

**AGENDA**  
**INVESTMENT COMMITTEE MEETING**  
**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (MCERA)**

**One McInnis Parkway, 1st Floor**  
**Retirement Board Chambers**  
**San Rafael, CA**

**December 7, 2022 – 9:00 a.m.**

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This meeting will be held via videoconference pursuant to MCERA Board of Retirement Resolution 2021/22-01, which invoked Government Code section 54953(e) for all MCERA Board and standing committee meetings through December 30, 2022.

Instructions for watching the meeting and/or providing public comment, as well as the links for access, are available on the [Watch & Attend Meetings](https://www.mcera.org/retirementboard/agendas-minutes/watchmeetings) page of MCERA's website. Please visit <https://www.mcera.org/retirementboard/agendas-minutes/watchmeetings> for more information.

The Board of Retirement encourages a respectful presentation of public views to the Board. The Board, staff and public are expected to be polite and courteous, and refrain from questioning the character or motives of others. Please help create an atmosphere of respect during Board meetings.

**CALL TO ORDER**

**ROLL CALL**

**A. OPEN TIME FOR PUBLIC EXPRESSION**

Note: The public may also address the Committee regarding any agenda item when the Committee considers the item.

Open time for public expression, from three to five minutes per speaker, on items not on the Committee Agenda. While members of the public are welcome to address the Committee during this time on matters within the Committee's jurisdiction, except as otherwise permitted by the Ralph M. Brown Act (Government Code Sections 54950 et seq.), no deliberation or action may be taken by the Committee concerning a non-agenda item. Members of the Committee may (1) briefly respond to statements made or questions posed by persons addressing the Committee, (2) ask a question for clarification, or (3) provide a reference to staff for factual information.

**B. MANAGER REPORTS**

1. Manager Overview – Jim Callahan, Callan LLC
2. UBS – Trumbull Property Fund – Paul Canning, Tom O'Shea  
TIME CERTAIN: 9:05 a.m.

### **C. NEW BUSINESS**

1. Watch Period Review – Callan LLC – Jim Callahan, Anne Heaphy
  - a. Artisan International Growth Equity (ACTION)  
Consider and take possible action regarding Watchlist status
  - b. Morgan Stanley International Equity (ACTION)  
Consider and take possible action regarding Watchlist status
  - c. Invesco Balanced-Risk Commodities Fund (ACTION)  
Consider and take possible action regarding Watchlist status
2. Investment Policy Statement Updates (ACTION)  
Consider and take possible action on recommended amendments to Investment Policy Statement re:
  - a. General Investment Objectives and Guidelines, Fixed Income Portfolios: Add Bloomberg U.S. Aggregate Bond Index and remove Blended Benchmark, Bloomberg U.S. Intermediate Credit Index and FTSE World Government Bond Index.
  - b. Appendix A, Long-term Strategic Asset Allocation Targets and Ranges, Fixed Income: Adjust U.S. Core Plus Fixed Income to match the fixed income allocation and remove U.S. Intermediate Credit and Global Fixed Income categories.
  - c. Appendix B-8, Western Asset Management Statement of Objectives, Guidelines and Procedures: Revise to reflect new strategy of core plus fixed income.
  - d. Appendix B-9, Colchester Global Investors Statement of Objectives, Guidelines, and Procedures: Remove.
  - e. Appendix C-1, Pathway Capital Management Statement of Objectives, Guidelines and Procedures: Add Pathway Private Equity Fund Investors 11.
  - f. Appendix C-2, Abbott Capital Management Statement of Objectives, Guidelines and Procedures: Add Abbott Annual Program 2023, LP.
3. Future Meetings

### **D. INVESTMENT CONSULTANT QUARTERLY REPORT**

1. Summary Report as of September 30, 2022
  - a. Flash Performance Update as of October 31, 2022

**Note on Process:** Items designated for information are appropriate for Committee action if the Committee wishes to take action.

**Note on Voting:** As provided by statute, the Alternate Safety Member votes in the absence of the Elected General or Safety Member, and in the absence of both the Retired and Alternate Retired Members. The Alternate Retired Member votes in the absence of the Elected Retired Member. If both Elected General Members, or the Safety Member and an

**Elected General Member, are absent, then the Elected Alternate Retired Member may vote in place of one absent Elected General Member.**



Agenda material is provided upon request. Requests may be submitted by email to [MCERABoard@marincounty.org](mailto:MCERABoard@marincounty.org), or by phone at (415) 473-6147.

MCERA is committed to assuring that its public meetings are accessible to persons with disabilities. If you are a person with a disability and require an accommodation to participate in a County program, service, or activity, requests may be made by calling (415) 473-4381 (Voice), Dial 711 for CA Relay, or by email at least five business days in advance of the event. We will do our best to fulfill requests received with less than five business days' notice. Copies of documents are available in alternative formats upon request.

The agenda is available on the Internet at <http://www.mcera.org>

## **B.1 Manager Overview**

This is a discussion with no backup.



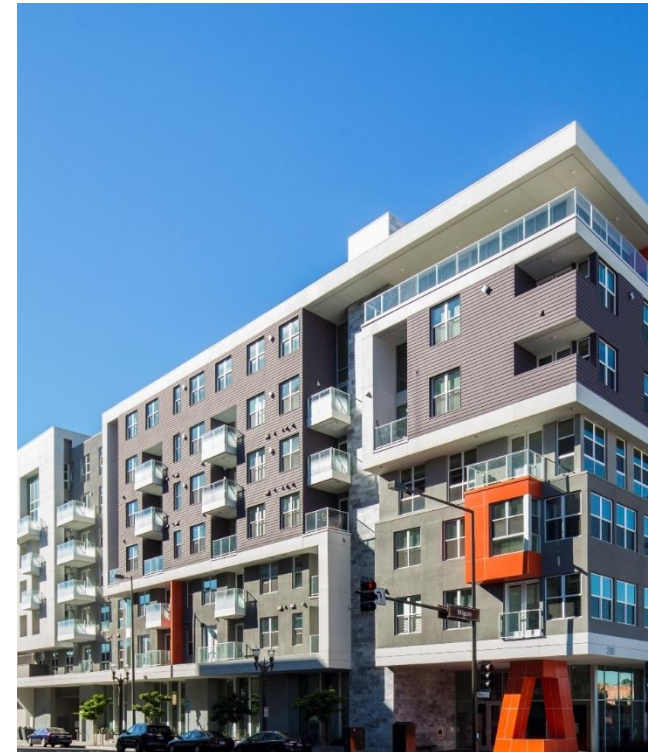
For limited distribution to  
institutional and professional  
investors only

# Trumbull Property Fund (TPF)

Presented to:  
Marin County Employees' Retirement Association

Real estate  
investment funds

December 7, 2022



# General risk disclosure

Certain sections of this presentation that relate to future prospects are forward-looking statements and are subject to certain risks and uncertainties that could cause actual results to differ materially. This material is designed to support an in-person presentation, is not intended to be read in isolation, and does not provide a full explanation of all the topics that are presented and discussed.

An investment in real estate will involve significant risks and there are no assurances against loss of principal resulting from real estate investments or that the portfolio's objectives will be attained.

**This is not a recommendation. Investors must have the sophistication to independently evaluate investment risks and to exercise independent judgment in deciding to invest in real estate funds.** Investors must also have the financial ability and willingness to accept and bear the risks, including, among other things:

- **Risk of illiquidity.** Real estate is an illiquid investment and the account may not be able to generate sufficient cash to meet withdrawal requests from investors. Redemptions may be delayed indefinitely;
- **Risks of investing in real estate.** These risks include adverse changes in economic conditions (local, national, international), occupancy levels and in environmental, zoning, and other governmental laws, regulations, and policies;
- **Use of leverage.** Leverage will increase the exposure of the real estate assets to adverse economic factors, such as rising interest rates, economic downturns, or deteriorations in the condition of the properties or their respective markets and changes in interest rates; and.
- **Limitations on the transfer of fund units.** There is no public market for interests in any of our funds and no such market is expected to develop in the future.
- **Legal & Taxation.** Investors should consult their own legal and tax advisers for potential US and/or local country legal or tax implications on any investment.

**Investors should evaluate all risk and uncertainties before making any investment decision. Risks are detailed in the respective fund's offering memorandum.**

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Section 1

# Biographies



# Paul M. Canning

Senior Portfolio Manager  
Managing Director



Years of investment  
industry experience: 42

Education: Trinity College  
(US), BA

Paul Canning is the Senior Portfolio Manager for the Trumbull Property Fund (TPF) for Real Estate US, a business which forms part of Real Estate & Private Markets within UBS Asset Management. TPF is the firm's largest open-end real estate account. Paul is also a member of the firm's Strategy Team and Investment Committee.

Prior to joining the TPF team in 2018, Paul was the Senior Portfolio Manager for the Trumbull Property Growth & Income Fund. Paul led the fund since its inception in 2006. The Fund was a top quartile performer among open-end funds<sup>1</sup> during his tenure. He also led investing activity of a separate account for a major institutional investor and oversaw operation and liquidation of two accounts for non-US investors.

Previously, Paul was the head of the firm's national property disposition program. From 2001 to 2005 he directed the sale of 37 properties with gross proceeds of approximately USD 1 billion.

Paul joined the Firm's predecessor organization in 1991 as an asset manager. He directed operation of a portfolio of commercial properties encompassing all major property types in markets across the US.

For the first eleven years of his career Paul worked with two development companies. His initial experience was as a project manager for redevelopment of inner-city residential properties for a non-profit development corporation. He then transitioned to Partner for urban renovation projects at a Northeastern US commercial real estate firm.

Paul presently serves on the Housing Committee of the Capital Region Development Authority in Hartford CT.

Note: As at March 2022

<sup>1</sup>Source: MSCI as of December 31, 2017

# Thomas J. O'Shea

Head of Portfolio and Client Services Unit  
Managing Director



Years of investment  
industry experience: 30

Education: University of  
Hartford (US), BS; University  
of Connecticut (US), MBA;  
Georgetown University Law  
Center (US), JD

Tom O'Shea is the Head of the Portfolio and Client Services team for US Real Estate, a business which forms part of Real Estate & Private Markets (REPM) within UBS Asset Management. Tom and his team are responsible for developing and maintaining investment relationships with REPM clients and consultants worldwide. These responsibilities include client servicing and marketing of Global Real Estate investment products and capabilities to pension funds, defined contribution plans, endowments/foundations, and other investors, and their consultants. Tom is a member of the Management Committee for the US real estate business.

Prior to becoming head of the Portfolio and Client Services team, Tom was the General Counsel for the Real Estate business for UBS Asset Management.

Prior to joining UBS in April 2004, Tom was a Partner in the Real Estate Group of Bingham McCutchen LLP, where he was active in all aspects of real estate law with an emphasis on representing financial institutions in various debt and equity investment matters.

Tom is a member of the Connecticut and American Bar Associations and he is admitted to practice law in Connecticut. Tom is also involved in and served on the Board of Directors of the Association of Foreign Investors in Real Estate (AFIRE) and has been involved in the National Association of Real Estate Investment Managers (NAREIM), the Pension Real Estate Association (PREA) and the Real Estate Finance Association (REFA).

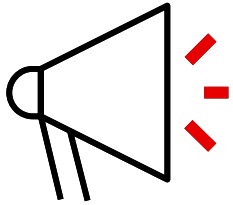
Tom holds the Series 7, 24 and 66 licenses with the Financial Industry Regulatory Authority (FINRA).

Note: As at March 2022

Section 2

# Overview

# UBS Asset Management overview



- Assets under Management: USD 1.3 trillion
- Approximately 3,600 employees located in 23 countries<sup>1</sup>
- Approximately 770 investment professionals spanning regions and capabilities
- Value driven investment philosophy
- Real estate is a prominent business area within UBS Asset Management

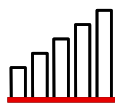


Source: UBS Asset Management. Data as of September 30, 2022 unless stated otherwise

<sup>1</sup> As of 31 December 2021 (updated annually), includes around 1,180 internal and external FTE from Group Functions representation functions within the Group Functions spending 80% or more of their time on UBS-AM – serving as a conservative proxy for Group Functions

# Strong global platform with extensive investment experience

Real Estate & Private Markets (REPM) global platform—one of the largest real estate managers worldwide<sup>1</sup>



**~112**  
USD billion AUM



**~80**  
years business history



Operating in **14** countries

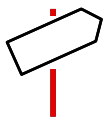
**500+** experienced professionals

**~2,000** direct properties worldwide<sup>2</sup>

Real estate assets by geographic split (%)<sup>2</sup>



Real Estate US—one of the largest managers of US real estate



**29.4**  
USD bn assets under management



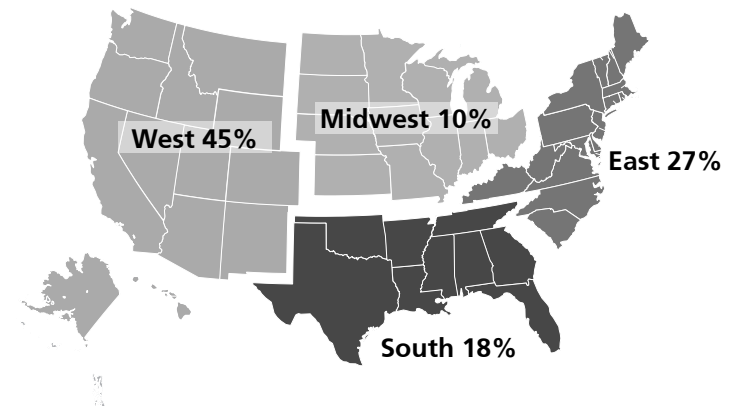
**711** investors

**450** investments

**186** employees with offices in California, Connecticut, Chicago, New York and Texas



**40+**  
years real estate investment experience

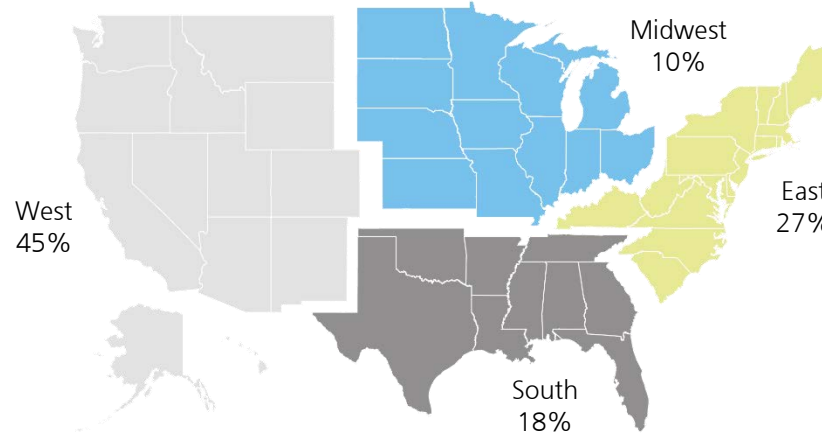


As of June 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM) Notes: <sup>1</sup>AuM stated on gross asset value basis, reflecting property values as at 31 March 2022, where available; Data in charts may not sum to 100% due to rounding; <sup>2</sup>Split excludes assets held in multi-managers and real estate securities as well as CH mandates and methods of counting properties vary by geographic region.

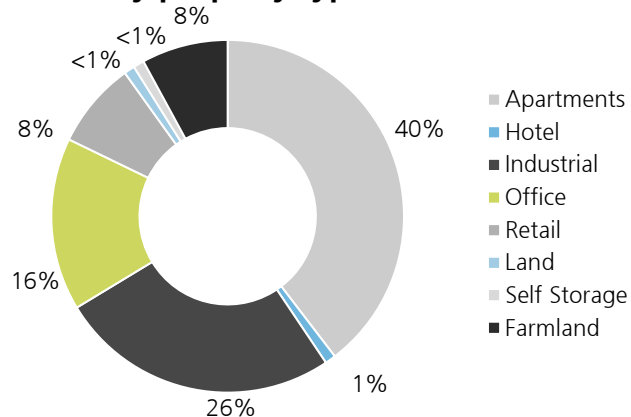
# Real Estate funds in the US - Overview

Gross assets – USD 29.4 billion

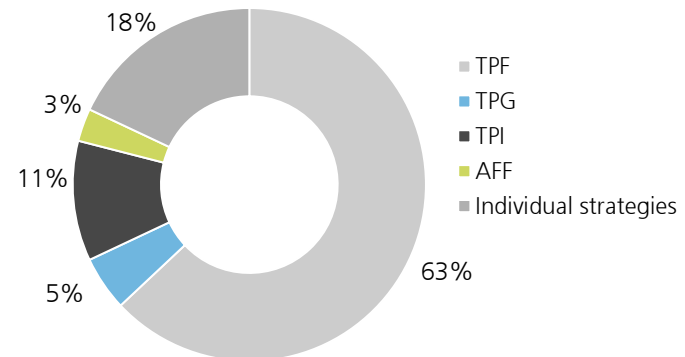
Assets by geographic region



Assets by property type



Assets by strategy



Data as of June 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). Notes: Assets by property type and geographic regions represent real estate assets only and exclude other assets, such as cash, which are included in Gross Assets. Assets include UBS Farmland Investors LLC.

Section 3

# Trumbull Property Fund (TPF)



# Invest thoughtfully, sell strategically, manage aggressively<sup>B.2</sup>



Pacific Industrial, Vernon, CA



455 Market Street, San Francisco, CA



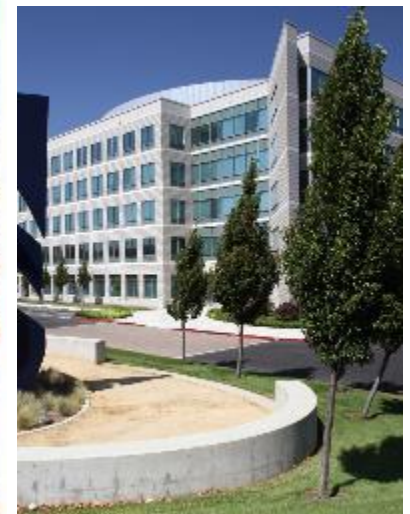
Museum Tower Apartments, Charlotte, NC



Muze at Met Square, Miami, FL



Becknell, Las Vegas, NV



Pleasanton Corporate Commons, Pleasanton, CA

Photographs of current TPF properties are shown for illustrative purposes. The properties within the Fund are expected to change over time as investments are acquired and sold.

Source: UBS Asset Management, Real Estate & Private Markets (REPM).

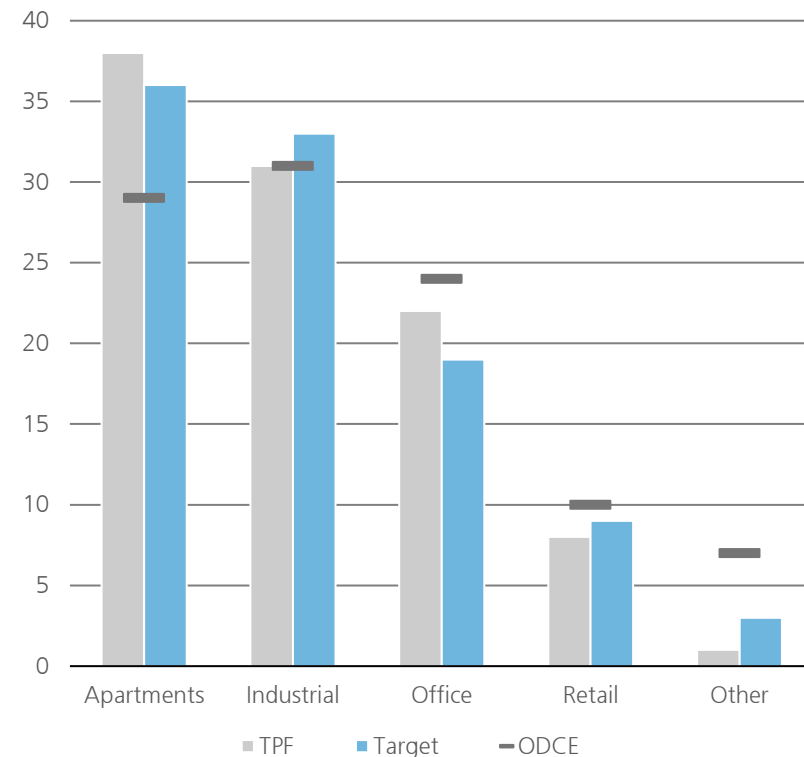


# Portfolio positioning

Overweight low cap-ex sectors

>	<b>GAV</b>	17.8 billion
>	<b>NAV</b>	14.5 billion
>	<b># of investors</b>	439
>	<b># of investments</b>	145
>	<b>Leased %<sup>1</sup></b>	93%
>	<b>Value-added %</b>	7.8%
>	<b>Leverage %</b>	17.9%
>	<b>Gross dividend yield<sup>2</sup></b>	3.4%

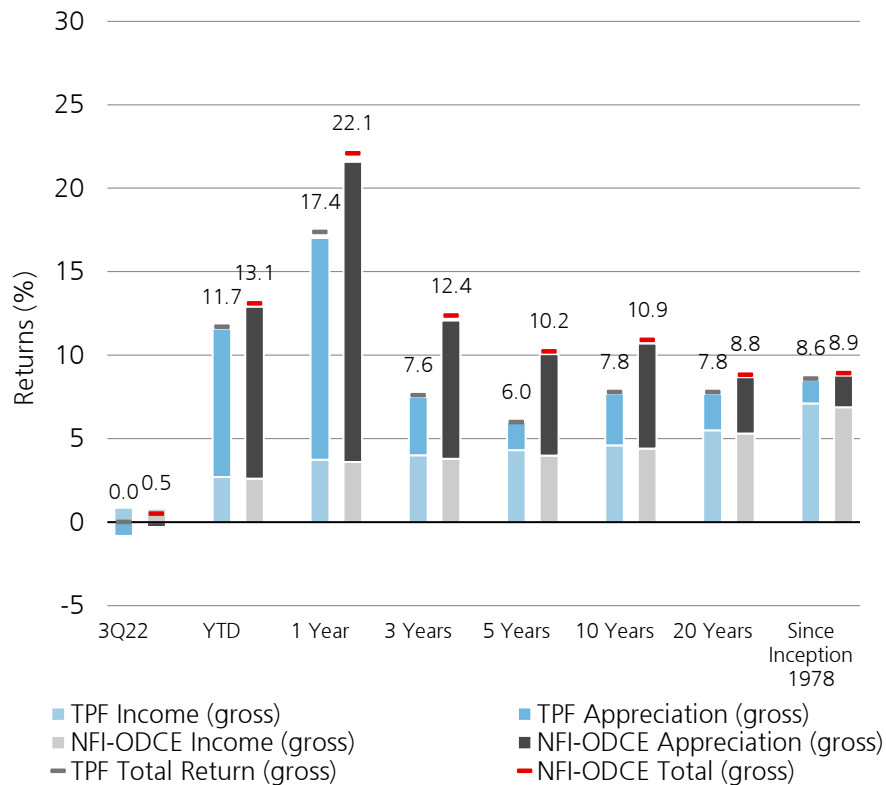
**Sector allocations and targets**



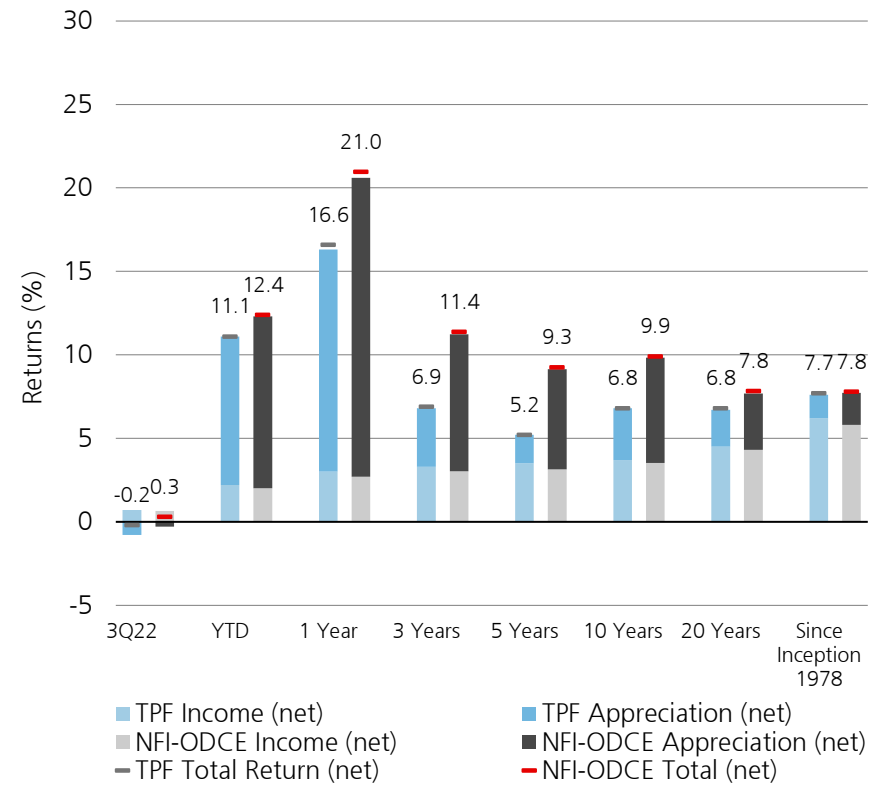
Data as of September 30, 2022. ODCE allocations as of June 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>Leasing numbers exclude hotels. In line with NCREIF life cycle definitions, the leasing data methodology excludes land and development assets less than 60% leased (and available for lease less than one year) but includes all other assets. <sup>2</sup>Gross dividend yield provided is a one-year gross rolling return as of September 30, 2022. Past performance is not indicative of future results

# TPF performance vs. NFI-ODCE

## Gross returns



## Net returns

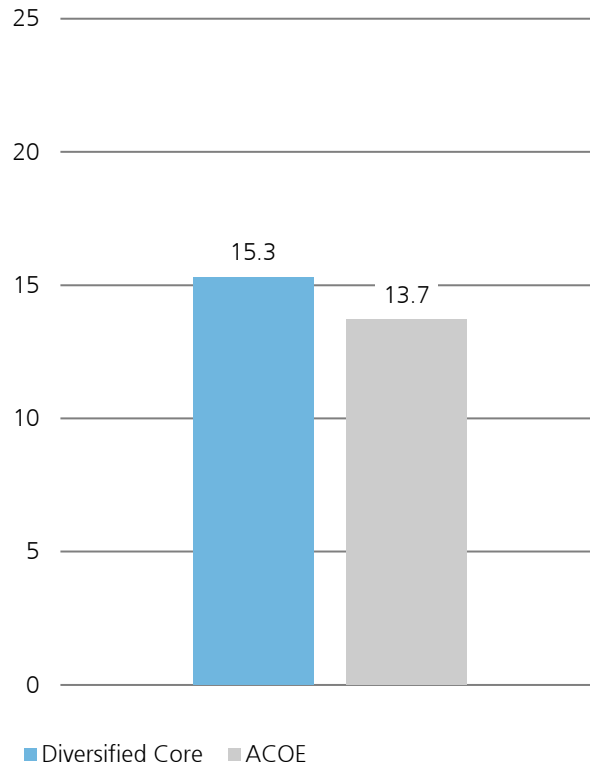


Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). NCREIF is the source of NFI-ODCE. NFI-ODCE returns are preliminary. The NFI-ODCE (NCREIF Fund Index - Open-End Diversified Core Equity), source NCREIF, is a fund-level capitalization weighted index of open-end diversified core equity commercial real estate funds that includes cash balances and leverage and is reported gross of fees. Notes: Returns supplement the Firm's Equity Composite previously provided or included herein. See required notes pages at the end of this section or presentation. Past performance is not indicative of future results.

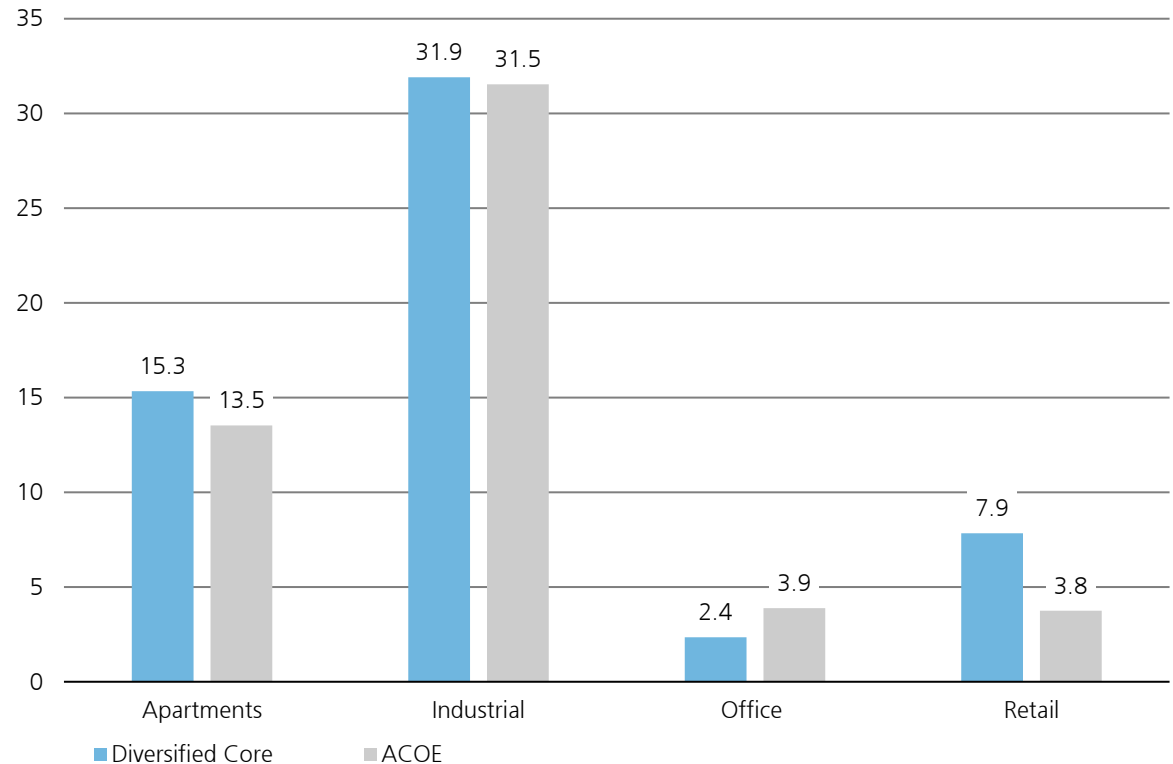
# TPF Diversified Core vs. ACOE

## Comparison of Total Return (unleveraged)

**Total property-level return overall (%)<sup>1</sup>**  
7/1/20 – 9/30/22



**Total property-level return by sector (%)**  
7/1/20 – 9/30/22



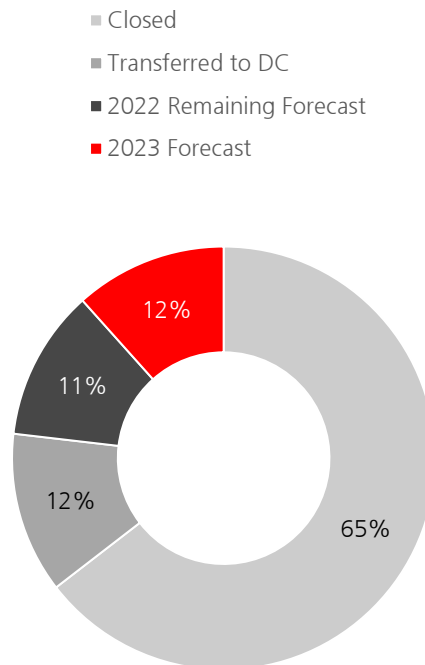
<sup>1</sup>Total property-level return overall for Non-Strategic asset pool over same period was -9.14%. Data as of September 30, 2022. Unleveraged total return and data reflects Fund contract share. Source: MSCI. Returns as presented are at the property-level and do not reflect the impact of any fund-level impacts. It should be noted that the Diversified Core assets are not separately investable. TPF remains one single investable fund. The breakout of these property-level returns is being provided for informational purposes only for a relative comparison. 1MSCI Real Estate (acquired the real estate performance measurement group IPD in 2012) produces performance (attribution) analysis data for clients. The Trumbull Property Fund (TPF) is part of their ACOE (All Core Open-End) benchmark. As of June 30, 2022, The ACOE Index comprises 21 funds with USD 248 billion in net assets. Of the 21 funds in the ACOE, 20 funds are in ODCE index. The ACOE includes development assets but does not include participating mortgages.

