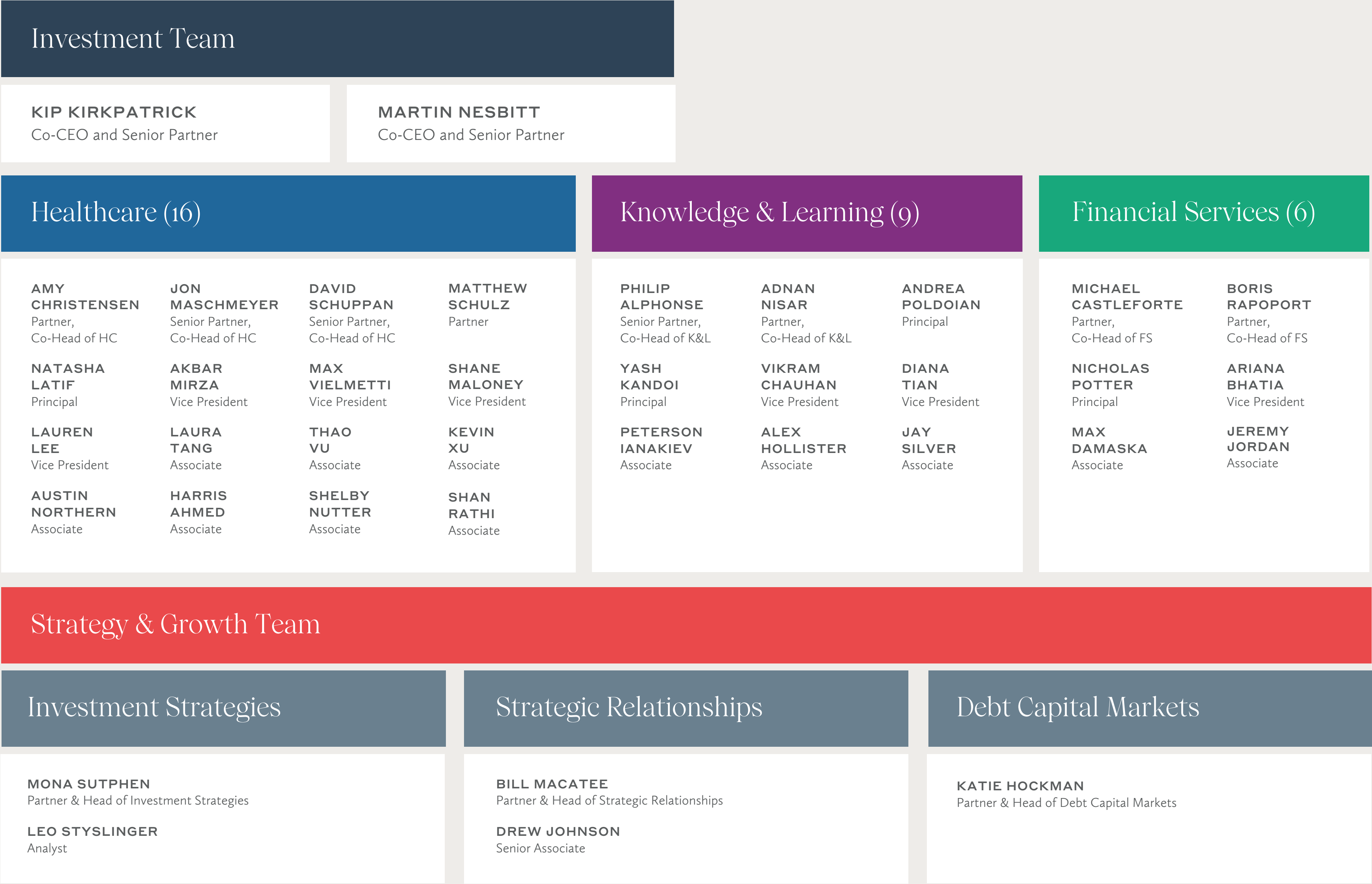
Note: The portfolio companies reflected above may not be representative of all portfolio companies.

For Internal Use Only - DO NOT DISTRIBUTE



# Team Built Specifically to Execute Strategy

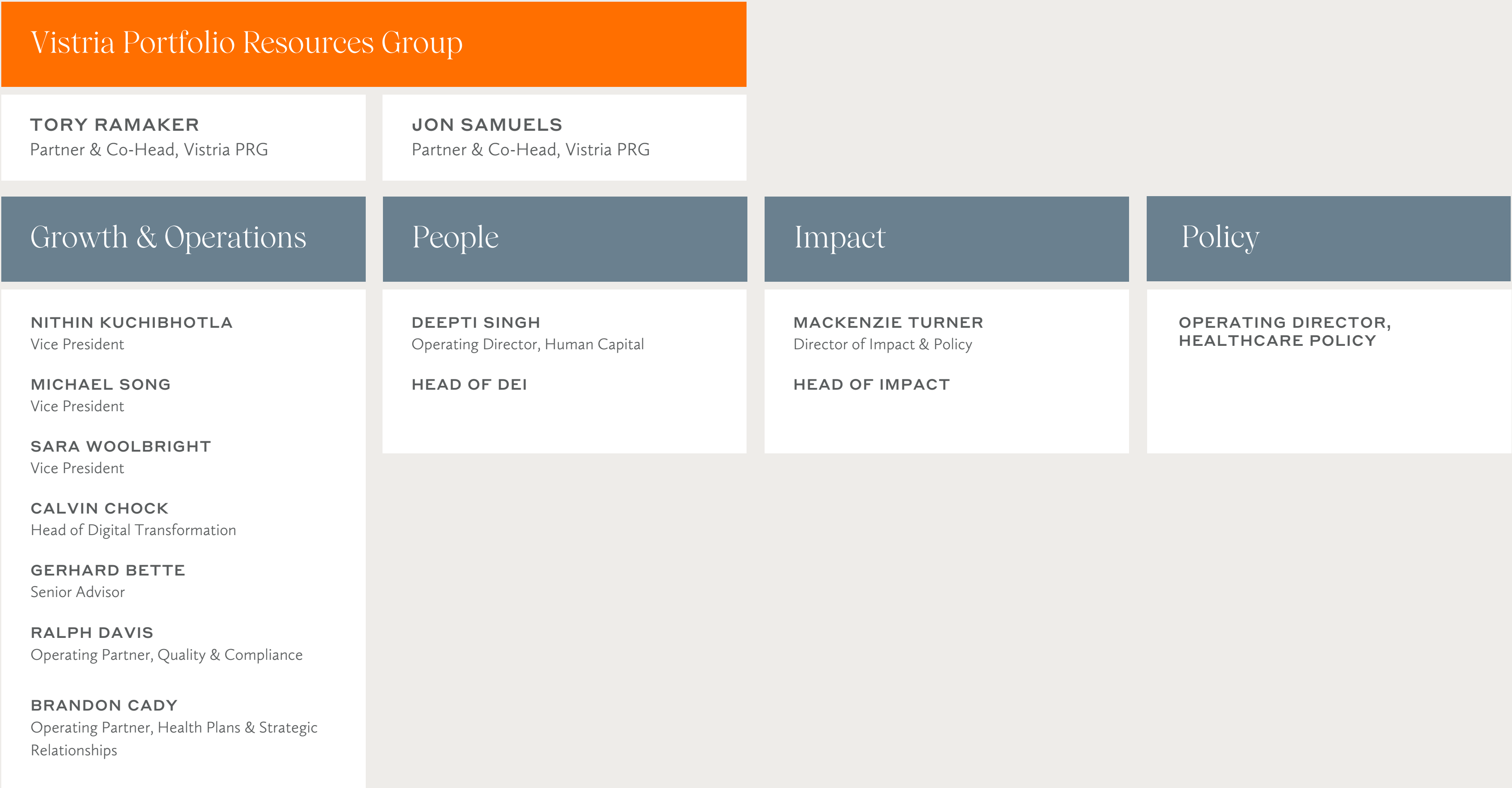
Dedicated Flagship  
private equity  
investment team  
comprised of 38  
professionals (including  
18 partners), organized by  
targeted industries





# Team Built Specifically to Execute Strategy

Portfolio Resources  
Group comprised of  
14 professionals



Vistria PRG, LLC, a Delaware limited liability company owned jointly by Mr. Kirkpatrick and Mr. Nesbitt that is under common control and ownership with Vistria, (“PRG”). PRG provides various services, including without limitation, operational support, specialized operations and consulting services, related services and/or other services to, or in connection with, one or more Vistria fund or portfolio company. In addition, from time to time PRG may provide various services directly to Vistria. Fees and expenses for services provided by PRG directly to a Fund are borne by such Fund (and indirectly the investors in such Fund). Fees and expenses for services provided by PRG directly to portfolio companies are borne by portfolio companies (and are therefore borne indirectly by the Fund holding such portfolio company and the investors in such Fund). For the avoidance of doubt, any fees paid to PRG will not be considered to be Other Fees, will not reduce the Management Fee or otherwise be shared with investors and will be retained by PRG. From time to time Vistria will be required to make allocation determinations with respect to PRG services for the benefit of more than one Vistria fund and/or portfolio company. In such instances, Vistria will make allocation determinations in a fair and equitable manner in its good faith discretion.



# Team Built Specifically to Execute Strategy

Operations team  
comprised of 22  
professionals

Vistria Leadership			
<b>KIP KIRKPATRICK</b> Co-CEO and Senior Partner		<b>MARTIN NESBITT</b> Co-CEO and Senior Partner	
TVG Operations & Administration			
Investor Relations	Human Capital	Legal & Compliance	Finance
<b>ROBERT PARKINSON</b> Senior Partner, IR  <b>GENNELL JEFFERSON</b> Partner, IR  <b>SARAH BERNARDI</b> Head of Office Services & Events  <b>KATHERINE EILERS</b> Senior Associate, IR	<b>MARY DASILVA</b> Chief Talent Officer  <b>COLLEEN DANNEMILLER</b> Manager, People & Culture  <b>DIRECTOR OF RECRUITING</b>	<b>JESSE RUIZ</b> Partner, General Counsel & Chief Compliance Officer	<b>TOM DUFFY</b> Partner, Chief Financial Officer  <b>YULIYA SONSYADEK</b> Fund Controller  <b>JACQUELINE MCARTHUR</b> Treasury Analyst  <b>STEPHANIE SOLOMON</b> Director of Finance  <b>NICOLE CHOI</b> Director of Tax & Compliance  <b>ROB CZUPRYNA</b> Director of Portfolio Valuation
TVG Office Operations			
<b>DORI KAROM</b> Executive Assistant  <b>COLLEEN ALBRECHT</b> Executive Assistant	<b>NICOLE KOUCEREK</b> Executive Assistant  <b>SARABETH MODER</b> Executive Assistant	<b>NATALIE RUELO</b> Executive Assistant  <b>STACEY ARRINGTON</b> Executive Assistant	<b>PAIGE DAVIS</b> Office Services, TVG Chicago  <b>DAWN WILLIAMSON</b> Office Services, TVG Dallas

Vistria takes a systematic approach to thoughtfully developing investment strategies and themes, identifying and closing on investment opportunities, and driving value creation for our portfolio companies



### INVESTMENT STRATEGIES AND THEME DEVELOPMENT

Continuously and proactively identify compelling macro themes, and develop strategies for investing across our targeted industry verticals

Engage with our Operating Partners, Senior Advisors, and broader network to validate themes and determine how Vistria is uniquely positioned to add value

Build fact base on market fundamentals, industry landscape, and actionable investment targets, enabling deal teams to be more effective in sourcing and pursuing deals



### DEAL SOURCING, EXECUTION AND VALUE CREATION PLANNING

Leverage Vistria relationships, along with Operating Partner and Senior Advisor networks, to cultivate relationships and source deals consistent with developed investment strategies and themes

In partnership with Operating Partners and Senior Advisors, further evaluate business fundamentals, upside, and risks based on market understanding, operational experience and regulatory expertise

Launch value creation planning process during diligence, to ensure that Vistria and Management are strategically aligned and agree on priority drivers of growth and business optimization, including Impact and policy



### VALUE CREATION

Finalize the Value Creation Plan in time for deal close and establish Program Management Office

Support management team in pursuing strategic and tactical opportunities during the investment period

Continually monitor company performance and refresh VCP annually to identify upside opportunities and needs for course corrections



# The Combination of Our Strategy, Team, and Approach Enables Vistria to Add Value in Five Key Areas



## STRATEGIC ALIGNMENT

Ensuring clarity of vision, common financial expectations, and aligned incentives

Collaboratively determining long-term strategy and developing Value Creation Plan, including growth and foundational initiatives to be executed



## IMPACT AND POLICY INSIGHTS

Partnering with Management to build industry-leading Impact programs that ensure quality, outcomes, and other objectives are achieved, and greater social and financial value created

Leveraging policy and regulatory knowledge, experience, and relationships to advise companies on how to navigate and take advantage of complex and changing landscapes

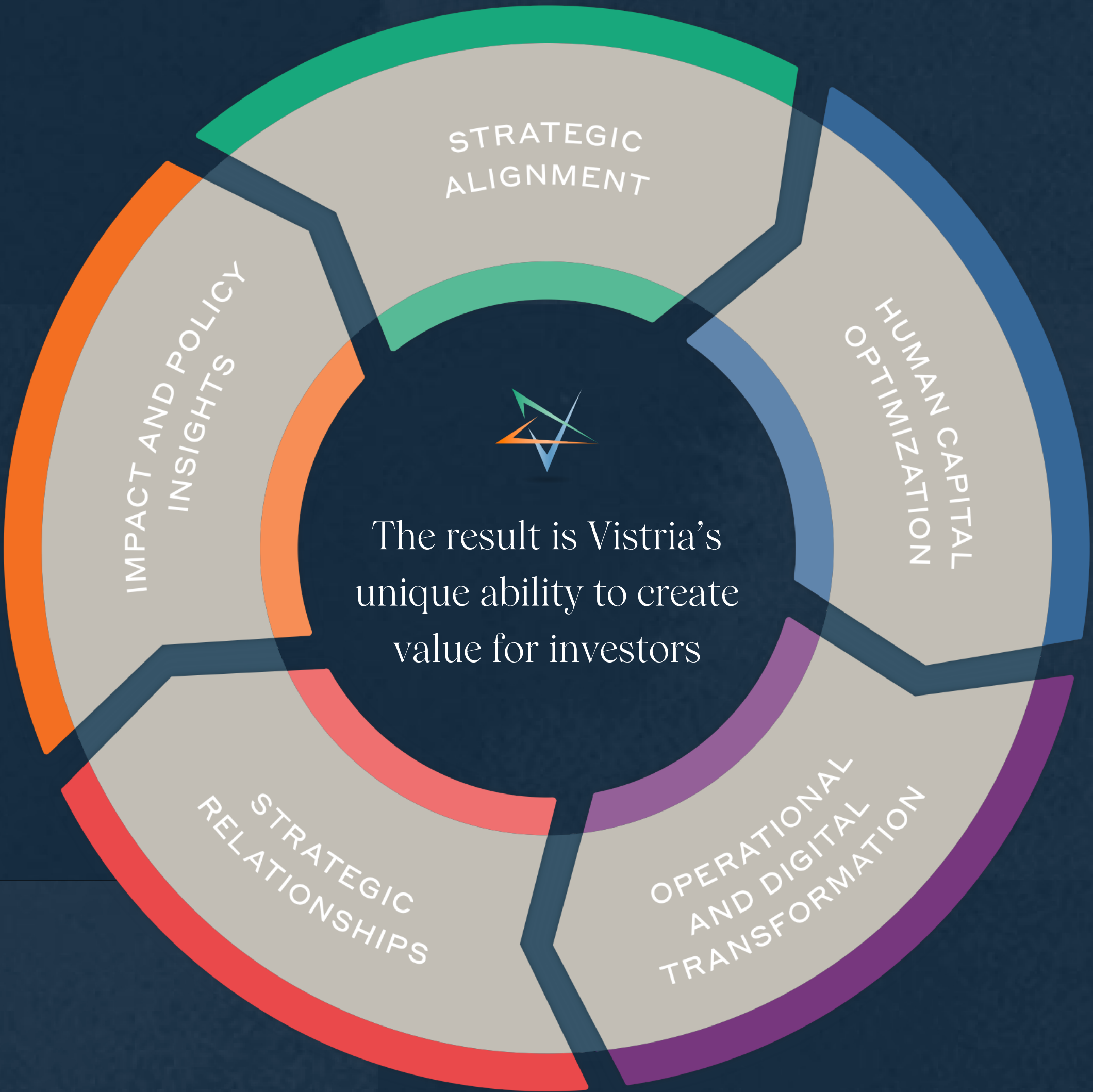


## STRATEGIC RELATIONSHIPS

Facilitating partnerships that drive transformational growth

Bringing Fortune 100 relationships to middle-market companies

“Connecting the dots” and making door opening introductions to strategic customers and partners



## HUMAN CAPITAL OPTIMIZATION

- Ensuring “A Players” are in key roles, through rigorous assessment of management team and recruiting/onboarding to fill gaps
- Tapping networks and engaging industry “heavyweights” to Board and Advisory roles
- Developing culture as a competitive advantage



## OPERATIONAL AND DIGITAL TRANSFORMATION

- Bringing PRG and Operating Partner expertise to bear across the business
- Upgrading commercial and operational capabilities through hands-on PRG involvement and support from “best of breed” experts
- Supporting companies to digitally transform high impact areas such as customer and prospect engagement, data and analytics, and process automation



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# STRUCTURED CREDIT OPPORTUNITY



VISTRIA™



# Vistria – Structured Credit Fund

## THESIS

### PRIVATE EQUITY

Vistria believes that middle market companies participating in the Targeted Industries can struggle to efficiently navigate an increasingly regulated business environment and may benefit from a strategic investment partner to help accomplish their growth objectives



### STRUCTURED CREDIT

Consistent with the underlying thesis for its Equity Funds, the Vistria team believes it offers a mix of varied experiences that it believes are advantageous to help the Firm source and execute transactions in credit. Vistria is seeking to raise a Structured Credit fund, in partnership with a third-party, to complement its Equity Funds

## MISSION

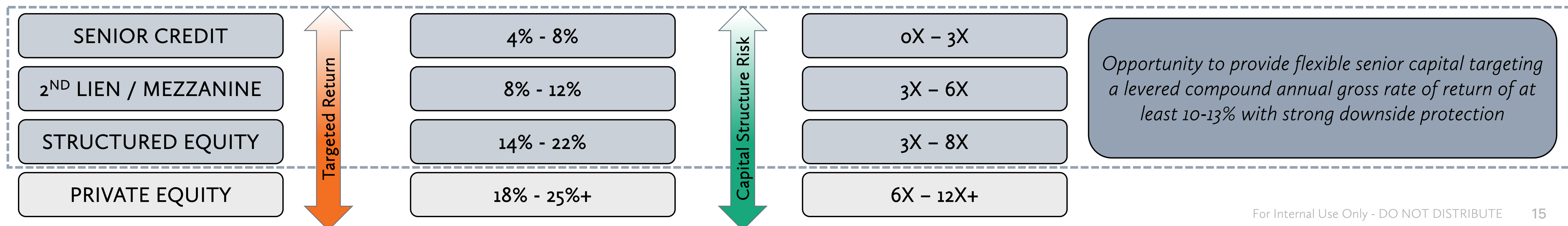
- 1 Generate significant current income and long-term capital appreciation through investments in a range of credit investments
- 2 Provide flexible capital with downside protection and capture attractive risk-adjusted returns for its investors
- 3 Employ flexibility and creativity to originate new investment opportunities while seeking to minimize downside risk and protect principal
- 4 Take advantage of inefficiencies in middle-market financing markets and press Vistria's advantage during periods of market dislocation
- 5 Further leverage Vistria's deep bench of operating talent and infrastructure
- 6 Deepen Vistria's "partnership approach" with a larger footprint

# Vistria – Structured Credit Fund

## STRATEGY

*Investments will target a levered compound annual gross rate return of at least 10-13% while preserving capital and limiting downside risk*

- Through Vistria's Equity Funds (Fund I, Fund II and Fund III), Vistria has a track record of providing these opportunities to third-party capital partners, producing at least 21 actionable opportunities since 2017 (\$1bn+ of potential investment opportunities falling within the Fund's investment objective assuming a \$50mm check size)
  - Vistria is seeking to participate in these opportunities
  - In each instance, Vistria will have a dedicated Credit Team sourcing the transaction and working in concert with a third-party to evaluate and underwrite the opportunity, negotiate favorable terms, and oversee each investment
  - Vistria expects outside parties to often participate in its deals
- Vistria expects to employ modest Fund leverage for the Structured Credit Fund
- Vistria expects to have several actionable deals that could allow the new Fund to deploy capital quickly
  - Vistria may, from time to time, lend to its portfolio companies
- Vistria has a robust sourcing network and many deals do not fit its equity box that could fit the Structured Credit Fund
- The Fund will target primarily senior debt, stretch senior, unitranche and mezzanine debt in middle market companies with at least \$10mm in EBITDA
- Capital provided in this category may be at the time of acquisition by an equity provider or in the form of a recapitalization



## Vistria – Structured Credit Fund

- The genesis of the Structured Credit Fund stems from the numerous attractive risk-adjusted credit opportunities Vistria's Equity Funds have created for third-parties
- The Structured Credit Fund's investment objective is to generate significant current income and long-term capital appreciation through investments in a range of credit investments, including but not limited to corporate loans and securities and asset-backed securities
- Vistria intends to employ flexibility and creativity to originate new investment opportunities while seeking to minimize downside risk and protect principal by negotiating strong creditor rights, performing intensive credit research, maintaining a diversified portfolio, and actively managing all investments
- Vistria believes current market conditions for credit investing are increasingly compelling and will allow it to further leverage its deep bench of operating talent, infrastructure, and institutional partnerships
- Investments will target a levered compound annual gross rate return of at least 10-13% while preserving capital and limiting downside risk
- **The characteristics of a target investment for the fund are as follows:**
  - Seek debt investments with potential equity participation, ranging from \$25mm to \$75mm in companies with revenue that generally range from \$50mm to \$500mm and with EBITDA above \$10mm
  - Senior debt, stretch senior, unitranche and mezzanine debt
  - Focus on Vistria's Targeted Industries
  - Willing to participate in a syndicate
  - 20-30 investments per fund
  - Levered yield of at least 10-13%
  - Origination fee of 1.00%-2.00%



## Fund Benefits

*A Structured Credit Fund offers compelling benefits for Vistria's LPs whether or not they invest in the Structured Credit Fund*

### Equity Fund LPs

- COMPETITIVE LENDING OPTION FROM KNOWN COMMODITY
- ENHANCES CERTAINTY OF FINANCING AND CLOSING WITH OWNER/FOUNDERS
- FURTHER DIFFERENTIATES VISTRIA'S VALUE PROPOSITION
- THIRD-PARTY STRUCTURE HELPS TO AVOID INHERENT CONFLICTS WITH UNDERWRITING

### Structured Credit Fund LPs

- PROVIDE VEHICLE FOR LPS TO INCREASE THEIR CAPITAL COMMITMENT TO VISTRIA-LED TRANSACTIONS
- COMPELLING RISK ADJUSTED RETURNS
- ACCESS TO CONSISTENT, PROPRIETARY INVESTMENT OPPORTUNITIES
- RISKS MITIGATED BY VISTRIA'S INVESTMENT PROCESS & OPERATING OVERSIGHT

# Vistria Structured Credit Team

## LEADERSHIP



KATIE HOCKMAN

*Partner, Head of Debt Capital Markets*

- Managing Director, Antares Capital
- Founding member, BlueStar Ventures
- Associate, ABN AMRO Incorporated
- BSBA, The Ohio State University
- MBA, Northwestern University’s J.L. Kellogg Graduate School of Business

# IMPORTANT INFORMATION

The performance information (the “Information”) set forth herein has been prepared by Vistria to aid in the review by potential investors of an investment for Interests in the Fund. An affiliate of Vistria is the general partner of the Fund.

This Presentation is not being provided in connection with the offering of securities in the Fund or in any other investment vehicle. No contents of this Presentation, either in whole or in part, may be reproduced or redistributed, except as otherwise expressly permitted by Vistria. By receipt of this Presentation, the recipient agrees not to duplicate or furnish copies of this Presentation to persons other than its tax advisers, accountants or legal counsel, and agrees to return it or destroy it at Vistria’s request.

The past performance of investments completed by investment team members is not indicative of future results in investment funds sponsored by Vistria, including the Fund. Differences between past performance and future results may be material and adverse, and an investor in the Fund may lose all or a substantial portion of its investment. Each investment is subject to its own unique risks and the financial performance of investments will vary from investment to investment and those variances may be material. Performance information is unaudited and subject to change. Many inherently uncertain factors can and will impact the Fund’s performance, including changes in market conditions and interest rates, and other economic, political or financial developments. No investment strategy or risk management technique can guarantee returns or eliminate risk in any market environment. The information in

this Presentation is only as current as of the date indicated, and may be superseded by subsequent market events or for other reasons. Statements concerning financial or commodity market trends are based on current market conditions (as determined by Vistria in its sole judgment), which will fluctuate. Any statements of opinion constitute only current opinions of Vistria, which are subject to change. Data contained herein is based upon widely available information about individual securities or investments that Vistria believes to be reliable; however, no guarantee is made as to the completeness or accuracy of such data produced or delivered by third-parties.

The market analysis, projections, targeted returns, estimates and similar information including all statements of opinion and/or belief contained herein are subject to inherent uncertainties and qualifications and are based on a number of assumptions. There can be no guarantee that the facts on which such assumptions are based will materialize as anticipated and will be applicable to the Fund’s investments.

## Notes to Performance

In considering the performance information contained herein, prospective investors should bear in mind that past or targeted performance is not necessarily indicative of future results, and that there can be no assurance that the Fund will achieve comparable results or that the Fund will be able to implement its investment strategy or achieve its investment objectives. The recipient should also bear in mind that past or targeted investment characteristics may not be indicative of future investment characteristics and there can be no assurance that the Fund will have comparable investment characteristics or that target investment characteristics will be achieved. There can be no assurance that a Fund’s investment objectives will be achieved and investment results may vary substantially over time. Investment in a Fund is not intended to be a complete investment program for any investor.

Unless otherwise indicated, all internal rates of return (“IRRs”) are presented on a “gross” basis (i.e., they do not reflect the management fees, “carried interest,” taxes, transaction costs (including in connection with the disposition of unrealized investments) and other expenses to be borne by investors in the Fund, which will reduce returns and, in the aggregate, are expected to be substantial; for a description of such fees, “carried interest” and expenses, see

Appendix A—“Detailed Summary of Principal Terms,” (of the Private Placement Memorandum) and Part 2 of Form ADV maintained by Vistria, a copy of which will be furnished to each investor prior to its admission to the Fund). Prospective investors upon request may obtain a hypothetical illustration of the effect of such fees, expenses and other charges on such returns. Actual realized returns on unrealized investments will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of sale of portfolio investments, all of which may differ from the assumptions on which the valuations used in the prior fund performance data contained herein are based.





SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 8, 2022

Members of the Investment Advisory Council ("IAC")

Re: **SLR Capital-CRPTF Credit Partnership**

Dear Fellow IAC Member:

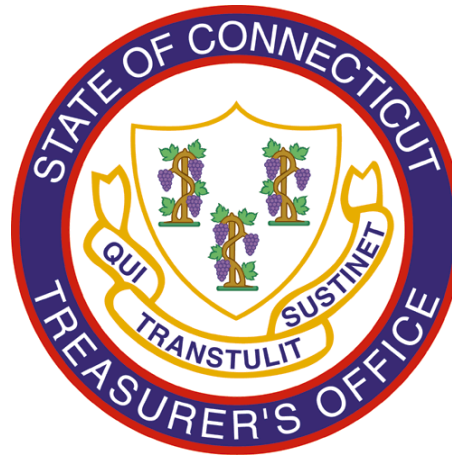
At the September 14, 2022 meeting of the IAC, I will present for your consideration an investment opportunity for the Private Credit Fund ("PCF") in the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): SLR Capital-CRPTF Credit Partnership (the "SLR SMA" or "Fund"). The Fund would be structured as a customized, fund of one vehicle formed to invest in several private credit strategies managed by SLR Capital Partners ("SLR" or the "Firm"). SLR is headquartered in New York, NY and currently has over \$8 billion of investable capital across its public and private credit investment vehicles.

I am considering a commitment of up to \$300 million to the SLR SMA, an evergreen vehicle that will invest alongside the SLR Private Corporate Lending strategies, which include sponsor finance and specialty finance solutions. SLR has developed a scaled origination platform and the specialized underwriting and portfolio monitoring expertise required to successfully invest in cash flow lending as well as several less competitive, market segments. The recommended Fund commitment would allow the CRPTF to gain exposure to SLR's credit expertise in the upper middle market, including niche strategies such as life science finance, asset-based lending, and lender finance.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer, and the due diligence report prepared by Hamilton Lane. I look forward to our discussion of these materials at next week's meeting.

Sincerely,

Shawn T. Wooden  
State Treasurer



Full Due Diligence Report  
Chief Investment Officer Recommendation  
August 26, 2022

SLR Capital-CRPTF Credit Partnership

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# Executive Summary

## Manager Overview

- SLR Capital Partners (“SLR” or the “Firm”)
- Co-founded by Michael Gross and Bruce Spohler in 2006
- Co-founders are supported by approximately 290 professionals, including 135 focused on origination and underwriting
- Headquartered in New York, NY, with 19 offices throughout the U.S.
- Investment advisor to public and private credit investment vehicles with over \$8 billion of investable capital

## Fund Summary

- SLR Capital-CRPTF Credit Partnership (the “Fund”)
- Customized fund of one investing in several Senior Credit strategies
- Primarily North America
- Targeted Fund Size: \$300 million
- GP Commitment: 1%
- Management Fees: 0.65% on the cost basis of average total assets up to \$500 million; 0.55% on the cost basis of average total assets above \$500 MM
- Carry: 12.5%
- Preferred Return: 7%

## Strategic Fit

- Private Credit Fund (PCF)
- Allocation Sizing: \$300 million
- IPS Category: Senior
  - IPS Range for Senior: 30% to 70% of total PCF exposure
  - Senior Exposure: approximately 40% as of March 31, 2022
- PCF Strategic Pacing Plan
  - Long-term Senior targeted exposure: 40% to 50% of total PCF exposure



## Recommendation

- Based on the strategic fit within the PCF portfolio, as well as due diligence done by Pension Funds Management (“PFM”) investment professionals and Hamilton Lane, the Chief Investment Officer of the Connecticut Retirement Plans and Trust Funds (“CRPTF”) recommends consideration of a commitment of up to \$300 million to SLR Capital-CRPTF Credit Partnership.

## Investment Considerations

- Opportunity to partner with SLR, a well-established private credit manager that has generated attractive returns with limited loss experience since inception.
- The Fund would be customized for the CRPTF to provide differentiated and complementary exposure to the PCF’s existing Senior credit exposure.
- Scaled platform and capital base that provides SLR with access to a variety of transaction types, including in less efficient and competitive market segments.

## Firm Background

- Founded in 2006 by Michael Gross and Bruce Spohler, each with over 35 years of investment experience across a range of economic and market cycles.
- Michael Gross was previously a co-founder of Apollo Global Management, and former president and CEO of Apollo Investment Corporation, a publicly traded BDC.
- Bruce Spohler was previously a Managing Director and Co-head of U.S. Leveraged Finance at CIBC World Markets, managing its leveraged finance, high yield, senior, and mezzanine strategies.
- The Firm remains 100% owned and controlled by its two co-founders.

## SLR Platform

- SLR and its affiliates have originated over \$15 billion of middle market credit investments and currently manage over \$8.0 billion of investable capital through one public and several private vehicles.
- The Firm has built a breadth of solutions across sponsor cash flow lending, asset-based lending, lender finance, life science lending, equipment finance, and corporate leasing.
- SLR is the investment advisor to SLR Investment Corp (NASDAQ: SLRC), a publicly traded business development company (“BDC”), which had a private debt portfolio valued at \$1.2 billion as of June 30, 2022.
  - SLRC also holds majority equity interests in several commercial finance companies that support the execution and management of the SLR investment strategies.
- SLR is also the investment advisor to several private credit focused commingled funds, separately managed accounts, and non-listed BDCs created and has several large, institutional investors.

## Leadership & Team

- Gross and Spohler are complemented by a senior leadership team of six Partners that have oversight of specific strategies or responsibility for supporting investment activities across the platform.
  - These six Partners are Krishna Thiyagarajan and Julie Reyes (Sponsor Finance), Mitchell Soiefer (Lender Finance), Cedric Henley (Specialty Finance), Philip Guerin (Originations), Anthony Storino (Life Science Lending).
  - The senior Partners have been with the Firm for 12 years on average and each has significant experience in private credit and in-depth domain expertise in one or more of SLR’s core strategies.
- SLR has a team of 290 professionals, of whom 135 are focused on deal origination and underwriting. With 19 offices across the U.S., the Firm centralizes underwriting in its New York headquarters.

## Investment Committee

- The Fund's Investment Committee will be comprised of six members of SLR's leadership team: Michael Gross, Bruce Spohler, Krishna Thiyagarajan, Philip Guerin, Mitchell Soiefer, and Cedric Henley.
  - The Firm utilizes the same Investment Committee for other SLR-managed vehicles investing in the same strategies targeted for the Partnership.
- The Firm also has distinct investment committees for specific strategies, which would have to first approve an investment before it would be considered by the Partnership's Investment Committee.

## Allocation & Alignment

- The Fund will invest in the same core SLR strategies as SLRC (the publicly traded BDC), SLR's commingled SLR Private Corporate Lending strategy, and other SLR managed private fund, separately managed accounts, and related non-listed BDCs.
- There is a strong alignment of interests across the SLR platform as investments are generally allocated to all vehicles with similar investment strategies, subject to investment guidelines or customized restrictions.
- The SLR team's economic interests are also fully aligned with the success of the Fund and other vehicles across the platform. Senior SLR investment professionals are required to invest a significant portion of their compensation in SLRC.
- SLR's allocation policy is approved by the SEC, and the Firm has developed well-established allocation policies and procedures to avoid potential allocation conflict issues.



## Customized Senior Credit Fund

- The SLR Capital-CRPTF Credit Partnership will invest in several of SLR's core senior credit strategies with targeted equal exposures to Sponsor Finance and Specialty Finance strategies.
- Within the Specialty Finance strategies, SLR will seek to build a portfolio that has equal weighted exposures to Life Science Finance (12.5%), Asset-Based Lending ("ABL", 12.5%), and Lender Finance (12.5%) investments with an additional 12.5% targeted for opportunistic investments across these Specialty Finance strategies.
- The Fund would be structured as an evergreen vehicle and allow the CRPTF to adjust its commitment and targeted exposures on a periodic basis.

## Portfolio Construction & Return Profile

- SLR expects the Fund will hold 50 to 60 investments when the initial portfolio holdings are built over two to three years; the number of holdings should remain in that range as existing investments are realized and replaced with new investments utilizing recycled capital.
- The Fund will have a maximum portfolio level leverage of 1.3x, which is consistent with SLR's leverage practices for vehicles targeting the same diversified, senior credit exposure as the Fund.
- The Fund will target a net IRR of 11% to 13% and target an annualized quarterly distribution yield of 8% to 9%.

## Sponsor Finance

- SLR's Sponsor Finance strategy focuses on providing senior secured debt to private equity backed companies, with a particular focus on companies generating more than \$50 million of EBITDA.
- The SLR Sponsor Finance team targets investments in resilient sectors such as software, healthcare, and business and financial services.
- SLR seeks to partner with the highest quality private equity sponsors having demonstrated sector expertise.
- The Sponsor Finance vertical is led Krishna Thiyagarajan and Julie Reyes, who serve as Co-Chief Risk Officers, and Phil Guerin, who is Chief Marketing Officer and Head of Sponsor Finance.

## Life Science Finance

- SLR's Life Science Finance strategy focuses on highly structured, senior secured loans to private or publicly-traded late-stage drug, medical device, healthcare technology & services companies.
- The SLR Life Science Finance team targets borrowers in late stages of drug or product development that provide significant downside protection through conservative leverage levels, a strong institutional investor base, deep product pipelines, and valuable intellectual property.
- Due to the specialization of SLR's Life Sciences practice, SLR is generally able to structure these investments with call protection, success fees, or warrants.
- The Life Science Finance team is led by Anthony Storino, who has more than 20 years of life sciences investment experience. Storino was the Founder & Head of GE Capital Life Science Finance and all members of SLR's Life Science Finance team previously worked together at GE Capital.

## Asset-Based Lending

- SLR's ABL strategy targets asset-heavy middle market companies, particularly those dealing with a business or market transition that leads to limited access to more traditional financing sources.
- SLR provides a variety of ABL financing options, including factoring, accounts receivable financing, inventory and hard asset lending, equipment financing and leasing.
- The Firm utilizes its expertise in underwriting the liquidation value of collateral, structuring, and active monitoring of advance rates/borrowing bases to generate attractive returns with substantial downside protection.
- SLR's ABL vertical is led by Cedric Henley, Partner and Co-Chief Risk Officer, and Michael Pizette, CEO of SLR Credit Solutions. Henley and Pizette both have more than 30 years of credit investment experience.

## Lender Finance

- SLR's Lender Finance practice primarily focuses on providing senior secured loans to commercial finance companies, including asset-based lenders, factoring companies, leasing businesses, real estate lenders, and small business lenders.
- SLR's target borrowers tend to have portfolios of \$50 million to \$1 billion and are generally not large enough to access the securitization market yet need access to flexible capital not available from banks.
- SLR is highly selective with its Lender Finance investments and utilizes disciplined underwriting practices to provide loans with substantial collateral cushion. SLR is also well-suited to take control of a borrower's portfolio should that be required.
- SLR's Lender Finance strategy is led by Mitch Soiefer, who has been with SLR since 2009 and has more than 15 years of credit and banking experience with SLR, Deutsch Bank, and Goldman Sachs.

## Track Record and Performance

- Since inception, SLR has invested over \$11 billion in its core credit strategies, including Sponsor Finance, ABL, Lender Finance, and Life Science Finance, across various vehicles.
- To assess SLR's long-term track record, PFM investment professionals reviewed the Firm's returns and loss ratios in these core strategies.
- As shown in the table below, SLR has generated attractive gross returns across all core strategies, with exceptionally low loss rates while outperforming the S&P/LSTA Leveraged Loan Index.

(US\$ in billions, as of March 31, 2022)

SLR Capital Partners						
Investment Performance Summary						
Strategy	Inception Year	Capital Invested	SLR			S&P/LSTA Leveraged Loan Index
			IRR	Default Rate	Loss Rate	Annualized Return
Cash Flow Lending	2007	\$5.9	9.2%	0.1%	0.0%	4.5%
Lender Finance	2009	\$1.0	13.4%	0.0%	0.0%	6.5%
Asset Based Lending	2013	\$2.7	12.7%	0.5%	0.1%	4.4%
Life Science	2014	\$1.7	16.9%	0.0%	0.0%	3.9%
Total		\$11.3	11.6%	0.1%	0.0%	

Source: SLR, CRPTF, IRR based on weighted average performance (weighted by dollars invested) on an unlevered asset level basis.

- PFM staff also examined the performance of SCP Private Corporate Lending Fund ("PCLF I"), a commingled fund that invests in the same core strategies targeted by the Fund: Sponsor Finance (64% of investments), ABL (9%), Lender Finance (10%) and Life Sciences (18%).
- As of March 31, 2022, PCFL I had generated results consistent with SLR's expected returns, with no losses and all investments valued at or above cost.
- The fund is still early in its maturation period and distributions have been limited due to capital recycling.

(US\$ in millions, as of March 31, 2022)

SLR Capital Partners												
Investment Performance Summary - PCLF I												
Fund	Vintage Year	Fund Size	Invested Capital	Realized Value	Unrealized Value	Total Value	Gross/Net			Quartile Rank		
							TVM	IRR	DPI	TVM	IRR	DPI
SCP Private Corporate Lending Fund	2019	\$297	\$823	\$438	\$449	\$886	1.1x / 1.2x	9.7% / 16.9%	0.5x / 0.1x	2nd	1st	4th

Source: SLR, CRPTF, Quartile Rank based on Hamilton Lane North America Senior Debt Benchmarks net returns.

Quartile Rank may not be fully representative due to limited sample size.



## SLR Capital-CRPTF Credit Partnership

- The recommended commitment would be categorized under the Senior allocation of the PCF:
  - The IPS sets a target allocation of 30% to 70% for Senior credit within the PCF portfolio based on total exposure, defined as market value plus unfunded commitments.
  - Senior credit strategies represented approximately 40% of the PCF's total exposure as of March 31, 2022.

A commitment to the SLR Capital-CRPTF Credit Partnership would be consistent with several of the PCF's strategic pacing plan objectives as highlighted below.

- ✓ Supporting the PCF's long-term strategic allocation to Senior credit strategies, which is targeted at 40% to 50% of total exposure.
- ✓ Developing strategic partnerships that provide access to multiple private credit strategies through customized investment vehicles managed by well-established platforms.
- ✓ Enhancing diversification of the PCF portfolio through SLR's differentiated strategies and return drivers.

# Strengths and Rationale

## Differentiated and Flexible Investment Strategies

- SLR has established itself as a leader in several specialized lending markets such as life science lending, asset-based lending, and lender finance to which the CRPTF currently has limited exposure.
- These niche verticals also provide attractive risk adjusted return potential as a result of the required expertise to effectively execute specialty lending strategies, which creates barriers to entry and reduced competitive pressure.
- The Firm has developed strong relationships with sponsors, advisors, and shareholders through its consistent focus in SLR's core market segments, leading to strong deal flow.

## Focus on Upper Middle Market and Robust Sourcing Ability

- SLR's significant investable and permanent capital is a competitive advantage. Due to its capacity to hold loans in excess of \$200 million, SLR faces diminished competition from smaller firms that do not have the capital base to serve as the lead lender to upper middle market companies seeking cash flow and specialty financing.
- With deal origination professionals in 19 offices across the U.S., SLR can access a broad and differentiated set of deal opportunities. With different verticals in the credit market, SLR can provide borrowers and sponsors with a flexible, solution-based approach that further differentiates it from competitors.

## Seasoned Team and Solid Investment Approach

- The Firm's co-founders, Michael Gross and Bruce Spohler, have extensive credit investment experience, including senior leadership roles with established private credit platforms before starting SLR.
- The broader SLR senior team has over two decades of private credit investment experiences, including expertise in SLR's core strategies.
- SLR is experienced in protecting downside through well-established underwriting, valuation, structuring, portfolio monitoring, and loan servicing practices. In addition, SLR's Specialty Finance strategies are often able to enhance returns through various terms and conditions.

# Key Risks and Mitigants

## Substantial Growth in Capital Raising

- SLR is raising more capital across its platform, including SLR Private Corporate Lending Fund II and other separately managed accounts, which could cause concerns regarding team capacity.
- SLR is well staffed with more than 290 origination, underwriting, and servicing professionals providing the Firm with ample capacity to manage a larger asset bases.
- SLR's capacity will increase as the investment period for several of the existing SLR-managed have ended or will end in the near term and those portfolios will continue to be realized.

## Potential Conflicts in Managing Allocation across Different SLR Funds and Mandates

- Conflicts and allocation issues may arise, as other SLR managed funds and mandates may co-invest with the SLR Capital-CRPTF Credit Partnership .
- The Firm has developed robust policies, approved by the SEC, to address the allocation of capital and opportunities across different SLR funds and mandates. SLR has significant experience managing potential allocation conflicts across vehicles managed on behalf of large institutional investors.

# Key Terms Summary

Target Size	<ul style="list-style-type: none"><li>• \$300 million</li></ul>
GP Commitment	<ul style="list-style-type: none"><li>• 1%</li></ul>
Investment Targets	<ul style="list-style-type: none"><li>• Sponsor finance, specialty finance</li></ul>
Markets	<ul style="list-style-type: none"><li>• Primarily North America</li></ul>
Fund Term	<ul style="list-style-type: none"><li>• Evergreen</li></ul>
Investment Period	<ul style="list-style-type: none"><li>• 2 - 3 years</li></ul>
Management Fee	<ul style="list-style-type: none"><li>• 0.65% on the cost basis of average total assets up to \$500 MM</li><li>• 0.55% on the cost basis of average total assets above \$500 MM</li></ul>
Waterfall Type	<ul style="list-style-type: none"><li>• Annual based on cash distributions and subject to interim and final clawbacks</li></ul>
Preferred Return	<ul style="list-style-type: none"><li>• 7%</li></ul>
Structure	<ul style="list-style-type: none"><li>• Fund of One</li></ul>
Carry	<ul style="list-style-type: none"><li>• 12.5%</li></ul>
Notes	<p>Management fee includes annual administration fees. Cost basis of average total assets will include leverage used in making the investments.</p>



## SLR Capital Partners, LLC

- In its disclosure to the Office of the Treasurer, SLR Capital Partners, LLC, discloses the following matters:
  - On April 1, 2022, two business development companies managed by SLR merged. While 94% of one of the company's proxies and 98% of the other voted in favor of the transaction, stockholder complaints were filed against both entities concerning allegations around the fairness of the transaction. Between January 17, 2022, and February 22, 2022, a total of eight complaints were filed. SLR states that as of April 14, 2022, all complaints have been voluntarily dismissed by the plaintiffs.
- SLR states that it has no material claims under its fidelity, fiduciary or E&O insurance policies, and no ongoing internal investigations to report. SLR states it has adequate procedures in place to undertake internal investigations of its employees, officers and directors. SLR maintains a Code of Business Conduct that employees acknowledge in writing.

SLR Capital Partners, LLC

## **Review of Required Compliance Attachments**

SLR Capital disclosed no third-party fees, campaign contributions, known conflicts or gifts

## **Corporate citizenship in the State of Connecticut**

None reported

## **Commitment to the diversity, education & training of the industry's next generation**

The firm offers two internship positions for diverse talent with the stated goal of converting the internships to full-time offers. The internships offer competitive salaries plus moving and living expenses to ensure that all candidates, if selected, can participate. The firm is actively exploring opportunities to contribute to college expenses for summer interns in their diversity program who would return to the firm after completing their degree

## **Support for women-owned, minority-owned or emerging businesses**

No written policies, but the firm includes ESG, diversity equity and inclusion and EEO policies as integral parts of the selection and on-going management of its vendors

## SLR Capital Partners, LLC

### Workforce Diversity – SLR Capital + Fincos

SLR Capital is affiliated with SLR Investment Corp (publicly listed BDC) and therefore reported data inclusive of SLR Investment Corp's affiliated financial services entities ("Fincos")

#### SLR Capital provided data as of December 31, 2021

- 296 total employees, remaining fairly constant over the three years

#### For the three-year reporting period:

- The proportion of women and minorities remained the same at the executive levels, management and firm-wide
- Proportion of minority professionals has increased over the three years

#### WOMEN

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>22%</b> 14 of 63	<b>31%</b> 41 of 131	<b>36%</b> 45 of 124	<b>35%</b> 104 of 296
<b>2021</b>	<b>23%</b> 14 of 63	<b>30%</b> 38 of 125	<b>36%</b> 44 of 123	<b>35%</b> 101 of 288
<b>2020</b>	<b>23%</b> 14 of 61	<b>31%</b> 39 of 125	<b>37%</b> 45 of 123	<b>35%</b> 102 of 289

#### MINORITIES<sup>1</sup>

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>8%</b> 5 of 63	<b>13%</b> 17 of 131	<b>17%</b> 21 of 124	<b>16%</b> 46 of 296
<b>2021</b>	<b>8%</b> 5 of 62	<b>13%</b> 16 of 125	<b>15%</b> 18 of 123	<b>15%</b> 42 of 288
<b>2020</b>	<b>8%</b> 5 of 61	<b>12%</b> 15 of 125	<b>14%</b> 17 of 123	<b>13%</b> 38 of 289

<sup>1</sup> 2021 Minority breakdown: 5 exec (1 Hispanic, 2 Asian, 1 Amer Ind, 1 Two+); 17 mgmt (2 Black, 7 Hispanic, 5 Asian, 1 Amer Inc, 2 Two+); 21 prof (2 Black, 11 Hispanic, 7 Asian, 1 Two+)

# Environmental, Social and Governance Analysis

## Overall Assessment : Evaluation and Implementation of Sustainable Principles

SLR Capital Partners has a good integration of ESG factors into its decision-making process. The firm is not a signatory of the UN Principles for Responsible Investment (UN PRI), or any other sustainability-oriented groups. SLR's disclosure detailed a comprehensive list of ESG considerations with an emphasis on the firm's pre-investment due diligence and ongoing monitoring. Julie Reyes, Portfolio Manager and Partner, along with Partner Shelley Nolden oversee all ESG initiatives, policies, and research in conjunction with compliance and executive team oversight. The firm provides some educational materials to staff on ESG topics and is currently evaluating additional training opportunities. SLR uses third party consultants such as Guidepoint, GLG, and Marwood Group to conduct in-depth due diligence research.

The firm has a policy that prohibits investments in manufacturing companies where 10% of revenue comes from conventional weapons or armaments. SLR does not invest in any companies that manufacture firearms. Overall, the firm shows good ESG integration.

## SCORE

2

Criteria	Response
Firm has an ESG policy	Yes
If Yes, firm described its ESG policy	Yes
If Yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
Designated staff responsible for sustainability policies and research	Yes
Firm provides training/resources on sustainability issues, explained sources of ESG-related data	Yes
Signatory/member of sustainability-related initiatives or groups	No
Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	Yes

Criteria	Response
Policy that requires safe and responsible use, ownership or production of guns	No
Enhanced screening of manufacturers or retailers of civilian firearms	Yes
Enhance screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impact	Yes
Merchant credit relationship with retailers of civilian firearms and accessories	No
If Yes, firm confirms compliance with laws governing firearms sales	N/A





Hamilton Lane

# SLR Capital-CRPTF Credit Partnership

Recommendation Report

August 2022

All information contained within this report has been gathered from sources believed to be reliable, including but not limited to the general partner(s), other industry participants and the Hamilton Lane Investment Database, but its accuracy cannot be guaranteed.

The information contained in this report may include forward-looking statements regarding the fund presented or its portfolio companies. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the fund or the portfolio companies, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect our current judgment, which may change in the future.

The past performance information contained in this report is not necessarily indicative of future results and there is no assurance that the fund will achieve comparable results or that it will be able to implement its investment strategy or achieve its investment objectives. The actual realized value of currently unrealized investments will depend on a variety of factors, including future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of sale, all of which may differ from the assumptions and circumstances on which the current unrealized valuations are based.

Any tables, graphs or charts relating to past performance included in this report are intended only to illustrate the performance of the fund or the portfolio companies referred to for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.

By accepting receipt of this investment report and in consideration of access to the information contained herein (together with the investment report, the “Confidential Information”), the recipient agrees to maintain the strict confidentiality of any and all Confidential Information in accordance with the terms of this paragraph. The recipient acknowledges that (i) the Confidential Information constitutes proprietary trade secrets, and (ii) disclosure of any Confidential Information may cause significant harm to Hamilton Lane Advisors, L.L.C. (“Hamilton Lane”), its affiliates or any of their respective businesses. Unless otherwise required by law, the recipient shall not disclose any Confidential Information to any third party. If required by law to disclose any Confidential Information, the recipient shall provide Hamilton Lane with prompt written notice of such requirement prior to any such disclosure so that Hamilton Lane may seek a protective order or other appropriate remedy. Prior to making any disclosure of any Confidential Information required by law, the recipient shall use its reasonable best efforts to claim any potential exemption to such requirement and otherwise shall limit disclosure only to such information that is necessary to comply with such requirement.

The calculations contained in this document are made by Hamilton Lane based on information provided by the general partner (e.g. cash flows and valuations), and have not been prepared, reviewed or approved by the general partner.

Stacked bar charts or pie charts presented in the Strategy section in this report may not equate to 100% per the data labels on the charts due to rounding; however, all stacked bar charts and pie charts equate to 100% using exact proportions.



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## Fund Information

Organization Overview	Fund Overview	Portfolio Construction
<p><b><u>General Partner:</u></b> SLR Capital Partners, LLC (“General Partner”), (“SLR”)</p> <p><b><u>Firm Inception:</u></b> 2006</p> <p><b><u>Team:</u></b> 26 dedicated investment professionals</p> <p><b><u>Senior Partners:</u></b> Michael Gross and Bruce Spohler</p> <p><b><u>Location:</u></b> New York, NY; Lake Forest, IL; Princeton, NJ; Philadelphia, PA; Boston, MA; Wilton, CT; Los Angeles, CA and 12 additional U.S. satellite offices</p>	<p><b><u>Fund:</u></b> SLR Capital-CRPTF Credit Partnership (“SLR Partnership”)</p> <p><b><u>Target Size/Hard Cap<sup>1</sup>:</u></b> \$300 million</p> <p><b><u>Asset Class:</u></b> Private debt</p> <p><b><u>Strategy:</u></b> Senior debt</p> <p><b><u>Substrategy:</u></b> 1<sup>st</sup> lien</p> <p><b><u>Geography:</u></b> United States</p> <p><b><u>Industries:</u></b> Diversified</p>	<p><b><u>Equity Investments:</u></b> 0.5% to 2.5% of investable capital</p> <p><b><u>Target Number of Investments:</u></b> 50 to 60</p> <p><b><u>Max Single Investment Exposure:</u></b> 2.5%</p> <p><b><u>Expected Hold Period Per Investment:</u></b> Approximately 3 years</p> <p><b><u>Target Returns:</u></b> 11% to 13% net IRR</p>

<sup>1</sup> The fund is a customized SMA for CRPTF, which maintains flexibility to increase or decrease its commitment on an annual basis

## Historical Performance

SLR Capital Partners, LLC Prior Investment Performance <sup>1</sup> As of 3/31/22								HL Benchmark Credit As of 3/31/22			PME Benchmark S&P LSTA Leveraged Loan Index As of 3/31/22	J-Curve Benchmark Credit As of 3/31/22
(\$mm)								Spread vs. Top-Quartile			Spread vs. PME	Comparison to Peers (quarters)
Fund	Vintage	Fund Size	% Drawn <sup>2</sup>	DPI	TVPI	Net IRR	Quarters to Break J-Curve	DPI	TVPI	Net IRR		
Fund I	2019	\$297	70%	0.1x	1.2x	16.9%	3	-0.4x	-0.1x	-527 bps	+1256 bps	2 later

SLR Capital Partners, LLC Prior Investment Performance As of 3/31/22		
Asset Class	Strategy Inception Year	Gross IRR <sup>3</sup>
Cash Flow	2007	9.2%
Lender Finance	2009	14.4%
Asset-Based Lending	2013	12.7%
Life Science	2014	16.9%

- SLR has produced attractive returns in its prior fund, which consisted of investments across all of its asset classes, as of 3/31/22
- Since 2007, the General Partner has invested significant capital through various vehicles in its targeted asset classes, generating consistent and attractive returns

## Fundraise Update

- Given the customized nature of the SLR Partnership, CRPTF maintains discretion over its close timing

<sup>1</sup> Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee-paying limited partners and exclude any cash flows from the General Partner's commitment

<sup>2</sup> Percent drawn provided by the General Partner, pro-forma for Q2 2022 capital calls which occurred during the first week of June 2022

<sup>3</sup> As provided by the General Partner

Note: Given the limited sample set within the HL Benchmark, specific to Senior Direct Lending strategies, Hamilton Lane has leveraged a diversified credit benchmark, which does not align with the intended strategy for SLR Capital-CRPTF Credit Partnership

## Key Terms<sup>1</sup>

Term	Summary
Investment Period <sup>2</sup>	Evergreen; ability to extend the investment period annually
Fund Term <sup>2</sup>	Evergreen
GP Commitment	1.0%
Management Fee <sup>2,3</sup>	0.65% of net invested capital up to \$500 million; 0.55% of net invested capital above \$500 million
Fee Offset	100%
Organization Expenses <sup>2, 4</sup>	\$300,000
Carry/Preferred Return <sup>2</sup>	12.5%/7%; full return of contributions
GP Catch-up	100%
Clawback	Yes

<sup>1</sup> Refers to the terms proposed by the General Partner as of June 2022; terms are subject to change during fundraising; <sup>2</sup> Refers to the preliminary terms proposed by the General Partner as of March 2022; <sup>3</sup> Management fees include annual administration fees and net invested capital will include leverage used to make investments; <sup>4</sup> Excludes costs related to the organization and set up of any leverage facility

## Investment Thesis

**Experienced and cohesive investment team supported by the larger SLR platform**

- The General Partner is led by Michael Gross and Bruce Spohler, two highly experienced credit investors, who have worked together for over 20 years
- SLR has developed a strong reputation in the private credit space with its senior investment professionals possessing an average of 23 years of experience and developing deep domain expertise in the General Partner's core asset classes
- SLR benefits from the broader platform, which consists of over 250 additional professionals and a robust back-office team that assists with underwriting, origination, structuring and loan servicing

**Specialized focus on the upper-middle market and deep networks that drive deal flow**

- The General Partner has a historically focused on its four core asset classes, targeting investments in cash flow lending, life science finance, asset-based loans and lender financing
- Given its longstanding tenure, SLR has cultivated relationships with a multitude of financial sponsors and entrepreneurs, leading to direct deal flow that increases its pipeline
- Additionally, through its relationships, the General Partner is able to focus on niche sectors such as life science lending, enhancing its differentiation from peers

**Attractive performance in prior fund with a similar mandate**

- The General Partner has generated attractive performance in Fund I, representative of the strategy the SLR Partnership will target
- SLR focuses on limiting its downside through OID, yield-generating investments and structural protections, demonstrating its ability to effectively preserve capital
- Additionally, the General Partner maintains the ability to enhance its performance through warrants and success fees

## Investment Considerations

**SLR is adequately staffed to deploy capital given the aggregate fundraise**

- The General Partner plans on significantly increasing capital raised
- While investable capital is increasing, SLR typically seeks opportunities in its core asset classes and has experience transacting on larger opportunities, and additionally, existing separate accounts are running off as their investment periods have expired
- Senior investment professionals possess ample experience in addition to SLR's 135+ origination and underwriting professionals, who augment sourcing through local relationships across all asset classes

**The General Partner will be able to effectively construct its portfolio under changing market conditions**

- SLR expects to target a slightly larger allocation to specialty finance within the SLR Partnership, stemming largely from opportunistic exposure, which is intended to be diversified across three specialty finance strategies, rather than four strategies in Fund II
- The General Partner's vehicles all target similar asset classes, with its allocation policy resolving any issues related to portfolio construction through its algorithmic allocation policy
- SLR has effectively navigated various market conditions and earned the reputation as a preferred partner given its knowledge and ability to transact

**SLR will continue to generate attractive performance**

- Fund I is a 2019 vintage fund with a similar strategy to the SLR Partnership; however, it has a reduced allocation to lender finance
- SLR has maintained a consistent strategy since inception across various vehicles and generated attractive returns across each of its four asset classes
- Additionally, its underwriting guidelines allow for heavy downside protection to limit potential losses, demonstrated by its attractive performance, limited write-offs and attractive dispersion of returns



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**Recommendation**

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Based on the analysis and information presented herein, Hamilton Lane believes that a commitment to SLR Capital-CRPTF Credit Partnership, whereby SLR Capital Partners, LLC is the General Partner, works towards achieving the goals set forth for the Connecticut Retirement Plans and Trust Funds. A commitment to the SLR Partnership will establish a relationship with a high-quality General Partner. Taking into account the investment strategy and portfolio diversification objectives of the Private Credit Fund, Hamilton Lane recommends a commitment to the SLR Partnership.

**Robust private credit platform led by a cohesive senior management team**

- The General Partner was co-founded in 2006 by Michael Gross and Bruce Spohler, two experienced private credit investors who maintain prior working experience together
- Messrs. Gross and Spohler are supported by an experienced senior team that averages 13 years of tenure at the firm
- The investment team leverages the broader SLR platform, which is backed by over 135+ origination and underwriting professionals and 155 back-office professionals

**Vertical-dedicated professionals with years of experience working in the private credit space**

- Investment professionals are all aligned to one of SLR's core asset classes and responsible for each stage of the investment process
- The Partner-level investment professionals possess an average of 23 years working in the credit space, demonstrating deep domain expertise
- The General Partner has cultivated deep relationships with financial sponsors due to the sustained focus of the investment professionals on one specific asset class

**Thoughtful team build out with a focus on internal development aims to increase retention and alignment**

- SLR has experienced minimal turnover within its organization and has successfully replaced senior-level investment professionals that departed
- Partner level investment professionals have been at the General Partner for an average of 8 years with most joining at the Associate-level
- SLR emphasizes mentorship across the organization, aiming to hire professionals at the junior level and develop internally

- The General Partner was founded in 2006 as Solar Capital Partners, LLC by seasoned credit investors Michael Gross and Bruce Spohler as an independent private credit investment firm; the General Partner recently rebranded as SLR Capital Partners, LLC
- Mr. Gross was previously a Co-Founder at Apollo Global Management and served as the President and CEO of Apollo Investment Corporation, a publicly traded BDC that he founded while also leading the Apollo Distressed Investment Fund
- Mr. Spohler previously worked as a Managing Director and Co-Head of Leveraged Finance at CIBC World Markets overseeing all of its senior loan, high yield and mezzanine loan strategies and also managing its leveraged finance business
- Messrs. Gross and Spohler primarily focus on managing the firm, while Partners Cedric Henley, Phil Guerin, Mitch Soiefer, Julie Reyes, Anthony Storino and Krishna Thiyagarajan are responsible for overseeing investments in their respective asset classes

**Snapshot:**<sup>1</sup>**Inception/Founders:**

2006/Michael Gross and Bruce Spohler

**AUM:**

\$8.0 billion

**Management Company:**

SLR Capital Partners, LLC

**Headcount:**

26 investment professionals, 135+ origination & underwriting professionals and 155 back-office professionals

**Locations:**

New York, NY; Lake Forest, IL; Princeton, NJ; Philadelphia, PA; Boston, MA; Wilton, CT; Los Angeles, CA and 12 additional U.S. satellite offices

**Strategies/Product Lines:**

Sponsor finance, asset-based lending, lender finance, life science finance, corporate leasing and equipment finance

**Current Leadership:**

Michael Gross and Bruce Spohler

<sup>1</sup> As of June 2022, provided by the General Partner

- SLR manages a broad credit platform that entails multiple different strategies
- Investment professionals source deals across their dedicated verticals and allocate pro-rata across the General Partner's various vehicles
- The General Partner's allocation policy involves multiple criteria including looking at the the amount of investable capital available, specific mandates and if the investment amount meets the target of approximately 2% of investable capital
  - SLR could choose not to pursue deals if it is over allocated to any one industry or asset class even if the potential investment fits its allocation policy

		SLR Capital Partners, LLC				
		Public Investment Vehicle	Private Investment Vehicles			
		SLR Investment Corp. (NASDAQ:"SLRC")	Private Funds (Fund II)	Private Funds (Fund I)	Healthcare Fund	Separately Managed Accounts
Investment Mandate	Sponsor Finance	1st lien	1st lien	1st lien	1st lien healthcare	1st lien
	Specialty Finance	General Industry Asset-Based Lending Life Science Lending Corporate Leasing Equipment Financing	General Industry Asset-Based Lending Life Science Lending Lender Finance	General Industry Asset-Based Lending Life Science Lending Lender Finance	Life Science Lending	Customized

- The General Partner benefits from qualified senior management that has deep experience investing in the private credit space with an average of 27 years of experience
  - Mr. Henley oversees specialty finance at the General Partner and has experience in leveraged finance from his tenure at CIBC World Markets
  - Mr. Guerin leads loan originations at the General Partner and has experience working in sponsored financing during his tenure at Apollo Global Management
  - Mr. Soiefer manages lender financing at SLR and previously worked as an investment banker at Deutsche Bank, working in leveraged finance, equity and M&A transactions
  - Mr. Thiagrajan oversees cash flow lending at SLR and previously managed a private credit fund at Goldman Sachs Asset Management
  - Ms. Reyes oversees cash flows underwriting & portfolio management and previously worked at Goldman Sachs
  - Mr. Storino manages life science financing and previously worked as Head of GE Capital Life Science Finance
- The investment committee has 33% ethnic representation; however, the committee lacks gender diversity

Name	Title	Tot. Exp. (yrs.)	Tenure (yrs.)	2012	2013	2014	2015	2016	2017	2018	Fund I	2020	2021	2022
Michael Gross <sup>1</sup>	Co-Founder & CEO	34	16											
Bruce Spohler <sup>1</sup>	Co-Founder & CEO	37	16											
Phil Guerin <sup>1</sup>	Global Head of Originations	24	8											
Cedric Henley <sup>1</sup>	Chief Risk Officer – Specialty Finance	30	15											
Mitch Soiefer <sup>1</sup>	Head of Lender Finance	14	13											
Krishna Thiagrajan <sup>1</sup>	Co-Chief Risk Officer of Cash Flow Lending	24	12											
Julie Reyes	Co-Chief Risk Officer of Cash Flow Lending & Head of Healthcare Cash Flow Lending	16	14											
Anthony Storino	Head of Life Science Lending	33	8											

 = Tenure with SLR Capital Partners, LLC

 = Total Experience

<sup>1</sup> Denotes members of the investment committee

- SLR is an established private credit investor that primarily conducts its investment activities out of New York, with 18 additional offices across the U.S.
- The General Partner is supported by the broader platform, which consists of approximately 135+ additional underwriting and originations professionals and 155 back-office professionals
  - The broader platform also includes private credit businesses that SLR has acquired as subsidiaries, often led by experienced professionals who have a deep background in the credit space
- The majority of senior professionals are dedicated to one or more asset classes, utilizing their time spent in the space to cultivate relationships and expertise
  - Junior investment professionals possess a broader reach and are shared across the asset classes
- In recent years, SLR has experienced moderate turnover, primarily at the Partner level
- The General Partner has thoughtfully expanded its team, evidenced by the number of senior-level hires
- SLR has implemented multiple DE&I initiatives in addition to starting an internship program for diverse candidates to attract more diverse talent across the firm



**Specialized focus on core asset classes**

- SLR has historically targeted four core asset classes including cash flow lending, life science lending, lender financing and asset-based lending
- The General Partner primarily invests in U.S.-based upper-middle market companies in non-cyclical sectors such as software, business & financial services and healthcare
- SLR primarily intends to pursue first lien senior secured loans in order to limit risk

**Longstanding relationships with sponsors enhances sourcing capabilities**

- The General Partner benefits from its name within the industry and is a known partner for sponsors to finance more niche deals, leading to repeat business
- SLR conducts comprehensive due diligence that includes thorough analyses on each financial sponsor that it intends to pursue alongside potential deals
- The deep networks of senior management also provide additional sourcing channels through other financial intermediaries which drives additional deal flow

**Niche focus across various strategies creates differentiation among direct lending peers**

- While focusing primarily on senior-secured debt, SLR employs a broad reach across several niche asset classes, differentiating itself from traditional direct lenders
- The General Partner targets yield-generative assets that provide downside protection, while also pursuing potential upside through warrants and success fees in its life science vertical

- SLR aims to invest the SLR Partnership largely alongside SLR Private Corporate Lending Fund II L.P. (“Fund II”), utilizing its allocation policy to ensure the increased exposure to the three specialty finance asset classes
- The General Partner intends for Fund II to be comprised of 52.5% to sponsor finance and 37.5% to specialty finance and 10% to opportunistic, which will be invested across the four strategies, while SLR intends to structure the SLR Partnership 50% to sponsor finance and 37.5% to specialty finance and 12.5% to opportunistic, which will be invested across the three specialty finance strategies

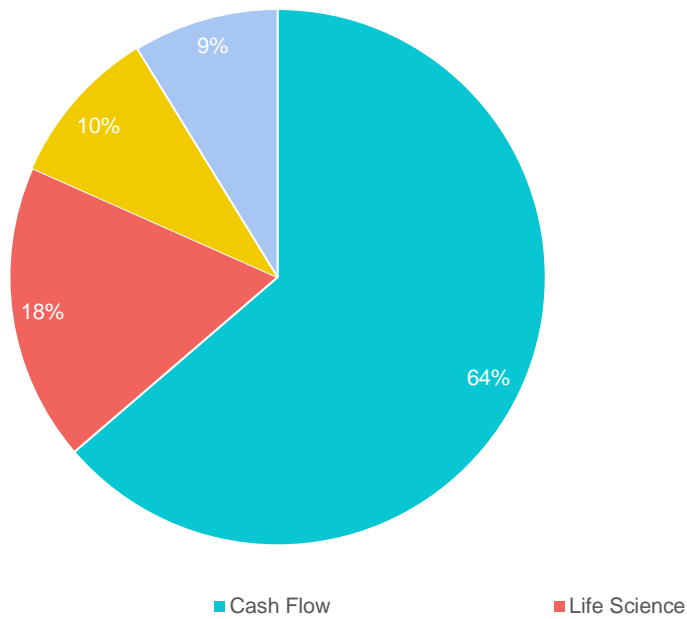
	Strategy Breakdown				
	Sponsored	Specialty			Other
	Cash Flow	Lender Finance	Life Science	ABL	Opportunistic <sup>1</sup>
Fund II	52.5%		37.5%		10.0%
SLR Partnership	50.0%		37.5%		12.5%

<sup>1</sup>Fund II Opportunistic exposure is expected to be diversified across the four SLR strategies, while SLR Partnership Opportunistic exposure is expected to be diversified across the three Specialty Finance strategies.

- The General Partner invests in sponsored financing or cash flow lending and specialty financing, including life science lending, asset-based lending (“ABL”) and lender financing
- SLR intends to allocate approximately 50% of the SLR Partnership to sponsored financing, targeting first lien senior-secured floating rate loans to U.S. sponsor-backed upper-middle market companies
- Life science lending includes first lien senior-secured floating rate loans to U.S. based late-stage healthcare businesses
- Lender financing focuses on working capital loans to commercial finance companies
- ABL involves first lien asset-based floating rate loans to asset-rich companies across various sectors

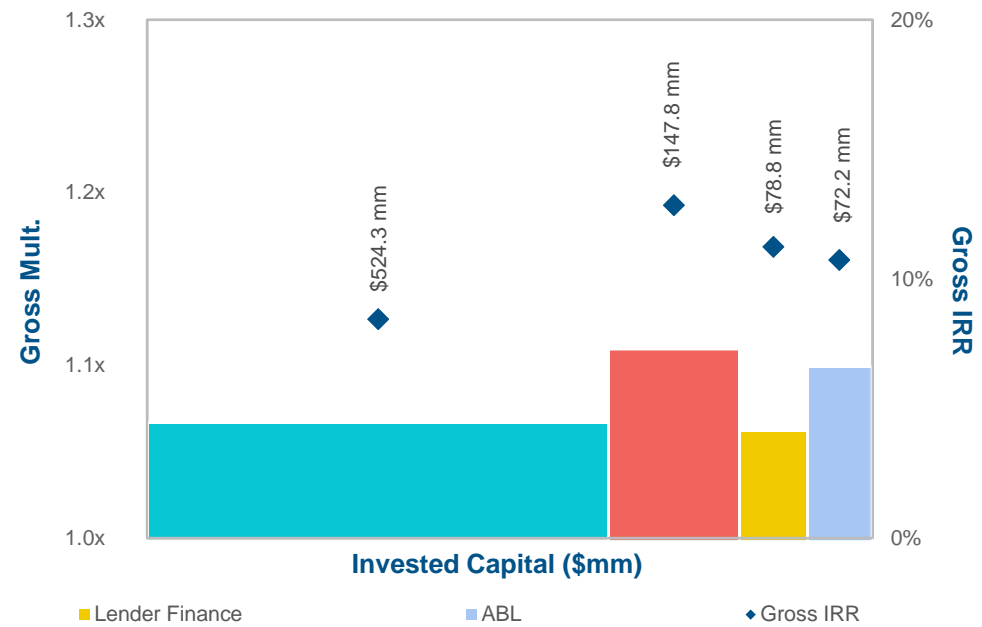
## Prior Fund I Investments - % by Asset Class

As of 3/31/22



## Realized Fund I Performance – by Asset Class

As of 3/31/22



- SLR intends to primarily invest in U.S.-based companies, while opportunistically pursuing investments in Canada
- The General Partner intends to diversify its portfolio across a variety of sectors and maintains a focus on non-cyclical industries such as software, business & financial services and healthcare
  - SLR intends to invest equally across financial services, healthcare, software, business services and other non-cyclical sectors; however, the General Partner is flexible with its allocation parameters depending on market conditions
  - SLR primarily invests in financial services companies for its lender finance deals
- The General Partner leverages its sector specialized investment professionals and their respective domain expertise to source attractive deal flow
- The General Partner primarily intends to originate first lien senior-secured loans and has actively reduced its focus on second lien debt given market conditions
  - SLR may opportunistically pursue second lien opportunities; however, only two Fund I investments were in second lien debt
- SLR continues to primarily originate first lien loans for its lender finance investments
- The General Partner intends to build a portfolio of about 50 to 60 investments ranging between 0.5% and 2.5% of investable capital
  - The average deal size is expected to range between 1% and 2% of investable capital
- The General Partner and its senior management team have longstanding relationships with financial sponsors, corporate management teams, investment banks and other financial intermediaries, which leads to direct deal flow
  - SLR primarily sources opportunities through financial sponsors and conducts diligence on potential investments alongside the sponsors
  - SLR intends to leverage direct sourcing more frequently for its lender finance investments

- Due to the General Partner's direct experience with sponsors, it conducts repeat business regularly and has developed direct experience with multiple management teams across its targeted industries
  - In addition to potential investments, the SLR conducts thorough due diligence on the sponsors themselves and evaluates multiple key criteria including the firm's track record, industry experience, capacity to provide capital and references
  - The General Partner chooses to perform diligence on potential investment areas first and then find suitable sponsors in those areas rather than pursuing sponsor-driven deals that could potentially be in areas outside of SLR's domain
- For its lender finance deals, SLR has previously pursued both sponsored and non-sponsored deals
- SLR maintains a conservative approach to leverage, targeting 1.25x leverage across all asset classes
- However, the General Partner's expects deal-level leverage to differ in each category of its investments:
  - Cash flow lending investments will range from 4.0x to 5.5x total leverage
  - Life science lending investments will generally be below 30% loan-to-value ("LTV")
  - Asset-based lending investments will maintain up to 70% LTV
  - Lender financing investments will have up to 90% LTV
- The General Partner targets cash yielding businesses to enhance its downside protection
- SLR primarily issues floating rate loans with cash flow financing typically priced between 4.5% and 6.5% annually and speciality financing priced at a premium between 6% and 8%
- The General Partner also includes covenants to provide downside protection while warrants, success fees and other structural provisions provide additional upside potential for life science investments.

**Attractive net performance across prior deals within the target asset classes**

- SLR has produced attractive returns in its prior fund, which outperformed comparable senior lending-oriented peers and consisted of investments across all of its asset classes, as of 3/31/22
- Since 2007, the General Partner has invested significant capital through various vehicles in its targeted asset classes, generating consistent and attractive returns
- Additionally, SLR's use of leverage has benefited its net performance, targeting 1.25x portfolio leverage with the ability to increase to 2.0x

**Healthy unrealized portfolio with additional upside expected**

- The General Partner has generated attractive gross performance in Fund I
- All unrealized investments are held at or above cost as of 3/31/22, with additional upside expected through warrants and success fees
- SLR has generated attractive performance across all of its targeted asset classes, as of 3/31/22

**Attractive dispersion of returns driven by emphasis on downside protection**

- Focus on cash yield leads to increased downside protection
- Attractive dispersion of returns with no losses to date and all held at or above cost



- The General Partner has generated attractive returns on a net IRR and TVPI basis in Fund I, as of 3/31/22
- SLR expects to use a credit facility to manage cash flows and bridge capital calls for new investments and expenses
- The General Partner intends to recycle capital, which should benefit its net performance

SLR Capital Partners, LLC Prior Investment Performance <sup>1</sup> As of 3/31/22									HL Benchmark Credit As of 3/31/22			PME Benchmark S&P LSTA Leveraged Loan Index As of 3/31/22	
(\$mm)	Vintage	Fund Size	Capital Drawn	Capital Distributed	NAV	DPI	TVPI	Net IRR	Top-Quartile			PME IRR	
Fund									DPI	TVPI	Net IRR		
Fund I	2019	\$297	\$178.7	\$11.9	\$196.1	0.1x	1.2x	16.9%	0.5x	1.3x	22.2%	4.3%	

<sup>1</sup> Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee-paying limited partners and exclude any cash flows from the General Partner's commitment

- The General Partner has generated attractive performance in its prior fund that is similar to the structure of the SLR Partnership
- As of 3/31/22, the General Partner had no investments held or realized below cost
- The General Partner employs an approach that emphasizes downside protection through cash-generative investments and asset-backed loans, generating an attractive dispersion of returns

SLR Capital Partners, LLC Prior Investment Performance As of 3/31/22									
(\$mm) Fund	Vintage	# of Inv.		Fund Size	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
		Total	Real.						
Fund I	2019	79	24	\$297	\$823.1	\$437.7	\$448.7	1.1x	9.7%

SLR Capital Partners, LLC Realized Investment Performance As of 3/31/22						SLR Capital Partners, LLC Unrealized Investment Performance As of 3/31/22					
(\$mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR	(\$mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
Fund I	\$243.4	\$266.5	\$0.0	1.1x	10.1%	Fund I	\$579.7	\$171.2	\$448.7	1.1x	9.5%

- SLR has generated attractive performance across all prior lender finance deals
  - The General Partner anticipates its allocation to lender finance opportunities to increase in the SLR Partnership as compared to Fund I
- The General Partner has also generated attractive performance across its prior deals in other asset classes

SLR Capital Partners, LLC Prior Lender Finance Investment Performance As of 3/31/22							
Asset Class	# of Inv.		Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
	Total	Real.					
Lender Finance	59	40	\$1,046.4	\$1,032.5	\$307.1	1.3x	14.4%

SLR Capital Partners, LLC Realized Lender Finance Investment Performance As of 3/31/22						SLR Capital Partners, LLC Unrealized Lender Finance Investment Performance As of 3/31/22					
Asset Class	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR	Asset Class	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
Lender Finance	\$695.8	\$918.1	\$0.0	1.3x	15.5%	Lender Finance	\$350.6	\$114.4	\$307.1	1.2x	10.3%

SLR Capital Partners, LLC Prior Investment Performance As of 3/31/22		
Asset Class	Strategy Inception Year	Gross IRR <sup>1</sup>
Cash Flow	2007	9.2%
Asset-Based Lending	2013	12.7%
Life Science	2014	16.9%

<sup>1</sup> As provided by the General Partner

- The General Partner is not a signatory to PRI; however, it leveraged both PRI and SASB guidelines when establishing its ESG policy
- SLR has a five-person ESG Committee that is overseen by Mr. Gross and Mr. Spohler alongside SLR's compliance team
- The General Partner has appointed a Diversity & Inclusion committee to ensure that it is building a diverse team with different backgrounds and representations
- The firm is actively recruiting diverse talent and has implemented an internship program that seeks candidates from diverse backgrounds

## ESG Summary

ESG Policy	Yes	Integration in Decision Making	IC memos include ESG requirements
ESG-Dedicated Professionals	Five non-dedicated ESG Committee members	ESG Focus – Planning	ESG is always included in strategic planning
Signatories	None	Monitoring	Any material ESG updates are shared with the ESG Committee
Environmental Focus	Climate change, natural capital, pollution & waste	Reporting	LPs can request reporting
Diversity	24% female/76% male 33% minority in decision making 0% minority in ownership Efforts to increase diversity? Yes	Requirements of Portfolio Companies	The GP does not maintain any requirements for portfolio companies
ESG in Due Diligence Process	ESG DD		



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## Appendices

Experience of Investment Professionals					
Name	Title	Location	Tot. Exp. (yrs.)	Tenure (yrs.)	Prior Experience
Michael Gross	Co-Founder & CEO	New York	34	16	<ul style="list-style-type: none"> <li>• Apollo Global Management, Co-Founder &amp; Senior Partner</li> <li>• Drexel Burnham Lambert, Investment Banking Associate</li> </ul>
Bruce Spohler	Co-Founder & CEO	New York	37	16	<ul style="list-style-type: none"> <li>• CIBC World Markets, Managing Director</li> <li>• Drexel Burnham Lambert, Investment Banking</li> </ul>
Phil Guerin	Global Head of Originations	New York	24	8	<ul style="list-style-type: none"> <li>• Apollo Global Management, Partner</li> <li>• FirstLight Capital Corporation, Managing Director</li> <li>• GE Capital, Vice President</li> </ul>
Cedric Henley	Chief Risk Officer – Specialty Finance	New York	30	15	<ul style="list-style-type: none"> <li>• CIBC World Markets, Managing Director</li> <li>• Union Bank, Assistant Vice President</li> </ul>
Mitch Soiefer	Head of Lender Finance	New York	14	13	<ul style="list-style-type: none"> <li>• Deutsche Bank, Investment Banking</li> <li>• Goldman Sachs, Financial Analyst</li> </ul>
Krishna Thiagrajan	Co-Chief Risk Officer of Cash Flow Lending	New York	24	12	<ul style="list-style-type: none"> <li>• Goldman Sachs, Vice President</li> <li>• Amarnath Advisors, Vice President</li> <li>• CIBC World Markets, Director</li> </ul>
Julie Reyes	Co-Chief Risk Officer of Cash Flow Lending & Head of Healthcare Cash Flow Lending	New York	16	14	<ul style="list-style-type: none"> <li>• Goldman Sachs, Mezzanine and Investment Banking Analyst</li> </ul>
Anthony Storino	Head of Life Science Lending	New York	33	8	<ul style="list-style-type: none"> <li>• GE Capital, Senior Managing Director</li> </ul>



Benchmark Analysis:	An analysis that compares the net IRR of the prior funds to the top-quartile net IRR benchmarks for similar funds (based on strategy and vintage) as reported by the Cobalt LP database. The benchmark data shown is the most recent data available at this time
DPI:	Distributed-to-Paid In = (Amount of Distributions Received)/(Total Amount of Capital Paid-In)
ESG:	Environmental, Social and Governance
Gross IRR:	Internal Rate of Return ("IRR") of investments at the "fund level," excludes fees paid by LPs to the General Partner such as management fees and carried interest. For investments held less than one year, Hamilton Lane nominalizes the IRR to match the hold period of the investment in order to represent a more meaningful number
Investment Pacing:	An analysis of the total capital invested during the given years. Includes all prior investments, realized or unrealized
J-curve Benchmark:	Peer (median by age) is calculated by taking the median IRR of similar funds (based on strategy and vintage) in Hamilton Lane's database at each quarter, which are simulated as investing at the same point in time. The length of time to break the J-curve is calculated from inception to the first time each fund generated a positive net IRR
Loss Ratio Analysis:	An analysis of the capital invested in realized transactions generating different multiples of invested capital
Net IRR:	Annualized Internal Rate of Return ("IRR") of investments at the LP level inclusive of fees such as management fees and carried interest paid to the General Partner
Net Returns to Limited Partners:	The performance of the General Partner's prior investment vehicles at the net LP level, inclusive of all fees, carried interest and expenses. Performance data is as reported by the General Partner using actual capital contributions, distributions and net asset value for either all limited partners, or a sample set of limited partners, in the respective funds
Outlier Analysis:	An analysis of the gross returns of investments in prior funds, comparing overall performance against the performance when certain 'outlier' transactions are excluded. Outliers are defined as transactions that generate exceptionally positive or negative results
PME Analysis:	Calculated by taking the fund's monthly cash flows and investing them in the relevant Total Return Index (where all dividends are re-invested). Contributions were scaled by a factor such that the ending portfolio balance would be equal to the private equity net asset value (equal ending exposures for both portfolios). This prevents shorting of the public market equivalent portfolio in order to match the performance of an outperforming private equity portfolio. Distributions were not scaled by this factor. The IRRs were then calculated based on these adjusted cash flows. The selected PME represents the most relevant public market benchmark
Realized Attribution Analysis:	Analysis of the capital invested in, and performance of, the prior realized transactions according to the criteria indicated
Realized Investments:	Hamilton Lane classifies investments as "realized" if it has: i) an unrealized value of less than 20% of the total value; ii) a carrying value that has been written to zero or has been previously written-off; or iii) been fully exited and the GP has no remaining interest in the company
RVPI:	Remaining Value-to-Paid In = (Current Net Asset Value)/(Total Amount of Capital Paid-In)
TVPI:	Total Value-to-Paid In = (Amount of Distributions Received + Current Net Asset Value)/(Total Amount of Capital Paid-In)

Time-Zero IRR:	Represents the gross IRR calculated as if every investment were initiated on the same date
Write-Down Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 1.0x their original cost basis, divided by the total capital invested in all realized investments
Write-Off Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 0.5x their original cost basis, divided by the total capital invested in all realized investments

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Presentation to the Investment Advisory Council  
The Connecticut Retirement Plans and Trust Funds (“CRPTF”)



September 6, 2022

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# PRESENTER BIOGRAPHIES

SLR's Co-Founders are seasoned industry veterans with extensive private equity and leveraged finance experience at top tier financial institutions

## Michael Gross (Co-Founder/Co-Managing Partner)



- Apollo Global Management: Co-Founder and Former Senior Partner
  - Apollo Investment Corporation: Founder, Former Chairman, President, CEO and Chairman of the Investment Committee
  - Drexel Burnham Lambert
- Over 35 years of experience*

## Bruce Spohler (Co-Founder/Co-Managing Partner)



- CIBC World Markets: Former Co-head of U.S. Leveraged Finance
  - The Argosy Group: Founding Member and Former Managing Director of the middle-market financing business
  - Drexel Burnham Lambert
- Over 35 years of experience*

**SLR's senior management is supported by a team of dedicated investment professionals with extensive experience in the private equity, leveraged lending, and commercial finance industries**



# SLR PRIVATE CORPORATE LENDING PARALLEL FUND<sup>1</sup> (the “Fund”)

The Fund seeks to offer CRPTF exposure to a differentiated portfolio of Sponsor Finance and Specialty Finance senior secured floating rate loans, which should generate attractive income-driven total returns

## The Fund

- Private credit investing in cash pay, floating rate, first lien senior secured loans
- Diversified portfolio allocated across niche specialty finance private credit asset classes
- Quarterly income distribution, 9-10% annualized target<sup>2</sup>
- Attractive target returns on a relative basis to other yield alternatives, 11-13% annual target net return<sup>3</sup>

## Market Opportunity

- Performing private corporate debt expected to be highly attractive over the medium term due to continued strong demand from maturing debt and private equity dry powder and limited competition in SLR’s strategies
- The duration profile of floating rate loans provides a hedge in a rising rate environment
- Private credit asset class offers investors an illiquidity premium with potentially lower risk, lower volatility and more favorable risk-adjusted returns compared to syndicated leveraged loans and high yield bonds

## Competitive Advantage

- Diversified origination platform with sourcing networks across SLR’s specialty lending strategies
- Experienced and specialized team: senior investment professionals with long-term performance record have an average of over 25 years of investment experience and expertise in specialty finance niches
- Significant capital: ~\$8 billion in investable capital<sup>4</sup> with SLR’s public and private business development company, private credit funds and strategic partnerships allows commitments to larger transactions and the ability to provide full capital structure solutions to its borrowers

1. A separate Fund of One for CRPTF parallel to SLR Private Corporate Lending Fund II (PCLF II).

2. The projected quarterly income distribution is presented for informational purposes only and may not be realized. The actual quarterly income distribution may be materially different.

3. The projected target net return is presented for informational purposes only and may not be realized. The actual net return may be materially different.

4. As of 3/31/2022. Investable Capital includes current and anticipated leverage capacity based on vehicles and accounts currently managed by SLR as well as leverage expected to be incurred by the foregoing (excluding, for the avoidance of doubt, the Fund). Please refer to Form AVD of SLR for further information on its platform assets or Regulatory Assets Under Management (RAUM).

# SLR CAPITAL PARTNERS PLATFORM HIGHLIGHTS

SLR is an independent private credit manager specializing in senior secured lending to upper middle-market companies through customized cash flow and specialty finance debt capital solutions



Key Statistics (as of 3/31/2022)	
Year Founded	2006
Lending Strategies in CRPTF Fund	4
Total Investable Capital <sup>1</sup>	~\$8 bn
Total Debt Investments <sup>2</sup>	~\$16 bn
Investment Professionals / Employees <sup>3</sup>	135 / 290
Offices <sup>3</sup>	19

1. Investable Capital includes current and anticipated leverage capacity based on vehicles and accounts currently managed by SLR as well as leverage expected to be incurred by the foregoing (excluding, for the avoidance of doubt, the Fund). Please refer to the Form ADV of SLR for further information on its platform assets or Regulatory Assets Under Management (RAUM).

2. Includes debt investments made in strategies in which the Fund will not invest.

3. Includes offices and employees of portfolio companies owned by funds managed by SLR.

# COMPREHENSIVE MIDDLE-MARKET SOLUTIONS PROVIDER

The CRPTF Fund of One will have exposure to SLR's four core private debt strategies:

## Sponsor Finance



### Issuer Profile

Upper middle market companies backed by top tier financial sponsors which generate significant cash flow in non-cyclical industries

### Investment Type

First lien senior secured floating rate loans

## Asset-based Loans



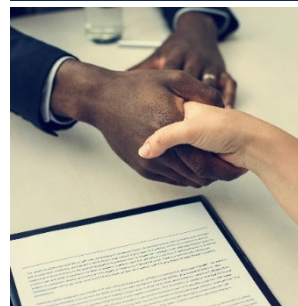
### Issuer Profile

Asset-rich companies with significant collateral value

### Investment Type

First lien senior secured floating rate asset-based loans

## Lender Finance



### Issuer Profile

Commercial finance businesses with strong track records

### Investment Type

First lien senior secured floating rate asset-based loans

## Life Science Finance



### Issuer Profile

Late-stage life science companies with strong strategic and/or venture capital support

### Investment Type

First lien senior secured floating rate life science loans

# UNIQUE PRIVATE CREDIT ORIGINATION PLATFORM WITH A PROVEN TRACK RECORD

By diversifying into specialty finance, SLR has been able to attract top tier talent, expand into new strategies and geographies, and realize our vision of delivering a full suite of capital solutions to the U.S. middle-market while generating attractive total returns for our investors

## DIFFERENTIATED PRIVATE CREDIT PLATFORM

- Integrated investment platform allows SLR to build diversified portfolios of traditional cash flow and specialty finance loans with compelling risk/return profiles
- SLR's niche specialty finance verticals combine asymmetric risk/return characteristics with high barriers to entry and limited competition which drive attractive yields and protective covenant structures
- Significant permanent capital vehicles make SLR more important in the marketplace and provide greater control, flexibility, and patience in the execution of our investment mandates

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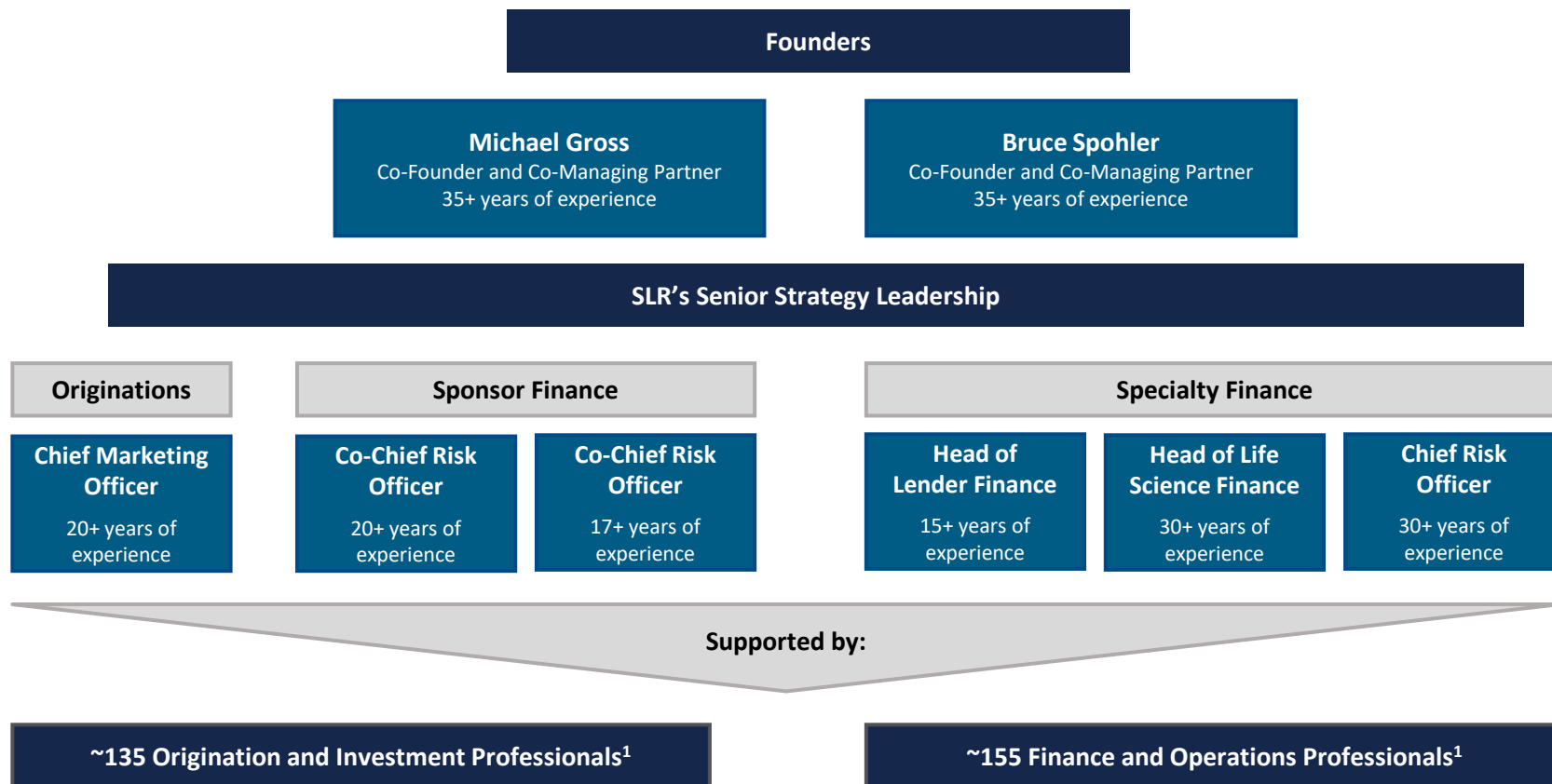
## PROVEN INVESTMENT TRACK RECORD

- Dedicated asset class teams possess multi-decade track records of successfully investing through credit cycles at SLR and predecessor firms
- Since inception, SLR has invested ~\$16 billion in upper middle-market loans and currently manages >\$8.0 billion<sup>1</sup> of investable capital across multiple public and private vehicles

1. As of 3/31/2022. Investable Capital includes current and anticipated leverage capacity based on vehicles and accounts currently managed by SLR as well as leverage expected to be incurred by the foregoing (excluding, for the avoidance of doubt, the Fund). Please refer to Form AVD of SLR for further information on its platform assets or Regulatory Assets Under Management (RAUM).

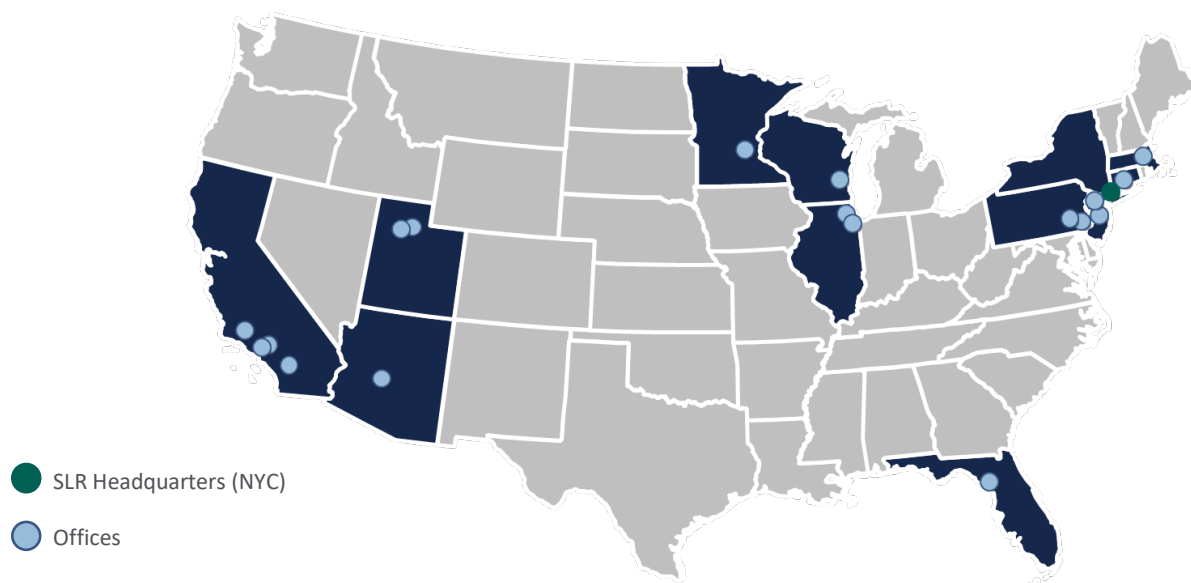
# CYCLE-TESTED SENIOR LEADERSHIP

SLR's founders and senior investment professionals possess decades of experience building and managing large-scale credit focused investment businesses



# FOCUSED ORIGINATION MODEL WITH “BOOTS ON THE GROUND”

With origination professionals in 19 offices<sup>1</sup> and centralized underwriting in NYC, the SLR platform offers investors broad access to both sponsored and non-sponsored businesses in defensive industries, financing the economic rebound in the U.S. and Canada



- SLR's origination model is also distinguished by a product-agnostic, solution-based approach, collaborating with sponsors and management teams to ensure a breadth of opportunities and continuity to deliver steady risk-adjusted returns
- Sponsors and borrowers appreciate the partnership-approach SLR brings to coverage, with originators staying involved through the full investment life-cycle, avoiding hand-offs and changes in personnel from sourcing to structuring, monitoring and even restructuring



# MIDDLE MARKET SENIOR SECURED LENDING: AN ATTRACTIVE STRATEGY

## Large and Growing Market

- The private debt market has grown to almost \$1.3 trillion in total AUM<sup>1</sup>
- Private equity funds have a record ~\$800 billion of dry powder<sup>2</sup>

## Limited Competition

- Stricter regulations have reduced bank competition (i.e., Basel III, Dodd-Frank, and Leveraged Lending Guidelines)

## Significant Scale Benefits

- Experienced lenders with access to large capital pools have a significant capital advantage

## Attractive Income Generation Potential

- Floating rate loans provides a hedge in a rising rate environment
- Private credit offers illiquidity premium over syndicated leveraged loans and high yield bonds
- Income distributed quarterly

## Favorable Portfolio Benefits

- Low volatility asset class with low correlation to other asset classes

# SLR'S CASE FOR INVESTING IN SPECIALTY FINANCE

SLR made its foray into specialty finance with the launch of its asset-based lending strategy in 2009

The firm has since diversified into several additional niche specialty finance asset classes, establishing itself as a full service, comprehensive specialty finance lender

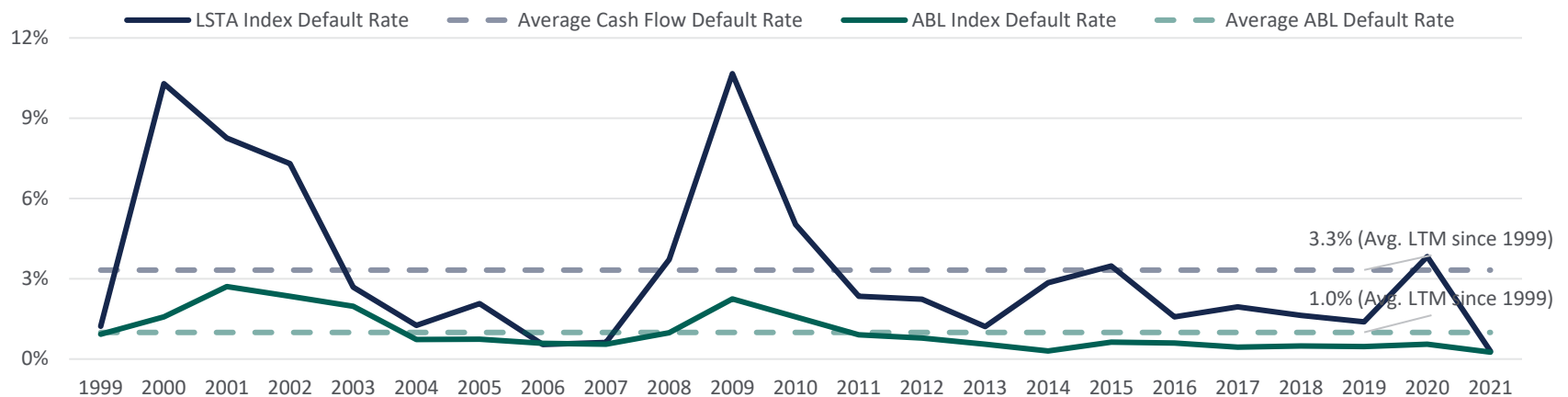
## SLR's Specialty Finance Thesis:

- Flexibility to selectively deploy capital to the most attractive opportunities across market cycles
- High barriers to entry due to specialized knowledge required results in attractive risk / return characteristics
- Since inception, SLR has experienced de minimis defaults / losses on its ABL investments, and no defaults or losses in its commercial finance ABL and Life Science strategies
- Allocations to these higher yielding, lower risk strategies should enable SLR to generate outsized returns relative to other direct lending funds without taking junior capital risk or using excessive fund leverage

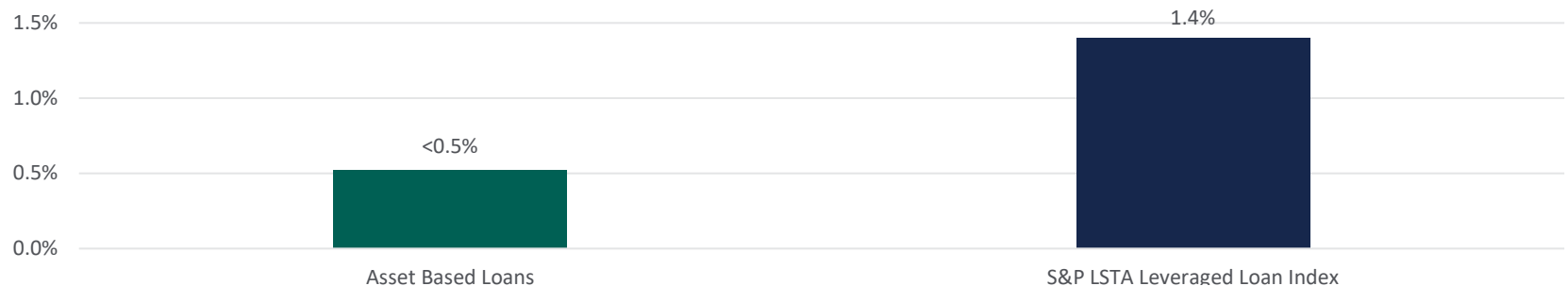
# ASSET-BASED LOANS OFFER ATTRACTIVE RISK RELATIVE TO CASH FLOW LOANS

Asset-based loans have historically experienced lower default and loss rates than cash flow loans

**Lagging 12-Month Default Rate: Asset-Based Loans vs. Cash Flow Loans<sup>1,2</sup>**



**Loss Rates: Asset-Based Loans vs. S&P LSTA Leveraged Loan Index<sup>3</sup>**



1. Cash flow default rate reflects the trailing twelve month default rate by principal amount of the S&P / LSTA Leveraged Loan Index at 12/31 of each year and 9/30/2021.

2. Asset-based loan default rate reflects the average quarterly non-accrual rate of each year for the Asset-Based Lending index maintained by the Secured Finance Association. Latest data available as of December 31, 2021.

3. Long run averages based on data from the 2019 Secured Finance Network Market Sizing and Impact Study and S&P / LSTA and are meant to provide historical context to the relative loss rate differential between cash flow and asset-based loans. This is not meant to be indicative of the current market environment.

# ILLUSTRATIVE CRPTF FUND PORTFOLIO

Allocations to specialty finance lending strategies, with higher expected risk-adjusted returns, should drive outperformance relative to Sponsor Finance-only direct lending funds

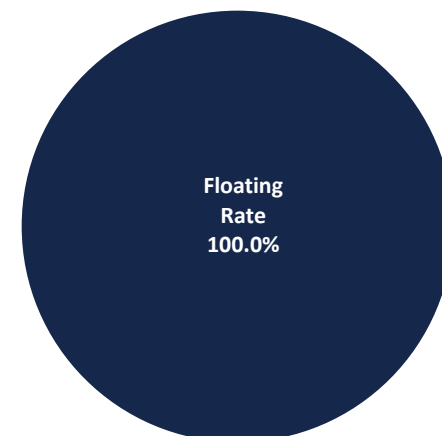
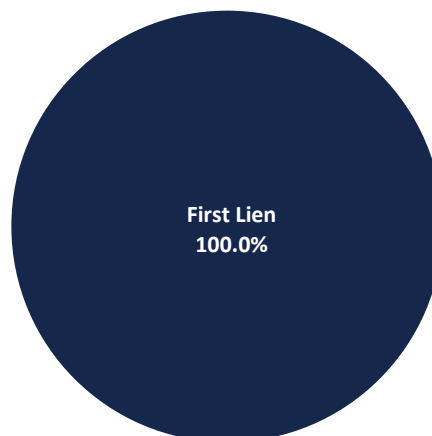
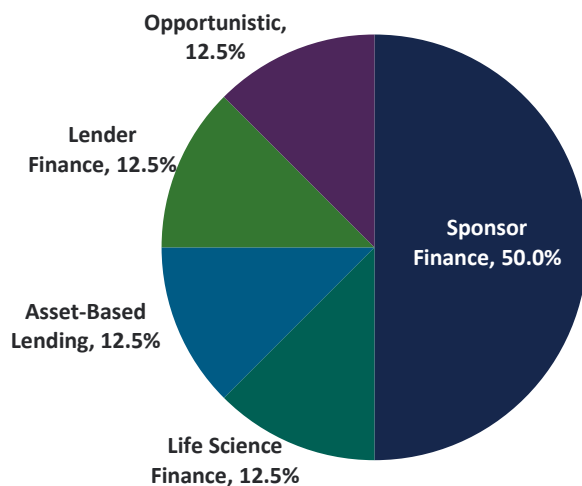
## Number of Positions

- Avg. investment size: 1-2% of commitments
- 50 - 60 positions
- Ramped up over 2-3 years
- Top 10 positions up to 40-50% of commitments

## Portfolio Constraints

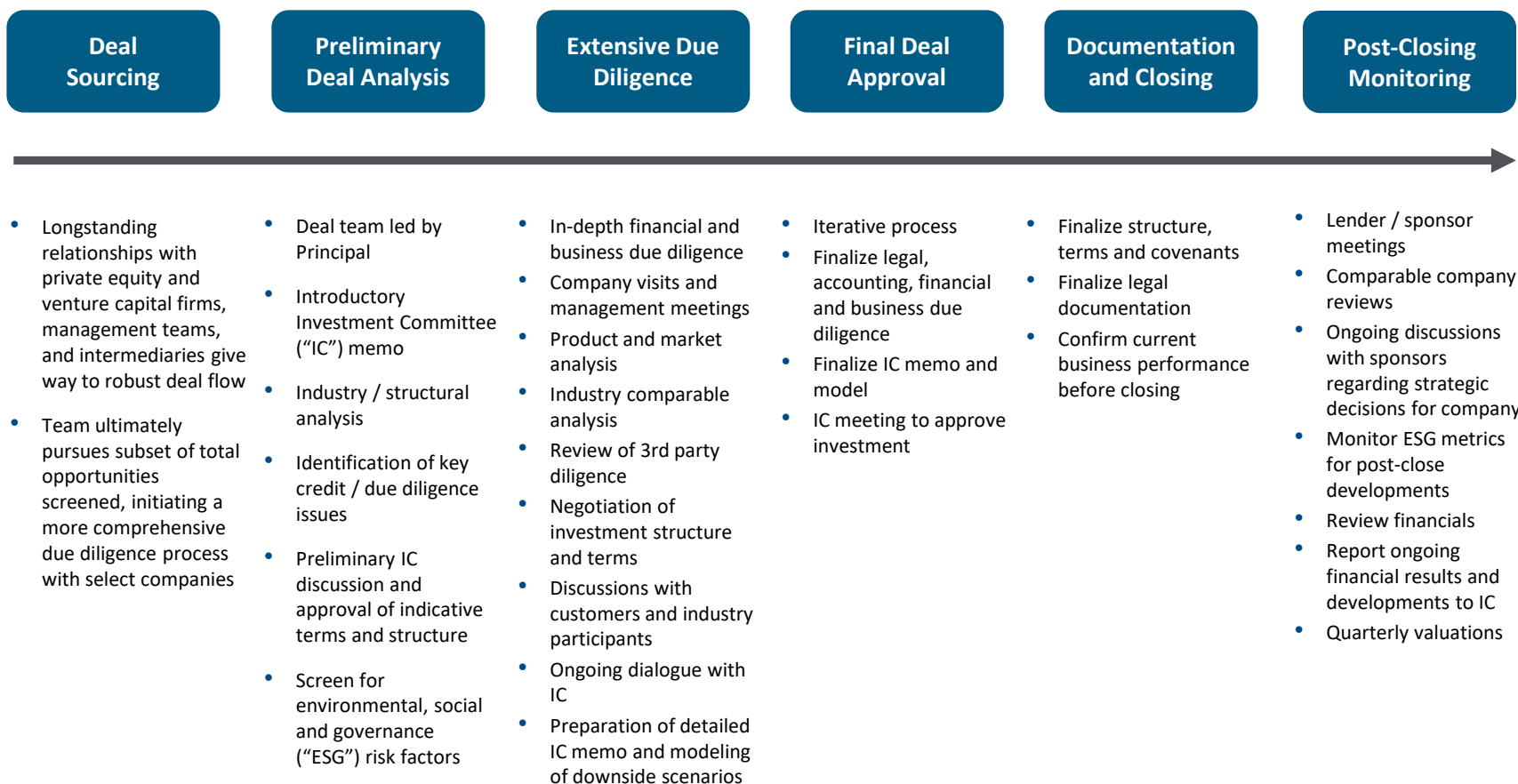
- 10% expected issuer max
- 15% expected industry max

## Estimated Asset Allocation<sup>1</sup>



# INVESTMENT PROCESS

SLR Capital Partners seeks opportunities where they can benefit from being a partner in the transaction



# INVESTMENT EXAMPLES

## Sponsor Finance

- **Issuer Industry:** Non-profit services
- **Company Description:** Provider of software solutions to religious organizations, educational institutions, and other non-profits
- **Investment Thesis:** 20-25% market share, strong customer retention metrics and recurring revenue, diversified customer base, strong end-market demand
- **SLR Investment:** \$120 million first lien senior secured loan
- **Outcome:** SLR was fully repaid via proceeds from the company's sale of a business segment and a refinancing

## Asset-Based Lending

- **Issuer Industry:** Specialty retail
- **Company Description:** Children's specialty apparel retailer
- **Investment Thesis:** Significant asset coverage and highly structured transaction, strong liquidity profile and performance through last recession, historically recession resilient company and industry
- **SLR Investment:** \$80 million first lien senior secured asset-based loan
- **Outcome:** Following closing, the company significantly grew its EBITDA and repaid the loan in full

## Lender Finance

- **Issuer Industry:** Small business finance
- **Company Description:** Asset manager specializing in small and medium-sized business lending
- **Investment Thesis:** Market leadership position as one of the few non-bank diversified tax credit players in the market, Strong & proven track record, Highly visible stream of embedded, future revenue across the permanent capital business
- **SLR Investment:** \$40 million first lien senior secured asset-based loan
- **Outcome:** SLR is in active dialogue with the company around multiple financing opportunities and has funded an additional \$20 million through Q1'22, bringing total exposure to \$77 million

## Life Science Finance

- **Issuer Industry:** Biopharmaceutical
- **Company Description:** Late-stage biopharmaceutical company focused on developing treatments for dermatological diseases and conditions
- **Investment Thesis:** Primary product is a highly effective, non-steroidal topical treatment with a simplified treatment regimen and no comparable drugs available in the market today, multiple indications with FDA approval anticipated in late-2022 and early 2023, substantial equity raised to-date and a large market capitalization provide significant liquidity runway
- **SLR Investment:** \$226 million first lien senior secured life science loan
- **Outcome:** Transaction closed in late 2021 and company has been on pace with FDA approval timelines; market capitalization growth of 30%+ over the last ~6 months despite recent public equity market softness



# SLR'S RESPONSIBLE INVESTMENT COMMITMENT

SLR systematically incorporates Environmental, Social, and Governance (“ESG”) considerations in its investment underwriting process, resulting in more rigorous due diligence and credit analysis while concurrently delivering on the firm’s commitment to investing responsibly

## ESG Integration at SLR

### LEADERSHIP:

- SLR’s ESG Committee consists of representatives from the Investment, Risk Management, and Investor Relations teams. The committee works with the deal teams on all investments

### OVERSIGHT:

- SLR’s ESG initiative is overseen by the firm’s co-founders and compliance

### RESEARCH:

- The firm utilizes research by leading organizations such as the United Nations Principles for Responsible Investment (“UNPRI”) and the Sustainability Accounting Standards Board

### TRAINING:

- ESG Committee members are currently participating in a training program through the UNPRI and are leading weekly training sessions for the investment team

### REPORTING:

- SLR conducts at least annually an ESG Best Practices Review and ESG-focused portfolio review, as well as publishes an annual ESG report

## ESG Integration into SLR’s Investment Process

### NEW INVESTMENTS:

- All new investments are screened in accordance with SLR’s exclusion list
- During the underwriting process, SLR’s ESG Committee and deal teams work collaboratively to identify and assess ESG-related risks
- Every new investment is scored using SLR’s proprietary ESG weighting system

### ONGOING MONITORING:

- Deal teams stay in dialogue with company owners to monitor for portfolio company ESG developments
- On at least an annual basis, the Investment Team reassesses all portfolio companies’ ESG progress and risks and provides an update to the ESG Committee

### ENGAGEMENT:

- As a lender, SLR primarily engages with its portfolio companies’ private equity, venture capital, or other owners regarding ESG concerns

# ESG CONSIDERATIONS

While each investment opportunity is unique, below is a representative list of ESG factors that SLR considers during the underwriting process:

## Environmental

### Climate Change:

- Carbon Emissions
- Product Carbon Footprint
- Financing Environmental Impact
- Climate Change Vulnerability

### Natural Capital

- Water Stress
- Biodiversity & Land Use
- Raw Material Sourcing

### Pollution & Waste

- Toxic Emissions & Waste
- Packaging Material & Waste
- Electronic Waste

### Environmental Opportunities

- Clean Tech
- Green Building
- Renewable Energy

### Innovation

- Physical Impacts of Climate Change

## Social

### Human Capital:

- Labor Management
- Health & Safety
- Human Capital Development
- Supply Chain Labor Standards

### Product Liability

- Product Safety & Quality
- Chemical Safety
- Consumer Financial Protection
- Privacy & Data Security
- Responsible Investment
- Insuring Health & Demographic Risk

### Stakeholder Opposition

- Sourcing
- Community Relations

### Social Opportunities

- Equal Access to Communication
- Equal Access to Finance
- Equal Access to Healthcare
- Equal Opportunities in Nutrition & Health

## Governance

### Board of Directors

- Board Independence
- Nominations
- Performance Evaluation
- Board Member Diversity

### Corporate Governance

- Executive Pay
- Ownership
- Accounting
- Auditor Independence
- Management Diversity
- Shareholder Rights & Voting

### Corporate Behavior

- Business Ethics
- Corporate Tax
- Bribery & Corruption

# DIVERSITY, EQUITY, AND INCLUSION AT SLR

SLR is committed to fostering, cultivating, and preserving a culture of diversity, equity, and inclusion

## A Diverse Workforce

- SLR has meaningful minority and female representation in senior management and across all functional groups of the firm
- Significant percent of the firm's incentive compensation program is allocated to minorities and women

## Recruitment

- For all new job openings, SLR works with recruitment firms and current employees to cast a wide net to ensure inclusion of a diverse set of individuals in the candidate pool
- To strengthen SLR's candidate pipeline from diverse backgrounds, SLR runs a summer internship program with its participants sourced from HBCUs and minority / female student groups at other universities

## Retention

- SLR's DEI Committee meets monthly and is focused on ensuring that the firm is supportive and inclusive of all its employees

## Family-Friendly Programs

- SLR recently launch the employee affinity network, SLRCares, to provide support for its team members who are balancing work and caring for loved ones in early childhood, with disabilities, and seniors
- SLRCares works with senior management to ensure that our policies and programs are consistent with our desire to be a family-friendly employer

## Employee Training

- Programming includes sexual harassment training, subconscious gender/race bias training, and interviewing best practices



**INVESTOR RELATIONS CONTACT INFORMATION:**

P: (212) 993-1670

E: [INFO@SLRCP.COM](mailto:INFO@SLRCP.COM)

FOR MORE INFORMATION:

<https://www.slrcapitalpartners.com/>



SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 8, 2022

Members of the Investment Advisory Council ("IAC")

Re: **Consideration of Centre Lane Credit Partner III**

Dear Fellow IAC Member:

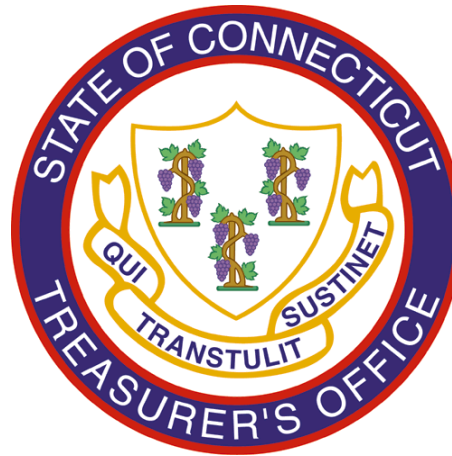
At the September 14, 2022 meeting of the IAC, I will present for your consideration an investment opportunity for the Private Credit Fund ("PCF") in the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): Centre Lane Credit Partner III, L.P. ("CLCP III"). CLCP III has a target size of \$400 million and is being raised by an affiliate of Centre Lane Partners, LLC ("Centre Lane" or the "Firm"), a New York, NY-headquartered private credit and private equity investment management firm.

I am considering a commitment of up to \$100 million to CLCP III, which Centre Lane will utilize to originate senior debt investments in the U.S. middle market, with a particular focus on complex transactions. Centre Lane's credit strategy has enabled the Firm to leverage the synergies of its private credit and private equity platforms, including sector expertise and in-house operational resources, to generate attractive returns with a modest loss experience. A CLCP III commitment would add complementary senior credit exposure to the PCF portfolio through Centre Lane's differentiated market positioning.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer, and the due diligence report prepared by Hamilton Lane. I look forward to our discussion of these materials at next week's meeting.

Sincerely,

Shawn T. Wooden  
State Treasurer



Full Due Diligence Report  
Chief Investment Officer Recommendation  
August 25, 2022

Centre Lane Credit Partners III, L.P.

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# Executive Summary

## Manager Overview

- Centre Lane Partners, LLC (“Centre Lane” or “Firm”)
- Co-founded by Quinn Morgan and Ken Lau in 2007
- Focus on both private credit and private equity in the middle market
- Headquartered in New York, NY
- 35 employees, including five senior investment professionals dedicated to Centre Lane’s Credit strategy led by Upacala Mapatuna, Managing Director & President
- The Firm has invested over \$1.5 billion in each of private credit and private equity since inception

## Fund Summary

- Centre Lane Credit Partners III, L.P. (“CLCP III” or the “Fund”)
- Senior Credit
- Primarily North America
- Target Fund Size/Hard Cap: \$400 million/\$700 million
- GP Commitment: minimum 5%
- Management Fees: 1% on aggregate purchase price of investments
- Carry: 15%
- Preferred Return: 6%

## Strategic Fit

- Private Credit Fund (“PCF”)
- Recommended Commitment: \$100 million
- IPS Category: Senior
  - IPS Range for Senior: 30% to 70% of total PCF exposure
  - Senior Exposure: approximately 40% as of March 31, 2022
- PCF Strategic Pacing Plan
  - Long-term Senior targeted exposure: 40% to 50% of total PCF exposure

## Recommendation

- Based on the strategic fit within the PCF portfolio, as well as due diligence done by Pension Funds Management (“PFM”) investment professionals and Hamilton Lane, the Chief Investment Officer of the Connecticut Retirement Plans and Trust Funds (“CRPTF”) recommends consideration of a commitment of up to \$100 million to Centre Lane Credit Partners III, L.P.

## Investment Considerations

- Seasoned leadership and investment team with demonstrated, attractive track record in senior direct lending.
- Established investment approach focusing on complex transactions bringing complementary senior credit exposure to the PCF portfolio.
- Ability to provide both credit and equity solutions in the middle market generates differentiated deal flow.

## Firm Background

- The co-founders of the Firm, Quinn Morgan and Ken Lau, began working together at Moore Capital in 2001, where they developed a focus on complex middle market, private debt and equity investments.
- In 2004, the co-founders partnered with D.B. Zwirn & Co. (“DBZ”) and further developed their investment approach. In 2007, the co-founders spun out from DBZ and established Centre Lane with the backing of institutional capital.
- Centre Lane maintains the co-founders’ focus on complex, middle market investments.
- The Firm is 100% employee-owned; Investcorp’s Strategic Capital Group has a passive investment in Centre Lane.

## A Synergized Approach across Private Equity and Private Credit

- Centre Lane private equity (“PE”) and Credit investment teams leverage the expertise and resources of one platform, while each strategy is led by dedicated teams.
- The Firm has developed investment expertise, insights, and networks across the Firm’s core sectors: business/finance services, consumer, healthcare, industrials, and technology.
- Centre Lane’s dedicated deal origination team drives differentiated sourcing opportunities for both PE and Credit by positioning the Firm as a flexible capital solutions provider relative to competitors that may only invest in private credit or private equity.
- The Firm’s Portfolio Operations professionals are primarily engaged with PE portfolio companies; however, the Credit strategy and team benefit from the Portfolio Operations team’s industry insights and operating resources as needed.

## Credit Team

- Upacala Mapatuna, Managing Partner and President of Centre Lane, leads the Firm's Credit strategy<sup>1</sup>.
  - Previously, Mapatuna was a Partner and Chief Investment Officer of Victory Park Capital, a specialty finance and special opportunities investment firm.
  - Prior to Victory Park, she was a senior investment professional at Goldman Sachs and previously held investment positions with Warburg Pincus, Mill Road Capital and Lazard Capital Partners.
- The Credit team also includes John Corbett, Chris Holdyk, Vartan Pogharian, and Dan Marcel.
  - Each has had significant prior credit investment experience with firms such as Allianz Global Investors, Victory Park Capital, and Goldman Sachs, and each has developed sector expertise.
- A six-person junior investment team supports the investment professionals dedicated to Credit and PE strategies.

## Firm Leadership & Credit Investment Committee

- The co-founders and Mapatuna comprise the Centre Lane Executive Committee, which is responsible for strategic oversight and personnel matters.
- The Credit Investment Committee includes Morgan, Lau, Mapatuna, and Corbett, each with over 20 years of relevant experience.
- Investment decisions require unanimous support of the Investment Committee members.

<sup>1</sup>. Quinn Morgan and Upacala Mapatuna are married to each other.

## Established Expertise in Complex Transactions

- The Fund will continue to implement Centre Lane's Credit strategy focusing on senior secured, floating rate, income-oriented investments.
- The Firm targets more complex transactions, where it can utilize Centre Lane's expertise in a less efficient and less competitive segment of the middle market.
- Centre Lane utilizes private equity-like diligence to underwrite the risks and opportunities of investments in companies in transition or dealing with financial and/or operational complexities.
- The Credit strategy is not focused on distressed debt or debt for control investments.

## Consistent Focus on the Middle Market

- Centre Lane targets companies with revenue between \$20 million and \$500 million, and EBITDA between \$10 million and \$100 million.
- The Fund will seek investments primarily in Centre Lane's core sectors: business/financial services, consumer, healthcare, industrial, and technology.
- The Credit team pursues opportunities with both private equity sponsored companies and non-sponsored companies. Centre Lane Credit generally does not make credit investment in companies when Centre Lane PE is the control equity sponsor.

## Thoughtful Approach in Portfolio Construction

- The Fund is expected to hold 20 to 25 investments at a given time and 40 to 60 investments over the life of the Fund due capital recycling, which provides for enhanced return potential.
- Centre Lane expects to pursue investments of \$10 million to \$50 million for the Fund mainly across three types of transactions.
  - Complex Primaries often involving smaller opportunities that can result in high yields, lower leverage profiles, and stronger creditor protections.
  - Broken Financing that may arise after a failed financing process, allowing Centre Lane the opportunity to properly price and structure transactions.
  - Idiosyncratic Secondaries involving select negotiated transactions with holders seeking an exit for both single credits and entire portfolios.

# Track Record and Performance

- Over the past 17 years, Centre Lane has invested more than \$1.5 billion in over 100 investments under its Credit strategy, with a gross IRR of 15.8% and an average annual realized loss rate of <20 bps.
  - Approximately 54% of the Firm's credit investments have been in 1st lien investments, approximately 39% in 2nd lien investments, and 7% in equity or other. In terms of rate type, over 91% was of a floating rate structure, and 9% of fixed rate.
  - Investments have been concentrated in the technology, healthcare, consumer, and industrial sectors, each representing 20% to 30% of overall investment activity.
  - Prior Credit vehicles have utilized a modest level of leverage consistent with leverage levels expected for the Fund.
- The CLCP Pre-Fund Portfolio and CLCP I performance ranked in the first quartile for comparable strategies of the 2005 and 2009 vintage years, respectively.
  - The Firm's effective and deliberate use of recycling allowed Centre Lane Credit to generate attractive multiples of invested capital for a credit strategy resulting in top quartile TVM performance.
  - The Pre-Fund Portfolio represents the portfolio of private credit investments the co-founders managed at DBZ and purchased in the spinout to establish Centre Lane. CLCP I was originally set up as an evergreen fund without a drawdown structure and a different fee schedule. The net returns shown below for the Pre-Fund Portfolio and CLCP I are pro forma of a 1.5% management fee and 20.0% carried interest structure.
- CLCP II has performed in line with expectations as of March 31, 2022, with the fund's interim performance muted by the recycling of capital. The fund's return profile is expected to strengthen as the remaining investments mature and lead to increased distributions.

(US\$ in millions, as of March 31, 2022)

Centre Lane Partners													
Investment Performance Summary - Private Credit													
Fund	Vintage Year	Fund Size	# Deals	Invested Capital	Realized Value	Unrealized Value	Total Value	Gross/Net			Quartile Rank		
								TVM	IRR	DPI	TVM	IRR	DPI
CLCP Pre-Fund Portfolio	2005	\$77	12	\$251	\$306	-	\$306	1.2x / 1.6x	18.1% / 15.4%	1.2x / 1.6x	1st	1st	1st
CLCP I	2009	\$84	48	\$256	\$325	-	\$325	1.3x / 1.7x	16.7% / 14.7%	1.3x / 1.7x	1st	1st	1st
CLCP II Funds	2017	\$384	68	\$1,040	\$732	\$466	\$1,198	1.2x / 1.4x	11.7% / 11.5%	0.7x / 0.4x	1st	1st	3rd
Total		\$544	101	\$1,547	\$1,363	\$466	\$1,829	1.2x / 1.5x	15.8% / 14.0%	0.9x / 0.8x			

Source: Centre Lane, CRPTF, Quartile Rank based on Hamilton Lane North America Senior Debt Benchmarks net returns.

Quartile Rank may not be fully representative due to the limited sample size of the Hamilton Lane Senior Debt Benchmark.

Sum of number of deals in funds (128) exceeds total number of deals shown (101) due to certain deals held across multiple funds.



## Centre Lane Credit Partners III

- The recommended CLCP III commitment would be categorized in the senior credit strategy identified for the PCF.
  - The IPS sets a target allocation of 30% to 70% for Senior credit strategies within the PCF portfolio based on total exposure, defined as market value plus unfunded commitments.
  - Senior credit strategies represented approximately 40% of the PCF's total exposure as of March 31, 2022.

The recommended commitment to Centre Lane Credit Partners III aligns well with PCF strategic pacing plan as noted below.

- ✓ Continued buildout of the PCF's core, long-term exposure to Senior credit strategies of 40% to 50%.
- ✓ Partnering with managers executing a differentiated strategy and investment approach to deliver attractive investment returns.

The recommended CLCP III commitment also aligns with the objectives of the Connecticut Inclusive Investment Initiative by allowing the CRPTF to partner with a smaller firm executing a proven, successful strategy.



# Strengths and Rationale

## Synergies across Credit and PE Strategies

- Differentiated from firms of similar size, Centre Lane has substantial experience and ability executing a flexible capital solutions approach through its distinct but complementary middle market private Credit and PE strategies.
- The synergized ability enables the Firm to have a more meaningful dialogue with borrowers, entrepreneurs, advisors, partners, intermediaries, and other participants in its target market.
- Centre Lane possesses robust in-house operational resources that can address challenged companies, while the Firm can also utilize its control, private equity experience to take ownership should a restructuring become necessary.

## Established Expertise and Abilities for Complex Transactions

- Centre Lane is known to have an edge in complex transactions, which positions the Firm as a partner of choice and supports the team's ability to source high quality deal flow.
- The Firm focuses on privately negotiated transactions, which enables the Credit team to leverage its customized and creative approaches to generated outsized returns.
- Centre Lane utilizes active monitoring and structural protections, including covenants, to provide downside protection.

## Seasoned Team in Private Credit

- Centre Lane's senior leadership team is seasoned in the private credit market space. The Firm's Credit professionals each has over a decade of experience in private credit investments.
- The Firm has successfully executed its Credit strategy over different market and economic conditions, including two major recessions.
- Centre Lane's Credit strategy is supported by collaboration and knowledge sharing across the Firm's investment, sourcing, and operating professionals.



# Key Risks and Mitigants

## Risks Related to Complex Situations

- The Fund may invest in companies undergoing significant changes or contemplating special deal structures. There is inherent risk embedded in these complex transactions.
- Centre Lane has had a long history with investments involving a high degree of complexity, including business and capital structures in transition.
- The Firm has established expertise underwriting, structuring, and managing complex transactions. In addition, Centre Lane's PE and Portfolio Operations teams can be brought to bear on Credit investments when necessary.

## Substantial Unrealized Positions in Prior Fund

- As of March 31, 2022, there was \$466 million of unrealized value in the CLCP II Fund portfolio. This may raise concerns that the Credit investment team's capacity to deploy Fund III could be impacted by time allocated to the Firm's existing portfolio investments.
- Centre Lane has started to invest Fund III and will continue to realize and exit its CLCP II portfolio holdings. Due to the focus on companies in transition or dealing with complexities, borrowers generally seek less expensive financing options once the company's operations have normalized, or its complexities have been addressed.

# Fundraising and Key Terms Summary

Target Size / Hard Cap	<ul style="list-style-type: none"> <li>\$400 million / \$700 million</li> </ul>
GP Commitment	<ul style="list-style-type: none"> <li>Minimum of 5.0% of targeted fund size</li> </ul>
Fundraising Status	<ul style="list-style-type: none"> <li>Approximately \$100 million raised</li> </ul>
Target Final Close	<ul style="list-style-type: none"> <li>Early 2023</li> </ul>
Fund Term	<ul style="list-style-type: none"> <li>Five years from the initial closing</li> </ul>
Investment Period	<ul style="list-style-type: none"> <li>Three (3) years from final closing; full recycling during the Investment Period</li> </ul>
Management Fee	<ul style="list-style-type: none"> <li>1.0% on aggregate purchase price of investments</li> </ul>
Fee Discounts & Offsets	<ul style="list-style-type: none"> <li>Connecticut has obtained a favorable fee discount at the \$100 million commitment level</li> </ul>
Carry & Waterfall Type	<ul style="list-style-type: none"> <li>15% / Whole Fund (European)</li> </ul>
Preferred Return	<ul style="list-style-type: none"> <li>6.0%</li> </ul>
GP Catch-up	<ul style="list-style-type: none"> <li>Full catch-up</li> </ul>
Clawback	<ul style="list-style-type: none"> <li>Yes</li> </ul>
Other Key Provisions	<ul style="list-style-type: none"> <li>Connecticut has been offered a seat on the CLCP III limited partner advisory committee</li> </ul>
Additional Provisions	<ul style="list-style-type: none"> <li>The General Partner may extend the Fund term for up to two (2) additional one (1) year periods in its sole discretion.</li> <li>CLCP II will have a 1.0x leverage cap although the general partner generally utilizes and targets fund leverage of approximately 0.5x.</li> </ul>

## Centre Lane Credit Partners, LLC

- In its disclosure to the Office of the Treasurer, Centre Lane Partners, LLC (“Centre Lane” or the “Company”), discloses the following matter:
  - Centre Lane, as the largest shareholder of a company called Erickson Inc., was a party to a lawsuit involving an acquisition. In 2016, a federal court approved a settlement agreement, which was entered into by all parties. There is now a lawsuit to void the settlement agreement. The lower courts have ruled for the defendants, which include Centre Lane, in granting summary judgment, thus dismissing the lawsuit and leaving the settlement in place. While the decision was appealed to the Fifth Circuit Court of Appeals, Centre Lane notes the chances of the dismissal being overturned by that court is very unlikely.
- Centre Lane states that it has no material claims under its fidelity, fiduciary or E&O insurance policies, and no ongoing internal investigations to report. Centre Lane states it has adequate procedures in place to undertake internal investigations of its employees, officers and directors.

Centre Lane Partners, LLC ("Centre Lane Partners")

## **Review of Required Compliance Attachments**

Centre Lane Partners disclosed no campaign contributions, known conflicts or gifts

The firm disclosed no impermissible third-party fees

- Centre Lane Partners will receive management fees from the fund, which are permissible under C.G.S. 3-13l(b)(2).

## **Corporate citizenship in the State of Connecticut**

The firm supports the Toigo Foundation

## **Commitment to the diversity, education & training of the industry's next generation**

The firm is minority-owned and approximately half of the professionals, including senior leadership, are women and/or minorities. The firm's diversity-focused summer internship program is in its fifth year, and the firm tracks internal diversity by department and seniority on a regular basis.

## **Support for women-owned, minority-owned or emerging businesses**

No written policy reported.

# Compliance and Diversity Review

Centre Lane Partners, LLC ("Centre Lane Partners")

## Workforce Diversity

Centre Lane provided data as of May 2022

- 36 total employees, up 16% since 2020
- The firm is minority-owned (Asian)
- 4 of the 5 senior executives are minorities (Asian, including the President, who is also female)

For the three-year reporting period

- Among professionals/managers, the firm promoted 4 minorities and two women (also minority)
- The proportion of minorities in management, and minorities and women at professional levels, increased substantially
- The proportion of women in management decreased
- In 2022, the firm added one Black manager but Hispanic managers decreased (from 3 to 2)

### WOMEN

	EXEC	MGMT	PROF	FIRM
2022	40% 2 of 5	30% 8 of 27	29% 2 of 7	33% 12 of 36
2021	40% 2 of 5	33% 9 of 27	22% 2 of 9	34% 13 of 38
2020	40% 2 of 5	35% 7 of 20	22% 2 of 9	35% 11 of 31

### MINORITIES<sup>1</sup>

	EXEC	MGMT	PROF	FIRM
2022	80% 4 of 5	41% 11 of 27	57% 4 of 7	42% 15 of 36
2021	80% 4 of 5	37% 10 of 27	44% 4 of 9	37% 14 of 38
2020	80% 4 of 5	35% 7 of 20	44% 4 of 9	35% 11 of 31

<sup>1</sup> 2021 Minority breakdown: 4 exec (4 Asian); 11 mgmt (1 Black, 2 Hispanic, 8 Asian); 4 prof (4 Asian)



# Environmental, Social and Governance Analysis

## Overall Assessment : Evaluation and Implementation of Sustainable Principles

Centre Lane's disclosure described a comprehensive framework for ESG integration throughout the life cycle of its investments – from pre-investment phase to monitoring and exit phase. The firm is a signatory to the UN PRI. The firm's Investment Committee oversees ESG investment considerations, while the Operating and Executive Committees manage firmwide ESG matters. The firm disclosed its intention to implement carbon accounting platform software.

Centre Lane does not have a formal policy with respect to civilian firearms retailers or manufacturers, given that it does not have any such relationships.

Overall, the disclosure indicated the firm has good ESG integration with room for improvement with respect to training.

## SCORE

2

Criteria	Response
Firm has an ESG policy	Yes
If Yes, firm described its ESG policy	Yes
If Yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
Designated staff responsible for sustainability policies and research	Yes
Firm provides training/resources on sustainability issues, explained sources of ESG-related data	Yes
Signatory/member of sustainability-related initiatives or groups	Yes
Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	No*

Criteria	Response
Policy that requires safe and responsible use, ownership or production of guns	No*
Enhanced screening of manufacturers or retailers of civilian firearms	No*
Enhance screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impact	Yes
Merchant credit relationship with retailers of civilian firearms and accessories	No
If Yes, firm confirms compliance with laws governing firearms sales	N/A





Hamilton Lane

# Centre Lane Credit Partners III, L.P.

Recommendation Report

August 2022

All information contained within this report has been gathered from sources believed to be reliable, including but not limited to the general partner(s), other industry participants and the Hamilton Lane Investment Database, but its accuracy cannot be guaranteed.

The information contained in this report may include forward-looking statements regarding the fund presented or its portfolio companies. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the fund or the portfolio companies, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect our current judgment, which may change in the future.

The past performance information contained in this report is not necessarily indicative of future results and there is no assurance that the fund will achieve comparable results or that it will be able to implement its investment strategy or achieve its investment objectives. The actual realized value of currently unrealized investments will depend on a variety of factors, including future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of sale, all of which may differ from the assumptions and circumstances on which the current unrealized valuations are based.

Any tables, graphs or charts relating to past performance included in this report are intended only to illustrate the performance of the fund or the portfolio companies referred to for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.

By accepting receipt of this investment report and in consideration of access to the information contained herein (together with the investment report, the “Confidential Information”), the recipient agrees to maintain the strict confidentiality of any and all Confidential Information in accordance with the terms of this paragraph. The recipient acknowledges that (i) the Confidential Information constitutes proprietary trade secrets, and (ii) disclosure of any Confidential Information may cause significant harm to Hamilton Lane Advisors, L.L.C. (“Hamilton Lane”), its affiliates or any of their respective businesses. Unless otherwise required by law, the recipient shall not disclose any Confidential Information to any third party. If required by law to disclose any Confidential Information, the recipient shall provide Hamilton Lane with prompt written notice of such requirement prior to any such disclosure so that Hamilton Lane may seek a protective order or other appropriate remedy. Prior to making any disclosure of any Confidential Information required by law, the recipient shall use its reasonable best efforts to claim any potential exemption to such requirement and otherwise shall limit disclosure only to such information that is necessary to comply with such requirement.

The calculations contained in this document are made by Hamilton Lane based on information provided by the general partner (e.g. cash flows and valuations), and have not been prepared, reviewed or approved by the general partner.

Stacked bar charts or pie charts presented in the Strategy section in this report may not equate to 100% per the data labels on the charts due to rounding; however, all stacked bar charts and pie charts equate to 100% using exact proportions.

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## Fund Information

Organization Overview	Fund Overview	Portfolio Construction
<p><b><u>General Partner:</u></b> Centre Lane Partners, LLC (“General Partner”), (“Centre Lane”)</p> <p><b><u>Firm Inception:</u></b> 2007</p> <p><b><u>Team:</u><sup>1</sup></b> 7 senior credit investment professionals and 6 shared junior investment professionals</p> <p><b><u>Senior Partners:</u></b> Quinn Morgan, Ken Lau and Upacala Mapatuna</p> <p><b><u>Location:</u></b> New York, NY</p>	<p><b><u>Fund:</u></b> Centre Lane Credit Partners III, L.P. (“Fund”)</p> <p><b><u>Target Size/Hard Cap:</u></b> \$400 million/not provided</p> <p><b><u>Asset Class:</u></b> Private debt</p> <p><b><u>Strategy:</u></b> Senior debt</p> <p><b><u>Substrategy:</u></b> Opportunistic senior</p> <p><b><u>Geography:</u></b> North America</p> <p><b><u>Industries:</u></b> Diversified</p>	<p><b><u>Equity Investments:</u></b> \$10 million to \$50 million</p> <p><b><u>Target Number of Investments:</u></b> 40 to 60 (with recycling) 20 to 25 (active)</p> <p><b><u>Maximum Single Investment Exposure:</u></b> Approximately 10%</p> <p><b><u>Target Returns:</u></b> 10% to 15% net IRR; 1.5x TVPI</p> <p><b><u>Expected Hold Period Per Investment:</u></b> Approximately 2 years</p>

<sup>1</sup> Six junior professionals from the credit investment team are shared between the General Partner’s private equity and credit product lines

## Net Performance and Benchmarks

Centre Lane Partners, LLC Prior Investment Performance <sup>1</sup> As of 3/31/22								HL Benchmark Credit As of 3/31/22			PME Benchmark S&P LSTA Leveraged Loan Index As of 3/31/22	J-Curve Benchmark Mezzanine As of 3/31/22
(\$mm) Fund	Vintage	Fund Size	% Drawn <sup>2</sup>	DPI	TVPI	Net IRR	Quarters to Break J-Curve	Spread vs. Top-Quartile			Spread vs. PME	Comparison to Peers (quarters)
								DPI	TVPI	Net IRR		
Fund I	2009	\$84	100%	1.2x	1.2x	14.7%	0	-0.4x	-0.4x	-256 bps	+732 bps	3 earlier
Fund II	2017	384	67%	0.7x	1.2x	11.5%	0	-0.1x	-0.2x	-275 bps	+732 bps	1 earlier
Total				0.9x	1.2x	12.9%					+775 bps	

## Fundraise Update

- First close expected in August 2022 on approximately \$100 million
- Interim rolling closes expected throughout 2H 2022
- Final close targeted for early-2023

<sup>1</sup> Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee-paying limited partners and exclude any cash flows from the General Partner's commitment. Additionally, given the unique structure of Fund I, the net cash flows provided by the General Partner during Hamilton Lane's diligence represented asset-level cash flows, with assumed management fees and carried interest paid by a first close investor that continued its exposure through the life of the Fund. Actual net contributions, distributions and returns may vary.

<sup>2</sup> Percent drawn provided by the General Partner

Note: Funds I and II do not include recycling or reinvesting recyclable distributions in the chart; as of 3/31/22, when accounting for recycling and reinvesting recyclable distributions, Fund I generated a 1.7x DPI & 1.7x TVPI, and Fund II generated a 0.4x DPI and 1.4x TVPI

## Key Terms<sup>1</sup>

Term	Summary
Investment Period	3 years
Fund Term	5 years; + 2 one-year extensions at the discretion of the General Partner; + additional extensions with advisory board or limited partner approval
GP Commitment	At least 5.0% (\$20 million)
Management Fee	1.0% of net invested capital (including leverage)
Fee Discount	10 basis point discount for first close investors; 10 basis point discount on commitments greater than \$50 million
Fee Offset	100%
Organization Expenses	\$1.5 million
Carry/Preferred Return	15%/6%; full return of contributions
GP Catch-up	100%
Clawback	Yes

<sup>1</sup> Refers to the terms proposed by the General Partner as of July 2022; terms are subject to change during fundraising

## Investment Thesis

### Experienced senior investment team benefiting from the broader platform

- The General Partner is a longstanding credit investor comprised of a sector-dedicated senior investment team with deep underwriting and structuring expertise
- The senior credit team maintains meaningful experience investing together through prior tenures at Victory Park Capital and Allianz Global Investors
- The General Partner benefits from the broader Centre Lane platform, gaining insight, networks and underwriting experience within the credit space

### Consistent focus on senior-secured investments in middle-market companies across complex transactions

- Centre Lane exclusively focuses on middle-market companies seeking transitional capital that possess a degree of complexity
- The General Partner leverages its sector-dedicated professionals to identify attractive investments with structural downside protections and potential upside
- Given its proven ability to transact on complexity, Centre Lane has developed its reputation as a partner of choice for intermediaries, which leads to direct deal flow and less competition

### Risk-adjusted performance with focus on capital preservation

- The General Partner has generated good, risk-adjusted returns on a net IRR basis, recycling capital and utilizing fund-level leverage to enhance performance
- Given Centre Lane's focus on complex transactions, it has experienced meaningful deal level risk, which is offset by conservative fund-level leverage
- The General Partner remains thoughtful in enhancing downside protection with financial covenants and warrants, while increasing upside potential through forms of equity participation



## Investment Considerations

### The credit platform will continue to integrate with the equity team

- The Fund represents the first investment vehicle managed by the new credit team, raising concerns around its ability to collaborate with the broader platform
- Investment professionals across both teams will assist with opportunities related to their sector and Centre Lane shares economics across the teams
- Centre Lane's junior professionals operate across the equity and credit teams, enabling the firm to develop key insights into evaluating investment opportunities

### The General Partner will effectively leverage its operational resources

- Centre Lane possesses a Deal Origination Team ("DOT") that assists with sourcing; however, DOT is expected to be primarily incentivized to aid the equity team
- Similar to the equity platform, the General Partner expects to focus its outbound sourcing through intermediaries, further supported through integration with DOT
- Centre Lane has developed a strong reputation to successfully transact on complex credit deals, enabling the General Partner to generate direct deal flow, as evidenced by Centre Lane's six warehoused deals for the Fund

### Centre Lane will be able to generate meaningful uplift in gross performance

- The General Partner has experienced early realizations through refinancing in Fund II, causing concerns around its ability to achieve attractive multiples for the Fund
- Centre Lane primarily invests in senior-secured, floating rate investments in cash-generative assets, recycling capital and utilizing fund-level leverage to drive returns
- The General Partner does not attribute value to its equity upside and insulates its cash yield through penalty fees driven by early realizations

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## Recommendation

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Based on the analysis and information presented herein, Hamilton Lane believes that a commitment to Centre Lane Credit Partners III, L.P. works towards achieving the goals set forth for the Connecticut Retirement Plans and Trust Funds. A commitment to the Fund will establish a relationship with a high-quality General Partner. Taking into account the investment strategy and portfolio diversification objectives of the Private Credit Fund, Hamilton Lane recommends a commitment to the Fund.