# Non-Strategic asset ("NSA") disposition forecast

## Sales update

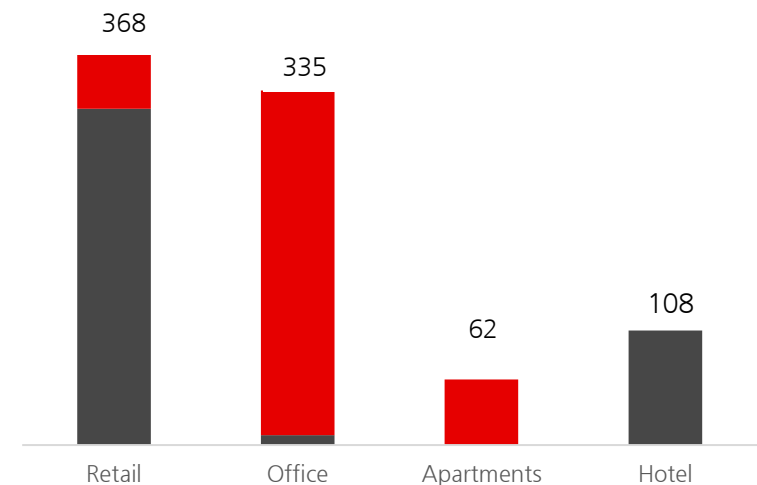
- 44 asset portfolio put in place July 1, 2020.
- 34 assets sold through September 30, 2022. 1 asset transferred to DC portfolio.
- USD 0.4 billion planned to be sold during remainder of 2022 with net proceeds of USD 0.1 billion.
- 88% of the NSA portfolio planned to be divested by end of 2022<sup>2</sup>.
- Disposition forecast slowed due to capital markets
- Non-Strategic portfolio comprises 5.0% of TPF GAV.

## Percentage of NSA portfolio sold since inception<sup>2</sup>



## Breakdown by sector (USD)<sup>1</sup>

Based on GMV in millions as of 9/30/22



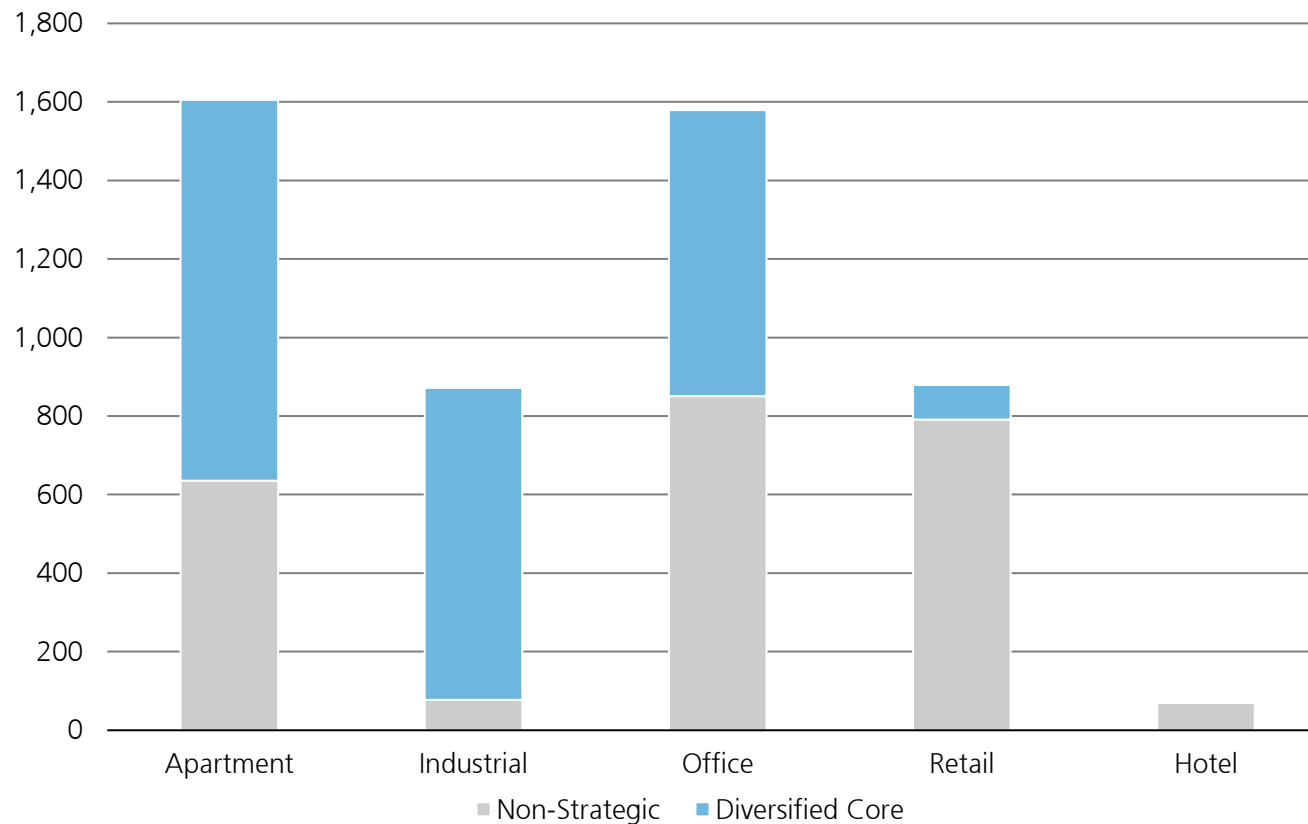
2022 count	2	1	0	1
2023 count	1	3	1	0

Data as of September 30, 2022. The asset sales plan is a forecast, based on best information available today. However, the impact of the pandemic and other market forces may impact sales volumes, such that the level of actual sales may vary. <sup>1</sup>Sale years updated as of July 26, 2022. <sup>2</sup>Total portfolio based on actual sale proceeds through June 30, 2022 and forecasted sales utilizing each asset's gross market value as of September 30, 2022. Transferred asset reflected at gross market value as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM).

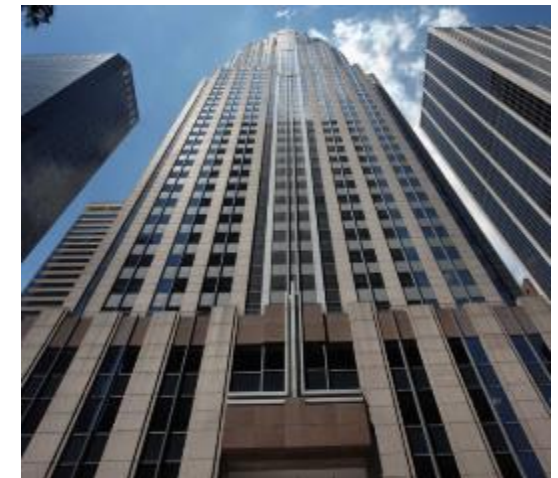
# Transaction activity – dispositions

USD 5.0 billion in property sales since July 2020

USD millions



Element Uptown, Charlotte, NC



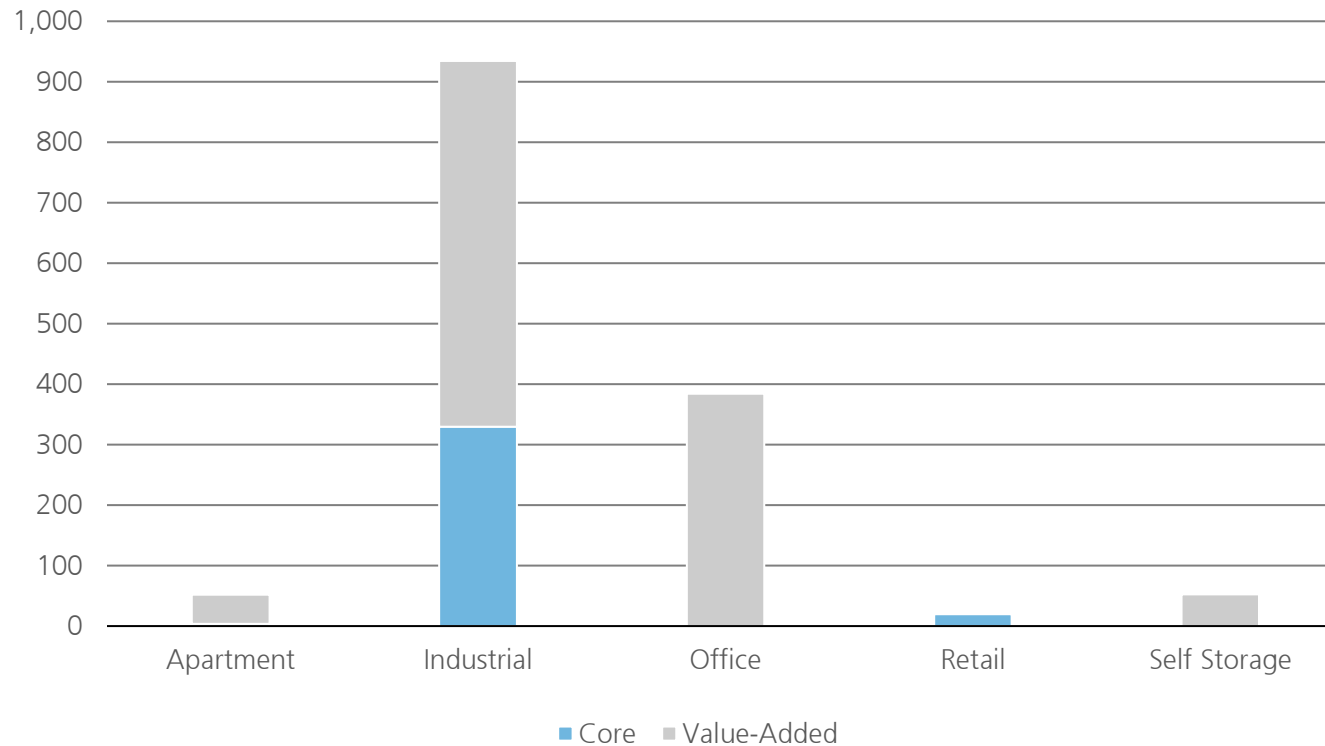
1177 Avenue of the Americas, New York, NY

Data as of September 30, 2022.

Source: UBS Asset Management, Real Estate & Private Markets (REPM). These types of investments may not be available or selected by the Fund in the future. <sup>1</sup>Gross Sale Price is the Fund's share of the investment after purchase price adjustments.

# Transaction activity – new acquisitions/commitments

USD 1.4 billion in commitments since July 2020



3430 E 26th Street, Vernon, CA



Highland Cross, Rutherford, NJ

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). These types of investments may not be available or selected by the Fund in the future. <sup>1</sup>Gross Price is the Fund's share of the investment after purchase price adjustments.

# TPF sector strategies

## We are turning the portfolio

### Investing in industrial

- Build to core
- Key relationships
- Improving diversification
- Target – 33%

### Emphasizing strength in multifamily

- Build to core
- Renovations
- Improving diversification
- Target – 36%

### Reshaping the office portfolio

- Lower allocation reduces risk
- Life sciences opportunities
- Target – 19%

### Decreasing retail allocation

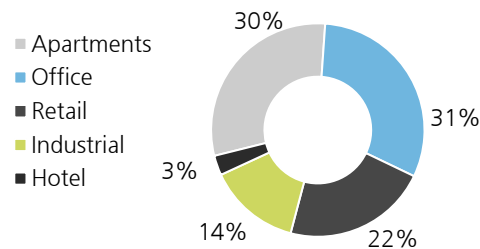
- Evaluating future opportunities
- Target – 9%

### Niche strategies

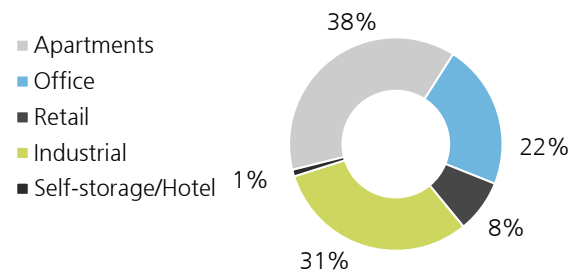
- Targeting self-storage
- Diversification within traditional property types
- Target – 3%

## Property type allocation (%)

### 2Q 2018



### 3Q 2022



Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM).

# TPF sector / market selection

## TPF 2022 YTD transactions

Acquisitions/Commitments  
USD 633.1 million

Dispositions  
USD 1,782.3 million

### Target transactions activity

	Apartments
	Industrial
	Office
	Retail
	Self Storage

### Buy

Boston, Denver, Austin
NY, Dallas, Seattle Los Angeles
Boston
South Florida
Coastal Markets

### Sell

Los Angeles, Portland, OR
Midwest region
New York City, Portland, OR
Los Angeles, Boston
N/A

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM).



# Niche Strategies: CambridgeSide Life Sciences



CambridgeSide, Cambridge, MA

- Second largest asset by gross market value in TPF
- 359,600 SF Lab building under construction
  - LEED Gold
  - Delivery date – 4Q2023
- Cambridge lab market vacancy – 2.7%<sup>1</sup>
- Phase II – 482,000 SF lab building and 163 residential units

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). Investments shown either reflect a unique investment opportunity or are the largest, based on gross asset value. These types of investments may not be available or selected by the Fund in the future. <sup>1</sup>JLL, 3Q 2022.

# Leverage

## Debt flexibility, tactical deployment

### Current Leverage position

- 17.9% current leverage ratio compared to 21.5% NFI-ODCE
- New leverage guideline effective 1Q22

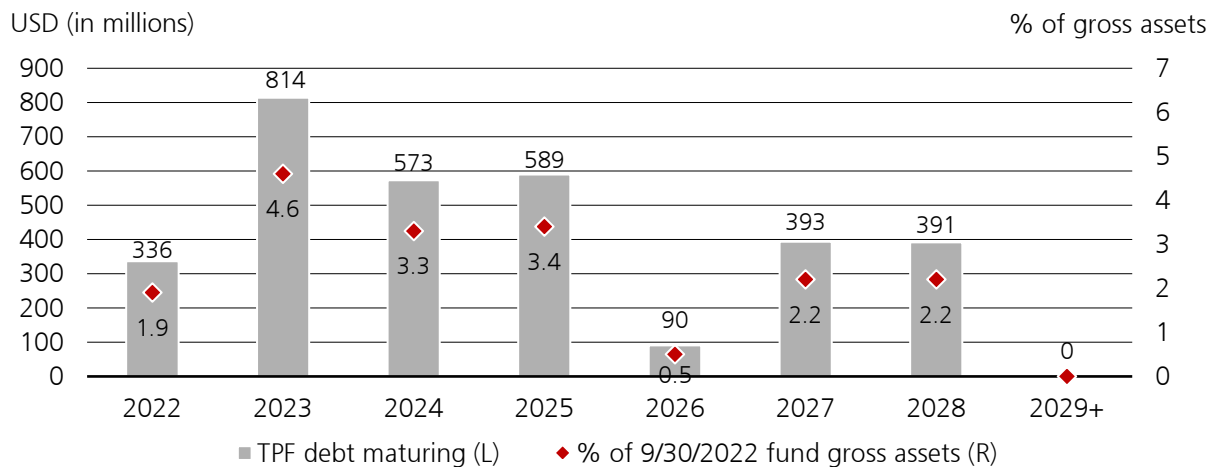
### Where we want to be

- Increase leverage to be in line with ODCE in midterm
- Maintain underweight in near term

### Focus on risk and liquidity management

- USD 800 million line of credit provides liquidity and cash management flexibility
- Staggered loan maturity schedule

## Upcoming debt maturities



Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>NCREIF is the source of NFI-ODCE.



120 Broadway, New York, NY

# Capital flows

- Redemption pool activity 1/1/21 – 11/1/22
  - Balance as of January 2021            USD 8.2 billion
  - Redemption funding                    (USD 3.3 billion)
  - New redemption/recission requests USD 1.2 billion
  - Share value – appreciation            USD 1.1 billion
  - Balance as of November 1, 2022    USD 7.2 billion
- Investment management fee programs
  - Loyalty fee discount                    25% (4 year)
  - Top-up (new commitments)            Zero base fee<sup>1</sup>
  - Investor participation                    USD 5.4 billion
  - Variable fee waiver                    thru 1Q24

## Balancing needs of all investors

- TPF offers quarterly liquidity to all investors
- All redemption requests are treated equally
- Each quarter's redemption payment is determined after considering portfolio operating needs
- The Fund continues to execute its investment strategy



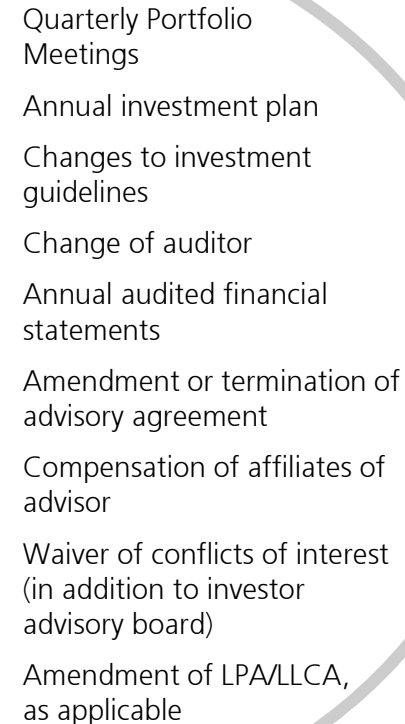
The Julian, San Jose, CA

Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>Zero base fee on new commitments is capped at 100% of an investor's existing balance. Notes: Investors may request redemption of all or a portion of their units (subject to sufficient liquidity) on a quarterly basis. There is no limit on how often an investor may withdraw assets, subject to other constraints described below. Investors who wish to redeem units must notify UBS Realty in writing at least sixty (60) days prior to the relevant withdrawal date. The Fund does not offer guaranteed liquidity.



# Independent Board of Trustees – Roles and responsibilities

High level oversight of the Advisor; Advisor continues the day-to-day management of TPF per the Investment Management Agreement

- 
- Quarterly Portfolio Meetings
  - Annual investment plan
  - Changes to investment guidelines
  - Change of auditor
  - Annual audited financial statements
  - Amendment or termination of advisory agreement
  - Compensation of affiliates of advisor
  - Waiver of conflicts of interest (in addition to investor advisory board)
  - Amendment of LPA/LLCA, as applicable

## **Collete English Dixon**

Executive Director of the Marshall Bennett Institute of Real Estate at Roosevelt University in Chicago

## **Laura Huntington**

Chief Operating Officer, Real Property & Infrastructure Institute and Chairwoman, Institutional Property Consultants

## **Matt Johnson**

Head of Real Estate – US

## **Adam Stanley**

Chief Experience Officer, Teach For America and former CIO and Chief Digital Officer, Cushman & Wakefield

## **Laurann Stepp**

Former Principal at Exeter Property Group and Senior Portfolio Manager at Pennsylvania Public School Employees' Retirement System

## **Tom Tull**

Former CIO for the Employees Retirement System of Texas

Section 2.1

# Appendix

# Trumbull Property Fund representative assets



**73 East Lake, Chicago, IL**



**CambridgeSide, Cambridge, MA**



**Century Square, Seattle, WA**



**Pacific Industrial, San Bernardino, CA**



**The Charleston at Boca Raton,  
Boca Raton, FL**



**555 17th Street, Denver, CO**



**Alexan San Diego, CA**



**Becknell Industrial, Columbia, SC**

Photographs of current TPF properties are shown for illustrative purposes. The properties within the Fund are expected to change over time as investments are acquired and sold.  
Source: UBS Asset Management, Real Estate & Private Markets (REPM).

# Trumbull Property Fund strategy

## Strategy/Characteristics

»»	Broad Diversification	Top-down allocations: research driven
»»	Low Leverage	Debt flexibility, tactical deployment
»»	Low Risk Profile	Overweight low cap ex sectors; selective value-added investing
»»	Stable Income	83% of total return from income since inception
»»	Focused Sustainability	Creative thinking for ESG Investment <sup>1</sup>

## Execution

Assess allocations vs. benchmark; active decision for sector/market weights informed by Research.

Best practices in operations; benchmark asset performance and maximize total return.

Rigorous asset buy/sell process to assure successful selection and dispositions.



Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>Source: GRESB as of 2022. TPF is ranked #6 out of 56 in the US Diversified, Core peer group. GRESB is a third-party organization that provides ESG data to financial markets. GRESB collects, validates, scores, and independently benchmarks ESG data to provide business intelligence, engagement tools, and regulatory reporting solutions for investors, asset managers, and the wider industry. GRESB ratings are given annually with the final info coming out in October each year. UBS has been a member of GRESB for over a decade. For more info about GRESB, please consult the webpage [here](#) and learn more about GRESB's scoring methodology [here](#). GRESB is compensated annually by its members for the assessments, find out more [here](#).

# Trumbull Property Fund highlights



The Shipyard at Port Jefferson, Port Jefferson, NY



Pacific Industrial District, Vernon, CA

➤ USD 17.8 billion in gross assets

➤ 145 Investments

➤ Fund leverage: 17.9%

➤ 70% allocated to low cap sectors

➤ 439 Investors

➤ 40+ year track record

➤ Gross Return since inception: 8.64%<sup>1</sup>

➤ Gross Dividend Yield: 3.4%<sup>2</sup>

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>TPF since inception date is 1/13/1978. <sup>2</sup>Gross dividend yield provided is a one year gross rolling return as of September 30, 2022. Past performance is not indicative of future results.



# Dedicated and experienced team

**Portfolio Managers average 27 years of industry experience**



**Paul Canning**  
Managing Director

**Senior Portfolio Manager**  
**TPF Core Diversified Portfolio**

42 years of industry experience,  
31 with UBS



**Mario Maturo**  
Executive Director

**Senior Portfolio Manager**  
**Red Strategic Portfolio**

23 years of industry experience,  
17 with UBS



**Jason Lewis**  
Executive Director

**Portfolio Manager**

16 years of industry experience,  
1 with UBS



**Chris Dearing**  
Associate Director

**Associate Portfolio Manager**

9 years of industry experience,  
7 with UBS



**Chigoziri Mgbeahuru**  
Associate Director

**Portfolio Analyst**

4 years of industry experience,  
1< with UBS



**Ming Chen**  
Director

**Director of Performance Measurement**

16 years of industry experience,  
1< with UBS



**Daniel Bothwell**  
Associate Director

**Portfolio Analyst**

4 years of industry experience,  
1< with UBS

As of October 2022.

Source: UBS Asset Management, Real Estate & Private Markets (REPM).

# TPF Asset Management Team

## Strategy-focused



### Head of RE Asset Management

Tiffany Gherlone



### Head of TPF Asset Management

Brent Hall

## Sector-focused



### Head of Residential

David McCarthy



### Head of Office

Carl Pierce



### Head of Industrial

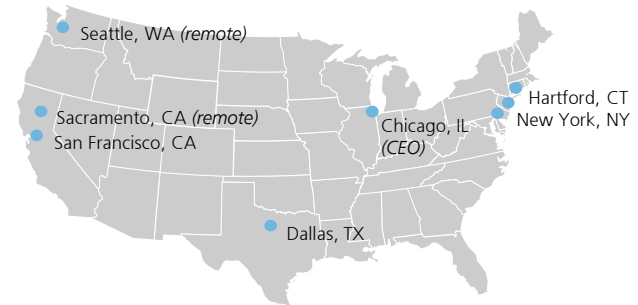
Rachel Vick



### Head of Retail

Jim Zilora

## Office and remote locations



## Team members



### West coast

#### Asset Managers

Nicole Evans

Carl Pierce (Office)

OPEN (recruiting)

#### Analysts

Lauren Hallgrimson (AM and Analyst)

Matt Lizanich

OPEN (recruiting)

OPEN (recruiting)



### Central

#### Asset Managers

Alan Green

Bhavin Parekh

Rachel Vick (Industrial)

Kasey Walsh, AM Practice Lead

#### Analysts

John Cavallo (AM and Analyst)

Brian Parkinson (AM and Analyst)

OPEN (recruiting)



### East coast

#### Asset Managers

Brent Hall, Head of TPF AM

Scott Burns

Tom Mathes

David McCarthy (Residential)

Marcia Curtin

Kevin Hamel

James Zilora (Retail)

#### Analysts

Andrew Hollerbach

Eddie Maxhari

Cordelia Meserow (AM and Analyst)

Stephen Monaco

### Support Team

Anne Bernier

Greta Love

Shelly McLaurin-Andrews

Jo'Lynn Nowell

Wendie Wayne

Sonja Young

# TPF 10 largest markets and assets

## Major market exposure and low property concentration risk

Markets by % of Fund	
New York	14%
Los Angeles	10%
San Francisco	9%
Riverside	5%
Washington, DC	5%
Seattle	5%
Boston	5%
Miami	5%
Portland, OR	4%
Denver	4%
<b>66%</b>	

Assets	Location	Property type	Gross Market Value (USD m)	% Portfolio
120 Broadway	New York	CBD Office	654.2	4%
CambridgeSide <sup>(1)</sup>	Cambridge	Mixed Use	641.9	4%
Liberty Green-Liberty Luxe <sup>(2)</sup>	New York	High-rise Apartments	475.0	3%
Century Square	Seattle	CBD Office	441.0	3%
US Bancorp Tower	Portland	CBD Office	410.5	2%
Hayward Industrial	San Francisco	Industrial	362.0	2%
455 Market Street	San Francisco	CBD Office	280.6	2%
555 17 <sup>th</sup> Street	Denver	CBD Office	280.0	2%
Toscana at Rancho Del Rey	San Diego	Low-rise Apartments	279.0	2%
The Brand	Los Angeles	High-rise Apartments	255.0	1%
			<b>4,079.2</b>	<b>25%</b>



US Bancorp Tower



The Brand



20 CambridgeSide



120 Broadway

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>(1)</sup>CambridgeSide includes multiple individual property investments including retail, office and Life Science components. <sup>(2)</sup> Participating mortgage investment. Notes: Percentages are based on gross market value of real estate investments. See required notes page at the end of this section or presentation. Amounts may not sum due to rounding. Past performance is not indicative of future results.

# TPF leasing – percentage leased at end of period

	2013	2014	2015	2016	2017	2018	2019	2020	2021	3Q22
Apartments	94	95	94	94	93	95	95	92	95	95
Industrial	96	97	97	97	97	97	97	96	97	99
Office	91	94	95	89	88	88	90	88	84	80
Retail	95	95	95	94	94	94	93	89	91	92
Total	93	95	95	93	92	93	93	91	92	93



CenterPoint Industrial, Pleasant Prairie, WI



Cumberland Park Apartments, Orlando, FL

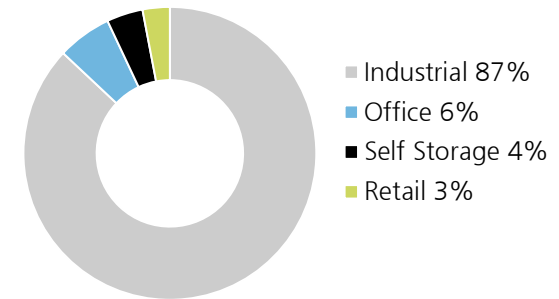
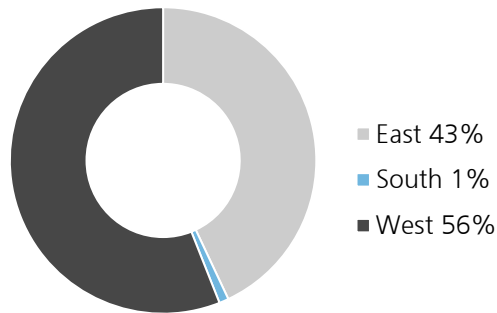
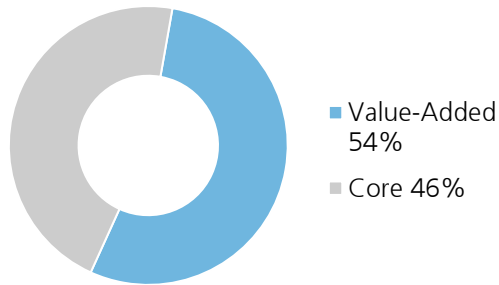


NV, Portland, OR

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM).

Notes: Leasing numbers exclude hotels. In line with NCREIF life cycle definitions, the leasing data methodology excludes land and development assets less than 60% leased (and available for lease less than one year) but includes all other assets.

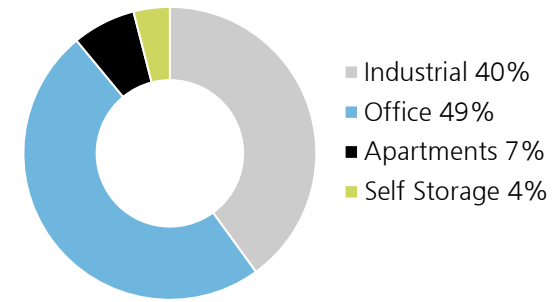
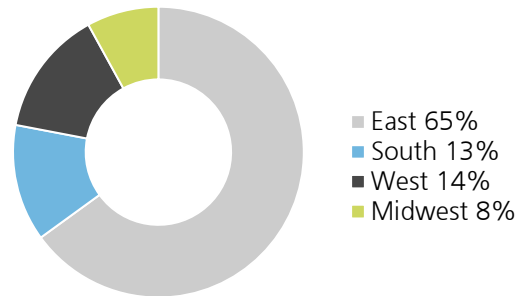
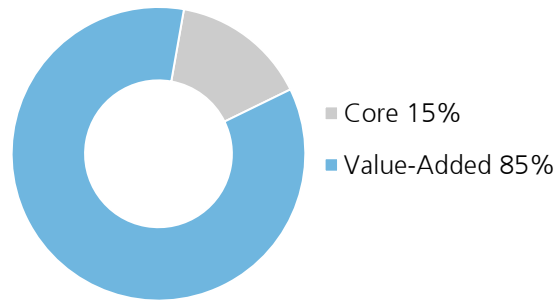
# TPF 2022 investments



Property	Property type	Location	Strategy	Date closed	Size	Gross investment (USD millions) <sup>1</sup>
Amazon Highland Cross	Industrial	Rutherford, NJ	Value-Added	1/2022	357,519 sf	185.0
BI-GA-Carrollton-Decoma Drive	Industrial	Carrollton, GA	Value-Added	1/2022	141,000 sf	6.1
First Street-CambridgeSide	Office	Cambridge, MA	Value-Added	2/2022	623,000 sf	35.8
15894 Valley Boulevard	Industrial	Fontana, CA	Value-Added	2/2022	92,433 sf	29.4
Boston Self Storage	Self-Storage	Burlington, MA	Value-Added	3/2022	88,594 sf	25.2
PI-3430 E 26 <sup>th</sup> Street	Industrial	Vernon, CA	Value-Added	3/2022	140,500 sf	32.0
600 & 620 Wanamaker	Industrial	Ontario, CA	Core	6/2022	238,911 sf	94.0
Danville Shopping Center	Retail	Danville, CA	Core	6/2022	67,642 sf	19.4
BI-SC-Greer-888 DeYoung Road	Industrial	Greer, SC	Value-Added	7/2022	263,642 sf	25.5
O-I Glass Industrial	Industrial	Vernon, CA	Core	8/2022	662,000 sf	180.8
<b>YTD Total</b>						<b>633.2</b>

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). These types of investments may not be available or selected by the Fund in the future. <sup>1</sup>Gross Sales Price is the Fund's share of the investment after purchase price adjustments.

# TPF 2021 investments



Property	Property type	Location	Strategy	Date closed	Size	Gross investment (USD millions) <sup>1</sup>
Becknell – Build to Suit development (2)	Industrial	SC, CO	Value-Added	2021	523,000 sf	61.2
Becknell – Speculative development (11)	Industrial	OH, VA (2), FL (2), SC, IN(2), TX (3)	Value-Added	2021	1,815,000 sf	173.4
4545 Ardine Street	Industrial	South Gate, CA	Core	4/2021	141,670 sf	42.0
640 Puente Street	Industrial	Brea, CA	Core	5/2021	45,439 sf	12.9
20 CambridgeSide	Office	Cambridge, MA	Value-Added	9/2021	358,000 sf	348.3
Muze at Met Square <sup>2</sup>	Apartments	Miami, FL	Core	9/2021	391 units	3.4
Boston Self Storage	Self Storage	Stoneham, MA	Value-Added	10/2021	89,885 sf	27.0
Munroe Place Apartments	Apartments	Quincy, MA	Core	11/2021	111 units	48.6
<b>YTD Total</b>						<b>716.7</b>

Data as of December 31, 2021. Source: UBS Asset Management, Real Estate & Private Markets (REPM). These types of investments may not be available or selected by the Fund in the future. <sup>1</sup>Gross Sales Price is the Fund's share of the investment. <sup>2</sup>The Fund acquired its partner's interest. Numbers may not sum due to rounding.



# TPF acquisition activity

## Sample acquisitions



### Amazon Highland Cross, Rutherford, NJ

- 357,519 SF industrial building (under construction)
- 100% leased to Amazon for 10 years
- USD 185.0 million committed
- Realized significant value gain from initial valuation



### O-I Glass Industrial, Vernon, CA

- Three industrial buildings totaling 662,000 square feet on approx. 29 acres of land
- 100% leased to O-I Glass
- USD 180.8 million
- Appreciation expected throughout the lease term with additional value unlocked upon redevelopment



### 600 & 620 Wanamaker, Ontario, CA

- Acquisition of two building, 238,911 sf, industrial property in Ontario, CA
- USD 94.0 million committed
- Target investment market for Fund
- Near term rollover provides opportunity to increase below market rents

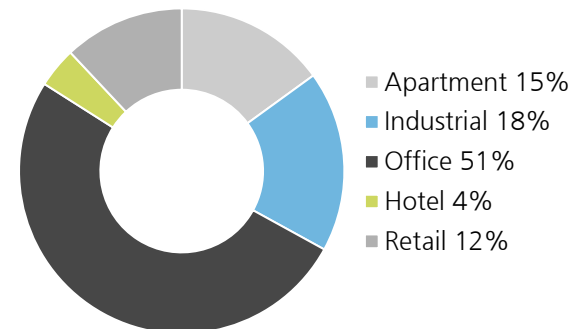
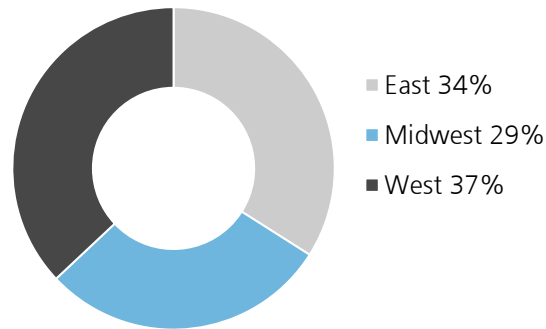


### 3430 E 26<sup>th</sup> Street, Vernon, CA

- Entered into an amended operating agreement with our development partner to construct a 140,500 SF industrial building
- Total project cost is USD 40.8 million
- Site acquired in 2020 and required environmental remediation by tenant prior to construction of the new building

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). Investments shown either reflect a unique investment opportunity or are the largest, based on gross asset value, acquired during the past 12 months.