**Experienced senior investment team benefiting from cross-platform collaboration**

- The General Partner maintains a longstanding presence in the private credit space, with senior investment professionals possessing ample expertise
- The credit platform is led by Ms. Mapatuna and Mr. Corbett, who average 23 years of experience within the credit industry
- Centre Lane utilizes its equity team to enhance its sourcing and diligence processes

**Sector-dedicated professionals supported by broader resources**

- Centre Lane's senior investment professionals are sector-dedicated and possess extensive networks with key relationships across the credit universe
- The senior investment team is supported by an experienced bench of mid- and junior-level professionals who assist with sourcing new opportunities, conducting diligence and monitoring investments across the portfolio
- Investment professionals leverage DOT to augment sourcing capabilities and expand relationships with intermediaries

**Broad distribution of economics with focus on institutionalization of the credit platform**

- Centre Lane has experienced minimal employee attrition and has supplemented the investment team's capabilities through additional junior-level hires
- The General Partner distributes carried interest within the credit team down to the Vice President level, promoting alignment
- The General Partner allocates carried interest across the broader organization, including the senior- and mid-level back-office professionals, ensuring alignment across its platform

- The General Partner was founded in 2007 by Co-Founder & Managing Directors Quinn Morgan and Ken Lau to focus on private equity and credit investments
- In 2009, Centre Lane established its credit platform to focus on middle-market companies in North America
  - Messrs. Morgan and Lau continue to lead the firm with Managing Director & President Upacala Mapatuna and Managing Director John Corbett overseeing its credit platform
  - While serving on the investment committee for the Fund, Messrs. Morgan and Lau are primarily focused on the equity platform
  - Centre Lane maintains moderate ethnic and female representation at the investment committee

**Snapshot:**<sup>1</sup>**Inception/Founders:**

2007/Quinn Morgan and Ken Lau

**Locations:**

New York, NY

**AUM:**<sup>2</sup>

\$3.1 billion

**Strategies/Product Lines:**

Private equity and credit

**Management Company:**

Private

**Current Leadership:**

Quinn Morgan, Ken Lau and Upacala Mapatuna

**Headcount:**<sup>3</sup>

7 credit investment professionals, 6 shared junior-level professionals, 3 deal origination members, 3 portfolio operations professionals and 12 back-office professionals

<sup>1</sup> As of July 2022 <sup>2</sup> AUM as provided by the General Partner as of 3/31/21; <sup>3</sup> Headcount as of June 2022

- Centre Lane has placed a more recent emphasis on building out its dedicated credit platform, hiring Ms. Mapatuna to lead its institutionalization
  - While a relatively nascent team, the majority of senior investment professionals possess prior experience working together
    - Ms. Mapatuna and Vartan Pogharian previously worked together at Victory Park Capital
    - Mr. Corbett was previously a Co-Head of U.S. Private Credit at Allianz Global Investors with Dan Marcel, who worked as a Vice President
- The General Partner has experienced minimal turnover and has continued to grow the organization through internal promotions
- Centre Lane has remained thoughtful in growing its team across the mid- and junior-levels
- Senior investment professionals are sector-dedicated to capitalize on industry expertise and cultivate relationships
  - Junior professionals are shared among the credit and equity teams, with professionals choosing a focus once they reach the Vice President level
- The General Partner maintains a lean credit team that benefits from the resources of the broader firm
  - Centre Lane leverages its equity team to produce industry insights, access networks and acquire additional knowledge to aid in the diligence process
  - Additionally, investment professionals sourcing efforts are augmented by DOT
- Centre Lane utilizes its DOT to assist with deal flow generation and manage its sourcing relationships across intermediaries
  - While a newly formed team, DOT professionals have ample experience originating and executing on investment opportunities
- The General Partner allocates carried interest down to the Vice President level and across the platform to increase alignment

## Senior-secured middle-market focus across a diversified group of sectors

- The General Partner invests across a wide array of sectors within North American-based middle-market companies seeking transitional capital for strategic improvements
- The credit strategy focuses on senior-secured, floating-rate investments within businesses generating between \$10 million and \$100 million of EBITDA

## Niche focus on complexity leads to direct deal flow

- The General Partner seeks to provide capital across complex primaries, broken financings and secondaries transactions
- Centre Lane has earned the reputation as a preferred partner due to its ability to transact on complex opportunities
- The General Partner benefits from its longstanding presence in the market, having cultivated relationships across banks, traditional lending institutions and industry experts to drive deal flow

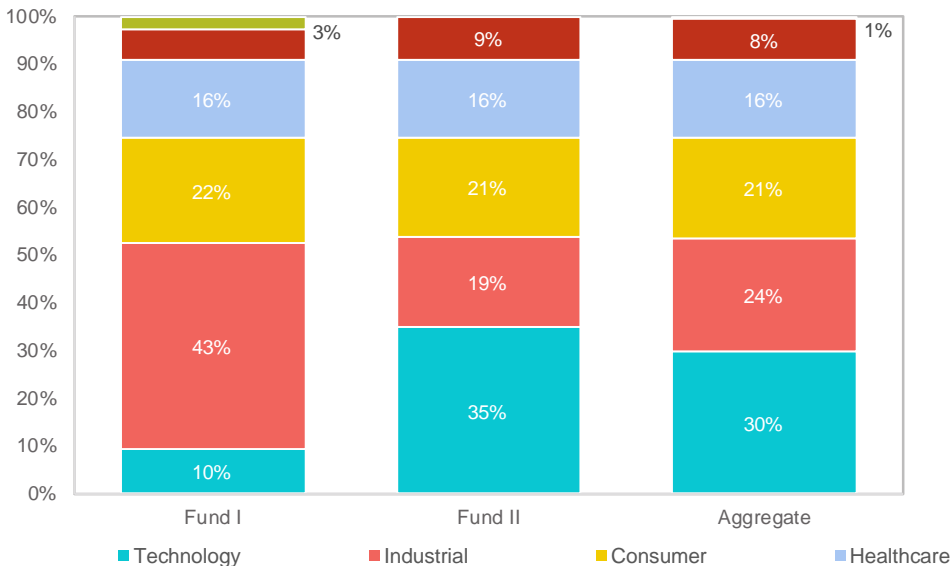
## Emphasis on deal structuring creates differentiation among peers

- Centre Lane remains thoughtful on structuring deals with downside protections through financial covenants, warrants and other forms of structured equity
- The General Partner intends to generate its returns primarily through cash yielding investments that are structured with OID, prepayment & other fees and occasionally equity upside
- Centre Lane has been conservative with its use of leverage, which should further enhance its downside protection

- The General Partner invests across five core sectors: business/financial services, consumer, healthcare, industrials and technology
- Centre Lane expects to allocate up to 20% to 40% of the Fund to technology, 20% to 40% to healthcare, 20% to 30% to consumer, 20% of the Fund to business/financial services and 10% to 20% to industrials
- Centre Lane primarily focuses on middle-market North American businesses seeking transitional capital to finance acquisitions, recapitalizations and growth opportunities

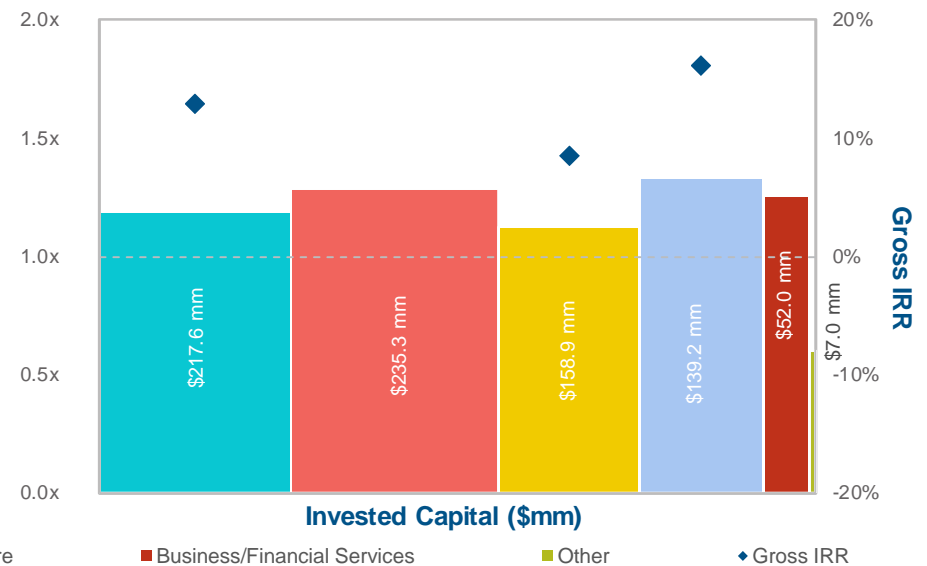
## Prior Investments - % by Sector<sup>1</sup>

As of 3/31/22



## Realized Performance – by Sector<sup>1, 2</sup>

As of 3/31/22



<sup>1</sup> Other represents one realized investment, which generated a 0.6x gross multiple and a - 21.1% gross IRR

<sup>2</sup> Industrials and business/financial services sectors generated a 28.3% and 20.4% gross IRR, respectively



- Centre Lane primarily targets senior-secured, floating rate investments in companies generating between \$20 million and \$500 million of revenue and \$10 million to \$100 million of EBITDA
  - Additionally, the General Partner may invest in second lien or unitranche debt
- The General Partner expects to allocate 60% of the Fund to first lien investments and 40% to second lien investments
- Centre Lane focuses on companies supported by secular drivers when investing in second lien debt
- The General Partner positions itself as a partner of choice to capitalize on attractive opportunities across three types of transactions: complex primaries, broken financings and idiosyncratic secondaries
  - Complex primaries are financings typically overlooked by traditional lending institutions due to complexity, size and/or timing
  - Broken financing transactions comprise failed deals through lack of capital or rejected terms and require repricing
  - Secondary financings include both single credits & portfolios and are executed on behalf of traditional holders seeking liquidity
- Centre Lane expects the Fund to be comprised of 30% to 50% complex primaries, 20% to 40% broken financings and 20% to 40% secondary opportunities
- Centre Lane maintains an extensive network within the credit space to originate and execute on attractive opportunities, while leveraging DOT to augment its sourcing capabilities
  - Centre Lane focuses on more complex transactions, which tend to be less competitive, while leveraging its longstanding presence and ability to provide both credit and equity solutions to drive direct deal flow
  - DOT is responsible for growing and managing key relationships with investment banks, financial institutions, private equity firms and industry experts & management teams to increase opportunities and allow investment professionals to focus on evaluating opportunities and drive value

- The General Partner maintains relationships with a wide variety of sponsors who drive the General Partner's access to high-quality opportunities
- Centre Lane has historically invested in opportunities sourced from sponsors, but remains flexible in investing in unsponsored opportunities to widen its investment universe
- The General Partner has historically utilized conservative fund-level leverage
  - Centre Lane expects to target approximately 0.5x fund-leverage with the ability to increase to 1.0x for the Fund
- Centre Lane invests in income-generative assets to produce attractive risk-adjusted returns that limit its downside
  - The General Partner expects approximately 80% of investments to be cash generative, targeting 7% to 8% annual yields
- The General Partner generates its deal-level performance through cash yield generation, OID appreciation, prepayment & transaction fees and leverage on its investments
  - Centre Lane expects approximately 20% to 30% of its portfolio companies to be structured with equity upside, seeking to generate an additional 150 basis points of performance
    - While the General Partner invests in equity, it does not recognize changes in unrealized value for these investments until the end of the life of the Fund
- Centre Lane plans to increase its target investment sizes with the Fund, planning to invest between \$10 million and \$50 million in 40 to 60 companies
  - The investment mandate enables the General Partner to invest across the capital structure, alleviating diversification concerns in tranches

- The General Partner typically exits through refinancing transactions but has also engaged in liquidations and sales from portfolio companies
- Centre Lane actively monitors its portfolio for financial or market triggers, including potential refinancing or restructuring opportunities, change of control or other capital market movements to proactively manage exposures
- The General Partner utilizes prepayment fees in its structuring to compensate for potential returns due to early refinancing, while also aiming to recycle capital following an early refinancing

**Consistent risk-adjusted net returns**

- The General Partner has generated consistent, risk-adjusted returns on a net basis, which have been in line with the return expectations of the strategy
- Centre Lane maintains strong conviction in Fund II, which is expected to experience further upside as Centre Lane recycles capital
- The General Partner intends to enhance performance through fund-level leverage and recycling capital

**Strong gross performance with healthy unrealized portfolio**

- Centre Lane has generated consistent gross performance across Funds I and II, demonstrating its ability to identify attractive investment opportunities
- The General Partner maintains a healthy portfolio comprised of performing loans generating strong cash yields
- While Centre Lane experiences significant refinancing on its deals, it aggressively recycles capital to offset lagging deal-level multiples

**Consistent investment pacing with proven ability to limit downside**

- Centre Lane has consistently deployed capital in its intended strategy and increased realization activity in line with increasing fund sizes
- The General Partner focuses on maximizing its downside protection by focusing on senior-secured investments and cash generative investments
- Centre Lane has demonstrated its ability to preserve capital with very limited losses across its historical portfolio

- The General Partner has generated consistent, top-half returns across its prior funds on a net IRR basis
- Centre Lane plans to recycle capital up to 2.0x during the investment period, which should enhance net performance
- The General Partner may utilize between a 0.5x and 1.0x fund-level leverage and maintains a line of credit to manage capital calls
- Funds I and II do not include recycling or reinvesting recallable distributions in the chart below; as of 3/31/22, when accounting for recycling and reinvesting recallable distributions, Fund I generated a 1.7x DPI & 1.7x TVPI, and Fund II generated a 0.4x DPI and 1.4x TVPI

Centre Lane Partners, LLC Prior Investment Performance <sup>1</sup> As of 3/31/22								
(\$mm) Fund	Vintage	Fund Size	Capital Drawn	Capital Distributed	NAV	DPI	TVPI	Net IRR
Fund I	2009	\$84	\$356.7	\$411.7	\$0.0	1.2x	1.2x	14.7%
Fund II	2017	384	570.2	402.9	289.0	0.7x	1.2x	11.5%
<b>Total</b>			<b>\$927.0</b>	<b>\$814.6</b>	<b>\$289.0</b>	<b>0.9x</b>	<b>1.2x</b>	<b>12.9%</b>

HL Benchmark Credit As of 3/31/22			PME Benchmark S&P LSTA Leveraged Loan Index As of 3/31/22
Top-Quartile			PME IRR
DPI	TVPI	Net IRR	
1.5x	1.6x	17.3%	7.4%
0.8x	1.4x	14.3%	4.2%
			<b>5.2%</b>

<sup>1</sup> Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee-paying limited partners and exclude any cash flows from the General Partner's commitment. Additionally, given the unique structure of Fund I, the net cash flows provided by the General Partner during Hamilton Lane's diligence represented asset-level cash flows, with assumed management fees and carried interest paid by a first close investor that continued its exposure through the life of the Fund. Actual net contributions, distributions and returns may vary.

- The General Partner has generated consistent gross returns across its prior funds
- Centre Lane possesses a healthy unrealized portfolio, with a majority of its unrealized portfolio held at or above cost, as of 3/31/22
- The General Partner has generated attractive dispersion of returns, demonstrating its ability to limit downside risk and maintain consistent returns
  - While the General Partner invests in equity for upside potential, Centre Lane remains conservative in its valuations and does not rely on the investments generating upside for the Fund
- The General Partner is actively investing out of the Fund and has completed six investments totaling \$40 million, as of June 2022, which are warehoused and will be rolled into the Fund following its first close

Centre Lane Partners, LLC Prior Investment Performance As of 3/31/22									
(\$mm) Fund	Vintage	# of Inv.		Fund Size	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
		Total	Real.						
Fund I	2009	48	48	\$84	\$256.1	\$324.8	\$0.0	1.3x	16.7%
Fund II	2017	68	40	384	1,040.0	732.4	466.0	1.2x	11.7%
<b>Total</b>		<b>116</b>	<b>88</b>		<b>\$1,296.1</b>	<b>\$1,057.2</b>	<b>\$466.0</b>	<b>1.2x</b>	<b>13.8%</b>

Centre Lane Partners, LLC Realized Investment Performance As of 3/31/22						Centre Lane Partners, LLC Unrealized Investment Performance As of 3/31/22					
(\$mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR	(\$mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
Fund I	\$256.1	\$324.8	\$0.0	1.3x	16.7%	Fund I	\$0.0	\$0.0	\$0.0	n/a	n/a
Fund II	553.9	665.2	6.8	1.2x	17.4%	Fund II	486.0	67.1	459.2	1.1x	5.6%
<b>Total</b>	<b>\$810.0</b>	<b>\$990.0</b>	<b>\$6.8</b>	<b>1.2x</b>	<b>17.0%</b>	<b>Total</b>	<b>\$486.0</b>	<b>\$67.1</b>	<b>\$459.2</b>	<b>1.1x</b>	<b>5.6%</b>

Note: Due to the treatment of assets that were initially invested out of Fund I and ultimately sold to Fund II, whereby the General Partner has netted those sold assets out of gross invested capital, the Amount Invested and Amount Realized for Fund I in the charts above is lower than the net Capital Drawn and Capital Distributed, as referenced on pg. 18

- The General Partner maintains an ESG policy and is a signatory to PRI
- Centre Lane implements ESG initiatives with controlling ownership stakes in its portfolio companies and encourages management teams to continue to promote ESG practices
- Centre Lane entered into a partnership with Green Project Technologies, a software services firm, to monitor greenhouse emissions
- While the General Partner does not maintain a DE&I policy, it remains committed to strengthening its diversity, equity and inclusion practices, as evidenced by the recent additions across the investment team
- The investment committee is responsible for evaluating ESG and DE&I risks for new opportunities while the operating committee and executive committee oversee ESG initiatives related to the General Partner
- Centre Lane has indicated that is currently in search of a Sustainable Policies and Research professional

## ESG Summary

ESG Policy	Yes	Integration in Decision Making	Yes
ESG-Dedicated Professionals	No dedicated professionals	ESG Focus – Planning	ESG is always included in strategic planning
Signatories	PRI	Monitoring	None
Environmental Focus	Emissions tracking	Reporting	Working on formalizing reporting process
Diversity	35% female/65% male across the firm 60% minority in decision making 58% minority in ownership; 46% women in ownership	Requirements of Portfolio Companies	No formal requirements
ESG in Due Diligence Process	Yes; formal reviewing process on a deal-by-deal basis		





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## Appendices

Experience of Senior Investment Professionals					
Name	Title	Sector Coverage	Tot. Exp. (yrs.)	Tenure (yrs.)	Prior Experience
Quinn Morgan	Co-Founder & Managing Director	Business Services, Consumer & Industrials	28	15	<ul style="list-style-type: none"> <li>• D.B. Zwirn &amp; Co., Head of Private Equity</li> <li>• Moore Capital, Principal</li> <li>• Goldman Sachs, Mergers &amp; Acquisitions Group</li> </ul>
Ken Lau	Co-Founder & Managing Director	Business Services & Technology	23	15	<ul style="list-style-type: none"> <li>• D.B. Zwirn &amp; Co., Vice President</li> <li>• Moore Capital, Investment Professional</li> <li>• Merrill Lynch, Investment Banker</li> </ul>
Upacala Mapatuna	Managing Director & President	Business & Financial Services	24	4	<ul style="list-style-type: none"> <li>• Victory Park Capital, Partner &amp; Chief Investment Officer</li> <li>• Goldman Sachs, Managing Director</li> <li>• Warburg Pincus, Investment Professional</li> </ul>
John Corbett	Managing Director	Consumer, Industrials & Technology	21	2	<ul style="list-style-type: none"> <li>• Allianz Global Investors, Co-Head &amp; Portfolio Manager</li> <li>• Sound Harbor Partners, Portfolio Manager &amp; Managing Director</li> <li>• Bank of America Securities, Vice President</li> </ul>
Chris Holdyk	Principal	Healthcare	16	3	<ul style="list-style-type: none"> <li>• Citadel Global Equities, Senior Associate</li> <li>• BHR Capital, Investment Analyst</li> <li>• TPG Capital, Principal</li> </ul>
Vartan Pogharian	Principal	Business & Financial Services	16	2	<ul style="list-style-type: none"> <li>• Victory Park Capital, Principal</li> <li>• OneMain Financial, Principal</li> <li>• G3 Capital, Investment Professional</li> </ul>
Dan Marcel	Vice President	Consumer and Industrials	13	1	<ul style="list-style-type: none"> <li>• Kennedy Lewis Investment Management, Vice President</li> <li>• Allianz Global Investors, Vice President</li> <li>• TIAA Asset Management, Analyst</li> </ul>

Benchmark Analysis:	An analysis that compares the net IRR of the prior funds to the top-quartile net IRR benchmarks for similar funds (based on strategy and vintage) as reported by the Cobalt LP database. The benchmark data shown is the most recent data available at this time
DPI:	Distributed-to-Paid In = (Amount of Distributions Received)/(Total Amount of Capital Paid-In)
ESG:	Environmental, Social and Governance
Gross IRR:	Internal Rate of Return (“IRR”) of investments at the “fund level,” excludes fees paid by LPs to the General Partner such as management fees and carried interest. For investments held less than one year, Hamilton Lane nominalizes the IRR to match the hold period of the investment in order to represent a more meaningful number
Investment Pacing:	An analysis of the total capital invested during the given years. Includes all prior investments, realized or unrealized
J-curve Benchmark:	Peer (median by age) is calculated by taking the median IRR of similar funds (based on strategy and vintage) in Hamilton Lane’s database at each quarter, which are simulated as investing at the same point in time. The length of time to break the J-curve is calculated from inception to the first time each fund generated a positive net IRR
Loss Ratio Analysis:	An analysis of the capital invested in realized transactions generating different multiples of invested capital
Net IRR:	Annualized Internal Rate of Return (“IRR”) of investments at the LP level inclusive of fees such as management fees and carried interest paid to the General Partner
Net Returns to Limited Partners:	The performance of the General Partner’s prior investment vehicles at the net LP level, inclusive of all fees, carried interest and expenses. Performance data is as reported by the General Partner using actual capital contributions, distributions and net asset value for either all limited partners, or a sample set of limited partners, in the respective funds
Outlier Analysis:	An analysis of the gross returns of investments in prior funds, comparing overall performance against the performance when certain ‘outlier’ transactions are excluded. Outliers are defined as transactions that generate exceptionally positive or negative results
PME Analysis:	Calculated by taking the fund’s monthly cash flows and investing them in the relevant Total Return Index (where all dividends are re-invested). Contributions were scaled by a factor such that the ending portfolio balance would be equal to the private equity net asset value (equal ending exposures for both portfolios). This prevents shorting of the public market equivalent portfolio in order to match the performance of an outperforming private equity portfolio. Distributions were not scaled by this factor. The IRRs were then calculated based on these adjusted cash flows. The selected PME represents the most relevant public market benchmark
Realized Attribution Analysis:	Analysis of the capital invested in, and performance of, the prior realized transactions according to the criteria indicated
Realized Investments:	Hamilton Lane classifies investments as “realized” if it has: i) an unrealized value of less than 20% of the total value; ii) a carrying value that has been written to zero or has been previously written-off; or iii) been fully exited and the GP has no remaining interest in the company
RVPI:	Remaining Value-to-Paid In = (Current Net Asset Value)/(Total Amount of Capital Paid-In)
TVPI:	Total Value-to-Paid In = (Amount of Distributions Received + Current Net Asset Value)/(Total Amount of Capital Paid-In)

Time-Zero IRR:	Represents the gross IRR calculated as if every investment were initiated on the same date
Write-Down Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 1.0x their original cost basis, divided by the total capital invested in all realized investments
Write-Off Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 0.5x their original cost basis, divided by the total capital invested in all realized investments

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# CENTRE LANE PARTNERS

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September 2022

## Centre Lane Credit Partners III Presentation to State of Connecticut Retirement Plans and Trust Funds

For Discussion Purposes Only

# Legal Disclaimer

## Centre Lane Credit Partners III

## CENTRE LANE PARTNERS

This document is a draft intended solely for the information of the person to whom it has been delivered by Centre Lane Partners, LLC (“CLP” or “Centre Lane”) to discuss, among other things, the potential establishment of Centre Lane Credit Partners III, L.P. (the “Fund”), and it contains highly confidential and proprietary information and trade secrets that are of independent, economic value to Centre Lane and its affiliated funds, including the Fund (the “Funds”), and their respective general partners and, with respect to information obtained from any of the Funds’ portfolio companies, to such portfolio companies. It is not intended to be and does not constitute a legally binding obligation. All parties’ obligations hereunder shall be subject to execution of definitive documentation and no person shall bring a claim against any other person relating to this document for a failure to enter into definitive documentation or otherwise. This document is strictly confidential, contains trade secrets, and may not be reproduced or redistributed in whole or in part nor may its contents be disclosed to any other person under any circumstances. In particular, this document must not be made available to the public nor be made available in jurisdictions where this would be contrary to local laws and regulations. This document does not constitute an offer to sell, or a solicitation of an offer to buy, securities, and is not to be considered as a direct or indirect offer or placement of an interest in an alternative investment fund. Any such offering will be made only to certain qualified investors in certain jurisdictions where permitted by law by means of a confidential issuing document. Information contained in this document is not intended to be complete or final and is qualified in its entirety by the confidential offering memorandum and governing documents of the Fund. Certain statements in this presentation are based on CLP’s beliefs and market observations. **There is no assurance the Fund will achieve its objectives. Past performance is no indication of, and does not guarantee, future results. Any investment involves risks, including loss of the entire investment.**

CLP has prepared important disclosures relating to this document, which should be read carefully, and which appear on this page and certain pages within.

An investment in any Fund involves significant risks, including potential loss of the entire investment. The interests in such Fund are illiquid, as there is no liquid secondary market for such interests in such Fund and none is expected to develop. There will be restrictions on transferring interests in the Fund, investments may be leveraged, and the investment performance may be volatile. Investors should have the financial ability and willingness to accept the risk characteristics of the Fund’s investments.

Any investments described in this document (and any other documents left with or shown to you) are examples and are being provided to you for illustrative purposes only, to show the types of investments that may be made. These examples should not be taken as an indication of future investment selection or performance.

In considering any performance data contained herein, you should bear in mind that past or targeted performance is not indicative of future results, and there can be no assurance that the Fund will achieve comparable results or that target returns will be met. Past or targeted portfolio characteristics are not indicative of future portfolio characteristics and there can be no assurance that the Fund will have comparable portfolio characteristics or that target portfolio characteristics will be achieved. In addition, there can be no assurance that unrealized investments will be realized at the valuations shown as actual realized returns will depend on, among other factors, future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs, and the timing and manner of sale, all of which may differ from the assumptions on which the valuations contained herein are based. Any IRRs and cash multiples presented on a “gross” basis do not reflect the effect of management fees, carried interest, taxes and expenses, that would significantly reduce the return to investors.

The information presented herein is as of a specific reference date, may have changed since such date, and is likely to change over time. This information must be kept strictly confidential.

Certain information contained herein constitutes “forward-looking statements,” which can be identified by the use of forward-looking terminology such as “can,” “may,” “will,” “seek,” “should,” “could,” “expect,” “anticipate,” “project,” “estimate,” “intend,” “continue,” or “believe” or the negatives thereof or other variations thereon or comparable terminology. Due to various risks and uncertainties, including those set forth in the offering memorandum, actual events or results or the actual performance of the Fund may differ materially from those reflected or contemplated in such forward-looking statements. The Fund, Centre Lane Partners, LLC, and their respective affiliates believe that such statements and information are based upon reasonable estimates and assumptions. However, forward-looking statements and information are inherently uncertain and actual events or results can and will differ from those projected. Therefore, undue reliance should not be placed on such forward-looking statements and information.

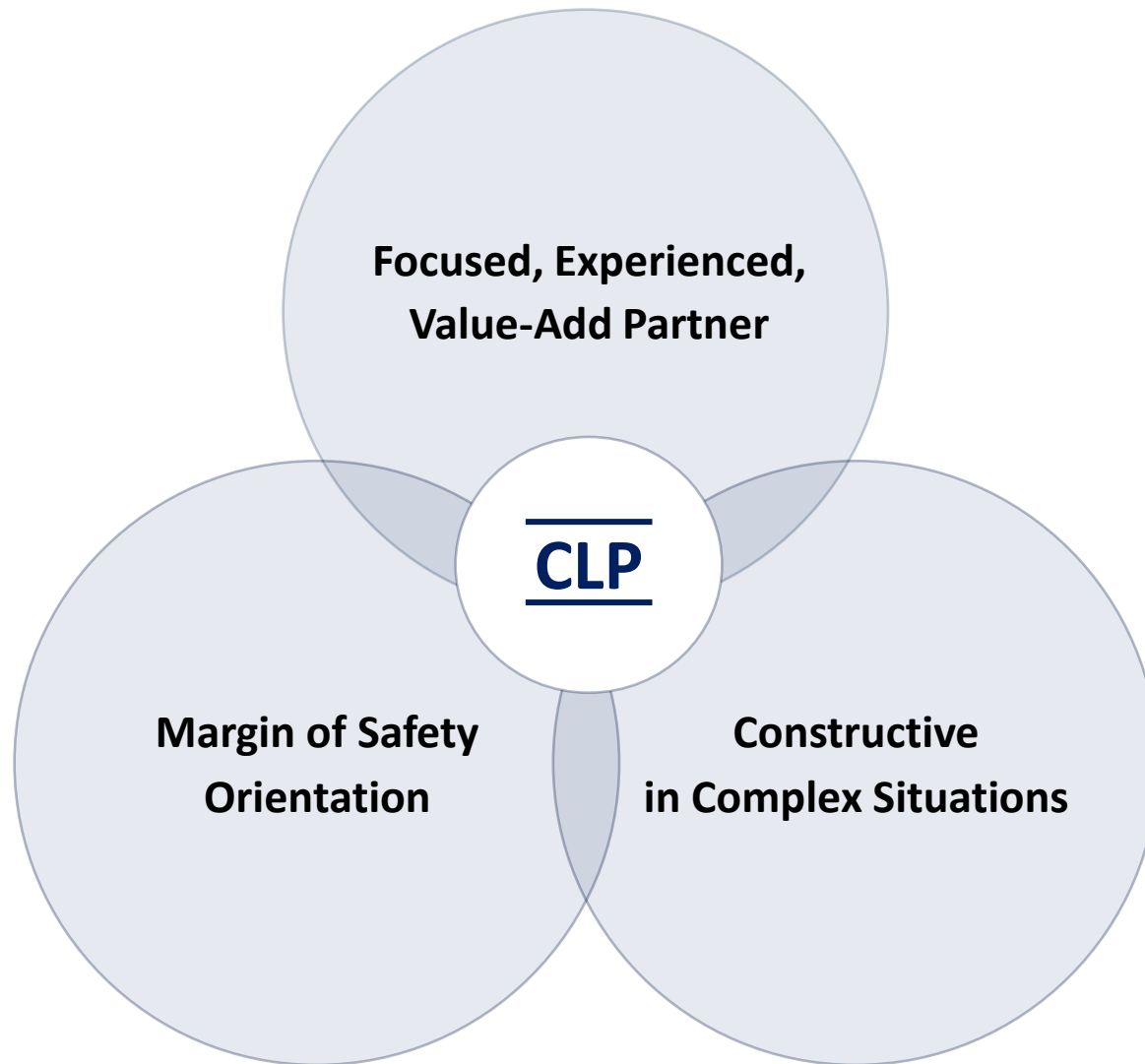
No person has been authorized to give any information or to make any representation other than that which is contained herein and, if given or made, such information or representation must not be relied upon as having been authorized or reliable.

Certain information contained herein has been obtained from published sources and/or prepared by third parties and in certain cases has not been updated through the date hereof. While such information is believed to be pertinent for the purposes used herein, none of Centre Lane Partners, LLC, the Fund, or any of their respective partners, shareholders, directors, officers, employees, agents or affiliates assumes any responsibility for the accuracy of such information.

Centre Lane Partners, LLC, cautions investors to carefully consider the risks involved when investing in the Fund. Investors should review the risk factors as described in the offering memorandum before investing.



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# Firm Overview

Executive Summary – A Consistent & Differentiated Investment Approach

## CENTRE LANE PARTNERS

### Complexity Drives Opportunity

- Founded in 2007 with an exclusive focus on the middle market
- Credit: provide creative, flexible financings to middle market businesses facing periods of transition and complexity
- Equity: control-focused, value-oriented strategy with multiple levers to drive returns

### Experienced, Cohesive Team

- Culture of humility, hard work, intellectual curiosity, collaboration, and continuous improvement
- Co-Founders have worked together for over 20 years
- Over 200 years of combined Firm experience

### Synergistic Skill Set Across Credit, Equity and Operations

- Comprehensive capability set positions Centre Lane as a partner of choice in complex situations across capital structures and cycles
- Complementary, multidisciplinary skill set integrated across the Firm

### Industry Focus Enhances Value-Add

- Sector expertise across core sectors: Business / Financial Services, Consumer, Healthcare, Industrials, and Tech

### Strong Historical Performance Across Cycles and Strategies

- Focused on generating consistent and attractive returns through market cycles with 15+ year history

### Private Credit

- Invested over \$1.5 billion since inception
- Exclusive focus on the middle market
- Focus on senior secured credit with an income component
- Leverage Firm resources to underwrite complexity and mitigate risk

### Private Equity

- Invested over \$1.6 billion since inception
- Exclusive focus on the middle market
- Control-focused, value-oriented strategy
- Identified operational levers (CLP-VCF™)

Note: Data as of March 31, 2022, except where indicated. Past performance is not indicative of, and does not guarantee, future results. There is no assurance that target objectives will be realized. **Additional data available upon request.**

<b>Attractive Space</b>	<ul style="list-style-type: none"><li>▪ Target the less efficient middle market segment and less competitive complex financings</li></ul>
<b>Differentiated Approach</b>	<ul style="list-style-type: none"><li>▪ Focus on careful selection of complex situations, prudent structuring, an emphasis on senior secured credits, equity-like diligence, active monitoring and re-pricing of risk, and thoughtful engagement</li></ul>
<b>Broad and Deep Capability Set as a Team and as Part of Centre Lane</b>	<ul style="list-style-type: none"><li>▪ Credit Investment Committee has ~100 years of combined relevant experience</li><li>▪ Leverage in-house operational resources and in-depth company expertise of CLP's Portfolio Operations Team and Equity investment team to provide key diligence insights and risk mitigation support when needed</li></ul>
<b>Compelling Historical Performance</b>	<ul style="list-style-type: none"><li>▪ The CLP Credit funds have generated consistent, attractive returns since strategy's inception</li></ul>
<b>Appealing Risk-Adjusted Returns</b>	<ul style="list-style-type: none"><li>▪ Target attractive risk-adjusted returns relative to other asset and credit alternatives</li></ul>

Note: Data as of March 31, 2022, except where indicated. Past performance is not indicative of, and does not guarantee, future results. There is no assurance that target objectives will be realized. **Additional data available upon request.**

# CLP Credit Strategy

A Multifaceted Strategy Focused on Complex Credit Situations

CENTRE LANE PARTNERS

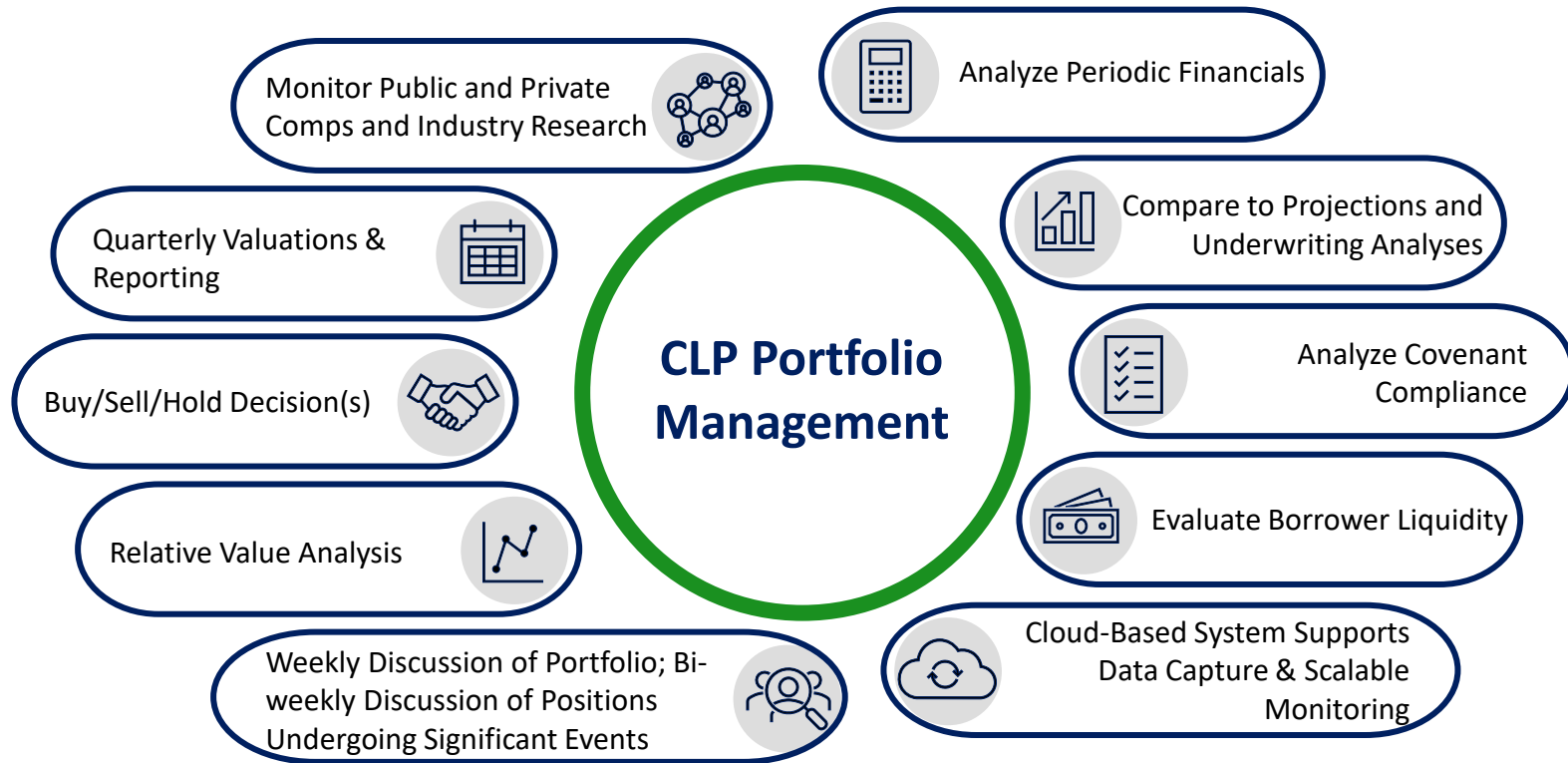
Target Framework			
<i>Transaction Types</i>	"Diligence Heavy"	Transitional	Complex
<i>Instruments</i>	Senior Secured	Floating Rate	Income Generative
<i>Approach</i>	Constructive & Creative	Focus on Core Industries	Leverage CLP Synergies



1	Complex Primaries	2	Broken Financings	3	Idiosyncratic Secondaries
<ul style="list-style-type: none"><li>CLP receives an "early look" due to reputation for constructively engaging on complex financings</li></ul>		<ul style="list-style-type: none"><li>CLP often "fills a gap" in financings that fail due to an overly aggressive or poorly timed capital raising process</li></ul>		<ul style="list-style-type: none"><li>Includes both single credits as well as portfolios</li><li>Single credits are often purchased in dislocations; portfolio purchases are often acyclical</li></ul>	

Note: There is no assurance that target objectives will be realized or that the Fund portfolio will feature the characteristics presented or targeted.

### Hands-on Approach to Portfolio Management



Note: The activities and process as outlined above is illustrative. CLP may choose to follow a different process in certain circumstances.

# Team

An Experienced, Multidisciplinary Team

## CENTRE LANE PARTNERS

### Senior Investment Team

#### Quinn Morgan Managing Director, Co-Founder

- DB Zwirn, Moore Capital, Goldman Sachs
- London School of Economics & Political Science
- 25+ years of experience

#### Kenneth Lau Managing Director, Co-Founder

- DB Zwirn, Moore Capital, Merrill Lynch
- Massachusetts Institute of Technology
- 20+ years of experience

#### Upacala Mapatuna Managing Director, President

- Victory Park Capital, Goldman Sachs, Mill Road Capital, Warburg Pincus, Lazard Capital, Federal Reserve
- Williams College
- 25+ years of experience

#### John Corbett Managing Director

- Allianz Global Investors, Sound Harbor Partners, BofA, Goldman Sachs, PWC
- College of the Holy Cross, Columbia Business School
- 20+ years of experience

#### Chris Holdyk Principal

- Citadel, BHR Capital, TPG Capital, Goldman Sachs
- University of Pennsylvania
- 17 years of experience

#### Vartan Pogharian Principal

- Victory Park Capital, OneMain, G3 Capital, HBK Investments, JP Morgan
- Ivey School of Business
- 16 years of experience

#### Daniel Marcel Vice President

- Kennedy Lewis, Allianz Global Investors, Sound Harbor Partners, TIAA Asset Management, BNY Mellon
- Quinnipiac University
- 13 years of experience

### Junior Investment Team

- 7 professionals
- Average ~4 years of financial industry experience
- Selected prior experience at: Citigroup, Deloitte, Jefferies, UBS, Gemspring Capital, Wells Fargo, Truist Securities, J.P. Morgan

### Deal Origination

- 3 professionals
- Average ~23 years of financial industry experience
- Selected prior experience at: Bank of America, Barclays, Blackstone/GSO, KKR, Wells Fargo, Flat Rock Global

### Finance, Accounting, Administration, Compliance, Investor Relations

- 11 Professionals
- Average ~16 years of financial industry experience
- Selected prior experience at: Ares Management, Centerbridge Partners, Deloitte, KPS, Macquarie, GCA Advisors, Campbell Lutyens, Eaton Partners, Vibrant Capital, Goldman Sachs, BlackRock

### Portfolio Operations

- 5 Professionals
- Average ~17 years of experience
- Selected prior experience at: Amazon, DaimlerChrysler, Danaher, EmblemHealth, General Electric, TheraCare, Rev Group, GM, Honeywell, Digitech, KPMG, Accordion Partners

### CLP Asia Affiliate

- ~30 employees
- Provides comprehensive operational supply chain support, including support related to strategic sourcing and procurement, engineering / new product development, quality assurance, and logistics / freight

Note: As of September 2022.





### Environmental

- Environmental Regulations & Compliance
- Energy Management
- Waste Control
- Innovation & Partnerships



### Social

- Diversity & Equality of Opportunity
- Health & Safety
- Human Capital Management & Labor Relations
- Product & Supply Chain Compliance



### Governance

- Corporate Governance
- Risk Management, including Cybersecurity
- Anti-Bribery & Corruption
- Ethics & Compliance



Centre Lane is a minority owned firm and approximately half of our employees are women and / or minorities

Signatory of:



Our diversity-focused Summer Internship program recently completed its fifth year



## Responsible Investment & ESG Related Projects are an Important Part of Building Value



Partnered with the ASPCA® to implement and maintain a comprehensive animal welfare policy with a focus on sustainable, humane and environmentally conscious treatment of animals



Partnered with Neighborhood Trust to provide TrustPlus™ to portfolio companies' employees to assist with financial empowerment



### CLP Asia

In-house resources and affiliated entity drive better governance, including supply chain optimization, compliance and responsible management



## Centre Lane Partners Investor Relations

Email:

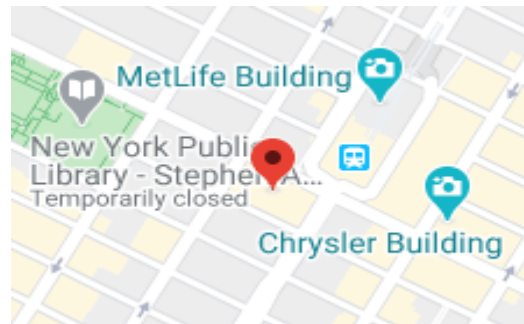
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SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 8, 2022

Members of the Investment Advisory Council ("IAC")

Re: **Consideration of Bregal Sagemount Fund IV**

Dear Fellow IAC Member:

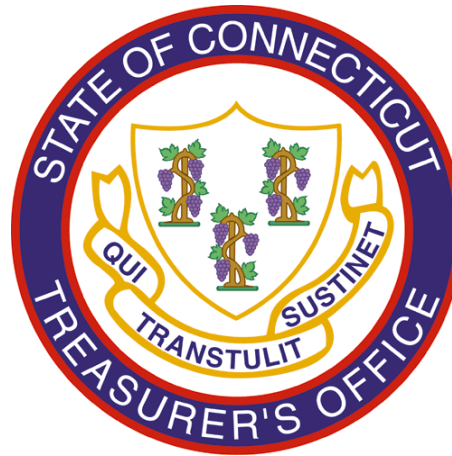
At the September 14, 2022 meeting of the IAC, I will present for your consideration a private equity opportunity for the Private Investment Fund ("PIF") in the Connecticut Retirement Plans and Trust Funds (the "CRPTF"): Bregal Sagemount Fund IV ("BSF IV" or the "Fund"). BSF IV will reach its hard cap of \$2.5 billion and is being raised by an affiliate of Bregal Sagemount Management ("Sagemount"), a New York, NY-headquartered private equity and credit investment management firm.

I am considering a commitment of up to \$125 million to BSF IV, a fund that will focus on growth buyout and minority investments in middle market software and tech-enabled services companies primarily located in North American. Sagemount has developed a proven investment strategy that combines research-driven sourcing, disciplined valuation and structuring practices, and operating improvement resources to drive value creation while providing downside protection. The recommended Fund commitment would provide the CRPTF with differentiated exposure to higher growth companies through a top-performing, access constrained manager.

Attached for your review is the recommendation from Ted Wright, Chief Investment Officer and the due diligence report prepared by Hamilton Lane. I look forward to our discussion of these materials at next week's meeting.

Sincerely,

Shawn T. Wooden  
State Treasurer



Full Due Diligence Report  
Chief Investment Officer Recommendation  
August 18, 2022

Bregal Sagemount Fund IV

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# Executive Summary

## Manager Overview

- Bregal Sagemount Management, L.P. (“Sagemount” or the “Firm”)
- Founded in 2012
- New York, NY headquarters
- 29 dedicated investment and operating professionals
- Led by Gene Yoon, Adam Fuller, Blair Greenberg, Michael Kosty, Pavan Tripathi, and Phil Yates
- More than \$5.5 billion of capital raised across four private equity funds and two private credit funds

## Fund Summary

- Bregal Sagemount Fund IV<sup>1</sup> (the “Fund”)
- Private Equity
- Mid-Market Buyout with a primary focus on North America
- Sector Focus: Software and Tech-enabled Services
- Target/Hard Cap: \$2.0 billion / \$2.5 billion
- GP Commitment: A minimum of \$75 million
- Management Fee: 2.0% on committed capital during investment period; thereafter, 2.0% on net invested capital
- Carried Interest/Waterfall: 20%/Deal by Deal (American)
- Preferred Return: 8%

## Strategic Fit

- Private Investment Fund (“PIF”)
- Recommended Commitment: \$125 million
- IPS Category: Corporate Finance
  - IPS Range for Corporate Finance: 70% to 100% of total PIF exposure
  - Current Corporate Finance Exposure: 85%
- PIF Strategic Pacing Plan
  - Sub-strategy: Mid-Market Buyout
    - Long-term Small/Mid-Market Buyout targeted exposure: 40% to 50%
    - Current Small/Mid-Market Buyout Exposure: 30%

1. Bregal Sagemount Fund IV is being used in reference to Bregal Sagemount IV-A L.P., Bregal Sagemount IV-B, L.P., and parallel funds.

## Recommendation

- Based on the strategic fit within the PIF portfolio, as well as due diligence done by Pension Funds Management (“PFM”) investment professionals and Hamilton Lane, the Chief Investment Officer of the Connecticut Retirement Plans and Trust Funds (“CRPTF”) recommends consideration of a commitment of up to \$125 million to Bregal Sagemount Fund IV.

## Investment Considerations

- Experienced and cohesive Sagemount team, which has effectively executed the Fund’s investment strategy to deliver strong absolute and relative returns through a research-driven sourcing model and demonstrated value creation practices.
- The recommended Fund commitment would enable the CRPTF to add a top-performing, access constrained manager to the PIF portfolio and gain exposure to a differentiated, growth buyout and structured capital strategy that is complementary to the existing PIF portfolio.



## Firm History

- Gene Yoon founded Sagemount in 2012 with the backing of Bregal Investments.
  - Yoon was previously the Head of Private Equity for Goldman Sachs' Americas Special Situations Group and a partner with Great Hill Partners.
- Bregal Investments ("BI") has been the Firm's anchor investor since 2012, when it was the sole limited partner in Bregal Sagemount I.
- Sagemount is headquartered in New York, NY and recently opened a small office in Northern California.

## Bregal Investments

- BI is a global private equity investment firm that has investments in six distinct private equity strategies, including Sagemount, each managed by separate and independent investment teams.
- The investment affiliates of the Brenninkmeijer family are the largest investor in the BI advised funds. The Brenninkmeijers are a German/Dutch family that founded an international chain of clothing stores and other businesses.
- BI provides Sagemount and all BI affiliated managers with operating and administrative infrastructure but is not actively involved in the Firm's investment activities.
- Sagemount pays BI a fixed fee for services provided to the Firm, and BI will receive a portion of the Fund's carried interest pool, which is shared across the BI professional team that supports Sagemount.

## Leadership & Team

- The Firm and its private equity strategy are led by Yoon and five Partners: Adam Fuller (co-founder), Mike Kosty, Phil Yates, Pavan Tripathi, and Blair Greenberg. Yoon previously worked with Fuller, Kosty and Tripathi at Goldman Sachs and with Yates at Great Hill Partners.
- The Fund's investment committee is comprised of the six Partners, with all decisions requiring majority approval, including from Yoon who can cast a tie breaking vote if necessary. BI will have observer rights on the Fund's investment committee while it holds voting rights on the investment committees for prior Sagemount funds.
- The Firm's private equity team currently consists of 22 investment and three operating professionals.
- Carried interest is broadly distributed to Sagemount's team, with a portion allocated on a variable basis to reward productivity and significant contributions to the Firm's investment results.

## Growth Factors

- Sagemount has developed its Growth Factors strategy to drive the value creation process for each of its portfolio company investments.
- The Growth Factors team is comprised of Curt Witte (Partner and Head of Growth Factors), Sandeep Swaminathan (Partner), and Jon Sonnenschein (Principal), each of whom have significant operating and private equity experience.
- The Sagemount Growth Factors team is complemented by the resources of Growth Factors Associates, an independent consulting firm that is frequently utilized by Sagemount and its portfolio companies.

## Private Credit

- Sagemount began pursuing credit investments in 2014, when the Firm's anchor investor committed an additional \$150 million to Bregal Sagemount I that was designated for credit opportunities.
- The Firm's Credit Opportunities strategy pursues direct lending and opportunistic credit investments in the same sectors targeted by Sagemount's private equity team.
  - The Credit Opportunities funds do not invest in portfolio companies in Sagemount's private equity funds.
- The Sagemount Credit strategy is managed by a dedicated team of four investment professionals led by Scott Simpson, Partner.
  - Credit team members assist the private equity team in sourcing and negotiating third-party credit for companies in the Sagemount private equity portfolios.

## Flexible, Capital Solutions Orientation

- Sagemount focuses on growth buyout and minority investments in middle market software and tech-enabled services companies primarily based in North America.
- The Firm's flexible, solutions-oriented approach allows it to invest in a wide range of attractive opportunities as compared to control only private equity strategies.
- The general partner expects to build the Fund portfolio with 15 to 20 platform company investments, with equity investments of \$75 million to \$225 million per company.

## Focus on Growth Companies and Sectors

- Sagemount focuses on established, healthy companies operating in industries and sectors that are benefitting from long-term secular growth trends.
  - In particular, the Firm seeks to identify markets with growth and demand dynamics uncorrelated to the broader macro environment.
- The Firm has developed an expertise investing in software and tech-enabled services, business services, information and data services, healthcare and healthcare IT, financial services and technology, digital infrastructure, and consumer subscription services.

## Portfolio Company Profile

- Sagemount seeks companies with annual recurring revenues of \$20 million to \$150 million, strong margins, and high cash flow conversion levels.
- The Firm is most often the first institutional investor in its portfolio companies and targets companies that can benefit from its established, Growth Factors value creation practices.
  - Sagemount is an active investor in all portfolio companies regardless of ownership levels.
- Sagemount's portfolio companies are generally unlevered or conservatively levered to allow continued re-investment in growth initiatives.

## Research-driven, Highly Focused Sourcing Model

- Detailed industry research is the foundation for Sagemount's sourcing model, which is focused on creating differentiated, advantaged deal flow by developing relationships with target companies in advance of a potential transaction and outside of banker advised processes.
- The team utilizes a highly organized research and review process to identify subsectors meeting the Firm's target investment criteria, including those with favorable growth trends, high recurring revenue business models, and positive market composition/competitive dynamics.
- Once the Firm decides to pursue a subsector, all investment professionals are responsible for executing a disciplined and closely managed direct sourcing program.
- The Firm seeks to continuously build and improve on its hyper focused sourcing practices, which is supported by significant investments in technology and data resources.

## Growth Factors & Alpha Plans

- The Growth Factors team is integrated into all phases of the investment process.
  - Sourcing - positioning Sagemount as the value-added partner of choice due to its domain expertise and proven value creation track record.
  - Diligence - developing an Alpha Model upside case and plan to triple enterprise value during Sagemount's investment period.
  - Value Creation - creating a customized Alpha Plan, or value creation plan, for each portfolio company to support the achievement of three to five key strategic objectives identified in collaboration with management.
  - Alpha Plans are built on five value creation pillars focused on talent leadership, competitive offer optimization, sales acceleration, technology and process innovation, and strategic M&A/exit planning.

## Valuation Discipline & Structuring

- Sagemount exercises pricing discipline to mitigate the potential risks associated with investing in software and tech-enabled companies, which often trade at premium valuations.
  - The Firm's sector expertise and extensive experience is used to develop proprietary views on intrinsic value based on business and market fundamentals.
- The Firm generally uses structured investments, e.g., convertible preferred equity, particularly for minority investments with governance rights that are similar to the Firm's control investments.
- Sagemount utilizes structured investments to protect its downside through minimum structured returns, which can be used to bridge the gaps between the Firm and its target's view on enterprise valuation.

# Track Record and Performance

- Bregal Sagemount I and Bregal Sagemount II have generated strong absolute and relative returns, with both funds ranked as first quartile performers as of March 31, 2022.
  - Fund I had fully realized 12 of 13 portfolio company investments and had returned 2.5x investors' capital as of March 31, 2022. The fund's remaining investment was in shares of Open Lending Corporation (NASDAQ: LPRO), which resulted from the June 2020 combination of the fund's investment in Open Lending LLC with Nebula Acquisition Corporation, a special purpose acquisition company sponsored by an unaffiliated private equity firm.
  - Fund II had fully or substantially realized 11 of 16 platform company investments as of March 31, 2022, which generated a gross multiple of over 3x invested capital. The fund's five unrealized investments are performing to expectations and were marked at a combined total value multiple of over 2x.
  - As noted in Hamilton Lane's report, Fund I and Fund II have significantly outperformed the Russell 3000 on a public market equivalent basis.
  - Through March 31, 2022, only one of the 23 full/substantial realized investments across the Fund I and Fund II portfolios was realized at a loss. As a result, Sagemount's total loss ratio was 2.1% on more than \$1.2 billion invested in both funds.
- The performance of Bregal Sagemount III was not yet meaningful as of March 31, 2022 due to the immaturity of the portfolio.
  - Five of the fund's nine investments, representing 65% of total invested capital, were made between May 2021 and January 2022.
  - The fund's first four investments, which closed between November 2019 and October 2020, were all held above cost as of March 31, 2022.

(\$ US in millions, as of March 31, 2022)

Bregal Sagemount													
Investment Performance Summary - Private Equity													
Fund	Vintage Year	Fund Size	# Deals	Invested Capital	Realized Value	Unrealized Value	Total Value	Gross / Net			Quartile Rank		
								TVM	IRR	Net DPI	TVM	IRR	DPI
Bregal Sagemount I <sup>1</sup>	2012	\$650	13	\$414	\$1,440	\$143	\$1,583	3.8x / 2.7x	37% / 30%	2.5x	1 <sup>st</sup>	1 <sup>st</sup>	1 <sup>st</sup>
Bregal Sagemount II	2016	\$960	16	\$788	\$1,651	\$662	\$2,313	2.9x / 2.4x	42% / 32%	1.7x	1 <sup>st</sup>	1 <sup>st</sup>	1 <sup>st</sup>
Bregal Sagemount III	2019	\$1,550	9	\$888	\$3	\$1,105	\$1,108	1.2x / 1.1x	24% / 14%	0.0x	n/m	n/m	n/m
Composite		\$3,160	38	\$2,089	\$3,094	\$1,910	\$5,004	2.4x / 2.0x	38% / 30%	1.3x			

Source: Bregal Sagemount, Hamilton Lane Benchmark (Small-Midcap Buyout as of March 31, 2022). Quartile Rank based on net returns.

1. Fund I size increased by \$150 million in November 2014, with incremental capital designated for debt investments. Net performance statistics for Fund I include debt and equity investments. All other Fund I information shown is for equity investments only.



## Bregal Sagemount Fund IV

- The Bregal Sagemount Fund IV growth buyout investment strategy falls under the Corporate Finance allocation of the PIF.
  - The IPS sets a target allocation of 70% to 100% for Corporate Finance investments within the PIF portfolio based on total exposure, defined as market value plus unfunded commitments.
  - Corporate Finance strategies represented approximately 85% of the PIF's total exposure as of March 31, 2022.

The recommended commitment to Bregal Sagemount Fund IV aligns strongly with PIF strategic pacing plan objectives as noted below.

- ✓ Increasing the PIF's long-term exposure to small/mid-market buyouts to 40% to 50%.
  - Small/mid-market buyout fund investments represented approximately 30% of the PIF's total exposure as of March 31, 2022.
- ✓ Partnering with new managers that have demonstrated success generating top tier returns through the execution of a differentiated strategy.

# Strengths and Rationale

## Experienced & Cohesive Leadership Team

- The Firm is led by six Partners, all of whom have extensive private equity investment experience at Sagemount and with prior organizations such as Goldman Sachs, TCV, and Great Hill Partners.
- Sagemount's Partners have created a culture that fosters the development and promotion of junior professionals through a mentorship and apprenticeship model that provides exposure to and training in the Firm's origination, underwriting, value creation, and decision-making practices.

## Research Driven Investment Strategy & Sourcing

- Sagemount utilizes a programmatic, research-based process to identify market opportunities meeting the Firm's key investment criteria.
- Thematic research is the foundation for the Firm's highly organized, direct sourcing practices, which are aimed at developing advantageous deal flow and improving investment outcomes.
  - Sagemount has spent an average of two years building a relationship and knowledge of a target company before an investment is made.
  - More than 80% of the Firm's investments have been directly sourced.
  - Despite operating in sectors subject to high valuations, Sagemount's direct sourcing efforts have enabled the Firm to deploy capital at below market average valuation multiples.

## Strong, Growth-driven Investment Returns

- Sagemount's investment strategy is premised on creating value through driving organic and inorganic growth, operational improvements, and strengthened strategic positioning.
- The Firm has developed its Growth Factors capabilities to support the achievement of growth and strategic objectives developed for each portfolio company
- Financial leverage is not a significant driver of the Firm's investment returns; more than 40% of Sagemount's portfolio companies had zero or negative net leverage at the time of investment.



# Key Risks and Mitigants

## Team Capacity

- Bregal Sagemount III was fully unrealized with nine investments having an average hold period of just over one year as of March 31, 2022. The investment team's need to spend time on these companies and the five Bregal Sagemount II unrealized investments may impact its capacity to effectively deploy the Fund.
  - With six Partners and five Vice Presidents further supported by more than ten Senior Associates and Associates, the Sagemount team has ample capacity to manage both the current portfolios and the ramp up of Fund investment activities.
  - Sagemount's strategy generally leads to hold periods of less than four years and team capacity is expected to increase as existing portfolio companies are realized. The Firm's average hold period for realized private equity investments was 3.6 years as of March 31, 2022.

## Bregal Investments' Role

- Bregal Investments has been a strategic partner and resource to Sagemount since its founding. While not anticipated, any significant changes to the relationship between Sagemount and BI would cause concern as to how these transitions are managed.
- BI is the anchor and largest investor in all Sagemount funds, including the Fund. Therefore, BI's incentives to remain a positive and supportive partner to Sagemount are fully aligned with all non-BI investors in Sagemount's funds.
- While Sagemount continues to benefit from BI's operating infrastructure, the Firm's leadership team has independently managed its investment activities since inception.

# Fundraising and Key Terms Summary

Target Size / Hard Cap	• \$2.0 billion / \$2.5 billion
GP Commitment	• A minimum of \$75 million <sup>1</sup>
Fundraising Status	• The GP has closed on a total of approximately \$2.5 billion of commitments <sup>2</sup>
Target Final Close	• October 2022
Fund Term	• Ten years, with a one-year extension available at the discretion of the GP and, thereafter, with the consent of the of the LPAC
Investment Period	• Five years starting on May 17, 2022
Management Fee	• 2.0% per annum on committed capital during investment period; thereafter, 2.0% per annum on net invested capital
Fee Discounts & Offsets	• Management fees offset by 100% of any transaction fees <sup>3</sup>
Carry & Waterfall Type	• 20% / Deal by Deal (American)
Preferred Return	• 8%
GP Catch-up	• 100%
Clawback	• Yes
Other Key Provisions	• Connecticut has been offered a seat on the Bregal Sagemount Fund IV limited partner advisor committee

## Notes:

1. Commitment will be in the form of a co-investment commitment from Sagemount employees and BI.
2. The CRPTF's recommended commitment will be accommodated from the existing capital commitments, i.e., the hard cap would not be expanded.
3. The Fund has one fee and carry structure for all limited partners, including BI.



# Legal and Regulatory Disclosure

## Bregal Sagemount Management, LP (“Bregal Sagemount”)

- In its disclosure to the Office of the Treasurer, Bregal Sagemount Management, LP (“Bregal Sagemount”), states that it has no material legal or administrative proceedings to report, no claims under its fidelity, fiduciary or E&O insurance policies, and no ongoing internal investigations to report.
- Bregal Sagemount states it has adequate procedures in place to undertake internal investigations of its employees, officers and directors.



Bregal Sagemount Management, L.P. ("Bregal Sagemount")

## **Review of Required Compliance Attachments**

Bregal Sagemount disclosed no third-party fees, campaign contributions, known conflicts or gifts

## **Corporate citizenship in the State of Connecticut**

None reported

## **Commitment to the diversity, education & training of the industry's next generation**

As of fall of 2020, the firm changed their hiring process: requiring all recruiting firms to present slates that are at least 33% diverse or underrepresented candidates; name and gender-blind resume screening; diversifying interview panels to include non-investment professional interviewers for investment roles. They are also working with diversity hiring firms to seek more diverse candidates and plan to provide interviewer training and unconscious bias workshops.

In 2022, the firm announced its support of SEO's Alternative Investments Fellowship Program

The firm started collecting diversity data (gender and race/ethnicity) in 2021

## **Support for women-owned, minority-owned or emerging businesses**

None reported

# Compliance and Diversity Review

Bregal Sagemount Management, L.P. ("Bregal Sagemount")

## Workforce Diversity

Bregal Sagemount provided data as of June 14, 2022

- The firm provided currently only; data collection as a firm started in 2021
- 44 total employees

### WOMEN

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>0%</b>	<b>11%</b>	<b>26%</b>	<b>23%</b>
	0 of 2	2 of 19	6 of 23	10 of 44

### MINORITIES<sup>1</sup>

	EXEC	MGMT	PROF	FIRM
<b>2022</b>	<b>50%</b>	<b>26%</b>	<b>35%</b>	<b>30%</b>
	1 of 2	5 of 19	8 of 23	13 of 44

<sup>1</sup> 2022 Minority breakdown: 1 exec (1 Asian); 5 mgmt (1 Black, 4 Asian); 8 prof (1 Black, 1 Hispanic, 5 Asian, 1 Two+)



# Environmental, Social and Governance Analysis

## Overall Assessment : Evaluation and Implementation of Sustainable Principles

Bregal Sagemount's disclosure described a detailed integration of ESG factors. The disclosure emphasized the firm's extensive due diligence process in the pre-investment phase of its investments, which mandates the inclusion of an ESG section in all investment memos.

The firm adopted a formal ESG policy in 2018, and has since created a Responsible Investment Policy in February 2022 that informs the firm's engagement strategy with portfolio companies. Bregal Sagemount is a signatory to the UN PRI and has made science-based target-aligned climate commitments. The investment team manages the firm's ESG program, while the Head of ESG and Investment Committee oversees ESG investment considerations. ESG staff engage each other and outside consultants for data and resources, but the firm has plans to offer more formal ESG and climate training later this year.

Bregal Sagemount has a set of exclusion criteria that includes weaponry. The firm does not have any relationships with civilian firearms manufacturers.

Overall, the firm's disclosure demonstrated comprehensive ESG integration, with room to improve on formal training.

## SCORE

2

Criteria	Response
Firm has an ESG policy	Yes
If Yes, firm described its ESG policy	Yes
If Yes, firm provided examples of ESG factors considered in the decision-making process, explained the financial impact of these ESG factors	Yes
Designated staff responsible for sustainability policies and research	Yes
Firm provides training/resources on sustainability issues, explained sources of ESG-related data	No
Signatory/member of sustainability-related initiatives or groups	Yes
Policy for evaluating current or prospective relationships with manufacturers or retailers of civilian firearms	No*

Criteria	Response
Policy that requires safe and responsible use, ownership or production of guns	No*
Enhanced screening of manufacturers or retailers of civilian firearms	No*
Enhance screening of any industry/sector subject to increased regulatory oversight, potential adverse social and/or environmental impact	Yes
Merchant credit relationship with retailers of civilian firearms and accessories	No
If Yes, firm confirms compliance with laws governing firearms sales	N/A

\*No, given that the firm does not invest in civilian firearms manufacturers or distributors.





Hamilton Lane

# Bregal Sagemount IV L.P.

Recommendation Report

August 2022



All information contained within this report has been gathered from sources believed to be reliable, including but not limited to the general partner(s), other industry participants and the Hamilton Lane Investment Database, but its accuracy cannot be guaranteed.

The information contained in this report may include forward-looking statements regarding the fund presented or its portfolio companies. Forward-looking statements include a number of risks, uncertainties and other factors beyond the control of the fund or the portfolio companies, which may result in material differences in actual results, performance or other expectations. The opinions, estimates and analyses reflect our current judgment, which may change in the future.

The past performance information contained in this report is not necessarily indicative of future results and there is no assurance that the fund will achieve comparable results or that it will be able to implement its investment strategy or achieve its investment objectives. The actual realized value of currently unrealized investments will depend on a variety of factors, including future operating results, the value of the assets and market conditions at the time of disposition, any related transaction costs and the timing and manner of sale, all of which may differ from the assumptions and circumstances on which the current unrealized valuations are based.

Any tables, graphs or charts relating to past performance included in this report are intended only to illustrate the performance of the fund or the portfolio companies referred to for the historical periods shown. Such tables, graphs and charts are not intended to predict future performance and should not be used as the basis for an investment decision.

By accepting receipt of this investment report and in consideration of access to the information contained herein (together with the investment report, the “Confidential Information”), the recipient agrees to maintain the strict confidentiality of any and all Confidential Information in accordance with the terms of this paragraph. The recipient acknowledges that (i) the Confidential Information constitutes proprietary trade secrets, and (ii) disclosure of any Confidential Information may cause significant harm to Hamilton Lane Advisors, L.L.C. (“Hamilton Lane”), its affiliates or any of their respective businesses. Unless otherwise required by law, the recipient shall not disclose any Confidential Information to any third party. If required by law to disclose any Confidential Information, the recipient shall provide Hamilton Lane with prompt written notice of such requirement prior to any such disclosure so that Hamilton Lane may seek a protective order or other appropriate remedy. Prior to making any disclosure of any Confidential Information required by law, the recipient shall use its reasonable best efforts to claim any potential exemption to such requirement and otherwise shall limit disclosure only to such information that is necessary to comply with such requirement.

The calculations contained in this document are made by Hamilton Lane based on information provided by the general partner (e.g. cash flows and valuations), and have not been prepared, reviewed or approved by the general partner.

Stacked bar charts or pie charts presented in the Strategy section in this report may not equate to 100% per the data labels on the charts due to rounding; however, all stacked bar charts and pie charts equate to 100% using exact proportions.

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## Fund Information

Organization Overview	Fund Overview	Portfolio Construction
<p><b><u>General Partner:</u></b> Bregal Sagemount Management, L.P. ("General Partner"), ("Sagemount")</p> <p><b><u>Firm Inception:</u></b> 2012</p> <p><b><u>Team:</u></b> 17 dedicated investment professionals</p> <p><b><u>Senior Partners:</u></b> Gene Yoon, Adam Fuller, Blair Greenberg, Michael Kosty, Pavan Tripathi and Phil Yates</p> <p><b><u>Location:</u></b> New York (headquarters) and San Francisco</p>	<p><b><u>Fund:</u></b> Bregal Sagemount IV L.P. ("Fund")</p> <p><b><u>Target Size/Hard Cap:</u></b> \$2.0 billion/\$2.5 billion</p> <p><b><u>Asset Class:</u></b> Private equity</p> <p><b><u>Strategy:</u></b> Corporate finance/buyout</p> <p><b><u>Substrategy:</u></b> Mid-market buyout</p> <p><b><u>Geography:</u></b> North America</p> <p><b><u>Industries:</u></b> Software and tech-enabled services</p>	<p><b><u>Enterprise Values:</u></b> \$75 million to \$225 million</p> <p><b><u>Target Number of Investments:</u></b> 15 to 20</p> <p><b><u>Max Single Investment Exposure:</u><sup>1</sup></b> 15%</p> <p><b><u>Expected Hold Period Per Investment:</u></b> 2 to 4 years</p> <p><b><u>Target Returns:</u></b> 20% net IRR; 2.0x TVPI; 25% gross IRR; 2.0x to 3.0x gross multiple</p>

<sup>1</sup> Up to 25% inclusive of Bridge Financings

## Net Performance and Benchmarks

Bregal Sagemount Management, L.P. Prior Investment Performance <sup>1</sup> As of 3/31/22								HL Benchmark Small and Mid Cap Buyout As of 3/31/22			PME Benchmark Russell 3000 As of 3/31/22	J-Curve Benchmark Mid Cap Buyout As of 3/31/22
(\$mm)	Fund	Vintage	Fund Size	% Drawn <sup>2</sup>	DPI	TVPI	Net IRR	Spread vs. Top-Quartile			Spread vs. PME	Comparison to Peers (quarters)
								DPI	TVPI	Net IRR		
	Fund I <sup>3</sup>	2012	\$650	97%	2.5x	2.7x	30.3%	0.8x	0.6x	+800 bps	+1695 bps	1 later
	Fund II	2016	960	94%	1.7x	2.4x	31.9%	0.6x	0.3x	+448 bps	+1586 bps	5 earlier
	Fund III	2019	1,550	64%	0.0x	1.1x	13.9%	-0.2x	-0.5x	-2715 bps	-59 bps	3 earlier
	<b>Total</b>				<b>1.3x</b>	<b>2.0x</b>	<b>30.2%</b>				<b>+1581 bps</b>	

## Fundraise Update

- Sagemount has closed on \$2.1 billion of capital commitments to date
- Final close intended for Q3 2022

<sup>1</sup> Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee-paying limited partners and exclude any cash flows from the General Partner's commitment

<sup>2</sup> Percent drawn provided by the General Partner as of 6/30/22

<sup>3</sup> Fund I initially raised \$500 million of commitments to pursue equity investments and incrementally raised an additional \$150 million of commitments to pursue debt investments and was solely comprised of commitments from its anchor investor; net performance provided is inclusive of both debt and equity investments; percent drawn is inclusive of equity investments only

## Key Terms<sup>1</sup>

Term	Summary		
Investment Period	5 years		
Fund Term	10 years; + 1 one-year extension at the discretion of the General Partner; + 1 one-year extension with advisory board approval		
GP Commitment	3.75% (at least \$75 million)		
Management Fee			
	Management Fee		
	Years	Rate	Fee Base
	Investment Period	2.00%	Aggregate Commitments
	Post-Investment Period	2.00%	Net Invested Capital
	Extension Periods	1.75%	Net Invested Capital
Fee Discount	None		
Fee Offset	100%		
Organization Expenses	\$2.25 million		
Carry/Preferred Return	20%/8%; deal-by-deal		
GP Catch-up	100%		
Clawback	Yes		

<sup>1</sup> Refers to the terms proposed by the General Partner as of February 2022; terms are subject to change during fundraising

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**Investment Thesis**

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**Thoughtfully constructed platform led by a cohesive senior team affiliated with a global firm**

- Sagemount was founded in 2012 by Gene Yoon, who currently leads the firm along with five Partners who have been with the organization since inception, with several Partners having worked together previously, demonstrating deep cohesion
- The General Partner has been thoughtful in growing its investment and operating resources in part through its relationship with Growth Factors Associates, a team of consultants who function as value creation specialists
- Sagemount is affiliated with Bregal Investments (“BI”), a global investment platform that served as the General Partner’s anchor investor and provides institutional support

**Thematic investment approach with flexible structuring capabilities to capture risk-adjusted opportunities**

- Consistent with prior funds, the General Partner targets high-quality software and tech-enabled services businesses operating within a variety of end markets in which the team has developed deep, thematic insights
- Sagemount remains flexible regarding ownership, seeking control-oriented growth buyouts as well as structured minority investments with governance rights, creating an attractive risk-return profile with downside protection and upside potential
- The General Partner is an active investor, leveraging its Growth Factors team to professionalize and scale its founder-owned businesses

**Attractive performance with an emphasis on downside protection**

- Sagemount has generated attractive risk-adjusted performance and demonstrated its ability to preserve capital
- The General Partner has also generated strong realized performance, driving several exits in 2021 and expecting further near-term liquidity
- The unrealized portfolio remains healthy

**Investment Considerations**

**The General Partner will continue to successfully execute its strategy as it decreases its reliance on BI**

- While the General Partner continues to maintain a relationship with BI and leverage its platform's support, BI has reduced its involvement over time and, as such, Sagemount will need to remain effective as a more independent organization
- While Sagemount was initially entirely funded by BI, it has thoughtfully reduced BI's involvement as the General Partner has grown and demonstrated its ability to raise and deploy capital independently
- The General Partner expects to continue to remain a part of the BI umbrella, benefiting from its global presence and robust back-office capabilities

**Sagemount will remain disciplined in acquiring high-quality opportunities despite high purchase prices for quality assets and elevated competition**

- In demand technology companies continue to command high pricing and see elevated levels of competition, leading to concerns around Sagemount's ability to source attractive opportunities at moderate valuations
- The General Partner's expertise, value creation capabilities and strong sourcing platform has positioned itself as a partner of choice, driving high levels of direct deal flow
- Additionally, Sagemount's structured minority investment approach, which often includes payment provisions and tight budget controls, has enabled it to remain conservative in a rising price environment

**The General Partner will thoughtfully manage exit timing**

- The General Partner averages a 3.4 year hold period of realized deals and, as a result, potentially forgoes additional upside in favor of liquidity given its relatively short duration of ownership
- Sagemount has proven its ability to generate outperformance
- Additionally, Sagemount has historically taken a conservative approach to valuing its portfolio and has previously experienced uplifts to carrying values at the time of ultimate realization, representing potential embedded upside within its unrealized investments



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**Recommendation**

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Based on the analysis and information presented herein, Hamilton Lane believes that a commitment to Bregal Sagemount IV L.P. works towards achieving the goals set forth for the Connecticut Retirement Plans and Trust Funds. A commitment to the Fund will establish a relationship with a high-quality General Partner. Taking into account the investment strategy and portfolio diversification objectives of the Private Investment Fund, Hamilton Lane recommends a commitment to the Fund.

**Experienced independent investment team affiliated with a global platform**

- The General Partner was founded in 2012 by Gene Yoon as an affiliate of BI, a global private investment manager and family office that serves as an anchor investor in the Fund
- Mr. Yoon leads the dedicated team, which, aside from leveraging its robust back-office capabilities, functions independently of the broader BI platform and maintains full control over investment decisions

**Cohesive senior team supported by a deep bench of junior professionals**

- The senior investment team is comprised of Mr. Yoon and five Partners who have been with Sagemount since inception, demonstrating strong cohesion across the team
- The senior team has developed deep domain expertise within the software and tech-enabled services space and benefits from the continued build-out of its junior- and mid-level resources, enabling ample capacity and execution capabilities

**Growth Factors team supports value creation capabilities**

- The investment team is supported by three dedicated full-time professionals who leverage Growth Factors Associates, a group of independent consultants that maintain a relationship with the General Partner, and work closely with the investment team across all stages of the investment process
- The Growth Factors team is functionally organized and works directly with portfolio company management teams to professionalize businesses and drive strategic growth initiatives, a key component of Sagemount's strategy

**Thoughtful distribution of economics promotes alignment and continued platform growth**

- Sagemount thoughtfully distributes economics across the investment team, with a meaningful portion of carried interest allocated to a variable incentive pool reserved for strong performers, promoting alignment across the team
- The General Partner continues to focus on further expansion and institutionalization as it raises additional capital, expecting to add multiple junior- and mid-level resources in the near term

- The General Partner was founded by Managing Partner Gene Yoon in 2012 in conjunction with Bregal Investments (“BI”) to provide flexible capital solutions to North American software and tech-enabled businesses
- Mr. Yoon continues to lead the firm today with support from investment Partners Adam Fuller, Blair Greenberg, Michael Kosty, Pavan Tripathi and Phil Yates and Head of Growth Factors & Partner Curt Witte
- Sagemount is affiliated with the broader BI platform, a global private investment firm offering six independently managed strategies, including energy-, Europe- and middle-market-focused direct and fund-of-funds product lines
  - While the investment team functions independently of BI, the Fund will leverage the broader platform for ESG, back-office and administrative support

**Snapshot:**<sup>1</sup>**Inception/Founders:**

2012/Gene Yoon

**Locations:**

New York and San Francisco

**AUM:**<sup>2</sup>

\$3.6 billion

**Strategies/Product Lines:**

Corporate finance/buyout and private credit

**Management Company:**

Private

**Current Leadership:**

Gene Yoon

**Headcount:**

17 dedicated investment professionals, 4 additional investment professionals, 3 Growth Factors professionals and 7 other professionals

<sup>1</sup> As of February 2022 and representative of Sagemount only; exclusive of broader BI platform

<sup>2</sup> Represents total capital raised by the General Partner as of 12/31/21

- Since Fund I, Sagemount has continued to focus on further institutionalization, thoughtfully building out its investment team, operational resources and fund management capabilities, which has enabled it to effectively function independently of the BI platform
- In 2021, the General Partner hired Investor Relations Partner Shea Goggin to focus on institutionalizing its fundraising processes and expects to add additional junior- and mid-level investor relations and operations resources in the near term
- Similarly, Sagemount began its relationship with Growth Factors Associates in 2019 and has continued to adapt and refine its sourcing approach, enabling the firm to scale effectively
- In addition to the Fund, the General Partner manages a private credit fund line led by Partner & Head of Credit Scott Simpson and his dedicated team of three additional investment professionals, as well as a special purpose acquisition company (“SPAC”)
  - The General Partner expects to leverage its credit-dedicated professionals to assist in evaluating leverage for its portfolio and in instances of refinancing or dividend recaps
  - In March 2021, Sagemount established a joint-venture with FT Partners to form Independence Holdings Corp., a SPAC focused on acquiring a fintech company that would not fit the Fund’s mandate in terms of size or return profile

- The senior investment team is experienced and cohesive, averaging over 10 years with the General Partner and 18 years of relevant industry experience
  - Prior to Founding the General Partner, Mr. Yoon worked with Messrs. Fuller, Tripathi and Kosty at Goldman Sachs & Co. and with Mr. Yates while at Great Hill Partners, contributing to strong cohesion across the team
- The investment committee is comprised of Mr. Yoon and the five investment Partners, with investment and divestment decisions requiring majority approval, and Mr. Yoon maintaining a veto and breaking any ties
  - Alain Carrier, CEO of BI and Alvar De Wolff, Director of Corporate & Social Responsibility from the broader BI platform, will be observers to the investment committee
    - While the investment committee for earlier funds included voting members from the broader BI platform, going forward, Messrs. Carrier and De Wolff will maintain an observation role only
- The investment committee is 33% ethnically diverse and has no gender diversity

Name	Title	Tot. Exp. (yrs.)	Tenure (yrs.)	Fund I	2013	2014	2015	Fund II	2017	2018	Fund III	2020	2021	2022
Gene Yoon <sup>1</sup>	Managing Partner	25	10											
Phil Yates <sup>1</sup>	Partner	22	10											
Blair Greenberg <sup>1</sup>	Partner	18	10											
Adam Fuller <sup>1</sup>	Partner	17	10											
Pavan Tripathi <sup>1</sup>	Partner	16	10											
Michael Kosty <sup>1</sup>	Partner	15	10											
Jaskaran Heir	Vice President	11	8											
Gerald Castaldo	Vice President	9	7											
William Breskman	Vice President	7	5											
Jordan Walton	Vice President	7	5											

= Tenure with Bregal Sagemount Management, L.P.

= Total Experience

<sup>1</sup> Denotes members of the investment committee

- Deal teams typically comprise one Partner and at least one mid- and junior-level professional, with Partners typically being responsible for three to six active companies and a broad pipeline of opportunities
  - Senior investment professionals are responsible for developing thematic insights into new attractive subsectors and specialize by area of interest, contributing to deep domain expertise
  - Junior- and mid-level professionals function as generalists, enabling deep execution capabilities across the team
- While realized deal lead attribution has been primarily concentrated to Mr. Yoon and former Partner Daniel Kim, the General Partner expects Messrs. Fuller, Greenberg, Kosty, Tripathi and Yates to all participate in deal generation for the Fund
- The broader investment team includes four Vice Presidents, three Senior Associates and four Associates, who primarily focus on industry research and sourcing
  - The General Partner further benefits from one business development professional, who exclusively focuses on outbound sourcing within high-conviction subsectors
- The investment team primarily operates out of its headquarters in New York and it also maintains an office in the San Francisco Bay Area, managed by Mr. Fuller
- The investment team also leverages its dedicated Capital Formation team and finance resources, which are independent of the broader BI platform as well as Growth Factors Associates, its affiliated value creation team
- The General Partner maintains a cohesive organization, experiencing minimal Partner-level turnover since inception; former Partner Daniel Kim departed from the General Partner in early 2020
- Sagemount emphasizes internal development, evidenced by multiple recent promotions, further contributing to the organization's cohesion
- In 2020, the General Partner implemented a formal hiring process relating to improving its ability to recruit and retain underrepresented professionals

- The General Partner benefits from three full-time operating professionals and its relationship with Growth Factors Associates, who are focused on optimizing portfolio companies and driving strategic growth initiatives, which is a key part of Sagemount's strategy
- The Growth Factors team is led by Mr. Witte with support from Partner Sandeep Swaminathan and Principal Jon Sonnenschein who function as generalists overseeing 14 independent, functionally specialized consultants
  - Growth Factors Consultants are employed by Growth Factors Associates LLC, an independent consulting agency that is not affiliated with the General Partner or BI
  - Growth Factors Consultants are compensated directly by portfolio companies and may receive an additional stipend from the General Partner for assistance with sourcing or other pre-investment diligence
- The Growth Factors team becomes involved during investment diligence and continues to work with portfolio companies throughout Sagemount's ownership
  - The Growth Factor Consultants work closely with portfolio company management teams to drive sales growth, optimize internal processes, recruit talent, implement technology solutions and execute strategic M&A

Partner & Head of Growth Factors Team						
Curt Witte						
Partner						
Sandeep Swaminathan						
Principal						
Jon Sonnenschein						
Growth Factors Consultants <sup>1</sup>						
Sales Acceleration	Value Creation	Offer Optimization	Talent Management	Technology Innovation	Capital Markets	Strategic M&A
3 Consultants	1 Consultant	1 Consultant	3 Consultants	1 Consultant	1 Consultant	4 Consultants

<sup>1</sup> Growth Factors Consultants are not employees of the General Partner



## Consistent focus on high-quality software and tech-enabled businesses

- Consistent with prior funds, the General Partner targets North American-based software and tech-enabled services businesses that are fundamentally sound and generating high levels of recurring revenue
- Sagemount typically targets bootstrapped businesses that are seeking a strategic partner to scale with
- The General Partner employs a thematic, top-down approach, seeking to invest in end markets that are rapidly expanding and largely uncorrelated to broader macroeconomic factors

## Transaction flexibility and targeted structuring leads to broad deal flow and strong downside protection

- Sagemount is flexible regarding ownership stake and transaction type, targeting growth buyouts as well as minority deals, creating a broad opportunity set
- The General Partner typically invests in preferred equity shares with structured return components, creating an attractive risk-return profile
- Sagemount emphasizes downside protection, solely investing in conservatively leveraged businesses with well-aligned management teams and seeking governance rights regardless of ownership stake

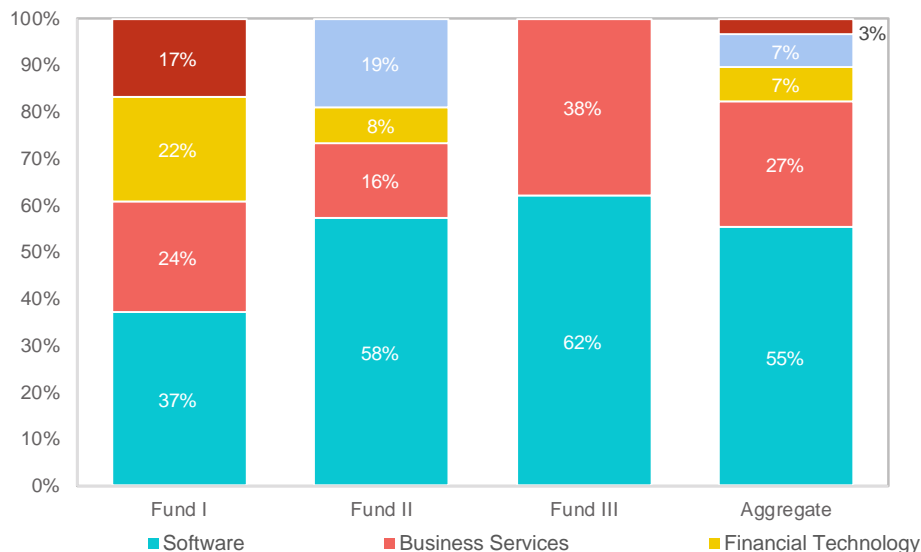
## Robust value creation capabilities enable attractive exits

- The General Partner has positioned itself as a partner of choice through its deep domain expertise, flexibility and robust value creation capabilities
- Sagemount leverages its Growth Factors team, who work closely with the investment team and portfolio company management to develop bespoke value creation plans focused on business optimization and revenue expansion
- The General Partner's hands-on approach has enabled portfolio companies to become attractive assets for financial sponsors and strategic acquirers

- Sagemount targets a combination of growth buyout and structured minority investments in durable, software and tech-enabled businesses generating high levels of recurring revenue
- The General Partner takes a thematic investment approach focused on rapidly expanding sub-sectors consisting of businesses with strong cash flows and high margins that are uncorrelated to broader macroeconomic factors
  - Sagemount expects to primarily target companies operating within the software & tech-enabled services, business services, information & data services, healthcare & healthcare IT, financial services, digital technologies and consumer subscription services spaces
- Consistent with prior funds, Sagemount does not set formal sector allocation targets and expects to build a diversified portfolio for the Fund

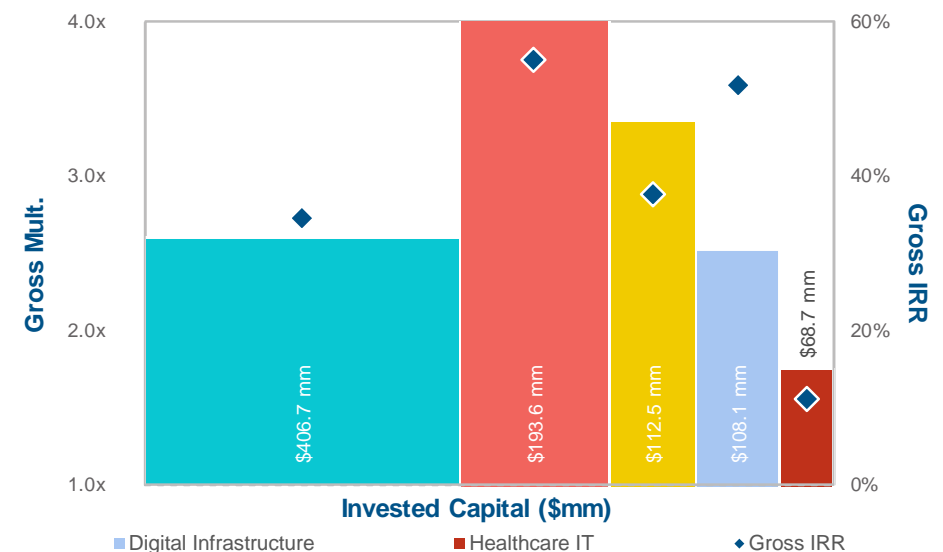
## Prior Investments - % by Sector

As of 3/31/22



## Realized Performance – by Sector<sup>1</sup>

As of 3/31/22



<sup>1</sup> Business services investments generated a 4.1x gross multiple

- Consistent with prior funds, the General Partner primarily seeks to invest in United States-based businesses but remains regionally agnostic
- Sagemount seeks to construct a portfolio of 15 to 20 investments with equity checks ranging from \$75 million to \$225 million
- The General Partner targets established businesses and has steadily moved up market over time
- Sagemount typically seeks to be the first institutional capital in a founder-owned business that is looking for a strategic partner to continue to scale
- The General Partner seeks growing businesses that generate between \$20 million and \$150 million of recurring revenue
  - Sagemount targets companies that are growing at rates of at least 10% and that are largely profitable
- The General Partner is flexible regarding ownership, seeking growth buyout and minority investments with governance rights, which has enabled Sagemount to manage risk and broaden its opportunity set
- While Sagemount does not maintain ownership targets, all investments are control-oriented and include effective control provisions such as management change approval, M&A approval, budget approval and other financial performance covenants
- The General Partner also has secured board seats or observation rights across all prior investments enabling it to meaningfully influence strategic decision making
- Sagemount seeks to be a flexible capital solutions provider and remains opportunistic regarding transaction type, most commonly executing buyouts, recapitalizations and minority investments
  - Given the inflated purchase price environment during Fund III, the General Partner has completed more minority investments, demonstrating the opportunistic nature of its strategy and focus on risk-adjusted performance
- Regardless of ownership stake or transaction type, the General Partner typically invests in preferred equity securities and adds a structured component to each opportunity, creating further downside protection and driving attractive risk-adjusted performance

- Consistent with prior funds and its focus on capital preservation, the General Partner typically employs limited levels of leverage in order to achieve favorable positions within portfolio companies' capital structures, further enabling downside protection
- Sagemount has positioned itself as a partner of choice due to its transaction flexibility, domain expertise and robust value creation capabilities, leading to high levels of direct deal flow
- The General Partner has developed a research-driven sourcing approach, performing 20 to 25 sector analyses annually to determine areas of interest and inform proactive company outreach
  - The investment team benefits from its business development professional who conducts outbound company calling as well as select Growth Factors consultants who assist with technological innovation related to sourcing
- Sagemount seeks to identify attractive opportunities prior to specific capital needs, averaging two years of contact before investing in order to build relationships with management teams and better understand a company's operations
- The General Partner primarily seeks to scale its businesses in order to position them as attractive assets for strategic and financial sponsors
- Sagemount begins exit planning during initial diligence and maintains four Growth Factor consultants dedicated to strategic exits and acquisition activity, who provide exit advisory and capital markets support
- The General Partner seeks to acquire businesses at moderate prices given its direct sourcing and structured investment approach
  - In line with market trends, average purchase price multiples have increased over time, albeit the General Partner is often able to acquire companies at a discount to broader market transactions
  - Sagemount has demonstrated its ability to scale companies, which has contributed to EBTIDA/revenue multiple expansion over time as its portfolio companies become attractive assets for strategic and financial buyers

- The General Partner's active value creation approach has enabled it to drive growth in strong businesses regardless of entry price or valuation metric
- Sagemount will value opportunities on both an EBITDA and revenue basis depending on their growth profile
- The General Partner does not underwrite multiple expansion and relies on the value creation capabilities of its Growth Factors team to generate significant EBITDA growth
- During investment diligence, the Growth Factors team works closely with investment professionals and portfolio company management teams to construct a customized and highly detailed value creation plan focused around five value creation pillars: sales acceleration, offer optimization, talent leadership, tech & process innovation and strategic exit/M&A
- The team will align with management on enterprise value, revenue and run-rate EBITDA targets and actively track each company's progress

**Consistent, attractive net performance**

- The General Partner has generated consistent, attractive net performance across prior funds
- Fund III remains early in its fund life, but has demonstrated strong initial traction
- Sagemount has activated the Fund and, as of July 2022, had invested approximately \$180 million across two platform investments

**Strong deal level performance with a healthy unrealized portfolio**

- The General Partner has generated attractive gross performance
- The unrealized portfolio remains healthy, with all investments held at or above cost and several near-term exits expected as of 3/31/22
- Sagemount has historically taken a conservative approach to valuing its portfolio and has previously experienced uplifts to carrying values at the time of ultimate realization, representing potential embedded upside within its unrealized investments

**Increased deployment with recent meaningful liquidity**

- The General Partner continues to increase its deployment capabilities as it scales its organization
- Sagemount had several liquidity events in 2021

**Strong downside protection with demonstrated ability to generate outperformance**

- The General Partner has demonstrated its ability to preserve capital, only experiencing one realized loss
- Additionally, Sagemount has proven its ability to generate outperformance

- The General Partner has generated consistent, attractive net returns across prior funds
  - As of 3/31/22, Funds I and II had achieved top-quartile performance across all metrics
- Consistent with Funds II and III, Sagemount expects to utilize a credit facility to bridge capital calls, remaining thoughtful in regard to fund management
  - Pro forma for three platform investments held on its subscription line, Fund III is approximately 90% drawn as of July 2022
  - As of July 2022, the General Partner had yet to call capital for the Fund, as the first two platform investments were held on the subscription line

Bregal Sagemount Management, L.P. Prior Investment Performance <sup>1</sup> As of 3/31/22								
(\$mm) Fund	Vintage	Fund Size	Capital Drawn	Capital Distributed	NAV	DPI	TVPI	Net IRR
Fund I <sup>2</sup>	2012	\$650	\$625.9	\$1,594.6	\$122.4	2.5x	2.7x	30.3%
Fund II	2016	960	807.7	1,356.9	569.9	1.7x	2.4x	31.9%
Fund III	2019	1,550	877.7	31.0	941.2	0.0x	1.1x	13.9%
<b>Total</b>			<b>\$2,311.3</b>	<b>\$2,982.5</b>	<b>\$1,633.5</b>	<b>1.3x</b>	<b>2.0x</b>	<b>30.2%</b>

HL Benchmark Small and Mid Cap Buyout As of 3/31/22			PME Benchmark Russell 3000 As of 3/31/22
Top-Quartile			PME IRR
DPI	TVPI	Net IRR	
1.8x	2.1x	22.3%	13.3%
1.0x	2.1x	27.4%	16.0%
0.2x	1.6x	41.1%	14.5%
			<b>14.4%</b>

<sup>1</sup> Capital Drawn, Capital Distributed and NAV are calculated from the cash flows of fee-paying limited partners and exclude any cash flows from the General Partner's commitment

<sup>2</sup> Fund I initially raised \$500 million of commitments to pursue equity investments and incrementally raised an additional \$150 million of commitments to pursue debt investments and was solely comprised of commitments from its anchor investor; net performance provided is inclusive of debt and equity investments



- Sagemount has generated attractive deal-level performance on a realized and unrealized basis
- The General Partner has demonstrated its ability to preserve capital while generating outperformance

Bregal Sagemount Management, L.P. Prior Investment Performance As of 3/31/22									
(\$mm) Fund	Vintage	# of Inv.		Fund Size	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
		Total	Real.						
Fund I <sup>1</sup>	2012	13	12	\$650	\$413.8	\$1,439.7	\$143.0	3.8x	37.5%
Fund II	2016	16	11	960	787.7	1,651.0	661.7	2.9x	41.8%
Fund III	2019	9	0	1,550	887.7	2.5	1,105.4	1.2x	24.1%
<b>Total</b>		<b>38</b>	<b>23</b>		<b>\$2,089.2</b>	<b>\$3,093.2</b>	<b>\$1,910.2</b>	<b>2.4x</b>	<b>38.3%</b>

Bregal Sagemount Management, L.P. Realized Investment Performance As of 3/31/22						Bregal Sagemount Management, L.P. Unrealized Investment Performance As of 3/31/22					
(\$mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR	(\$mm) Fund	Amount Invested	Amount Realized	Unrealized Value	Gross Mult.	Gross IRR
Fund I	\$373.2	\$877.8	\$0.0	2.4x	30.5%	Fund I	\$40.6	\$561.9	\$143.0	17.4x	81.0%
Fund II	516.4	1,648.1	94.3	3.4x	47.2%	Fund II	271.3	2.9	567.5	2.1x	24.8%
Fund III	0.0	0.0	0.0	n/a	n/a	Fund III	887.7	2.5	1,105.4	1.2x	24.1%
<b>Total</b>	<b>\$889.6</b>	<b>\$2,525.9</b>	<b>\$94.3</b>	<b>2.9x</b>	<b>36.4%</b>	<b>Total</b>	<b>\$1,199.6</b>	<b>\$567.4</b>	<b>\$1,815.9</b>	<b>2.0x</b>	<b>46.8%</b>

<sup>1</sup> Fund I initially raised \$500 million of commitments to pursue equity investments and incrementally raised an additional \$150 million of commitments to pursue debt investments and was solely comprised of commitments from its anchor investor; performance provided is inclusive of equity investments only

- The General Partner has developed comprehensive ESG and responsible investment policies and leverages the dedicated ESG resources of the BI platform to assist with its ESG initiative implementation and tracking at the portfolio company level
  - Alvar De Wolff, Director of Corporate & Social Responsibility at BI is an observer to the investment committee and provides input on material ESG issues
- Sagemount emphasizes the importance of mitigating the environmental impact its portfolio has and encourages all portfolio companies to adopt realistic, science-based targets with the goal of meaningfully reducing carbon emissions, which are measured and reported
- The General Partner is committed to improving DE&I by increasing awareness internally, seeking diverse talent when hiring and supporting national organizations focused on driving social change
  - Sagemount actively supports GOOD Directors, a national program dedicated to creating opportunities for women, minority and LGBTQ community members on public company boards of directors

## ESG Summary

ESG Policy	Yes	Integration in Decision Making	Yes; IC memos include ESG requirements
ESG-Dedicated Professionals	Four ESG and Sustainability Professionals across the BI platform	ESG Focus – Planning	Yes; ESG is always included in strategic planning
Signatories	PRI	Monitoring	Yes; monitors 7 KPIs across portfolio companies
Environmental Focus	Initiative Climate International (“iCI”) member	Reporting	Annual Responsible Investment Report
Diversity	81% male/17% female/2% not provided across the organization 100% male across the investment team 33% minority in decision making 73% minority in ownership	Requirements of Portfolio Companies	The General Partner seeks to align with Sagemount’s ESG standards related to data privacy & security, governance, workforce engagement & diversity and climate targets during its ownership
ESG in Due Diligence Process	Yes		



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## Appendices

Experience of Senior Investment Professionals				
Name	Title	Tot. Exp. (yrs.)	Tenure (yrs.)	Prior Experience
Gene Yoon	Managing Partner	25	10	<ul style="list-style-type: none"> <li>Goldman Sachs, Head of Private Equity Special Situations Group</li> <li>Great Hill Partners, Partner</li> <li>Geocast Network Systems, Director of Corporate Development</li> </ul>
Phil Yates	Partner	22	10	<ul style="list-style-type: none"> <li>Great Hill Partners, Principal</li> <li>Carousel Capital, Associate</li> </ul>
Blair Greenberg	Partner	18	10	<ul style="list-style-type: none"> <li>TCV, Senior Associate</li> <li>RiskMetrics Group</li> <li>UBS Investment Bank</li> </ul>
Adam Fuller	Partner	17	10	<ul style="list-style-type: none"> <li>Goldman Sachs, Associate</li> <li>Arbor Advisors, Associate</li> </ul>
Pavan Tripathi	Partner	16	10	<ul style="list-style-type: none"> <li>Goldman Sachs</li> </ul>
Michael Kosty	Partner	15	10	<ul style="list-style-type: none"> <li>Goldman Sachs</li> </ul>
Jaskaran Heir	Vice President	11	8	<ul style="list-style-type: none"> <li>CIVC Partners, Associate</li> <li>Moelis &amp; Company, Analyst</li> </ul>
Gerald Castaldo	Vice President	9	7	<ul style="list-style-type: none"> <li>Greenhill &amp; Co, Analyst</li> </ul>
William Breskman	Vice President	7	5	<ul style="list-style-type: none"> <li>Peter J. Solomon Company, Analyst</li> </ul>
Jordan Walton	Vice President	7	5	<ul style="list-style-type: none"> <li>Lazard, Analyst</li> </ul>

Benchmark Analysis:	An analysis that compares the net IRR of the prior funds to the top-quartile net IRR benchmarks for similar funds (based on strategy and vintage) as reported by the Hamilton Lane database. The benchmark data shown is the most recent data available at this time
DPI:	Distributed-to-Paid In = (Amount of Distributions Received)/(Total Amount of Capital Paid-In)
ESG:	Environmental, Social and Governance
Gross IRR:	Internal Rate of Return (“IRR”) of investments at the “fund level,” excludes fees paid by LPs to the General Partner such as management fees and carried interest. For investments held less than one year, Hamilton Lane nominalizes the IRR to match the hold period of the investment in order to represent a more meaningful number
Investment Pacing:	An analysis of the total capital invested during the given years. Includes all prior investments, realized or unrealized
J-curve Benchmark:	Peer (median by age) is calculated by taking the median IRR of similar funds (based on strategy and vintage) in Hamilton Lane’s database at each quarter, which are simulated as investing at the same point in time. The length of time to break the J-curve is calculated from inception to the first time each fund generated a positive net IRR
Loss Ratio Analysis:	An analysis of the capital invested in realized transactions generating different multiples of invested capital
Net IRR:	Annualized Internal Rate of Return (“IRR”) of investments at the LP level inclusive of fees such as management fees and carried interest paid to the General Partner
Net Returns to Limited Partners:	The performance of the General Partner’s prior investment vehicles at the net LP level, inclusive of all fees, carried interest and expenses. Performance data is as reported by the General Partner using actual capital contributions, distributions and net asset value for either all limited partners, or a sample set of limited partners, in the respective funds
Outlier Analysis:	An analysis of the gross returns of investments in prior funds, comparing overall performance against the performance when certain ‘outlier’ transactions are excluded. Outliers are defined as transactions that generate exceptionally positive or negative results
PME Analysis:	Calculated by taking the fund’s monthly cash flows and investing them in the relevant Total Return Index (where all dividends are re-invested). Contributions were scaled by a factor such that the ending portfolio balance would be equal to the private equity net asset value (equal ending exposures for both portfolios). This prevents shorting of the public market equivalent portfolio in order to match the performance of an outperforming private equity portfolio. Distributions were not scaled by this factor. The IRRs were then calculated based on these adjusted cash flows. The selected PME represents the most relevant public market benchmark
Realized Attribution Analysis:	Analysis of the capital invested in, and performance of, the prior realized transactions according to the criteria indicated
Realized Investments:	Hamilton Lane classifies investments as “realized” if it has: i) an unrealized value of less than 20% of the total value; ii) a carrying value that has been written to zero or has been previously written-off; or iii) been fully exited and the GP has no remaining interest in the company
RVPI:	Remaining Value-to-Paid In = (Current Net Asset Value)/(Total Amount of Capital Paid-In)
TVPI:	Total Value-to-Paid In = (Amount of Distributions Received + Current Net Asset Value)/(Total Amount of Capital Paid-In)

Time-Zero IRR:	Represents the gross IRR calculated as if every investment were initiated on the same date
Write-Down Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 1.0x their original cost basis, divided by the total capital invested in all realized investments
Write-Off Ratio:	The ratio of capital invested in realized investments that have been sold for a value that is less than 0.5x their original cost basis, divided by the total capital invested in all realized investments

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**BregalSagemount**

# Presentation to the Connecticut Retirement Plans and Trust Funds

September 2022

A Bregal Investments Fund  
Strictly Private and Confidential



# Maintaining Discipline to Seek to Deliver Superior Risk Adjusted Returns

Investing flexible capital for high ROI impact in short duration

## Alpha Drivers

Industries with uncorrelated growth

Entrenched recurring revenue and cash flows

Protected deal structures

Research-driven proprietary sourcing model

Growth Factors and ESG teams to accelerate operating improvements



## Outcomes

### Top quartile returns<sup>1</sup>

- Fund I: 36.4% / 3.5x gross realized
- Fund II: 47.3% / 3.4x gross realized

### With low volatility

- One realized loss dating back to 2007
  - Loss ratio of 1.0% since 2007
- LTV (by Fund): 1 - 58%, 2 - 52%, 3 - 47%
- 67.7% returns from structure

### Rapid return of capital

- Average hold period of 3.6 years on realized investments
- Gross DPI: 3.5x Fund I / 2.2x Fund II

### Proprietary, differentiated deal flow

- 81% of deals since inception have been proprietary
- First institutional capital in 77% of deals since inception

Source: Bregal Sagemount

1. Per Burgiss Group, net IRR and net MOIC are top quartile for Fund I and Fund II based on peer sets consisting of same vintage year North American buyout and growth funds. Investment values presented as of June 30, 2022, with the valuation update of remaining Open Lending shares held as of June 30, 2022.



# Ensuring Integrated ESG Approach To Drive Performance

Bespoke ESG value creation for high growth software and tech enabled companies

I

Proprietary **Sagemount ESG Standard** to improve performance, build resilience and enhance exit

II

Mandatory ESG due diligence on all new investments to ensure robust business practices

III

Leading **climate strategy** aiming to set science-based targets for all portfolio companies

IV

Active engagement with **portfolio company communities** through the Bregal Helps Initiative



# Sagemount Leadership

Long-tenured team with extensive experience working together through multiple market cycles



**Gene Yoon**  
Managing Partner



**Adam Fuller**  
Partner



**Blair Greenberg**  
Partner



**Michael Kosty**  
Partner



**Pavan Tripathi**  
Partner



**Phil Yates**  
Partner



**Scott Simpson**  
Head of Credit



**Clayton Main**  
Partner – Credit



**Curt Witte**  
Partner – Head of Growth Factors

<b>Prior Experience</b>	<ul style="list-style-type: none"><li>• Goldman Sachs</li><li>• Great Hill Partners</li><li>• DLJ</li></ul>	<ul style="list-style-type: none"><li>• Goldman Sachs</li><li>• Arbor Advisors</li></ul>	<ul style="list-style-type: none"><li>• TCV</li><li>• UBS</li></ul>	<ul style="list-style-type: none"><li>• Goldman Sachs</li></ul>	<ul style="list-style-type: none"><li>• Goldman Sachs</li></ul>	<ul style="list-style-type: none"><li>• Great Hill Partners</li><li>• Carousel Capital</li><li>• DB Alex Brown</li></ul>	<ul style="list-style-type: none"><li>• Brightwood Capital</li><li>• Citi / DLJ / CS</li></ul>	<ul style="list-style-type: none"><li>• Goldman Sachs</li></ul>	<ul style="list-style-type: none"><li>• Symphony Tech Grp</li><li>• Cardinal Health</li></ul>
<b>Education</b>	<ul style="list-style-type: none"><li>• U Penn (MBA)</li><li>• U Penn (BS)</li></ul>	<ul style="list-style-type: none"><li>• Stanford (BA)</li></ul>	<ul style="list-style-type: none"><li>• Kellogg (MBA)</li><li>• Indiana U. (BS)</li></ul>	<ul style="list-style-type: none"><li>• Georgetown (BS)</li></ul>	<ul style="list-style-type: none"><li>• Stanford (MBA)</li><li>• UCLA (BS)</li></ul>	<ul style="list-style-type: none"><li>• UNC (BS)</li></ul>	<ul style="list-style-type: none"><li>• Columbia (MBA)</li><li>• U. of Maryland (BS)</li></ul>	<ul style="list-style-type: none"><li>• SMU (BBA)</li></ul>	<ul style="list-style-type: none"><li>• Kellogg (MBA)</li><li>• U. of Chicago (BS)</li></ul>
<b>Years at same firm</b>	14	14	8	14	11	14	3	14	7

# We Have Built an Exceptional Team

Highly motivated, hungry and experienced team of investment and operating professionals



Equity Team

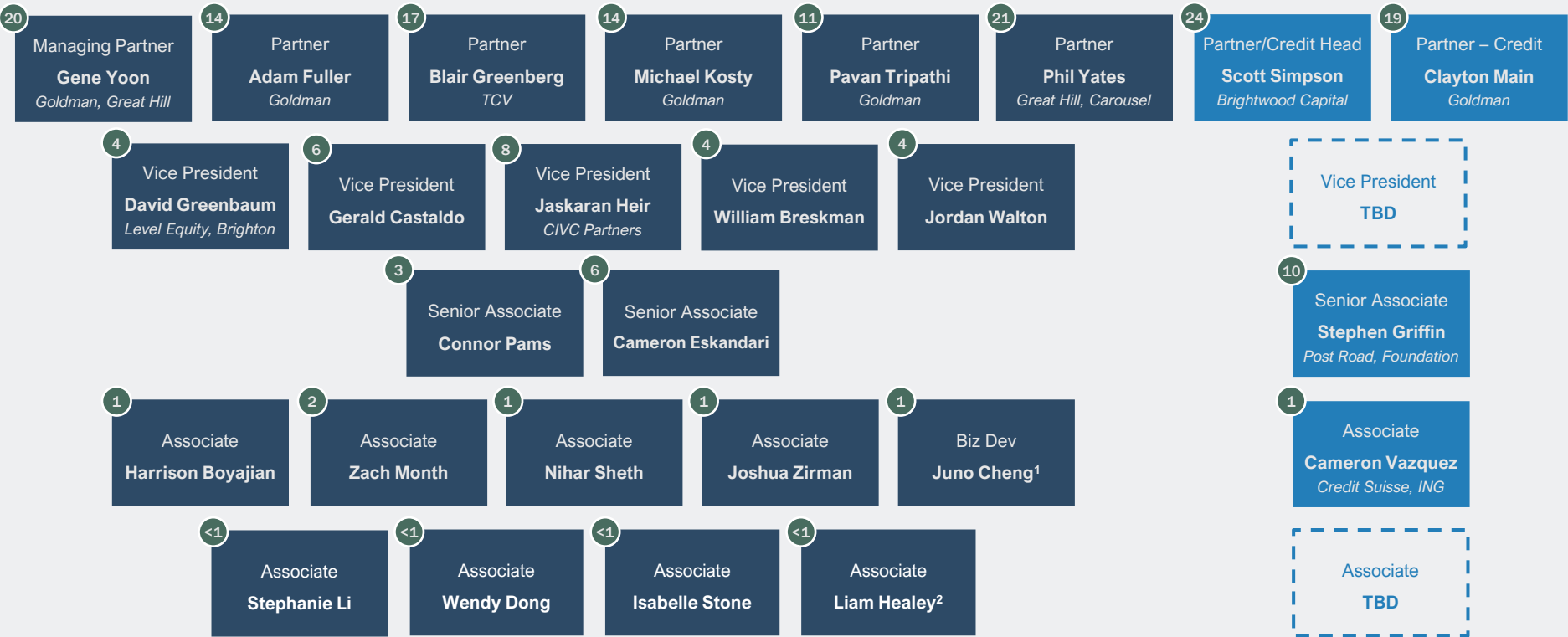


Credit Team



# Years of PE Experience

## INVESTMENT TEAM



## INFRASTRUCTURE



1. Ms. Cheng is an independent contractor to Sagemount.  
2. September 2022 start date.



# Growth Factors Team Driving Value Creation

Growth Factors team continues to grow, adding more functional expertise to our service offerings

Generalists

Specialists

Partner – Head of Growth Factors

Curt Witte

Symphony Technology Group

Partner

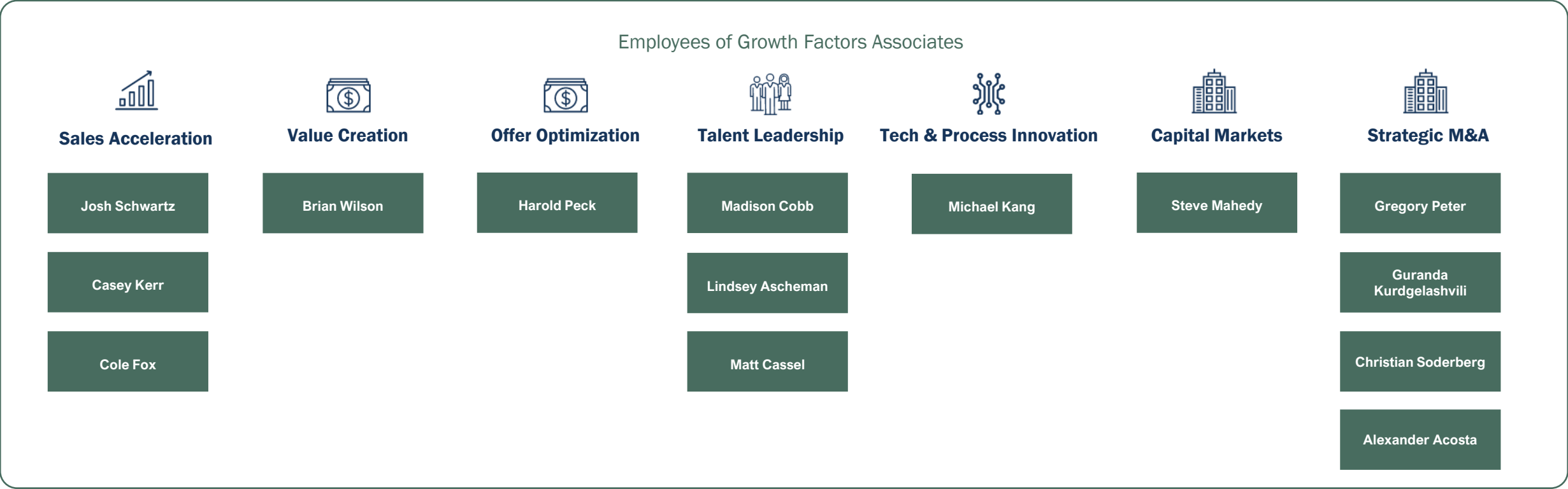
Sandeep Swaminathan

Vista Equity, Sears Holdings

Principal

Jon Sonnenschein

Paypal, Plaxo, Jajah, etc.

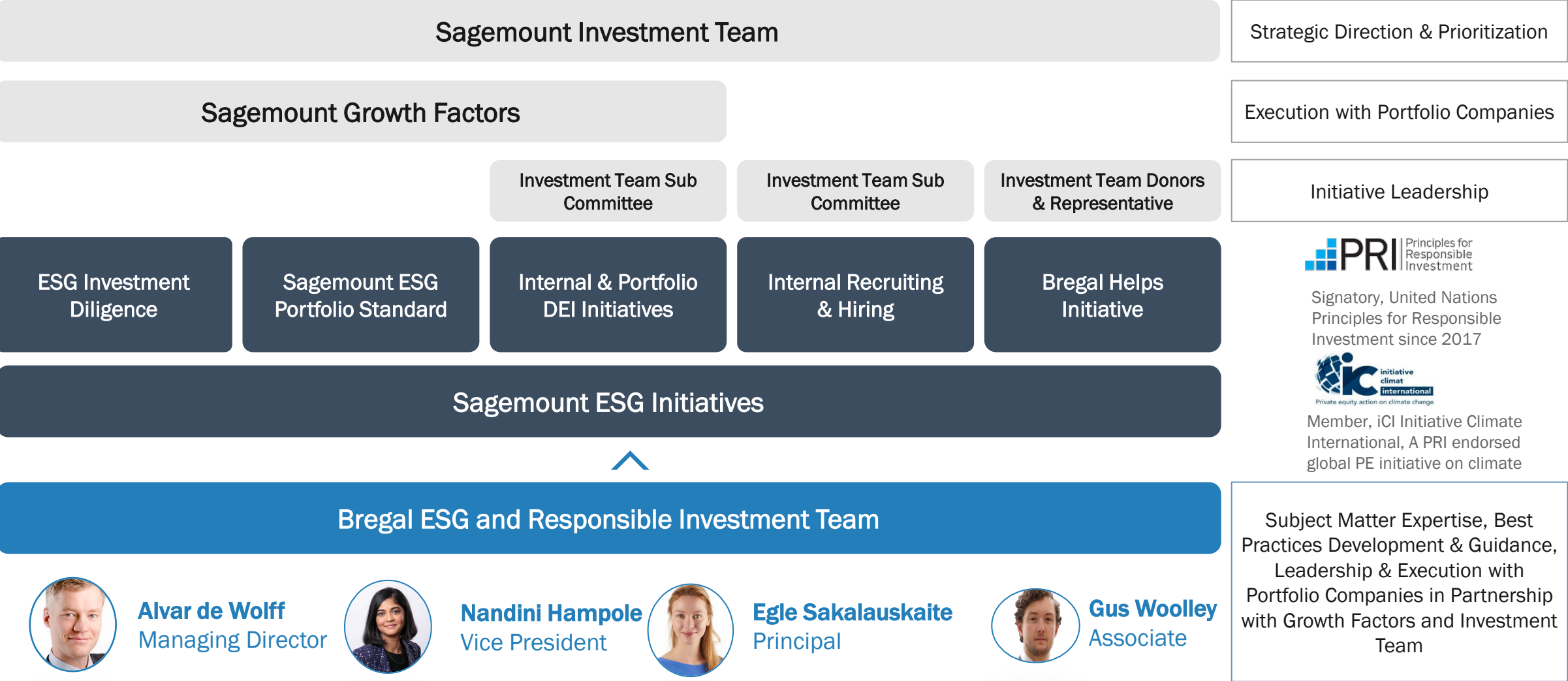


1. Growth Factors Associates is an independent third-party consulting firm that contracts with individual portfolio companies to provide its services.



# Integrated team supporting Bregal Sagemount's ESG Program

ESG initiatives are supported and accelerated by a dedicated ESG and Responsible Investment Team





# Growth Strategy with Capital Preservation Overlay

## Uncorrelated Sector Growth/Industry Tailwinds

- Target sectors with clear industry tailwinds, uncorrelated to general macro-economic volatility, including:



Software



Healthcare IT/Services



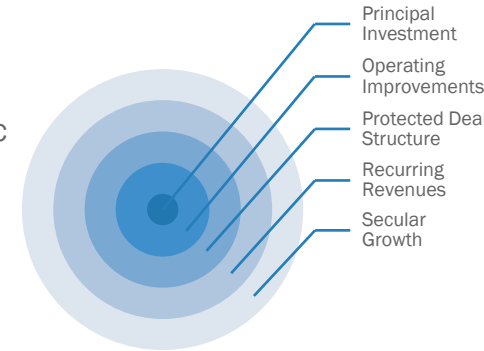
Business / Consumer Services



Financial Technology



Digital Infrastructure



## Recurring Revenue Focus

- Mitigates performance volatility and creates asymmetric risk
- Sticky revenue leads to resilient valuations in down markets
- Benefits from operating leverage and financial leverage in up markets

## Strong Margin Profile

- Target high gross margins to mitigate pressure from suppliers
- Ability to underwrite steady-state EBITDA/profitability under varying growth assumptions

## Operating Improvements

- Create bespoke Alpha Plan for each investment that draws on five “Growth Factors Value Creation Pillars”
- Pursue a partnership-based engagement model with portfolio company management teams that emphasizes accelerating growth, not just cutting costs



# Sourcing Overview

Sagemount's direct sourcing efforts generate a majority of closed deals

## Extensive and continuous investment in systems, data, and personnel

- Early adopter of data scraping and bringing data into our CRM (now commoditized)
- Continue to innovate on adding new signals and analysis to drive proprietary insights and actionable workflow
- Addition of Michael Kang in 2019 to run data strategy
- Addition of Juno Cheng in 2020 to augment business development / lead generation efforts
- “Eat our own cooking” by utilizing Growth Factors sales best practices into our own origination efforts

## Compounding Domain Expertise

- Consistent generation of sub-sector dives: 200+ since 2012
- Sector work drives proactive and very informed outreach to target companies, leading to higher-quality interactions and differentiated, long-term relationships
- Success begets success: investments sourced by sector dives, and sector dives themselves, generate new ideas and deal flow

## High Velocity Culture

- Intense focus up and down the organization on finding and nurturing prospects
- Incentives aligned with outcomes to drive behavior (variable carry, sourcing contest, etc.)
- Obsessively track metrics on a weekly basis

## Meaningfully Differentiated Deal Flow

81%

Proprietary  
Investments Closed

77%

First Institutional  
Capital

2.1

Avg Years Building  
Relationships

Ability to drive  
off-market  
deal terms



# Results of Direct Sourcing Efforts

Specific examples of direct sourcing efforts in action



## Printful

Sector dive on Print On Demand led to multiple QuickLooks and a \$130M investment in Printful



## Congruity 360

Seven years of reviewing opportunities in the Hardware Third Party Maintenance sector led to outreach from the Company to Sagemount about leading an investment



## Buyers Edge

GPO sector dive led to outreach and presentation of multiple M&A options to management



## Critical Start

Four years of sector work in the Managed Cybersecurity sector led to an investment with off-market terms due to the value management placed on Growth Factors



## SurePrep

Dialog ahead of banked process meant Sagemount was able to pre-empt second round bids.



## GPS Insight

Outreach going back to 2009 along with almost a decade of tracking deals and companies in the telematics space led to high-quality interactions with management



## Scorpion

A broken air conditioner combined with an intellectually curious team member led to a proprietary dialog at the perfect time



## Connectria

Sagemount won a banked process as management was focused on our previous investments in the sector and heavily valued Growth Factors expertise



## DentalXchange

Four years of direct dialog with owners resulted in a \$230M proprietary buyout

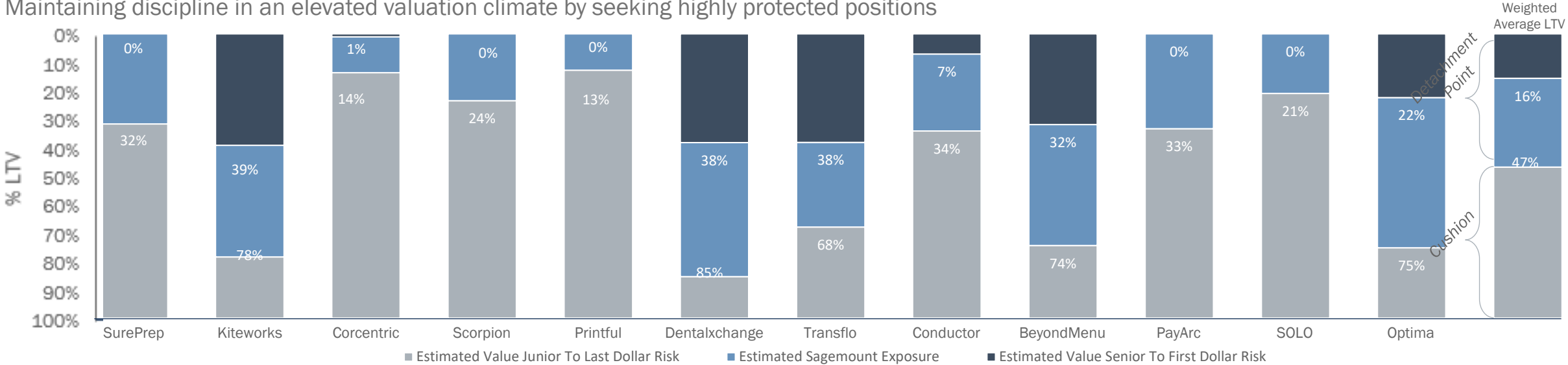


## Corcentric

5 Years of sector coverage including reviewing 26 other opportunities allowed us to deliver a comprehensive M&A list (including one that we subsequently helped them acquire)

# Sagemount Fund III Capital Structures (at entry)

Maintaining discipline in an elevated valuation climate by seeking highly protected positions



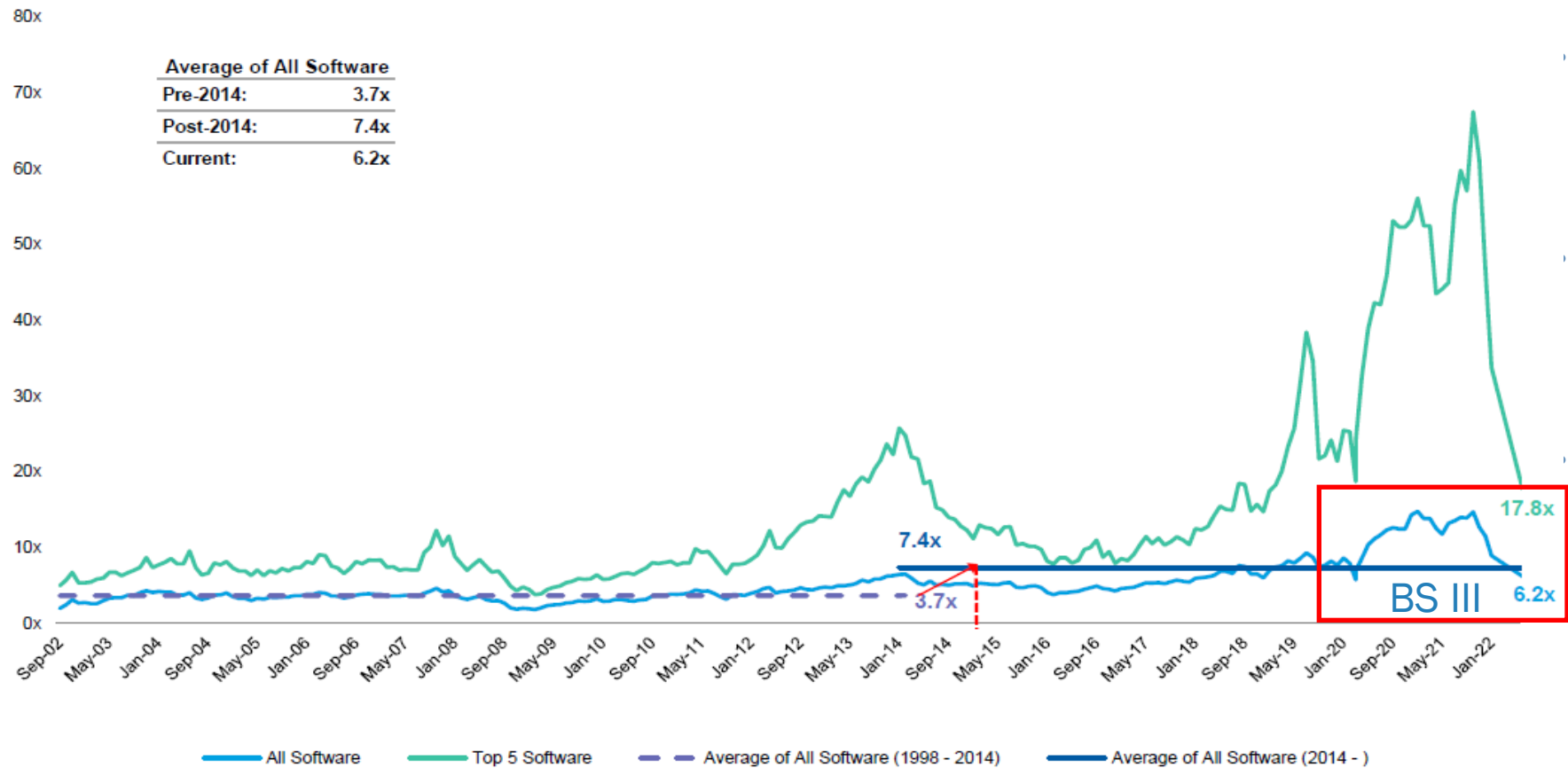
Sourcing	Existing Relationship ahead of Limited Process	Proprietary	Existing Relationship ahead of Limited Process	Proprietary	Existing Relationship ahead of Limited Process	Proprietary	Existing Relationship ahead of Limited Process	Proprietary	Proprietary	Proprietary	Proprietary	Proprietary
First Institutional Capital	✓		✓	✓	✓	✓		✓	✓	✓	✓	✓
Equity Deployed	\$64M	\$61M	\$81M	\$100M	\$130M	\$111M	\$125M	\$115M	\$100M	\$75M	\$80M	\$118M
Type of Structure	Preferred	Preferred + Dividend	Escalating Pref + Div. Y3: 2.0x / 26% Y5: 2.4x / 19%	Participating Pref. + Div.	Participating Preferred	Preferred + Dividend	Preferred	Escalating Pref + Div. Y3: 2.0x / 26% Y5: 2.4x / 19%	Preferred	Participating Preferred	Participating Preferred	Preferred

# Broader Software & Tech Market Perspectives

A “New Normal” Developing for Software – but Sagemount maintaining discipline

## Forward Revenue Multiples of Software Companies Since 2002

As of 6/24/2022



## Sagemount Discipline

- Fund III has thus far been deployed at an **average forward revenue multiple of 4.5x**
- Over same period, overall software market multiples have ranged ~6-15x (**6.2x** currently)
- Also, major discount to where software assets have traded since 2014 (**7.4x**)

Notes:  
1. Market data and consensus estimates as of 06/24/2022  
2. AV / Revenue multiple represents the average of the highest 5 and all AV / NTM Revenue multiples on a given day. Excludes Symantec for some periods due to distortionary effects

1. Source: Morgan Stanley  
2. Sagemount Fund III average is calculated as the weighted average of the forward revenue multiples for all 6 Fund III transactions, with the exception of Scorpion where the forward ARR multiple has been used. On transactions where Sagemount has structure (Accellion, Scorpion, Printful and Corcentric), an implied entry value has been calculated (Sagemount investment / % of proceeds if the Company was sold at the nominal valuation on day one).



# Driving Liquidity and Consistent Deployment

Sagemount has been a “net seller” in today’s market, while continuing to mine a strong pipeline

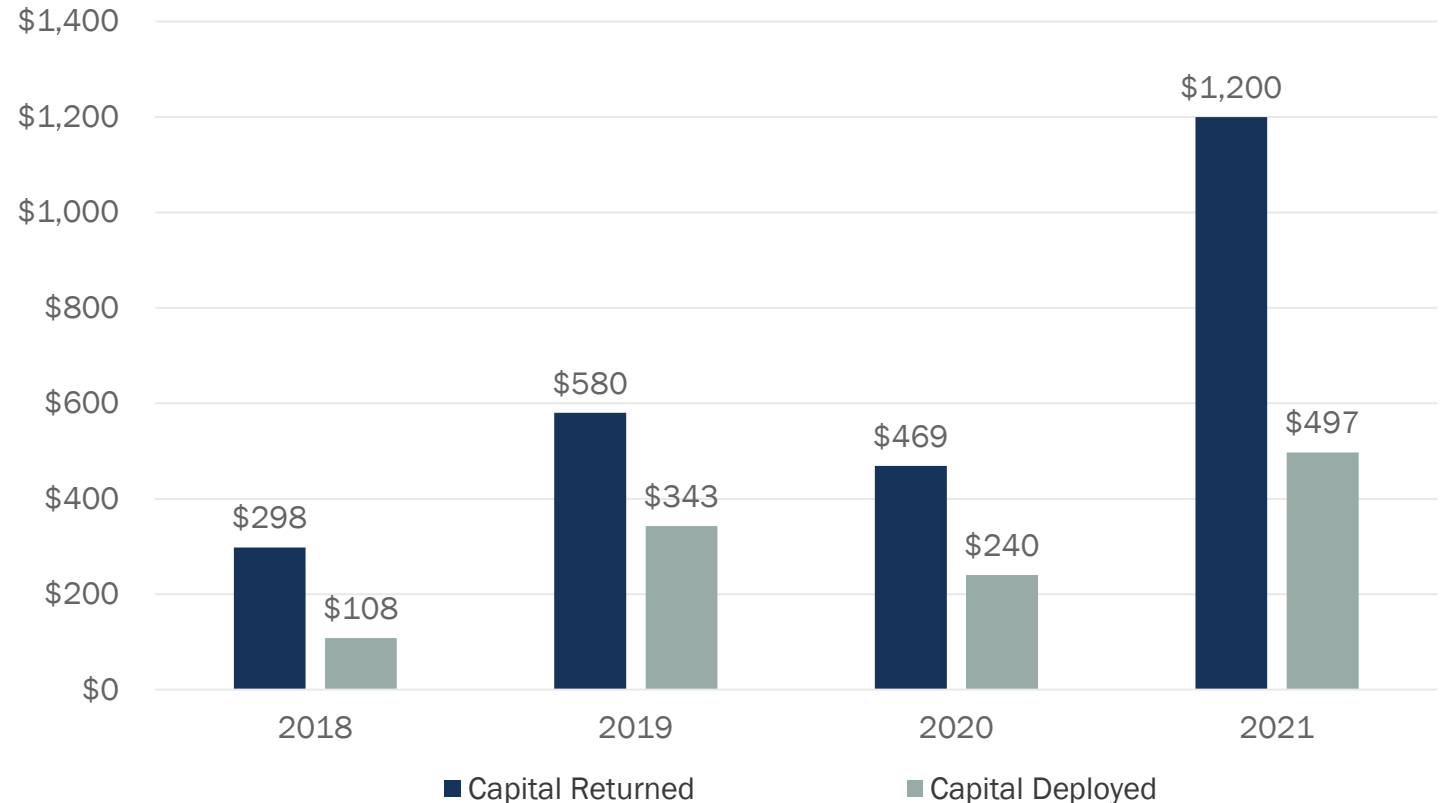
## Liquidity

- Generated over \$2.5 billion of liquidity for LP’s in the past 4 years
- Including public shares in Open Lending, ~\$758 million of capital returned YTD, with \$172 million more anticipated in Q4

## New deal activity

- \$497 million deployed in 2021
- ~\$210 million in near term deal activity expected to close by mid Feb

## Liquidity and Deployment <sup>(1)(2)</sup>



Source: Bregal Sagemount

1. Stock price as of December 30, 2021.

2. Includes investments and distributions for Sagemount Funds I, II and III.



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SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 8, 2022

Members of the Investment Advisory Council ("IAC")

**Re:   *Presentation and Consideration for Approval of the 2022 Strategic Asset Allocation Update***

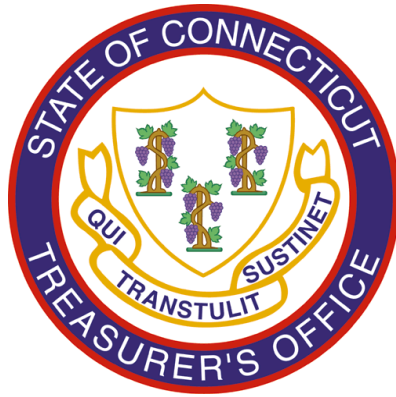
Dear Fellow IAC Member:

Please find attached the 2022 Strategic Asset Allocation ("SAA") Update, which incorporates the Investment Advisory Council's feedback and approval at the meeting of July 20, 2022.

Members of the IAC's Asset Allocation Subcommittee, as well as the Treasury's investment team, are to be commended for their work over the past year to refine the allocation for the CRPTF. I look forward to our final deliberations at next week's meeting.

Sincerely,

Shawn T. Wooden  
State Treasurer



# Connecticut Retirement Plans and Trust Funds 2022 Strategic Asset Allocation Update FINAL

## Pension Funds Management

# Strategic Asset Allocation (SAA) Update

- **Background**

- Asset Allocation is the largest driver of risk-adjusted performance for the Connecticut Retirement Plans and Trust Funds
- Meketa, our fund general consultant, has historically conducted the asset allocation study for the Pension Funds Management (PFM) Division
- The last full Strategic Asset Allocation (SAA) and Asset-Liability study was performed in 2018

- **New Approach - 2022 Strategic Asset Allocation Update Process**

- PFM leveraged Meketa's tools and resources to bring the process in-house and perform a staff-driven analysis to update the SAA
- PFM utilized Meketa's 2022 Capital Market Assumptions (CMAs) to update our new long-term target allocations
- PFM sought input from the Asset Allocation Sub-Committee of the Investment Advisory Council prior to finalizing recommendations to the broader body
- The approved SAA will be updated in the revised 2022 Investment Policy Statement (IPS)

# Refinements to the Strategic Asset Allocation Update

- **Updates based on feedback from the IAC Sub-Committee meeting on June 8, 2022, PFM:**
  - Utilized Meketa's 20-Year expectations instead of the 10-Year expectations to better align with the long-term horizon
  - Tweaked the asset class policy target:
    - Reduced Real Estate by 2% and increased Global Equities by 2%
  - Created a composite "Credit" asset class for flexibility in managing our exposure with the following sub-asset classes:
    - Public Credit
    - Private Credit
  - Incorporated alpha estimates into our assumed rate of return assumptions to account for manager selection not explicitly modeled in the SAA process

# Goals of the Strategic Asset Allocation Update

- **Review the Current Strategic Asset Allocation and recommend necessary updates**
  - An annual review of SAA relative to objectives is part of best practices for prudent governance
  - Market turbulence relative to the pandemic and geopolitical events, with continued uncertainty of outlook validates appropriateness of strategic review of the asset allocation

## Final list of Strategic Asset Allocation topics reviewed by PFM & Meketa:

1. **Revisit Global Equity** – consider one "Global Equities" composite utilizing the three discrete equity asset classes
2. **Disaggregate Real Assets** – examine breaking out Real Assets into its component asset classes (Real Estate, Infrastructure & Natural Resources excluding TIPS)
3. **Review our Fixed Income Asset Classes** – discuss the role of Fixed Income in the portfolio (for capital preservation and return generation relative to Alternatives)
4. **Expand Risk Mitigating Strategies** – evaluate the role and target weight of risk mitigation strategy in the Alternative Investment Fund and the overall portfolio
5. **Innovate our SAA Implementation** – consider how PFM can achieve the asset allocation in a disciplined and thoughtful manner through interim policy targets
6. **Update Policy Benchmarks** – review benchmarks for all asset classes and determine necessary revisions (e.g., Global Equity)

# PFM Staff-Driven Process for Strategic Asset Allocation Update

## Review Prior SAA

Evaluate CMAs from market participants  
Review 2018 CRPTF AA Study  
Review current asset classes with Team

## Initial MV Optimizations

Analyze portfolio optimizations  
Establish model portfolios & targets  
Initial Draft of Updated IPS

## Final Approval of SAA

Review of SAA by IAC

## Review 2022 CMAs

Meketa Review of 2022 CMAs

## Model Portfolios

Construct model portfolios  
Begin review of IPS

## Refine MVOs / Stress Tests

Debate policy portfolios in PFM  
Finalize updates to IPS  
Run portfolio stress tests & scenarios

## Sub-Committee Review

Review with IAC AA Sub-committee  
Incorporate Sub-committee Feedback

## Approve IPS

Final approval of IPS by IAC

JAN

FEB

MAR

APR

MAY

JUN\*

JUL

AUG

SEP

Source: PFM

\*Separate IAC Meeting

# Setting Capital Market Expectations

- Capital Markets Assumptions (CMAs) are the inputs needed to conduct the mean-variance optimization (MVO) relying on both quantitative and qualitative methodologies
- Consultants (including Meketa) generally set CMAs once a year and will periodically update mid-year
- Meketa published the 2022 Capital Market Expectations in January, based on December 31<sup>st</sup> data
- Meketa publishes both 10-Yr and 20-Yr expected return assumptions
- **PFM is using 20-Yr CMAs in this Strategic Asset Allocation Update** following feedback from the sub-committee of the IAC
- MVO is the traditional starting point for determining asset allocation
- This involves using the following inputs for the asset classes:
  - Returns
  - Standard Deviation
  - Pair-wise Correlations of each asset class



# Revisions to the Asset Class Lineup

- PFM took the opportunity to revise our asset classes
  - **Global Equities**
    - In addition to distinct equity asset classes for domestic, international, and emerging markets, PFM will aggregate equities into a single Global Equity Composite tracking the MSCI All Country World Index IMI
    - Rationale: robust management of the largest driver of returns reflecting a global asset mix
  - **Fixed Income**
    - Simplify our approach by utilizing a single asset class for duration and credit
    - Established a new Credit composite consisting of Public Credit (instead of High Yield & Emerging Markets Debt) and Private Credit
    - Public Credit will include both return and risk factors (e.g., Treasury exposure)
  - **Real Assets**
    - Breaking apart Real Estate from Infrastructure & Natural Resources asset classes
    - Rationale: PFM team manages these asset classes separately and each has its own distinct characteristics
    - Eliminating TIPS as a distinct asset class category

# 2022 Capital Market Assumptions for Major Asset Classes

- Composite asset class using 20-Year CMA expected returns & volatility assumptions

Composite Asset Classes	Weight (%)	Expected Return (%)	Standard Deviation (%)
US Equity	58	6.8	18.0
Developed Market Equity (Non-US)	30	7.5	19.0
Emerging Market Equity	12	8.4	24.0
<b>Global Equity Composite</b>	<b>100</b>	<b>7.4</b>	<b>18.2</b>
<b>Core Fixed Income</b>	<b>100</b>	<b>2.4</b>	<b>4.0</b>
High Yield Bonds	80	4.4	11.0
Bank Loans	10	4.0	10.0
Convertible Bonds	10	3.9	19.0
<b>Public Credit Composite</b>	<b>100</b>	<b>4.5</b>	<b>10.3</b>
<b>Liquidity (Cash)</b>	<b>100</b>	<b>1.7</b>	<b>1.0</b>

Source: PFM, Meketa

Note: Returns are geometric, volatility assumptions are 15-yr estimates

# 2022 Capital Market Assumptions for Major Asset Classes

- Composite asset class using 20-Year CMA expected returns & volatility assumptions

Composite Asset Classes	Weight (%)	Expected Return (%)	Standard Deviation (%)
Long-term Government Bonds	8	2.8	12.0
Global Macro	21	5.0	5.0
CTA (Trend Following)	19	4.8	15.0
Long Puts	42	-1.8	6.0
Alternative Risk Premia (ARP)	10	4.6	10.0
<b>Risk Mitigating Strategies Composite</b>	<b>100</b>	<b>2.1</b>	<b>5.3</b>
Buyouts	80	9.8	25.0
Venture Capital	20	10.3	36.0
<b>Private Equity Composite</b>	<b>100</b>	<b>10.2</b>	<b>25.8</b>
Direct Lending	60	7.1	14.0
Mezzanine Debt	30	7.2	16.0
Distressed Debt	10	7.7	21.0
<b>Private Credit Composite</b>	<b>100</b>	<b>7.3</b>	<b>14.5</b>

Source: PFM, Meketa

Note: Returns are geometric, volatility assumptions are 15-yr estimates

# 2022 Capital Market Assumptions for Major Asset Classes

- Composite asset class using 20-Year CMA expected returns & volatility assumptions

Composite Asset Classes	Weight (%)	Expected Return (%)	Standard Deviation (%)
REITs	10	7.1	26.0
Core Real Estate	50	6.1	12.0
Non-Core Real Estate	<u>40</u>	8.1	20.0
<b>Real Estate Composite</b>	<b>100</b>	<b>7.2</b>	<b>15.8</b>
Farmland/Harvested Natural Resources	24	7.2	12.0
Sustainable Natural Resources	6	9.3	26.0
Core Infrastructure	28	7.3	14.0
Non-Core Infrastructure	<u>42</u>	9.3	22.0
<b>Infrastructure &amp; Nat. Resources Composite</b>	<b>100</b>	<b>8.6</b>	<b>15.9</b>

Source: PFM, Meketa

Note: Returns are geometric, volatility assumptions are 15-yr estimates

# 2022 Correlation Expectations for Major Asset Classes

- Composite correlations for the asset classes are shown below
- Risk Mitigating Strategy serves as an overall diversifier in the asset class modeling

	Global Equity	Public Credit	Core Fixed Income	Liquidity	Risk Mitigating	Private Equity	Private Credit	Real Estate	Infra & Nat. Resources
Global Equity	1.00	0.78	0.06	-0.20	-0.17	0.91	0.71	0.52	0.69
Public Credit	0.78	1.00	0.20	-0.21	-0.37	0.76	0.96	0.60	0.73
Core Fixed Income	0.06	0.20	1.00	0.13	0.29	0.00	0.10	0.24	0.28
Liquidity	-0.20	-0.21	0.13	1.00	0.26	0.11	0.10	0.13	0.17
Risk Mitigating	-0.17	-0.37	0.29	0.26	1.00	-0.18	-0.20	-0.06	0.02
Private Equity	0.91	0.76	0.00	0.11	-0.18	1.00	0.77	0.46	0.58
Private Credit	0.71	0.96	0.10	0.10	-0.20	0.77	1.00	0.48	0.53
Real Estate	0.52	0.60	0.24	0.13	-0.06	0.46	0.48	1.00	0.65
Infra & Nat. Resources	0.69	0.73	0.28	0.17	0.02	0.58	0.53	0.65	1.00

Source: Meketa

# Benchmarks for Proposed Policy Allocations

- The table below outlines the proposed benchmarks for each asset class and composite

Composite Asset Class	Performance Benchmarks
<b>Global Equity</b>	<b>MSCI ACWI IMI</b>
Domestic Equity	Russell 3000
Non-US Developed Markets	MSCI World (ex. US) IMI
Emerging Markets	MSCI Emerging Markets IMI
<b>Core Fixed Income</b>	<b>Custom Blend (Bloomberg US Aggregate/US Treasuries)</b>
<b>Credit</b>	
Public Credit	Bloomberg High Yield
Private Credit	S&P/LSTA Leverage Loan Index + 150 basis points
<b>Liquidity Fund</b>	<b>3 Month Treasury Bills</b>
<b>Risk Mitigating</b>	<b>Custom Benchmark (Dynamic Blended)</b>
<b>Private Equity</b>	<b>Russell 3000 + 250 basis points</b>
<b>Real Estate</b>	<b>NCREIF ODCE (Net)</b>
<b>Infrastructure &amp; Nat. Resources</b>	<b>CPI + 400 basis points</b>

Source: PFM, Meketa

# Key Modeling Observations

- Overall expected returns continue to be revised lower in 2022 versus 2021 CMAs highlighting the challenging return environment
- The mean-variance optimizations (MVO) continue to favor strong diversifiers and private assets as the primary means of returns
  - MVO favored Risk Mitigating for its diversification benefits versus the other asset classes
  - MVO favored Private Equity, Infrastructure & Natural Resources
- PFM utilized an iterative approach to perform the optimizations, incorporating constraints on each asset class to arrive at a team consensus for the proposed Long-Term Policy allocation
- Key takeaways for the proposed policy portfolio:
  - Overall increase in our private markets' allocations across the board
  - Increase to our Risk Mitigating Strategy allocation
  - Revise our Core Fixed Income toward Investment Grade bonds for capital preservation



# Mean Variance Optimizations

- PFM & Meketa ran a series of mean-variance optimizations (MVOs) to model three different policy portfolios
- PFM determined a proposed Long-Term Policy allocation (Proposed Long-Term Policy)

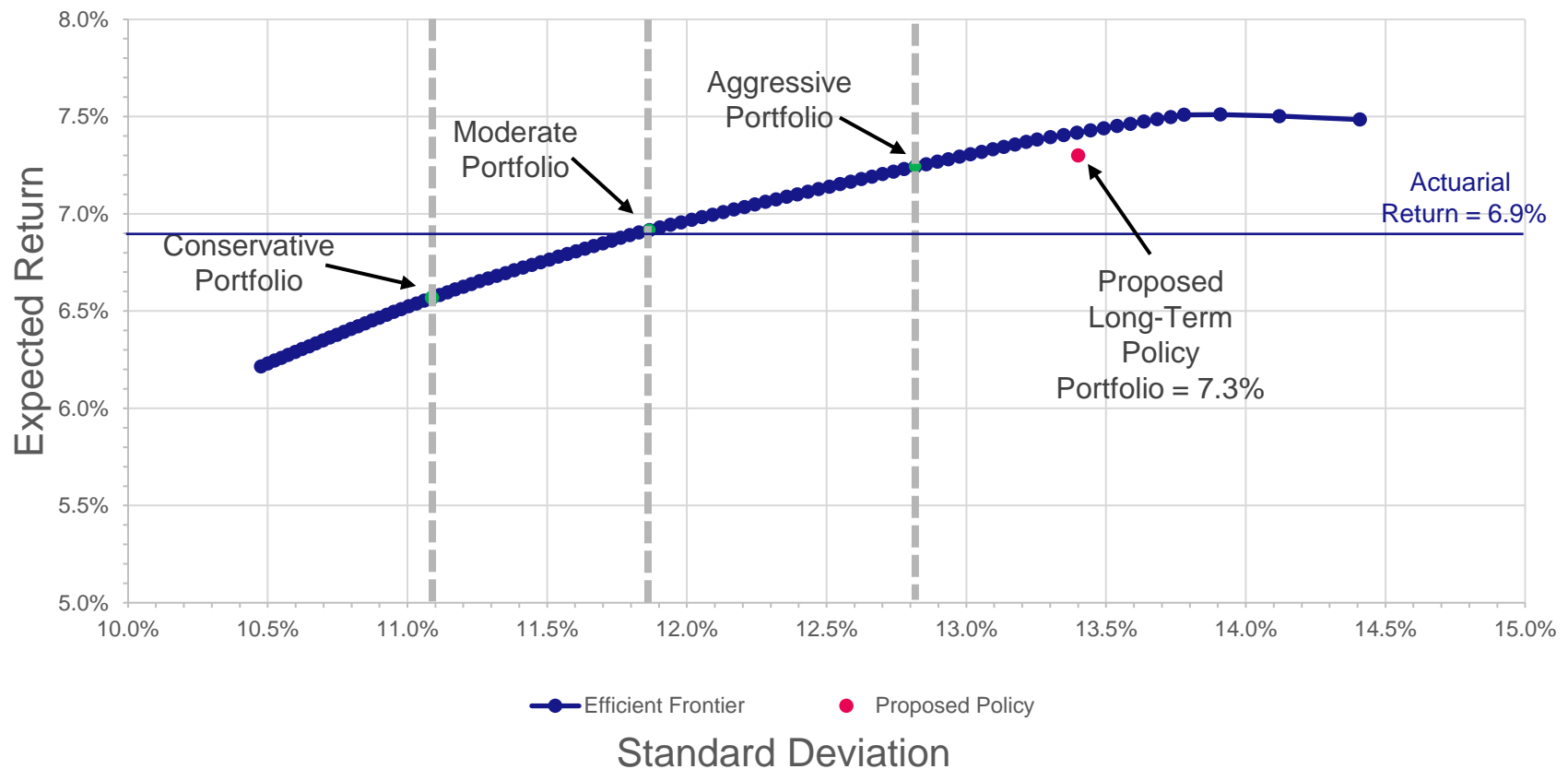
	Actual Weight as of 06/30 (%)	Conservative (%)	Moderate (%)	Aggressive (%)	Proposed Long-Term Policy (%)
Global Equity	43	30	30	30	37
Core Fixed Income	12	20	14	10	13
Public Credit	9	2	2	2	2
TIPS	5	0	0	0	0
Liquidity	1	2	1	1	1
Risk Mitigating	4	10	10	10	5
Private Equity	12	12	12	16	15
Private Credit	3	5	10	10	10
Real Estate	9	12	14	14	10
Infrastructure & Natural Resources	2	7	7	7	7
<b>Expected Return (20 year)</b>	<b>6.8%</b>	<b>6.6%</b>	<b>6.9%</b>	<b>7.2%</b>	<b>7.3%</b>
<b>Standard Deviation</b>	<b>13.0%</b>	<b>11.1%</b>	<b>11.8%</b>	<b>12.7%</b>	<b>13.4%</b>
<b>Sharpe Ratio (Return / Unit Risk)</b>	<b>0.39</b>	<b>0.44</b>	<b>0.44</b>	<b>0.43</b>	<b>0.42</b>

Source: PFM, Meketa

Note: Expected returns are geometric, volatility assumptions are 15-yr estimates

# Efficient Frontier for MVO Portfolios

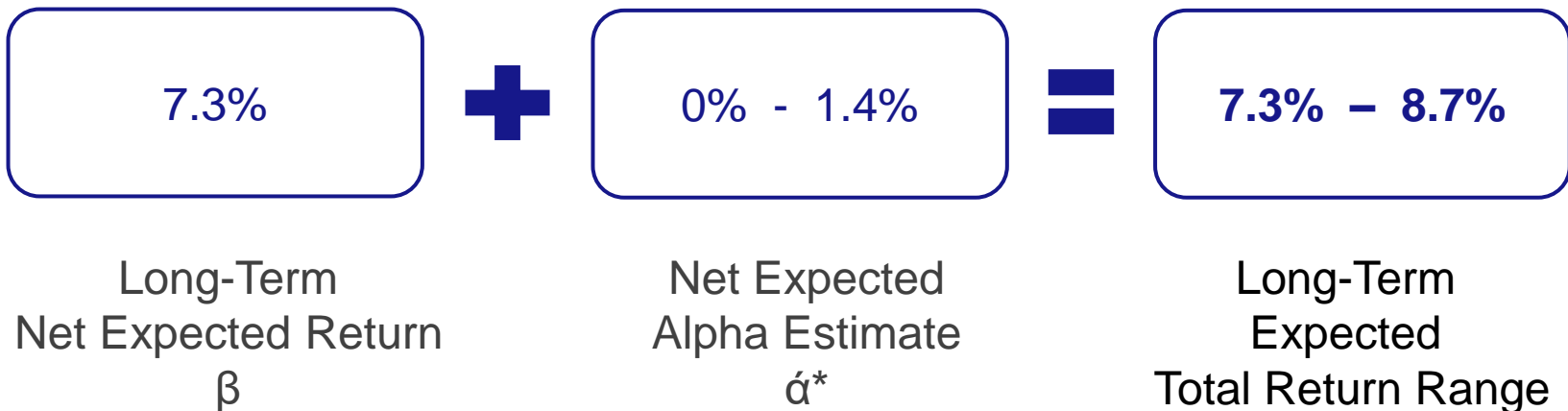
- Meketa ran several optimizations based on PFM's input and selected portfolios at the 25<sup>th</sup>, 50<sup>th</sup> and 75<sup>th</sup> percentiles that represent the Conservative, Moderate and Aggressive portfolios respectively
- PFM took these into account and modeled a Long-Term Policy allocation, incorporating other factors that cannot be modeled into the optimization (e.g., liquidity needs)



Source: PFM, Meketa

# Projected Total Return Incorporating Alpha Estimates

- PFM staff worked with Meketa to incorporate a measure of excess returns not explicitly modeled into our optimizations
- Methodology for Long-Term Total Expected Return:
  - Gross alpha estimates for top quartile manager selection in the private markets
  - Estimated a range of net alpha is discounted to account for incremental management fees
- Expected long-term total return estimated to be between 7.3% - 8.7%



Source: Meketa, PFM

\*Alpha Estimates provided by Meketa

# Probability of Returns Analysis for MVO Portfolios

- Probabilities of hitting the actuarial rate of return of 6.9% is improved with the proposed policy portfolio

	Current Policy (%)	Conservative (%)	Moderate (%)	Aggressive (%)	Proposed Long-Term Policy (%)
<b>Probability of Achieving at least a 5% Return</b>					
One Year	55.7	55.6	56.4	56.9	56.7
Three Years	59.8	59.6	60.9	61.9	61.6
Five Years	62.5	62.3	64.0	65.2	64.8
Ten Years	67.4	67.1	69.4	71.0	70.4
Twenty Years	73.8	73.4	76.3	78.3	77.6
<b>Probability of Achieving at least a 6% Return</b>					
One Year	52.5	51.9	52.9	53.7	53.7
Three Years	54.3	53.3	55.1	56.5	56.4
Five Years	55.5	54.3	56.5	58.3	58.2
Ten Years	57.8	56.0	59.2	61.7	61.3
Twenty Years	60.9	58.5	62.9	66.3	66.1
<b>Probability of Achieving at least a 6.5% Return</b>					
One Year	50.9	50.1	51.2	52.1	52.2
Three Years	51.5	50.2	52.1	53.7	53.8
Five Years	51.9	50.2	52.7	54.8	54.9
Ten Years	52.7	50.3	53.9	56.8	56.9
Twenty Years	53.9	50.4	55.5	59.5	59.7
<b>Probability of Achieving at least a 6.9% Return</b>					
One Year	49.3	48.3	49.5	50.6	50.7
Three Years	48.7	47.0	49.2	51.0	51.2
Five Years	48.4	46.2	48.9	51.3	51.5
Ten Years	47.7	44.6	48.5	51.8	52.1
Twenty Years	46.7	42.4	47.8	52.5	53.0

Source: PFM, Meketa

# Proposed Long-Term & Interim Policy Allocations

- PFM acknowledges the difficulty of execution for the proposed policy asset allocation for a large plan with significant constraints (e.g., staffing, RFP process, sizing)
- PFM recommends the creation of two Interim Policy allocation that will provide a meaningful glidepath for implementation of the asset allocation over the next five years (20-month duration to Long-Term Policy)
- The proposed Long-Term Policy experiences a 50-basis point improvement in expected return over the current allocations (7.3% versus 6.8%) with a slightly better Sharpe ratio (0.42 versus 0.39)

Asset Classes	Actual Weight as of 06/30 (%)	Proposed Interim A Policy (%)	Proposed Interim B Policy (%)	Proposed Long-Term Policy (%)
Global Equity	43	44	40	37
Core Fixed Income	12	13	13	13
Public Credit	9	5	3	2
TIPS	5	0	0	0
Liquidity	1	1	1	1
Risk Mitigating	4	5	5	5
Private Equity	12	13	14	15
Private Credit	3	5	8	10
Real Estate	9	10	10	10
Infrastructure & Natural Resources	2	4	6	7
<b>Expected Return (20 year)</b>	<b>6.8%</b>	<b>7.1%</b>	<b>7.2%</b>	<b>7.3%</b>
<b>Standard Deviation</b>	<b>13.0%</b>	<b>13.5%</b>	<b>13.4%</b>	<b>13.4%</b>
<b>Sharpe Ratio</b>	<b>0.39</b>	<b>0.40</b>	<b>0.41</b>	<b>0.42</b>

Source: PFM, Meketa

# Policy Portfolio Characteristics

- Overall characteristics for the Proposed Policy Allocation shifts meaningfully to allocate more toward Private Markets over Public Markets
- Thematic buckets concentrate more toward private market asset classes while maintaining similar exposure to Growth and Credit (capital appreciation), pushing up Inflation exposure through Infrastructure & Natural Resources

Public versus Private	Current Policy (%)	Proposed Interim A Policy (%)	Proposed Interim B Policy (%)	Proposed Long-Term Policy (%)
Public Markets	71	68	62	58
Private Markets	29	32	38	42

Thematic Buckets	Current Policy (%)	Proposed Interim A Policy (%)	Proposed Interim B Policy (%)	Proposed Long-Term Policy (%)
Growth	50	57	54	52
Credit	13	10	11	12
Inflation Hedges	14	14	16	17
Risk Mitigating	23	19	19	19

Source: PFM, Meketa

# Probability of Returns Analysis for Proposed Allocations

- Probabilities are biased downward due to 10-Yr CMAs

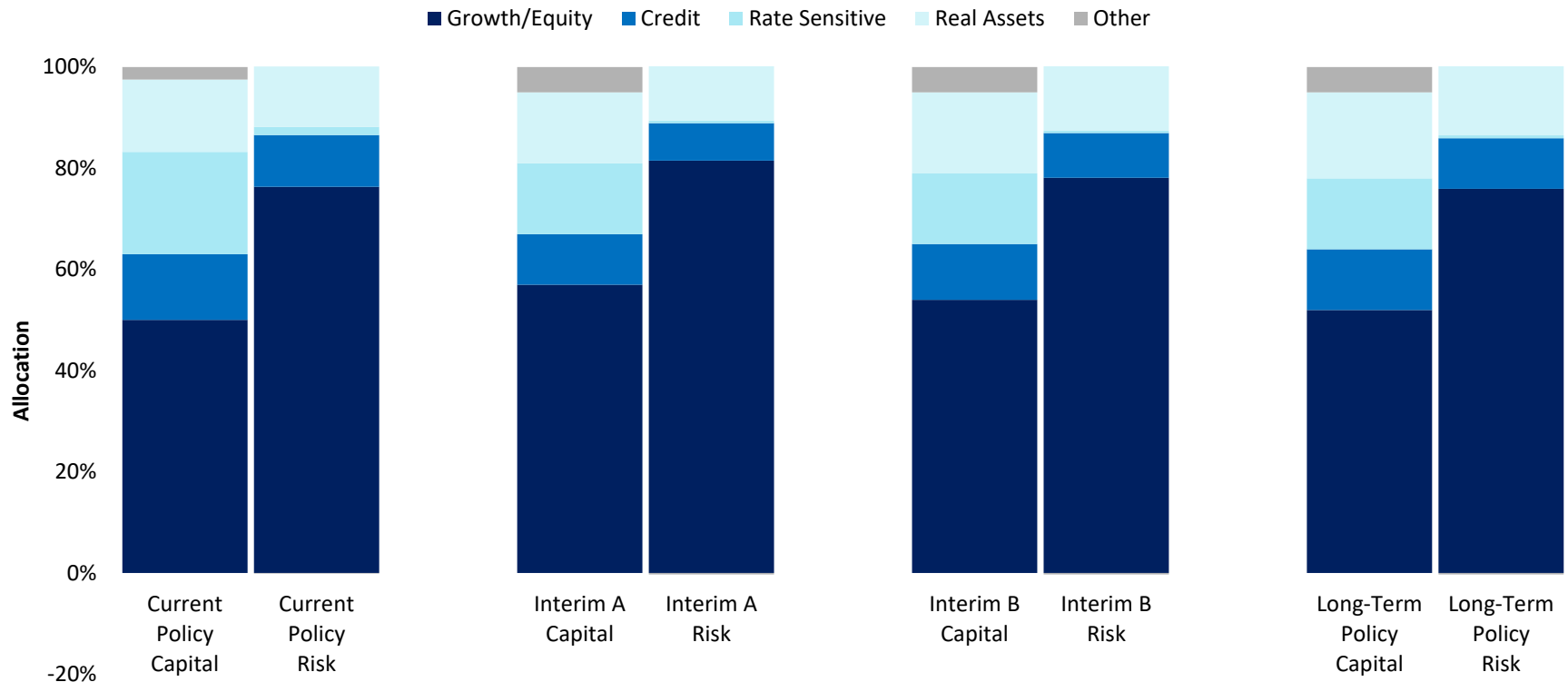
	Current Policy (%)	Proposed Interim A Policy (%)	Proposed Interim B Policy (%)	Proposed Long-Term Policy (%)
<b>Probability of Achieving at least a 5% Return</b>				
One Year	55.7	56.1	56.5	56.7
Three Years	59.8	60.5	61.2	61.6
Five Years	62.5	63.4	64.3	64.8
Ten Years	67.4	68.6	69.8	70.4
Twenty Years	73.8	75.3	76.8	77.6
<b>Probability of Achieving at least a 6% Return</b>				
One Year	52.5	53.1	53.5	53.7
Three Years	54.3	55.3	56.0	56.4
Five Years	55.5	56.8	57.7	58.2
Ten Years	57.8	59.6	60.9	61.3
Twenty Years	60.9	63.5	65.2	66.1
<b>Probability of Achieving at least a 6.5% Return</b>				
One Year	50.9	51.6	52.0	52.2
Three Years	51.5	52.7	53.4	53.8
Five Years	51.9	53.5	54.4	54.9
Ten Years	52.7	55.0	56.2	56.9
Twenty Years	53.9	57.0	58.7	59.7
<b>Probability of Achieving at least a 6.9% Return</b>				
One Year	49.3	50.1	50.5	50.7
Three Years	48.7	50.1	50.8	51.2
Five Years	48.4	50.2	51.0	51.5
Ten Years	47.7	50.2	51.4	52.1
Twenty Years	46.7	50.3	52.0	53.0

Source: PFM, Meketa



# Capital Allocation versus Risk Allocation\* Analysis

- Assets with low relative volatility, such as rate sensitive fixed income, contribute less to risk than their asset weighting implies



Source: PFM, Meketa

\*Risk allocation is calculated by multiplying the weight of the asset class by its standard deviation and its correlation with the total portfolio and then dividing this by the standard deviation of the total portfolio.

# Historical Stress Tests & Scenario Risk Analysis

- Meketa calculated several historical stress tests on various portfolios
- Takeaways indicate better downside protection while marginal upside due to reduced equity exposure

Source: PFM, Meketa

Historical Stress Tests	Current Policy (%)	Proposed Interim A (%)	Proposed Interim B (%)	Long-Term Policy (%)
COVID-19 Market Shock (Feb 2020-Mar 2020)	-16.6	-17.7	-16.3	-15.4
Taper Tantrum (May - Aug 2013)	-1.0	0.6	0.9	1.1
Global Financial Crisis (Oct 2007 - Mar 2009)	-24.3	-27.0	-25.3	-24.1
Popping of the TMT Bubble (Apr 2000 - Sep 2002)	-10.9	-15.5	-13.6	-12.3
Long Term Capital Management Collapse (Jul - Aug 1998)	-8.7	-7.6	-6.9	-6.3
Asian Financial Crisis (Aug 97 - Jan 98)	1.4	3.2	3.9	4.5
Rate spike (1994 Calendar Year)	0.8	3.0	3.3	3.5
Early 1990s Recession (Jun - Oct 1990)	-5.4	-5.6	-4.8	-4.2
Crash of 1987 (Sep - Nov 1987)	-9.9	-10.8	-9.7	-8.8
Strong dollar (Jan 1981 - Sep 1982)	5.3	5.1	5.3	5.5
Volcker Recession (Jan - Mar 1980)	-3.5	-3.0	-2.9	-2.8
Stagflation (Jan 1973 - Sep 1974)	-19.2	-20.7	-19.0	-17.9

Historical Stress Tests	Current Policy (%)	Interim A (%)	Interim B (%)	Long-Term Policy (%)
Global Financial Crisis Recovery (Mar 2009 - Nov 2009)	32.6	32.3	29.7	27.9
Best of Great Moderation (Apr 2003 - Feb 2004)	29.0	28.8	27.6	26.7
Peak of the TMT Bubble (Oct 1998 - Mar 2000)	47.3	49.3	49.4	49.6
Plummeting Dollar (Jan 1986 - Aug 1987)	50.8	50.3	47.1	44.5
Volcker Recovery (Aug 1982 - Apr 1983)	29.5	31.5	29.1	27.6
Bretton Wood Recovery (Oct 1974 - Jun 1975)	26.6	28.6	26.5	25.1

# Historical Stress Tests & Scenario Risk Analysis

- With negative single shocks to the portfolio, the Long-Term Policy is modeled to perform better than the current policy given our asset allocation

Single Factor (Negative) Shocks	Current Policy (%)	Interim A (%)	Interim B (%)	Long-Term Policy (%)
10-year Treasury Bond rates rise 100 bps	3.8	4.4	4.2	4.0
10-year Treasury Bond rates rise 200 bps	-1.0	-0.4	-0.7	-0.9
10-year Treasury Bond rates rise 300 bps	-3.0	-2.2	-2.6	-2.9
Baa Spreads widen by 50 bps, High Yield by 200 bps	0.7	0.4	0.5	0.5
Baa Spreads widen by 300 bps, High Yield by 1000 bps	-20.0	-21.0	-19.8	-19.1
Trade Weighted Dollar gains 10%	-3.5	-3.2	-3.2	-3.1
Trade Weighted Dollar gains 20%	-2.0	-1.1	-1.2	-1.3
U.S. Equities decline 10%	-5.3	-6.1	-5.9	-5.7
U.S. Equities decline 25%	-16.1	-17.2	-16.5	-16.0
U.S. Equities decline 40%	-25.0	-26.2	-24.8	-23.9
Inflation slightly higher than expected	-0.5	-0.5	-0.5	-0.4
Inflation meaningfully higher than expected	-5.1	-5.4	-4.9	-4.6
Low Growth and Low Inflation	-6.4	-6.0	-5.4	-5.0
Low Growth and High Inflation	-10.1	-9.4	-8.4	-7.7
Brief, moderate inflation spike	-2.9	-2.6	-2.4	-2.2
Extended, moderate inflation spike	-5.3	-5.2	-4.8	-4.6
Brief, extreme inflation spike	-6.7	-6.7	-6.3	-6.0
Extended, extreme inflation spike	-8.9	-9.2	-8.7	-8.3

Source: PFM, Meketa

# Historical Stress Tests & Scenario Risk Analysis

- With positive single shocks to the portfolio, the Long-Term Policy experiences lower upside than Current Policy primarily due to the reduced allocation to equities

Single Factor (Positive) Shocks	Current Policy (%)	Interim A (%)	Interim B (%)	Proposed LT Policy (%)
10-year Treasury Bond rates drop 100 bps	2.1	2.0	1.9	1.9
10-year Treasury Bond rates drop 200 bps	10.0	9.9	9.2	8.7
Baa Spreads narrow by 30bps, High Yield by 100 bps	7.0	7.6	7.5	7.4
Baa Spreads narrow by 100bps, High Yield by 300 bps	12.5	12.3	11.4	10.8
Trade Weighted Dollar drops 10%	7.4	7.1	6.7	6.5
Trade Weighted Dollar drops 20%	20.9	20.7	19.8	19.1
U.S. Equities rise 10%	6.4	6.9	6.7	6.5
U.S. Equities rise 30%	15.2	16.5	15.4	14.7
High Growth and Low Inflation	9.4	9.5	8.8	8.4
High Growth and Moderate Inflation	7.0	7.4	7.0	6.7
High Growth and High Inflation	4.4	5.0	4.8	4.7

Source: PFM, Meketa

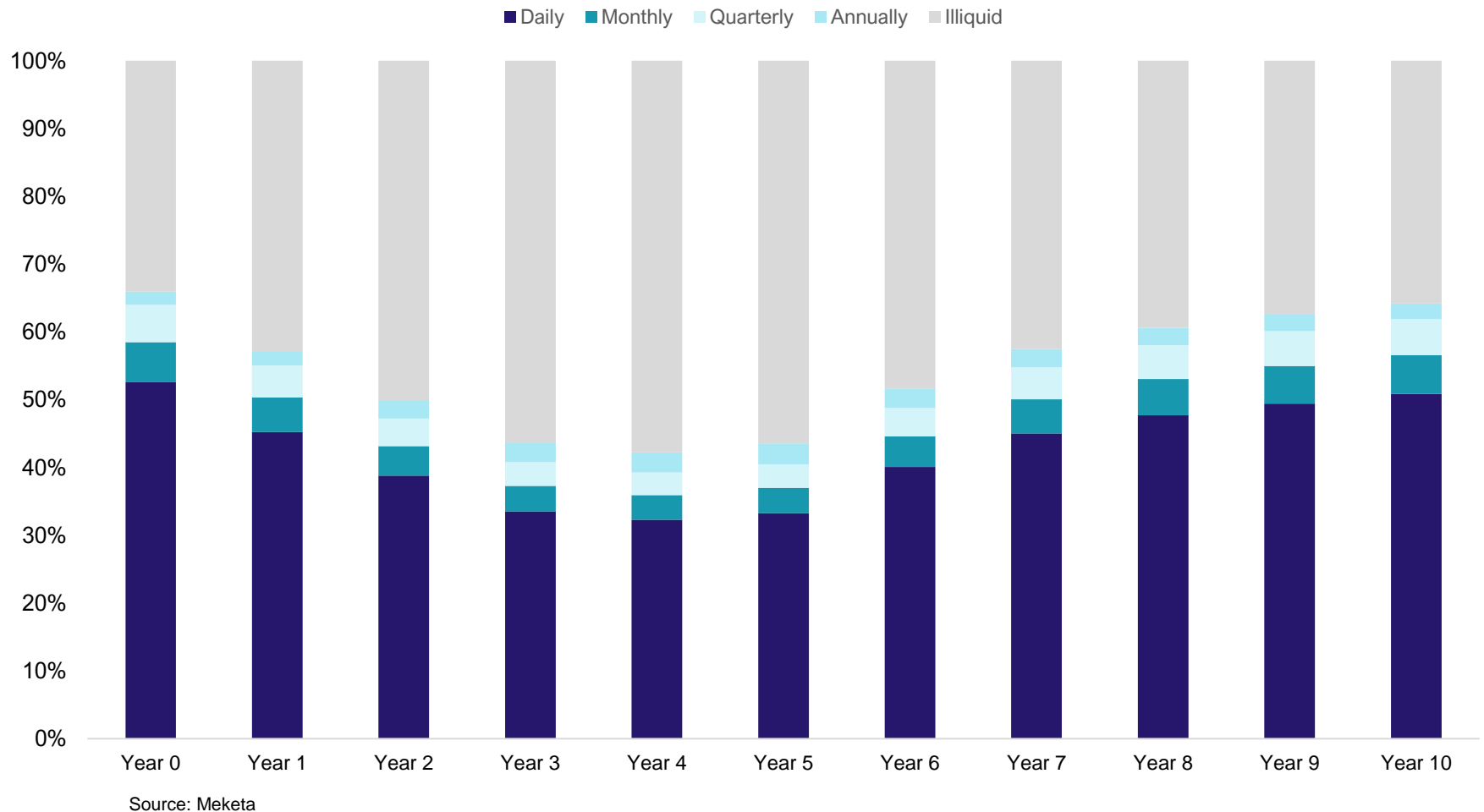
# Meketa Liquidity Stress Test

- Meketa conducted an extreme liquidity stress test using Teachers Employee Retirement Fund (TERF) to analyze the Plan's liquidity using the Proposed Long-Term Policy Allocation
- Specifically, Meketa evaluated whether TERF could:
  - Continue to meet its benefit obligations and expenses (i.e., net outflows),
  - Continue to meet its obligations to fund commitments to private market managers, while staying within its target allocation ranges,
- And at what cost (i.e., to what extent would it be forced to sell stressed or distressed assets)?

## Liquidity Stress Test Design

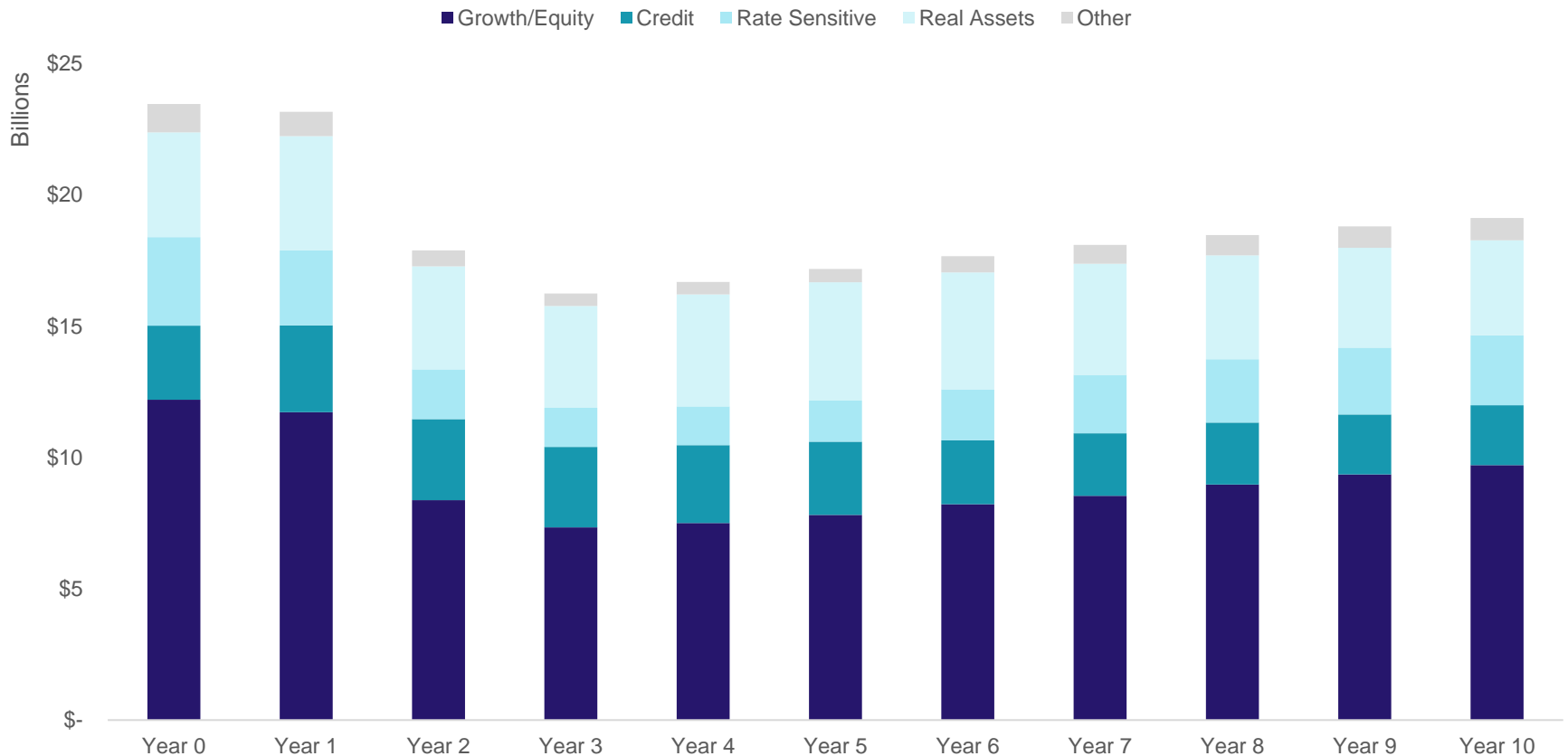
- The scenario is designed to be extreme
- In Years 1 through 3, we use the returns produced by each asset class in the 4<sup>th</sup> quarter of 2007, 2008, and 1<sup>st</sup> quarter of 2009, respectively. In years 4 – 10, we assume the returns for our 2022 CMAs for each asset class
- We assume net outflows (projected by the actuary) of \$566.2M in Year 1, growing to \$949.1M in Year 10.
- We assume that contribution and distribution rates for private markets will be consistent with those experienced during and after the GFC (i.e., Year 1 rates match those experienced in 2007, Year 2 rates match 2008, etc.)
- We assume no rebalancing of private markets (or hedge funds) in Years 1 through 5, and up to 10% of private markets value can be bought/sold per year in Years 6 through 10
- We assume the TERF plan would rebalance toward its policy targets each year

# Meketa Liquidity Stress Test: Liquidity Profile



- At the trough, the portfolio would have 32% in daily liquid vehicles

# Meketa Liquidity Stress Test: Market Value and Asset Allocation



Source: Meketa

- The size of the plan's investment portfolio would shrink and only modestly recover, given the return projections and current cash flow projections.
- Still, there would be ample liquid assets to meet obligations.



# Meketa Liquidity Stress Test: Summary

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Ending Market Value (\$mm)	23,471.0	23,165.8	17,891.4	16,250.1	16,683.9	17,180.6	17,665.7	18,094.8	18,471.0	18,806.4	19,125.1
Net flows (\$mm)		-566.2	-496.5	-693.7	-750.7	-729.7	-775.0	-821.1	-868.6	-918.2	-949.1
Net Flows as % of Market Value		-2.4%	-2.1%	-3.9%	-4.6%	-4.4%	-4.5%	-4.6%	-4.8%	-5.0%	-5.0%
Net Flows from Private Mkts (\$mm)		1,939.3	1,015.2	627.1	-288.1	-783.4	-1,076.7	-928.9	-923.2	-651.3	-993.1
Net Liquidity Needs (\$mm)		-2,505.5	-1,511.7	-1,320.8	-462.6	53.7	301.7	107.8	54.6	-266.9	44.0
Assets Sold in duress (\$mm)		0.0	-738.2	-900.7	-640.7	-816.6	-494.0	-506.3	-533.7	-559.5	-584.6
% of Outflows sold in duress	0%	0%	48.8%	68.2%	61.7%	54.0%	26.7%	28.9%	29.8%	35.6%	30.1%
% of Assets sold in duress	0%	0%	3.2%	5.0%	3.9%	4.9%	2.9%	2.9%	2.9%	3.0%	3.1%
Remaining liquid MV (\$mm)	15,481.5	12,756.3	8,448.6	6,628.4	6,558.2	6,955.7	8,618.5	9,913.8	10,724.1	11,311.7	11,839.6
Total Illiquid Assets (\$mm)	7,989.5	10,409.5	9,442.9	9,621.7	10,125.7	10,224.8	9,047.2	8,181.1	7,746.9	7,494.7	7,285.5
% of Illiquid Assets	34.0%	44.9%	52.8%	59.2%	60.7%	59.5%	51.2%	45.2%	41.9%	39.9%	38.1%
Portfolio Return	0%	1.1%	-20.6%	-5.3%	7.3%	7.4%	7.3%	7.1%	6.9%	6.8%	6.7%

Source: Meketa

- **Even under this extreme scenario, the Plan would maintain sufficient liquidity to meet its obligations**
- The Plan would have to sell some assets that have decreased in value by more than 10% in order to meet its obligations (assuming it is rebalancing to target allocations)

# Conclusions to the IAC on the Strategic Asset Allocation

- **This 2022 SAA Update recommends the IAC approve the adoption of the Proposed Long-Term Policy Allocation designed to achieve a projected beta return of 7.3% net of fees**
- PFM staff expects that the CRPTF will be able to exceed the 6.9% actuarial return assumption in the long-term with the current allocation inclusive of alpha estimates
- Implementation of interim policy allocations (A & B) will minimize the delta in performance and better manage the pacing to private market assets toward the Long-Term Policy Allocation
- Proposed changes to the asset class composition, refinement of our asset class benchmarks will increase the likelihood that PFM to be able to implement the proposed policy asset allocation
- Staffing remains a significant challenge in meeting the Long-Term Asset Allocation

# Appendix

# Capital Markets Expectations – Peer Survey

- Annually, Horizon Actuarial Services, LLC publishes a survey of capital market assumptions that they collect from various investment advisors.<sup>1</sup>
- The Horizon survey is a useful tool to determine whether a consultant's expectations for returns (and risk) are reasonable.

Asset Class	10-Year Average (%)	Meketa 10-Year (%)	20-Year Average (%)	Meketa 20-Year (%)
Cash Equivalents	1.2	0.7	1.9	1.1
TIPS	1.6	1.2	2.4	1.8
US Core Bonds	2.1	1.2	3.2	1.8
US High Yield Bonds	3.8	3.3	5.0	4.2
Emerging Market Debt	4.2	3.9	5.3	3.8
Private Debt	6.5	6.6	6.9	6.8
US Equity (large cap)	5.8	5.2	6.7	6.8
Developed Non-US Equity	6.4	6.7	7.1	7.1
Emerging Non-US Equity	7.2	7.5	7.8	8.1
Private Equity	8.8	8.0	9.6	9.1
Real Estate	5.5	6.5	6.2	6.9
Infrastructure	6.2	7.1	6.8	7.0
Commodities	3.1	3.4	4.0	3.7
Hedge Funds	4.5	3.4	5.3	4.3
Inflation	2.1	2.3	2.2	2.1

<sup>1</sup> The 10-year horizon included all 39 respondents, and the 20-year horizon included 24 respondents. Figures based on Meketa's 2021 CMEs.

# Meketa Risk Analysis Methodology

- The historical scenario analysis and stress tests are designed to show how the various portfolios would perform in different market environments
- The historical scenario analysis uses actual benchmark performance during these periods and weights it by the different policy weights. In periods where the ideal benchmark was not yet available, we used the next closest benchmark as a proxy
- The stress test models each portfolio's performance under hypothetical scenarios based on various factors. It assumes that assets not directly exposed to the factor are affected, nonetheless
- The scenarios for each asset class are arrived at in two parts:
  - First, looking at each asset class returns during which that scenario has been experienced
  - Secondly, identify the relationship through the time each asset has with the underlying scenario returns
- We then take a weighted average of these two components to estimate each asset's outcome in the various scenarios

# Risk Mitigating Strategies - Overview

## 1. Designed to mitigate large total portfolio risks

- Most often Growth Risk (most portfolios' largest risk)
- Provide significant positive returns during a Growth Risk crisis
- Maintain a very low correlation to Growth Risk on average

## 2. Practical implementation

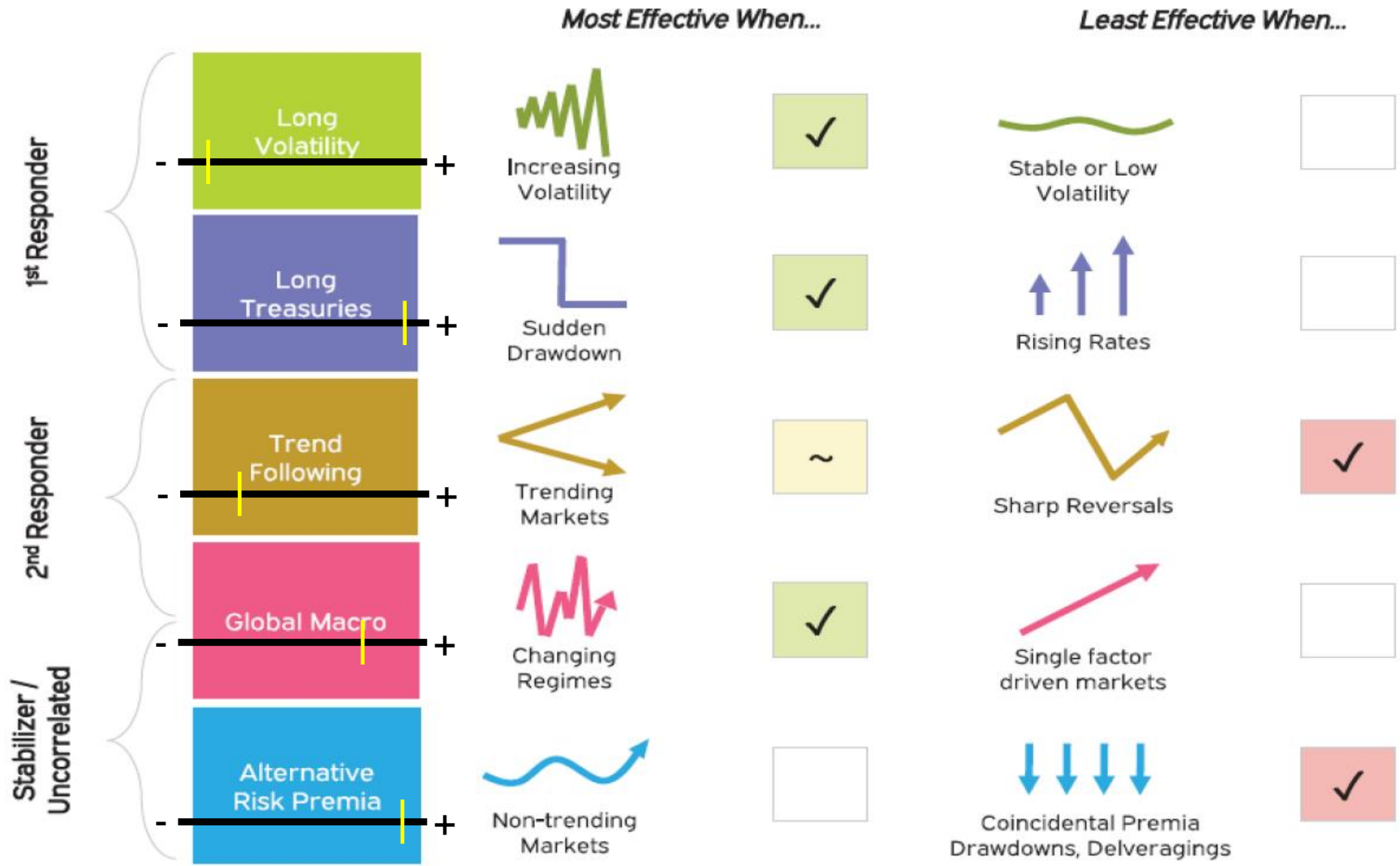
- Desire positive returns when equities decline substantially
- Positive expected standalone return to risk
- Provide meaningful diversification / impact

## 3. Potential Components

Risk Mitigating Strategies Composite	Weight (%)
Long-term Government Bonds	8
Global Macro	21
CTA (Trend Following)	19
Long Puts	42
Alternative Risk Premia (ARP)	10
<b>Total</b>	<b>100</b>

Source: PFM, Meketa

# Risk Mitigating Strategies – Market Analysis



Source: Meketa

“Est. Carry Spectrum” ➡ - ————— +





SHAWN T. WOODEN  
TREASURER

**State of Connecticut**  
**Office of the Treasurer**

DARRELL V. HILL  
DEPUTY TREASURER

September 8, 2022

Members of the Investment Advisory Council ("IAC")

**Re:   *Presentation and Consideration for Approval of the Investment Policy Statement***

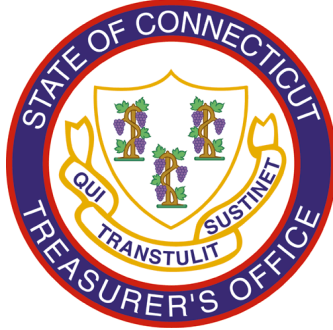
Dear Fellow IAC Member:

Please find attached the Investment Policy Statement ("IPS"), which incorporates the Investment Advisory Council's recommendations endorsed at its meeting of August 29, 2022. I thank each IAC member for their thoughtful consideration of the revisions to this important document.

I look forward to our final deliberations at next week's meeting.

Sincerely,

Shawn T. Wooden  
State Treasurer



# Investment Policy Statement

## for the

# Connecticut Retirement Plans and Trust Funds

Approved by the Investment Advisory Council on September \_XX, 2022

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## **Introduction**

This Investment Policy Statement (“IPS”) sets forth the general standards that govern the investment of the State of Connecticut Retirement Plans and Trust Funds (“CRPTF”), as established by the Treasurer of the State of Connecticut (“the Treasurer”), and as approved by the Investment Advisory Council (“IAC”) in accordance with the provisions of Section 3-13b(c) of the Connecticut General Statutes.

The CRPTF includes the following plans and trusts ("Trust Funds"):

1. Teachers’ Retirement Fund
2. State Employees’ Retirement Fund
3. Connecticut Municipal Employees’ Retirement Fund
4. Probate Judges’ and Employees’ Retirement Fund
5. State Judges’ Retirement Fund
6. State’s Attorneys’ Retirement Fund
7. Policemen and Firemen Survivors’ Benefit Fund
8. Agricultural College Fund
9. Andrew C. Clark Fund
10. Arts Endowment Fund
11. Hopemead State Park Fund
12. Ida Eaton Cotton Fund
13. School Fund
14. Soldiers’ Sailors’ and Marines’ Fund
15. State of Connecticut Other Post-Employment Benefits Trust Fund
16. Teachers’ Retirement Health Insurance Fund
17. Participants’ Retirement Investment Fund
18. Participants’ Investment Fund

These Trust Funds may be collectively referred to as “the CRPTF.”

The Treasurer constructs investment portfolios for each of the Trust Funds within the CRPTF using open-end investment portfolios known as Combined Investment Funds (“CIFs”).

This IPS generally describes the long-term strategic plans for each of the Trust Funds within the CRPTF, based on analysis of capital markets and the financial condition of each plan and trust. In formulating this IPS, the Treasurer seeks to allow for sufficient flexibility to capture investment opportunities as they occur, while maintaining reasonable parameters to ensure that prudence and care are exercised in the execution of the CRPTF’s investment program. Accordingly, the specific categories of permissible investments set forth in this IPS establish parameters but not exclusive types of investments that may be made by the Treasurer or considered by CRPTF staff. In the final analysis, the Treasurer, with the advice of the Chief Investment Officer, staff, consultants, external advisors and the IAC, will exercise authority consistent with the principles of fiduciary law.

The Treasurer shall annually review this IPS and shall consult with the IAC regarding revisions thereto in accordance with the provisions of Section 3-13b(c) of the Connecticut General Statutes.

## **Governance (Authority, Duties, Responsibilities, and Amendments)**

Consistent with Connecticut General Statutes, the Treasurer is sole trustee of the CRPTF and is responsible for the investment of the CRPTF's assets in accordance with fiduciary law and standards, the State Constitution and laws of the State of Connecticut. In his/her fiduciary role, the Treasurer:

- Shall act in the interest of participants and beneficiaries
- Shall work for the purposes of providing benefits to participants and beneficiaries and paying reasonable expenses for the management, oversight and administration of the CRPTF
- Shall act with the care, skill and caution under the circumstances then prevailing which a prudent person acting in a like capacity and familiar with those matters would use in the conduct of like character and purpose
- Shall act impartially, taking into account the differing interests of participants and beneficiaries
- Shall act in accordance with a good-faith interpretation of applicable laws governing the retirement program and the CRPTF
- Shall consider the implications of any particular investment in relation to the foreign policy and national interests of the United States<sup>1</sup>
- May consider the social, economic and environmental implications of investments of trust funds in particular securities or types of securities<sup>2</sup>
- Consult with legal counsel regarding securities monitoring and litigation and other legal matters on behalf of the CRPTF.

In carrying out these responsibilities, and as an elected Constitutional Officer of the State of Connecticut, the Treasurer is supported by a staff of investment professionals led by a Chief Investment Officer who reports to the Treasurer. The Treasurer is responsible for the investment and custody of all CRPTF assets and the selection of and contracting with all investment managers and other service providers. The IAC advises the Treasurer on the investment of the CRPTF. The Treasurer will report to the IAC regarding investment policy, strategies and opportunities. The Treasurer will review with the IAC, on an annual basis, the status of the asset allocation plan for the CRPTF and will report at each regularly scheduled meeting of the IAC as to the status of the CRPTF's investments.

The Treasurer may retain investment managers and other service providers to assist in the management of the assets of the CRPTF and will exercise prudence and care in selecting, instructing and supervising such providers of investment and investment-related services. The Treasurer may invest CRPTF assets directly into companies and vehicles, including, but not limited to, investment funds, limited partnerships, limited liability companies, REITs, and operating or holding companies. In addition, the Treasurer and investment staff will conduct due diligence, select and monitor the management of such investment vehicles. Consistent with Section 3-13i of the Connecticut General Statutes, before the retention of any such investment manager or

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<sup>1</sup> See Sections 3-13d, 3-13g and 3-21e of the Connecticut General Statutes:-

<sup>2</sup> See Section 3-13d of the Connecticut General Statutes.

professional consultant, the Treasurer will present his/her recommendation to the IAC for its consideration. After such presentation, unless waived by a vote of the IAC, the IAC will have up to 45 days to review and comment upon any proposed contract for investment services prior to the execution of such a contract by the Treasurer. The Treasurer or his/her designee is responsible for negotiating the terms of the contract and subsequent amendments to said contract.

In the event the conditions described in Section 3-13d(e) of the Connecticut General Statutes are met, any private equity investments and real estate investments must be approved by the IAC for the balance of the Treasurer's term of office.

The IPS and any specific asset allocation policy set forth in the appendices shall be amended in accordance with the provisions of Section 3-13b(c)(1) of the Connecticut General Statutes.

Except as set forth above, appendices of the IPS shall be added, amended or removed in accordance with the following process:

1. The Treasurer's recommendations to add, amend or remove an IPS appendix will be presented to the IAC at a regularly scheduled IAC meeting.
2. The IAC will review the Treasurer's recommendation and provide feedback for his/her consideration.
3. The Treasurer will adopt the IPS appendix, including any recommendations that he/she deems appropriate.
4. The Treasurer's adopted IPS appendix shall be presented to the IAC for a vote. If a majority fails to approve the adopted IPS appendix, said majority shall provide the reasons for its failure to approve to the Treasurer who may submit an amended adopted IPS appendix at the next regularly scheduled meeting of the IAC.
5. If a majority of the IAC approves the adopted IPS appendix, it shall be posted on the Treasurer's website and a revised appendix shall be made part of this IPS.
6. In the event the Treasurer's adopted IPS appendix is not approved, there will be no changes to the existing IPS appendix.



## **Scope and Purpose**

The IPS describes the framework and standards governing investments of the CRPTF. This document provides the primary guidance for the CRPTF's investment activities by outlining the philosophy and structure of the CRPTF investment program, describing the general process by which assets are managed, and defining the key roles and responsibilities for the CRPTF investment program.

With respect to each trust fund that comprises the CRPTF, this IPS describes the following:

- Investment and return objectives
- Asset allocation policy and risk tolerance
- Asset class definitions, including specific types of permissible investments within each asset class and any specific limitations or other considerations governing the investment of funds
- Investment performance monitoring
- Guidelines for the selection and termination of providers of investment-related services
- Guidelines for proxy voting

## **Investment Philosophy**

The CRPTF seeks to generate strong risk-adjusted returns and invest with a long-term horizon that is consistent with the perpetual nature of the assets through a disciplined and carefully planned strategic investment process. The primary objective of a defined benefit plan is to generate investment returns to assist the plan sponsor in meeting its obligations to fund the pensions of its workers/plan beneficiaries. For certain Trust Funds, the objective is to provide a secure source of income from a principal amount that will last in perpetuity.

Prudent investment strategies seek the broadest access to business opportunities that will provide solid investment returns. Therefore, the CRPTF affords opportunities for emerging, minority, women-owned, veteran-owned and Connecticut-based firms to compete for investment contracts and brokerage business. The Treasurer, in consultation with the IAC, may develop specific programs within one or more CIFs, consistent with the overall strategic direction of the CIFs.

## **Investment Objectives**

The investment objectives for each of the Trust Funds of the CRPTF, along with related asset allocation guidelines, are set forth in Appendix B of this IPS. These investment objectives are long-term in nature and based on a comprehensive review of capital markets assumptions, as well as the current and projected financial requirements of each Trust Fund.

The Treasurer adheres to the principle which maintains that over the long term, prudent investment risk-taking may be rewarded with higher incremental returns.

Pursuant to an asset-liability study conducted in accordance with the provisions of this IPS, and taking into account capital market assumptions and projected financial requirements for each of the Trust Funds within the CRPTF, the Treasurer shall establish an assumed investment rate of return for each of the Trust Funds within the CRPTF, as appropriate.

The assumed investment rate of return is set forth in Appendix B.

### **Return Objective and Risk Tolerance**

The CRPTF's long time horizon allows us to be patient investors and withstand a reasonable amount of volatility. The diversification provided by the proposed asset allocation should allow the portfolio to perform well across a wide range of market conditions. The Treasurer's investment staff monitors and manages risks across the portfolio, and maintains the integrity of the portfolio's asset allocation over a market cycle.

The key objective for the CRPTF is to:

- Earn a minimum assumed investment rate of return over market cycles by investing in a global portfolio of assets with different risk and return characteristics
- Affirmatively manage risk through deliberate exposures, use of leverage and management of liquidity across the CRPTF
- Meet or exceed its respective benchmark net of fees within each asset class that such that each Trust Fund meets or exceeds its policy benchmark over a market cycle
- Maintain adequate liquidity to prevent the CRPTF from being a forced seller during market downturns
- Rebalance the portfolio to take advantage of market volatility, taking the opportunity to trim assets that have appreciated above the target policy allocation and purchased assets that have fallen below the policy target allocation

## **Strategic Asset Allocation**

The asset mix for the CRPTF is established by the Treasurer and approved by the IAC, with input from the Chief Investment Officer, investment staff and consultants, and based on capital market theory, financial and fiduciary requirements, and liquidity needs. The specific asset allocations for each Trust Fund are set forth in Appendix B. Any material changes to these allocations shall be pursuant to the findings of periodic asset allocation studies and/or asset/liability studies, as determined by the Treasurer in consultation with the IAC.

A broad array of asset classes is considered for inclusion in a potential asset allocation structure. The objective is to determine an asset mix that offers a balanced risk/return tradeoff as measured by the impact on the liabilities or spending policy over multiple time horizons.

Investments will be diversified in order to reduce volatility associated with concentrated portfolios and to limit the probability of large losses on individual investment managers within the portfolio.

Investments will comply with the provisions of Connecticut General Statutes, including without limitation Sections 3-13d, 3-13g and Section 3-21e, and any subsequent modifications or revisions to Connecticut law that affect the management of the CRPTF. This IPS, which describes each of the CIFs, delineates specific investment guidelines and restrictions for each of the CIFs.

Deviations from approved asset allocation targets may occur from time to time as a result of market movements or other unanticipated events. Remedies to resolve such deviations will be implemented in a manner that minimizes negative impact to the performance or risk profile of the CRPTF.

## **Pooled Investment Funds**

The Combined Investment Funds (“CIFs”) are separate pooled investment funds that have been created by the Treasurer pursuant to Section 3-31b of the Connecticut General Statutes. The CIFs were established to provide a means for investing Trust Fund assets entrusted to the Treasurer in a variety of investment asset classes. The CIFs are open-end portfolios that represent individual asset classes or sub-asset classes in the plan.

To realize the asset allocations set forth in the IPS for each Trust Fund, the Treasurer administers the CIFs as a series of combined investment funds in which the various Trust Funds may invest through the purchase of ownership interests. The asset mix for each of the Trust Funds is established by the Treasurer, with approval of the IAC, based upon capital market theory, financial and fiduciary requirements and liquidity needs. There are instances in which the asset mix for a Trust Fund is set by its governing document.

## **Asset Classes**

The following are the permissible asset classes in which the CRPTF portfolio will be invested:

- Global Equity
- Core Fixed Income
- Non-Core Fixed Income
- Absolute Return
- Private Equity
- Private Credit
- Real Estate
- Infrastructure and Natural Resources
- Liquidity (Cash Equivalents)

Policy targets, ranges and benchmarks are found in Appendix A. Asset class structure and guidelines are in Appendix C.

### **Global Equity**

The Global Equity CIF ("GE") will invest primarily in equity instruments to meet the CRPTF asset allocation guidelines for asset classes having the characteristics and categories of equities. In the overall asset allocation, GE's goal is to primarily achieve capital appreciation and, secondarily, achieve a long-term, real rate of return significantly above the inflation rate. The inclusion of global equities can provide favorable risk-adjusted returns to a portfolio utilizing both active or passive strategies.

The Domestic Equity CIF ("DE") will invest primarily in the common stocks of U.S. corporations. These investments will be primarily made using money managers. DE's assets will be allocated across the U.S. stock market so that there is diversification by both market capitalization and investment style, such as value and growth.

The Developed Markets CIF ("DM") will invest primarily in the common stocks of non-U.S. corporations. These investments will be primarily made using money managers. DM assets will be allocated across foreign markets such that there is diversification by market, capitalization and style which, in aggregate, are structured to replicate the characteristics of the comparable developed non-U.S. equity markets. Non-U.S. equities are defined as common stocks issued by companies domiciled outside the U.S. Developed Markets are defined as the countries with well-developed economies and capital markets. They tend to be high per capita income with efficient market institutions.

The Emerging Markets CIF ("EM") will invest primarily in the common stocks of non-U.S. corporations. These investments will primarily be made using money managers. EM assets will be allocated across emerging markets such that there is diversification by market, capitalization and style which, in aggregate, are structured to replicate the characteristics of the comparable emerging markets equity index. Non-U.S. equities are defined as common stocks issued by companies domiciled outside the U.S. Emerging Markets are defined as the countries with developing economies and capital markets. They tend to be lower per capita income with less efficient market institutions.

## **Core Fixed Income**

The Core Fixed Income CIF (CFI”) will invest primarily in fixed-income securities in the domestic U.S. markets. In the overall asset allocation, CFI’s goal is primarily to preserve capital and secondarily to provide current income to the CRPTF. The inclusion of fixed income will provide a source of diversification to other asset classes within the CRPTF.

The CFI portfolio consists of active and passive managed fixed income mandates. The CFI may invest in debt instruments issued by the U.S. Government and its agencies, inflation protected securities, “quasi-Government” agencies, municipalities and U.S. corporations. In addition, mortgage and asset-back securities, Euro bonds, high quality quasi or sovereign debt and any other public or private U.S. regulated debt securities are permitted.

## **Non-Core Fixed Income**

The Non-Core Fixed Income CIF (“Public Credit CIF” or “PCC”) is comprised of those assets and asset classes outside the scope of the CFI which may include, but are not limited to, high yield securities, convertible securities, and emerging market securities. PCC assets are expected to generate higher returns and greater income than CFI assets with a secondary objective of capital preservation.

## **Private Equity**

The Private Equity CIF (“PE”) will invest in various private equity strategies and vehicles. The purpose of the PE is to earn returns in excess of the public equity markets and generate attractive risk-adjusted rates of return through investments with managers executing active strategies to increase the strategic and financial value of private companies. The PE investments will generally be made in externally managed limited partnerships or through separate accounts that focus on private equity investments. The PE may also make co-investments. In addition, the PE may acquire and divest fund interests through secondary or other transactions.

Private equity includes both Venture Capital and Corporate Finance investment strategies. Venture Capital typically involves equity capital invested in young or development stage companies, whether start-up, early, mid or late-stage companies. Corporate Finance typically involves equity and debt capital invested in growth, mature or distressed stage companies, often through the financing of acquisitions, spin-offs, mergers or changes in capitalization.

## **Private Credit**

Private Credit (“PVC”) will predominately invest in direct and indirect debt investments. The purpose of the PVC is to generate attractive, risk-adjusted returns in excess of public debt strategies, with the expected benefit of decreased volatility of the CRPTF’s overall portfolio through lower correlations with other asset classes. The PVC will invest in credit-related strategies not available through other pooled investment funds and may include direct lending, mezzanine, distressed debt, and special situations funds and co-investments with these funds. The PVC investments will generally be made in externally managed limited partnerships or through separate accounts that focus on private debt investments. The PVC may also make co-investments.

## **Absolute Return**

The Absolute Return CIF (“AR”) will invest CRPTF assets in investment strategies that offer the potential to reduce risk, enhance overall portfolio expected returns, or a combination of both in a variety of market conditions. The AR serves as a vehicle for strategies that provide diversification benefits and are not easily classified, categorized, or described in the other CIFs. Hybrid strategies that cut across multiple asset classes will also be considered part of the opportunity set.

AR strategies represent a broad set of investment styles, mandates and products that focus primarily on the liquid equity, fixed income and derivatives markets, and illiquid securities and investments. AR strategies may target absolute returns without reference to a traditional benchmark since managers may use a wide range of investment tools such as short-selling, leverage, derivatives and complex securities to achieve their investment objectives.

The AR may invest in strategies that do not fit the constraints of existing CIFs and other strategies including absolute return strategies and other alternative asset strategies. The AR mandate may be executed through investment managers who actively manage a fund of funds (“FoF”) portfolio or through direct investments in separately managed accounts (“SMA”).

### **Real Estate**

Real estate, infrastructure and natural resources are all real assets, which are long-lived physical assets that derive their value from claims on current and future cash flows. The Real Estate (“RE”) asset class strategic objectives are to provide diversification to the overall CRPTF investment program, preserve investment capital and generate attractive risk-adjusted rates of return. In addition to providing current income and the potential for capital appreciation, real estate assets provide at least two primary benefits to a diversified plan. First, real estate assets have low correlation to equities and fixed income markets and should thereby provide diversification benefits to the CRPTF. Second, real estate is also designed to yield an inflation-adjusted or positive “real” return.

Investments within the real estate asset class include the development or acquisition and management of properties to generate income and with the potential for capital appreciation through strong operations, releasing, and/or repositioning, as needed.

The investments may consist of a number of different investment strategies through varying investment vehicles, primarily with active managers, including externally managed commingled funds, separate accounts, publicly traded real estate investment trusts (“REIT”), limited liability companies, limited partnerships, direct investments, co-investments and master limited partnerships (“MLPs”).

### **Infrastructure and Natural Resources**

The Infrastructure and Natural Resources CIF’s (“INR”) strategic objectives are to provide diversification to the overall CRPTF investment program, preserve investment capital and generate attractive risk-adjusted rates of return. Similar to real estate, investments in Infrastructure provide current income and the potential for capital appreciation., INR assets have low correlation to equities and fixed income markets and also have revenue streams that are tied to inflation and therefore typically yield an inflation-adjusted or positive “real” return.

Infrastructure investments include the building or acquisition of assets that generate a long stream of cash flows that increase over time and are less sensitive to price fluctuations in markets generally. In the case of natural resources, investments include the acquisition of land or physical assets to extract, grow, collect, distribute, process, and/or refine raw materials to generate income and for the realization of their economic value.

The investments may consist of a number of different investment strategies, through varying investment vehicles, primarily with active managers, including externally managed commingled funds, separate accounts, publicly traded infrastructure companies, limited liability companies, limited partnerships, direct investments, co-investments and master limited partnerships (“MLPs”).

### **Liquidity (Cash Equivalents)**

The Liquidity Fund consists of short-term U.S. assets that include cash and cash equivalents that are routinely used to make benefits payments and meet other cash needs. The Liquidity Fund assets will be managed consistent with U.S. money market guidelines.



## **Investment Process**

### **Asset Class Framework**

Following an asset allocation study, the Treasurer and investment staff review the implementation of each asset class. As noted in the *Strategic Asset Allocation* section, each asset class has defined goals and role within the overall portfolio along with performance benchmarks and objectives.

### **Approval of Investment Mandates**

#### **A. Investment Manager Guidelines**

Investment manager guidelines specific to each mandate are set forth in each contract or agreement. These guidelines will be consistent with the requirements of this Policy and will describe the investment objective and strategy, permissible and prohibited investments, diversification guidelines and reporting requirements.

#### **B. Guidelines for the Selection of Investment Managers**

The Treasurer will select investment managers based on their respective expertise relative to the investment mandate they seek to fulfill or the investment service they seek to provide. In general, the selection process will entail the following processes:

- Conduct a competitive bidding process (Request for Proposals or “RFP”) or review of a private placement memorandum (“PPM”), as defined by the State’s procurement and purchasing laws and standards or, where appropriate and practicable, the use of a pre-determined uniform system for evaluating proposals and for otherwise determining the merits of preferred vendors within the industry.
- Undertake a due diligence process that evaluates a firm’s capabilities, organization, track record, institutional expertise and investment philosophy.
- Consider the firm’s policies and practices, including those that support diversity in the firm’s industry.
- Integrate the potential risk and value impact that environmental, social, and governance (“ESG”) factors may have on the CRPTF’s investments.

Investment service providers must disclose any third-party fees paid, as defined in Section 3-13j of the Connecticut General Statutes, gifts, conflicts of interests, campaign contributions and other required disclosures in effect at the time of the selection process.

In the selection of investment managers, due consideration shall be given to a firm’s demonstrated commitment to supporting diversity of its workforce, its vendors and to the diversity of its industry’s future workforce and to affording opportunities for emerging, minority and women-owned and Connecticut-based investment managers, who can provide services consistent with the CRPTF’s investment strategy and fiduciary standards, to compete for investment contracts.

Before the retention of any investment manager, or making a direct investment with an investment manager, the Treasurer will present a recommendation(s) to the IAC for consideration. After such presentation, unless waived by a vote of the IAC, the IAC will have up to 45 days to review and comment upon any proposed contract prior to the execution of a contract by the Treasurer.

Any decision to terminate an investment manager will be consistent with the terms and conditions set forth in contract. The Treasurer will report on the decision to the IAC.

The number of investment managers retained will be subject to considerations regarding reasonable and prudent levels of risk and diversification.

The criteria for the selection of investment managers and direct investments in each CIF will vary according to mandate and asset type. Those criteria are described more fully within Appendix C of this IPS.

#### C. Investment Performance Evaluation Guidelines

The Treasurer will regularly monitor investment performance of the Trust Funds, CIFs, direct investments and individual investment managers. The CRPTF's custodian will confirm or reconcile its performance data with the investment managers.

For the CIFs and individual investment managers, the Treasurer will use designated benchmarks and the investment guidelines as essential parts of the criteria to monitor investment performance. The investment guidelines, unique to each investment manager, will be incorporated into the investment management contract executed between the Treasurer and such investment manager and may subsequently be amended as mutually agreed upon by both parties.

Investment manager guideline deviations may occur from time to time as a result of market movements or other unanticipated events. Actions will be taken to assess the situation and develop a remedy to resolve the deviation, recognizing that resolution may take time and should be implemented in a manner that limits negative impact on the performance or risk profile of the CRPTF.

#### **Execution of Investment Policy**

It is the Treasurer's obligation and responsibility to direct the day-to-day administration of the CRPTF's investment program. Consequently, the Treasurer may establish written procedures for the CRPTF's operations consistent with this IPS. Such procedures shall include a system of internal controls, which will be documented in writing.

## **Public Markets Investment Managers**

For public markets, investments will be made and monitored within the following framework.

- Development of strategic asset allocation targets for public market asset classes
- Development of a strategic plan, which will establish goals and objectives to achieve the CRPTF asset allocation guidelines and strategic objectives for the asset class
- Development of criteria and procedures for the selection of new public market allocations
- Use of the RFP process to identify managers for selection incorporating due diligence
- Review of terms and conditions with negotiated agreements satisfactory to the Treasurer, including a demonstrated alignment of interest between the manager and the CRPTF
- Monitoring and evaluation of fund managers' performance on an on-going basis, including the application of performance measurement standards for public markets
- Monitoring of manager's compliance with applicable policies as set forth in the appendices to this IPS and/or other requirements under contract

Asset-class structures for public markets are in Appendix C of this IPS.

## **Private Markets Investment Managers**

For private markets, investments will be made and monitored within the following framework.

- Development of strategic asset allocation targets for private market asset classes
- Development of a strategic plan, which will establish goals and objectives to achieve the CRPTF asset allocation guidelines and strategic objectives for the asset class
- Development of criteria and procedures for the selection of new private market commitments
- Screening and tracking of potential private market investments, with status reporting to the Treasurer
- Conducting due diligence as directed by the Treasurer
- Review by the IAC of any proposal to enter into a limited partnership agreement or separately managed account
- Review of terms and conditions with negotiated agreements satisfactory to the Treasurer, including a demonstrated alignment of interest between the manager and the CRPTF
- Monitoring and evaluation of fund managers' performance on an on-going basis, including the application of performance measurement standards for private markets
- Management of any securities distributions to optimize realized proceeds in a timely manner, while considering prevailing market conditions
- Monitoring of manager's compliance with applicable policies as set forth in the appendices to this IPS and/or other requirements under contract

Asset-class structures for private markets are in Appendix C of this IPS.

### **Performance Reporting and Monitoring Oversight**

The CRPTF's staff may utilize the custodian bank and asset class consultants in the preparation of monthly and quarterly reports of the asset class performance, investment manager performance, and total CRPTF performance for the Treasurer and IAC.

The Chief Investment Officer shall review and approve, on a monthly and quarterly basis, the investment reports for submission to the Treasurer and the IAC.

## **Risk Management**

The Chief Investment Officer, with input from the Chief Risk Officer and other investment staff, is responsible for devising and implementing the CRPTF's risk frameworks, measuring and monitoring investment risks, providing investment risk control, monitoring compliance with the CRPTF's risk appetite, and otherwise mitigating investment and investment-related risks.

There are many risks the Treasurer must measure and monitor. These include, but are not limited to, capital market risk, investment style risk, concentration risk, volatility risk, liquidity risk, correlation risk, and funding risk. The primary risk to the CRPTF is failing to meet investment objectives over time. This can result either from taking on too much risk and suffering large, unexpected losses or from taking on too little risk and failing to meet the target rate of return objectives.

Risk management strives to achieve a balance between risk and return. The Treasurer recognizes that the CRPTF must assume risk to achieve desired rates of return. The objective of the CRPTF's risk management program is to ensure that risks taken are evaluated and determined to be appropriate in light of CRPTF's investment objectives and are properly managed.

### **Goals**

The risk management program has the following goals:

- Seek to achieve the desired rate of total return within appropriate levels of risk and liquidity
- Seek to maintain sufficient diversification to reduce the potential for large losses, minimize exposure to unintended risk, and preserve capital
- Provide an integrated process for overall investment risk management on both a consolidated and disaggregated basis
- Select, implement, and maintain risk management tools to provide analyses that inform and support the investment process across portfolios and strategies
- Confirm that external managers have established and will maintain appropriate risk management programs to reduce risks potentially affecting their portfolios.

### **Risk Framework**

To achieve these goals, this policy includes a risk framework, as described in Appendix D, that articulates the risk management approach for the CRPTF. The risk framework outlines the dynamic process by which the Treasurer and CRPTF staff manage risk. The framework may be modified as deemed appropriate to reflect the changing nature of economic conditions and capital markets.

### **Watch List Monitoring**

The Treasurer or a designee will periodically meet with individual investment managers to review performance. Investment managers may make presentations before the IAC.

Periodically, it may be necessary and in the best interests of the CRPTF to place an investment manager on the Treasurer's "Watch List." The events triggering such placement are generally

defined within the relevant contract or agreement, and may include, but not be limited to, significant underperformance relative to its benchmark, turnover of key members of the investment professional staff, and a significant event affecting the investment manager.

Ultimately, the Treasurer will determine whether to (a) continue to monitor performance; (b) remove the manager or partner from the Watch List; (c) invoke various remedies under the applicable contract, which may include, but not be limited to, terminating the manager consistent with their contract, removal of a general partner, and/or sell the CRPTF's interest in the investment.

### **Risk Tolerance**

The CRPTF's long time horizon allows us to be patient investors and withstand a reasonable amount of volatility. The diversification provided by the proposed asset allocation should allow the portfolio to perform well across a wide range of market conditions. The Treasurer's investment staff monitors and manages risks across the portfolio, and maintains the integrity of the portfolio's asset allocation over a market cycle.

### **Other Considerations**

This IPS is intended to provide a framework for the investment of the CRPTF, which may be supplemented by additional policies and procedures for each asset class and other investment-related initiatives including, but not limited to: securities lending; emerging managers program; and securities litigation.

- **Use of Investment Vehicles:** Investment is permitted in individual securities, and through other investment vehicles such as, but not limited to, commingled trusts, separate accounts, mutual funds and other pooled asset portfolios, provided they conform to the applicable guidelines and restrictions set forth in the individual investment manager contracts.
- Deviations from investment policy become advisable in consideration of new or unique investment opportunities, which are not specifically addressed in this IPS, as may become available from time to time. The Treasurer may deviate from this policy from time to time, after approval by the IAC, provided that any and all such deviations will enhance the CRPTF's long-term performance and not jeopardize the standards of prudence for the CRPTF as a whole.
- Third party vendors are utilized for the safekeeping of the CRPTF assets, holding the CRPTF assets in custody, valuing plan investments, engaging in securities lending activities and maintaining accurate records of all investments and transactions. All such third-party vendors will take direction from the Treasurer or a designee.

## **Liquidity & Cash Management**

Based on such factors as investment strategy, cash flow and benefit payments, the Treasurer will determine the appropriate allocation to cash equivalents in order to meet the Trust Funds' liquidity needs in the near term. Liquidity requirements will be reviewed regularly to ensure that each of the CRPTF's policies and practices are structured so as to accommodate changing liquidity needs.

## **Rebalancing Policy**

The CRPTF may deviate from the asset allocation targets from time to time, by virtue of capital markets activity, other unanticipated events, as well as cash flow requirements of individual Trust Funds. Consequently, the Treasurer will monitor asset allocation on at least a quarterly basis to determine and ensure rebalancing is appropriately implemented. Each asset class will have a rebalancing threshold with upper and lower bounds around the long-term policy target.

The Chief Investment Officer may initiate a discretionary rebalancing at any time. Remedies to resolve such deviations will be implemented in a manner that minimizes negative impact to the performance or risk profile of the CRPTF. The Treasurer shall not invest more than 65 percent of the market value of the CRPTF in common stock for more than six months after such fluctuation occurs.<sup>3</sup> At least annually, the IAC will review the CRPTF's current asset allocation. If rebalancing is initiated, a plan is developed whereby specific dollar amounts will be considered for movement based on the degree of the over/underweight in the various asset classes, liquidity characteristics and current market conditions.

The CRPTF's rebalancing procedures reflect the following considerations:

1. Trading costs directly impact overall performance. The CRPTF therefore controls the frequency of rebalancing and employs methods that keep trading costs to a minimum.
2. Rebalancing on a periodic basis, with trigger points (upper and lower bounds) by asset class, is the best choice for limiting tracking error caused by the variance between the CRPTF's actual and target asset allocation while minimizing trading-related transaction costs and disruption to the management of the CRPTF.

## **Environmental, Social and Governance Factors**

The Treasurer and the CRPTF's investment team consider environmental, social and governance ("ESG") factors in its investment processes because they can materially influence both risk and return, and can impact the sustainability, value and performance of the CRPTF's investments over the long term. The relevance of ESG may differ and vary in degree across companies, sectors, regions, asset classes and over time.

Accordingly, consistent with the Treasurer's fiduciary responsibilities to act in the best interests of the members, retirees and beneficiaries of the CRPTF, the Treasurer will: (1) maintain an active corporate governance program for the CRPTF's publicly traded equity investments, with due consideration to ESG issues; and (2) incorporate relevant ESG issues into the investment analyses and decision-making processes in investment programs.

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<sup>3</sup> See Section 3-13d of the Connecticut General Statutes.



Investment recommendations in all asset classes will include information on and consideration of a manager's ESG policies and practices, focusing on the risks and standards relevant to the investment under consideration.

## **CRPTF's Guidelines for Restricted Investments and Proxy Voting Policies**

### **Restricted Investments:**

The Treasurer may prohibit investment of CRPTF assets in particular securities, types of securities, or companies pursuant to statutory investment restriction authority (see below) and/or based on the following determination:

- One or more risk factors that may impact profitability and long-term shareholder value
- Risks run counter to the goals and objectives of the CRPTF to provide investment income and appreciation in line with the long-term liabilities that the CRPTF is designed to support; and
- Prohibition will not adversely or materially impact the CRPTF's risk/return profile.

### **Foreign Policy and National Interests of the United States:**

Statutory Investment Restriction Authority. Certain Connecticut statutes provide guidance to the Treasurer when making investment decisions, have been incorporated into the investment process and are reflected in all contracts under which CRPTF funds are invested. Appendix F, *Policy for Implementation of Investment Restrictions*, sets forth the process by which the Treasurer implements investment restrictions.

### **CRPTF's Policy on Proxy Voting**

Shareholder activity is among the fiduciary duties of the Treasurer as trustee of the CRPTF. Consequently, fiduciaries have a responsibility to vote proxies on issues that may affect the value of the shares held in a portfolio since proxies are considered plan assets and have economic value.

The Treasurer may determine, where appropriate, that certain shareholder activities, such as the active monitoring and communication with corporate management, should be undertaken to enhance the economic value of plan assets. Such circumstances for shareholder activity should be considered appropriate when investments are expected to be held on a long-term basis.

Proxy voting policies are set forth in Appendix G of this IPS. Any delegation of proxy voting by the Treasurer, either to external money managers or a proxy voting service, shall be consistent with said policies.

## **Appendix A – Policy Target and Benchmarks for the CRPTF**

Asset allocations reflected below represent long term policy targets for the retirement plans. Trust Funds' allocations may be established by either statute or their respective governing authorities, and may contain specific allocations based on individual profiles, risk tolerance and return expectations. Trust Funds' specific policy targets, ranges and benchmarks are found in Appendix B of this IPS.

Composite / Asset Class	Long-Term Policy Target
Global Equity	37%
Core Fixed Income	13%
Non-Core Fixed Income	2%
Private Equity	15%
Private Credit	10%
Absolute Return	5%
Real Estate	10%
Infrastructure and Natural Resources	7%
Liquidity (Cash Equivalents)	1%
<b>Total</b>	<b>100%</b>

Composite / Asset Class	Benchmark
Global Equity	MSCI All Country World IMI Net Index
Core Fixed Income	Blend: Bloomberg Barclays U.S. Aggregate Bond and Bloomberg Barclays U.S. Treasuries Index
Non-Core Fixed Income	Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index
Private Equity	Russell 3000 + 250 basis points*
Private Credit	S&P / LSTA Leveraged Loan Index + 150 basis points*
Absolute Return	Blend: Dynamic weighted strategy (HFRX)
Real Estate	Open End Diversified Core Equity (NFI-ODCE Index)*
Infrastructure and Natural Resources	CPI + 400 basis points*
Liquidity (Cash Equivalents)	U.S. 3-Month T-Bill Index

\* Performance comparisons are typically evaluated one quarter in arrears

## **Appendix B – Detailed Asset Allocations for Various Trust Funds**

As stated in *Investment Objectives*, the Treasurer shall establish an assumed investment rate of return for the CRPTF.

The current assumed investment rate of return is 6.9 percent per annum.

The asset allocation composition for each Trust Fund of the CRPTF, as approved by the IAC, is set forth in Appendix B of this IPS and posted on the website of the Office of the State Treasurer. Currently, the CRPTF includes the following plans and trusts:

1. State Employees' Retirement Fund
2. Teachers' Retirement Fund
3. Connecticut Municipal Employees' Retirement Fund
4. Probate Judges' and Employees' Retirement Fund
5. State Judges' Retirement Fund
6. State's Attorneys' Retirement Fund
7. Soldiers' Sailors' and Marines' Fund
8. Arts Endowment Fund
9. Agricultural College Fund
10. Ida Eaton Cotton Fund
11. Andrew C. Clark Fund
12. School Fund
13. Hopemead Fund
14. Police and Firemen Survivors' Benefit Fund
15. Other Post-Employment Benefits Trust Fund
16. Teachers' Retirement Health Insurance Fund
17. Participants' Retirement Investment Fund
18. Participants' Investment Fund

### **Investment Objectives**

The primary objective of CRPTF investment portfolio is to provide a secure source of retirement income for its beneficiaries. The CRPTF's investment objectives are long-term in nature and have been established based on comprehensive reviews of the capital markets and its underlying current and projected financial requirements, as determined through periodic asset/liability studies.

For certain Trust Funds, the primary objective of the investment portfolio is to provide a secure source of income from a principal amount that will last in perpetuity,

The Treasurer adheres to the principles of capital market theory, which maintains that over the long term, prudent investment risk-taking is rewarded with incremental returns. Consequently, while capital preservation is regarded to be of paramount importance for certain Trust Funds, the Treasurer regards prudent risk-taking as justifiable.

In those instances, the investment objectives are as follows:

1. To maximize returns within reasonable and prudent levels of risk

2. To provide a satisfactory current stream of income given current dollars invested
3. To maintain the CRPTF corpus by minimizing erosion of principal due to inflation
4. To maintain adequate cash levels to meet the Trust Funds' distribution requirements.

## Asset Allocation

The CRPTF's asset mix is established by the Treasurer and the IAC based on capital market theory, the CRPTF's financial requirements and the CRPTF's liquidity needs. The CRPTF's investment portfolio is overseen by the Treasurer (as sole trustee of the CRPTF) and is invested in accordance with applicable statutory requirements and fiduciary standards.<sup>4</sup>

## Asset Allocation Target Policy – Table I

Set forth below are the target policy and relative ranges for each of the following Trust Funds:

1. State Employees' Retirement Fund
2. Teachers' Retirement Fund
3. Connecticut Municipal Employees' Retirement Fund
4. Probate Judges' and Employees' Retirement Fund
5. State Judges' Retirement Fund
6. State's Attorneys' Retirement Fund
7. Police and Firemen Survivors' Benefit Fund
8. Other Post-Employment Benefits Trust Fund
9. Teachers' Retirement Health Insurance Fund
10. Participants' Retirement Investment Fund
11. Participants' Investment Fund

COMBINED INVESTMENT FUND (CIF)*	TARGET POLICY
<b>GLOBAL EQUITY:</b>	
DOMESTIC EQUITY (22%)	
DEVELOPED MARKETS EQUITY (11%)	37%
EMERGING MARKETS EQUITY (4%)	
<b>CORE FIXED INCOME</b>	13%
<b>NON-CORE FIXED INCOME</b>	2%
<b>PRIVATE EQUITY</b>	15%
<b>PRIVATE CREDIT</b>	10%
<b>ABSOLUTE RETURN</b>	5%
<b>REAL ESTATE</b>	10%
<b>INFRASTRUCTURE AND NATURAL RESOURCES</b>	7%
<b>LIQUIDITY (CASH EQUIVALENTS)</b>	1%

*\*Each asset class will have a rebalancing threshold with upper and lower bounds around the long-term policy target.*

<sup>4</sup> See Sections 3-13c and 3-13d of the Connecticut General Statutes.

## Asset Allocation Target Policy and Relative Ranges – Table II

Set forth below are the target policy and relative ranges for each of the following Trust Funds:

1. Andrew C. Clark Fund
2. Hopemead Fund
3. Ida Eaton Cotton Fund
4. School Fund
5. Soldiers' Sailors' and Marines' Fund

COMBINED INVESTMENT FUND (CIF)*	TARGET POLICY
<b>GLOBAL EQUITY:</b>	
DOMESTIC EQUITY (22%)	
DEVELOPED MARKETS EQUITY (11%)	<b>37%</b>
EMERGING MARKETS EQUITY (4%)	
<b>CORE FIXED INCOME</b>	<b>62%</b>
<b>LIQUIDITY (CASH EQUIVALENTS)</b>	<b>1%</b>

*\* Each asset class will have a rebalancing threshold with upper and lower bounds around the long-term policy target.*

## **Teachers' Retirement Fund**

### Investment Authority

The Teachers' Retirement Fund ("TERF") was established by Public Act 78-208. Fund administration is overseen by The Teachers' Retirement Board, which is within the Office of the State Comptroller for administrative purposes only.

### Statement of Purpose

Public Act 78-208 established the TERF for the purpose of providing retirement and other benefits to teachers, their survivors and beneficiaries that have fulfilled the requirements as set forth in the TERF guidelines and Sections 10-183b to 10-183h of the Connecticut General Statutes.

## **State Employees' Retirement Fund**

### **Investment Authority**

The State Employees' Retirement Fund ("SERF") was authorized by Public Act 234 of the 1961 General Assembly and is codified in Section 5-156 et seq. of the Connecticut General Statutes. Beginning in 1981, the SERF's terms and conditions have been the subject of collective bargaining between the State and a coalition of bargaining units representing state employees, commonly known as the State Employees' Bargaining Coalition (SEBAC). Fund administration is overseen by the Office of the State Comptroller and the State Employees Retirement Commission.

### **Statement of Purpose**

Public Act 61-234 re-stated the State Employees Retirement Act and reaffirmed the SERF as the entity that would provide retirement and other benefits to State employees, their survivors and beneficiaries who have fulfilled the requirements as set forth in the SERF guidelines, and as negotiated with SEBAC.



## **Connecticut Municipal Employees' Retirement Fund**

### **Investment Authority**

The Connecticut Municipal Employees' Retirement Fund ("CMERF") was established by Public Act 191(s. 2) of the 1969 General Assembly. Fund administration is overseen by the Office of the State Comptroller.

### **Statement of Purpose**

Public Act 69-191(s. 2) established the CMERF for the purpose of providing retirement and other benefits to employees and their beneficiaries of participating municipal and local governmental units. The retirement plan permits municipalities with a small number of employees to get the benefit of the so-called "law of averages" by pooling their contributions with those of other municipalities. This pooling of retirement assets by participating municipalities reduces the risk of excessive cost to an individual municipality because of actuarial vagaries in that municipality. CMERF also takes advantage of economies of scale in its investment strategies and assures that the benefits will be uniform among the participating municipalities.

## **Probate Judges' and Employees' Retirement Fund**

### **Investment Authority**

The Probate Court Retirement Fund ("PROB") was established by Public Act 558(s. 40) of the 1967 General Assembly. Fund administration is through the State Employees' Retirement Commission and the Office of the State Comptroller.

### **Statement of Purpose**

Public Act 67-558(s. 40) established the PROB for the purpose of providing retirement and other benefits to Judges of Probate and Probate Court employees and their beneficiaries.

## **State Judges' Retirement Fund**

### **Investment Authority**

The State Judges' Retirement Fund ("JURF") was established by Public Act 81-456(S, 5). Fund administration is through the State Employees' Retirement Commission and the Office of the State Comptroller.

### **Statement of Purpose**

The JURF was established for the purpose of providing retirement and other benefits to state judges, family support magistrates, and workers compensation commissioners and their beneficiaries who have fulfilled the requirements set forth in the JURF guidelines.

## **State's Attorneys' Retirement Fund**

### **Investment Authority**

The State's Attorneys' Retirement Fund ("SARF") was established by Public Act 84-399(S.9.17) Fund administration is through the State Employees Retirement Commission and the Office of the State Comptroller.

### **Statement of Purpose**

The SARF was established for the purpose of providing retirement and other benefits to certain states attorneys and certain public defenders and their beneficiaries who have fulfilled the requirements set forth in the SARF guidelines.

## **Policemen and Firemen Survivors' Benefit Fund**

### **Investment Authority**

The Policemen and Firemen Survivors' Benefit Fund ("POFI") was established by Public Act 390 of the 1963 General Assembly. Fund administration is through the State Employees Retirement Commission and the Office of the State Comptroller.

### **Statement of Purpose**

The POFI was established for the purpose of providing retirement and other benefits to participants and their beneficiaries who have fulfilled the requirements set forth in the POFI guidelines.

## **Agricultural College Fund**

### **Investment Authority**

The Agricultural College Fund (“AGRI”) is described in Section 10a-115 and 3-40 of the Connecticut General Statutes.

### **Statement of Purpose**

The AGRI dates back to 1862 when funds were received as proceeds from the sale of federal land granted to the States from the federal government. The beneficiary of the congressional grant became the University of Connecticut School of Agriculture, with the income from the assets “inviolably appropriated for teaching; principally, the science of agriculture and the mechanical arts.” The Treasurer annually transfers a distribution to the University of Connecticut.

### **Asset Allocation Target Policy and Relative Ranges**

COMBINED INVESTMENT FUND*		TARGET POLICY
CORE FIXED INCOME		100%

*\* Each asset class will have a rebalancing threshold with upper and lower bounds around the long-term policy target.*

## **Andrew C. Clark Fund**

### Investment Authority

The Andrew C. Clark Fund (“ACCF”) was established by Public Act 261 of the Connecticut General Assembly, May 3, 1917.

### Statement of Purpose

The Treasurer was authorized by an act of the Connecticut General Assembly in 1917 to enter into an agreement with the executors of the will of Andrew C. Clark of New Milford, wherein certain proceeds of his estate would be shared equally by the State and the Congregational Home Missionary Society of New York. In his will, Andrew C. Clark bequeathed that one half of his entire estate be held and invested for the same objects and purposes for which the School Fund was established (as described in Article XIII of this Part.)



## Arts Endowment Fund

### Investment Authority

The Connecticut Arts Endowment Fund (“AEF”) is established in Section 10-406 of the Connecticut General Statutes.

### Statement of Purpose

The AEF was established under the provisions of Public Act 88-355 with the purpose of providing income to support nonprofit arts organizations in Connecticut. In 2017, the General Assembly enacted a spending policy which requires an annual distribution equivalent to four (4) percent of the average market value of the AEF over the preceding three years.

The Treasurer annually advises the Department of Economic and Community Development and the Connecticut Arts Council of the amounts available for distribution to organizations for participation in, promotion, development, acceptance and appreciation of artistic and cultural activities.

### Asset Allocation Target Policy and Relative Ranges

COMBINED INVESTMENT FUND:	TARGET POLICY
<b>GLOBAL EQUITY:</b>	
DOMESTIC EQUITY (32%)	
DEVELOPED MARKETS EQUITY (16%)	
EMERGING MARKETS EQUITY (6%)	<b>54%</b>
<b>CORE FIXED INCOME</b>	<b>33%</b>
<b>NON-CORE FIXED INCOME</b>	<b>2%</b>
<b>PRIVATE CREDIT</b>	<b>10%</b>
<b>LIQUIDITY (CASH EQUIVALENTS)</b>	<b>1%</b>

*\* Each asset class will have a rebalancing threshold with upper and lower bounds around the long-term policy target.*

## **Hopemead State Park Fund**

### **Investment Authority**

The Hopemead State Park Fund (“HOPE”) is established in Section 3-13c of the Connecticut General Statutes.

### **Statement of Purpose**

The HOPE was created pursuant to the August 14, 1964 Last Will and Testament of Charlotte Fuller Eastman of Norwich, Connecticut. Upon the death of H. Louise Fuller in 1975, Mrs. Eastman’s last surviving heir, the bequeathed Hopemead Fund (\$143,288.18) was paid to the Department of Environmental Protection, as the successor of the Connecticut State Park and Forest Commission. As mandated, these assets were designated for the development of the Hopemead State Park. On March 22, 1976, by mutual agreement of the parties these assets were transferred to the Office of the State Treasurer in order to invest the principal.

## **Ida Eaton Cotton Fund**

### **Investment Authority**

The Ida Eaton Cotton Fund (“IECF”) is established under the provisions of Section 3-31a of the Connecticut General Statutes.

### **Statement of Purpose**

The New Haven County Cotton Fund as originally established in 1963, mandated that interest income from the principal of the IECF bequest be used to sponsor and encourage industry among the adult blind community. Thus, on behalf of IECF, a distribution is transferred annually to the General Fund for use by the Board of Education Services for the Blind.

## **School Fund**

### Investment Authority

The School Fund (“SCOL”) is established under the provisions of Section 3-40 of the Connecticut General Statutes.

### Statement of Purpose

The SCOL was established through an Act of Congress on July 2, 1862 (as was the Agricultural College Fund) from the proceeds of the sale of federal land and was approved by a Special Session of the Connecticut General Assembly in December 1862. The SCOL was originally under the jurisdiction of the Agricultural College of the University of Connecticut but is now within the Department of Education. A distribution is transferred to the Department of Education for general use through the Office of Policy and Management’s budget allocation process.

## **Soldiers' Sailors' and Marines' Fund**

### Description

The Soldiers' Sailors' and Marines' Fund ("SSMF") is established under the provisions of Section 27-140 of the Connecticut General Statutes.

### Statement of Purpose

The SSMF was established by an Act of the General Assembly in 1917 and, through numerous revisions, remains obligated to serve the interest of military personnel who were engaged in any of the wars waged by the United States, as specified by statute, who were honorably discharged, or to their spouses, survivors and dependents. The distribution is controlled and accounted for by the American Legion for the purposes of providing food, shelter, clothing and other subsistence payments to applicants under the provisions of Sections 27-138 and 27-140 of the Connecticut General Statutes.

## **State of Connecticut Other Post-Employment Benefits Plan**

### **Investment Authority**

A Retiree Health Care Trust Fund (also known as Other Post-Employment Benefits Trust Fund or “OPEB Trust Fund”) was established by Public Act 07-1 and was later defined in 2008 by gubernatorial authority as an irrevocable trust. Subsequent agreements in 2009 and 2011 between the State of Connecticut and the State Employees Bargaining Agent Coalition (SEBAC) further addressed the funding for and contractual obligations concerning the OPEB Trust Fund. Administration of other post-employment benefits is through the Office of the State Comptroller.

### **Statement of Purpose**

The OPEB Trust was established for the purpose of supplementing the payment of the costs of health care and other post-employment benefits for retirees of the State of Connecticut retiring after the effective date of SEBAC 2011 and its subsequent revisions.

## **Teachers' Retirement Health Insurance Fund**

### **Investment Authority**

Teachers' Retirement Health Insurance Fund (also known as "TRHIF" Trust Fund) was established through a series of legislative actions starting with 1978 Public Act 78-208. Fund administration is overseen by The Teachers' Retirement Board, which is within the Office of the State Comptroller for administrative purposes only.

### **Statement of Purpose**

Public Act 78-208 established the TRHIF for the purpose of providing retirement and other benefits to teachers, their survivors and beneficiaries. Series of legislative actions were undertaken in response to the dramatically rising cost of health insurance during the 1970's and retired members sought assistance from the state to meet the cost of their health insurance premiums.



## **Participants' Retirement Investment Fund**

### **Investment Authority**

The Participants' Retirement Investment Fund was established under authority of the Office of the Treasurer pursuant to Article Four, Section 22 of the Connecticut State Constitution and Title 3 of the Connecticut General Statutes. In general, the Treasurer is responsible for the safe custody of the property and money belonging to the State.

### **Statement of Purpose**

Special Session Public Act 21-2 allowed municipalities to invest the assets of their pension, retirement or other postemployment health and life benefit systems in any trust fund administered, held or invested by the Treasurer. Pursuant to such authorization, the Participants' Retirement Investment Trust Fund was established.

## **Participants' Investment Fund**

### **Investment Authority**

The Participants' Investment Fund was established under authority of the Office of the Treasurer pursuant to Article Four, Section 22 of the Connecticut State Constitution and Title 3 of the Connecticut General Statutes. In general, the Treasurer is responsible for the safe custody of the property and money belonging to the State.

### **Statement of Purpose**

Public Act 21-111 established the Connecticut Baby Bond Trust, and Public Act 22-118 delayed its effective date to July 1, 2023. The Trust is authorized to receive and invest funds, the corpus and earnings of which may be distributed on behalf of eligible classes of individuals born on or after July 1, 2023, for statutorily prescribed expenditures that are proven to build wealth and reduce inequality. The Trust has been created to accommodate other non-retirement investment needs of the state and other organizations as designated by state statute.

## Appendix C – Detailed Asset Class Structure

### **Global Equity**

Global Equity's goal is to primarily achieve capital appreciation and, secondarily, achieve a long-term, real rate of return significantly above the inflation rate. The inclusion of global equities will provide a source of diversification to other asset classes within the CRPTF.

### Asset Class Strategy

To meet the benchmark and fund objectives of each Global Equity sub-asset classes, the Treasurer will utilize a combination of investment styles and strategies. The size, number and styles retained will be determined by the creation of an optimal portfolio that achieves its desired return target, while maintaining acceptable levels of risk and diversification. Asset classes included in Global Equity are Domestic Equity, Developed Markets (ex U.S.) and Emerging Markets. Strategies include, but are not limited to:

- **Passive** – investment strategy that attempts to match the index in terms of performance and risk characteristics.
- **Enhanced Index** – a proprietary investment strategy designed to add incremental return with minimal increase in risk and modest tracking error.
- **Active Core** – investment strategy acutely aware of benchmark-relative exposures (capitalization, style, industries, etc.) and actively seeks performance above that of its benchmark with a normalized tracking error.
- **Active Specialist** – investment strategy acutely aware of benchmark-relative exposures within a Sub-Asset Class (ex: within a particular capitalization, style, or industry) and actively seeks performance above that of its benchmark.
- **Opportunistic** – new, innovative, or proprietary strategies which may not be easily classifiable within traditional categories (e.g. cross-over, activist, hybrid) and could not be currently widely available in the institutional marketplace.

The benchmark for Global Equity is the MSCI All-Country World Investable Market Index (IMI) which captures large-cap, mid-cap and small-cap representation across 23 Developed Markets (DM) and 24 Emerging Markets (EM) countries. This index covers approximately 99% of the global equity investment opportunity set.<sup>5</sup>

### Asset Class Characteristics

The following are some of the most-commonly referenced characteristics of Global Equity: market capitalization, geographic regions, sectors, active/passive strategies and liquidity.

- **Market capitalization:** Dissection could occur across any of the market capitalization segments, for example, large-cap, mid-cap, small-cap and micro-cap.
- **Geographic regions:** Dissection could occur via investing in regions in the US markets, Developed Markets (ex. US), and Emerging Markets. More detailed information at the country

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<sup>5</sup> MSCI.

level is also utilized. Asset class-level regional and country allocations are the result of the bottom-up allocations of managers in the portfolio.

- Sectors: Global Industry Classification Standards (“GICS”) define sectors, industry groups and sub-industries into which the S&P500 categorizes major public companies. These sectors are used in the US, developed and emerging markets. Asset-class sector and industry allocations are the result of the bottom-up allocations of managers in the portfolio.
- Active/passive strategies: Passive strategies are utilized in investments considered to be more “efficient”, where the “information edge” is noticeably smaller than it is in other investment areas. Active strategies are used for less efficient investments.
- Liquidity: Public equity asset classes tend to consist of publicly traded securities that have higher liquidity than other asset classes. As such, there are liquidity variations within public equities depending on, for example, region/country and market capitalization.

#### Portfolio Construction Considerations

The number of investment managers retained will be minimized subject to considerations regarding reasonable and prudent levels of risk and diversification.

As noted in the Risk Framework section in this IPS, general diversification and concentration limits for “liquid” asset classes include the size of each sub-manager portfolio and the number of sub-manager portfolios utilized within the CRPTF.

Investment vehicles tend to be separately managed accounts (“SMAs”) within a fund-of-funds structure, which provides the desired level of control for CRPTF.

#### Risk Considerations

Measures such as liquidity, tracking error, active shares and correlations are considered. Passive manager allocations are considered a source for reducing active risk. Diversification restrictions are implemented where security size could be limited based on security type (e.g. short-term, depository receipts), percentage of the total fund, or total outstanding equity capital.

## Core Fixed Income

Core Fixed Income's goal is primarily to preserve capital and secondarily to provide current income to the CRPTF. The inclusion of fixed income will provide a source of diversification to other asset classes within the CRPTF.

### Asset Class Strategy

To meet the benchmark and fund objectives, the Core Fixed Income asset class will utilize a combination of investment styles and strategies. These strategies will primarily incorporate investment-grade characteristics. The size, number and styles retained will be determined by the creation of an optimal portfolio that achieves its desired return target, while maintaining acceptable levels of risk and diversification.

- **Passive** – investment strategy that attempts to match the index in terms of performance and risk characteristics. Passive strategies may be used across all styles of fixed income portfolios.
- **Active Core** – investment strategy aware of benchmark-relative exposures (*sector, sub-sector, duration, convexity and yield curve positioning, etc.*) and actively seeks performance above that of its benchmark with an acceptable tracking error.
- **Active Sector** – investment strategy acutely aware of benchmark-relative exposures within a Sub-Asset Class (*sector, sub-sector, duration, convexity and yield curve positioning, etc.*) and actively seeks performance above that of its benchmark.

The benchmark for Core Fixed Income is a blend of the Bloomberg Barclays U.S. Aggregate Bond and the Bloomberg Barclays U.S. Treasuries Indices.

Core Fixed Income has many characteristics with the following being those characteristics that are given the most attention:

- **Sector** – fixed income sectors include, but are not limited to, the following types of securities: US Government, corporate, securitized, municipal, and foreign government.
- **Subsector** – fixed income subsectors further define the industry, collateral, structure, and degree of government guarantee.
- **Duration** – the interest rate sensitivity of the portfolio. This is often represented by a singular sensitivity number and may include where the portfolio is invested across maturity ranges.
- **Rating** – credit ratings within core fixed income are those considered investment grade, or higher quality and having default and loss characteristics of higher quality investments.
- **Liquidity** – liquidity is determined by the ability to buy and sell securities within a sector or subsector. Liquidity ranges from illiquid to extremely liquid and varies from sector to sector.

### Portfolio Construction Considerations

The following factors will be considered when creating or rebalancing the Core Fixed Income Fund:

- **Number of Managers** - The number of investment managers retained will be minimized subject to considerations regarding reasonable and prudent levels of risk and

diversification. However, to avoid manager concentration, Core Fixed Income will seek to ensure that an appropriate number of managers is utilized for each strategy when constructing this portfolio.

- Manager allocations will be sized to minimize investment fees, prevent excessive diversification, and align with the size of the market opportunity and the manager's capacity to execute. Investment mandates (regardless of focus) will generally be a minimum of twenty-five (25) basis points (i.e., 0.25%) of the CRPTF's total assets under management, and should not generally constitute more than thirty-three percent (33%) of the investment manager's particular strategy for which it is being engaged at the time of investment.
- The benchmark(s) of the portfolio(s) will be selected in such a manner as to represent the broader fixed income market or the appropriate sector of the market (ex. Securitized sector). The portfolio in aggregate will have similar characteristics to the broader fixed income market.
- The portfolio(s) shall consider the interest rate risk (duration) relative to the broader fixed income market and the duration appropriate for the asset class objectives

Investment vehicles tend to be separately managed accounts ("SMAs") within a fund-of-funds structure.

#### Risk Considerations

- Portfolios will control for duration risk by creating acceptable duration ranges around the benchmark.
- Portfolios will control for quality by creating acceptable deviations from the credit rating(s) of the broader market and/or sector.
- Portfolios will control for liquidity with sector/subsector constraints.
- Additional measures considered include tracking error, asset class, sector, and subsector correlations, convexity, and default status.

## Non-Core Fixed Income

Non-Core Fixed Income's goal is providing high levels of current income as well as capital appreciation. The inclusion of fixed income will provide a source of diversification to other asset classes within the CRPTF.

### Asset Class Strategy

To meet the fund objectives, Non-Core Fixed Income will utilize a combination of investment styles and strategies. The size, number and styles retained will be determined by the creation of an optimal portfolio that achieves its desired return target, while maintaining acceptable levels of risk and diversification.

- **Passive** – investment strategy that attempts to match the index in terms of performance and risk characteristics. Passive strategies may be used across all styles of fixed income portfolios.
- **Active Sector** – investment strategy acutely aware of benchmark-relative exposures within a Sub-Asset Class (*sector, sub-sector, duration, convexity and yield curve positioning, etc.*) and actively seeks performance above that of its benchmark.
- **Active High Yield** – investment strategy is benchmark aware but flexible in pursuit of return and opportunistic investments. Strategy actively seeks performance above that of its benchmark with an acceptable tracking error.
- **Active Emerging Markets** – investment strategy is benchmark aware but flexible in pursuit of return and opportunistic investments.
- **Active Convertibles** - investment strategy is benchmark aware but flexible in pursuit of return and opportunistic investments. Strategy actively seeks performance above that of its benchmark with an acceptable tracking error.

The benchmark for Non-Core Fixed Income is the Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index.

### Asset Class Characteristics

Non-Core Fixed Income has many characteristics with the following being those characteristics that are given the most attention:

- **Sector** – fixed income sectors include, but are not limited to, the following types of securities: US Government, corporate, securitized, municipal, and foreign government.
- **Subsector** – fixed income subsectors further define the industry, collateral, structure, and degree of government guarantee.
- **Duration** – the interest rate sensitivity of the portfolio. This is often represented by a singular sensitivity number and may include where the portfolio is invested across maturity ranges.
- **Rating** – credit ratings within Non-Core Fixed Income are those generally considered below investment grade which have default and loss characteristics of higher risk investments.
- **Liquidity** – liquidity is determined by the ability to buy and sell securities within a sector or subsector. Liquidity ranges from illiquid to extremely liquid and varies from sector to sector.



- Equity Sensitivity – the sensitivity to changes in the equity of issuing entities and the valuation of the underlying fixed income securities.

#### Portfolio Construction Considerations

The following factors will be considered when creating or rebalancing the Non-Core Fixed Income Fund:

- Number of Managers - The number of investment managers retained will be minimized subject to considerations regarding reasonable and prudent levels of risk and diversification. However, to avoid manager concentration, Non-Core Fixed Income will seek to ensure that an appropriate number of managers is utilized for each active strategy when constructing this portfolio..
- Manager allocations will be sized to minimize investment fees, prevent excessive diversification, and align with the size of the market opportunity and the manager's capacity to execute. Investment mandates (regardless of focus) will generally be a minimum of twenty-five (25) basis points (i.e., 0.25%) of the CRPTF's total assets under management, and should not generally constitute more than thirty-three percent (33%) of the investment manager's particular strategy for which it is being engaged at the time of investment.
- The benchmark(s) of the portfolio(s) will be selected in such a manner as to represent the strategy being employed. The portfolio in aggregate will have similar characteristics to the broader fixed income market.
- The portfolio(s) shall consider the characteristics of each style employed, the correlation among and between styles, and the aggregated characteristics in order to achieve the expected risk and return profile.

#### Risk Considerations

- Portfolios will control for duration risk by creating acceptable duration ranges around the benchmark.
- Portfolios will control for quality by creating acceptable deviations from the credit rating(s) of the focus market and/or sector.
- Portfolios will control for liquidity with sector/subsector constraints.
- Additional measures considered include tracking error, asset class, sector, and subsector correlations, equity sensitivity, convexity, leverage, capital seniority and default status.

## Absolute Return

The Absolute Return (AR) asset class serves as a vehicle for strategies that provide diversification benefits and are not easily classified, categorized, or described in the other asset classes of the CRPTF.

Historically, the AR asset class has been focused on a broad set of investments that target absolute return mandates utilizing hedge fund vehicles. The current implementation of the AR asset class operates as a diversifier to the overall CRPTF.

### Asset Class Strategy

The asset class strategy for AR will focus on absolute returns premia. The term “absolute return” is used to denote strategies that focus on the generation of positive returns over market cycles. The expectation is that an AR strategy will generate a positive return when the market within which it is investing experiences periodic negative returns. As such, AR is expected to have low correlation to traditional markets (i.e., equity, fixed income and/or subclasses thereof). The AR strategy will focus on, but not be limited to, Risk Mitigating Strategies or "RMS" designed to provide the CRPTF with robust diversification benefits and defensive characteristics relative to the growth exposures in the portfolio (equities or credit allocations).

Strategy for RMS	Description
Long Term Treasuries	Fixed-rate US dollar denominated debt that serves as a defensive exposure
Trend Following	Systematic processes based to invest on the direction of various market asset classes like equities, rates, bonds, currency, commodities using futures contracts
Global Macro	Exposures that target macroeconomic conditions utilizing top-down views and economic analyses leveraging both long and short strategies with various degrees of leverage and instruments
Long Volatility & Tail Risk Hedging	Derivatives on asset classes that benefit from increased volatility in the underlying assets
Alternative Risk Premia	Strategies that benefit from non-traditional risk premia factors such as carry, value, momentum, low-volatility and quality factors.

Other strategies that can be considered for the AR asset class are illustrated below:

Strategy	Description
Equity-Linked	Investment managers maintain positions both long and short in primarily equity and equity derivative securities.
Credit-Linked	Investment managers seek to profit from the realization of a valuation discrepancy in the relationship between multiple credit-linked securities.
Event Driven	Investment managers that hold positions in companies currently or prospectively involved in corporate transactions of a wide variety including, but not limited to, mergers, restructurings, financial distress, tender offers,

	shareholder buybacks, debt exchanges, security issuance or other capital structure adjustments.
Derivatives	Investment managers trade a broad range of strategies predicated on movements in underlying economic variables and the impact these have on equity, fixed income, currencies and other derivative instruments.
Multi-Strategy	Investment managers in this strategy use any combination of the strategies noted above in an attempt to produce returns in any market condition.

The benchmark for Absolute Return is a custom benchmark that is a weighted average of the underlying strategies in AR, using a blend of public indices and HFRX sub-strategy indices.

### Asset Class Characteristics

The AR asset class will have a defensive characteristic in the CRPTF providing downside protection during equity market downturns while potentially yielding a lower expected return during up equity markets.

**Liquidity** - AR investment vehicles have initial lock-up provisions that are demanded by an investment manager to ensure that a sufficient level of capital is available to support the manager's investment strategy. The AR will strive to minimize its exposures to such requirements. For the AR's investments in funds with lock-up provisions, exposure to investments with lock-up provisions greater than one year but less than five years will be limited to 10% of the target allocation to AIF. The balance of the ARs exposure to funds with lock-up provisions will have minimum lock-up of one year or less with redemption periods of no less than once per year.

Under no circumstances will liquid investment strategies be permitted in vehicles or structures that require a commitment of capital of more than 10 years.

Investment in limited partnership vehicles with standard expiration and extension provision are permissible and are not included as part of the liquidity parameters noted above.

### Portfolio Construction Considerations

**Investment Vehicles:** AR investments will generally be made in both private and public investment manager mandates including the following:

- Commingled funds
- Limited partnerships
- Limited Liability Companies
- Offshore corporations
- Managed accounts
- Fund-of-One mandates
- Fund of Funds mandate

### Risk Considerations

- Investment managers will adhere to the investment strategy, diversification limits and administrative guidelines described in their investment management agreements, private placement memorandum and related contracts

- Investment managers will be required to ensure that all AR investments adhere to all limitations imposed by Connecticut General Statutes and/or federal law
- The correlation of the AR portfolio to CRPTF's target asset allocation is expected to be less than 0.40 over a cycle
- No more than 20% of the AR's policy target allocation should be invested in any one investment vehicle

## Private Markets Asset Classes

Private Markets consists of Private Equity, Private Credit, Real Estate, Infrastructure and Natural Resources. A broad set of asset class strategies and characteristics apply across these investments and are described in this section. These are further refined within each asset class description that follows.

Private Markets Asset Classes will invest in various private strategies and vehicles. The investments will generally be made in externally managed limited partnerships or through separate accounts that focus on private investments as well as through co-investments. In addition, Fund interests may be acquired and divested through secondary or other transactions. Private markets are generally less efficient and more illiquid than public markets. The CRPTF seeks to generate private market returns in excess of public market equivalents by partnering with managers that utilize active investment strategies.

### Portfolio Construction Considerations for Private Markets Asset Classes

Private Markets investments will generally be made in partnerships with the CRPTF as a limited partner and the investment manager serving as the general partner. The investment managers' discretion regarding the selection of underlying investments in the partnership will be limited by the Treasurer's exercise of his/her duty to consider the consequences of such discretion in accordance with state laws and as may be addressed in the IPS.

The following investment vehicle structures will be considered eligible for CRPTF's portfolio:

- **Primary Funds:** Investment vehicles that generally invest in directly negotiated equity, debt or other securities issued by privately held entities. The fund manager has discretion, subject to investment guidelines, to invest the capital committed to the vehicle by its investors, or limited partners.
- **Secondary Funds:** Investment vehicles that purchase interests in (i) primary investment funds from other limited partners, or (ii) assets in existing investment funds.
- **Fund-of-Funds:** Investment vehicles that make capital commitments to primary funds managed by independent fund managers.
- **Separate Accounts:** The CRPTF may seek to establish customized investment vehicles where it is the only investor in the vehicle and an investment manager is retained to invest capital on behalf of the CRPTF.
- **Direct and Co-Investments:** The CRPTF, or a designated partner investing on its behalf, may invest in a company directly or through a co-investment made alongside an investment manager.

### Risk Considerations for Private Markets Asset Classes

Each Private Asset Class will be diversified with respect to strategy, manager and fund, vintage year, geography, industry, and stage. Given the illiquid nature of private equity investments,

attempting to “time the market” is not a realistic alternative. The CRPTF will seek to make Private Markets commitments on a steady, annual basis.

As described below, diversification factors will help provide maximum return and safety of principal for the Private Markets portfolios. Each Private Markets portfolio will be diversified by the relevant strategies identified in the specific asset class section.

#### Manager and Fund Diversification for Private Markets Asset Classes

To avoid undue exposure to individual managers or funds, the Private Markets investments will also adhere to the following diversification guidelines:

- The CRPTF’s capital commitment to an investment vehicle shall not exceed thirty-three percent (33%) of the total capital commitments to the investment vehicle, unless the vehicle is specifically structured such that the CRPTF is intended to be the only investor, or one of a small number of investors, in the vehicle.
- The CRPTF’s investment(s) with any one manager may not exceed twenty percent (20%) of that manager’s total assets under management as measured by unfunded commitments and market value.
- No more than 25% of the CRPTF’s exposure in each Asset Class should be managed by one investment management firm, with exposure defined as the sum of market value and unfunded capital commitments.

#### Vintage Year Diversification

Private Markets commitments will be made at a steady, annual pace to avoid excessive under or overexposure to any one vintage year. This policy will have the effect of dollar cost averaging the investments over business cycles and will help insulate the portfolio from event risk.

#### Geographical Diversification

One measure of diversification is by geographical location of the underlying portfolio companies and/or assets. Over the long term, each Private Markets portfolio should seek portfolio diversification to both developed and developing geographic regions. However, in certain situations, geographically targeted strategies may be appropriate for the portfolio.

#### Industry & Sector Diversification

The Private Markets portfolios will also seek to diversify by industry sector at the overall portfolio level, through a combination of investments with sector-focused managers as well as those that invest more opportunistically across a number of industry sectors.

## Private Equity

The Private Investment Fund (“PIF”) will invest in various Private Equity strategies and vehicles. The purpose of the PIF is to generate attractive risk-adjusted rates of return through investments in private companies and earn returns in excess of the public equity markets over the long-term. The PIF is also expected to enhance the CRPTF’s overall return profile through investments with managers executing active strategies to increase the strategic and financial value of private companies.

The benchmark for the PIF portfolio is the Russell 3000 plus a 250-basis point premium, while the expected rate of return of individual investments within PIF may vary based on the particular investment strategy deployed. Due to vintage year impacts, valuation methodologies and illiquid nature of private investments, comparisons relative to the benchmark are best measured over a period of five-years or more.

### Asset Class Strategy

The PIF will invest in various Private Equity strategies and vehicles, with a particular focus on Venture Capital and Corporate Finance investment strategies. Venture Capital typically involves equity capital invested in young or development stage companies, whether start-up, early, mid or late-stage companies. Corporate Finance typically involves equity and debt capital invested in growth, mature or distressed stage companies, often through the financing of acquisitions, spin-offs, mergers, or changes in capitalization.

Private Equity investments will generally be made in partnerships with the CRPTF as a limited partner and the investment manager serving as the general partner. The Private Equity investment managers execute active strategies that are subject to the investment guidelines agreed to between the manager, the CRPTF, and other investors in the investment vehicle.

### Asset Class Characteristics

The following Corporate Finance private equity strategies will be considered eligible for CRPTF’s portfolio:

- Buyouts
- Growth equity
- Mezzanine and structured capital
- Turnround, distressed, restructuring, and special situations
- Any opportunistic investment strategy approved by the Treasurer as an eligible investment.

The following Venture Capital private equity strategies will be considered eligible for CRPTF’s portfolio:

- Early, mid, late and balanced stage venture capital
- Any opportunistic investment strategy approved by the Treasurer as an eligible investment.

As outlined in the *Private Markets* section, Private Equity investments may be accessed through primary, secondary, and co-investment opportunities.



## Portfolio Construction Considerations

In addition to the parameters outlined in the *Private Markets* section, the following sub-allocation targets to Corporate Finance and Venture Capital investments will be utilized to allocate capital where there is the greatest opportunity for enhanced return while managing overall portfolio risks through diversification. The sub-allocation targets shown below are based on the PIF's percentage of total exposure, defined as market value plus unfunded commitments.

	Lower Range %	Upper Range %
Corporate Finance	70%	100%
Venture Capital	0%	30%

## Risk Considerations

In addition to the Risk Considerations outlined in the *Private Markets* section above, additional Private Equity risk factors that will be managed and monitored include, but are not limited to sector, development stage and geographic exposures. These diversification objectives will be managed and monitored through the implementation of the PIF's strategic plan, which will identify the appropriate pace and level of commitments to achieve strategy, vintage year, geographic, and sector diversification and liquidity objectives.

The PIF will consider sector agnostic as well as sector-focused strategies to provide the portfolio with diversified exposure across economic sectors.

Stage diversification refers to investments made in companies at various stages of the business life cycle, including start-up, growth, and established stages where different financial and business strategies are utilized. The PIF will be well diversified by stage through commitments made to managers focusing on investments in companies at early, expansion and mature development stages.

The PIF's geographic exposure will be focused on investments made in developed economies to limit exposures to undue market, currency, or political risk. Allocation to emerging markets should be considered within the context of the PIF's total portfolio and be limited to 10% or less of the total PIF exposure.

## **Private Credit**

The Private Credit Fund ("PCF") will invest in direct and indirect debt investments. The purpose of the PCF is to generate attractive, risk-adjusted returns in excess of public debt investments by capturing an illiquidity premium and certain market inefficiencies relative to public debt markets. The PCF is expected to contribute to the diversification of the CRPTF's overall portfolio through investments having lower correlations to other asset classes.

The benchmark for the PCF portfolio is the S&P/LSTA Leveraged Loan Index plus a 150 basis points premium. Due to vintage year impacts, valuation methodologies and illiquid nature of

private investments, comparisons relative to the benchmark are best measured over a period of five-years or more.

### Asset Class Strategy

The PCF will invest in a diversified portfolio of yield-oriented credit strategies, where returns are expected to be generated through current income and capital preservation, as well as total return strategies, which may also generate capital appreciation opportunities. The PCF investments will generally be made in externally managed limited partnerships or through separate accounts that focus on private debt strategies, which may include senior credit, mezzanine debt, credit opportunities, special situations, and specialty finance investments.

### Asset Class Characteristics

The PCF will invest in credit-related strategies not available through other asset classes and may include senior, mezzanine, special situations, and distressed credit strategies as outlined below.

- **Senior Credit** strategies involve providing senior debt directly to borrowers, most often through directly originated and negotiated transactions. Senior debt instruments generally include a senior secured interest in the borrower's assets or cash flow. Variations may include second-lien and uni-tranche investment strategies, which generally may be higher risk than first lien, secured lending strategies.
- **Mezzanine or Subordinated Debt** managers generally focus on loans that are subordinated to a borrower's senior debt but have a priority interest over equity interests. Mezzanine debt is often used in conjunction with senior debt to finance growth initiatives, leveraged buyouts, recapitalizations, or acquisitions.
- **Special Situations** may include strategies such as opportunistic or specialty credit. Opportunistic credit managers generally seek to generate attractive risk-adjusted returns by providing debt capital needed as a result of specific conditions such as a borrower's impaired liquidity or short-term market dislocations. Specialty finance investors generally focus on specific market niches requiring industry expertise, including aviation finance, pharmaceutical and music royalties, non-performing loans, etc.
- **Distressed Debt** managers typically target the purchase of discounted debt securities, which may result from borrower specific challenges or broader market conditions. Distressed debt strategies may vary from those focused on returns through the expected improvement in a borrower's financial condition to those focused on acquiring distressed debt as a means to negotiate a favorable refinancing or restructuring to generate targeted returns.

The PCF may also invest in any opportunistic investment strategy approved by the Treasurer as an eligible investment.

As outlined in the Private Markets section, Private Credit investments may be accessed through primary, secondary, and co-investment opportunities.

### Portfolio Construction Considerations

In addition to the parameters outlined in the *Private Markets* section, the PCF portfolio will seek to be diversified by investment strategy, risk and liquidity profile, manager, and underlying asset or sector-level exposures. In accordance with the CRPTF's investment strategy of achieving risk mitigation through the construction of well-diversified portfolios, the PCF will target the following exposures to private credit strategies. The strategy targets shown below are based on the PCF's percentage of total exposure, defined as market value plus unfunded commitments.

Strategy	Lower Range %	Upper Range %
Senior	30%	70%
Mezzanine	0%	30%
Special Situations	0%	40%
Distressed	0%	20%

The PCF's investments will be primarily focused on credit-related strategies; however, certain strategies may provide the PCF with equity or equity-like exposure through equity participation, conversion rights, or the restructuring of debt instruments into equity interests. To avoid excessive equity risk, the PCF will avoid investment strategies where significant standalone equity investments would be expected. In addition, the PCF will be managed to limit overall equity exposure to 30% or less of the PCF's total portfolio.

### Risk Considerations

In addition to the Risk Considerations outlined in the *Private Markets* section above, additional Private Credit risk factors that will be managed and monitored include, but are not limited to, sector and geographic exposures. To address these risks, the PCF's portfolio will seek to be diversified with respect to manager, strategy, vintage year, geography, and industry exposure. These diversification objectives will be managed and monitored through the PCF's strategic plan, which will identify the appropriate pace and level of commitments to achieve strategy, vintage year, geographic, and sector diversification and liquidity objectives.

The PCF's geographic exposure will be focused on investments made in developed economies to limit exposures to undue market, currency, or political risk. Allocation to emerging markets should be considered within the context of the PCF's total portfolio and be limited to 10% or less of the total PCF exposure.

## Real Estate

The Real Estate Fund's ("REF") strategic objectives are to provide diversification to the overall CRPTF investment program, preserve investment capital and generate attractive risk-adjusted rates of return. Investments within the real estate asset class include the development or acquisition and management of properties to generate income and with the potential for capital appreciation through strong operations, re-leasing, and/or repositioning, as needed. In addition to providing current income and the potential for capital appreciation, real assets provide at least two primary benefits to a diversified plan. First, real estate assets have low correlation to equities and fixed income markets and should thereby provide diversification benefits to the CRPTF. Real estate is also designed to yield an inflation-adjusted or positive "real" return.

### Asset Class Strategy

The REF will invest in various strategies and vehicles, with a particular focus on Real Estate Investment strategies. Real Assets investments will generally be made in partnerships with the CRPTF as a limited partner and the investment manager serving as the general partner; in open end or closed end diversified funds; directly in the form of limited partnership or other appropriate limited liability vehicle and for which the CRPTF is the sole investor or through publicly traded portfolios. The Real Estate investment managers execute active strategies that are subject to the investment guidelines agreed to between the manager, the CRPTF, and other investors in the investment vehicle.

The Real Estate Portfolio will be sub-divided into two segments: the Core Portfolio and the Non-Core Portfolio.

Under this structure, the strategic objectives of the Core Portfolio are to: (i) produce stable current income; and (ii) generate market level returns commensurate with a low to moderate level of risk.

The Non-Core Portfolio is expected to produce higher returns than the Core Portfolio, subject to an incrementally greater amount of risk, thereby enhancing the overall performance of the REF. The Opportunistic Portfolio may offer limited current income and returns are often largely dependent on future appreciation. The Non-Core portfolio can include value-added and opportunistic real estate funds as well as investments in publicly traded real estate, primarily Real Estate Investments Trusts, "REITS".

### Real Estate Investment Composition:

Strategy	Lower Target %	Upper Target %
Core Real Estate	30%	100%
Non-Core Real Estate	0%	70%
Publicly Traded Real Estate (REITs)	0%	20%

The benchmark for the real estate portfolio is the NCREIF Open End Diversified Core Equity Index. Due to vintage year impacts, valuation methodologies and illiquid nature of private investments, comparisons relative to the benchmark are best measured over a period of five-years or more.

### Asset Class Characteristics

The following real estate investment types will be considered eligible for CRPTF's Real Estate Fund:

- Residential
- Industrial
- Office
- Retail
- Hotel
- Other niche types which are institutionally invested (i.e., self-storage, student housing, data centers, life science)

As outlined in the *Private Markets* section, Real Estate investments may be accessed through primary, secondary, and co-investment opportunities. The REF may invest in open ended funds that have investment and redemption provisions and/or limited partnerships that have fund expiration and extension provisions. The CRPTF will utilize its annual pacing plans and liquidity fund management process to ensure that optimum liquidity is available to manage liquidity needs.

### Portfolio Construction Parameters

In addition to the parameters outlined in the *Private Markets* section, the following limits are intended to further limit potential concentrations.

	Lower Target %	Upper Target %
Individual Property	0%	10%
Country: U.S.	70%	100%
Individual Non-US Country	0%	15%
Individual Metropolitan Area in U.S.	0%	15%
Property Type	0%	40%

### Risk Considerations

Risk Considerations that will be managed and monitored include but are not limited to sector and geographic exposures and leverage levels.

To address these risks, REF's portfolio will seek to be diversified with respect to manager, strategy, vintage year, geography, and sector exposure. These diversification objectives will be managed and monitored through the REF's strategic plan, which will identify the appropriate pace and level of commitments to achieve strategy, vintage year, geographic, and sector diversification and liquidity objectives.

The REF's geographic exposure will be focused on investments made in developed economies to limit exposures to undue market, currency, or political risk. Allocation to emerging markets should be considered within the context of the REF's total portfolio and be limited to 5% or less of the total REF exposure.

## Infrastructure and Natural Resources

The Infrastructure and Natural Resources Fund's ("INR") strategic objectives are to provide diversification to the overall CRPTF investment program, preserve investment capital and generate attractive risk-adjusted rates of return. Infrastructure investments include the building or acquisition of assets that generate a long stream of cash flows that increase over time and are less sensitive to price fluctuations in markets generally. In the case of natural resources, characteristics include the acquisition of land or physical assets to extract, grow, collect, distribute, process, and/or refine raw materials to generate income and for the realization of their economic value. . INR assets have low correlation to equities and fixed income markets and also have revenue streams that are tied to inflation and therefore typically yield an inflation-adjusted or positive "real" return.

### Asset Class Strategy

The INR will be sub-divided into three segments:

- Core Infrastructure
- Non-Core Infrastructure
- Natural Resources

Under these segments, the Core Infrastructure Portfolio is to produce stable, long-lived current income and generate market level returns commensurate with a low to moderate level of risk. At least 20% of the INR will be allocated to the Core Infrastructure Portfolio.

The Non-Core Portfolio is expected to provide greater levels of appreciation for the CRPTF through enhancements and/or development of greenfield or brownfield assets that can generate long-lived contracted cashflow.

The Natural Resources portfolio is expected to provide inflation sensitive cashflow, given the revenue stream is tied to the inputs to many economic drivers, as well as diversification benefits to the overall portfolio and a modest, but lower risk total return over the longer-term.

### Infrastructure and Natural Resource Investment Composition

Strategy	Lower Target %	Upper Target %
Core Infrastructure	20%	100%
Non-Core Infrastructure	0%	80%
Natural Resources	0%	50%
Publicly Traded	0%	20%

The benchmark for infrastructure and natural resources is the CPI + 400 basis points. Due to vintage year impacts, valuation methodologies and illiquid nature of private investments, comparisons relative to the benchmark are best measured over a period of five-years or more.

### Asset Class Characteristics

Infrastructure investments include assets invested across sectors facilities, services, and installations considered essential to the functioning and economic productivity of a society.

Natural Resources investments will be invested in land, facilities, services and the acquisition of materials/substances that can be mined, farmed or collected in raw form for economic value.

Investments in Infrastructure and/or Natural resources asset types/segments include and are not limited to:

Infrastructure	Natural Resources
Communications	Agriculture
Energy Generation, Distribution	Agribusiness
Energy Transportation, Storage	Commodities
IT Services	Food Products
Municipal Buildings and Schools	Metals and Minerals/Mining
Roadways, Bridges, Ports, Airports, Railways	Oil, Gas & Fuels
Transportation	Sustainability Products and Services
Utilities	Timber
Waste	Water

### Portfolio Construction Considerations

In addition to the parameters outlined in the Private Markets section, the following limits are intended to further limit potential concentrations.

	Lower Target %	Upper Target %
Individual company/asset	0%	15%
Country: U.S.	50%	100%
Individual Non-OECD Country	0%	20%
Asset Type/Segment	0%	40%

### Risk Considerations

Outside of the Parameters above, additional risk factors that will be monitored include, but are not limited to: leverage, construction risk, currency, asset type mix, lease and/or contract expirations, and geographic exposures.

Risk Considerations that will be managed and monitored include, but are not limited to, sectors and geographic exposures. To address these risks, INR's portfolio will seek to be diversified with respect to manager, strategy, vintage year, geography, and sector exposure. These diversification objectives will be managed and monitored through the INR's strategic plan, which will identify the appropriate pace and level of commitments to achieve strategy, vintage year, geographic, and sector diversification and liquidity objectives.



The INR's geographic exposure will be focused on investments made in developed market to limit exposures to undue market, currency, or political risk. Allocation to non-OECD markets should be considered within the context of the total portfolio and be limited to 30% or less of the total INR exposure. Wherever possible, investments in non-OECD markets should be dollar or other OECD currency denominated.

As outlined in the Private Markets section, INR investments may be accessed through primary, secondary, and co-investment opportunities. The INR may invest in open-end funds that have investment and redemption provisions and/or limited partnerships that have fund expiration and extension provisions. While most investments in the INR will be equity investments, additional strategies across the capital stack may be implemented. The CRPTF will utilize its annual pacing plans and liquidity fund management process to ensure that optimum liquidity is available to manage liquidity needs.

## **Appendix D – Detailed Risk Framework**

### **Introduction**

Risk management strives to achieve a balance between risk and return. The Treasurer recognizes that the CRPTF must assume risk to achieve desired levels of return. The objectives of the CRPTF's risk management framework, are to ensure that risks taken are evaluated and determined to be appropriate in light of the CRPTF's investment objectives and are properly managed.

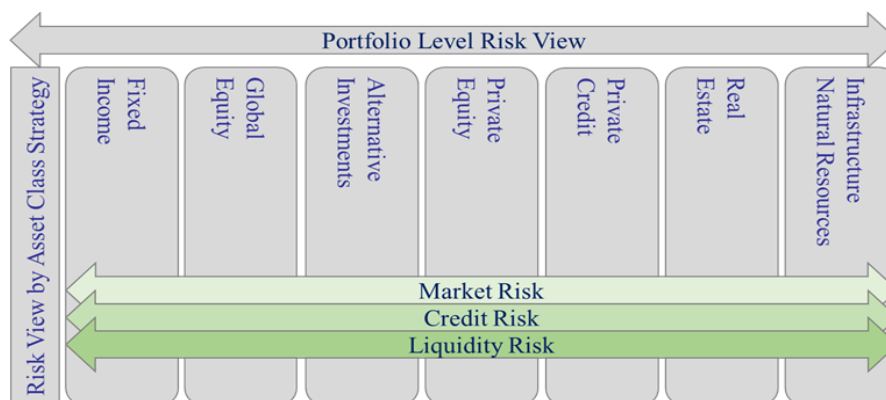
The risk framework is intended to be a dynamic document and may be modified periodically to reflect the changing nature of economic conditions, investing markets, Trust Fund assets, investment programs, and benefit obligations.

### **Risk Management Approach**

Investment decisions are made within a broad and complex risk environment and risks are market dependent. Market-dependent risks are determined by numerous market factors such as interest rates, credit quality, liquidity, and price volatility. For purposes of this framework, risk is defined as the uncertainty that accompanies the CRPTF's investment activities.

CRPTF's risk management approach is concerned with measuring, mitigating, and controlling potential large financial losses associated with unexpected market moves and unanticipated variations in financial conditions. CRPTF Staff manages risk by establishing and adhering to investment guidelines, pursuing multiple approaches to diversification (such as asset class, geography, liquidity profile, currency, and degree of active management), and conducting regular measurement and analytical exercises.

CRPTF's framework takes a Trust Fund level portfolio-wide approach to risk management. This approach has two distinct, although related, dimensions: coordinated risk assessment and management for each asset class strategy; and the integrated evaluation of investment risk across all asset classes.



CRPTF Staff seeks to diligently identify, assess, and monitor relevant investment risks throughout the investment process, from determining its strategic asset allocation to ongoing evaluation and monitoring of the Fund's exposures and performance. This helps to ensure that risks assumed by the Fund are intentional and adequately compensated. Specific risk management guidelines will

be required for each investment manager's underlying investment strategy. Strategy level and aggregate risk exposures of the entire portfolio will be reviewed on a periodic basis and may be managed through a third-party risk aggregator with an analysis of fundamental factors, sector analysis, Value at Risk (VAR) analysis and stress testing. The preponderance of the portfolio is transparent which allows the Treasurer to manage risk effectively.

CRPTF measures investment risk using multiple metrics on both an absolute and relative basis at all relevant levels (i.e., total Fund, functional asset categories, and underlying asset classes). CRPTF Staff also strives to employ stress testing, scenario analyses, and broader financial and economic analyses to understand current and potential risks related to its investment strategy and decisions. CRPTF selects appropriate benchmarks to assess and determine whether investment risks taken by the Fund are appropriate in order to achieve expected investment returns.

### **Goals for Risk Management**

- Seek to achieve the desired rate of total return within appropriate levels of risk and liquidity.
- Seek to maintain sufficient diversification to reduce the potential for large losses, minimize exposure to unintended risk, and preserve capital.
- Provide an integrated process for overall investment risk management on both a consolidated and disaggregated basis.
- Select, implement, and maintain risk management tools to provide analyses that inform and support the investment process across portfolios and strategies.
- Confirm that external managers have established and will maintain appropriate risk management programs to reduce risks potentially affecting their portfolios.

### **Risk Parameters**

Liquidity: The CRPTF has liquidity needs based upon net annual benefits withdrawals from the portfolio as well as rebalancing needs and private investment capital calls. Liquidity is evaluated holistically across the portfolio and is primarily based on the following:

- Having adequate net funding to pay beneficiaries
- Rebalance the portfolio and maintain the integrity of the portfolio's asset allocation
- Fund net capital calls for private investments
- Maintaining sufficient funding resources to avoid forced liquidation of assets during periods of market turbulence.

Based upon, but not limited to, the factors listed above, the Treasurer will determine the appropriate allocation to cash equivalents in order to meet the Trust Funds' liquidity needs in the near term. Liquidity requirements will be reviewed regularly by Staff (generally monthly and quarterly, as well as daily when necessary) to ensure that each of the CRPTF's policies and practices are structured so as to accommodate changing liquidity needs.

Leverage: the policy of the CRPTF is to not use leverage in the portfolio, with the exception of approved private and alternative asset classes that prudently use leverage within the underlying active manager's strategy level (fund level) guidelines and risk parameters.

Diversification and concentration risk: CRPTF's investments will be diversified by asset class and strategy to reduce volatility associated with concentrated portfolios and to limit the probability of large losses on individual money managers within the portfolio. Diversification is an important risk mitigant and underpins the structure of the CRPTF as a global, diversified portfolio. It is also important to avoid excessive diversification. Accordingly, the CRPTF will be constructed and maintained to provide prudent diversification among the asset classes in accordance with the asset allocation policy.

Within each asset class, the holdings in aggregate should have broad exposure across geographies, industries, sectors, and styles. Within actively managed portfolios, holdings should be meaningfully different from a passive alternative to justify the higher fees associated with active management and create a higher probability of generating outperformance relative to the appropriate benchmark.

Actively managed portfolios should also be prudently diversified regarding the concentration of holdings in individual issues, corporations, partnerships or industries in accordance with each underlying active manager's strategy level (fund level) guidelines and risk parameters. CRPTF's general diversification and concentration limits are as follows:

- Liquid portfolios: Manager allocations will be sized to minimize investment fees, prevent excessive diversification, and align with the size of the market opportunity and the manager's capacity to execute. Investment mandates (regardless of focus) will generally be a minimum of twenty-five (25) basis points (i.e., 0.25%) of the CRPTF's total assets under management, and should not generally constitute more than thirty-three percent (33%) of the investment manager's particular strategy for which it is being engaged at the time of investment. However, the Treasurer at his/her discretion and acting in consultation with the IAC may develop programs intended to encourage the development of investment managers who demonstrate the capacity to add value to the CRPTF but may not have the requisite amount of assets under management.
- Private (illiquid portfolios): The CRPTF will be diversified with respect to vintage year, geography, industry, strategy, and stage focus. Given the illiquid nature of private equity investments, attempting to "time the market" is not a realistic alternative. The CRPTF will dollar cost average into the market with new commitments on a steady, annual basis. The CRPTF's commitment should be no more than 33% of the total amount committed to a single commingled fund unless waived.
- Hybrid liquid (alternative) portfolios: The CRPTF's commitment should be no more than 33% of the total amount committed to a single commingled fund unless waived.
- Number of Portfolios: for the purpose of avoiding concentration, all asset classes representing more than 3% of the CRPTF will have at least two managers, which includes internally or externally managed indexed or passive funds.

## **Use of Derivatives**

Derivative instruments are defined as any contract or investment vehicle whose performance, risk characteristics or value is based on a specific asset, interest rate or index value. The policy of CRPTF is to allow managers in the underlying portfolio (and Staff) to use derivatives to hedge risk and manage exposures, and not to engage in speculation. All other uses of derivatives are prohibited unless specifically approved by the Treasurer and endorsed by the IAC. Money managers are expected to have internal risk management programs in place to ensure that derivatives-based strategies do not result in undue risk to the portfolio.

## **Currency Exposure and Hedging:**

As an investor in international markets, the CRPTF is exposed to the foreign currencies in which securities are denominated. Over the long term, returns of foreign currencies are expected to be zero. The policy of the CRPTF is not to directly hedge currency exposure. Managers with holdings exposed to foreign currencies may hedge currency in accordance with their strategy guidelines and documented policies in the investment management agreement or other contract.

## **Appendix E – Responsible Contractor Policy**

### **I. Introduction**

The State of Connecticut Retirement Plans & Trust Funds (“CRPTF” or “the Plan”) has a deep interest in the condition of workers employed on behalf of the Plan and its advisors. The Plan, through the Responsible Contractor Policy (“Policy”) described below, supports and encourages fair wages and fair benefits for workers employed by its contractors and subcontractors, subject to fiduciary principles concerning duties of loyalty and prudence, both of which further require competitive returns on the Plan’s investments in real assets. The Plan endorses small business development, market competition, and control of operating costs. The CRPTF supports many of the ideals espoused by labor unions and encourages participation by labor unions and their signatory contractors in the development and management of its investments in real assets. The Plan believes that an adequately compensated and trained worker delivers a higher quality product and service.

### **II. Definition of a Responsible Contractor**

A Responsible Contractor, as used in this Policy, is a contractor or subcontractor who: (1) pays workers a fair wage and a fair benefit as evidenced by payroll and employee records; and (2) is not debarred by and whose principal officer is not debarred by a municipal, state or federal government. “Fair benefits” are defined as including, but are not limited to, employer-paid family health care coverage, pension benefits, employee safety training, apprenticeship programs and paid time off. What constitutes a “fair wage” and “fair benefit” depends on the wages and benefits paid on comparable projects, based upon local market factors, that include the nature of the project (e.g., residential or commercial; public or private), comparable job or trade classifications, and the scope and complexity of services provided.

For real estate or infrastructure projects that include local, state or federal financing that triggers prevailing wage laws, the Plan supports and requires investment managers to pay such prevailing wages. Responsible contractors recognize the right of all workers to freedom of association in the workplace as protected under local, state and federal law and as recognized by International Labour Organization (ILO) standards (<https://www.ilo.org/global/standards/lang--en/index.htm>).

### **III. Initial Requirements of the Responsible Contractor Policy**

- A. Duty of Loyalty: Notwithstanding any other considerations, assets shall be managed for the exclusive benefit of the participants and the beneficiaries of the CRPTF. The Plan’s, as well as its advisors’, duty to the participants and their beneficiaries shall take precedence over any other duty.
- B. Prudence: The Treasurer, IAC and CRPTF’s advisors are charged with the fiduciary duty to exercise the care, skill, prudence and diligence appropriate to the task.
- C. Competitive Return: To comply with duties of loyalty and prudence, all investments and services must be made and managed in a manner that produces a competitive risk-adjusted return.

- D. Competitive Bidding: Contractors and their subcontractors for construction, maintenance, and services shall be selected through a competitive bidding and selection process. The purpose of this provision is to encourage fair competition and to actively seek bids from all qualified sources within an area, particularly those identified as Responsible Contractors. Advisors and their subcontractors shall create a bidding process that includes notification and invitations to bid, distributed to a broad spectrum of potential bidders, particularly those identified as Responsible Contractors. The review of the bids shall include considerations of loyalty, prudence, competitive risk-adjusted returns, experience, reputation for honesty, integrity, timeliness, dependability, fees, safety record, and the adherence to the Responsible Contracting Policy.
- E. Local, State and National Laws: All advisors, property managers, contractors, and their subcontractors shall observe all local, state, and national laws (including, by way of illustration, those pertaining to insurance, withholding taxes, minimum wage, labor relations, health, and occupational safety).

#### **IV. Selection Preference of a Responsible Contractor**

If Initial Requirements A through D (see Section III above) are satisfied, CRPTF expresses a strong preference that Responsible Contractors be hired.

#### **V. Transition, Enforcement, Monitoring and Administration**

- A. Applicable Investments and Phasing: This Policy shall apply to equity real estate and infrastructure investments. The Policy shall not apply to investments such as mezzanine debt, hybrid debt, joint ventures, opportunity funds, international investments, secondary funds, indirect, specialty, and mortgage investments that lack equity features, and other real estate investments where CRPTF owns 50% or less and/or lacks control of the investment. However, in those instances where CRPTF does not have a majority ownership stake and/or control of the investment, staff will make reasonable attempts to encourage partners to comply with the spirit and practice of Responsible Contracting. In addition, reasonable efforts will be made to include fund managers that have adopted responsible contractor policies and to seek out investment opportunities that have responsible contractor policies in place for investment consideration.
- B. Notification: CRPTF shall provide all applicable current and prospective real assets fund advisors with a copy of this Policy, including investments where CRPTF does not have more than 50% ownership and control of the investment.
- C. Solicitation Documents: All requests for proposal and invitations to bid covered by this Policy shall include the terms of this Policy. Responses by bidders shall include information to assist the staff in evaluating a bid.
- D. Contracts and Renewals: All contracts entered into after the effective date of this Policy and pertaining to applicable real assets investments, including renewals of such contracts, shall include the terms of this Policy.



- E. Responsibilities: The responsibilities of CRPTF's staff, advisors, property managers, contractors, and unions are defined as follows:
1. Staff: CRPTF staff shall have the following responsibilities:
    - a. Review the advisors' annual certification reports regarding compliance with the Policy, which reports may be included in overall compliance reports submitted by advisors to CRPTF.
    - b. Insert appropriate contract language where applicable.
    - c. In those instances where CRPTF does not have more than 50% ownership and control of an investment, make reasonable attempts to encourage partners to comply with the spirit and practice of Responsible Contracting.
  2. Advisors: Advisors' responsibilities shall include:
    - a. Communicate the Policy to all property managers and incorporate its requirements, including without limitation the property manager requirements under Section V.E.3, into applicable contracts with property managers.
    - b. Review a contract listing for each property prepared by each property manager.
    - c. Maintain a simplified bid summary for each applicable contract. The summary should include identifying contract, successful bidder, and bidder's status as Responsible Contractor.
    - d. Maintain an annual report in their home office, describing their own efforts as well as those by property managers and their subcontractors.
    - e. Monitor and enforce the Policy including investigation of potential violations.
    - f. Annually, the signatory to the CRPTF contract will submit a report regarding compliance with the Policy, which report may be included in overall compliance reports submitted by the advisor to the CRPTF. At a minimum, the report shall include: (1) a description of any report or investigation into non-compliance to the Policy; and (2) certify that the advisor complied with its responsibilities under the Policy. The advisor, upon request, will provide additional written substantiation of such compliance.
    - g. Develop and maintain a list of all CRPTF properties that are more than 50% owned and controlled. The list will include the property name, address, advisor and property manager, and phone number of the property manager and real assets fund advisors.
  3. Property Managers: Property managers will have responsibility for the following:
    - a. Communicate in bid documents the Responsible Contractor Policy to contractors seeking to secure construction or building service contracts.
    - b. Communicate the Policy to any interested party.

- c. Ensure there is a competitive bidding process that is inclusive of potentially eligible Responsible Contractors.
  - d. Send a project bid Notification Form to the Real Estate Management Tracking System (REMATs) maintained by participating national trades unions. Such notice shall be sent as soon as practical prior to the bid due date.
  - e. Require bidders to provide to property manager a Responsible Contractor self-certification on a form approved by CRPTF.
  - f. Prepare and send to advisors a contract listing for applicable service contracts for each property under management. The building trades and service trades and other potential bidders will have access to this list.
  - g. Provide advisors with a simplified bid summary for each contract.
  - h. Provide property level annual report information to advisor.
  - i. Maintain documentation for successful bidders.
  - j. Seek from trade unions/service unions input in the development of Responsible Contractor lists.
  - k. Maintain list of any interested Responsible Contractors (names, addresses and telephone numbers).
  - l. Provide solicitation documents to any potential contractor who has, in writing, expressed an interest in bidding for the relevant contract.
4. Contractors: Contractors will have the responsibility for the following:
- a. Submit to property manager a Responsible Contractor self-certification on a form approved by CRPTF.
  - b. Communicate to subcontractors the Responsible Contractor Policy.
  - c. Provide to property manager Responsible Contractor documentation.
5. Unions: Trade unions/service unions shall be asked to perform the following tasks:
- a. Deliver to the property manager or advisor lists of names and phone numbers of Responsible Contractors.
  - b. Refer interested and qualified Responsible Contractors to the property manager.
  - c. Continually monitor the local labor markets to update the lists.
  - d. Provide technical input as appropriate.

- e. Send project notifications to applicable Local Building Trades Councils.
- F. Reserved
- G. Minimum Contract Size: The Policy shall absolutely apply to all contracts of a minimum size of \$100,000, individually or annually, as applicable. Minimum contract size refers to the total project value of the work being contracted for and not to any disaggregation by trade or task. For example, a \$100,000 contract to paint two buildings in a single office complex would not be treated as two \$50,000 contracts, each less than the minimum contract size. Disaggregation designed to evade the requirements of the Policy is not permitted.
- H. Applicable Expenditures Categories: The Policy shall apply to tenant improvements, capital expenditures, and operational service contracts (such as cleaning).
- I. Fair Wage, Fair Benefits, Training: The Policy avoids a narrow definition of “fair wage”, “fair benefits” and “training” that might not be practical in all markets. Furthermore, the Policy does not require a “prevailing wage” as defined by government surveys. Instead, the Policy looks to local practices with regard to type of trade and type of project. The Policy recognizes that practices and labor market conditions vary across the country and that flexibility in its implementation is important.

In determining “fair wages” and “fair benefits” with regard to a specific contract in a specific market, items that may be considered include local wage practices, state laws, prevailing wages, labor market conditions, and other items.

In place of a prevailing wage standard, the Policy requires a broad outreach and competitive bidding program, as described in Section III.D, and V.F and J. This program is premised upon the availability of a list of Responsible Contractors in every market in which CRPTF directly owns a property. While advisors and their property managers and contractors are responsible for gathering and analyzing information relevant to identifying and hiring a Responsible Contractor, compilation of this list does not depend solely on the advisors, property managers, or contractors. This Policy instead invites the various local trades to suggest contractors, which in their view qualify as Responsible Contractors. Sources of information include local building and service trade councils, builders’ associations, and governments.
- J. Competitive Bidding: Property managers and contractors should give notice for applicable bids in local trade publications, bulletins and union building trades councils. Property managers should seek input from building trades councils to develop lists of Responsible Contractors for inclusion in the bidding process.

Property managers may choose from the list of Responsible Contractors a reasonable number of contractors to be invited to bid. Given the time and expense required to solicit and evaluate bids, it is not essential that advisors, property managers, and contractors invite all potential bidders.

The property manager must ensure that there is a competitive bidding process, which is inclusive of potentially eligible Responsible Contractors. Inclusion is not

necessarily assured by large numbers of bidders. Care must be taken that bidders include potentially eligible Responsible Contractors.

Although the Policy does not require hiring union workers, the trade unions will be invited to: (1) deliver to the property manager or advisor lists of names and phone numbers of Responsible Contractors, including those Responsible Contractors who have expressed any interest in bidding; and (2) continually monitor the local markets to update the lists. Property managers shall maintain these lists supplied by the trade unions.

- K. Neutrality: CRPTF recognizes the rights of employees to representation, and supports and strongly encourages a position of neutrality, in the event there is a legitimate attempt by a labor organization to organize workers employed in the construction, maintenance, operation, and services at a CRPTF-owned property.

Resolution of any inter-jurisdictional trade disputes will be the responsibility of the trades and the various state and national building trades councils. This Policy does not call for any involvement by the advisors, property managers, or contractors in inter-jurisdictional trade disputes.

- L. Enforcement: If Staff becomes aware of non-compliance, this Plan will place a non-complying advisor or property manager on a probation watch list. If the advisor or property manager does not modify this pattern of conduct even after discussions with CRPTF's staff, the Plan will consider this pattern of conduct along with other information when it reviews the advisor or property manager contract for possible renewal. The key indicator is a pattern of conduct that is inconsistent with the provisions of this Policy.

## **Appendix F – Policy for Implementation of Investment Restrictions**

Primary among the Treasurer’s considerations for the investment of the assets of the Connecticut Retirement Plans and Trust Funds (“CRPTF”) is the long-term economic benefit of plan participants and beneficiaries. Toward this end, the Treasurer may divest, decide to not further invest state funds, or not enter into any future investment, consistent with Connecticut statute,<sup>6</sup> the CRPTF’s Investment Policy Statement and common law standards of fiduciary duty.

State law directs the Treasurer to “consider the implications of any particular investment in relation to the foreign policy and national interests of the United States.”<sup>7</sup> In addition to this general directive, specific matters implicating foreign policy and U.S. national interests have been embodied in state statutes for consideration in making investments in companies doing business in Iran<sup>8</sup> and Sudan.<sup>9</sup> These statutes provide guidance to the Treasurer when making investment decisions, have been incorporated into the investment processes and are reflected in all contracts under which CRPTF assets are invested.

This *Policy for Implementation of Investment Restrictions* sets forth the process by which the Treasurer may prohibit specific investments, as well as the administrative procedures to be followed to ensure that the CRPTF’s managers are compliant with said Policy.

### **I. Prohibition of Investments**

The Treasurer may prohibit investment of CRPTF assets in particular securities, types of securities, or companies pursuant to the Treasurer’s statutory investment restriction authority and/or based on the following determination:

- there are one or more risk factors that may impact profitability and long-term shareholder value
- said risks run counter to the goals and objectives of the CRPTF to provide investment income and appreciation in line with the long-term liabilities that the CRPTF is designed to support; and
- said prohibition will not adversely or materially impact the CRPTF’s risk/return profile.

The consolidated list of all restricted investments, whether pursuant to statutory investment restrictions or otherwise based on the exercise of the Treasurer’s discretion (e.g., civilian firearms manufacturers or Russia-domiciled investments) shall be referred to as the “Restricted Investments List.”

The Principal Investment Officer for Corporate Governance and Sustainable Investment (“PIO/CGSI”) shall compile the update to the Restricted Investments List annually, incorporating any statutory investment restriction updates from the Chief Compliance Officer (“CCO”). They will collaborate on updates to the Restricted Investments List annually for the Chief Investment Officer’s review and Treasurer’s approval.

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<sup>6</sup> See Conn. Gen. Stat. § 3-13d(a), which allows the Treasurer to consider the “social, economic, and environmental implications of investments of trust funds in particular securities or types of securities.” See also Conn. Gen. Stat. §§ 3-13g and 3-21e.

<sup>7</sup> Conn. Gen. Stat. § 3-13d(a).

<sup>8</sup> Conn. Gen. Stat. § 3-13g.

<sup>9</sup> Conn. Gen. Stat. § 3-21e (collectively with § 3-13d(a) and § 3-13g, the “statutory investment restrictions”).

## **II. Notice Provisions**

The Treasury's investment staff will publish the Restricted Investments List on the Treasury's website, annually on or about July 1<sup>st</sup> of each year, or as changes are made from time to time.

Treasury investment staff will annually provide a copy of the Restricted Investments List to the CRPTF's investment managers, as applicable, and said List shall be incorporated by reference in all contracts under which CRPTF assets are invested.

The CCO will implement the Treasurer's required notice to companies from which CRPTF assets may be divested as a result of a statutory investment restriction.

## **III. Monitoring and Enforcement of Investment Restrictions**

### **A. Monitoring by Treasury Staff**

1. **Monthly Review** – The CRPTF's investment staff shall, on a monthly basis, review the investments held by the CRPTF custodian bank to confirm that that no restricted investments are owned by the CRPTF. The PIO/CGSI shall confirm each monthly review.
2. **Quarterly and Annual Reviews** -- The CRPTF's investment staff shall, as part of ongoing performance reviews, verify investment managers' compliance with the Restricted Investments List.
3. **Annual Global Risk Assessment Certification** – The CCO shall request and review investment managers' annual certification regarding compliance with the Restricted Investments List.

### **B. Investment Managers' Responsibilities**

1. Investment managers shall adhere to specific investment restrictions imposed by the Treasurer, within the timeframes specified in applicable instructions.
2. Investment managers shall implement procedures to monitor portfolios they manage on behalf of the CRPTF to ensure compliance with the Restricted Investments List and related instructions.
3. Investment managers shall confirm, as part of their performance reviews with investment staff, that no restricted investments are held within the portfolio of CRPTF's assets.
4. Investment managers shall certify annually to the Treasury's Chief Compliance Officer that no restricted investments were acquired for the CRPTF's portfolio during the preceding year.

### **C. Enforcement**

Failure to comply with investment restrictions imposed by the Treasurer herein constitutes a violation of this Policy and a breach of contract. In the event of non-compliance, the PIO/CGSI shall recommend to the Chief Investment Officer that

an investment manager be directed to divest the restricted investment, where applicable, with due consideration to minimizing transaction costs. Investment staff will review the circumstances giving rise to non-compliance, and may recommend to the Treasurer that an investment manager be placed on a Watch List or terminated.



## **Appendix G – Proxy Voting Policies**

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## **I. INTRODUCTION**

This document sets forth the State of Connecticut Retirement Plans and Trust Funds' ("CRPTF") Proxy Voting Policies that guide the CRPTF's proxy voting and shareholder activities, which are essential elements of protecting and increasing the long-term value of the CRPTF's equity investments.

The CRPTF does not expect that the board of directors of each company in which it invests will adopt or embrace every issue in these proxy voting policies. The CRPTF recognizes that some policies may not be appropriate for every company, due to differing business needs and structures as well as risk factors and competitive needs. The CRPTF looks to each board of directors to take appropriate action in the best interests of the company and its shareholders. The policies in this document represent the CRPTF's views on best practices relative to corporate policy.

The proxy voting policies conform to common law fiduciary standards, including Connecticut statutes pertinent to fiduciary conduct, such as the Uniform Prudent Investor Act. These policies also are consistent with Connecticut statutes that permits the Treasurer to consider the environmental, social and economic implications of investment decisions.<sup>[1]</sup>

All votes will be reviewed on a company-by-company basis and no issues will be considered routine. Each issue will be considered in the context of the company under review and subject to a rigorous analysis of the economic impact an issue may have on the long-term shareholder value.

The CRPTF also actively engages companies on issues of concern in an effort to increase shareholder value. When appropriate, the CRPTF will itself sponsor shareholder resolutions. These proxy voting policies provide guidance for these activities as well.

## **II. THE BOARD OF DIRECTORS**

Electing the board of directors is the most important stock ownership right that shareholders can exercise. By electing directors with views similar to their own, shareholders can help to define performance standards against which management can be held accountable.

The CRPTF believes that at least a majority of board members be independent of management and that all members of key board committees (e.g. nominating, compensation, and audit) be independent. For these purposes, the CRPTF defines an independent director as:

Someone whose only nontrivial professional, familial or financial connection to the corporation, its chairman, CEO or any other executive officer is his or her directorship. Stated most simply, an independent director is a person whose directorship constitutes his or her only connection to the corporation.<sup>[2]</sup>

The CRPTF also believes that ongoing assessment of directors' skills and performance is an important attribute of a well-functioning board, and that boards have an obligation to ensure a balance of experience and tenure of their directors.

Accordingly, the CRPTF will consider all relevant facts and circumstances to determine whether a director is independent, including a director's years of service on the board.[\[3\]](#)

A director will NOT be considered independent under the following conditions:

- The director is employed by the company or one of its affiliates;
- The Board has determined by attestation that the director is not independent;
- The director is a former CEO of the company (except if served on an interim emergency basis);
- The director is a former CEO of an acquired company within the past five years;
- The director is a former significant executive of the company, an affiliate or an acquired firm within the past five years;
- The director is a relative of a current significant executive level employee of the company or its affiliates;
- The director is a relative of an individual who was a significant executive within the past five years of the company or its affiliate;
- The director currently provides (or a relative provides) professional services directly to the company, to an affiliate of the company or an individual officer of the company or one of its affiliates;
- The director is employed by (or a relative is employed by) a significant customer or supplier;
- The director has (or a relative has) any transactional relationship with the company or its affiliates; or
- The director has any material financial tie or other related party transactional relationship to the company.

#### **A. Voting for Director Nominees in Uncontested Elections**

Traditionally in an uncontested election, all nominees are elected because only a plurality vote is needed to elect each director. Recently, at the urging of shareholders, many companies have moved to either requiring a majority vote to elect a director in an uncontested election, or to require a director that did not receive a majority vote to tender his/her resignation (which can be accepted or rejected by the board). Therefore, uncontested elections have become real elections.

For companies where there is a majority vote standard, the vote options on the proxy are FOR/AGAINST. At plurality vote companies, the proxy vote options are FOR/WITHHOLD.

Votes on director nominees are made on a CASE-BY-CASE basis, considering company performance and individual director performance.

The CRPTF will WITHHOLD votes from or vote AGAINST directors individually or the entire board, for egregious actions or failure to replace management as appropriate.

The CRPTF may WITHHOLD votes from or vote AGAINST directors individually or the entire board where the company has failed to align their business plans with the goals of the Paris Climate Agreement, to establish a plan to achieve net zero emissions by 2050, or where a director

individually or the entire board have failed to exercise appropriate risk oversight of environmental and social issues.

The CRPTF will WITHHOLD votes from or vote AGAINST individual directors in some cases based on examination of the following factors:

- Nominee is both the CEO and chairman of the board of directors (except for certain situations as cited in Section II.D.);
- Nominee's attendance of meetings is less than 75 percent without valid reason;
- Non-independent nominee being a member of a key board committee (audit, nominating and compensation committee);
- Nominee is serving on an excessive number of other boards; for a CEO this would be more than two (2) public company boards (one plus his or her own), for a non-CEO with a full time job this would be more than three (3) public company boards and for a non-CEO with no other employment except as a board member, this would be five (5) public company boards unless the company has disclosed in the annual proxy statement reasons why additional board service exceeding the guidelines above would not interfere with a nominee's ability to perform his or her responsibilities or there are other mitigating circumstances (e.g. a CEO sitting on the board of a wholly-owned subsidiary);
- Nominee is serving on the board or in an executive position of another company where that company was involved in Chapter 7 bankruptcy, or where there were proven SEC violations, or a proven criminal offense related to the nominee;
- Poor performance by nominee on the board of another company, such as being a director of a company which filed for bankruptcy and where there are credible allegations of fraud;
- Interlocking directorships where the CRPTF Proxy Voting Advisor and/or other experts deem those relationships an impairment to independent judgment and action;
- Related party transactions where the CRPTF Proxy Voting Advisor and/or other experts deem those transactions to be more in the interest of the director nominee than the shareholders.

The CRPTF will WITHHOLD votes from or vote AGAINST the entire board of directors (excepting new nominees, who the CRPTF will evaluate based on the other criteria in this section) if:

- The company's poison pill has a dead-hand or modified dead-hand feature;
- The board adopts or renews a poison pill unless the poison pill is subject to shareholder approval;
- The board failed to act on a shareholder proposal that received approval by a majority of shares outstanding the previous year;
- The board failed to act on takeover offers where the majority of the shareholders tendered their shares;
- The board failed to address an issue(s) that caused a 50% or greater withhold vote for any director in the previous director election;
- The board did not respond to a request from major institutional investors about significant policy issues that have material significance to shareholder value;
- The Board does not have in place a succession plan for the CEO and key board members such as the chairman and/or lead director;

- Issues specific to key board committees (as outlined below) are not addressed by the board as a whole;
- The company has no women on its board;
- The board has not ensured that management has installed effective mechanisms to manage risks that may affect the company, its industry and the economy.

The CRPTF will WITHHOLD votes from or vote AGAINST non-independent directors when:

- The non-independent director serves on any of the three key committees: audit, compensation or nominating;
- The company lacks an audit, compensation or nominating committee, enabling the board to function as that committee;
- The full board is less than majority independent.

The CRPTF will WITHHOLD votes from or vote AGAINST members of key board committees in cases of poor performance of those committees of which the nominee is a member.

The CRPTF will WITHHOLD votes from or vote AGAINST members of the Nominating Committee if:

- The committee does not seek out candidates for the board from a diverse candidate pool, with particular attention to race and gender diversity, particularly when such diversity is underrepresented or nonexistent on the board;
- The board did not respond to a request from major institutional investors for information about the racial and/or ethnic composition of its board, or declined to disclose such information;
- The board lacks appropriate skills and attributes, including when there is only one woman on the board.

The CRPTF will WITHHOLD votes from or vote AGAINST members of the Audit Committee if:

- The non-audit fees paid to the accounting firm performing the audit are greater than 25% of the total fees paid to the firm by the company (see also Section V.);
- The Audit Committee failed to respond to a material weakness identified in the Section 404 Sarbanes-Oxley Act disclosures;
- There are chronic internal control issues and an absence of established effective control mechanisms identified by the external auditors that are not being addressed in a timely manner;
- The committee has poor oversight of the company's procedures to assure independence of the auditors (see Section V. for further discussion);
- The company fails to allow shareholders the opportunity to vote to ratify the company's audit firm.

The CRPTF may WITHHOLD votes from or vote AGAINST the members of the Compensation Committee if the company has poor compensation practices. (See section IX. B. for discussion of poor compensation practices.)



Appendix A to these guidelines contains a discussion and enumeration of poor compensation practices, is incorporated by reference to this section and will be the criteria used for both voting for re-election of members of the Compensation Committee, as well as for the Say on Pay vote (see Section IX.B.)

If the company holds an annual advisory vote on executive compensation, the CRPTF may vote AGAINST the advisory vote to signal its concerns on compensation issues rather than vote against members of the compensation committee. If the pay practices that raise concerns are not corrected, the CRPTF would vote against re-election of the compensation committee member in the subsequent year.

For companies that do not hold an advisory vote on executive compensation in a particular year, the CRPTF may vote AGAINST the members of the compensation committee as dictated by this subsection.

## **B. Voting for Director Nominees in Contested Elections**

Competing slates will be evaluated based upon the personal qualifications of the candidates, the economic impact of the policies that they advance, and their expressed and demonstrated commitment to the interests of all shareholders and stakeholders (e.g. employees, customers, and communities in which a company resides), as well as using the criteria outlined in Section II.A. regarding uncontested elections.

Votes in a contested election of directors are evaluated on a CASE-BY-CASE basis, considering the following factors:

- Long-term financial performance of the company relative to its industry;
- Management's track record;
- Performance evaluation of any director standing for re-election;
- Background to the proxy contest;
- Qualifications of director nominees (both slates);
- Evaluation of what each slate is offering shareholders, as well as the likelihood that the proposed objectives and goals can be met;
- Stock ownership positions of individual directors;
- Impact on stakeholders such as the community, employees, customers, etc.

## **C. Board Diversity**

The CRPTF supports company efforts to ensure a diverse and inclusive board of directors as a means of enhancing long-term financial performance. The charter of the nominating committee should include a policy that commits the company to seeking a diverse slate of candidates, including ethnic, racial and gender diversity, as well as consideration of candidates' experience, skills, age, geography, sexual orientation and gender identity.

Generally, the CRPTF will vote FOR shareholder resolutions requesting reports on the company's efforts to diversify the board, unless:

- The board composition is reasonably inclusive in relation to companies of similar size and business; or
- The board already reports on its nominating procedures and diversity initiatives.

The CRPTF will vote on a CASE-BY-CASE basis on shareholder resolutions asking the company to increase the board's diversity taking into account:

- The degree of board diversity;
- Comparison with peer companies;
- Established processes for improving board diversity including existence of independent nominating committees and use of an outside search firm;
- History of Equal Employment Opportunity (EEO) violations.

#### **D. Independent Director as Chairman of the Board**

The CRPTF believes that the positions of chairman and CEO should be held by different persons, except in extraordinary circumstances. In those circumstances, there should be a lead independent director.

Generally, the CRPTF will WITHHOLD its vote from or vote AGAINST a director nominee who holds both positions.