# TPF 2022 dispositions



Property	Property type	Location	Acquisition Date	Date closed	Size	TPF Gross Sales Price <sup>1</sup> (USD millions)
5650 CenterPoint Court	Industrial	Gurnee, IL	9/2007	1/2022	213,141 sf	15.5
Allure Apartments	Apartments	Orange, CA	10/2006	1/2022	282 units	141.8
35 West Wacker <sup>2</sup>	Office	Chicago, IL	12/2011	2/2022	1,118,148 sf	394.3
Union Bank Square <sup>2</sup>	Office	Orange, CA	4/2012	2/2022	405,813 sf	97.2
20 CambridgeSide (partnership interest)	Office	Cambridge, MA	N/A	2/2022	358,000 sf	14.8
20 CambridgeSide (land sale)	Office	Cambridge, MA	N/A	2/2022	358,000 sf	220.0
First Street (partnership interest)	Office	Cambridge, MA	N/A	2/2022	623,000 sf	9.2
Baltimore Waterfront Marriott <sup>2</sup>	Hotel	Baltimore, MD	2/2001	2/2022	754 rooms	68.9
BI-IN-Hobart land-Shih Parcel	Industrial	Hobart, IN	12/2011	3/2022	23 acres	2.6
Shops at Montebello <sup>2</sup>	Retail	Montebello, CA	12/1988	4/2022	403,363 sf	91.5
Olympia Centre <sup>2</sup>	Retail	Chicago, IL	11/1998	4/2022	195,500 sf	94.0

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>TPF Gross Sales price is gross of debt and closing costs, and is the Fund's share of proceeds after purchase price adjustments. These types of investments may not be available or selected by the Fund in the future. Numbers may not sum due to rounding. <sup>2</sup>Non-Strategic Assets

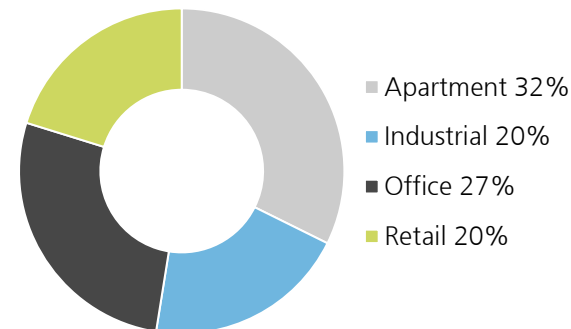
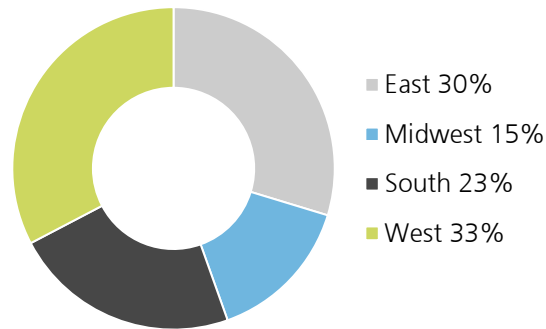


# TPF 2022 dispositions continued

Property	Property type	Location	Acquisition Date	Date closed	Size	TPF Gross Sales Price <sup>1</sup> (USD millions)
BI-NM-Aztec-2800 Pepsi Way	Industrial	Aztec, NM	12/2011	4/2022	8,750 sf	0.8
Element Uptown	Apartments	Charlotte, NC	12/2012	5/2022	352 units	125.6
3803 North Elm Street <sup>2</sup>	Office	Greensboro, NC	12/2001	6/2022	164,938 sf	16.1
100 CambridgeSide (partnership interest) <sup>3</sup>	Mixed use	Cambridge, MA	N/A	6/2022	381,459 sf	35.0
100 CambridgeSide (land sale) <sup>3</sup>	Mixed use	Cambridge, MA	N/A	6/2022	381,459 sf	121.5
CNT-30120 Skokie Highway	Industrial	North Chicago, IL	9/2017	7/2022	395,064 sf	26.2
					3,430,465 sf	
CNT-9 parcels	Industrial	Pleasant Prairie, WI	N/A	7/2022	119 acres	271.7
Las Tiendas Village <sup>2</sup>	Retail	Chandler, AZ	10/2006	08/2022	189,906 sf	35.9
<b>YTD Total</b>						<b>1,782.6</b>

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>TPF Gross Sales price is gross of debt and closing costs, and is the Fund's share of proceeds after purchase price adjustments. These types of investments may not be available or selected by the Fund in the future. Numbers may not sum due to rounding. <sup>2</sup>Non-Strategic Assets. <sup>3</sup>This property consists of retail, parking and 3<sup>rd</sup> floor office space.

# TPF 2021 dispositions



Property	Property type	Location	Acquisition Date	Date closed	Size	TPF Gross Sales Price <sup>1</sup> (USD millions)
Gilbert Gateway Towne Center (partial sale) <sup>2</sup>	Retail	Gilbert, AZ	3/2008	1/2021	55,897 sf	13.5
CenterPoint Gurnee Land (partial sale)	Industrial	Gurnee, IL	9/2007	1/2021	5 acres	0.6
CenterPoint Wadsworth Land	Industrial	Wadsworth, IL	9/2007	2/2021	228 acres	11.1
Hunter Fan Building <sup>2</sup>	Industrial	Byhalia, MS	9/2006	3/2021	935,000 sf	29.3
9033 Wilshire Boulevard <sup>2</sup>	Office	Beverly Hills, CA	12/2015	3/2021	49,663 sf	74.4
Becknell Portfolio	Industrial	Various	Various	3/2021	6,100,000 sf	413.4
Scottsdale Towne Center <sup>2</sup>	Retail	Scottsdale, AZ	12/2005	3/2021	168,090 sf	27.1
Becknell Land (2)	Industrial	AZ, IN	Various	4/2021	46 acres	10.2
Becknell (2)	Industrial	LA, MO	Various	4/2021	220,676 sf	13.3
Village on the Parkway <sup>2</sup>	Retail	Dallas, TX	5/2015	5/2021	343,989 sf	115.0
Bay Street Emeryville <sup>2</sup>	Retail	Emeryville, CA	8/2014	5/2021	382,793 sf	90.5
The Tate <sup>2</sup>	Apartments	Houston, TX	10/2013	5/2021	431 units	75.0

Data as of December 31, 2021. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>TPF Gross Sales Price is gross of debt and closing costs and is the Fund's share of the investment. These types of investments may not be available or selected by the Fund in the future. Numbers may not sum due to rounding. <sup>2</sup>Non-Strategic Assets

# TPF 2021 dispositions continued

Property	Property type	Location	Acquisition Date	Date closed	Size	TPF Gross Sales Price <sup>1</sup> (USD millions)
Greenpoint Business Park <sup>2</sup>	Industrial	Elmhurst, IL	7/1997	6/2021	230,025 sf	28.8
1400 Busch Parkway <sup>2</sup>	Industrial	Buffalo Grove, IL	6/1998	6/2021	3.3 acres	0.6
Element Music Row	Apartment	Nashville, TN	2/2014	6/2021	430 units	153.7
Burbank Empire Center <sup>2</sup>	Office	Burbank, CA	8/2015	6/2021	231,049 sf	106.7
1177 Avenue of the Americas	Office	New York, NY	9/2014	6/2021	1,033,759 sf	416.4
Central Station on Orange	Apartment	Orlando, FL	12/2015	7/2021	279 units	65.3
Carmel Mountain West <sup>2</sup>	Retail	San Diego, CA	12/2005	8/2021	102,610 sf	10.2
Deerbrook Marketplace <sup>2</sup>	Retail	Humble, TX	12/2015	8/2021	360,250 sf	42.1
Deerbrook Land <sup>2</sup>	Retail	Humble, TX	12/2013	8/2021	8.9 acres	0.6
Waterford Place Apartments	Apartment	Dublin, CA	5/2011	8/2021	390 units	208.5
Becknell	Industrial	Lebanon, OH	5/2014	9/2021	131,150 sf	5.6
Crossroads Towne Center - Gilbert <sup>2</sup>	Retail	Phoenix, AZ	1/2006	9/2021	253,074 sf	48.9
The Bernardin <sup>2</sup>	Apartment	Chicago, IL	12/2005	10/2021	171 units	95.0
5718 Westheimer <sup>2</sup>	Office	Houston, TX	11/1997	10/2021	491,092 sf	76.5
West 130 Apartments <sup>2</sup>	Apartment	West Hempstead, NY	1/2014	10/2021	150 units	66.4
Metro 303 Apartments <sup>2</sup>	Apartment	Hempstead, NY	11/2014	10/2021	166 units	70.6
The Boulevard <sup>2</sup>	Apartment	Woodland Hills, CA	7/2011	10/2021	340 units	167.4
Rochelle Development JV <sup>2</sup>	Industrial	Rochelle, IL	12/2004	11/2021	24.0 acres	0.3
Rochelle Industrial One <sup>2</sup>	Industrial	Rochelle, IL	3/2005	11/2021	404,264 sf	18.4

Data as of December 31, 2021. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>TPF Gross Sales Price is gross of debt and closing costs and is the Fund's share of the investment. These types of investments may not be available or selected by the Fund in the future. Numbers may not sum due to rounding. <sup>2</sup>Non-Strategic Assets

# TPF 2021 dispositions continued

Property	Property type	Location	Acquisition Date	Date closed	Size	TPF Gross Sales Price <sup>1</sup> (USD millions)
9/90 Corporate Center <sup>2</sup>	Office	Framingham, MA	8/2006	11/2021	404,264 sf	91.7
Gilbert Gateway Towne Center <sup>2</sup>	Retail	Gilbert, AZ	1/2006	11/2021	263,847 sf	49.0
Mansfield Crossing <sup>2</sup>	Retail	Mansfield, MA	11/2006	11/2021	369,572 sf	64.0
Becknell	Industrial	Dallas, TX	8/2018	12/2021	201,010 sf	26.3
Orchard Town Center <sup>2</sup>	Retail	Westminster, CO	12/2013	12/2021	718,136 sf	101.8
<b>YTD Total</b>						<b>2,788.2</b>

Data as of December 31, 2021. Source: UBS Asset Management, Real Estate & Private Markets (REPM). <sup>1</sup>TPF Gross Sales Price is gross of debt and closing costs and is the Fund's share of the investment. These types of investments may not be available or selected by the Fund in the future. Numbers may not sum due to rounding. <sup>2</sup>Non-Strategic Assets

# TPF disposition activity

## Sample dispositions



### Union Bank Square, Orange, CA

- Property was identified as a Non-Strategic asset due to historical performance and Property specific risks
- Sale reduced the Fund's exposure to Orange County, CA offices
- USD 97.2 million



### 35 West Wacker, Chicago, IL

- Property was identified as a Non-Strategic asset due to historical performance and Property specific risks
- Sale reduced the Fund's exposure to Chicago, IL offices
- USD 394.3 million



### Allure Apartments, Orange, CA

- Sale of a 282-unit apartment asset located in Orange, CA
- Opportunistic sale allowed the Fund to benefit from purchaser's use of a municipal bond program in CA
- USD 141.8 million



### CenterPoint Lakeview Portfolio, Pleasant Prairie, WI

- CenterPoint sub-portfolio sale including 7 buildings and 6 land parcels
- Sale reduced the Fund's overallocation to the Chicago Industrial market
- USD 297.9 million

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). Investments shown either reflect a unique investment opportunity or are the largest, based on gross asset value, sold during the past 12 months. Sale prices shown are TPF's share of gross sale price.

# TPF total sales

Year	Number of transactions	Gross Sales proceeds (USD in thousands)	Last independent appraised value
1982	4	8,845	8,744
1983	8	34,977	34,531
1984	10	61,732	60,340
1985	13	68,425	65,569
1986	10	94,339	89,612
1987	8	198,001	176,560
1988	4	71,330	67,550
1989	14	349,075	306,360
1990	0	-	-
1991	2	24,400	25,100
1992	8	67,575	65,006
1993	6	32,347	31,250
1994	3	87,983	86,444
1995	2	12,317	11,902
1996	4	43,896	39,508
1997	2	49,058	47,830
1998	0	-	-
1999	1	1,597	1,648
2000	5	75,191	58,319
2001	1	16,994	14,896
2002	4	53,126	48,868

Year	Number of transactions	Gross Sales proceeds (USD in thousands)	Last independent appraised value
2003	2	17,806	16,194
2004	6	25,472	24,771
2005	10	353,876	332,024
2006	9	143,904	134,162
2007	15	599,515	580,395
2008	9	384,975	366,466
2009	6	207,855	209,122
2010	5	35,482	34,692
2011	2	35,750	34,500
2012	6	292,338	290,640
2013	14	311,059	298,667
2014	2	57,771	55,612
2015	16	864,806	830,920
2016	10	372,007	366,110
2017	29	1,021,386	1,009,744
2018	20	2,676,888	2,589,453
2019	28*	1,952,051	1,947,045
2020	8	403,030	365,309
2021	38*	2,602,824	2,555,723
2022	13*	1,359,230	1,330,837
<b>Total</b>	<b>357</b>	<b>15,069,233</b>	<b>14,612,423</b>

↖ + 3.1% ↗

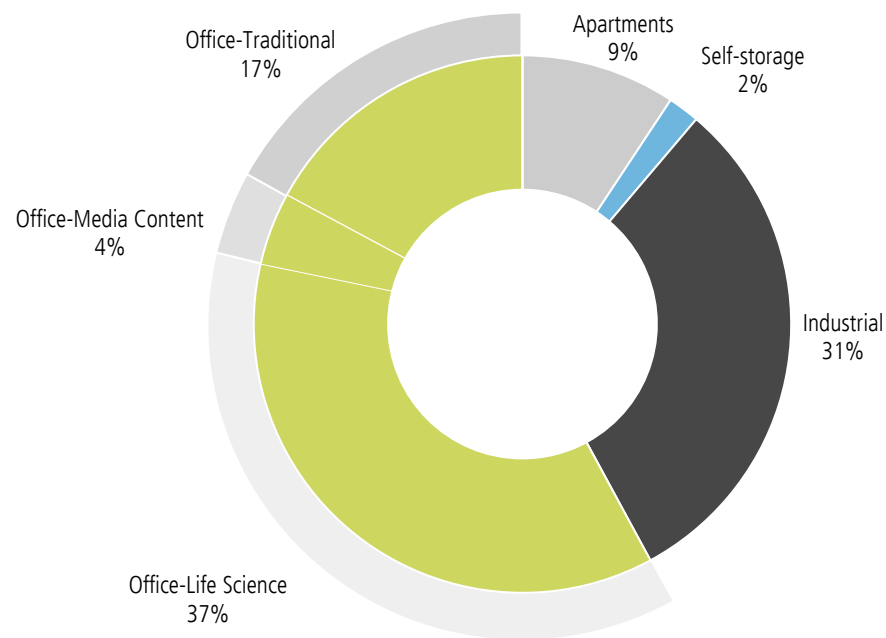
Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM) and NCREIF. Notes: Number of transactions sold may include portions of multi-parcel investments, and therefore may not tie to difference in total transactions from year to year. Sales proceeds and appraised values are net of debt and reflect TPF's percentage share. From 1982-2007, sales proceeds and appraised values are also net of closing costs. \*Includes portfolios of multiple industrial assets which are counted here as single transactions. The properties included in the calculation of total sales had been independently appraised or the appraisal reviewed and updated if necessary by an independent appraisal firm generally within six months of the date of sale. The total sales proceeds for all years exceeds the total last independent appraised value by 3.1%.

# TPF value-added risk management

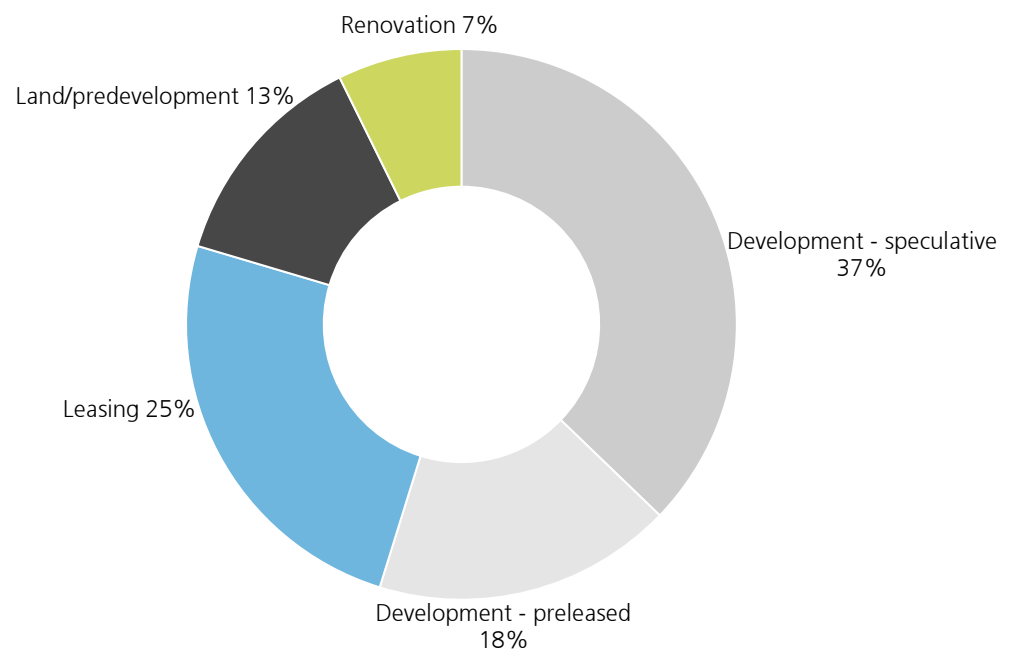
Value creation diversified across property type and strategy

Value-added assets comprise 7.8% of gross assets

## Property type



## Strategy



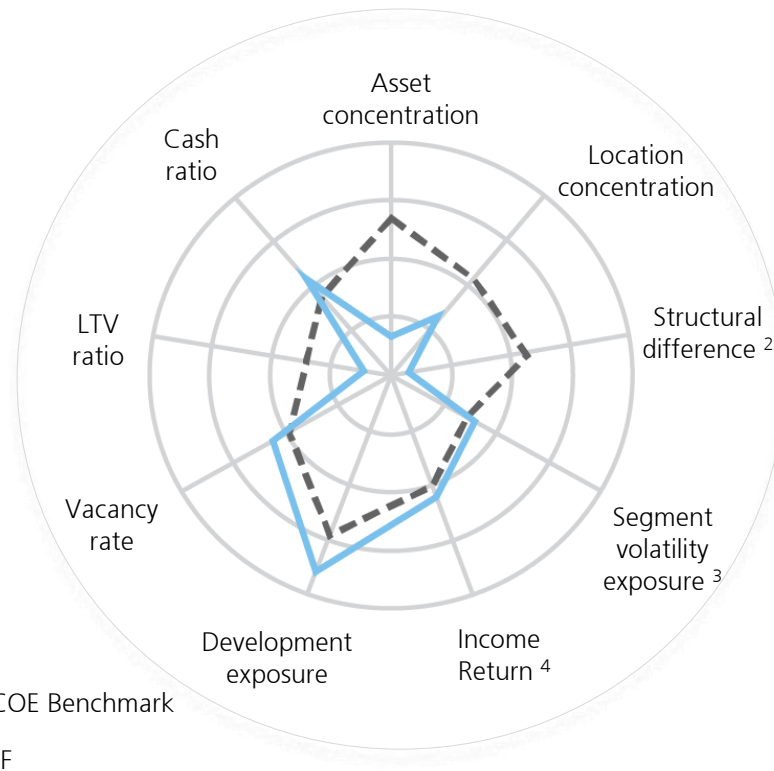
Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). Percentages are based on gross market value of real estate investments. Percentage totals may not sum due to rounding. Past performance is not indicative of future results. In line with NCREIF life cycle definitions, development assets are included in the value-added allocation until they are completed and they have achieved 60% leased status (or have been available for lease for one year).



# TPF risk analysis

TPF presents overall lower risk than benchmark

## MSCI<sup>1</sup> RiskWeb Analysis



**TPF presents lower risk in eight of nine factors tracked by MSCI.**

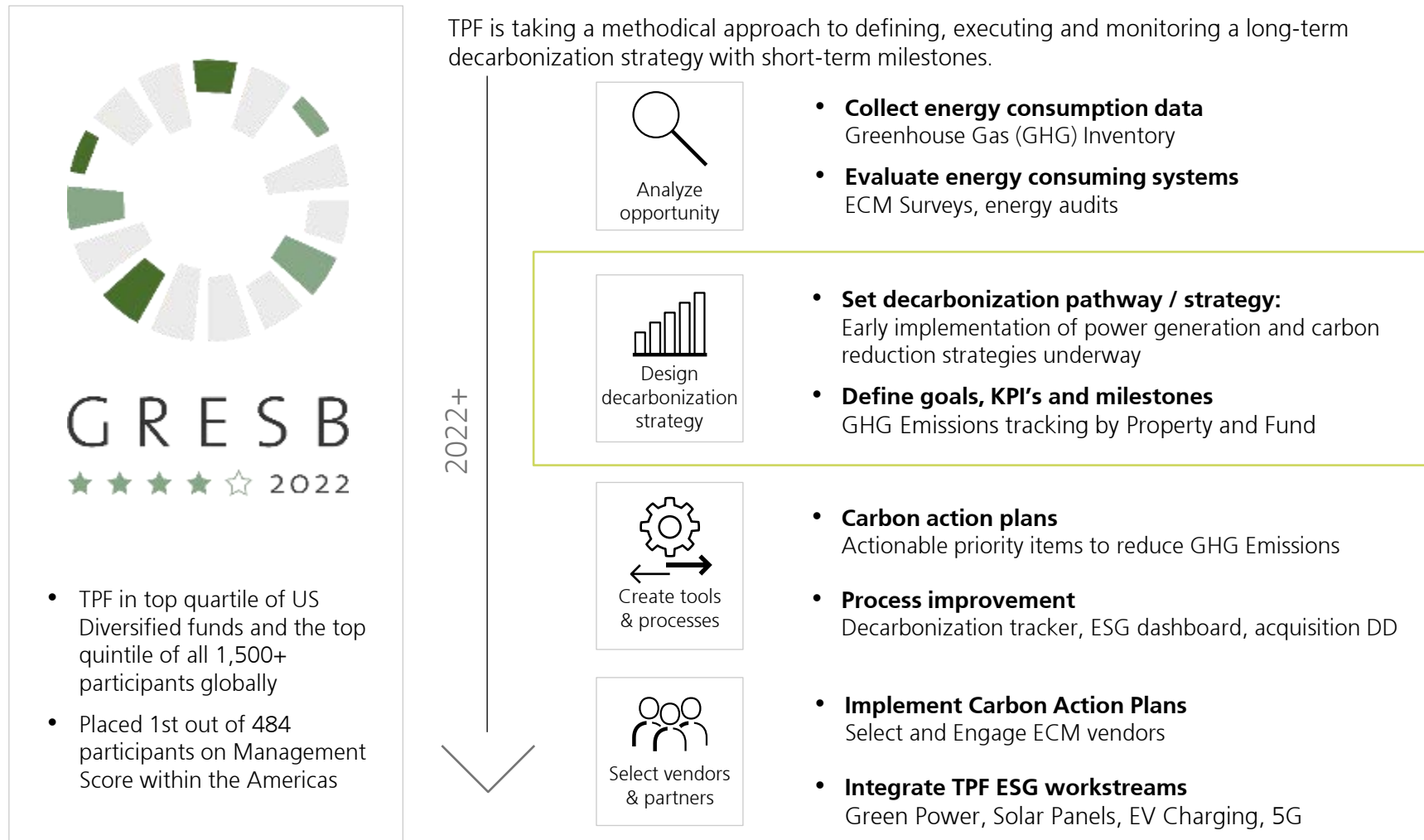


MSCI measures a variety of risks impacting real estate funds.

- The closer to the inside of the web, the lower the risk

Data as of September 30, 2022. <sup>1</sup>MSCI Real Estate is a firm that produces performance (attribution) analysis data for clients. The Trumbull Property Fund (TPF) is part of their ACOE (All Core Open-End) benchmark. As of March 31, 2022, the ACOE Index comprises 21 funds, for USD 231 billion in net assets. Of the 21 funds in the ACOE, 20 funds are in ODCE index. <sup>2</sup>Structural difference reflects the Fund's difference in allocations to property subtypes relative to the benchmark. <sup>3</sup>Volatility is measured by a 15-year weighted beta by property subtype for the Fund, as compared to the benchmark. <sup>4</sup>One-year income return as of March 31, 2022. Source: MSCI. Past performance is not indicative of future results.

# ESG – TPF's decarbonization pathway

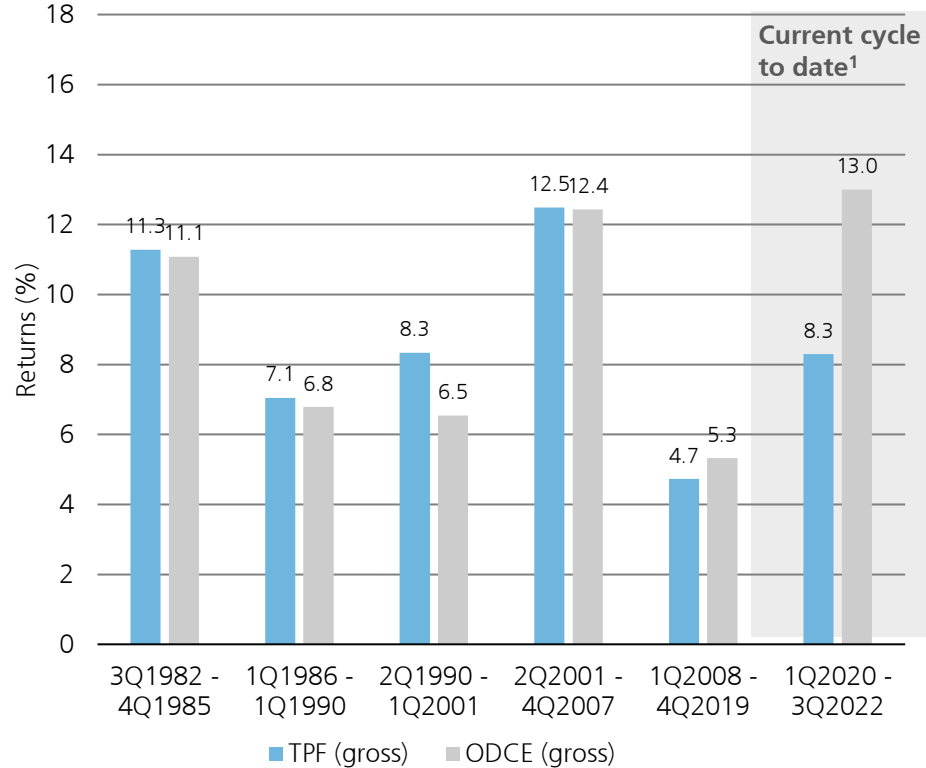


GRESB data from GRESB Benchmark Report 2022 as of October 2022. Source: GRESB as of 2022. TPF is ranked #6 out of 56 in the US Diversified, Core peer group. GRESB is a third-party organization that provides ESG data to financial markets. GRESB collects, validates, scores, and independently benchmarks ESG data to provide business intelligence, engagement tools, and regulatory reporting solutions for investors, asset managers, and the wider industry. UBS has been a member of GRESB for over a decade. For more information about GRESB, please consult the webpage [here](#) and learn more about GRESB's scoring methodology [here](#). GRESB is compensated annually by its members for the assessments, find out more [here](#). Past performance is not indicative of future results. Source: UBS Asset Management, Real Estate & Private Markets (REPM) and GRESB. This report is aligned with INREV Sustainability Reporting Recommendations and the sustainability data has been reviewed by LORD Green Real Estate Strategies, Inc. The product described herein aligns to Article 6 of Regulation (EU) 2019/2088

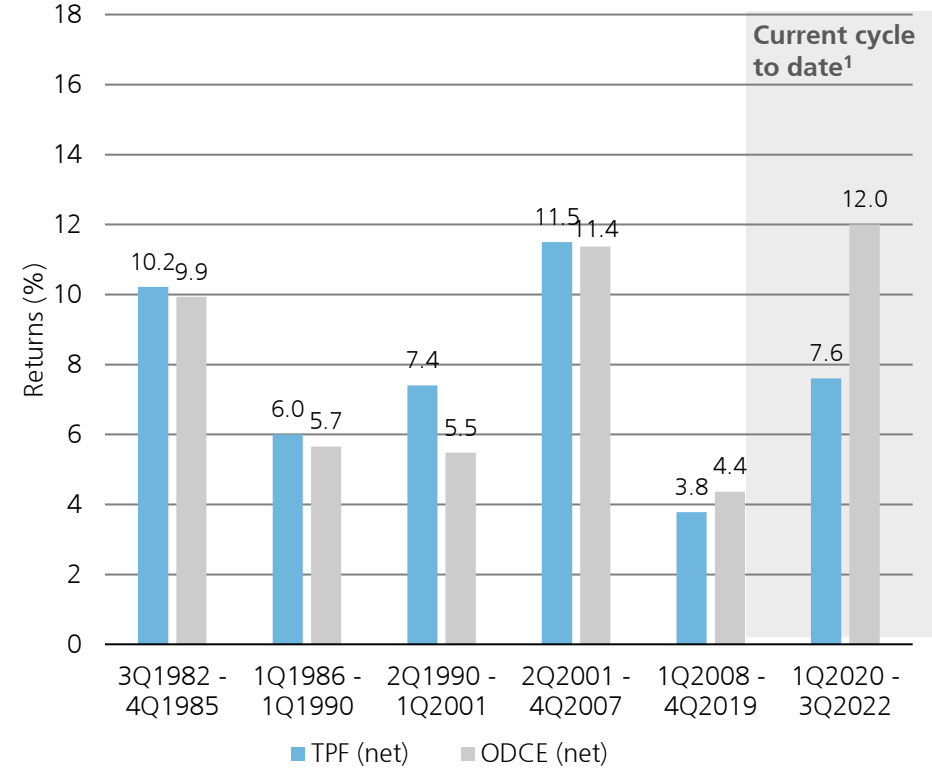
# Full market cycle total returns – peak to peak

## Competitive performance with NFI-ODCE in all full market cycles

### Gross returns



### Net returns



Data as of September 30, 2022. Data shown is back to 1982. All returns are annualized and are gross of fees. Source: UBS Asset Management, Real Estate & Private Markets (REPM). NCREIF is the source of NFI-ODCE. The NFI-ODCE (NCREIF Fund Index - Open-End Diversified Core Equity), source NCREIF, is a fund-level capitalization weighted index of open-end diversified core equity commercial real estate funds that includes cash balances and leverage and is reported gross of fees. Notes: <sup>1</sup>For purposes of measuring these performance objectives, a "full market cycle" is defined as a period of time from a peak valuation through a trough and a return to a new peak. The Advisor bases these measurements on assumptions that it believes are reasonable and consistent with industry standards. See required notes pages at the end of this section or presentation. Past performance is not indicative of future results.

# TPF annual performance

	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
Percent %																
Net investment income	8.42	9.97	9.68	9.96	9.05	8.87	8.86	8.40	7.53	6.80	5.60	6.06	6.36	7.38	7.95	8.60
Net realized/unrealized gain (loss)	0.77	3.39	7.47	7.02	0.67	3.76	4.00	1.04	0.17	0.08	0.13	1.89	(10.12)	(12.47)	(12.01)	(6.76)
Total, before management fee	9.24	13.61	17.69	17.49	9.76	12.87	13.12	9.51	7.71	6.88	5.74	8.04	(4.25)	(5.78)	(4.78)	1.41
Total, net of management fee	8.26	12.58	16.65	16.42	8.71	11.80	12.07	8.45	6.67	5.84	4.68	6.97	(5.14)	(6.48)	(5.47)	0.70

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Percent %																
Net investment income	9.70	9.88	10.33	9.88	8.59	8.73	8.99	8.99	8.38	7.91	7.28	6.85	6.07	5.12	4.96	6.69
Net realized/unrealized gain (loss)	2.42	2.14	5.59	12.56	7.33	3.97	7.59	(6.74)	0.51	1.52	6.89	13.61	10.12	8.49	(11.98)	(27.55)
Total, before management fee	12.30	12.18	16.34	23.34	16.39	12.96	17.08	1.79	8.93	9.52	14.54	21.13	16.65	13.93	(7.46)	(22.30)
Total, net of management fee	11.38	11.09	15.23	22.22	15.33	11.89	15.96	0.86	8.13	8.55	13.49	20.05	15.58	12.84	(8.29)	(22.94)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	YTD 2022	Since Inception	% of total return
Percent %															
Net investment income	7.05	5.36	5.35	5.13	5.16	4.97	4.72	4.64	4.58	4.79	3.92	4.08	1.86	7.14	83%
Net realized/unrealized gain (loss)	9.32	7.55	4.62	5.12	6.29	7.69	2.40	1.61	2.33	(6.66)	(7.72)	11.81	9.76	1.43	17%
Total, before management fee	16.85	13.21	10.15	10.44	11.69	12.94	7.21	6.30	6.99	(2.10)	(4.04)	16.24	11.71	8.64	100%
Total, net of management fee	15.89	12.08	9.04	9.32	10.56	11.83	6.14	5.42	6.15	(2.87)	(4.74)	15.42	11.33	7.67	N/A

Data as of September 30, 2022. Source: UBS Asset Management, Real Estate & Private Markets (REPM). Notes: Returns supplement the Firm's Equity Composite previously provided or included herein. See required notes page at the end of this section or presentation. Past performance is not indicative of future results. TPF began operations on January 13, 1978, thus the 1978 return is not for a full year. Returns are annualized.