Overall, the CRPTF will vote FOR shareholder resolutions that ask companies to require the position of chairman of the board be filled by an independent director, except in extraordinary circumstances that are explicitly spelled out.

#### **E. Substantial Majority of Independent Directors**

The CRPTF believes that at a minimum, a substantial majority of every board of directors should be independent from management. Boards should strive to maintain board composition made up of a substantial majority of independent directors.

The CRPTF will vote FOR shareholder resolutions asking that a substantial majority of directors be independent.

#### **F. Shareholder Access to the Proxy**

The CRPTF supports proxy ballot access for shareholders' nominees to the board, provided that shareholders, holding in aggregate at least 3% of a company's voting stock with 3 years of continuous ownership, have shown support for each nominee.

Generally, the CRPTF will vote FOR shareholder resolutions asking companies to provide shareholders, holding in aggregate at least 3% of shares with 3 years of continuous ownership, with the ability to nominate director candidates to be included on management's proxy card.

#### **G. Nominating Directors on a Company's Proxy Card**

Securities and Exchange Commission (SEC) rules permit a shareholder or group of shareholders meeting certain requirements to nominate candidates to the board of directors through the company's proxy card.

The CRPTF will evaluate whether the replacement of individual board members is beneficial to the company and will join other shareholders in nominating candidates on a CASE-BY-CASE basis.

## **H. Majority Vote for Election of Directors**

Generally, the CRPTF will vote FOR shareholder resolutions (including binding resolutions requesting that the board amend the company's bylaws) calling for directors to be elected with a majority of votes cast<sup>[4]</sup> for electing directors, provided the proposal includes a carve-out for a plurality voting standard when there are more director nominees than board seats (e.g. contested elections).<sup>[5]</sup>

## **I. Stock Ownership Requirements**

The CRPTF will vote FOR shareholder resolutions that ask companies to require members of the board of directors to own some amount of stock of the companies on which they serve as board members. Exceptions should be made for clergy.

## **J. Annual Election of Directors**

The CRPTF will vote FOR shareholder resolutions that ask companies to ensure all members of the board of directors be elected by shareholders every year.

## **K. Term of Office**

The CRPTF will vote FOR shareholder resolutions proposing term limits or mandatory retirement age for members of the board of directors, provided that such proposals permit the board to waive this requirement on a CASE-BY-CASE basis.

## **L. Cumulative Voting**

The CRPTF will generally vote FOR shareholder resolutions to allow cumulative voting in contested elections, provided that the resolution does not require cumulative voting in uncontested elections. Under a cumulative voting scheme, the shareholder is permitted to have one vote per share for each director to be elected and shareholders are permitted to apportion those votes in any manner they wish among the director candidates.

## **M. Director and Officer Indemnification and Liability Protection**

Management proposals typically seek shareholder approval to adopt an amendment to the company's charter to eliminate or limit the personal liability of directors to the company and its shareholders for monetary damages for fiduciary breaches arising from gross negligence.

Generally, the CRPTF will vote AGAINST management proposals to limit or eliminate entirely director and officer liability for:

- A breach of the duty of loyalty,
- Acts or omissions not in good faith or involving intentional misconduct or knowing violations of the law,
- Acts involving the unlawful purchases or redemptions of stock,
- The payment of unlawful dividends, or
- Use of the position as director for receipt of improper personal benefits.

### **III. COMPANY RESPONSIVENESS TO SHAREHOLDERS**

Shareholders are the owners of the company and, as such, have an important right and duty to elect members of the board of directors. The members of the board of directors in turn oversee the company and act on behalf of shareholders to protect shareholders' interests. Shareholders often express their concerns through written communications, direct conversations, shareholder resolutions, and voting on proxy issues including voting for directors. Boards of directors need to be responsive to these shareholder communications.

#### **A. Response to Majority Votes**

When a shareholder resolution receives the support of a majority of the shareholders voting, the board of directors and management has an obligation to affirmatively consider the wishes of the shareholders.

The CRPTF will vote FOR shareholder resolutions that request companies to adopt a policy that creates a mechanism and an obligation for the board of directors to take action on any shareholder resolution that receives an affirmative vote of a majority of those shares voted.

#### **B. Communication with Shareholders**

Members of the board of directors have a responsibility to listen to shareholders and to be responsive to their concerns.

The CRPTF will vote FOR shareholder resolutions that request companies to create a formal mechanism for shareholder communication with independent directors.

The CRPTF will vote FOR shareholder resolutions that request companies to require that all directors be present at the annual meeting of shareholders (unless there are extenuating circumstances) and that there is a period set aside at the annual meeting for the independent directors to answer questions from shareholders on issues of concern (management may be present).

### **IV. PROXY CONTEST DEFENSES**

#### **A. Poison Pills**

“Shareholder rights plans,” typically known as poison pills, provide the target board with veto power over takeover bids and insulate management from the threat of a change in control. Because poison pills greatly alter the balance of power between shareholders and management, shareholders should be allowed to make their own evaluation of such plans.

The CRPTF will vote FOR shareholder resolutions that request companies to submit its poison pill for shareholder ratification.

The CRPTF will review on a CASE-BY-CASE basis shareholder resolutions that request companies to redeem a company's poison pill.

The CRPTF will review on a CASE-BY-CASE basis management proposals to ratify a poison pill.

## **B. Amend Bylaws without Shareholder Consent**

The CRPTF will vote AGAINST management proposals giving the board exclusive authority to amend the bylaws.

The CRPTF will vote AGAINST shareholder resolutions giving the board the ability to amend the bylaws without shareholder approval.

## **V. AUDITORS**

The CRPTF believes that a company's auditors should be independent of outside influence and therefore should not perform non-audit-related consulting work. The audit committee should adopt and implement a formal policy on the independence of the auditors that is disclosed in the audit committee report of the proxy statement. Such policy should state that the auditors will not be considered independent if they provide significant non-audit services to the company apart from the audit. Services are considered significant if they are worth the lesser of \$50,000 or 1 percent of the audit firm's gross revenues for the most recent fiscal year. Under no circumstances should the amount of payment paid to the auditor for non-audit services (including audit related services) be larger than the payment for audit services. The audit committee should not indemnify the auditor. The appointment of the auditor should always be placed before shareholders for approval.

The CRPTF will vote AGAINST management proposals to ratify auditors if:

- An auditor has a financial interest in or association with the company, and is therefore not independent;
- There is reason to believe that the independent auditor has rendered an opinion which is inaccurate or non-indicative of the company's financial position;
- During the prior year, the fees paid to the audit firm for non-audit-related services was more than 25% of total fees paid to the firm by the company.

## **VI. ACQUISITIONS AND MERGERS**

Votes on mergers and acquisitions and related issues are considered on a CASE-BY-CASE basis, with the primary concern being the best long-term economic interests of shareholders. In making this evaluation, the CRPTF will take into account at least the following:

- Anticipated financial and operating benefits;
- Offer price (cost vs. premium);
- Prospects of the combined companies;
- How the deal was negotiated;
- Fairness opinion (or the lack of one);
- Changes in corporate governance and its impact on shareholder rights;
- Impact on community stakeholders and workforce;
- Strategic rationale for the merger or acquisition;
- Analysis of whether there are any conflicts of interest;
- Analysis of corporate governance of the newly formed entity - both compared to the governance provisions of the companies prior to the merger or acquisition and compared to the governance provisions of these proxy voting policies.

#### **A. Fair Price Provisions**

The CRPTF will vote on a CASE-BY-CASE basis on proposals to adopt fair price provisions (provisions that stipulate that an acquirer must pay the same price to acquire all shares as it paid to acquire the control shares), evaluating factors such as the vote required to approve the proposed acquisition, the vote required to repeal the fair price provision, and the mechanism for determining the fair price.

#### **B. Greenmail**

Greenmail payments are targeted repurchases by management of company stock from individuals or groups seeking control of the company. Since only the hostile party receives payment, usually at a substantial premium over the market value of its shares, the practice discriminates against all other shareholders.

The CRPTF will vote FOR shareholder resolutions to adopt anti-greenmail charter or bylaw amendments or otherwise restrict a company's ability to make greenmail payments.

#### **C. Stakeholder Provisions**

The CRPTF will vote FOR shareholder resolutions that ask the board to consider non-shareholder constituencies including employees, customers, the community in which a company resides, and stakeholder or constituency issues of concern, when evaluating a merger or business combination.

### **VII. SHAREHOLDER RIGHTS**

#### **A. Confidential Voting**

The CRPTF will vote FOR shareholder resolutions that request companies to adopt a policy allowing for confidential voting.

#### **B. Shareholder Ability to Call Special Meetings**

Shareholders should be permitted to call special meetings of shareholders to address and vote on issues that the Board of Directors is not addressing, including but not limited to, removal of members of the board. The rules implementing this provision should provide for timely calling of such meetings.

The CRPTF will vote FOR shareholder resolutions that request companies to adopt a policy allowing for shareholders' right to call special meetings within the parameters of corporate law of the state in which the company is incorporated to take action on certain matters, including removal of directors, submitting shareholder resolutions or responding to a beneficial offering.

The CRPTF will vote AGAINST proposals to restrict or prohibit shareholder ability to call special meetings and AGAINST provisions that would require advance notice of more than sixty days.

### **C. Shareholder Ability to Act by Written Consent**

The CRPTF will vote FOR shareholder resolutions that request companies to adopt a policy allowing for shareholders' ability to take action by written consent within the parameters of corporate law of the state in which the company is incorporated to take action on certain matters including removal of directors, submitting shareholder resolutions or responding to a beneficial offering.

The CRPTF will vote AGAINST proposals to restrict or prohibit shareholder ability to take action by written consent.

### **D. Equal Access**

The CRPTF will vote FOR shareholder resolutions that request companies to give shareholders (or group of shareholders), holding in aggregate at least 3% of a company's voting stock with 3 years of continuous ownership, access to management's proxy material for the purpose of nominating candidates to the board of directors.

### **E. Unequal Voting Rights**

The CRPTF will vote FOR shareholder resolutions that request companies to maintain or provide one-share one-vote and will vote AGAINST management proposals for dual class stock with different voting rights.

### **F. Supermajority Shareholder Vote Requirement to Amend the Charter or Bylaws**

The CRPTF will vote FOR management or shareholder proposals to reduce supermajority vote requirements for charter and bylaw amendments and mergers. However, for companies with shareholders who have significant ownership levels, the CRPTF will vote CASE-BY-CASE, taking into account: (1) ownership structure; (2) quorum requirements; and (3) supermajority requirements.

The CRPTF will vote AGAINST management proposals to adopt supermajority requirements for a shareholder vote to approve charter, bylaw amendments and mergers. The CRPTF also will vote



AGAINST management proposals seeking to lower supermajority shareholder vote requirements when such requirements accompany management sponsored proposals which would also change certain charter or bylaw provisions.

#### **G. Reimbursement of Proxy Solicitation Expenses**

The CRPTF will vote on CASE-BY-CASE basis for shareholder proposals to fully reimburse all appropriate proxy solicitation expenses associated with dissidents waging a proxy contest.

#### **H. Shareholder Ability to Remove Directors**

The CRPTF will vote FOR resolutions requiring shareholder resolutions that request companies to adopt a policy allowing shareholders the ability to remove directors with cause, including causes that do not rise to the level of legal malfeasance. Such causes include: not attending meetings, failure to carry out committee responsibilities, or actions which may be detrimental to the interests of shareholders.

The CRPTF will vote AGAINST resolutions that provide that directors may be removed only for cause and AGAINST resolutions that provide only continuing directors may elect replacements to fill board vacancies.

#### **I. Action to Fill Board Vacancies**

The CRPTF will vote FOR proposals that any board member named to fill a vacancy must be elected by shareholders at the next annual meeting.

The CRPTF will vote AGAINST proposals to allow management or the board to fill vacant board seats on an interim basis if the board fails to allow a shareholder vote for the interim members at the next annual meeting.

#### **J. Shareholder Ability to Alter the Size of the Board**

The CRPTF will vote AGAINST proposals to allow management or the board to alter the size of the board without shareholder approval.

### **VIII. CAPITAL STRUCTURE**

The management of a corporation's capital structure involves a number of important issues, including dividend policy, types of assets, opportunities for growth, ability to finance new projects internally, and the cost of obtaining additional capital. Many financing decisions have a significant impact on shareholder value, particularly when they involve the issuance of additional common stock, preferred stock, or debt.

The CRPTF will review these proposals for changes in capital structure on a CASE-BY-CASE basis.

In general, the CRPTF will vote FOR proposals that are based on a solid business plan, while opposing proposals that:

- Diminish the rights of the current stockholders;
- Are intended to be used as a takeover defense; or
- Unduly dilute the economic or voting interests of current shareholders.

#### **A. Common Stock Authorization**

CRPTF supports management proposals requesting shareholder approval to increase authorized common stock when management provides persuasive justification for the increase.

CRPTF will evaluate on a CASE-BY-CASE basis proposals where the company intends to use the additional authorized stock to implement a poison pill or other takeover defense.

Generally, the CRPTF will review on a CASE-BY-CASE basis, proposals to increase the number of shares of common stock authorized for issue.

Generally, the CRPTF will vote AGAINST proposed common stock authorizations that increase the existing authorization by more than 50 percent unless a clear need for the excess shares is presented by the company.

#### **B. Preferred Stock**

Preferred stock is an equity security, which has certain features similar to debt instruments, such as fixed dividend payments; seniority of claims compared to common stock; and, in most cases, no voting rights. The terms of blank check preferred stock give the board of directors the power to issue shares of preferred stock at its discretion—with voting rights, conversion, distribution and other rights to be determined by the board at time of issue. Blank check preferred stock can be used for sound corporate purposes but could be used as a device to thwart hostile takeovers.

Generally, the CRPTF will vote FOR management proposals to create blank check preferred stock in cases where the company expressly states that the stock will not be used as a takeover defense or carry superior voting rights.

Generally, the CRPTF will vote on a CASE-BY-CASE basis on management proposals when the company indicates that such preferred stock may be used as a takeover defense.

#### **C. Adjust Par Value of Common Stock**

The CRPTF will vote FOR management resolutions to reduce the par value of common stock.

#### **D. Preemptive Rights**

Preemptive rights permit shareholders to share proportionately in any new issues of stock of the same class. These rights guarantee existing shareholders the first opportunity to purchase shares of new issues of stock in the same class as their own and in the same proportion. The absence of these rights could cause shareholders' interest in a company to be reduced by the sale of additional shares without their knowledge and at prices unfavorable to them. Preemptive rights, however, can make it difficult for corporations to issue large blocks of stock for general corporate purposes. Both corporations and shareholders benefit when corporations are able to arrange issues without preemptive rights that do not result in a substantial transfer of control.

Generally, the CRPTF will vote on a CASE-BY-CASE basis on management proposals to create or abolish preemptive rights. In evaluating proposals on preemptive rights, the CRPTF will look at the size of a company and the characteristics of its shareholder base.

#### **E. Debt Restructuring**

The CRPTF will vote on a CASE-BY-CASE basis on management proposals to increase common and/or preferred shares and to issue shares as part of a debt restructuring plan. The CRPTF will consider the following issues:

- Dilution - How much will ownership interests of existing shareholders be reduced, and how extreme will dilution to any future earnings be?
- Change in control - Will the transaction result in a change in control of the company?
- Bankruptcy - Is the threat of bankruptcy, which would result in severe losses in shareholder value, the main factor driving the debt restructuring?

Generally, the CRPTF will vote FOR management proposals that facilitate debt restructuring unless there are clear signs of self-dealing or other abuses.

#### **F. Dual-Class Stock**

The CRPTF will vote FOR a one-share one-vote structure.

The CRPTF will vote AGAINST management proposals to create a new class of common stock with superior voting rights.

The CRPTF will vote AGAINST management proposals at companies with dual-class capital structures to increase the number of authorized shares of the class of stock that has superior voting rights.

#### **G. Issue Stock for Use with Rights Plan**

The CRPTF will vote AGAINST management proposals that increase authorized common stock for the explicit purpose of implementing a non-shareholder approved shareholder rights plan (poison pill).

#### **H. Recapitalization**

The CRPTF will vote on a CASE-BY-CASE basis on recapitalizations (reclassifications of securities), taking into account the following:

- More simplified capital structure;
- Enhanced liquidity;
- Fairness of conversion terms;
- Impact on voting power and dividends;
- Reasons for the reclassification;
- Conflicts of interest;

- Other alternatives considered.

## **I. Reverse Stock Splits**

A reverse stock split occurs when blocks of more than one share of stock are converted into one share.

The CRPTF will vote FOR management proposals to implement reverse stock splits when the number of authorized shares will be proportionately reduced.

The CRPTF will vote on a CASE-BY-CASE basis on management proposals to implement reverse stock splits that do not proportionately reduce the number of shares authorized for issues as determined using a model developed by a proxy voting service.

## **J. Share Repurchase Programs**

The CRPTF will vote FOR management proposals to institute open-market share repurchase plans in which all shareholders may participate on equal terms, provided that adjustments are made to executive compensation programs to reflect the reduced number of shares outstanding (e.g. calculations of earnings per share).

## **K. Stock Distributions: Splits and Dividends**

The CRPTF will vote FOR management proposals to increase the common share authorization for a stock split or share dividend, provided that the increase in authorized shares would not result in an excessive number of shares available for issuance as determined using a model developed by a proxy voting service.

## **L. Tracking Stock**

The CRPTF will vote on a CASE-BY-CASE basis on the creation of tracking stock, weighing the strategic value of the transaction against such factors as:

- Adverse governance changes;
- Excessive increases in authorized capital stock;
- Unfair method of distribution;
- Diminution of voting rights;
- Adverse conversion features;
- Negative impact on stock option plans;
- Alternatives such as spin-off.

# **IX. EXECUTIVE AND DIRECTOR COMPENSATION**

## **A. CRPTF's General Principles for Voting on Executive Compensation**

Executive compensation is generally comprised of three basic components: salary, bonus and equity compensation. In addition, there are other forms of compensation, such as retirement benefits, severance benefits, basic employee benefits (such as health and life insurance), loans (and

forgiveness of loans), payment of taxes on certain compensation, and “perks” including personal use of company facilities (such as company aircraft).

The CRPTF considers a good compensation policy as one that balances these different forms of compensation to provide incentives for continuous improvement and ties pay to performance. Developing measures of performance for the CEO and other executives is a key component of a compensation plan.

It is the role of the compensation committee to set the compensation for top management and approve compensation policy for the company as a whole. Shareholders look to the compensation committee to align management’s interests with shareholder interests while providing incentives for long-term performance.

Exorbitant pay, unwarranted severance packages, lack of internal pay equity, abuse of perquisites (“perks”), and corporate scandals, where executives have been highly paid while shareholders have lost billions of dollars, and employees have lost their jobs and much of their life savings, have shown that many compensation committee members have not been doing their jobs. These examples provide a reminder to all compensation committee members of the importance of their responsibility to align pay with performance, to encourage management to effectively manage risks that may affect the company, its industry and the economy, and to provide compensation incentives for management while protecting the financial interests of shareholders.

The compensation committee should commit to providing full descriptions of the qualitative and quantitative performance measures and benchmarks used to determine annual incentive compensation, including the weightings of each measure. At the beginning of the period during which an executive’s performance is to be measured, the compensation committee should calculate and disclose the maximum compensation payable in the event that performance-related targets are met. At the end of the performance cycle, the compensation committee should disclose actual targets and details on the determination of final payouts.

The compensation committee should adopt and implement a formal policy on the independence of compensation consultants that is disclosed in the Compensation Discussion and Analysis (CD&A) of the proxy statement. Such policy should state that a compensation consultant will not be considered independent if the consultant firm provides significant services to the company apart from work performed for the compensation committee. Services are considered significant if they are worth the lesser of \$50,000 or 1 percent of the consultant firm’s gross revenues for the most recent fiscal year. Under no circumstances should the amount of payment paid to a consultant be larger for management services than the payment for compensation committee services. The compensation committee should not indemnify the compensation consultant for work provide to the committee.

The CRPTF proxy voting policies are based on pay for long-term sustained performance, and the responsibility of the compensation committee to make this happen.

## **B. Advisory Vote on Executive Compensation**

The CRPTF supports the right of shareholders to exercise an advisory vote on executive compensation practices.

The CRPTF will vote FOR management proposals to require annual advisory votes on executive compensation.

When evaluating executive compensation for the purposes of casting an advisory vote on executive compensation, the CRPTF will evaluate the criteria as enumerated in Appendix A, which is incorporated by Reference into this section.

In evaluating executive compensation for the purposes of casting an advisory vote, the CRPTF will review:

- **Pay for performance** – including how both pay and performance are measured.
- The company’s **compensation policy** (for both named executives, other employees) as spelled out in the Compensation Discussion and Analysis – including the clarity and transparency of that policy, as well as how the policy ties compensation to the creation of long-term shareholder value.
- The company’s responsiveness to **input from shareholders** on compensation policy and practices.
- The degree to which the company employs **poor compensation practices**, as delineated in the CRPTF proxy voting guidelines, and as outlined below.

The CRPTF will evaluate these issues in a holistic way, considering all of a company’s compensation practices (rather than any one issue) in determining how to vote. How a company’s compensation policy and practices have changed from previous years – or not changed in the case of poor compensation practices – will be an additional factor considered.

See Appendix A for the factors to be evaluated in determining how to vote.

### **C. Golden Parachutes/Severance Agreements for Executives**

Golden parachute compensation is defined as any type of compensation (whether present, deferred, or contingent) that is based on or otherwise relates to a merger, acquisition, or sale transaction. (A separate vote would not be required if disclosure of that compensation had been included in a prior advisory vote on Executive Compensation, and that compensation arrangement remained unchanged.)

The CRPTF will vote on these issues on a CASE-BY-CASE basis. When evaluating such benefits, the CRPTF will evaluate a number of criteria outlined below. The CRPTF will evaluate these issues in a holistic way, and no one issue will be decisive in determining how to vote.

An acceptable “golden parachute” change-in-control payment and policy should include, but is not limited to, the following:

- The triggering mechanism is beyond the control of management;
- The amount of the payment does not exceed three times the base amount, defined as the average annual taxable W-2 compensation during the five years prior to the year in which the change-in-control occurs;
- The change-in-control payment is double-triggered, i.e., 1) after a change in control has taken place, and 2) termination of the executive as a result of the change in control. Change-in-control is defined as a change in the company ownership structure;

- The company does not provide tax gross-ups on parachute payments;
- The company takes into account the amount of company stock owned by the executive, the benefits payable under any retirement plan(s) in which the executive is a participant, and the amount of compensation deferred by the executive;
- There is no accelerated vesting of equity held by the executive as a result of a change-in-control, provided that in the case where unvested equity no longer exists, the executive is granted equity of equal value with comparable vesting requirements by the new entity.

The CRPTF will vote FOR shareholder proposals requesting companies to eliminate accelerated vesting of equity following the termination of employment for any reason, excepting change-in-control.

The CRPTF will vote FOR shareholder proposals requesting companies to eliminate accelerated vesting of equity held by the executive as a result of a change-in-control, provided that in the case where unvested equity no longer exists, the executive is granted equity of equal value with comparable vesting requirements by the new entity.

#### **D. Equity Compensation**

The CRPTF supports compensating executives at a reasonable rate and believes that executive compensation should be strongly correlated to the long-term performance of the company.

Stock option grants and other forms of compensation should be performance-based with an objective of improving shareholder value and maintaining that value over the long term. Well-designed stock option plans align the interests of executives and shareholders by providing that executives benefit when stock prices rise as the company, and shareholders, prosper over the long-term.

The CRPTF will vote on a CASE-BY-CASE basis on proposals for equity-based compensation plans.

The CRPTF will vote FOR proposals for equity compensation plans that provide challenging performance objectives and serve to motivate executives to deliver long-term performance, and vote AGAINST plans that permit reloading of exercised stock options and apparent unreasonable benefits to executives that are not available to any other employees.

The CRPTF will vote on a CASE-BY-CASE basis for management proposals for equity-based compensation plans that link executive compensation to corporate responsibility, such as corporate downsizing, customer or employee satisfaction, community involvement, human rights, environment performance, predatory lending, and executive/employee pay disparities. The CRPTF considers many of these corporate responsibility issues as key business issues linked directly to long-term shareholder return and will evaluate them accordingly.

The CRPTF will vote AGAINST proposals for equity-based compensation plans if any of the following factors apply:

- The total cost of the company's equity-based compensation plans is unreasonable, based on a model developed by a proxy voting service;



- The plan expressly permits the repricing of stock options without prior shareholder approval;
- The plan expressly permits the reloading of stock options;
  - There is a disconnect between CEO pay and the company's performance;
  - The company's three-year burn rate exceeds 3% or the industry average;
  - The plan is a vehicle for poor pay practices.

#### **E. Employee Stock Ownership Plans (ESOPs)**

The CRPTF will vote FOR proposals to implement an ESOP or increase authorized shares for existing ESOPs, unless the number of shares allocated to the ESOP is excessive (more than five percent of outstanding shares).

#### **F. Incentive Bonus Plans and Tax Deductibility Proposals**

The CRPTF will vote FOR management proposals that amend shareholder-approved compensation plans to include administrative features or place a cap on the annual grants that any one participant may receive to comply with the provisions of Section 162(m).

The CRPTF will vote FOR management proposals to add performance goals to existing compensation plans to comply with the provisions of Section 162(m) unless they are clearly inappropriate.

The CRPTF will vote on a CASE-BY-CASE basis on management proposals to amend to existing plans to increase shares reserved and to qualify for favorable tax treatment under the provisions of Section 162(m), as long as the plan does not exceed the allowable cap and the plan does not violate any of the supplemental policies.

Generally, the CRPTF will vote FOR cash or cash and stock bonus plans that are submitted to shareholders for the purpose of exempting compensation from taxes under the provisions of Section 162(m), if no increase in shares is requested.

#### **G. Option Exchange Programs/Repricing Options**

The CRPTF will vote on a CASE-BY-CASE basis on management proposals seeking approval to exchange/reprice options, taking into consideration:

- Historic trading patterns;
- Rationale for the re-pricing;
- Value-for-value exchange;
- Treatment of surrendered options;
- Option vesting;
- Term of the option;
- Exercise price;
- Participation;
- If the surrendered options are added back to the equity plans for re-issuance, the CRPTF will also take into consideration the company's three-year burn rate.

## **H. Director Compensation**

The CRPTF will vote on a CASE-BY-CASE basis on compensation plans for non-employee directors.

The CRPTF will vote FOR a director compensation plan if ALL of the following qualitative factors are met and disclosed in the proxy statement:

- Director stock ownership policies that require payment of a minimum of 50% of annual director compensation in equity and encourage directors to hold their equity interests while serving on the board.
- A vesting schedule or mandatory holding/deferral period (a minimum vesting of three years for stock options or restricted stock or deferred stock payable at the end of a three-year deferral period);
- Mix between cash and equity;
- No retirement benefits or perquisites provided to non-employee directors;
- Detailed disclosure provided on cash and equity compensation delivered to each non-employee director for the most recent fiscal year, including annual retainer, board meeting fees, committee retainer, committee-meeting fees, and equity grants.

## **I. Director Retirement Plans**

The CRPTF will vote AGAINST management proposals for retirement plans for non-employee directors.

## **X. SHAREHOLDER RESOLUTIONS ON COMPENSATION**

### **A. Option Expensing**

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to expense stock options, unless the company has already publicly committed to expensing options by a specific date.

### **B. Option Repricing**

The CRPTF will vote FOR shareholder resolutions that require companies to put option repricing to shareholder vote.

### **C. Limiting Executive and Director Pay**

Shareholder resolutions to limit executive and director pay need to be evaluated on a CASE-BY-CASE basis.

Generally, the CRPTF will vote FOR shareholder proposals that seek additional disclosure of a significant change in executive and director pay information.

Generally, the CRPTF will vote FOR shareholder proposals that seek to eliminate outside directors' retirement benefits.

Generally, the CRPTF will vote FOR shareholder proposals that seek to provide for indexed and/or premium priced options.

Generally, the CRPTF will vote FOR shareholder proposals that seek non-discrimination in retirement benefits (e.g. retirement benefits and pension plans that are different based on age of employee such as cash balance plans).

Generally, the CRPTF will vote FOR shareholder resolutions that request that earnings from a company's pension plan not be included in company earnings for the purpose of evaluating whether an executive met performance targets in their compensation agreement.

The CRPTF will vote FOR shareholder resolutions that request companies to require executives to repay long-term incentive compensation or other performance-based compensation to the company in the event a company restates its financial statements for a previous reporting period and such compensation as recalculated is found not to have been earned.

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to advocate the use of performance-based awards like indexed, premium-priced, and performance-vested options or performance-based shares.

Generally, the CRPTF will vote FOR shareholder resolutions that ask companies to prohibit tax gross-up payments to executives.

#### **D. Clawbacks**

Compensation that is paid based on financial results that are later stated, or on meeting performance metrics that are later revised downward, is compensation that has not been earned. Companies should have policies that “claw-back” unearned compensation.

The CRPTF will vote on a CASE-BY-CASE basis on proposals to recoup unearned incentive bonuses or other incentive payments made to senior executives if it is later determined that the performance metrics upon which the incentive compensation is earned later turn out to have been in error. When making its determination, the CRPTF will take into account:

- If the company has adopted a formal recoupment bonus policy;
- If the company has chronic restatement history or material financial problems; or
- If the company’s policy substantially addresses the concerns raised by the proponent.

#### **E. Internal Pay Equity**

Significant differences in pay between top executives and non-executives of a company may adversely impact employee performance, are often an indication of poor compensation practices. The CRPTF will vote on a CASE-BY-CASE basis for shareholder proposals that ask the board compensation committee to adopt a policy regarding internal pay equity, and the relationship

between the compensation received by the CEO and other named executive officers whose compensation is disclosed in the proxy statement.

The CRPTF will vote FOR shareholder proposals requesting the company to adopt a policy that asks the board compensation committee to consider internal pay equity in: (a) the establishment, modification and termination of senior executive pay plans and programs; and (b) making specific awards under those plans and programs.

The CRPTF will vote FOR shareholder proposals that ask the company to disclose to shareholders the role of internal pay equity considerations in the process of setting compensation for the CEO and other named executive officers.

The CRPTF will vote AGAINST shareholder proposals asking the board to adopt a policy that would fix the pay ratio between the CEO and other named executive officer to a specific percentage or multiple of pay.

#### **G. Golden Coffins/Executive Death Benefits**

The CRPTF will vote FOR shareholder resolutions that ask the board of directors to submit for shareholder approval any future agreements and corporate policies that would obligate the company to make payments, grants, or awards following the death of a senior executive in the form of unearned salary or bonuses, accelerated vesting of equity awards, perquisites and other payments or awards made in lieu of compensation. This would not apply to any benefit programs or equity plan proposals for which the broad-based employee population are eligible, nor would it apply to compensation earned by the executive and deferred during his or her lifetime.

#### **H. Supplemental Executive Retirement Plans**

Supplemental Executive Retirement Plans (SERPs) are retirement plans for senior executives that are separate from and in addition to retirement plans for all other employees. Often these plans are used to provide compensation to a senior executive that is not based on performance or provides excessive retirement benefits.

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to allow for a shareholder vote to approve SERP agreements, unless the company's executive pension plans do not contain excessive benefits (based on an analysis by the CRPTF's proxy voting service and other expert analysis).

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to call for limitations of annual retirement benefits to a maximum of earned annual salary and bonus.

#### **I. Stock Retention**

The purpose of grants of stock and stocks options to senior executives (rather than cash compensation) is to align their financial interest with that of shareholders. This alignment is maintained only if the executive retains the ownership of the stock.

Generally, the CRPTF will vote FOR shareholder proposals requiring senior executives to retain a percentage of shares acquired through equity compensation programs. When voting for these proposals, the CRPTF will take into account current stock ownership guidelines, existing long-term stock-holding requirements and actual equity ownership by executives, and the length of the current holding period.

#### **J. Responsible Use of Company Stock**

The purpose of grants of stock and stocks options to senior executives (rather than cash compensation) is to align their financial interest with that of shareholders. This alignment can be undermined if the executive enters into a derivative transaction that limits the loss in the event that the company performs poorly, and the stock value declines.

Generally, the CRPTF will vote FOR shareholder proposals asking the board of directors to adopt policies limiting the ability of named executive officers to enter into derivative or speculative transactions involving company stock, including but not limited to trading in puts, calls, covered calls or other derivative products; engaging in hedging or monetization transactions with respect to company stock; holding company stock in a margin account; or pledging company stock as collateral for a loan.

#### **K. Compensation Consultant Independence**

The CRPTF will vote FOR shareholder resolutions that request companies to include in their corporate governance guidelines that any compensation consultant employed by the compensation committee is independent of management and that such consultant should not provide significant consulting services to the management of the company (see Section IX.A. for further discussion).

### **XI. STATE AND COUNTRY OF INCORPORATION**

#### **A. Voting on State Takeover Statutes**

The CRPTF will vote on a CASE-BY-CASE basis on proposals to opt in or out of state takeover statutes (including control share acquisition statutes, control share cash-out statutes, freeze out provisions, fair price provisions, stakeholder laws, poison pill endorsements, severance pay and labor contract provisions, anti-greenmail provisions, and disgorgement provisions).

The CRPTF generally supports opting into stakeholder protection statutes if they provide comprehensive protections for employees and community stakeholders. The CRPTF would be less supportive of takeover statutes that only serve to protect incumbent management from accountability to shareholders, and which negatively influence shareholder value.

#### **B. Voting on Reincorporation Proposals**

The CRPTF will vote on a CASE-BY-CASE basis on proposals to change a company's state of incorporation, taking into consideration both financial and corporate governance concerns, including the reasons for reincorporating, a comparison of the governance provisions, comparative economic benefits, and a comparison of the jurisdictional laws.

The CRPTF will vote FOR reincorporation when the economic factors outweigh any neutral or negative governance changes.

### **C. Off-Shore Reincorporation**

Proposals to reincorporate outside of the U.S. and management proposals to expatriated companies to reincorporate back in the U.S. will be examined closely.

The CRPTF will vote AGAINST any reincorporation management proposals that are found to reduce the rights of shareholders.

The CRPTF will vote FOR shareholder resolutions that request an expatriated company to study reincorporation back in the U.S. and report back to shareholders.

The CRPTF will vote FOR shareholder resolutions to reincorporate back in the U.S. if those proposals are found to increase the rights of shareholders, and/or have financial benefits to shareholders.

## **XII. SHAREHOLDER RESOLUTIONS ON EQUAL EMPLOYMENT OPPORTUNITY AND OTHER WORKPLACE PRACTICE REPORTING ISSUES**

### **A. Equal Employment Opportunity**

These proposals generally request that a company establish a policy of reporting to shareholders its progress with equal opportunity and affirmative action programs. The costs of violating federal laws that prohibit discrimination by corporations are high and can affect corporate earnings.

The CRPTF will vote FOR shareholder resolutions that request companies to take action on equal employment opportunity and anti-discrimination.

The CRPTF will vote FOR shareholder resolutions calling for legal and regulatory compliance and public reporting related to non-discrimination, affirmative action, workplace health and safety, environmental issues, and labor policies and practices that affect long-term corporate performance.

The CRPTF will vote FOR shareholder resolutions that request companies to take action calling for non-discrimination in salary, wages and all benefits.

The CRPTF will vote FOR shareholder resolutions that request companies to ask for disclosure of statistical information and policy statements regarding non-discriminatory hiring, performance evaluation and advancement, and workforce composition.

The CRPTF will vote FOR shareholder resolutions that request companies to disclose the EEO-1 consolidated data report that is filed with the Equal Opportunity Commission (EEOC).

The CRPTF will vote FOR shareholder resolutions that request companies to create policy statements regarding non-discriminatory hiring, performance evaluations, advancement and affirmative action.

The CRPTF will vote FOR shareholder resolutions that request companies to add the terms "sexual orientation," "gender identity," and/or "gender expression" to written non-discrimination policies.

## **B. Non-Discrimination in Retirement Benefits**

Many companies are changing their retirement benefits, including moving to cash balance and defined contribution pension plans. There is the potential for some employees to benefit more than others due to these changes.

The CRPTF will vote FOR shareholder resolutions that request companies to ensure non-discrimination with regard to retirement benefits.

## **C. Workplace Diversity**

### **i. Glass Ceiling**

Generally, the CRPTF will vote FOR reports outlining the company's progress towards race and gender inclusiveness in management and the board of directors.

### **ii. Sexual Orientation, Gender Identity**

The CRPTF will vote FOR shareholder resolutions that request companies to amend EEO statements in order to prohibit discrimination based on sexual orientation or gender identity.

## **D. International Labor Standards/Human Rights**

### **i. Contract Supplier Standards / International Codes of Conduct / Vendor Standards**

This section addresses shareholder resolutions that call for compliance with governmental mandates and corporate policies regarding nondiscrimination, affirmative action, right to affiliate or organize, workplace safety and health, and other basic labor and human rights protections, particularly in relation to the use of international suppliers. The global labor standards and human rights resolutions call for global companies to implement comprehensive codes of conduct, and to abide by conventions of the International Labor Organization (ILO) on workplace human rights, in order to assure that its products are made under humane conditions and workers are paid at a minimum the legal minimum wage. The CRPTF proxy voting policies support these resolutions on the grounds that these standards are good business practices that protect shareholder value by improving worker productivity, reducing turnover and time lost due to injury, etc., as well as avoiding negative publicity and a loss of consumer confidence.

Generally, the CRPTF will vote FOR resolutions that request companies to ensure that its products are not made in "sweatshops."

Generally, the CRPTF will vote FOR resolutions that request companies to help eradicate forced labor and child labor, promote the rights of workers to form and join labor unions and to bargain collectively, seek to ensure that all workers are paid a living wage, and require that company contractors submit to independent monitoring of their factories.

Generally, the CRPTF will vote FOR resolutions that request companies to adopt labor standards – a "Code of Conduct" - for foreign and domestic suppliers and licensees, and a policy that the



company will not do business with suppliers that manufacture products for sale using forced labor, child labor, or that fail to comply with applicable laws protecting employees' wages and working conditions including all applicable standards and laws protecting employees' wages, benefits, working conditions, freedom of association (right to organize), and other rights.

Generally, the CRPTF will vote FOR resolutions that request companies to publish their "Code of Conduct."

Generally, the CRPTF will vote FOR resolutions that request companies to publish a report summarizing the company's current practices for enforcement of its "Code of Conduct."

Generally, the CRPTF will vote FOR resolutions that request companies to engage independent monitoring programs by non-governmental organizations to monitor suppliers and licensee compliance with a company's "Code of Conduct."

Generally, the CRPTF will vote FOR resolutions that request companies to create incentives to encourage suppliers to raise standards rather than terminate contracts.

Generally, the CRPTF will vote FOR resolutions that request companies to implement policies for ongoing wage adjustments, ensuring adequate purchasing power and a sustainable living wage for employees of foreign suppliers and licensees.

Generally, the CRPTF will vote FOR resolutions that request companies to improve transparency of their contract supplier reviews.

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to outline vendor standards.

## **ii. Corporate Conduct and Human Rights**

The CRPTF will generally support proposals that call for the adoption and/or enforcement of principles or codes relating to countries in which there are systematic violations of human rights, such as: the use of slave, child, or prison labor; a government that is illegitimate; or where there is a call by human rights advocates, pro-democracy organizations, or legitimately elected representatives for economic sanctions.

Generally, the CRPTF will vote FOR resolutions that request companies to support Principles or Codes of Conduct relating to the company investment in countries with patterns of workplace and/or human rights abuses.

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to adopt policies that reflect the provisions of the General Statutes of Connecticut.

## **E. Equal Credit and Insurance Opportunity**

Access to capital and insurance is essential to participating in our society. The Equal Credit Opportunity Act prohibits lenders from discriminating with regard to race, religion, national origin, sex, age and the like. "Redlining," the systematic denial of services in an area based on its economic or ethnic profile has a similar negative impact on denying participation in our society.

The CRPTF will vote FOR shareholder resolutions that request companies to provide reports on lending practices in low/moderate income or minority areas and on steps to remedy mortgage lending discrimination.

The CRPTF will vote FOR shareholder resolutions that request companies to develop fair "lending policies" that would assure access to credit for major disadvantaged groups and require annual reports to shareholders on their implementation.

The CRPTF will vote FOR shareholder resolutions that request insurance companies and banks to appraise their practices and develop policies to avoid redlining.

### **XIII. SHAREHOLDER RESOLUTIONS ON ENVIRONMENTAL, SOCIAL AND GOVERNANCE ISSUES**

The CRPTF supports the integration of environmental, social, and governance (ESG) factors in the investment decision making process, given that such factors can impact both risk and return over the long term.

In most cases, the CRPTF will vote FOR shareholder resolutions that request companies to disclose non-proprietary information related to ESG issues.

In determining the CRPTF's vote on shareholder resolutions that address these issues, the CRPTF will analyze the following factors:

- Whether adoption of the resolution would have a positive or negative impact on the company's long-term share value;
- The degree to which the company's stated position on the issues could affect its reputation or sales, or leave it vulnerable to boycott or selective purchasing;
- Whether the company has already responded in some appropriate manner to the request embodied in a proposal;
- Whether the company's analysis and voting recommendation to shareholders is persuasive;
- What other companies have done in response to the issue;
- Whether the proposal itself is well framed and reasonable;
- Whether implementation of the resolution would achieve the objectives sought in the proposal; and
- Whether the subject of the resolution is best left to the discretion of the board.

In general, the CRPTF will vote FOR shareholder resolutions that request companies to furnish information helpful to shareholders in evaluating the company's operations. In order to be able to monitor their investments, shareholders often need information best provided by the company in which they have invested. Requests to report such information merits support.

The CRPTF will evaluate on a CASE-BY-CASE basis proposals that request the company to cease certain actions that the proponent believes is harmful to society or some segment of society, with special attention to the company's legal and ethical obligations, its ability to remain profitable, and potential negative publicity if the company fails to honor the request.

## **A. Principles for Responsible Investment**

The Principles for Responsible Investment (PRI)<sup>[6]</sup> provide a framework to give consideration to ESG issues that can affect the performance of investment portfolios. The Principles were developed in 2006 by a number of institutional investors, including the Connecticut State Treasurer's Office. These proxy voting policies reflect the principle of active ownership, and the associated responsibility to "incorporate ESG issues into our ownership policies and practices."

## **C. Climate Change, Energy, and Environment**

### **i. Global Warming, Climate Change, and Sustainability**

The United Nations' Intergovernmental Panel on Climate Change concluded in 2018 that the current pace of greenhouse gas emissions will have significant, adverse impact on the world's economy as soon as 2040.<sup>[7]</sup> And, according to a joint study by the World Bank's International Finance Corporation and Mercer, climate change "will inevitably have an impact on investment returns, so investors need to view it as a new return variable."<sup>[8]</sup>

There are direct economic and financial risks to companies from physical damage due to extreme weather patterns caused by climate change. Economic and financial risks can also occur when companies are not prepared for complying with new regulations curbing carbon emissions.

The CRPTF will vote FOR shareholder resolutions that request companies to assess actions the company is taking to mitigate the economic impact on the company of increasing regulatory requirements, competitive pressures, and public expectations to significantly reduce carbon dioxide and other emissions and issue a report to shareholders.

The CRPTF will vote FOR shareholder resolutions that request companies to assess financial risks resulting from climate change and its impacts on shareholder value in the short-, medium- and long-terms, as well as actions the board of directors deems necessary to provide long-term protection of business interests and shareholder value and issue a report to shareholders.

The CRPTF will vote FOR shareholder resolutions that request companies to report on greenhouse gas emissions from company operation and of the company's products in relation to their impact on global climate change.

The CRPTF will vote FOR shareholder resolutions that request companies to develop a standard reporting format and data baseline so that data from the company can be accurately compared to data from other companies and compared to recognized measurement standards.

The CRPTF will vote FOR shareholder resolutions that request companies to provide a "sustainability report (also called a "corporate social responsibility report)," such as the Global Reporting Initiative, that describes how the company plans to address issues of climate change and other long-term social, economic and environmental issues in order to maintain the long-term financial health of the company in a changing environment.

The CRPTF will vote FOR shareholder resolutions that request companies respond to the annual questionnaire of the Carbon Disclosure Project.

## **ii. Paris Climate Agreement**

The global climate change agreement reached at the 21st Conference of the Parties, also known as “The Paris Agreement”, provides globally supported targets related to climate change.

Generally, the CRPTF will vote FOR shareholder resolutions that request that companies to outline their preparations to comply with standards established by The Paris Agreement and any successor protocol in countries in which the protocol applies.

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to report on or adopt accounting metrics that can better address market changes induced by climate change.

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to conduct and disclose planning and policies for transitioning the company business model to align with a low carbon economy including, specifically, alignment with the Paris Agreement’s goal of limiting global warming to well below 2°C, including addressing the company’s (Scope 1-3) greenhouse gas emissions.

## **iii. CERES Principles**

The CRPTF will vote FOR shareholder resolutions requesting companies to adopt the CERES Principles, taking into account:

- The company's current environmental disclosure beyond legal requirements, including environmental health and safety (EHS) audits and reports that may duplicate CERES;
- The company's environmental performance record, including violations of federal and state regulations, level of toxic emissions, and accidental spills;
- Environmentally conscious practices of peer companies, including endorsement of CERES;
- Costs to the company of membership and implementation.

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to sign onto the Global Compact, Equator Principles, and other similarly broadly recognized commitments to sustainability principles.

The CRPTF will vote FOR shareholder resolutions that request companies to address matters of specific ecological impact, e.g. sustainable use of natural resources, waste reduction, wiser use of energy, reduction of health and safety risks, marketing of safer products and services, reduction or elimination of chlorine in production processes, responsible environmental restoration, etc.

The CRPTF will vote FOR shareholder resolutions that request companies to report on, assess the impact of, and curtail environmental hazards to communities that result from their activities.

The CRPTF will vote FOR shareholder resolutions that request oil companies not to explore and oil and gas extraction in areas where there is a significant danger of permanent damage to the environment.

## **iv. Water Risk**

Shareholders may ask for a company to prepare a report evaluating the business risks linked to water use and impacts on the company's supply chain, including subsidiaries and bottling partners. Such proposals also ask companies to disclose current policies and procedures for mitigating the impact of operations on local communities in areas of water scarcity.

The CRPTF will vote FOR shareholder resolutions that request companies to assess their current and future water usage, evaluate whether sufficient water will be available in the future, develop plans to reduce water usage, and report to shareholders on these assessments.

The CRPTF will vote FOR shareholder resolutions that request companies to respond to the Carbon Disclosure Project's water disclosure questionnaire and similar investor-backed initiatives.

The CRPTF will vote FOR shareholder resolutions that request companies to on or adopt policies for water use that incorporate social and environmental factors.

#### **v. Arctic National Wildlife Refuge**

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to provide reports outlining how it would prevent potential environmental damages from drilling in the Arctic National Wildlife Refuge (ANWR).

#### **vi. Environmental - Economic Risk Report**

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to perform an economic risk assessment of environmental performance, unless the company has already publicly demonstrated compliance with the spirit of the resolution by including a report of such risk assessment in a sustainability report, corporate responsibility report, or similar report.

#### **vii. Environmental Reports**

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to provide reports disclosing the company's environmental policies, unless the company already has environmental management systems that are well-documented and available to the public.

#### **viii. Nuclear Safety**

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to provide reports on risks and/or benefits associated with their nuclear reactor designs and/or the production and interim storage of irradiated fuel rods.

#### **ix. Operations in Protected Areas**

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to provide reports outlining potential environmental damage from operations in protected regions, including wildlife refuges.

#### **x. Renewable Energy**

Generally, the CRPTF will vote FOR requests for reports on the feasibility of developing renewable energy sources, unless the report is duplicative of existing disclosure or irrelevant to the company's line of business.

#### **xi. Environmental Justice**

The CRPTF will generally support proposals asking companies to report on whether environmental and health risks posed by their activities fall disproportionately on any one group or groups, and to take action to reduce those risks at reasonable costs to the company.

The CRPTF will generally support proposals asking companies when sitting and addressing issues related to facilities which may have impact on local environment and to respect the rights of local communities to participate in decisions affecting their local environment.

#### **D. Special Policy Review and Shareholder Advisory Committees**

The CRPTF will vote FOR shareholder resolutions that request companies to support advisory committees when they appear to offer a potentially effective method for enhancing shareholder value.

#### **E. Drug Reimportation**

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to provide reports on the financial and legal impact of their policies regarding prescription drug reimportation, unless such information is already publicly disclosed.

Generally, the CRPTF will vote AGAINST shareholder resolutions requesting that companies adopt specific policies to encourage or constrain prescription drug reimportation.

#### **F. HIV/AIDS, Malaria, Tuberculosis**

The CRPTF will vote FOR shareholder resolutions to request companies to establish, implement, and report on a standard of response to the HIV/AIDS, tuberculosis, and malaria health pandemic in Africa and other developing countries, unless the company doesn't have significant operations in these markets or has adopted policies and/or procedures to address these issues comparable to those of industry peers.

#### **G. Predatory Lending**

The CRPTF will vote FOR shareholder resolutions that request companies to adopt policies that preclude predatory lending practices.

The CRPTF will vote on a CASE-BY-CASE basis on requests for reports on the company's procedures for preventing predatory lending, including the establishment of a board committee for oversight, taking into account:

- Whether the company has adequately disclosed mechanisms in place to prevent abusive lending practices;
- Whether the company has adequately disclosed the financial risks of its subprime business;
- Whether the company has been subject to violations of lending laws or serious lending controversies;
- Peer companies' policies to prevent abusive lending practices.

## **H. Toxic Chemicals**

Generally, the CRPTF will vote FOR shareholder resolutions that request companies disclose its policies related to toxic chemicals.

The CRPTF will vote on a CASE-BY-CASE basis on resolutions requesting that companies evaluate and disclose the potential financial and legal risks associated with utilizing certain chemicals.

## **XIV. SHAREHOLDER RESOLUTIONS ON GENERAL CORPORATE ISSUES**

### **A. Corporate Political Expenditures**

Political contributions can benefit the strategic interests of a company. Shareholders understand that corporate participation in the political process including through political contributions can benefit companies strategically and contribute to value creation. However, shareholders are concerned that board level policies and processes need to exist to ensure that such giving is aligned with shareholders' long-term interests. Shareholders are concerned about the influence of corporate political giving. This activity has the potential to create risks to shareholder value, through reputational harm and through reactions by employees and/or customers.

Shareholders seek to understand who sets political giving policies, who makes the decisions on contributions, and what types of internal controls are in place at the board level to manage, monitor and disclose political contributions, and manage related risks. Shareholders are not interested in obtaining disclosure of the reason specific contributions are made, but instead seek data on contributions and an understanding of mechanisms, such as board-level policies and processes, through which the board exercises oversight over the process.

It is not an appropriate role for shareholders to vote on specific political expenditures--whether such vote is in the form of an advisory proposal or would be binding.

Corporate political expenditures can be direct in the form of campaign contributions or indirect in the form of advertising or publicity on politically related issues.

In the aftermath of the U.S. Supreme Court ruling in *Citizens United*, which ruled that corporations have a constitutional right to free speech – including political advertising – new forms of corporate political spending have emerged. New organizations have been created under sections 501(c) (4), 501 (c) (5) and 501 (c) (6) of the Internal Revenue Code that receive corporate contributions and engage in political advertising. These organizations are not required to disclose their donors.



The CRPTF will vote FOR shareholder resolutions that request companies to provide greater disclosure of corporate campaign financing.

The CRPTF will vote FOR shareholder resolutions that request companies to disclose any and all corporate expenditures for advertising in support of, or in opposition to, any political candidate, issue, and/or ballot referendum, including contributions to political candidates, political action committees, 501(c) (3, 4, and 5) organizations or any other expenditure which may be used to influence an election.

The CRPTF will vote FOR shareholder resolutions that call on the board to establish corporate political giving guidelines and internal reporting provisions or controls.

The CRPTF will vote AGAINST shareholder resolutions that seek shareholder input to corporate political giving policies or on the contributions themselves. The CRPTF will vote AGAINST shareholder resolutions seeking an advisory vote on political contributions.

## **B. Charitable Contributions**

The CRPTF will vote AGAINST shareholder resolutions that request companies not to make charitable contributions.

## **C. Link Executive Compensation to Corporate Activities Promoting Sustainability**

The CRPTF will vote on a on a CASE-BY-CASE basis on equity-based compensation plans that link executive compensation to responsible business practices that promote the long-term sustainability of the environment, the economic vibrancy of the local community and the welfare of the company's employees.

Such resolutions will be evaluated in the context of:

- The degree to which the issue can be linked to executive compensation and the long-term financial performance of the company;
- The degree that performance standards are related to corporate activities those promote long-term sustainability.
- Violations or complaints filed against the company relating to such performance standards;
- Current company pays levels.

## **D. Outsourcing**

The CRPTF will vote on a CASE-BY-CASE basis on proposals calling for companies to report on the risks and opportunities associated with outsourcing.

## **E. Military Sales**

Generally, the CRPTF will vote FOR shareholder resolutions that request companies to report on foreign military sales and economic conversion of facilities, as long as such resolutions permit non-disclosure of confidential and proprietary information.

## **F. Operations in Nations Sponsoring Terrorism Business Strategy**

The CRPTF will vote on a CASE-BY-CASE basis on shareholder resolutions that require the establishment of a board committee to review and report on the company's financial, legal and reputational risks from its operations in a terrorism-sponsoring state.

## **G. Business Strategy**

Shareholders have introduced resolutions asking boards of directors to examine the impact of particular business strategies on long-term corporate value in light of changing market conditions that could affect those particular business strategies, and to report back to shareholders. The CRPTF generally supports enhanced disclosure to shareholders on how the company addresses issues that may present significant risk to long-term corporate value.

## **XV. GLOBAL PROXY VOTING**

All international proxies shall be voted consistent with the CRPTF's Proxy Voting Policies and the relevant provisions of contracts with advisors, as necessary, and take into account relevant market listing rules and regulations, local laws and regulations, as well as local market best practice standards.

## **APPENDIX A**

### **Executive Compensation Evaluation Criteria**

#### **Pay for Performance**

- The degree to which pay is tied to long term performance, and the alignment of compensation practice with long term shareholder value – including salary, bonus, equity compensation, long term incentive plans, retirement benefits, perquisites, etc.
- The rigor of performance metrics that are used to evaluate executive performance in determining compensation, and the company’s practice in disclosing these metrics to shareholders.
- The amount of payments provided for in contracted severance agreements, including change of control, severance for cause, and severance without cause, and whether and how these payments would be based on past performance. (See section X.D. below for more detail on criteria).
- The relationship between compensation granted in the current year to amount of key executives’ walk-away pay (compensation received at time of termination, including severance benefits, accelerated vesting of stock options, restricted stock and restricted stock units, deferred compensation, pension benefits, and other post-retirement benefits).
- The inclusion of “claw back” provisions which recapture incentive payments that were made to executives on the basis of having met or exceeded performance targets and subsequent financial restatements show that performance targets were not met. Claw back provisions should be triggered whether or not the executive was involved in fraudulent activity or the executive was found personally responsible for the financial misstatements.
- Appropriate use of peer companies to benchmark compensation structures

#### **Compensation Policy**

- The clarity and thoroughness of the Compensation Committee’s statement of their compensation philosophy contained in the committee’s annual report to shareholders, (as well as in the Committee’s charter).
- The clarity and transparency of the presentation in the Compensation Discussion and Analysis (CD&A).

#### **Input from Shareholders**

- Willingness of the company’s compensation committee members to engage with shareholders and discuss executive compensation policies and practices.
- Use of other mechanisms by the company to seek shareholder input, including surveys of shareholders, mechanisms for shareholders to provide written input to the compensation committee (letters, e-mail, directly from a website, etc.), management meetings with shareholders, etc.

## Poor Compensation Practices

The CRPTF will consider the extent to which a company uses what are considered poor compensation practices. The CRPTF will review these criteria holistically, and no one poor practice will result in a no vote. The CRPTF considers the following to be poor compensation practices:

- Re-pricing of stock options and/or options policies that provide for “reloading” of exercised stock options.
- Awarding of equity compensation (including stock options, restricted stock, restricted stock units, etc.) that excessively dilutes shareholder economic value or shareholder voting rights.
- Awarding Golden Coffins - provisions that award continuing compensation after an executive’s death.
- Implementing compensation schemes that encourage excessive risk-taking, including both risks to the company and, for financial service companies, risks to the national and global financial system and the economy.
- Allowing for tax gross ups (except for pay adjustments that recognize extraordinary expenses related to work assignments).
- Engaging a compensation consultant that is retained by the company to provide other significant services other than work performed for the compensation committee (non-independent compensation consultant).
- Allowing for contractual severance provisions that would reward poor performance.
- Including change-in-control agreements that do not require both a change-in-control and loss of employment or diminution of job responsibilities to trigger payments.
- Changing performance metrics during the performance period in a way that misaligns pay and performance or that are not adjusted to reflect stock repurchase programs.
- Paying for Supplemental Executive Retirement Plans (SERP) that are deemed overly generous, based on an analysis by the CRPTF’s proxy voting service and other expert analysis.
- Awarding new hire packages to new CEOs which are deemed overly generous (“golden hello package”), based on an analysis by the CRPTF’s proxy voting service and other expert analysis.
- Failing to provide for a “claw back” policy – requiring repayment of performance-based compensation when financial restatements shows that compensation was not earned. Failing to submit one-time transfers or stock options to a shareholder vote.

[1] Conn. Gen. Stat. § 3-13(d)(a).

[2] Council of Institutional Investors’ Corporate Governance Policies, Section 7.2, Revised September 17, 2019, [https://www.cii.org/files/ciicorporategovernancepolicies/09\\_17\\_19\\_corp\\_gov\\_policies.pdf](https://www.cii.org/files/ciicorporategovernancepolicies/09_17_19_corp_gov_policies.pdf)

[3] See Harvard Law School’s Forum on Corporate Governance: “[C]ompanies with a balanced board composition relative to director tenure tend to show better financial results and have a lower risk profile compared to their peers. At the same time, companies whose directors’ tenure is heavily concentrated (whether mostly short-tenured or mostly long-tenured) exhibit poorer performance and have a higher risk profile. Therefore, as an extension beyond practicing basic board refreshment, companies may gain significant benefits by maintaining a balance of experience and new capacity on the board. <https://corpgov.law.harvard.edu/2018/09/01/board-refreshment-finding-the-right-balance/>

[4] This would replace the plurality vote standard which is an election where the candidate with the most votes is elected rather than requiring a majority of the votes for election – withhold votes do not count.

[5] In contested elections a majority vote is not needed because these elections are competitive.

[6] [www.unpri.org](http://www.unpri.org)

[7] <https://www.ipcc.ch/sr15/>

[8] Investing in a Time of Climate Change, <https://www.ifc.org/wps/wcm/connect/e9bfa328-e091-465b-9da6-8fe312261b98/Investing+in+a+time+of+climate+change.pdf?MOD=AJPERES&CVID=KTFEATf>

# OFFICE OF THE STATE TREASURER

## MEMORANDUM



TO: Members of the Investment Advisory Council

FROM: Christine Shaw, Principal Investment Officer,  
Corporate Governance & Sustainable Investment

CC: Ted Wright, Chief Investment Officer

DATE: September 14, 2022

SUBJECT: *Report on Corporate Governance Activities for 1Q22 and 2Q22*

### INTRODUCTION

Set forth below is a report of the Treasury's corporate governance activities for the first and second quarters of 2022 (January 1, 2022 through June 30, 2022). In addition, the report highlights the trends of the 2022 proxy season and the CRPTF engagements via coalition partners in the 2022 proxy season.

### PROXY VOTING

The following chart summarizes the votes cast at domestic and international companies during the first and second quarters of 2022:

	Number of annual general meetings		Number of votes cast		% of votes cast in support of management	
	1Q2022	2Q2022	1Q2022	2Q2022	1Q2022	2Q2022
Domestic Companies	62	549	628	6,654	81.37	76.16
International Companies	414	2,224	6,168	36,558	87.53	87.21

The CRPTF's domestic and international proxy votes are posted on the Treasury's web-site and can be accessed at [http://www.ott.ct.gov/pension\\_votingsummary.html](http://www.ott.ct.gov/pension_votingsummary.html)

## **RESOLUTIONS AND ENGAGEMENTS FOR THE 2022 PROXY SEASON**

The CRPTF filed six (6) shareholder resolutions for the 2022 proxy season on issues ranging from climate impact disclosure, board diversity, and board oversight of transactions involving banned ghost guns. At this writing, agreements have been reached with five (5) companies, thereby leading to withdrawal of the resolutions.

The one remaining shareholder resolution was filed with **MasterCard Inc** and went to a vote at the company's annual general meeting in June 2022. In December, the CRPTF joined lead filer Rhode Island in calling on the company's Board of Directors to evaluate how they intend to address the risks associated with transactions on its platform involving unregistered firearms and so-called "buy, build and shoot" firearms kits known as "ghost guns." After limited engagement with the Company's management concerning its compliance framework, MasterCard requested permission from the Securities and Exchange Commission to exclude the resolution from its proxy statement. The SEC rejected this request and the proposal was placed on the proxy statement. At the AGM, the proposal garnered 11.39% of the vote without the support of Mastercard, ISS, or Glass Lewis. The proposal did meet the SEC threshold for re-filing and will likely be re-introduced in the 2023 season.

## **TRENDS FOR THE 2022 PROXY SEASON**

The 2022 proxy season marked another year of significant growth in the number of proposals introduced and a continued trend of focusing on environmental and social risks. There were 555 proposals that went to a vote at Russell 3000 companies, which marked a 25% increase from 2021<sup>1</sup>. This was largely due to physical number of proposals filed which increased by 17%, as well as the significant decline in the number of no-action requests granted by the SEC, which allow companies to exclude proposals from their proxy statement. No-action request dropped by 40% this season SEC staff's change in strategy with respect to the Rule 14a-8 that was announced in the Staff Legal Bulletin 14L in November 2021. This adjustment to the Rule 14a-8 amended the 'ordinary business' and 'economic relevance' exceptions to align with the original 1998 rulemaking<sup>2</sup>. This change allowed for more proposals to make it onto proxy statements.

The clear trends of this past proxy season show a significant rise in "E&S" proposals (see Chart 1). However, despite the record number of proposals that passed this season, the "overall average support for E&S proposals fell from 2021's record high of 37% to 29% in 2022"<sup>3</sup>. Climate proposals were much more narrowly tailored this year, with the lions share focusing on GHG emissions reduction and net-zero targets. Racial equity audits

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<sup>1</sup> Boardroom recap: The 2022 proxy season. PWC. August 2022

<sup>2</sup> Shareholder Proposals: Staff Legal Bulletin No. 14L (CF). Division of Corporation Finance Securities and Exchange Commission. November 3, 2021.

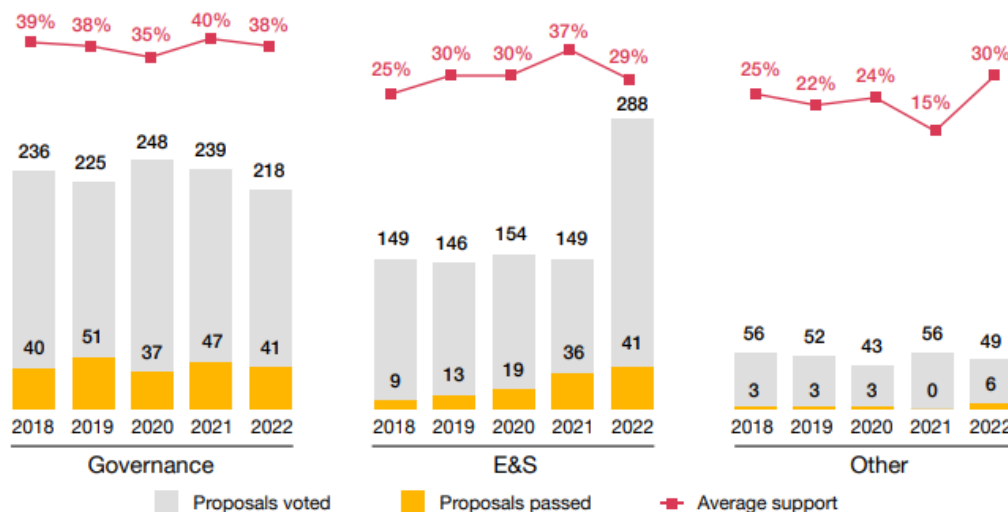
<sup>3</sup> Boardroom recap: The 2022 proxy season. PWC. August 2022.



continued to garner more support “with average support up 12 percentage points from 33% to 45% and the most proposals (8 of 22) passing”<sup>4</sup>. Overall, the 2022 proxy season showed promising signs for shareholder advocacy initiatives and greater points of engagement for shareholders across the board.

**Chart 1.**

**Number of shareholder proposals up, while average support falls**



## ENGAGEMENTS VIA COALITIONS

### Northeast Investors’ Diversity Initiative

The Northeast Investors’ Diversity Initiative, launched in 2019 and led by Treasurer Wooden, is a group of institutional investors from states across the region who collaborate on efforts to board diversity at companies headquartered in the Northeast. From 2019 through 2021, NIDI engaged with 29 companies -- twelve of which have made changes to their board of directors by adding women or people of color. In addition, seven companies have made changes to their corporate governance charters and/or nominating committee process to reflect their company’s commitment to diverse pools of candidates for board service.

For the 2022 proxy season, NIDI targeted the following 12 companies and letters were sent to each company in December: AMC Networks Inc.; People's United Financial, Inc.; BRT Apartments Corp.; SAGE Therapeutics, Inc.; Urstadt Biddle Properties Inc.;

<sup>4</sup> Ibid.

Generation Bio Co.; Global Industrial Company; Fortress Biotech, Inc.; Organogenesis Holdings, Inc.; Eagle Bulk Shipping Inc.; Relmada Therapeutics, Inc.; and Misonix, Inc.

Since letters were sent, there has been meaningful steps taken at a number of the companies:

- BRT Apartments Corp. added a woman to the board.
- People's United Financial was acquired by M&T Bank Corporation which has improved language in the company's corporate governance and nominating charters. The company also has five women on their board.
- SAGE Therapeutics added Rooney Rule language to the company's proxy materials.

### **Climate Action 100 +**

CRPTF is a member of Climate Action 100 +, a global, investor-led initiative engaging the world's largest corporate greenhouse gas emitters to take necessary action on climate change. With over 540 investors responsible for over \$52 trillion in assets under management, CA 100+ is a leading organization helping investors address the impacts of climate risk.

CRPTF and New York State Common continue to co-lead an engagement with American Electric Power Company (AEP) as one of Climate Action 100 + focus companies. On June 17, 2022, the CA 100+ working group met with AEP staff to discuss the company's annual progress toward its climate goals. Since 2021, the company has filed six Integrated Resource Plans (IRPs) that set out the company's plan to expand solar and wind energy resources. The company also expects to retire all but one of its coal plants by 2040, with 75% retired by 2030 in order to transition to a clean carbon economy.

### **Majority Action "DIRECTOR NO VOTE CAMPAIGN"**

Majority Action ("MA") is a non-profit organization that empowers shareholder to hold corporations accountable to high standards of corporate governance, social responsibility, and long-term value creation. MA merged in 2018 with the 50/50 Climate project whose work educated and engaged with investor on the critical role of corporate governance in addressing climate change.

For the 2022 proxy season, MA targeted a total of 24 companies; seven energy generation companies; eleven oil & gas companies; one agribusiness company; two insurance companies and three banks which failed to adequately establish a plan to achieve a net

zero emission by 2050. Exempt Solicitations were filed with the Security Exchange Commission (SEC) for each company requesting shareholders “Vote No” against selected Directors (i.e., CEO, Chair, or Lead Independent director) that failed to align their capital expenditures with (a) its stated goal of achieving net-zero carbon emissions and (b) a pathway consistent with limiting global warming to 1.5 Celsius, augmenting systemic climate risk, and exacerbating stranded asset risk for long term investors. The exempt solicitation filings also included benchmark information provided Climate Action 100+ that supported MA findings.

CRPTF Domestic Proxy Voting Guidelines were revised in March of 2021 to allow for a vote “against directors individually or the entire board where the company has failed to align their business plans with the goals of the Paris Agreement, to establish a plan to achieve net zero emissions by 2050. CRPTF voted “AGAINST” directors at over nineteen companies on MA target list.

### **Russell 3000 Board Diversity Disclosure Initiative**

The Russell 3000 Board Diversity Disclosure Initiative is co-led by the Connecticut and Illinois State Treasurers and consists of 22 members representing over \$3 trillion in assets under management was launched in October 2020. Investors wrote letters to all Russell 3000 companies urging them to disclose the makeup of their boards of directors, inclusive of gender, race, and ethnicity (starting with 2021 Proxy Statement). The letter also noted that failure to disclose the information may prompt shareholder action (i.e.) shareholder votes or shareholder proposals for the 2022 proxy season.

The Black Lives Matter movement and the widespread outrage sparked by the murder of George Floyd prompted a national conversation on issues of racial equity and inclusion. Many companies issued statements in support of support of racial justice, and in some cases announced responsive efforts at their operations. This initiative urges companies to harness this national movement and the momentum on gender diversity to consider publicly reporting the racial/ethnic and gender composition of the board of directors in their annual proxy statement.

CRPTF Domestic Proxy Voting Guidelines were revised in March of 2021 to complement the work of the Russell 3000 initiative; and the following language was added: “Vote ‘AGAINST’ Nominating Committee members where their company fails to disclose the racial & ethnic composition of the board of directors.”

A second letter was sent out in mid-September 2021 which included a sample matrix to help guide companies in their board disclosure efforts. Approximately 100 companies

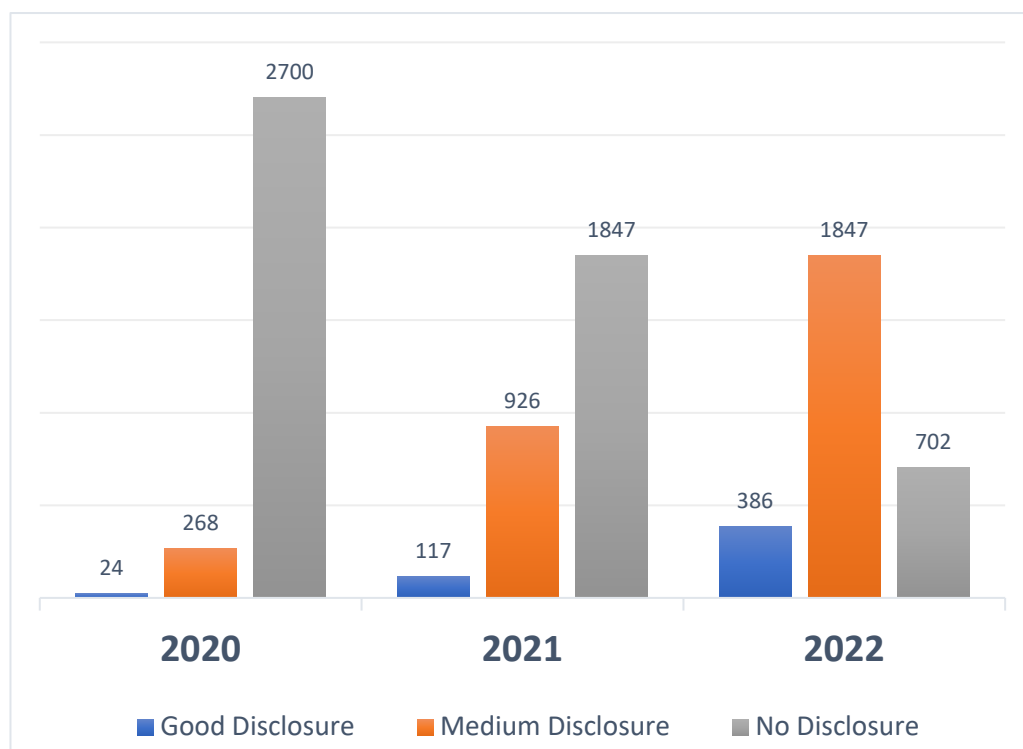
responded with many providing evidence of robust disclosure or expressed intent to improve disclosure in the next proxy filing.

As of July 22, 2022 members did another scan of Russell 3000 company board disclosure using Intuitional Investor Investors (ISS) data and found companies fall into three categories.

1. Top performers – Robust disclosure on race/gender for individual directors (386 companies)
2. Middle performers – Summary or aggregated disclosure for board members (1, 847 companies)
3. Bottom Performers – Fail to disclose race/gender (702 companies)

These updated numbers reflect a significant improvement in the number of companies with “Good” or “Medium” disclosure from 2021 (see Chart 2).

**Chart 2.**



The initiative plans to send out a third round of letters in November to encourage more companies to make progress, particularly the laggards who continue to provide no disclosure.

# State of Connecticut Retirement Plans and Trust Funds

Private Credit Fund






First Quarter 2022 Report

# We Enrich Lives & Safeguard Futures

- Do the right thing
- Integrity, candor and collaboration
- The pursuit of excellence
- A spirit of competition that inspires innovation
- Promoting equity and inclusion from within



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# Executive Summary





## Executive Summary

- Total Committed Capital of \$2,212.6M for the Private Credit Fund Portfolio; 19 Active Partnerships across 12 Active GPs
- Since Inception IRR, net of General Partner fees, of 12.41%

## Activity Update

- Contributions of \$61.5M outpaced distributions of \$18.3M during the quarter
- Contributions of \$380.0M outpaced distributions of \$122.1M during the last 12 months

## Performance Update

- 12 investments (63%) generated Net Value gains for the quarter, for a total Net Value gain of \$1.1M
  - Goldman Sachs Private Middle Market Credit II LLC appreciated \$1.8M during the quarter
  - Anchorage Illiquid Opportunities VI, L.P. depreciated \$5.1M during the quarter
- 12.41% Since Inception Net IRR decreased 101 bps from last quarter
  - Positive one-quarter point-to-point IRR of 0.15%
- 5-Year Portfolio IRR outperformed the S&P/LSTA Leveraged Loan Index +150bps benchmark by 901 bps

## Exposure Update

- 2020 Vintage Year investments accounted for 41.7% of Total Exposure as of March 31, 2022
  - 2020 Vintage Year investments accounted for 56.5% of Portfolio NAV
- Senior investments accounted for 40.2% of Total Exposure as of March 31, 2022
  - Senior investments accounted for 36.0% of Portfolio NAV

Note: Net Value Change equals 3/31 NAV minus 12/31 NAV minus quarterly contributions plus quarterly distributions.

# Portfolio Snapshot

- Portfolio performance was positive for the quarter
  - Net Value Gain of \$1.1M during the quarter
  - Positive one-quarter point-to-point IRR of 0.15%
  - Since Inception Net IRR of 12.41%

## Client Overview

2012

Program Inception

2021

HL Relationship Inception

Hamilton Lane Private Credit

PE Benchmark

S&P/LSTA Leveraged Loan Index +150bps

Public Benchmark

## Connecticut Private Credit Portfolio

(USD in Millions)	12/31/2021	3/31/2022	Change
Active Partnerships	17	19	2
Exited Investments	1	1	-
Active GP Relationships	11	12	1
Capital Committed <sup>1</sup>	\$1,637.6	\$2,212.6	\$575.0
Unfunded Commitment	\$828.5	\$1,350.3	\$521.8
Paid-In Capital	\$887.1	\$948.5	\$61.5
Capital Distributed	\$340.3	\$358.7	\$18.3
D/PI Ratio	0.4x	0.4x	-
Market Value	\$739.8	\$784.1	\$44.3
Total Value Multiple (TVPI)	1.2x	1.2x	-
Avg. Age of Commitments	2.1 years	1.8 years	(0.3 years)

## Since Inception IRR Performance

Portfolio Net IRR <sup>2</sup>	13.42%	12.41%	(101 bps)
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<sup>1</sup> The change in capital committed reflects the new commitments made during the period plus currency adjustments from existing Non-USD denominated funds.

<sup>2</sup> Portfolio Net IRR, net of General Partner fees and gross of Hamilton Lane fees.

Note: Totals may not sum due to rounding.

Note: Private Credit Fund allocation was created in February 2020 with prior private credit commitments made through opportunistic allocations.



# Activity Update

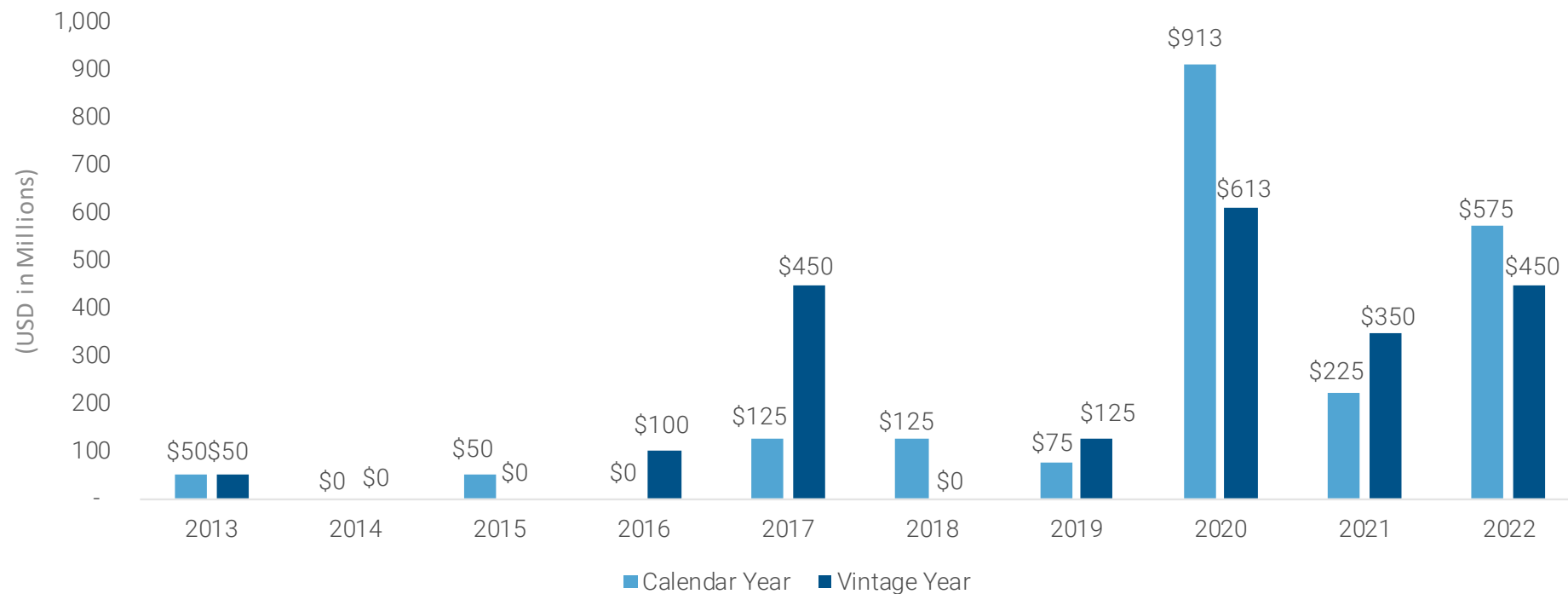


# Quarterly Commitment Activity

- The Portfolio made two new commitments totaling \$575.0M during the quarter ended 03/31/2022
  - 1 existing GP relationship
  - 1 new GP relationship

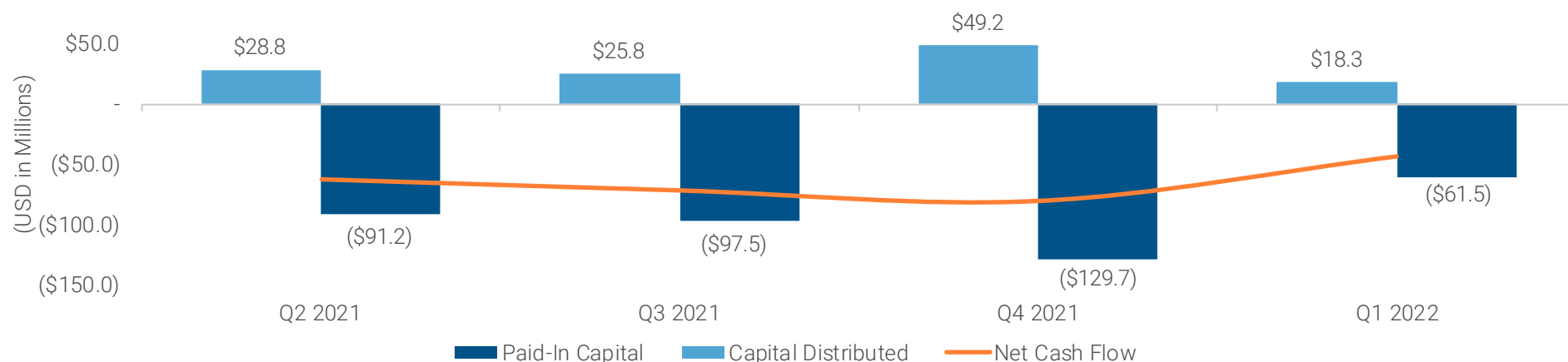
(USD in Millions)	HarbourVest CT Private Debt Fund L.P.	Clearlake Opportunities Partners III, L.P.
General Partner	HarbourVest Partners, LLC	Clearlake Capital
Existing Manager	No	Yes
Closing Date	1/4/2022	3/30/2022
Capital Committed	\$450.0	\$125.0
Strategy	Co-Investment	Special Situations
Geographic Focus	Global	North America
Fund Currency	USD	USD
Fund Size	N/A	\$1,500.0

# Annual Commitment Activity



Note: Fund Vintage year is classified as the year in which the fund was closed until the first investment is made, at which point the Fund Vintage Year will be updated if needed. Calendar Vintage year is classified as the year in which Connecticut closed into the fund. This chart is produced as of 3/31/2021, subsequent commitments are not included.

# Quarterly Cash Flow Summary



## Top Contributors During the Quarter (USD in Millions)

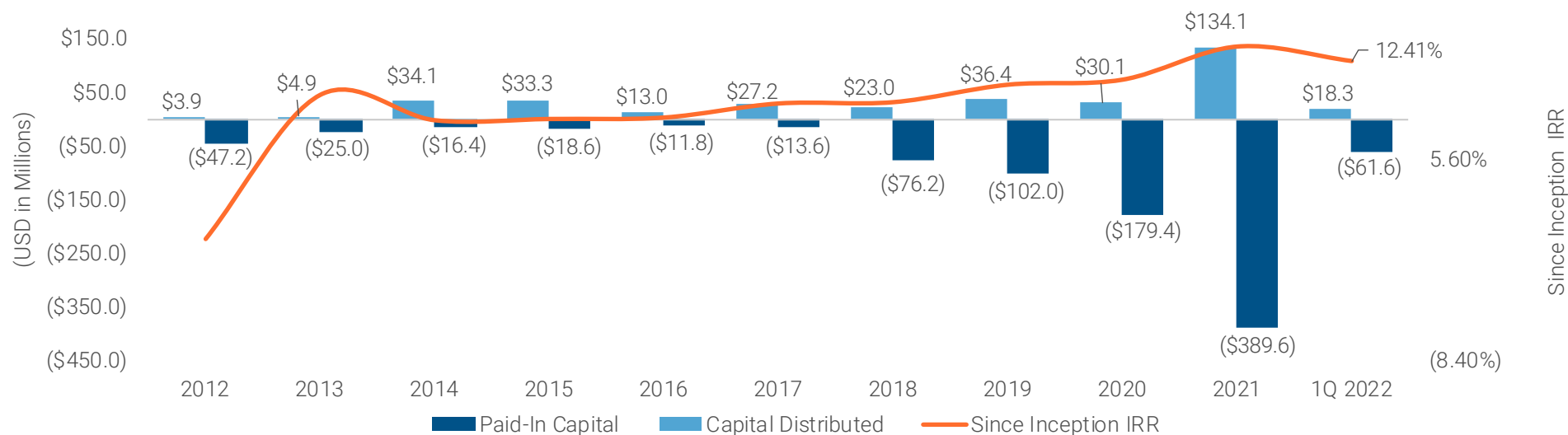
Investment	Vintage Year	Client Strategy	Paid-In Capital	% of Total
HarbourVest CT Private Debt Fund L.P.	2022	Co-Investment	\$31.5	51.2%
West Street CT Private Credit Partnership, L.P.	2020	Special Situations	\$10.8	17.6%
West Street Senior Credit Partners III, L.P.	2021	Senior	\$8.6	14.0%
Sixth Street TAO Partners (B), L.P.	2020	Special Situations	\$5.1	8.3%
Balance Point Capital Partners III, L.P.	2018	Mezzanine	\$4.8	7.8%
<b>Total</b>			<b>\$60.8</b>	<b>98.9%</b>

## Top Distributors During the Quarter (USD in Millions)

Investment	Vintage Year	Client Strategy	Capital Distributed	% of Total
Fortress Lending Fund II MA-CRPTF LP	2020	Senior	\$5.2	28.4%
Anchorage Illiquid Opportunities VI, L.P.	2017	Distressed Debt	\$4.7	25.7%
Crescent Direct Lending Levered Fund II (Delaware), LP	2017	Senior	\$2.8	15.3%
Audax Mezzanine Fund III, L.P.	2011	Mezzanine	\$2.7	14.8%
Goldman Sachs Private Middle Market Credit II LLC	2019	Senior	\$1.0	5.5%
<b>Total</b>			<b>\$16.4</b>	<b>89.6%</b>



# Annual Cash Flow Summary



## Top Contributors over the Last 12 Months (USD in Millions)

Investment	Vintage Year	Client Strategy	Paid-In Capital	% of Total
Fortress Lending Fund II MA-CRPTF LP	2020	Senior	\$104.9	27.6%
West Street CT Private Credit Partnership, L.P.	2020	Special Situations	\$90.3	23.8%
Sixth Street TAO Partners (B), L.P.	2020	Special Situations	\$53.3	14.0%
HarbourVest CT Private Debt Fund L.P.	2022	Co-Investment	\$31.5	8.3%
West Street Senior Credit Partners III, L.P.	2021	Senior	\$29.3	7.7%
<b>Total</b>			<b>\$309.3</b>	<b>81.4%</b>

## Top Distributors Over the Last 12 Months (USD in Millions)

Investment	Vintage Year	Client Strategy	Capital Distributed	% of Total
Anchorage Illiquid Opportunities VI, L.P.	2017	Distressed Debt	\$32.2	26.4%
Crescent Direct Lending Levered Fund II (Delaware), LP	2017	Senior	\$20.9	17.1%
Ironwood Mezzanine Partners IV, L.P.	2019	Mezzanine	\$20.2	16.6%
Audax Mezzanine Fund III, L.P.	2011	Mezzanine	\$12.0	9.8%
Fortress Lending Fund II MA-CRPTF LP	2020	Senior	\$11.8	9.7%
<b>Total</b>			<b>\$97.1</b>	<b>79.6%</b>

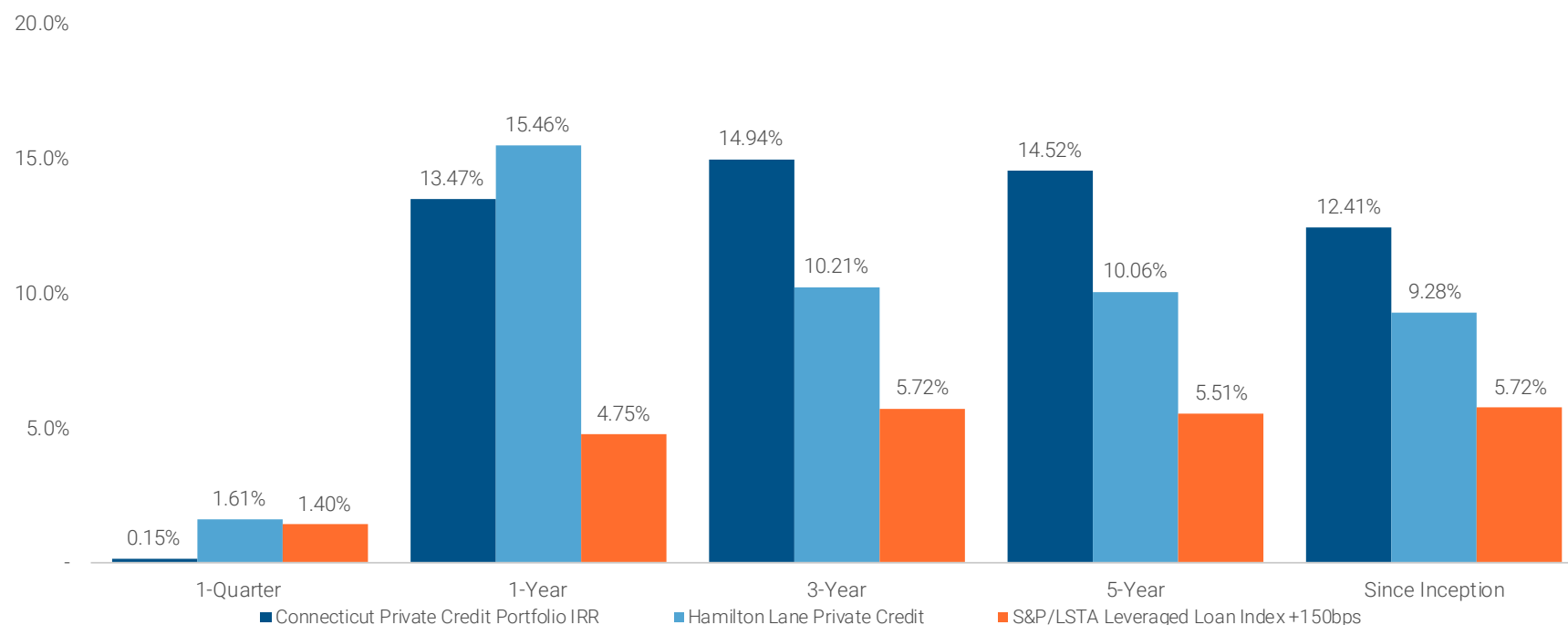


# Performance Update



# Portfolio IRR Performance vs. Benchmark

- 14.52% 5-Year Portfolio IRR outperformed the S&P/LSTA Leveraged Loan Index +150bps benchmark by 901 bps
- 13.47% 1-Year Portfolio IRR outperformed the S&P/LSTA Leveraged Loan Index +150bps benchmark by 872 bps



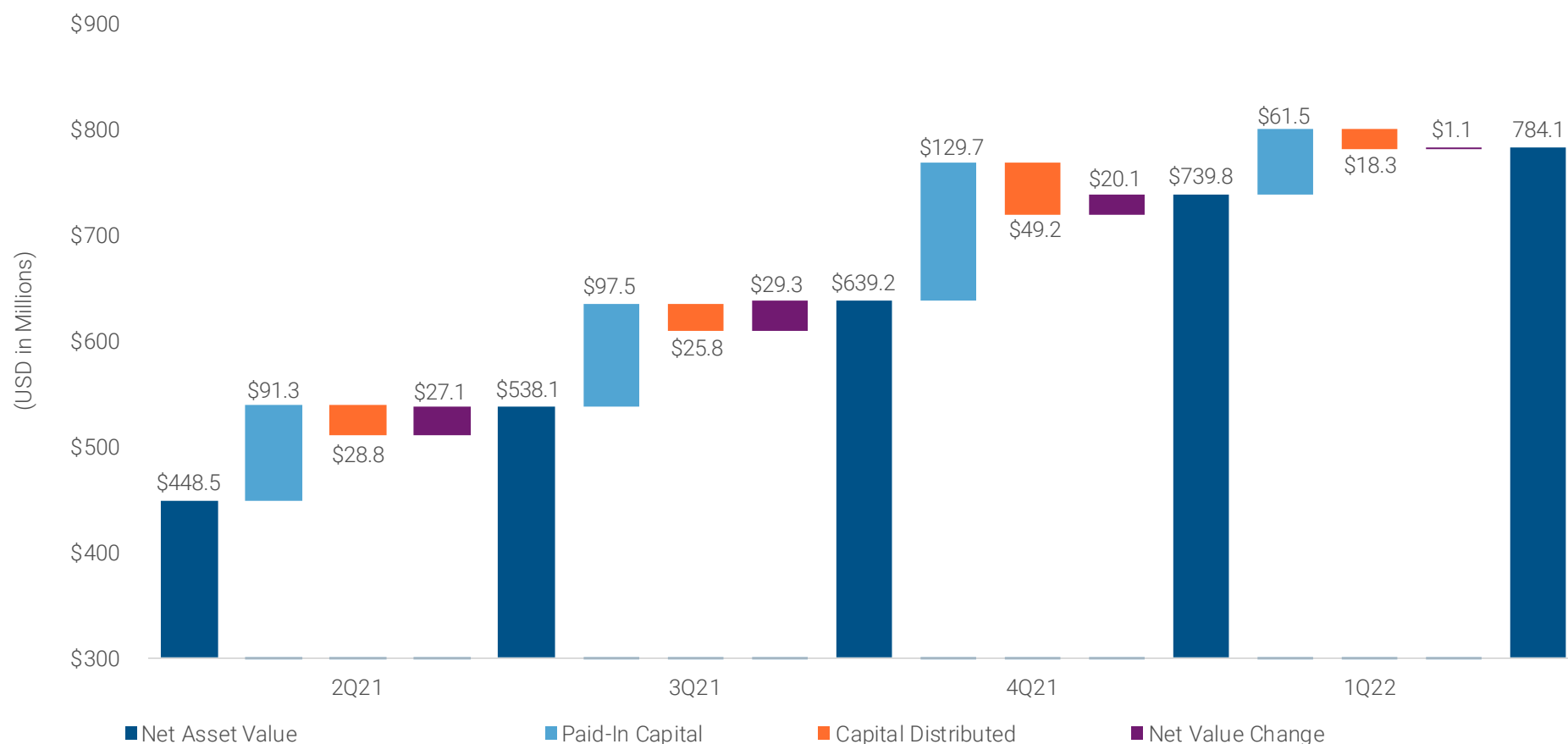
Time Horizon	Connecticut Private Credit Portfolio IRR	Hamilton Lane Private Credit	Spread Over/Under	S&P/LSTA Leveraged Loan Index +150bps*	Spread Over/Under
1-Quarter	0.15%	1.61%	(146 bps)	1.40%	(125 bps)
1-Year	13.47%	15.46%	(199 bps)	4.75%	872 bps
3-Year	14.94%	10.21%	473 bps	5.72%	922 bps
5-Year	14.52%	10.06%	446 bps	5.51%	901 bps
Since Inception	12.41%	9.28%	313 bps	5.72%	669 bps

\*S&P LSTA Levered Loan Index +150bps benchmark is a straight return.

# Net Value Bridge



- Total Portfolio net value gain of \$1.1M during the quarter
    - 12 partnerships generated Net Value gains, \$8.4M, while three generated Net Value losses (\$7.3M)
    - The remaining four active partnerships generated no value change during the quarter
  - Net Value Change isolates the realized and unrealized performance of the underlying investments made by the partnerships within the Portfolio.
- The Net Value Bridge illustrates these movements:



Note: Change over the period may not sum due to rounding.

# Net Value Drivers



## Top Quarterly Portfolio Drivers as Measured by Net Value Change (USD in Millions)

Investment	Capital Committed	Vintage Year	Client Strategy	Net Value Change	1-Quarter IRR	Since Inception IRR
Goldman Sachs Private Middle Market Credit II LLC	\$50.0	2019	Senior	\$1.8	5.28%	9.92%
Sixth Street TAO Partners (B), L.P.	\$250.0	2020	Special Situations	\$1.7	2.41%	12.40%
Balance Point Capital Partners III, L.P.	\$50.0	2018	Mezzanine	\$1.4	3.14%	15.27%
Clearlake Opportunities Partners II, L.P.	\$75.0	2019	Special Situations	\$0.8	2.62%	28.97%
Fortress Credit Opportunities Fund V Expansion MA-CRPTF LP	\$100.0	2020	Distressed Debt	\$0.7	2.46%	18.80%
<b>Total</b>				<b>\$6.4</b>	<b>3.05%</b>	<b>16.86%</b>
				<b>76% of Net Value Gain (\$8.4M)</b>		

## Bottom Quarterly Portfolio Drivers as Measured by Net Value Change (USD in Millions)

Investment	Capital Committed	Vintage Year	Client Strategy	Net Value Change	1-Quarter IRR	Since Inception IRR
Anchorage Illiquid Opportunities VI, L.P.	\$75.0	2017	Distressed Debt	(\$5.1)	(5.86%)	23.86%
West Street CT Private Credit Partnership, L.P.	\$225.0	2020	Special Situations	(\$2.1)	(1.51%)	7.34%
OSP Value Fund III, L.P.	\$75.0	2020	Special Situations	(\$0.1)	(0.32%)	12.95%
<b>Total</b>				<b>(\$7.3)</b>	<b>3.26%</b>	<b>18.69%</b>
				<b>100% of Net Value Loss (\$7.3M)</b>		

Note: Partnerships with period NVC totaling less than \$0.1M were excluded from analysis.

Note: Totals may not sum due to rounding.



# Exposure Update



# Diversification by Strategy

- Quarter-over-quarter, Portfolio NAV increased 6% and Total Exposure increased 36%
  - Co-Investment investments drove the increase in NAV and Total Exposure

## % of NAV

Strategy	12/31/2021	3/31/2022	Change in % Points
Senior	33.6%	32.0%	(1.6%)
Mezzanine	12.7%	12.4%	(0.3%)
Distressed Debt	16.1%	14.1%	(2.0%)
Special Situations	37.6%	37.5%	(0.1%)
Co-Investment	-	4.0%	4.0%

## Sub-Allocation Targets as per CRPTF IPS

Strategy	Lower Range %	Upper Range %
Senior	30.0%	70.0%
Mezzanine	0.0%	30.0%
Distressed Debt	0.0%	20.0%
Special Situations	0.0%	40.0%

## % of Total Exposure

Strategy	12/31/2021	3/31/2022	Change in % Points
Senior	26.1%	19.2%	(6.9%)
Mezzanine	18.5%	13.5%	(5.0%)
Distressed Debt	12.9%	9.1%	(3.8%)
Special Situations	42.5%	37.1%	(5.4%)
Co-Investment	-	21.1%	21.1%

Note: Total Exposure is equal to Remaining Net Asset Value plus Unfunded Commitments. May not sum to 100% due to rounding.  
Note: Senior strategy inclusive of Co-Investment exposure from HarbourVest managed vehicle.



# Diversification by Vintage Year



- Year-over-year, Portfolio NAV increased 75% and Total Exposure increased 60%
  - 2020 Vintage investments drove the increase in NAV
  - 2022 investments drove the strategy's change in Total Exposure

## % of NAV

Vintage	3/31/2021	3/31/2022	Change in % Points
2022	-	4.0%	4.0%
2021	-	3.8%	3.8%
2020	36.3%	56.5%	20.2%
2019	14.6%	10.8%	(3.8%)
2018	15.8%	9.7%	(6.1%)
2017	31.0%	14.7%	(16.3%)
Pre-2013	2.3%	0.5%	(1.8%)

## % of Total Exposure

Vintage	3/31/2021	3/31/2022	Change in % Points
2022	-	26.9%	26.9%
2021	-	10.6%	10.6%
2020	65.2%	41.7%	(23.5%)
2019	13.4%	8.1%	(5.3%)
2018	7.6%	4.8%	(2.8%)
2017	13.0%	7.7%	(5.3%)
Pre-2013	0.8%	0.2%	(0.6%)

Note: Total Exposure is equal to Remaining Net Asset Value plus Unfunded Commitments. May not sum to 100% due to rounding.

# Holdings Diversification

- As of March 31, 2022, there were 175 underlying holdings in the Connecticut Private Credit Portfolio, including 9 public companies

## Industry Exposure by Exposed Market Value <sup>1</sup>

Sector	12/31/2021	3/31/2022	Change in % Points
Information Technology	15.7%	18.6%	2.8%
Real Estate	9.8%	17.6%	7.8%
Financials	17.7%	17.0%	(0.7%)
Industrials	7.9%	10.4%	2.5%
Health Care	8.7%	8.0%	(0.7%)
Consumer Discretionary	9.4%	7.6%	(1.8%)
FoF Holding	2.9%	5.8%	2.9%
Other Investments	11.8%	4.9%	(6.9%)
Consumer Staples	5.9%	4.2%	(1.7%)
Communication Services	5.1%	2.6%	(2.5%)
Materials	1.1%	1.9%	0.8%
Energy	2.1%	1.2%	(0.9%)

## Geographic Exposure by Exposed Market Value <sup>1</sup>

Region	12/31/2021	3/31/2022	Change in % Points
North America	76.2%	73.8%	(2.4%)
Western Europe	9.7%	16.5%	6.8%
Rest of World	13.3%	7.2%	(6.1%)
Asia	0.9%	2.5%	1.6%

## Public/Private Holdings by Exposed Market Value <sup>1</sup>

Public/Private	12/31/2021	3/31/2022	Change in % Points
Private	97.8%	96.5%	(1.3%)
Public	2.2%	3.5%	1.3%

<sup>1</sup> Exposed Market Value is LP's share of Market Value at the Portfolio Holding Level. May not sum to 100% due to rounding.  
Note: Other investments includes undisclosed investments.



# Appendix



# Performance Summary by Investment



Connecticut Private Credit Portfolio Performance Summary by Investment as of March 31, 2022													
Active Partnership	Vintage Year	Client Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	IRR Quartile	D/PI	D/PI Quartile	TVPI	TVPI Quartile
Anchorage Illiquid Opportunities VI, L.P.	2017	Distressed Debt	\$75,000,000	\$10,125,000	\$64,922,767	\$38,348,108	\$79,741,336	23.86%	2	0.6x	2	1.8x	2
Audax Mezzanine Fund III, L.P.	2011	Mezzanine	75,000,000	-	77,672,230	99,210,111	3,764,704	9.81%	3	1.3x	3	1.3x	3
Balance Point Capital Partners III, L.P.	2018	Mezzanine	50,000,000	6,715,097	55,191,182	18,954,141	50,826,050	15.27%	3	0.3x	2	1.3x	3
Clearlake Opportunities Partners II, L.P.	2019	Special Situations	75,000,000	55,947,804	19,063,943	209,533	32,978,997	28.97%	2	N/A		1.7x	1
Clearlake Opportunities Partners III, L.P.	2022	Special Situations	125,000,000	125,000,000	-	-	-	-		N/A		N/A	
Connecticut Growth Capital, LLC	2018	Mezzanine	50,000,000	19,601,855	37,398,137	22,654,596	25,481,078	9.96%	4	0.6x	1	1.3x	3
Crescent Direct Lending Levered Fund II (Delaware), LP	2017	Senior	75,000,000	40,225,223	76,150,370	56,030,295	35,132,118	9.25%	4	0.7x	1	1.2x	4
Fortress Credit Opportunities Fund V Expansion MA-CRPTF LP	2020	Distressed Debt	100,000,000	73,497,603	27,673,866	1,171,469	30,433,317	18.80%		N/A		1.1x	
Fortress Lending Fund II MA-CRPTF LP	2020	Senior	200,000,000	56,887,085	154,888,315	11,775,400	151,514,412	6.86%		0.1x		1.1x	
Goldman Sachs Private Middle Market Credit II LLC	2019	Senior	50,000,000	16,000,000	34,000,000	3,039,109	34,726,791	9.92%	4	0.1x	2	1.1x	4
HarbourVest CT Private Debt Fund L.P.	2022	Co-Investment	450,000,000	418,500,000	31,500,000	-	31,500,000	0.00%		N/A		1.0x	
Hg TITAN 1 A L.P.	2021	Mezzanine	75,000,000	75,000,000	-	-	287,901	-		N/A		N/A	
Ironwood Capital Partners V LP	2021	Mezzanine	75,000,000	75,000,000	-	-	-	-		N/A		N/A	
Ironwood Mezzanine Partners IV, L.P.	2019	Mezzanine	50,000,000	15,419,553	34,084,734	28,672,250	17,082,170	21.86%	3	0.8x	1	1.3x	2
OSP Value Fund III, L.P.	2013	Distressed Debt	75,000,000	38,587,431	41,477,273	8,523,146	38,303,784	8.85%		0.2x		1.1x	
OSP Value Fund III-B, LP	2020	Special Situations	12,625,000	12,625,000	-	-	-	12.95%		N/A		N/A	
Sixth Street TAO Partners (B), L.P.	2020	Special Situations	250,000,000	174,675,070	80,366,871	5,426,623	81,696,192	-		0.1x		1.1x	
West Street CT Private Credit Partnership, L.P.	2020	Special Situations	225,000,000	90,761,223	134,875,132	1,612,132	140,721,657	12.40%		N/A		1.1x	
West Street Senior Credit Partners III, L.P.	2020	Special Situations	75,000,000	45,750,000	29,250,000	19,200	29,853,391	7.34%		N/A		1.0x	
<b>Total Active Portfolio</b>			<b>\$2,162,625,000</b>	<b>\$1,350,317,944</b>	<b>\$898,514,820</b>	<b>\$295,646,113</b>	<b>\$784,043,898</b>	<b>13.06%</b>		<b>0.3x</b>		<b>1.2x</b>	

Inactive Partnerships	Vintage Year	Client Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	IRR Quartile	D/PI	D/PI Quartile	TVPI	TVPI Quartile
Marathon European Credit Opportunity Fund, LP	2017	Distressed Debt	50,000,000	-	50,000,000	62,986,419	-	23.86%	3	1.3x	2	1.3x	3
<b>Total Inactive Portfolio</b>			<b>\$50,000,000</b>	<b>\$-</b>	<b>\$50,000,000</b>	<b>\$62,986,419</b>	<b>\$-</b>	<b>8.85%</b>		<b>1.3x</b>		<b>1.3x</b>	

<b>Total Portfolio</b>			<b>\$2,212,625,000</b>	<b>\$1,350,317,944</b>	<b>\$948,514,820</b>	<b>\$358,632,532</b>	<b>\$784,043,898</b>	<b>12.41%</b>		<b>0.4x</b>		<b>1.2x</b>	
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Note: HL Credit used for quartile benchmark.  
Note: Quartiles are excluded for 2020, 2021 and 2022 funds.

# Benchmarking Summaries



IRR Summary						
(USD in Millions)	Total Exposure	% of Total Exposure	Market Value	% of Market Value	Capital Committed	% of Commitments
1	\$0.0	0.00%	\$0.0	0.00%	\$0.0	0.00%
2	178.8	8.38%	112.7	14.38%	150.0	6.78%
3	93.8	4.40%	71.7	9.14%	225.0	10.17%
4	171.2	8.02%	95.3	12.16%	175.0	7.91%
N/A	1,690.6	79.20%	504.3	64.32%	1,662.6	75.14%
	\$2,134.4	100.0%	\$784.1	100.0%	\$2,212.6	100.0%

TVPI Summary						
(USD in Millions)	Total Exposure	% of Total Exposure	Market Value	% of Market Value	Capital Committed	% of Commitments
1	\$88.9	4.17%	\$33.0	4.21%	\$75.0	3.39%
2	122.4	5.73%	96.8	12.35%	125.0	5.65%
3	106.4	4.98%	80.1	10.21%	225.0	10.17%
4	126.1	5.91%	69.9	8.91%	125.0	5.65%
N/A	1,690.6	79.21%	504.2	64.32%	1,662.6	75.14%
	\$2,134.4	100.0%	\$784.1	100.0%	\$2,212.6	100.0%

D/PI Summary						
(USD in Millions)	Total Exposure	% of Total Exposure	Market Value	% of Market Value	Capital Committed	% of Commitments
1	\$152.9	7.17%	\$77.7	9.91%	\$175.0	7.91%
2	198.1	9.28%	165.3	21.08%	225.0	10.17%
3	3.8	0.18%	3.8	0.48%	75.0	3.39%
4	0.0	0.00%	0.0	0.00%	0.0	0.00%
N/A	1,779.6	83.37%	537.2	68.53%	1,737.6	78.53%
	\$2,134.4	100.0%	\$784.1	100.0%	\$2,212.6	100.0%

# Performance Summary Categories



Connecticut Private Credit Portfolio Performance Summary by Strategy as of March 31, 2022										
Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	TVPI	Since Inception IRR	1-YR IRR	3-YR IRR	5-YR IRR
Co-Investment	\$450,000,000	\$418,500,000	\$31,500,000	-	\$31,500,000	1.0x	0.00%	N/A	N/A	N/A
Distressed Debt	225,000,000	83,622,603	142,596,633	102,505,996	110,174,653	1.5x	15.05%	30.38%	24.88%	22.76%
Mezzanine	375,000,000	191,736,505	204,346,283	169,491,098	97,441,903	1.3x	11.52%	13.62%	15.19%	14.19%
Senior	400,000,000	158,862,308	294,288,685	70,864,004	251,226,712	1.1x	8.35%	7.77%	8.05%	N/A
Special Situations	762,625,000	497,596,528	275,783,219	15,771,434	293,700,630	1.1x	13.92%	11.40%	N/A	N/A
<b>Total Portfolio</b>	<b>\$2,212,625,000</b>	<b>\$1,350,317,944</b>	<b>\$948,514,820</b>	<b>\$358,632,532</b>	<b>\$784,043,898</b>	<b>1.2x</b>	<b>12.41%</b>	<b>13.47%</b>	<b>14.94%</b>	<b>14.52%</b>

Connecticut Private Credit Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Vintage Year	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	TVPI	Since Inception IRR	1-YR IRR	3-YR IRR	5-YR IRR
2011	\$75,000,000	-	\$77,672,230	\$99,210,111	\$3,764,704	1.3x	9.81%	28.29%	19.10%	10.36%
2013	50,000,000	-	50,000,000	62,986,419	-	1.3x	8.85%	N/A	5.14%	16.43%
2017	150,000,000	\$50,350,223	141,073,137	94,378,403	114,873,454	1.5x	17.56%	24.22%	18.64%	N/A
2018	100,000,000	26,316,952	92,589,319	41,608,737	76,307,128	1.3x	12.24%	4.41%	11.91%	14.02%
2019	175,000,000	87,367,357	87,148,677	31,920,892	84,787,958	1.3x	21.36%	25.07%	21.73%	N/A
2020	862,625,000	447,033,412	439,281,457	28,508,770	442,669,362	1.1x	9.37%	8.93%	N/A	N/A
2021	225,000,000	195,750,000	29,250,000	19,200	30,141,292	1.0x	5.78%	N/A	N/A	N/A
2022	575,000,000	543,500,000	31,500,000	-	31,500,000	1.0x	0.00%	N/A	N/A	N/A
<b>Total Portfolio</b>	<b>\$2,212,625,000</b>	<b>\$1,350,317,944</b>	<b>\$948,514,820</b>	<b>\$358,632,532</b>	<b>\$784,043,898</b>	<b>1.2x</b>	<b>12.41%</b>	<b>13.47%</b>	<b>14.94%</b>	<b>14.52%</b>

# Performance Summary by Vintage Year



Connecticut Private Credit Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
2011 Portfolio										
Audax Mezzanine Fund III, L.P.	2011	Mezzanine	\$75,000,000	-	\$77,672,230	\$99,210,111	\$3,764,704	9.81%	1.3x	1.3x
2011 Portfolio Total			\$75,000,000	\$-	\$77,672,230	\$99,210,111	\$3,764,704	9.81%	1.3x	1.3x
2013 Portfolio										
Marathon European Credit Opportunity Fund, LP	2013	Distressed Debt	\$50,000,000	-	\$50,000,000	\$62,986,419	-	8.85%	1.3x	1.3x
2013 Portfolio Total			\$50,000,000	\$-	\$50,000,000	\$62,986,419	\$-	8.85%	1.3x	1.3x
2017 Portfolio										
Anchorage Illiquid Opportunities VI, L.P.	2017	Distressed Debt	\$75,000,000	\$10,125,000	\$64,922,767	\$38,348,108	\$79,741,336	23.86%	0.6x	1.8x
Crescent Direct Lending Levered Fund II (Delaware), LP	2017	Senior	75,000,000	40,225,223	76,150,370	56,030,295	35,132,118	9.25%	0.7x	1.2x
2017 Portfolio Total			\$150,000,000	\$50,350,223	\$141,073,137	\$94,378,403	\$114,873,454	17.56%	0.7x	1.5x
2018 Portfolio										
Balance Point Capital Partners III, L.P.	2018	Mezzanine	\$50,000,000	\$6,715,097	\$55,191,182	\$18,954,141	\$50,826,050	15.27%	0.3x	1.3x
Connecticut Growth Capital, LLC	2018	Mezzanine	50,000,000	19,601,855	37,398,137	22,654,596	25,481,078	9.96%	0.6x	1.3x
2018 Portfolio Total			\$100,000,000	\$26,316,952	\$92,589,319	\$41,608,737	\$76,307,128	12.24%	0.4x	1.3x
2019 Portfolio										
Clearlake Opportunities Partners II, L.P.	2019	Mezzanine	\$75,000,000	\$55,947,804	\$19,063,943	\$209,533	\$32,978,997	28.97%	N/A	1.7x
Goldman Sachs Private Middle Market Credit II LLC	2019	Senior	50,000,000	16,000,000	34,000,000	3,039,109	34,726,791	9.92%	0.1x	1.1x
Ironwood Mezzanine Partners IV, L.P.	2019	Mezzanine	50,000,000	15,419,553	34,084,734	28,672,250	17,082,170	21.86%	0.8x	1.3x
2019 Portfolio Total			\$175,000,000	\$87,367,357	\$87,148,677	\$31,920,892	\$84,787,958	21.36%	0.4x	1.3x
2020 Portfolio										
Fortress Credit Opportunities Fund V Expansion MA-CRPTF LP	2020	Distressed Debt	\$100,000,000	\$73,497,603	\$27,673,866	\$1,171,469	\$30,433,317	18.80%	N/A	1.1x
Fortress Lending Fund II MA-CRPTF LP	2020	Senior	200,000,000	56,887,085	154,888,315	11,775,400	151,514,412	6.86%	0.1x	1.1x
OSP Value Fund III, L.P.	2020	Special Situations	75,000,000	38,587,431	41,477,273	8,523,146	38,303,784	12.95%	0.2x	1.1x
OSP Value Fund III-B, LP	2020	Special Situations	12,625,000	12,625,000	-	-	-	N/A	N/A	N/A
Sixth Street TAO Partners (B), L.P.	2020	Special Situations	250,000,000	174,675,070	80,366,871	5,426,623	81,696,192	12.40%	0.1x	1.1x
West Street CT Private Credit Partnership, L.P.	2020	Special Situations	225,000,000	90,761,223	134,875,132	1,612,132	140,721,657	7.34%	N/A	1.1x
2020 Portfolio Total			\$862,625,000	\$447,033,412	\$439,281,457	\$28,508,770	\$442,669,362	9.37%	0.1x	1.1x
2021 Portfolio										
Hg TITAN 1 A L.P.	2021	Mezzanine	\$75,000,000	\$75,000,000	-	-	\$287,901	N/A	N/A	N/A
Ironwood Capital Partners V LP	2021	Mezzanine	75,000,000	75,000,000	-	-	-	N/A	N/A	N/A
West Street Senior Credit Partners III, L.P.	2021	Senior	75,000,000	45,750,000	\$29,250,000	\$19,200	29,853,391	3.94%	N/A	1.0x
2021 Portfolio Total			\$225,000,000	\$195,750,000	\$29,250,000	\$19,200	\$30,141,292	5.78%	-	1.0x

# Performance Summary by Vintage Year



Connecticut Private Credit Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
2022 Portfolio										
Clearlake Opportunities Partners III, L.P.	2022	Mezzanine	\$125,000,000	\$125,000,000	-	-	-	N/A	N/A	N/A
HarbourVest CT Private Debt Fund L.P.	2022	Co-Investment	450,000,000	418,500,000	\$31,500,000	-	\$31,500,000	0.00%	N/A	1.0x
2022 Portfolio Total			\$575,000,000	\$543,500,000	\$31,500,000	\$-	\$31,500,000	0.00%	-	1.0x
Total Portfolio			\$2,212,625,000	\$1,350,317,944	\$948,514,820	\$358,632,532	\$784,043,898	12.41%	0.4x	1.2x



# Performance Summary by Strategy and Substrategy



Connecticut Private Credit Portfolio Performance Summary by Client Strategy and Client Substrategy as of March 31, 2022											
(USD in Millions)	Capital Committed	Unfunded	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	DPI	TVPI	1-YR IRR	3-YR IRR	5-YR IRR
Co-Investment											
Co-Investment - Senior											
HarbourVest CT Private Debt Fund L.P.	\$450,000,000	\$418,500,000	\$31,500,000	-	\$31,500,000	0.00%	-	1.0x	N/A	N/A	N/A
Co-Investment - Senior Total	\$450,000,000	\$418,500,000	\$31,500,000	-	\$31,500,000	N/A	-	1.0x		N/A	N/A
Co-Investment Total	\$450,000,000	\$418,500,000	\$31,500,000	-	\$31,500,000	N/A	-	1.0x		N/A	N/A
Distressed Debt											
Distressed Debt - Distressed Debt											
Anchorage Illiquid Opportunities VI, L.P.	\$75,000,000	\$10,125,000	\$64,922,767	\$38,348,108	\$79,741,336	23.86%	0.6x	1.8x	32.01%	25.80%	N/A
Fortress Credit Opportunities Fund V Expansion MA-CRPTF LP	100,000,000	73,497,603	27,673,866	1,171,469	30,433,317	18.80%	0.0x	1.1x	23.64%	N/A	N/A
Marathon European Credit Opportunity Fund, LP	50,000,000	-	50,000,000	62,986,419	-	8.85%	1.3x	1.3x	N/A	5.14%	16.43%
Distressed Debt - Distressed Debt Total	\$225,000,000	\$83,622,603	\$142,596,633	\$102,505,996	\$110,174,653	15.05%	0.7x	1.5x	30.38%	24.88%	22.76%
Distressed Debt Total	\$225,000,000	\$83,622,603	\$142,596,633	\$102,505,996	\$110,174,653	15.05%	0.7x	1.5x	30.38%	24.88%	22.76%
Mezzanine											
Mezzanine - Mezzanine											
Audax Mezzanine Fund III, L.P.	\$75,000,000	-	\$77,672,230	\$99,210,111	\$3,764,704	9.81%	1.3x	1.3x	28.29%	19.10%	10.36%
Balance Point Capital Partners III, L.P.	50,000,000	\$6,715,097	55,191,182	18,954,141	50,826,050	15.27%	0.3x	1.3x	12.24%	15.25%	N/A
Connecticut Growth Capital, LLC	50,000,000	19,601,855	37,398,137	22,654,596	25,481,078	9.96%	0.6x	1.3x	(7.75%)	7.38%	12.88%
Hg TITAN 1 A L.P.	75,000,000	75,000,000	-	-	287,901	N/A	-	-	N/A	N/A	N/A
Ironwood Capital Partners V LP	75,000,000	75,000,000	-	-	-	N/A	-	-	N/A	N/A	N/A
Ironwood Mezzanine Partners IV, L.P.	50,000,000	15,419,553	34,084,734	28,672,250	17,082,170	21.86%	0.8x	1.3x	48.55%	22.88%	N/A
Mezzanine - Mezzanine Total	\$375,000,000	\$191,736,505	\$204,346,283	\$169,491,098	\$97,441,903	11.52%	0.8x	1.3x	13.62%	15.19%	14.19%
Mezzanine Total	\$375,000,000	\$191,736,505	\$204,346,283	\$169,491,098	\$97,441,903	11.52%	0.8x	1.3x	13.62%	15.19%	14.19%
Senior											
Senior - Senior											
Crescent Direct Lending Levered Fund II (Delaware), LP	\$75,000,000	\$40,225,223	\$76,150,370	\$56,030,295	\$35,132,118	9.25%	0.7x	1.2x	10.36%	8.77%	N/A
Fortress Lending Fund II MA-CRPTF LP	200,000,000	56,887,085	154,888,315	11,775,400	151,514,412	6.86%	0.1x	1.1x	5.78%	N/A	N/A
Goldman Sachs Private Middle Market Credit II LLC	50,000,000	16,000,000	34,000,000	3,039,109	34,726,791	9.92%	0.1x	1.1x	13.25%	N/A	N/A
West Street Senior Credit Partners III, L.P.	75,000,000	45,750,000	29,250,000	19,200	29,853,391	3.94%	0.0x	1.0x	N/A	N/A	N/A
Senior - Senior Total	\$400,000,000	\$158,862,308	\$294,288,685	\$70,864,004	\$251,226,712	8.35%	0.2x	1.1x	7.77%	8.05%	N/A
Senior Total	\$400,000,000	\$158,862,308	\$294,288,685	\$70,864,004	\$251,226,712	8.35%	0.2x	1.1x	7.77%	8.05%	N/A

# Performance Summary by Strategy and Substrategy



Connecticut Private Credit Portfolio Performance Summary by Client Strategy and Client Substrategy as of March 31, 2022											
(USD in Millions)	Capital Committed	Unfunded	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	DPI	TVPI	1-YR IRR	3-YR IRR	5-YR IRR
Special Situations											
Special Situations - Distressed Debt											
Clearlake Opportunities Partners II, L.P.	\$75,000,000	\$55,947,804	\$19,063,943	\$209,533	\$32,978,997	28.97%	0.0x	1.7x	24.15%	N/A	N/A
Clearlake Opportunities Partners III, L.P.	125,000,000	125,000,000	-	-	-	N/A	-	-	N/A	N/A	N/A
<b>Special Situations - Distressed Debt Total</b>	<b>\$200,000,000</b>	<b>\$180,947,804</b>	<b>\$19,063,943</b>	<b>\$209,533</b>	<b>\$32,978,997</b>	<b>28.97%</b>	<b>0.0x</b>	<b>1.7x</b>	<b>24.15%</b>	<b>N/A</b>	<b>N/A</b>
Special Situations - Special Situations											
OSP Value Fund III, L.P.	\$75,000,000	\$38,587,431	\$41,477,273	\$8,523,146	\$38,303,784	12.95%	0.2x	1.1x	19.75%	N/A	N/A
OSP Value Fund III-B, LP	12,625,000	12,625,000	-	-	-	N/A	-	-	N/A	N/A	N/A
Sixth Street TAO Partners (B), L.P.	250,000,000	174,675,070	80,366,871	5,426,623	81,696,192	12.40%	0.1x	1.1x	13.18%	N/A	N/A
West Street CT Private Credit Partnership, L.P.	225,000,000	90,761,223	134,875,132	1,612,132	140,721,657	7.34%	0.0x	1.1x	4.16%	N/A	N/A
<b>Special Situations - Special Situations Total</b>	<b>\$562,625,000</b>	<b>\$316,648,724</b>	<b>\$256,719,276</b>	<b>\$15,561,901</b>	<b>\$260,721,633</b>	<b>9.92%</b>	<b>0.1x</b>	<b>1.1x</b>	<b>9.46%</b>	<b>N/A</b>	<b>N/A</b>
<b>Special Situations Total</b>	<b>\$762,625,000</b>	<b>\$497,596,528</b>	<b>\$275,783,219</b>	<b>\$15,771,434</b>	<b>\$293,700,630</b>	<b>13.92%</b>	<b>0.1x</b>	<b>1.1x</b>	<b>11.40%</b>	<b>N/A</b>	<b>N/A</b>
<b>Total Portfolio</b>	<b>\$2,212,625,000</b>	<b>\$1,350,317,944</b>	<b>\$948,514,820</b>	<b>\$358,632,532</b>	<b>\$784,043,898</b>	<b>12.41%</b>	<b>0.4</b>	<b>1.2</b>	<b>13.47%</b>	<b>14.94%</b>	<b>14.52%</b>

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Hamilton Lane

# State of Connecticut Retirement Plans and Trust Funds






Private Investment Fund  
First Quarter 2022 Report

# We Enrich Lives & Safeguard Futures

- Do the right thing
- Integrity, candor and collaboration
- The pursuit of excellence
- A spirit of competition that inspires innovation
- Promoting equity and inclusion from within



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# Executive Summary

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# Portfolio Update



## Executive Summary

- Total Committed Capital of \$13,287.2M for the Private Investment Fund Portfolio; 113 Active Partnerships across 51 Active GPs
- Since Inception IRR, net of General Partner fees, of 10.21%

## Activity Update

- Contributions of \$256.6M outpaced distributions of \$191.5M during the quarter
- Contributions of \$1,212.5M outpaced distributions of \$1,133.6M during the last 12 months

## Performance Update

- 45 investments (40%) generated Net Value gains for the quarter, 56 investments (50%) generated Net Value losses for the quarter, for a total Net Value loss.
  - Apollo Investment Fund IX, L.P. appreciated \$10.1M during the quarter
  - FS Equity Partners VI, L.P. depreciated \$15.5M during the quarter
- 10.21% Since Inception Net IRR decreased 5 bps from last quarter
  - Negative one-quarter point-to-point IRR of (0.03%)
- 10-Year Portfolio IRR trailed the Russell 3000 +250bps benchmark by 115 bps

## Exposure Update

- 2021 Vintage Year investments accounted for 15.8% of Total Exposure as of March 31, 2022
  - Pre-2013 Vintage Year investments accounted for 22.4% of Portfolio NAV
- Buyout accounted for 59.1% of Total Exposure and 57.5% of Portfolio NAV as of March 31, 2022

Note: Net Value Change equals 3/31 NAV minus 12/31 NAV minus quarterly contributions plus quarterly distributions

# Portfolio Snapshot

- Portfolio performance was negative for the quarter
  - Net Value Loss of \$1.4M during the quarter
  - Negative one-quarter point-to-point IRR of (0.03%)
  - Since Inception Net IRR of 10.21%

## Client Overview

1987

Program Inception

2021

HL Relationship Inception

Hamilton Lane All PE Benchmark

PE Benchmark

Russell 3000 +250bps

Public Benchmark

## Connecticut Portfolio

(USD in Millions)	12/31/2021	3/31/2022	Change
Active Partnerships	103	113	10
Exited Investments	48	48	-
Active GP Relationships	51	51	-
Capital Committed <sup>1</sup>	\$11,982.2	\$13,287.2	\$1,305.0
Unfunded Commitment	\$2,529.1	\$3,620.0	\$1,090.9
Paid-In Capital	\$10,012.0	\$10,268.6	\$256.6
Capital Distributed	\$11,878.0	\$12,069.5	\$191.5
D/PI Ratio	1.2x	1.2x	-
Market Value	\$4,871.2	\$4,934.9	\$63.7
Total Value Multiple (TVPI)	1.7x	1.7x	-
Avg. Age of Commitments	9.4 years	9.3 years	(0.1 years)

## Since Inception IRR Performance

Portfolio Net IRR <sup>2</sup>	10.26%	10.21%	(5 bps)
--------------------------------	--------	--------	---------

<sup>1</sup> The change in capital committed reflects the new commitments made during the period plus currency adjustments from existing Non-USD denominated funds.

<sup>2</sup> Portfolio Net IRR, net of General Partner fees and gross of Hamilton Lane fees.

Note: Totals may not sum due to rounding.



# Activity Update



# Quarterly Commitment Activity

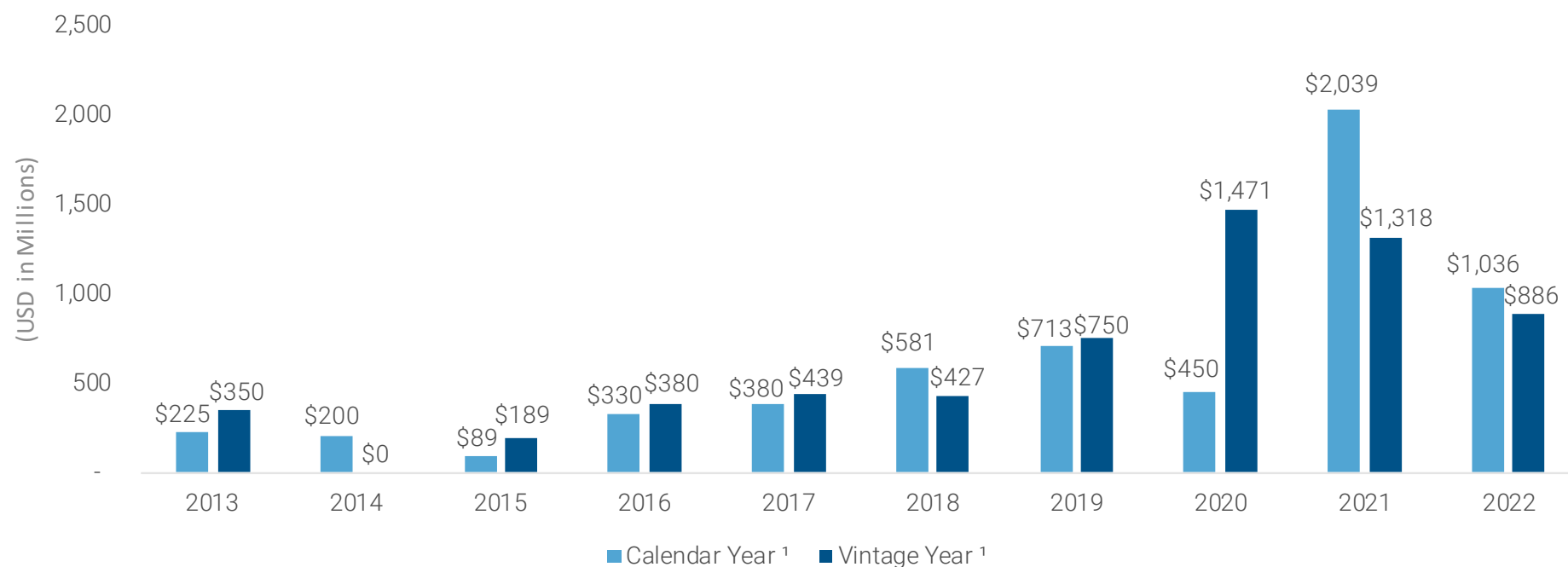
- The Portfolio made ten new commitments totaling \$1,311.3M during the quarter ended 03/31/2022
  - 7 existing GP relationships

(USD in Millions)	HarbourVest CT Co-Investment Fund L.P.	Hollyport Secondary Opportunities VIII LP	Hollyport Secondary (Overage Fund) LP	WCAS XIV, L.P.	Hg Saturn 3, L.P.
General Partner	HarbourVest Partners, LLC	Hollyport Capital	Hollyport Capital	Welsh, Carson, Anderson & Stowe	Hg Capital
Existing Manager	Yes	Yes	Yes	Yes	Yes
Closing Date	1/4/2022	2/4/2022	2/4/2022	2/28/2022	3/4/2022
Capital Committed	\$450.0	\$125.0	\$11.3	\$150.0	\$150.0
Strategy	Co-Investment	Secondaries	Secondaries	Buyout	Buyout
Geographic Focus	Global	Global	Global	North America	Western Europe
Fund Currency	USD	USD	USD	USD	USD
Fund Size	N/A	\$2,000.0	\$500.0	\$4,100.0	\$8,500.0

(USD in Millions)	Clearlake Capital Partners VII, L.P.	Georgian Growth Fund VI, LP	Georgian Alignment Fund II, LP	Landmark Equity Partners XVII, L.P.	Landmark Equity CT Co-Investment Fund I, L.P.
General Partner	Clearlake Capital	Georgian Partners	Georgian Partners	Landmark Partners	Landmark Partners
Existing Manager	Yes	Yes	Yes	Yes	Yes
Closing Date	3/4/2022	3/11/2022	3/11/2022	3/21/2022	3/21/2022
Capital Committed	\$125.0	\$100.0	\$50.0	\$100.0	\$50.0
Strategy	Buyout	Growth Equity	Growth Equity	Secondaries	Secondaries
Geographic Focus	North America	North America	North America	Global	Global
Fund Currency	USD	USD	USD	USD	USD
Fund Size	\$14,125.0	\$410.3	\$201.0	\$453.9	\$51.0

Note: The Fund Size noted in this report is specific to the vehicle to which State of Connecticut Retirement Plans and Trust Funds committed capital and may not be representative of the total capital raised by the master fund. The Fund Size may be subject to change as the General Partner works towards a final close.

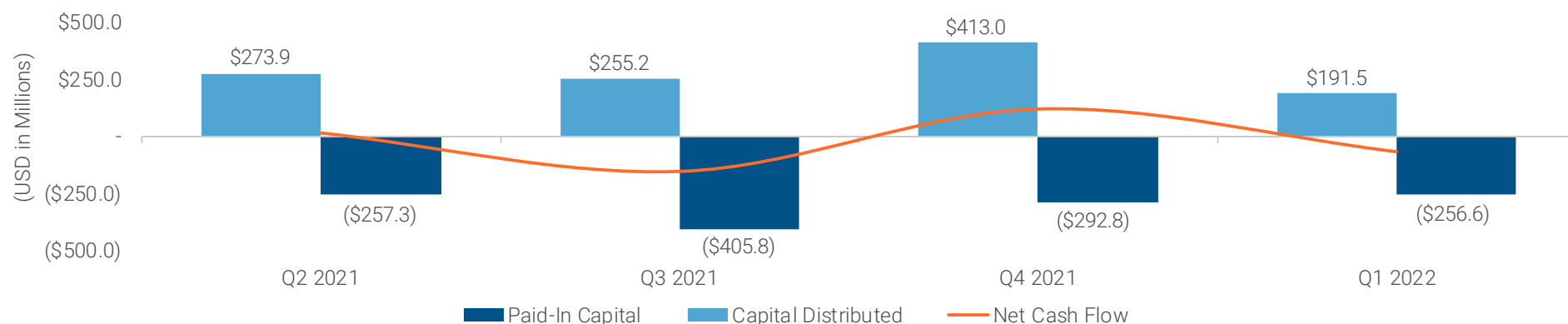
# Annual Commitment Activity



<sup>1</sup> See endnotes.

Note: If the final close and the initial investment do not occur in the same year, there will be a discrepancy between these two dates. Until a fund makes its initial investment, the Vintage Year will reflect the date of the final close.

# Quarterly Cash Flow Summary



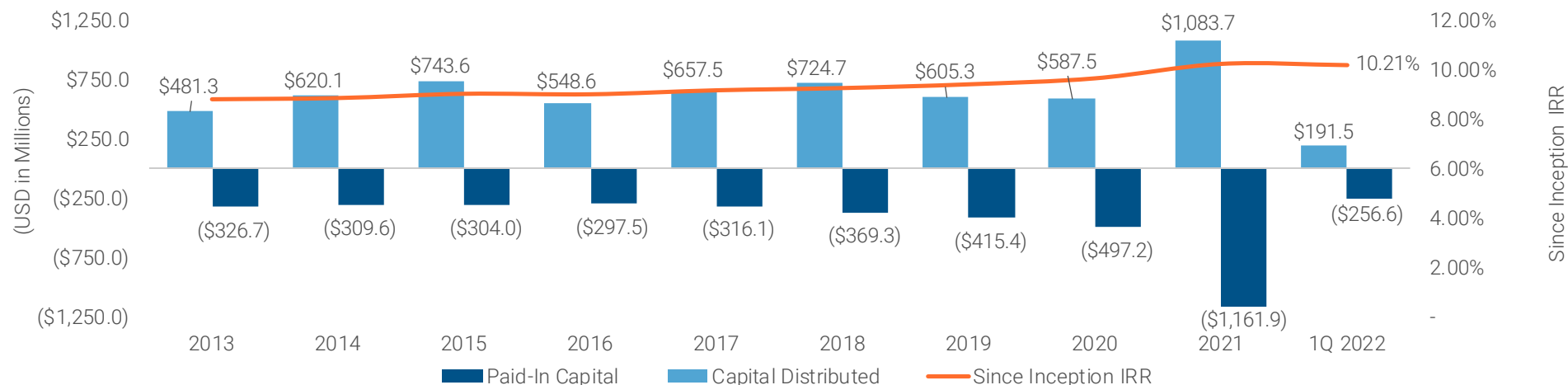
## Top Contributors During the Quarter (USD in Millions)

Investment	Vintage Year	Strategy	Paid-In Capital	% of Total
Vistria Fund IV, LP	2021	Buyout	\$36.6	14.3%
Clearlake Flagship Plus Partners, L.P.	2020	Special Situations	\$20.4	8.0%
One Rock Capital Partners III, L.P.	2020	Buyout	\$18.4	7.2%
Secondary Overflow Fund IV L.P.	2019	Secondaries	\$18.2	7.1%
K5 Private Investors, L.P.	2020	Buyout	\$13.9	5.4%
<b>Total</b>			<b>\$107.5</b>	<b>41.9%</b>

## Top Distributors During the Quarter (USD in Millions)

Investment	Vintage Year	Strategy	Capital Distributed	% of Total
Fairview Constitution IV, L.P.	2011	Venture Capital	\$23.7	12.4%
RFE Investment Partners VIII, L.P.	2012	Buyout	\$22.4	11.7%
Fairview Constitution III, L.P.	2007	Venture Capital	\$20.1	10.5%
Hg Saturn 2 L.P.	2020	Buyout	\$18.1	9.5%
Court Square Capital Partners III, L.P.	2012	Buyout	\$14.9	7.8%
<b>Total</b>			<b>\$99.2</b>	<b>51.8%</b>

# Annual Cash Flow Summary



## Top Contributors over the Last 12 Months (USD in Millions)

Investment	Vintage Year	Strategy	Paid-In Capital	% of Total
Vistria Fund IV, LP	2021	Buyout	\$63.9	5.3%
Livingbridge 7	2020	Buyout	\$59.6	4.9%
One Rock Capital Partners III, L.P.	2020	Buyout	\$56.7	4.7%
WCAS XIII, L.P.	2019	Buyout	\$49.9	4.1%
Secondary Overflow Fund IV L.P.	2019	Secondaries	\$48.9	4.0%
<b>Total</b>			<b>\$279.0</b>	<b>23.0%</b>

## Top Distributors Over the Last 12 Months (USD in Millions)

Investment	Vintage Year	Strategy	Capital Distributed	% of Total
Fairview Constitution III, L.P.	2007	Venture Capital	\$98.2	8.7%
J.F. Lehman Equity Investors IV, L.P.	2016	Buyout	\$94.9	8.4%
TA XI, L.P.	2010	Buyout	\$59.1	5.2%
Fairview Constitution IV, L.P.	2011	Venture Capital	\$56.3	5.0%
Levine Leichtman Capital Partners V, L.P.	2013	Mezzanine	\$54.0	4.8%
<b>Total</b>			<b>\$362.5</b>	<b>32.0%</b>



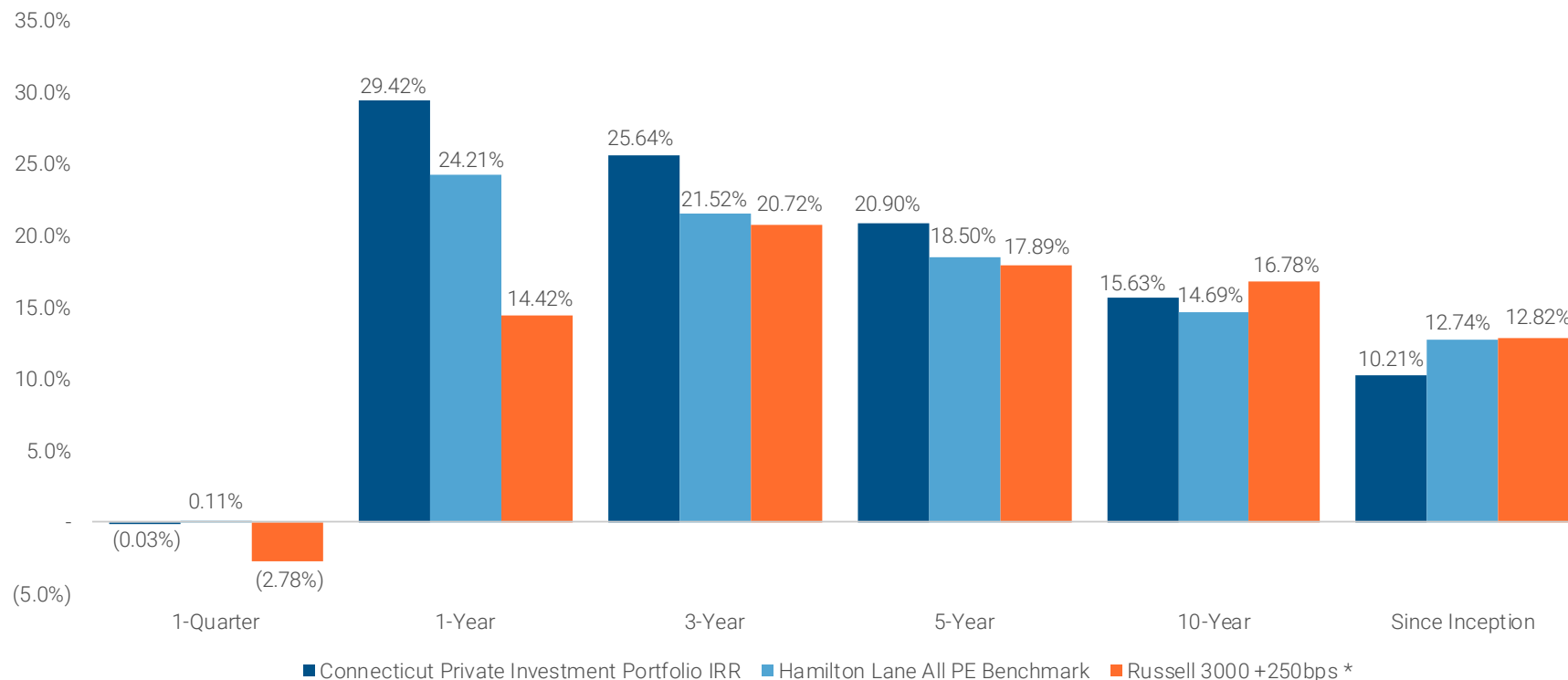
# Performance Update





# Portfolio IRR Performance vs. Benchmark

- 15.63% 10-Year Portfolio IRR trailed the Russell 3000 +250bps benchmark by 115 bps
- 29.42% 1-Year Portfolio IRR outperformed the Russell 3000 +250bps benchmark by 1,500 bps

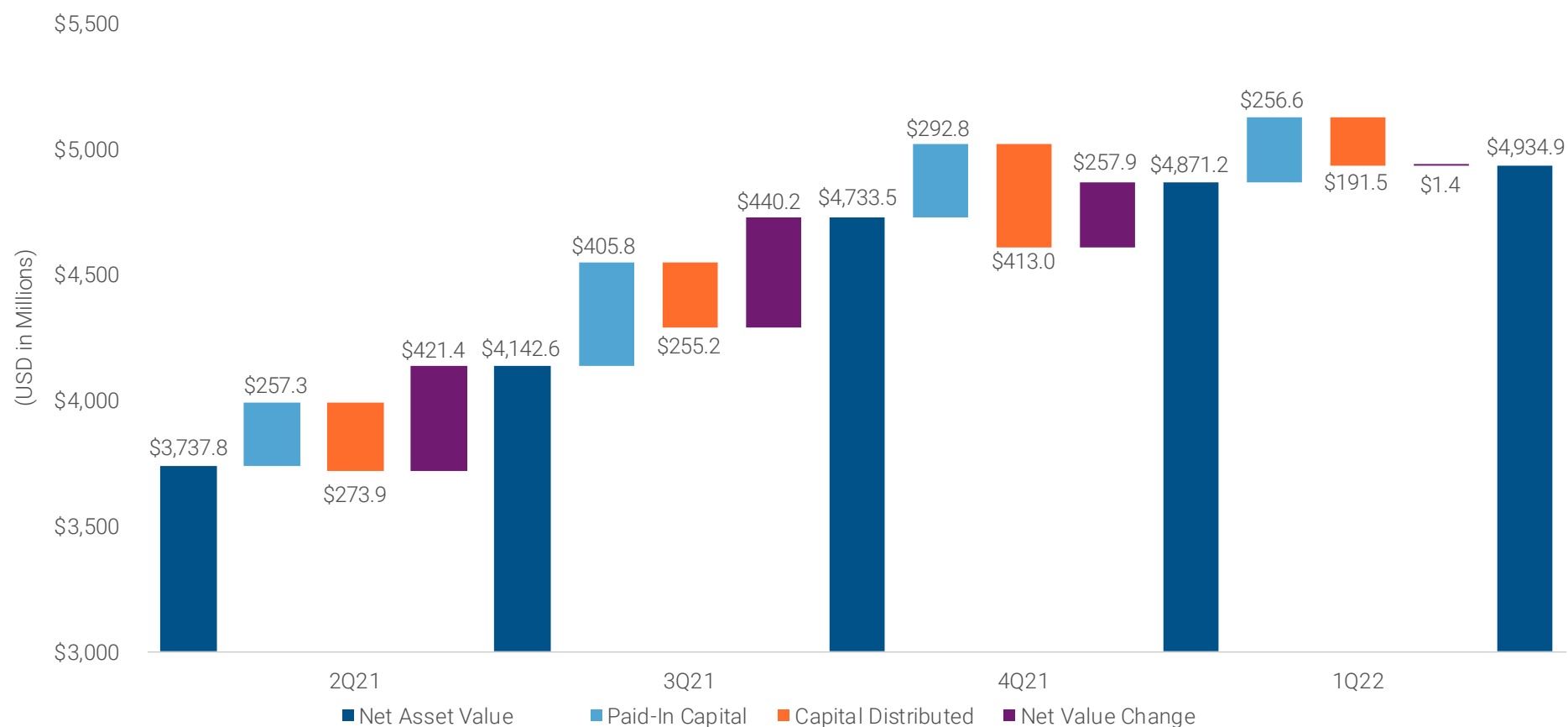


Time Horizon	Connecticut Private Investment Portfolio IRR	Hamilton Lane All PE Benchmark	Spread Over/Under	Russell 3000 +250bps *	Spread Over/Under
1-Quarter	(0.03%)	0.11%	(14 bps)	(2.78%)	275 bps
1-Year	29.42%	24.21%	521 bps	14.42%	1,500 bps
3-Year	25.64%	21.52%	412 bps	20.72%	492 bps
5-Year	20.90%	18.50%	240 bps	17.89%	301 bps
10-Year	15.63%	14.69%	94 bps	16.78%	(115 bps)

\*Russell 3000 +250bps is a straight return. Prior to February 2020 the portfolio was benchmarked against the S&P 500 + 500 bps and has since been updated.

# Net Value Bridge

- Total Portfolio net value loss of \$1.4M during the quarter
    - 45 partnerships generated Net Value gains, totaling \$111.2M, while 56 generated Net Value losses (\$112.6M)
    - The remaining 12 active partnerships generated no value change during the quarter
  - Net Value Change isolates the realized and unrealized performance of the underlying investments made by the partnerships within the Portfolio.
- The Net Value Bridge illustrates these movements:



Note: Change over the period may not sum due to rounding.

# Net Value Drivers



## Top Quarterly Portfolio Drivers as Measured by Net Value Change (USD in Millions)

Investment	Capital Committed	Vintage Year	Client Strategy	Net Value Change	1-Quarter IRR	Since Inception IRR
Apollo Investment Fund IX, L.P.	\$125.0	2019	Buyout	\$10.1	12.61%	30.60%
Welsh, Carson, Anderson & Stowe XII, L.P.	\$100.0	2015	Buyout	\$6.9	5.62%	34.94%
Icon Partners II, L.P.	\$38.0	2021	Buyout	\$6.7	14.04%	95.74%
Vistria Fund IV, LP	\$150.0	2021	Buyout	\$6.2	21.18%	28.08%
Levine Leichtman Capital Partners V, L.P.	\$75.0	2013	Mezzanine	\$6.0	8.40%	18.09%
<b>Total</b>				<b>\$35.9</b>	<b>10.22%</b>	<b>25.85%</b>
				<b>32% of Net Value Gain (\$111.2M)</b>		

## Bottom Quarterly Portfolio Drivers as Measured by Net Value Change (USD in Millions)

Investment	Capital Committed	Vintage Year	Client Strategy	Net Value Change	1-Quarter IRR	Since Inception IRR
FS Equity Partners VI, L.P.	\$75.0	2011	Buyout	(\$15.5)	(35.94%)	23.33%
Fairview Constitution III, L.P.	\$300.0	2007	Venture Capital	(\$13.0)	(6.38%)	18.68%
Fairview Constitution IV, L.P.	\$150.0	2011	Venture Capital	(\$11.3)	(3.31%)	23.14%
Yucaipa American Alliance Fund II, LP	\$75.0	2008	Buyout	(\$10.5)	(15.62%)	7.87%
Hg Saturn 2 A L.P.	\$100.0	2020	Buyout	(\$6.7)	(9.22%)	74.72%
<b>Total</b>				<b>(\$57.0)</b>	<b>(7.83%)</b>	<b>18.41%</b>
				<b>51% of Net Value Loss (\$112.6M)</b>		

Note: Totals may not sum due to rounding.



# Exposure Update



# Diversification by Strategy

- Quarter-over-quarter, Portfolio NAV increased 1% and Total Exposure increased 16%
  - Secondaries investments drove the increase in NAV
  - Co-Investment investments drove the increase in Total Exposure

## % of NAV

Strategy	12/31/2021	3/31/2022	Change in % Points
Buyout	58.1%	57.5%	(0.6%)
Venture Capital	21.9%	20.2%	(1.7%)
Secondaries	6.5%	7.5%	1.0%
Mezzanine	4.8%	5.1%	0.3%
Distressed/Restructuring	4.2%	4.5%	0.3%
Growth Equity	3.5%	3.9%	0.4%
Special Situations	0.9%	1.2%	0.3%
Multi-Strategy	0.1%	0.1%	-
Co-Investment	-	-	-

## % of Total Exposure

Strategy	12/31/2021	3/31/2022	Change in % Points
Buyout	57.7%	53.9%	(3.8%)
Venture Capital	17.5%	14.2%	(3.3%)
Secondaries	7.4%	9.8%	2.4%
Mezzanine	6.3%	5.5%	(0.8%)
Distressed/Restructuring	5.9%	5.1%	(0.8%)
Growth Equity	3.7%	4.9%	1.2%
Special Situations	1.5%	1.3%	(0.2%)
Multi-Strategy	0.1%	0.1%	-
Co-Investment	-	5.3%	5.3%

## Sub-Allocation Targets as per CRPTF IPS

Strategy	Lower Range %	Upper Range %	Total Exposure
Corporate Finance	70.0%	100.0%	80.6%
Venture Capital	0.0%	30.0%	19.4%

Note: Total Exposure is equal to Remaining Net Asset Value plus Unfunded Commitments. May not sum to 100% due to rounding.

Note: Buyout strategy inclusive of Co-Investment exposure from HarbourVest managed vehicle.

# Diversification by Vintage Year

- Year-over-year, Portfolio NAV increased 32% and Total Exposure increased 39%
  - 2020 Vintage investments drove the increase in NAV
  - 2021 investments drove the increase in Total Exposure

## % of NAV

Vintage	3/31/2021	3/31/2022	Change in % Points
2022	-	0.1%	0.1%
2021	0.5%	6.5%	6.0%
2020	4.6%	14.8%	10.2%
2019	7.9%	14.1%	6.2%
2018	8.0%	9.5%	1.5%
2017	12.2%	10.4%	(1.8%)
2016	15.4%	12.9%	(2.5%)
2015	6.4%	4.6%	(1.8%)
2013	9.1%	4.8%	(4.3%)
Pre-2013	35.9%	22.4%	(13.5%)

## % of Total Exposure

Vintage	3/31/2021	3/31/2022	Change in % Points
2022	-	10.4%	10.4%
2021	1.6%	15.8%	14.2%
2020	21.7%	18.9%	(2.8%)
2019	13.1%	11.4%	(1.7%)
2018	8.0%	6.7%	(1.3%)
2017	9.6%	7.2%	(2.4%)
2016	10.0%	7.8%	(2.2%)
2015	4.2%	2.9%	(1.3%)
2013	6.4%	3.3%	(3.1%)
Pre-2013	25.4%	15.5%	(9.9%)

Note: Total Exposure is equal to Remaining Net Asset Value plus Unfunded Commitments. May not sum to 100% due to rounding.

# Holdings Diversification

- As of March 31, 2022, there were 821 underlying holdings in the Connecticut Portfolio, including 40 public companies

## Industry Exposure by Exposed Market Value <sup>1</sup>

Sector	12/31/2021	3/31/2022	Change in % Points
Information Technology	26.6%	29.3%	2.7%
FoF Holding	24.4%	21.3%	(3.1%)
Health Care	12.6%	13.9%	1.3%
Industrials	8.6%	9.3%	0.8%
Consumer Discretionary	7.0%	7.8%	0.8%
Financials	5.2%	5.5%	0.3%
Materials	3.6%	3.4%	(0.1%)
Communication Services	3.4%	2.9%	(0.5%)
Other Investments	5.1%	2.9%	(2.2%)
Consumer Staples	1.7%	1.9%	0.2%
Real Estate	1.3%	1.4%	0.2%

## Geographic Exposure by Exposed Market Value <sup>1</sup>

Region	12/31/2021	3/31/2022	Change in % Points
North America	72.8%	74.1%	1.3%
Western Europe	13.5%	13.5%	0.0%
Rest of World	13.7%	12.4%	(1.4%)

## Public/Private Holdings by Exposed Market Value <sup>1</sup>

Public/Private	12/31/2021	3/31/2022	Change in % Points
Private	94.8%	94.0%	(0.8%)
Public	5.2%	6.0%	0.8%

<sup>1</sup> Exposed Market Value is LP's share of Market Value at the Portfolio Holding Level. May not sum to 100% due to rounding.



# Appendix





# Performance Summary by Investment



Connecticut Portfolio Performance Summary by Investment as of March 31, 2022													
Active Partnership	Vintage Year	Client Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	IRR Quartile	D/PI	D/PI Quartile	TVPI	TVPI Quartile
Aldrich Capital Partners Fund II Co-Investment, LP	2021	Growth Equity	\$27,500,000	\$16,240,942	\$11,259,058	-	\$11,062,730	(1.89%)		N/A		1.0x	
Aldrich Capital Partners Fund II, LP	2021	Growth Equity	47,500,000	47,018,607	481,393	-	(530,735)	-		N/A		(1.1x)	
Aldrich Capital Partners Fund, L.P.	2018	Growth Equity	50,000,000	6,030,272	44,317,622	-	62,781,353	18.24%	3	N/A		1.4x	2
Altaris Constellation Partners IV, L.P.	2017	Buyout	10,000,000	1,029,756	9,686,637	\$7,015,835	10,625,396	31.54%	2	0.7x	1	1.8x	1
Altaris Health II	2008	Buyout	40,000,000	5,567,183	45,574,376	99,451,134	324,904	25.17%	1	2.2x	1	2.2x	1
Altaris Health Partners III, L.P.	2013	Buyout	50,000,000	4,070,604	54,292,656	72,454,007	53,315,935	28.18%	1	1.3x	1	2.3x	1
Altaris Health Partners IV, L.P.	2017	Buyout	40,000,000	5,093,768	37,662,853	34,845,620	36,789,419	34.09%	1	0.9x	1	1.9x	1
Altaris Health Partners V, L.P.	2020	Buyout	100,000,000	75,774,376	24,225,624	-	25,729,772	7.63%		N/A		1.1x	
Apollo Investment Fund IX, L.P.	2019	Buyout	125,000,000	56,860,037	84,147,863	25,850,513	93,534,011	30.60%	2	0.3x	2	1.4x	2
Apollo Investment Fund VIII, L.P.	2013	Buyout	125,000,000	16,344,744	129,354,825	128,254,354	66,699,265	11.38%	3	1.0x	3	1.5x	2
Avance Investment Partners, L.P.	2021	Buyout	100,000,000	81,725,092	21,635,274	3,339,571	18,068,006	(1.30%)		0.2x		1.0x	
BC European Capital X, L.P.	2017	Buyout	92,891,922	4,188,979	91,683,855	3,504,642	133,255,401	14.85%	3	N/A		1.5x	2
Boston Ventures VII, L.P.	2006	Buyout	75,000,000	12,388,419	65,028,749	74,798,645	4,194,984	3.43%	3	1.2x	3	1.2x	3
Castlelake Fund II, L.P.	2011	Distressed/Restructuring	50,000,000	3,750,659	46,663,983	43,734,509	21,434,345	6.16%	4	0.9x	3	1.4x	3
Clearlake Capital Partners III, L.P.	2012	Distressed/Restructuring	40,000,000	18,967,864	56,764,127	151,660,808	10,872,482	40.76%	1	2.7x	1	2.9x	1
Clearlake Capital Partners IV, L.P.	2015	Distressed/Restructuring	50,000,000	15,286,118	76,610,807	94,862,407	56,660,687	29.47%	1	1.2x	1	2.0x	2
Clearlake Capital Partners V, L.P.	2017	Buyout	60,000,000	16,306,685	74,976,293	55,121,352	91,583,559	39.08%	1	0.7x	1	2.0x	1
Clearlake Capital Partners VI, L.P.	2020	Buyout	75,000,000	14,908,841	60,916,587	2,565,605	99,531,435	61.69%		N/A		1.7x	
Clearlake Capital Partners VII, L.P.	2021	Buyout	125,000,000	125,000,000	-	-	(1,291,780)	-		N/A		N/A	
Clearlake Flagship Plus Partners, L.P.	2020	Special Situations	100,000,000	50,372,720	64,253,129	16,618,623	59,694,563	38.75%		0.3x		1.2x	
Constitution Fund V, LLC - Series A	2016	Venture Capital	130,000,000	7,958,127	125,290,623	48,265,398	319,317,817	36.55%	1	0.4x	3	2.9x	1
Constitution Fund V, LLC - Series B	2017	Venture Capital	20,000,000	3,681,773	16,566,660	5,259,631	14,986,596	6.58%	4	0.3x	3	1.2x	4
Constitution Fund V, LLC - Series C	2018	Venture Capital	75,000,000	29,815,646	45,184,354	5,084,481	71,505,670	47.06%	1	0.1x	2	1.7x	1
Constitution Fund V, LLC - Series D	2018	Venture Capital	25,000,000	9,729,558	15,270,442	-	12,072,422	(16.54%)	4	N/A		0.8x	4
Constitution Fund V, LLC - Series E	2020	Venture Capital	75,000,000	39,057,426	35,942,574	-	39,503,534	15.53%		N/A		1.1x	
Constitution Fund V, LLC - Series F	2021	Venture Capital	100,000,000	98,619,450	1,380,550	-	1,128,251	(24.43%)		N/A		0.8x	
Constitution Liquidating Fund, L.P.	1987	Venture Capital	640,000,552	-	532,763,501	1,367,419,212	3,804,683	20.10%	1	2.6x	2	2.6x	1
Court Square Capital Partners II, L.P.	2006	Buyout	93,793,953	3,246,335	91,797,386	163,618,527	3,573,395	12.32%	1	1.8x	1	1.8x	1

Note: See endnotes.

# Performance Summary by Investment



Connecticut Portfolio Performance Summary by Investment as of March 31, 2022													
Active Partnership	Vintage Year	Client Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	IRR Quartile	D/PI	D/PI Quartile	TVPI	TVPI Quartile
Court Square Capital Partners III, L.P.	2012	Buyout	50,000,000	2,381,370	54,066,006	64,654,859	46,745,545	21.33%	1	1.2x	2	2.1x	1
Crescendo III, L.P.	1999	Venture Capital	36,825,000	-	36,824,862	19,298,548	71,637	(12.56%)	4	0.5x	4	0.5x	4
CT Horizon Legacy Fund, L.P.	2008	Buyout	15,000,000	2,522,763	13,954,141	9,103,297	1,523,583	(4.47%)	4	0.7x	4	0.8x	4
Dover Street X, L.P.	2019	Secondaries	100,000,000	48,000,000	52,000,000	14,873,500	72,899,313	73.57%	1	0.3x	1	1.7x	1
EQT VIII SCSP	2017	Buyout	81,431,073	12,452,440	71,755,968	32,273,924	116,974,270	42.74%	1	0.4x	2	2.1x	1
Ethos Private Equity Fund V, L.P.	2005	Buyout	50,000,000	-	59,935,735	64,285,012	2,276,966	2.32%	3	1.1x	3	1.1x	3
Fairview Constitution II, L.P.	2005	Venture Capital	200,000,000	3,112,810	212,154,451	308,814,495	36,625,268	7.28%	2	1.5x	2	1.6x	1
Fairview Constitution III, L.P.	2007	Venture Capital	300,000,000	18,292,740	304,118,310	704,167,633	181,715,057	18.68%	1	2.3x	1	2.9x	1
Fairview Constitution IV, L.P.	2011	Venture Capital	150,000,000	5,956,437	153,894,308	180,138,655	316,424,162	23.14%	1	1.2x	3	3.2x	1
Freeman CT Horizon Investment Fund, LLC	2019	Buyout	50,000,000	29,132,373	22,477,667	2,173,124	31,140,991	28.44%	2	0.1x	2	1.5x	2
FS Equity Partners V, L.P.	2004	Buyout	75,000,000	14,503,532	60,583,588	121,830,595	5,355,175	15.32%	1	2.0x	1	2.1x	1
FS Equity Partners VI, L.P.	2011	Buyout	75,000,000	515,933	74,498,449	212,914,508	27,670,235	23.33%	1	2.9x	1	3.2x	1
Garmark Partners II, L.P.	2005	Mezzanine	75,000,000	-	106,264,618	137,009,755	-	9.14%	2	1.3x	2	1.3x	3
GCM Grosvenor - CT Cleantech Opportunities Fund LP	2007	Multi-Strategy	25,000,000	2,050,085	27,876,759	10,284,761	1,001,503	(13.49%)	4	0.4x	4	0.4x	4
GenNx360 Capital Partners II	2012	Buyout	25,000,000	1,233,763	29,923,707	26,529,358	28,135,861	16.31%	2	0.9x	3	1.8x	2
Georgian Alignment Fund II, LP	2021	Growth Equity	50,000,000	50,000,000	-	-	106,504	-		N/A		N/A	
Georgian Growth Fund VI, LP	2021	Growth Equity	100,000,000	100,000,000	-	-	(675,753)	-		N/A		N/A	
Georgian Partners Growth Fund V, L.P.	2019	Growth Equity	75,000,000	11,896,806	66,664,799	3,547,388	118,857,322	67.18%	1	0.1x	2	1.8x	1
Gilbert Global Equity Partners, L.P.	1998	Buyout	135,119,738	-	135,175,294	195,321,112	-	3.22%	3	1.4x	2	1.4x	2
HarbourVest CT Co-Investment Fund L.P.	2022	Co-Investment	450,000,000	450,000,000	-	-	-	-		N/A		N/A	
Hg CT1 Co-Invest L.P.	2021	Buyout	75,000,000	59,498,312	15,501,688	-	17,613,859	13.76%		N/A		1.1x	
Hg Genesis 9 L.P.	2020	Buyout	62,584,816	39,402,610	32,121,362	8,939,156	30,185,765	50.22%		0.3x		1.2x	
Hg Saturn 2 L.P.	2020	Buyout	100,000,000	66,329,208	54,092,621	20,421,811	66,512,539	74.72%		0.4x		1.6x	
Hg Saturn 3, L.P.	2022	Buyout	150,000,000	150,000,000	-	-	-	-		N/A		N/A	
Hollyport Secondary (Overage Fund) LP	2022	Secondaries	11,250,000	11,137,500	112,500	-	112,500	0.00%		N/A		1.0x	
Hollyport Secondary Opportunities Fund VII LP	2019	Secondaries	75,000,000	22,500,000	52,588,459	-	107,016,849	71.69%	1	N/A		2.0x	1
Hollyport Secondary Opportunities VIII LP	2022	Secondaries	125,000,000	121,875,000	3,125,000	-	7,397,647	136.72%		N/A		2.4x	
ICG Europe Fund VII, L.P.	2018	Mezzanine	86,546,492	27,441,416	64,144,436	5,688,146	92,383,560	23.16%	2	0.1x	3	1.5x	2

Note: See endnotes.

# Performance Summary by Investment



Connecticut Portfolio Performance Summary by Investment as of March 31, 2022													
Active Partnership	Vintage Year	Client Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	IRR Quartile	D/PI	D/PI Quartile	TVPI	TVPI Quartile
ICG Europe Fund VIII SCSp	2021	Mezzanine	167,813,193	142,252,917	25,560,276	180,056	26,237,494	4.63%		N/A		1.0x	
Icon Partners II, L.P.	2021	Buyout	38,000,000	9,847,476	28,152,524	-	54,091,776	95.74%		N/A		1.9x	
Icon Partners III, L.P.	2021	Buyout	11,106,429	2,877,379	8,229,050	-	10,060,790	22.00%		N/A		1.2x	
Icon Partners IV, L.P.	2021	Buyout	37,800,000	6,162,338	31,637,662	-	32,432,493	2.54%		N/A		1.0x	
Icon Partners V, L.P.	2021	Buyout	38,000,000	9,768,481	27,909,944	-	28,610,303	3.33%		N/A		1.0x	
ICV Partners II, L.P.	2006	Buyout	40,000,000	1,130,635	43,550,290	71,527,308	109,073	11.79%	1	1.6x	1	1.6x	1
Insight Partners Opportunities Fund I, L.P.	2020	Mezzanine	75,000,000	30,375,000	44,625,000	-	49,856,428	14.67%		N/A		1.1x	
J.F. Lehman Equity Investors III, L.P.	2011	Buyout	49,000,000	6,639,463	49,125,468	59,214,646	25,329,878	11.70%	3	1.2x	3	1.7x	2
J.F. Lehman Equity Investors IV, L.P.	2016	Buyout	75,000,000	2,658,124	73,671,065	158,253,296	28,883,900	40.80%	1	2.1x	1	2.5x	1
JFL Equity Investors V, L.P.	2020	Buyout	100,000,000	44,454,552	55,545,448	-	59,616,906	6.50%		N/A		1.1x	
K5 Private Investors, L.P.	2020	Buyout	125,000,000	80,155,828	44,844,172	-	48,604,156	17.63%		N/A		1.1x	
KKR 2006 Fund, L.P.	2006	Buyout	125,000,000	2,239,416	132,559,333	219,360,618	16,841,235	8.58%	2	1.7x	1	1.8x	1
KKR Millennium Fund, L.P.	2002	Buyout	100,000,000	-	102,609,690	212,467,483	80,946	16.36%	2	2.1x	1	2.1x	1
Landmark Equity CT Co-Investment Fund I, L.P.	2021	Secondaries	50,000,000	50,000,000	-	-	-	-		N/A		N/A	
Landmark Equity Partners XIV, L.P.	2008	Secondaries	100,000,000	2,700,619	98,017,409	121,201,005	10,240,895	9.64%	3	1.2x	3	1.3x	3
Landmark Equity Partners XV, L.P.	2013	Secondaries	100,000,000	20,020,010	80,275,284	78,100,040	39,187,114	13.38%	2	1.0x	3	1.5x	2
Landmark Equity Partners XVI, L.P.	2017	Secondaries	100,000,000	54,204,082	60,033,811	34,930,081	59,838,484	36.08%	1	0.6x	2	1.6x	2
Landmark Equity Partners XVII, L.P.	2020	Secondaries	100,000,000	100,000,000	-	-	2,231,145	-		N/A		N/A	
Leeds Equity Partners V, L.P.	2008	Buyout	40,000,000	5,448,220	50,137,652	103,346,840	5,910,925	19.01%	1	2.1x	1	2.2x	1
Leeds Equity Partners VI, L.P.	2016	Buyout	75,000,000	6,164,417	77,036,725	25,346,334	117,485,627	23.77%	2	0.3x	3	1.9x	1
Leeds Equity Partners VII, LP	2020	Buyout	125,000,000	113,987,642	11,012,358	3,873	21,904,710	153.76%		N/A		2.0x	
Levine Leichtman Capital Partners IV, L.P.	2008	Mezzanine	75,000,000	13,696,960	74,669,737	121,619,054	6,737,333	17.76%	1	1.6x	2	1.7x	2
Levine Leichtman Capital Partners V, L.P.	2013	Mezzanine	75,000,000	7,454,244	114,420,851	133,870,924	77,653,798	18.09%	2	1.2x	2	1.8x	2
Livingbridge 7	2020	Buyout	133,874,693	74,269,606	59,605,087	251,464	52,794,116	(14.30%)		N/A		0.9x	
M2 - Connecticut Emerging Private Equity Fund-of-Funds, L.P.	2007	Buyout	105,000,000	6,310,207	113,576,808	142,067,320	11,708,631	6.58%	3	1.3x	3	1.4x	3
Nutmeg Opportunities Fund II LLC - CT-Direct Investment	2021	Buyout	50,000,000	50,000,000	-	-	-	-		N/A		N/A	
Nutmeg Opportunities Fund II LLC - EM	2017	Buyout	35,000,000	7,008,904	29,997,281	9,379,156	47,063,923	23.94%	2	0.3x	3	1.9x	1
Nutmeg Opportunities Fund II LLC - SMMBF	2018	Buyout	65,000,000	-	67,760,143	7,223,370	91,697,590	25.52%	2	0.1x	3	1.5x	2

Note: See endnotes.

# Performance Summary by Investment



Connecticut Portfolio Performance Summary by Investment as of March 31, 2022													
Active Partnership	Vintage Year	Client Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	IRR Quartile	D/PI	D/PI Quartile	TVPI	TVPI Quartile
Nutmeg Opportunities Fund L.P. CT - EM	2010	Buyout	35,000,000	17,392,789	19,871,924	14,393,878	36,479,012	13.49%	2	0.7x	4	2.6x	1
Nutmeg Opportunities Fund L.P. CT - SMMBF	2010	Buyout	75,000,000	24,567,906	64,845,463	90,345,248	41,172,531	15.02%	2	1.4x	2	2.0x	1
One Rock Capital Partners III, L.P.	2020	Buyout	125,000,000	80,948,167	56,670,448	12,796,274	57,283,918	40.61%		0.2x		1.2x	
Pegasus Partners IV, L.P.	2007	Distressed/Restructuring	75,000,000	-	94,582,353	70,134,362	11,969,520	(2.64%)	4	0.7x	4	0.9x	4
Pegasus Partners V, L.P.	2011	Distressed/Restructuring	50,000,000	-	66,617,342	53,045,529	38,154,013	6.88%	3	0.8x	4	1.4x	3
PineBridge Global Emerging Markets Partners, L.L.C	1997	Multi-Strategy	85,168,457	2,354,066	82,950,178	109,550,524	1,679,397	7.04%	3	1.3x	3	1.3x	3
RFE Investment Partners VII, L.P.	2008	Buyout	40,000,000	327,148	39,765,243	61,590,853	6,842,738	7.95%	3	1.5x	2	1.7x	2
RFE Investment Partners VIII, L.P.	2012	Buyout	40,000,000	-	40,676,860	60,122,895	-	8.11%	3	1.5x	2	1.5x	3
Secondary Overflow Fund IV L.P.	2019	Secondaries	100,000,000	42,893,806	58,049,090	11,687,750	69,509,414	68.67%	1	0.2x	2	1.4x	2
Siris Partners IV, L.P.	2018	Buyout	50,000,000	21,278,591	32,182,757	5,757,774	46,072,391	24.16%	2	0.2x	3	1.6x	2
Stellex Capital Partners II, L.P.	2020	Distressed/Restructuring	100,000,000	70,683,973	29,316,827	3,515	30,257,462	5.55%		N/A		1.0x	
Strategic Value Special Situations Fund V, L.P.	2021	Distressed/Restructuring	150,000,000	101,250,000	48,750,000	-	53,524,015	16.25%		N/A		1.1x	
TA XI, L.P.	2010	Buyout	75,000,000	1,125,000	74,078,249	244,217,434	48,262,853	27.50%	1	3.3x	1	3.9x	1
Thomas H. Lee Equity Fund VI, L.P.	2006	Buyout	100,000,000	-	104,043,318	166,941,975	-	7.84%	2	1.6x	2	1.6x	2
Vista Equity Partners Fund III, L.P.	2007	Buyout	50,000,000	3,872,547	54,181,591	127,765,994	4,529,935	27.86%	1	2.4x	1	2.4x	1
Vista Equity Partners Fund IV, L.P.	2011	Buyout	75,000,000	11,274,005	78,134,589	98,582,738	58,197,951	15.74%	2	1.3x	2	2.0x	1
Vista Equity Partners Fund VI, L.P.	2016	Buyout	100,000,000	11,082,355	125,149,808	85,175,723	170,072,174	22.99%	2	0.7x	2	2.0x	1
Vista Equity Partners Fund VII, L.P.	2019	Buyout	100,000,000	26,253,371	74,462,789	788,834	106,374,863	22.31%	2	N/A		1.4x	2
Vistria Fund III, LP	2020	Buyout	75,000,000	8,752,145	66,247,855	-	87,246,591	29.94%		N/A		1.3x	
Vistria Fund IV, LP	2021	Buyout	150,000,000	86,138,886	63,861,114	-	68,968,711	28.08%		N/A		1.1x	
WCAS XIII, L.P.	2019	Buyout	125,000,000	46,089,703	78,924,239	13,137,258	94,353,872	38.41%	2	0.2x	2	1.4x	2
WCAS XIV, L.P.	2022	Buyout	150,000,000	150,000,000	-	-	(1,042,477)	-		N/A		N/A	
Wellspring Capital Partners V, L.P.	2011	Buyout	75,000,000	26,291,578	86,203,950	119,317,161	24,180,936	16.21%	2	1.4x	2	1.7x	2
Wellspring Capital Partners VI, L.P.	2018	Buyout	75,000,000	8,834,828	72,916,175	16,692,411	90,733,586	26.08%	2	0.2x	2	1.5x	2
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	Buyout	100,000,000	-	100,000,000	161,464,441	7,179,056	11.77%	2	1.6x	2	1.7x	2
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	Buyout	100,000,000	2,748,067	98,626,500	118,071,317	129,646,497	34.94%	1	1.2x	1	2.5x	1
WLR Recovery Fund IV, L.P.	2007	Distressed/Restructuring	100,000,000	3,443,659	90,823,160	121,429,342	730,608	7.32%	2	1.3x	2	1.3x	3
Yucaipa American Alliance Fund II, L.P.	2008	Buyout	75,000,000	77	104,214,590	111,531,355	56,109,702	7.87%	3	1.1x	3	1.6x	2

Note: See endnotes.

# Performance Summary by Investment



Connecticut Portfolio Performance Summary by Investment as of March 31, 2022													
Active Partnership	Vintage Year	Client Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	IRR Quartile	D/PI	D/PI Quartile	TVPI	TVPI Quartile
Yucaipa American Alliance Fund III, L.P.	2015	Buyout	39,250,000	3,330,022	37,958,080	11,089,263	42,888,149	10.72%	3	0.3x	4	1.4x	3
Total Active Portfolio			\$10,045,456,318	\$3,620,028,288	\$7,016,254,089	\$7,929,971,227	\$4,934,885,545	16.83%		1.1x		1.8x	

Inactive Partnership	Vintage Year	Client Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	IRR Quartile	D/PI	D/PI Quartile	TVPI	TVPI Quartile
Altaris Health Partners, L.P.	2002	Buyout	\$40,000,000	-	\$40,447,923	\$69,318,557	-	13.31%	1	1.7x	2	1.7x	2
Blackstone Capital Partners III, L.P.	1997	Buyout	30,000,000	-	30,034,831	60,943,826	-	14.54%	2	2.0x	2	2.0x	2
Candover 2008 Fund, L.P.	2008	Buyout	12,848,728	-	14,407,641	1,649,710	-	(70.49%)	4	0.1x	4	0.1x	4
Carlyle Asia Partners, L.P.	1999	Buyout	50,000,000	-	52,906,606	143,995,264	-	18.03%	1	2.7x	1	2.7x	1
Carlyle Europe Partners, L.P.	1997	Buyout	75,532,608	-	89,758,266	183,034,205	-	16.64%	1	2.0x	1	2.0x	1
Charterhouse Equity Partners IV, L.P.	2003	Buyout	74,851,593	-	85,759,969	137,801,206	-	9.21%	2	1.6x	1	1.6x	1
Compass Partners European Equity Fund, L.P. (USD)	1998	Buyout	150,000,000	-	149,765,817	260,307,780	-	9.74%	2	1.7x	2	1.7x	2
DLJ Merchant Banking Partners II, LP	1997	Buyout	75,000,000	-	81,666,655	105,992,273	-	5.98%	3	1.3x	3	1.3x	3
Forstmann Little Equity Partnership VI, L.P.	1999	Buyout	70,000,000	-	72,101,503	20,526,331	-	(21.61%)	4	0.3x	4	0.3x	4
Green Equity Investors III, LP	1999	Buyout	25,000,000	-	22,758,400	53,908,814	-	21.58%	1	2.4x	1	2.4x	1
Hicks, Muse, Tate & Furst Equity Fund III, L.P.	1996	Buyout	163,841,018	-	153,461,548	174,352,242	-	1.74%	3	1.1x	3	1.1x	3
Kelso Investment Associates VI, L.P.	1998	Buyout	50,000,000	-	42,478,505	59,211,684	-	9.31%	2	1.4x	2	1.4x	2
KKR 1996 Fund, LP	1997	Buyout	50,000,000	-	52,825,492	86,451,946	-	10.21%	2	1.6x	2	1.6x	2
Nogales Investors Fund II, L.P.	2006	Buyout	14,760,000	-	14,413,108	1,594,342	-	(24.07%)	4	0.1x	4	0.1x	4
Private Equity Partners Connecticut LP	1997	Buyout	90,000,000	-	86,469,826	106,782,368	-	4.53%	3	1.2x	3	1.2x	3
RFE Investment Partners VI, L.P.	1998	Buyout	30,000,000	-	26,340,276	60,911,055	-	15.07%	1	2.3x	1	2.3x	1
Thayer Equity Investors IV, L.P.	1998	Buyout	53,500,000	-	55,254,084	39,635,108	-	(4.55%)	4	0.7x	4	0.7x	4
Thomas H. Lee Equity Fund IV, L.P.	1998	Buyout	75,000,000	-	67,649,892	58,756,719	-	(2.61%)	4	0.9x	4	0.9x	4
Triumph Capital II	1991	Buyout	7,215,028	-	7,215,028	2,998,844	-	(25.10%)	4	0.4x	4	0.4x	4
Veritas Capital Fund, L.P.	1998	Buyout	125,000,000	-	125,435,409	321,662,707	-	26.87%	1	2.6x	1	2.6x	1
Washington & Congress Capital Partners, LP	1997	Buyout	145,000,000	-	142,274,864	116,067,908	-	(5.85%)	4	0.8x	4	0.8x	4
Wellspring Capital Partners II, L.P.	1998	Buyout	50,000,000	-	49,740,657	75,087,114	-	19.95%	1	1.5x	2	1.5x	2
Wellspring Capital Partners III, L.P.	2002	Buyout	75,000,000	-	74,248,215	161,845,142	-	27.33%	1	2.2x	1	2.2x	1
Welsh, Carson, Anderson & Stowe VIII, L.P.	1998	Buyout	50,000,000	-	50,000,000	64,408,409	-	3.12%	3	1.3x	3	1.3x	3

Note: See endnotes.

# Performance Summary by Investment



Connecticut Portfolio Performance Summary by Investment as of March 31, 2022													
Inactive Partnership	Vintage Year	Client Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	IRR Quartile	D/PI	D/PI Quartile	TVPI	TVPI Quartile
Welsh, Carson, Anderson & Stowe X, L.P.	2005	Buyout	100,000,000	-	98,683,200	169,925,675	-	8.33%	2	1.7x	1	1.7x	1
KPS Special Situations Fund II, L.P.	2003	Distressed/Restructuring	35,000,000	-	30,695,687	108,461,633	-	63.45%	1	3.5x	1	3.5x	1
Forstmann Little Sub. D&E MBO VII, LP	1998	Mezzanine	130,000,000	-	137,789,972	48,231,034	-	(25.57%)	4	0.4x	4	0.4x	4
GarMark Partners, L.P.	1998	Mezzanine	75,000,000	-	71,960,328	105,570,183	-	9.60%	2	1.5x	2	1.5x	2
S.W. Pelham Fund II, LP	2003	Mezzanine	20,000,000	-	21,892,148	26,131,624	-	6.53%	3	1.2x	3	1.2x	3
S.W. Pelham Fund, LP	1998	Mezzanine	50,000,000	-	52,859,693	21,812,365	-	(15.02%)	4	0.4x	4	0.4x	4
Triumph Conn Ltd Partnership	1993	Mezzanine	130,000,000	-	129,744,323	138,693,628	-	2.70%	4	1.1x	4	1.1x	4
Welsh, Carson, Anderson & Stowe III, LP	1983	Mezzanine	100,000,000	-	100,000,000	174,638,566	-	13.03%	2	1.7x	2	1.7x	2
Greenwich Street Capital Partners II, L.P.	1998	Multi-Strategy	50,000,000	-	53,072,178	53,435,934	-	0.12%	3	1.0x	3	1.0x	3
Stepstone Pioneer Capital I, L.P.	2004	Multi-Strategy	55,000,000	-	57,865,297	75,790,425	-	5.07%	2	1.3x	2	1.3x	3
Stepstone Pioneer Capital II, L.P.	2007	Multi-Strategy	175,000,000	-	189,026,577	258,133,232	-	4.92%	3	1.4x	2	1.4x	2
Landmark Primary Partners, L.P.	1998	Secondaries	140,000,000	-	137,133,640	170,018,236	-	3.72%	3	1.2x	3	1.2x	3
Lexington Capital Partners II, L.P.	1998	Secondaries	40,000,000	-	39,525,549	52,568,204	-	8.17%	2	1.3x	3	1.3x	3
Conn Greene Ventures LP	1993	Venture Capital	14,850,000	-	14,850,000	15,553,331	-	1.40%	4	1.0x	4	1.0x	4
Connecticut Financial Development, LP	1992	Venture Capital	49,583,271	-	49,583,271	10,367,734	-	(20.11%)	4	0.2x	4	0.2x	4
Connecticut Futures Fund, LP	1993	Venture Capital	40,000,000	-	40,000,000	11,317,103	-	(29.15%)	4	0.3x	4	0.3x	4
Conning Capital Partners V, L.P.	1997	Venture Capital	50,000,000	-	50,362,292	38,356,811	-	(4.21%)	4	0.8x	4	0.8x	4
Crescendo World Fund, LLC	1997	Venture Capital	100,000,000	-	100,000,000	80,411,666	-	(5.48%)	4	0.8x	4	0.8x	4
Grotech Partners V, L.P.	1998	Venture Capital	50,000,000	-	50,000,000	49,181,322	-	(0.79%)	3	1.0x	3	1.0x	3
Keystone Venture V, L.P.	1998	Venture Capital	27,500,000	-	27,500,000	1,985,505	-	(33.45%)	4	0.1x	4	0.1x	4
Pioneer Ventures Associates LP	1998	Venture Capital	50,000,000	-	49,976,129	21,723,214	-	(13.46%)	4	0.4x	4	0.4x	4
SCP Private Equity Partners I, L.P.	1996	Venture Capital	75,000,000	-	75,070,755	51,909,806	-	(6.31%)	4	0.7x	4	0.7x	4
Shawmut Equity Partners, L.P.	1997	Venture Capital	75,000,000	-	59,910,737	87,122,324	-	9.61%	2	1.5x	2	1.5x	3
Syndicated Communications Venture Partners V, L.P.	2007	Venture Capital	27,267,140	-	27,421,182	960,486	-	(35.76%)	4	N/A		N/A	
Total Inactive Portfolio			\$3,241,749,386	\$-	\$3,252,337,473	\$4,139,543,595	\$-	4.65%		1.3x		1.3x	
Total Portfolio			\$13,287,205,704	\$3,620,028,288	\$10,268,591,562	\$12,069,514,822	\$4,934,885,545	10.21%		1.2x		1.7x	

Note: See endnotes.

# Benchmarking Summaries



IRR Summary						
(USD in Millions)	Total Exposure	% of Total Exposure	Market Value	% of Market Value	Capital Committed	% of Commitments
1	\$2,365.4	27.65%	\$1,994.8	40.42%	\$3,360.8	25.29%
2	1,716.2	20.06%	1,358.0	27.52%	2,956.4	22.25%
3	522.8	6.11%	462.2	9.37%	1,925.3	14.49%
4	84.8	0.99%	63.1	1.28%	1,369.3	10.31%
N/A	3,865.7	45.19%	1,056.8	21.41%	3,675.4	27.66%
	\$8,554.9	100.0%	\$4,934.9	100.0%	\$13,287.2	100.0%

TVPI Summary						
(USD in Millions)	Total Exposure	% of Total Exposure	Market Value	% of Market Value	Capital Committed	% of Commitments
1	\$2,665.1	31.15%	\$2,336.7	47.35%	\$3,950.6	29.73%
2	1,796.9	21.00%	1,366.4	27.69%	2,763.6	20.80%
3	167.6	1.96%	133.3	2.70%	1,578.3	11.88%
4	59.6	0.70%	41.6	0.84%	1,292.1	9.72%
N/A	3,865.7	45.19%	1,056.9	21.42%	3,702.6	27.87%
	\$8,554.9	100.0%	\$4,934.9	100.0%	\$13,287.2	100.0%

D/PI Summary						
(USD in Millions)	Total Exposure	% of Total Exposure	Market Value	% of Market Value	Capital Committed	% of Commitments
1	\$955.8	11.17%	\$785.7	15.92%	\$2,129.2	16.02%
2	1,622.2	18.96%	1,226.4	24.85%	3,611.6	27.18%
3	1,593.2	18.62%	1,419.4	28.76%	2,204.6	16.59%
4	518.1	6.06%	446.6	9.05%	1,639.2	12.34%
N/A	3,865.6	45.19%	1,056.8	21.42%	3,702.6	27.87%
	\$8,554.9	100.0%	\$4,934.9	100.0%	\$13,287.2	100.0%

# Performance Summary Categories



Connecticut Portfolio Performance Summary by Strategy as of March 31, 2022										
Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	TVPI	Since Inception IRR	1-YR IRR	3-YR IRR	5-YR IRR
Buyout	\$6,935,401,599	\$1,759,906,996	\$5,581,143,161	\$6,494,660,324	\$2,838,848,458	1.7x	10.22%	27.87%	23.32%	21.31%
Co-Investment	450,000,000	450,000,000	-	-	-	-	N/A	N/A	N/A	N/A
Distressed/Restructuring	650,000,000	213,382,273	540,824,286	643,332,105	223,603,132	1.6x	15.05%	6.33%	8.07%	11.30%
Growth Equity	350,000,000	231,186,627	122,722,872	3,547,388	191,601,421	1.6x	36.76%	46.65%	35.54%	N/A
Mezzanine	1,059,359,685	221,220,537	943,931,382	913,445,335	252,868,613	1.2x	4.45%	24.22%	25.46%	17.84%
Multi-Strategy	390,168,457	4,404,151	410,790,989	507,194,876	2,680,900	1.2x	3.87%	(22.62%)	(7.97%)	(7.00%)
Secondaries	1,041,250,000	473,331,017	580,860,742	483,378,816	368,433,361	1.5x	8.34%	48.31%	37.89%	27.76%
Special Situations	100,000,000	50,372,720	64,253,129	16,618,623	59,694,563	1.2x	38.75%	36.87%	N/A	N/A
Venture Capital	2,311,025,963	216,223,967	2,024,065,001	3,007,337,355	997,155,097	2.0x	12.75%	32.54%	33.55%	23.95%
<b>Total Portfolio</b>	<b>\$13,287,205,704</b>	<b>\$3,620,028,288</b>	<b>\$10,268,591,562</b>	<b>\$12,069,514,822</b>	<b>\$4,934,885,545</b>	<b>1.7x</b>	<b>10.21%</b>	<b>29.42%</b>	<b>25.64%</b>	<b>20.90%</b>

Connecticut Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Vintage Year	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	TVPI	Since Inception IRR	1-YR IRR	3-YR IRR	5-YR IRR
Post-2011	\$6,889,548,618	\$3,473,735,172	\$3,879,725,331	\$2,383,613,467	\$4,427,834,000	1.8x	22.08%	32.94%	28.32%	25.54%
Pre-2011	6,397,657,086	146,293,116	6,388,866,231	9,685,901,355	507,051,545	1.6x	9.03%	10.61%	17.29%	13.08%
<b>Total Portfolio</b>	<b>\$13,287,205,704</b>	<b>\$3,620,028,288</b>	<b>\$10,268,591,562</b>	<b>\$12,069,514,822</b>	<b>\$4,934,885,545</b>	<b>1.7x</b>	<b>10.21%</b>	<b>29.42%</b>	<b>25.64%</b>	<b>20.90%</b>

Connecticut Portfolio Performance Summary by Investment Category as of March 31, 2022										
Investment Category	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	TVPI	Since Inception IRR	1-YR IRR	3-YR IRR	5-YR IRR
Fund-of-Funds	\$380,000,000	\$107,802,569	\$310,005,760	\$272,512,269	\$229,645,270	1.6x	11.81%	79.24%	32.62%	20.62%
Primary Partnership	12,152,205,704	3,321,907,202	9,380,962,560	11,313,623,737	4,346,548,206	1.7x	10.29%	54.16%	26.56%	20.84%
Secondary Fund-of-Funds	755,000,000	190,318,517	577,623,242	483,378,816	358,692,069	1.5x	8.18%	84.89%	36.90%	24.08%
<b>Total Portfolio</b>	<b>\$13,287,205,704</b>	<b>\$3,620,028,288</b>	<b>\$10,268,591,562</b>	<b>\$12,069,514,822</b>	<b>\$4,934,885,545</b>	<b>1.7x</b>	<b>10.21%</b>	<b>29.42%</b>	<b>25.64%</b>	<b>20.90%</b>



# Performance Summary by Vintage Year



Connecticut Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
1983 Portfolio										
Welsh, Carson, Anderson & Stowe III, LP	1983	Mezzanine	\$100,000,000	-	\$100,000,000	\$174,638,566	-	13.03%	1.7x	1.7x
1983 Portfolio Total			\$100,000,000	\$-	\$100,000,000	\$174,638,566	\$-	13.03%	1.7x	1.7x
1987 Portfolio										
Constitution Liquidating Fund, L.P.	1987	Venture Capital	\$640,000,552	-	\$532,763,501	\$1,367,419,212	\$3,804,683	20.10%	2.6x	2.6x
1987 Portfolio Total			\$640,000,552	\$-	\$532,763,501	\$1,367,419,212	\$3,804,683	20.10%	2.6x	2.6x
1991 Portfolio										
Triumph Capital II	1991	Buyout	\$7,215,028	-	\$7,215,028	\$2,998,844	-	(25.10%)	0.4x	0.4x
1991 Portfolio Total			\$7,215,028	\$-	\$7,215,028	\$2,998,844	\$-	(25.10%)	0.4x	0.4x
1992 Portfolio										
Connecticut Financial Development, LP	1992	Venture Capital	\$49,583,271	-	\$49,583,271	\$10,367,734	-	(20.11%)	0.2x	0.2x
1992 Portfolio Total			\$49,583,271	\$-	\$49,583,271	\$10,367,734	\$-	(20.11%)	0.2x	0.2x
1993 Portfolio										
Conn Greene Ventures LP	1993	Venture Capital	\$14,850,000	-	\$14,850,000	\$15,553,331	-	1.40%	1.0x	1.0x
Connecticut Futures Fund, LP	1993	Venture Capital	40,000,000	-	40,000,000	11,317,103	-	(29.15%)	0.3x	0.3x
Triumph Conn Ltd Partnership	1993	Mezzanine	130,000,000	-	129,744,323	138,693,628	-	2.70%	1.1x	1.1x
1993 Portfolio Total			\$184,850,000	\$-	\$184,594,323	\$165,564,062	\$-	(3.67%)	0.9x	0.9x
1996 Portfolio										
Hicks, Muse, Tate & Furst Equity Fund III, L.P.	1996	Buyout	\$163,841,018	-	\$153,461,548	\$174,352,242	-	1.74%	1.1x	1.1x
SCP Private Equity Partners I, L.P.	1996	Venture Capital	75,000,000	-	75,070,755	51,909,806	-	(6.31%)	0.7x	0.7x
1996 Portfolio Total			\$238,841,018	\$-	\$228,532,303	\$226,262,048	\$-	(0.14%)	1.0x	1.0x
1997 Portfolio										
Blackstone Capital Partners III, L.P.	1997	Buyout	\$30,000,000	-	\$30,034,831	\$60,943,826	-	14.54%	2.0x	2.0x
Carlyle Europe Partners, L.P.	1997	Buyout	75,532,608	-	89,758,266	183,034,205	-	16.64%	2.0x	2.0x
Conning Capital Partners V, L.P.	1997	Venture Capital	50,000,000	-	50,362,292	38,356,811	-	(4.21%)	0.8x	0.8x
Crescendo World Fund, LLC	1997	Venture Capital	100,000,000	-	100,000,000	80,411,666	-	(5.48%)	0.8x	0.8x
DLJ Merchant Banking Partners II, LP	1997	Buyout	75,000,000	-	81,666,655	105,992,273	-	5.98%	1.3x	1.3x
KKR 1996 Fund, LP	1997	Buyout	50,000,000	-	52,825,492	86,451,946	-	10.21%	1.6x	1.6x
PineBridge Global Emerging Markets Partners, L.L.C	1997	Multi-Strategy	85,168,457	\$2,354,066	82,950,178	109,550,524	\$1,679,397	7.04%	1.3x	1.3x
Private Equity Partners Connecticut LP	1997	Buyout	90,000,000	-	86,469,826	106,782,368	-	4.53%	1.2x	1.2x
Shawmut Equity Partners, L.P.	1997	Venture Capital	75,000,000	-	59,910,737	87,122,324	-	9.61%	1.5x	1.5x
Washington & Congress Capital Partners, LP	1997	Buyout	145,000,000	-	142,274,864	116,067,908	-	(5.85%)	0.8x	0.8x
1997 Portfolio Total			\$775,701,065	\$2,354,066	\$776,253,141	\$974,713,851	\$1,679,397	5.12%	1.3x	1.3x

# Performance Summary by Vintage Year



Connecticut Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
1998 Portfolio										
Compass Partners European Equity Fund, L.P. (USD)	1998	Buyout	\$150,000,000	-	\$149,765,817	\$260,307,780	-	9.74%	1.7x	1.7x
Forstmann Little Sub. D&E MBO VII, LP	1998	Mezzanine	130,000,000	-	137,789,972	48,231,034	-	(25.57%)	0.4x	0.4x
GarMark Partners, L.P.	1998	Mezzanine	75,000,000	-	71,960,328	105,570,183	-	9.60%	1.5x	1.5x
Gilbert Global Equity Partners, L.P.	1998	Buyout	135,119,738	-	135,175,294	195,321,112	-	3.22%	1.4x	1.4x
Greenwich Street Capital Partners II, L.P.	1998	Multi-Strategy	50,000,000	-	53,072,178	53,435,934	-	0.12%	1.0x	1.0x
Grotech Partners V, L.P.	1998	Venture Capital	50,000,000	-	50,000,000	49,181,322	-	(0.79%)	1.0x	1.0x
Kelso Investment Associates VI, L.P.	1998	Buyout	50,000,000	-	42,478,505	59,211,684	-	9.31%	1.4x	1.4x
Keystone Venture V, L.P.	1998	Venture Capital	27,500,000	-	27,500,000	1,985,505	-	(33.45%)	0.1x	0.1x
Landmark Primary Partners, L.P.	1998	Secondaries	140,000,000	-	137,133,640	170,018,236	-	3.72%	1.2x	1.2x
Lexington Capital Partners II, L.P.	1998	Secondaries	40,000,000	-	39,525,549	52,568,204	-	8.17%	1.3x	1.3x
Pioneer Ventures Associates LP	1998	Venture Capital	50,000,000	-	49,976,129	21,723,214	-	(13.46%)	0.4x	0.4x
RFE Investment Partners VI, L.P.	1998	Buyout	30,000,000	-	26,340,276	60,911,055	-	15.07%	2.3x	2.3x
S.W. Pelham Fund, LP	1998	Mezzanine	50,000,000	-	52,859,693	21,812,365	-	(15.02%)	0.4x	0.4x
Thayer Equity Investors IV, L.P.	1998	Buyout	53,500,000	-	55,254,084	39,635,108	-	(4.55%)	0.7x	0.7x
Thomas H. Lee Equity Fund IV, L.P.	1998	Buyout	75,000,000	-	67,649,892	58,756,719	-	(2.61%)	0.9x	0.9x
Veritas Capital Fund, L.P.	1998	Buyout	125,000,000	-	125,435,409	321,662,707	-	26.87%	2.6x	2.6x
Wellspring Capital Partners II, L.P.	1998	Buyout	50,000,000	-	49,740,657	75,087,114	-	19.95%	1.5x	1.5x
Welsh, Carson, Anderson & Stowe VIII, L.P.	1998	Buyout	50,000,000	-	50,000,000	64,408,409	-	3.12%	1.3x	1.3x
1998 Portfolio Total			\$1,331,119,738	\$-	\$1,321,657,423	\$1,659,827,685	\$-	4.25%	1.3x	1.3x
1999 Portfolio										
Carlyle Asia Partners, L.P.	1999	Buyout	\$50,000,000	-	\$52,906,606	\$143,995,264	-	18.03%	2.7x	2.7x
Crescendo III, L.P.	1999	Venture Capital	36,825,000	-	36,824,862	19,298,548	\$71,637	(12.56%)	0.5x	0.5x
Forstmann Little Equity Partnership VI, L.P.	1999	Buyout	70,000,000	-	72,101,503	20,526,331	-	(21.61%)	0.3x	0.3x
Green Equity Investors III, LP	1999	Buyout	25,000,000	-	22,758,400	53,908,814	-	21.58%	2.4x	2.4x
1999 Portfolio Total			\$181,825,000	\$-	\$184,591,371	\$237,728,957	\$71,637	4.09%	1.3x	1.3x
2002 Portfolio										
Altaris Health Partners, L.P.	2002	Buyout	\$40,000,000	-	\$40,447,923	\$69,318,557	-	13.31%	1.7x	1.7x
KKR Millennium Fund, L.P.	2002	Buyout	100,000,000	-	102,609,690	212,467,483	\$80,946	16.36%	2.1x	2.1x
Wellspring Capital Partners III, L.P.	2002	Buyout	75,000,000	-	74,248,215	161,845,142	-	27.33%	2.2x	2.2x
2002 Portfolio Total			\$215,000,000	\$-	\$217,305,828	\$443,631,182	\$80,946	19.58%	2.0x	2.0x
2003 Portfolio										
Charterhouse Equity Partners IV, L.P.	2003	Buyout	\$74,851,593	-	\$85,759,969	\$137,801,206	-	9.21%	1.6x	1.6x

# Performance Summary by Vintage Year



Connecticut Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
KPS Special Situations Fund II, L.P.	2003	Distressed/Restructuring	35,000,000	-	30,695,687	108,461,633	-	63.45%	3.5x	3.5x
S.W. Pelham Fund II, LP	2003	Mezzanine	20,000,000	-	21,892,148	26,131,624	-	6.53%	1.2x	1.2x
2003 Portfolio Total			\$129,851,593	\$-	\$138,347,804	\$272,394,463	\$-	18.29%	2.0x	2.0x
2004 Portfolio										
FS Equity Partners V, L.P.	2004	Buyout	\$75,000,000	\$14,503,532	\$60,583,588	\$121,830,595	\$5,355,175	15.32%	2.0x	2.1x
Stepstone Pioneer Capital I, L.P.	2004	Multi-Strategy	55,000,000	-	57,865,297	75,790,425	-	5.07%	1.3x	1.3x
2004 Portfolio Total			\$130,000,000	\$14,503,532	\$118,448,885	\$197,621,020	\$5,355,175	11.05%	1.7x	1.7x
2005 Portfolio										
Ethos Private Equity Fund V, L.P.	2005	Buyout	\$50,000,000	-	\$59,935,735	\$64,285,012	\$2,276,966	2.32%	1.1x	1.1x
Fairview Constitution II, L.P.	2005	Venture Capital	200,000,000	\$3,112,810	212,154,451	308,814,495	36,625,268	7.28%	1.5x	1.6x
Garmark Partners II, L.P.	2005	Mezzanine	75,000,000	-	106,264,618	137,009,755	-	9.14%	1.3x	1.3x
Welsh, Carson, Anderson & Stowe X, L.P.	2005	Buyout	100,000,000	-	98,683,200	169,925,675	-	8.33%	1.7x	1.7x
2005 Portfolio Total			\$425,000,000	\$3,112,810	\$477,038,004	\$680,034,937	\$38,902,234	7.33%	1.4x	1.5x
2006 Portfolio										
Boston Ventures VII, L.P.	2006	Buyout	\$75,000,000	\$12,388,419	\$65,028,749	\$74,798,645	\$4,194,984	3.43%	1.2x	1.2x
Court Square Capital Partners II, L.P.	2006	Buyout	93,793,953	3,246,335	91,797,386	163,618,527	3,573,395	12.32%	1.8x	1.8x
ICV Partners II, L.P.	2006	Buyout	40,000,000	1,130,635	43,550,290	71,527,308	109,073	11.79%	1.6x	1.6x
KKR 2006 Fund, L.P.	2006	Buyout	125,000,000	2,239,416	132,559,333	219,360,618	16,841,235	8.58%	1.7x	1.8x
Nogales Investors Fund II, L.P.	2006	Buyout	14,760,000	-	14,413,108	1,594,342	-	(24.07%)	0.1x	0.1x
Thomas H. Lee Equity Fund VI, L.P.	2006	Buyout	100,000,000	-	104,043,318	166,941,975	-	7.84%	1.6x	1.6x
2006 Portfolio Total			\$448,553,953	\$19,004,805	\$451,392,184	\$697,841,415	\$24,718,687	8.16%	1.5x	1.6x
2007 Portfolio										
Fairview Constitution III, L.P.	2007	Venture Capital	\$300,000,000	\$18,292,740	\$304,118,310	\$704,167,633	\$181,715,057	18.68%	2.3x	2.9x
GCM Grosvenor - CT Cleantech Opportunities Fund LP	2007	Multi-Strategy	25,000,000	2,050,085	27,876,759	10,284,761	1,001,503	(13.49%)	0.4x	0.4x
M2 - Connecticut Emerging Private Equity Fund-of-Funds, L.P.	2007	Buyout	105,000,000	6,310,207	113,576,808	142,067,320	11,708,631	6.58%	1.3x	1.4x
Pegasus Partners IV, L.P.	2007	Distressed/Restructuring	75,000,000	-	94,582,353	70,134,362	11,969,520	(2.64%)	0.7x	0.9x
Stepstone Pioneer Capital II, L.P.	2007	Multi-Strategy	175,000,000	-	189,026,577	258,133,232	-	4.92%	1.4x	1.4x
Syndicated Communications Venture Partners V, L.P.	2007	Venture Capital	27,267,140	-	27,421,182	960,486	-	(35.76%)	N/A	N/A
Vista Equity Partners Fund III, L.P.	2007	Buyout	50,000,000	3,872,547	54,181,591	127,765,994	4,529,935	27.86%	2.4x	2.4x
WLR Recovery Fund IV, L.P.	2007	Distressed/Restructuring	100,000,000	3,443,659	90,823,160	121,429,342	730,608	7.32%	1.3x	1.3x
2007 Portfolio Total			\$857,267,140	\$33,969,238	\$901,606,740	\$1,434,943,130	\$211,655,254	10.49%	1.6x	1.8x
2008 Portfolio										
Altaris Health II	2008	Buyout	\$40,000,000	\$5,567,183	\$45,574,376	\$99,451,134	\$324,904	25.17%	2.2x	2.2x

# Performance Summary by Vintage Year



Connecticut Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
Candover 2008 Fund, L.P.	2008	Buyout	12,848,728	-	14,407,641	1,649,710	-	(70.49%)	0.1x	0.1x
CT Horizon Legacy Fund, L.P.	2008	Buyout	15,000,000	2,522,763	13,954,141	9,103,297	1,523,583	(4.47%)	0.7x	0.8x
Landmark Equity Partners XIV, L.P.	2008	Secondaries	100,000,000	2,700,619	98,017,409	121,201,005	10,240,895	9.64%	1.2x	1.3x
Leeds Equity Partners V, L.P.	2008	Buyout	40,000,000	5,448,220	50,137,652	103,346,840	5,910,925	19.01%	2.1x	2.2x
Levine Leichtman Capital Partners IV, L.P.	2008	Mezzanine	75,000,000	13,696,960	74,669,737	121,619,054	6,737,333	17.76%	1.6x	1.7x
RFE Investment Partners VII, L.P.	2008	Buyout	40,000,000	327,148	39,765,243	61,590,853	6,842,738	7.95%	1.5x	1.7x
Yucaipa American Alliance Fund II, L.P.	2008	Buyout	75,000,000	77	104,214,590	111,531,355	56,109,702	7.87%	1.1x	1.6x
2008 Portfolio Total			\$397,848,728	\$30,262,970	\$440,740,789	\$629,493,248	\$87,690,080	11.14%	1.4x	1.6x
2009 Portfolio										
Welsh, Carson, Anderson & Stowe XI, L.P.	2009	Buyout	\$100,000,000	-	\$100,000,000	\$161,464,441	\$7,179,056	11.77%	1.6x	1.7x
2009 Portfolio Total			\$100,000,000	\$-	\$100,000,000	\$161,464,441	\$7,179,056	11.77%	1.6x	1.7x
2010 Portfolio										
Nutmeg Opportunities Fund L.P. CT - EM	2010	Buyout	\$35,000,000	\$17,392,789	\$19,871,924	\$14,393,878	\$36,479,012	13.49%	0.7x	2.6x
Nutmeg Opportunities Fund L.P. CT - SMMBF	2010	Buyout	75,000,000	24,567,906	64,845,463	90,345,248	41,172,531	15.02%	1.4x	2.0x
TA XI, L.P.	2010	Buyout	75,000,000	1,125,000	74,078,249	244,217,434	48,262,853	27.50%	3.3x	3.9x
2010 Portfolio Total			\$185,000,000	\$43,085,695	\$158,795,636	\$348,956,560	\$125,914,396	21.90%	2.2x	3.0x
2011 Portfolio										
Castlake Fund II, L.P.	2011	Distressed/Restructuring	\$50,000,000	\$3,750,659	\$46,663,983	\$43,734,509	\$21,434,345	6.16%	0.9x	1.4x
Fairview Constitution IV, L.P.	2011	Venture Capital	150,000,000	5,956,437	153,894,308	180,138,655	316,424,162	23.14%	1.2x	3.2x
FS Equity Partners VI, L.P.	2011	Buyout	75,000,000	515,933	74,498,449	212,914,508	27,670,235	23.33%	2.9x	3.2x
J.F. Lehman Equity Investors III, L.P.	2011	Buyout	49,000,000	6,639,463	49,125,468	59,214,646	25,329,878	11.70%	1.2x	1.7x
Pegasus Partners V, L.P.	2011	Distressed/Restructuring	50,000,000	-	66,617,342	53,045,529	38,154,013	6.88%	0.8x	1.4x
Vista Equity Partners Fund IV, L.P.	2011	Buyout	75,000,000	11,274,005	78,134,589	98,582,738	58,197,951	15.74%	1.3x	2.0x
Wellspring Capital Partners V, L.P.	2011	Buyout	75,000,000	26,291,578	86,203,950	119,317,161	24,180,936	16.21%	1.4x	1.7x
2011 Portfolio Total			\$524,000,000	\$54,428,075	\$555,138,089	\$766,947,746	\$511,391,520	17.69%	1.4x	2.3x
2012 Portfolio										
Clearlake Capital Partners III, L.P.	2012	Distressed/Restructuring	\$40,000,000	\$18,967,864	\$56,764,127	\$151,660,808	\$10,872,482	40.76%	2.7x	2.9x
Court Square Capital Partners III, L.P.	2012	Buyout	50,000,000	2,381,370	54,066,006	64,654,859	46,745,545	21.33%	1.2x	2.1x
GenNx360 Capital Partners II	2012	Buyout	25,000,000	1,233,763	29,923,707	26,529,358	28,135,861	16.31%	0.9x	1.8x
RFE Investment Partners VIII, L.P.	2012	Buyout	40,000,000	-	40,676,860	60,122,895	-	8.11%	1.5x	1.5x
2012 Portfolio Total			\$155,000,000	\$22,582,997	\$181,430,700	\$302,967,920	\$85,753,888	23.30%	1.7x	2.1x
2013 Portfolio										
Altaris Health Partners III, L.P.	2013	Buyout	\$50,000,000	\$4,070,604	\$54,292,656	\$72,454,007	\$53,315,935	28.18%	1.3x	2.3x

# Performance Summary by Vintage Year



Connecticut Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
Apollo Investment Fund VIII, L.P.	2013	Buyout	125,000,000	16,344,744	129,354,825	128,254,354	66,699,265	11.38%	1.0x	1.5x
Landmark Equity Partners XV, L.P.	2013	Secondaries	100,000,000	20,020,010	80,275,284	78,100,040	39,187,114	13.38%	1.0x	1.5x
Levine Leichtman Capital Partners V, L.P.	2013	Mezzanine	75,000,000	7,454,244	114,420,851	133,870,924	77,653,798	18.09%	1.2x	1.8x
<b>2013 Portfolio Total</b>			<b>\$350,000,000</b>	<b>\$47,889,602</b>	<b>\$378,343,616</b>	<b>\$412,679,325</b>	<b>\$236,856,112</b>	<b>16.37%</b>	<b>1.1x</b>	<b>1.7x</b>
<b>2015 Portfolio</b>										
Clearlake Capital Partners IV, L.P.	2015	Distressed/Restructuring	\$50,000,000	\$15,286,118	\$76,610,807	\$94,862,407	\$56,660,687	29.47%	1.2x	2.0x
Welsh, Carson, Anderson & Stowe XII, L.P.	2015	Buyout	100,000,000	2,748,067	98,626,500	118,071,317	129,646,497	34.94%	1.2x	2.5x
Yucaipa American Alliance Fund III, L.P.	2015	Buyout	39,250,000	3,330,022	37,958,080	11,089,263	42,888,149	10.72%	0.3x	1.4x
<b>2015 Portfolio Total</b>			<b>\$189,250,000</b>	<b>\$21,364,207</b>	<b>\$213,195,387</b>	<b>\$224,022,987</b>	<b>\$229,195,333</b>	<b>28.84%</b>	<b>1.1x</b>	<b>2.1x</b>
<b>2016 Portfolio</b>										
Constitution Fund V, LLC - Series A	2016	Venture Capital	\$130,000,000	\$7,958,127	\$125,290,623	\$48,265,398	\$319,317,817	36.55%	0.4x	2.9x
J.F. Lehman Equity Investors IV, L.P.	2016	Buyout	75,000,000	2,658,124	73,671,065	158,253,296	28,883,900	40.80%	2.1x	2.5x
Leeds Equity Partners VI, L.P.	2016	Buyout	75,000,000	6,164,417	77,036,725	25,346,334	117,485,627	23.77%	0.3x	1.9x
Vista Equity Partners Fund VI, L.P.	2016	Buyout	100,000,000	11,082,355	125,149,808	85,175,723	170,072,174	22.99%	0.7x	2.0x
<b>2016 Portfolio Total</b>			<b>\$380,000,000</b>	<b>\$27,863,023</b>	<b>\$401,148,221</b>	<b>\$317,040,751</b>	<b>\$635,759,518</b>	<b>30.77%</b>	<b>0.8x</b>	<b>2.4x</b>
<b>2017 Portfolio</b>										
Altaris Constellation Partners IV, L.P.	2017	Buyout	\$10,000,000	\$1,029,756	\$9,686,637	\$7,015,835	\$10,625,396	31.54%	0.7x	1.8x
Altaris Health Partners IV, L.P.	2017	Buyout	40,000,000	5,093,768	37,662,853	34,845,620	36,789,419	34.09%	0.9x	1.9x
BC European Capital X, L.P.	2017	Buyout	92,891,922	4,188,979	91,683,855	3,504,642	133,255,401	14.85%	N/A	1.5x
Clearlake Capital Partners V, L.P.	2017	Buyout	60,000,000	16,306,685	74,976,293	55,121,352	91,583,559	39.08%	0.7x	2.0x
Constitution Fund V, LLC - Series B	2017	Venture Capital	20,000,000	3,681,773	16,566,660	5,259,631	14,986,596	6.58%	0.3x	1.2x
EQT VIII SCSP	2017	Buyout	81,431,073	12,452,440	71,755,968	32,273,924	116,974,270	42.74%	0.4x	2.1x
Landmark Equity Partners XVI, L.P.	2017	Secondaries	100,000,000	54,204,082	60,033,811	34,930,081	59,838,484	36.08%	0.6x	1.6x
Nutmeg Opportunities Fund II LLC - EM	2017	Buyout	35,000,000	7,008,904	29,997,281	9,379,156	47,063,923	23.94%	0.3x	1.9x
<b>2017 Portfolio Total</b>			<b>\$439,322,995</b>	<b>\$103,966,387</b>	<b>\$392,363,358</b>	<b>\$182,330,241</b>	<b>\$511,117,048</b>	<b>27.88%</b>	<b>0.5x</b>	<b>1.8x</b>
<b>2018 Portfolio</b>										
Aldrich Capital Partners Fund, L.P.	2018	Growth Equity	\$50,000,000	\$6,030,272	\$44,317,622	-	\$62,781,353	18.24%	N/A	1.4x
Constitution Fund V, LLC - Series C	2018	Venture Capital	75,000,000	29,815,646	45,184,354	\$5,084,481	71,505,670	47.06%	0.1x	1.7x
Constitution Fund V, LLC - Series D	2018	Venture Capital	25,000,000	9,729,558	15,270,442	-	12,072,422	(16.54%)	N/A	0.8x
ICG Europe Fund VII, L.P.	2018	Mezzanine	86,546,492	27,441,416	64,144,436	5,688,146	92,383,560	23.16%	0.1x	1.5x
Nutmeg Opportunities Fund II LLC - SMMBF	2018	Buyout	65,000,000	-	67,760,143	7,223,370	91,697,590	25.52%	0.1x	1.5x
Siris Partners IV, L.P.	2018	Buyout	50,000,000	21,278,591	32,182,757	5,757,774	46,072,391	24.16%	0.2x	1.6x

# Performance Summary by Vintage Year



Connecticut Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
Wellspring Capital Partners VI, L.P.	2018	Buyout	75,000,000	8,834,828	72,916,175	16,692,411	90,733,586	26.08%	0.2x	1.5x
<b>2018 Portfolio Total</b>			<b>\$426,546,492</b>	<b>\$103,130,311</b>	<b>\$341,775,929</b>	<b>\$40,446,182</b>	<b>\$467,246,572</b>	<b>24.68%</b>	<b>0.1x</b>	<b>1.5x</b>
<b>2019 Portfolio</b>										
Apollo Investment Fund IX, L.P.	2019	Buyout	\$125,000,000	\$56,860,037	\$84,147,863	\$25,850,513	\$93,534,011	30.60%	0.3x	1.4x
Dover Street X, L.P.	2019	Secondaries	100,000,000	48,000,000	52,000,000	14,873,500	72,899,313	73.57%	0.3x	1.7x
Freeman CT Horizon Investment Fund, LLC	2019	Buyout	50,000,000	29,132,373	22,477,667	2,173,124	31,140,991	28.44%	0.1x	1.5x
Georgian Partners Growth Fund V, L.P.	2019	Growth Equity	75,000,000	11,896,806	66,664,799	3,547,388	118,857,322	67.18%	0.1x	1.8x
Hollyport Secondary Opportunities Fund VII LP	2019	Secondaries	75,000,000	22,500,000	52,588,459	-	107,016,849	71.69%	N/A	2.0x
Secondary Overflow Fund IV L.P.	2019	Secondaries	100,000,000	42,893,806	58,049,090	11,687,750	69,509,414	68.67%	0.2x	1.4x
Vista Equity Partners Fund VII, L.P.	2019	Buyout	100,000,000	26,253,371	74,462,789	788,834	106,374,863	22.31%	N/A	1.4x
WCAS XIII, L.P.	2019	Buyout	125,000,000	46,089,703	78,924,239	13,137,258	94,353,872	38.41%	0.2x	1.4x
<b>2019 Portfolio Total</b>			<b>\$750,000,000</b>	<b>\$283,626,096</b>	<b>\$489,314,906</b>	<b>\$72,058,367</b>	<b>\$693,686,635</b>	<b>43.75%</b>	<b>0.1x</b>	<b>1.6x</b>
<b>2020 Portfolio</b>										
Altaris Health Partners V, L.P.	2020	Buyout	\$100,000,000	\$75,774,376	\$24,225,624	-	\$25,729,772	7.63%	N/A	1.1x
Clearlake Capital Partners VI, L.P.	2020	Buyout	75,000,000	14,908,841	60,916,587	\$2,565,605	99,531,435	61.69%	N/A	1.7x
Clearlake Flagship Plus Partners, L.P.	2020	Special Situations	100,000,000	50,372,720	64,253,129	16,618,623	59,694,563	38.75%	0.3x	1.2x
Constitution Fund V, LLC - Series E	2020	Venture Capital	75,000,000	39,057,426	35,942,574	-	39,503,534	15.53%	N/A	1.1x
Hg Genesis 9 L.P.	2020	Buyout	62,584,816	39,402,610	32,121,362	8,939,156	30,185,765	50.22%	0.3x	1.2x
Hg Saturn 2 L.P.	2020	Buyout	100,000,000	66,329,208	54,092,621	20,421,811	66,512,539	74.72%	0.4x	1.6x
Insight Partners Opportunities Fund I, L.P.	2020	Mezzanine	75,000,000	30,375,000	44,625,000	-	49,856,428	14.67%	N/A	1.1x
JFL Equity Investors V, L.P.	2020	Buyout	100,000,000	44,454,552	55,545,448	-	59,616,906	6.50%	N/A	1.1x
K5 Private Investors, L.P.	2020	Buyout	125,000,000	80,155,828	44,844,172	-	48,604,156	17.63%	N/A	1.1x
Landmark Equity Partners XVII, L.P.	2020	Secondaries	100,000,000	100,000,000	-	-	2,231,145	N/A	N/A	N/A
Leeds Equity Partners VII, LP	2020	Buyout	125,000,000	113,987,642	11,012,358	3,873	21,904,710	153.76%	N/A	2.0x
Livingbridge 7	2020	Buyout	133,874,693	74,269,606	59,605,087	251,464	52,794,116	(14.30%)	N/A	0.9x
One Rock Capital Partners III, L.P.	2020	Buyout	125,000,000	80,948,167	56,670,448	12,796,274	57,283,918	40.61%	0.2x	1.2x
Stellex Capital Partners II, L.P.	2020	Distressed/Restructuring	100,000,000	70,683,973	29,316,827	3,515	30,257,462	5.55%	N/A	1.0x
Vistria Fund III, LP	2020	Buyout	75,000,000	8,752,145	66,247,855	-	87,246,591	29.94%	N/A	1.3x
<b>2020 Portfolio Total</b>			<b>\$1,471,459,509</b>	<b>\$889,472,094</b>	<b>\$639,419,092</b>	<b>\$61,600,321</b>	<b>\$730,953,040</b>	<b>33.83%</b>	<b>0.1x</b>	<b>1.2x</b>
<b>2021 Portfolio</b>										
Aldrich Capital Partners Fund II Co-Investment, LP	2021	Growth Equity	\$27,500,000	\$16,240,942	\$11,259,058	-	\$11,062,730	(1.89%)	N/A	1.0x
Aldrich Capital Partners Fund II, LP	2021	Growth Equity	47,500,000	47,018,607	481,393	-	(530,735)	N/A	N/A	(1.1x)

# Performance Summary by Vintage Year



Connecticut Portfolio Performance Summary by Vintage Year as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
Avance Investment Partners, L.P.	2021	Buyout	100,000,000	81,725,092	21,635,274	\$3,339,571	18,068,006	(1.30%)	0.2x	1.0x
Clearlake Capital Partners VII, L.P.	2021	Buyout	125,000,000	125,000,000	-	-	(1,291,780)	N/A	N/A	N/A
Constitution Fund V, LLC - Series F	2021	Venture Capital	100,000,000	98,619,450	1,380,550	-	1,128,251	(24.43%)	N/A	0.8x
Georgian Alignment Fund II, LP	2021	Growth Equity	50,000,000	50,000,000	-	-	106,504	N/A	N/A	N/A
Georgian Growth Fund VI, LP	2021	Growth Equity	100,000,000	100,000,000	-	-	(675,753)	N/A	N/A	N/A
Hg CT1 Co-Invest L.P.	2021	Buyout	75,000,000	59,498,312	15,501,688	-	17,613,859	13.76%	N/A	1.1x
ICG Europe Fund VIII SCSp	2021	Mezzanine	167,813,193	142,252,917	25,560,276	180,056	26,237,494	4.63%	N/A	1.0x
Icon Partners II, L.P.	2021	Buyout	38,000,000	9,847,476	28,152,524	-	54,091,776	95.74%	N/A	1.9x
Icon Partners III, L.P.	2021	Buyout	11,106,429	2,877,379	8,229,050	-	10,060,790	22.00%	N/A	1.2x
Icon Partners IV, L.P.	2021	Buyout	37,800,000	6,162,338	31,637,662	-	32,432,493	2.54%	N/A	1.0x
Icon Partners V, L.P.	2021	Buyout	38,000,000	9,768,481	27,909,944	-	28,610,303	3.33%	N/A	1.0x
Landmark Equity CT Co-Investment Fund I, L.P.	2021	Secondaries	50,000,000	50,000,000	-	-	-	N/A	N/A	N/A
Nutmeg Opportunities Fund II LLC - CT-Direct Investment	2021	Buyout	50,000,000	50,000,000	-	-	-	N/A	N/A	N/A
Strategic Value Special Situations Fund V, L.P.	2021	Distressed/Restructuring	150,000,000	101,250,000	48,750,000	-	53,524,015	16.25%	N/A	1.1x
Vistria Fund IV, LP	2021	Buyout	150,000,000	86,138,886	63,861,114	-	68,968,711	28.08%	N/A	1.1x
2021 Portfolio Total			\$1,317,719,622	\$1,036,399,880	\$284,358,533	\$3,519,627	\$319,406,664	30.12%	N/A	1.1x
2022 Portfolio										
HarbourVest CT Co-Investment Fund L.P.	2022	Co-Investment	\$450,000,000	\$450,000,000	-	-	-	N/A	N/A	N/A
Hg Saturn 3, L.P.	2022	Buyout	150,000,000	150,000,000	-	-	-	N/A	N/A	N/A
Hollyport Secondary (Overage Fund) LP	2022	Secondaries	11,250,000	11,137,500	\$112,500	-	\$112,500	0.00%	N/A	1.0x
Hollyport Secondary Opportunities VIII LP	2022	Secondaries	125,000,000	121,875,000	3,125,000	-	7,397,647	136.72%	N/A	2.4x
WCAS XIV, L.P.	2022	Buyout	150,000,000	150,000,000	-	-	(1,042,477)	N/A	N/A	N/A
2022 Portfolio Total			\$886,250,000	\$883,012,500	\$3,237,500	\$-	\$6,467,670	99.77%	N/A	2.0x
Total Portfolio			\$13,287,205,704	\$3,620,028,288	\$10,268,591,562	\$12,069,514,822	\$4,934,885,545	10.21%	1.2x	1.7x



# Performance Summary by Strategy and Substrategy



Connecticut Portfolio Performance Summary by Client Strategy and Client Substrategy as of March 31, 2022												
(USD in Millions)	Capital Committed	Unfunded	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	DPI	TVPI	1-YR IRR	3-YR IRR	5-YR IRR	10-YR IRR
<b>Buyout</b>												
<b>Buyout - Large</b>												
BC European Capital X, L.P.	\$92,891,922	\$4,188,979	\$91,683,855	\$3,504,642	\$133,255,401	14.85%	0.0x	1.5x	7.63%	19.03%	N/A	N/A
Blackstone Capital Partners III, L.P.	30,000,000	-	30,034,831	60,943,826	-	14.54%	2.0x	2.0x	N/A	N/A	(100.00%)	11.11%
Carlyle Europe Partners, L.P.	75,532,608	-	89,758,266	183,034,205	-	16.64%	2.0x	2.0x	N/A	N/A	166.12%	15.12%
Clearlake Capital Partners V, L.P.	60,000,000	16,306,685	74,976,293	55,121,352	91,583,559	39.08%	0.7x	2.0x	2.20%	33.43%	N/A	N/A
Clearlake Capital Partners VI, L.P.	75,000,000	14,908,841	60,916,587	2,565,605	99,531,435	61.69%	0.0x	1.7x	69.78%	N/A	N/A	N/A
Court Square Capital Partners II, L.P.	93,793,953	3,246,335	91,797,386	163,618,527	3,573,395	12.32%	1.8x	1.8x	(32.26%)	(25.63%)	(1.36%)	15.01%
Court Square Capital Partners III, L.P.	50,000,000	2,381,370	54,066,006	64,654,859	46,745,545	21.33%	1.2x	2.1x	46.03%	23.58%	26.63%	N/A
DLJ Merchant Banking Partners II, LP	75,000,000	-	81,666,655	105,992,273	-	5.98%	1.3x	1.3x	N/A	N/A	N/A	2.77%
Forstmann Little Equity Partnership VI, L.P.	70,000,000	-	72,101,503	20,526,331	-	(21.61%)	0.3x	0.3x	N/A	N/A	N/A	N/A
Gilbert Global Equity Partners, L.P.	135,119,738	-	135,175,294	195,321,112	-	3.22%	1.4x	1.4x	N/A	233.97%	67.74%	19.30%
Hg CT1 Co-Invest L.P.	75,000,000	59,498,312	15,501,688	-	17,613,859	13.76%	-	1.1x	N/A	N/A	N/A	N/A
Hg Saturn 2 L.P.	100,000,000	66,329,208	54,092,621	20,421,811	66,512,539	74.72%	0.4x	1.6x	44.42%	N/A	N/A	N/A
Hg Saturn 3, L.P.	150,000,000	150,000,000	-	-	-	N/A	-	-	N/A	N/A	N/A	N/A
Hicks, Muse, Tate & Furst Equity Fund III, L.P.	163,841,018	-	153,461,548	174,352,242	-	1.74%	1.1x	1.1x	N/A	N/A	(10.70%)	27.63%
Icon Partners II, L.P.	38,000,000	9,847,476	28,152,524	-	54,091,776	95.74%	-	1.9x	96.24%	N/A	N/A	N/A
Icon Partners III, L.P.	11,106,429	2,877,379	8,229,050	-	10,060,790	22.00%	-	1.2x	22.26%	N/A	N/A	N/A
Icon Partners IV, L.P.	37,800,000	6,162,338	31,637,662	-	32,432,493	2.54%	-	1.0x	N/A	N/A	N/A	N/A
Icon Partners V, L.P.	38,000,000	9,768,481	27,909,944	-	28,610,303	3.33%	-	1.0x	N/A	N/A	N/A	N/A
K5 Private Investors, L.P.	125,000,000	80,155,828	44,844,172	-	48,604,156	17.63%	-	1.1x	56.97%	N/A	N/A	N/A
Siris Partners IV, L.P.	50,000,000	21,278,591	32,182,757	5,757,774	46,072,391	24.16%	0.2x	1.6x	48.88%	25.48%	N/A	N/A
TA XI, L.P.	75,000,000	1,125,000	74,078,249	244,217,434	48,262,853	27.50%	3.3x	3.9x	55.14%	83.37%	54.56%	30.16%
Thomas H. Lee Equity Fund IV, L.P.	75,000,000	-	67,649,892	58,756,719	-	(2.61%)	0.9x	0.9x	N/A	N/A	N/A	N/A
Vista Equity Partners Fund IV, L.P.	75,000,000	11,274,005	78,134,589	98,582,738	58,197,951	15.74%	1.3x	2.0x	20.83%	1.23%	5.60%	N/A
WCAS XIV, L.P.	150,000,000	150,000,000	-	-	(1,042,477)	N/A	-	-	N/A	N/A	N/A	N/A
Welsh, Carson, Anderson & Stowe VIII, L.P.	50,000,000	-	50,000,000	64,408,409	-	3.12%	1.3x	1.3x	N/A	N/A	N/A	(11.40%)
Welsh, Carson, Anderson & Stowe X, L.P.	100,000,000	-	98,683,200	169,925,675	-	8.33%	1.7x	1.7x	N/A	N/A	18.70%	19.92%
Welsh, Carson, Anderson & Stowe XI, L.P.	100,000,000	-	100,000,000	161,464,441	7,179,056	11.77%	1.6x	1.7x	16.49%	3.98%	5.96%	12.84%
Welsh, Carson, Anderson & Stowe XII, L.P.	100,000,000	2,748,067	98,626,500	118,071,317	129,646,497	34.94%	1.2x	2.5x	25.43%	37.91%	36.14%	N/A
<b>Buyout - Large Total</b>	<b>\$2,271,085,668</b>	<b>\$612,096,895</b>	<b>\$1,745,361,072</b>	<b>\$1,971,241,292</b>	<b>\$920,931,522</b>	<b>7.61%</b>	<b>1.1x</b>	<b>1.7x</b>	<b>28.78%</b>	<b>31.47%</b>	<b>29.46%</b>	<b>21.24%</b>
<b>Buyout - Mega</b>												
Apollo Investment Fund IX, L.P.	\$125,000,000	\$56,860,037	\$84,147,863	\$25,850,513	\$93,534,011	30.60%	0.3x	1.4x	38.30%	34.48%	N/A	N/A
Apollo Investment Fund VIII, L.P.	125,000,000	16,344,744	129,354,825	128,254,354	66,699,265	11.38%	1.0x	1.5x	5.18%	13.17%	10.82%	N/A
Clearlake Capital Partners VII, L.P.	125,000,000	125,000,000	-	-	(1,291,780)	N/A	-	-	N/A	N/A	N/A	N/A
EQT VIII SCSP	81,431,073	12,452,440	71,755,968	32,273,924	116,974,270	42.74%	0.4x	2.1x	68.17%	43.82%	N/A	N/A
KKR 1996 Fund, LP	50,000,000	-	52,825,492	86,451,946	-	10.21%	1.6x	1.6x	N/A	N/A	N/A	22.11%
KKR 2006 Fund, L.P.	125,000,000	2,239,416	132,559,333	219,360,618	16,841,235	8.58%	1.7x	1.8x	(2.90%)	11.39%	15.53%	13.72%
KKR Millennium Fund, L.P.	100,000,000	-	102,609,690	212,467,483	80,946	16.36%	2.1x	2.1x	0.00%	(3.23%)	21.82%	12.41%
Thomas H. Lee Equity Fund VI, L.P.	100,000,000	-	104,043,318	166,941,975	-	7.84%	1.6x	1.6x	123.19%	5.19%	2.36%	11.51%
Vista Equity Partners Fund VI, L.P.	100,000,000	11,082,355	125,149,808	\$85,175,723	170,072,174	22.99%	0.7x	2.0x	26.97%	25.10%	24.59%	N/A
Vista Equity Partners Fund VII, L.P.	100,000,000	26,253,371	74,462,789	788,834	106,374,863	22.31%	0.0x	1.4x	39.07%	23.50%	N/A	N/A
<b>Buyout - Mega Total</b>	<b>\$1,031,431,073</b>	<b>\$250,232,363</b>	<b>\$876,909,086</b>	<b>\$957,565,370</b>	<b>\$569,284,984</b>	<b>12.23%</b>	<b>1.1x</b>	<b>1.7x</b>	<b>31.63%</b>	<b>23.82%</b>	<b>19.34%</b>	<b>15.63%</b>



# Performance Summary by Strategy and Substrategy



Connecticut Portfolio Performance Summary by Client Strategy and Client Substrategy as of March 31, 2022												
(USD in Millions)	Capital Committed	Unfunded	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	DPI	TVPI	1-YR IRR	3-YR IRR	5-YR IRR	10-YR IRR
<b>Buyout - Middle-Market</b>												
Altaris Health Partners V, L.P.	\$100,000,000	\$75,774,376	\$24,225,624	-	\$25,729,772	7.63%	-	1.1x	8.12%	N/A	N/A	N/A
Compass Partners European Equity Fund, L.P. (USD)	150,000,000	-	149,765,817	\$260,307,780	-	9.74%	1.7x	1.7x	N/A	N/A	N/A	66.96%
Ethos Private Equity Fund V, L.P.	50,000,000	-	59,935,735	64,285,012	2,276,966	2.32%	1.1x	1.1x	12.41%	(4.51%)	(6.20%)	0.19%
FS Equity Partners V, L.P.	75,000,000	14,503,532	60,583,588	121,830,595	5,355,175	15.32%	2.0x	2.1x	(21.23%)	(2.67%)	(1.12%)	6.59%
FS Equity Partners VI, L.P.	75,000,000	515,933	74,498,449	212,914,508	27,670,235	23.33%	2.9x	3.2x	13.79%	16.79%	57.10%	29.66%
Green Equity Investors III, LP	25,000,000	-	22,758,400	53,908,814	-	21.58%	2.4x	2.4x	N/A	N/A	N/A	37.41%
Hg Genesis 9 L.P.	62,584,816	39,402,610	32,121,362	8,939,156	30,185,765	50.22%	0.3x	1.2x	31.95%	N/A	N/A	N/A
JFL Equity Investors V, L.P.	100,000,000	44,454,552	55,545,448	-	59,616,906	6.50%	-	1.1x	15.17%	N/A	N/A	N/A
Kelso Investment Associates VI, L.P.	50,000,000	-	42,478,505	59,211,684	-	9.31%	1.4x	1.4x	N/A	N/A	N/A	N/A
Livingbridge 7	133,874,693	74,269,606	59,605,087	251,464	52,794,116	(14.30%)	0.0x	0.9x	(13.96%)	N/A	N/A	N/A
One Rock Capital Partners III, L.P.	125,000,000	80,948,167	56,670,448	12,796,274	57,283,918	40.61%	0.2x	1.2x	61.41%	N/A	N/A	N/A
Private Equity Partners Connecticut LP	90,000,000	-	86,469,826	106,782,368	-	4.53%	1.2x	1.2x	N/A	N/A	N/A	(9.38%)
Thayer Equity Investors IV, L.P.	53,500,000	-	55,254,084	39,635,108	-	(4.55%)	0.7x	0.7x	N/A	N/A	N/A	(29.10%)
Veritas Capital Fund, L.P.	125,000,000	-	125,435,409	321,662,707	-	26.87%	2.6x	2.6x	N/A	N/A	N/A	N/A
Vista Equity Partners Fund III, L.P.	50,000,000	3,872,547	54,181,591	127,765,994	4,529,935	27.86%	2.4x	2.4x	9.50%	(9.57%)	(8.57%)	19.54%
Vistria Fund IV, LP	150,000,000	86,138,886	63,861,114	-	68,968,711	28.08%	-	1.1x	N/A	N/A	N/A	N/A
Washington & Congress Capital Partners, LP	145,000,000	-	142,274,864	116,067,908	-	(5.85%)	0.8x	0.8x	N/A	N/A	N/A	N/A
WCAS XIII, L.P.	125,000,000	46,089,703	78,924,239	13,137,258	94,353,872	38.41%	0.2x	1.4x	50.98%	N/A	N/A	N/A
Wellspring Capital Partners V, L.P.	75,000,000	26,291,578	86,203,950	119,317,161	24,180,936	16.21%	1.4x	1.7x	9.20%	11.81%	9.65%	17.66%
Wellspring Capital Partners VI, L.P.	75,000,000	8,834,828	72,916,175	\$16,692,411	90,733,586	26.08%	0.2x	1.5x	32.94%	29.50%	N/A	N/A
Yucaipa American Alliance Fund II, L.P.	75,000,000	77	104,214,590	111,531,355	56,109,702	7.87%	1.1x	1.6x	(5.86%)	(1.30%)	7.26%	5.15%
<b>Buyout - Middle-Market Total</b>	<b>\$1,909,959,509</b>	<b>\$501,096,395</b>	<b>\$1,507,924,305</b>	<b>\$1,767,037,557</b>	<b>\$599,789,595</b>	<b>11.22%</b>	<b>1.2x</b>	<b>1.6x</b>	<b>20.07%</b>	<b>13.67%</b>	<b>19.09%</b>	<b>15.15%</b>
<b>Buyout - Small</b>												
Altaris Constellation Partners IV, L.P.	\$10,000,000	\$1,029,756	\$9,686,637	\$7,015,835	\$10,625,396	31.54%	0.7x	1.8x	60.91%	32.31%	N/A	N/A
Altaris Health II	40,000,000	5,567,183	45,574,376	99,451,134	324,904	25.17%	2.2x	2.2x	(89.16%)	(17.38%)	19.02%	36.99%
Altaris Health Partners III, L.P.	50,000,000	4,070,604	54,292,656	72,454,007	53,315,935	28.18%	1.3x	2.3x	(3.54%)	25.04%	22.84%	N/A
Altaris Health Partners IV, L.P.	40,000,000	5,093,768	37,662,853	34,845,620	36,789,419	34.09%	0.9x	1.9x	83.70%	35.51%	N/A	N/A
Altaris Health Partners, L.P.	40,000,000	-	40,447,923	69,318,557	-	13.31%	1.7x	1.7x	N/A	N/A	(11.24%)	18.67%
Avance Investment Partners, L.P.	100,000,000	81,725,092	21,635,274	3,339,571	18,068,006	(1.30%)	0.2x	1.0x	N/A	N/A	N/A	N/A
Boston Ventures VII, L.P.	75,000,000	12,388,419	65,028,749	74,798,645	4,194,984	3.43%	1.2x	1.2x	34.60%	(26.68%)	(16.67%)	(1.16%)
Candover 2008 Fund, L.P.	12,848,728	-	14,407,641	1,649,710	-	(70.49%)	0.1x	0.1x	N/A	N/A	(77.34%)	(71.15%)
Carlyle Asia Partners, L.P.	50,000,000	-	52,906,606	143,995,264	-	18.03%	2.7x	2.7x	N/A	N/A	N/A	23.15%
Charterhouse Equity Partners IV, L.P.	74,851,593	-	85,759,969	137,801,206	-	9.21%	1.6x	1.6x	N/A	N/A	(37.92%)	4.83%
CT Horizon Legacy Fund, L.P.	15,000,000	2,522,763	13,954,141	9,103,297	1,523,583	(4.47%)	0.7x	0.8x	63.53%	(7.79%)	(7.99%)	(3.35%)
Freeman CT Horizon Investment Fund, LLC	50,000,000	29,132,373	22,477,667	2,173,124	31,140,991	28.44%	0.1x	1.5x	31.07%	28.99%	N/A	N/A
GenNx360 Capital Partners II	25,000,000	1,233,763	29,923,707	26,529,358	28,135,861	16.31%	0.9x	1.8x	24.53%	16.47%	17.76%	N/A
ICV Partners II, L.P.	40,000,000	1,130,635	43,550,290	71,527,308	109,073	11.79%	1.6x	1.6x	(86.21%)	(46.65%)	(50.86%)	16.09%
J.F. Lehman Equity Investors III, L.P.	49,000,000	6,639,463	49,125,468	59,214,646	25,329,878	11.70%	1.2x	1.7x	33.15%	7.20%	11.75%	13.44%
J.F. Lehman Equity Investors IV, L.P.	75,000,000	2,658,124	73,671,065	158,253,296	28,883,900	40.80%	2.1x	2.5x	38.34%	42.77%	40.80%	N/A
Leeds Equity Partners V, L.P.	40,000,000	5,448,220	50,137,652	103,346,840	5,910,925	19.01%	2.1x	2.2x	(13.46%)	14.06%	27.35%	20.51%
Leeds Equity Partners VI, L.P.	75,000,000	6,164,417	77,036,725	25,346,334	117,485,627	23.77%	0.3x	1.9x	42.41%	28.68%	23.77%	N/A
Leeds Equity Partners VII, LP	125,000,000	113,987,642	11,012,358	3,873	21,904,710	153.76%	0.0x	2.0x	426.75%	N/A	N/A	N/A
M2 - Connecticut Emerging Private Equity Fund-of-Funds, L.P.	105,000,000	6,310,207	113,576,808	142,067,320	11,708,631	6.58%	1.3x	1.4x	17.81%	(0.85%)	5.41%	8.23%
Nogales Investors Fund II, L.P.	14,760,000	-	14,413,108	1,594,342	-	(24.07%)	0.1x	0.1x	N/A	N/A	(31.90%)	(33.08%)

# Performance Summary by Strategy and Substrategy



Connecticut Portfolio Performance Summary by Client Strategy and Client Substrategy as of March 31, 2022												
(USD in Millions)	Capital Committed	Unfunded	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	DPI	TVPI	1-YR IRR	3-YR IRR	5-YR IRR	10-YR IRR
Nutmeg Opportunities Fund II LLC - CT-Direct Investment	50,000,000	50,000,000	-	-	-	N/A	-	-	N/A	N/A	N/A	N/A
Nutmeg Opportunities Fund II LLC - EM	35,000,000	7,008,904	29,997,281	9,379,156	47,063,923	23.94%	0.3x	1.9x	28.88%	28.85%	N/A	N/A
Nutmeg Opportunities Fund II LLC - SMMBF	65,000,000	-	67,760,143	7,223,370	91,697,590	25.52%	0.1x	1.5x	30.97%	28.97%	N/A	N/A
Nutmeg Opportunities Fund L.P. CT - EM	35,000,000	17,392,789	19,871,924	14,393,878	36,479,012	13.49%	0.7x	2.6x	26.51%	13.75%	13.50%	13.98%
Nutmeg Opportunities Fund L.P. CT - SMMBF	75,000,000	24,567,906	64,845,463	90,345,248	41,172,531	15.02%	1.4x	2.0x	20.04%	18.60%	15.37%	14.37%
RFE Investment Partners VI, L.P.	30,000,000	-	26,340,276	60,911,055	-	15.07%	2.3x	2.3x	N/A	N/A	N/A	55.88%
RFE Investment Partners VII, L.P.	40,000,000	327,148	39,765,243	61,590,853	6,842,738	7.95%	1.5x	1.7x	8.00%	8.01%	(2.29%)	9.01%
RFE Investment Partners VIII, L.P.	40,000,000	-	40,676,860	60,122,895	-	8.11%	1.5x	1.5x	(3.58%)	7.44%	8.12%	N/A
Triumph Capital II	7,215,028	-	7,215,028	2,998,844	-	(25.10%)	0.4x	0.4x	N/A	N/A	N/A	N/A
Vistria Fund III, LP	75,000,000	8,752,145	66,247,855	-	87,246,591	29.94%	-	1.3x	29.40%	N/A	N/A	N/A
Wellspring Capital Partners II, L.P.	50,000,000	-	49,740,657	75,087,114	-	19.95%	1.5x	1.5x	N/A	N/A	N/A	N/A
Wellspring Capital Partners III, L.P.	75,000,000	-	74,248,215	161,845,142	-	27.33%	2.2x	2.2x	N/A	N/A	(11.36%)	87.67%
Yucaipa American Alliance Fund III, L.P.	39,250,000	3,330,022	37,958,080	11,089,263	42,888,149	10.72%	0.3x	1.4x	29.79%	13.30%	13.02%	N/A
<b>Buyout - Small Total</b>	<b>\$1,722,925,349</b>	<b>\$396,481,343</b>	<b>\$1,450,948,698</b>	<b>\$1,798,816,105</b>	<b>\$748,842,357</b>	<b>14.67%</b>	<b>1.2x</b>	<b>1.8x</b>	<b>28.75%</b>	<b>20.43%</b>	<b>17.26%</b>	<b>14.49%</b>
<b>Buyout Total</b>	<b>\$6,935,401,599</b>	<b>\$1,759,906,996</b>	<b>\$5,581,143,161</b>	<b>\$6,494,660,324</b>	<b>\$2,838,848,458</b>	<b>10.22%</b>	<b>1.2x</b>	<b>1.7x</b>	<b>27.87%</b>	<b>23.32%</b>	<b>21.31%</b>	<b>16.86%</b>
<b>Co-Investment</b>												
<b>Co-Investment - Buyout</b>												
HarbourVest CT Co-Investment Fund L.P.	\$450,000,000	\$450,000,000	-	-	-	N/A	-	-	N/A	N/A	N/A	N/A
<b>Co-Investment - Buyout Total</b>	<b>\$450,000,000</b>	<b>\$450,000,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>N/A</b>	<b>-</b>	<b>-</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Co-Investment Total</b>	<b>\$450,000,000</b>	<b>\$450,000,000</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>N/A</b>	<b>-</b>	<b>-</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Distressed/Restructuring</b>												
<b>Distressed/Restructuring - Distressed/Restructuring</b>												
Castlelake Fund II, L.P.	\$50,000,000	\$3,750,659	\$46,663,983	\$43,734,509	\$21,434,345	6.16%	0.9x	1.4x	(2.37%)	2.34%	(5.13%)	N/A
Clearlake Capital Partners III, L.P.	40,000,000	18,967,864	56,764,127	151,660,808	10,872,482	40.76%	2.7x	2.9x	50.80%	19.64%	48.28%	N/A
Clearlake Capital Partners IV, L.P.	50,000,000	15,286,118	76,610,807	94,862,407	56,660,687	29.47%	1.2x	2.0x	8.94%	24.16%	24.96%	N/A
KPS Special Situations Fund II, L.P.	35,000,000	-	30,695,687	108,461,633	-	63.45%	3.5x	3.5x	N/A	N/A	N/A	36.38%
Pegasus Partners IV, L.P.	75,000,000	-	94,582,353	70,134,362	11,969,520	(2.64%)	0.7x	0.9x	(11.73%)	(8.28%)	(6.22%)	(14.10%)
Pegasus Partners V, L.P.	50,000,000	-	66,617,342	\$53,045,529	38,154,013	6.88%	0.8x	1.4x	(7.97%)	(10.03%)	(2.14%)	N/A
Stellrex Capital Partners II, L.P.	100,000,000	70,683,973	29,316,827	3,515	30,257,462	5.55%	0.0x	1.0x	5.90%	N/A	N/A	N/A
Strategic Value Special Situations Fund V, L.P.	150,000,000	101,250,000	48,750,000	-	53,524,015	16.25%	-	1.1x	N/A	N/A	N/A	N/A
WLR Recovery Fund IV, L.P.	100,000,000	3,443,659	90,823,160	121,429,342	730,608	7.32%	1.3x	1.3x	(11.07%)	(6.61%)	(7.75%)	6.59%
<b>Distressed/Restructuring - Distressed/Restructuring Total</b>	<b>\$650,000,000</b>	<b>\$213,382,273</b>	<b>\$540,824,286</b>	<b>\$643,332,105</b>	<b>\$223,603,132</b>	<b>15.05%</b>	<b>1.2x</b>	<b>1.6x</b>	<b>6.33%</b>	<b>8.07%</b>	<b>11.30%</b>	<b>7.70%</b>
<b>Distressed/Restructuring Total</b>	<b>\$650,000,000</b>	<b>\$213,382,273</b>	<b>\$540,824,286</b>	<b>\$643,332,105</b>	<b>\$223,603,132</b>	<b>15.05%</b>	<b>1.2x</b>	<b>1.6x</b>	<b>6.33%</b>	<b>8.07%</b>	<b>11.30%</b>	<b>7.70%</b>
<b>Growth Equity</b>												
<b>Growth Equity - Growth Equity</b>												
Aldrich Capital Partners Fund II Co-Investment, LP	\$27,500,000	\$16,240,942	\$11,259,058	-	\$11,062,730	(1.89%)	-	1.0x	N/A	N/A	N/A	N/A
Aldrich Capital Partners Fund II, LP	47,500,000	47,018,607	481,393	-	(530,735)	N/A	-	(1.1x)	N/A	N/A	N/A	N/A
Aldrich Capital Partners Fund, L.P.	50,000,000	\$6,030,272	44,317,622	-	62,781,353	18.24%	-	1.4x	7.15%	15.18%	N/A	N/A
Georgian Alignment Fund II, LP	50,000,000	50,000,000	-	-	106,504	N/A	-	-	N/A	N/A	N/A	N/A
Georgian Growth Fund VI, LP	100,000,000	100,000,000	-	-	(675,753)	N/A	-	-	N/A	N/A	N/A	N/A
Georgian Partners Growth Fund V, L.P.	75,000,000	11,896,806	66,664,799	\$3,547,388	118,857,322	67.18%	0.1x	1.8x	89.27%	N/A	N/A	N/A
<b>Growth Equity - Growth Equity Total</b>	<b>\$350,000,000</b>	<b>\$231,186,627</b>	<b>\$122,722,872</b>	<b>\$3,547,388</b>	<b>\$191,601,421</b>	<b>36.76%</b>	<b>0.0x</b>	<b>1.6x</b>	<b>46.65%</b>	<b>35.54%</b>	<b>N/A</b>	<b>N/A</b>
<b>Growth Equity Total</b>	<b>\$350,000,000</b>	<b>\$231,186,627</b>	<b>\$122,722,872</b>	<b>\$3,547,388</b>	<b>\$191,601,421</b>	<b>36.76%</b>	<b>0.0x</b>	<b>1.6x</b>	<b>46.65%</b>	<b>35.54%</b>	<b>N/A</b>	<b>N/A</b>

# Performance Summary by Strategy and Substrategy



Connecticut Portfolio Performance Summary by Client Strategy and Client Substrategy as of March 31, 2022												
(USD in Millions)	Capital Committed	Unfunded	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	DPI	TVPI	1-YR IRR	3-YR IRR	5-YR IRR	10-YR IRR
<b>Mezzanine</b>												
<b>Mezzanine - Mezzanine</b>												
Forstmann Little Sub. D&E MBO VII, LP	\$130,000,000	-	\$137,789,972	\$48,231,034	-	(25.57%)	0.4x	0.4x	N/A	N/A	N/A	N/A
Garmark Partners II, L.P.	75,000,000	-	106,264,618	137,009,755	-	9.14%	1.3x	1.3x	(55.04%)	30.37%	(4.14%)	6.75%
GarMark Partners, L.P.	75,000,000	-	71,960,328	105,570,183	-	9.60%	1.5x	1.5x	N/A	N/A	N/A	27.03%
ICG Europe Fund VII, L.P.	86,546,492	\$27,441,416	64,144,436	5,688,146	\$92,383,560	23.16%	0.1x	1.5x	16.97%	23.26%	N/A	N/A
ICG Europe Fund VIII SCSp	167,813,193	142,252,917	25,560,276	180,056	26,237,494	4.63%	0.0x	1.0x	N/A	N/A	N/A	N/A
Insight Partners Opportunities Fund I, L.P.	75,000,000	30,375,000	44,625,000	-	49,856,428	14.67%	-	1.1x	16.90%	N/A	N/A	N/A
Levine Leichtman Capital Partners IV, L.P.	75,000,000	13,696,960	74,669,737	121,619,054	6,737,333	17.76%	1.6x	1.7x	(36.28%)	(6.29%)	(5.67%)	12.98%
Levine Leichtman Capital Partners V, L.P.	75,000,000	7,454,244	114,420,851	133,870,924	77,653,798	18.09%	1.2x	1.8x	50.86%	32.00%	22.70%	N/A
S.W. Pelham Fund II, LP	20,000,000	-	21,892,148	26,131,624	-	6.53%	1.2x	1.2x	N/A	N/A	N/A	17.79%
S.W. Pelham Fund, LP	50,000,000	-	52,859,693	21,812,365	-	(15.02%)	0.4x	0.4x	N/A	N/A	(3.83%)	(0.77%)
Triumph Conn Ltd Partnership	130,000,000	-	129,744,323	138,693,628	-	2.70%	1.1x	1.1x	N/A	N/A	N/A	N/A
Welsh, Carson, Anderson & Stowe III, LP	100,000,000	-	100,000,000	174,638,566	-	13.03%	1.7x	1.7x	N/A	N/A	N/A	4.97%
<b>Mezzanine - Mezzanine Total</b>	<b>\$1,059,359,685</b>	<b>\$221,220,537</b>	<b>\$943,931,382</b>	<b>\$913,445,335</b>	<b>\$252,868,613</b>	<b>4.45%</b>	<b>1.0x</b>	<b>1.2x</b>	<b>24.22%</b>	<b>25.46%</b>	<b>17.84%</b>	<b>13.85%</b>
<b>Mezzanine Total</b>	<b>\$1,059,359,685</b>	<b>\$221,220,537</b>	<b>\$943,931,382</b>	<b>\$913,445,335</b>	<b>\$252,868,613</b>	<b>4.45%</b>	<b>1.0x</b>	<b>1.2x</b>	<b>24.22%</b>	<b>25.46%</b>	<b>17.84%</b>	<b>13.85%</b>
<b>Multi-Strategy</b>												
<b>Multi-Strategy - Multi-Strategy</b>												
GCM Grosvenor - CT Cleantech Opportunities Fund LP	\$25,000,000	\$2,050,085	\$27,876,759	\$10,284,761	\$1,001,503	(13.49%)	0.4x	0.4x	(42.72%)	(22.58%)	(18.16%)	(14.79%)
Greenwich Street Capital Partners II, L.P.	50,000,000	-	53,072,178	53,435,934	-	0.12%	1.0x	1.0x	N/A	N/A	N/A	(3.25%)
PineBridge Global Emerging Markets Partners, L.L.C	85,168,457	2,354,066	82,950,178	109,550,524	1,679,397	7.04%	1.3x	1.3x	(0.52%)	(0.05%)	(0.57%)	(3.02%)
Stepstone Pioneer Capital I, L.P.	55,000,000	-	57,865,297	75,790,425	-	5.07%	1.3x	1.3x	N/A	N/A	(15.57%)	3.05%
Stepstone Pioneer Capital II, L.P.	175,000,000	-	189,026,577	258,133,232	-	4.92%	1.4x	1.4x	N/A	(4.21%)	(5.53%)	8.24%
<b>Multi-Strategy - Multi-Strategy Total</b>	<b>\$390,168,457</b>	<b>\$4,404,151</b>	<b>\$410,790,989</b>	<b>\$507,194,876</b>	<b>\$2,680,900</b>	<b>3.87%</b>	<b>1.2x</b>	<b>1.2x</b>	<b>(22.62%)</b>	<b>(7.97%)</b>	<b>(7.00%)</b>	<b>5.38%</b>
<b>Multi-Strategy Total</b>	<b>\$390,168,457</b>	<b>\$4,404,151</b>	<b>\$410,790,989</b>	<b>\$507,194,876</b>	<b>\$2,680,900</b>	<b>3.87%</b>	<b>1.2x</b>	<b>1.2x</b>	<b>(22.62%)</b>	<b>(7.97%)</b>	<b>(7.00%)</b>	<b>5.38%</b>
<b>Secondaries</b>												
<b>Secondaries - Secondaries</b>												
Dover Street X, L.P.	\$100,000,000	\$48,000,000	\$52,000,000	\$14,873,500	\$72,899,313	73.57%	0.3x	1.7x	71.88%	N/A	N/A	N/A
Hollyport Secondary (Overage Fund) LP	11,250,000	11,137,500	112,500	-	112,500	0.00%	-	1.0x	N/A	N/A	N/A	N/A
Hollyport Secondary Opportunities Fund VII LP	75,000,000	22,500,000	52,588,459	-	107,016,849	71.69%	-	2.0x	61.14%	N/A	N/A	N/A
Hollyport Secondary Opportunities VIII LP	125,000,000	121,875,000	3,125,000	-	7,397,647	136.72%	-	2.4x	N/A	N/A	N/A	N/A
Landmark Equity CT Co-Investment Fund I, L.P.	50,000,000	50,000,000	-	-	-	N/A	-	-	N/A	N/A	N/A	N/A
Landmark Equity Partners XIV, L.P.	100,000,000	2,700,619	98,017,409	121,201,005	10,240,895	9.64%	1.2x	1.3x	6.39%	8.17%	5.40%	7.15%
Landmark Equity Partners XV, L.P.	100,000,000	20,020,010	80,275,284	78,100,040	39,187,114	13.38%	1.0x	1.5x	13.04%	16.02%	14.36%	N/A
Landmark Equity Partners XVI, L.P.	100,000,000	54,204,082	60,033,811	34,930,081	59,838,484	36.08%	0.6x	1.6x	41.24%	32.14%	N/A	N/A
Landmark Equity Partners XVII, L.P.	100,000,000	100,000,000	-	-	2,231,145	N/A	-	-	N/A	N/A	N/A	N/A
Landmark Primary Partners, L.P.	140,000,000	-	137,133,640	170,018,236	-	3.72%	1.2x	1.2x	N/A	N/A	(99.86%)	(7.73%)
Lexington Capital Partners II, L.P.	40,000,000	-	39,525,549	52,568,204	-	8.17%	1.3x	1.3x	N/A	N/A	21.60%	1.43%
Secondary Overflow Fund IV L.P.	100,000,000	42,893,806	58,049,090	11,687,750	69,509,414	68.67%	0.2x	1.4x	55.99%	N/A	N/A	N/A
<b>Secondaries - Secondaries Total</b>	<b>\$1,041,250,000</b>	<b>\$473,331,017</b>	<b>\$580,860,742</b>	<b>\$483,378,816</b>	<b>\$368,433,361</b>	<b>8.34%</b>	<b>0.8x</b>	<b>1.5x</b>	<b>48.31%</b>	<b>37.89%</b>	<b>27.76%</b>	<b>15.19%</b>
<b>Secondaries Total</b>	<b>\$1,041,250,000</b>	<b>\$473,331,017</b>	<b>\$580,860,742</b>	<b>\$483,378,816</b>	<b>\$368,433,361</b>	<b>8.34%</b>	<b>0.8x</b>	<b>1.5x</b>	<b>48.31%</b>	<b>37.89%</b>	<b>27.76%</b>	<b>15.19%</b>

# Performance Summary by Strategy and Substrategy



Connecticut Portfolio Performance Summary by Client Strategy and Client Substrategy as of March 31, 2022												
(USD in Millions)	Capital Committed	Unfunded	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	DPI	TVPI	1-YR IRR	3-YR IRR	5-YR IRR	10-YR IRR
Special Situations												
Special Situations - Multi-Strategy												
Clearlake Flagship Plus Partners, L.P.	\$100,000,000	\$50,372,720	\$64,253,129	\$16,618,623	\$59,694,563	38.75%	0.3x	1.2x	36.87%	N/A	N/A	N/A
<b>Special Situations - Multi-Strategy Total</b>	<b>\$100,000,000</b>	<b>\$50,372,720</b>	<b>\$64,253,129</b>	<b>\$16,618,623</b>	<b>\$59,694,563</b>	<b>38.75%</b>	<b>0.3x</b>	<b>1.2x</b>	<b>36.87%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<b>Special Situations Total</b>	<b>\$100,000,000</b>	<b>\$50,372,720</b>	<b>\$64,253,129</b>	<b>\$16,618,623</b>	<b>\$59,694,563</b>	<b>38.75%</b>	<b>0.3x</b>	<b>1.2x</b>	<b>36.87%</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Venture Capital												
Venture Capital - Early-Stage												
Connecticut Financial Development, LP	\$49,583,271	-	\$49,583,271	\$10,367,734	-	(20.11%)	0.2x	0.2x	N/A	N/A	N/A	N/A
Connecticut Futures Fund, LP	40,000,000	-	40,000,000	11,317,103	-	(29.15%)	0.3x	0.3x	N/A	N/A	N/A	N/A
Constitution Liquidating Fund, L.P.	640,000,552	-	532,763,501	1,367,419,212	\$3,804,683	20.10%	2.6x	2.6x	(16.90%)	(31.96%)	(17.93%)	(0.20%)
Crescendo III, L.P.	36,825,000	-	36,824,862	19,298,548	71,637	(12.56%)	0.5x	0.5x	0.00%	(60.43%)	(42.67%)	(22.42%)
Crescendo World Fund, LLC	100,000,000	-	100,000,000	80,411,666	-	(5.48%)	0.8x	0.8x	N/A	N/A	N/A	N/A
Grotech Partners V, L.P.	50,000,000	-	50,000,000	49,181,322	-	(0.79%)	1.0x	1.0x	N/A	N/A	N/A	(37.78%)
Keystone Venture V, L.P.	27,500,000	-	27,500,000	1,985,505	-	(33.45%)	0.1x	0.1x	N/A	N/A	N/A	N/A
Pioneer Ventures Associates LP	50,000,000	-	49,976,129	21,723,214	-	(13.46%)	0.4x	0.4x	N/A	N/A	N/A	N/A
<b>Venture Capital - Early-Stage Total</b>	<b>\$993,908,823</b>	<b>-</b>	<b>\$886,647,763</b>	<b>\$1,561,704,304</b>	<b>\$3,876,320</b>	<b>14.03%</b>	<b>1.8x</b>	<b>1.8x</b>	<b>(16.64%)</b>	<b>(33.51%)</b>	<b>(18.73%)</b>	<b>(0.68%)</b>
Venture Capital - Late-Stage												
Shawmut Equity Partners, L.P.	\$75,000,000	-	\$59,910,737	\$87,122,324	-	9.61%	1.5x	1.5x	N/A	N/A	N/A	N/A
<b>Venture Capital - Late-Stage Total</b>	<b>\$75,000,000</b>	<b>-</b>	<b>\$59,910,737</b>	<b>\$87,122,324</b>	<b>-</b>	<b>9.61%</b>	<b>1.5x</b>	<b>1.5x</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Venture Capital - Multi-Stage												
Conn Greene Ventures LP	\$14,850,000	-	\$14,850,000	\$15,553,331	-	1.40%	1.0x	1.0x	N/A	N/A	N/A	N/A
Conning Capital Partners V, L.P.	50,000,000	-	50,362,292	38,356,811	-	(4.21%)	0.8x	0.8x	N/A	N/A	N/A	2.72%
Constitution Fund V, LLC - Series A	130,000,000	\$7,958,127	125,290,623	48,265,398	\$319,317,817	36.55%	0.4x	2.9x	51.08%	43.93%	38.12%	N/A
Constitution Fund V, LLC - Series B	20,000,000	3,681,773	16,566,660	5,259,631	14,986,596	6.58%	0.3x	1.2x	15.16%	7.31%	6.71%	N/A
Constitution Fund V, LLC - Series C	75,000,000	29,815,646	45,184,354	5,084,481	71,505,670	47.06%	0.1x	1.7x	63.63%	48.34%	N/A	N/A
Constitution Fund V, LLC - Series D	25,000,000	9,729,558	15,270,442	-	12,072,422	(16.54%)	-	0.8x	(23.78%)	(16.54%)	N/A	N/A
Constitution Fund V, LLC - Series E	75,000,000	39,057,426	35,942,574	-	39,503,534	15.53%	-	1.1x	11.59%	N/A	N/A	N/A
Constitution Fund V, LLC - Series F	100,000,000	98,619,450	1,380,550	-	1,128,251	(24.43%)	-	0.8x	N/A	N/A	N/A	N/A
Fairview Constitution II, L.P.	200,000,000	3,112,810	212,154,451	308,814,495	36,625,268	7.28%	1.5x	1.6x	32.57%	23.98%	12.31%	11.83%
Fairview Constitution III, L.P.	300,000,000	18,292,740	304,118,310	704,167,633	181,715,057	18.68%	2.3x	2.9x	7.47%	30.10%	21.05%	20.49%
Fairview Constitution IV, L.P.	150,000,000	5,956,437	153,894,308	180,138,655	316,424,162	23.14%	1.2x	3.2x	39.85%	37.20%	30.36%	23.27%
SCP Private Equity Partners I, L.P.	75,000,000	-	75,070,755	51,909,806	-	(6.31%)	0.7x	0.7x	N/A	(58.65%)	(38.30%)	(19.22%)
Syndicated Communications Venture Partners V, L.P.	27,267,140	-	27,421,182	960,486	-	(35.76%)	0.0x	0.0x	1767.38%	(59.08%)	(61.19%)	(38.22%)
<b>Venture Capital - Multi-Stage Total</b>	<b>\$1,242,117,140</b>	<b>\$216,223,967</b>	<b>\$1,077,506,501</b>	<b>\$1,358,510,727</b>	<b>\$993,278,777</b>	<b>10.33%</b>	<b>1.3x</b>	<b>2.2x</b>	<b>32.82%</b>	<b>34.65%</b>	<b>25.15%</b>	<b>19.27%</b>
<b>Venture Capital Total</b>	<b>\$2,311,025,963</b>	<b>\$216,223,967</b>	<b>\$2,024,065,001</b>	<b>\$3,007,337,355</b>	<b>\$997,155,097</b>	<b>12.75%</b>	<b>1.5x</b>	<b>2.0x</b>	<b>32.54%</b>	<b>33.55%</b>	<b>23.95%</b>	<b>17.82%</b>
<b>Total Portfolio</b>	<b>\$13,287,205,704</b>	<b>\$3,620,028,288</b>	<b>\$10,268,591,562</b>	<b>\$12,069,514,822</b>	<b>\$4,934,885,545</b>	<b>10.21%</b>	<b>1.2</b>	<b>1.7</b>	<b>29.42%</b>	<b>25.64%</b>	<b>20.90%</b>	<b>15.63%</b>

# Top Ten General Partners by Total Exposure



Connecticut Portfolio Top 10 General Partners by Total Exposure Performance Summary by Total Exposure (USD in Millions)								Number of Investments per Quartile			
General Partner	Number of Investments	Capital Committed	Total Exposure	% Total Exposure	D/PI	TVPI	Net IRR	1st	2nd	3rd	4th
Fairview Capital	10	\$1,715.0	\$1,213.3	14.2%	1.8x	2.5x	19.78%	4	1	-	2
Clearlake Capital	10	574.9	711.7	8.3%	0.7x	1.8x	38.21%	3	-	-	-
HarbourVest Partners, LLC	3	650.0	683.3	8.0%	0.2x	1.5x	71.64%	2	-	-	-
Hg Capital	4	387.6	429.5	5.0%	0.3x	1.4x	65.08%	-	-	-	-
Welsh, Carson, Anderson & Stowe	7	725.0	429.0	5.0%	1.3x	1.8x	10.49%	1	4	1	-
Vista Equity Partners	4	325.0	391.7	4.6%	0.9x	2.0x	22.93%	1	3	-	-
Landmark Partners	6	590.0	338.4	4.0%	1.1x	1.4x	6.49%	1	1	2	-
J.P. Morgan	5	260.0	315.4	3.7%	0.7x	1.9x	16.32%	-	4	-	-
Intermediate Capital Group plc	2	254.4	288.3	3.4%	0.1x	1.4x	22.46%	-	1	-	-
Georgian Partners	3	225.0	280.2	3.3%	0.1x	1.8x	66.58%	1	-	-	-
Total		\$5,706.9	\$5,080.8	59.39%	1.3x	2.0x	17.94%	13	14	3	2

Note: See endnotes.

# Connecticut Horizon Fund and In-State



Connecticut Portfolio Performance Summary by Tranche as of March 31, 2022										
Partnership	Vintage Year	Strategy	Capital Committed	Unfunded Commitment	Paid-In Capital	Capital Distributed	Market Value	Since Inception IRR	D/PI	TVPI
Tranche Horizon Fund Portfolio										
CT Horizon Legacy Fund, L.P.	2008	Buyout	\$15,000,000	\$2,522,763	\$13,954,141	\$9,103,297	\$1,523,583	(4.47%)	0.7x	0.8x
Freeman CT Horizon Investment Fund, LLC	2019	Buyout	50,000,000	29,132,373	22,477,667	2,173,124	31,140,991	28.44%	0.1x	1.5x
M2 - Connecticut Emerging Private Equity Fund-of-Funds, L.P.	2007	Buyout	105,000,000	6,310,207	113,576,808	142,067,320	11,708,631	6.58%	1.3x	1.4x
Nutmeg Opportunities Fund II LLC - EM	2017	Buyout	35,000,000	7,008,904	29,997,281	9,379,156	47,063,923	23.94%	0.3x	1.9x
Tranche Horizon Fund Portfolio Total			\$205,000,000	\$44,974,247	\$180,005,897	\$162,722,897	\$91,437,128	7.81%	0.9x	1.4x
Tranche In-State Portfolio										
Constitution Fund V, LLC - Series B	2017	Venture Capital	\$20,000,000	\$3,681,773	\$16,566,660	\$5,259,631	\$14,986,596	6.58%	0.3x	1.2x
Constitution Fund V, LLC - Series D	2018	Venture Capital	25,000,000	9,729,558	15,270,442	-	12,072,422	(16.54%)	N/A	0.8x
Nutmeg Opportunities Fund II LLC - CT-Direct Investment	2021	Buyout	50,000,000	50,000,000	-	-	-	N/A	N/A	N/A
Tranche In-State Portfolio Total			\$95,000,000	\$63,411,331	\$31,837,102	\$5,259,631	\$27,059,018	0.67%	0.2x	1.0x
Total Portfolio			\$300,000,000	\$108,385,578	\$211,842,999	\$167,982,528	\$118,496,146	7.42%	80.00%	140.00%

# End Notes

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## Annual Commitment Activity

- Vintage Year: the year in which a fund makes its initial investment.
- Calendar Year: the year in which Connecticut makes its final close into the fund.

## Performance Summary by Investment End Notes:

- HL All PE used for quartile benchmark.
- Quartiles are excluded for 2020, 2021, and 2022 funds.
- Quartiles are also excluded for all data points where the data is not sufficient for a calculated value (i.e. where an N/A appears).

## Benchmarking Summaries End Notes:

- Funds without an applicable benchmark are captured within the N/A category.

## Quarterly Report End Notes:

- Nutmeg Opportunities II SMMBF sleeve does not have a cap on committed capital.

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# CONNECTICUT RETIREMENT PLANS & TRUST FUNDS

REAL ESTATE FUND PERFORMANCE  
REVIEW

FIRST QUARTER 2022

July 2022



PROPRIETARY & CONFIDENTIAL



# REAL ESTATE PORTFOLIO REVIEW

First Quarter 2022



PROPRIETARY & CONFIDENTIAL

# PORTFOLIO PERFORMANCE SUMMARY

The table below displays trailing time period performance for the State of Connecticut Real Estate Portfolio as of March 31, 2022, along with select benchmarks

- The policy benchmark is the NCREIF ODCE Index, which is comprised of open-end core real estate funds; we also show two additional benchmarks:
  - The NCREIF Property Index, a benchmark of unlevered core real estate returns
  - The C/A Non-Core Real Estate benchmark consists of non-core (value-add and opportunistic) closed-end real estate funds
- The total real estate portfolio generated a total net return of 5.5% in the first quarter of 2022
  - The portfolio has generated an annualized return of 10.5% over the trailing five years

Portfolio Performance	Net Asset Value (\$M)	YTD	1 Year	3 Year	5 Year	10 Year	Inception
State of Connecticut: Total Real Estate Portfolio	\$3,824.5	5.5%	28.2%	12.4%	10.5%	10.8%	6.9%
Policy Benchmark: NFI-ODCE Index <sup>1</sup>		7.1%	27.3%	10.3%	8.9%	9.9%	N/A
Other Real Estate Benchmarks							
NCREIF Property Index <sup>2</sup>		5.3%	21.9%	9.6%	8.5%	9.6%	N/A
C/A Non-Core Real Estate Index <sup>3</sup>		4.3%	27.6%	12.7%	11.7%	11.5%	N/A

Data as March 31, 2022. Sources include NCREIF, Cambridge Associates, Manager data, and NEPC.

1. The NFI-ODCE Index represents pooled returns of open-end comingled core funds in the ODCE Index. The ODCE includes the effects of leverage, and returns shown are time-weighted and net of fees.

2. The NCREIF Property Index (NPI) represents property-level returns of institutionally-owned core real estate properties in the United States. The NPI is unlevered, and returns are time-weighted and gross of fees.

3. The C/A Benchmark represents pooled horizon internal rate of return (IRR) calculations, net of fees, across value-add and opportunistic real estate funds.

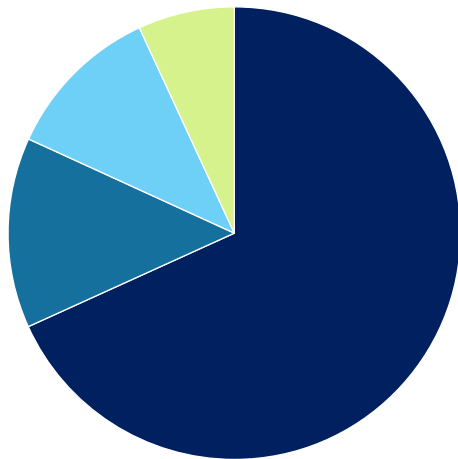
4. The timing and magnitude of fund cash flows are integral to the IRR performance. Benchmark indices that are time weighted measures should not be directly compared to dollar-weighted IRR calculations. Index data is continuously updated and is therefore subject to change.



# PORTFOLIO HIGHLIGHTS

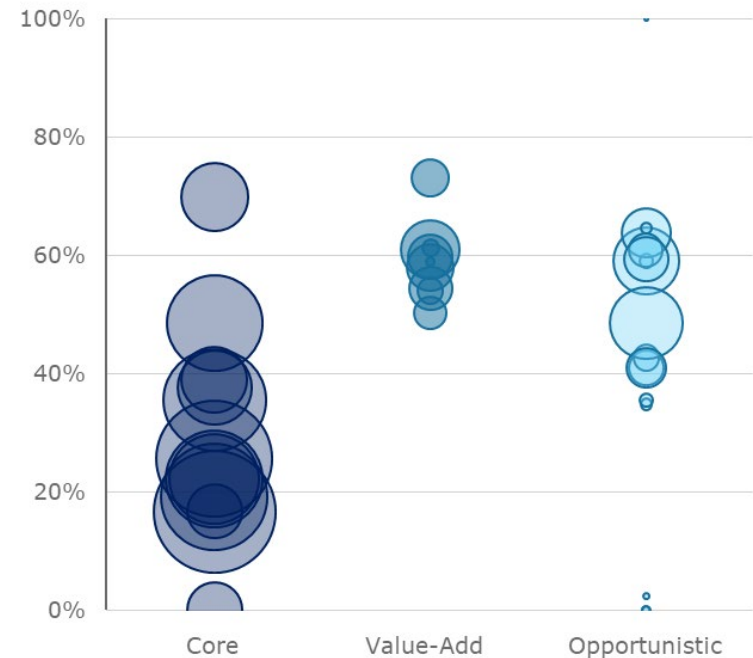
- Relative to the policy target ranges, the State of Connecticut real estate portfolio is currently over-allocated to Core & Core-Plus Real Estate relative to target and under-allocated to value-add and opportunistic strategies
- The portfolio has a weighted average leverage ratio of 35.4%

## Allocation by Strategy



- Core & Core-Plus: 68% (40% to 60% Policy Range)
- Value-Add: 14% (15% to 35% Policy Range)
- Opportunistic: 11% (15% to 35% Policy Range)
- Publicly Traded: 7% (0% to 20% Policy Range)

## Leverage Analysis by Strategy



Data as of March 31, 2021. Leverage is measured as loan-to-value, is reported by each underlying Manager, and excludes REITs. Size of bubble indicates relative size of investment (by net asset value).  
Morgan Stanley Real Estate Co-Investment NAV is included in the Opportunistic allocation.



# MANAGER RELATIONSHIPS

- **As of March 31, 2022, the portfolio had 51 active investments with 32 managers**
  - The top 10 managers represent about 67% of the portfolio by current net asset value and about 61% by total potential exposure

## Top Ten Relationships - NAV

Manager Name	# of Funds	NAV (\$M)
Morgan Stanley Real Estate	2	\$347.62
Barings Real Estate	1	\$314.18
Clarion	1	\$272.80
PGIM Real Estate	1	\$263.64
BlackRock	1	\$263.62
USAA Real Estate	2	\$244.29
UBS Realty Advisors	3	\$239.23
Hart Realty Advisors	1	\$216.79
The Carlyle Group	2	\$210.32
The Blackstone Group	6	\$196.24

Total Top Ten \$2,568.73

67% of Total Portfolio (by Net Asset Value)

## Top Ten Relationships – Total Exposure

Manager Name	# of Funds	Exposure (\$M)
Morgan Stanley Real Estate	2	\$570.48
The Carlyle Group	2	\$390.32
Barings Real Estate	1	\$314.18
Clarion	1	\$272.80
PGIM Real Estate	1	\$263.64
BlackRock	1	\$263.62
Hart Realty Advisors	1	\$250.88
USAA Real Estate	2	\$244.29
UBS Realty Advisors	3	\$239.23
The Blackstone Group	6	\$237.40

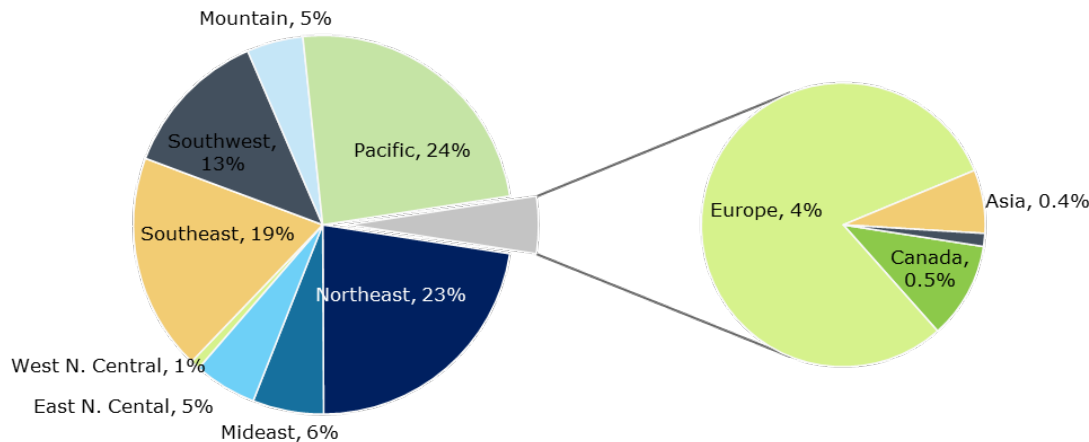
Total Top Ten \$3,046.84

61% of Total Portfolio (by Total Exposure)

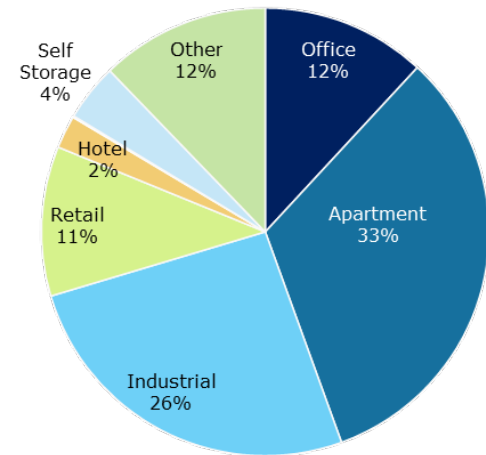
# PORTFOLIO DIVERSIFICATION

- The State of Connecticut real estate portfolio is broadly diversified by property type and geography within the U.S.
- The portfolio remains heavily concentrated in the United States
  - About 5% of the portfolio is invested outside the U.S., with the majority of that exposure in Europe
- The portfolio is primarily invested the four main property types (apartments, industrial, office, and retail)
  - These four property types represent over 80% of the total portfolio

Geography



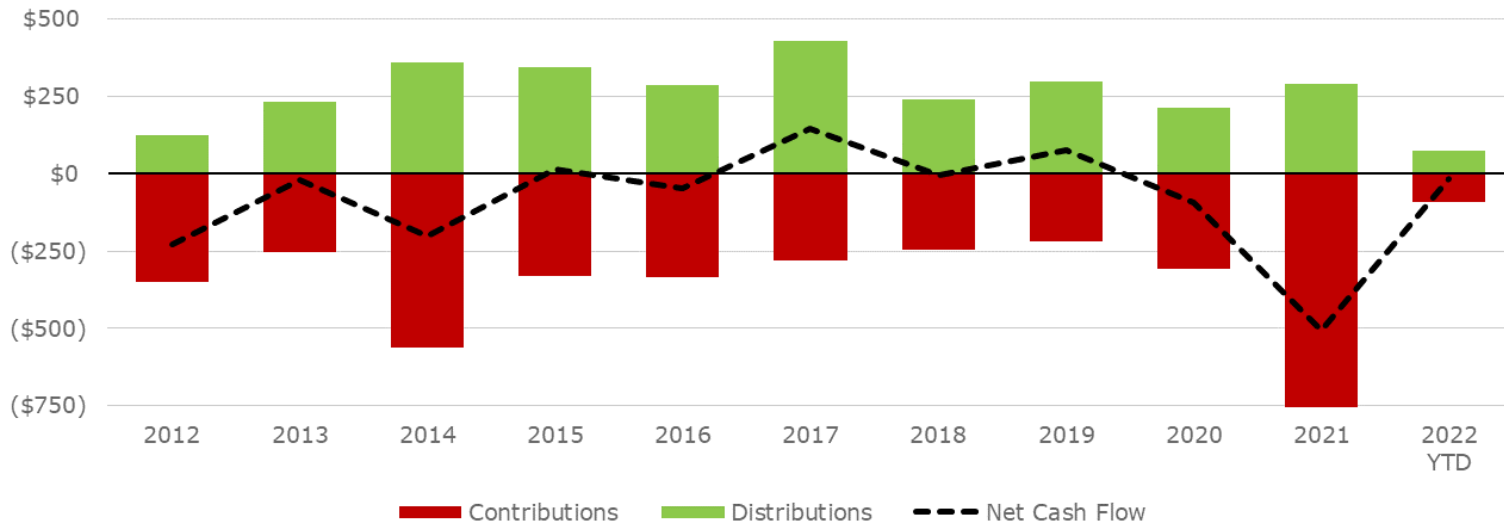
Property Type



# 10-YEAR CASH FLOWS

- The chart below illustrates the capital invested, distributed, and net cash flows for the real estate portfolio for 2022 year-to-date, and the past 10 full years
- In the first quarter of 2022, the real estate portfolio produced a slightly negative net cash flow, of approximately \$16 million
  - This included approximately \$91 million in contributions and approximately \$74 million in distributions
  - NEPC does not believe that the negative recent cash flow is concerning, given the magnitude of recent commitments

Historical Real Estate Portfolio Cash Flows







# DETAILED REAL ESTATE PERFORMANCE

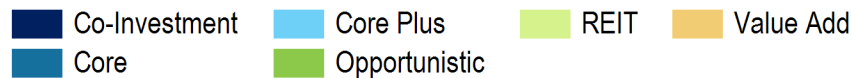
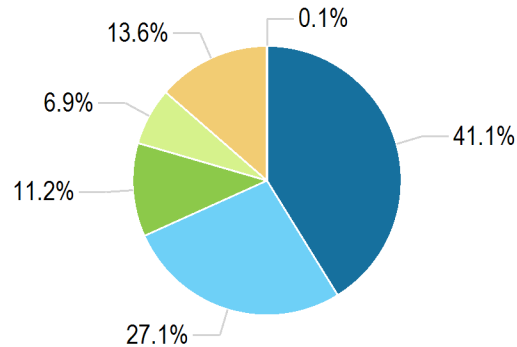
First Quarter 2022



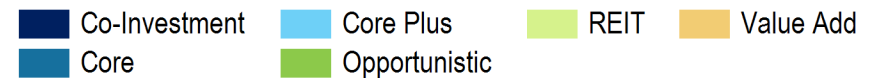
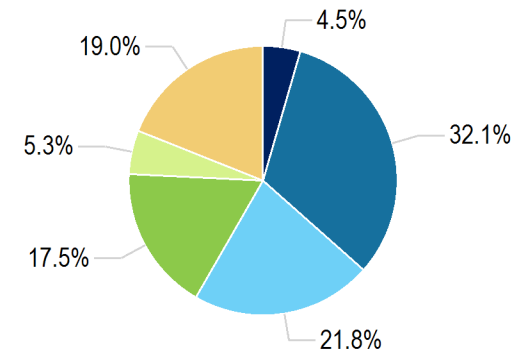
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# State of Connecticut ANALYSIS BY STRATEGY

## Real Estate Valuation by Strategy



## Real Estate Fund Exposure by Strategy

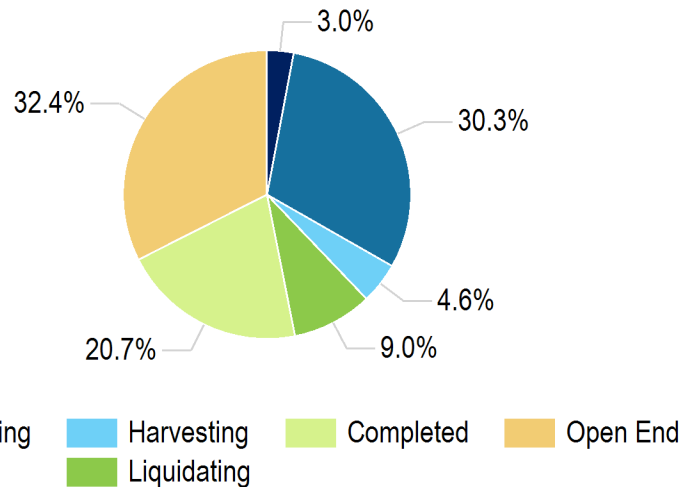


Investments	Commitments			Contributions & Distributions			Valuations				Performance		
Investment Strategy	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI	IRR
Total Co-Investment	\$225.00	\$222.86	0.01	\$2.14	\$0.00	\$0.00	\$2.05	\$2.05	-\$0.09	\$224.91	0.00	0.96	-4.18%
Total Core	\$1,578.52	\$34.09	1.20	\$1,894.83	\$3.40	\$1,307.54	\$1,572.92	\$2,880.47	\$982.24	\$1,607.01	0.69	1.52	7.08%
Total Core Plus	\$681.49	\$55.35	0.94	\$640.08	\$7.60	\$97.89	\$1,036.19	\$1,134.07	\$486.40	\$1,091.54	0.15	1.75	15.08%
Total Opportunistic	\$1,882.86	\$445.88	0.83	\$1,565.29	\$30.21	\$1,644.29	\$429.30	\$2,073.59	\$478.09	\$875.18	1.03	1.30	5.91%
Total REIT	\$200.00	\$0.00	1.00	\$200.00	\$0.00	\$0.00	\$263.62	\$263.62	\$63.62	\$263.62	0.00	1.32	31.22%
Total Value Add	\$1,496.05	\$430.70	0.77	\$1,155.57	\$23.68	\$811.90	\$520.41	\$1,332.31	\$153.07	\$951.11	0.69	1.13	3.56%
Total	\$6,063.92	\$1,188.89	0.90	\$5,457.91	\$64.88	\$3,861.63	\$3,824.49	\$7,686.11	\$2,163.32	\$5,013.37	0.70	1.39	6.90%

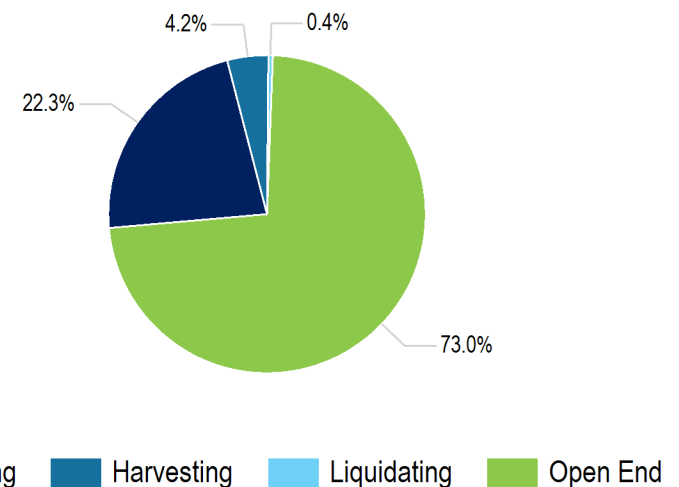


# State of Connecticut ANALYSIS BY LIFECYCLE

## Commitment by Lifecycle



## Valuation by Lifecycle



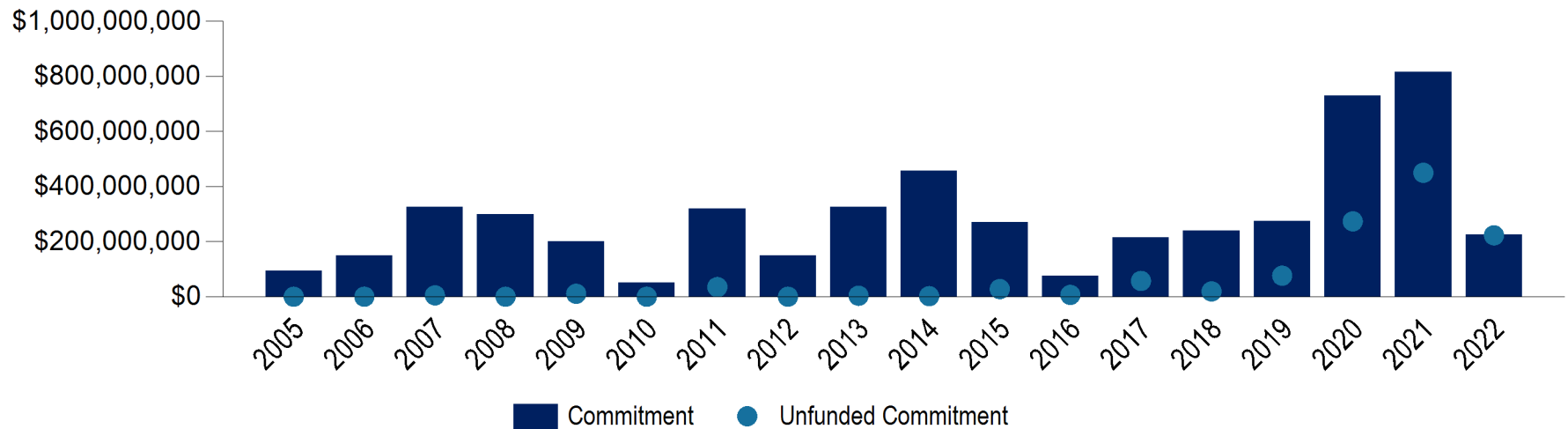
Investments	Commitments			Contributions & Distributions			Valuations			Performance		
Lifecycle	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total Fundraising	\$180.00	\$180.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
Total Investing	\$1,835.65	\$928.43	0.55	\$1,006.40	\$12.22	\$425.30	\$854.36	\$1,279.66	\$261.03	0.42	1.26	14.71%
Total Harvesting	\$280.00	\$29.99	0.97	\$272.58	\$8.81	\$300.81	\$160.40	\$461.21	\$179.82	1.07	1.64	17.03%
Total Liquidating	\$547.28	\$16.37	1.06	\$582.22	\$18.32	\$824.57	\$16.89	\$841.46	\$240.92	1.37	1.40	8.71%
Total Completed	\$1,253.64	\$0.00	1.05	\$1,313.50	\$16.33	\$1,307.14	\$0.00	\$1,307.14	-\$22.69	0.98	0.98	-0.42%
Total Open End	\$1,967.34	\$34.09	1.16	\$2,283.20	\$9.21	\$1,003.81	\$2,792.83	\$3,796.64	\$1,504.23	0.44	1.66	9.89%
Total	\$6,063.92	\$1,188.89	0.90	\$5,457.91	\$64.88	\$3,861.63	\$3,824.49	\$7,686.11	\$2,163.32	0.70	1.39	6.90%



# State of Connecticut

## ANALYSIS BY VINTAGE YEAR

Commitments By Vintage Year



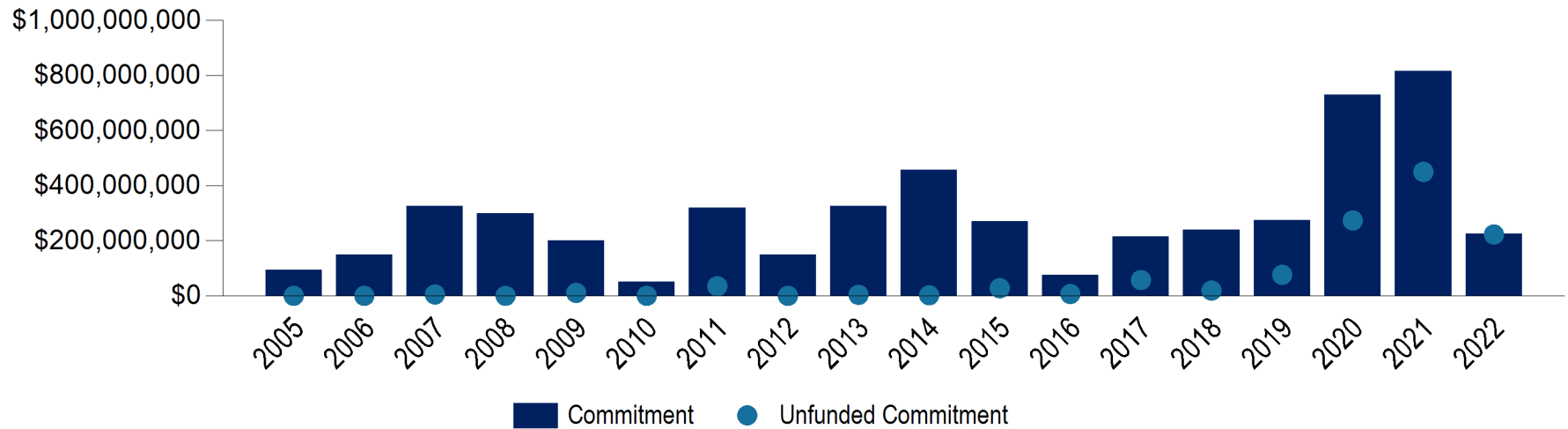
Investments	Commitments		Contributions & Distributions			Valuations			Performance		
Vintage Year	Commitment	Unfunded Commitment	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total 1998	\$363.13	\$0.00	\$409.49	\$0.15	\$539.88	\$0.00	\$539.88	\$130.24	1.32	1.32	5.24%
Total 2004	\$40.00	\$0.00	\$40.76	\$3.98	\$57.01	\$0.00	\$57.01	\$12.27	1.27	1.27	9.36%
Total 2005	\$338.47	\$0.00	\$339.38	\$2.72	\$303.21	\$0.00	\$303.21	-\$38.88	0.89	0.89	-2.56%
Total 2006	\$200.00	\$0.00	\$201.00	\$7.82	\$127.84	\$1.20	\$129.04	-\$79.78	0.61	0.62	-5.56%
Total 2007	\$450.00	\$4.91	\$451.81	\$12.32	\$440.05	\$348.72	\$788.78	\$324.64	0.95	1.70	6.48%
Total 2008	\$325.00	\$0.00	\$325.16	\$0.00	\$207.15	\$315.26	\$522.41	\$197.25	0.64	1.61	5.99%
Total 2009	\$200.00	\$10.64	\$226.91	\$6.31	\$315.45	\$10.40	\$325.85	\$92.63	1.35	1.40	12.43%
Total 2010	\$50.00	\$0.00	\$50.59	\$0.00	\$66.65	\$0.00	\$66.65	\$16.05	1.32	1.32	10.96%
Total 2011	\$319.33	\$34.91	\$564.55	\$0.82	\$543.54	\$217.07	\$760.61	\$195.25	0.96	1.35	9.85%
Total 2012	\$150.00	\$0.00	\$223.19	\$1.15	\$167.35	\$188.95	\$356.30	\$131.96	0.75	1.59	13.19%
Total 2013	\$325.00	\$3.50	\$321.50	\$0.00	\$153.30	\$437.71	\$591.01	\$269.51	0.48	1.84	9.96%
Total 2014	\$457.34	\$1.98	\$465.33	\$9.66	\$248.10	\$551.45	\$799.55	\$324.57	0.52	1.68	10.65%



# State of Connecticut

## ANALYSIS BY VINTAGE YEAR

Commitments By Vintage Year



Investments	Commitments		Contributions & Distributions			Valuations			Performance		
Vintage Year	Commitment	Unfunded Commitment	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total 2015	\$270.00	\$27.63	\$263.43	\$7.74	\$287.47	\$138.52	\$425.98	\$154.81	1.06	1.57	17.11%
Total 2016	\$75.00	\$6.44	\$68.56	\$5.65	\$96.50	\$6.34	\$102.84	\$28.62	1.30	1.39	11.45%
Total 2017	\$215.00	\$57.26	\$173.01	\$4.73	\$63.12	\$175.54	\$238.66	\$60.91	0.36	1.34	11.21%
Total 2018	\$240.00	\$19.05	\$246.31	\$0.91	\$156.09	\$189.50	\$345.59	\$98.38	0.63	1.40	16.81%
Total 2019	\$275.00	\$76.19	\$210.72	-\$0.65	\$29.74	\$224.67	\$254.42	\$44.35	0.14	1.21	16.16%
Total 2020	\$729.15	\$273.65	\$471.35	\$0.22	\$16.49	\$564.71	\$581.20	\$109.63	0.03	1.23	23.76%
Total 2021	\$816.50	\$449.87	\$402.70	\$1.36	\$42.68	\$452.39	\$495.07	\$91.01	0.11	1.23	30.76%
Total 2022	\$225.00	\$222.86	\$2.14	\$0.00	\$0.00	\$2.05	\$2.05	-\$0.09	0.00	0.96	-4.18%
Total	\$6,063.92	\$1,188.89	\$5,457.91	\$64.88	\$3,861.63	\$3,824.49	\$7,686.11	\$2,163.32	0.70	1.39	6.90%





# APPENDIX 1: INVESTMENT LEVEL PERFORMANCE

As of March 31, 2022





# State of Connecticut

## RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %						
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR
AEW Core Real Estate Separate Account	2005	\$243.53							0.16%
AEW Partners III, L.P.	1998	\$100.00							8.77%
American Core Realty Separate Account	2012	\$150.00	6.40%	6.40%	24.97%	13.30%	11.54%		13.19%
Apollo Real Estate Investment Fund III, L.P.	1998	\$75.00							6.25%
Ares Real Estate Enhanced Income Fund, L.P.	2020	\$100.00	1.86%	1.86%	5.83%				5.39%
Artemis Real Estate Partners Income & Growth Fund, L.P.	2019	\$100.00	0.29%	0.29%	17.00%				5.69%
Barings Core Property Fund, L.P.	2008	\$250.00	6.62%	6.62%	25.08%	9.75%	8.65%	9.51%	7.22%
BIG Real Estate Fund I, L.P.	2018	\$65.00	1.49%	1.49%	8.73%	9.59%			9.77%
BIG Real Estate Fund II, L.P.	2021	\$119.00	-0.20%	-0.20%					-2.43%
Blackstone Biomed Life Science Fund, L.P.	2020	\$29.15	9.01%	9.01%	29.58%				23.40%
Blackstone Real Estate Partners Europe III, L.P.	2009	\$50.00	-6.85%	-6.85%	-18.74%	-9.08%	4.93%	9.89%	10.16%
Blackstone Real Estate Partners Europe V, L.P.	2017	\$50.00	1.52%	1.52%	24.36%	13.84%			13.83%
Blackstone Real Estate Partners VI, L.P.	2007	\$100.00	13.09%	13.09%	22.79%	12.93%	17.49%	17.29%	13.23%
Blackstone Real Estate Partners VIII, L.P.	2015	\$100.00	11.54%	11.54%	57.84%	22.08%	18.90%		18.83%
Blackstone Real Estate Special Situations Fund II, L.P.	2011	\$72.05			-2.66%	-4.33%	-2.44%	8.99%	9.27%
Canyon-Johnson Urban Fund II, L.P.	2005	\$44.94				-2.15%	2.35%	-9.22%	-10.43%
Canyon-Johnson Urban Fund III, L.P.	2010	\$50.00	-7.77%	-7.77%	-53.42%	-68.81%	43.57%	14.80%	10.96%
Capri Select Income II, L.P.	2005	\$30.00			-16.43%	519.88%	48.33%	19.71%	-9.89%
Carlyle Property Investors, L.P.	2020	\$150.00	7.46%	7.46%	36.28%				30.79%
Carlyle Realty Partners IX, L.P.	2021	\$180.00							
Colony Realty Partners II, L.P.	2006	\$50.00							-13.75%
Covenant Apartment Fund IX, L.P.	2018	\$50.00	6.82%	6.82%	56.13%	28.70%			26.45%
Covenant Apartment Fund V (Institutional), L.P.	2007	\$25.00							2.90%
Covenant Apartment Fund VI (Institutional), L.P.	2008	\$25.00							13.50%
Covenant Apartment Fund VIII, L.P.	2015	\$30.00	2.27%	2.27%	38.26%	24.49%	19.45%		18.51%
Covenant Apartment Fund X (Institutional), L.P.	2021	\$100.00	4.69%	4.69%					21.21%
Crow Holdings Realty Partners VII, L.P.	2016	\$75.00	2.22%	2.22%	25.00%	8.92%	13.31%		11.45%
Crow Holdings Realty Partners VIII, L.P.	2018	\$75.00	12.49%	12.49%	67.89%	25.83%			24.32%
Cypress Acquisition Partners Retail Fund, L.P.	2014	\$50.00							



# State of Connecticut

## RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %						
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR
Gerding Edlen Green Cities II, L.P.	2014	\$30.00	2.86%	2.86%	13.02%	8.43%	3.00%		9.75%
Gerding Edlen Green Cities III, L.P.	2017	\$50.00	0.88%	0.88%	-0.04%	0.26%	3.26%		4.03%
Gerding Edlen Green Cities IV, L.P.	2019	\$75.00	3.26%	3.26%	12.14%	2.96%			3.55%
Hart Realty Advisors-Core Separate Account	2011	\$180.00	4.54%	4.54%	11.72%	7.16%	5.68%	8.16%	8.29%
IL & FS India Realty Fund II, LLC	2008	\$50.00	-9.70%	-9.70%	-9.84%	-37.09%	-32.29%	-14.02%	-10.32%
IPI Partners II, L.P.	2020	\$100.00	7.05%	7.05%	14.88%				-2.75%
JP Morgan Strategic Property Fund	2014	\$90.00				1.42%	5.52%		7.60%
Landmark Real Estate Fund VII, L.P.	2015	\$40.00	-4.74%	-4.74%	6.31%	-1.41%	1.59%		7.46%
Landmark Real Estate Partners VIII, L.P.	2017	\$65.00	-0.48%	-0.48%	47.68%	17.48%			21.88%
Lion Industrial Trust	2014	\$102.34	11.67%	11.67%	56.58%	26.67%	22.24%		19.99%
Lone Star Real Estate Fund II (U.S.), L.P.	2011	\$67.28	0.15%	0.15%	-13.55%	-4.55%	-3.56%	27.85%	25.25%
MacFarlane Urban Real Estate Fund II, L.P.	2007	\$100.00							-16.47%
Mesirow Financial Real Estate Value Fund IV, L.P.	2021	\$75.00	0.80%	0.80%					31.68%
Morgan Stanley Real Estate Co-Investment, L.P.	2022	\$225.00							-4.18%
New Boston Real Estate Individual and Institutional Investment Fund, L.P. IV	1998	\$15.00							3.10%
Oak Street Real Estate Capital Net Lease Property Fund, L.P.	2019	\$100.00	6.08%	6.08%	31.23%				27.40%
Penzance DC Real Estate Fund II, L.P.	2021	\$50.00	291.92%	291.92%					9.33%
Prime Property Fund, LLC	2007	\$225.00	7.01%	7.01%	27.47%	11.03%	9.74%	11.51%	8.63%
PRISA I, L.P.	2014	\$185.00	6.58%	6.58%	26.63%	10.57%	9.38%		9.81%
Rockpoint Real Estate Fund VI, L.P.	2020	\$150.00	9.38%	9.38%	50.31%				37.14%
Rockwood Capital Real Estate Partners Fund V, L.P.	2004	\$40.00							9.36%
Rockwood Capital Real Estate Partners Fund VI, L.P.	2005	\$20.00			-14.10%	-10.01%	-1.40%	-3.62%	-0.86%
Rockwood Capital Real Estate Partners Fund VII, L.P.	2006	\$50.00			-11.21%	-39.19%	-16.19%	1.49%	-6.92%
Rubicon First Ascent, L.P.	2021	\$42.50	-4.95%	-4.95%					-44.70%
Starwood Distressed Opportunity Fund IX Global, L.P.	2013	\$50.00	4.67%	4.67%	60.27%	11.68%	7.70%		18.79%
Starwood Global Opportunity Fund VII, L.P.	2006	\$50.00	-2.09%	-2.09%	-3.04%	1.42%	1.39%	2.73%	-2.38%
Starwood Global Opportunity Fund VIII, L.P.	2009	\$50.00	11.19%	11.19%	13.74%	5.51%	1.27%	11.07%	12.11%
Starwood Global Opportunity Fund X, L.P.	2015	\$100.00	18.61%	18.61%	47.70%	11.33%	12.45%		17.68%
Starwood Opportunity Fund XI Global, L.P.	2017	\$50.00	3.50%	3.50%	22.33%	18.74%			20.86%