# TPF advisory fees

TPF Management Fee Schedule		Effective Fees for Different Sized Accounts	
Investor NAV <sup>1</sup>	Fee Rate (%)	Investor NAV <sup>1</sup>	Fee Rate (%)
First USD 10 million	0.955	USD 25 million	0.88
Next USD 15 million	0.825	USD 50 million	0.84
Next USD 25 million	0.805	USD 100 million	0.82
Next USD 50 million	0.790	USD 150 million	0.77
Next USD 150 million	0.670	USD 200 million	0.74
Next USD 150 million	0.600	USD 250 million	0.73
Next USD 200 million	0.560	USD 300 million	0.71
Above USD 600 million	0.520	USD 400 million	0.68

<b>Family of Funds fee reduction</b>	Investors with assets in other designated Trumbull Funds may aggregate total invested assets for purposes of the base fee calculation.
<b>Performance based variable fee</b>	TPF advisory fees have historically included a variable fee tied to performance. The variable fee is earned at a rate of 7.5 bps per 1% of the Fund's real return in excess of 3% for the previous rolling four quarters, with a maximum of 25 bps. <b>This variable fee has been waived through March 31, 2024.</b>
<b>Fee reduction on cash holdings</b>	The Fund base fee is reduced to 20 bps for cash holdings in excess of 7.5% of the Fund's average NAV (pro-rated for the quarter) <sup>2</sup> .

As of October 2019. Source: UBS Asset Management, Real Estate & Private Markets (REPM). Notes: <sup>(1)</sup> Net Asset Value. <sup>(2)</sup> See Fee section of Confidential Private Offering Memorandum for details.

# TPF fee programs

## Loyalty Incentive<sup>1</sup>

- ✓ 25% - 4-year commitment
- ✓ Investors decide what portion of their investment will be committed

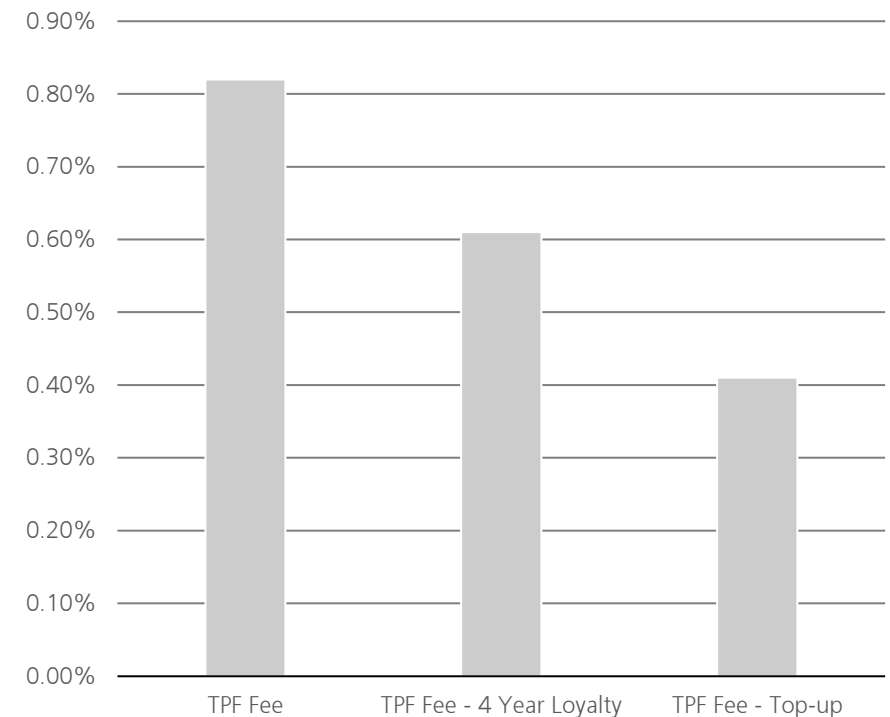
## Top-up Incentive

- ✓ Zero base fee on new "top-up" investments
- ✓ Capped at 100% of an investor's existing balance
- ✓ Available for the life of investment provided any potential future redemptions come first from the zero fee tranche

## Family of Funds

- ✓ Fee discount for investors in multiple funds

## USD 100 million fee example



<sup>1</sup>If an investor elects to commit assets under the Loyalty incentive but needs to redeem assets before the end of the commitment period, the investor would be required to pay back the discount applicable to the assets being redeemed. The offer may be terminated or modified at any time. Notes: The discounts are applied only to the original amount committed, not to any earnings or dividend reinvestments. For more details, please refer to the PPM Supplement. For Illustrative Purposes Only. Data as of September 30, 2021, unless otherwise noted. Source for all data/charts, if not stated otherwise: UBS Asset Management, Real Estate & Private Markets (REPM). TPF has a variable fee which has been waived through Q12024. The presentation does not reflect any variable fees that may be assessed in the future. The TPF base fee does not include any TPF fee program incentives that may be in place.

# TPF strategy and guidelines

Strategy	Provide broad real estate market diversification to maximize risk-adjusted returns
Fund Style & Liquidity	Open-end fund, with quarterly liquidity (subject to available capital); USD 5 million minimum
Financial Objective <sup>(1)</sup>	<ul style="list-style-type: none"> <li>Seek to outperform the NFI-ODCE index over a full market cycle</li> </ul>
Fund Investment Guidelines <sup>(2)</sup>	<ul style="list-style-type: none"> <li>Equity investments at least 70% of Gross Asset Value ("GAV")</li> <li>Third-Party Joint Ventures limited to 50% of GAV</li> <li>Debt investments maximum of 30% of GAV (construction loans limited to 10% of GAV)</li> <li>Publicly traded real estate securities or debt instruments limited to 5% of GAV</li> <li>Combination of all value-added assets will not exceed 5-15% of total Portfolio Assets</li> </ul>
Property type and geographic spread	<ul style="list-style-type: none"> <li>Apartments, hotels, industrial, retail and office throughout the US</li> <li>NCREIF property type maximum 50% of GAV</li> <li>NCREIF region maximum 50% of GAV</li> <li>Local market (CBSA) maximum of 20% of GAV</li> <li>Single investment maximum 10% of GAV</li> </ul>
Leverage	<ul style="list-style-type: none"> <li>The Fund will not incur indebtedness for borrowed money if, immediately after giving effect thereto, Fund debt will exceed the maximum leverage permitted for NFI-ODCE funds (currently no more than 35% Tier 1 leverage).<sup>(3)</sup></li> </ul>
Standard of care	Advisor subject to ERISA Fiduciary standard of care

Source: UBS Asset Management, Real Estate & Private Markets (REPM).

Notes: <sup>(1)</sup> There is no assurance that the financial objective will ultimately be realized and the possibility of loss does exist. There is no guarantee that the investment strategy will perform as expected. <sup>(2)</sup> The Advisor may permit temporary and/or immaterial deviations from the Investment Guidelines from time to time, in its discretion, if the Advisor believes that such deviations are in the best interest of the Fund.

<sup>(3)</sup> This guideline will be effective January 25, 2021. Until then the Fund will be managed to the current guideline: Generally, the Fund's use of mortgage debt will not exceed twenty percent (20%) of the Gross Asset Value of the Fund. Additionally, the Fund's short-term debt generally will not exceed fifteen percent (15%) of Gross Asset Value.



# UBS Realty Investors Equity Composite

Year	Year-end			Gross of fees (%)			Benchmark return (%)	Net of fees (%)		Range of		Asset weighted standard deviation	% of Composite assets valued externally <sup>(1)</sup>
	Number of accounts	Composite	Total Firm					Total	Total	Gross Returns (%)			
		Net Assets (USD millions)	Net Assets (USD millions)	Income return	Appreciation (depreciation)	Max				Min			
2012	9	14,679	17,325	5.45	5.07	10.73	10.94	9.63	25.8	(2.5)	2.53	100	
2013	9	16,114	19,206	5.22	5.40	10.83	13.94	9.71	26.5	(38.7)	2.68	100	
2014	9	18,788	22,252	5.21	6.61	12.07	12.50	10.94	35.8	6.7	2.46	100	
2015	7	21,383	25,379	5.06	8.11	13.47	15.02	12.33	26.3	8.6	2.05	100	
2016	7	22,534	26,744	4.77	2.99	7.86	8.77	6.80	23.2	7.2	2.15	100	
2017	7	22,455	26,974	4.61	1.93	6.61	7.62	5.75	14.5	2.7	1.20	100	
2018	7	21,767	27,131	4.57	2.56	7.22	8.35	6.38	12.5	(22.6)	2.63	100	
2019	6	19,451	24,984	4.71	(5.08)	(0.55)	5.34	(1.33)	16.0	(2.1)	3.69	100	
2020	6	18,020	23,534	3.97	(6.29)	(2.52)	1.19	(3.22)	10.3	(4.0)	3.40	100	
2021	6	18,619	24,059	4.11	14.02	18.55	22.17	17.60	66.6	16.2	6.40	100	

**1. Compliance Statement** Real Estate & Private Markets, Real Estate US (the "Firm") claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. The Firm has been independently verified for the periods January 1, 1993 through December 31, 2021. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The UBS Realty Investors Equity Composite has had a performance examination for the periods January 1, 2012 through December 31, 2021. The verification and performance examination reports are available upon request.

**2. The Firm** The Firm is defined as UBS Realty Investors LLC and UBS Farmland Investors LLC, together Real Estate & Private Markets, Real Estate US. Both entities are registered with the US Securities and Exchange Commission as investment advisors. The Total Firm Gross Assets at December 31, 2021 were USD 28.9 billion, representing the fair value of total Firm assets held under management. Total Firm Net Assets represent the Total Firm Assets held under management less the fair value of liabilities.

**3. The Composite** The UBS Realty Investors Equity Composite (the "Composite") was created in 2005 and the performance inception date is January 1, 1989. All results are presented in US dollars. A complete list and description of Firm composites is available upon request. The Composite comprises all fee-paying, non-taxable discretionary accounts that invest primarily in equity real estate including, but not limited to, the following property types: apartments, office, retail, industrial, and hospitality. The strategy of the accounts in the Composite is to acquire investments in US commercial and multifamily real estate (core and value-added properties) expected to provide attractive risk-adjusted returns consisting of current income and capital appreciation. As of December 31, 2021, mortgage assets constituted USD 0.6 billion of Composite Net Assets. Since October 2003, a sub-adviser has managed the cash for some pooled accounts included in the Composite. Composite dispersion for any year is represented by both the range and the asset-weighted standard deviation of the gross total returns of the accounts that were in the Composite for the entire calendar year. Discretion is broadly defined as the Firm having discretion over the selection, capitalization, asset management, and disposition of investments within the parameters of a given mandate.

**4. Valuation** An independent appraisal of the underlying real estate for each investment is performed at least annually and includes a complete property inspection and market analysis. Independent appraisals are generally completed every quarter for most of the underlying real estate investments. For real estate investments that are held in funds where appraisals are not performed on a quarterly basis, the underlying real estate is typically scheduled to be appraised twice a year. In the interim quarters, updated property and market information is reviewed. If this review indicates a potential material change in the value, the valuation is then updated by the independent appraiser. If this review indicates that any change in value is likely not material, the value is determined to remain unchanged. Valuations of real estate and debt use significant unobservable inputs. In general, each annual property appraisal includes at least an income approach using a discounted cash flow model and a sales comparison approach, which are considered in determining a final value conclusion. All appraisals are certified by members of the Appraisal Institute who hold the MAI designation. Third-party debt is stated at fair value. The valuation of debt is taken into consideration when determining the estimated fair value of the equity in the related investment.

Source: UBS Asset Management, Real Estate & Private Markets (REPM). Past performance is not indicative of future results. <sup>(1)</sup>Generally for those assets held longer than six months.

# UBS Realty Investors Equity Composite

**5. Calculation of Performance** Returns reflect the impact of leverage, which averaged approximately 17.0% of gross asset value (net asset value plus debt) during 2012 through 2021, and approximately 19.8% in 2021. Leverage has consisted primarily of mortgage loans payable that are collateralized by the related real estate investment. The extent to which leverage is used varies by account strategy and may include either portfolio or property level debt. Expenditures, including tenant improvements and leasing commissions, that extend the useful life or represent additional capital investments benefiting future periods, are capitalized as a component of cost. Annual returns are time-weighted rates of return calculated by linking quarterly returns. The sum of income and appreciation (depreciation) may not equal total returns due to the linking of quarterly returns. Gross of fees returns are presented before all management fees, but after third-party expenses. Net returns are presented net of the management fees, performance fees and third-party expenses. The policies for valuing portfolios, calculating performance, and preparing compliant presentations are available upon request.

**6. Investment Management Fees** Management fees differ by account and reflect the complexity and value of services chosen, anticipated size, and the number and type of investments involved. Depending upon the services, the fee may represent any one or a combination of: fixed flat amounts; a percentage of purchase price, earnings, assets under management, or of sales proceeds; or incentive fees based on performance. Below is the fee schedule for the Trumbull Property Fund ("TPF"). The rate equals the investor's applicable annual base fee percentage (pro-rated for the quarter) times the investor's share of average net asset value, as defined in the fund's limited partnership agreement, for the quarter. The investor's annual applicable base fee percentage is a blended percentage rate derived by reference to the following fee scale and based on the investor's share of net asset value in the fund and other designated UBS Realty sponsored funds, as of the beginning of the quarter. To the extent that average cash exceeds 7.5% of the average net assets, the base fee with respect to such excess will be reduced to 20 basis points (pro rated for the quarter). Please see the applicable Confidential Private Offering Memorandum for more information on how fees are calculated and charged. The TPF fee has historically included a variable fee but this portion of the fee has been waived through March 31, 2024. The variable fee ranged from 0 bps to a maximum of 25 bps and was earned at a rate of 7.5 bps per 1% of the Fund's real return in excess of 3% for the previous rolling four quarters. Investors can obtain a reduced management fee by agreeing not to redeem their TPF investment for certain periods of time. The program is now scheduled to end December 31, 2022, but it can be terminated or modified at any time. More information on the program is available upon request. The expense ratio (advisory fees and certain fund expenses) for TPF as of December 31, 2021 was 0.79%.

Investor's Share of Net Asset Value in TPF (USD)	Annual Base Fee Percentage
First USD 10 million	0.955
Next USD 15 million	0.825
Next USD 25 million	0.805
Next USD 50 million	0.790
Next USD 150 million	0.670
Next USD 150 million	0.600
Next USD 200 million	0.560
Above USD 600 million	0.520

**7. Benchmark** Effective May 2009, the Firm changed the benchmark retroactively from the property-level National Council of Real Estate Investment Fiduciaries ("NCREIF") Property Index ("NPI") to a fund-level Index, the NCREIF Fund Index-Open End Diversified Core Equity ("NFI-ODCE" or the "Index"). The Firm believes a fund-level index provides a more meaningful comparison for a fund-level composite. The NFI-ODCE, first published mid-2005, is a capitalization-weighted, time-weighted, fund-level return index beginning as of the first quarter of 1978, inclusive. It is presented gross of fees. As of December 31, 2021, the NFI-ODCE consisted of 27 active funds with total net assets of USD 249.3 billion. The NFI-ODCE leverage ratio at December 31, 2021 was 22.1%.

**8. Trademark** GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

Source: UBS Asset Management, Real Estate & Private Markets (REPM). Past performance is not indicative of future results.

# TPF Required notes

Returns herein, unless otherwise noted, are presented gross and net of fees. TPF's net returns are shown after the deduction of actual Advisory Fees earned by the Advisor. Advisory fees include base management fees, variable fees and fee discount programs. Base fees are scaled based on the size of an investors' investment. Advisory fees to not include contract charges that were only applicable through February 29, 2008. Net returns represent the average net return for all investor capital and does not represent the actual net return earned by any specific investor. Those considering investment in the Fund may request a calculation of the effective fee at the proposed investment amount including any applicable fee discount programs.

The Fund's participating mortgages and those construction loans converting to participating mortgages are secured by properties operated by sponsors that the advisor has deemed creditworthy. The Fund does not own these properties.

Returns for periods greater than one year are annualized. TPF returns reflect the reinvestment of income. Returns and dollars are USD denominated.

Information on fees is available in the ADV Part 2 for UBS Realty Investors LLC and is also available upon request. As fees are deducted quarterly, the compounding effect will be to increase the impact of the fees by an amount directly related to the gross account performance. For example, on an account with a 1% annual fee, if the gross performance is 10%, the compounding effect of the fees will result in a net performance of approximately 8.93%. The Total Global Expense Ratio (TGER) of the Trumbull Property Fund for the rolling four quarters ended June 30, 2021 would be:

$TGER (\text{Fund expenses after investment management fees} / \text{Average GAV}) = 0.63\%$ . (a) Returns are based on a time-weighted rate of return methodology. (b) The TGER is prepared for informational purposes only based on our understanding of the calculation. (c) TPF is accounted for in conformity with U.S. generally accepted accounting principles (U.S. GAAP). (d) TGER expenses primarily include Fund-level advisory fees (both deducted by the Fund and directly billed to investors), audit and tax fees, appraisal and other third-party valuation service fees for the Trumbull Property Fund. Property-level expenses (e.g., utilities, maintenance, real estate taxes) are excluded from the TGER calculation.

Indices are shown for informational purposes only as they are well-recognized measures rather than because there is a close relationship between the investments contained in, and the performance of REPM-US' Funds and the components of these indices. The investment profile, credit risk and volatility of such indices may be materially different than the portfolios of the Fund shown and generally do not reflect the reinvestment of dividends or deduction of management or other fees. In no circumstances may this document or any of the information included herein (including any forecast, value, index or other calculated amount ("Values")) be used for any of the following purposes: (i) valuation or accounting purposes; (ii) to determine the amounts due or payable, the price or the value of any financial instrument, investment fund or financial contract; or (iii) to measure the performance of any investment fund or other financial instrument including, without limitation, for the purpose of tracking the return or performance of any Value or of defining the asset allocation of portfolio or of computing performance fees. **NFI-ODCE (Source NCREIF)** is a fund-level, capitalization weighted index of open-ended diversified core equity commercial real estate funds that includes cash balances and leverage and is reported gross of fees. The degree of leverage used varies among the funds included in NFI-ODCE. As of September 30, 2022 the NFI-ODCE consisted of 26 active funds with total net assets of USD 280.0 billion. **The NCREIF Property Index (NPI)**, source NCREIF, is a property-level index, which consists of existing properties only (development projects and participating mortgages are excluded), excludes cash balances and leverage, and other non-property related assets, liabilities, income and expenses.

There is no assurance that the financial objective will ultimately be realized and the possibility of loss does exist. There is no guarantee that the investment strategy will perform as expected. Property photos shown in this presentation represent some examples of Fund investments. These types of investments may not be available or selected by the Fund in the future.

Mission-driven and industry-led, GRESB is the environmental, social and governance (ESG) benchmark for real assets. GRESB works in collaboration with the industry to provide standardized and validated ESG data to the capital markets. The 2022 GRESB Real Estate benchmark covers 1,820 listed and non-listed portfolios. Coverage for GRESB Infrastructure includes 818 infrastructure funds and assets. Combined, GRESB represents USD 8.6 trillion in real asset value. The reported ESG data is used by more than 170 institutional and financial investors to monitor investments across portfolios and understand the opportunities, risks and choices that need to be made as the industry transitions to a more sustainable future. For additional information please refer to the following website [here](https://www.gresb.com). GRESB® and the related logo are trademarks owned by GRESB BV and are used with permission.

Energy Star is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy helping us all save money and protect the environment through energy efficient products and practices. To celebrate the 15th Year of ENERGY STAR for Buildings, the EPA recognized UBS Realty Investors LLC as a Premier Member of the 2014 ENERGY STAR Certification Nation for certifying 38 buildings that year. To earn certification, a building must achieve an Energy Star rating of 75 or higher.

The product described herein aligns to Article 6 of Regulation (EU) 2019/2088.

**Please note that past performance is not a guide to the future. The value of investments and the income received may go down as well as up, and investors may not get back the original amount invested.**

# Risks

- Investors should be aware that return objectives are subject to a number of assumptions and factors, a change in any of which could adversely affect returns. Accordingly, investors should note the limitations of an objective.
- Investments in direct real estate and real estate funds involve a high degree of risk. For instance, events in 2008 and 2009 such as the deterioration of credit markets and increased volatility have resulted in a historically unprecedented lack of liquidity and decline in asset values. The value of investments and income from them may increase or decrease. Investors must have the financial ability and willingness to accept and bear the risks (including, among other things, the risk of loss of investment) that are characteristic of real estate investing and investing in commingled fund for an indefinite period of time. Among the risks to be considered are:
  - **Risks of investing in real estate.** Risks include adverse changes in market and economic conditions, zoning, and other governmental laws, regulations, and policies, occupancy levels and the ability to lease space, and environmental risks, and risk of uninsured losses.
  - **Debt investment risk.** Risk includes risks of borrower defaults, bankruptcies, fraud and special hazard losses that are not covered by standard hazard insurance.
  - **Restrictions on redemption and transferability of shares or units; illiquidity.** Real estate is an illiquid investment and the account may not be able to generate sufficient cash to meet withdrawal requests from investors.
  - **Reliance on controlling persons and third parties.** The exercise of control over an entity can impose additional risks and the fund can experience a significant loss. The risk of third parties includes a conflict between their objectives and those of the account or fund.
  - **Use of leverage.** Leverage will increase the exposure of the real estate assets to adverse economic factors, such as rising interest rates, economic downturns, or deteriorations in the condition of the properties or their respective markets and changes in interest rates.
  - **Legal & Taxation.** Investors should consult their own legal and tax advisers for potential US and/or local country legal or tax implications on any investment.
  - **Currency risk.** The funds and accounts managed by UBS Realty Investors LLC are denominated in US Dollars. There is a potential for loss due to currency fluctuations for non-US investors.
  - **Lack of diversification.** Individually managed accounts and funds in their initial investment periods may have investments that are relatively large compared to the account's or fund's anticipated total value. Any limit to diversification increases risk because the unfavorable performance of even a single investment might have an adverse effect on the aggregate return.
  - **Unspecified investments.** There can be no assurance that the advisor will be able to continually locate and acquire assets meeting the fund or account's objective. Competition for assets may generally reduce the number of suitable prospective assets available.
- In considering an investment in a commingled real estate fund, prospective investors must rely on their own examination of the partnership agreement, private placement memorandum, and all terms of the offering, including merits and details of these and other risks involved. If there are any discrepancies in fund terms between this presentation and the private placement (offering) memorandum, the memorandum shall prevail.
- This is not a recommendation to invest in any product or services. Investors must have the sophistication to independently evaluate investment risks and to exercise independent judgment in deciding whether or not to invest in real estate and real estate funds.

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## Memorandum

**To:** MCERA Board of Trustees  
**From:** Jim Callahan, CFA  
 Anne Heaphy  
**Date:** December 7, 2022  
**Subject:** MCERA Watchlist Qualification  
 Manager: Artisan – International Equity Portfolio  
 On Watchlist due to: Peer group performance  
 Placed on Watchlist: Fourth Quarter 2017  
 Date notified: November 29, 2017

MCERA's Criteria for Investment Manager Termination and Watchlist in the Investment Policy Statement states:

*MCERA understands the cyclical nature of investment performance and the potential for its investment managers not to meet objectives over short-term periods. While it is not the Board's intention to terminate a manager for short-term underperformance relative to objectives, the Board has implemented the following process as a means of monitoring and evaluating managers that have experienced performance difficulties in the short-term to assess the impact on longer-term performance.*

*If a manager trails its relevant benchmark by more than 100 basis points (net of fees) and ranks in the bottom quartile of its peer universe (gross of fees ranking) for the trailing three years, or if a manager trails its relevant benchmark (net of fees) or ranks below median of its peer universe (gross of fees ranking) for the trailing five years, then the manager may be placed on the Watchlist.*

*If the underperformance of a manager on the Watchlist persists over a reasonable period in the future (as defined by the Staff, Board and Consultant based on the unique circumstances surrounding the manager and current market conditions), the Board may and will consider termination.*

The Watchlist provisions have also established a one-year watch period to assess whether a manager should be removed from the Watchlist, have the watch period extended, or be terminated.

### *Procedures Following the Initiation of Watch Status*

*The watch period will be established for a one-year total duration. If at the end of the watch period, performance has improved to above-benchmark and/or above the manager median over a market cycle, the manager will be removed from the Watchlist.*

*If at the end of the watch period, the manager is underperforming the manager may be terminated or remain on the Watchlist for a period defined by the Investment Committee.*



## C.1.a

Artisan was notified of its Watchlist status in November 2017. Artisan still qualifies for the Watchlist based on the quantitative criteria. Artisan's three year net of fee return trails the benchmark and ranks 94<sup>th</sup> versus peers on a gross of fees basis. Additionally, although the five year net of fee return exceeds the benchmark, the five year gross of fee peer group ranking is below median (55<sup>th</sup> percentile).

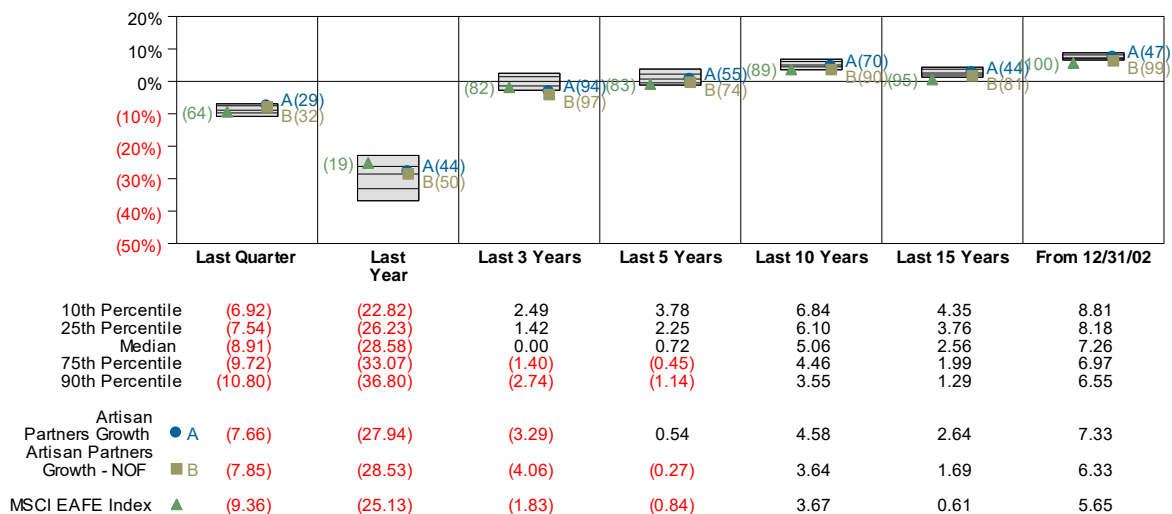
Callan is still comfortable with Artisan's International Equity portfolio. Recent underperformance is understandable given their process and market environment, and relative performance over longer-term periods remains strong. Artisan employs a bottom-up stock selection process focused on identifying long-term growth opportunities. The team seeks to invest in attractively valued companies that are industry leaders and have meaningful exposure to, and will benefit from, long-term secular growth trends. The team identifies global or regional investment themes and corresponding companies that are likely to benefit from their exposure to above trend growth rates. Current themes include: changing demographics, developing technology, environment, financial services, outsourcing, and infrastructure.

The root of Artisan's underperformance that caused the manager to initially qualify for the watchlist can be traced to 2016 when growth stocks were out of favor and energy and materials stocks were the largest contributors. Artisan was not properly positioned for the commodities bounce back after a challenging 2015. Additionally, a number of Artisan's stocks suffered from Brexit and US presidential election-related concerns. More recent relative underperformance is primarily due to a sharp market rotation from growth to value during the fourth quarter of 2020 and the first quarter of 2021 in which cheap cyclical stocks outperformed. Additionally, the first quarter of 2022 was a large detractor due to the outbreak of the Russia-Ukraine war, the swift market swing from growth to value, and Artisan holding two Russian stocks. Over the last 10 years, Artisan has outperformed the benchmark in 27 of the last 40 quarters.

Versus peers, the strategy ranked below median in 2016, 2020, and 2021. Artisan's opportunistic growth process seeks to be nimble and exploit investment opportunities dynamically across regions and sectors especially during periods of extreme market dislocations. While the strategy has consistently maintained a growth profile, the growth exposure has declined in recent years as Artisan has pivoted into cyclical growth opportunities within energy, financials, and materials. Artisan currently has a large overweight to financials and energy and a significant underweight to information technology versus peers. These deviations will cause their peer rankings to fluctuate.

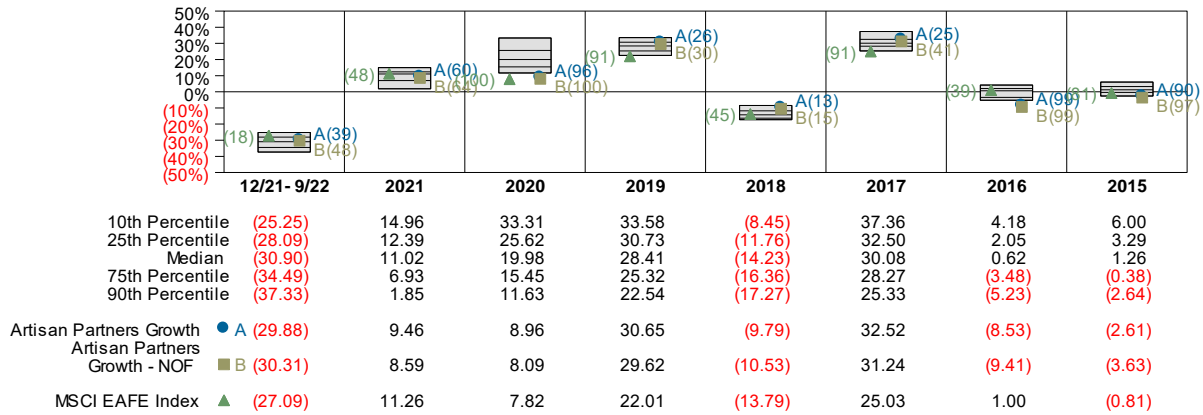
### Periods Ending September 30, 2022

#### Performance vs Callan Non-US Broad Growth Equity (Gross)

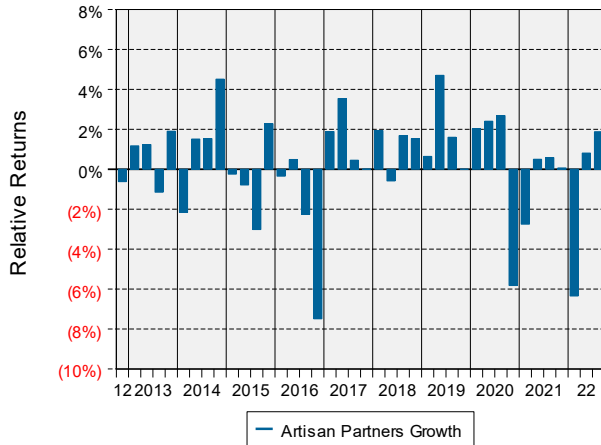


## C.1.a

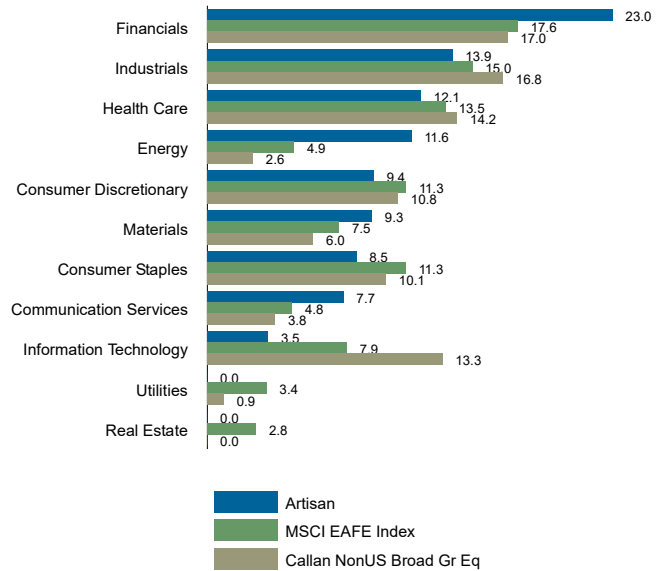
### Performance vs Callan Non-US Broad Growth Equity (Gross)



### Relative Return vs MSCI EAFE Index



### Sector Allocation as of September 30, 2022



### Recommendation

Callan recommends that the Investment Committee keep Artisan on the watchlist based on the quantitative criteria. Artisan will be re-evaluated in one year unless the Investment Committee determines a different course of action is required before then.