# State of Connecticut

## RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %						
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR
State of Connecticut US REIT	2021	\$200.00	-4.83%	-4.83%	31.08%				31.22%
Torchlight Debt Opportunities Fund VII, L.P.	2020	\$100.00	1.62%	1.62%	2.59%				3.30%
TruAmerica Workforce Housing Fund I-A, L.P.	2021	\$50.00	6.36%	6.36%	54.95%				51.22%
Trumbull Property Fund, L.P.	2013	\$75.00	7.12%	7.12%	21.65%	3.20%	4.23%		5.92%
Trumbull Property Income Fund, L.P.	2013	\$50.00	4.35%	4.35%	18.15%	7.41%	6.71%		7.63%
UBS Trumbull Property Growth & Income Fund, L.P.	2013	\$50.00	11.47%	11.47%	32.56%	12.04%	10.49%		12.66%
Urban Strategy America Fund, L.P.	2006	\$50.00			0.00%	1.27%	2.22%	1.66%	-1.86%
USAA Eagle Real Estate Feeder 1, L.P.	2013	\$100.00	4.06%	4.06%	20.54%	7.21%	7.43%		10.20%
USAA Eagle Real Estate Feeder 1, L.P.	2018	\$50.00	4.03%	4.03%	20.40%	7.25%			7.26%
Walton Street Real Estate Fund II, L.P.	1998	\$73.13							13.03%
Waterton Residential Property Venture XIV, L.P.	2020	\$100.00	14.04%	14.04%	49.81%				44.72%
Westport Senior Living Investment Fund, L.P.	1998	\$100.00							-13.20%
WLR IV PPIP Co-Invest, L.P.	2009	\$100.00	-0.13%	-0.13%	-2.15%	-3.49%	4.58%	33.96%	14.30%
<b>Total</b>		<b>\$6,063.92</b>	<b>5.54%</b>	<b>5.54%</b>	<b>28.24%</b>	<b>12.37%</b>	<b>10.45%</b>	<b>10.81%</b>	<b>6.90%</b>



# State of Connecticut

## ANALYSIS BY FUND

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
AEW Core Real Estate Separate Account	2005	\$243.53	\$0.00	\$243.53	\$0.00	\$245.21	\$0.00	\$245.21	\$1.69	1.01	1.01	0.16%
AEW Partners III, L.P.	1998	\$100.00	\$0.00	\$101.69	\$0.00	\$150.65	\$0.00	\$150.65	\$48.95	1.48	1.48	8.77%
American Core Realty Separate Account	2012	\$150.00	\$0.00	\$223.19	\$1.15	\$167.35	\$188.95	\$356.30	\$131.96	0.75	1.59	13.19%
Apollo Real Estate Investment Fund III, L.P.	1998	\$75.00	\$0.00	\$78.82	\$0.00	\$116.21	\$0.00	\$116.21	\$37.39	1.47	1.47	6.25%
Ares Real Estate Enhanced Income Fund, L.P.	2020	\$100.00	\$0.00	\$105.28	\$0.00	\$5.28	\$105.33	\$110.60	\$5.33	0.05	1.05	5.39%
Artemis Real Estate Partners Income & Growth Fund, L.P.	2019	\$100.00	\$48.43	\$61.81	\$0.47	\$15.74	\$50.80	\$66.54	\$4.26	0.25	1.07	5.69%
Barings Core Property Fund, L.P.	2008	\$250.00	\$0.00	\$250.00	\$0.00	\$142.82	\$314.18	\$457.00	\$207.00	0.57	1.83	7.22%
BIG Real Estate Fund I, L.P.	2018	\$65.00	\$9.07	\$81.29	\$0.62	\$43.18	\$51.24	\$94.42	\$12.52	0.53	1.15	9.77%
BIG Real Estate Fund II, L.P.	2021	\$119.00	\$85.22	\$46.74	\$0.10	\$13.76	\$32.59	\$46.35	-\$0.49	0.29	0.99	-2.43%
Blackstone Biomed Life Science Fund, L.P.	2020	\$29.15	\$6.92	\$25.92	-\$0.11	\$4.34	\$29.09	\$33.44	\$7.63	0.17	1.30	23.40%
Blackstone Real Estate Partners Europe III, L.P.	2009	\$50.00	\$5.99	\$46.56	\$6.31	\$71.92	\$4.54	\$76.46	\$23.59	1.36	1.45	10.16%
Blackstone Real Estate Partners Europe V, L.P.	2017	\$50.00	\$8.83	\$42.88	\$3.43	\$13.97	\$56.21	\$70.18	\$23.87	0.30	1.52	13.83%
Blackstone Real Estate Partners VI, L.P.	2007	\$100.00	\$4.91	\$99.61	\$12.09	\$220.33	\$3.15	\$223.48	\$111.77	1.97	2.00	13.23%
Blackstone Real Estate Partners VIII, L.P.	2015	\$100.00	\$14.51	\$106.55	\$7.83	\$96.65	\$103.25	\$199.90	\$85.52	0.85	1.75	18.83%
Blackstone Real Estate Special Situations Fund II, L.P.	2011	\$72.05	\$0.00	\$72.05	\$0.00	\$86.15	\$0.00	\$86.15	\$14.10	1.20	1.20	9.27%
Canyon-Johnson Urban Fund II, L.P.	2005	\$44.94	\$0.00	\$44.94	\$0.00	\$20.04	\$0.00	\$20.04	-\$24.91	0.45	0.45	-10.43%
Canyon-Johnson Urban Fund III, L.P.	2010	\$50.00	\$0.00	\$50.59	\$0.00	\$66.65	\$0.00	\$66.65	\$16.05	1.32	1.32	10.96%
Capri Select Income II, L.P.	2005	\$30.00	\$0.00	\$30.45	\$0.00	\$15.89	\$0.00	\$15.89	-\$14.56	0.52	0.52	-9.89%
Carlyle Property Investors, L.P.	2020	\$150.00	\$0.00	\$150.00	\$0.00	\$0.00	\$210.32	\$210.32	\$60.32	0.00	1.40	30.79%
Carlyle Realty Partners IX, L.P.	2021	\$180.00	\$180.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
Colony Realty Partners II, L.P.	2006	\$50.00	\$0.00	\$51.00	\$0.00	\$13.19	\$0.00	\$13.19	-\$37.81	0.26	0.26	-13.75%
Covenant Apartment Fund IX, L.P.	2018	\$50.00	\$0.00	\$50.00	\$0.29	\$32.28	\$52.21	\$84.49	\$34.19	0.64	1.68	26.45%
Covenant Apartment Fund V (Institutional), L.P.	2007	\$25.00	\$0.00	\$25.00	\$0.23	\$30.28	\$0.00	\$30.28	\$5.05	1.20	1.20	2.90%
Covenant Apartment Fund VI (Institutional), L.P.	2008	\$25.00	\$0.00	\$25.16	\$0.00	\$39.52	\$0.00	\$39.52	\$14.36	1.57	1.57	13.50%
Covenant Apartment Fund VIII, L.P.	2015	\$30.00	\$0.00	\$30.00	-\$0.08	\$47.27	\$0.78	\$48.05	\$18.13	1.58	1.61	18.51%
Covenant Apartment Fund X (Institutional), L.P.	2021	\$100.00	\$26.00	\$74.00	\$1.39	\$4.92	\$82.19	\$87.11	\$11.71	0.07	1.16	21.21%
Crow Holdings Realty Partners VII, L.P.	2016	\$75.00	\$6.44	\$68.56	\$5.65	\$96.50	\$6.34	\$102.84	\$28.62	1.30	1.39	11.45%
Crow Holdings Realty Partners VIII, L.P.	2018	\$75.00	\$9.98	\$65.02	\$0.00	\$80.64	\$24.21	\$104.85	\$39.83	1.24	1.61	24.32%
Cypress Acquisition Partners Retail Fund, L.P.	2014	\$50.00	\$0.00	\$58.46	\$0.00	\$14.10	\$0.00	\$14.10	-\$44.36	0.24	0.24	
Gerding Edlen Green Cities II, L.P.	2014	\$30.00	\$1.98	\$29.53	\$0.98	\$30.17	\$15.01	\$45.18	\$14.67	0.99	1.48	9.75%



# State of Connecticut

## ANALYSIS BY FUND

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Gerding Edlen Green Cities III, L.P.	2017	\$50.00	\$1.77	\$49.11	\$1.39	\$16.24	\$43.34	\$59.58	\$9.08	0.32	1.18	4.03%
Gerding Edlen Green Cities IV, L.P.	2019	\$75.00	\$27.76	\$48.91	-\$1.12	\$4.10	\$45.75	\$49.85	\$2.06	0.09	1.04	3.55%
Hart Realty Advisors-Core Separate Account	2011	\$180.00	\$34.09	\$417.39	\$0.82	\$346.33	\$216.79	\$563.12	\$144.92	0.83	1.35	8.29%
IL & FS India Realty Fund II, LLC	2008	\$50.00	\$0.00	\$50.00	\$0.00	\$24.82	\$1.08	\$25.90	-\$24.10	0.50	0.52	-10.32%
IPI Partners II, L.P.	2020	\$100.00	\$64.41	\$37.26	\$0.07	\$1.67	\$35.22	\$36.90	-\$0.44	0.04	0.99	-2.75%
JP Morgan Strategic Property Fund	2014	\$90.00	\$0.00	\$90.00	\$1.43	\$120.44	\$0.00	\$120.44	\$29.01	1.32	1.32	7.60%
Landmark Real Estate Fund VII, L.P.	2015	\$40.00	\$3.12	\$36.88	\$0.00	\$35.86	\$8.39	\$44.25	\$7.36	0.97	1.20	7.46%
Landmark Real Estate Partners VIII, L.P.	2017	\$65.00	\$36.67	\$37.02	-\$0.08	\$22.49	\$30.02	\$52.51	\$15.57	0.61	1.42	21.88%
Lion Industrial Trust	2014	\$102.34	\$0.00	\$102.34	\$7.24	\$36.26	\$272.80	\$309.06	\$199.47	0.33	2.82	19.99%
Lone Star Real Estate Fund II (U.S.), L.P.	2011	\$67.28	\$0.83	\$75.11	\$0.00	\$111.05	\$0.28	\$111.33	\$36.22	1.48	1.48	25.25%
MacFarlane Urban Real Estate Fund II, L.P.	2007	\$100.00	\$0.00	\$102.20	\$0.00	\$27.72	\$0.00	\$27.72	-\$74.49	0.27	0.27	-16.47%
Mesirow Financial Real Estate Value Fund IV, L.P.	2021	\$75.00	\$58.50	\$16.50	\$0.02	\$0.00	\$19.37	\$19.37	\$2.85	0.00	1.17	31.68%
Morgan Stanley Real Estate Co-Investment, L.P.	2022	\$225.00	\$222.86	\$2.14	\$0.00	\$0.00	\$2.05	\$2.05	-\$0.09	0.00	0.96	-4.18%
New Boston Real Estate Individual and Institutional Investment Fund, L.P. IV	1998	\$15.00	\$0.00	\$15.00	\$0.00	\$17.34	\$0.00	\$17.34	\$2.34	1.16	1.16	3.10%
Oak Street Real Estate Capital Net Lease Property Fund, L.P.	2019	\$100.00	\$0.00	\$100.00	\$0.00	\$9.91	\$128.12	\$138.03	\$38.03	0.10	1.38	27.40%
Penzance DC Real Estate Fund II, L.P.	2021	\$50.00	\$47.67	\$2.33	\$0.06	\$0.00	\$2.61	\$2.61	\$0.22	0.00	1.09	9.33%
Prime Property Fund, LLC	2007	\$225.00	\$0.00	\$225.00	\$0.00	\$161.74	\$345.57	\$507.31	\$282.31	0.72	2.25	8.63%
PRISA I, L.P.	2014	\$185.00	\$0.00	\$185.00	\$0.00	\$47.14	\$263.64	\$310.78	\$125.78	0.25	1.68	9.81%
Rockpoint Real Estate Fund VI, L.P.	2020	\$150.00	\$56.14	\$93.86	\$0.26	\$0.00	\$121.75	\$121.75	\$27.63	0.00	1.29	37.14%
Rockwood Capital Real Estate Partners Fund V, L.P.	2004	\$40.00	\$0.00	\$40.76	\$3.98	\$57.01	\$0.00	\$57.01	\$12.27	1.27	1.27	9.36%
Rockwood Capital Real Estate Partners Fund VI, L.P.	2005	\$20.00	\$0.00	\$20.46	\$2.72	\$22.07	\$0.00	\$22.07	-\$1.11	0.95	0.95	-0.86%
Rockwood Capital Real Estate Partners Fund VII, L.P.	2006	\$50.00	\$0.00	\$50.00	\$7.82	\$32.25	\$0.00	\$32.25	-\$25.57	0.56	0.56	-6.92%
Rubicon First Ascent, L.P.	2021	\$42.50	\$34.45	\$8.05	\$0.01	\$0.00	\$6.03	\$6.03	-\$2.03	0.00	0.75	-44.70%
Starwood Distressed Opportunity Fund IX Global, L.P.	2013	\$50.00	\$3.50	\$46.50	\$0.00	\$66.30	\$16.04	\$82.34	\$35.84	1.43	1.77	18.79%
Starwood Global Opportunity Fund VII, L.P.	2006	\$50.00	\$0.00	\$50.00	\$0.00	\$39.01	\$1.20	\$40.21	-\$9.79	0.78	0.80	-2.38%
Starwood Global Opportunity Fund VIII, L.P.	2009	\$50.00	\$4.64	\$52.98	\$0.00	\$78.98	\$4.15	\$83.13	\$30.16	1.49	1.57	12.11%
Starwood Global Opportunity Fund X, L.P.	2015	\$100.00	\$10.00	\$90.00	\$0.00	\$107.68	\$26.11	\$133.79	\$43.79	1.20	1.49	17.68%
Starwood Opportunity Fund XI Global, L.P.	2017	\$50.00	\$10.00	\$44.00	\$0.00	\$10.42	\$45.97	\$56.39	\$12.39	0.24	1.28	20.86%



# State of Connecticut

## ANALYSIS BY FUND

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
State of Connecticut US REIT	2021	\$200.00	\$0.00	\$200.00	\$0.00	\$0.00	\$263.62	\$263.62	\$63.62	0.00	1.32	31.22%
Torchlight Debt Opportunities Fund VII, L.P.	2020	\$100.00	\$70.00	\$35.06	\$0.00	\$5.06	\$30.92	\$35.98	\$0.92	0.14	1.03	3.30%
TruAmerica Workforce Housing Fund I-A, L.P.	2021	\$50.00	\$18.02	\$55.10	-\$0.22	\$24.00	\$46.00	\$70.00	\$15.12	0.44	1.28	51.22%
Trumbull Property Fund, L.P.	2013	\$75.00	\$0.00	\$75.00	\$0.00	\$40.83	\$68.62	\$109.45	\$34.45	0.54	1.46	5.92%
Trumbull Property Income Fund, L.P.	2013	\$50.00	\$0.00	\$50.00	\$0.00	\$14.52	\$69.85	\$84.37	\$34.37	0.29	1.69	7.63%
UBS Trumbull Property Growth & Income Fund, L.P.	2013	\$50.00	\$0.00	\$50.00	\$0.00	\$12.37	\$100.76	\$113.13	\$63.13	0.25	2.26	12.66%
Urban Strategy America Fund, L.P.	2006	\$50.00	\$0.00	\$50.00	\$0.00	\$43.39	\$0.00	\$43.39	-\$6.61	0.87	0.87	-1.86%
USAA Eagle Real Estate Feeder 1, L.P.	2013	\$100.00	\$0.00	\$100.00	\$0.00	\$19.27	\$182.45	\$201.72	\$101.72	0.19	2.02	10.20%
USAA Eagle Real Estate Feeder 1, L.P.	2018	\$50.00	\$0.00	\$50.00	\$0.00	\$0.00	\$61.84	\$61.84	\$11.84	0.00	1.24	7.26%
Walton Street Real Estate Fund II, L.P.	1998	\$73.13	\$0.00	\$73.13	\$0.15	\$171.65	\$0.00	\$171.65	\$98.37	2.34	2.34	13.03%
Waterton Residential Property Venture XIV, L.P.	2020	\$100.00	\$76.18	\$23.96	\$0.00	\$0.14	\$32.07	\$32.21	\$8.25	0.01	1.34	44.72%
Westport Senior Living Investment Fund, L.P.	1998	\$100.00	\$0.00	\$140.84	\$0.00	\$84.03	\$0.00	\$84.03	-\$56.81	0.60	0.60	-13.20%
WLR IV PPIP Co-Invest, L.P.	2009	\$100.00	\$0.00	\$127.38	\$0.00	\$164.55	\$1.71	\$166.26	\$38.88	1.29	1.31	14.30%
<b>Total</b>		<b>\$6,063.92</b>	<b>\$1,188.89</b>	<b>\$5,457.91</b>	<b>\$64.88</b>	<b>\$3,861.63</b>	<b>\$3,824.49</b>	<b>\$7,686.11</b>	<b>\$2,163.32</b>	<b>0.70</b>	<b>1.39</b>	<b>6.90%</b>



# State of Connecticut

## ANALYSIS BY LIFECYCLE

Investments		Commitments			Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Fundraising</b>													
Carlyle Realty Partners IX, L.P.	2021	\$180.00	\$180.00		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
<b>Total Fundraising</b>		<b>\$180.00</b>	<b>\$180.00</b>		<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>			
<b>Investing</b>													
Artemis Real Estate Partners Income & Growth Fund, L.P.	2019	\$100.00	\$48.43	0.62	\$61.81	\$0.47	\$15.74	\$50.80	\$66.54	\$4.26	0.25	1.07	5.69%
BIG Real Estate Fund I, L.P.	2018	\$65.00	\$9.07	1.25	\$81.29	\$0.62	\$43.18	\$51.24	\$94.42	\$12.52	0.53	1.15	9.77%
BIG Real Estate Fund II, L.P.	2021	\$119.00	\$85.22	0.39	\$46.74	\$0.10	\$13.76	\$32.59	\$46.35	-\$0.49	0.29	0.99	-2.43%
Blackstone Biomed Life Science Fund, L.P.	2020	\$29.15	\$6.92	0.89	\$25.92	-\$0.11	\$4.34	\$29.09	\$33.44	\$7.63	0.17	1.30	23.40%
Blackstone Real Estate Partners Europe V, L.P.	2017	\$50.00	\$8.83	0.86	\$42.88	\$3.43	\$13.97	\$56.21	\$70.18	\$23.87	0.30	1.52	13.83%
Covenant Apartment Fund IX, L.P.	2018	\$50.00	\$0.00	1.00	\$50.00	\$0.29	\$32.28	\$52.21	\$84.49	\$34.19	0.64	1.68	26.45%
Covenant Apartment Fund X (Institutional), L.P.	2021	\$100.00	\$26.00	0.74	\$74.00	\$1.39	\$4.92	\$82.19	\$87.11	\$11.71	0.07	1.16	21.21%
Crow Holdings Realty Partners VII, L.P.	2016	\$75.00	\$6.44	0.91	\$68.56	\$5.65	\$96.50	\$6.34	\$102.84	\$28.62	1.30	1.39	11.45%
Crow Holdings Realty Partners VIII, L.P.	2018	\$75.00	\$9.98	0.87	\$65.02	\$0.00	\$80.64	\$24.21	\$104.85	\$39.83	1.24	1.61	24.32%
Gerding Edlen Green Cities III, L.P.	2017	\$50.00	\$1.77	0.98	\$49.11	\$1.39	\$16.24	\$43.34	\$59.58	\$9.08	0.32	1.18	4.03%
Gerding Edlen Green Cities IV, L.P.	2019	\$75.00	\$27.76	0.65	\$48.91	-\$1.12	\$4.10	\$45.75	\$49.85	\$2.06	0.09	1.04	3.55%
IPI Partners II, L.P.	2020	\$100.00	\$64.41	0.37	\$37.26	\$0.07	\$1.67	\$35.22	\$36.90	-\$0.44	0.04	0.99	-2.75%
Landmark Real Estate Fund VII, L.P.	2015	\$40.00	\$3.12	0.92	\$36.88	\$0.00	\$35.86	\$8.39	\$44.25	\$7.36	0.97	1.20	7.46%
Landmark Real Estate Partners VIII, L.P.	2017	\$65.00	\$36.67	0.57	\$37.02	-\$0.08	\$22.49	\$30.02	\$52.51	\$15.57	0.61	1.42	21.88%
Mesirow Financial Real Estate Value Fund IV, L.P.	2021	\$75.00	\$58.50	0.22	\$16.50	\$0.02	\$0.00	\$19.37	\$19.37	\$2.85	0.00	1.17	31.68%
Morgan Stanley Real Estate Co-Investment, L.P.	2022	\$225.00	\$222.86	0.01	\$2.14	\$0.00	\$0.00	\$2.05	\$2.05	-\$0.09	0.00	0.96	-4.18%
Penzance DC Real Estate Fund II, L.P.	2021	\$50.00	\$47.67	0.05	\$2.33	\$0.06	\$0.00	\$2.61	\$2.61	\$0.22	0.00	1.09	9.33%
Rockpoint Real Estate Fund VI, L.P.	2020	\$150.00	\$56.14	0.63	\$93.86	\$0.26	\$0.00	\$121.75	\$121.75	\$27.63	0.00	1.29	37.14%
Rubicon First Ascent, L.P.	2021	\$42.50	\$34.45	0.19	\$8.05	\$0.01	\$0.00	\$6.03	\$6.03	-\$2.03	0.00	0.75	-44.70%
Starwood Opportunity Fund XI Global, L.P.	2017	\$50.00	\$10.00	0.88	\$44.00	\$0.00	\$10.42	\$45.97	\$56.39	\$12.39	0.24	1.28	20.86%
Torchlight Debt Opportunities Fund VII, L.P.	2020	\$100.00	\$70.00	0.35	\$35.06	\$0.00	\$5.06	\$30.92	\$35.98	\$0.92	0.14	1.03	3.30%
TruAmerica Workforce Housing Fund I-A, L.P.	2021	\$50.00	\$18.02	1.10	\$55.10	-\$0.22	\$24.00	\$46.00	\$70.00	\$15.12	0.44	1.28	51.22%
Waterton Residential Property Venture XIV, L.P.	2020	\$100.00	\$76.18	0.24	\$23.96	\$0.00	\$0.14	\$32.07	\$32.21	\$8.25	0.01	1.34	44.72%
<b>Total Investing</b>		<b>\$1,835.65</b>	<b>\$928.43</b>	<b>0.55</b>	<b>\$1,006.40</b>	<b>\$12.22</b>	<b>\$425.30</b>	<b>\$854.36</b>	<b>\$1,279.66</b>	<b>\$261.03</b>	<b>0.42</b>	<b>1.26</b>	<b>14.71%</b>



# State of Connecticut

## ANALYSIS BY LIFECYCLE

Investments		Commitments			Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Harvesting</b>													
Blackstone Real Estate Partners VIII, L.P.	2015	\$100.00	\$14.51	1.07	\$106.55	\$7.83	\$96.65	\$103.25	\$199.90	\$85.52	0.85	1.75	18.83%
Gerding Edlen Green Cities II, L.P.	2014	\$30.00	\$1.98	0.98	\$29.53	\$0.98	\$30.17	\$15.01	\$45.18	\$14.67	0.99	1.48	9.75%
Starwood Distressed Opportunity Fund IX Global, L.P.	2013	\$50.00	\$3.50	0.93	\$46.50	\$0.00	\$66.30	\$16.04	\$82.34	\$35.84	1.43	1.77	18.79%
Starwood Global Opportunity Fund X, L.P.	2015	\$100.00	\$10.00	0.90	\$90.00	\$0.00	\$107.68	\$26.11	\$133.79	\$43.79	1.20	1.49	17.68%
<b>Total Harvesting</b>		<b>\$280.00</b>	<b>\$29.99</b>	<b>0.97</b>	<b>\$272.58</b>	<b>\$8.81</b>	<b>\$300.81</b>	<b>\$160.40</b>	<b>\$461.21</b>	<b>\$179.82</b>	<b>1.07</b>	<b>1.64</b>	<b>17.03%</b>
<b>Liquidating</b>													
Blackstone Real Estate Partners Europe III, L.P.	2009	\$50.00	\$5.99	0.93	\$46.56	\$6.31	\$71.92	\$4.54	\$76.46	\$23.59	1.36	1.45	10.16%
Blackstone Real Estate Partners VI, L.P.	2007	\$100.00	\$4.91	1.00	\$99.61	\$12.09	\$220.33	\$3.15	\$223.48	\$111.77	1.97	2.00	13.23%
Canyon-Johnson Urban Fund III, L.P.	2010	\$50.00	\$0.00	1.01	\$50.59	\$0.00	\$66.65	\$0.00	\$66.65	\$16.05	1.32	1.32	10.96%
Covenant Apartment Fund VIII, L.P.	2015	\$30.00	\$0.00	1.00	\$30.00	-\$0.08	\$47.27	\$0.78	\$48.05	\$18.13	1.58	1.61	18.51%
IL & FS India Realty Fund II, LLC	2008	\$50.00	\$0.00	1.00	\$50.00	\$0.00	\$24.82	\$1.08	\$25.90	-\$24.10	0.50	0.52	-10.32%
Lone Star Real Estate Fund II (U.S.), L.P.	2011	\$67.28	\$0.83	1.12	\$75.11	\$0.00	\$111.05	\$0.28	\$111.33	\$36.22	1.48	1.48	25.25%
Starwood Global Opportunity Fund VII, L.P.	2006	\$50.00	\$0.00	1.00	\$50.00	\$0.00	\$39.01	\$1.20	\$40.21	-\$9.79	0.78	0.80	-2.38%
Starwood Global Opportunity Fund VIII, L.P.	2009	\$50.00	\$4.64	1.06	\$52.98	\$0.00	\$78.98	\$4.15	\$83.13	\$30.16	1.49	1.57	12.11%
WLR IV PPIP Co-Invest, L.P.	2009	\$100.00	\$0.00	1.27	\$127.38	\$0.00	\$164.55	\$1.71	\$166.26	\$38.88	1.29	1.31	14.30%
<b>Total Liquidating</b>		<b>\$547.28</b>	<b>\$16.37</b>	<b>1.06</b>	<b>\$582.22</b>	<b>\$18.32</b>	<b>\$824.57</b>	<b>\$16.89</b>	<b>\$841.46</b>	<b>\$240.92</b>	<b>1.37</b>	<b>1.40</b>	<b>8.71%</b>



# State of Connecticut

## ANALYSIS BY LIFECYCLE

Investments		Commitments			Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Completed</b>													
AEW Core Real Estate Separate Account	2005	\$243.53	\$0.00	1.00	\$243.53	\$0.00	\$245.21	\$0.00	\$245.21	\$1.69	1.01	1.01	0.16%
AEW Partners III, L.P.	1998	\$100.00	\$0.00	1.02	\$101.69	\$0.00	\$150.65	\$0.00	\$150.65	\$48.95	1.48	1.48	8.77%
Apollo Real Estate Investment Fund III, L.P.	1998	\$75.00	\$0.00	1.05	\$78.82	\$0.00	\$116.21	\$0.00	\$116.21	\$37.39	1.47	1.47	6.25%
Blackstone Real Estate Special Situations Fund II, L.P.	2011	\$72.05	\$0.00	1.00	\$72.05	\$0.00	\$86.15	\$0.00	\$86.15	\$14.10	1.20	1.20	9.27%
Canyon-Johnson Urban Fund II, L.P.	2005	\$44.94	\$0.00	1.00	\$44.94	\$0.00	\$20.04	\$0.00	\$20.04	-\$24.91	0.45	0.45	-10.43%
Capri Select Income II, L.P.	2005	\$30.00	\$0.00	1.01	\$30.45	\$0.00	\$15.89	\$0.00	\$15.89	-\$14.56	0.52	0.52	-9.89%
Colony Realty Partners II, L.P.	2006	\$50.00	\$0.00	1.02	\$51.00	\$0.00	\$13.19	\$0.00	\$13.19	-\$37.81	0.26	0.26	-13.75%
Covenant Apartment Fund V (Institutional), L.P.	2007	\$25.00	\$0.00	1.00	\$25.00	\$0.23	\$30.28	\$0.00	\$30.28	\$5.05	1.20	1.20	2.90%
Covenant Apartment Fund VI (Institutional), L.P.	2008	\$25.00	\$0.00	1.01	\$25.16	\$0.00	\$39.52	\$0.00	\$39.52	\$14.36	1.57	1.57	13.50%
Cypress Acquisition Partners Retail Fund, L.P.	2014	\$50.00	\$0.00	1.17	\$58.46	\$0.00	\$14.10	\$0.00	\$14.10	-\$44.36	0.24	0.24	
JP Morgan Strategic Property Fund	2014	\$90.00	\$0.00	1.00	\$90.00	\$1.43	\$120.44	\$0.00	\$120.44	\$29.01	1.32	1.32	7.60%
MacFarlane Urban Real Estate Fund II, L.P.	2007	\$100.00	\$0.00	1.02	\$102.20	\$0.00	\$27.72	\$0.00	\$27.72	-\$74.49	0.27	0.27	-16.47%
New Boston Real Estate Individual and Institutional Investment Fund, L.P. IV	1998	\$15.00	\$0.00	1.00	\$15.00	\$0.00	\$17.34	\$0.00	\$17.34	\$2.34	1.16	1.16	3.10%
Rockwood Capital Real Estate Partners Fund V, L.P.	2004	\$40.00	\$0.00	1.02	\$40.76	\$3.98	\$57.01	\$0.00	\$57.01	\$12.27	1.27	1.27	9.36%
Rockwood Capital Real Estate Partners Fund VI, L.P.	2005	\$20.00	\$0.00	1.02	\$20.46	\$2.72	\$22.07	\$0.00	\$22.07	-\$1.11	0.95	0.95	-0.86%
Rockwood Capital Real Estate Partners Fund VII, L.P.	2006	\$50.00	\$0.00	1.00	\$50.00	\$7.82	\$32.25	\$0.00	\$32.25	-\$25.57	0.56	0.56	-6.92%
Urban Strategy America Fund, L.P.	2006	\$50.00	\$0.00	1.00	\$50.00	\$0.00	\$43.39	\$0.00	\$43.39	-\$6.61	0.87	0.87	-1.86%
Walton Street Real Estate Fund II, L.P.	1998	\$73.13	\$0.00	1.00	\$73.13	\$0.15	\$171.65	\$0.00	\$171.65	\$98.37	2.34	2.34	13.03%
Westport Senior Living Investment Fund, L.P.	1998	\$100.00	\$0.00	1.41	\$140.84	\$0.00	\$84.03	\$0.00	\$84.03	-\$56.81	0.60	0.60	-13.20%
<b>Total Completed</b>		<b>\$1,253.64</b>	<b>\$0.00</b>	<b>1.05</b>	<b>\$1,313.50</b>	<b>\$16.33</b>	<b>\$1,307.14</b>	<b>\$0.00</b>	<b>\$1,307.14</b>	<b>-\$22.69</b>	<b>0.98</b>	<b>0.98</b>	<b>-0.42%</b>



# State of Connecticut

## ANALYSIS BY LIFECYCLE

Investments		Commitments			Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Call Ratio	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Open End</b>													
American Core Realty Separate Account	2012	\$150.00	\$0.00	1.49	\$223.19	\$1.15	\$167.35	\$188.95	\$356.30	\$131.96	0.75	1.59	13.19%
Ares Real Estate Enhanced Income Fund, L.P.	2020	\$100.00	\$0.00	1.05	\$105.28	\$0.00	\$5.28	\$105.33	\$110.60	\$5.33	0.05	1.05	5.39%
Barings Core Property Fund, L.P.	2008	\$250.00	\$0.00	1.00	\$250.00	\$0.00	\$142.82	\$314.18	\$457.00	\$207.00	0.57	1.83	7.22%
Carlyle Property Investors, L.P.	2020	\$150.00	\$0.00	1.00	\$150.00	\$0.00	\$0.00	\$210.32	\$210.32	\$60.32	0.00	1.40	30.79%
Hart Realty Advisors-Core Separate Account	2011	\$180.00	\$34.09	2.32	\$417.39	\$0.82	\$346.33	\$216.79	\$563.12	\$144.92	0.83	1.35	8.29%
Lion Industrial Trust	2014	\$102.34	\$0.00	1.00	\$102.34	\$7.24	\$36.26	\$272.80	\$309.06	\$199.47	0.33	2.82	19.99%
Oak Street Real Estate Capital Net Lease Property Fund, L.P.	2019	\$100.00	\$0.00	1.00	\$100.00	\$0.00	\$9.91	\$128.12	\$138.03	\$38.03	0.10	1.38	27.40%
Prime Property Fund, LLC	2007	\$225.00	\$0.00	1.00	\$225.00	\$0.00	\$161.74	\$345.57	\$507.31	\$282.31	0.72	2.25	8.63%
PRISA I, L.P.	2014	\$185.00	\$0.00	1.00	\$185.00	\$0.00	\$47.14	\$263.64	\$310.78	\$125.78	0.25	1.68	9.81%
State of Connecticut US REIT	2021	\$200.00	\$0.00	1.00	\$200.00	\$0.00	\$0.00	\$263.62	\$263.62	\$63.62	0.00	1.32	31.22%
Trumbull Property Fund, L.P.	2013	\$75.00	\$0.00	1.00	\$75.00	\$0.00	\$40.83	\$68.62	\$109.45	\$34.45	0.54	1.46	5.92%
Trumbull Property Income Fund, L.P.	2013	\$50.00	\$0.00	1.00	\$50.00	\$0.00	\$14.52	\$69.85	\$84.37	\$34.37	0.29	1.69	7.63%
UBS Trumbull Property Growth & Income Fund, L.P.	2013	\$50.00	\$0.00	1.00	\$50.00	\$0.00	\$12.37	\$100.76	\$113.13	\$63.13	0.25	2.26	12.66%
USAA Eagle Real Estate Feeder 1, L.P.	2013	\$100.00	\$0.00	1.00	\$100.00	\$0.00	\$19.27	\$182.45	\$201.72	\$101.72	0.19	2.02	10.20%
USAA Eagle Real Estate Feeder 1, L.P.	2018	\$50.00	\$0.00	1.00	\$50.00	\$0.00	\$0.00	\$61.84	\$61.84	\$11.84	0.00	1.24	7.26%
<b>Total Open End</b>		<b>\$1,967.34</b>	<b>\$34.09</b>	<b>1.16</b>	<b>\$2,283.20</b>	<b>\$9.21</b>	<b>\$1,003.81</b>	<b>\$2,792.83</b>	<b>\$3,796.64</b>	<b>\$1,504.23</b>	<b>0.44</b>	<b>1.66</b>	<b>9.89%</b>
<b>Total</b>		<b>\$6,063.92</b>	<b>\$1,188.89</b>	<b>0.90</b>	<b>\$5,457.91</b>	<b>\$64.88</b>	<b>\$3,861.63</b>	<b>\$3,824.49</b>	<b>\$7,686.11</b>	<b>\$2,163.32</b>	<b>0.70</b>	<b>1.39</b>	<b>6.90%</b>





# State of Connecticut

## ANALYSIS BY VINTAGE YEAR

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>1998</b>												
AEW Partners III, L.P.	1998	\$100.00	\$0.00	\$101.69	\$0.00	\$150.65	\$0.00	\$150.65	\$48.95	1.48	1.48	8.77%
Apollo Real Estate Investment Fund III, L.P.	1998	\$75.00	\$0.00	\$78.82	\$0.00	\$116.21	\$0.00	\$116.21	\$37.39	1.47	1.47	6.25%
New Boston Real Estate Individual and Institutional Investment Fund, L.P. IV	1998	\$15.00	\$0.00	\$15.00	\$0.00	\$17.34	\$0.00	\$17.34	\$2.34	1.16	1.16	3.10%
Walton Street Real Estate Fund II, L.P.	1998	\$73.13	\$0.00	\$73.13	\$0.15	\$171.65	\$0.00	\$171.65	\$98.37	2.34	2.34	13.03%
Westport Senior Living Investment Fund, L.P.	1998	\$100.00	\$0.00	\$140.84	\$0.00	\$84.03	\$0.00	\$84.03	-\$56.81	0.60	0.60	-13.20%
<b>Total 1998</b>		<b>\$363.13</b>	<b>\$0.00</b>	<b>\$409.49</b>	<b>\$0.15</b>	<b>\$539.88</b>	<b>\$0.00</b>	<b>\$539.88</b>	<b>\$130.24</b>	<b>1.32</b>	<b>1.32</b>	<b>5.24%</b>
<b>2004</b>												
Rockwood Capital Real Estate Partners Fund V, L.P.	2004	\$40.00	\$0.00	\$40.76	\$3.98	\$57.01	\$0.00	\$57.01	\$12.27	1.27	1.27	9.36%
<b>Total 2004</b>		<b>\$40.00</b>	<b>\$0.00</b>	<b>\$40.76</b>	<b>\$3.98</b>	<b>\$57.01</b>	<b>\$0.00</b>	<b>\$57.01</b>	<b>\$12.27</b>	<b>1.27</b>	<b>1.27</b>	<b>9.36%</b>
<b>2005</b>												
AEW Core Real Estate Separate Account	2005	\$243.53	\$0.00	\$243.53	\$0.00	\$245.21	\$0.00	\$245.21	\$1.69	1.01	1.01	0.16%
Canyon-Johnson Urban Fund II, L.P.	2005	\$44.94	\$0.00	\$44.94	\$0.00	\$20.04	\$0.00	\$20.04	-\$24.91	0.45	0.45	-10.43%
Capri Select Income II, L.P.	2005	\$30.00	\$0.00	\$30.45	\$0.00	\$15.89	\$0.00	\$15.89	-\$14.56	0.52	0.52	-9.89%
Rockwood Capital Real Estate Partners Fund VI, L.P.	2005	\$20.00	\$0.00	\$20.46	\$2.72	\$22.07	\$0.00	\$22.07	-\$1.11	0.95	0.95	-0.86%
<b>Total 2005</b>		<b>\$338.47</b>	<b>\$0.00</b>	<b>\$339.38</b>	<b>\$2.72</b>	<b>\$303.21</b>	<b>\$0.00</b>	<b>\$303.21</b>	<b>-\$38.88</b>	<b>0.89</b>	<b>0.89</b>	<b>-2.56%</b>
<b>2006</b>												
Colony Realty Partners II, L.P.	2006	\$50.00	\$0.00	\$51.00	\$0.00	\$13.19	\$0.00	\$13.19	-\$37.81	0.26	0.26	-13.75%
Rockwood Capital Real Estate Partners Fund VII, L.P.	2006	\$50.00	\$0.00	\$50.00	\$7.82	\$32.25	\$0.00	\$32.25	-\$25.57	0.56	0.56	-6.92%
Starwood Global Opportunity Fund VII, L.P.	2006	\$50.00	\$0.00	\$50.00	\$0.00	\$39.01	\$1.20	\$40.21	-\$9.79	0.78	0.80	-2.38%
Urban Strategy America Fund, L.P.	2006	\$50.00	\$0.00	\$50.00	\$0.00	\$43.39	\$0.00	\$43.39	-\$6.61	0.87	0.87	-1.86%
<b>Total 2006</b>		<b>\$200.00</b>	<b>\$0.00</b>	<b>\$201.00</b>	<b>\$7.82</b>	<b>\$127.84</b>	<b>\$1.20</b>	<b>\$129.04</b>	<b>-\$79.78</b>	<b>0.61</b>	<b>0.62</b>	<b>-5.56%</b>
<b>2007</b>												
Blackstone Real Estate Partners VI, L.P.	2007	\$100.00	\$4.91	\$99.61	\$12.09	\$220.33	\$3.15	\$223.48	\$111.77	1.97	2.00	13.23%
Covenant Apartment Fund V (Institutional), L.P.	2007	\$25.00	\$0.00	\$25.00	\$0.23	\$30.28	\$0.00	\$30.28	\$5.05	1.20	1.20	2.90%
MacFarlane Urban Real Estate Fund II, L.P.	2007	\$100.00	\$0.00	\$102.20	\$0.00	\$27.72	\$0.00	\$27.72	-\$74.49	0.27	0.27	-16.47%
Prime Property Fund, LLC	2007	\$225.00	\$0.00	\$225.00	\$0.00	\$161.74	\$345.57	\$507.31	\$282.31	0.72	2.25	8.63%
<b>Total 2007</b>		<b>\$450.00</b>	<b>\$4.91</b>	<b>\$451.81</b>	<b>\$12.32</b>	<b>\$440.05</b>	<b>\$348.72</b>	<b>\$788.78</b>	<b>\$324.64</b>	<b>0.95</b>	<b>1.70</b>	<b>6.48%</b>



# State of Connecticut

## ANALYSIS BY VINTAGE YEAR

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>2008</b>												
Barings Core Property Fund, L.P.	2008	\$250.00	\$0.00	\$250.00	\$0.00	\$142.82	\$314.18	\$457.00	\$207.00	0.57	1.83	7.22%
Covenant Apartment Fund VI (Institutional), L.P.	2008	\$25.00	\$0.00	\$25.16	\$0.00	\$39.52	\$0.00	\$39.52	\$14.36	1.57	1.57	13.50%
IL & FS India Realty Fund II, LLC	2008	\$50.00	\$0.00	\$50.00	\$0.00	\$24.82	\$1.08	\$25.90	-\$24.10	0.50	0.52	-10.32%
<b>Total 2008</b>		<b>\$325.00</b>	<b>\$0.00</b>	<b>\$325.16</b>	<b>\$0.00</b>	<b>\$207.15</b>	<b>\$315.26</b>	<b>\$522.41</b>	<b>\$197.25</b>	<b>0.64</b>	<b>1.61</b>	<b>5.99%</b>
<b>2009</b>												
Blackstone Real Estate Partners Europe III, L.P.	2009	\$50.00	\$5.99	\$46.56	\$6.31	\$71.92	\$4.54	\$76.46	\$23.59	1.36	1.45	10.16%
Starwood Global Opportunity Fund VIII, L.P.	2009	\$50.00	\$4.64	\$52.98	\$0.00	\$78.98	\$4.15	\$83.13	\$30.16	1.49	1.57	12.11%
WLR IV PPIP Co-Invest, L.P.	2009	\$100.00	\$0.00	\$127.38	\$0.00	\$164.55	\$1.71	\$166.26	\$38.88	1.29	1.31	14.30%
<b>Total 2009</b>		<b>\$200.00</b>	<b>\$10.64</b>	<b>\$226.91</b>	<b>\$6.31</b>	<b>\$315.45</b>	<b>\$10.40</b>	<b>\$325.85</b>	<b>\$92.63</b>	<b>1.35</b>	<b>1.40</b>	<b>12.43%</b>
<b>2010</b>												
Canyon-Johnson Urban Fund III, L.P.	2010	\$50.00	\$0.00	\$50.59	\$0.00	\$66.65	\$0.00	\$66.65	\$16.05	1.32	1.32	10.96%
<b>Total 2010</b>		<b>\$50.00</b>	<b>\$0.00</b>	<b>\$50.59</b>	<b>\$0.00</b>	<b>\$66.65</b>	<b>\$0.00</b>	<b>\$66.65</b>	<b>\$16.05</b>	<b>1.32</b>	<b>1.32</b>	<b>10.96%</b>
<b>2011</b>												
Blackstone Real Estate Special Situations Fund II, L.P.	2011	\$72.05	\$0.00	\$72.05	\$0.00	\$86.15	\$0.00	\$86.15	\$14.10	1.20	1.20	9.27%
Hart Realty Advisors-Core Separate Account	2011	\$180.00	\$34.09	\$417.39	\$0.82	\$346.33	\$216.79	\$563.12	\$144.92	0.83	1.35	8.29%
Lone Star Real Estate Fund II (U.S.), L.P.	2011	\$67.28	\$0.83	\$75.11	\$0.00	\$111.05	\$0.28	\$111.33	\$36.22	1.48	1.48	25.25%
<b>Total 2011</b>		<b>\$319.33</b>	<b>\$34.91</b>	<b>\$564.55</b>	<b>\$0.82</b>	<b>\$543.54</b>	<b>\$217.07</b>	<b>\$760.61</b>	<b>\$195.25</b>	<b>0.96</b>	<b>1.35</b>	<b>9.85%</b>
<b>2012</b>												
American Core Realty Separate Account	2012	\$150.00	\$0.00	\$223.19	\$1.15	\$167.35	\$188.95	\$356.30	\$131.96	0.75	1.59	13.19%
<b>Total 2012</b>		<b>\$150.00</b>	<b>\$0.00</b>	<b>\$223.19</b>	<b>\$1.15</b>	<b>\$167.35</b>	<b>\$188.95</b>	<b>\$356.30</b>	<b>\$131.96</b>	<b>0.75</b>	<b>1.59</b>	<b>13.19%</b>
<b>2013</b>												
Starwood Distressed Opportunity Fund IX Global, L.P.	2013	\$50.00	\$3.50	\$46.50	\$0.00	\$66.30	\$16.04	\$82.34	\$35.84	1.43	1.77	18.79%
Trumbull Property Fund, L.P.	2013	\$75.00	\$0.00	\$75.00	\$0.00	\$40.83	\$68.62	\$109.45	\$34.45	0.54	1.46	5.92%
Trumbull Property Income Fund, L.P.	2013	\$50.00	\$0.00	\$50.00	\$0.00	\$14.52	\$69.85	\$84.37	\$34.37	0.29	1.69	7.63%
UBS Trumbull Property Growth & Income Fund, L.P.	2013	\$50.00	\$0.00	\$50.00	\$0.00	\$12.37	\$100.76	\$113.13	\$63.13	0.25	2.26	12.66%
USAA Eagle Real Estate Feeder 1, L.P.	2013	\$100.00	\$0.00	\$100.00	\$0.00	\$19.27	\$182.45	\$201.72	\$101.72	0.19	2.02	10.20%
<b>Total 2013</b>		<b>\$325.00</b>	<b>\$3.50</b>	<b>\$321.50</b>	<b>\$0.00</b>	<b>\$153.30</b>	<b>\$437.71</b>	<b>\$591.01</b>	<b>\$269.51</b>	<b>0.48</b>	<b>1.84</b>	<b>9.96%</b>



# State of Connecticut

## ANALYSIS BY VINTAGE YEAR

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>2014</b>												
Cypress Acquisition Partners Retail Fund, L.P.	2014	\$50.00	\$0.00	\$58.46	\$0.00	\$14.10	\$0.00	\$14.10	-\$44.36	0.24	0.24	
Gerding Edlen Green Cities II, L.P.	2014	\$30.00	\$1.98	\$29.53	\$0.98	\$30.17	\$15.01	\$45.18	\$14.67	0.99	1.48	9.75%
JP Morgan Strategic Property Fund	2014	\$90.00	\$0.00	\$90.00	\$1.43	\$120.44	\$0.00	\$120.44	\$29.01	1.32	1.32	7.60%
Lion Industrial Trust	2014	\$102.34	\$0.00	\$102.34	\$7.24	\$36.26	\$272.80	\$309.06	\$199.47	0.33	2.82	19.99%
PRISA I, L.P.	2014	\$185.00	\$0.00	\$185.00	\$0.00	\$47.14	\$263.64	\$310.78	\$125.78	0.25	1.68	9.81%
<b>Total 2014</b>		<b>\$457.34</b>	<b>\$1.98</b>	<b>\$465.33</b>	<b>\$9.66</b>	<b>\$248.10</b>	<b>\$551.45</b>	<b>\$799.55</b>	<b>\$324.57</b>	<b>0.52</b>	<b>1.68</b>	<b>10.65%</b>
<b>2015</b>												
Blackstone Real Estate Partners VIII, L.P.	2015	\$100.00	\$14.51	\$106.55	\$7.83	\$96.65	\$103.25	\$199.90	\$85.52	0.85	1.75	18.83%
Covenant Apartment Fund VIII, L.P.	2015	\$30.00	\$0.00	\$30.00	-\$0.08	\$47.27	\$0.78	\$48.05	\$18.13	1.58	1.61	18.51%
Landmark Real Estate Fund VII, L.P.	2015	\$40.00	\$3.12	\$36.88	\$0.00	\$35.86	\$8.39	\$44.25	\$7.36	0.97	1.20	7.46%
Starwood Global Opportunity Fund X, L.P.	2015	\$100.00	\$10.00	\$90.00	\$0.00	\$107.68	\$26.11	\$133.79	\$43.79	1.20	1.49	17.68%
<b>Total 2015</b>		<b>\$270.00</b>	<b>\$27.63</b>	<b>\$263.43</b>	<b>\$7.74</b>	<b>\$287.47</b>	<b>\$138.52</b>	<b>\$425.98</b>	<b>\$154.81</b>	<b>1.06</b>	<b>1.57</b>	<b>17.11%</b>
<b>2016</b>												
Crow Holdings Realty Partners VII, L.P.	2016	\$75.00	\$6.44	\$68.56	\$5.65	\$96.50	\$6.34	\$102.84	\$28.62	1.30	1.39	11.45%
<b>Total 2016</b>		<b>\$75.00</b>	<b>\$6.44</b>	<b>\$68.56</b>	<b>\$5.65</b>	<b>\$96.50</b>	<b>\$6.34</b>	<b>\$102.84</b>	<b>\$28.62</b>	<b>1.30</b>	<b>1.39</b>	<b>11.45%</b>
<b>2017</b>												
Blackstone Real Estate Partners Europe V, L.P.	2017	\$50.00	\$8.83	\$42.88	\$3.43	\$13.97	\$56.21	\$70.18	\$23.87	0.30	1.52	13.83%
Gerding Edlen Green Cities III, L.P.	2017	\$50.00	\$1.77	\$49.11	\$1.39	\$16.24	\$43.34	\$59.58	\$9.08	0.32	1.18	4.03%
Landmark Real Estate Partners VIII, L.P.	2017	\$65.00	\$36.67	\$37.02	-\$0.08	\$22.49	\$30.02	\$52.51	\$15.57	0.61	1.42	21.88%
Starwood Opportunity Fund XI Global, L.P.	2017	\$50.00	\$10.00	\$44.00	\$0.00	\$10.42	\$45.97	\$56.39	\$12.39	0.24	1.28	20.86%
<b>Total 2017</b>		<b>\$215.00</b>	<b>\$57.26</b>	<b>\$173.01</b>	<b>\$4.73</b>	<b>\$63.12</b>	<b>\$175.54</b>	<b>\$238.66</b>	<b>\$60.91</b>	<b>0.36</b>	<b>1.34</b>	<b>11.21%</b>
<b>2018</b>												
BIG Real Estate Fund I, L.P.	2018	\$65.00	\$9.07	\$81.29	\$0.62	\$43.18	\$51.24	\$94.42	\$12.52	0.53	1.15	9.77%
Covenant Apartment Fund IX, L.P.	2018	\$50.00	\$0.00	\$50.00	\$0.29	\$32.28	\$52.21	\$84.49	\$34.19	0.64	1.68	26.45%
Crow Holdings Realty Partners VIII, L.P.	2018	\$75.00	\$9.98	\$65.02	\$0.00	\$80.64	\$24.21	\$104.85	\$39.83	1.24	1.61	24.32%
USAA Eagle Real Estate Feeder 1, L.P.	2018	\$50.00	\$0.00	\$50.00	\$0.00	\$0.00	\$61.84	\$61.84	\$11.84	0.00	1.24	7.26%
<b>Total 2018</b>		<b>\$240.00</b>	<b>\$19.05</b>	<b>\$246.31</b>	<b>\$0.91</b>	<b>\$156.09</b>	<b>\$189.50</b>	<b>\$345.59</b>	<b>\$98.38</b>	<b>0.63</b>	<b>1.40</b>	<b>16.81%</b>



# State of Connecticut

## ANALYSIS BY VINTAGE YEAR

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>2019</b>												
Artemis Real Estate Partners Income & Growth Fund, L.P.	2019	\$100.00	\$48.43	\$61.81	\$0.47	\$15.74	\$50.80	\$66.54	\$4.26	0.25	1.07	5.69%
Gerding Edlen Green Cities IV, L.P.	2019	\$75.00	\$27.76	\$48.91	-\$1.12	\$4.10	\$45.75	\$49.85	\$2.06	0.09	1.04	3.55%
Oak Street Real Estate Capital Net Lease Property Fund, L.P.	2019	\$100.00	\$0.00	\$100.00	\$0.00	\$9.91	\$128.12	\$138.03	\$38.03	0.10	1.38	27.40%
<b>Total 2019</b>		<b>\$275.00</b>	<b>\$76.19</b>	<b>\$210.72</b>	<b>-\$0.65</b>	<b>\$29.74</b>	<b>\$224.67</b>	<b>\$254.42</b>	<b>\$44.35</b>	<b>0.14</b>	<b>1.21</b>	<b>16.16%</b>
<b>2020</b>												
Ares Real Estate Enhanced Income Fund, L.P.	2020	\$100.00	\$0.00	\$105.28	\$0.00	\$5.28	\$105.33	\$110.60	\$5.33	0.05	1.05	5.39%
Blackstone Biomed Life Science Fund, L.P.	2020	\$29.15	\$6.92	\$25.92	-\$0.11	\$4.34	\$29.09	\$33.44	\$7.63	0.17	1.30	23.40%
Carlyle Property Investors, L.P.	2020	\$150.00	\$0.00	\$150.00	\$0.00	\$0.00	\$210.32	\$210.32	\$60.32	0.00	1.40	30.79%
IPI Partners II, L.P.	2020	\$100.00	\$64.41	\$37.26	\$0.07	\$1.67	\$35.22	\$36.90	-\$0.44	0.04	0.99	-2.75%
Rockpoint Real Estate Fund VI, L.P.	2020	\$150.00	\$56.14	\$93.86	\$0.26	\$0.00	\$121.75	\$121.75	\$27.63	0.00	1.29	37.14%
Torchlight Debt Opportunities Fund VII, L.P.	2020	\$100.00	\$70.00	\$35.06	\$0.00	\$5.06	\$30.92	\$35.98	\$0.92	0.14	1.03	3.30%
Waterton Residential Property Venture XIV, L.P.	2020	\$100.00	\$76.18	\$23.96	\$0.00	\$0.14	\$32.07	\$32.21	\$8.25	0.01	1.34	44.72%
<b>Total 2020</b>		<b>\$729.15</b>	<b>\$273.65</b>	<b>\$471.35</b>	<b>\$0.22</b>	<b>\$16.49</b>	<b>\$564.71</b>	<b>\$581.20</b>	<b>\$109.63</b>	<b>0.03</b>	<b>1.23</b>	<b>23.76%</b>
<b>2021</b>												
BIG Real Estate Fund II, L.P.	2021	\$119.00	\$85.22	\$46.74	\$0.10	\$13.76	\$32.59	\$46.35	-\$0.49	0.29	0.99	-2.43%
Carlyle Realty Partners IX, L.P.	2021	\$180.00	\$180.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
Covenant Apartment Fund X (Institutional), L.P.	2021	\$100.00	\$26.00	\$74.00	\$1.39	\$4.92	\$82.19	\$87.11	\$11.71	0.07	1.16	21.21%
Mesirow Financial Real Estate Value Fund IV, L.P.	2021	\$75.00	\$58.50	\$16.50	\$0.02	\$0.00	\$19.37	\$19.37	\$2.85	0.00	1.17	31.68%
Penzance DC Real Estate Fund II, L.P.	2021	\$50.00	\$47.67	\$2.33	\$0.06	\$0.00	\$2.61	\$2.61	\$0.22	0.00	1.09	9.33%
Rubicon First Ascent, L.P.	2021	\$42.50	\$34.45	\$8.05	\$0.01	\$0.00	\$6.03	\$6.03	-\$2.03	0.00	0.75	-44.70%
State of Connecticut US REIT	2021	\$200.00	\$0.00	\$200.00	\$0.00	\$0.00	\$263.62	\$263.62	\$63.62	0.00	1.32	31.22%
TruAmerica Workforce Housing Fund I-A, L.P.	2021	\$50.00	\$18.02	\$55.10	-\$0.22	\$24.00	\$46.00	\$70.00	\$15.12	0.44	1.28	51.22%
<b>Total 2021</b>		<b>\$816.50</b>	<b>\$449.87</b>	<b>\$402.70</b>	<b>\$1.36</b>	<b>\$42.68</b>	<b>\$452.39</b>	<b>\$495.07</b>	<b>\$91.01</b>	<b>0.11</b>	<b>1.23</b>	<b>30.76%</b>
<b>2022</b>												
Morgan Stanley Real Estate Co-Investment, L.P.	2022	\$225.00	\$222.86	\$2.14	\$0.00	\$0.00	\$2.05	\$2.05	-\$0.09	0.00	0.96	-4.18%
<b>Total 2022</b>		<b>\$225.00</b>	<b>\$222.86</b>	<b>\$2.14</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$2.05</b>	<b>\$2.05</b>	<b>-\$0.09</b>	<b>0.00</b>	<b>0.96</b>	<b>-4.18%</b>
<b>Total</b>		<b>\$6,063.92</b>	<b>\$1,188.89</b>	<b>\$5,457.91</b>	<b>\$64.88</b>	<b>\$3,861.63</b>	<b>\$3,824.49</b>	<b>\$7,686.11</b>	<b>\$2,163.32</b>	<b>0.70</b>	<b>1.39</b>	<b>6.90%</b>



# State of Connecticut

## ANALYSIS BY INVESTMENT STRATEGY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Co-Investment</b>												
Morgan Stanley Real Estate Co-Investment, L.P.	2022	\$225.00	\$222.86	\$2.14	\$0.00	\$0.00	\$2.05	\$2.05	-\$0.09	0.00	0.96	-4.18%
<b>Total Co-Investment</b>		<b>\$225.00</b>	<b>\$222.86</b>	<b>\$2.14</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$2.05</b>	<b>\$2.05</b>	<b>-\$0.09</b>	<b>0.00</b>	<b>0.96</b>	<b>-4.18%</b>
<b>Core</b>												
AEW Core Real Estate Separate Account	2005	\$243.53	\$0.00	\$243.53	\$0.00	\$245.21	\$0.00	\$245.21	\$1.69	1.01	1.01	0.16%
American Core Realty Separate Account	2012	\$150.00	\$0.00	\$223.19	\$1.15	\$167.35	\$188.95	\$356.30	\$131.96	0.75	1.59	13.19%
Ares Real Estate Enhanced Income Fund, L.P.	2020	\$100.00	\$0.00	\$105.28	\$0.00	\$5.28	\$105.33	\$110.60	\$5.33	0.05	1.05	5.39%
Barings Core Property Fund, L.P.	2008	\$250.00	\$0.00	\$250.00	\$0.00	\$142.82	\$314.18	\$457.00	\$207.00	0.57	1.83	7.22%
Capri Select Income II, L.P.	2005	\$30.00	\$0.00	\$30.45	\$0.00	\$15.89	\$0.00	\$15.89	-\$14.56	0.52	0.52	-9.89%
Hart Realty Advisors-Core Separate Account	2011	\$180.00	\$34.09	\$417.39	\$0.82	\$346.33	\$216.79	\$563.12	\$144.92	0.83	1.35	8.29%
JP Morgan Strategic Property Fund	2014	\$90.00	\$0.00	\$90.00	\$1.43	\$120.44	\$0.00	\$120.44	\$29.01	1.32	1.32	7.60%
Prime Property Fund, LLC	2007	\$225.00	\$0.00	\$225.00	\$0.00	\$161.74	\$345.57	\$507.31	\$282.31	0.72	2.25	8.63%
PRISA I, L.P.	2014	\$185.00	\$0.00	\$185.00	\$0.00	\$47.14	\$263.64	\$310.78	\$125.78	0.25	1.68	9.81%
Trumbull Property Fund, L.P.	2013	\$75.00	\$0.00	\$75.00	\$0.00	\$40.83	\$68.62	\$109.45	\$34.45	0.54	1.46	5.92%
Trumbull Property Income Fund, L.P.	2013	\$50.00	\$0.00	\$50.00	\$0.00	\$14.52	\$69.85	\$84.37	\$34.37	0.29	1.69	7.63%
<b>Total Core</b>		<b>\$1,578.52</b>	<b>\$34.09</b>	<b>\$1,894.83</b>	<b>\$3.40</b>	<b>\$1,307.54</b>	<b>\$1,572.92</b>	<b>\$2,880.47</b>	<b>\$982.24</b>	<b>0.69</b>	<b>1.52</b>	<b>7.08%</b>
<b>Core Plus</b>												
Artemis Real Estate Partners Income & Growth Fund, L.P.	2019	\$100.00	\$48.43	\$61.81	\$0.47	\$15.74	\$50.80	\$66.54	\$4.26	0.25	1.07	5.69%
Blackstone Biomed Life Science Fund, L.P.	2020	\$29.15	\$6.92	\$25.92	-\$0.11	\$4.34	\$29.09	\$33.44	\$7.63	0.17	1.30	23.40%
Carlyle Property Investors, L.P.	2020	\$150.00	\$0.00	\$150.00	\$0.00	\$0.00	\$210.32	\$210.32	\$60.32	0.00	1.40	30.79%
Lion Industrial Trust	2014	\$102.34	\$0.00	\$102.34	\$7.24	\$36.26	\$272.80	\$309.06	\$199.47	0.33	2.82	19.99%
Oak Street Real Estate Capital Net Lease Property Fund, L.P.	2019	\$100.00	\$0.00	\$100.00	\$0.00	\$9.91	\$128.12	\$138.03	\$38.03	0.10	1.38	27.40%
UBS Trumbull Property Growth & Income Fund, L.P.	2013	\$50.00	\$0.00	\$50.00	\$0.00	\$12.37	\$100.76	\$113.13	\$63.13	0.25	2.26	12.66%
USAA Eagle Real Estate Feeder 1, L.P.	2013	\$100.00	\$0.00	\$100.00	\$0.00	\$19.27	\$182.45	\$201.72	\$101.72	0.19	2.02	10.20%
USAA Eagle Real Estate Feeder 1, L.P.	2018	\$50.00	\$0.00	\$50.00	\$0.00	\$0.00	\$61.84	\$61.84	\$11.84	0.00	1.24	7.26%
<b>Total Core Plus</b>		<b>\$681.49</b>	<b>\$55.35</b>	<b>\$640.08</b>	<b>\$7.60</b>	<b>\$97.89</b>	<b>\$1,036.19</b>	<b>\$1,134.07</b>	<b>\$486.40</b>	<b>0.15</b>	<b>1.75</b>	<b>15.08%</b>



# State of Connecticut

## ANALYSIS BY INVESTMENT STRATEGY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Opportunistic</b>												
AEW Partners III, L.P.	1998	\$100.00	\$0.00	\$101.69	\$0.00	\$150.65	\$0.00	\$150.65	\$48.95	1.48	1.48	8.77%
Apollo Real Estate Investment Fund III, L.P.	1998	\$75.00	\$0.00	\$78.82	\$0.00	\$116.21	\$0.00	\$116.21	\$37.39	1.47	1.47	6.25%
Blackstone Real Estate Partners Europe III, L.P.	2009	\$50.00	\$5.99	\$46.56	\$6.31	\$71.92	\$4.54	\$76.46	\$23.59	1.36	1.45	10.16%
Blackstone Real Estate Partners Europe V, L.P.	2017	\$50.00	\$8.83	\$42.88	\$3.43	\$13.97	\$56.21	\$70.18	\$23.87	0.30	1.52	13.83%
Blackstone Real Estate Partners VI, L.P.	2007	\$100.00	\$4.91	\$99.61	\$12.09	\$220.33	\$3.15	\$223.48	\$111.77	1.97	2.00	13.23%
Blackstone Real Estate Partners VIII, L.P.	2015	\$100.00	\$14.51	\$106.55	\$7.83	\$96.65	\$103.25	\$199.90	\$85.52	0.85	1.75	18.83%
Canyon-Johnson Urban Fund II, L.P.	2005	\$44.94	\$0.00	\$44.94	\$0.00	\$20.04	\$0.00	\$20.04	-\$24.91	0.45	0.45	-10.43%
Canyon-Johnson Urban Fund III, L.P.	2010	\$50.00	\$0.00	\$50.59	\$0.00	\$66.65	\$0.00	\$66.65	\$16.05	1.32	1.32	10.96%
Carlyle Realty Partners IX, L.P.	2021	\$180.00	\$180.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00			
IL & FS India Realty Fund II, LLC	2008	\$50.00	\$0.00	\$50.00	\$0.00	\$24.82	\$1.08	\$25.90	-\$24.10	0.50	0.52	-10.32%
IPI Partners II, L.P.	2020	\$100.00	\$64.41	\$37.26	\$0.07	\$1.67	\$35.22	\$36.90	-\$0.44	0.04	0.99	-2.75%
Lone Star Real Estate Fund II (U.S.), L.P.	2011	\$67.28	\$0.83	\$75.11	\$0.00	\$111.05	\$0.28	\$111.33	\$36.22	1.48	1.48	25.25%
MacFarlane Urban Real Estate Fund II, L.P.	2007	\$100.00	\$0.00	\$102.20	\$0.00	\$27.72	\$0.00	\$27.72	-\$74.49	0.27	0.27	-16.47%
Penzance DC Real Estate Fund II, L.P.	2021	\$50.00	\$47.67	\$2.33	\$0.06	\$0.00	\$2.61	\$2.61	\$0.22	0.00	1.09	9.33%
Rockpoint Real Estate Fund VI, L.P.	2020	\$150.00	\$56.14	\$93.86	\$0.26	\$0.00	\$121.75	\$121.75	\$27.63	0.00	1.29	37.14%
Rubicon First Ascent, L.P.	2021	\$42.50	\$34.45	\$8.05	\$0.01	\$0.00	\$6.03	\$6.03	-\$2.03	0.00	0.75	-44.70%
Starwood Distressed Opportunity Fund IX Global, L.P.	2013	\$50.00	\$3.50	\$46.50	\$0.00	\$66.30	\$16.04	\$82.34	\$35.84	1.43	1.77	18.79%
Starwood Global Opportunity Fund VII, L.P.	2006	\$50.00	\$0.00	\$50.00	\$0.00	\$39.01	\$1.20	\$40.21	-\$9.79	0.78	0.80	-2.38%
Starwood Global Opportunity Fund VIII, L.P.	2009	\$50.00	\$4.64	\$52.98	\$0.00	\$78.98	\$4.15	\$83.13	\$30.16	1.49	1.57	12.11%
Starwood Global Opportunity Fund X, L.P.	2015	\$100.00	\$10.00	\$90.00	\$0.00	\$107.68	\$26.11	\$133.79	\$43.79	1.20	1.49	17.68%
Starwood Opportunity Fund XI Global, L.P.	2017	\$50.00	\$10.00	\$44.00	\$0.00	\$10.42	\$45.97	\$56.39	\$12.39	0.24	1.28	20.86%
Walton Street Real Estate Fund II, L.P.	1998	\$73.13	\$0.00	\$73.13	\$0.15	\$171.65	\$0.00	\$171.65	\$98.37	2.34	2.34	13.03%
Westport Senior Living Investment Fund, L.P.	1998	\$100.00	\$0.00	\$140.84	\$0.00	\$84.03	\$0.00	\$84.03	-\$56.81	0.60	0.60	-13.20%
WLR IV PPIP Co-Invest, L.P.	2009	\$100.00	\$0.00	\$127.38	\$0.00	\$164.55	\$1.71	\$166.26	\$38.88	1.29	1.31	14.30%
<b>Total Opportunistic</b>		<b>\$1,882.86</b>	<b>\$445.88</b>	<b>\$1,565.29</b>	<b>\$30.21</b>	<b>\$1,644.29</b>	<b>\$429.30</b>	<b>\$2,073.59</b>	<b>\$478.09</b>	<b>1.03</b>	<b>1.30</b>	<b>5.91%</b>
<b>REIT</b>												
State of Connecticut US REIT	2021	\$200.00	\$0.00	\$200.00	\$0.00	\$0.00	\$263.62	\$263.62	\$63.62	0.00	1.32	31.22%
<b>Total REIT</b>		<b>\$200.00</b>	<b>\$0.00</b>	<b>\$200.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$263.62</b>	<b>\$263.62</b>	<b>\$63.62</b>	<b>0.00</b>	<b>1.32</b>	<b>31.22%</b>




# State of Connecticut

## ANALYSIS BY INVESTMENT STRATEGY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
<b>Value Add</b>												
BIG Real Estate Fund I, L.P.	2018	\$65.00	\$9.07	\$81.29	\$0.62	\$43.18	\$51.24	\$94.42	\$12.52	0.53	1.15	9.77%
BIG Real Estate Fund II, L.P.	2021	\$119.00	\$85.22	\$46.74	\$0.10	\$13.76	\$32.59	\$46.35	-\$0.49	0.29	0.99	-2.43%
Blackstone Real Estate Special Situations Fund II, L.P.	2011	\$72.05	\$0.00	\$72.05	\$0.00	\$86.15	\$0.00	\$86.15	\$14.10	1.20	1.20	9.27%
Colony Realty Partners II, L.P.	2006	\$50.00	\$0.00	\$51.00	\$0.00	\$13.19	\$0.00	\$13.19	-\$37.81	0.26	0.26	-13.75%
Covenant Apartment Fund IX, L.P.	2018	\$50.00	\$0.00	\$50.00	\$0.29	\$32.28	\$52.21	\$84.49	\$34.19	0.64	1.68	26.45%
Covenant Apartment Fund V (Institutional), L.P.	2007	\$25.00	\$0.00	\$25.00	\$0.23	\$30.28	\$0.00	\$30.28	\$5.05	1.20	1.20	2.90%
Covenant Apartment Fund VI (Institutional), L.P.	2008	\$25.00	\$0.00	\$25.16	\$0.00	\$39.52	\$0.00	\$39.52	\$14.36	1.57	1.57	13.50%
Covenant Apartment Fund VIII, L.P.	2015	\$30.00	\$0.00	\$30.00	-\$0.08	\$47.27	\$0.78	\$48.05	\$18.13	1.58	1.61	18.51%
Covenant Apartment Fund X (Institutional), L.P.	2021	\$100.00	\$26.00	\$74.00	\$1.39	\$4.92	\$82.19	\$87.11	\$11.71	0.07	1.16	21.21%
Crow Holdings Realty Partners VII, L.P.	2016	\$75.00	\$6.44	\$68.56	\$5.65	\$96.50	\$6.34	\$102.84	\$28.62	1.30	1.39	11.45%
Crow Holdings Realty Partners VIII, L.P.	2018	\$75.00	\$9.98	\$65.02	\$0.00	\$80.64	\$24.21	\$104.85	\$39.83	1.24	1.61	24.32%
Cypress Acquisition Partners Retail Fund, L.P.	2014	\$50.00	\$0.00	\$58.46	\$0.00	\$14.10	\$0.00	\$14.10	-\$44.36	0.24	0.24	
Gerding Edlen Green Cities II, L.P.	2014	\$30.00	\$1.98	\$29.53	\$0.98	\$30.17	\$15.01	\$45.18	\$14.67	0.99	1.48	9.75%
Gerding Edlen Green Cities III, L.P.	2017	\$50.00	\$1.77	\$49.11	\$1.39	\$16.24	\$43.34	\$59.58	\$9.08	0.32	1.18	4.03%
Gerding Edlen Green Cities IV, L.P.	2019	\$75.00	\$27.76	\$48.91	-\$1.12	\$4.10	\$45.75	\$49.85	\$2.06	0.09	1.04	3.55%
Landmark Real Estate Fund VII, L.P.	2015	\$40.00	\$3.12	\$36.88	\$0.00	\$35.86	\$8.39	\$44.25	\$7.36	0.97	1.20	7.46%
Landmark Real Estate Partners VIII, L.P.	2017	\$65.00	\$36.67	\$37.02	-\$0.08	\$22.49	\$30.02	\$52.51	\$15.57	0.61	1.42	21.88%
Mesirow Financial Real Estate Value Fund IV, L.P.	2021	\$75.00	\$58.50	\$16.50	\$0.02	\$0.00	\$19.37	\$19.37	\$2.85	0.00	1.17	31.68%
New Boston Real Estate Individual and Institutional Investment Fund, L.P. IV	1998	\$15.00	\$0.00	\$15.00	\$0.00	\$17.34	\$0.00	\$17.34	\$2.34	1.16	1.16	3.10%
Rockwood Capital Real Estate Partners Fund V, L.P.	2004	\$40.00	\$0.00	\$40.76	\$3.98	\$57.01	\$0.00	\$57.01	\$12.27	1.27	1.27	9.36%
Rockwood Capital Real Estate Partners Fund VI, L.P.	2005	\$20.00	\$0.00	\$20.46	\$2.72	\$22.07	\$0.00	\$22.07	-\$1.11	0.95	0.95	-0.86%
Rockwood Capital Real Estate Partners Fund VII, L.P.	2006	\$50.00	\$0.00	\$50.00	\$7.82	\$32.25	\$0.00	\$32.25	-\$25.57	0.56	0.56	-6.92%
Torchlight Debt Opportunities Fund VII, L.P.	2020	\$100.00	\$70.00	\$35.06	\$0.00	\$5.06	\$30.92	\$35.98	\$0.92	0.14	1.03	3.30%
TruAmerica Workforce Housing Fund I-A, L.P.	2021	\$50.00	\$18.02	\$55.10	-\$0.22	\$24.00	\$46.00	\$70.00	\$15.12	0.44	1.28	51.22%
Urban Strategy America Fund, L.P.	2006	\$50.00	\$0.00	\$50.00	\$0.00	\$43.39	\$0.00	\$43.39	-\$6.61	0.87	0.87	-1.86%
Waterton Residential Property Venture XIV, L.P.	2020	\$100.00	\$76.18	\$23.96	\$0.00	\$0.14	\$32.07	\$32.21	\$8.25	0.01	1.34	44.72%
<b>Total Value Add</b>		<b>\$1,496.05</b>	<b>\$430.70</b>	<b>\$1,155.57</b>	<b>\$23.68</b>	<b>\$811.90</b>	<b>\$520.41</b>	<b>\$1,332.31</b>	<b>\$153.07</b>	<b>0.69</b>	<b>1.13</b>	<b>3.56%</b>
<b>Total</b>		<b>\$6,063.92</b>	<b>\$1,188.89</b>	<b>\$5,457.91</b>	<b>\$64.88</b>	<b>\$3,861.63</b>	<b>\$3,824.49</b>	<b>\$7,686.11</b>	<b>\$2,163.32</b>	<b>0.70</b>	<b>1.39</b>	<b>6.90%</b>







# APPENDIX 2: QUARTERLY REAL ESTATE TRANSACTIONS

First Quarter 2022



PROPRIETARY & CONFIDENTIAL



# State of Connecticut

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Recallable Distribution	Distribution	Net Cash Flow
American Core Realty Separate Account	3/31/2022				-2,100,000	-2,100,000
<b>Total: American Core Realty Separate Account</b>					<b>-2,100,000</b>	<b>-2,100,000</b>
Ares Real Estate Enhanced Income Fund, L.P.	3/31/2022	2,153,193		-2,153,193		0
<b>Total: Ares Real Estate Enhanced Income Fund, L.P.</b>		<b>2,153,193</b>		<b>-2,153,193</b>		<b>0</b>
Artemis Real Estate Partners Income & Growth Fund, L.P.	3/31/2022	8,559,371	494,361	-535,711	-606,888	7,911,133
<b>Total: Artemis Real Estate Partners Income &amp; Growth Fund, L.P.</b>		<b>8,559,371</b>	<b>494,361</b>	<b>-535,711</b>	<b>-606,888</b>	<b>7,911,133</b>
Barings Core Property Fund, L.P.	3/31/2022				-2,261,394	-2,261,394
<b>Total: Barings Core Property Fund, L.P.</b>					<b>-2,261,394</b>	<b>-2,261,394</b>
BIG Real Estate Fund I, L.P.	3/31/2022	74,253			-930,140	-855,887
<b>Total: BIG Real Estate Fund I, L.P.</b>		<b>74,253</b>			<b>-930,140</b>	<b>-855,887</b>
BIG Real Estate Fund II, L.P.	3/31/2022	15,250,126	10,916	-4,300,000	-500,000	10,461,043
<b>Total: BIG Real Estate Fund II, L.P.</b>		<b>15,250,126</b>	<b>10,916</b>	<b>-4,300,000</b>	<b>-500,000</b>	<b>10,461,043</b>
Blackstone Biomed Life Science Fund, L.P.	3/31/2022				-150,641	-150,641
<b>Total: Blackstone Biomed Life Science Fund, L.P.</b>					<b>-150,641</b>	<b>-150,641</b>
Blackstone Real Estate Partners Europe III, L.P.	3/31/2022				-24,663	-24,663
<b>Total: Blackstone Real Estate Partners Europe III, L.P.</b>					<b>-24,663</b>	<b>-24,663</b>
Blackstone Real Estate Partners Europe V, L.P.	3/31/2022	1,272,765	133,944	-73,730	-40,794	1,292,185
<b>Total: Blackstone Real Estate Partners Europe V, L.P.</b>		<b>1,272,765</b>	<b>133,944</b>	<b>-73,730</b>	<b>-40,794</b>	<b>1,292,185</b>



# State of Connecticut

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Recallable Distribution	Distribution	Net Cash Flow
Blackstone Real Estate Partners VI, L.P.	3/31/2022				-95,152	-95,152
<b>Total: Blackstone Real Estate Partners VI, L.P.</b>					<b>-95,152</b>	<b>-95,152</b>
Blackstone Real Estate Partners VIII, L.P.	3/31/2022	752,523	227,631		-992,270	-12,116
<b>Total: Blackstone Real Estate Partners VIII, L.P.</b>		<b>752,523</b>	<b>227,631</b>		<b>-992,270</b>	<b>-12,116</b>
Covenant Apartment Fund IX, L.P.	3/31/2022				-11,387,726	-11,387,726
<b>Total: Covenant Apartment Fund IX, L.P.</b>					<b>-11,387,726</b>	<b>-11,387,726</b>
Covenant Apartment Fund X (Institutional), L.P.	3/31/2022	11,000,000			-4,434,142	6,565,858
<b>Total: Covenant Apartment Fund X (Institutional), L.P.</b>		<b>11,000,000</b>			<b>-4,434,142</b>	<b>6,565,858</b>
Crow Holdings Realty Partners VII, L.P.	3/31/2022				-1,797,882	-1,797,882
<b>Total: Crow Holdings Realty Partners VII, L.P.</b>					<b>-1,797,882</b>	<b>-1,797,882</b>
Crow Holdings Realty Partners VIII, L.P.	3/31/2022				-6,783,146	-6,783,146
<b>Total: Crow Holdings Realty Partners VIII, L.P.</b>					<b>-6,783,146</b>	<b>-6,783,146</b>
Gerding Edlen Green Cities II, L.P.	3/31/2022				-89,556	-89,556
<b>Total: Gerding Edlen Green Cities II, L.P.</b>					<b>-89,556</b>	<b>-89,556</b>
Gerding Edlen Green Cities III, L.P.	3/31/2022				-4,569,372	-4,569,372
<b>Total: Gerding Edlen Green Cities III, L.P.</b>					<b>-4,569,372</b>	<b>-4,569,372</b>
Gerding Edlen Green Cities IV, L.P.	3/31/2022	114,828	-93,750		-2,429,036	-2,407,958
<b>Total: Gerding Edlen Green Cities IV, L.P.</b>		<b>114,828</b>	<b>-93,750</b>		<b>-2,429,036</b>	<b>-2,407,958</b>



# State of Connecticut

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Recallable Distribution	Distribution	Net Cash Flow
Hart Realty Advisors-Core Separate Account	3/31/2022				-2,000,000	-2,000,000
<b>Total: Hart Realty Advisors-Core Separate Account</b>					<b>-2,000,000</b>	<b>-2,000,000</b>
IPI Partners II, L.P.	3/31/2022	12,826,566				12,826,566
<b>Total: IPI Partners II, L.P.</b>		<b>12,826,566</b>				<b>12,826,566</b>
Landmark Real Estate Fund VII, L.P.	3/31/2022				-1,598,887	-1,598,887
<b>Total: Landmark Real Estate Fund VII, L.P.</b>					<b>-1,598,887</b>	<b>-1,598,887</b>
Landmark Real Estate Partners VIII, L.P.	3/31/2022				-3,341,018	-3,341,018
<b>Total: Landmark Real Estate Partners VIII, L.P.</b>					<b>-3,341,018</b>	<b>-3,341,018</b>
Lion Industrial Trust	3/31/2022		624,336		-1,821,811	-1,197,475
<b>Total: Lion Industrial Trust</b>			<b>624,336</b>		<b>-1,821,811</b>	<b>-1,197,475</b>
Mesirow Financial Real Estate Value Fund IV, L.P.	3/31/2022	2,000,000				2,000,000
<b>Total: Mesirow Financial Real Estate Value Fund IV, L.P.</b>		<b>2,000,000</b>				<b>2,000,000</b>
Morgan Stanley Real Estate Co-Investment, L.P.	3/31/2022	2,138,643				2,138,643
<b>Total: Morgan Stanley Real Estate Co-Investment, L.P.</b>		<b>2,138,643</b>				<b>2,138,643</b>
Oak Street Real Estate Capital Net Lease Property Fund, L.P.	3/31/2022				-1,954,686	-1,954,686
<b>Total: Oak Street Real Estate Capital Net Lease Property Fund, L.P.</b>					<b>-1,954,686</b>	<b>-1,954,686</b>
Prime Property Fund, LLC	3/31/2022				-3,212,305	-3,212,305
<b>Total: Prime Property Fund, LLC</b>					<b>-3,212,305</b>	<b>-3,212,305</b>



# State of Connecticut

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Recallable Distribution	Distribution	Net Cash Flow
PRISA I, L.P.	3/31/2022				-1,781,473	-1,781,473
<b>Total: PRISA I, L.P.</b>					<b>-1,781,473</b>	<b>-1,781,473</b>
Rockpoint Real Estate Fund VI, L.P.	3/31/2022	7,893,644				7,893,644
<b>Total: Rockpoint Real Estate Fund VI, L.P.</b>		<b>7,893,644</b>				<b>7,893,644</b>
Rubicon First Ascent, L.P.	3/31/2022	5,921,031				5,921,031
<b>Total: Rubicon First Ascent, L.P.</b>		<b>5,921,031</b>				<b>5,921,031</b>
Starwood Distressed Opportunity Fund IX Global, L.P.	3/31/2022				-81,202	-81,202
<b>Total: Starwood Distressed Opportunity Fund IX Global, L.P.</b>					<b>-81,202</b>	<b>-81,202</b>
Starwood Global Opportunity Fund X, L.P.	3/31/2022				-2,299,253	-2,299,253
<b>Total: Starwood Global Opportunity Fund X, L.P.</b>					<b>-2,299,253</b>	<b>-2,299,253</b>
Starwood Opportunity Fund XI Global, L.P.	3/31/2022	12,000,000			-2,263,218	9,736,782
<b>Total: Starwood Opportunity Fund XI Global, L.P.</b>		<b>12,000,000</b>			<b>-2,263,218</b>	<b>9,736,782</b>
Torchlight Debt Opportunities Fund VII, L.P.	3/31/2022	5,061,140				5,061,140
<b>Total: Torchlight Debt Opportunities Fund VII, L.P.</b>		<b>5,061,140</b>				<b>5,061,140</b>
TruAmerica Workforce Housing Fund I-A, L.P.	3/31/2022	482,415				482,415
<b>Total: TruAmerica Workforce Housing Fund I-A, L.P.</b>		<b>482,415</b>				<b>482,415</b>
Trumbull Property Fund, L.P.	3/31/2022				-6,557,322	-6,557,322
<b>Total: Trumbull Property Fund, L.P.</b>					<b>-6,557,322</b>	<b>-6,557,322</b>




# State of Connecticut

## QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Recallable Distribution	Distribution	Net Cash Flow
Trumbull Property Income Fund, L.P.	3/31/2022				-496,969	-496,969
<b>Total: Trumbull Property Income Fund, L.P.</b>					<b>-496,969</b>	<b>-496,969</b>
UBS Trumbull Property Growth & Income Fund, L.P.	3/31/2022				-665,287	-665,287
<b>Total: UBS Trumbull Property Growth &amp; Income Fund, L.P.</b>					<b>-665,287</b>	<b>-665,287</b>
Waterton Residential Property Venture XIV, L.P.	3/31/2022	1,906,187		-54,006		1,852,181
<b>Total: Waterton Residential Property Venture XIV, L.P.</b>		<b>1,906,187</b>		<b>-54,006</b>		<b>1,852,181</b>
<b>Grand Total</b>		<b>89,406,686</b>	<b>1,397,437</b>	<b>-7,116,639</b>	<b>-67,266,232</b>	<b>16,421,252</b>





# APPENDIX 3: REAL ESTATE STRATEGY SUMMARIES & GLOSSARY



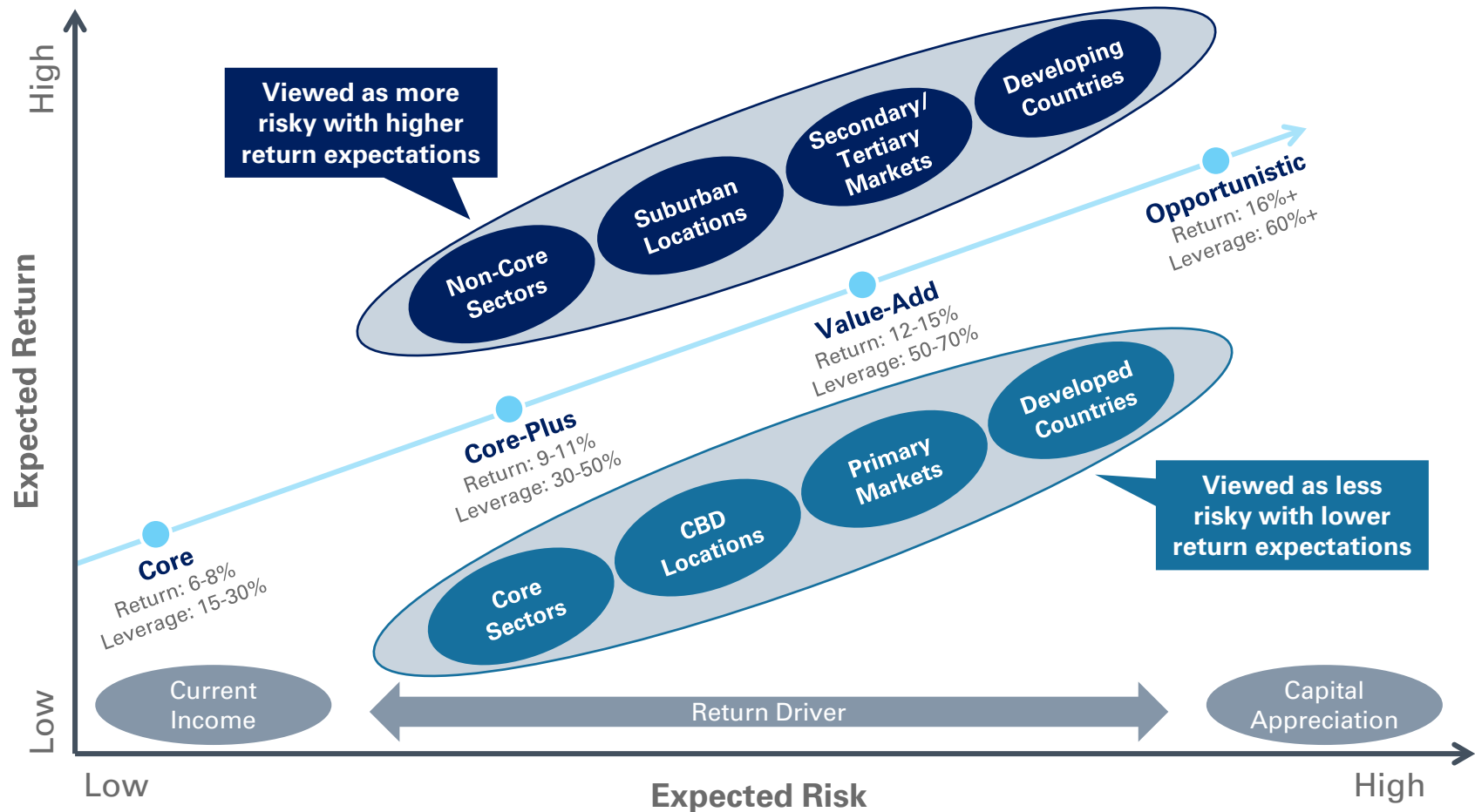
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# SPECTRUM OF REAL ESTATE INVESTMENT STRATEGIES

	Real Estate Investment Style / Overview	Investment Strategy	Portfolio Role	Considerations
Core Strategies	<b>Core / Core-Plus</b> <ul style="list-style-type: none"> <li>Return driver: income</li> <li>Primary vehicle: open-end funds</li> <li>Historical avg. returns: 7-8% / 8%-10%</li> <li>Leverage: 15-40% / 40%-50%</li> <li>Hold period: long-term</li> </ul>	Stabilized income producing assets	<ul style="list-style-type: none"> <li>Current income</li> <li>Broad exposure to commercial real estate (asset class beta)</li> <li>Inflation protection</li> </ul>	<ul style="list-style-type: none"> <li>Vehicles are semi-liquid (entrance/exit queues)</li> <li>Limited alpha producing opportunities</li> </ul>
	<b>RE Securities</b> <ul style="list-style-type: none"> <li>Return driver: income</li> <li>Primary vehicle: REIT funds</li> <li>Historical avg. returns: 7-9%</li> <li>Leverage: 30-50%</li> <li>Hold period: long-term</li> </ul>	Stabilized income producing assets	<ul style="list-style-type: none"> <li>Current income (dividends)</li> <li>Long-term exposure to commercial real estate (beta)</li> <li>Long-term inflation protection</li> </ul>	<ul style="list-style-type: none"> <li>Volatility</li> <li>Equity correlation</li> </ul>
Non-Core Strategies	<b>Value-Add</b> <ul style="list-style-type: none"> <li>Return driver: income/appreciation</li> <li>Primary vehicle: varies</li> <li>Historical avg returns: 8-10%</li> <li>Leverage: 40-70%</li> <li>Hold period: 3-5 years</li> </ul>	Properties requiring lease-up, repositioning, renovation or rehabilitation	<ul style="list-style-type: none"> <li>Provides part current income and capital appreciation</li> <li>Some inflation protection</li> </ul>	<ul style="list-style-type: none"> <li>Vehicles are semi-liquid or illiquid</li> <li>Vintage year is important</li> <li>Higher leverage vs core</li> <li>Poor benchmarks</li> </ul>
	<b>Opportunistic</b> <ul style="list-style-type: none"> <li>Return driver: appreciation</li> <li>Primary vehicle: closed-end funds</li> <li>Historical avg. returns: 10-12%</li> <li>Leverage: 60%+</li> <li>Hold period: varies</li> </ul>	Distressed investments, recapitalizations, development, etc.	<ul style="list-style-type: none"> <li>Real estate alpha through capital appreciation with minimal current income</li> </ul>	<ul style="list-style-type: none"> <li>Vehicles are illiquid</li> <li>Vintage year is important</li> <li>High leverage</li> <li>Poor benchmarks</li> </ul>

# RELATIVE EXPECTED RISK RETURN PROFILE

## ILLUSTRATIVE RISK / RETURN PROFILE



Notes:

Debt-related strategies can span the illustrative risk / return spectrum depending on the specific strategy  
Manager-specific risk, operations and leverage can skew expected risk / return profile



# GLOSSARY OF TERMS

- **Commitment Amount** – The amount an investor has committed to invest with the General Partner
- **Paid In Capital** – The amount an investor has contributed for investments and management fees
- **Capital to be Funded** – The remaining amount an investor contractually has left to fund its commitments
- **Additional Fees** – Fees that are outside the capital commitment, also includes interest paid/received due from subsequent closings of the fund
- **Cumulative Distributions** – The amount an investor has received from realized and partially realized investments
- **Valuation** – Sum of the fair market value of all investments plus cash
- **Call Ratio** – Calculated by dividing Amount Funded by Capital Committed
- **DPI Ratio** - Calculated by dividing Amount Distributed by Amount Funded
- **Market Exposure** – Calculated by adding Reported Value plus Unfunded Commitments
- **Total Value** – Calculated by adding Amount Distributed and Reported Value. Represents the total amount an investor should expect to receive from their investments
- **Net Benefit** – Calculated by subtracting Total Value by Capital to be Funded plus Additional Fees
- **Total Value to Paid In Capital Ratio** – Calculated by dividing Total Value by Amount Funded. Represents the multiple of the overall cash invested that an investor is expected to receive
- **IRR** - The calculation of the IRR (Internal Rate of Return) takes into consideration the timing of cash contributions and distributions to and from the partnerships, the length of time the investments have been held and the sum of the Reported Value
- **Index Comparison Method (ICM)** – represents the hypothetical IRR of a private investment program that is computed by assuming the fund flows were invested in and out of a publicly traded index. The resulting hypothetical market value of the program is then used with the program's actual cash flows to compute a hypothetical IRR. This hypothetical IRR can be compared with the actual IRR to determine whether the private investment program outperformed the publicly traded index
- **Valuation ICM** – The valuation equivalent that ICM calculates for the public market is called valuation ICM
- **KS PME** – The Kaplan Schoar Public Markets Equivalent is a ratio of the future value of all distributions divided by the future value of all contributions using the index return as the discount rate. The ending valuation is treated as a distribution in this method
- **IRR ICM** – The IRR equivalent that ICM calculates for the public market is called IRR ICM



# APPENDIX 4: DISCLAIMERS & DISCLOSURES



# DISCLAIMER

Past performance is no guarantee of future results.

The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.

Information used to prepare this report was obtained directly from the investment managers or custodians, and market index data was provided by other external sources. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

# ALTERNATIVE INVESTMENT DISCLOSURES

In addition, it is important that investors understand the following characteristics of non-traditional investment strategies including hedge funds, real estate and private equity:

1. Performance can be volatile and investors could lose all or a substantial portion of their investment
2. Leverage and other speculative practices may increase the risk of loss
3. Past performance may be revised due to the revaluation of investments
4. These investments can be illiquid, and investors may be subject to lock-ups or lengthy redemption terms
5. A secondary market may not be available for all funds, and any sales that occur may take place at a discount to value
6. These funds are not subject to the same regulatory requirements as registered investment vehicles
7. Managers may not be required to provide periodic pricing or valuation information to investors
8. These funds may have complex tax structures and delays in distributing important tax information
9. These funds often charge high fees
10. Investment agreements often give the manager authority to trade in securities, markets or currencies that are not within the manager's realm of expertise or contemplated investment strategy

# State of Connecticut Retirement Plans and Trust Funds

Performance Report  
As of June 30, 2022

Fund Evaluation Report

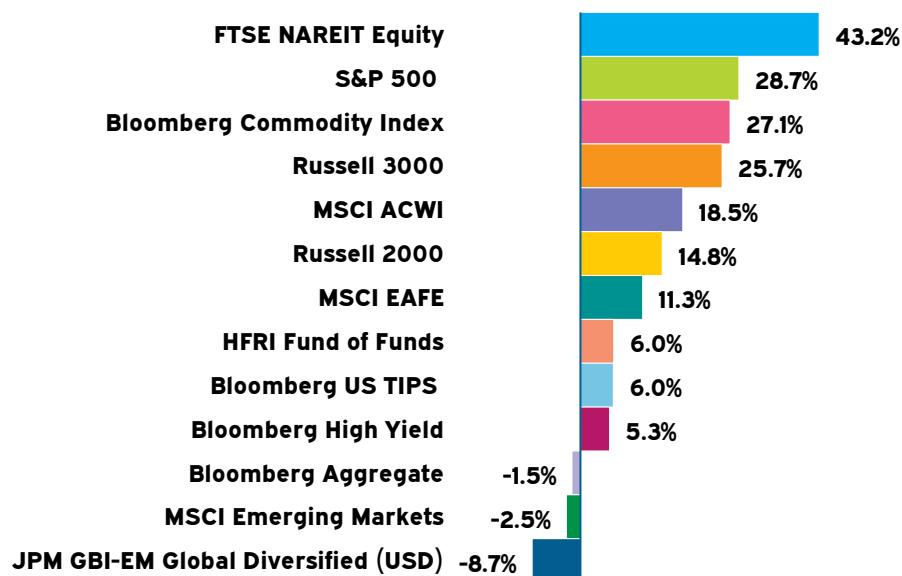
## Agenda

1. The World Markets Second Quarter of 2022
2. Performance Report as of June 30, 2022
3. Disclaimer, Glossary, and Notes

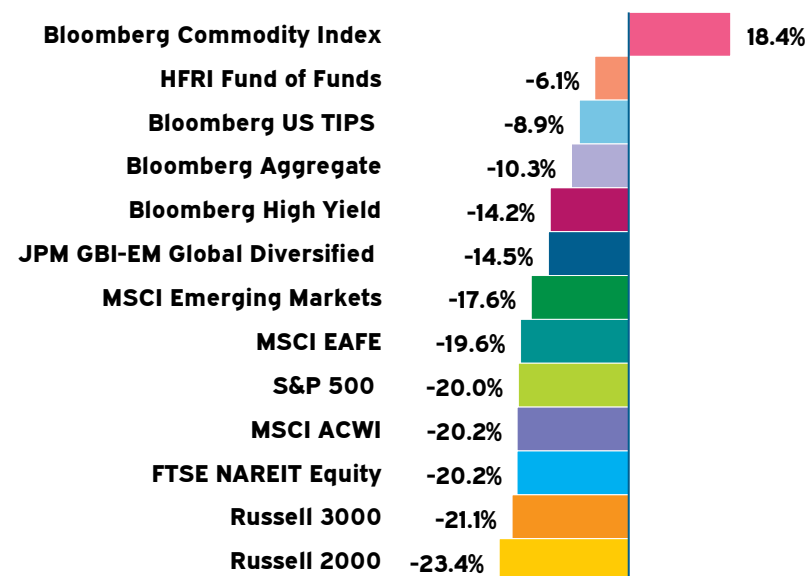
## **The World Markets Second Quarter of 2022**

### Index Returns<sup>1</sup>

#### 2021



#### 2022 Through June



→ Outside of emerging markets and the broad US investment grade bond market (Bloomberg Aggregate), most asset classes appreciated in 2021.

→ In June all major asset classes posted negative returns on renewed inflation and economic growth fears, with equities experiencing the largest declines.

<sup>1</sup> Source: Bloomberg and FactSet. Data is as of June 30, 2022.



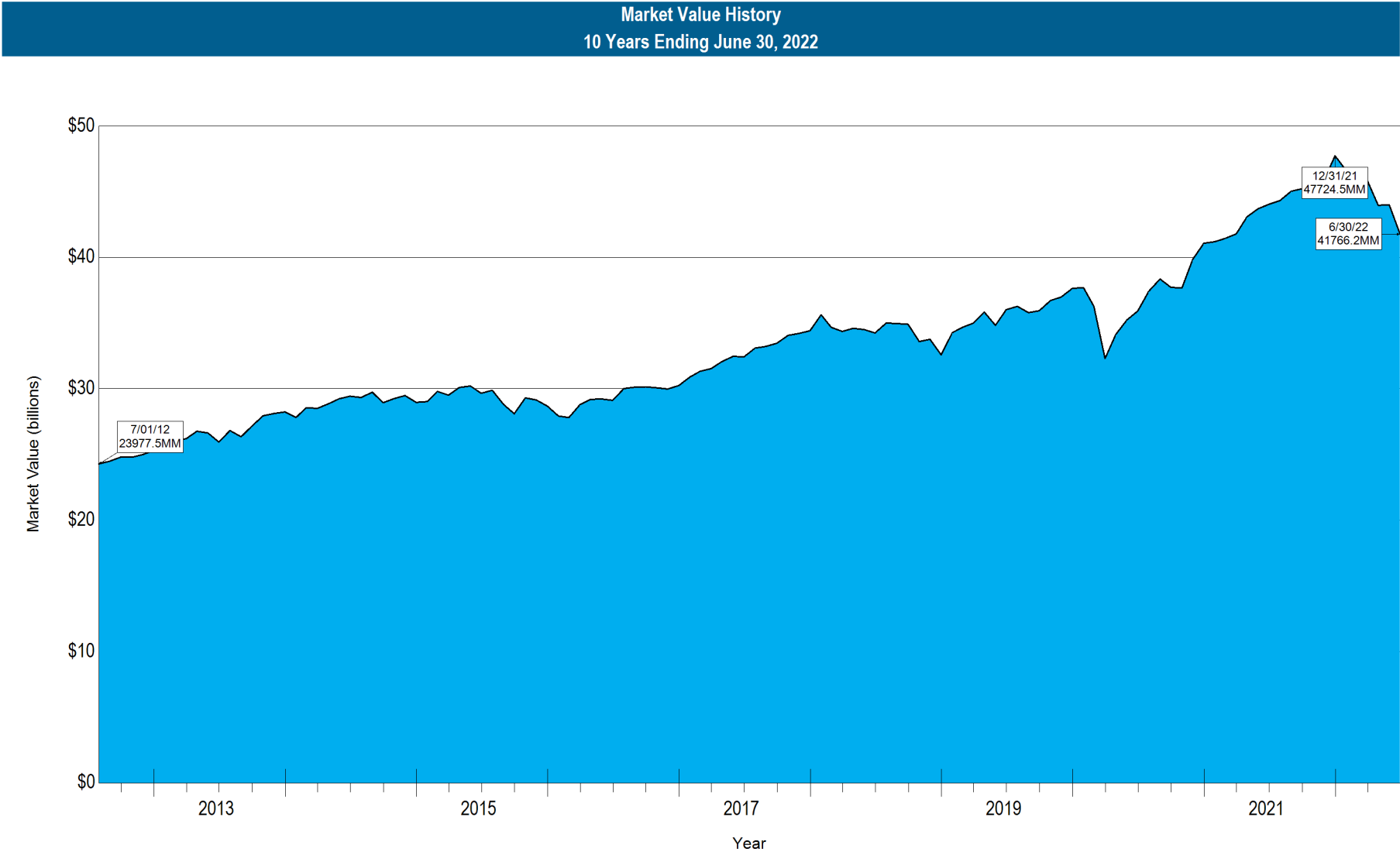
## **Performance Report As of June 30, 2022**

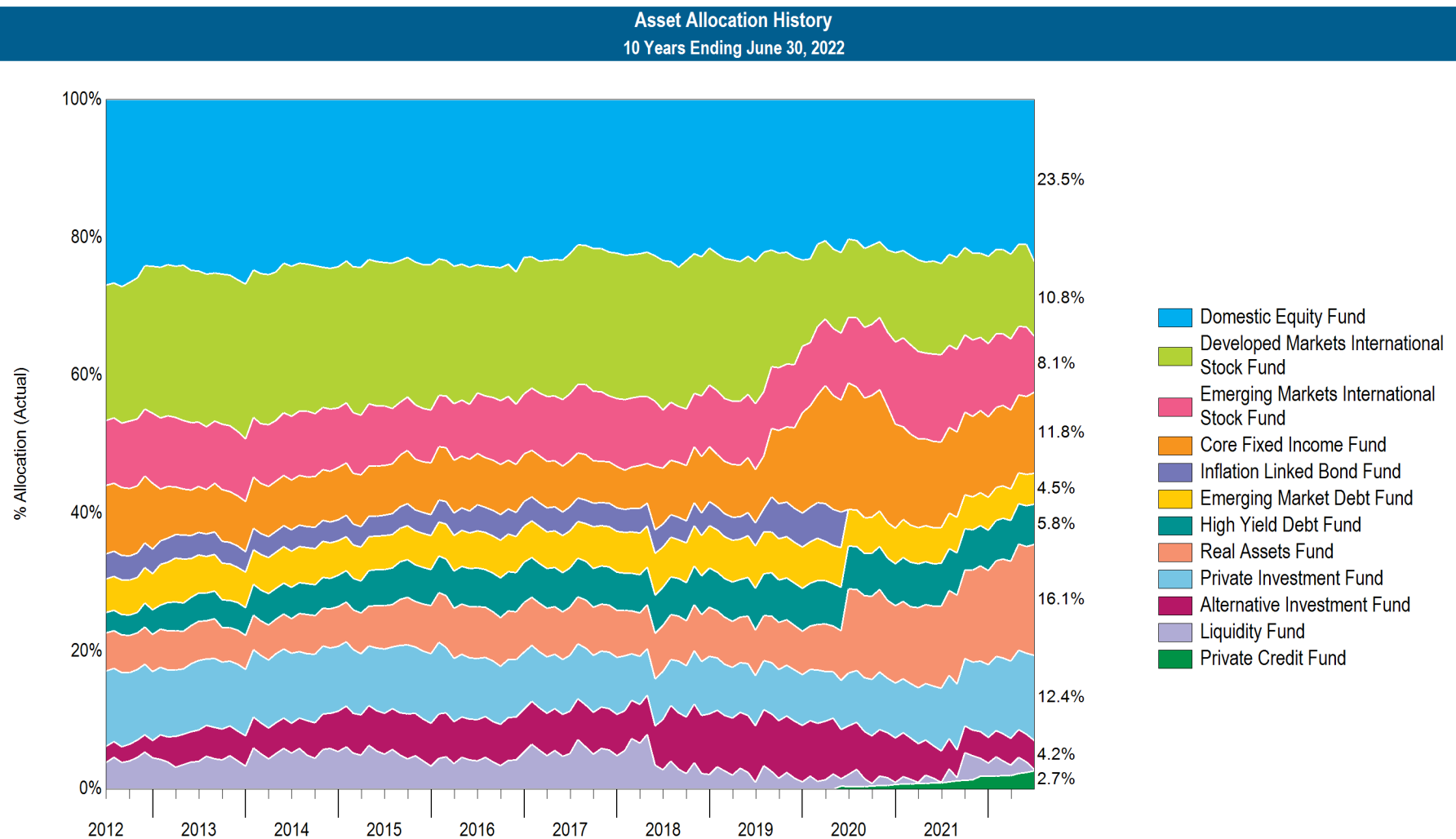
### Second Quarter 2022 Executive Summary

Category	Results	Notes
Total CRPTF Performance	Negative	-7.8% (~ \$3.7 billion investment loss)
Performance vs. Benchmarks <sup>1</sup>	Negative	-7.9% vs. -7.6%
Performance vs. Peers	Negative	-7.8% vs. -7.2% median (66 <sup>th</sup> percentile)
Asset Allocation Attribution Effects	Negative	An overweight to domestic equity and an underweight to real assets
Compliance with Targets	In Compliance	All asset classes were within policy range

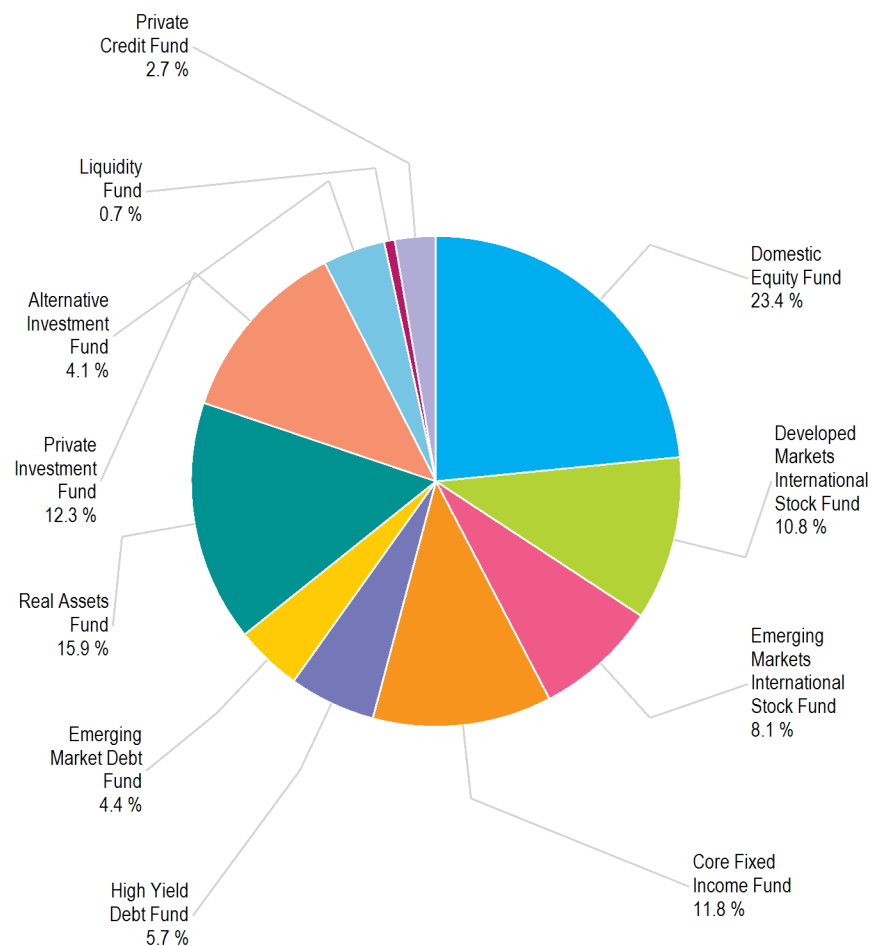
- The second quarter of 2022 marks the end of the CRPTF's fiscal year. This was a difficult period for the capital markets.
- During the quarter, returns for the CRPTF were negative in absolute and relative terms, as the CRPTF was down 7.8% for the period and lagged its policy benchmark (-30 basis points).
- While strong relative performance within private equity (+8.3%) and private credit (+4.5%) were additive, an overweight to domestic equity and an underweight to real assets detracted from relative performance.

<sup>1</sup> Represents the Teachers' Retirement Fund as a proxy for the total CRPTF

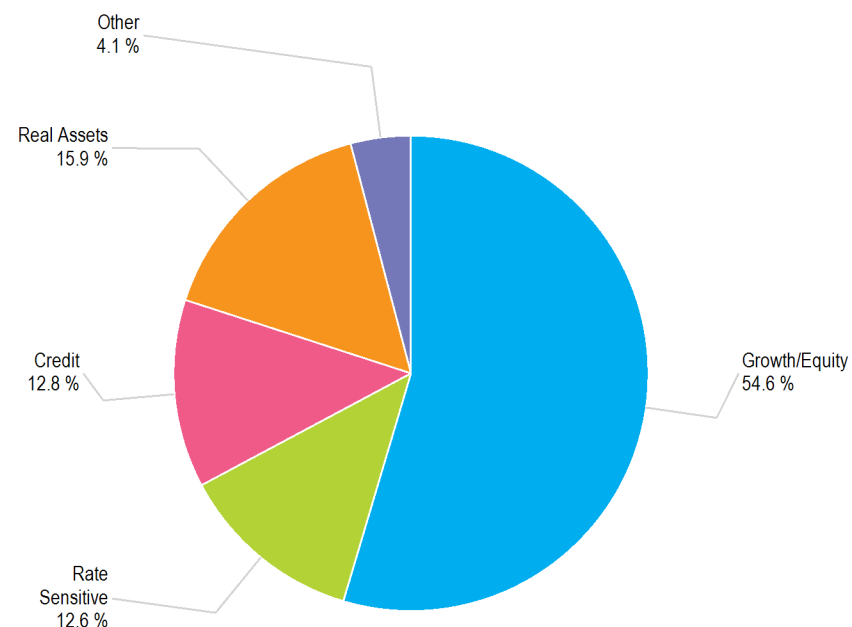




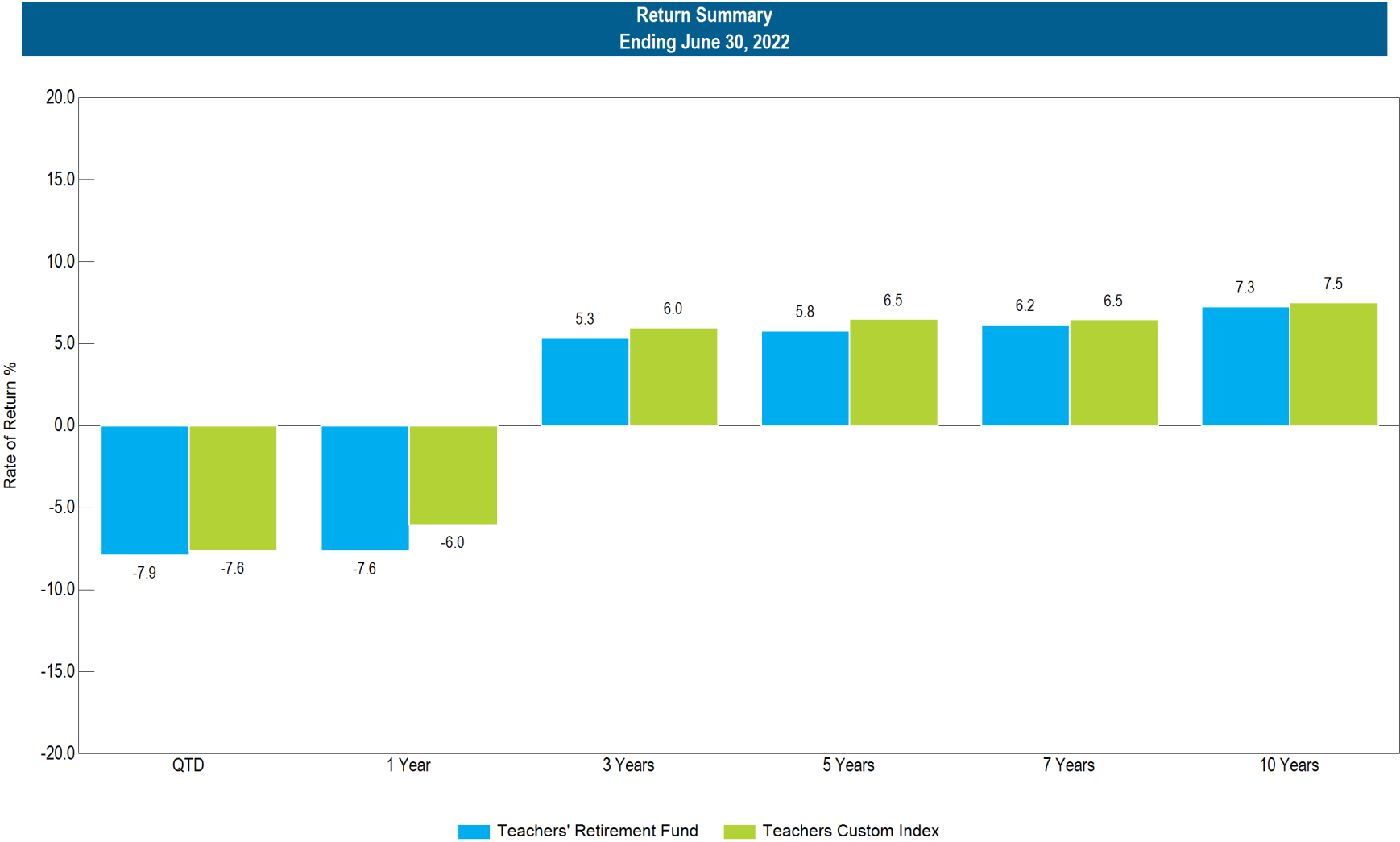
Current Allocation



Current Allocation



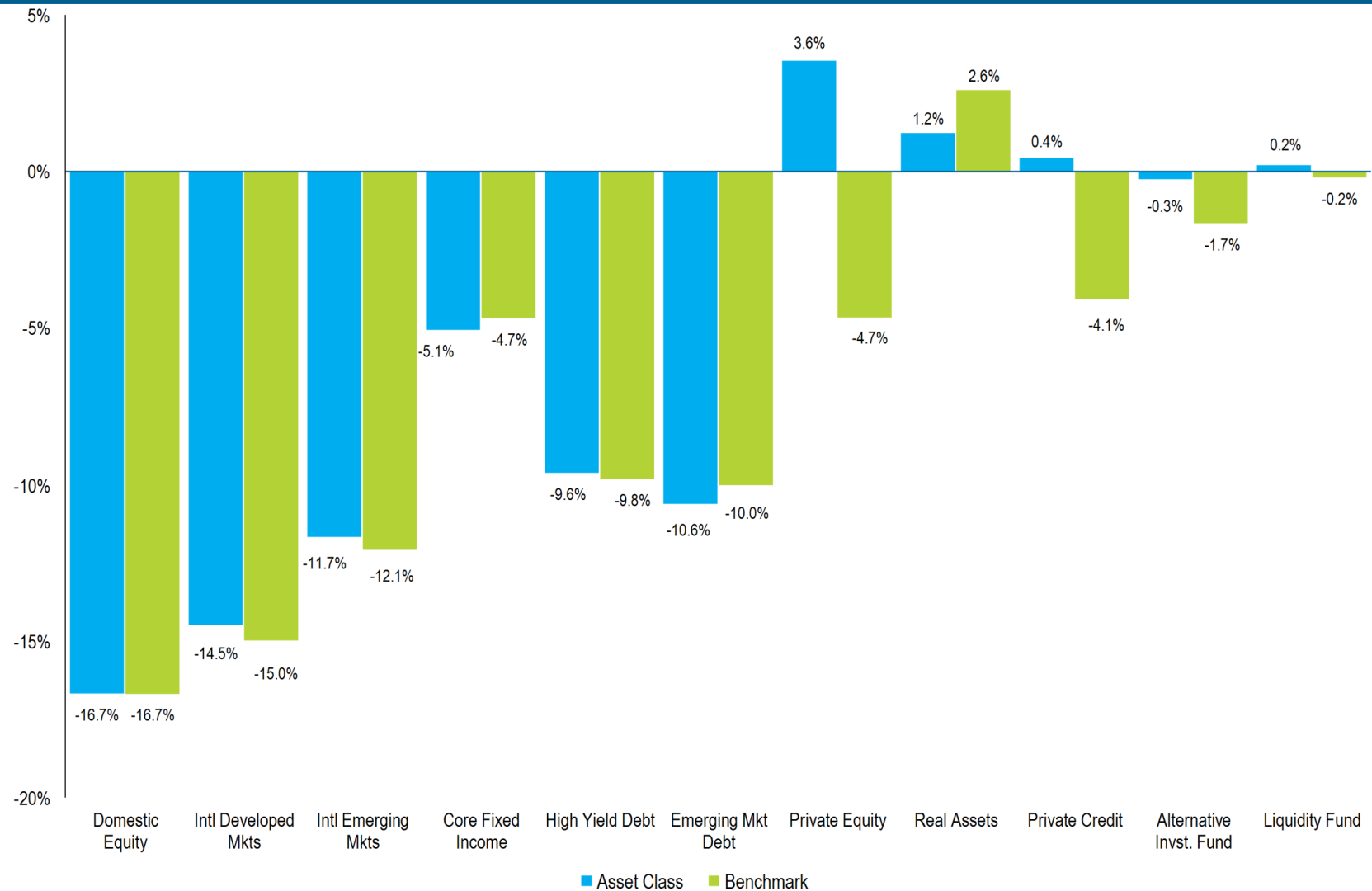
**Growth Equity** includes public and private equities. **Rate Sensitive** includes Core Fixed Income and Liquidity. **Credit** includes High Yield Debt, Emerging Markets Debt, and Private Credit. **Real Assets** includes Real Estate, Natural Resources, Infrastructure, and TIPS. **Other** includes Hedge Funds.



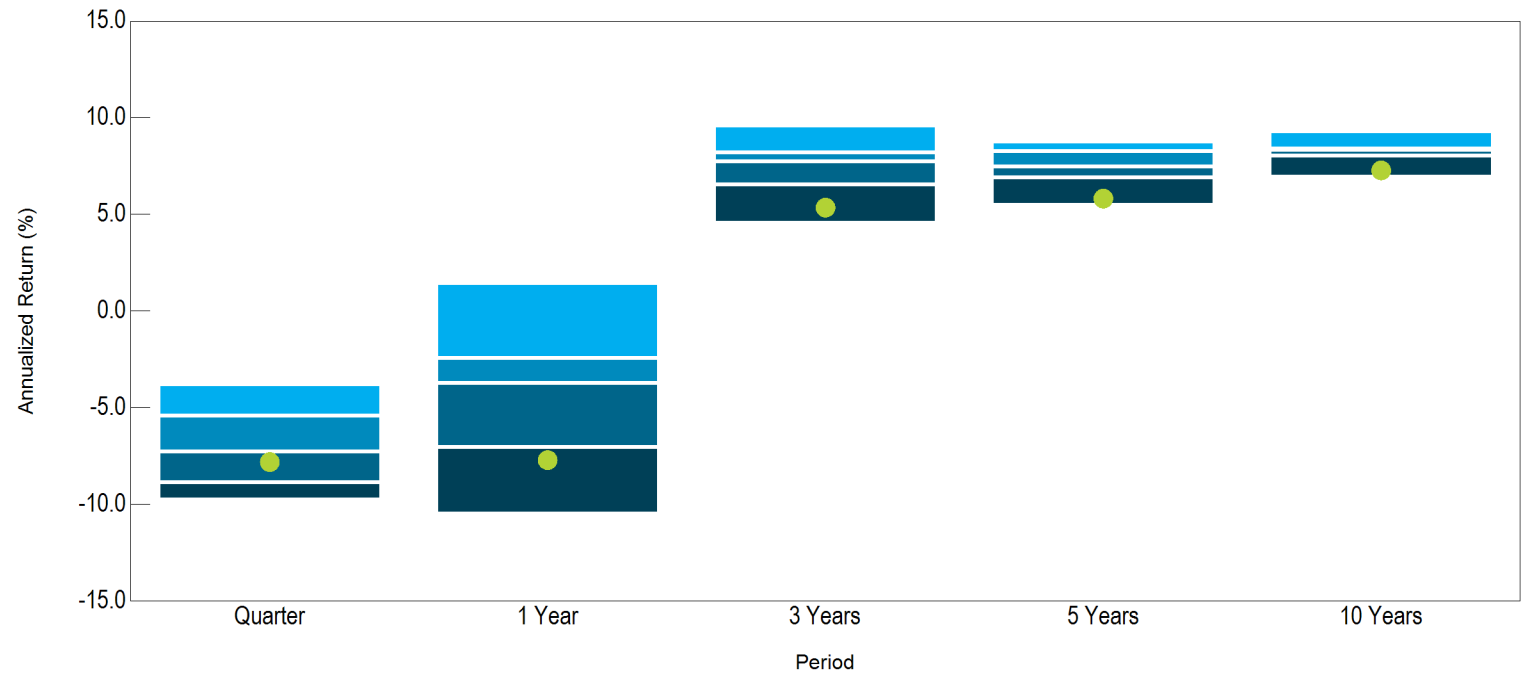
Represents the Teachers' Retirement Fund as a proxy for the total CRPTF.

#### Asset Class Quarterly Performance

As of June 30, 2022

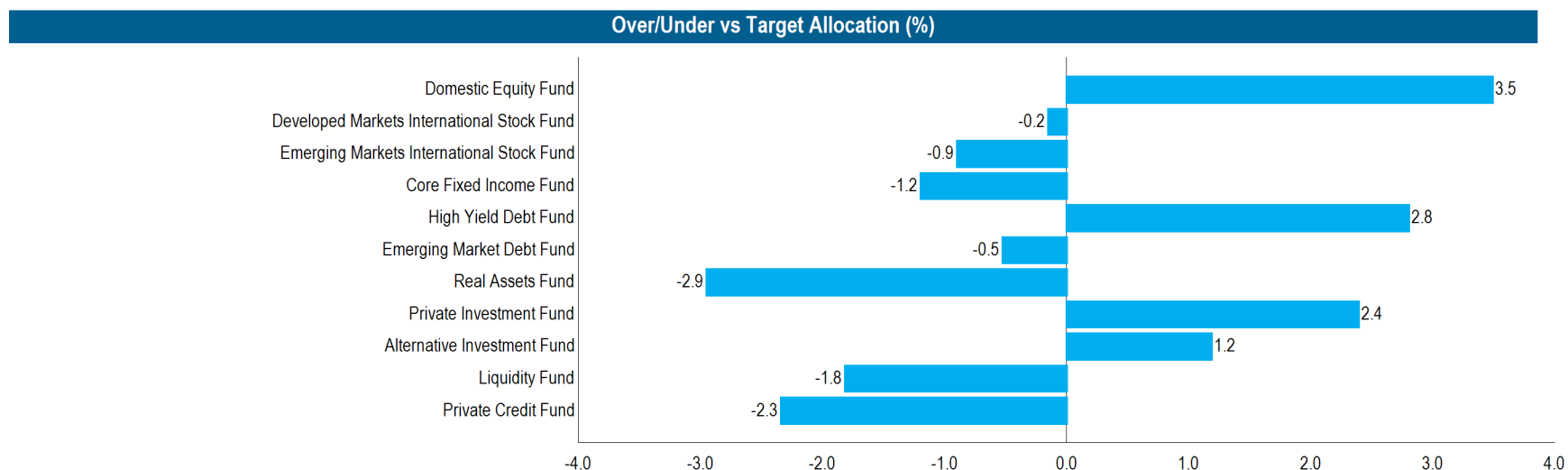


#### InvMetrics Public DB > \$10B Net Return Comparison Ending June 30, 2022



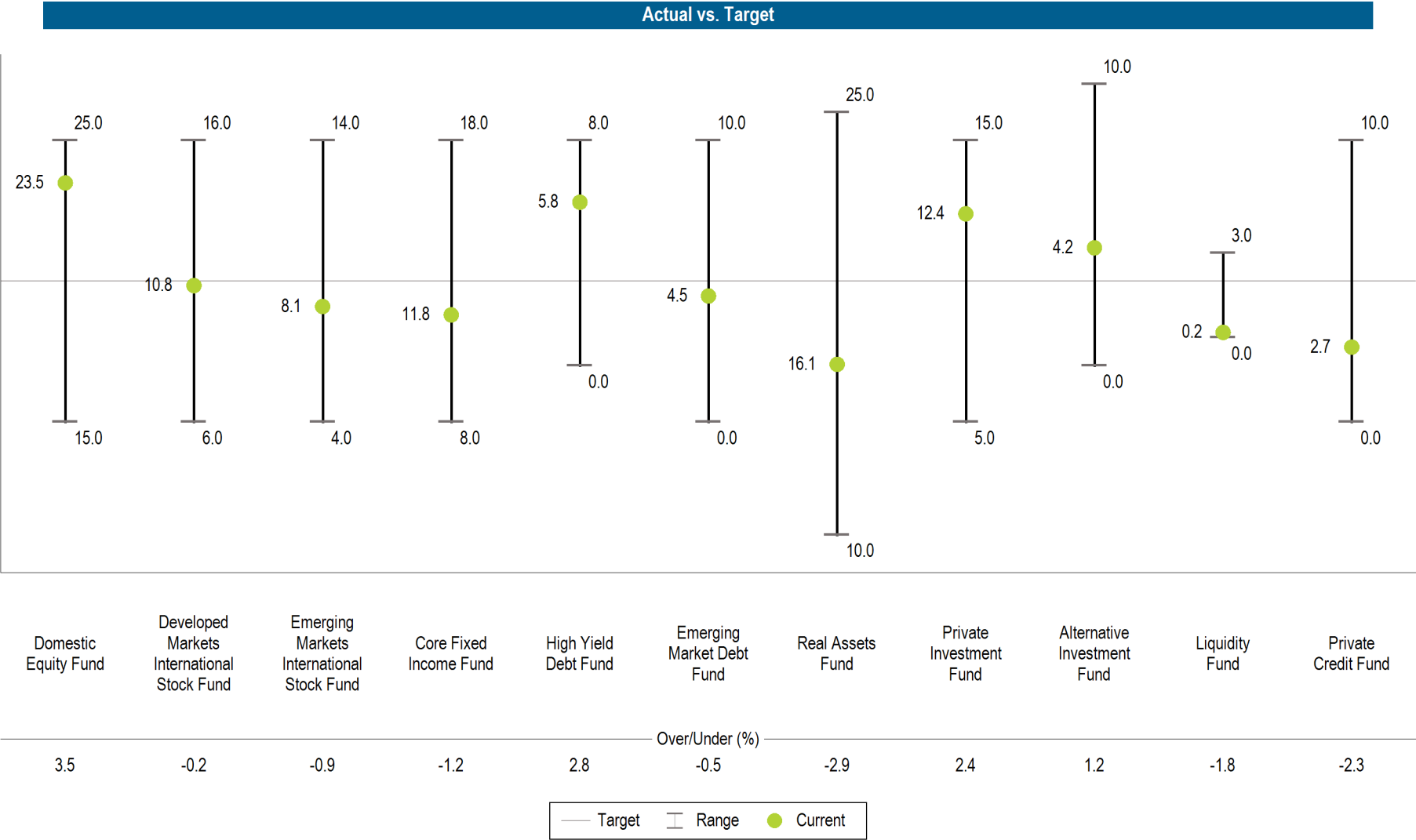
	Return (Rank)									
5th Percentile	-3.8		1.4		9.6		8.8		9.3	
25th Percentile	-5.4		-2.4		8.2		8.3		8.4	
Median	-7.2		-3.7		7.8		7.5		8.4	
75th Percentile	-8.8		-7.0		6.6		6.9		8.1	
95th Percentile	-9.7		-10.5		4.6		5.5		7.0	
# of Portfolios	18		17		17		17		15	
● State of Connecticut Total Fund	-7.8	(66)	-7.7	(86)	5.3	(89)	5.8	(89)	7.3	(92)





Asset Allocation vs. Target					
As Of June 30, 2022					
	Current	Current	Policy	Policy Range	Difference
Domestic Equity Fund	\$4,858,305,033	23.5%	20.0%	15.0% - 25.0%	3.5%
Developed Markets International Stock Fund	\$2,243,237,422	10.8%	11.0%	6.0% - 16.0%	-0.2%
Emerging Markets International Stock Fund	\$1,675,718,461	8.1%	9.0%	4.0% - 14.0%	-0.9%
Core Fixed Income Fund	\$2,441,427,560	11.8%	13.0%	8.0% - 18.0%	-1.2%
High Yield Debt Fund	\$1,200,328,719	5.8%	3.0%	0.0% - 8.0%	2.8%
Emerging Market Debt Fund	\$925,823,146	4.5%	5.0%	0.0% - 10.0%	-0.5%
Real Assets Fund	\$3,319,342,166	16.1%	19.0%	10.0% - 25.0%	-2.9%
Private Investment Fund	\$2,563,142,347	12.4%	10.0%	5.0% - 15.0%	2.4%
Alternative Investment Fund	\$865,724,311	4.2%	3.0%	0.0% - 10.0%	1.2%
Liquidity Fund	\$38,047,134	0.2%	2.0%	0.0% - 3.0%	-1.8%
Private Credit Fund	\$550,029,717	2.7%	5.0%	0.0% - 10.0%	-2.3%
<b>Total</b>	<b>\$20,681,126,016</b>	<b>100.0%</b>	<b>100.0%</b>		

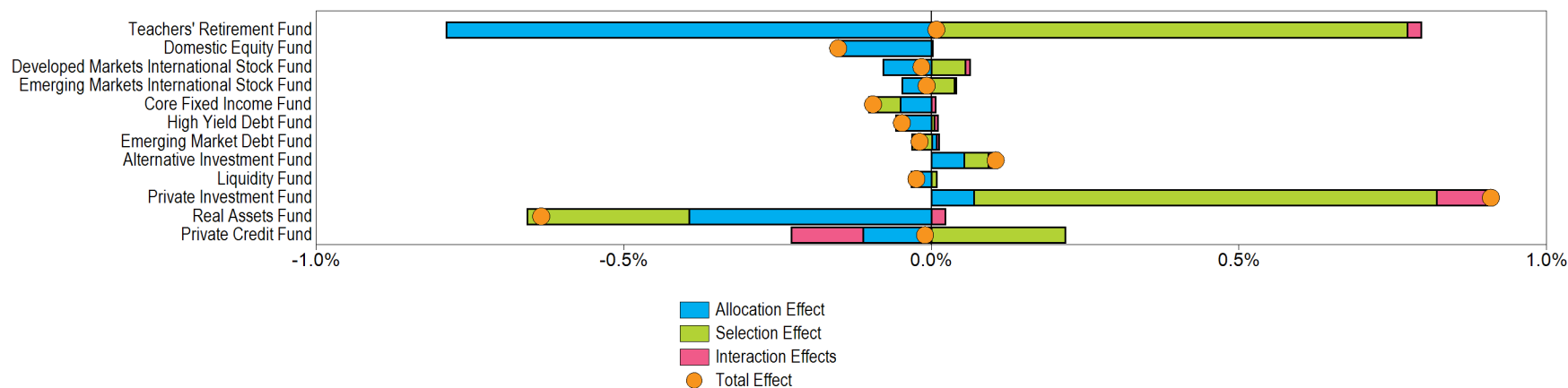
Represents the Teachers' Retirement Fund as a proxy for the total CRPTF.



Represents the Teachers' Retirement Fund as a proxy for the total CRPTF.

Attribution Summary							
QTD Ending June 30, 2022							
	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
Domestic Equity Fund	-16.7%	-16.7%	0.0%	0.0%	-0.2%	0.0%	-0.2%
Developed Markets International Stock Fund	-14.5%	-15.0%	0.5%	0.1%	-0.1%	0.0%	0.0%
Emerging Markets International Stock Fund	-11.7%	-12.1%	0.4%	0.0%	0.0%	0.0%	0.0%
Core Fixed Income Fund	-5.1%	-4.7%	-0.4%	-0.1%	-0.1%	0.0%	-0.1%
High Yield Debt Fund	-9.7%	-9.8%	0.2%	0.0%	-0.1%	0.0%	0.0%
Emerging Market Debt Fund	-10.6%	-10.0%	-0.6%	0.0%	0.0%	0.0%	0.0%
Alternative Investment Fund	-0.3%	-1.7%	1.4%	0.0%	0.1%	0.0%	0.1%
Liquidity Fund	0.2%	-0.2%	0.4%	0.0%	0.0%	0.0%	0.0%
Private Investment Fund	3.5%	-4.7%	8.2%	0.8%	0.1%	0.1%	0.9%
Real Assets Fund	1.2%	2.6%	-1.4%	-0.3%	-0.4%	0.0%	-0.6%
Private Credit Fund	0.4%	-4.1%	4.5%	0.2%	-0.1%	-0.1%	0.0%
<b>Total</b>	<b>-7.8%</b>	<b>-7.8%</b>	<b>0.0%</b>	<b>0.8%</b>	<b>-0.8%</b>	<b>0.0%</b>	<b>0.0%</b>

Attribution Effects  
3 Months Ending June 30, 2022



Represents the Teachers' Retirement Fund as a proxy for the total CRPTF.

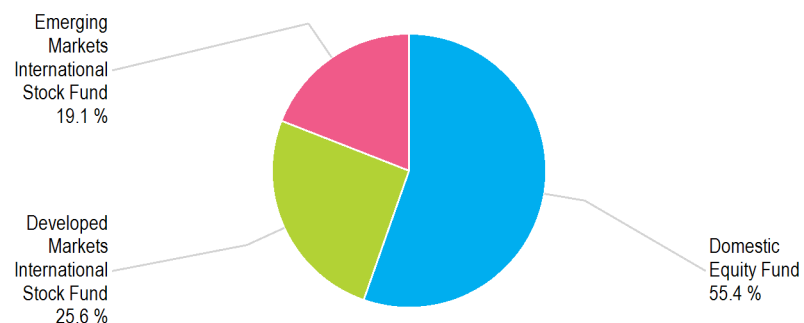
**Fund Details**

Total Equity | As of June 30, 2022

### Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Total Equity</b>	<b>17,655,702,359</b>	<b>100.0</b>	<b>-14.7</b>	<b>-19.8</b>	<b>-17.9</b>	<b>5.8</b>	<b>6.3</b>	<b>--</b>
MSCI ACWI			-15.7	-20.2	-15.8	6.2	7.0	8.8
<b>Domestic Equity Fund</b>	<b>9,775,029,947</b>	<b>55.4</b>	<b>-16.7</b>	<b>-21.1</b>	<b>-14.0</b>	<b>9.7</b>	<b>10.4</b>	<b>12.5</b>
Russell 3000			-16.7	-21.1	-13.9	9.8	10.6	12.6
eV All US Equity Net Median			-15.3	-19.9	-13.7	7.7	8.5	11.1
eV All US Equity Net Rank			65	58	52	27	28	23
<b>Developed Markets International Stock Fund</b>	<b>4,515,987,915</b>	<b>25.6</b>	<b>-14.5</b>	<b>-19.9</b>	<b>-18.1</b>	<b>1.7</b>	<b>2.4</b>	<b>7.0</b>
MSCI EAFE IMI Net USD			-15.0	-20.4	-18.7	1.1	2.1	5.6
Spliced MSCI EAFE IMI (net)			-15.0	-20.4	-18.7	1.1	2.1	5.5
eV All EAFE Equity Net Median			-14.4	-20.2	-19.0	1.5	2.3	6.0
eV All EAFE Equity Net Rank			53	48	44	48	48	23
<b>Emerging Markets International Stock Fund</b>	<b>3,364,684,498</b>	<b>19.1</b>	<b>-11.7</b>	<b>-17.7</b>	<b>-25.4</b>	<b>2.9</b>	<b>3.3</b>	<b>3.7</b>
MSCI Emerging Markets IMI Net			-12.1	-17.9	-24.8	1.1	2.3	3.2
eV Emg Mkts Equity Net Median			-12.8	-19.2	-25.7	0.9	2.1	3.4
eV Emg Mkts Equity Net Rank			37	39	50	29	32	43

### Allocation



### Total Equity Region Allocation

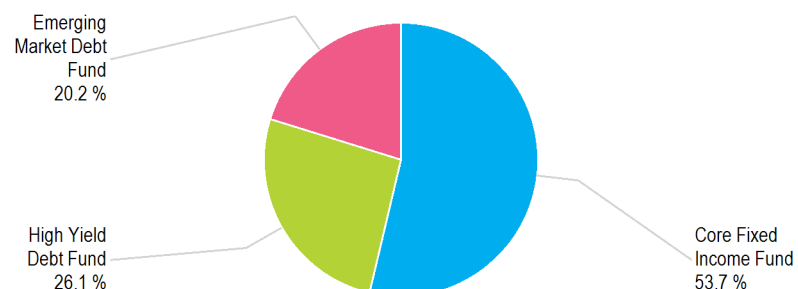
vs. MSCI ACWI

Region	% of Total	% of Bench
Americas	58.1%	64.9%
Europe	21.8%	15.8%
Asia/Pacific	17.8%	17.8%
Other	2.3%	1.5%
<b>Total</b>	<b>100.0%</b>	<b>100.0%</b>

#### Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Total Fixed Income</b>	<b>9,196,594,405</b>	<b>100.0</b>	<b>-7.5</b>	<b>-12.7</b>	<b>-13.0</b>	<b>-1.7</b>	<b>0.4</b>	<b>1.7</b>
<i>Custom Fixed Income Benchmark</i>			-6.4	-12.6	-12.5	-1.5	0.6	1.9
<b>Core Fixed Income Fund</b>	<b>4,942,719,370</b>	<b>53.7</b>	<b>-5.1</b>	<b>-10.8</b>	<b>-10.9</b>	<b>-0.9</b>	<b>0.6</b>	<b>1.4</b>
<i>Bloomberg US Aggregate TR</i>			-4.7	-10.3	-10.3	-0.9	0.9	1.5
<i>eV US Core Fixed Inc Net Median</i>			-4.9	-10.5	-10.5	-0.7	1.0	1.8
<i>eV US Core Fixed Inc Net Rank</i>			65	75	72	68	92	85
<b>High Yield Debt Fund</b>	<b>2,399,843,066</b>	<b>26.1</b>	<b>-9.6</b>	<b>-12.8</b>	<b>-11.4</b>	<b>1.0</b>	<b>2.3</b>	<b>4.2</b>
<i>Bloomberg US High Yield 2% Issuer Cap TR</i>			-9.8	-14.2	-12.8	0.2	2.1	4.5
<i>eV US High Yield Fixed Inc Net Median</i>			-9.4	-13.1	-11.9	0.4	2.0	4.2
<i>eV US High Yield Fixed Inc Net Rank</i>			57	45	45	32	37	50
<b>Emerging Markets Debt Fund</b>	<b>1,854,031,970</b>	<b>20.2</b>	<b>-10.6</b>	<b>-17.4</b>	<b>-20.1</b>	<b>-5.8</b>	<b>-2.0</b>	<b>0.5</b>
<i>Spliced 50% JPM EMBI Global Diversified / 50% GBI EM Global Diversified</i>			-10.0	-17.5	-20.2	-5.5	-1.7	0.5
<i>eV Emg Mkts Fixed Inc - Blended Currency Net Median</i>			-10.6	-16.9	-20.0	-4.5	-1.2	0.7
<i>eV Emg Mkts Fixed Inc - Blended Currency Net Rank</i>			52	56	56	82	74	55

#### Allocation



#### Total Fixed Income Characteristics

As of June 30, 2022

	Portfolio Q2-22
<b>Fixed Income Characteristics</b>	
Yield to Maturity	6.41
Average Duration	5.58
Average Quality	BBB
Weighted Average Maturity	8.15

### Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Private Credit Fund</b>	<b>1,107,657,594</b>	<b>100.0</b>	<b>0.4</b>	<b>2.6</b>	<b>12.2</b>	<b>--</b>	<b>--</b>	<b>--</b>
<i>S&amp;P/LSTA Leveraged Loan + 150bps</i>			<i>-4.1</i>	<i>-3.8</i>	<i>-1.3</i>	<i>3.6</i>	<i>4.5</i>	<i>5.3</i>

Private Credit Fund Strategy	No. of Investments	Committed (\$MM)	Contributed (\$MM)	Unfunded (\$MM)	Distributed (\$MM)	Market Value (\$MM)	DPI (X)	TVPI (X)	IRR (%)
Co-Investment	1	450.00	31.50	418.50	-	31.50	-	1.00	-
Distressed Debt	3	225.00	142.60	83.60	102.50	110.20	0.72	1.50	15.05
Mezzanine	6	375.00	204.30	191.70	169.50	97.40	0.83	1.30	11.52
Senior	4	400.00	294.30	158.90	70.90	251.20	0.24	1.10	8.35
Special Situations	6	762.60	275.80	497.60	15.80	293.70	0.06	1.10	13.92
<b>Total</b>	<b>19</b>	<b>2,212.60</b>	<b>948.50</b>	<b>1,350.30</b>	<b>358.70</b>	<b>784.00</b>	<b>0.38</b>	<b>1.20</b>	<b>12.40</b>

Private Credit data as of March 31, 2022.

### Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Private Investment Fund</b>	<b>5,128,109,173</b>	<b>100.0</b>	<b>3.6</b>	<b>5.8</b>	<b>25.5</b>	<b>24.0</b>	<b>20.6</b>	<b>16.2</b>
<i>Russell 3000 + 250bp 1Q Lagged</i>			<i>-4.7</i>	<i>4.8</i>	<i>14.2</i>	<i>20.7</i>	<i>17.5</i>	<i>16.1</i>

Private Investment Fund Strategy	No. of Investments	Committed (\$MM)	Contributed (\$MM)	Unfunded (\$MM)	Distributed (\$MM)	Market Value (\$MM)	DPI (X)	TVPI (X)	IRR (%)
Buyout	93	6,935.40	5,581.20	1,759.90	6,494.70	2,838.80	1.16	1.70	10.22
Co-Investment	1	450.00	-	450.00	-	-	-	-	N/A
Distressed/Restructuring	9	650.00	540.80	213.40	643.30	223.60	1.19	1.60	15.05
Growth Equity	6	350.00	122.70	231.20	3.50	191.60	0.03	1.60	36.76
Mezzanine	12	1,059.40	943.90	221.20	913.40	252.90	0.97	1.20	4.45
Multi-Strategy	5	390.17	410.76	4.41	507.02	2.68	1.23	1.20	3.87
Secondaries	12	1,041.25	580.86	473.30	483.40	368.40	0.83	1.50	8.34
Special Situations	1	100.00	64.25	50.37	16.62	59.69	0.26	1.20	38.75
Venture Capital	23	2,311.03	2,024.07	216.22	3,007.34	997.16	1.49	2.00	12.75
<b>Total</b>	<b>162</b>	<b>13,287.25</b>	<b>10,268.54</b>	<b>3,620.00</b>	<b>12,069.28</b>	<b>4,934.83</b>	<b>1.18</b>	<b>1.70</b>	<b>10.21</b>

Private Investment data as of March 31, 2022.



Performance Summary								
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Real Assets Fund</b>	<b>6,652,428,815</b>	<b>100.0</b>	<b>1.2</b>	<b>3.3</b>	<b>10.4</b>	<b>6.3</b>	<b>6.8</b>	<b>8.7</b>
<i>Real Assets Benchmark</i>			2.6	6.3	14.8	7.9	7.4	9.1
<b>U.S. TIPS</b>	<b>2,117,982,749</b>	<b>31.8</b>	<b>-6.3</b>	<b>-8.5</b>	<b>-4.8</b>	--	--	--
<i>Bloomberg US TIPS TR</i>			-6.1	-8.9	-5.1	3.0	3.2	1.7
<b>Real Estate</b>	<b>3,846,720,284</b>	<b>57.8</b>	<b>5.3</b>	<b>10.7</b>	<b>21.2</b>	<b>9.8</b>	<b>8.9</b>	<b>9.8</b>
<i>NCREIF-ODCE</i>			4.8	12.5	29.5	12.7	10.5	11.2
<b>Natural Resources &amp; Infrastructure</b>	<b>687,725,781</b>	<b>10.3</b>	<b>4.2</b>	<b>5.4</b>	<b>6.2</b>	--	--	--
<i>CPI + 4%</i>			3.6	7.3	13.0	9.0	7.9	6.6

Real Asset Group	No. of Investments	Committed (\$MM)	Contributed (\$MM)	Unfunded (\$MM)	Distributed (\$MM)	Market Value (\$MM)	DPI (X)	TVPI (X)	IRR (%)
Infrastructure	13	1,500.00	671.80	843.20	115.70	605.70	0.17	1.07	5.20
Natural Resources	2	135.00	110.60	28.00	63.20	58.00	0.57	1.10	3.10
<b>Total</b>	<b>15</b>	<b>1,635.00</b>	<b>782.40</b>	<b>871.20</b>	<b>178.90</b>	<b>663.70</b>	<b>0.23</b>	<b>1.08</b>	<b>4.60</b>

Real Estate Strategy	No. of Investments	Committed (\$MM)	Contributed (\$MM)	Unfunded (\$MM)	Distributed (\$MM)	Market Value (\$MM)	DPI (X)	TVPI (X)	IRR (%)
Co-Investment	1	225.00	2.14	222.86	-	2.05	-	0.96	NM
Core	11	1,578.52	1,894.83	34.09	1,307.54	1,572.92	0.69	1.52	7.08
Core Plus	8	681.49	640.08	55.35	97.89	1,036.19	0.15	1.75	15.08
Opportunistic	24	1,882.86	1,565.29	445.88	1,644.29	429.30	1.03	1.30	5.91
REIT	1	200.00	200.00	-	-	263.62	-	1.32	31.22
Value Add	26	1,496.05	1,155.57	430.70	811.90	520.41	0.69	1.13	3.56
<b>Total</b>	<b>70</b>	<b>6063.92</b>	<b>5457.91</b>	<b>1188.88</b>	<b>3861.62</b>	<b>3822.44</b>	<b>0.7</b>	<b>1.39</b>	<b>6.9</b>

Real Asset and Real Estate data as of March 31, 2022.

### Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
<b>Alternative Investment Fund</b>	<b>1,726,624,707</b>	<b>100.0</b>	<b>-0.3</b>	<b>-2.0</b>	<b>-1.4</b>	<b>1.3</b>	<b>2.5</b>	<b>3.2</b>
<i>Custom Return Benchmark</i>			-1.7	-2.4	-2.1	1.9	2.5	1.3
<i>91 Day T-Bills +3%</i>			0.8	1.6	3.2	3.5	4.1	3.6
<i>HFRI FOF: Diversified Index</i>			-2.9	-4.5	-3.1	4.5	4.1	3.9

## **Disclaimer, Glossary, and Notes**

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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

**Credit Risk:** Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

**Duration:** Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

**Information Ratio:** This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

**Jensen's Alpha:** A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk.  $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} \times (\text{market return} - \text{Risk Free Rate})]$ .

**Market Capitalization:** For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

**Market Weighted:** Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

**Maturity:** The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

**Prepayment Risk:** The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

**Price-Book Value (P/B) Ratio:** The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

**Price-Earnings (P/E) Ratio:** A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about its future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

**Quality Rating:** The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

**Sharpe Ratio:** A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

**STIF Account:** Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

**Standard Deviation:** A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

**Style:** The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

**Tracking Error:** A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

**Yield to Maturity:** The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

**Yield to Worst:** The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

**NCREIF Property Index (NPI):** Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

**NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE):** Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.

The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.

# State of Connecticut Retirement Plans and Trust Funds

June 30, 2022





## Agenda

1. Executive Summary
2. Connecticut Inclusive Investment Initiative Performance Summary
3. Asset Allocation and Fund Diversity
4. Manager Fund Performance

## **Executive Summary**

#### Executive Summary

- For the Fiscal Year ended on June 30, 2022, the State of Connecticut Inclusive Investment Initiative (“Ci3”) public markets program lost 11.3%, slightly underperforming the custom benchmark by a margin of 20 basis points (“bps”). For the one-year period ending June 30, Ci3’s return (-19.7%) underperformed the custom benchmark (-19.4%) by 30 bps, driven by Xponance developed markets equity portfolio lagging its benchmark by 390 bps over the same time period.
- Bivium’s US micro-cap equity portfolio was the best relative performer in the Ci3 program, returning -17.0% for the quarter while outperforming the Russell Microcap index by 200 bps.
  - All three underlying managers outperformed the index during the quarter.
- Leading Edge US small cap equity portfolio declined 18.2% during the quarter, underperforming the Russell 2000 index by 100 bps. Leading detractors from a sector perspective were industrials, energy, and utilities.
  - Two of the eight managers, jointly representing 29% of the portfolio, outperformed their respective benchmarks for the quarter.
- Xponance developed markets equity portfolio performed in line with the EAFE index, returning -14.5%.
  - Three managers outperformed their respective benchmarks, with one manager outperforming the index by 210 bps.
- RockCreek emerging markets equity portfolio lost 12.2%, slightly underperforming its benchmark by 80 bps.
  - Four of the six managers, making up 73% of the portfolio, outperformed their respective benchmarks.

**Executive Summary (continued)**

→ Within the Attucks Global Fixed income portfolio (-6.4%), high yield (-8.3%) and emerging markets debt (-8.0%) portfolios outpaced their respective benchmark by 1.5% and 2.0%, respectively. The core fixed income portfolio slightly underperformed the Bloomberg US Agg index by 10 bps.

## **Connecticut Inclusive Investment Initiative Performance Summary**

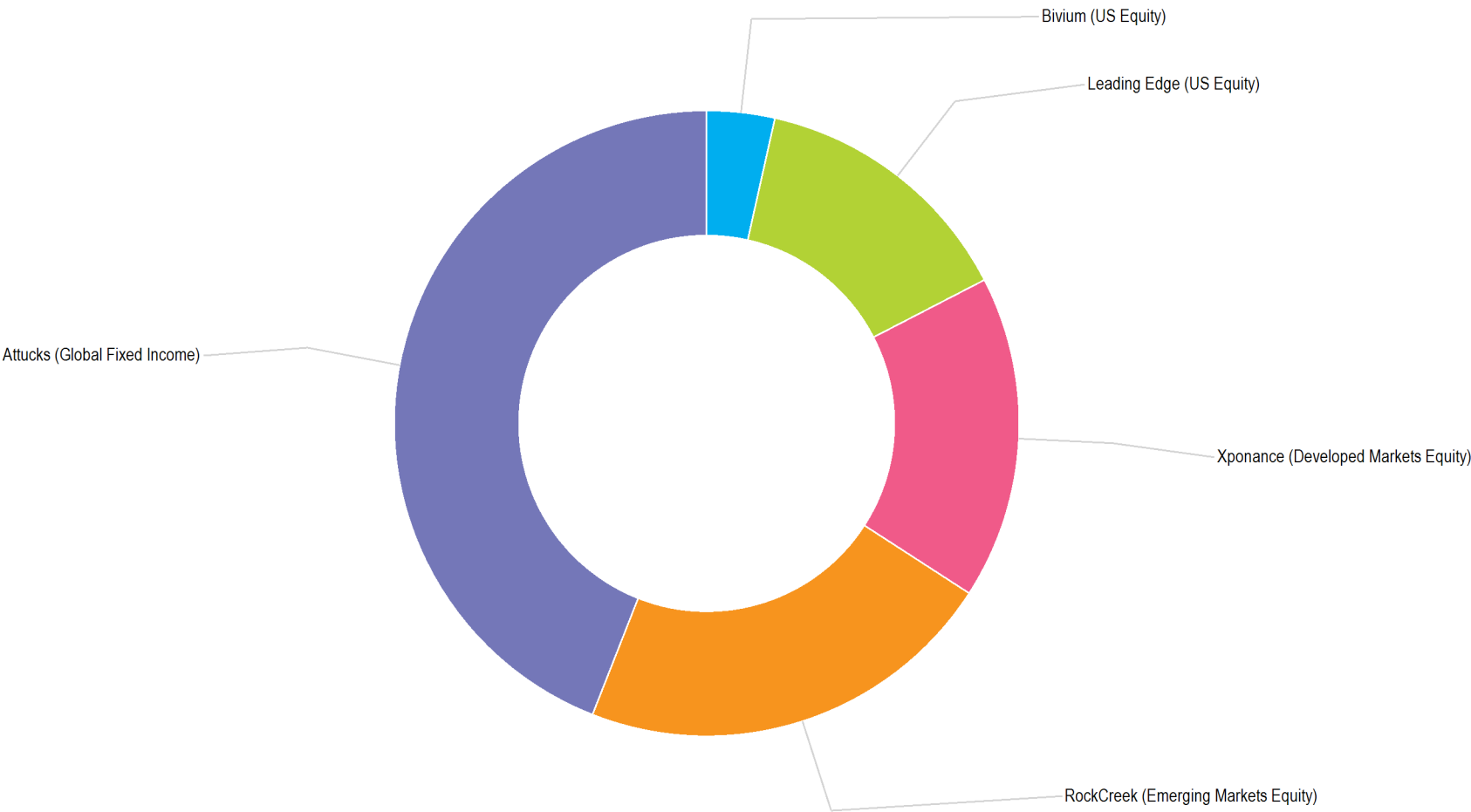
#### Performance Summary

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Ci3 Public Markets</b>	<b>1,071,387,109</b>	<b>100.0</b>	<b>-11.3</b>	<b>-17.3</b>	<b>-19.7</b>	--	--	--	<b>-11.9</b>	<b>Feb-21</b>
<i>Ci3 Public Markets Custom Index</i>			<u>-11.1</u>	<u>-16.9</u>	<u>-19.4</u>	--	--	--	<u>-11.7</u>	<i>Feb-21</i>
Over/Under			-0.2	-0.4	-0.3				-0.2	
<b>Bivium (US Equity)</b>	<b>37,957,302</b>	<b>3.5</b>	<b>-17.0</b>	<b>-23.6</b>	--	--	--	--	<b>-24.1</b>	<b>Dec-21</b>
<i>Russell Microcap</i>			<u>-19.0</u>	<u>-25.1</u>	<u>-30.7</u>	<u>5.1</u>	<u>4.5</u>	<u>9.0</u>	<u>-24.7</u>	<i>Dec-21</i>
Over/Under			2.0	1.5					0.6	
<b>Leading Edge (US Equity)</b>	<b>148,948,931</b>	<b>13.9</b>	<b>-18.2</b>	<b>-28.8</b>	--	--	--	--	<b>-28.8</b>	<b>Dec-21</b>
<i>Russell 2000</i>			<u>-17.2</u>	<u>-23.4</u>	<u>-25.2</u>	<u>4.2</u>	<u>5.2</u>	<u>9.4</u>	<u>-21.7</u>	<i>Dec-21</i>
Over/Under			-1.0	-5.4					-7.1	
<b>Xponance (Developed Markets Equity)</b>	<b>179,320,492</b>	<b>16.7</b>	<b>-14.5</b>	<b>-22.2</b>	<b>-21.7</b>	--	--	--	<b>-8.8</b>	<b>Feb-21</b>
<i>MSCI EAFE</i>			<u>-14.5</u>	<u>-19.6</u>	<u>-17.8</u>	<u>1.1</u>	<u>2.2</u>	<u>5.4</u>	<u>-6.8</u>	<i>Feb-21</i>
Over/Under			0.0	-2.6	-3.9				-2.0	
<b>RockCreek (Emerging Markets Equity)</b>	<b>233,246,196</b>	<b>21.8</b>	<b>-12.2</b>	<b>-16.4</b>	<b>-23.8</b>	--	--	--	<b>-18.2</b>	<b>Apr-21</b>
<i>MSCI Emerging Markets</i>			<u>-11.4</u>	<u>-17.6</u>	<u>-25.3</u>	<u>0.6</u>	<u>2.2</u>	<u>3.1</u>	<u>-17.6</u>	<i>Apr-21</i>
Over/Under			-0.8	1.2	1.5				-0.6	
<b>Attucks (Global Fixed Income)</b>	<b>471,914,188</b>	<b>44.0</b>	<b>-6.4</b>	<b>-12.0</b>	<b>-11.9</b>	--	--	--	<b>-7.8</b>	<b>Feb-21</b>
<i>Ci3 Public Fixed Income Custom Index</i>			<u>-6.4</u>	<u>-12.6</u>	<u>-12.4</u>	--	--	--	<u>-8.4</u>	<i>Feb-21</i>
Over/Under			0.0	0.6	0.5				0.6	
<b>Attucks Core Fixed Income</b>	<b>243,654,428</b>	<b>22.7</b>	<b>-4.8</b>	<b>-10.1</b>	<b>-9.7</b>	--	--	--	<b>-7.0</b>	<b>Feb-21</b>
<i>Bloomberg US Aggregate TR</i>			<u>-4.7</u>	<u>-10.3</u>	<u>-10.3</u>	<u>-0.9</u>	<u>0.9</u>	<u>1.5</u>	<u>-8.0</u>	<i>Feb-21</i>
Over/Under			-0.1	0.2	0.6				1.0	

### State of Connecticut Inclusive Investment Initiative | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Attucks High Yield</b>	<b>94,503,260</b>	<b>8.8</b>	<b>-8.3</b>	<b>-11.7</b>	<b>-9.9</b>	--	--	--	<b>-4.2</b>	<b>Feb-21</b>
<i>Bloomberg US High Yield 2% Issuer Cap TR</i>			<u>-9.8</u>	<u>-14.2</u>	<u>-12.8</u>	<u>0.2</u>	<u>2.1</u>	<u>4.5</u>	<u>-7.1</u>	<i>Feb-21</i>
Over/Under			1.5	2.5	2.9				2.9	
<b>Attucks Emerging Markets Debt</b>	<b>133,756,500</b>	<b>12.5</b>	<b>-8.0</b>	<b>-15.6</b>	<b>-16.9</b>	--	--	--	<b>-11.4</b>	<b>Feb-21</b>
<i>Spliced 50% JPM EMBI Global Diversified / 50% GBI EM Global Diversified</i>			<u>-10.0</u>	<u>-17.5</u>	<u>-20.2</u>	<u>-5.5</u>	<u>-1.7</u>	<u>0.5</u>	<u>-15.3</u>	<i>Feb-21</i>
Over/Under			2.0	1.9	3.3				3.9	

Allocation

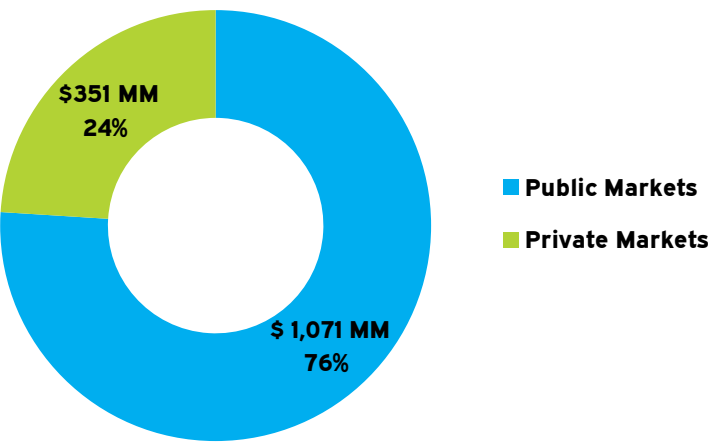




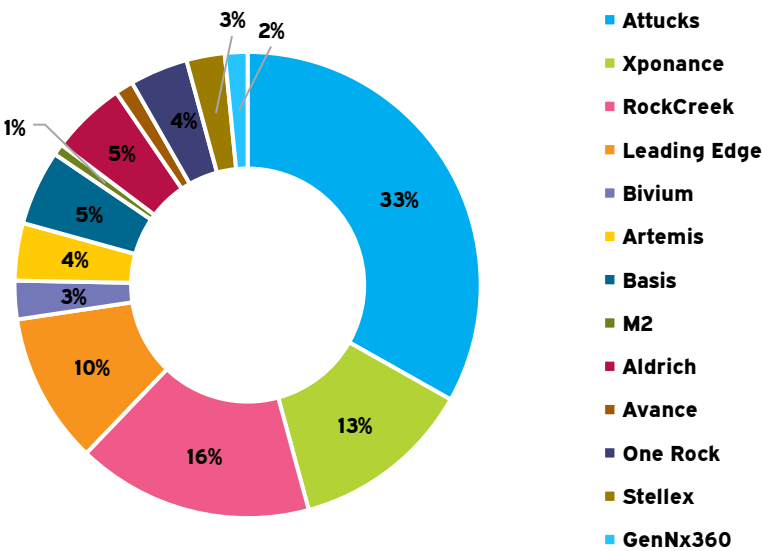
## **Asset Allocation and Fund Diversity**

Connecticut Inclusive Investment Initiative

Asset Allocation by Segment<sup>1</sup>



Asset Allocation by Manager



<sup>1</sup> Private Markets Value as of March 31, 2022.

### Connecticut Inclusive Investment Initiative Diversity<sup>1</sup>

	Number of Managers	% of Total Advisors	Total Assets (\$)	% of MV
Connecticut Based	1	3	27,111,852	2
Emerging Manager	31	79	1,216,226,393	85
African American Owned	8	21	279,681,832	20
Asian Owned	8	21	255,207,844	18
Hispanic Owned	5	13	239,993,397	17
Native-American Owned	1	3	42,991,309	3
Women-Owned	17	44	684,831,774	48

	Ci3 Public Markets			Ci3 Private Markets			Total CRPTF		
	Number of Managers	% of Total Advisors	% of MV	Number of Managers	% of Total Advisors	% of MV	Number of Managers	% of Total Advisors	% of MV
Connecticut Based	1	3	3	0	0	0	7	11	32
Emerging Manager	26	84	91	5	63	68	33	53	13
African American Owned	5	16	10	3	38	48	11	18	13
Asian Owned	6	19	16	2	25	24	9	15	3
Hispanic Owned	4	13	21	1	13	3	6	10	5
Native American Owned	1	3	4	0	0	0	1	2	0.4
Women Owned	12	39	41	5	63	69	25	40	57
<b>Total Ind. Managers</b>	<b>31</b>			<b>8</b>			<b>62<sup>2</sup></b>		

<sup>1</sup> Note: Totals do not sum due to double counting of manager classifications.

<sup>2</sup> Reflects the total number of investments managed by emerging and/or diverse managers in the CRPTF. Total 36 parent managers are running 62 investment strategies. The counting of parent managers excludes underlying managers of the MOM program but includes the MOM manager.

#### Connecticut Inclusive Investment Initiative: Public Markets

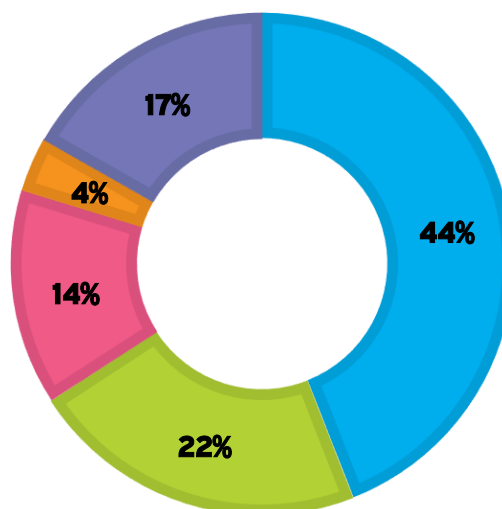
##### Manager Allocation

	Number of Managers	% of Total Advisors	% of MV
Connecticut Based	1	3%	3%
Emerging Manager	26	84%	91%
African American Owned	5	16%	10%
Asian Owned	6	19%	16%
Hispanic Owned	4	13%	21%
Native American Owned	1	3%	4%
Women Owned	12	39%	41%
<b>Total</b>	<b>31</b>		

##### Classification by Asset Class

	Style	MV of CT (\$ USD)	# of Managers	% of Total Ci3	% of CRPTF
Bivium	MicroCap Domestic Equity	\$37,957,302	3	4%	0.1%
Leading Edge	Small Cap Domestic Equity	\$148,948,931	8	14%	0.4%
Xponance	International Equity	\$179,320,492	7	17%	0.4%
RockCreek	Emerging Markets Equity	\$233,246,196	6	22%	0.6%
Attucks	Global Fixed Income	\$471,914,188	9	44%	1.1%
<b>Total</b>		<b>\$1,071,387,109</b>			
<b>Total CRPTF</b>		<b>\$41,766,236,668</b>			

■ Attucks Global FI
 ■ RockCreek EM
 ■ Leading Edge
 ■ Bivium
 ■ Xponance



As of June 30, 2022

Capital	Market Value (\$)	Connecticut Based	Emerging Manager	African-American Owned	Asian Owned	Hispanic Owned	Native American Owned	Women Owned
Martin (Xponance)	25,730,786		1					1
Denali Advisors (Xponance+Bivium)	42,991,309		1				1	
Redwood (Xponance+Leading Edge)	38,991,385		1					1
Frontier Global (Xponance)	26,103,191		1			1		
Bayard (Xponance)	25,538,538		1		1			
Channing Global (Xponance)	18,621,396		1	1				
Trinity Alps (Xponance)	21,239,214		1		1			
Integrity (Attucks)	51,707,134		1					1
Palmer Square (Attucks)	59,095,614		1					1
Ramirez (Attucks)	52,459,289		1			1		
Semper (Attucks)	27,403,250		1	1				
Weaver C. Barksdale (Attucks)	53,172,571		1					1
Strategic Income Management (Attucks)	67,435,666		1					
SKY Harbor (Attucks)	27,111,852	1	1					
New Century (Attucks)	35,578,700		1					1
RVX (Attucks)	98,257,823		1			1		
Glovista Investments (RockCreek)	51,999,164		1			1		
Change Global Investments (RockCreek)	54,101,751		1					1
Nipun Capital (RockCreek)	52,096,680		1		1			
Tekne Capital Management (RockCreek)	9,157,217		1		1			
Qtron (RockCreek)	17,414,976		1		1			1

As of June 30, 2022 (continued)

Capital	Market Value (\$)	Connecticut Based	Emerging Manager	African- American Owned	Asian Owned	Hispanic Owned	Native American Owned	Women Owned
Monarch (Bivium)	49,422,137		1					
Essex (Bivium)	15,924,895		1					
Granite (Leading Edge)	14,078,187		1					
Lisanti (Leading Edge)	21,939,052							1
Nicholas (Leading Edge)	16,732,233							1
Profit (Leading Edge)	17,671,359			1				
Phocas (Leading Edge)	17,237,282				1			
Palisades (Leading Edge)	16,560,282			1				
Villanova (Leading Edge)	25,141,269		1					
<b>Total</b>	<b>1,071,387,109</b>							

## **Manager Fund Performance**

## Public Markets



**Bivium**

#### Bivium<sup>1</sup>

##### Manager Allocation

Manager	Market Value (\$ mm)	% of Fund
Monarch	15,924,895	42%
Essex	14,078,187	37%
Denali	7,954,220	21%
<b>Total</b>	<b>37,957,302</b>	<b>100%</b>

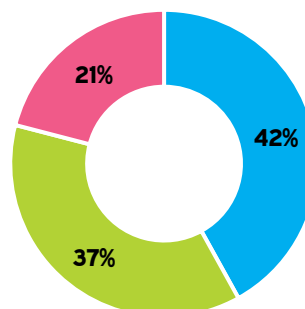
##### Classification By Diversity

	Number of Managers	% of Total Advisors	% of MV
Connecticut Based	0	0%	0%
Emerging Manager	3	100%	100%
African American Owned	0	0%	0%
Asian Owned	0	0%	0%
Hispanic Owned	0	0%	0%
Native American Owned	1	33%	21%
Women Owned	0	0%	0%
<b>Bivium</b>	<b>3</b>		

■ Monarch

■ Essex

■ Denali

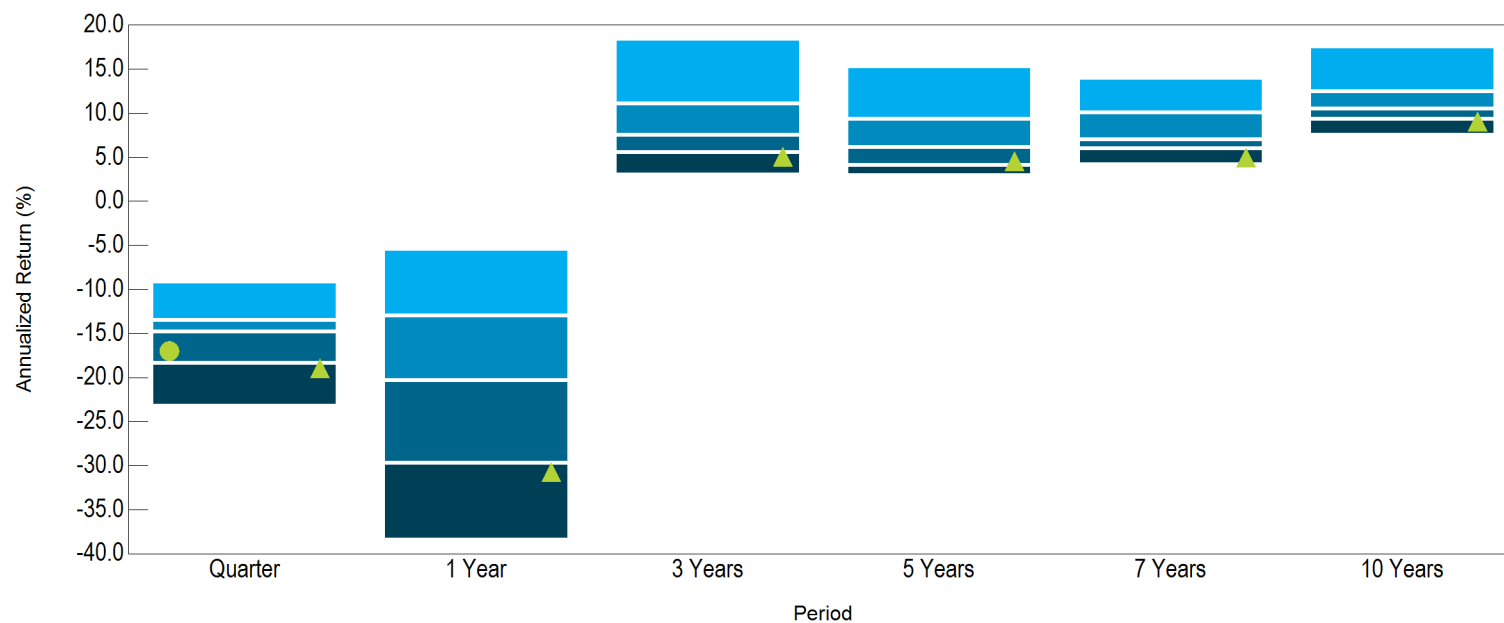


<sup>1</sup> Consists of 3 managers managing 3 strategies.

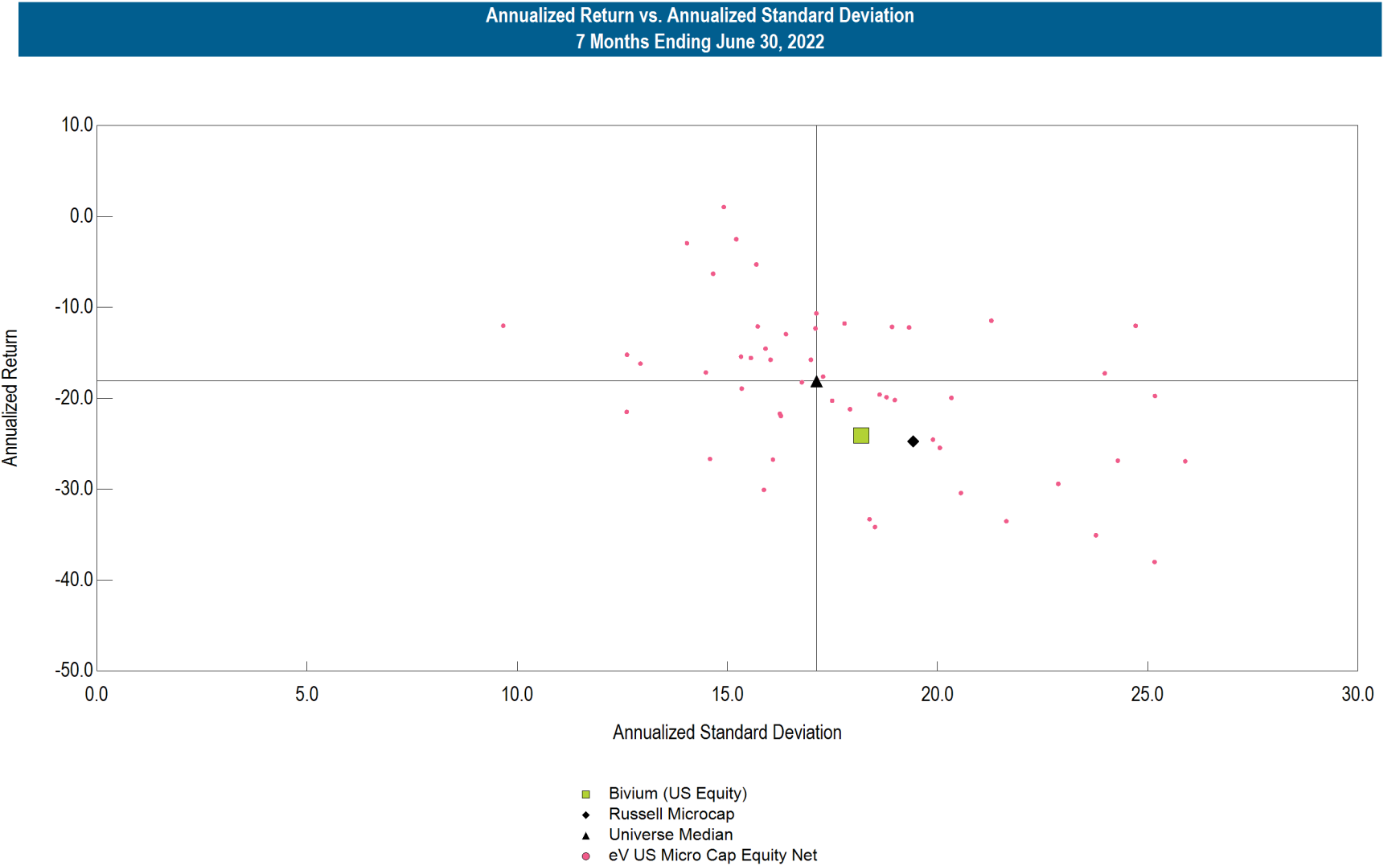
Note: Totals do not sum due to double counting of manager classifications.

	Performance Summary									
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Bivium (US Equity)</b>	<b>37,957,302</b>	<b>100.0</b>	<b>-17.0</b>	<b>-23.6</b>	--	--	--	--	<b>-24.1</b>	<b>Dec-21</b>
<i>Russell Microcap</i>			<i>-19.0</i>	<i>-25.1</i>	<i>-30.7</i>	<i>5.1</i>	<i>4.5</i>	<i>9.0</i>	<i>-24.7</i>	<i>Dec-21</i>
<i>eV US Micro Cap Equity Net Rank</i>			<i>Q3</i>	<i>Q3</i>	--	--	--	--	<i>Q3</i>	<i>Dec-21</i>
<b>Monarch</b>	<b>15,924,895</b>	<b>42.0</b>	<b>-16.9</b>	<b>-20.2</b>	--	--	--	--	<b>-20.2</b>	<b>Dec-21</b>
<i>Russell Microcap</i>			<i>-19.0</i>	<i>-25.1</i>	<i>-30.7</i>	<i>5.1</i>	<i>4.5</i>	<i>9.0</i>	<i>-24.7</i>	<i>Dec-21</i>
<i>eV US Micro Cap Equity Net Rank</i>			<i>Q3</i>	<i>Q2</i>	--	--	--	--	<i>Q3</i>	<i>Dec-21</i>
<b>Essex</b>	<b>14,078,187</b>	<b>37.1</b>	<b>-19.2</b>	<b>-28.7</b>	--	--	--	--	<b>-28.7</b>	<b>Dec-21</b>
<i>Russell Microcap</i>			<i>-19.0</i>	<i>-25.1</i>	<i>-30.7</i>	<i>5.1</i>	<i>4.5</i>	<i>9.0</i>	<i>-24.7</i>	<i>Dec-21</i>
<i>eV US Micro Cap Equity Net Rank</i>			<i>Q4</i>	<i>Q4</i>	--	--	--	--	<i>Q4</i>	<i>Dec-21</i>
<b>Denali</b>	<b>7,954,220</b>	<b>21.0</b>	<b>-12.9</b>	<b>-20.6</b>	--	--	--	--	<b>-20.6</b>	<b>Dec-21</b>
<i>Russell Microcap</i>			<i>-19.0</i>	<i>-25.1</i>	<i>-30.7</i>	<i>5.1</i>	<i>4.5</i>	<i>9.0</i>	<i>-24.7</i>	<i>Dec-21</i>
<i>eV US Micro Cap Equity Net Rank</i>			<i>Q1</i>	<i>Q2</i>	--	--	--	--	<i>Q3</i>	<i>Dec-21</i>

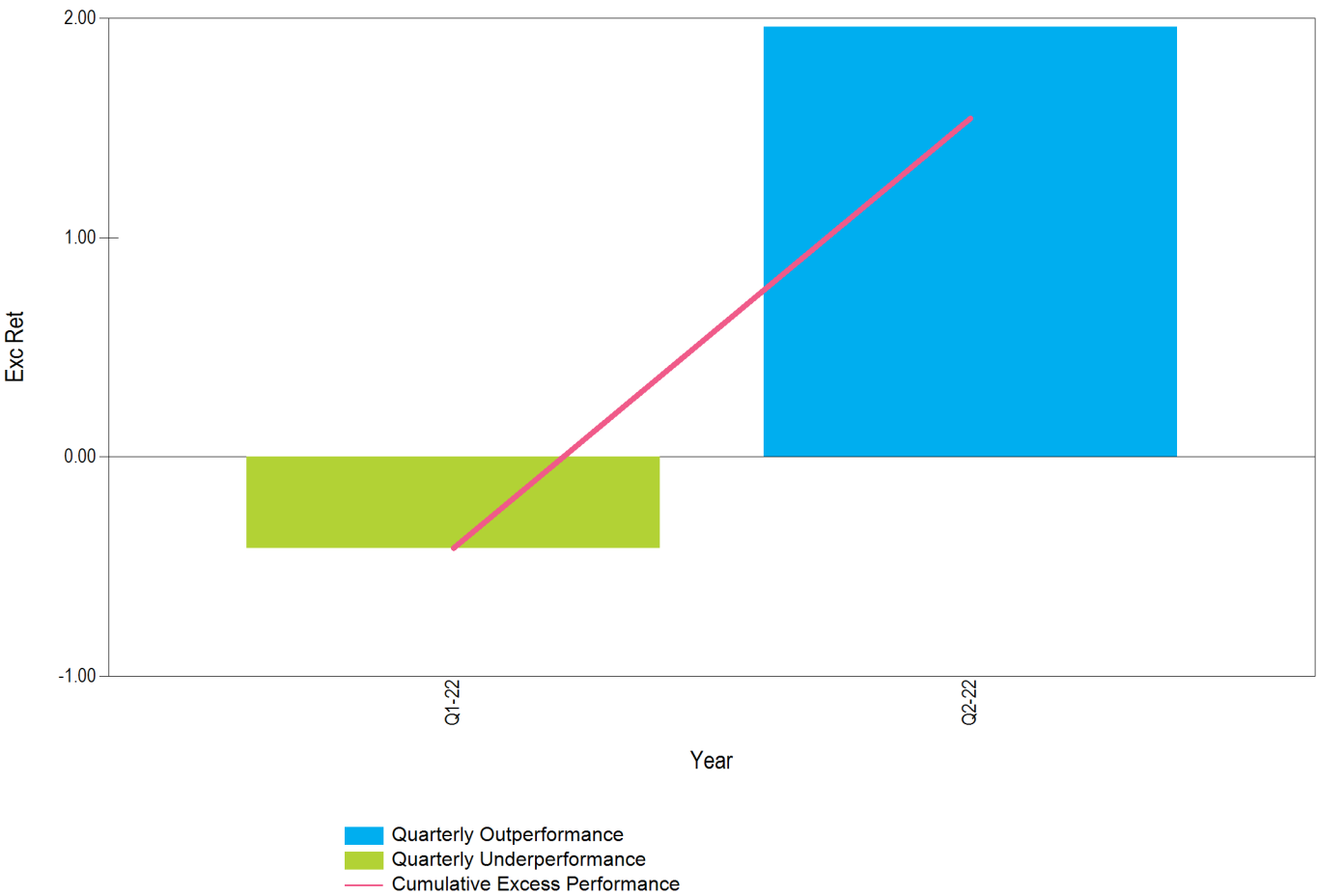
eV US Micro Cap Equity Net Return Comparison  
Ending June 30, 2022



	Return (Rank)											
	Quarter		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	-9.1		-5.4		18.4		15.3		14.0		17.5	
25th Percentile	-13.4		-12.9		11.2		9.4		10.2		12.5	
Median	-14.8		-20.3		7.6		6.2		7.1		10.6	
75th Percentile	-18.3		-29.6		5.6		4.2		6.0		9.4	
95th Percentile	-23.2		-38.4		3.1		3.0		4.3		7.6	
# of Portfolios	52		52		45		45		43		35	
● Bivium (US Equity)	-17.0	(63)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)
▲ Russell Microcap	-19.0	(78)	-30.7	(81)	5.1	(81)	4.5	(70)	4.9	(87)	9.0	(80)



Quarterly and Cumulative Excess Performance



U.S. Effective Style Map  
7 Months Ending June 30, 2022



## Leading Edge



#### Leading Edge<sup>1</sup>

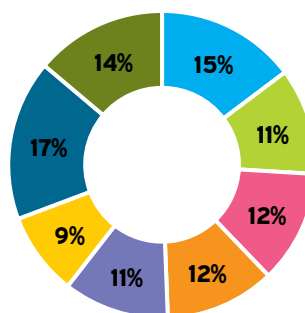
##### Manager Allocation

Manager	Market Value (\$ mm)	% of Fund
Granite	21,939,052	15%
Lisanti	16,732,233	11%
Nicholas	17,671,359	12%
Profit	17,237,282	12%
Phocas	16,560,282	11%
Redwood	13,044,830	9%
Palisades	25,141,269	17%
Villanova	20,622,624	14%
<b>Total</b>	<b>148,948,931</b>	<b>100%</b>

##### Classification By Diversity

	Number of Managers	% of Total Advisors	% of MV
Connecticut Based	0	0%	0%
Emerging Manager	2	25%	29%
African American Owned	2	25%	28%
Asian Owned	1	13%	11%
Hispanic Owned	0	0%	0%
Native American Owned	0	0%	0%
Women Owned	3	38%	32%
<b>Leading Edge</b>	<b>8</b>		

■ Granite
 ■ Lisanti
 ■ Nicholas
 ■ Profit
 ■ Phocas
 ■ Redwood
 ■ Palisades
 ■ Villanova



<sup>1</sup> Consists of 8 managers managing 8 strategies.

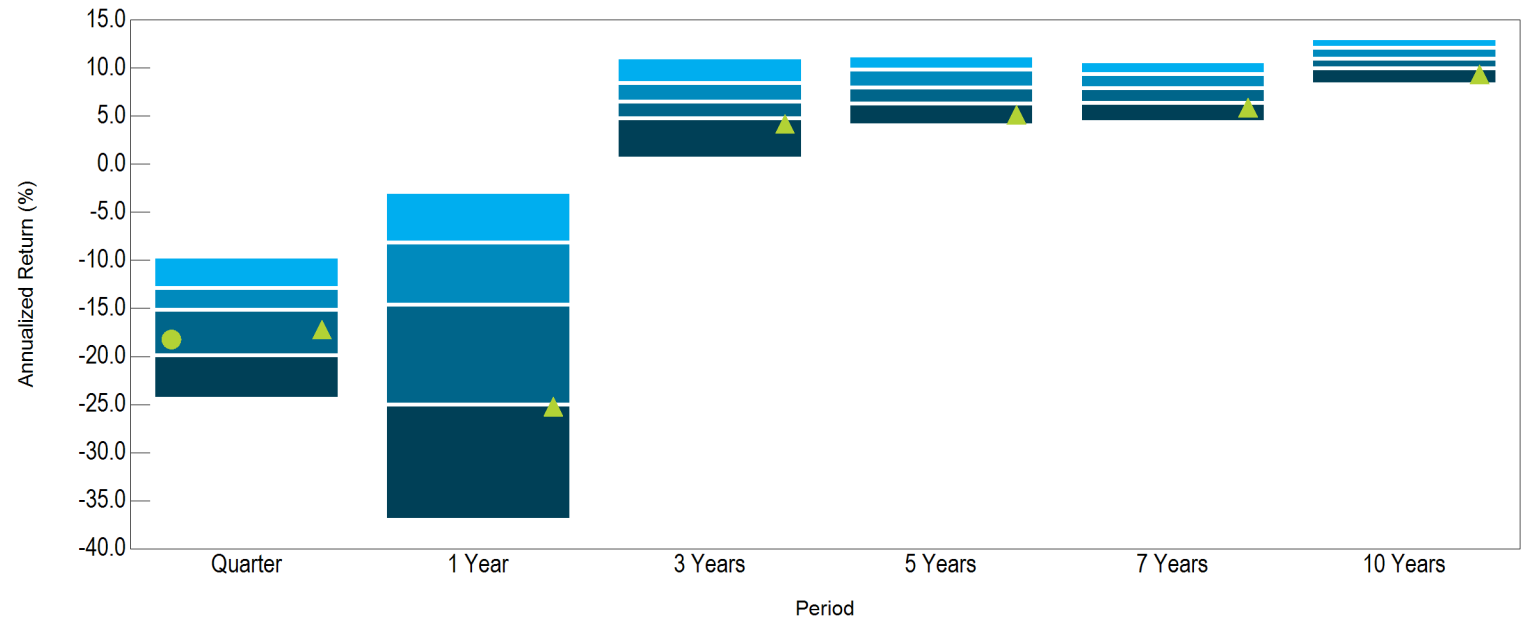
Note: Totals do not sum due to double counting of manager classifications.

	Performance Summary									
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Leading Edge (US Equity)</b>	<b>148,948,931</b>	<b>100.0</b>	<b>-18.2</b>	<b>-28.8</b>	--	--	--	--	<b>-28.8</b>	<b>Dec-21</b>
<i>Russell 2000</i>			-17.2	-23.4	-25.2	4.2	5.2	9.4	-21.7	Dec-21
<i>eV US Mid Cap Equity Net Rank</i>			Q3	Q3	--	--	--	--	Q4	Dec-21
<b>Granite Investment Partners</b>	<b>21,939,052</b>	<b>14.7</b>	<b>-17.7</b>	<b>-27.4</b>	--	--	--	--	<b>-27.4</b>	<b>Dec-21</b>
<i>Russell 2000</i>			-17.2	-23.4	-25.2	4.2	5.2	9.4	-21.7	Dec-21
<i>eV US Mid Cap Equity Net Rank</i>			Q3	Q3	--	--	--	--	Q3	Dec-21
<b>Lisanti Capital Growth</b>	<b>16,732,233</b>	<b>11.2</b>	<b>-25.2</b>	<b>-30.6</b>	--	--	--	--	<b>-30.6</b>	<b>Dec-21</b>
<i>Russell 2000 Growth</i>			-19.3	-29.5	-33.4	1.4	4.8	9.3	-29.1	Dec-21
<i>eV US Mid Cap Equity Net Rank</i>			Q4	Q4	--	--	--	--	Q4	Dec-21
<b>Nicholas Investment Partners</b>	<b>17,671,359</b>	<b>11.9</b>	<b>-22.2</b>	<b>-32.4</b>	--	--	--	--	<b>-32.4</b>	<b>Dec-21</b>
<i>Russell 2000 Growth</i>			-19.3	-29.5	-33.4	1.4	4.8	9.3	-29.1	Dec-21
<i>eV US Mid Cap Equity Net Rank</i>			Q4	Q4	--	--	--	--	Q4	Dec-21
<b>Profit Investment Management</b>	<b>17,237,282</b>	<b>11.6</b>	<b>-14.7</b>	<b>-25.0</b>	--	--	--	--	<b>-25.0</b>	<b>Dec-21</b>
<i>Russell 2000</i>			-17.2	-23.4	-25.2	4.2	5.2	9.4	-21.7	Dec-21
<i>eV US Mid Cap Equity Net Rank</i>			Q2	Q3	--	--	--	--	Q3	Dec-21
<b>Phocas Financial Corporation</b>	<b>16,560,282</b>	<b>11.1</b>	<b>-15.5</b>	<b>-17.5</b>	--	--	--	--	<b>-17.5</b>	<b>Dec-21</b>
<i>Russell 2000 Value</i>			-15.3	-17.3	-16.3	6.2	4.9	9.1	-13.9	Dec-21
<i>eV US Mid Cap Equity Net Rank</i>			Q3	Q2	--	--	--	--	Q3	Dec-21
<b>Redwood Investments</b>	<b>13,044,830</b>	<b>8.8</b>	<b>-20.3</b>	<b>-34.2</b>	--	--	--	--	<b>-34.2</b>	<b>Dec-21</b>
<i>Russell 2000 Growth</i>			-19.3	-29.5	-33.4	1.4	4.8	9.3	-29.1	Dec-21
<i>eV US Mid Cap Equity Net Rank</i>			Q4	Q4	--	--	--	--	Q4	Dec-21

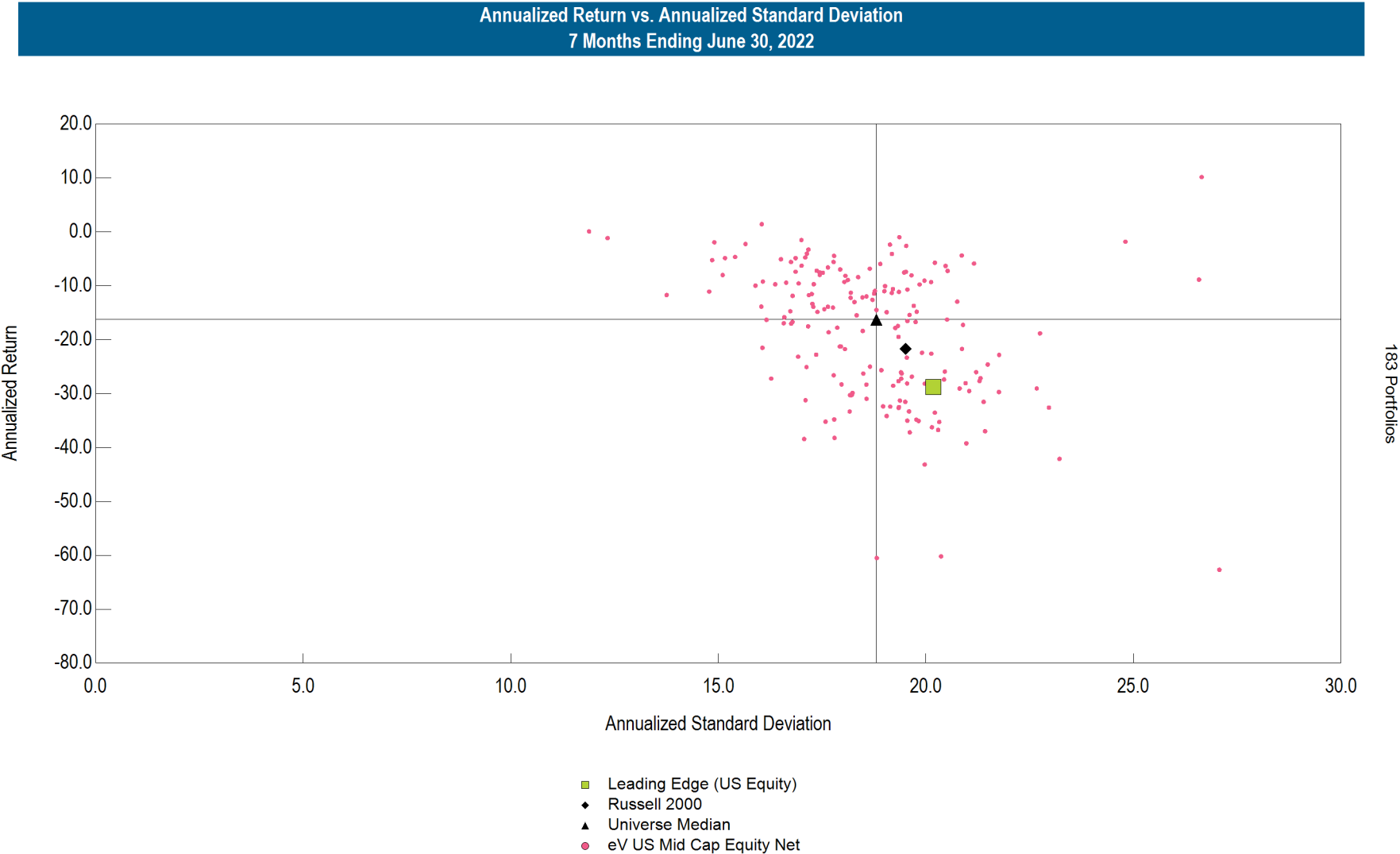
## Leading Edge (US Equity) | As of June 30, 2022

	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Palisades	25,141,269	16.9	-15.7	--	--	--	--	--	--	Jan-22
<i>Russell 2000</i>			-17.2	-23.4	-25.2	4.2	5.2	9.4	-23.4	Jan-22
<i>eV US Mid Cap Equity Net Rank</i>			Q3	--	--	--	--	--	--	Jan-22
Villanova	20,622,624	13.8	-15.5	--	--	--	--	--	--	Jan-22
<i>Russell 2000 Value</i>			-15.3	-17.3	-16.3	6.2	4.9	9.1	-17.3	Jan-22
<i>eV US Mid Cap Equity Net Rank</i>			Q3	--	--	--	--	--	--	Jan-22

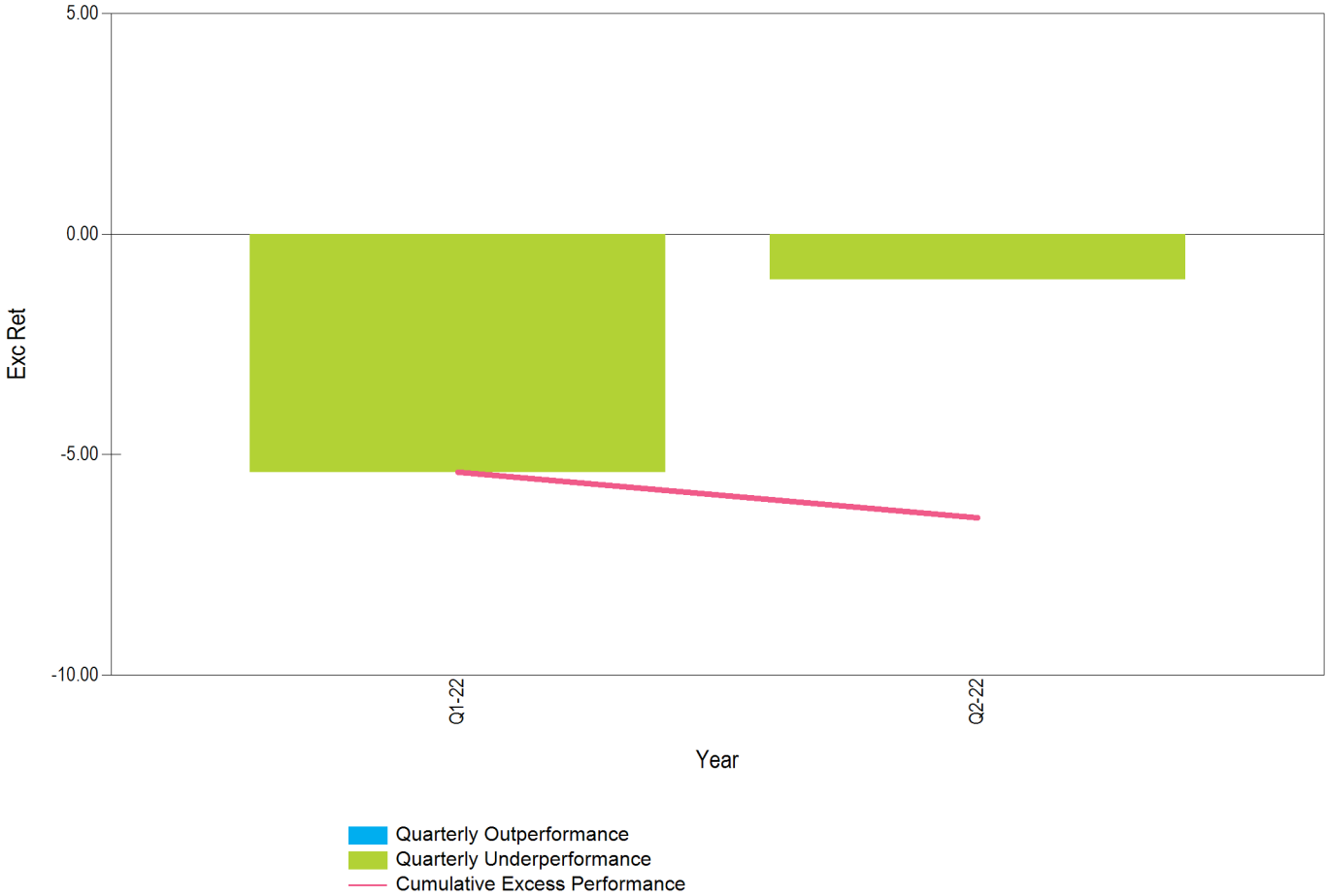
eV US Mid Cap Equity Net Return Comparison  
Ending June 30, 2022



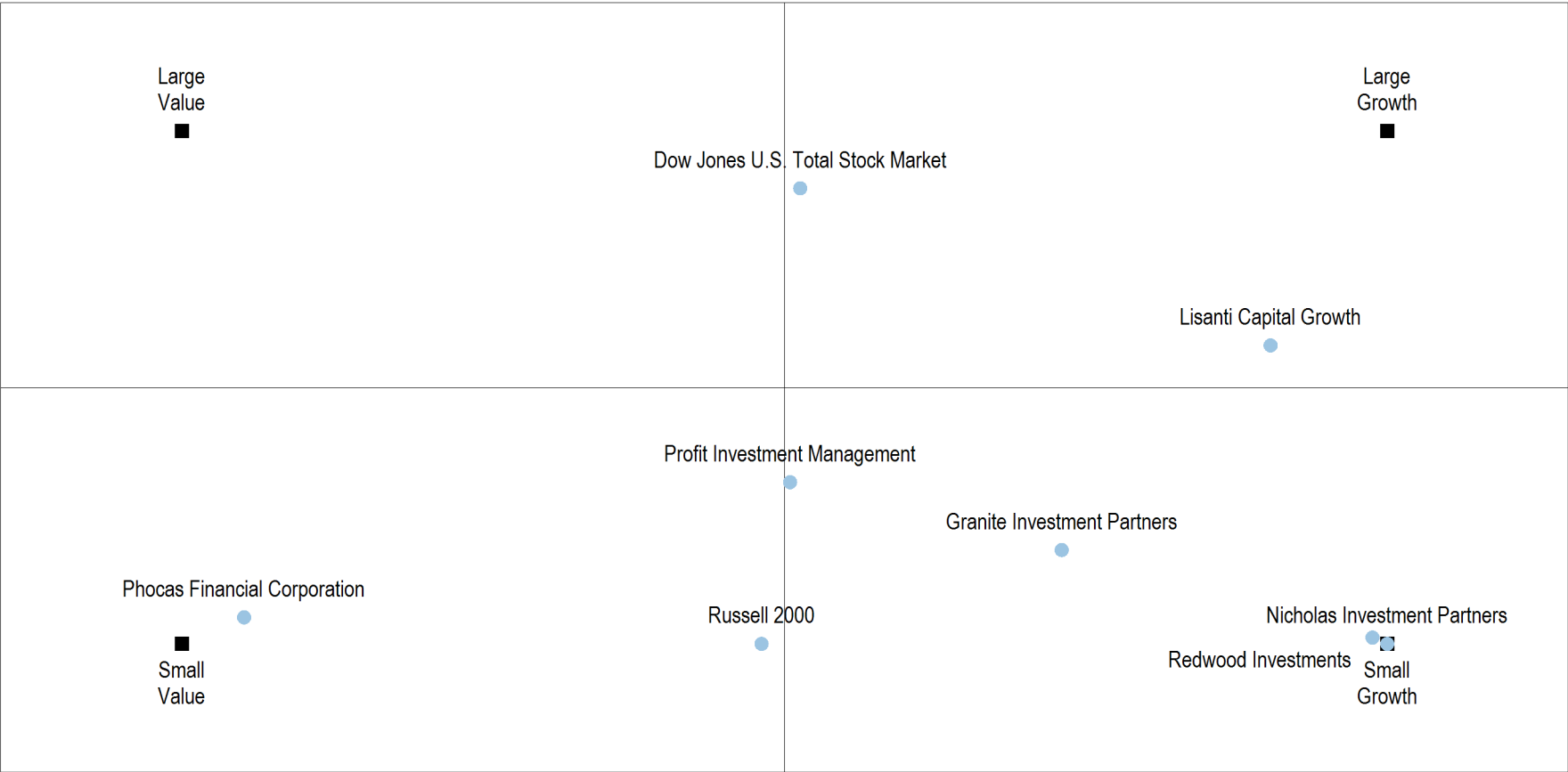
	Return (Rank)											
5th Percentile	-9.6		-2.9		11.1		11.3		10.7		13.1	
25th Percentile	-12.8		-8.1		8.5		9.9		9.5		12.2	
Median	-15.1		-14.6		6.6		8.0		8.0		11.0	
75th Percentile	-19.9		-24.9		4.8		6.4		6.5		10.0	
95th Percentile	-24.4		-37.0		0.6		4.1		4.4		8.3	
# of Portfolios	183		183		176		169		160		144	
● Leading Edge (US Equity)	-18.2	(67)	--	(--)	--	(--)	--	(--)	--	(--)	--	(--)
▲ Russell 2000	-17.2	(62)	-25.2	(76)	4.2	(79)	5.2	(90)	5.9	(82)	9.4	(85)



Quarterly and Cumulative Excess Performance



U.S. Effective Style Map  
7 Months Ending June 30, 2022



**Xponance**



#### Xponance<sup>1</sup>

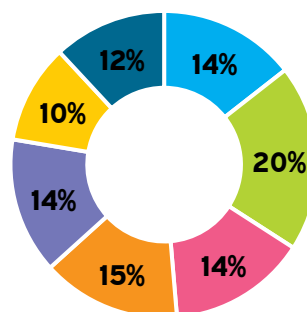
##### Manager Allocation

Manager	Market Value (\$ mm)	% of Fund
Martin	25,730,786	14%
Denali Advisors	35,037,089	20%
Redwood	25,946,555	14%
Frontier Global	26,103,191	15%
Bayard	25,538,538	14%
Channing Global	18,621,396	10%
Perpetua	21,239,214	12%
<b>Total</b>	<b>179,320,492</b>	<b>100%</b>

##### Classification By Diversity

	Number of Managers	% of Total Advisors	% of MV
Connecticut Based	0	0%	0%
Emerging Manager	7	100%	100%
African American Owned	2	29%	22%
Asian Owned	1	14%	14%
Hispanic Owned	1	14%	15%
Native American Owned	1	14%	20%
Women Owned	3	43%	41%
<b>Xponance</b>	<b>7</b>		

■ Martin ■ Denali Advisors ■ Redwood ■ Frontier Global ■ Bayard ■ Channing Global ■ Perpetua

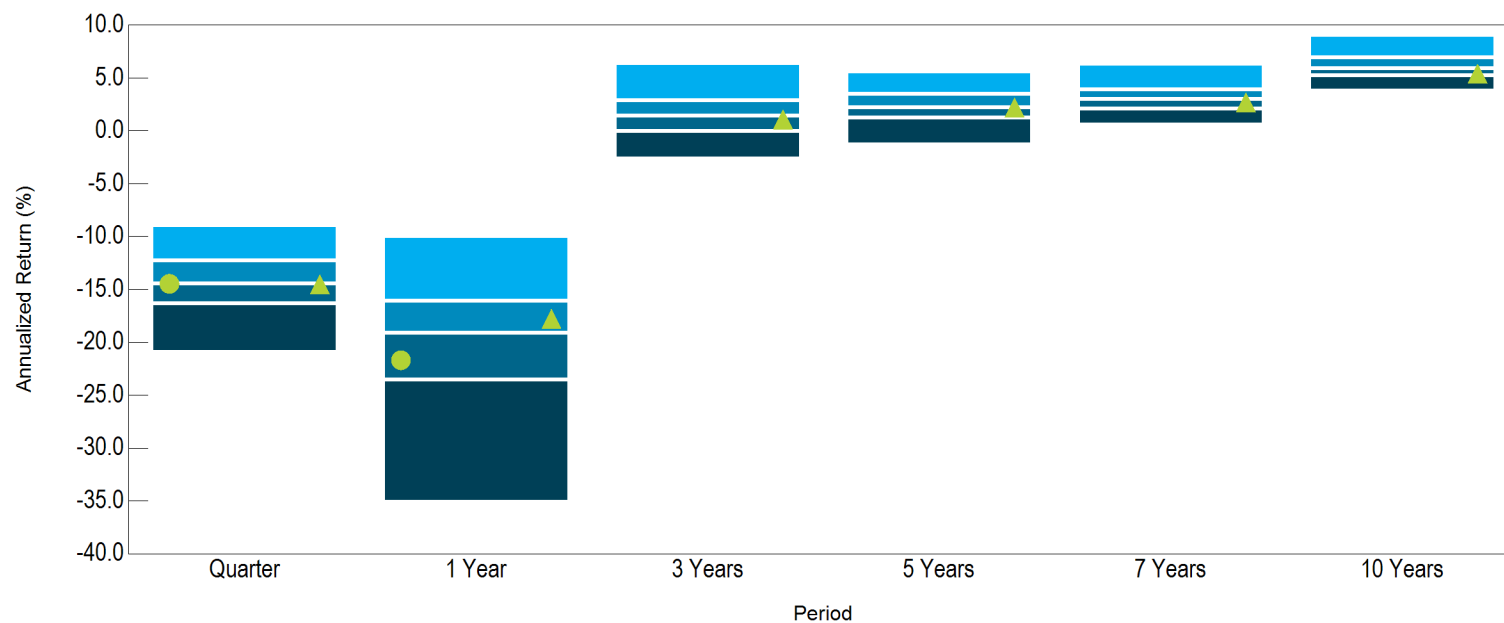


<sup>1</sup> Consists of 7 managers managing 7 strategies.

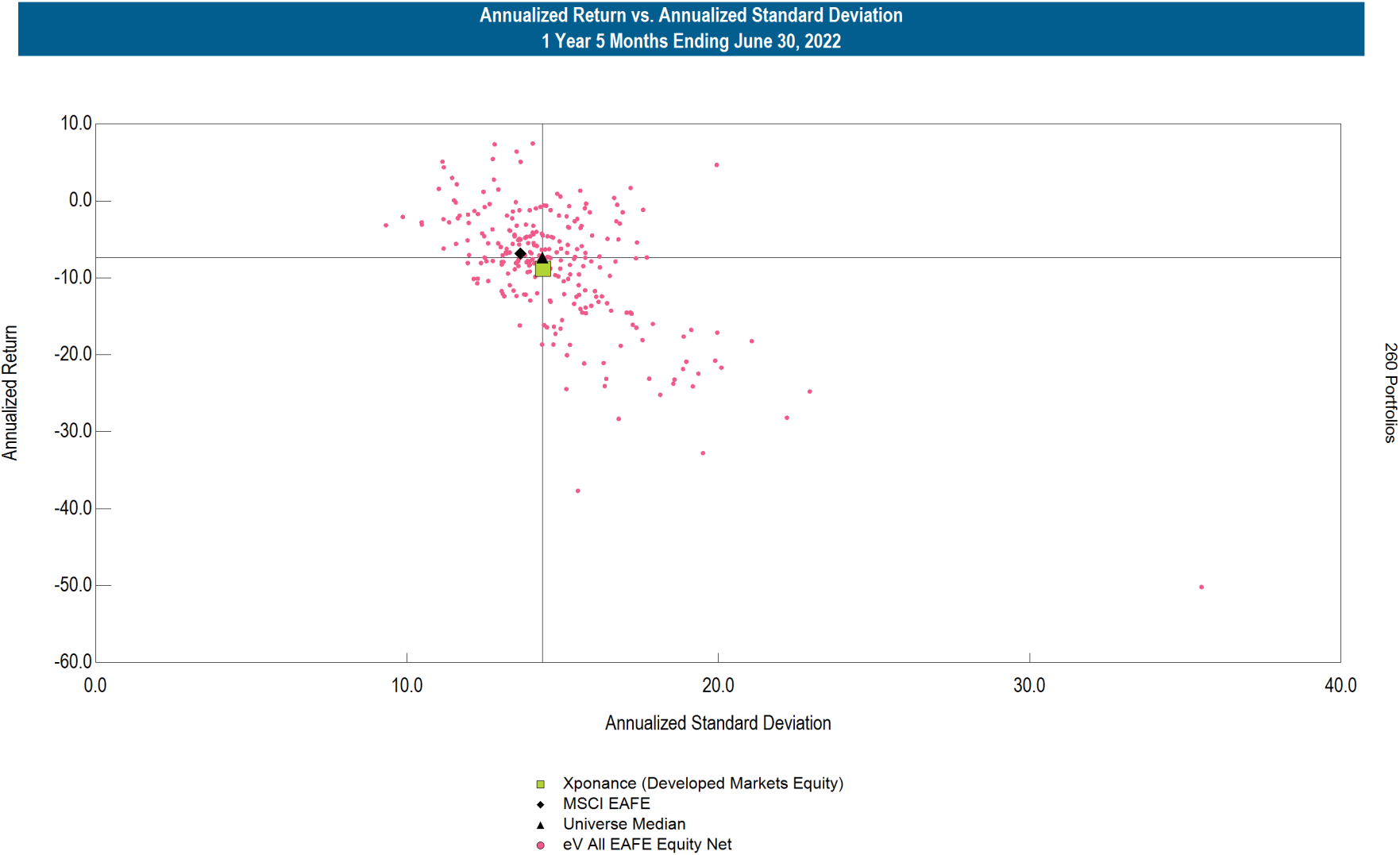
Note: Totals do not sum due to double counting of manager classifications.

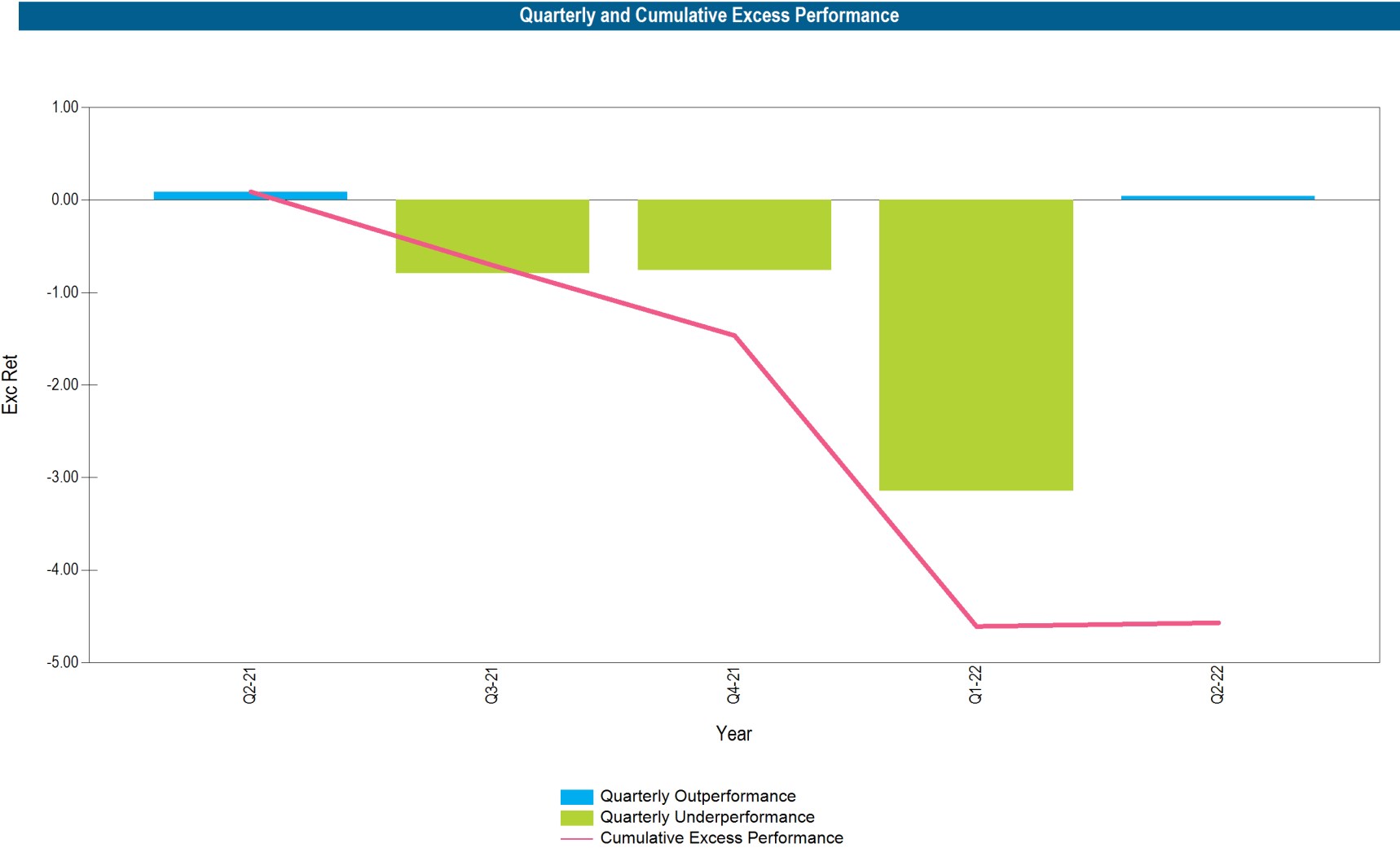
	Performance Summary									
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Xponance (Developed Markets Equity)</b>	<b>179,320,492</b>	<b>100.0</b>	<b>-14.5</b>	<b>-22.2</b>	<b>-21.7</b>	--	--	--	<b>-8.8</b>	<b>Feb-21</b>
<i>MSCI EAFE</i>			-14.5	-19.6	-17.8	1.1	2.2	5.4	-6.8	Feb-21
<i>eV All EAFE Equity Net Rank</i>			Q3	Q3	Q3	--	--	--	Q3	Feb-21
Martin	25,730,786	14.3	-14.7	-20.6	-15.7	--	--	--	-2.4	Feb-21
<i>MSCI EAFE</i>			-14.5	-19.6	-17.8	1.1	2.2	5.4	-6.8	Feb-21
<i>eV All EAFE Equity Net Rank</i>			Q3	Q3	Q1	--	--	--	Q1	Feb-21
Denali EAFE Canada	35,037,089	19.5	-15.1	-18.2	-18.2	--	--	--	-4.1	Feb-21
<i>MSCI EAFE + Canada NR USD</i>			-14.7	-18.8	-16.8	1.7	2.7	5.4	-5.4	Feb-21
<i>eV All EAFE Equity Net Rank</i>			Q3	Q2	Q2	--	--	--	Q2	Feb-21
Redwood EAFE Canada	25,946,555	14.5	-17.8	-31.6	-30.9	--	--	--	-15.4	Feb-21
<i>MSCI EAFE + Canada NR USD</i>			-14.7	-18.8	-16.8	1.7	2.7	5.4	-5.4	Feb-21
<i>eV All EAFE Equity Net Rank</i>			Q4	Q4	Q4	--	--	--	Q4	Feb-21
Frontier Global EAFE	26,103,191	14.6	-14.2	-23.1	-21.1	--	--	--	-10.2	Feb-21
<i>MSCI EAFE</i>			-14.5	-19.6	-17.8	1.1	2.2	5.4	-6.8	Feb-21
<i>eV All EAFE Equity Net Rank</i>			Q2	Q3	Q3	--	--	--	Q3	Feb-21
Bayard	25,538,538	14.2	-12.9	-16.3	-13.9	--	--	--	-2.4	Feb-21
<i>MSCI EAFE IMI Net USD</i>			-15.0	-20.4	-18.7	1.1	2.1	5.6	-7.7	Feb-21
<i>eV All EAFE Equity Net Rank</i>			Q2	Q2	Q1	--	--	--	Q1	Feb-21
Channing Global	18,621,396	10.4	-14.2	-19.6	-19.2	--	--	--	-6.5	Feb-21
<i>MSCI EAFE IMI Net USD</i>			-15.0	-20.4	-18.7	1.1	2.1	5.6	-7.7	Feb-21
<i>eV All EAFE Equity Net Rank</i>			Q2	Q2	Q3	--	--	--	Q2	Feb-21
Perpetua	21,239,214	11.8	--	--	--	--	--	--	1.7	Jun-22
<i>MSCI EAFE</i>			-14.5	-19.6	-17.8	1.1	2.2	5.4	-9.3	Jun-22
<i>eV All EAFE Equity Net Rank</i>			--	--	--	--	--	--	Q1	Jun-22

eV All EAFE Equity Net Return Comparison  
Ending June 30, 2022

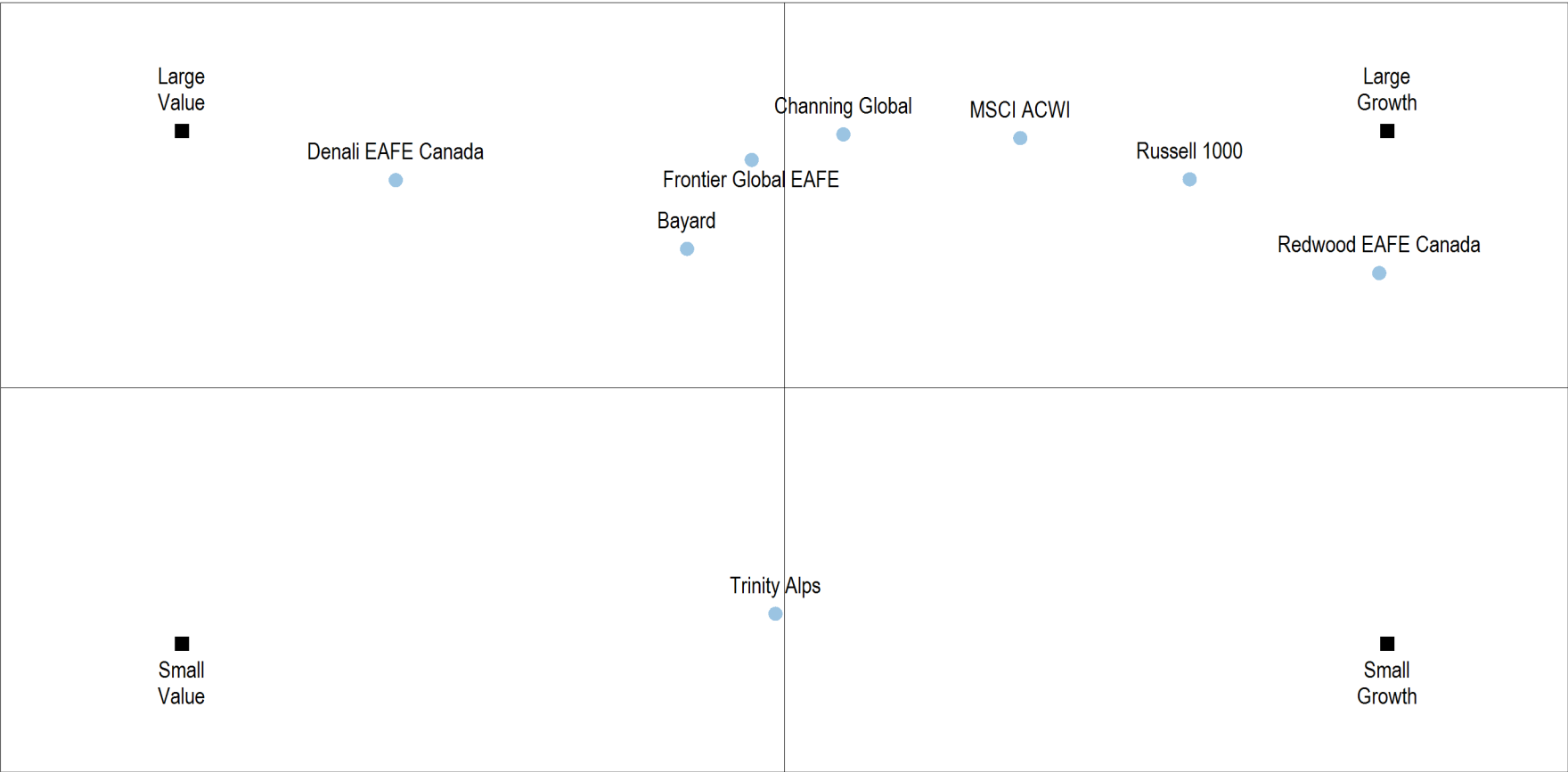


	Quarter		1 Year		3 Years		5 Years		7 Years		10 Years	
<b>Return (Rank)</b>												
5th Percentile	-8.9		-10.0		6.4		5.6		6.3		9.0	
25th Percentile	-12.2		-16.1		2.9		3.6		4.0		7.0	
Median	-14.4		-19.0		1.5		2.3		3.0		6.0	
75th Percentile	-16.3		-23.5		0.0		1.3		2.2		5.3	
95th Percentile	-20.8		-35.1		-2.6		-1.2		0.6		3.8	
# of Portfolios	263		262		246		233		202		162	
● Xponance (Developed Markets Equity)	-14.5	(52)	-21.7	(70)	--	(--)	--	(--)	--	(--)	--	(--)
▲ MSCI EAFE	-14.5	(53)	-17.8	(41)	1.1	(61)	2.2	(53)	2.7	(60)	5.4	(70)





Non U.S. Effective Style Map vs. EAFE  
1 Year 5 Months Ending June 30, 2022



**RockCreek**

#### RockCreek<sup>1</sup>

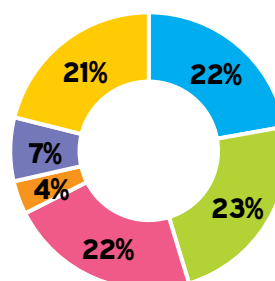
#### Manager Allocation

Manager	Market Value (\$ mm)	% of Fund
Glovista Investments	51,999,164	22%
Change Global Investments	54,101,751	23%
Nipun Capital	52,096,680	22%
Tekne Capital Management	9,157,217	4%
Marble Bar (Elephant)	17,414,976	7%
Qtron	49,422,137	21%
<b>Total</b>	<b>233,246,196</b>	<b>100%</b>

#### Classification By Diversity

	Number of Managers	% of Total Advisors	% of MV
Connecticut Based	0	0%	0%
Emerging Manager	6	100%	100%
African American Owned	0	0%	0%
Asian Owned	3	50%	47%
Hispanic Owned	1	17%	22%
Native American Owned	0	50%	53%
Women Owned	3	0%	0%
<b>RockCreek</b>	<b>6</b>		

■ **Glovista Investments**
■ **Change Global Investments**
■ **Nipun Capital**  
■ **Tekne Capital Management**
■ **Elephant (Marble Bar)**
■ **Qtron**



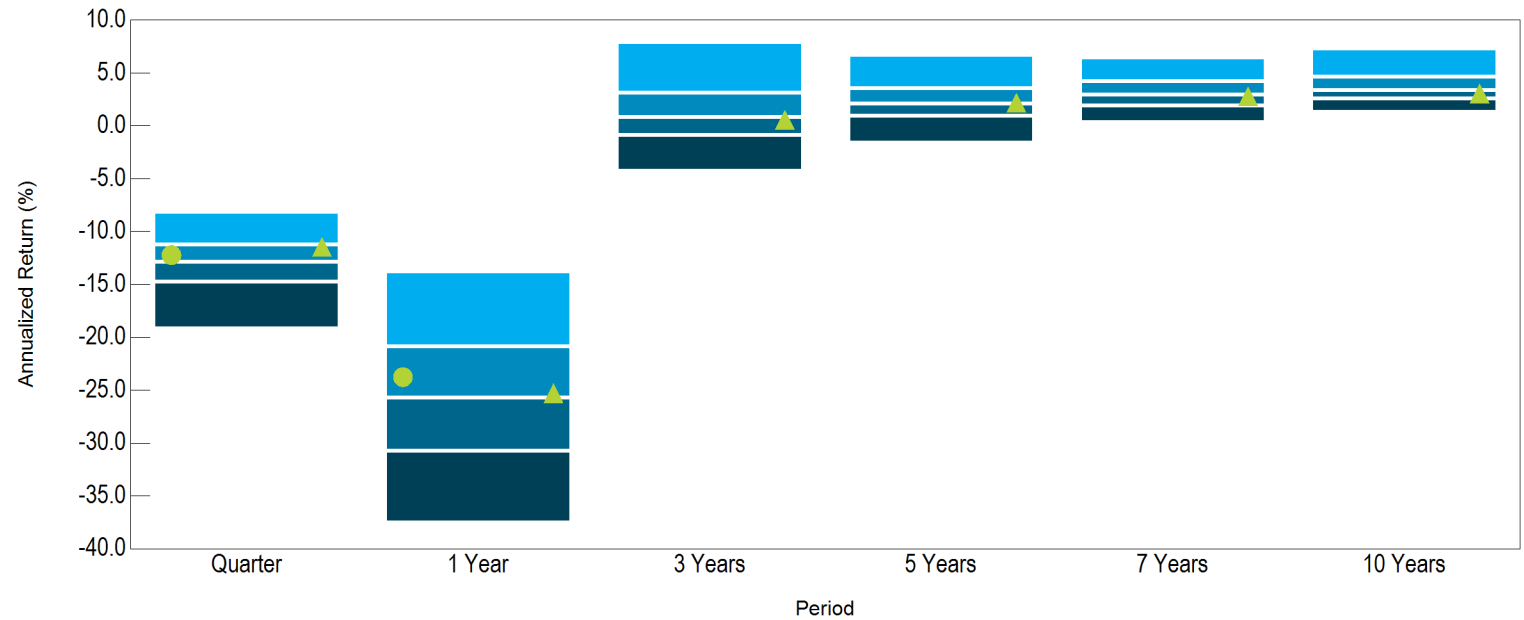
<sup>1</sup> Consists of 6 managers managing 6 strategies.

Note: Totals do not sum due to double counting of manager classifications.



Performance Summary										
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>RockCreek (Emerging Markets Equity)</b>	<b>233,246,196</b>	<b>100.0</b>	<b>-12.2</b>	<b>-16.4</b>	<b>-23.8</b>	--	--	--	<b>-18.2</b>	<b>Apr-21</b>
MSCI Emerging Markets			-11.4	-17.6	-25.3	0.6	2.2	3.1	-17.6	Apr-21
eV Emg Mkts Equity Net Rank			Q2	Q1	Q2	--	--	--	Q3	Apr-21
Glovista Investments	51,999,164	22.3	-9.7	-14.5	-24.0	--	--	--	-20.1	May-21
MSCI Emerging Markets			-11.4	-17.6	-25.3	0.6	2.2	3.1	-20.4	May-21
eV Emg Mkts Equity Net Rank			Q1	Q1	Q2	--	--	--	Q2	May-21
Change Global Investments	54,101,751	23.2	-17.4	-19.0	-16.8	--	--	--	-16.9	May-21
MSCI Emerging Markets			-11.4	-17.6	-25.3	0.6	2.2	3.1	-20.4	May-21
eV Emg Mkts Equity Net Rank			Q4	Q2	Q1	--	--	--	Q2	May-21
Nipun Capital	52,096,680	22.3	-7.7	-10.3	-12.8	--	--	--	-11.9	Jun-21
MSCI Emerging Markets			-11.4	-17.6	-25.3	0.6	2.2	3.1	-23.5	Jun-21
eV Emg Mkts Equity Net Rank			Q1	Q1	Q1	--	--	--	Q1	Jun-21
Tekne Capital Management	9,157,217	3.9	-21.1	-42.6	-64.0	--	--	--	-57.3	May-21
MSCI Emerging Markets			-11.4	-17.6	-25.3	0.6	2.2	3.1	-20.4	May-21
eV Emg Mkts Equity Net Rank			Q4	Q4	Q4	--	--	--	Q4	May-21
QTRON Investments	49,422,137	21.2	-11.2	-14.6	--	--	--	--	-17.4	Nov-21
MSCI Emerging Markets			-11.4	-17.6	-25.3	0.6	2.2	3.1	-19.5	Nov-21
eV Emg Mkts Equity Net Rank			Q2	Q1	--	--	--	--	Q2	Nov-21
Marble Bar Asset Management	17,414,976	7.5	-9.5	-12.9	--	--	--	--	-12.9	Jan-22
MSCI Emerging Markets Growth NR USD			-12.0	-21.1	-31.2	1.9	2.9	4.5	-21.1	Jan-22
eV Emg Mkts Equity Net Rank			Q1	Q1	--	--	--	--	Q1	Jan-22
Rockcreek EMISF Funding	-945,729	-0.4								

eV Emg Mkts Equity Net Return Comparison  
Ending June 30, 2022

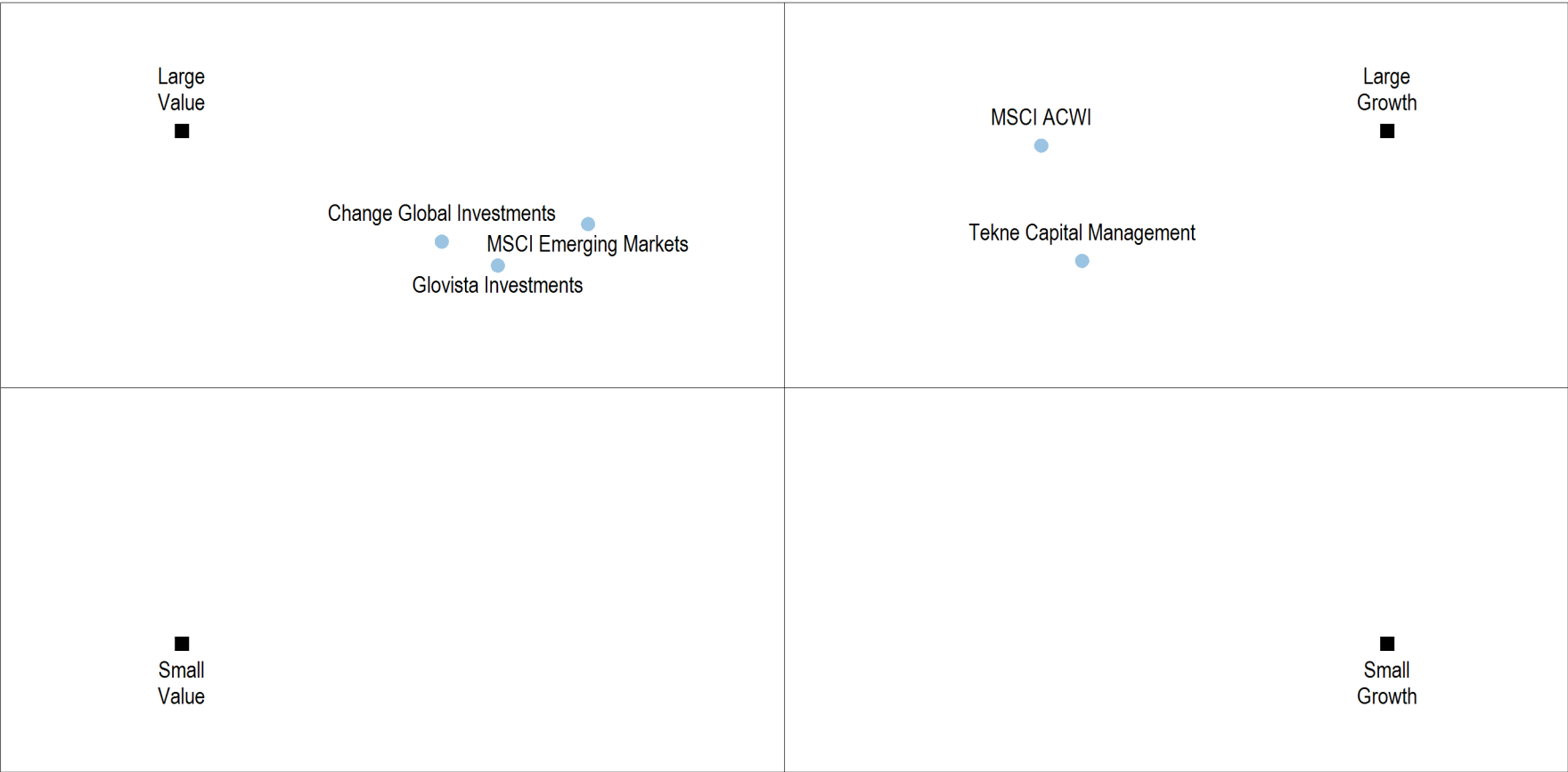


	Return (Rank)											
5th Percentile	-8.2		-13.8		7.9		6.7		6.4		7.3	
25th Percentile	-11.2		-20.8		3.2		3.6		4.3		4.7	
Median	-12.8		-25.7		0.9		2.1		3.0		3.4	
75th Percentile	-14.7		-30.7		-0.8		1.0		1.9		2.6	
95th Percentile	-19.1		-37.5		-4.2		-1.5		0.4		1.4	
# of Portfolios	258		258		239		204		179		131	
RockCreek (Emerging Markets Equity)	-12.2	(45)	-23.8	(38)	--	(--)	--	(--)	--	(--)	--	(--)
MSCI Emerging Markets	-11.4	(31)	-25.3	(48)	0.6	(58)	2.2	(50)	2.8	(57)	3.1	(61)





Non U.S. Effective Style Map vs. EAFE  
1 Year 2 Months Ending June 30, 2022



**Attucks**

#### Attucks<sup>1</sup>

##### Manager Allocation

Manager	Market Value (\$ mm)	% of Fund
Integrity	51,707,134	11%
Palmer Square	59,095,614	13%
Ramirez	52,459,289	11%
Semper	27,403,250	6%
Weaver C. Barksdale	53,172,571	11%
Strategic Income Management	67,435,666	14%
SKY Harbor	27,111,852	6%
New Century	35,578,700	8%
RVX	98,257,823	21%
<b>Total</b>	<b>471,914,188</b>	<b>100%</b>

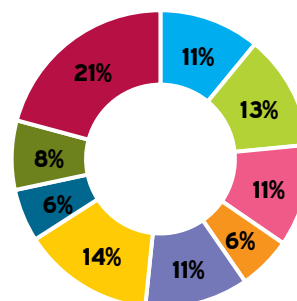
##### Classification By Diversity

	Number of Managers	% of Total Advisors	% of MV
Connecticut Based	1	11%	6%
Emerging Manager	9	100%	100%
African American Owned	1	11%	6%
Asian Owned	0	0%	0%
Hispanic Owned	2	22%	32%
Native American Owned	0	0%	0%
Women Owned	4	44%	42%
<b>Attucks</b>	<b>9</b>		

■ Integrity  
■ Semper  
■ SKY Harbor

■ Palmer Square  
■ Weaver C. Barksdale  
■ New Century

■ Ramirez  
■ Strategic Income Management  
■ RVX



<sup>1</sup> Consists of 9 managers managing 9 strategies.

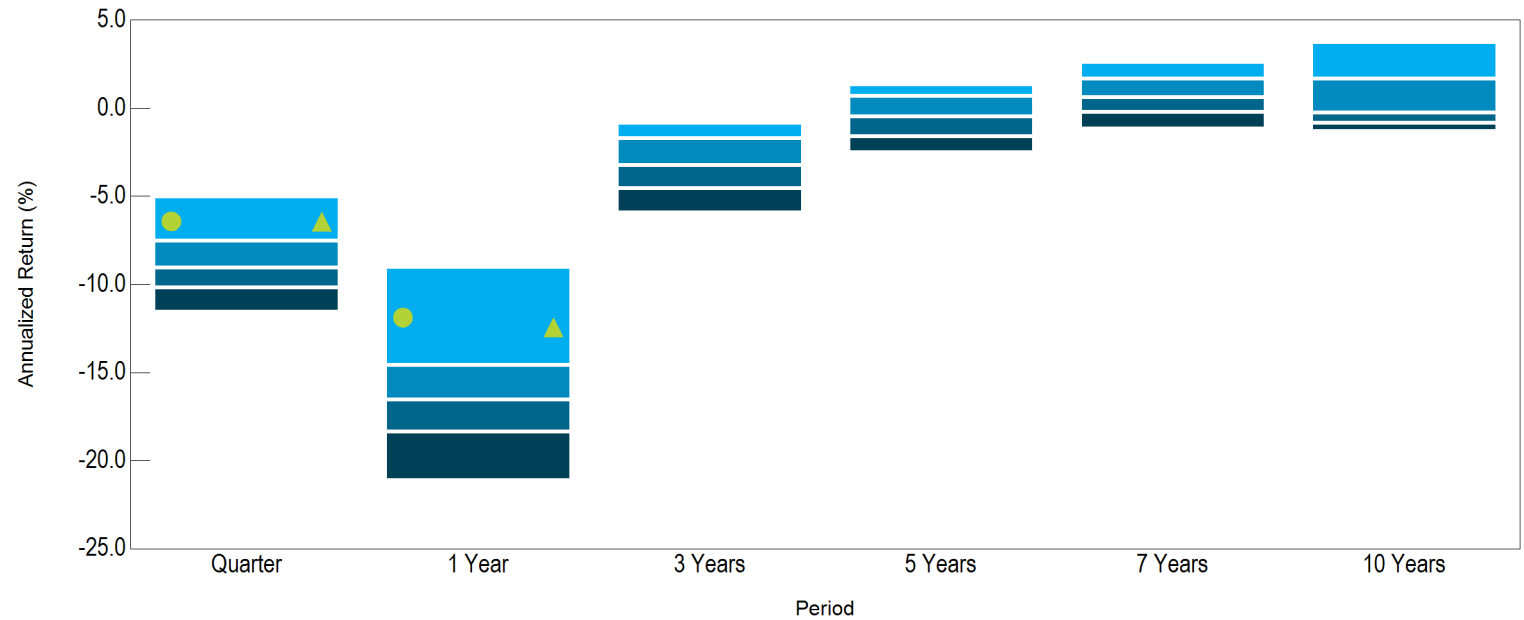
Note: Totals do not sum due to double counting of manager classifications.

	Performance Summary									
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Attucks (Global Fixed Income)</b>	<b>471,914,188</b>	<b>100.0</b>	<b>-6.4</b>	<b>-12.0</b>	<b>-11.9</b>	--	--	--	<b>-7.8</b>	<b>Feb-21</b>
<i>Ci3 Public Fixed Income Custom Index</i>			-6.4	-12.6	-12.4	--	--	--	-8.4	Feb-21
<i>eV Global Fixed Inc - All Duration Net Rank</i>			Q1	Q1	Q1	--	--	--	Q1	Feb-21
<b>Attucks Core Fixed Income</b>	<b>243,654,428</b>	<b>51.6</b>	<b>-4.8</b>	<b>-10.1</b>	<b>-9.7</b>	--	--	--	<b>-7.0</b>	<b>Feb-21</b>
<i>Bloomberg US Aggregate TR</i>			-4.7	-10.3	-10.3	-0.9	0.9	1.5	-8.0	Feb-21
Integrity	51,707,134	11.0	-6.1	-12.7	-12.5	--	--	--	-9.1	Feb-21
<i>Bloomberg US Corporate Inv Grade TR</i>			-7.3	-14.4	-14.2	-1.0	1.3	2.6	-10.2	Feb-21
<i>eV US Corporate Fixed Inc Net Rank</i>			Q1	Q1	Q1	--	--	--	Q1	Feb-21
Palmer Square	59,095,614	12.5	-2.2	-2.9	-2.4	--	--	--	-1.1	Feb-21
<i>Bloomberg US Credit 1-3 Yr TR</i>			-0.9	-3.3	-3.7	0.6	1.4	1.6	-2.5	Feb-21
<i>eV US Short Duration Fixed Inc Net Rank</i>			Q4	Q1	Q1	--	--	--	Q1	Feb-21
Ramirez	52,459,289	11.1	-6.0	-13.7	-13.2	--	--	--	-9.6	Feb-21
<i>ICE BofA US Taxable Municipal Securities Plus Index</i>			-6.3	-13.9	-13.3	-0.5	2.2	3.5	-9.4	Feb-21
<i>eV US Municipal Fixed Inc Net Rank</i>			Q4	Q4	Q4	--	--	--	Q4	Feb-21
Semper	27,403,250	5.8	-4.3	-9.0	-8.7	--	--	--	-6.1	Feb-21
<i>Bloomberg US MBS TR USD</i>			-4.0	-8.8	-9.0	-1.4	0.4	1.2	-7.0	Feb-21
<i>eV US Securitized Fixed Inc Net Rank</i>			Q4	Q4	Q3	--	--	--	Q3	Feb-21
Weaver C. Barksdale	53,172,571	11.3	-5.4	-10.9	-10.9	--	--	--	-8.1	Feb-21
<i>Bloomberg US Aggregate TR</i>			-4.7	-10.3	-10.3	-0.9	0.9	1.5	-8.0	Feb-21
<i>eV US Core Fixed Inc Net Rank</i>			Q4	Q4	Q3	--	--	--	Q3	Feb-21
Attucks FI Funding	-183,430	0.0								

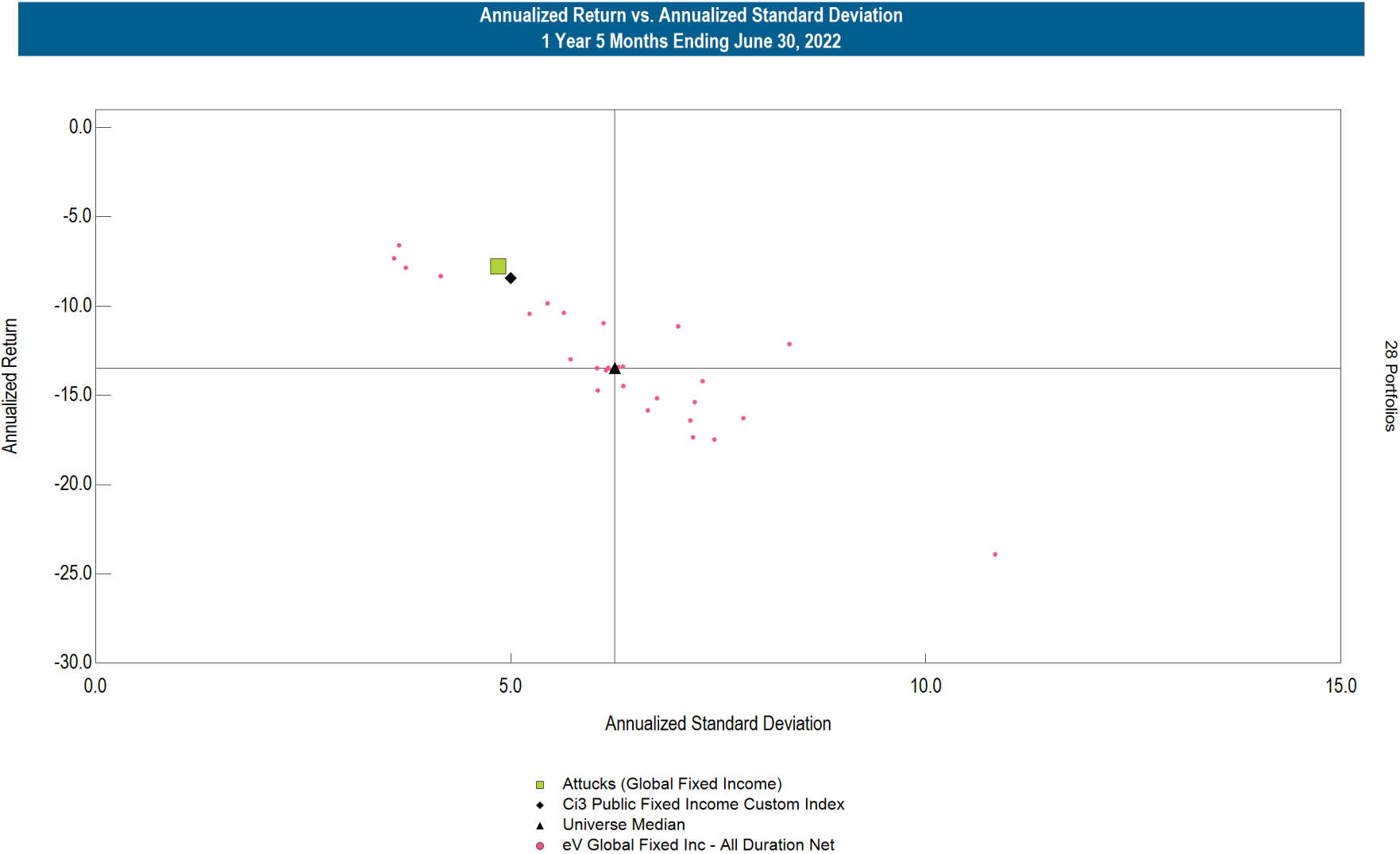


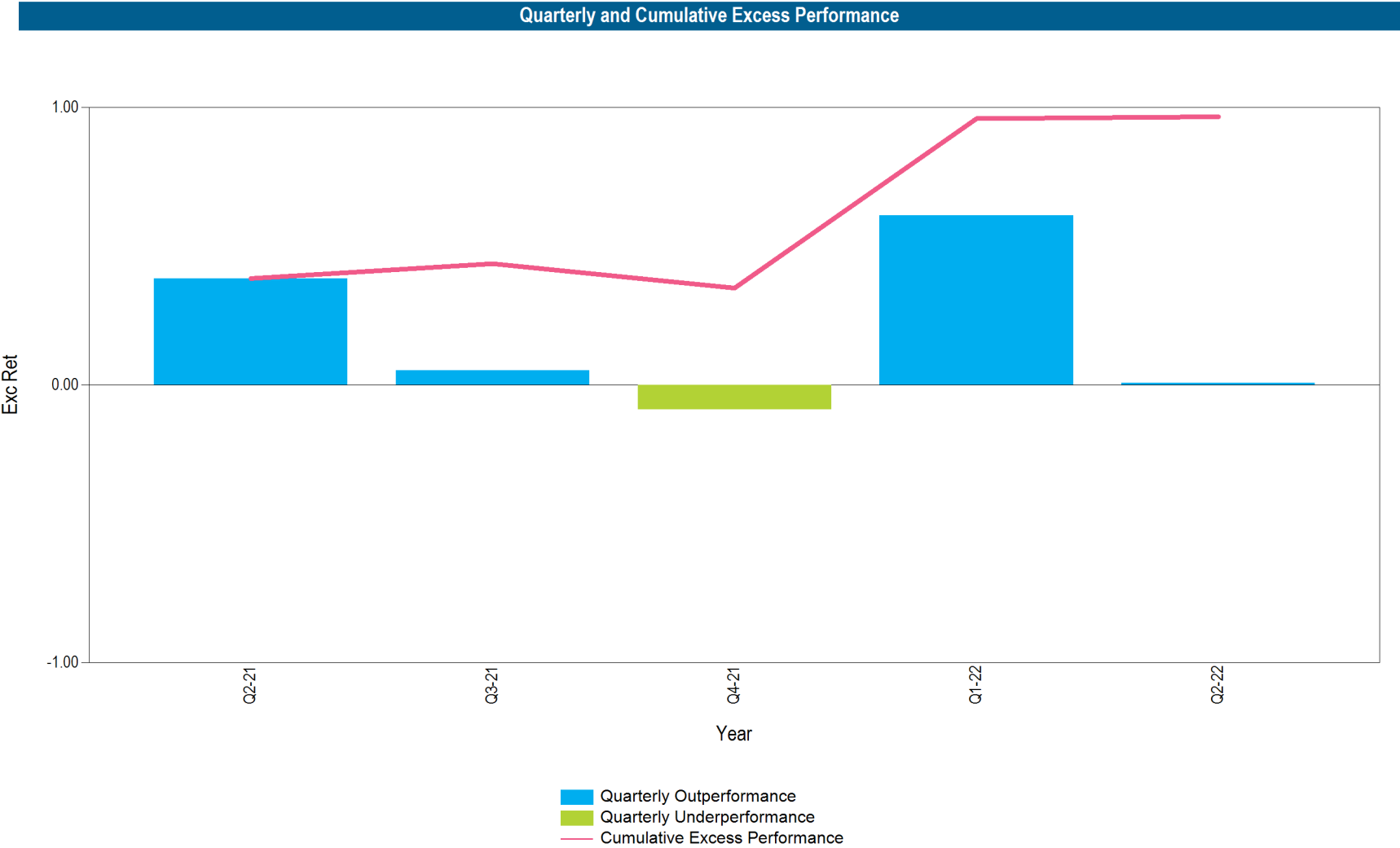
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Attucks High Yield</b>	<b>94,503,260</b>	<b>20.0</b>	<b>-8.3</b>	<b>-11.7</b>	<b>-9.9</b>	--	--	--	<b>-4.2</b>	<b>Feb-21</b>
Bloomberg US High Yield 2% Issuer Cap TR			-9.8	-14.2	-12.8	0.2	2.1	4.5	-7.1	Feb-21
Strategic Income Management	67,435,666	14.3	-7.1	-10.4	-8.5	--	--	--	-2.8	Feb-21
ICE BofA BB-B US High Yield TR			-9.5	-13.7	-12.2	0.1	2.1	4.4	-7.0	Feb-21
eV US High Yield Fixed Inc Net Rank			Q1	Q1	Q1	--	--	--	Q1	Feb-21
SKY Harbor	27,111,852	5.7	-11.1	-14.6	-12.9	--	--	--	-6.8	Feb-21
Bloomberg US High Yield 2% Issuer Cap TR			-9.8	-14.2	-12.8	0.2	2.1	4.5	-7.1	Feb-21
eV US High Yield Fixed Inc Net Rank			Q4	Q4	Q4	--	--	--	Q3	Feb-21
Attucks HY Funding	-44,258	0.0								
<b>Attucks Emerging Markets Debt</b>	<b>133,756,500</b>	<b>28.3</b>	<b>-8.0</b>	<b>-15.6</b>	<b>-16.9</b>	--	--	--	<b>-11.4</b>	<b>Feb-21</b>
Spliced 50% JPM EMBI Global Diversified / 50% GBI EM Global Diversified			-10.0	-17.5	-20.2	-5.5	-1.7	0.5	-15.3	Feb-21
New Century	35,578,700	7.5	-12.3	-19.3	-20.1	--	--	--	-14.4	Feb-21
JP Morgan EMBI Global Diversified			-11.4	-20.3	-21.2	-5.2	-1.2	2.2	-15.2	Feb-21
eV Emg Mkts Fixed Inc - Hard Currency Net Rank			Q3	Q2	Q2	--	--	--	Q2	Feb-21
RVX	98,257,823	20.8	-6.3	-14.3	-15.4	--	--	--	-9.9	Feb-21
JP Morgan CEMBI Broad Diversified TR USD			-5.6	-13.9	-14.3	-1.1	1.2	3.4	-9.4	Feb-21
eV Emg Mkts Fixed Inc - Corporate Debt Net Rank			Q1	Q2	Q2	--	--	--	Q2	Feb-21
Attucks EM Debt Funding	-80,023	0.0								

eV Global Fixed Inc - All Duration Net Return Comparison  
Ending June 30, 2022



	Return (Rank)											
5th Percentile	-5.0		-9.0		-0.9		1.4		2.6		3.7	
25th Percentile	-7.5		-14.6		-1.7		0.7		1.7		1.7	
Median	-9.0		-16.5		-3.2		-0.4		0.7		-0.2	
75th Percentile	-10.2		-18.3		-4.5		-1.6		-0.2		-0.8	
95th Percentile	-11.5		-21.1		-5.9		-2.5		-1.1		-1.3	
# of Portfolios	29		29		28		28		26		22	
● Attucks (Global Fixed Income)	-6.4	(14)	-11.9	(16)	--	(--)	--	(--)	--	(--)	--	(--)
▲ Ci3 Public Fixed Income Custom Index	-6.4	(14)	-12.4	(17)	--	(--)	--	(--)	--	(--)	--	(--)





## Private Markets

#### Private Markets<sup>1</sup>

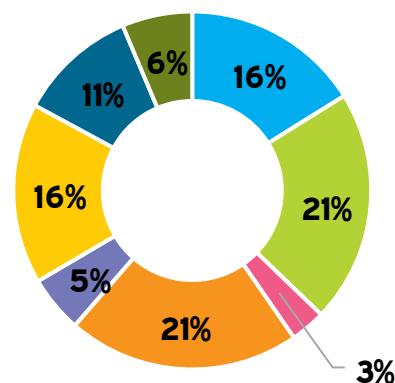
##### Manager Allocation

Manager	Market Value (\$ mm)	% of Fund
Artemis	56,679,807	16%
Basis	74,008,816	21%
Muller & Monroe	11,173,930	3%
Aldrich Capital Partners	73,844,084	21%
Avance Investment Partners	18,068,006	5%
One Rock Capital	57,440,796	16%
Stellex Capital Management	37,776,489	11%
GenNx360 Capital Partners	22,325,355	6%
<b>Total</b>	<b>351,317,282.55</b>	<b>100%</b>

##### Classification By Diversity

	Number of Managers	% of Total Advisors	% of MV
Connecticut Based	0	0%	0%
Emerging Manager	5	63%	68%
African American Owned	3	38%	48%
Asian Owned	2	25%	24%
Hispanic Owned	1	13%	3%
Native American Owned	0	0%	69%
Women Owned	5	63%	0%
<b>Total Private Markets</b>	<b>8</b>		

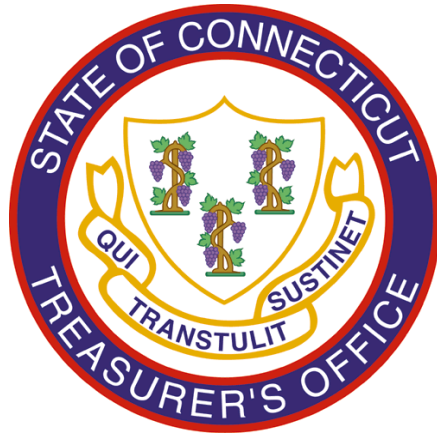
■ Artemis
 ■ Basis
 ■ M2
 ■ Aldrich
 ■ Avance
 ■ One Rock
 ■ Stellex
 ■ GenNx360



<sup>1</sup> Data as of March 31, 2022. Consists of 8 managers managing 10 strategies.  
Note: Totals do not sum due to double counting of manager classifications.

Fund <sup>1</sup>	Committed (MM)	Contributed (MM)	Unfunded (MM)	Distributed (MM)	Market Value (MM)	DPI (X)	TVPI (X)	IRR (%)
Artemis Real Estate Partners Income and Growth Fund	100.0	61.8	48.3	15.7	50.8	0.3	1.1	5.7
BIG Real Estate Fund I	65.0	81.3	9.1	43.2	51.2	0.5	1.2	9.8
BIG Real Estate Fund II	119.0	46.7	85.2	13.8	32.6	0.3	1.0	NM
M2 - Connecticut Emerging Private Equity Fund-of-Funds, L.P.	105.0	113.6	6.3	142.1	11.2	1.3	1.4	6.6
Aldrich I, L.P.	50.0	44.3	6.0	-	62.8	-	1.4	18.2
Aldrich II, L.P.	75.0	11.7	63.3	-	11.1		1.0	NM
Avance I, L.P.	100.0	21.6	81.7	3.4	18.1	0.2	1.0	NM
One Rock Capital Partners III, LP	125.0	56.7	80.9	12.8	57.3	0.2	1.2	40.6
Stellex Capital Partners II LP	100.0	29.3	70.7	-	30.3	-	1.0	5.5
GenNx360 Capital Partners II, L.P.	25.0	29.9	1.2	26.5	28.1	0.9	1.8	16.3
CT Horizon Legacy Fund, L.P.	15.0	14.0	2.5	9.1	1.5	0.7	0.8	NM
Freeman CT Horizon Investment Fund, LLC	50.0	22.5	29.1	2.2	31.1	0.1	1.5	28.4

<sup>1</sup> Data as of March 31, 2022.



# State of Connecticut Retirement Plans and Trust Funds

## Period End: June 30, 2022

### Pension Fund Management



# Teacher's Retirement Fund Performance as of June 30, 2022



## TEACHER'S RETIREMENT FUND

Net of All Fees and Expenses  
6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
Teacher's Retirement Fund					\$20,681.1	-4.63	-7.87	-7.63	-11.08	-7.63	5.35	5.79	6.15	7.28
Policy Benchmark						-3.07	-7.60	-6.02	-9.49	-6.02	5.98	6.50	6.47	7.50
Dynamic Benchmark						-3.53	-8.50	-8.11	-10.84	-8.11	5.36	6.00	6.09	N/A
<b>Domestic Equity</b>	<b>23.5%</b>	<b>20.0</b>	<b>15.0</b>	<b>25.0</b>	<b>\$4,858.3</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.41</b>	<b>10.34</b>	<b>12.48</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.9%</b>	<b>11.0</b>	<b>6.0</b>	<b>16.0</b>	<b>\$2,243.2</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.88</b>	<b>7.02</b>
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	6.90
<b>Emerging Markets ISF</b>	<b>8.1%</b>	<b>9.0</b>	<b>4.0</b>	<b>14.0</b>	<b>\$1,675.7</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.35</b>	<b>-17.71</b>	<b>-25.35</b>	<b>2.96</b>	<b>3.28</b>	<b>4.29</b>	<b>3.71</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	3.20
<b>Global Equities <sup>(4)</sup></b>	<b>42.4%</b>	<b>40.0</b>	<b>25.0</b>	<b>55.0</b>	<b>\$8,777.3</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>9.74</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	8.76
<b>Core Fixed Income</b>	<b>11.8%</b>	<b>13.0</b>	<b>8.0</b>	<b>18.0</b>	<b>\$2,441.4</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.41</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Emerging Market Debt</b>	<b>4.5%</b>	<b>5.0</b>	<b>0.0</b>	<b>10.0</b>	<b>\$925.8</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>-2.01</b>	<b>0.63</b>	<b>0.50</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	-1.70	0.47	0.54
<b>High Yield</b>	<b>5.8%</b>	<b>3.0</b>	<b>0.0</b>	<b>8.0</b>	<b>\$1,200.3</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>2.24</b>	<b>3.28</b>	<b>4.19</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	1.87	3.12	4.08
<b>Liquidity Fund</b>	<b>0.2%</b>	<b>2.0</b>	<b>0.0</b>	<b>3.0</b>	<b>\$38.0</b>	<b>0.10</b>	<b>0.21</b>	<b>0.31</b>	<b>0.24</b>	<b>0.31</b>	<b>1.09</b>	<b>1.46</b>	<b>1.28</b>	<b>0.90</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62
<b>Real Assets <sup>(1)</sup></b>	<b>16.1%</b>	<b>19.0</b>	<b>10.0</b>	<b>25.0</b>	<b>\$3,319.3</b>	<b>N/A</b>	<b>1.23</b>	<b>10.38</b>	<b>3.28</b>	<b>10.38</b>	<b>6.26</b>	<b>6.77</b>	<b>7.52</b>	<b>8.63</b>
Blended Custom Benchmark 1Q in Arrears <sup>(2)</sup>						N/A	2.62	14.83	6.29	14.83	7.90	7.45	8.04	9.06
<b>Private Investment <sup>(1)</sup></b>	<b>12.4%</b>	<b>10.0</b>	<b>5.0</b>	<b>15.0</b>	<b>\$2,563.1</b>	<b>N/A</b>	<b>3.53</b>	<b>27.30</b>	<b>6.04</b>	<b>27.30</b>	<b>24.56</b>	<b>20.86</b>	<b>17.62</b>	<b>16.26</b>
Russell 3000 + 250 basis points 1Q in Arrears <sup>(2)</sup>						N/A	-4.68	14.24	4.79	14.24	20.75	17.51	15.53	16.06
<b>Private Credit <sup>(1)</sup></b>	<b>2.7%</b>	<b>5.0</b>	<b>0.0</b>	<b>10.0</b>	<b>\$550.0</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears <sup>(2)</sup>						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.2%</b>	<b>3.0</b>	<b>0.0</b>	<b>10.0</b>	<b>\$865.7</b>	<b>-0.82</b>	<b>-0.28</b>	<b>-1.40</b>	<b>-2.00</b>	<b>-1.40</b>	<b>1.29</b>	<b>2.44</b>	<b>2.13</b>	<b>3.18</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						-0.75	-1.67	-2.14	-2.44	-2.14	1.90	2.46	1.85	1.31

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only

\*Real Assets is comprised of three sub-asset classes and targets (Real Estate 10%, Infrastructure & Natural Resources 4%, US TIPS 5%)

Source: BNY Mellon, PFM



# Plans and Trusts Performance as of June 30, 2022

Combined Investment Funds:	Percent	Allocation Targets			Market	Three Month	Calendar YTD	Twelve Month	Three Month	Calendar YTD	Twelve Month
	Holdings	Policy	Low	High	Value (mil.)	Return	Return	Return			
<b>Total CRPTF</b>	<b>100.0%</b>				<b>\$41,766</b>	<b>-7.87</b>	<b>-11.08</b>	<b>-7.63</b>			
Policy Benchmark						-7.60	-9.49	-6.02			
Dynamic Benchmark						-8.50	-10.84	-8.11			
<b>Domestic Equity Fund</b>	<b>23.4%</b>	<b>20.0</b>	<b>15.0</b>	<b>25.0</b>	<b>\$9,775</b>	<b>-16.69</b>	<b>-21.14</b>	<b>-13.97</b>			
Russell 3000						-16.70	-21.10	-13.87			
Difference						0.01	-0.04	-0.11	0.01	0.04	0.11
<b>Developed Markets Int'l Stock Fund</b>	<b>10.8%</b>	<b>11.0</b>	<b>6.0</b>	<b>16.0</b>	<b>\$4,516</b>	<b>-14.51</b>	<b>-19.93</b>	<b>-18.11</b>			
MSCI EAFE IMI Net						-15.00	-20.37	-18.75			
Difference						0.49	0.44	0.64	0.49	0.44	0.64
<b>Emerging Markets Int'l Stock Fund</b>	<b>8.1%</b>	<b>9.0</b>	<b>4.0</b>	<b>14.0</b>	<b>\$3,365</b>	<b>-11.71</b>	<b>-17.71</b>	<b>-25.35</b>			
MSCI Emerging Markets IMI						-12.10	-17.94	-24.75			
Difference						0.39	0.22	-0.60	0.39	0.22	0.60
<b>Core Fixed Income Fund</b>	<b>11.8%</b>	<b>13.0</b>	<b>8.0</b>	<b>18.0</b>	<b>\$4,943</b>	<b>-5.09</b>	<b>-10.86</b>	<b>-10.89</b>			
Barclays U.S. Aggregate Bond Index						-4.69	-10.35	-10.29			
Difference						-0.40	-0.51	-0.60	0.40	0.51	0.60
<b>Emerging Market Debt Fund</b>	<b>4.4%</b>	<b>5.0</b>	<b>0.0</b>	<b>10.0</b>	<b>\$1,854</b>	<b>-10.65</b>	<b>-17.44</b>	<b>-20.04</b>			
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						-10.03	-17.45	-20.23			
Difference						-0.61	0.02	0.19	0.61	0.02	0.19
<b>High Yield Bond Fund</b>	<b>5.7%</b>	<b>3.0</b>	<b>0.0</b>	<b>8.0</b>	<b>\$2,400</b>	<b>-9.65</b>	<b>-12.82</b>	<b>-11.44</b>			
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						-9.84	-14.19	-12.82			
Difference						0.19	1.36	1.39	0.19	1.36	1.39
<b>Liquidity Fund</b>	<b>0.7%</b>	<b>2.0</b>	<b>0.0</b>	<b>3.0</b>	<b>\$299</b>	<b>0.21</b>	<b>0.24</b>	<b>0.31</b>			
50% U.S. 3-Month T-Bill / 50% BB US Govt Treasury 1 to 3 Year Index						-0.21	-1.45	-1.68			
Difference						0.41	1.69	2.00	0.41	1.69	2.00
<b>Real Assets Fund</b>	<b>15.9%</b>	<b>19.0</b>	<b>15.0</b>	<b>25.0</b>	<b>\$6,652</b>	<b>1.23</b>	<b>3.28</b>	<b>10.38</b>			
Real Assets Custom Benchmark						2.62	6.29	14.83			
Difference						-1.38	-3.02	-4.44	1.38	3.02	4.44
<b>Private Investment Fund</b>	<b>12.3%</b>	<b>10.0</b>	<b>5.0</b>	<b>15.0</b>	<b>\$5,128</b>	<b>3.53</b>	<b>6.04</b>	<b>27.30</b>			
Russell 3000 + 250 basis points with 1Q Lag						-4.68	4.79	14.24			
Difference						8.21	1.25	13.05	8.21	1.25	13.05
<b>Private Credit Fund</b>	<b>2.7%</b>	<b>5.0</b>	<b>0.0</b>	<b>10.0</b>	<b>\$1,107</b>	<b>0.43</b>	<b>2.58</b>	<b>12.28</b>			
S&P / LSTA Leveraged Loan Index + 150 basis points with 1Q Lag						0.27	1.39	4.90			
Difference						0.16	1.19	7.38	0.16	1.19	7.38
<b>Alternative Investment Fund</b>	<b>4.1%</b>	<b>3.0</b>	<b>0.0</b>	<b>10.0</b>	<b>\$1,727</b>	<b>-0.28</b>	<b>-2.00</b>	<b>-1.40</b>			
Absolute Return Strategy blended benchmark						-1.67	-2.44	-2.14			
Difference						1.39	0.44	0.74	1.39	0.44	0.74

\*Real Assets is comprised of three sub-asset classes and targets (Real Estate 10%, Infrastructure & Natural Resources 4%, US TIPS 5%)

Source: State Street Bank, PFM

Performance is Net of All Fees and Expenses

# Plan Attribution Summary for Period Ending June 30, 2022

Attribution Summary QTD Ending June 30, 2022							
Teachers Retirement Fund (Proxy for Total)	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
<b>Total</b>	<b>-7.80 %</b>	<b>-7.60 %</b>	<b>-0.20 %</b>	<b>0.57 %</b>	<b>-0.90 %</b>	<b>0.13 %</b>	<b>-0.20 %</b>

Performance Summary 3 Months Ending June 30, 2022				
Teachers Retirement Fund (Proxy for Total)	Wtd. Fund Return	Wtd. Index Return	Excess Return	Contribution in Basis Points
Domestic Equity Fund	-16.69%	-16.70%	0.01%	-15
Developed Markets International Stock Fund	-14.51%	-15.00%	0.49%	-2
Emerging Markets International Stock Fund	-11.71%	-12.10%	0.39%	-1
Core Fixed Income Fund	-5.09%	-4.69%	-0.40%	-9
High Yield Debt Fund	-9.65%	-9.84%	0.19%	-5
Emerging Market Debt Fund	-10.65%	-10.03%	-0.61%	-2
Alternative Investment Fund	-0.28%	-1.67%	1.39%	10
Liquidity Fund	0.21%	-0.21%	0.41%	-2
Private Investment Fund	3.53%	-4.68%	8.21%	91
Real Assets Fund	1.23%	2.62%	-1.38%	-63
Private Credit Fund	0.43%	0.27%	0.17%	-21
<b>Total</b>	<b>-7.80%</b>	<b>-7.60%</b>	<b>-0.20%</b>	<b>-20</b>

\*Source: Meketa Investment Group, represents the Teachers Retirement Fund as a proxy for the total CRPTF

# Plan Attribution Summary for Period Ending June 30, 2022

Attribution Summary 1 Year Ending June 30, 2022							
Teachers Retirement Fund (Proxy for Total)	Wtd. Actual Return	Wtd. Index Return	Excess Return	Selection Effect	Allocation Effect	Interaction Effects	Total Effects
<b>Total</b>	<b>-7.59 %</b>	<b>-6.03 %</b>	<b>-1.55 %</b>	<b>0.55 %</b>	<b>-2.08 %</b>	<b>-0.02 %</b>	<b>-1.55 %</b>

Performance Summary 12 Months Ending June 30, 2022				
Teachers Retirement Fund (Proxy for Total)	Wtd. Fund Return	Wtd. Index Return	Excess Return	Contribution in Basis Points
Domestic Equity Fund	-13.97%	-13.87%	-0.11%	-20
Developed Markets International Stock Fund	-18.11%	-18.75%	0.64%	-10
Emerging Markets International Stock Fund	-25.34%	-24.75%	-0.59%	-54
Core Fixed Income Fund	-10.89%	-10.29%	-0.60%	-4
High Yield Debt Fund	-11.44%	-12.82%	1.39%	-12
Emerging Market Debt Fund	-20.04%	-20.23%	0.19%	4
Alternative Investment Fund	-1.40%	-2.14%	0.74%	5
Liquidity Fund	0.26%	-1.68%	1.95%	-2
Private Investment Fund	27.30%	14.24%	13.05%	108
Real Assets Fund	10.38%	14.82%	-4.43%	-149
Private Credit Fund	12.28%	4.80%	7.49%	-22
<b>Total</b>	<b>-7.59%</b>	<b>-6.03%</b>	<b>-1.27%</b>	<b>-155</b>

\*Source: Meketa Investment Group, represents the Teachers Retirement Fund as a proxy for the total CRPTF

# Proposed Rebalancing for Projected Excess Deposits to the State's Pension Funds- October 2022

CRPTF Composite /Asset Classes	CURRENT EXPOSURE			Excess Reserve Transfer: Approx. \$3B to Public Markets (\$'s billions)	PROPOSED REBALANCING		
	% of Total CRPTF	Ending Market Value (9/5/2022) (\$'s billions)	ACWI country allocation%		% of Total CRPTF	Impact on Asset Allocation (\$'s billions)	ACWI country allocation%
<b>TOTAL CRPTF</b>		<b>\$42.40</b>		<b>\$2.90</b>		<b>\$45.30</b>	
<b>GLOBAL EQUITY</b>	<b>43.9%</b>	<b>\$18.60</b>		<b>\$1.90</b>	<b>45.3%</b>	<b>\$20.50</b>	
DOMESTIC EQUITY	25.5%	\$10.82	58%	\$1.90	28.1%	\$12.72	62.0%
DEVELOPED MKTS EQUITY	10.5%	\$4.47	24%	\$0.40	10.7%	\$4.87	24.0%
EMERGING MKTS EQUITY	7.8%	\$3.31	18%	-\$0.40	6.4%	\$2.91	14.0%
CORE FIXED INCOME FUND	11.5%	\$4.89		\$1.00	13.0%	\$5.89	

Excess Reserve Transfer is estimated to be approximately \$2.9 billion for October 2022

- Excess reserve of approx. \$3B transferred to CRPTF in October 2022
- Rebalance Global Equities (benchmark: MSCI All Country World Index)
  - Domestic Equity (increase from 58% to 62% of ACWI)
  - Developed Markets Equity (remains same at 24%)
  - Emerging Markets Equity (reduced from 18% to 14%)
  - Core Fixed Income allocation to align to long-term target allocation



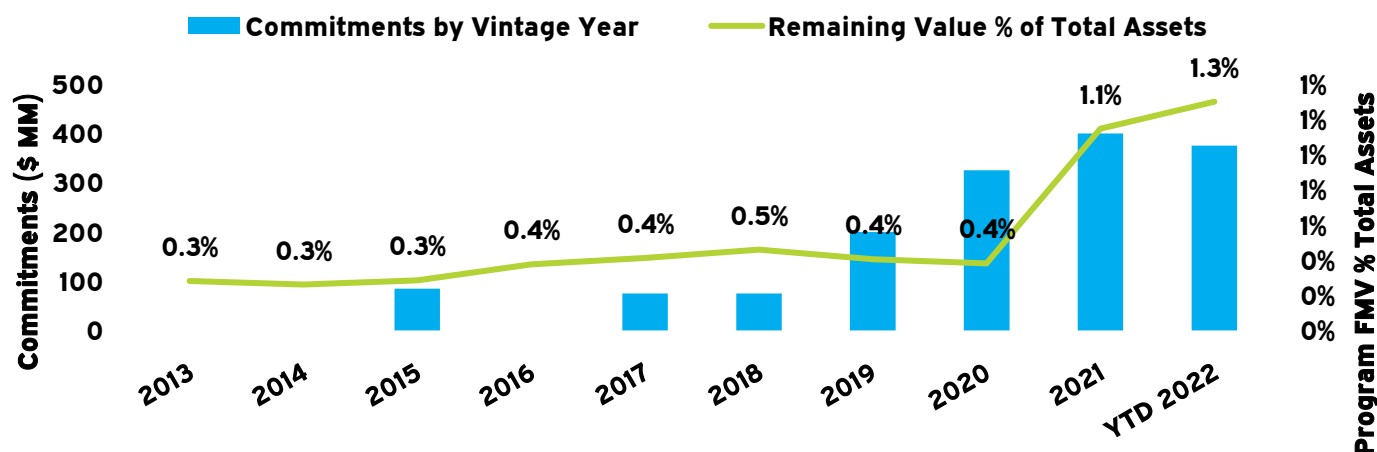
INVESTMENT GROUP

# State of Connecticut Retirement Plans and Trust Funds First Quarter 2022

Real Assets Program

### Introduction

CRPTF made its first commitment to a real assets fund in 2011, and has since made eleven additional commitments over the next ten years, totaling over \$1.2 billion in capital. In early 2020 the CRPTF approved a target allocation of 4.2% to the Real Assets Program in addition to a maximum exposure limitation of 5.25% of total plan assets which remains in existence.



### Program Status

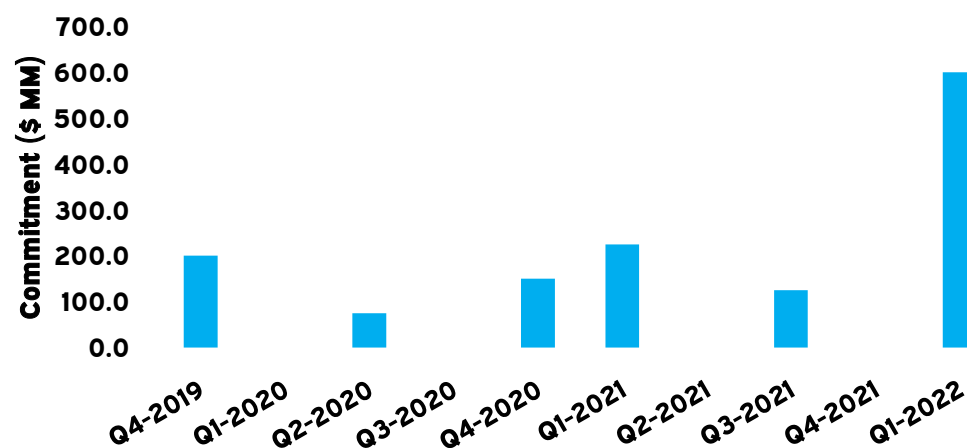
No. of Investments	15
Committed (\$M)	1,635.0
Contributed (\$M)	782.4
Distributed (\$M)	179.0
Remaining Value (\$M)	663.7

### Performance Since Inception

	Program
DPI	0.23x
TVPI	1.08x
IRR	4.6%

### Commitments

### Recent Quarterly Commitments



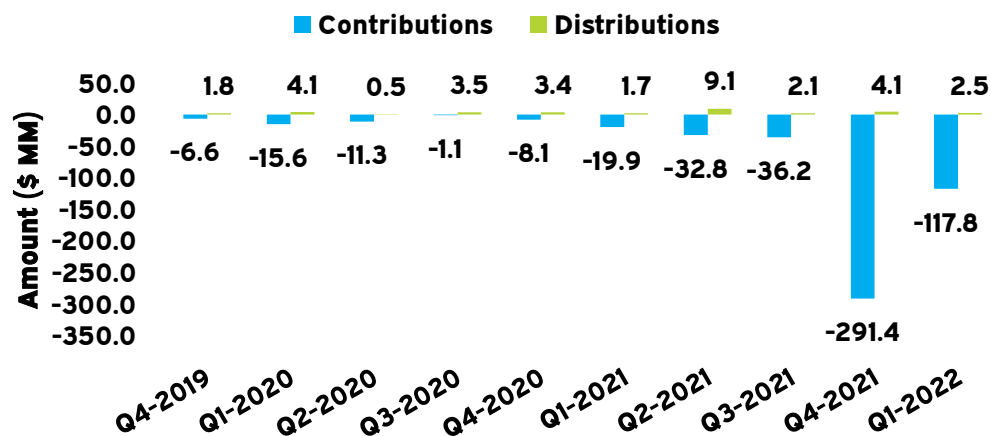
### Commitments This Quarter

Fund	Strategy	Region	Amount (MM)
Climate Adaptive IS	Infrastructure	North America	125.00
Tiger IS III	Infrastructure	Global: All	100.00
MSIM CTRA	Infrastructure	Global: All	150.00



### Cash Flows

#### Recent Quarterly Cash Flows



#### Largest Contributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$M)
Global IS IV	2019	Infrastructure	Global: Developed	69.85
Climate Adaptive IS	2021	Infrastructure	North America	13.37
Grain Comm III	2021	Infrastructure	North America	10.55

#### Largest Distributions This Quarter

Fund	Vintage	Strategy	Region	Amount (\$M)
EIG Energy XV	2010	Natural Resources	Global: All	1.67
Homestead III	2018	Natural Resources	North America	0.50
Stonepeak IS IV	2020	Infrastructure	North America	0.35

## Significant Events

- During the first quarter of 2022, Global Infrastructure Partners IV completed five new acquisitions, including Suez (water & waste), Pluto Train 2 (liquefied natural gas), Peel Ports (transport), Sydney Airport (airports), and CyrusOne (digital), which represent the significant capital contributions for the quarter. GIP IV also signed definitive agreements with wpd AG in March 2022 to acquire 100% of wpd offshore, an offshore wind company based in Germany, which is expected to close in the third quarter of 2022.
- On March 31, 2022, Grain Communications Opportunity Fund III acquired LightRiver, a premier optical network integration solutions provider to the telecommunications, utilities, data center, and cloud industries. The commitment to LightRiver totals \$82.7 million. Capital contributions for the quarter do not include funds for this investment, but pertain to follow-on investments to Y-COM and the final auction payment of NewLevel III 3.45GHz spectrum in addition to other expenses.
- During the first quarter, Homestead Capital USA Farmland Fund III made three new acquisitions including Project White Quincy III in Washington (apple/cherry orchards), Project Yellow Napa III in California (vineyards), and Project Maroon Shaw III in Mississippi (rice, corn, soybeans, and cotton). Fund III's portfolio also continued to increase in value as a result of surging commodity prices, stressed supply chains, and other geopolitical risk factors, resulting in a net change in value percentage of 8.0% for the quarter.
- In the first quarter, Stonepeak Infrastructure Fund IV made one new investment in Rinchem Company Inc., a specialty warehousing and logistics company with a global network of chemical and gas logistics capabilities, resulting in a \$5.2 million capital call for the State of Connecticut on March 15, 2022.
- In February 2022, BlackRock Global Renewable Power Fund III made a \$50 million investment for a 15% equity stake in Revel Transit, an integrated electric-mobility and EV charging infrastructure company.

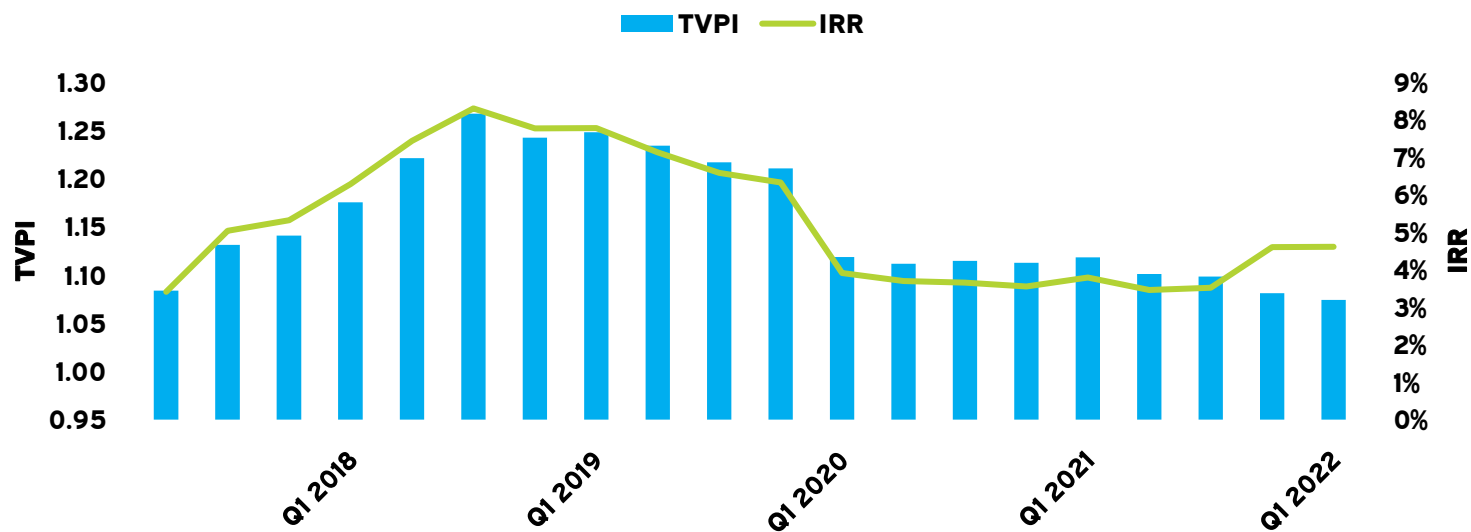
### By Strategy

Group	Number	Committed (\$M)	Contributed (\$M)	Unfunded (\$M)	Distributed (\$M)	Remaining Value (\$M)	Exposure (\$M)	DPI (X)	TVPI (X)	IRR (%)
Infrastructure	13	1,500.0	671.8	843.2	115.7	605.7	1,448.9	0.17	1.07	5.2
Natural Resources	2	135.0	110.6	28.0	63.2	58.0	86.0	0.57	1.10	3.1
<b>Total</b>	<b>15</b>	<b>1635.0</b>	<b>782.4</b>	<b>871.2</b>	<b>179.0</b>	<b>663.7</b>	<b>1535.0</b>	<b>0.23</b>	<b>1.08</b>	<b>4.6</b>

### By Vintage

Group	Number	Committed (\$M)	Contributed (\$M)	Unfunded (\$M)	Distributed (\$M)	Remaining Value (\$M)	Exposure (\$M)	DPI (X)	TVPI (X)	IRR (%)
Open-end	1	200.0	200.0	0.0	0.0	209.3	209.3	0.00	1.05	NM
2010	1	60.0	63.1	0.0	60.6	9.8	9.8	0.96	1.11	2.4
2011	1	65.0	65.9	0.0	70.3	15.9	15.9	1.07	1.31	7.2
2015	1	85.0	86.1	0.0	38.0	57.0	57.0	0.44	1.10	2.4
2017	1	75.0	62.6	18.5	6.8	77.1	95.6	0.11	1.34	14.7
2018	1	75.0	47.5	28.0	2.7	48.3	76.3	0.06	1.07	NM
2019	1	200.0	111.0	94.7	0.0	114.8	209.5	0.00	1.03	8.2
2020	3	325.0	53.8	271.5	0.7	52.6	324.0	0.01	0.99	NM
2021	4	400.0	92.4	308.5	0.0	79.0	387.6	0.00	0.86	NM
2022	1	150.0	0.0	150.0	0.0	0.0	150.0	0.00	NM	NM
<b>Total</b>	<b>15</b>	<b>1635.0</b>	<b>782.4</b>	<b>871.2</b>	<b>179.0</b>	<b>663.7</b>	<b>1535.0</b>	<b>0.23</b>	<b>1.08</b>	<b>4.6</b>

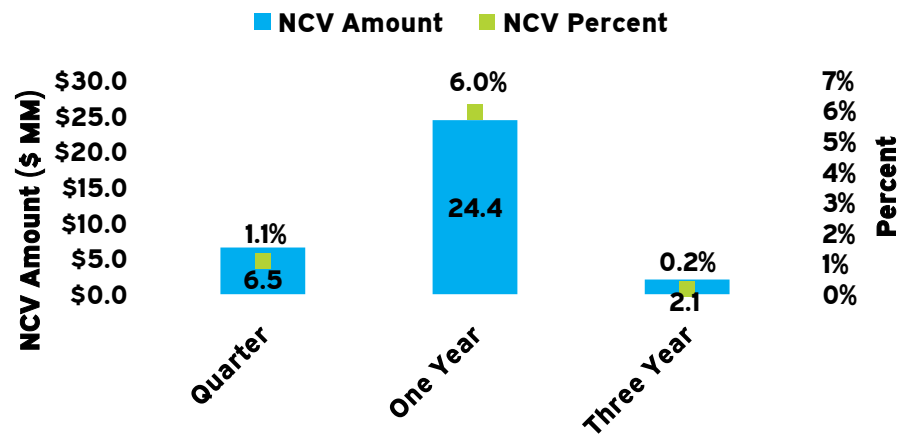
#### Since Inception Performance Over Time



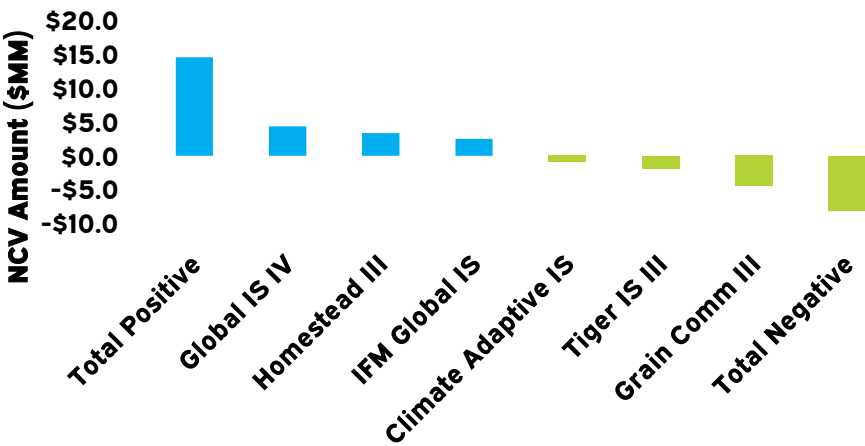
#### Horizon IRRs

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	7.6	0.3	5.3	2.7	4.6
Public Market Equivalent	32.5	16.7	15.1	9.1	10.0

Periodic NCV



1 Quarter Drivers Of NCV

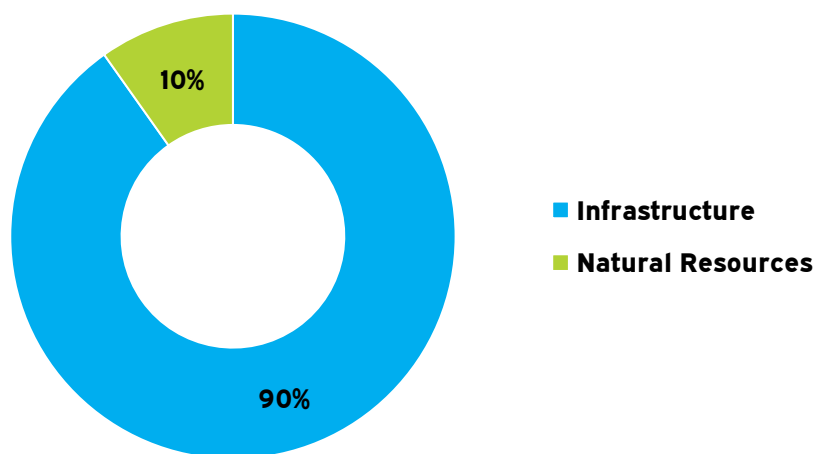


### Fund Performance: Sorted By Vintage And Strategy

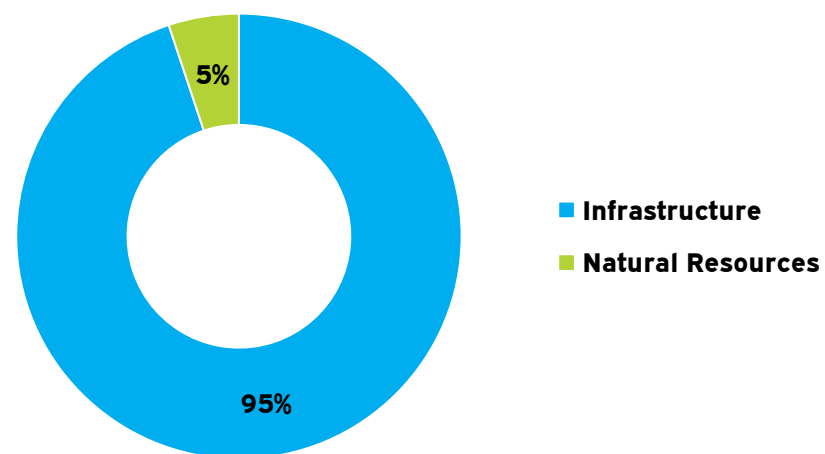
By Investment	Vintage	Strategy	Committed (\$M)	Contributed (\$M)	Unfunded (\$M)	Distributed (\$M)	Remaining Value (\$M)	TVPI (X)	Peer TVPI (X)	IRR (%)	Peer IRR (%)
IFM Global IS	Open-end	Infrastructure	200.0	200.0	0.0	0.0	209.3	1.05	NM	NM	NM
ElG Energy XV	2010	Natural Resources	60.0	63.1	0.0	60.6	9.8	1.11	1.00	2.4	1.1
ArcLight V	2011	Infrastructure	65.0	65.9	0.0	70.3	15.9	1.31	NM	7.2	NM
ArcLight VI	2015	Infrastructure	85.0	86.1	0.0	38.0	57.0	1.10	1.43	2.4	11.2
ISQ IS II	2017	Infrastructure	75.0	62.6	18.5	6.8	77.1	1.34	1.21	14.7	9.0
Homestead III	2018	Natural Resources	75.0	47.5	28.0	2.7	48.3	1.07	1.28	NM	13.8
Global IS IV	2019	Infrastructure	200.0	111.0	94.7	0.0	114.8	1.03	1.10	8.2	20.0
BlackRock GRPIF III	2020	Infrastructure	100.0	20.4	79.9	0.0	19.2	0.94	NM	NM	NM
Stonepeak IS IV	2020	Infrastructure	125.0	33.4	91.6	0.7	35.1	1.07	NM	NM	NM
Tiger IS III	2020	Infrastructure	100.0	0.0	100.0	0.0	NM	NM	NM	NM	NM
Climate Adaptive IS	2021	Infrastructure	125.0	13.4	112.6	0.0	12.5	0.93	NM	NM	NM
GCOF III Co-Invest	2021	Infrastructure	50.0	29.5	20.5	0.0	27.0	0.92	NM	NM	NM
Grain Comm III	2021	Infrastructure	75.0	37.7	37.3	0.0	29.8	0.79	NM	NM	NM
ISQ IS III	2021	Infrastructure	150.0	11.8	138.2	0.0	9.8	0.83	NM	NM	NM
MSIM CTRA	2022	Infrastructure	150.0	0.0	150.0	0.0	0.0	NM	NM	NM	NM
<b>Total</b>			<b>1,635.0</b>	<b>782.4</b>	<b>871.2</b>	<b>179.0</b>	<b>663.7</b>	<b>1.08</b>		<b>4.6</b>	

#### By Strategy

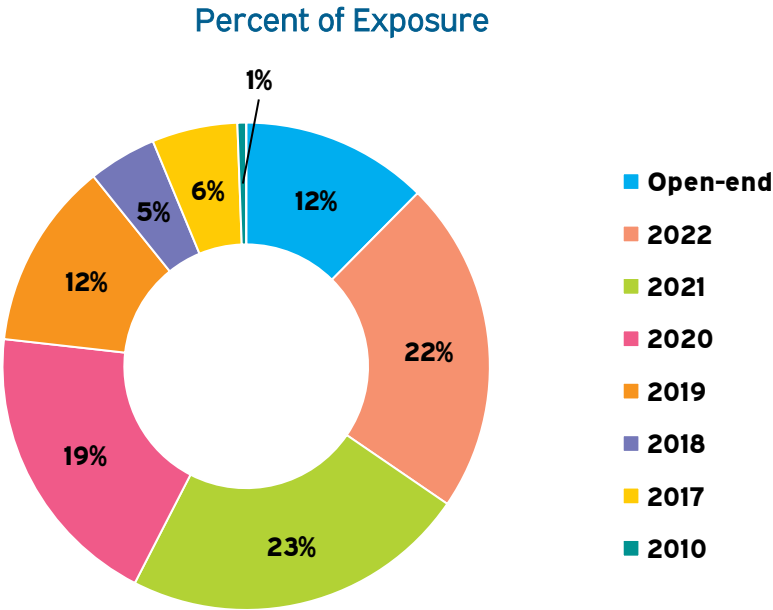
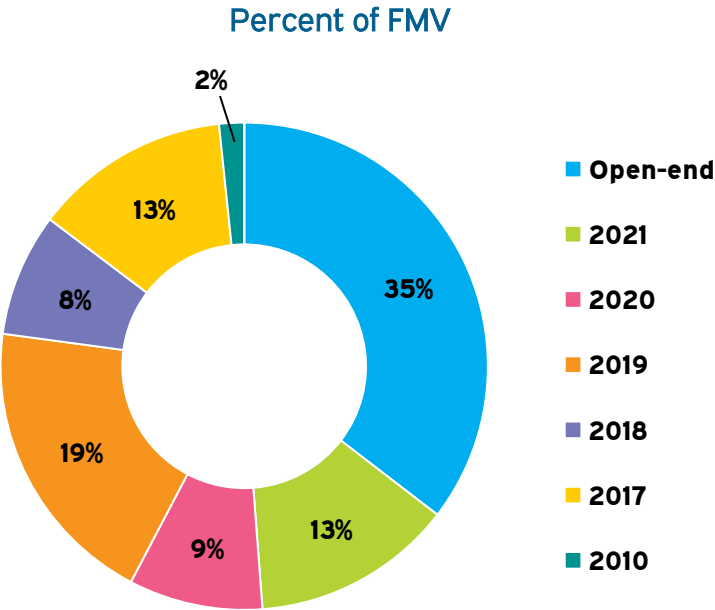
Percent of FMV



Percent of Exposure



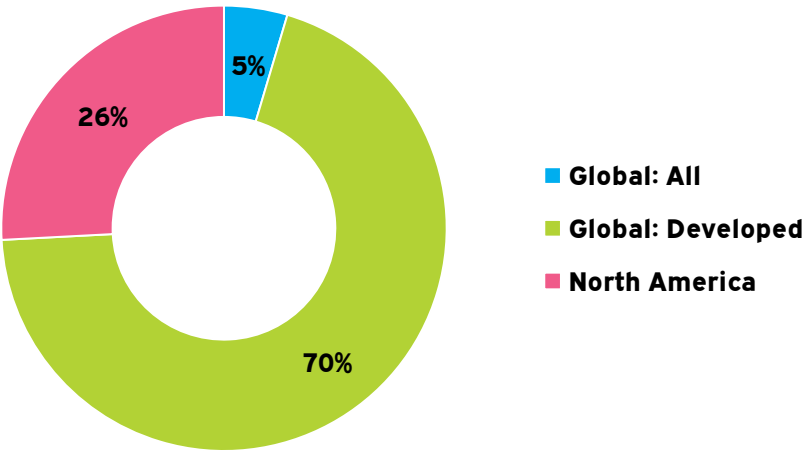
By Vintage



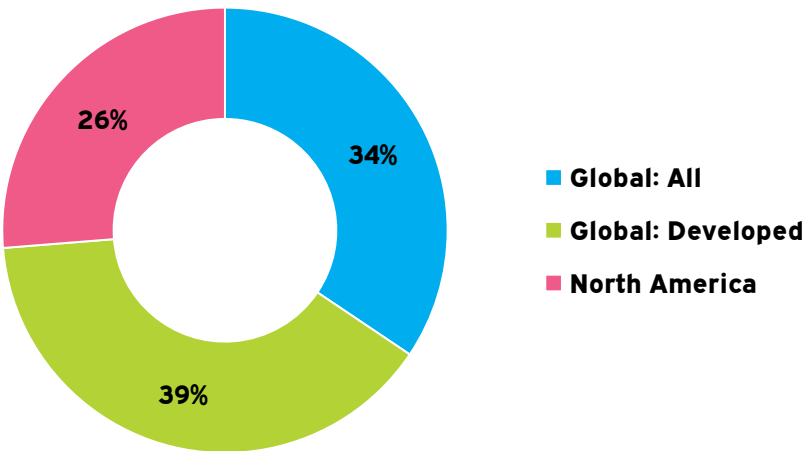


By Geographic Focus

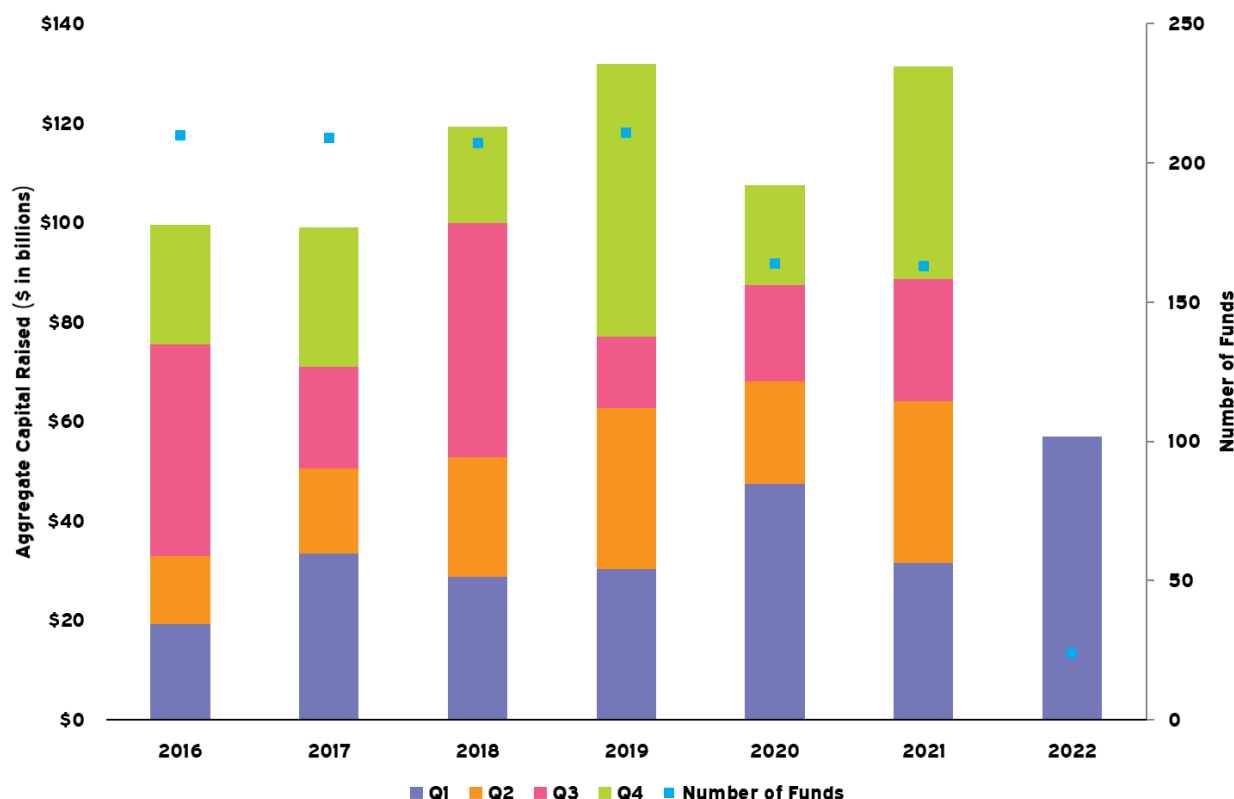
Percent of FMV



Percent of Exposure

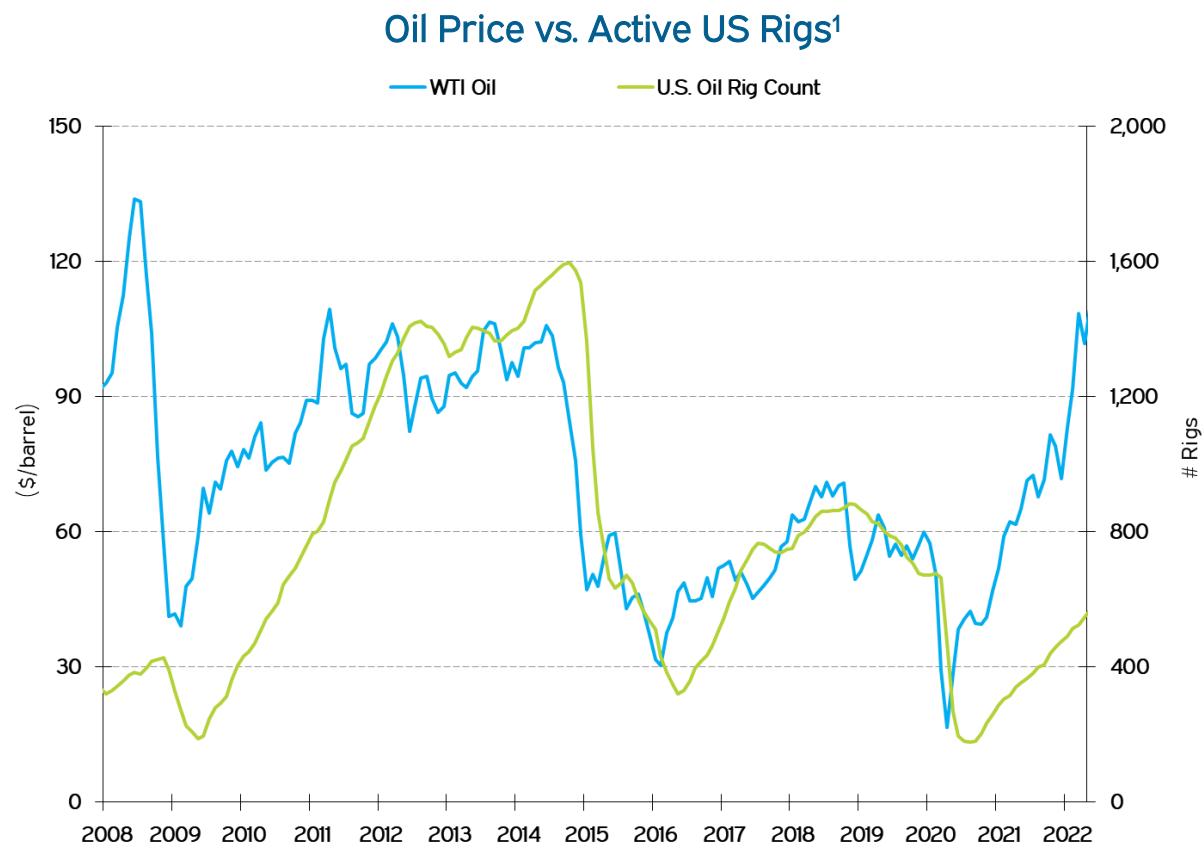


#### Global Quarterly Unlisted Natural Resources Fundraising<sup>1</sup>



During the first quarter, \$57 billion was raised across 24 funds with the average fund size raised averaging approximately \$2.4 billion of commitments. This represented the largest fundraising quarter since the start of the global COVID-19 pandemic. The majority of natural resources managers raising capital during the first quarter were focused on North America, accounting for over half of cumulative targeted capitalization in the market. Energy managers raised the most capital, accounting for 84% of total fundraising.