## Memorandum

**To:** MCERA Board of Trustees  
**From:** Jim Callahan, CFA  
 Anne Heaphy  
**Date:** December 7, 2022  
**Subject:** MCERA Watchlist Qualification  
 Manager: Morgan Stanley – International Equity Portfolio  
 On Watchlist due to: Personnel changes and performance  
 Placed on Watchlist: Fourth Quarter 2017  
 Date notified: November 29, 2017

MCERA's Criteria for Investment Manager Termination and Watchlist in the Investment Policy Statement states:

*MCERA understands the cyclical nature of investment performance and the potential for its investment managers not to meet objectives over short-term periods. While it is not the Board's intention to terminate a manager for short-term underperformance relative to objectives, the Board has implemented the following process as a means of monitoring and evaluating managers that have experienced performance difficulties in the short-term to assess the impact on longer-term performance.*

*If a manager trails its relevant benchmark by more than 100 basis points (net of fees) and ranks in the bottom quartile of its peer universe (gross of fees ranking) for the trailing three years, or if a manager trails its relevant benchmark (net of fees) or ranks below median of its peer universe (gross of fees ranking) for the trailing five years, then the manager may be placed on the Watchlist.*

*If the underperformance of a manager on the Watchlist persists over a reasonable period in the future (as defined by the Staff, Board and Consultant based on the unique circumstances surrounding the manager and current market conditions), the Board may and will consider termination.*

The Watchlist provisions have also established a one-year watch period to assess whether a manager should be removed from the Watchlist, have the watch period extended, or be terminated.

### *Procedures Following the Initiation of Watch Status*

*The watch period will be established for a one-year total duration. If at the end of the watch period, performance has improved to above-benchmark and/or above the manager median over a market cycle, the manager will be removed from the Watchlist.*

*If at the end of the watch period, the manager is underperforming the manager may be terminated or remain on the Watchlist for a period defined by the Investment Committee.*

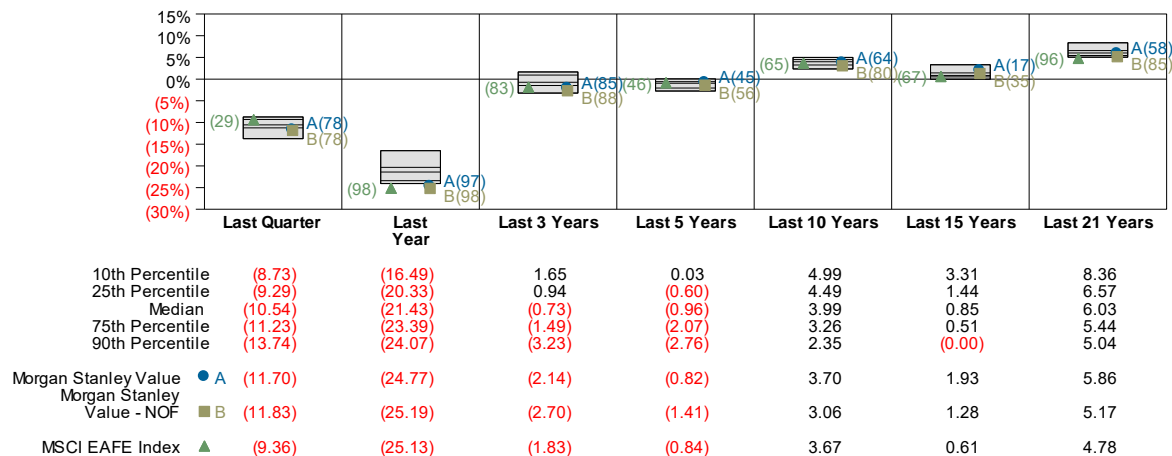
## C.1.b

Morgan Stanley was notified of its Watchlist status in November 2017. Since that time, Morgan Stanley Investment Management's (MSIM) International equity portfolio has intermittently qualified for the Watchlist based on the quantitative criteria. Personnel changes on the team also warranted Watchlist status over this period. Personnel changes have stabilized recently with positive additions to the team and no departures over the past two years. However, relative performance over the five year period ending September 30, 2022 qualifies for Watchlist criteria.

Callan is comfortable with MSIM's International Equity portfolio as its performance is reasonable given the portfolio's positioning and market dynamics. The MSIM International Equity portfolio is fundamentally based and focused on absolute return through buying superior franchises at the right price. The team is focused on understanding the franchise (dominant market share with effective barriers to entry), financial strength (improving returns on operating capital employed), and management (allocation of capital and compensation). Recent performance has trailed on a relative basis given the portfolio's quality bias and defensive positioning. It has underperformed during low quality, cyclical, risk-on rallies in the market (4Q20, 1Q21, and 3Q21). In 2022, MSIM had a strong second quarter as defensive stocks came into favor given the fears of slowing global growth and increased inflation; however, the portfolio's underweight to energy has been a headwind as oil prices once again began to rise in the third quarter.

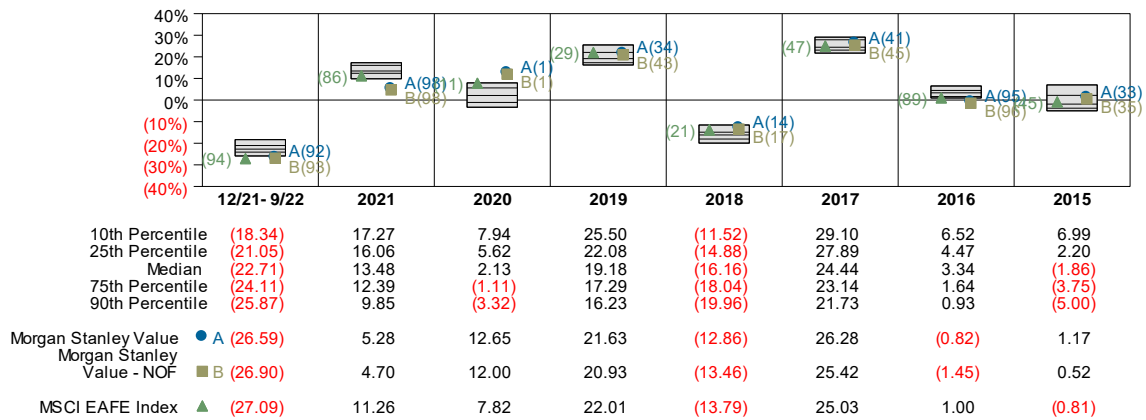
### Periods Ending September 30, 2022

#### Performance vs Callan Non-US Developed Value Equity (Gross)

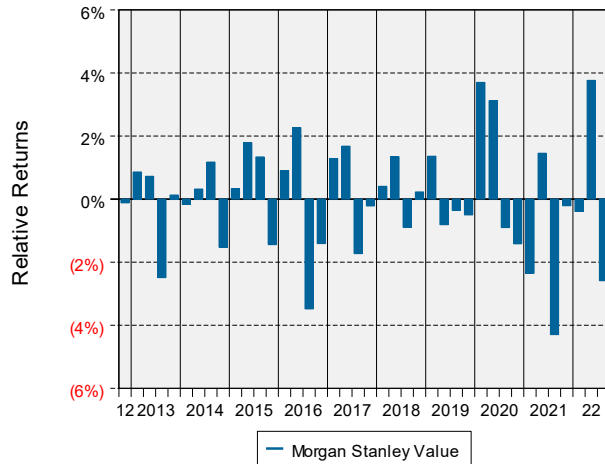


## C.1.b

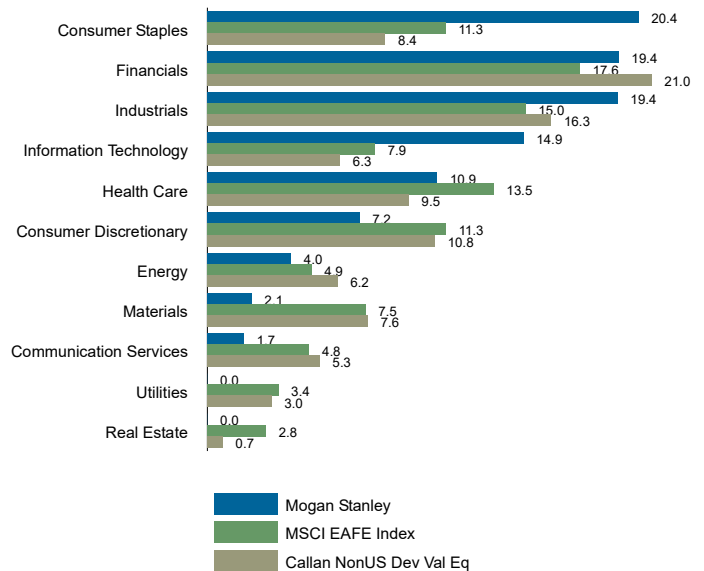
### Performance vs Callan Non-US Developed Value Equity (Gross)



### Relative Return vs MSCI EAFE Index



### Sector Allocation as of September 30, 2022



### Recommendation

Callan recommends that the Investment Committee keep MSIM on the Watchlist based on the quantitative criteria. MSIM will be re-evaluated in one year unless the Investment Committee determines a different course of action is required before then.

## Memorandum

**To:** MCERA Board of Trustees  
**From:** Jim Callahan, CFA  
Anne Heaphy  
**Date:** December 7, 2022  
**Subject:** MCERA Watchlist Qualification  
Manager: Invesco – Balanced-Risk Commodities Portfolio  
On Watchlist due to: Relative and peer group performance  
Placed on Watchlist: Fourth Quarter 2021  
Date notified: January 19, 2022

MCERA's Criteria for Investment Manager Termination and Watchlist in the Investment Policy Statement states:

*MCERA understands the cyclical nature of investment performance and the potential for its investment managers not to meet objectives over short-term periods. While it is not the Board's intention to terminate a manager for short-term underperformance relative to objectives, the Board has implemented the following process as a means of monitoring and evaluating managers that have experienced performance difficulties in the short-term to assess the impact on longer-term performance.*

*If a manager trails its relevant benchmark by more than 100 basis points (net of fees) and ranks in the bottom quartile of its peer universe (gross of fees ranking) for the trailing three years, or if a manager trails its relevant benchmark (net of fees) or ranks below median of its peer universe (gross of fees ranking) for the trailing five years, then the manager may be placed on the Watchlist.*

*If the underperformance of a manager on the Watchlist persists over a reasonable period in the future (as defined by the Staff, Board and Consultant based on the unique circumstances surrounding the manager and current market conditions), the Board may and will consider termination.*

The Watchlist provisions have also established a one-year watch period to assess whether a manager should be removed from the Watchlist, have the watch period extended, or be terminated.

### *Procedures Following the Initiation of Watch Status*

*The watch period will be established for a one-year total duration. If at the end of the watch period, performance has improved to above-benchmark and/or above the manager median over a market cycle, the manager will be removed from the Watchlist.*

*If at the end of the watch period, the manager is underperforming the manager may be terminated or remain on the Watchlist for a period defined by the Investment Committee.*

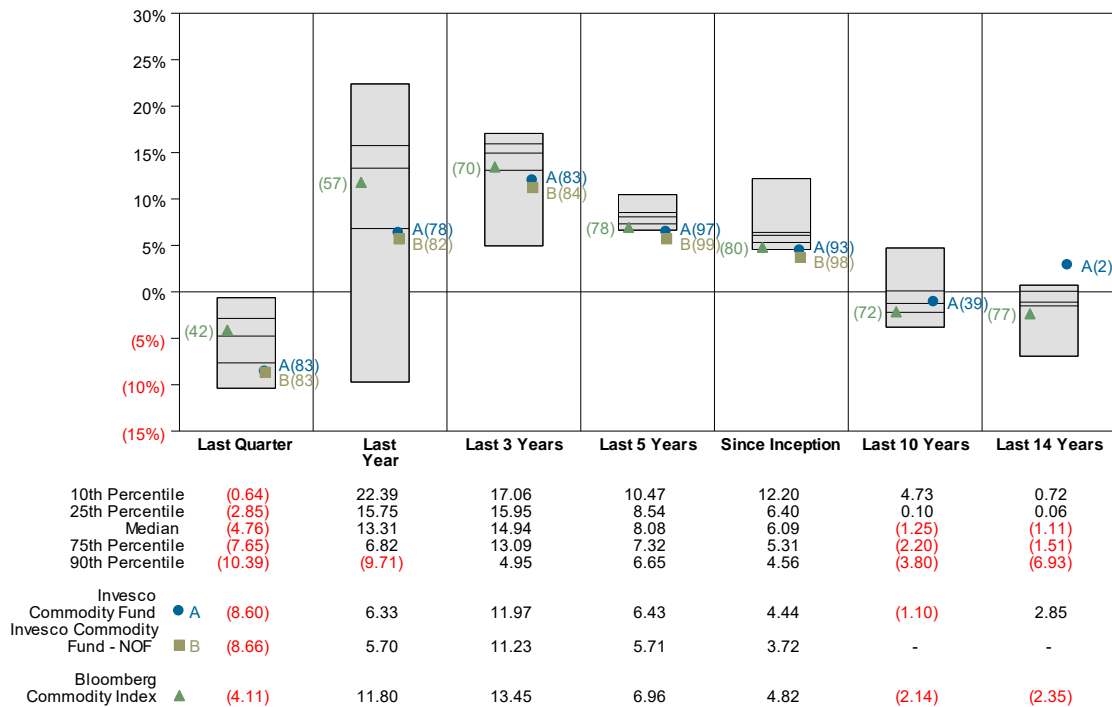
## C.1.c

Invesco was notified of its Watchlist status in January 2022 and still qualifies for the Watchlist based on the quantitative criteria. Invesco's three year net of fee return trails the benchmark and ranks 83rd versus peers on a gross of fees basis. Additionally, the five year net of fee return also trails the benchmark, and the five year gross of fee peer group ranking is below median (97th percentile).

Callan is comfortable with Invesco's Balanced-Risk Commodity portfolio. Approximately 50% of the risk in the benchmark comes from energy related commodities. Invesco seeks to correct for this concentration by gaining risk balanced exposures to the different commodity complexes which include energy, agriculture, precious metals, and industrial metals. Invesco's investment strategy focuses on four key drivers of commodity returns: storage difficulty, equal risk exposure, optimal roll yield, and tactical allocation. The portfolio construction process begins by selecting representative assets for each commodity exposure based on attractive correlations, projected long-term excess returns, and liquidity. The portfolio is then examined to determine how each commodity complex contributes to overall portfolio risk and is optimized to balance the risk contributions. Tactical allocations are then made based on optimal roll and absolute and relative attractiveness of various factors such as: supply and demand, economic environment, and price trends.

Commodities as a whole have done quite well since the start of 2021, as the asset class posted strong returns on prospects for a robust recovery. Invesco experienced relative underperformance during the second and third quarters of 2021 due to their strategic underweight to energy, including natural gas and oil whose prices soared during this time frame. Commodities continued to do well into 2022 given war-induced supply concerns, but more recently, commodities have declined amid concerns of slowing global growth and a strong dollar. Natural gas prices, however, have risen amidst Europe's energy security crisis. Invesco's strategic underweight to natural gas has continued to negatively impact relative performance on a year-to-date basis. Commodities by their very nature are a volatile asset class, and it is likely this portfolio may be on and off the Watchlist frequently.

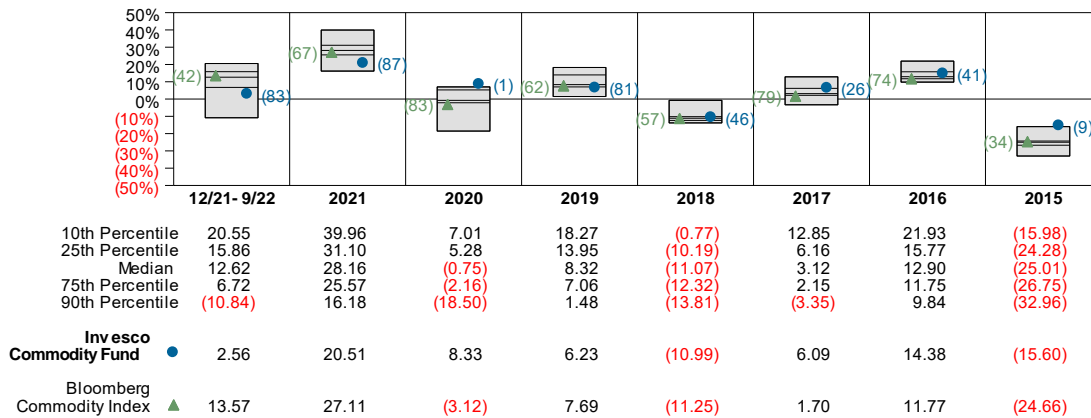
**Periods Ending September 30, 2022**  
**Performance vs Callan Commodities (Gross)**



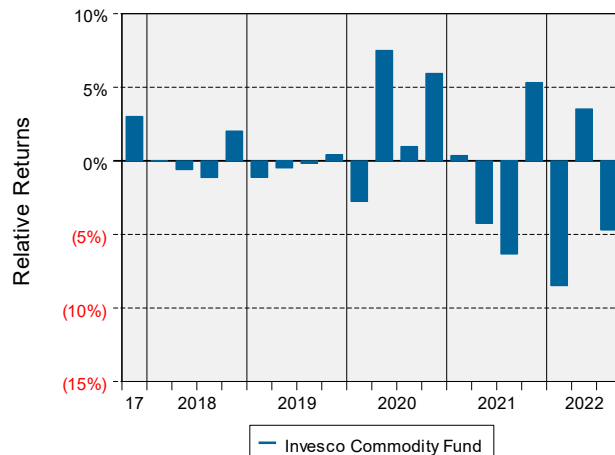


## C.1.c

### Performance vs Callan Commodities (Gross)



### Relative Returns vs Bloomberg Commodity Index



### Recommendation

Callan recommends that the Investment Committee keep Invesco on the Watchlist based on the quantitative criteria. Invesco will be re-evaluated in one year unless the Investment Committee determines a different course of action is required before then.

**Investment Policy Statement  
For**

**Marin County Employees' Retirement Association**



**FINAL**

**DRAFT**

**December 202~~21~~**

**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION**  
**INVESTMENT POLICY STATEMENT**

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Appendix D	Placement Agent Payment Disclosure Policy

## **INTRODUCTION**

The Marin County Employees' Retirement Association ("MCERA") was established to provide retirement benefits to county employees and other local public agencies. The Board of Retirement (the "Board" and/or the "Board of Retirement") is comprised of the County Director of Finance, four members appointed by the County Board of Supervisors, four members elected by the membership, plus one alternate retiree and one alternate safety member. The Director of Finance may also designate a deputy, who is employed under the Director of Finance's authority, to act in his or her place and stead on the Board or any of its committees.

MCERA was organized in accordance with the provisions of California's 1937 County Employees Retirement Law ("1937 Act"). The powers and duties of the Board of Retirement are set forth in the 1937 Act and in Article XVI, section 17, of the State Constitution. This document provides a framework for the investment of the assets of MCERA. The Board of Retirement has established a standing Investment Committee, which is composed of all members of the Board of Retirement ("Investment Committee" or "Committee"). As set forth in the Investment Committee's Charter, the Committee has been delegated all investment authority of MCERA as set forth therein. The purpose of the Investment Policy is to assist the Board, through the Investment Committee, in effectively supervising and monitoring the assets of MCERA (the "Plan" or the "Fund"). Specifically, it will address the following issues:

- The general goals of the investment program;
- The policies and procedures for the management of the investments;
- Specific asset allocations, rebalancing procedures and investment guidelines;
- Performance objectives; and
- Responsible parties.

The Investment Committee establishes this investment policy in accordance with applicable local, State, and Federal laws. The Board and Committee members exercise authority and control over the Plan, by setting policy which the Staff executes either internally or through the use of external prudent experts. The Board and Committee oversee and guide the Plan subject to the following basic fiduciary responsibilities:

- Solely in the interest of, and for the exclusive purpose of, providing benefits to participants and their beneficiaries, minimizing contributions thereto, and defraying reasonable expenses of administering the Plan.
- Invest and manage Fund assets as a prudent investor would, by considering the purposes, terms, distribution requirements, and other circumstances of the Fund. In satisfying this standard of care, the trustees shall exercise reasonable care, skill, and caution.
- Diversify the investments of the Plan so as to minimize the risk of loss and to maximize the rate of return, unless under the circumstances it is clearly prudent not to do so. Diversification is applicable to the deployment of the assets as a whole.

## C.2

This policy statement is designed to allow for sufficient flexibility in the management oversight process to capture investment opportunities as they may occur, while setting forth reasonable parameters to ensure prudence and care in the execution of the investment program.

## **POLICIES AND PROCEDURES**

The policies and procedures of MCERA's investment program are designed to maximize the probability that the investment goals will be fulfilled. Investment policies will evolve as Fund conditions change and as investment conditions warrant.

### *Asset Allocation Policy*

MCERA adopts and implements an asset allocation policy that is predicated on a number of factors, including:

- A projection of actuarial assets, liabilities and benefit payments and the cost of contributions;
- Historical and expected long-term capital market risk and return behavior;
- An assessment of future economic conditions, including inflation and interest rate levels; and
- The current and projected funding status of the Plan.

This policy provides for diversification of assets in an effort to maximize the investment return of the Plan consistent with market conditions. Asset allocation modeling identifies asset classes the Plan will utilize and the percentage that each class represents of the total Fund. Due to the fluctuation of market values, positioning within a specified range is acceptable and constitutes compliance with the policy. It is anticipated that an extended period of time may be required to fully implement the asset allocation policy, and that periodic revisions will occur. MCERA's Staff and external consultants will monitor and assess the actual asset allocation versus policy and will evaluate any variation deemed significant.

The Board and Committee will implement the asset allocation policy (i) through the use of investment managers to invest the assets of MCERA in accordance with the investment guidelines incorporated into the investment management agreements executed with MCERA and/or (ii) through its investment in limited liability partnerships, limited liability corporations, commingled funds, group trusts or other commonly used investment vehicles, which invest allocated assets in accordance with the governing documents for the investment vehicle. When appropriate, passive management strategies may also be utilized.

## **INVESTMENT GOAL STATEMENT**

The Plan's general investment goals are broad in nature. The objective shall be to efficiently allocate and manage the assets dedicated to the payment of Plan benefits and administrative expenses. The following goals, consistent with the above described purpose, are adopted:

- The overall goal of MCERA's investments is to provide Plan participants with retirement, disability, and death and survivor benefits as provided for under the County Employees Retirement Law of 1937. This will be accomplished through a carefully planned and executed long-term investment program.
- MCERA's assets will be managed on a total return basis. While MCERA recognizes the importance of the preservation of capital, it also adheres to the principle that varying degrees of investment risk are generally rewarded with compensating returns.
- The total portfolio over the long term will be expected to:
  1. Meet or exceed a long-term total portfolio real (above inflation) return commensurate with the target asset allocation contained in Appendix A to this document (annualized, net of fees, over a full market cycle, normally defined as 5-7 years);
  2. Meet or exceed the assumed actuarial rate of return over long-term periods; and
  3. Meet or exceed a weighted index of the total Plan's asset allocation policy and component benchmarks over rolling five-year periods by an appropriate amount (annualized, net of fees, over a full market cycle).
- MCERA's Investment Policy has been designed to produce a total portfolio, long-term real return. Consequently, prudent risk-taking is warranted within the context of overall portfolio diversification to meet this goal. The investment activities are designed and executed in a manner that serves the best interests of the members and beneficiaries of the Association.
- All transactions undertaken will be for the sole benefit of MCERA's members and beneficiaries and for the exclusive purpose of providing benefits to them, minimizing contributions to the Plan and defraying reasonable associated administrative expenses.
- MCERA has a long-term investment horizon, and utilizes an asset allocation plan that encompasses a strategic, long-run perspective of capital markets. It is recognized that a strategic long-run asset allocation plan implemented in a consistent and disciplined manner will be the major determinant of the Plan's investment performance.

Investment recommendations and subsequent actions are expected to comply with "prudent expert" standards. Board and Committee members are expected to comply with "prudent investor" standards.

### **Manager Utilization and Selection**

The selection of investment managers is accomplished in accordance with all applicable local, State and Federal laws and regulations. Each investment manager and consultant functions under a formal contract which delineates responsibilities and appropriate performance expectations. A formal set of investment guidelines and investment administrative requirements for each investment manager has been established and is provided as an addendum to this document. With regard to investment in limited liability partnerships, limited liability corporations, commingled funds, group trusts or other commonly used investment vehicles, the management of the relevant investment vehicle and the investment guidelines will be as set forth in the fund's legal documentation.

### **Manager Authority**

The Plan's investment managers, unless otherwise noted in their contract, shall have designated discretion to direct and manage the investment and reinvestment of assets allocated to their accounts in accordance with this document; applicable local, State and Federal statutes and regulations; and individual management investment plans and executed contracts. Commingled investments, including but not limited to investments in mutual funds, trusts, limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles, are expected to comply with the guidelines established in the governing documents or fund prospectus.

The Board, Committee, and Staff will consider the comments and recommendations of consultants in conjunction with other available information in making informed, prudent decisions.

### **Proxy Voting**

MCERA acknowledges that the ownership of equities requires proxies to be voted. MCERA commits to managing its proxy voting rights with the same care, skill, diligence and prudence as is exercised in managing its other assets. As responsible fiduciaries, the Board of Retirement will exercise its proxy voting rights in the sole interest of the Plan's members and beneficiaries in accordance with all applicable statutes and MCERA's Proxy Voting and Corporate Governance Policy.

### **Securities Lending**

The Board and/or Committee may authorize the execution of a "Securities Lending Program" which will be performed by the Plan custodian or qualified third-party securities lending agent(s). The program will be established by a written agreement authorized by the Board and/or Committee and monitored and reviewed by the Staff.

The following are the general guidelines for the securities lending program:

1. The lending program may be implemented through the use of agent lenders or principal lenders;



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2. The lenders may lend financial securities including, but not limited to, U.S. and non-U.S. equities, corporate bonds, and U.S. and non-U.S. government securities;
3. If an agent program is implemented, the agent shall have full discretion over the selection of borrowers and shall continually review the creditworthiness of potential borrowers through extensive analysis of relevant information;
4. All loans shall be fully collateralized with cash, government securities or irrevocable bank letters of credit;
5. Cash collateral received from securities borrowers will be deposited upon receipt in a pre-approved short-term investment vehicle or vehicles;
6. Loans of U.S. securities are initially collateralized at 102% of the market value of the borrowed securities if the borrowed securities and the collateral are denominated in the same currency and at 105% if the borrowed securities and the collateral are denominated in different currencies. As the market value of the collateral falls below 102% (105%) of the market value of the borrowed securities, the borrower is marked to market each business day using yesterday's closing prices, subject to the lending agent's de minimis rules of change;
7. Securities on loan should be marked-to-market on a daily basis to assess adequacy of collateralization;
8. The lender shall provide periodic performance reports to MCERA;
9. The securities lending program should in no way inhibit the portfolio management activities of the other investment managers of the system;
10. Staff shall be responsible for making an annual report to the Board and/or Committee on securities lending activity; and
11. All other operational aspects of MCERA's securities lending program are hereby delegated to Staff.

### **Derivatives and Leverage**

MCERA's investment managers may be permitted under the terms of individual investment guidelines to use derivative instruments to implement market decisions and security positions and to control portfolio risk. Derivatives are contracts or securities whose returns are derived from the returns of other securities, indices or instruments including, but not limited to, futures, forwards, options, swaps and options on futures. Examples of appropriate applications of derivative strategies include hedging interest rate and currency risk, rebalancing portfolio exposures, securitizing Fund level and manager cash, maintaining exposure to a desired asset class while effecting asset allocation changes and adjusting portfolio duration for fixed income. Portfolio liabilities associated with investments (i.e. mortgage forward bond purchases, futures, in-the-money short puts, reverse repurchase agreements, etc.) shall be backed by cash equivalents or deliverable securities.

MCERA's investment managers are not allowed to utilize derivatives for speculative purposes. All derivatives must be backed by collateral in the form of deliverable securities equal to or greater than the value of the total derivative exposure. In no circumstances can individual managers borrow funds to purchase derivatives. No derivatives positions can be established that create portfolio characteristics outside of portfolio guidelines. Managers must ascertain and carefully monitor the creditworthiness of any third parties involved in derivative transactions.

**Rebalancing**

Staff shall, on an ongoing basis in accordance with market fluctuations, rebalance the Fund's portfolio so as to remain within the range of targeted allocations and distributions among investment managers and asset allocations. MCERA has a long-term investment horizon and utilizes an asset allocation plan that encompasses a strategic, long-run perspective of capital markets. It is recognized that a strategic long-run asset allocation plan implemented in a consistent and disciplined manner will be the major determinant of the Plan's investment performance.

MCERA will not attempt to time rises or falls in equity or bond markets by moving away from long-term targets.

Systematic rebalancing, implemented when the asset classes move outside their target ranges or when significant cash flows occur, will be used to maintain or to move asset allocations within these appropriate ranges.

## **GENERAL INVESTMENT OBJECTIVES AND GUIDELINES**

### **Equity Portfolios**

Each equity investment manager retained by MCERA will follow a specific investment style and will be evaluated against a specific market index that represents their investment style. In addition, in the case of active managers, investment results may also be compared to returns of a peer group of managers with similar styles. Benchmarks for the various equity portfolios may include the following indices as well as those proposed by the managers reviewed by the Staff and approved by the Investment Committee or Board:

#### **Domestic Equity Portfolio – Russell 3000 Index**

*Large Cap Stocks – Russell 1000 Index*

*Small Cap Stocks – Russell 2000 Index*

#### **International Equity Portfolio – MSCI ACWI ex-US IMI Index**

*International Large Cap Stocks – MSCI EAFE Index*

*International Small Cap Stocks – MSCI EAFE Small Cap Index*

*International Emerging Markets Stocks – MSCI Emerging Markets Free Index*

General equity guidelines for active managers include the following:

- American Depositary Receipts (ADRs) and foreign securities listed on a major US stock exchange or on the NASDAQ are permitted if specified in the manager's guidelines.
- Convertible securities may be held in equity portfolios and shall be considered equity holdings.
- Securities must be traded on a regulated stock exchange, or listed on the NASDAQ or a comparable foreign market operation.
- Forward or futures contracts for foreign currencies may be entered into for hedging purposes or pending the selection and purchase of suitable investments in, or the settlement of, any such securities transactions only in international equity portfolios.
- The following transactions are not permitted unless specifically authorized in the investment manager agreement or in the specific manager guidelines in the appendix:
  - The use of borrowed funds
  - Short sales or margin sales
  - Private placements (except 144As)
  - Futures, options, currency forwards and futures, and other derivative securities.

## **Fixed Income Portfolios**

The fixed income portfolios will be managed on a total return basis, following specific investment styles and evaluated against specific market indices that represent a specific investment style or market segment. In addition, investment results may also be compared to returns of a peer group of managers investing with a similar style. The benchmarks for the various fixed income portfolios may include the following indices:

**Fixed Income Portfolio – ~~Bloomberg U.S. Aggregate Bond Index Blended Benchmark (50% Bloomberg U.S. Aggregate, 25% Bloomberg Intermediate Credit, 25% FTSE World Government Bond Index USD Unhedged)~~**

*U.S. Core Plus Fixed Income – Bloomberg U.S. Aggregate Bond Index*

~~*U.S. Intermediate Credit Fixed Income – Bloomberg U.S. Intermediate Credit Index*~~

~~*Global Fixed Income – FTSE World Government Bond Index (USD Unhedged)*~~

General fixed income guidelines include the following:

- Unless specified in the manager's guidelines, the minimum average quality rating of the securities in any portfolio will maintain an average weighted credit quality of not more than 2 rating notches below the benchmark's average weighted credit quality, at all times. For the avoidance of doubt, if the benchmark is rated AA-, then 2 notches below would be A.
- Ratings method: The ratings method used to test both the benchmark's average credit rating and the portfolio's average credit rating will be "split to the highest rating" of the three major rating agencies.
- Derivatives, including forward or futures contracts for foreign currencies, may be used to hedge the portfolio, or to effect portfolio management decisions in a timely, cost-effective manner. Borrowed funds shall not be used.
- An individual investment manager's portfolio shall have an effective duration between 75% - 125% of the effective duration of the appropriate index, unless a broader range is permitted with the specific manager guidelines in the Appendix.
- The following transactions are prohibited unless specifically authorized by the Investment Committee or Board or by the specific manager guidelines in the Appendix:
  - Private placements (except 144As);
  - Interest Only CMOs, Principal Only CMOs, inverse floaters and any tranche that has a leveraged component embedded in the structure.