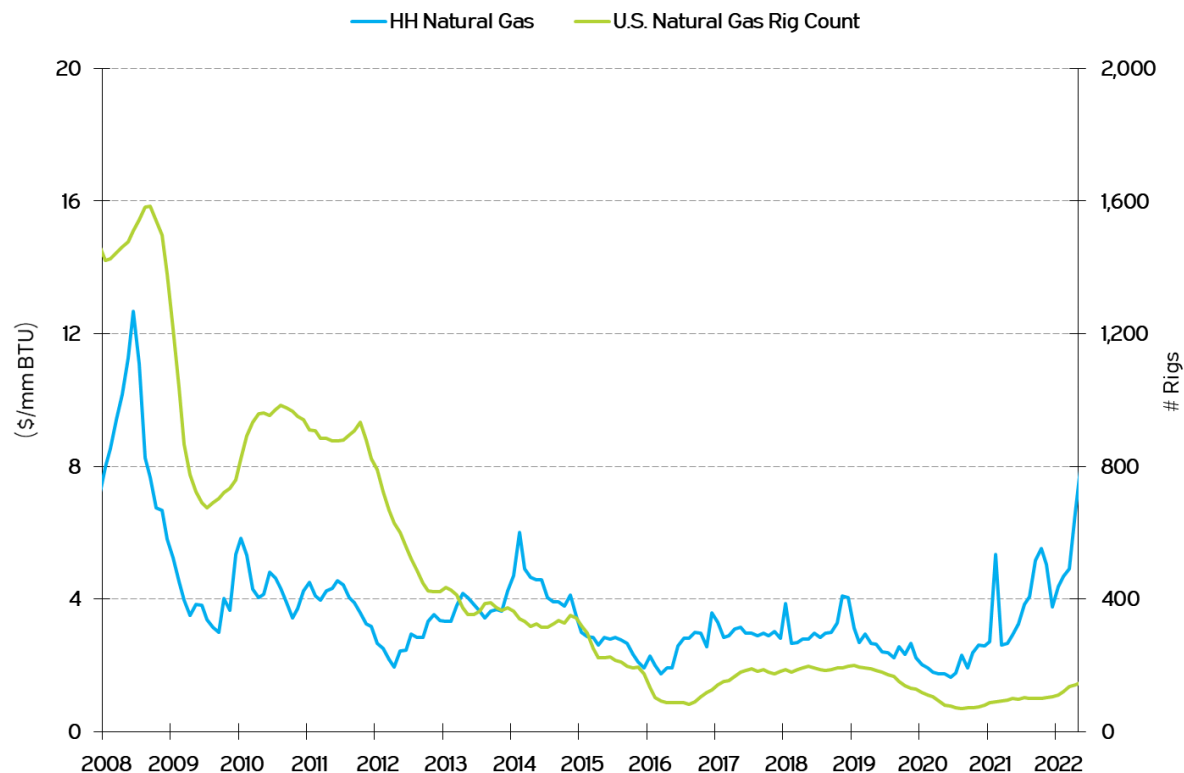
<sup>1</sup> Source: Preqin Private Capital Fundraising Update, 1Q 2022.



Russia invaded Ukraine during first quarter of 2022 resulting in a disruption in oil and natural gas produced and transported from the region. Additionally, higher global inflation corresponded with a surge in oil prices. West Texas Intermediate (WTI) and Brent oil prices each increased by 51% to \$108 and \$117 per barrel, respectively. Relative to one year prior, WTI prices were 74% higher. The number of rigs increased by 265 from one year prior to a total of 525. The U.S. achieved peak oil production of 13.0 million barrels of oil equivalent per day (boepd) in November 2019 and produced approximately 11.7 million boepd in March 2022. Gasoline prices for regular blend in the U.S. reached an average of \$4.54 per gallon representing a 26% quarterly increase and a 90% increase from one year prior.

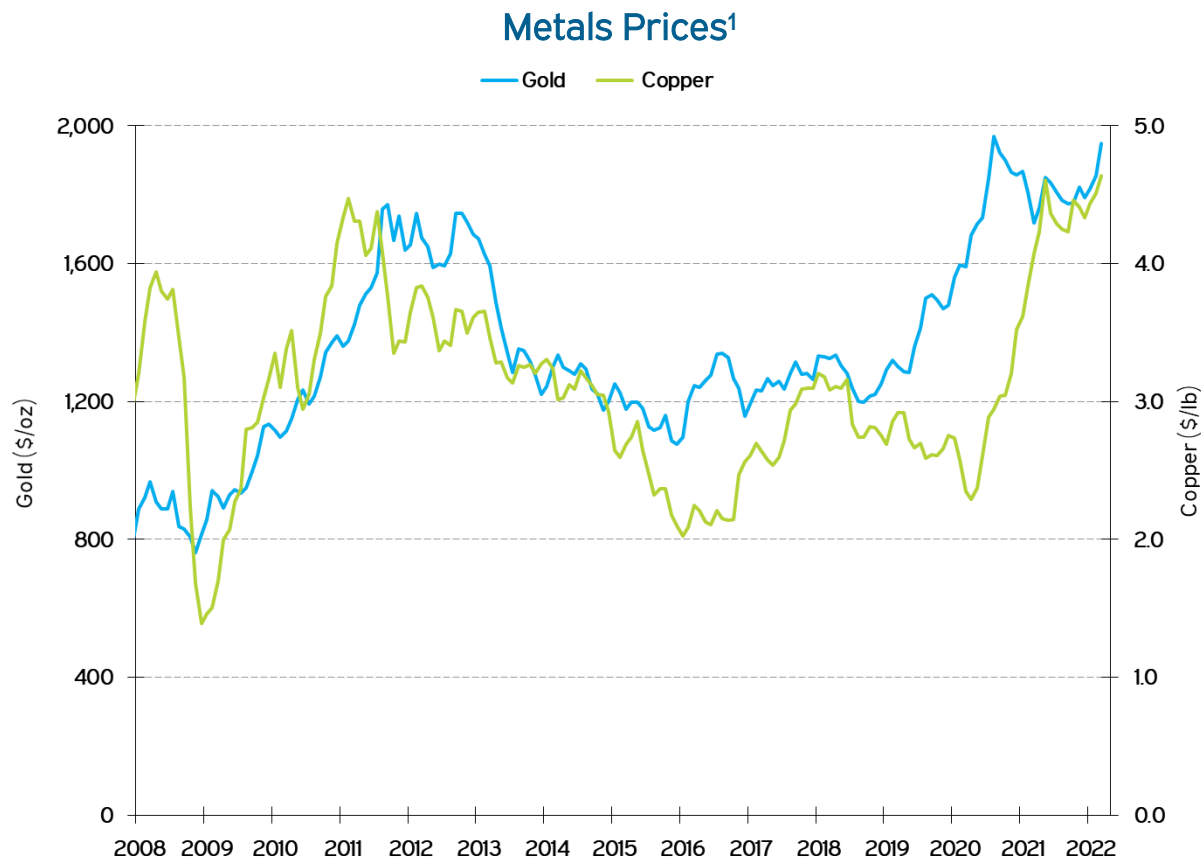
<sup>1</sup> Source: EIA and Baker Hughes.

#### Natural Gas Price vs. Active US Rigs<sup>1</sup>



As the world seeks to replace Russian energy, U.S. natural gas is in high demand. Henry Hub gas prices averaged \$4.66/mm BTU during the quarter and ended at \$4.90/mm BTU, an 87% increase from one year prior. The U.S. natural gas rig count increased by 30 to 135 during the quarter. The U.S. produced 107 billion cubic feet per day in March 2022, just shy of record production in December 2021 of 109 million bcf/day. Europe is highly dependent on Russian natural gas imports and is now seeking solutions to reduce this reliance. The U.S. is well positioned to export liquified natural gas into the international markets.

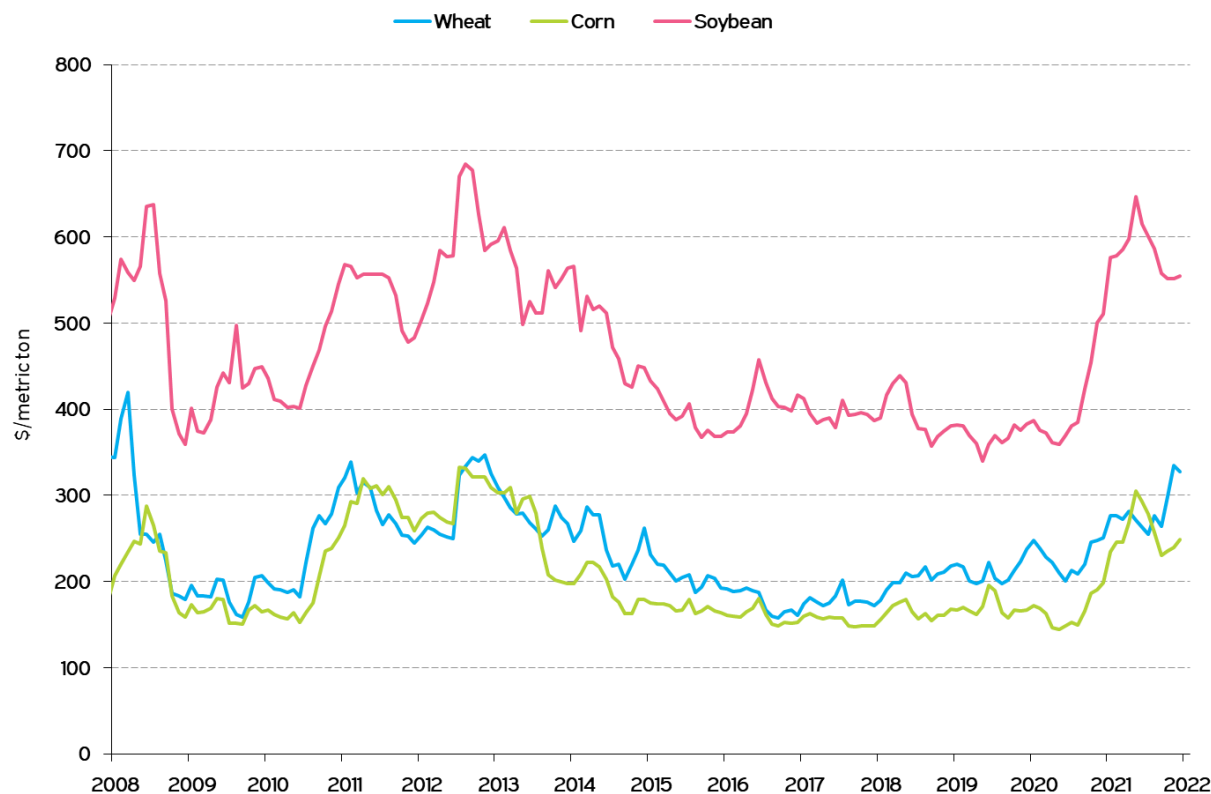
<sup>1</sup> Source: EIA and Baker Hughes.



As inflation increased during the quarter, so too did the price of many metals and minerals. Strong global demand, and supply concerns, have contributed to increases over the past several years. During the quarter, the price of gold and copper increased by 9% and 7%, respectively, while other metals, such as tin, aluminum, and nickel, were up 11%, 30%, and 69%.

<sup>1</sup> Source: World Bank

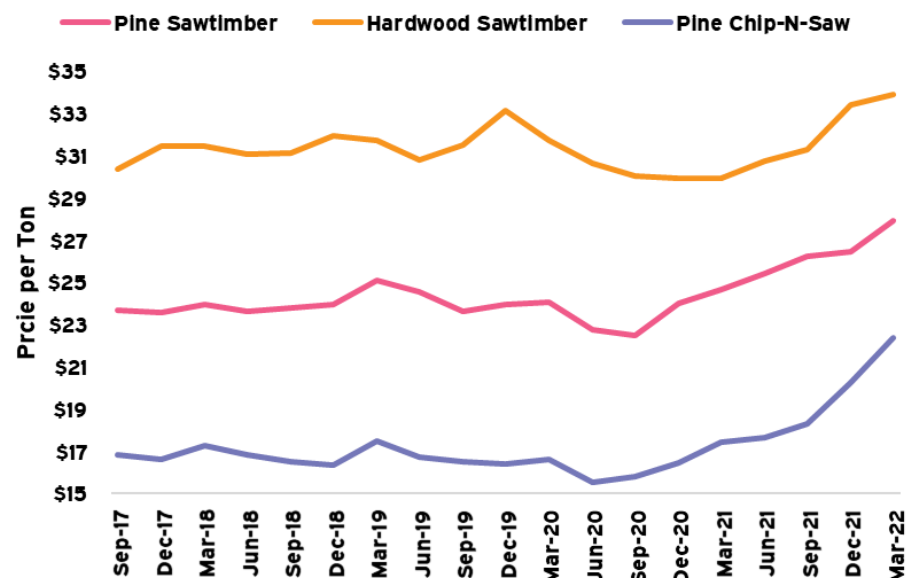
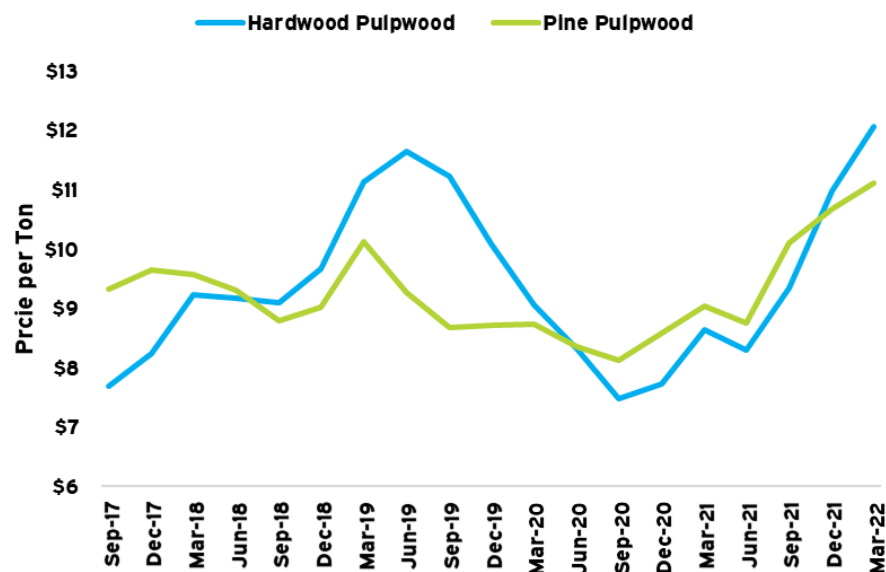
#### Wheat, Corn, & Soybean<sup>1</sup>



Grain prices surged during the quarter as the conflict between Ukraine and Russia threatened exports from the region. During the first quarter, wheat, corn, and soybean prices experienced increases of 36%, 18%, and 30%, respectively. Relative to one year prior, the grains were up by 64%, 19%, and 23%, respectively. The NCREIF Farmland index increased by 2.6% during the quarter driven by income returns of 0.7% and appreciation of 2.0%.

<sup>1</sup> Source: World Bank

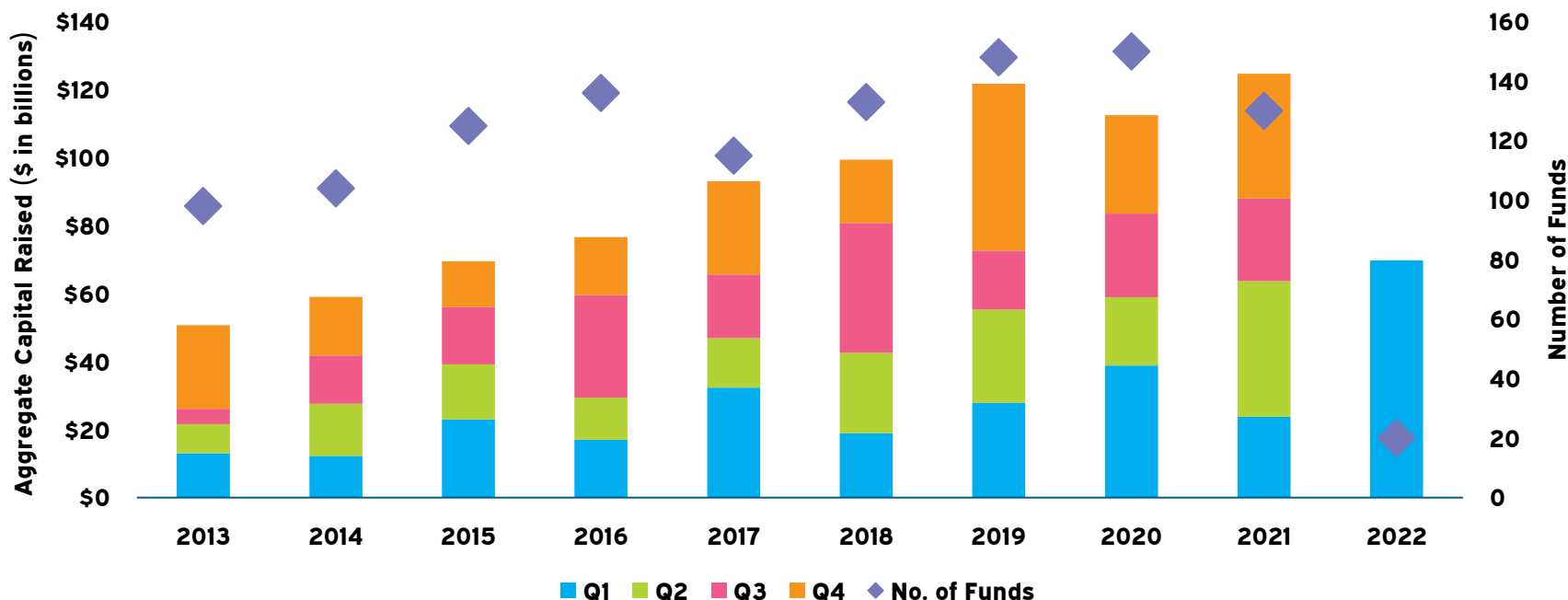
#### U.S. South Timber Prices<sup>1</sup>



U.S. South average timber prices for sawtimber and chip-n-saw continued its upward trend over the past two years and into the first quarter 2022. Pulpwood has experienced more volatility than sawtimber since 2017 with significant increases over the past two years. Hardwood pulpwood experienced a quarterly increase of 10% and was up 40% for the trailing one-year period. Pine pulpwood increased 4% during the quarter and was up 23% over the past year. The NCREIF Timberland index increased by 3.2% during the quarter driven by income returns of 0.8% and appreciation of 2.4%.

<sup>1</sup> Source: Bloomberg and TimberMart South

#### Global Quarterly Unlisted Infrastructure Fundraising<sup>1</sup>

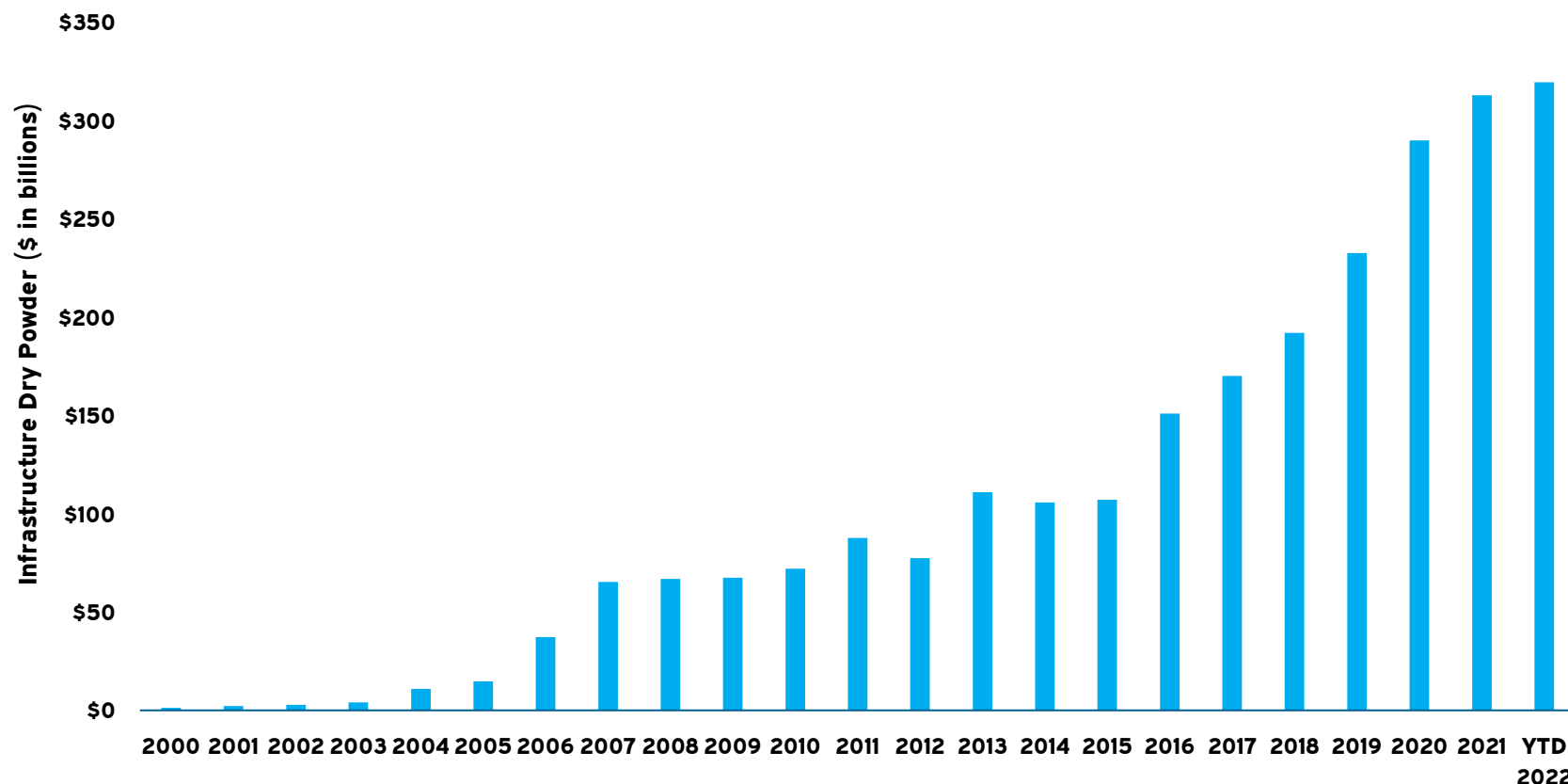


Capital raised in the first quarter of 2022 exceeded the amount raised in the first half of 2021. The aggregate capital came from just 20 funds with an average fund size of \$3.5 billion. This was an increase over the 2021 average of \$1.0 billion.

<sup>1</sup> Source: Preqin 1Q 2022 Global Infrastructure Report.



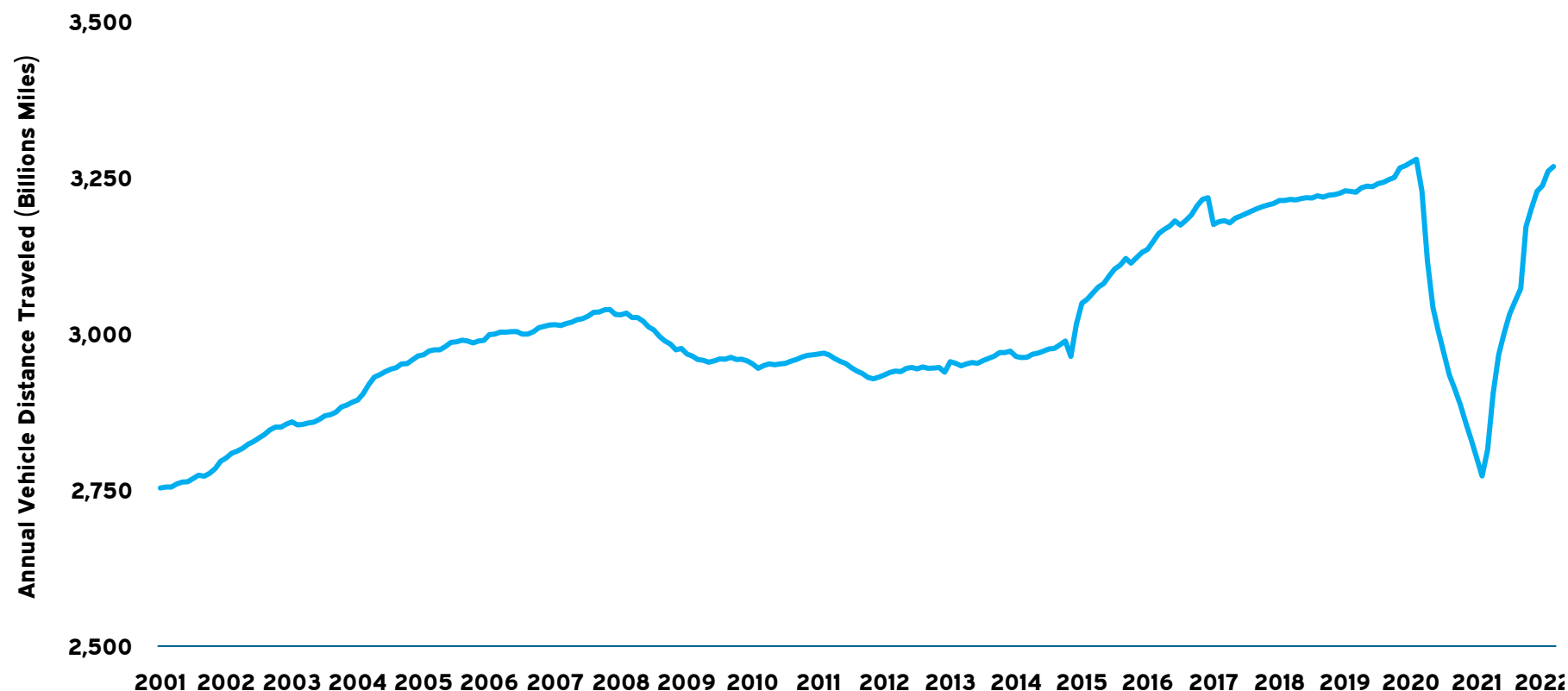
#### Global Infrastructure Dry Powder<sup>1</sup>



Infrastructure dry powder remains at an all-time high, with an increase year-over-year since 2015. The early days of the asset class are evident in the sub-\$50 billion levels until 2006, after which levels stayed between \$50 billion and \$100 billion until they reached \$150 billion in 2016. After that, the level began to climb to the over \$300 billion today.

<sup>1</sup> Source: Preqin 1Q 2022 Global Infrastructure Report.

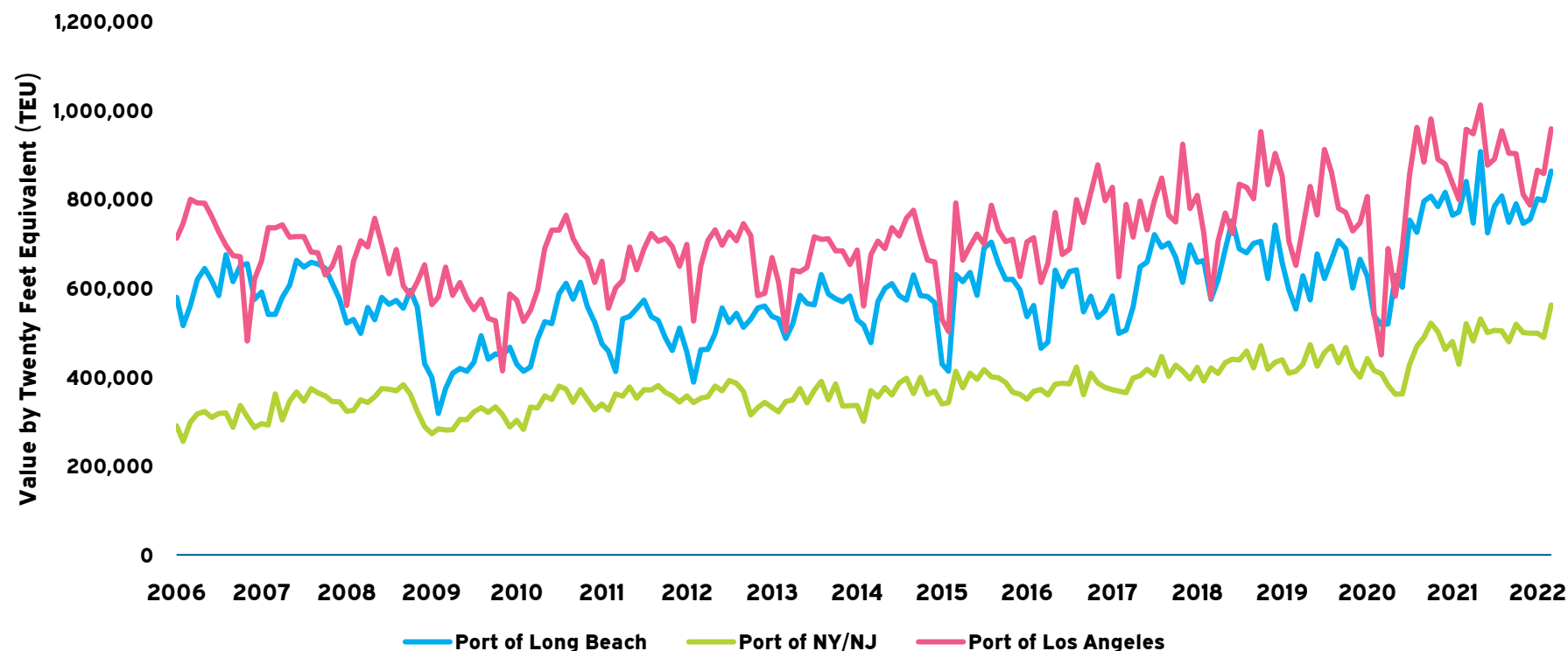
#### Trailing 12-month Annual Vehicle Miles on All US Roads<sup>1</sup>



The first quarter continued post-pandemic travel recovery with a total of approximately 753 billion miles. This represented an increase of 6% over the same period in 2021. The trailing 12-month travel mileage is effectively back to where it was pre-COVID, indicating a welcome and positive return to movement as COVID-19 restrictions loosened and people continue going back to offices, etc. The first quarter continued to show an increase in the US price of a gallon of gas, which steadily increased to an average price of \$4.32 per gallon. This compares to \$3.09 per gallon average in 2021.

<sup>1</sup> Source: US Department of Transportation, Federal Highway Administration: Office of Highway Policy Information.

#### US Port Activity – Container Trade in TEUs<sup>1</sup>

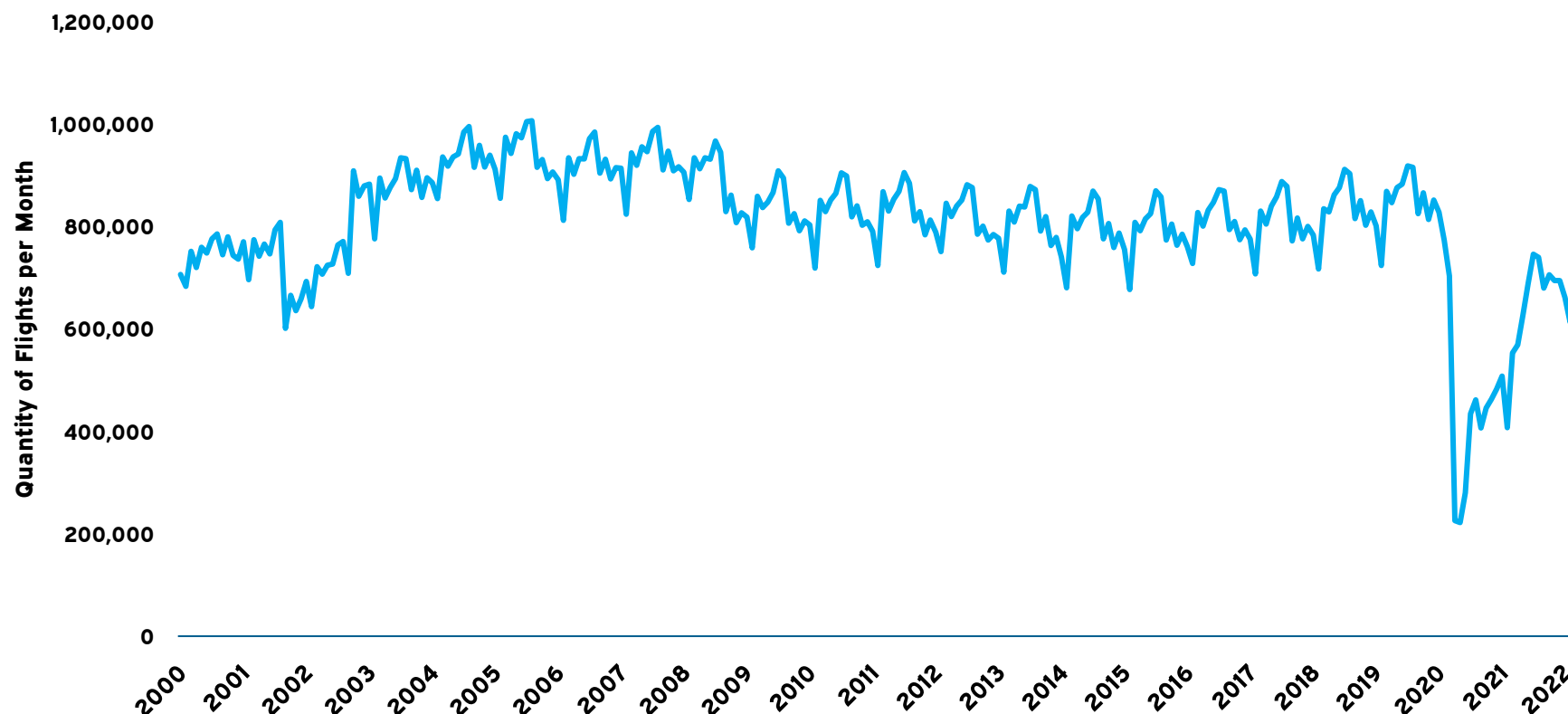


The chart presents the top three US ports by container volume, as measured by twenty-foot equivalent units (TEU). Activity at the three ports provides a high-level representation of the volume at US ports more broadly.

During the first quarter, volumes at the three ports increased by 0.3 million units relative to the same period in 2021. On a year-over-year basis, the combined port volumes increased by 2.1 million TEUs, or 8.6%, over the prior 12-month period. The Port of Long Beach recorded an increase of 8% (0.7 million TEUs), the Port of NY/NJ reported an increase of 12% (0.7 million TEU), and the Port of Los Angeles recorded an increase of 8% (0.8 million TEUs) over the prior 12 months.

<sup>1</sup> Source: [www.polb.com](http://www.polb.com), [www.panynj.gov](http://www.panynj.gov), and [www.portoflosangeles.org](http://www.portoflosangeles.org).

#### Total US Domestic and International Flights<sup>1</sup>

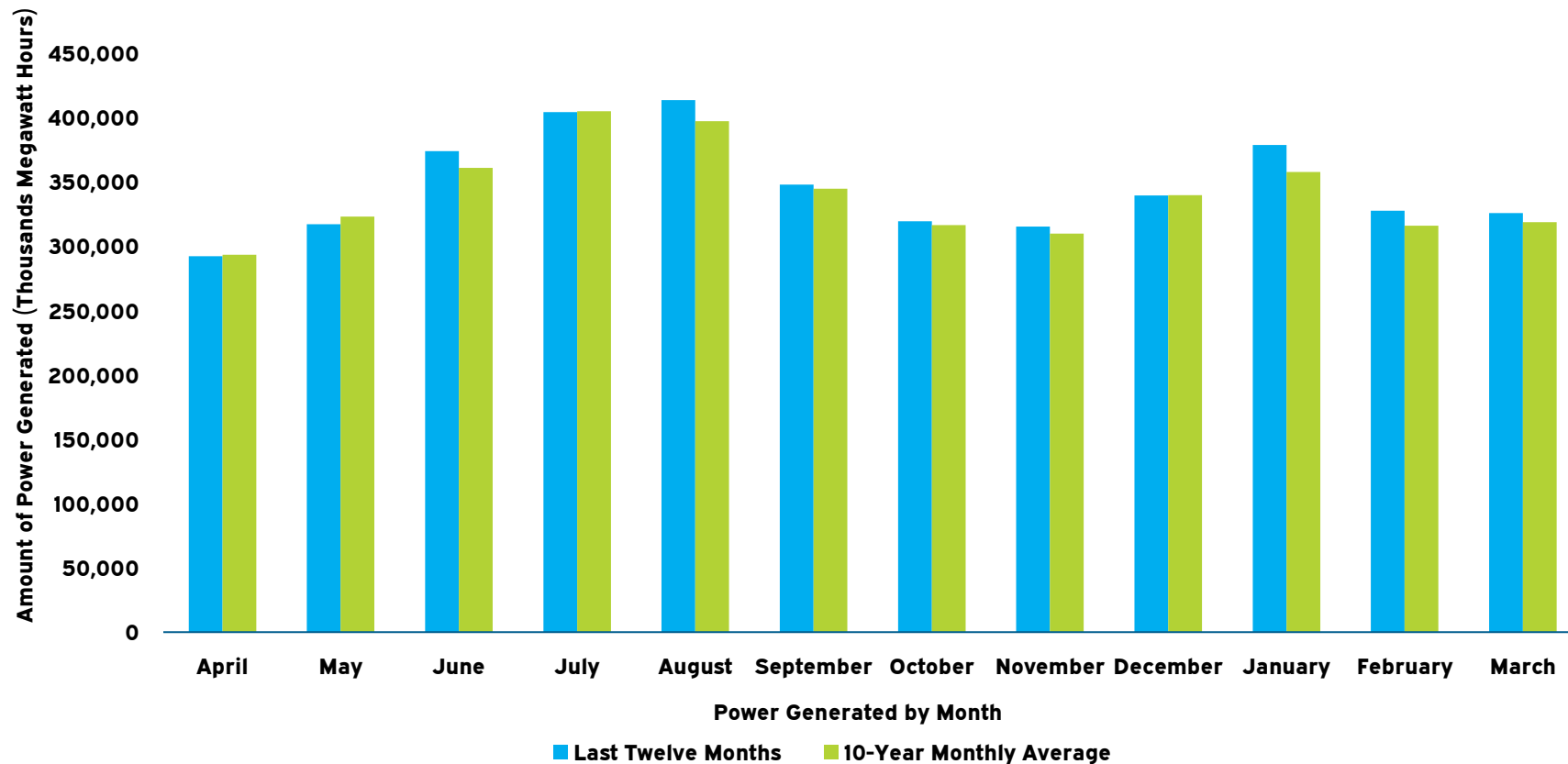


The chart above presents all US domestic and international flights, excluding foreign point-to-point flights by month. Historically, air traffic is cyclical with peaks in the summer months and troughs in the winter months.

There were 0.5 million more flights during the first quarter of 2022 over same period in 2021, representing a 36% increase. In addition to the number of flights, the total number of passengers travelling on US and international airlines increased by 158% for the 12 months ended March 2021 over the prior 12 months.

<sup>1</sup> Source: Bureau of Transportation Statistics: Flights, All US, and Foreign Carriers

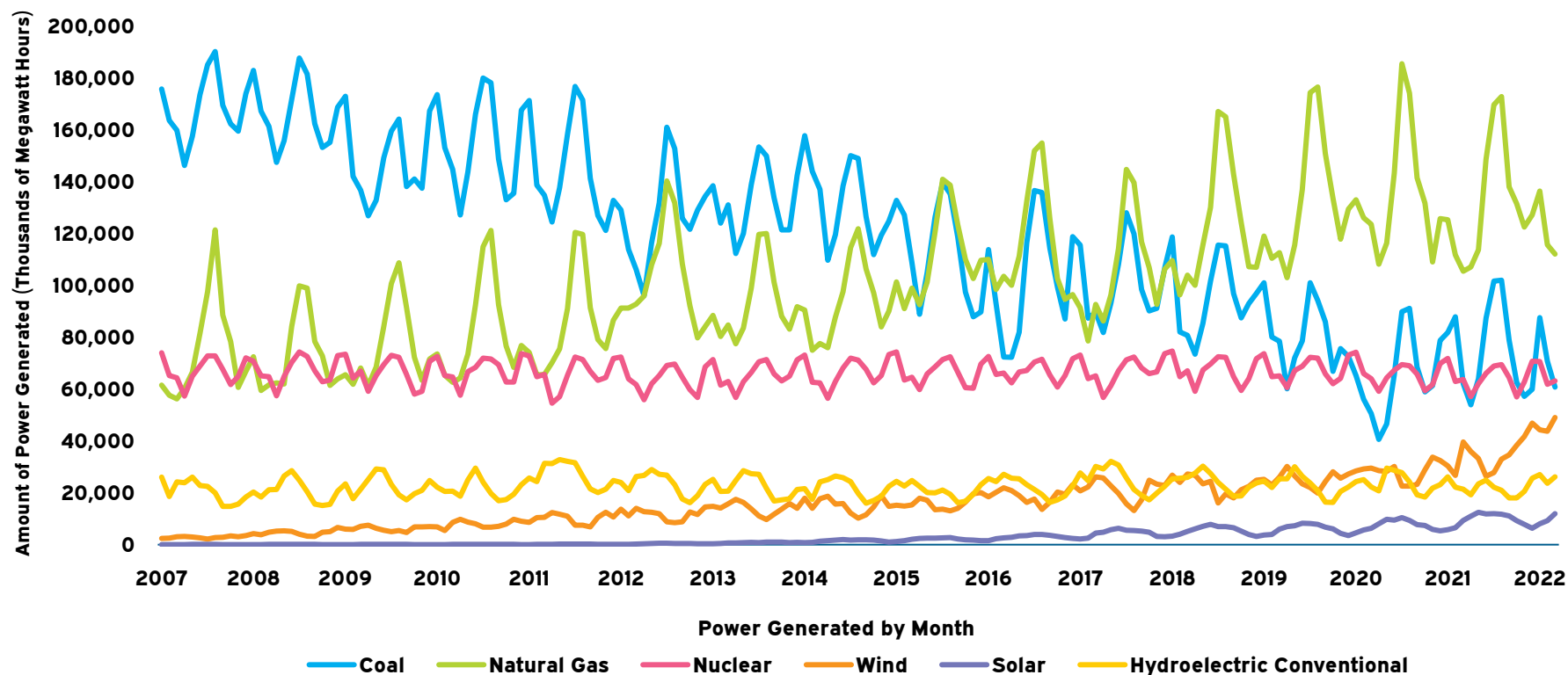
#### Total US Power Generation<sup>1</sup>



The graph above presents the total net generation for the past 12 months compared to the 10-year average for each month. Net energy generation in the US remained flat with an increase by 1.4% during the first quarter, compared to the same period in 2021.

<sup>1</sup> Source: US Energy Information Administration: Electric Power Monthly, March 2022.

#### US Power Generation by Source<sup>1</sup>



In the first quarter 2022, total US power generated increased by 5% over the same time period in 2021 with the largest increase from the renewable sources and natural gas. Wind and utility-scale solar continue to make up a small portion of total net energy generation in the US, accounting for only 11% and 3% of energy generation, respectively. Natural gas, coal, and nuclear accounted for 38%, 21%, and 19%, respectively. However, the growth of wind and solar as sources of energy generation continues to increase at a faster rate than coal and natural gas, especially over the last several years.

<sup>1</sup> Source: US Energy Information Administration: Electric Power Monthly, March 2022.

Below are details on specific terminology and calculation methodologies used throughout this report:

<b>Committed</b>	The original commitment amount made to a given fund. Some funds may be denominated in non-USD currencies, and such commitment amounts represent the sum of fund contributions translated to USD at their daily conversion rates plus the unfunded balance translated at the rate as of the date of this report.
<b>Contributed</b>	The amount of capital called by a fund manager against the commitment amount. Contributions may be used for new or follow-on investments, fees, and expenses, as outlined in each fund's limited partnership agreement. Some capital distributions from funds may reduce contributed capital balances. Some funds may be denominated in non-USD currencies, and such aggregate contributions represent the sum of each fund contribution translated to USD at its daily conversion rate.
<b>Distributed</b>	The amount of capital returned from a fund manager for returns of invested capital, profits, interest, and other investment related income. Some distributions may be subject to re-investment, as outlined in each fund's limited partnership agreement. Some funds may be denominated in non-USD currencies, and such aggregate distributions represent the sum of each fund distribution translated to USD at its daily conversion rate.
<b>DPI</b>	Acronym for "Distributed-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculation equals Distributed divided by Contributed. DPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.
<b>Exposure</b>	Represents the sum of the investor's Unfunded and Remaining Value.
<b>IRR</b>	Acronym for "Internal Rate of Return", which is a performance measurement for Private Market investments. IRRs are calculated by Meketa based on daily cash flows and Remaining Values as of the date of this report. IRRs for funds and groupings of funds are net of all fund fees and expenses as reported by fund managers to Meketa.
<b>NCV</b>	Acronym for "Net Change in Value", which is a performance measurement for Private Market investments. The performance calculation equals the appreciation or depreciation over a time period neutralized for the impact of cash flows that occurred during the time period.
<b>NM</b>	Acronym for "Not Meaningful", which indicates that a performance calculation is based on data over too short a timeframe to yet be meaningful or not yet possible due to inadequate data. Meketa begins reporting IRR calculations for investments once they have reached more than two years since first capital call. NM is also used within this report in uncommon cases where the manager has reported a negative Remaining Value for an investment.

### Peer Universe

The performance for a set of comparable private market funds. The peer returns used in this report are provided by Thomson ONE, based on data from Cambridge Associates as of the date of this report. Fund-level peer performance represents the median return for a set of funds of the same vintage and the program's set of corresponding strategies across all regions globally. Data sets that include less than five funds display performance as "NM". Meketa utilizes the following Thomson ONE strategies for peer universes:

Infrastructure: Infrastructure

Natural Resources: Private Equity Energy, Upstream Energy & Royalties, and Timber

Private Debt: Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed

Private Equity (including Private Debt): Venture Capital, Growth Equity, Buyout, Subordinated Capital, Credit Opportunities, Senior Debt, and Control-Oriented Distressed

Private Equity (excluding Private Debt): Venture Capital, Growth Equity, and Buyout

Real Assets (excluding Real Estate): Infrastructure, Private Equity Energy, Upstream Energy & Royalties, and Timber

Real Assets (including Real Estate): Infrastructure, Private Equity Energy, Upstream Energy & Royalties, Timber, and Real Estate

Real Estate: Real Estate

### Public Market Equivalent ("PME")

A calculation methodology that seeks to compare the performance of a portfolio of private market investments with public market indices. The figures presented in this report are based on the PME+ framework, which represents a net IRR value based on the actual timing and size of the private market program's daily cash flows and the daily appreciation or depreciation of an equivalent public market index. Meketa utilizes the following indices for private market program PME+ calculations:

Infrastructure: Dow Jones Brookfield Global Infrastructure Index

Natural Resources: S&P Global Natural Resources Index

Private Debt: Barclays Capital U.S. Corporate High Yield Bond Index

Private Equity: MSCI ACWI Investable Market Index

Real Assets (excluding Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index and S&P Global Natural Resources Index

Real Assets (including Real Estate): Equal blend of Dow Jones Brookfield Global Infrastructure Index, S&P Global Natural Resources Index, and Dow Jones U.S. Select Real Estate Securities Index



	Real Estate: Dow Jones U.S. Select Real Estate Securities Index
Remaining Value	The investor's value as reported by a fund manager on the investor's capital account statement. All investor values in this report are as of the date of this report, unless otherwise noted. Some funds may be denominated in non-USD currencies, and such remaining values represent the fund's local currency value translated to USD at the rate as of the date of this report.
TVPI	Acronym for "Total Value-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculations represents Distributed plus Remaining Value, then divided by Contributed. TVPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.
Unfunded	The remaining balance of capital that a fund manager has yet to call against a commitment amount. Meketa updates unfunded balances for funds to reflect all information provided by fund managers provided in their cash flow notices. Some funds may be denominated in non-USD currencies, and such unfunded balances represent the fund's local currency unfunded balance translated to USD at the rate as of the date of this report.

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Meketa Investment Group has prepared this report on the basis of sources believed to be reliable. The data are based on matters as they are known as of the date of preparation of the report, and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available.

If we manage your assets on a discretionary basis, please contact us if there are any changes in your financial situation or investment objectives, or if you want to impose any reasonable restrictions on our management of your account or reasonably modify existing restrictions.

In general, the valuation numbers presented in this report are prepared by the custodian bank for listed securities, and by the fund manager or appropriate General Partner in the case of unlisted securities. The data used in the market comparison sections of this report are sourced from various databases. These data are continuously updated and are subject to change.

This report does not contain all the information necessary to fully evaluate the potential risks of any of the investments described herein. Because of inherent uncertainties involved in the valuations of investments that are not publicly traded, any estimated fair values shown in this report may differ significantly from the values that would have been used had a ready market for the underlying securities existed, and the differences could be material.

This document may contain certain forward-looking statements, forecasts, estimates, projections, and opinions ("Forward Statements"). No representation is made or will be made that any Forward Statements will be achieved or will prove to be correct. A number of factors, in addition to any risk factors stated in this material, could cause actual future results to vary materially from the Forward Statements. No representation is given that the assumptions disclosed in this document upon which Forward Statements may be based are reasonable. There can be no assurance that the investment strategy or objective of any fund or investment will be achieved, or that the client will receive a return of the amount invested.

In some cases Meketa Investment Group assists the client in handling capital calls or asset transfers among investment managers. In these cases we do not make any representations as to the managers' use of the funds, but do confirm that the capital called or transferred is within the amounts authorized by the client.

Because there is no readily accessible market for private markets assets (companies and partnerships), the values placed on private markets assets are calculated by General Partners using conservative and industry standard pricing procedures. Annually, an independent auditor reviews the pricing procedures employed by the General Partner of each partnership.

The values of companies and partnerships are audited at year-end, and are not audited at other quarter-end periods. While financial information may be audited, there is some discretion as to the method employed to price private companies and, therefore, private markets partnerships. At all times, Meketa Investment Group expects General Partners to utilize conservative and industry standard pricing procedures, and requires the General Partners to disclose those procedures in their reports. However, because of the inherent uncertainty of valuation, these estimated values may differ from the values that would be used if a ready market for the investments existed, and the differences could be significant.



# TEACHER'S RETIREMENT FUND

Net of All Fees and Expenses

7/31/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Teacher's Retirement Fund</b>					<b>\$21,666.3</b>	<b>3.67</b>	<b>-0.74</b>	<b>3.67</b>	<b>-7.82</b>	<b>-4.49</b>	<b>6.53</b>	<b>6.24</b>	<b>6.64</b>	<b>7.56</b>
Policy Benchmark						2.48	-0.78	2.48	-7.24	-4.44	6.74	6.66	6.78	7.63
Dynamic Benchmark						2.67	-1.09	2.67	-8.46	-6.12	6.18	6.19	6.41	N/A
<b>Domestic Equity</b>	<b>24.4%</b>	<b>20.0</b>	15.0	25.0	<b>\$5,294.6</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.92</b>	<b>11.49</b>	<b>13.38</b>
Russell 3000						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.9%</b>	<b>11.0</b>	6.0	16.0	<b>\$2,357.1</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>7.41</b>
MSCI EAFE IMI Net						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	7.32
<b>Emerging Markets ISF</b>	<b>7.7%</b>	<b>9.0</b>	4.0	14.0	<b>\$1,671.3</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>3.49</b>
MSCI Emerging Markets IMI						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	3.04
<b>Global Equities <sup>(4)</sup></b>	<b>43.0%</b>	<b>40.0</b>	25.0	55.0	<b>\$9,322.9</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>10.26</b>
MSCI All Country World Net Index						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	9.35
<b>Core Fixed Income</b>	<b>11.5%</b>	<b>13.0</b>	8.0	18.0	<b>\$2,490.9</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.41</b>	<b>1.47</b>
Barclays U.S. Aggregate Bond Index						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Emerging Market Debt</b>	<b>4.3%</b>	<b>5.0</b>	0.0	10.0	<b>\$933.5</b>	<b>1.27</b>	<b>-4.60</b>	<b>1.27</b>	<b>-16.39</b>	<b>-18.86</b>	<b>-5.67</b>	<b>-2.08</b>	<b>0.93</b>	<b>0.30</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						1.59	-2.97	1.59	-16.14	-18.95	-5.31	-1.68	0.84	0.30
<b>High Yield</b>	<b>5.8%</b>	<b>3.0</b>	0.0	8.0	<b>\$1,264.2</b>	<b>5.50</b>	<b>-1.36</b>	<b>5.50</b>	<b>-8.03</b>	<b>-6.77</b>	<b>2.66</b>	<b>3.12</b>	<b>4.17</b>	<b>4.60</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						5.90	-1.01	5.90	-9.12	-8.03	1.67	2.81	4.09	4.50
<b>Liquidity Fund</b>	<b>0.8%</b>	<b>2.0</b>	0.0	3.0	<b>\$167.0</b>	<b>0.25</b>	<b>0.41</b>	<b>0.25</b>	<b>0.49</b>	<b>0.56</b>	<b>1.10</b>	<b>1.46</b>	<b>1.33</b>	<b>0.90</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64
<b>Real Assets <sup>(1)</sup></b>	<b>15.8%</b>	<b>19.0</b>	10.0	25.0	<b>\$3,417.1</b>	<b>N/A</b>	<b>2.01</b>	<b>2.95</b>	<b>6.32</b>	<b>12.06</b>	<b>7.16</b>	<b>7.40</b>	<b>7.98</b>	<b>8.97</b>
Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup>						N/A	4.72	1.48	7.86	15.37	8.43	7.76	8.26	9.22
<b>Private Investment <sup>(1)</sup></b>	<b>11.9%</b>	<b>10.0</b>	5.0	15.0	<b>\$2,571.8</b>	<b>N/A</b>	<b>1.65</b>	<b>-0.25</b>	<b>5.78</b>	<b>26.72</b>	<b>24.48</b>	<b>20.79</b>	<b>17.59</b>	<b>16.24</b>
Russell 3000 + 250 basis points 1Q in Arrears^						N/A	-7.80	-8.77	-4.40	-0.90	17.11	14.90	13.69	14.84
<b>Private Credit <sup>(1)</sup></b>	<b>3.0%</b>	<b>5.0</b>	0.0	10.0	<b>\$641.1</b>	<b>N/A</b>	<b>-0.17</b>	<b>-0.77</b>	<b>1.80</b>	<b>7.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^						N/A	0.12	0.34	1.74	4.55	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.0%</b>	<b>3.0</b>	0.0	10.0	<b>\$857.8</b>	<b>-0.92</b>	<b>-2.17</b>	<b>-0.92</b>	<b>-2.90</b>	<b>-2.38</b>	<b>0.96</b>	<b>2.22</b>	<b>1.87</b>	<b>3.22</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						0.72	-0.76	0.72	-1.74	-1.47	2.00	2.59	1.96	1.38

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# STATE EMPLOYEES' RETIREMENT FUND

Net of All Fees and Expenses

7/31/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>State Employees' Retirement Fund</b>					<b>\$16,044.0</b>	<b>3.68</b>	<b>-0.71</b>	<b>3.68</b>	<b>-7.79</b>	<b>-4.49</b>	<b>6.56</b>	<b>6.31</b>	<b>6.69</b>	<b>7.59</b>
Policy Benchmark						2.48	-0.78	2.48	-7.24	-4.44	6.74	6.67	6.78	7.64
Dynamic Benchmark						2.67	-1.07	2.67	-8.39	-6.07	6.24	6.29	6.51	N/A
<b>Domestic Equity</b>	<b>24.6%</b>	<b>20.0</b>	15.0	25.0	<b>\$3,945.4</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.92</b>	<b>11.49</b>	<b>13.38</b>
Russell 3000						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.9%</b>	<b>11.0</b>	6.0	16.0	<b>\$1,754.4</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.70</b>	<b>3.05</b>	<b>4.28</b>	<b>7.41</b>
MSCI EAFE IMI Net						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	7.32
<b>Emerging Markets ISF</b>	<b>7.7%</b>	<b>9.0</b>	4.0	14.0	<b>\$1,237.4</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>3.49</b>
MSCI Emerging Markets IMI						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	3.04
<b>Global Equities<sup>(4)</sup></b>	<b>43.2%</b>	<b>40.0</b>	25.0	55.0	<b>\$6,937.2</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>10.26</b>
MSCI All Country World Net Index						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	9.35
<b>Core Fixed Income</b>	<b>11.4%</b>	<b>13.0</b>	8.0	18.0	<b>\$1,823.2</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.41</b>	<b>1.47</b>
Barclays U.S. Aggregate Bond Index						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Emerging Market Debt</b>	<b>4.3%</b>	<b>5.0</b>	0.0	10.0	<b>\$687.3</b>	<b>1.27</b>	<b>-4.60</b>	<b>1.27</b>	<b>-16.39</b>	<b>-18.86</b>	<b>-5.67</b>	<b>-2.08</b>	<b>0.93</b>	<b>0.30</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						1.59	-2.97	1.59	-16.14	-18.95	-5.31	-1.68	0.84	0.30
<b>High Yield</b>	<b>5.8%</b>	<b>3.0</b>	0.0	8.0	<b>\$926.6</b>	<b>5.50</b>	<b>-1.36</b>	<b>5.50</b>	<b>-8.03</b>	<b>-6.77</b>	<b>2.66</b>	<b>3.12</b>	<b>4.17</b>	<b>4.60</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						5.90	-1.01	5.90	-9.12	-8.03	1.67	2.81	4.09	4.50
<b>Liquidity Fund</b>	<b>0.9%</b>	<b>2.0</b>	0.0	3.0	<b>\$144.5</b>	<b>0.27</b>	<b>0.44</b>	<b>0.27</b>	<b>0.53</b>	<b>0.55</b>	<b>0.70</b>	<b>1.22</b>	<b>1.16</b>	<b>0.78</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64
<b>Real Assets<sup>(1)</sup></b>	<b>15.8%</b>	<b>19.0</b>	10.0	25.0	<b>\$2,535.2</b>	<b>N/A</b>	<b>2.01</b>	<b>2.95</b>	<b>6.32</b>	<b>12.06</b>	<b>7.16</b>	<b>7.40</b>	<b>7.98</b>	<b>8.97</b>
Blended Custom Benchmark 1Q in Arrears <sup>(2)</sup>						N/A	4.72	1.48	7.86	15.37	8.43	7.76	8.26	9.22
<b>Private Investment<sup>(1)</sup></b>	<b>11.8%</b>	<b>10.0</b>	5.0	15.0	<b>\$1,899.8</b>	<b>N/A</b>	<b>1.65</b>	<b>-0.25</b>	<b>5.78</b>	<b>26.72</b>	<b>24.48</b>	<b>20.79</b>	<b>17.59</b>	<b>16.24</b>
Russell 3000 + 250 basis points 1Q in Arrears <sup>(2)</sup>						N/A	-7.80	-8.77	-4.40	-0.90	17.11	14.90	13.69	14.84
<b>Private Credit<sup>(1)</sup></b>	<b>2.9%</b>	<b>5.0</b>	0.0	10.0	<b>\$462.4</b>	<b>N/A</b>	<b>-0.17</b>	<b>-0.77</b>	<b>1.80</b>	<b>7.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears <sup>(2)</sup>						N/A	0.12	0.34	1.74	4.55	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>3.9%</b>	<b>3.0</b>	0.0	8.0	<b>\$627.7</b>	<b>-0.92</b>	<b>-2.17</b>	<b>-0.92</b>	<b>-2.90</b>	<b>-2.38</b>	<b>0.96</b>	<b>2.23</b>	<b>1.87</b>	<b>3.22</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						0.72	-0.76	0.72	-1.74	-1.47	2.00	2.59	1.96	1.38

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# MUNICIPAL EMPLOYEES RETIREMENT FUND

Net of All Fees and Expenses

7/31/2022

Funds <i>Benchmark</i>	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Municipal Employees' Retirement Fund</b>					<b>\$3,092.1</b>	<b>3.70</b>	<b>-0.68</b>	<b>3.70</b>	<b>-7.96</b>	<b>-4.60</b>	<b>6.57</b>	<b>6.20</b>	<b>6.58</b>	<b>7.05</b>
<i>Policy Benchmark</i>						2.48	-0.78	2.48	-7.24	-4.44	6.74	6.49	6.63	7.13
<i>Dynamic Benchmark</i>						2.67	-1.20	2.67	-8.68	-6.31	6.18	6.10	6.35	N/A
<b>Domestic Equity</b>	<b>24.6%</b>	<b>20.0</b>	15.0	25.0	<b>\$761.0</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.92</b>	<b>11.49</b>	<b>13.38</b>
<i>Russell 3000</i>						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.9%</b>	<b>11.0</b>	6.0	16.0	<b>\$337.7</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.70</b>	<b>3.05</b>	<b>4.28</b>	<b>7.41</b>
<i>MSCI EAFE IMI Net</i>						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	7.32
<b>Emerging Markets ISF</b>	<b>7.8%</b>	<b>9.0</b>	4.0	14.0	<b>\$240.9</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>3.51</b>
<i>MSCI Emerging Markets IMI</i>						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	3.04
<b>Global Equities <sup>(4)</sup></b>	<b>43.3%</b>	<b>40.0</b>	25.0	55.0	<b>\$1,339.6</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>10.26</b>
<i>MSCI All Country World Net Index</i>						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	9.35
<b>Core Fixed Income</b>	<b>11.7%</b>	<b>13.0</b>	8.0	18.0	<b>\$362.8</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.41</b>	<b>1.48</b>
<i>Barclays U.S. Aggregate Bond Index</i>						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Emerging Market Debt</b>	<b>4.4%</b>	<b>5.0</b>	0.0	10.0	<b>\$137.0</b>	<b>1.27</b>	<b>-4.60</b>	<b>1.27</b>	<b>-16.39</b>	<b>-18.86</b>	<b>-5.67</b>	<b>-2.08</b>	<b>0.93</b>	<b>0.30</b>
<i>50% JPM EMBI Global Div / 50% JPM GBI EM Global Div</i>						1.59	-2.97	1.59	-16.14	-18.95	-5.31	-1.68	0.84	0.30
<b>High Yield</b>	<b>5.9%</b>	<b>3.0</b>	0.0	8.0	<b>\$183.2</b>	<b>5.50</b>	<b>-1.36</b>	<b>5.50</b>	<b>-8.03</b>	<b>-6.77</b>	<b>2.66</b>	<b>3.12</b>	<b>4.16</b>	<b>4.60</b>
<i>Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index</i>						5.90	-1.01	5.90	-9.12	-8.03	1.67	2.81	4.09	4.50
<b>Liquidity Fund</b>	<b>0.4%</b>	<b>2.0</b>	0.0	3.0	<b>\$12.8</b>	<b>0.25</b>	<b>0.40</b>	<b>0.25</b>	<b>0.45</b>	<b>0.47</b>	<b>0.66</b>	<b>1.20</b>	<b>1.14</b>	<b>0.79</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index</i>						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64
<b>Real Assets <sup>(1)</sup></b>	<b>15.9%</b>	<b>19.0</b>	15.0	25.0	<b>\$490.2</b>	<b>N/A</b>	<b>2.01</b>	<b>2.95</b>	<b>6.32</b>	<b>12.06</b>	<b>7.16</b>	<b>7.40</b>	<b>7.98</b>	<b>8.97</b>
<i>Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup></i>						N/A	4.72	1.48	7.86	15.37	8.43	7.76	8.26	9.22
<b>Private Investment <sup>(1)</sup></b>	<b>11.8%</b>	<b>10.0</b>	5.0	15.0	<b>\$364.2</b>	<b>N/A</b>	<b>1.65</b>	<b>-0.25</b>	<b>5.78</b>	<b>26.72</b>	<b>24.48</b>	<b>20.79</b>	<b>17.59</b>	<b>16.24</b>
<i>Russell 3000 + 250 basis points 1Q in Arrears^</i>						N/A	-7.80	-8.77	-4.40	-0.90	17.11	14.90	13.69	14.84
<b>Private Credit <sup>(1)</sup></b>	<b>2.5%</b>	<b>5.0</b>	0.0	10.0	<b>\$76.4</b>	<b>N/A</b>	<b>-0.17</b>	<b>-0.77</b>	<b>1.80</b>	<b>7.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>S&amp;P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^</i>						N/A	0.12	0.34	1.74	4.55	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.1%</b>	<b>3.0</b>	0.0	10.0	<b>\$125.9</b>	<b>-0.92</b>	<b>-2.17</b>	<b>-0.92</b>	<b>-2.90</b>	<b>-2.38</b>	<b>0.96</b>	<b>2.22</b>	<b>1.87</b>	<b>3.22</b>
<i>Absolute Return Strategy blended benchmark <sup>(3)</sup></i>						0.72	-0.76	0.72	-1.74	-1.47	2.00	2.59	1.96	1.38

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



**OPEB FUND**  
**Net of All Fees and Expenses**  
**7/31/2022**

Funds <i>Benchmark</i>	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>OPEB</b>					<b>\$2,173.5</b>	<b>3.56</b>	<b>-0.72</b>	<b>3.56</b>	<b>-7.72</b>	<b>-4.40</b>	<b>6.75</b>	<b>6.39</b>	<b>6.56</b>	<b>N/A</b>
<i>Policy Benchmark</i>						2.48	-0.78	2.48	-7.24	-4.44	6.74	6.56	6.53	N/A
<i>Dynamic Benchmark</i>						2.59	-1.09	2.59	-8.37	-6.04	6.36	6.38	6.45	N/A
<b>Domestic Equity</b>	<b>23.8%</b>	<b>20.0</b>	15.0	25.0	<b>\$517.3</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.40</b>	<b>11.93</b>	<b>11.49</b>	<b>N/A</b>
<i>Russell 3000</i>						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	N/A
<b>Developed Markets ISF</b>	<b>10.6%</b>	<b>11.0</b>	6.0	15.0	<b>\$231.0</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.06</b>	<b>4.28</b>	<b>N/A</b>
<i>MSCI EAFE IMI Net</i>						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	N/A
<b>Emerging Markets ISF</b>	<b>7.5%</b>	<b>9.0</b>	4.0	14.0	<b>\$163.1</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.08</b>	<b>2.31</b>	<b>5.14</b>	<b>N/A</b>
<i>MSCI Emerging Markets IMI</i>						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	N/A
<b>Global Equities <sup>(4)</sup></b>	<b>41.9%</b>	<b>40.0</b>	25.0	54.0	<b>\$911.4</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>N/A</b>
<i>MSCI All Country World Net Index</i>						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	N/A
<b>Core Fixed Income</b>	<b>11.0%</b>	<b>13.0</b>	8.0	18.0	<b>\$239.7</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.40</b>	<b>N/A</b>
<i>Barclays U.S. Aggregate Bond Index</i>						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	N/A
<b>Emerging Market Debt</b>	<b>4.2%</b>	<b>5.0</b>	0.0	10.0	<b>\$91.1</b>	<b>1.27</b>	<b>-4.60</b>	<b>1.27</b>	<b>-16.39</b>	<b>-18.86</b>	<b>-5.67</b>	<b>-2.08</b>	<b>0.94</b>	<b>N/A</b>
<i>50% JPM EMBI Global Div / 50% JPM GBI EM Global Div</i>						1.59	-2.97	1.59	-16.14	-18.95	-5.31	-1.68	0.84	N/A
<b>High Yield</b>	<b>5.7%</b>	<b>3.0</b>	0.0	8.0	<b>\$124.1</b>	<b>5.50</b>	<b>-1.36</b>	<b>5.50</b>	<b>-8.03</b>	<b>-6.77</b>	<b>2.66</b>	<b>3.11</b>	<b>4.16</b>	<b>N/A</b>
<i>Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index</i>						5.90	-1.01	5.90	-9.12	-8.03	1.67	2.81	4.09	N/A
<b>Liquidity Fund</b>	<b>1.2%</b>	<b>2.0</b>	0.0	3.0	<b>\$26.3</b>	<b>0.18</b>	<b>0.36</b>	<b>0.18</b>	<b>0.43</b>	<b>0.44</b>	<b>0.66</b>	<b>1.23</b>	<b>1.18</b>	<b>N/A</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index</i>						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	N/A
<b>Real Assets <sup>(1)</sup></b>	<b>15.4%</b>	<b>19.0</b>	15.0	25.0	<b>\$334.5</b>	<b>N/A</b>	<b>2.01</b>	<b>2.95</b>	<b>6.32</b>	<b>12.06</b>	<b>7.16</b>	<b>7.40</b>	<b>7.98</b>	<b>N/A</b>
<i>Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup></i>						N/A	4.72	1.48	7.86	15.37	8.43	7.76	8.26	N/A
<b>Private Investment <sup>(1)</sup></b>	<b>13.1%</b>	<b>10.0</b>	5.0	15.0	<b>\$284.6</b>	<b>N/A</b>	<b>1.65</b>	<b>-0.25</b>	<b>5.78</b>	<b>26.72</b>	<b>24.48</b>	<b>20.79</b>	<b>17.59</b>	<b>N/A</b>
<i>Russell 3000 + 250 basis points 1Q in Arrears^</i>						N/A	-7.80	-8.77	-4.40	-0.90	17.11	14.90	13.69	N/A
<b>Private Credit <sup>(1)</sup></b>	<b>3.8%</b>	<b>5.0</b>	0.0	10.0	<b>\$81.6</b>	<b>N/A</b>	<b>-0.17</b>	<b>-0.77</b>	<b>1.80</b>	<b>7.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>S&amp;P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^</i>						N/A	0.12	0.34	1.74	4.55	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>3.7%</b>	<b>3.0</b>	0.0	10.0	<b>\$80.2</b>	<b>-0.92</b>	<b>-2.17</b>	<b>-0.92</b>	<b>-2.90</b>	<b>-2.38</b>	<b>0.96</b>	<b>2.22</b>	<b>1.87</b>	<b>N/A</b>
<i>Absolute Return Strategy blended benchmark <sup>(3)</sup></i>						0.72	-0.76	0.72	-1.74	-1.47	2.00	2.59	1.96	N/A

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# **PROBATE JUDGES EMPLOYEES' RETIREMENT FUND**

Net of All Fees and Expenses

7/31/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Probate Judges Employees' Retirement Fund</b>					<b>\$130.2</b>	<b>3.64</b>	<b>-0.73</b>	<b>3.64</b>	<b>-7.97</b>	<b>-4.62</b>	<b>6.54</b>	<b>6.11</b>	<b>6.56</b>	<b>7.05</b>
Policy Benchmark						2.48	-0.78	2.48	-7.24	-4.44	6.74	6.49	6.67	7.23
Dynamic Benchmark						2.59	-1.24	2.59	-8.75	-6.40	6.14	6.09	6.39	N/A
<b>Domestic Equity</b>	<b>24.2%</b>	<b>20.0</b>	15.0	25.0	<b>\$31.4</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.49</b>	<b>13.38</b>
Russell 3000						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.8%</b>	<b>11.0</b>	6.0	16.0	<b>\$14.1</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>7.41</b>
MSCI EAFE IMI						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	7.32
<b>Emerging Markets ISF</b>	<b>7.8%</b>	<b>9.0</b>	4.0	14.0	<b>\$10.1</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>3.50</b>
MSCI Emerging Markets IMI						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	3.04
<b>Global Equities <sup>(4)</sup></b>	<b>42.7%</b>	<b>40.0</b>	25.0	55.0	<b>\$55.6</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>10.26</b>
MSCI All Country World Net Index						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	9.35
<b>Core Fixed Income</b>	<b>11.5%</b>	<b>13.0</b>	8.0	18.0	<b>\$15.0</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.41</b>	<b>1.48</b>
Barclays U.S. Aggregate Bond Index						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Emerging Market Debt</b>	<b>4.1%</b>	<b>5.0</b>	0.0	10.0	<b>\$5.4</b>	<b>1.27</b>	<b>-4.60</b>	<b>1.27</b>	<b>-16.39</b>	<b>-18.86</b>	<b>-5.67</b>	<b>-2.08</b>	<b>0.93</b>	<b>0.30</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						1.59	-2.97	1.59	-16.14	-18.95	-5.31	-1.68	0.84	0.30
<b>High Yield</b>	<b>5.8%</b>	<b>3.0</b>	0.0	8.0	<b>\$7.6</b>	<b>5.50</b>	<b>-1.36</b>	<b>5.50</b>	<b>-8.03</b>	<b>-6.77</b>	<b>2.66</b>	<b>3.12</b>	<b>4.16</b>	<b>4.60</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						5.90	-1.01	5.90	-9.12	-8.03	1.67	2.81	4.09	4.50
<b>Liquidity Fund</b>	<b>1.2%</b>	<b>2.0</b>	0.0	3.0	<b>\$1.5</b>	<b>0.16</b>	<b>0.33</b>	<b>0.16</b>	<b>0.48</b>	<b>0.50</b>	<b>0.70</b>	<b>1.23</b>	<b>1.17</b>	<b>0.79</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64
<b>Real Assets <sup>(1)</sup></b>	<b>15.7%</b>	<b>19.0</b>	15.0	25.0	<b>\$20.4</b>	<b>N/A</b>	<b>2.01</b>	<b>2.95</b>	<b>6.32</b>	<b>12.06</b>	<b>7.16</b>	<b>7.40</b>	<b>7.98</b>	<b>8.97</b>
Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup>						N/A	4.72	1.48	7.86	15.37	8.43	7.76	8.26	9.22
<b>Private Investment <sup>(1)</sup></b>	<b>12.4%</b>	<b>10.0</b>	5.0	15.0	<b>\$16.1</b>	<b>N/A</b>	<b>1.65</b>	<b>-0.25</b>	<b>5.78</b>	<b>26.72</b>	<b>24.47</b>	<b>20.79</b>	<b>17.59</b>	<b>16.24</b>
Russell 3000 + 250 basis points 1Q in Arrears^						N/A	-7.80	-8.77	-4.40	-0.90	17.11	14.90	13.69	14.84
<b>Private Credit <sup>(1)</sup></b>	<b>2.4%</b>	<b>5.0</b>	0.0	10.0	<b>\$3.1</b>	<b>N/A</b>	<b>-0.17</b>	<b>-0.77</b>	<b>1.80</b>	<b>7.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^						N/A	0.12	0.34	1.74	4.55	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.1%</b>	<b>3.0</b>	0.0	10.0	<b>\$5.4</b>	<b>-0.92</b>	<b>-2.17</b>	<b>-0.92</b>	<b>-2.90</b>	<b>-2.38</b>	<b>0.96</b>	<b>2.22</b>	<b>1.87</b>	<b>3.22</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						0.72	-0.76	0.72	-1.74	-1.47	2.00	2.59	1.96	1.38

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# STATE JUDGES RETIREMENT FUND

Net of All Fees and Expenses

7/31/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>State Judges Retirement Fund</b>					<b>\$287.0</b>	<b>3.65</b>	<b>-0.71</b>	<b>3.65</b>	<b>-7.94</b>	<b>-4.61</b>	<b>6.59</b>	<b>6.21</b>	<b>6.59</b>	<b>7.07</b>
Policy Benchmark						2.48	-0.78	2.48	-7.24	-4.44	6.74	6.49	6.63	7.13
Dynamic Benchmark						2.63	-1.20	2.63	-8.65	-6.29	6.22	6.19	6.42	N/A
<b>Domestic Equity</b>	<b>24.4%</b>	<b>20.0</b>	15.0	25.0	<b>\$70.0</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.49</b>	<b>13.38</b>
Russell 3000						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.9%</b>	<b>11.0</b>	6.0	16.0	<b>\$31.4</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>7.41</b>
MSCI EAFE IMI Net						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	7.32
<b>Emerging Markets ISF</b>	<b>8.0%</b>	<b>9.0</b>	4.0	14.0	<b>\$22.8</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.08</b>	<b>2.30</b>	<b>5.14</b>	<b>3.48</b>
MSCI Emerging Markets IMI						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	3.04
<b>Global Equities <sup>(4)</sup></b>	<b>43.3%</b>	<b>40.0</b>	25.0	55.0	<b>\$124.2</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>10.26</b>
MSCI All Country World Net Index						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	9.35
<b>Core Fixed Income</b>	<b>11.5%</b>	<b>13.0</b>	8.0	18.0	<b>\$33.1</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.41</b>	<b>1.48</b>
Barclays U.S. Aggregate Bond Index						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Emerging Market Debt</b>	<b>4.3%</b>	<b>5.0</b>	0.0	10.0	<b>\$12.3</b>	<b>1.27</b>	<b>-4.60</b>	<b>1.27</b>	<b>-16.39</b>	<b>-18.86</b>	<b>-5.67</b>	<b>-2.08</b>	<b>0.93</b>	<b>0.30</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						1.59	-2.97	1.59	-16.14	-18.95	-5.31	-1.68	0.84	0.30
<b>High Yield</b>	<b>5.9%</b>	<b>3.0</b>	0.0	8.0	<b>\$16.8</b>	<b>5.50</b>	<b>-1.36</b>	<b>5.50</b>	<b>-8.03</b>	<b>-6.77</b>	<b>2.66</b>	<b>3.12</b>	<b>4.16</b>	<b>4.60</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						5.90	-1.01	5.90	-9.12	-8.03	1.67	2.81	4.09	4.50
<b>Liquidity Fund</b>	<b>1.4%</b>	<b>2.0</b>	0.0	3.0	<b>\$4.1</b>	<b>0.11</b>	<b>0.28</b>	<b>0.11</b>	<b>0.33</b>	<b>0.34</b>	<b>0.62</b>	<b>1.17</b>	<b>1.13</b>	<b>0.76</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64
<b>Real Assets <sup>(1)</sup></b>	<b>15.2%</b>	<b>19.0</b>	15.0	25.0	<b>\$43.6</b>	<b>N/A</b>	<b>2.01</b>	<b>2.95</b>	<b>6.32</b>	<b>12.06</b>	<b>7.16</b>	<b>7.40</b>	<b>7.98</b>	<b>8.97</b>
Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup>						N/A	4.72	1.48	7.86	15.37	8.43	7.76	8.26	9.22
<b>Private Investment <sup>(1)</sup></b>	<b>11.9%</b>	<b>10.0</b>	5.0	15.0	<b>\$34.1</b>	<b>N/A</b>	<b>1.65</b>	<b>-0.25</b>	<b>5.78</b>	<b>26.72</b>	<b>24.48</b>	<b>20.79</b>	<b>17.59</b>	<b>16.25</b>
Russell 3000 + 250 basis points 1Q in Arrears^						N/A	-7.80	-8.77	-4.40	-0.90	17.11	14.90	13.69	14.84
<b>Private Credit <sup>(1)</sup></b>	<b>2.5%</b>	<b>5.0</b>	0.0	10.0	<b>\$7.1</b>	<b>N/A</b>	<b>-0.17</b>	<b>-0.77</b>	<b>1.80</b>	<b>7.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^						N/A	0.12	0.34	1.74	4.55	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.1%</b>	<b>3.0</b>	0.0	10.0	<b>\$11.7</b>	<b>-0.92</b>	<b>-2.17</b>	<b>-0.92</b>	<b>-2.90</b>	<b>-2.38</b>	<b>0.96</b>	<b>2.22</b>	<b>1.87</b>	<b>3.22</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						0.72	-0.76	0.72	-1.74	-1.47	2.00	2.59	1.96	1.38

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only





# STATE'S ATTORNEYS' RETIREMENT FUND

Net of All Fees and Expenses

7/31/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>State's Attorneys' Retirement Fund</b>					<b>\$2.6</b>	<b>3.62</b>	<b>-0.70</b>	<b>3.62</b>	<b>-7.92</b>	<b>-4.59</b>	<b>6.56</b>	<b>5.89</b>	<b>6.34</b>	<b>6.32</b>
Policy Benchmark						2.48	-0.78	2.48	-7.24	-4.44	6.74	6.72	6.75	N/A
Dynamic Benchmark						2.61	-1.20	2.61	-8.63	-6.28	6.20	6.23	6.38	N/A
<b>Domestic Equity</b>	<b>24.1%</b>	<b>20.0</b>	15.0	25.0	<b>\$0.6</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.50</b>	<b>13.39</b>
Russell 3000						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.9%</b>	<b>11.0</b>	6.0	16.0	<b>\$0.3</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>N/A</b>
MSCI EAFE IMI Net						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	N/A
<b>Emerging Markets ISF</b>	<b>7.9%</b>	<b>9.0</b>	4.0	14.0	<b>\$0.2</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>N/A</b>
MSCI Emerging Markets IMI						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	N/A
<b>Global Equities<sup>(4)</sup></b>	<b>42.9%</b>	<b>40.0</b>	25.0	55.0	<b>\$1.1</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>N/A</b>
MSCI All Country World Net Index						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	N/A
<b>Core Fixed Income</b>	<b>11.6%</b>	<b>13.0</b>	8.0	18.0	<b>\$0.3</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.40</b>	<b>1.51</b>
Barclays U.S. Aggregate Bond Index						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Emerging Market Debt</b>	<b>4.3%</b>	<b>5.0</b>	0.0	10.0	<b>\$0.1</b>	<b>1.27</b>	<b>-4.60</b>	<b>1.27</b>	<b>-16.39</b>	<b>-18.86</b>	<b>-5.67</b>	<b>-2.08</b>	<b>0.93</b>	<b>0.30</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						1.59	-2.97	1.59	-16.14	-18.95	-5.31	-1.68	0.84	0.30
<b>High Yield</b>	<b>5.8%</b>	<b>3.0</b>	0.0	8.0	<b>\$0.2</b>	<b>5.50</b>	<b>-1.36</b>	<b>5.50</b>	<b>-8.03</b>	<b>-6.77</b>	<b>2.67</b>	<b>3.12</b>	<b>4.17</b>	<b>4.58</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						5.90	-1.01	5.90	-9.12	-8.03	1.67	2.81	4.09	4.50
<b>Liquidity Fund</b>	<b>2.1%</b>	<b>2.0</b>	0.0	3.0	<b>\$0.1</b>	<b>0.13</b>	<b>0.29</b>	<b>0.13</b>	<b>0.35</b>	<b>0.36</b>	<b>0.61</b>	<b>1.14</b>	<b>1.10</b>	<b>0.74</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64
<b>Real Assets<sup>(1)</sup></b>	<b>15.2%</b>	<b>19.0</b>	15.0	25.0	<b>\$0.4</b>	<b>N/A</b>	<b>2.01</b>	<b>2.95</b>	<b>6.32</b>	<b>12.06</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Blended Custom Benchmark 1Q in Arrears <sup>(2)</sup>						N/A	4.72	1.48	7.86	15.37	N/A	N/A	N/A	N/A
<b>Private Investment<sup>(1)</sup></b>	<b>11.8%</b>	<b>10.0</b>	5.0	15.0	<b>\$0.3</b>	<b>N/A</b>	<b>1.65</b>	<b>-0.25</b>	<b>5.78</b>	<b>26.72</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Russell 3000 + 250 basis points 1Q in Arrears <sup>(2)</sup>						N/A	-7.80	-8.77	-4.40	-0.90	N/A	N/A	N/A	N/A
<b>Private Credit<sup>(1)</sup></b>	<b>2.3%</b>	<b>5.0</b>	0.0	10.0	<b>\$0.1</b>	<b>N/A</b>	<b>-0.17</b>	<b>-0.77</b>	<b>1.80</b>	<b>7.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears <sup>(2)</sup>						N/A	0.12	0.34	1.74	4.55	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.1%</b>	<b>3.0</b>	0.0	10.0	<b>\$0.1</b>	<b>-0.92</b>	<b>-2.17</b>	<b>-0.92</b>	<b>-2.90</b>	<b>-2.38</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						0.72	-0.76	0.72	-1.74	-1.47	N/A	N/A	N/A	N/A

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# **AGRICULTURAL COLLEGE FUND**

Net of All Fees and Expenses

7/31/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<i>Benchmark</i>														
<b>Agricultural College Fund</b>	<b>100.0%</b>				<b>\$0.6</b>	<b>2.20</b>	<b>0.90</b>	<b>2.20</b>	<b>-8.91</b>	<b>-9.89</b>	<b>-0.23</b>	<b>1.03</b>	<b>1.44</b>	<b>1.62</b>
<i>Policy Benchmark</i>						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.71
<i>Dynamic Benchmark</i>						2.49	1.54	2.49	-8.09	-9.05	-0.18	1.29	1.68	N/A
<b>Core Fixed Income</b>	<b>102.1%</b>	<b>100.0</b>	100.0	100.0	<b>\$0.6</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.40</b>	<b>1.47</b>
<i>Barclays U.S. Aggregate Bond Index</i>						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Liquidity Fund <sup>(1)</sup></b>	<b>-2.1%</b>				<b>(\$0.0)</b>	<b>-0.01</b>	<b>0.10</b>	<b>-0.01</b>	<b>0.14</b>	<b>0.14</b>	<b>0.40</b>	<b>0.57</b>	<b>0.54</b>	<b>-0.07</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US</i>						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64
<i>Government Treasury 1 to 3 Year Index</i>														

<sup>(1)</sup> Operational cash balance and expense accruals



# **ANDREW C. CLARK FUND**

Net of All Fees and Expenses

7/31/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Andrew C. Clark Fund</b>					<b>\$1.3</b>	<b>3.43</b>	<b>-0.08</b>	<b>3.43</b>	<b>-10.52</b>	<b>-10.30</b>	<b>2.54</b>	<b>3.20</b>	<b>3.63</b>	<b>4.15</b>
Policy Benchmark						3.63	0.33	3.63	-9.99	-9.57	2.45	3.39	3.69	4.22
Dynamic Benchmark						3.68	0.51	3.68	-9.84	-9.51	2.59	3.50	3.78	N/A
<b>Domestic Equity</b>	<b>15.4%</b>	<b>15.0</b>	10.0	20.0	<b>\$0.2</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.50</b>	<b>13.37</b>
Russell 3000						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.8%</b>	<b>11.0</b>	6.0	16.0	<b>\$0.1</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>N/A</b>
MSCI EAFE IMI Net						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	N/A
<b>Emerging Markets ISF</b>	<b>3.8%</b>	<b>4.0</b>	0.0	5.0	<b>\$0.0</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>N/A</b>
MSCI Emerging Markets IMI						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>30.1%</b>	<b>30.0</b>	16.0	41.0	<b>\$0.4</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>N/A</b>
MSCI All Country World Net Index						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	N/A
<b>Core Fixed Income</b>	<b>70.8%</b>	<b>67.0</b>	57.0	77.0	<b>\$0.9</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.41</b>	<b>1.48</b>
Barclays U.S. Aggregate Bond Index						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Liquidity Fund <sup>(2)</sup></b>	<b>-0.9%</b>	<b>3.0</b>	0.0	4.0	<b>(\$0.0)</b>	<b>-0.18</b>	<b>0.03</b>	<b>-0.18</b>	<b>0.08</b>	<b>0.07</b>	<b>1.07</b>	<b>2.44</b>	<b>2.20</b>	<b>1.52</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only

<sup>(2)</sup> Operational cash balance and expense accruals



# SOLDIERS' SAILORS' & MARINES' FUND

Net of All Fees and Expenses

7/31/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Soldiers' Sailors' &amp; Marines Fund</b>					<b>\$80.5</b>	<b>3.35</b>	<b>-0.06</b>	<b>3.35</b>	<b>-10.63</b>	<b>-10.36</b>	<b>2.51</b>	<b>3.18</b>	<b>3.62</b>	<b>4.09</b>
Policy Benchmark						3.63	0.33	3.63	-9.99	-9.57	2.45	3.39	3.69	4.18
Dynamic Benchmark						3.58	0.27	3.58	-10.14	-9.77	2.49	3.45	3.75	N/A
<b>Domestic Equity</b>	<b>15.1%</b>	<b>15.0</b>	10.0	20.0	<b>\$12.2</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.50</b>	<b>13.38</b>
Russell 3000						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.6%</b>	<b>11.0</b>	6.0	16.0	<b>\$8.5</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>N/A</b>
MSCI EAFE IMI Net						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	N/A
<b>Emerging Markets ISF</b>	<b>3.8%</b>	<b>4.0</b>	0.0	5.0	<b>\$3.1</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>N/A</b>
MSCI Emerging Markets IMI						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>29.6%</b>	<b>30.0</b>	16.0	41.0	<b>\$23.8</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>N/A</b>
MSCI All Country World Net Index						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	N/A
<b>Core Fixed Income</b>	<b>68.8%</b>	<b>67.0</b>	57.0	77.0	<b>\$55.4</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.40</b>	<b>1.47</b>
Barclays U.S. Aggregate Bond Index						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Liquidity Fund</b>	<b>1.6%</b>	<b>3.0</b>	0.0	4.0	<b>\$1.3</b>	<b>0.14</b>	<b>0.26</b>	<b>0.14</b>	<b>0.30</b>	<b>0.32</b>	<b>0.62</b>	<b>1.17</b>	<b>1.13</b>	<b>0.76</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only



**SCHOOL FUND**  
**Net of All Fees and Expenses**  
**7/31/2022**

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>School Fund</b>					<b>\$12.0</b>	<b>3.36</b>	<b>-0.05</b>	<b>3.36</b>	<b>-10.73</b>	<b>-10.44</b>	<b>2.49</b>	<b>3.18</b>	<b>3.62</b>	<b>4.14</b>
Policy Benchmark						3.63	0.33	3.63	-9.99	-9.57	2.45	3.39	3.69	4.22
Dynamic Benchmark						3.62	0.24	3.62	-10.23	-9.84	2.47	3.43	3.74	N/A
<b>Domestic Equity</b>	<b>15.0%</b>	<b>15.0</b>	10.0	20.0	<b>\$1.8</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.50</b>	<b>13.38</b>
Russell 3000						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.6%</b>	<b>11.0</b>	6.0	16.0	<b>\$1.3</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>N/A</b>
MSCI EAFE IMI Net						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	N/A
<b>Emerging Markets ISF</b>	<b>3.6%</b>	<b>4.0</b>	0.0	5.0	<b>\$0.4</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>N/A</b>
MSCI Emerging Markets IMI						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>29.2%</b>	<b>30.0</b>	16.0	41.0	<b>\$3.5</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>N/A</b>
MSCI All Country World Net Index						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	N/A
<b>Core Fixed Income</b>	<b>70.1%</b>	<b>67.0</b>	57.0	77.0	<b>\$8.4</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.40</b>	<b>1.47</b>
Barclays U.S. Aggregate Bond Index						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Liquidity Fund</b>	<b>0.8%</b>	<b>3.0</b>	0.0	4.0	<b>\$0.1</b>	<b>0.46</b>	<b>0.77</b>	<b>0.46</b>	<b>0.87</b>	<b>0.90</b>	<b>1.14</b>	<b>1.96</b>	<b>1.69</b>	<b>1.11</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only



# IDA EATON COTTON FUND

Net of All Fees and Expenses

7/31/2022

Funds <i>Benchmark</i>	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>IDA Eaton Cotton Fund</b>					<b>\$2.7</b>	<b>3.42</b>	<b>-0.09</b>	<b>3.42</b>	<b>-10.54</b>	<b>-10.32</b>	<b>2.52</b>	<b>3.19</b>	<b>3.62</b>	<b>4.15</b>
<i>Policy Benchmark</i>						3.63	0.33	3.63	-9.99	-9.57	2.45	3.39	3.69	4.22
<i>Dynamic Benchmark</i>						3.67	0.50	3.67	-9.86	-9.55	2.57	3.49	3.77	N/A
<b>Domestic Equity</b>	<b>15.3%</b>	<b>15.0</b>	10.0	20.0	<b>\$0.4</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.50</b>	<b>13.38</b>
<i>Russell 3000</i>						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.8%</b>	<b>11.0</b>	6.0	16.0	<b>\$0.3</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>N/A</b>
<i>MSCI EAFE IMI Net</i>						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	N/A
<b>Emerging Markets ISF</b>	<b>4.0%</b>	<b>4.0</b>	0.0	5.0	<b>\$0.1</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>N/A</b>
<i>MSCI Emerging Markets IMI</i>						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>30.1%</b>	<b>30.0</b>	16.0	41.0	<b>\$0.8</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>N/A</b>
<i>MSCI All Country World Net Index</i>						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	N/A
<b>Core Fixed Income</b>	<b>70.8%</b>	<b>67.0</b>	57.0	77.0	<b>\$1.9</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.41</b>	<b>1.47</b>
<i>Barclays U.S. Aggregate Bond Index</i>						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Liquidity Fund <sup>(2)</sup></b>	<b>-0.9%</b>	<b>3.0</b>	0.0	4.0	<b>(\$0.0)</b>	<b>-0.33</b>	<b>-0.16</b>	<b>-0.33</b>	<b>-0.08</b>	<b>-0.08</b>	<b>1.33</b>	<b>2.84</b>	<b>2.50</b>	<b>1.68</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index</i>						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only

<sup>(2)</sup> Operational cash balance and expense accruals



**HOPEMEAD FUND**  
**Net of All Fees and Expenses**  
**7/31/2022**

Funds <i>Benchmark</i>	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Hopemead Fund</b>					<b>\$4.5</b>	<b>3.32</b>	<b>-0.08</b>	<b>3.32</b>	<b>-10.55</b>	<b>-10.28</b>	<b>2.51</b>	<b>3.17</b>	<b>3.60</b>	<b>4.09</b>
<i>Policy Benchmark</i>						3.63	0.33	3.63	-9.99	-9.57	2.45	3.39	3.69	4.22
<i>Dynamic Benchmark</i>						3.57	0.30	3.57	-10.06	-9.69	2.49	3.43	3.73	N/A
<b>Domestic Equity</b>	<b>15.1%</b>	<b>15.0</b>	10.0	20.0	<b>\$0.7</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.50</b>	<b>13.37</b>
<i>Russell 3000</i>						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.5%</b>	<b>11.0</b>	6.0	16.0	<b>\$0.5</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>N/A</b>
<i>MSCI EAFE IMI Net</i>						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	N/A
<b>Emerging Markets ISF</b>	<b>3.8%</b>	<b>4.0</b>	0.0	5.0	<b>\$0.2</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.07</b>	<b>2.30</b>	<b>5.14</b>	<b>N/A</b>
<i>MSCI Emerging Markets IMI</i>						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>29.4%</b>	<b>30.0</b>	16.0	41.0	<b>\$1.3</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>N/A</b>
<i>MSCI All Country World Net Index</i>						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	N/A
<b>Core Fixed Income</b>	<b>67.5%</b>	<b>67.0</b>	57.0	77.0	<b>\$3.0</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.41</b>	<b>1.47</b>
<i>Barclays U.S. Aggregate Bond Index</i>						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Liquidity Fund</b>	<b>3.0%</b>	<b>3.0</b>	0.0	4.0	<b>\$0.1</b>	<b>0.20</b>	<b>0.38</b>	<b>0.20</b>	<b>0.46</b>	<b>0.47</b>	<b>0.67</b>	<b>1.18</b>	<b>1.13</b>	<b>0.77</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index</i>						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only



# ARTS ENDOWMENT FUND

Net of All Fees and Expenses

7/31/2022

Funds <i>Benchmark</i>	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)									
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
<b>Arts Endowment Fund</b>					<b>\$21.3</b>	<b>4.18</b>	<b>-1.71</b>	<b>4.18</b>	<b>-11.81</b>	<b>-10.15</b>	<b>5.52</b>	<b>5.11</b>	<b>5.00</b>	<b>5.03</b>
<i>Policy Benchmark</i>						4.61	-1.53	4.61	-11.98	-10.29	4.56	4.90	4.77	4.95
<i>Dynamic Benchmark</i>						4.50	-1.33	4.50	-11.57	-9.93	5.16	N/A	N/A	N/A
<b>Domestic Equity</b>	<b>28.2%</b>	<b>28.0</b>	23.0	33.0	<b>\$6.0</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.50</b>	<b>N/A</b>
<i>Russell 3000</i>						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	N/A
<b>Developed Markets ISF</b>	<b>16.5%</b>	<b>17.0</b>	12.0	22.0	<b>\$3.5</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.06</b>	<b>4.29</b>	<b>N/A</b>
<i>MSCI EAFE IMI Net</i>						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	N/A
<b>Emerging Markets ISF</b>	<b>11.5%</b>	<b>12.0</b>	7.0	17.0	<b>\$2.5</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.08</b>	<b>2.30</b>	<b>5.15</b>	<b>N/A</b>
<i>MSCI Emerging Markets IMI</i>						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	N/A
<b>Global Equities <sup>(2)</sup></b>	<b>56.3%</b>	<b>57.0</b>	42.0	72.0	<b>\$12.0</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>N/A</b>
<i>MSCI All Country World Net Index</i>						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	N/A
<b>Core Fixed Income</b>	<b>16.2%</b>	<b>16.0</b>	11.0	21.0	<b>\$3.5</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.40</b>	<b>1.47</b>
<i>Barclays U.S. Aggregate Bond Index</i>						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Emerging Market Debt</b>	<b>7.4%</b>	<b>8.0</b>	3.0	13.0	<b>\$1.6</b>	<b>1.27</b>	<b>-4.60</b>	<b>1.27</b>	<b>-16.39</b>	<b>-18.86</b>	<b>-5.67</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>50% JPM EMBI Global Div / 50% JPM GBI EM Global Div</i>						1.59	-2.97	1.59	-16.14	-18.95	-5.31	N/A	N/A	N/A
<b>High Yield</b>	<b>9.3%</b>	<b>9.0</b>	4.0	14.0	<b>\$2.0</b>	<b>5.50</b>	<b>-1.36</b>	<b>5.50</b>	<b>-8.03</b>	<b>-6.77</b>	<b>2.66</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index</i>						5.90	-1.01	5.90	-9.12	-8.03	1.67	N/A	N/A	N/A
<b>Private Credit <sup>(1)</sup></b>	<b>9.3%</b>	<b>9.0</b>	4.0	14.0	<b>\$2.0</b>	<b>N/A</b>	<b>-0.17</b>	<b>-0.77</b>	<b>1.80</b>	<b>7.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>S&amp;P / LSTA Leveraged Loan Index + 150 basis points</i>						N/A	0.12	0.34	1.74	4.55	N/A	N/A	N/A	N/A
<i>1Q in Arrears^</i>														
<b>Liquidity Fund</b>	<b>1.6%</b>	<b>1.0</b>	0.0	3.0	<b>\$0.3</b>	<b>0.18</b>	<b>0.31</b>	<b>0.18</b>	<b>0.36</b>	<b>0.33</b>	<b>0.62</b>	<b>1.14</b>	<b>1.09</b>	<b>0.74</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US</i>						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64
<i>Government Treasury 1 to 3 Year Index</i>														

<sup>(1)</sup> Actual performance, reported one quarter in arrears,

<sup>(2)</sup> Unofficial Benchmark, for comparison purposes only





# **POLICEMEN AND FIREMEN SURVIVORS' BENEFIT FUND**

Net of All Fees and Expenses

7/31/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Compound, annualized returns								
						Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Policemen and Firemen Survivors' Benefit Fund</b>					<b>\$45.4</b>	<b>3.65</b>	<b>-0.69</b>	<b>3.65</b>	<b>-7.90</b>	<b>-4.56</b>	<b>6.57</b>	<b>6.21</b>	<b>6.63</b>	<b>7.09</b>
Policy Benchmark						2.48	-0.78	2.48	-7.24	-4.44	6.74	6.54	6.69	N/A
Dynamic Benchmark						2.63	-1.20	2.63	-8.64	-6.28	6.19	6.17	6.44	N/A
<b>Domestic Equity</b>	<b>24.4%</b>	<b>20.0</b>	15.0	25.0	<b>\$11.1</b>	<b>9.14</b>	<b>0.08</b>	<b>9.14</b>	<b>-13.93</b>	<b>-7.61</b>	<b>12.39</b>	<b>11.93</b>	<b>11.49</b>	<b>13.56</b>
Russell 3000						9.38	0.10	9.38	-13.70	-7.35	12.55	12.18	11.59	13.48
<b>Developed Markets ISF</b>	<b>10.9%</b>	<b>11.0</b>	6.0	16.0	<b>\$4.9</b>	<b>5.22</b>	<b>-4.15</b>	<b>5.22</b>	<b>-15.75</b>	<b>-14.54</b>	<b>3.71</b>	<b>3.05</b>	<b>4.28</b>	<b>N/A</b>
MSCI EAFE IMI Net						5.23	-4.31	5.23	-16.21	-15.26	3.20	3.48	3.93	N/A
<b>Emerging Markets ISF</b>	<b>7.7%</b>	<b>9.0</b>	4.0	14.0	<b>\$3.5</b>	<b>-0.15</b>	<b>-5.84</b>	<b>-0.15</b>	<b>-17.84</b>	<b>-21.94</b>	<b>3.08</b>	<b>2.30</b>	<b>5.14</b>	<b>N/A</b>
MSCI Emerging Markets IMI						0.13	-6.87	0.13	-17.83	-19.77	1.62	1.23	3.86	N/A
<b>Global Equities <sup>(4)</sup></b>	<b>43.0%</b>	<b>40.0</b>	25.0	55.0	<b>\$19.5</b>	<b>6.36</b>	<b>-2.07</b>	<b>6.36</b>	<b>-14.97</b>	<b>-11.41</b>	<b>8.37</b>	<b>7.36</b>	<b>8.03</b>	<b>N/A</b>
MSCI All Country World Net Index						6.98	-1.92	6.98	-14.61	-10.48	8.52	7.86	7.89	N/A
<b>Core Fixed Income</b>	<b>11.5%</b>	<b>13.0</b>	8.0	18.0	<b>\$5.2</b>	<b>2.15</b>	<b>0.89</b>	<b>2.15</b>	<b>-8.94</b>	<b>-9.90</b>	<b>-0.27</b>	<b>0.99</b>	<b>1.40</b>	<b>1.53</b>
Barclays U.S. Aggregate Bond Index						2.44	1.49	2.44	-8.16	-9.12	-0.21	1.28	1.67	1.65
<b>Emerging Market Debt</b>	<b>4.3%</b>	<b>5.0</b>	0.0	10.0	<b>\$1.9</b>	<b>1.27</b>	<b>-4.60</b>	<b>1.27</b>	<b>-16.39</b>	<b>-18.86</b>	<b>-5.67</b>	<b>-2.08</b>	<b>0.94</b>	<b>0.30</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						1.59	-2.97	1.59	-16.14	-18.95	-5.31	-1.68	0.84	0.30
<b>High Yield</b>	<b>5.9%</b>	<b>3.0</b>	0.0	8.0	<b>\$2.7</b>	<b>5.50</b>	<b>-1.36</b>	<b>5.50</b>	<b>-8.03</b>	<b>-6.77</b>	<b>2.66</b>	<b>3.12</b>	<b>4.16</b>	<b>4.58</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						5.90	-1.01	5.90	-9.12	-8.03	1.67	2.81	4.09	4.50
<b>Liquidity Fund</b>	<b>1.8%</b>	<b>2.0</b>	0.0	3.0	<b>\$0.8</b>	<b>0.19</b>	<b>0.37</b>	<b>0.19</b>	<b>0.44</b>	<b>0.46</b>	<b>0.66</b>	<b>1.19</b>	<b>1.13</b>	<b>0.77</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						0.24	0.26	0.24	-1.21	-1.54	0.28	0.96	0.84	0.64
<b>Real Assets <sup>(1)</sup></b>	<b>15.2%</b>	<b>19.0</b>	15.0	25.0	<b>\$6.9</b>	<b>N/A</b>	<b>2.01</b>	<b>2.95</b>	<b>6.32</b>	<b>12.06</b>	<b>7.16</b>	<b>7.40</b>	<b>7.97</b>	<b>8.93</b>
Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup>						N/A	4.72	1.48	7.86	15.37	8.43	7.76	8.26	9.22
<b>Private Investment <sup>(1)</sup></b>	<b>11.9%</b>	<b>10.0</b>	5.0	15.0	<b>\$5.4</b>	<b>N/A</b>	<b>1.65</b>	<b>-0.25</b>	<b>5.78</b>	<b>26.72</b>	<b>24.48</b>	<b>20.79</b>	<b>17.59</b>	<b>N/A</b>
Russell 3000 + 250 basis points 1Q in Arrears^						N/A	-7.80	-8.77	-4.40	-0.90	17.11	14.90	13.69	N/A
<b>Private Credit <sup>(1)</sup></b>	<b>2.4%</b>	<b>5.0</b>	0.0	10.0	<b>\$1.1</b>	<b>N/A</b>	<b>-0.17</b>	<b>-0.77</b>	<b>1.80</b>	<b>7.53</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^						N/A	0.12	0.34	1.74	4.55	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.1%</b>	<b>3.0</b>	0.0	10.0	<b>\$1.9</b>	<b>-0.92</b>	<b>-2.17</b>	<b>-0.92</b>	<b>-2.90</b>	<b>-2.38</b>	<b>0.96</b>	<b>2.22</b>	<b>1.87</b>	<b>N/A</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						0.72	-0.76	0.72	-1.74	-1.47	2.00	2.59	1.96	N/A

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# TEACHER'S RETIREMENT FUND

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Teacher's Retirement Fund</b>					<b>\$20,681.1</b>	<b>-4.63</b>	<b>-7.87</b>	<b>-7.63</b>	<b>-11.08</b>	<b>-7.63</b>	<b>5.35</b>	<b>5.79</b>	<b>6.15</b>	<b>7.28</b>
Policy Benchmark						-3.07	-7.60	-6.02	-9.49	-6.02	5.98	6.50	6.47	7.50
Dynamic Benchmark						-3.53	-8.50	-8.11	-10.84	-8.11	5.36	6.00	6.09	N/A
<b>Domestic Equity</b>	<b>23.5%</b>	<b>20.0</b>	15.0	25.0	<b>\$4,858.3</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.41</b>	<b>10.34</b>	<b>12.48</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.9%</b>	<b>11.0</b>	6.0	16.0	<b>\$2,243.2</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.88</b>	<b>7.02</b>
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	6.90
<b>Emerging Markets ISF</b>	<b>8.1%</b>	<b>9.0</b>	4.0	14.0	<b>\$1,675.7</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.35</b>	<b>-17.71</b>	<b>-25.35</b>	<b>2.96</b>	<b>3.28</b>	<b>4.29</b>	<b>3.71</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	3.20
<b>Global Equities <sup>(4)</sup></b>	<b>42.4%</b>	<b>40.0</b>	25.0	55.0	<b>\$8,777.3</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>9.74</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	8.76
<b>Core Fixed Income</b>	<b>11.8%</b>	<b>13.0</b>	8.0	18.0	<b>\$2,441.4</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.41</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Emerging Market Debt</b>	<b>4.5%</b>	<b>5.0</b>	0.0	10.0	<b>\$925.8</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>-2.01</b>	<b>0.63</b>	<b>0.50</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	-1.70	0.47	0.54
<b>High Yield</b>	<b>5.8%</b>	<b>3.0</b>	0.0	8.0	<b>\$1,200.3</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>2.24</b>	<b>3.28</b>	<b>4.19</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	1.87	3.12	4.08
<b>Liquidity Fund</b>	<b>0.2%</b>	<b>2.0</b>	0.0	3.0	<b>\$38.0</b>	<b>0.10</b>	<b>0.21</b>	<b>0.31</b>	<b>0.24</b>	<b>0.31</b>	<b>1.09</b>	<b>1.46</b>	<b>1.28</b>	<b>0.90</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62
<b>Real Assets <sup>(1)</sup></b>	<b>16.1%</b>	<b>19.0</b>	10.0	25.0	<b>\$3,319.3</b>	<b>N/A</b>	<b>1.23</b>	<b>10.38</b>	<b>3.28</b>	<b>10.38</b>	<b>6.26</b>	<b>6.77</b>	<b>7.52</b>	<b>8.63</b>
Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup>						N/A	2.62	14.83	6.29	14.83	7.90	7.45	8.04	9.06
<b>Private Investment <sup>(1)</sup></b>	<b>12.4%</b>	<b>10.0</b>	5.0	15.0	<b>\$2,563.1</b>	<b>N/A</b>	<b>3.53</b>	<b>27.30</b>	<b>6.04</b>	<b>27.30</b>	<b>24.56</b>	<b>20.86</b>	<b>17.62</b>	<b>16.26</b>
Russell 3000 + 250 basis points 1Q in Arrears^						N/A	-4.68	14.24	4.79	14.24	20.75	17.51	15.53	16.06
<b>Private Credit <sup>(1)</sup></b>	<b>2.7%</b>	<b>5.0</b>	0.0	10.0	<b>\$550.0</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.2%</b>	<b>3.0</b>	0.0	10.0	<b>\$865.7</b>	<b>-0.82</b>	<b>-0.28</b>	<b>-1.40</b>	<b>-2.00</b>	<b>-1.40</b>	<b>1.29</b>	<b>2.44</b>	<b>2.13</b>	<b>3.18</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						-0.75	-1.67	-2.14	-2.44	-2.14	1.90	2.46	1.85	1.31

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# STATE EMPLOYEES' RETIREMENT FUND

Net of All Fees and Expenses

6/30/2022

Funds <i>Benchmark</i>	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>State Employees' Retirement Fund</b>					<b>\$15,448.4</b>	<b>-4.61</b>	<b>-7.85</b>	<b>-7.63</b>	<b>-11.06</b>	<b>-7.63</b>	<b>5.37</b>	<b>5.86</b>	<b>6.20</b>	<b>7.32</b>
<i>Policy Benchmark</i>						-3.07	-7.60	-6.02	-9.49	-6.02	5.98	6.50	6.47	7.51
<i>Dynamic Benchmark</i>						-3.52	-8.40	-8.04	-10.77	-8.04	5.43	6.10	6.19	N/A
<b>Domestic Equity</b>	<b>23.5%</b>	<b>20.0</b>	15.0	25.0	<b>\$3,622.1</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.41</b>	<b>10.34</b>	<b>12.48</b>
<i>Russell 3000</i>						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.8%</b>	<b>11.0</b>	6.0	16.0	<b>\$1,670.4</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.87</b>	<b>7.02</b>
<i>MSCI EAFE IMI Net</i>						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	6.90
<b>Emerging Markets ISF</b>	<b>8.0%</b>	<b>9.0</b>	4.0	14.0	<b>\$1,241.2</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.29</b>	<b>4.29</b>	<b>3.71</b>
<i>MSCI Emerging Markets IMI</i>						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	3.20
<b>Global Equities <sup>(4)</sup></b>	<b>42.3%</b>	<b>40.0</b>	25.0	55.0	<b>\$6,533.7</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>9.74</b>
<i>MSCI All Country World Net Index</i>						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	8.76
<b>Core Fixed Income</b>	<b>11.6%</b>	<b>13.0</b>	8.0	18.0	<b>\$1,786.8</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.41</b>
<i>Barclays U.S. Aggregate Bond Index</i>						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Emerging Market Debt</b>	<b>4.4%</b>	<b>5.0</b>	0.0	10.0	<b>\$681.7</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>-2.01</b>	<b>0.63</b>	<b>0.50</b>
<i>50% JPM EMBI Global Div / 50% JPM GBI EM Global Div</i>						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	-1.70	0.47	0.54
<b>High Yield</b>	<b>5.7%</b>	<b>3.0</b>	0.0	8.0	<b>\$880.3</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>2.24</b>	<b>3.28</b>	<b>4.19</b>
<i>Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index</i>						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	1.87	3.12	4.08
<b>Liquidity Fund</b>	<b>1.1%</b>	<b>2.0</b>	0.0	3.0	<b>\$168.1</b>	<b>0.10</b>	<b>0.11</b>	<b>0.18</b>	<b>0.16</b>	<b>0.18</b>	<b>0.65</b>	<b>1.20</b>	<b>1.09</b>	<b>0.77</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index</i>						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62
<b>Real Assets <sup>(1)</sup></b>	<b>15.9%</b>	<b>19.0</b>	10.0	25.0	<b>\$2,462.7</b>	<b>N/A</b>	<b>1.23</b>	<b>10.38</b>	<b>3.28</b>	<b>10.38</b>	<b>6.27</b>	<b>6.77</b>	<b>7.52</b>	<b>8.63</b>
<i>Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup></i>						N/A	2.62	14.83	6.29	14.83	7.90	7.45	8.04	9.06
<b>Private Investment <sup>(1)</sup></b>	<b>12.2%</b>	<b>10.0</b>	5.0	15.0	<b>\$1,891.5</b>	<b>N/A</b>	<b>3.53</b>	<b>27.30</b>	<b>6.04</b>	<b>27.30</b>	<b>24.56</b>	<b>20.86</b>	<b>17.62</b>	<b>16.26</b>
<i>Russell 3000 + 250 basis points 1Q in Arrears^</i>						N/A	-4.68	14.24	4.79	14.24	20.75	17.51	15.53	16.06
<b>Private Credit <sup>(1)</sup></b>	<b>2.7%</b>	<b>5.0</b>	0.0	10.0	<b>\$410.0</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>S&amp;P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^</i>						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.1%</b>	<b>3.0</b>	0.0	8.0	<b>\$633.6</b>	<b>-0.82</b>	<b>-0.28</b>	<b>-1.40</b>	<b>-2.00</b>	<b>-1.40</b>	<b>1.29</b>	<b>2.45</b>	<b>2.13</b>	<b>3.18</b>
<i>Absolute Return Strategy blended benchmark <sup>(3)</sup></i>						-0.75	-1.67	-2.14	-2.44	-2.14	1.90	2.46	1.85	1.31

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# **MUNICIPAL EMPLOYEES RETIREMENT FUND**

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Municipal Employees' Retirement Fund</b>					<b>\$2,992.7</b>	<b>-4.61</b>	<b>-7.96</b>	<b>-7.76</b>	<b>-11.25</b>	<b>-7.76</b>	<b>5.39</b>	<b>5.71</b>	<b>6.06</b>	<b>6.78</b>
Policy Benchmark						-3.07	-7.60	-6.02	-9.49	-6.02	5.98	6.30	6.29	7.01
Dynamic Benchmark						-3.63	-8.65	-8.29	-11.06	-8.29	5.38	5.87	6.00	N/A
<b>Domestic Equity</b>	<b>23.3%</b>	<b>20.0</b>	15.0	25.0	<b>\$697.3</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.41</b>	<b>10.34</b>	<b>12.48</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.7%</b>	<b>11.0</b>	6.0	16.0	<b>\$321.0</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.88</b>	<b>7.02</b>
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	6.90
<b>Emerging Markets ISF</b>	<b>8.1%</b>	<b>9.0</b>	4.0	14.0	<b>\$241.2</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.29</b>	<b>4.29</b>	<b>3.72</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	3.20
<b>Global Equities <sup>(4)</sup></b>	<b>42.1%</b>	<b>40.0</b>	25.0	55.0	<b>\$1,259.5</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>9.74</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	8.76
<b>Core Fixed Income</b>	<b>11.9%</b>	<b>13.0</b>	8.0	18.0	<b>\$355.2</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.41</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Emerging Market Debt</b>	<b>4.5%</b>	<b>5.0</b>	0.0	10.0	<b>\$135.3</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>-2.01</b>	<b>0.63</b>	<b>0.50</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	-1.70	0.47	0.54
<b>High Yield</b>	<b>5.8%</b>	<b>3.0</b>	0.0	8.0	<b>\$173.7</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>2.23</b>	<b>3.28</b>	<b>4.19</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	1.87	3.12	4.08
<b>Liquidity Fund</b>	<b>0.8%</b>	<b>2.0</b>	0.0	3.0	<b>\$23.7</b>	<b>0.10</b>	<b>0.18</b>	<b>0.22</b>	<b>0.20</b>	<b>0.22</b>	<b>0.65</b>	<b>1.20</b>	<b>1.09</b>	<b>0.80</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62
<b>Real Assets <sup>(1)</sup></b>	<b>15.9%</b>	<b>19.0</b>	15.0	25.0	<b>\$476.2</b>	<b>N/A</b>	<b>1.23</b>	<b>10.38</b>	<b>3.28</b>	<b>10.38</b>	<b>6.27</b>	<b>6.77</b>	<b>7.52</b>	<b>8.63</b>
Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup>						N/A	2.62	14.83	6.29	14.83	7.90	7.45	8.04	9.06
<b>Private Investment <sup>(1)</sup></b>	<b>12.2%</b>	<b>10.0</b>	5.0	15.0	<b>\$365.1</b>	<b>N/A</b>	<b>3.53</b>	<b>27.30</b>	<b>6.04</b>	<b>27.30</b>	<b>24.56</b>	<b>20.86</b>	<b>17.62</b>	<b>16.26</b>
Russell 3000 + 250 basis points 1Q in Arrears^						N/A	-4.68	14.24	4.79	14.24	20.75	17.51	15.53	16.06
<b>Private Credit <sup>(1)</sup></b>	<b>2.6%</b>	<b>5.0</b>	0.0	10.0	<b>\$77.0</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.3%</b>	<b>3.0</b>	0.0	10.0	<b>\$127.1</b>	<b>-0.82</b>	<b>-0.28</b>	<b>-1.40</b>	<b>-2.00</b>	<b>-1.40</b>	<b>1.29</b>	<b>2.45</b>	<b>2.13</b>	<b>3.18</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						-0.75	-1.67	-2.14	-2.44	-2.14	1.90	2.46	1.85	1.31

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



**OPEB FUND**  
Net of All Fees and Expenses  
6/30/2022

Funds <i>Benchmark</i>	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>OPEB</b>					<b>\$2,076.1</b>	<b>-4.51</b>	<b>-7.67</b>	<b>-7.44</b>	<b>-10.89</b>	<b>-7.44</b>	<b>5.61</b>	<b>5.86</b>	<b>6.10</b>	<b>N/A</b>
<i>Policy Benchmark</i>						-3.07	-7.60	-6.02	-9.49	-6.02	5.98	6.31	6.25	N/A
<i>Dynamic Benchmark</i>						-3.47	-8.28	-7.95	-10.69	-7.95	5.57	6.10	6.16	N/A
<b>Domestic Equity</b>	<b>22.8%</b>	<b>20.0</b>	15.0	25.0	<b>\$474.0</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.43</b>	<b>10.34</b>	<b>N/A</b>
<i>Russell 3000</i>						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	N/A
<b>Developed Markets ISF</b>	<b>10.6%</b>	<b>11.0</b>	6.0	15.0	<b>\$219.5</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.74</b>	<b>2.40</b>	<b>3.88</b>	<b>N/A</b>
<i>MSCI EAFE IMI Net</i>						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	N/A
<b>Emerging Markets ISF</b>	<b>7.9%</b>	<b>9.0</b>	4.0	14.0	<b>\$163.4</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.29</b>	<b>4.29</b>	<b>N/A</b>
<i>MSCI Emerging Markets IMI</i>						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	N/A
<b>Global Equities <sup>(4)</sup></b>	<b>41.3%</b>	<b>40.0</b>	25.0	54.0	<b>\$856.9</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>N/A</b>
<i>MSCI All Country World Net Index</i>						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	N/A
<b>Core Fixed Income</b>	<b>11.3%</b>	<b>13.0</b>	8.0	18.0	<b>\$234.6</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>N/A</b>
<i>Barclays U.S. Aggregate Bond Index</i>						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	N/A
<b>Emerging Market Debt</b>	<b>4.3%</b>	<b>5.0</b>	0.0	10.0	<b>\$89.9</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>-2.00</b>	<b>0.64</b>	<b>N/A</b>
<i>50% JPM EMBI Global Div / 50% JPM GBI EM Global Div</i>						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	-1.70	0.47	N/A
<b>High Yield</b>	<b>5.7%</b>	<b>3.0</b>	0.0	8.0	<b>\$117.6</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>2.23</b>	<b>3.28</b>	<b>N/A</b>
<i>Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index</i>						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	1.87	3.12	N/A
<b>Liquidity Fund</b>	<b>3.0%</b>	<b>2.0</b>	0.0	3.0	<b>\$61.7</b>	<b>0.10</b>	<b>0.21</b>	<b>0.27</b>	<b>0.25</b>	<b>0.27</b>	<b>0.68</b>	<b>1.25</b>	<b>1.13</b>	<b>N/A</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index</i>						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	N/A
<b>Real Assets <sup>(1)</sup></b>	<b>15.7%</b>	<b>19.0</b>	15.0	25.0	<b>\$324.9</b>	<b>N/A</b>	<b>1.23</b>	<b>10.38</b>	<b>3.28</b>	<b>10.38</b>	<b>6.27</b>	<b>6.77</b>	<b>7.52</b>	<b>N/A</b>
<i>Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup></i>						N/A	2.62	14.83	6.29	14.83	7.90	7.45	8.04	N/A
<b>Private Investment <sup>(1)</sup></b>	<b>12.2%</b>	<b>10.0</b>	5.0	15.0	<b>\$252.3</b>	<b>N/A</b>	<b>3.53</b>	<b>27.30</b>	<b>6.04</b>	<b>27.30</b>	<b>24.56</b>	<b>20.86</b>	<b>17.63</b>	<b>N/A</b>
<i>Russell 3000 + 250 basis points 1Q in Arrears^</i>						N/A	-4.68	14.24	4.79	14.24	20.75	17.51	15.53	N/A
<b>Private Credit <sup>(1)</sup></b>	<b>2.8%</b>	<b>5.0</b>	0.0	10.0	<b>\$57.2</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>S&amp;P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^</i>						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>3.9%</b>	<b>3.0</b>	0.0	10.0	<b>\$81.0</b>	<b>-0.82</b>	<b>-0.28</b>	<b>-1.40</b>	<b>-2.00</b>	<b>-1.40</b>	<b>1.29</b>	<b>2.45</b>	<b>2.14</b>	<b>N/A</b>
<i>Absolute Return Strategy blended benchmark <sup>(3)</sup></i>						-0.75	-1.67	-2.14	-2.44	-2.14	1.90	2.46	1.85	N/A

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# **PROBATE JUDGES EMPLOYEES' RETIREMENT FUND**

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Probate Judges Employees' Retirement Fund</b>					<b>\$125.6</b>	<b>-4.60</b>	<b>-7.90</b>	<b>-7.72</b>	<b>-11.20</b>	<b>-7.72</b>	<b>5.39</b>	<b>5.64</b>	<b>6.04</b>	<b>6.79</b>
Policy Benchmark						-3.07	-7.60	-6.02	-9.49	-6.02	5.98	6.31	6.34	7.10
Dynamic Benchmark						-3.59	-8.66	-8.30	-11.06	-8.30	5.35	5.88	6.05	N/A
<b>Domestic Equity</b>	<b>23.1%</b>	<b>20.0</b>	15.0	25.0	<b>\$29.0</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.42</b>	<b>10.34</b>	<b>12.48</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.8%</b>	<b>11.0</b>	6.0	16.0	<b>\$13.6</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.88</b>	<b>7.02</b>
MSCI EAFE IMI						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	6.90
<b>Emerging Markets ISF</b>	<b>8.2%</b>	<b>9.0</b>	4.0	14.0	<b>\$10.3</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.28</b>	<b>4.29</b>	<b>3.72</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	3.20
<b>Global Equities <sup>(4)</sup></b>	<b>42.1%</b>	<b>40.0</b>	25.0	55.0	<b>\$52.9</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>9.74</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	8.76
<b>Core Fixed Income</b>	<b>11.8%</b>	<b>13.0</b>	8.0	18.0	<b>\$14.9</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.41</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Emerging Market Debt</b>	<b>4.4%</b>	<b>5.0</b>	0.0	10.0	<b>\$5.5</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>-2.01</b>	<b>0.63</b>	<b>0.50</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	-1.70	0.47	0.54
<b>High Yield</b>	<b>5.9%</b>	<b>3.0</b>	0.0	8.0	<b>\$7.4</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>2.23</b>	<b>3.28</b>	<b>4.19</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	1.87	3.12	4.08
<b>Liquidity Fund</b>	<b>0.3%</b>	<b>2.0</b>	0.0	3.0	<b>\$0.3</b>	<b>0.10</b>	<b>0.17</b>	<b>0.25</b>	<b>0.22</b>	<b>0.25</b>	<b>0.69</b>	<b>1.23</b>	<b>1.11</b>	<b>0.79</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62
<b>Real Assets <sup>(1)</sup></b>	<b>15.8%</b>	<b>19.0</b>	15.0	25.0	<b>\$19.9</b>	<b>N/A</b>	<b>1.23</b>	<b>10.38</b>	<b>3.28</b>	<b>10.38</b>	<b>6.27</b>	<b>6.77</b>	<b>7.52</b>	<b>8.63</b>
Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup>						N/A	2.62	14.83	6.29	14.83	7.90	7.45	8.04	9.06
<b>Private Investment <sup>(1)</sup></b>	<b>12.9%</b>	<b>10.0</b>	5.0	15.0	<b>\$16.2</b>	<b>N/A</b>	<b>3.53</b>	<b>27.30</b>	<b>6.04</b>	<b>27.30</b>	<b>24.55</b>	<b>20.86</b>	<b>17.62</b>	<b>16.26</b>
Russell 3000 + 250 basis points 1Q in Arrears^						N/A	-4.68	14.24	4.79	14.24	20.75	17.51	15.53	16.06
<b>Private Credit <sup>(1)</sup></b>	<b>2.5%</b>	<b>5.0</b>	0.0	10.0	<b>\$3.1</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.3%</b>	<b>3.0</b>	0.0	10.0	<b>\$5.4</b>	<b>-0.82</b>	<b>-0.28</b>	<b>-1.40</b>	<b>-2.00</b>	<b>-1.40</b>	<b>1.29</b>	<b>2.45</b>	<b>2.13</b>	<b>3.18</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						-0.75	-1.67	-2.14	-2.44	-2.14	1.90	2.46	1.85	1.31

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only



# STATE JUDGES RETIREMENT FUND

Net of All Fees and Expenses

6/30/2022

Funds <i>Benchmark</i>	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>State Judges Retirement Fund</b>					<b>\$276.9</b>	<b>-4.59</b>	<b>-7.91</b>	<b>-7.73</b>	<b>-11.18</b>	<b>-7.73</b>	<b>5.42</b>	<b>5.72</b>	<b>6.07</b>	<b>6.81</b>
<i>Policy Benchmark</i>						-3.07	-7.60	-6.02	-9.49	-6.02	5.98	6.30	6.29	7.01
<i>Dynamic Benchmark</i>						-3.59	-8.57	-8.23	-10.99	-8.23	5.42	5.97	6.07	N/A
<b>Domestic Equity</b>	<b>23.2%</b>	<b>20.0</b>	15.0	25.0	<b>\$64.2</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.42</b>	<b>10.34</b>	<b>12.48</b>
<i>Russell 3000</i>						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.8%</b>	<b>11.0</b>	6.0	16.0	<b>\$29.8</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.88</b>	<b>7.02</b>
<i>MSCI EAFE IMI Net</i>						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	6.90
<b>Emerging Markets ISF</b>	<b>8.3%</b>	<b>9.0</b>	4.0	14.0	<b>\$22.8</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.29</b>	<b>4.29</b>	<b>3.69</b>
<i>MSCI Emerging Markets IMI</i>						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	3.20
<b>Global Equities <sup>(4)</sup></b>	<b>42.2%</b>	<b>40.0</b>	25.0	55.0	<b>\$116.8</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>9.74</b>
<i>MSCI All Country World Net Index</i>						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	8.76
<b>Core Fixed Income</b>	<b>11.7%</b>	<b>13.0</b>	8.0	18.0	<b>\$32.4</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.41</b>
<i>Barclays U.S. Aggregate Bond Index</i>						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Emerging Market Debt</b>	<b>4.4%</b>	<b>5.0</b>	0.0	10.0	<b>\$12.2</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>-2.01</b>	<b>0.63</b>	<b>0.50</b>
<i>50% JPM EMBI Global Div / 50% JPM GBI EM Global Div</i>						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	-1.70	0.47	0.54
<b>High Yield</b>	<b>5.8%</b>	<b>3.0</b>	0.0	8.0	<b>\$16.0</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>2.23</b>	<b>3.28</b>	<b>4.19</b>
<i>Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index</i>						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	1.87	3.12	4.08
<b>Liquidity Fund</b>	<b>1.5%</b>	<b>2.0</b>	0.0	3.0	<b>\$4.1</b>	<b>0.12</b>	<b>0.20</b>	<b>0.24</b>	<b>0.22</b>	<b>0.24</b>	<b>0.66</b>	<b>1.21</b>	<b>1.09</b>	<b>0.78</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index</i>						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62
<b>Real Assets <sup>(1)</sup></b>	<b>15.3%</b>	<b>19.0</b>	15.0	25.0	<b>\$42.3</b>	<b>N/A</b>	<b>1.23</b>	<b>10.38</b>	<b>3.28</b>	<b>10.38</b>	<b>6.27</b>	<b>6.77</b>	<b>7.52</b>	<b>8.63</b>
<i>Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup></i>						N/A	2.62	14.83	6.29	14.83	7.90	7.45	8.04	9.06
<b>Private Investment <sup>(1)</sup></b>	<b>12.4%</b>	<b>10.0</b>	5.0	15.0	<b>\$34.2</b>	<b>N/A</b>	<b>3.53</b>	<b>27.30</b>	<b>6.04</b>	<b>27.30</b>	<b>24.56</b>	<b>20.86</b>	<b>17.62</b>	<b>16.26</b>
<i>Russell 3000 + 250 basis points 1Q in Arrears^</i>						N/A	-4.68	14.24	4.79	14.24	20.75	17.51	15.53	16.06
<b>Private Credit <sup>(1)</sup></b>	<b>2.6%</b>	<b>5.0</b>	0.0	10.0	<b>\$7.1</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
<i>S&amp;P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^</i>						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.3%</b>	<b>3.0</b>	0.0	10.0	<b>\$11.8</b>	<b>-0.82</b>	<b>-0.28</b>	<b>-1.40</b>	<b>-2.00</b>	<b>-1.40</b>	<b>1.29</b>	<b>2.45</b>	<b>2.13</b>	<b>3.18</b>
<i>Absolute Return Strategy blended benchmark <sup>(3)</sup></i>						-0.75	-1.67	-2.14	-2.44	-2.14	1.90	2.46	1.85	1.31

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only





# STATE'S ATTORNEYS' RETIREMENT FUND

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>State's Attorneys' Retirement Fund</b>					<b>\$2.5</b>	<b>-4.55</b>	<b>-7.86</b>	<b>-7.69</b>	<b>-11.14</b>	<b>-7.69</b>	<b>5.41</b>	<b>5.47</b>	<b>5.89</b>	<b>6.07</b>
Policy Benchmark						-3.07	-7.60	-6.02	-9.49	-6.02	5.98	6.55	6.46	N/A
Dynamic Benchmark						-3.58	-8.53	-8.20	-10.95	-8.20	5.40	6.04	6.09	N/A
<b>Domestic Equity</b>	<b>22.9%</b>	<b>20.0</b>	15.0	25.0	<b>\$0.6</b>	<b>-8.15</b>	<b>-16.70</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.42</b>	<b>10.35</b>	<b>12.49</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.7%</b>	<b>11.0</b>	6.0	16.0	<b>\$0.3</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.88</b>	<b>N/A</b>
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	N/A
<b>Emerging Markets ISF</b>	<b>8.2%</b>	<b>9.0</b>	4.0	14.0	<b>\$0.2</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.28</b>	<b>4.29</b>	<b>N/A</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	N/A
<b>Global Equities <sup>(4)</sup></b>	<b>41.8%</b>	<b>40.0</b>	25.0	55.0	<b>\$1.0</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>9.74</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	8.76
<b>Core Fixed Income</b>	<b>11.7%</b>	<b>13.0</b>	8.0	18.0	<b>\$0.3</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.45</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Emerging Market Debt</b>	<b>4.4%</b>	<b>5.0</b>	0.0	10.0	<b>\$0.1</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>-2.01</b>	<b>0.63</b>	<b>0.50</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	-1.70	0.47	0.54
<b>High Yield</b>	<b>5.7%</b>	<b>3.0</b>	0.0	8.0	<b>\$0.1</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>2.24</b>	<b>3.28</b>	<b>4.18</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	1.87	3.12	4.08
<b>Liquidity Fund</b>	<b>2.2%</b>	<b>2.0</b>	0.0	3.0	<b>\$0.1</b>	<b>0.10</b>	<b>0.19</b>	<b>0.23</b>	<b>0.21</b>	<b>0.23</b>	<b>0.64</b>	<b>1.17</b>	<b>1.06</b>	<b>0.75</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62
<b>Real Assets <sup>(1)</sup></b>	<b>15.3%</b>	<b>19.0</b>	15.0	25.0	<b>\$0.4</b>	<b>N/A</b>	<b>1.23</b>	<b>10.38</b>	<b>3.28</b>	<b>10.38</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup>						N/A	2.62	14.83	6.29	14.83	N/A	N/A	N/A	N/A
<b>Private Investment <sup>(1)</sup></b>	<b>12.3%</b>	<b>10.0</b>	5.0	15.0	<b>\$0.3</b>	<b>N/A</b>	<b>3.53</b>	<b>27.30</b>	<b>6.04</b>	<b>27.30</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Russell 3000 + 250 basis points 1Q in Arrears^						N/A	-4.68	14.24	4.79	14.24	N/A	N/A	N/A	N/A
<b>Private Credit <sup>(1)</sup></b>	<b>2.4%</b>	<b>5.0</b>	0.0	10.0	<b>\$0.1</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.3%</b>	<b>3.0</b>	0.0	10.0	<b>\$0.1</b>	<b>-0.82</b>	<b>-0.28</b>	<b>-1.40</b>	<b>-2.00</b>	<b>-1.40</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						-0.75	-1.67	-2.14	-2.44	-2.14	N/A	N/A	N/A	N/A

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only





# **AGRICULTURAL COLLEGE FUND**

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Agricultural College Fund</b>	<b>100.0%</b>				<b>\$0.6</b>	<b>-1.66</b>	<b>-5.11</b>	<b>-10.89</b>	<b>-10.87</b>	<b>-10.89</b>	<b>-0.86</b>	<b>0.61</b>	<b>1.21</b>	<b>1.55</b>
Policy Benchmark						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.59
Dynamic Benchmark						-1.57	-4.68	-10.27	-10.32	-10.27	-0.93	0.88	1.42	N/A
<b>Core Fixed Income</b>	<b>102.2%</b>	<b>100.0</b>	100.0	100.0	<b>\$0.6</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.17</b>	<b>1.41</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Liquidity Fund <sup>(1)</sup></b>	<b>-2.2%</b>				<b>(\$0.0)</b>	<b>0.10</b>	<b>0.07</b>	<b>0.08</b>	<b>0.08</b>	<b>0.08</b>	<b>0.69</b>	<b>0.94</b>	<b>0.85</b>	<b>0.60</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62
Government Treasury 1 to 3 Year Index														

<sup>(1)</sup> Operational cash balance and expense accruals



# **ANDREW C. CLARK FUND**

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Andrew C. Clark Fund</b>					<b>\$1.2</b>	<b>-3.71</b>	<b>-8.12</b>	<b>-12.52</b>	<b>-13.49</b>	<b>-12.52</b>	<b>1.50</b>	<b>2.67</b>	<b>3.22</b>	<b>3.95</b>
Policy Benchmark						-3.65	-7.86	-11.99	-13.14	-11.99	1.34	2.86	3.27	3.98
Dynamic Benchmark						-3.53	-7.72	-11.96	-13.04	-11.96	1.47	2.97	3.35	N/A
<b>Domestic Equity</b>	<b>14.6%</b>	<b>15.0</b>	10.0	20.0	<b>\$0.2</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.42</b>	<b>10.35</b>	<b>12.47</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.7%</b>	<b>11.0</b>	6.0	16.0	<b>\$0.1</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.88</b>	<b>N/A</b>
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	N/A
<b>Emerging Markets ISF</b>	<b>4.0%</b>	<b>4.0</b>	0.0	5.0	<b>\$0.0</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.29</b>	<b>4.29</b>	<b>N/A</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>29.2%</b>	<b>30.0</b>	16.0	41.0	<b>\$0.4</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>N/A</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	N/A
<b>Core Fixed Income</b>	<b>71.7%</b>	<b>67.0</b>	57.0	77.0	<b>\$0.9</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.59</b>	<b>1.18</b>	<b>1.41</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Liquidity Fund <sup>(2)</sup></b>	<b>-0.9%</b>	<b>3.0</b>	0.0	4.0	<b>(\$0.0)</b>	<b>0.16</b>	<b>0.23</b>	<b>0.24</b>	<b>0.25</b>	<b>0.24</b>	<b>2.38</b>	<b>2.91</b>	<b>2.40</b>	<b>1.70</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only

<sup>(2)</sup> Operational cash balance and expense accruals



# SOLDIERS' SAILORS' & MARINES' FUND

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Soldiers' Sailors' &amp; Marines Fund</b>					<b>\$78.4</b>	<b>-3.61</b>	<b>-8.13</b>	<b>-12.52</b>	<b>-13.52</b>	<b>-12.52</b>	<b>1.49</b>	<b>2.67</b>	<b>3.22</b>	<b>3.92</b>
Policy Benchmark						-3.65	-7.86	-11.99	-13.14	-11.99	1.34	2.86	3.27	3.94
Dynamic Benchmark						-3.67	-7.93	-12.14	-13.25	-12.14	1.40	2.93	3.34	N/A
<b>Domestic Equity</b>	<b>14.2%</b>	<b>15.0</b>	10.0	20.0	<b>\$11.1</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.42</b>	<b>10.35</b>	<b>12.48</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.4%</b>	<b>11.0</b>	6.0	16.0	<b>\$8.1</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.40</b>	<b>3.88</b>	<b>N/A</b>
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	N/A
<b>Emerging Markets ISF</b>	<b>3.9%</b>	<b>4.0</b>	0.0	5.0	<b>\$3.1</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.28</b>	<b>4.29</b>	<b>N/A</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>28.5%</b>	<b>30.0</b>	16.0	41.0	<b>\$22.3</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>N/A</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	N/A
<b>Core Fixed Income</b>	<b>69.2%</b>	<b>67.0</b>	57.0	77.0	<b>\$54.2</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.41</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Liquidity Fund</b>	<b>2.3%</b>	<b>3.0</b>	0.0	4.0	<b>\$1.8</b>	<b>0.07</b>	<b>0.15</b>	<b>0.18</b>	<b>0.16</b>	<b>0.18</b>	<b>0.65</b>	<b>1.20</b>	<b>1.09</b>	<b>0.77</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only



**SCHOOL FUND**  
Net of All Fees and Expenses  
6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>School Fund</b>					\$11.6	-3.62	-8.21	-12.61	-13.63	-12.61	1.47	2.66	3.23	3.95
Policy Benchmark						-3.65	-7.86	-11.99	-13.14	-11.99	1.34	2.86	3.27	3.98
Dynamic Benchmark						-3.73	-8.02	-12.22	-13.36	-12.22	1.37	2.91	3.33	N/A
<b>Domestic Equity</b>	<b>14.2%</b>	<b>15.0</b>	10.0	20.0	\$1.6	-8.15	-16.70	-13.97	-21.14	-13.97	9.68	10.42	10.35	12.48
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.4%</b>	<b>11.0</b>	6.0	16.0	\$1.2	-9.45	-14.51	-18.11	-19.93	-18.11	1.73	2.39	3.88	N/A
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	N/A
<b>Emerging Markets ISF</b>	<b>3.7%</b>	<b>4.0</b>	0.0	5.0	\$0.4	-6.13	-11.71	-25.34	-17.71	-25.34	2.96	3.29	4.29	N/A
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>28.4%</b>	<b>30.0</b>	16.0	41.0	\$3.3	-8.11	-15.01	-16.88	-20.05	-16.88	6.26	6.56	7.19	N/A
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	N/A
<b>Core Fixed Income</b>	<b>70.9%</b>	<b>67.0</b>	57.0	77.0	\$8.2	-1.63	-5.09	-10.89	-10.86	-10.89	-0.89	0.58	1.17	1.41
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Liquidity Fund</b>	<b>0.8%</b>	<b>3.0</b>	0.0	4.0	\$0.1	0.15	0.36	0.44	0.41	0.44	1.11	2.05	1.77	1.17
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only



# IDA EATON COTTON FUND

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>IDA Eaton Cotton Fund</b>					<b>\$2.6</b>	<b>-3.71</b>	<b>-8.12</b>	<b>-12.54</b>	<b>-13.50</b>	<b>-12.54</b>	<b>1.48</b>	<b>2.66</b>	<b>3.21</b>	<b>3.94</b>
<i>Policy Benchmark</i>						-3.65	-7.86	-11.99	-13.14	-11.99	1.34	2.86	3.27	3.98
<i>Dynamic Benchmark</i>						-3.54	-7.73	-11.98	-13.05	-11.98	1.45	2.96	3.34	N/A
<b>Domestic Equity</b>	<b>14.5%</b>	<b>15.0</b>	10.0	20.0	<b>\$0.4</b>	<b>-8.15</b>	<b>-16.70</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.42</b>	<b>10.35</b>	<b>12.48</b>
<i>Russell 3000</i>						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.7%</b>	<b>11.0</b>	6.0	16.0	<b>\$0.3</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.88</b>	<b>N/A</b>
<i>MSCI EAFE IMI Net</i>						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	N/A
<b>Emerging Markets ISF</b>	<b>4.1%</b>	<b>4.0</b>	0.0	5.0	<b>\$0.1</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.72</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.29</b>	<b>4.29</b>	<b>N/A</b>
<i>MSCI Emerging Markets IMI</i>						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>29.3%</b>	<b>30.0</b>	16.0	41.0	<b>\$0.8</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>N/A</b>
<i>MSCI All Country World Net Index</i>						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	N/A
<b>Core Fixed Income</b>	<b>71.7%</b>	<b>67.0</b>	57.0	77.0	<b>\$1.8</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.41</b>
<i>Barclays U.S. Aggregate Bond Index</i>						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Liquidity Fund <sup>(2)</sup></b>	<b>-1.0%</b>	<b>3.0</b>	0.0	4.0	<b>(\$0.0)</b>	<b>0.10</b>	<b>0.22</b>	<b>0.25</b>	<b>0.26</b>	<b>0.25</b>	<b>2.36</b>	<b>3.10</b>	<b>2.52</b>	<b>1.77</b>
<i>50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index</i>						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only

<sup>(2)</sup> Operational cash balance and expense accruals



**HOPEMEAD FUND**  
**Net of All Fees and Expenses**  
**6/30/2022**

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Hopemead Fund</b>					<b>\$4.3</b>	<b>-3.60</b>	<b>-8.06</b>	<b>-12.43</b>	<b>-13.42</b>	<b>-12.43</b>	<b>1.50</b>	<b>2.66</b>	<b>3.21</b>	<b>3.90</b>
Policy Benchmark						-3.65	-7.86	-11.99	-13.14	-11.99	1.34	2.86	3.27	3.98
Dynamic Benchmark						-3.62	-7.85	-12.05	-13.16	-12.05	1.41	2.92	3.32	N/A
<b>Domestic Equity</b>	<b>14.3%</b>	<b>15.0</b>	10.0	20.0	<b>\$0.6</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.42</b>	<b>10.35</b>	<b>12.47</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.4%</b>	<b>11.0</b>	6.0	16.0	<b>\$0.4</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.40</b>	<b>3.88</b>	<b>N/A</b>
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	N/A
<b>Emerging Markets ISF</b>	<b>3.9%</b>	<b>4.0</b>	0.0	5.0	<b>\$0.2</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.29</b>	<b>4.29</b>	<b>N/A</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	N/A
<b>Global Equities <sup>(1)</sup></b>	<b>28.6%</b>	<b>30.0</b>	16.0	41.0	<b>\$1.2</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>N/A</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	N/A
<b>Core Fixed Income</b>	<b>68.3%</b>	<b>67.0</b>	57.0	77.0	<b>\$3.0</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.18</b>	<b>1.41</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Liquidity Fund</b>	<b>3.1%</b>	<b>3.0</b>	0.0	4.0	<b>\$0.1</b>	<b>0.10</b>	<b>0.22</b>	<b>0.27</b>	<b>0.25</b>	<b>0.27</b>	<b>0.67</b>	<b>1.19</b>	<b>1.08</b>	<b>0.77</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62

<sup>(1)</sup> Unofficial Benchmark, for comparison purposes only



# ARTS ENDOWMENT FUND

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Arts Endowment Fund</b>					<b>\$20.5</b>	<b>-5.93</b>	<b>-10.93</b>	<b>-13.27</b>	<b>-15.35</b>	<b>-13.27</b>	<b>4.21</b>	<b>4.45</b>	<b>4.48</b>	<b>4.77</b>
Policy Benchmark						-6.09	-11.17	-14.10	-15.86	-14.10	3.14	4.17	4.21	4.66
Dynamic Benchmark						-5.85	-10.75	-13.65	-15.38	-13.65	3.77	N/A	N/A	N/A
<b>Domestic Equity</b>	<b>27.0%</b>	<b>28.0</b>	23.0	33.0	<b>\$5.5</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.43</b>	<b>10.35</b>	<b>N/A</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	N/A
<b>Developed Markets ISF</b>	<b>16.4%</b>	<b>17.0</b>	12.0	22.0	<b>\$3.3</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.41</b>	<b>3.89</b>	<b>N/A</b>
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	N/A
<b>Emerging Markets ISF</b>	<b>12.0%</b>	<b>12.0</b>	7.0	17.0	<b>\$2.5</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.30</b>	<b>4.30</b>	<b>N/A</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	N/A
<b>Global Equities <sup>(2)</sup></b>	<b>55.3%</b>	<b>57.0</b>	42.0	72.0	<b>\$11.3</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>N/A</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	N/A
<b>Core Fixed Income</b>	<b>16.5%</b>	<b>16.0</b>	11.0	21.0	<b>\$3.4</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.17</b>	<b>1.41</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Emerging Market Debt</b>	<b>7.6%</b>	<b>8.0</b>	3.0	13.0	<b>\$1.5</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	N/A	N/A	N/A
<b>High Yield</b>	<b>9.2%</b>	<b>9.0</b>	4.0	14.0	<b>\$1.9</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	N/A	N/A	N/A
<b>Private Credit <sup>(1)</sup></b>	<b>9.8%</b>	<b>9.0</b>	4.0	14.0	<b>\$2.0</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
1Q in Arrears^														
<b>Liquidity Fund</b>	<b>1.6%</b>	<b>1.0</b>	0.0	3.0	<b>\$0.3</b>	<b>0.09</b>	<b>0.16</b>	<b>0.16</b>	<b>0.18</b>	<b>0.16</b>	<b>0.63</b>	<b>1.16</b>	<b>1.05</b>	<b>0.75</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62

<sup>(1)</sup> Actual performance, reported one quarter in arrears,

<sup>(2)</sup> Unofficial Benchmark, for comparison purposes only



# **POLICEMEN AND FIREMEN SURVIVORS' BENEFIT FUND**

Net of All Fees and Expenses

6/30/2022

Funds	Percent Holdings	Policy Weights	Lower Range	Upper Range	Market Value (mil.)	Month	Three Months	Fiscal YTD	Calendar YTD	One Year	Compound, annualized returns			
											Three Year	Five Year	Seven Year	Ten Year
<b>Benchmark</b>														
<b>Policemen and Firemen Survivors' Benefit Fund</b>					<b>\$43.8</b>	<b>-4.57</b>	<b>-7.88</b>	<b>-7.68</b>	<b>-11.15</b>	<b>-7.68</b>	<b>5.41</b>	<b>5.73</b>	<b>6.11</b>	<b>6.84</b>
Policy Benchmark						-3.07	-7.60	-6.02	-9.49	-6.02	5.98	6.36	6.36	N/A
Dynamic Benchmark						-3.59	-8.56	-8.21	-10.98	-8.21	5.39	5.97	6.09	N/A
<b>Domestic Equity</b>	<b>23.2%</b>	<b>20.0</b>	15.0	25.0	<b>\$10.1</b>	<b>-8.15</b>	<b>-16.69</b>	<b>-13.97</b>	<b>-21.14</b>	<b>-13.97</b>	<b>9.68</b>	<b>10.42</b>	<b>10.34</b>	<b>12.66</b>
Russell 3000						-8.37	-16.70	-13.87	-21.10	-13.87	9.77	10.60	10.43	12.57
<b>Developed Markets ISF</b>	<b>10.7%</b>	<b>11.0</b>	6.0	16.0	<b>\$4.7</b>	<b>-9.45</b>	<b>-14.51</b>	<b>-18.11</b>	<b>-19.93</b>	<b>-18.11</b>	<b>1.73</b>	<b>2.39</b>	<b>3.88</b>	<b>N/A</b>
MSCI EAFE IMI Net						-9.54	-15.00	-18.75	-20.37	-18.75	1.43	2.83	3.55	N/A
<b>Emerging Markets ISF</b>	<b>8.0%</b>	<b>9.0</b>	4.0	14.0	<b>\$3.5</b>	<b>-6.13</b>	<b>-11.71</b>	<b>-25.34</b>	<b>-17.71</b>	<b>-25.34</b>	<b>2.96</b>	<b>3.29</b>	<b>4.29</b>	<b>N/A</b>
MSCI Emerging Markets IMI						-7.15	-12.10	-24.75	-17.94	-24.75	1.15	2.33	2.76	N/A
<b>Global Equities <sup>(4)</sup></b>	<b>41.9%</b>	<b>40.0</b>	25.0	55.0	<b>\$18.4</b>	<b>-8.11</b>	<b>-15.01</b>	<b>-16.88</b>	<b>-20.05</b>	<b>-16.88</b>	<b>6.26</b>	<b>6.56</b>	<b>7.19</b>	<b>N/A</b>
MSCI All Country World Net Index						-8.43	-15.66	-15.75	-20.18	-15.75	6.21	7.00	6.98	N/A
<b>Core Fixed Income</b>	<b>11.6%</b>	<b>13.0</b>	8.0	18.0	<b>\$5.1</b>	<b>-1.63</b>	<b>-5.09</b>	<b>-10.89</b>	<b>-10.86</b>	<b>-10.89</b>	<b>-0.89</b>	<b>0.58</b>	<b>1.17</b>	<b>1.47</b>
Barclays U.S. Aggregate Bond Index						-1.57	-4.69	-10.29	-10.35	-10.29	-0.93	0.88	1.42	1.54
<b>Emerging Market Debt</b>	<b>4.4%</b>	<b>5.0</b>	0.0	10.0	<b>\$1.9</b>	<b>-6.59</b>	<b>-10.65</b>	<b>-20.04</b>	<b>-17.44</b>	<b>-20.04</b>	<b>-5.82</b>	<b>-2.01</b>	<b>0.63</b>	<b>0.50</b>
50% JPM EMBI Global Div / 50% JPM GBI EM Global Div						-5.33	-10.03	-20.23	-17.45	-20.23	-5.48	-1.70	0.47	0.54
<b>High Yield</b>	<b>5.8%</b>	<b>3.0</b>	0.0	8.0	<b>\$2.5</b>	<b>-6.29</b>	<b>-9.65</b>	<b>-11.44</b>	<b>-12.82</b>	<b>-11.44</b>	<b>0.95</b>	<b>2.23</b>	<b>3.28</b>	<b>4.17</b>
Bloomberg Barclays U.S. High Yield 2% Issuer Cap Index						-6.74	-9.84	-12.82	-14.19	-12.82	-0.12	1.87	3.12	4.08
<b>Liquidity Fund</b>	<b>1.8%</b>	<b>2.0</b>	0.0	3.0	<b>\$0.8</b>	<b>0.10</b>	<b>0.22</b>	<b>0.27</b>	<b>0.25</b>	<b>0.27</b>	<b>0.67</b>	<b>1.21</b>	<b>1.09</b>	<b>0.77</b>
50% U.S. 3-Month T-Bill / 50% Bloomberg Barclays US Government Treasury 1 to 3 Year Index						-0.31	-0.21	-1.68	-1.45	-1.68	0.27	0.93	0.81	0.62
<b>Real Assets <sup>(1)</sup></b>	<b>15.3%</b>	<b>19.0</b>	15.0	25.0	<b>\$6.7</b>	<b>N/A</b>	<b>1.23</b>	<b>10.38</b>	<b>3.28</b>	<b>10.38</b>	<b>6.27</b>	<b>6.77</b>	<b>7.52</b>	<b>8.60</b>
Blended Custom Benchmark 1Q in Arrears^ <sup>(2)</sup>						N/A	2.62	14.83	6.29	14.83	7.90	7.45	8.04	9.06
<b>Private Investment <sup>(1)</sup></b>	<b>12.4%</b>	<b>10.0</b>	5.0	15.0	<b>\$5.4</b>	<b>N/A</b>	<b>3.53</b>	<b>27.30</b>	<b>6.04</b>	<b>27.30</b>	<b>24.56</b>	<b>20.86</b>	<b>17.63</b>	<b>N/A</b>
Russell 3000 + 250 basis points 1Q in Arrears^						N/A	-4.68	14.24	4.79	14.24	20.75	17.51	15.53	N/A
<b>Private Credit <sup>(1)</sup></b>	<b>2.6%</b>	<b>5.0</b>	0.0	10.0	<b>\$1.1</b>	<b>N/A</b>	<b>0.43</b>	<b>12.28</b>	<b>2.58</b>	<b>12.28</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
S&P / LSTA Leveraged Loan Index + 150 basis points 1Q in Arrears^						N/A	0.27	4.90	1.39	4.90	N/A	N/A	N/A	N/A
<b>Alternative Investment Fund</b>	<b>4.3%</b>	<b>3.0</b>	0.0	10.0	<b>\$1.9</b>	<b>-0.82</b>	<b>-0.28</b>	<b>-1.40</b>	<b>-2.00</b>	<b>-1.40</b>	<b>1.29</b>	<b>2.44</b>	<b>2.13</b>	<b>N/A</b>
Absolute Return Strategy blended benchmark <sup>(3)</sup>						-0.75	-1.67	-2.14	-2.44	-2.14	1.90	2.46	1.85	N/A

<sup>(1)</sup> Actual performance, reported one quarter in arrears.

<sup>(2)</sup> A blended benchmark comprised of the weightings of Real Estate, Infrastructure / Natural Resources and U.S. TIPS as of April 2020.

<sup>(3)</sup> A blended benchmark comprised of the weightings of each of the investments utilized within the fund of funds vehicle multiplied by their respective benchmarks as of April 2020.

<sup>(4)</sup> Unofficial Benchmark, for comparison purposes only