### **Real Estate Portfolios**

The Real Estate portfolios will be managed on a total return basis, through a combination of income and appreciation, following specific investment styles and evaluated against a specific market index. In addition, investment results may also be compared to returns of a peer group of managers investing with a similar style. The benchmark for the various Real Estate portfolios may include the following index:

**Real Estate Portfolio – NFI-ODCE Equal Weighted Index (Net)**

*Core Real Estate – NFI-ODCE Equal Weighted Index (Net)*

- All investments in real estate shall be managed by external advisors.
- MCERA may invest in real estate through diversified institutional commingled vehicles. The vehicles can be limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles.
- The vehicle's manager(s) will have discretion with respect to the management of the fund's investment program, operating within the parameters delineated in the fund's legal documentation.

### **Real Assets Portfolio**

The real assets portfolio will be managed on a total return basis, following specific investment styles and evaluated against specific market indices that represent a specific investment style or market segment. In addition, investment results may also be compared to returns of a peer group of managers investing with a similar style. The benchmarks for the various real assets portfolios may include the following indices:

**Real Assets Portfolio – Blended Benchmark (25% Bloomberg U.S. TIPS Index, 25% Bloomberg Commodities Index, 25% S&P Global Natural Resources Index, 25% Dow Jones U.S. Select Real Estate Securities Index)**

*Treasury Inflation Protected Securities – Bloomberg U.S. TIPS Index*

*Commodities – Bloomberg Commodities Index*

*Global Natural Resources Equity – S&P Global Natural Resources Index*

*Real Estate Investment Trusts – Dow Jones U.S. Select Real Estate Securities Index*

- MCERA may invest in real assets through separate accounts or diversified institutional commingled vehicles.
- The vehicle's manager(s) will have discretion with respect to the management of the fund's investment program, operating within the parameters delineated in the fund's legal documentation.

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- The investment objective of the real assets program is to create a portfolio of high-quality real assets investments that will enhance long-term investment performance, meet inflation objectives, and diversify the asset base for the entire MCERA investment portfolio.

### **Private Equity Portfolios**

MCERA will invest in private equity through institutional closed-end, finite-life commingled private equity fund-of-funds vehicles. The fund-of-funds vehicles will be limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles.

- Private equity investments will consist primarily of limited partnership investments in diversified private equity portfolios (e.g., venture capital, acquisition, special situation, subordinated debt, restructuring funds, and others).
- The vehicle's manager(s) will have discretion with respect to the management of the fund-of-funds investment program, operating within the parameters delineated in the investment vehicle's legal documents.
- The investment objective of the private equity allocation is to achieve consistent positive real returns and to maximize long-term total return net of fees within prudent levels of risk through capital appreciation and diversification.
- While the investment guidelines of each investment vehicle will be determined by the fund-of-funds legal documentation, the fund's manager, in managing the portfolio, should take prudent care.

### **Opportunistic Portfolio**

MCERA may invest in opportunistic investments that will vary by assignment. Performance objectives or guidelines will be defined by MCERA in its retention of managers or selection of suitable investments and will be evaluated to test progress toward attainment of longer-term goals.

- MCERA may invest in opportunistic investments through separate accounts and diversified institutional commingled vehicles which may include limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles.
- The manager(s) will have discretion with respect to the management of the separate account or fund's investment program, operating within the parameters delineated in the separate account or fund's legal documentation.
- The investment objective of the opportunistic allocation is to achieve consistent positive real returns and to maximize long-term total return net of fees within prudent levels of risk through capital appreciation and diversification.

**Short Term Investment/Cash Equivalents**

MCERA is restricted from investing short term funds and cash equivalents in investment vehicles other than the Treasurer's Pool, the State Pool and the STIF funds maintained at the custodian bank. Retirement funds shall be invested in investments with an average maturity of one year or less.

Any exemption from these general guidelines requires prior written approval from the Board or Investment Committee.

**Policy Implementation Overlay**

The Board or Investment Committee may retain a "policy overlay manager" to rebalance portfolio exposures, bridge exposure gaps during transitions, 'securitize' Fund level cash, and securitize residual cash positions held by each manager. The policy overlay manager may use futures or swaps, when appropriate, to gain market exposure on existing cash positions. The manager will not use futures or other derivative instruments for speculative purposes.

## **INVESTMENT MANAGEMENT POLICY**

MCERA will utilize externally managed portfolios based on specific styles and methodologies. The manager will acknowledge in writing, as more particularly set forth in Appendix B, that they are fiduciaries to MCERA with respect to the assets they manage and/or invest on MCERA's behalf, and will have discretion and authority to determine investment strategy, security selection and timing within their asset class and subject to the Policy guidelines and any other guidelines specific to their portfolio. Performance of the portfolio will be monitored and evaluated on a regular basis relative to each portfolio component's benchmark return and relative to peer groups of managers with similar investment styles where applicable.

Investment managers, as prudent experts, will be expected to know MCERA's investment policies (as outlined in this document) and any specific guidelines for their portfolios, and to comply with those policies and guidelines. It is each manager's responsibility to identify policies that may have an adverse impact on performance, and to initiate discussion with Staff toward possible amendment to said policies through Board or Investment Committee action.

The Investment Committee and Staff will also review each investment manager's adherence to its investment policy, and any material changes in the manager's organization (e.g., personnel changes, new business developments, etc.). The investment managers retained by MCERA will be responsible for informing the Investment Committee and Staff of all such material changes on a timely basis.

Investment managers under contract with MCERA shall have discretion to establish and execute transactions with established regional and national securities broker/dealers as needed. Unless otherwise authorized by the Board or Investment Committee, these investment managers must obtain the best available prices and most favorable executions with respect to all of the portfolio transactions as market conditions permit.

Unless specifically authorized by the Board or Investment Committee, the following transactions will be prohibited: short sales; selling on margin; "prohibited transactions" as defined under the Employee Retirement Income Security Act of 1974 (ERISA); transactions that involve a broker acting as a "principal", where such broker is also the investment manager who is making the transaction, and any or all investment activities forbidden by the SEC or other applicable governing bodies.

### **Selection Criteria for Investment Managers**

Criteria will be established for each manager search undertaken by MCERA, and will be tailored to MCERA's needs in such a search. In general, eligible managers will possess attributes including, but not limited to, the following:

- The firm must be experienced in managing money for institutional clients in the asset class/product category/investment style specified by MCERA.



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- The firm must display a record of stability in retaining and attracting qualified investment professionals, as well as a record of managing asset growth effectively, both in gaining and retaining clients.
- The firm must have an asset base sufficient to accommodate MCERA's portfolio. In general, managers should have at least \$100 million of discretionary institutional assets under management, and MCERA's portfolio should make up no more than 20% of the firm's total asset base. Exceptions shall be made on a case-by-case basis.
- The firm must demonstrate adherence to the investment style sought by MCERA, and adherence to the firm's stated investment discipline.
- The firm's fees should be competitive with industry standards for the product category.
- The firm must comply with the "Duties of the investment managers" outlined herein and conform to the CFA Institute standards for performance reporting.

### **Criteria for Investment Manager Termination and Watchlist**

MCERA reserves the unilateral right to terminate a manager at any time for any reason. The occurrence of certain events will result in specific actions being taken. This section describes these events, the course of action that will be taken and the responsible parties. It also establishes a "Watchlist" as a means of monitoring and evaluating managers who meet any of the items identified under the Criteria For Investment Manager Termination. If a manager is on the Watchlist no additional assets will be allocated to the manager until the manager has been removed from the Watchlist, provided however that if the Investment Committee determines, after review and discussion with staff and its Investment Consultant, that it is appropriate and in alignment with the other goals established under this policy to make additional funds to a manager on the Watchlist then the Committee can vote to direct the staff to take this action. The Investment Committee will determine where to invest any additional assets that would otherwise have been allocated to the manager. Each manager on the Watchlist will be monitored closely by Staff and the Consultant and may be required to make special presentations to the Investment Committee and Staff if requested. MCERA may place a manager on the Watchlist at any time and when it is deemed warranted due to improved conditions, a manager may be removed from the Watchlist.

*Illegal or Unethical Practice.* The manager will report this event in writing to the Retirement Administrator not later than the close of the business day following discovery of the illegal or unethical practice. The Retirement Administrator will inform the Investment Committee in writing of this practice as soon as administratively possible. If the illegal or unethical practice has a material adverse effect upon the MCERA portfolio, or any attempt was made by the manager to hide this practice, the manager will normally be terminated upon review and action by the Investment Committee. If the practice is procedural and has been properly referred to the appropriate regulatory authorities, the Retirement Administrator will recommend to the Investment Committee whether or not to terminate the manager.

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*Guideline Violation.* The manager will report any guideline violation in writing to the Retirement Administrator not later than the close of the second business day following discovery along with the manager's proposed remedy. If the violation results in a loss to MCERA, the manager will compensate MCERA for this loss. If the manager refuses to correct this violation, or if other violations occur, the Retirement Administrator may recommend termination of the manager to the Investment Committee. Guideline violations that have been corrected will be reported to the Investment Committee at their next regular meeting. Violations that have not been corrected, or violations that persist, will be reported to the Investment Committee as soon as administratively possible.

*Deviation from Investment Process.* If the Retirement Administrator determines that the manager has deviated materially from its stated investment process or philosophy, the Retirement Administrator will report to the Chair of the Investment Committee as soon as possible. The Retirement Administrator may also recommend termination of the manager, as soon as administratively possible, to the Investment Committee.

*Loss of Key Personnel or Change in Ownership.* The manager will inform the Retirement Administrator in writing within 24 hours following the loss of key personnel or a change in ownership. Loss of key personnel may result in termination of the manager. A material change in the ownership of the manager may result in the termination of the manager. The Retirement Administrator will make a recommendation regarding termination to the Investment Committee as soon as administratively possible.

*Lack of Cooperation with Reasonable Requests.* The manager is required to provide information, attend meetings and comply with other reasonable requests. Failure to do so may result in a recommendation to terminate the manager.

*Underperformance.* MCERA understands the cyclical nature of investment performance and the potential for its investment managers not to meet objectives over short-term periods. While it is not the Investment Committee's intention to terminate a manager for short-term underperformance relative to objectives, the Investment Committee has implemented the following process as a means of monitoring and evaluating managers that have experienced performance difficulties in the short-term to assess the impact on longer-term performance.

If a manager trails its relevant benchmark by more than 100 basis points (net of fees) and ranks in the bottom quartile of its peer universe (gross of fees ranking) for the trailing three years, or if a manager trails its relevant benchmark (net of fees) or ranks below median of its peer universe (gross of fees ranking) for the trailing five years, then the manager may be placed on the Watchlist.

If the underperformance of a manager on the Watchlist persists over a reasonable period in the future (as defined by the Staff, Investment Committee and Consultant based on the unique circumstances surrounding the manager and current market conditions), the Investment Committee may and will consider termination.

### *Procedures Following the Initiation of Watch Status.*

The watch period will be established for a one-year total duration.

If at the end of the watch period, performance has improved to above-benchmark and/or above the manager median over a market cycle, the manager will be removed from the Watchlist.

If at the end of the watch period, the manager is underperforming the manager may be terminated or remain on the Watchlist for a period defined by the Investment Committee.

Unlike open-end funds and separate accounts for public market securities which are more easily liquidated, exiting open-end or closed-end commingled funds for private markets may have liquidity constraints. For these reasons, the Watchlist and terminating procedures used for traditional public market vehicles are not applicable for private market vehicles. Staff with the assistance of the Investment Consultant will make appropriate recommendations for exiting such positions.

## **PRIVATE EQUITY POLICY**

MCERA's private equity investments allocation will consist primarily of limited partnership investments in diversified private equity portfolios (e.g., venture capital, acquisition, special situation, subordinated debt, and restructuring funds and others). MCERA will invest in private equity through institutional closed-end, finite-life commingled private equity fund-of-funds vehicles. The fund-of-funds vehicles will be limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles. Investments directly in stand-alone corporate finance limited partnerships and direct investments in companies are not currently considered appropriate. The vehicle's manager(s) will have discretion with respect to the management of the fund-of-funds investment program, operating within the parameters delineated in the fund's legal documentation. The investment manager of the fund-of-funds will acknowledge in writing by side letter or otherwise that they are Plan fiduciaries and will acknowledge having read and understood the guidelines set forth in this section of the Investment Policy Statement and any other guidelines specific to their portfolio as more particularly set forth in Appendix C.

To maintain an appropriate funded status on a net asset value basis, MCERA may be required to make periodic commitments to additional fund-of-funds vehicles managed by either the same or different fund-of-funds managers. MCERA's staff will work with the investment consultant and the managers to determine appropriate commitment timing and amounts and present a recommended plan to the Investment Committee annually.

To ensure adequate access and diversification, MCERA may utilize multiple fund-of-funds providers. There is no specific limit on the number of vendors to be utilized. However, to avoid unnecessary administrative burdens, MCERA will limit the number of vendors employed to the extent practical. Only those firms committed to providing ongoing access to the private equity arena through fund-of-funds offerings, who have a demonstrated record of investing client funds in top tier private equity partnerships and who limit assets accepted for management to sums that can in fact be committed in top tier funds will be considered.

MCERA recognizes that many well-qualified fund-of-funds providers make direct private equity investments within the fund-of-funds vehicle (e.g. secondary or co-investments). Such investments are permissible provided that they constitute a comparatively small portion of the total fund-of-funds' asset base (typically less than 35%).

### **Investment Objectives**

The investment objective of the private equity allocation is to achieve consistent positive real returns and to maximize long-term total return within prudent levels of risk through capital appreciation and diversification. MCERA's holdings will be professionally managed on a cash-to-cash basis and will have broad exposure to key private corporate finance strategies (e.g., venture capital, acquisition, special situation, etc.), with allocations to the various strategies diversified in a manner consistent with institutional private equity programs generally.

Selection Criteria for Private Equity

Partnership Selection

As requested by MCERA, the investment consultant shall develop a proposed “Manager Candidate Profile” that will serve as the basis for evaluation of potential fund-of-funds providers consistent with MCERA’s investment policy. This document will specify the minimum selection criteria for potential vendors and also detail preferred characteristics. The consultant will then evaluate prospective candidates and submit a listing of those firms that appear to best meet the requirements and preferences. Staff and consultant will discuss these candidates and identify those that should be advanced for Board and/or Investment Committee consideration. Ultimately, the Investment Committee will determine which firms shall be retained.

The targeted private equity investments will be fund-of-funds vehicles that are commingled, closed-end, and finite-life limited liability entities.

Due to the inevitability of short-term market fluctuations that may cause variations in the investment performance, it is intended that the performance objectives outlined below will be achieved by the fund-of-funds over the life of the vehicle(s), generally 15 years. The Investment Committee will evaluate the Funds’ interim performance to test progress toward attainment of these longer-term goals. However, it is understood that there are likely to be short-term periods during which performance will deviate from expectations. Minimum expectations are as follows:

- For policy benchmarking purposes, over the long-term (rolling 10-year periods) the private equity portfolio is expected to generate returns in excess of the combined benchmark, consisting of 60% Russell 3000 and 40% MSCI ACWI ex-US IMI, employing a time-weighted return calculation.
- The private equity portfolio and manager returns will also be measured employing a dollar-weighted, internal rate of return (IRR) calculation and benchmarked against relevant peer group information from a recognized private equity database provider. The portfolio will also be benchmarked employing standard private equity performance ratio measures: Total Value to Paid-In Capital (TVPI) and Distributed Value to Paid-In Capital (DPI). IRR and ratio performance should be above median relative to recognized private equity industry peer database returns. Measures should be focused on returns net of all partnership fees and expenses.

Attainment of these objectives does not guarantee future investment by the Investment Committee in a specific manager’s fund-of-funds vehicles, nor does failure to achieve these guidelines ensure a lack of future investment support for follow-on vehicles. Providers are selected at the discretion of the Investment Committee.

In addition, the following stipulation(s) apply:

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- The investment manager of the fund-of-funds vehicle shall be a Bank or a registered investment advisor under the Investment Advisors Act of 1940 (1940 Act).
- If the fund-of-funds vehicle provides distributions in cash or securities, the Fund will opt to receive cash.

### Reporting Requirements

Reporting requirements will be governed by the fund-of-funds legal documentation, which at a minimum will provide for quarterly unaudited financial statement and other relevant investment holdings related exhibits, and annual audited financial statements and relevant investment holdings-related exhibits.

It is expected that the fund-of-funds investment managers will meet with the Board or Investment Committee as reasonably requested and at least annually.

### Coordination with Total Fund Performance Reporting

MCERA relies on its custodian to generate short-term time-weighted performance statistics. This information is utilized by the Fund's investment consultant to evaluate ongoing investment performance. An integral part of the performance evaluation is a comparison of the total Fund's return in relation to a policy benchmark index comprised of market indices weighted in the same manner as the Fund's strategic asset allocation policy.

Given the private market nature of private equity investments and the long lead-time associated with such investments, a public market equity index shall be used in lieu of the private equity database return set forth in Appendix B for the private equity component of the total portfolio. The index used shall be a composite of the equity component of MCERA's total policy benchmark: 60% Russell 3000 and 40% MSCI ACWI ex-US IMI.

## **DUTIES OF RESPONSIBLE PARTIES**

### **Duties of the MCERA Board of Retirement and Investment Committee**

The Board of Retirement has the responsibility for administration of MCERA for the benefit of plan participants. The County Employees Retirement Law of 1937, Government Code Chapter 3, Part 3, Division 4, Title 3, Article 5, permits the Board of Retirement at its discretion to invest the assets of the Plan through the purchase, holding or sale of any form or type of investment, financial instrument or financial transaction when prudent in the informed opinion of the Board. In the interest of efficient and prudent administration of MCERA and investment of its assets, the Board of Retirement has delegated its responsibilities with respect to the investments to the Investment Committee, which consists of all members of the Board of Retirement. Although it is not the intent of the Investment Committee to become involved in the day-to-day investment decisions, the Investment Committee or its designee(s) will adhere to the following procedures in the management of MCERA's assets:

- The Investment Committee develops and approves guidelines for the execution of MCERA's investment program. Only the Board, through the Investment Committee, in its sole discretion can delegate its decision-making authority regarding the investment program. Staff is responsible for the timely implementation and administration of these decisions.
- A formal review of MCERA's investment structure, asset allocation and financial performance will be conducted annually or more frequently as the need arises. The review will include recommended adjustments to the long-term strategic asset allocation to reflect any changes in applicable regulations, long-term capital market assumptions, actuarial assumptions or MCERA's financial condition.
- The Investment Committee shall review MCERA's investments quarterly, or as needed, to ensure that policy guidelines continue to be met. The Investment Committee shall monitor investment returns on both an absolute basis and relative to appropriate benchmarks and peer group comparisons. The source of information for these reviews shall come from Staff, outside consultants, the custodian and MCERA's investment managers.
- The Investment Committee is comprised of all Board members.
- The Investment Committee may retain investment consultants to provide services such as conducting performance reviews, asset allocation, manager reviews and investment research. The comments and recommendations of the consultants will be considered in conjunction with other available information to aid the Investment Committee in making informed, prudent decisions.
- Trustees shall direct questions from managers regarding MCERA's Investment Policy or other matters relating to the Plan to the Retirement Administrator and/or investment consultant.

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- The Investment Committee shall be responsible for taking appropriate action if investment objectives are not being met or if policies and guidelines are not being followed. Reviews for separate portfolios managed by external managers will focus on:
  1. Material changes in the managers' organizations, such as investment philosophy, personnel changes, acquisitions or losses of major accounts, etc. The managers will be responsible for keeping MCERA advised of any material changes in personnel, investment strategy, or other pertinent information potentially affecting performance.
  2. Investment performance relative to each manager's stated performance benchmark(s) as set forth in the manager's investment guidelines.
- The Investment Committee shall expect Staff to administer MCERA's investments in a cost-effective manner subject to Committee approval. These costs include, but are not limited to, management, consulting and custodial fees, transaction costs and other administrative costs chargeable to MCERA.
- The Board shall be responsible for selecting a qualified custodian with advice from Staff.
- The Investment Committee shall perform due diligence on each new manager prior to funding, and on each existing manager in accordance with the Due Diligence policy found at: <https://www.mcera.org/retirementboard/governance-policies>
- To maintain and strengthen the investment management of MCERA's Plan, Staff and Board/Investment Committee members shall be expected to participate in educational conferences/seminars related to their direct responsibility for the investment activities of MCERA in accordance with the Education Policy found at:
  - <https://www.mcera.org/retirementboard/governance-policies>

### **Duties of the Staff**

The Retirement Staff, as designated by the Board and/or Investment Committee, plays a significant role in the management and oversight of the Plan. Staff duties include:

- Authority to invest the Fund's cash without requiring Board or Investment Committee permission, and as set forth elsewhere in MCERA's Investment Policy.
- Monitoring investment managers for adherence to appropriate policies and guidelines.
- Evaluating and managing the relationships with the consultants to the Fund to ensure that they are providing all the necessary assistance to Staff, Investment Committee, and the Board as set forth in their service contracts.
- Conducting manager searches, as set forth in this document, with necessary assistance from consultants as directed by the Board or Investment Committee.



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- Restructuring portfolios following manager terminations with the assistance of consultants and managers, as needed.
- Organizing and/or participating in any special research required to manage the Plan more effectively or in response to any questions raised by Board/Investment Committee members.
- Supporting the Board or Investment Committee in the development and approval of the Investment Plan, implementing and monitoring the Plan, and reporting at least monthly on investment activity and matters of significance.
- Assisting with the negotiation of investment manager fees when needed.
- Ensuring that investment managers conform to the terms of their contracts and that their performance monitoring systems are sufficient to provide the Board or Investment Committee with timely, accurate and useful information.

### **Duties of the Public Markets Investment Managers**

The following duties apply to managers investing in public market securities:

- Provide the Plan with a written agreement to invest within the guidelines established in the Investment Policy.
- Provide the Plan with proof of liability and fiduciary insurance coverage. Updated policy information will be provided to MCERA upon renewal and/or changes to the policy.
- Be an SEC-Registered Investment Advisor under the 1940 Act, and be recognized as providing demonstrated expertise over a number of years in the management of institutional, tax-exempt assets within a defined investment specialty.
- Adhere to the investment management style concepts and principles for which they were retained, including, but not limited to, developing portfolio strategy, performing research, developing buy, hold and sell lists, and purchasing and selling securities.
- Execute all transactions for the benefit of the Plan with brokers and dealers qualified to execute institutional orders on an ongoing basis at the best net cost to the Plan.
- Reconcile monthly accounting, transaction and asset summary data with custodian valuations, and communicate and resolve any significant discrepancies with the custodian.
- Submit written acknowledgement to the Retirement Administrator of these investment guidelines at the time of hire or upon any contract renewal or amendment.
- Maintain frequent and open communication with Staff and the Board or Investment Committee on all significant matters pertaining to the Investment Policy, including, but not limited to, the following:

- Major changes in the investment manager’s investment outlook, investment strategy and portfolio structure;
  - Significant changes in ownership, organizational structure, financial condition or senior personnel;
  - Any changes in the portfolio manager or client servicing personnel assigned to the Plan;
  - All pertinent issues which the investment manager deems to be of significant interest or material importance.
- Meet with the Board, Investment Committee or their designee(s) on an as-needed basis.

### **Duties of the Private Markets Investment Managers**

The following duties apply to managers investing in private markets:

- Be a SEC-Registered Investment Advisor under the 1940 Act.
- Adhere to the investment management style concepts and principles set forth in the legal documentation of the relevant investment vehicle.
- Provide reporting as specified by the legal documentation of the relevant investment vehicle.
- Meet with the Board, Investment Committee or their designee(s) on an as-needed basis.

### **Duties of the Master Custodian**

The master custodian shall be responsible for the following:

- Provide complete global custody and depository services for the designated accounts.
- Manage, if directed by the Board or Investment Committee, a Short Term Investment Fund (STIF) for investment of any cash not invested by managers, and ensure that all available cash is invested. If the cash reserves are managed externally, full cooperation must be provided.
- Provide in a timely and effective manner a monthly report of the investment activities implemented by the investment managers. If certain portfolios are custodied elsewhere, full cooperation must be provided.
- Collect all income and principal realizable and properly report it on the periodic statements.
- Provide monthly and fiscal year-end accounting statements for the portfolio, including all transactions; these should be based on accurate security values for both cost and market. These reports should be provided within acceptable time frames.

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- Report to MCERA situations where accurate security pricing, valuation and accrued income is either not possible or subject to considerable uncertainty.
- Provide assistance to the Plan to complete such activities as the annual audit, transaction verification or other issues as required by the Board or Investment Committee.
- Manage a securities lending program to enhance income if directed by the Board or Investment Committee. If the securities lending program is managed externally, full cooperation must be provided.
- Securities transactions shall be settled under the contractual method.
- The use of due bills or substitute securities is expressly forbidden.

### **Duties of the General Investment Consultant**

The investment consultant will act as a fiduciary for all services provided to MCERA. The Investment Consultant shall be responsible for the following:

- Make recommendations to the Board or Investment Committee regarding investment policy and strategic asset allocation.
- Assist MCERA in the selection of qualified investment managers and sponsors of limited liability partnerships, limited liability corporations, group trusts or other commonly used investment vehicles and assist in the oversight of existing managers and said sponsors, including monitoring changes in personnel, ownership and their investment process.
- Assist in the selection of a qualified custodian (including a securities lending agent and/or a cash manager) if necessary.
- Prepare a quarterly performance report including performance attribution on MCERA's managers and total assets and adherence to investment style and discipline.
- Provide topical research and education on investment subjects that are relevant to MCERA.
- Assist with the negotiation of investment management and custodian assignment and fees.

**POLICY REVIEW**

The Investment Committee will review this Policy at least every year to ensure that it remains relevant and appropriate. The Policy may be amended at any time by majority vote.

**APPENDIX A**

**MCERA'S LONG-TERM STRATEGIC ASSET ALLOCATION TARGETS AND RANGES**

The strategic asset allocation targets have been developed as a function of the returns and risks of various asset classes and a rigorous analysis of MCERA's liabilities, taking into account the Board and Investment Committee's risk tolerance and long-term objectives. As asset class values change over time, deviations from the asset allocation targets may occur. Rebalancing the portfolio may be necessary to return the asset class allocations to targeted weights so as to ensure that the Board's intended strategy is consistently maintained over time. Rebalancing actions are the responsibility of the Staff and shall be reported to the Board or Investment Committee on a periodic basis.

Staff is authorized and directed (in the normal course of events) to act in accordance with this policy. Where particular circumstances arise and Staff determines rebalancing is not prudent, because doing so may generate unnecessary costs or otherwise not be in the best interests of MCERA, a full report of the actions taken or not taken shall be made to the Board or Investment Committee at the earliest opportunity.

MCERA's actual asset allocation shall be reviewed at the end of each quarter at a minimum and shall be based on current asset valuations. Estimated values may be used when current asset valuations are not available.

By using statistical models and employing a diversified portfolio strategy, MCERA seeks to create an efficient frontier, which is an optimal portfolio profile that accomplishes the lowest possible level of risk for a certain level of return. While asset allocation targets are an essential part of MCERA's investment policy, the inputs used to develop these benchmarks are not known with certainty. Indeed, the targets were derived using estimates of future returns and estimates of the risk of loss for each asset class. Because future results are only estimates based on historical returns and volatility for each asset class, a range of different allocations other than the target percentage may be statistically identical in risk-return terms to the targeted benchmark even though the actual allocations may be outside of the targeted percent. Thus, the efficient frontier is really a range of targeted allocations, rather than a strict target percent of asset allocations in a portfolio. In other words, the portfolio is on the efficient frontier if the allocations to each asset class are within a range around the target allocations.

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The strategic policy asset allocation and rebalancing triggers are set out in the table below:

Asset Class	Target Percent	Allowable Range
<b>US Equity</b>	<b>32.0%</b>	<b>28.0% - 36.0%</b>
Large Cap Core	24.0%	21.0% - 27.0%
Small Cap Core	8.0%	6.0% - 10.0%
<b>Non-US Equities</b>	<b>22.0%</b>	<b>19.0% - 25.0%</b>
International Large Cap Value	6.6%	5.6% - 7.6%
International Large Cap Growth	6.6%	5.6% - 7.6%
International Small Cap Core	4.4%	3.9% - 4.9%
International Emerging Markets	4.4%	3.9% - 4.9%
<b>Fixed Income</b>	<b>23.0%</b>	<b>20.0% - 26.0%</b>
U.S. Core Plus Fixed Income	<del>23.0%</del> 11.5%	<del>20.0% - 26.0%</del> 8.5% - 14.5%
<del>U.S. Intermediate Credit Fixed Income</del>	<del>5.75%</del>	<del>4.75% - 6.75%</del>
<del>Global Fixed Income</del>	<del>5.75%</del>	<del>4.75% - 6.75%</del>
<b>Real Assets</b>	<b>7.0%</b>	<b>4.0% - 10.0%</b>
Treasury Inflation Protected Securities	1.75%	1.5% - 2.0%
Commodities	1.75%	1.5% - 2.0%
Global Natural Resources Equity	1.75%	1.5% - 2.0%
Real Estate Investment Trusts	1.75%	1.5% - 2.0%
<b>Real Estate</b>	<b>8.0%</b>	<b>4.0% - 12.0%</b>
<b>Private Equity</b>	<b>8.0%</b>	<b>0.0% - 12.0%*</b>
<b>Opportunistic</b>	<b>0.0%</b>	<b>0.0% - 5.0%</b>

\* MCERA acknowledges that because of the nature of private equity investment, it may take several years to fund the private equity allocations and during the initial funding period, its allocation to private equity in market value terms may fall below the 8% target. During the initial funding period, as a proxy for private equity, MCERA intends to keep the assets committed to private equity partnerships invested in domestic and international equity. The result will be overweights in both of these asset classes relative to the long-term targets described above.

The following principles apply when asset allocations are outside the allowable ranges noted above:

1. Cash held by MCERA and cash awaiting investment in private equity investments or other alternative investments may be securitized with exchange-traded futures to a Fund policy mix by MCERA's overlay manager. The use of derivative instruments is

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permitted as long as it does not create economic leverage in the portfolio and the instruments comply with the Derivatives section of this investment policy.

2. In order to rebalance as efficiently as possible and save transactions costs, allocations may be brought back within the allowable range rather than exactly to the target percentage.
3. Private market portfolios, such as Real Estate, Private Equity, and certain Opportunistic allocations, because of their illiquid nature, are very costly to rebalance. MCERA's Staff will make reasonable attempts to keep these asset classes within the allowable ranges defined above. Given their illiquidity, the risk of these asset classes moving outside of the allowable ranges for an extended period is heightened. In these cases, MCERA's Staff will document a plan to rebalance the allocations within the allowable ranges in the most timely and cost-efficient manner possible given market and other conditions. It is noteworthy that the risk of these asset classes drifting outside of the efficient frontier is mitigated by the relatively small exposure to these classes as a percentage of the entire portfolio.
4. When physical securities are traded, assets will be moved between investment managers in accordance with the following principles:
  - a) Assets will be taken from investment managers in the overweight asset class(es) with consideration given to asset class structure, investment manager target weights, and confidence in the investment managers themselves. With respect to private market allocations, the illiquid nature of these classes will be taken into account and trading will normally be avoided where possible.
  - b) Primary emphasis should be on significantly different asset classes (e.g. equity vs. fixed income).
  - c) Assets will be directed to investment managers in the underweight asset class(es) with consideration given to the same factors listed above.

**APPENDIX B - 1**  
**STATE STREET GLOBAL ADVISORS (SSGA)**  
**RUSSELL 1000 INDEX STRATEGY (LARGE CAP CORE)**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

The objective of the Russell 1000 Index strategy is to provide returns consistent with the US equity market as measured by the Russell 1000 Index.

**MCERA Performance Objectives**

- Match the return, gross of management fees, of the Russell 1000 Index over a complete market cycle.
- Minimize tracking error relative to the Russell 1000 Index.

**Investment Guidelines**

- All investments shall be managed in a diversified and prudent manner, subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees' Retirement Association as set forth in this Appendix B-1 and the Statement of Investment Policies, Objectives and Guidelines set forth in the Investment Management Agreement between MCERA and SSGA, dated January 11, 2019, as amended from time to time (the "SSGA Agreement").
- Sector and security selection, portfolio structure and timing of purchase and sales are delegated to SSGA subject to the SSGA Agreement.
- The following transactions are prohibited: short sales, selling on margin, writing options other than covered options, and "prohibited transactions" as defined under the Employee Retirement Income Security Act (ERISA), unless in reliance on an applicable Prohibited Transaction Exemption.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

**Reporting Requirements**

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.



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- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- Review every month transaction data with custodian reports, and communicate and seek to resolve any significant discrepancies with the custodian.
- State Street Global Advisors will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- State Street Global Advisors will keep MCERA apprised of relevant information regarding its organization and personnel. To the extent legally possible, SSGA will use its best efforts to promptly notify MCERA of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 2**  
**DIMENSIONAL FUND ADVISORS (DFA)**  
**DOMESTIC SMALL CAP EQUITY**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

The strategy will be invested in a broadly diversified portfolio of companies that are generally in the lowest 10% of total market capitalization or companies whose market capitalizations are smaller than the 1,000<sup>th</sup> largest U.S. company, whichever results in the higher market capitalization break, in each case as reasonably determined by Manager at the time of purchase. In general, with respect to companies eligible for purchase the higher the relative market capitalization of the U.S. small cap company, the greater its representation in the Managed Assets. Manager may also adjust the representation within the Managed Assets of an eligible company, or exclude a company, after considering such factors as market capitalization, free float, momentum, trading strategies, liquidity, profitability, and other factors that Manager determines to be appropriate, given market conditions.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the Russell 2000 Index (the “Benchmark”) over a complete market cycle.
- Perform in the top half of a peer universe of small cap core equity managers over a complete market cycle.

**Investment Guidelines**

- All investments shall be managed in a diversified and prudent manner, subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees’ Retirement Association.
- Sector and security selection, portfolio structure and timing of purchase and sales are delegated to the manager subject to the investment management contract.
- The following transactions are prohibited: short sales, selling on margin, writing options other than covered options, and “prohibited transactions” as defined under the Employee Retirement Income Security Act (ERISA).
- Transactions shall be executed on the basis of seeking “best price and execution” and pursuant to Investment Manager’s best execution and trading policies for the sole benefit of the Marin County Employees’ Retirement Association.
- The use of foreign equity instruments which trade on U.S.-based exchanges or on NASDAQ, including American Depositary Receipts (ADRs), are acceptable as domestic equity investments

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but shall not constitute more than 15% of the portfolio (at market). Companies headquartered in the US will be considered domestic even if they are incorporated in a foreign jurisdiction.

- Securities in the Benchmark are permitted.
- Any security purchased or received in a corporate action is permitted.
- If not otherwise permitted herein, the use of other non-U.S. equity securities is prohibited. Notwithstanding the foregoing, securities of companies listed on exchanges or markets in the United States are permitted.
- The portfolio is expected to remain fully invested in that cash holdings should not exceed 10% of the market value in the portfolio; provided that such limit may be exceeded in situations where substantial withdrawals or inflows occur.
- DFA shall not purchase stock (or securities convertible into stock) of any single issuer if the purchase would cause this portfolio to include more than 5% of the outstanding voting stock, or more than 5% in (market) value of all outstanding securities of single issuer (assuming all shares are converted).
- Other than in connection with a corporate action, DFA shall not purchase private placements unless authorized in writing by the Board or Investment Committee.

Any material violation of these Investment Manager Guidelines shall be corrected promptly upon discovery and provided that a reasonable market exists.

Any material violation of these Investment Manager Guidelines shall be corrected promptly upon discovery, provided that in the event that the correction requires the buying and/or selling of securities, the Manager shall execute such purchase or sell trades of the applicable securities in an orderly fashion based upon prevailing market conditions.

### Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- Review every month transaction data with custodian reports, and communicate and seek to resolve any significant discrepancies with the custodian.

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- DFA will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. One of the lead portfolio managers will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- DFA will keep MCERA apprised of relevant information regarding its organization and personnel. DFA will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 3**  
**MORGAN STANLEY INVESTMENT MANAGEMENT**  
**NON U.S. VALUE EQUITY**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

Morgan Stanley uses a bottom-up approach to build a diversified portfolio of primarily non US companies to generate long-term outperformance with an emphasis on reducing downside participation. The portfolio consists of a combination of high-quality companies characterized by their high returns on operating capital employed and strong free cash flow generation, and more cyclical companies with improving or mis-priced fundamentals, the mix of which varies over time based on valuations and company prospects.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the MSCI EAFE Index over a complete market cycle.
- Perform in the top half of a peer universe of Non-U.S. value equity managers over a complete market cycle.

**Investment Guidelines**

- The Morgan Stanley International Equity Trust is subject to provisions of the Employee Retirement Income Security Act, as amended (“ERISA”). The Agreement governs all aspects of investment with respect to the Trust, including an ERISA-mandated standard of care.
- MCERA is responsible for determining that its investment in the Trust is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees’ Retirement Association. The Manager shall invest within the scope of its style as stated in the Agreement.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

### Reporting Requirements

- Monthly – Asset (portfolio) statement and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA’s Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs (to be provided annually). These will be sent to MCERA’s Retirement Administrator and MCERA’s Investment Consultant.
- Morgan Stanley will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of Morgan Stanley will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- Morgan Stanley will keep MCERA apprised of relevant information regarding its organization and personnel. Morgan Stanley will notify MCERA promptly of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 4**  
**ARTISAN PARTNERS**  
**NON U.S. GROWTH EQUITY**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

Artisan uses a fundamental bottom-up investment process to construct a diversified portfolio of international growth companies regardless of market capitalization, concentrating on industries or themes that the investment team believes present long-term growth opportunities and companies that are well positioned to capitalize on that growth. The portfolio has a primary emphasis on developed markets but also invests in emerging markets and is constructed without regard to index weightings.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the MSCI EAFE Index over a complete market cycle.
- Perform in the top half of a peer universe of Non-U.S. growth equity managers over a complete market cycle.

**Reporting Requirements**

- Monthly – Asset (portfolio) statement and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA’s Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception. These will be sent to MCERA’s Retirement Administrator and MCERA’s Investment Consultant.
- Artisan will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the fund and its performance.
- Artisan will keep MCERA apprised of relevant information regarding its organization and personnel. Artisan will notify MCERA promptly of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 5**

**TIMESQUARE CAPITAL MANAGEMENT COLLECTIVE INVESTMENT TRUST  
TIMESQUARE INTERNATIONAL SMALL CAP FUND  
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

TimesSquare Capital Management believes fundamental equity growth research with a particular emphasis on the assessment of management quality, an in-depth understanding of superior business models, and valuation discrepancies enables them to create a diversified international small cap fund that will generate quality risk-adjusted returns.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the MSCI EAFE Small Cap Index over a complete market cycle.
- Perform in the top half of a peer universe of International Small Cap equity managers over a complete market cycle.

**Investment Guidelines**

- MCERA is responsible for determining that its investment in the TimesSquare International Small Cap Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. TimesSquare shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

**Reporting Requirements**

- Monthly – Asset (portfolio) statement and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- A representative of TimesSquare will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the fund and its performance.



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- TimesSquare will keep MCERA apprised of relevant information regarding its organization and personnel. The fund or its representative will notify MCERA promptly of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 6**  
**FIDELITY INSTITUTIONAL ASSET MANAGEMENT (FIAM)**  
**SELECT EMERGING MARKETS EQUITY**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

Fidelity Institutional Asset Management's (FIAM) investment philosophy is based on the premise that international and emerging markets are semi-efficient and pricing anomalies exist. The strategy seeks to exploit these inefficiencies through bottom-up stock selection based on fundamental company research, implemented within a framework of quantitative risk control.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of MSCI Emerging Markets Index (net) over a complete market cycle.
- Perform in the top half of a peer universe of emerging markets equity managers over a complete market cycle.

**Investment Guidelines**

- MCERA is responsible for determining that its investment in FIAM's Select Emerging Markets Equity commingled pool is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. FIAM shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

**Reporting Requirements**

- Monthly – Asset (portfolio) statement and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- A representative of FIAM will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the fund and its performance.

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- FIAM will keep MCERA apprised of relevant information regarding its organization and personnel. FIAM will notify MCERA promptly of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 7**  
**WELLINGTON MANAGEMENT COMPANY**  
**CORE PLUS FIXED INCOME**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

Wellington will invest in a diversified portfolio of investment grade and below investment grade fixed income securities. Wellington will add value primarily from sector and issue selection decisions. Interest rate anticipation and duration management will play a limited role in the portfolio.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the Bloomberg U.S. Aggregate Index over a complete market cycle.
- Perform in the top half of a peer universe of core plus fixed income managers over a complete market cycle.

**Investment Guidelines**

- All investments are subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees' Retirement Association, with applicable State and Federal statutes, and shall be managed in a diversified and prudent manner. The manager shall invest within the scope of their stated style.
- Sector and security selection, portfolio structure and timing of purchase and sales are delegated to the manager subject to the investment management contract.
- The following transactions are prohibited: short sales where securities are borrowed solely for the purpose of shorting, selling on margin, and "prohibited transactions" as defined under the Employee Retirement Income Security Act (ERISA).
- Transactions shall be executed on the basis of "best price and execution" for the sole benefit of the Marin County Employees' Retirement Association's beneficiaries.
- The duration on the portfolio shall range between 75% - 125% of the duration on the Bloomberg U.S. Aggregate Index.
- MCERA expects its domestic fixed income investment managers to maintain diversified portfolios by sector and by issuer. No more than 5% of the portfolio shall be invested with a single investment grade issuer other than obligations of the US Government and its agencies. No more than 2% of the portfolio shall be invested with a single below investment grade issuer.

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- Futures, options, swaps, forwards and other derivative securities are permitted investments. Any use of these instruments by Wellington will be in a non-leveraged manner, defined as follows:
  - The use of financial leverage is prohibited. The Account will not be considered leveraged as a result of authorized derivative positions provided the Account maintains cash and securities at least equal to the value of the obligations created by its net derivative positions in order to cover the obligations created by such positions.
- Wellington may invest up to 20% of the portfolio in securities rated below investment grade by all three of the major credit rating agencies. In the case of split ratings in which the three agencies have different ratings, the highest rating will be used in determining the credit rating of the security. If an issue is unrated, then an equivalent credit rating, as deemed by Wellington Management, may be used.
- Wellington may invest up to 20% of the portfolio in non-dollar denominated securities and currencies. The Portfolio may take currency positions unrelated to underlying portfolio holdings.
  - Non-dollar securities may be held on a currency hedged or un-hedged basis. The portfolio may invest in currency exchange transactions on a spot or forward basis. Both long and short currency exposures are permissible.
  - With respect to the 20% non-dollar investment limitation listed above, the Investment Manager may take effective foreign currency exposure up to 20% of the total portfolio (e.g. the entire non-dollar portfolio may be unhedged). Foreign currency exposure will be based on the absolute value of all positions (long and short) versus the dollar, except in the case of same country and currency exposures where these can be netted. Both long and short foreign currency positions may be held without owning securities denominated in such currencies.
- Wellington may invest up to 20% of the portfolio in private placements, including those issued pursuant to Rule 144A and/or Reg S and other restricted securities, the liquidity of which Wellington Management deems consistent with the Portfolio's investment objective.
- Wellington may invest up to 5% of the portfolio in U.S. and non-U.S. preferred and perpetual securities.
- Wellington will maintain an average weighted credit quality of not more than 2 rating notches below the benchmark's average weighted credit quality, at all times. For the avoidance of doubt, if the benchmark is rated AA-, then 2 notches below would be A.
  - Ratings method: The ratings method used to test both the benchmark's average credit rating and the portfolio's average credit rating will be "split to the highest rating" of the three major rating agencies.
- Investment in mortgage interest only (IO), principal only (PO), inverse floaters or other CMO derivatives that have highly uncertain or volatile duration or price movements are limited to 5% of the market value of the portfolio.

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- Bank loans are permitted investments.
- All percentage limits refer to “at time of purchase.”

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

### Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA’s Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA’s Retirement Administrator and MCERA’s Investment Consultant.
- Review every month transaction data with custodian reports, and communicate and resolve any significant discrepancies with the custodian.
- Wellington will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. One of the lead portfolio managers will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- Wellington will keep MCERA apprised of relevant information regarding its organization and personnel. Wellington will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 8**  
**WESTERN ASSET MANAGEMENT COMPANY**  
**INTERMEDIATE CREDIT CORE PLUS FIXED INCOME**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

~~Western will invest primarily in a portfolio of cash-based U.S. dollar (USD) denominated credit issues with an intermediate overall duration.~~

~~MCERA~~ In adhering to these guidelines, Western will invest in a diversified portfolio of investment grade and below investment grade fixed income securities. Western will add value primarily from sector and issue selection decisions. Interest rate anticipation and duration management will play a limited role in the portfolio.

**Performance Objectives**

- Exceed the return, net of management fees, of the Bloomberg U.S. ~~Intermediate Credit~~ Aggregate Index over a complete market cycle.
- Perform in the top half of a peer universe of ~~intermediate style~~ core plus fixed income managers over a complete market cycle.

**Investment Guidelines**

- All investments are subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees' Retirement Association, with applicable State and Federal statutes; accordingly, as of the date of this amendment these guidelines conform to all applicable rules and regulations and the Client will notify Western if any change thereof materially impact these guidelines. Moreover, the portfolio shall be managed in a diversified and prudent manner. The manager shall invest within the scope of their stated style.
- Sector and security selection, portfolio structure and timing of purchase and sales are delegated to the manager subject to the investment management contract. For the avoidance of doubt, the following are Eligible Investments:
  - UST, US Agencies and US GSEs
  - Sovereigns/non-US
  - International Agencies
  - Non-US Local Authorities
  - US Munis
  - Supras
  - Corporates, including convertibles and preferreds
  - Bank Loans

- Mortgage-backed (agency and non-agency, including CMBS), Asset-backed and CLO/CDO/CBO
  - Cash and Cash equivalents, including REPO and STIF
  - Futures, Options and Swaps
  - Currency Forwards
  - Credit linked notes (max 3%)
  - Commingled vehicles (excluding Western Asset affiliated Registered Investment Companies)
  - Pure privates, including 144a, Reg S and 4(2) Commercial Paper
  - Equity (only related to corporate actions, tenders and workouts and exchanges)
  - At time of purchase illiquids are ineligible (illiquids defined as securities that cannot be sold within 7 days at or around the carry).
- The following transactions are prohibited: short sales where securities are borrowed solely for the purpose of shorting, selling on margin, and “prohibited transactions” as defined under the Employee Retirement Income Security Act (ERISA).
  - Transactions shall be executed on the basis of “best price and execution” for the sole benefit of the Marin County Employees’ Retirement Association’s beneficiaries.
  - The ~~average weighted duration of~~ on the portfolio security holdings including derivatives positions is expected to shall ~~range within  $\pm$  20% of the benchmark. between 75% - 125% of the duration on the Bloomberg U.S. Aggregate Index.~~
  - MCERA expects its domestic ~~intermediate-credit~~ fixed income investment managers to maintain diversified portfolios by rating and by issuer. Obligations of issuers are subject to a To this end, the following limits apply:
    - Max 5% per issuer limit excluding investments in commingled vehicles and US Treasuries and US Agencies. Any of the following fixed income securities, denominated in USD or non-USD, and their futures or options derivatives, individually or in commingled vehicles, subject to credit, diversification and marketability, may be held outright and under resale agreement (REPO): issues rated investment grade (other than obligations of the US Government and its agencies and excluding STIF) and,
    - Max 2% per issuer in issues rated below investment grade.
  - Futures, options, swaps, forwards and other derivative securities are permitted investments. Any use of these instruments by Western will be in a non-leveraged manner, defined as follows:
    - The use of financial leverage is prohibited. The Account will not be considered leveraged as a result of authorized derivative positions provided the Account maintains cash and securities at least equal to the value of the obligations created by its net derivative positions in order to cover the obligations created by such positions.
  - Western may invest up to 20% of the portfolio in securities rated below investment grade. In the case of split ratings in which the three agencies have different ratings, the highest rating



will be used in determining the credit rating of the security. If an issue is unrated, then an equivalent credit rating, as deemed by Western, may be used.

- ~~Western may invest up to 100% in corporate securities.~~
- ~~Western may invest up to 10% of the portfolio in debentures issued or guaranteed by the U.S. Federal Government, U.S. Federal agencies or U.S. government-sponsored corporations and agencies;<sup>20</sup>~~
- ~~Western may invest up to 10% in contingent convertibles (“CoCos”) and preferred stocks.~~
- ~~Western may invest up to 5% of the portfolio in U.S. and non U.S. convertible securities (excluding CoCos which have their own bucket), bank loans, commercial paper, certificates of deposit and bankers’ acceptances issued by industrial, utility, finance, commercial banking or bank holding company organizations;~~
- ~~Western may invest up to 10% of the portfolio in securities of emerging market issuers, international agencies, supranational entities, and foreign governments (or their subdivisions or agencies);~~
- ~~Western may invest up to 5% of the portfolio in taxable and tax-exempt obligations issued or guaranteed by U.S. local, city and state governments, instrumentalities and agencies.~~
- ~~Western may invest up to 10%20% of the portfolio in non-USD denominated securities. and Up to 5%20% of the portfolio may be invested in non-USD exposure via unhedged non-USD denominated securities and foreign currency transactions. The pPortfolio may take currency positions unrelated to underlying portfolio holdings. invest in non-USD~~
- ~~Non-dollar securities may be held on a currency hedged or un-hedged basis. Moreover, The portfolio may invest in currency exchange transactions on a spot or forward basis. Both long and short currency exposures are permissible.~~
- Western will net within currencies and the resulting value will contribute to the max percentage permitted. Both long and short foreign currency positions may be held without owning securities denominated in such currencies.
- ~~Swaps are permitted investments up to a maximum of 5%. Any use of these instruments by Western will be in a non-leveraged manner.~~
- ~~At least 70% of the portfolio will be rated “investment grade.” Security ratings will be determined as follows. If a security is rated by Moody’s, S&P, and Fitch, then the middle rating of the three agencies will apply. In the event that the security is rated by two of the agencies, and the third is non-rated, then the lower rating of the two agencies will apply. If only one agency assigns a rating, then that rating will apply.~~

<del>Standard &amp; Poor's</del>	<del>BBB-, or A-2, or</del>
<del>Moody's</del>	<del>Baa3, or Prime-2, or</del>
<del>Fitch</del>	<del>BBB-, or F-2</del>

- ~~• Securities not covered by these standards will normally be, in the judgment of Western, at least equal in credit quality to the criteria implied in those standards. No more than 5% of the portfolio shall be invested in other unrated securities.~~
- ~~• In the event downgraded securities cause a breach of the Investment Guidelines, Western may continue to hold the positions but will not make any further purchases to increase the position while the breach remains.~~
- Western may invest up to 20% of the portfolio in Securities defined under private placements, including those issued pursuant to Rule 144A and Commercial Paper defined under Section /or Reg S and 4(2) of the Securities Act of 1933; commercial paper, the liquidity of which Western deems consistent with legal final maturities of 270 days or less, Western may use the underlying credit's short term ratings as proxy for establishing the minimum credit requirement the Portfolio's investment objective.
- Western may invest up to 5% of the portfolio in U.S. and non-U.S. preferred and perpetual securities.
- Western will maintain an average weighted credit quality of not more than 4 rating notches below the benchmark's average weighted credit quality, at all times. For the avoidance of doubt, if the benchmark is rated AA-, then 4 notches below would be BBB+.
  - Ratings method: The ratings method of the portfolio, including to test both the benchmark's average credit rating and the portfolio's average credit rating, will be "split to the highest rating" of the three major rating agencies (S&P, Moody's, Fitch), for unrated ok to use Manager's internally generated rating.
- Investment in mortgage interest only (IO), principal only (PO), inverse floaters or other CMO derivatives that have highly uncertain or volatile duration or price movements are limited to 5% of the market value of the portfolio.
- All percentage limits refer to "at time of purchase."

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the ~~fund~~Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

### Reporting Requirements

## C.2

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA’s Investment Consultant.
- Quarterly – Same as monthly plus written certification of compliance with guidelines, performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA’s Retirement Administrator and MCERA’s Investment Consultant.
- Review every month transaction data with custodian reports, and communicate and resolve any significant discrepancies with the custodian.
- Western will meet with the MCERA Board ~~and/or Investment Committee~~ as often as deemed necessary by MCERA. One of the lead portfolio managers will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- Western will keep MCERA apprised of relevant information regarding its organization and personnel. Western will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**GLOBAL FIXED INCOME  
STATEMENT OF OBJECTIVES, GUIDELINES, AND PROCEDURES**

Investment Approach

~~Colchester is a value-oriented global fixed income manager. Colchester will invest primarily in high quality sovereign bond markets that offer attractive yields and sound finances.~~

MCERA Performance Objectives

- ~~Exceed the return, net of management fees, of the FTSE World Government Bond Index (USD Unhedged) over a complete market cycle.~~
- ~~Perform in the top half of a peer universe of global fixed income managers over a complete market cycle.~~

Investment Guidelines

- ~~MCERA is responsible for determining that its investment in Colchester's Global Bond Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. Colchester shall invest within the scope of its style as stated in the governing documents for the Global Bond Fund.~~

~~Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.~~

Reporting Requirements

- ~~Monthly—Asset (portfolio) statement and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.~~
- ~~Quarterly—Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs (to be provided annually). These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.~~
- ~~Colchester will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of Colchester will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.~~

## C.2

- Colchester will keep MCERA apprised of relevant information regarding its organization and personnel. Colchester will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 109****BLACKROCK****US TREASURY INFLATION PROTECTED SECURITIES FUND  
STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**Investment Approach

The objectives of the US Treasury Inflation Protected Securities Fund are to provide returns consistent with the US TIPS market as measured by the Bloomberg US TIPS Index.

MCERA Performance Objectives

- Match the return as closely as practicable, gross of management fees, of the Bloomberg US TIPS Index over a complete market cycle.
- Minimize tracking error relative to the Bloomberg US TIPS Index.

Investment Guidelines

- MCERA is responsible for determining that its investment in the US Treasury Inflation Protected Securities Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. BlackRock shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus, performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- BlackRock will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of BlackRock will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

## C.2

- BlackRock will keep MCERA apprised of relevant information regarding its organization and personnel. BlackRock will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 1110**  
**INVESCO**  
**BALANCED-RISK COMMODITY**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

The Invesco Balanced-Risk Commodity strategy uses an active approach to commodity investing due to some of the unique return sources available in the commodity markets. The investment strategy focuses on four key drivers of commodity returns: term structure weighting, equal risk contribution, optimal roll, and tactical allocation.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the Bloomberg Commodities Index over a complete market cycle.
- Perform in the top half of a peer universe of commodity managers over a complete market cycle.

**Investment Guidelines**

- MCERA is responsible for determining that its investment in Invesco's Balanced-Risk Commodity Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. Invesco shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

**Reporting Requirements**

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- Invesco will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of Invesco will be available to meet with MCERA



## C.2

annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

- Invesco will keep MCERA apprised of relevant information regarding its organization and personnel. Invesco will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 1211**  
**KBI GLOBAL INVESTORS**  
**GLOBAL RESOURCE SOLUTIONS**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

KBI Global Investors' (KBIGI) Global Resource Solutions strategy invests in companies providing solutions to the greatest global resource challenges. There are compelling investment opportunities in companies providing solutions to resource scarcity across water, food and energy.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the S&P Global Natural Resources Index over a complete market cycle.

**Investment Guidelines**

- MCERA is responsible for determining that its investment in the KBIGI Global Resource Solutions Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. KBIGI shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

**Reporting Requirements**

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- KBIGI will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of KBIGI will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

## C.2

- KBIGI will keep MCERA apprised of relevant information regarding its organization and personnel. KBIGI will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 1312****BLACKROCK****REIT INDEX FUND****STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES****Investment Approach**

The objectives of the REIT Index Fund are to provide returns consistent with the US REIT market as measured by the Dow Jones US Select Real Estate Securities Index.

**MCERA Performance Objectives**

- Match the return as closely as practicable, gross of management fees, of the Dow Jones US Select Real Estate Securities Index over a complete market cycle.
- Minimize tracking error relative to the Dow Jones US Select Real Estate Securities Index.

**Investment Guidelines**

- MCERA is responsible for determining that its investment in the REIT Index Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. BlackRock shall invest within the scope of its style as stated in the governing documents for the fund.

Any material violation of these Investment Manager Guidelines is to be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

**Reporting Requirements**

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio and benchmark for the month will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio and benchmark for the quarter, year-to-date, one year, three years, five years and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- BlackRock will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. A representative of BlackRock will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

## C.2

- BlackRock will keep MCERA apprised of relevant information regarding its organization and personnel. BlackRock will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 1413**  
**UBS**  
**CORE REAL ESTATE**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

UBS Trumbull Property Fund is an open-ended core real estate commingled fund. UBS strives to invest predominantly in income producing properties diversified by both geographical region and by property type.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the NCREIF Open-Ended Core Diversified Equity (ODCE) Index over a complete market cycle.
- Perform in the top half of a peer universe of Open-Ended Core Real Estate managers over a complete market cycle.

**Investment Guidelines**

- MCERA is responsible for determining that its investment in the UBS Trumbull Property Fund is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. UBS shall invest within the scope of its style as stated in the governing documents for the UBS Trumbull Property Fund.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

**Reporting Requirements**

- Quarterly – Performance of the portfolio and benchmark for the quarter, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- UBS will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. Members of the investment team will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- UBS will keep MCERA apprised of relevant information regarding its organization and personnel. UBS will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX B - 1514**  
**AEW CAPITAL MANAGEMENT**  
**CORE REAL ESTATE**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

AEW Core Property Trust is an open-ended core real estate commingled fund. AEW strives to invest predominantly in income producing properties diversified by both geographical region and by property type.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the NCREIF Open-Ended Core Diversified Equity (ODCE) Index over a complete market cycle.
- Perform in the top half of a peer universe of Open-Ended Core Real Estate managers over a complete market cycle.

**Investment Guidelines**

- MCERA is responsible for determining that its investment in the AEW Core Property Trust is in compliance with its Investment Guidelines (other than this document) for the Marin County Employees' Retirement Association. AEW shall invest within the scope of its style as stated in the governing documents for the AEW Core Property Trust.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

**Reporting Requirements**

- Quarterly – Performance of the portfolio and benchmark for the quarter, one year, three years, five years and since inception. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- AEW will meet with the MCERA Board and/or Investment Committee as often as deemed necessary by MCERA. Members of the investment team will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- AEW will keep MCERA apprised of relevant information regarding its organization and personnel. AEW will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX B-1615**  
**CARVAL INVESTORS**  
**CREDIT VALUE FUND V LP**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

CarVal Investors Credit Value Fund V LP is a closed-end fund that will make investments in distressed and credit-intensive assets within loan portfolios, corporate securities, structured credit, hard assets, and special opportunities.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the S&P/LSTA Leveraged Loan Index + 250 basis points over a complete market cycle.

**Investment Guidelines**

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.

**Reporting Requirements**

- Reporting requirements will be governed by the Partnership's legal documentation.
- A representative of CarVal will generally be available to meet or have discussions with MCERA, the Board of Retirement and/or Investment Committee, or their designee(s) as reasonably necessary to review the portfolio and its performance.

Any and all legal obligations related to MCERA's investment in the Partnership would be governed by the Partnership's legal documentation, notwithstanding anything in this Investment Policy Statement and any related appendices to the contrary.



**APPENDIX B-1716**  
**FORTRESS INVESTMENT GROUP**  
**FORTRESS CREDIT OPPORTUNITIES FUNDS V EXPANSION**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

Fortress Credit Opportunities Funds V Expansion is a closed-end fund that will make investments in a range of distressed and undervalued credit investments.

**MCERA Performance Objectives**

- Exceed the return, net of management fees, of the S&P/LSTA Leveraged Loan Index + 250 basis points over a complete market cycle.

**Investment Guidelines**

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.

**Reporting Requirements**

- Reporting requirements will be governed by the Partnership's legal documentation.
- A representative of Fortress will generally be available to meet or have discussions with MCERA, the Board of Retirement and/or Investment Committee, or their designee(s) as reasonably necessary to review the portfolio and its performance.

Any and all legal obligations related to MCERA's investment in the Partnership would be governed by the Partnership's legal documentation, notwithstanding anything in this Investment Policy Statement and any related appendices to the contrary.

**APPENDIX B-1817**  
**VÄRDE MANAGEMENT, L.P**  
**THE VÄRDE DISLOCATION FUND**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

Investment Approach

The Värde Dislocation Fund is a closed-end fund that will make investments in a broad universe of mispriced, stressed, and distressed credit opportunities.

MCERA Performance Objectives

- Exceed the return, net of management fees, of the S&P/LSTA Leveraged Loan Index + 250 basis points over a complete market cycle.

Investment Guidelines

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.

Reporting Requirements

- Reporting requirements will be governed by the Partnership's legal documentation.
- A representative of Värde will generally be available to meet or have discussions with MCERA, the Board of Retirement and/or Investment Committee, or their designee(s) as reasonably necessary to review the portfolio and its performance.

Any and all legal obligations related to MCERA's investment in the Partnership would be governed by the Partnership's legal documentation, notwithstanding anything in this Investment Policy Statement and any related appendices to the contrary.

**APPENDIX B - 1918**  
**PARAMETRIC PORTFOLIO ASSOCIATES**  
**POLICY IMPLEMENTATION OVERLAY SERVICE**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

Parametric Portfolio Associates will use futures contracts to “securitize” cash investments in the portfolio, bridge exposure gaps during transitions, and to rebalance portfolio exposures.

**MCERA Performance Objectives**

- Produce returns approximately equal to the Fund’s guideline-based overlay portfolio benchmark.

**Investment Guidelines**

- All investments are subject to compliance with the Investment Policies, Objectives and Guidelines for the Marin County Employees’ Retirement Association, with applicable State and Federal statutes, and shall be managed in a diversified and prudent manner. The manager shall invest within the scope of their stated style.
- Security selection and timing of purchase and sales are delegated to the manager subject to the investment management contract.
- The following transactions are prohibited: writing options other than covered options, and “prohibited transactions” as defined under the Employee Retirement Income Security Act (ERISA).
- Transactions shall be executed on the basis of “best price and execution” for the sole benefit of the Marin County Employees’ Retirement Association’s beneficiaries.
- Futures contracts, including short positions, are permitted in order to “securitize” existing cash positions, bridge exposure gaps during transitions, and to rebalance portfolio exposures. Futures are not to be used for speculative purposes.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery. A realized loss to the Fund resulting from a material violation of these Investment Manager Guidelines will require reimbursement of the amount of the loss by the manager.

### Reporting Requirements

- Monthly – Transaction statement, asset (portfolio) statement, and performance for the portfolio will be sent to the MCERA Retirement Administrator and MCERA's Investment Consultant.
- Quarterly – Same as monthly plus performance of the portfolio for the quarter, year-to-date and since inception, and review of transactions costs. These will be sent to MCERA's Retirement Administrator and MCERA's Investment Consultant.
- Review every month transaction data with custodian reports, and communicate and resolve any significant discrepancies with the custodian.
- Parametric Portfolio Associates will meet with the MCERA Board and/or the Investment Committee as often as deemed necessary by MCERA. One of the lead portfolio managers will be available to meet with MCERA annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.
- Parametric Portfolio Associates will keep MCERA apprised of relevant information regarding its organization and personnel. Parametric Portfolio Associates will notify MCERA within 24 hours of any change in the lead personnel assigned to manage the account.

**APPENDIX C-1**  
**PATHWAY CAPITAL MANAGEMENT**  
**PATHWAY PRIVATE EQUITY FUND 2008 (PPEF 2008)**  
**PATHWAY PRIVATE EQUITY FUND INVESTORS 7 (PPEF I-7)**  
**PATHWAY PRIVATE EQUITY FUND INVESTORS 8 (PPEF I-8)**  
**PATHWAY PRIVATE EQUITY FUND INVESTORS 9 (PPEF I-9)**  
**PATHWAY PRIVATE EQUITY FUND INVESTORS 10 (PPEF I-10)**  
**PATHWAY PRIVATE EQUITY FUND INVESTORS 11 (PPEF I-11)**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

The Partnership's investment strategy is to create a diversified portfolio of private equity funds that pursue a variety of investment strategies, including but not limited to, buyouts, venture capital, and special situations.

**MCERA Performance Objectives**

- Produce returns approximately equal to or in excess of the Refinitiv/Cambridge (All Regions) All Private Equity Index as provided and set forth in the legal documentation of the Partnership.

**Investment and other Guidelines**

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.
- The investment manager shall at all times be a SEC-Registered Investment Advisor under the Investment Advisors Action of 1940, as amended.

**Reporting Requirements**

- Reporting requirements will be governed by the Partnership's legal documentation.
- The investment manager shall meet or shall cause the General Partner of the Partnership to meet with the Board and/or the Investment Committee or their designee(s) annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

**APPENDIX C-2**  
**ABBOTT CAPITAL MANAGEMENT**  
**ABBOTT PRIVATE EQUITY FUND VI, LP (ACE VI)**  
**ABBOTT PRIVATE EQUITY FUND VII, LP (ACE VII)**  
**ABBOTT ANNUAL PROGRAM 2016, LP (AP 2016)**  
**ABBOTT ANNUAL PROGRAM 2017, LP (AP 2017)**  
**ABBOTT ANNUAL PROGRAM 2021, LP (AP 2021)**  
**ABBOTT ANNUAL PROGRAM 2023, LP (AP 2023)**  
**STATEMENT OF OBJECTIVES, GUIDELINES & PROCEDURES**

**Investment Approach**

The Partnership's investment strategy is to create a diversified portfolio of private equity funds that pursue a variety of investment strategies, including but not limited to growth equity buyouts, venture capital, and special situations.

**MCERA Performance Objectives**

- Produce returns approximately equal to or in excess of the Refinitiv/Cambridge (All Regions) All Private Equity Index as provided and set forth in the legal documentation of the Partnership.

**Investment and other Guidelines**

- All investments are subject to compliance with the investment management style concepts and principles set forth in the legal documentation of the Partnership.
- The investment manager shall at all times be a SEC-Registered Investment Advisor under the Investment Advisors Action of 1940, as amended.

Any material violation of these Investment Manager Guidelines shall be corrected immediately upon discovery.

**Reporting Requirements**

- Reporting requirements will be governed by the Partnership' legal documentation.
- The investment manager shall meet or shall cause the General Partner of the Partnership to meet with the Board, and/or the Investment Committee, or their designee(s) annually, or more often if deemed necessary by MCERA, to review the portfolio and its performance.

**APPENDIX D**  
**RESOLUTION 2010/11-03**  
**MARIN COUNTY EMPLOYEES' RETIREMENT ASSOCIATION (MCERA)**  
**PLACEMENT AGENT PAYMENT DISCLOSURE RESOLUTION AND POLICY**

**Adopted: December 9, 2009**  
**Amended: February 9, 2011**  
**Amended: November 2, 2011**  
**Reviewed: May 6, 2015**  
**Reviewed: May 9, 2018**  
**Amended: May 5, 2021**

WHEREAS, California Government Code section 7513.85, chaptered on October 11, 2009 to be effective immediately ("Section 7513.85"), requires all California public retirement systems to develop and implement, on or before June 30, 2010, a policy requiring the disclosure of payments to placement agents made in connection with system investments in or through external managers ("Placement Agent Payment Disclosure Policy" or "Policy").

WHEREAS, placement agent as described in this Policy includes all those identified in California Government Code section 7513.8, as amended.

WHEREAS, the Board of Retirement ("Board") of the Marin County Employees' Retirement Association ("MCERA") has determined, upon the recommendation of the MCERA Governance Committee, that adoption of a Placement Agent Payment Disclosure Policy is consistent with the Board's fiduciary responsibilities.

WHEREAS, Section 7513.85 requires the Placement Agent Payment Disclosure Policy to include, but not be limited to, six of the requirements enumerated in the Policy, and new California Government Code section 7513.9 requires additional disclosures that also are enumerated in this Policy.

WHEREAS, the MCERA Governance Committee has recommended, and the Board has determined, that the Placement Agent Payment Disclosure Policy or similar acknowledgement must be agreed to in writing, and a report shall be filed annually, by all of MCERA's current and future external investment managers.

WHEREAS, in compliance with Section 7513.85, any external investment manager or Placement Agent that violates this Policy shall not solicit new investments from MCERA for five years after the violation is committed, unless the Board decides, in open session by majority vote, to waive the five year prohibition upon a showing of good cause.

WHEREAS, the Board reserves the right to impose an additional penalty of a fine on a external investment manager who violates this Policy, and does not establish good cause therefore to the reasonable satisfaction of the Board; provided, however, that said fine may not exceed the fees due from MCERA to the manager from the date of the violation to the date of the fee's imposition.

## C.2

NOW, THEREFORE, BE IT RESOLVED, THAT:

Prior to MCERA investing with any external investment manager, and contemporaneous with required annual filings of Statements of Economic Interests (Form 700) or similar disclosures with respect to all MCERA existing external investment managers, MCERA shall be provided with a written representation from the investment manager, in a form acceptable to MCERA's legal counsel, stating that (1) the external investment manager agrees with the disclosure and penalty provisions set forth in this Policy and (2) it has not used a Placement Agent in connection with MCERA's investment, or if the manager has used a Placement Agent, it will disclose the following:

1. The name of the Placement Agent(s) and the relationship between the external investment manager and Placement Agent(s).
2. A resume for each officer, partner, or principal of the Placement Agent detailing the person's education, professional designations, regulatory licenses, and investment and work experience.
3. A description of any and all compensation of any kind provided, or agreed to be provided, to the Placement Agent.
4. A representation that the compensation provided is the sole obligation of the external investment manager and not of MCERA or the limited partnership.
5. A description of the services performed, and to be performed, by the Placement Agent.
6. A statement whether the Placement Agent, or any of its affiliates, are registered with the Securities and Exchange Commission or the Financial Industry Regulatory Association, or any similar regulatory agent in a country other than the United States, and the details of that registration or explanation as to why no registration is required.
7. A statement whether the Placement Agent, or any of its affiliates, is registered as a lobbyist with any state or national government.
8. All campaign contributions made by the Placement Agent to any elected member of the Board, and to any member of the Marin County Board of Supervisors, during the prior 24-month period, which disclosure shall be amended if any campaign contributions are made during the time the Placement Agent is receiving compensation in connection with a system investment.
9. All gifts, as defined in Government Code section 82028, given by the Placement Agent to any member of the Board, or to the Board's investment consultant, during the time the Placement Agent is receiving compensation in connection with a system investment.
10. All current or former MCERA Board members, employees, or consultants or



11. A member of the immediate family of any such person who are either employed or receiving compensation from the Placement Agent.
12. The names of any current or former MCERA Board members, employees, or consultants who suggested the retention of the Placement Agent.

Policy Review

The Board shall review this Placement Agent Payment Disclosure Policy at least every three years to assure its efficacy and relevance. This Policy may be amended from time to time by majority vote of the Board.

Retirement Administrator's Certificate

I, Jeff Wickman, the duly appointed Retirement Administrator of the Marin County Employees' Retirement Association, hereby certify the amendment of this Policy.

Dated: May 5, 2021



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Retirement Administrator

### **C.3 Future Meetings**

This is a discussion with no backup.

Callan

December 7, 2022



**Third Quarter 2022  
Summary Investment  
Presentation**

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**Jim Callahan, CFA**  
President

**Anne Heaphy**  
Senior Vice President

Callan

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## **Economic and Capital Markets Review**

## Equity and Fixed Income Markets Both Fell Again in 3Q22

Negative returns for stocks and bonds at the same time for three quarters are extremely unusual

### Global equity markets down sharply in each quarter, starting with Russian invasion

- Similar impact year-to-date across all equity market segments: developed, emerging, small cap

### Fixed income down with sharply higher inflation and interest rates

- Bloomberg Aggregate: -14.6% year-to-date, worst 9 months ever for the index
- CPI-U: +8.2% for the year ended 3Q22

### Number of times stocks and bonds have been down together

- 38 quarters in almost 100 years, about 10% of the quarters
- But just twice on annual basis

### Inflation spiked to highest rate in decades

### Economic data show growth hit 'pause'

- GDP rose 2.6% in 3Q22 after falling in both 2Q22 and 1Q22; expect another loss in 4Q
- Forecasters have cut growth estimates for 2022 to below 0%, and to 1.5% for 2023.

Returns for Periods ended 9/30/22

	1 Quarter	Year to Date	1 Year	5 Years	10 Years	25 Years
<b>U.S. Equity</b>						
Russell 3000	-4.46	-24.62	-17.63	8.62	11.39	7.48
S&P 500	-4.88	-23.87	-15.47	9.24	11.70	7.45
Russell 2000	-2.19	-25.10	-23.50	3.55	8.55	6.73
<b>Global ex-U.S. Equity</b>						
MSCI World ex USA	-9.20	-26.23	-23.91	-0.39	3.62	3.69
MSCI Emerging Markets	-11.57	-27.16	-28.11	-1.80	1.05	--
MSCI ACWI ex USA Small Cap	-8.37	-29.37	-28.93	-0.56	4.44	5.64
<b>Fixed Income</b>						
Bloomberg Aggregate	-4.75	-14.61	-14.60	-0.27	0.89	4.02
90-day T-Bill	0.46	0.61	0.62	1.15	0.68	1.92
Bloomberg Long Gov/Credit	-9.03	-28.94	-27.41	-1.17	1.35	5.51
Bloomberg Global Agg ex-US	-8.85	-23.88	-24.77	-4.03	-2.39	2.42
<b>Real Estate</b>						
NCREIF Property	3.23	12.25	19.15	9.19	9.76	9.51
FTSE Nareit Equity	-9.94	-28.13	-16.41	2.93	6.26	7.73
<b>Alternatives</b>						
CS Hedge Fund Index	0.35	0.14	1.08	4.53	4.35	5.87
Cambridge Private Equity*	-5.60	-2.04	3.34	18.22	15.90	14.75
Bloomberg Commodity	-4.11	13.57	11.80	6.96	-2.14	1.47
Gold Spot Price	-7.49	-8.56	-4.84	5.41	-0.59	6.62
<b>Inflation - CPI-U</b>	0.17	6.46	8.20	3.76	2.52	2.47

\*Cambridge PE data through 06/30/22.

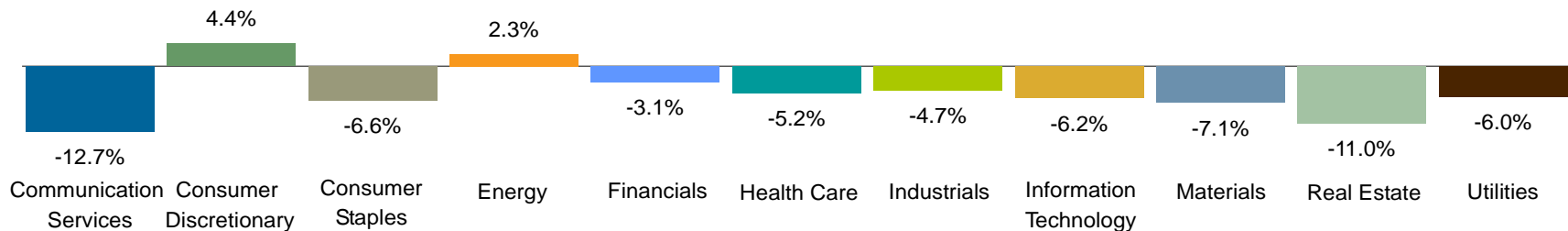
Sources: Bloomberg, Callan, Cambridge, Credit Suisse, FTSE Russell, MSCI, NCREIF, S&P Dow Jones Indices

## U.S. Equity Performance: 3Q22

### Challenging market conditions persist

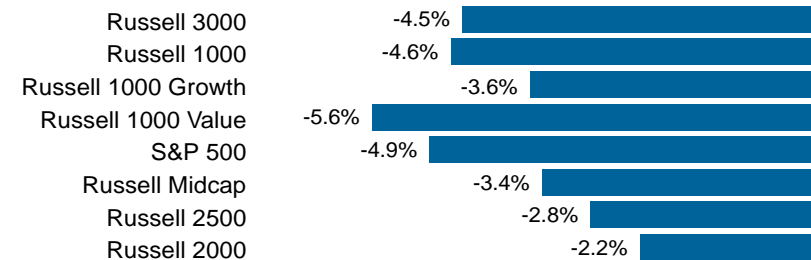
- The S&P 500 Index dropped by 5% in 3Q22; all major U.S. indices across styles and market cap ranges were negative in the quarter, except for the Russell 2000 Growth Index, which was up 0.24%.
- During the quarter, all sectors posted negative returns, except for Energy (+2%) and Consumer Discretionary (+4%). The quarterly return for Consumer Discretionary was aided by an exceptional July in which it was up over 18%. Returns posted by Real Estate and Communication Services were the worst, -11% and -13%, respectively.
- Small cap (Russell 2000) outpaced large cap (Russell 1000) and growth outperformed value during the quarter, a reversal of what we've seen in previous quarters this year.
- Continued concerns around inflation and a potential recession, along with geopolitical headlines, contributed to a volatile and risk-averse environment.

#### Industry Sector Quarterly Performance (S&P 500)

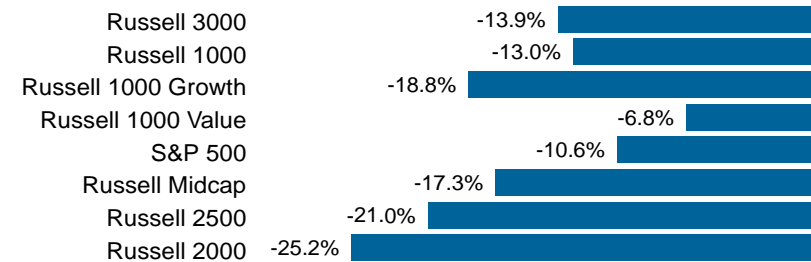


Sources: FTSE Russell, S&P Dow Jones Indices

#### U.S. Equity: Quarterly Returns



#### U.S. Equity: One-Year Returns



## Global/Global ex-U.S. Equity Performance: 3Q22

### Global market turmoil

Global and global ex-U.S. equity markets waned for three consecutive quarters due to inflation, rising rates, and fears of a global recession.

### Geopolitical and macro factors plague the market

- Political instability in Italy and the U.K. as a result of prime minister departures weighed on the market.
  - U.K. equities lost confidence as its newly elected prime minister, Liz Truss, announced her economic policy.
- China's COVID-19 lockdowns and growing concerns around the property sector sapped sentiment and economic activity.

### Growth vs. value

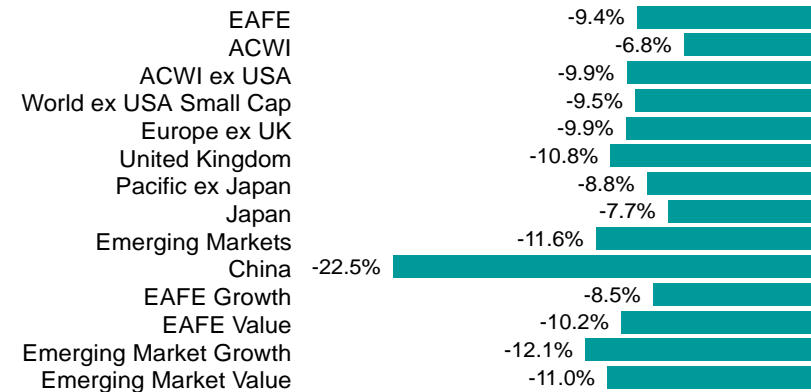
- Growth outpaced value in developed markets but lagged value in emerging markets.
  - Rate-sensitive sectors in developed markets (e.g., Communication Services and Real Estate) were challenged given the tightening cycle by global central banks.
  - Profitability of Chinese internet companies has compressed due to lockdowns and regulation, and cyclical downturn in electronics weakened Taiwan and Korean semiconductors.

### U.S. dollar vs. other currencies

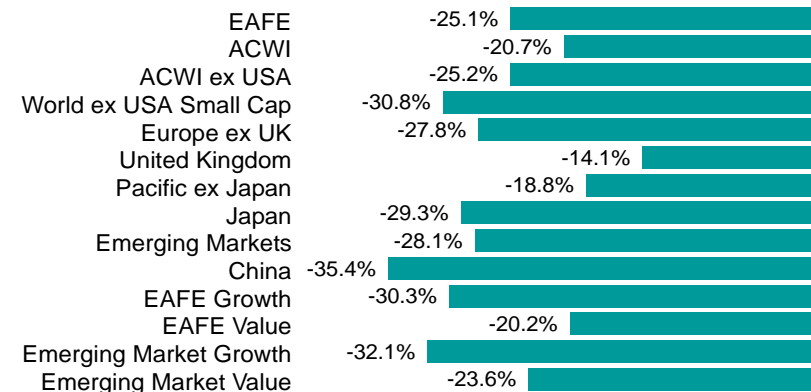
- Growth and interest rate differentials as well as its safe haven status have fueled the U.S. dollar to a multi-decade high.

Source: M&A The dollar gained vs. the euro and the yen by about 6%.

### Global Equity: Quarterly Returns



### Global Equity: One-Year Returns



## U.S. Fixed Income Performance: 3Q22

### Bonds hit hard as rates rose sharply (again)

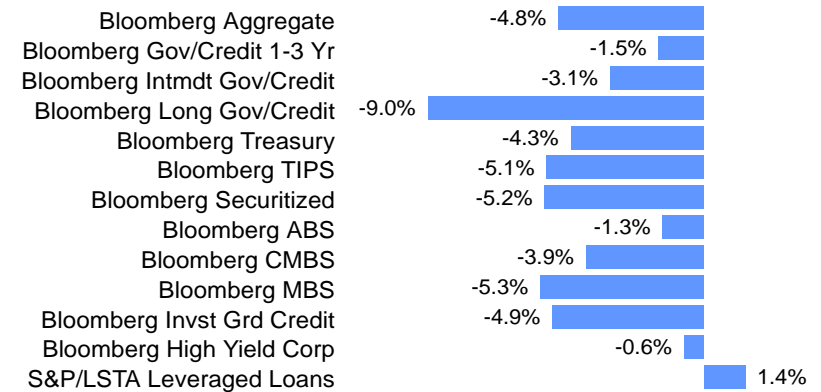
- Bloomberg US Aggregate worst nine-month return in its history
  - As are trailing 1, 3, 5 and 10-year returns!
  - 10-year return for Aggregate a mere 0.9%
- Yield curve inverted at quarter-end; 2-year at 4.22%, 10-year at 3.83%.
- 10-year hit 4% briefly in late September; first time since 2009.
- TIPS underperformed nominal Treasuries and 10-year breakeven spreads fell to 2.11% from 2.33% as of 6/30/22.
- Fed raised rates by 150 bps during the quarter, bringing target to 3.0% to 3.25%.
  - Median expectation from Fed is 4.4% at year-end and 4.6% at the end of 2023.
  - Longer-term expectations are much lower.
- Volatility climbed to levels not seen since early 2020.

### Spread sectors underperformed

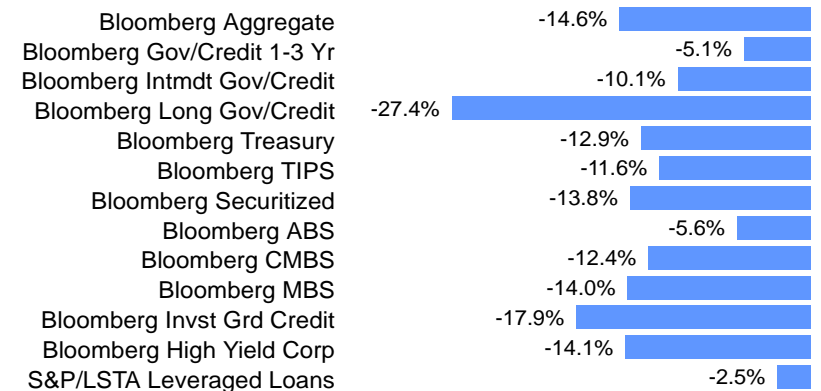
- Mortgages had worst month ever vs. like-duration U.S. Treasuries in September; underperformed by 169 bps for 3Q
- Corporates also produced negative returns; the Bloomberg Corp yield-to-worst reached 5.7%.
- High yield fared better and loans gained.
  - Bloomberg HY Corp yield-to-worst 9.7%

Sources: Bloomberg, S&P Dow Jones Indices

### U.S. Fixed Income: Quarterly Returns



### U.S. Fixed Income: One-Year Returns



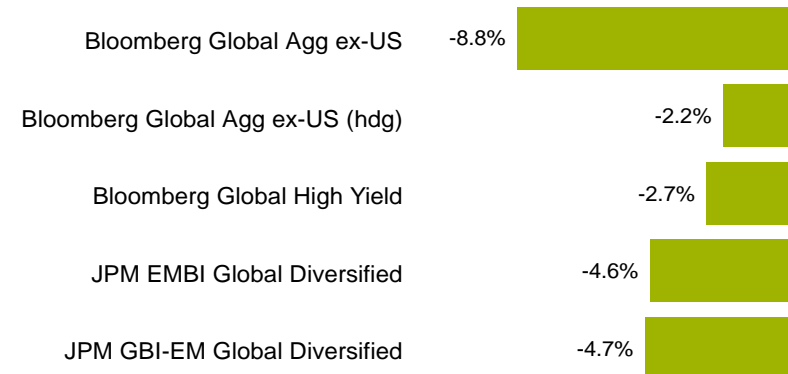


## Global Fixed Income Performance: 3Q22

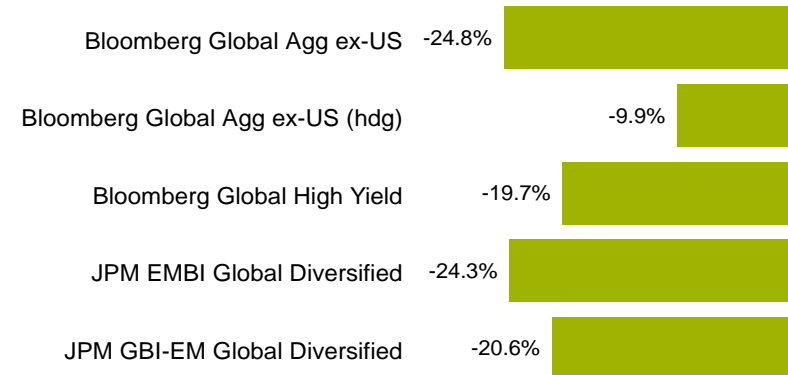
### Negative returns driven by broad interest rate increases

- U.S. dollar continued to appreciate vs yen, euro and pound.
  - Bank of Japan intervened to support currency for the first time since 1998.
  - Pound hit record low vs U.S. dollar.
- Double-digit negative returns were widespread across developed markets.
- Gilts were hard-hit on UK's "mini-budget" fiasco.
  - ICE BofA U.K. Gilts Index -20.6% in 3Q
- Emerging market debt returns also sharply negative
- Most countries in the USD-denominated JPM EMBI Global Diversified Index posted negative returns, hurt by rising rates in the U.S.
- JPM GBI-EM Global Diversified also fell largely due to EM currency depreciation vs. the U.S. dollar.

### Global Fixed Income: Quarterly Returns



### Global Fixed Income: One-Year Returns



Sources: Bloomberg, JP Morgan

## U.S. Private Real Estate Performance: 3Q22

Appreciation returns turn negative, as sector returns are mixed

### Income rose, but appreciation declined

- Income returns were positive across sectors.
- Valuations are reflective of strong fundamentals in Industrial and Apartment and continued uncertainty in Office and Retail.
- Return dispersion by manager within the ODCE Index was due to the composition of underlying portfolios, and increased borrowing costs are impacting values.
- Niche sectors such as self-storage and life sciences continued to be accretive.

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
NCREIF ODCE	0.3%	21.0%	11.4%	9.3%	9.9%
Income	0.6%	2.7%	3.0%	3.1%	3.5%
Appreciation	-0.3%	17.9%	8.2%	6.0%	6.3%
NCREIF Property Index	0.6%	16.1%	9.9%	8.6%	9.5%
Income	0.9%	4.0%	4.2%	4.3%	4.7%
Appreciation	-0.4%	11.8%	5.6%	4.2%	4.6%

Returns are geometrically linked

### NCREIF Property Index Quarterly Returns by Region and Property Type



Source: NCREIF, ODCE return is net

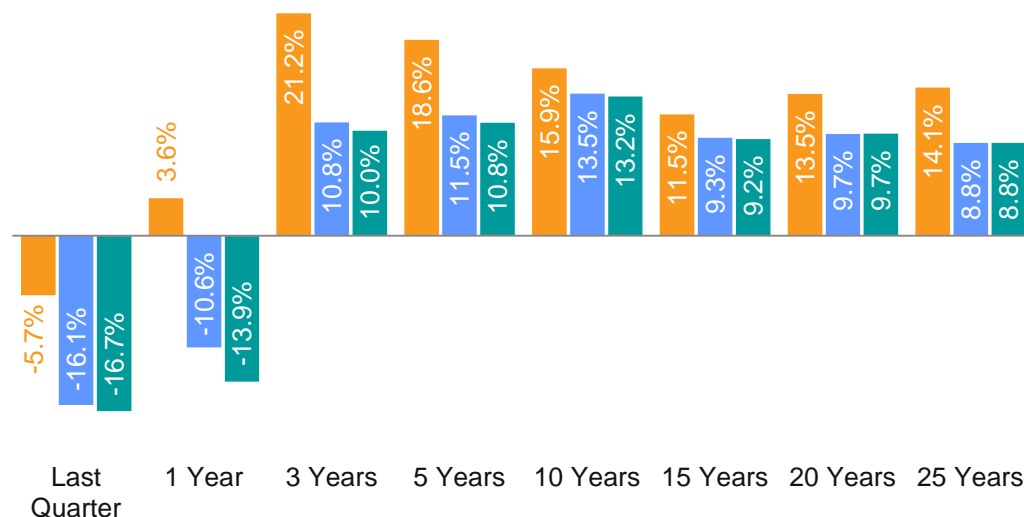
## Private Equity Performance

### Smoothing effect in 2Q22 private equity returns

- As is typical for the asset class, private equity returns have experienced a smoothing effect in 2022 compared to the sharp declines seen in the public markets.
- Private equity only down about a third as much as the public markets during 2Q22, on a PME basis.
- Portfolio companies are typically valued internally by the manager on a quarterly basis. Valuations are based on the operating metrics of the company, recent comparable transactions, and public market comps.
- Venture capital and growth equity experienced the sharpest declines so far this year, given their technology focus as well as post-IPO public equity holdings.

Net IRRs as of 06/30/22

Private Equity S&P 500 PME



Net IRRs by Strategy as of 06/30/22

Strategy	Last Quarter	1 Year	3 Years	5 Years	10 Years	20 Years
Venture Capital	-8.54	0.77	29.19	25.16	19.53	12.14
Growth Equity	-7.65	-3.13	21.41	19.68	16.12	14.06
Buyouts	-4.53	5.41	19.69	17.64	15.80	14.52
Mezzanine	-0.51	9.31	12.05	11.89	11.57	11.00
Credit Opportunities	-1.73	5.37	7.92	7.39	8.78	9.78
Control-Oriented Distressed	-1.07	20.46	19.95	14.45	13.35	12.02
<b>Total Private Equity</b>	<b>-5.65</b>	<b>3.56</b>	<b>21.15</b>	<b>18.63</b>	<b>15.93</b>	<b>13.50</b>

Source: Refinitiv/Cambridge

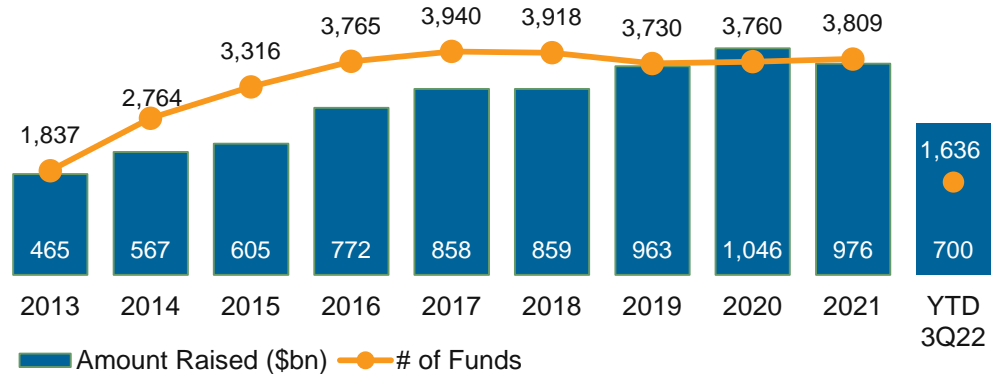
## Private Equity Overview

### Fundraising slows and timelines become extended

#### Fundraising

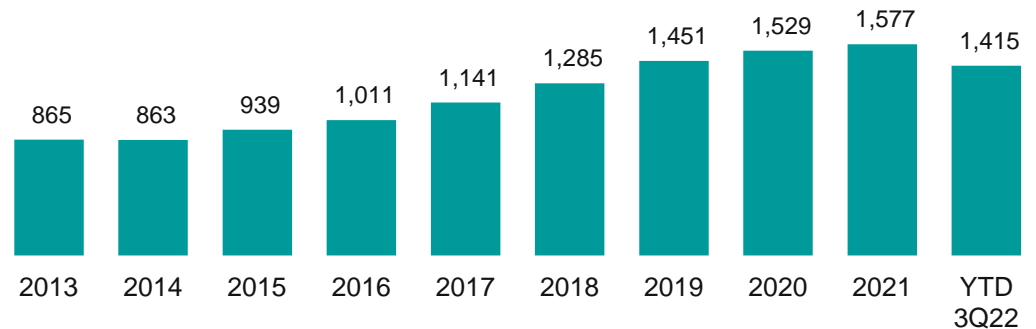
- In terms of dollars raised, fundraising only down 2% so far in 2022, compared to the same point the prior year
- Significantly fewer funds have closed this year, however, with fundraising concentrated in larger funds: “flight to quality”
- Fundraising timelines extending due to so many funds in the market, slowing distributions, and constrained LP commitment budgets because of the “denominator effect,” delaying many final closes

#### Annual Fundraising



#### Dry Powder (\$bn)

Cumulative as of Year-end



Source: PitchBook

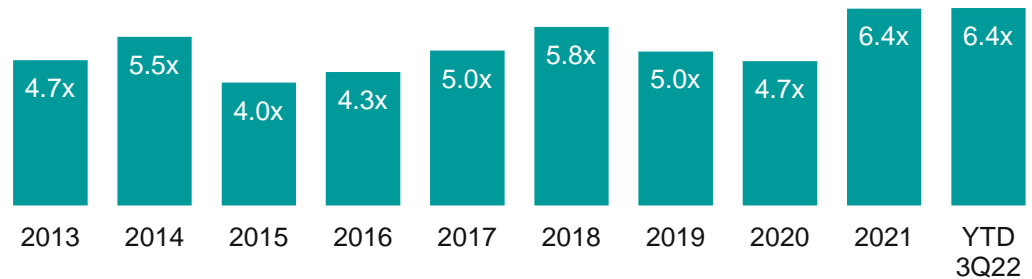
## Private Equity Key Themes

### Investors grappling with 'denominator effect'

#### Denominator effect

- Due to the smoothing effect in short-term private equity performance
- Occurs when public equity allocations drop (pulling down the denominator), but PE allocations do not drop as far (the numerator)
  - Private equity now a larger percentage of a portfolio
- Investors unable to rebalance these illiquid exposures; now overallocated to private equity

#### Debt/EBITDA Multiple



#### Impact of rising rates

- Buyouts typically use a floating rate loan, which means their interest rates have doubled, from 4.8% in February 2022 to 9.8% in September 2022 (PitchBook)
- For buyout deals, rising rates mean managers may have to take the equity component of their deals up to 50%+, to keep interest costs in check
- Debt/EBITDA multiples have remained elevated in 2022 so far at 6.4x, but may come down with further rate hikes

Source: PitchBook

Callan

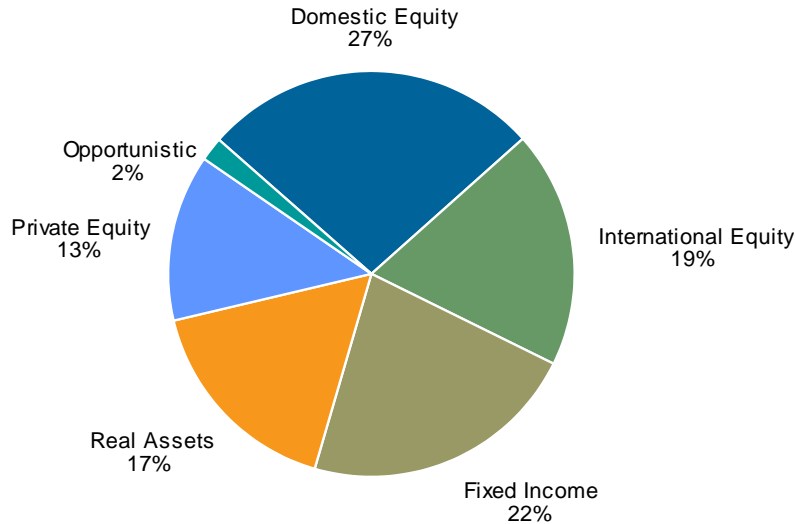
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## **MCERA Total Fund Review**

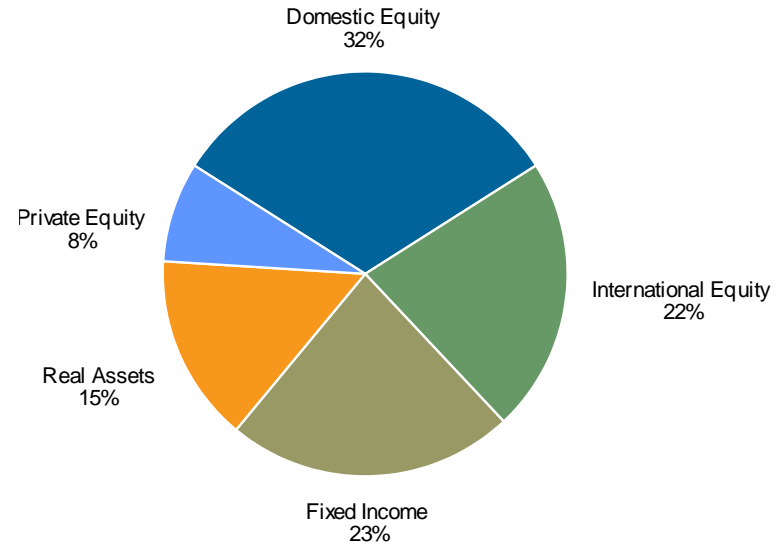
## Total Fund Asset Allocation

As of September 30, 2022

**Actual Asset Allocation**



**Target Asset Allocation**



Asset Class	\$000s Actual	Weight Actual	Min Target	Target	Max Target	Percent Difference	\$000s Difference
Domestic Equity	764,846	26.9%	28.0%	32.0%	36.0%	(5.1%)	(143,399)
International Equity	535,216	18.9%	19.0%	22.0%	25.0%	(3.1%)	(89,202)
Fixed Income	631,469	22.2%	20.0%	23.0%	26.0%	(0.8%)	(21,332)
Real Assets	476,889	16.8%	12.0%	15.0%	18.0%	1.8%	51,150
Private Equity	376,122	13.3%	0.0%	8.0%	12.0%	5.3%	149,061
Opportunistic	53,722	1.9%	0.0%	0.0%	5.0%	1.9%	53,722
Total	2,838,265	100.0%		100.0%			

## Total Fund Asset Distribution

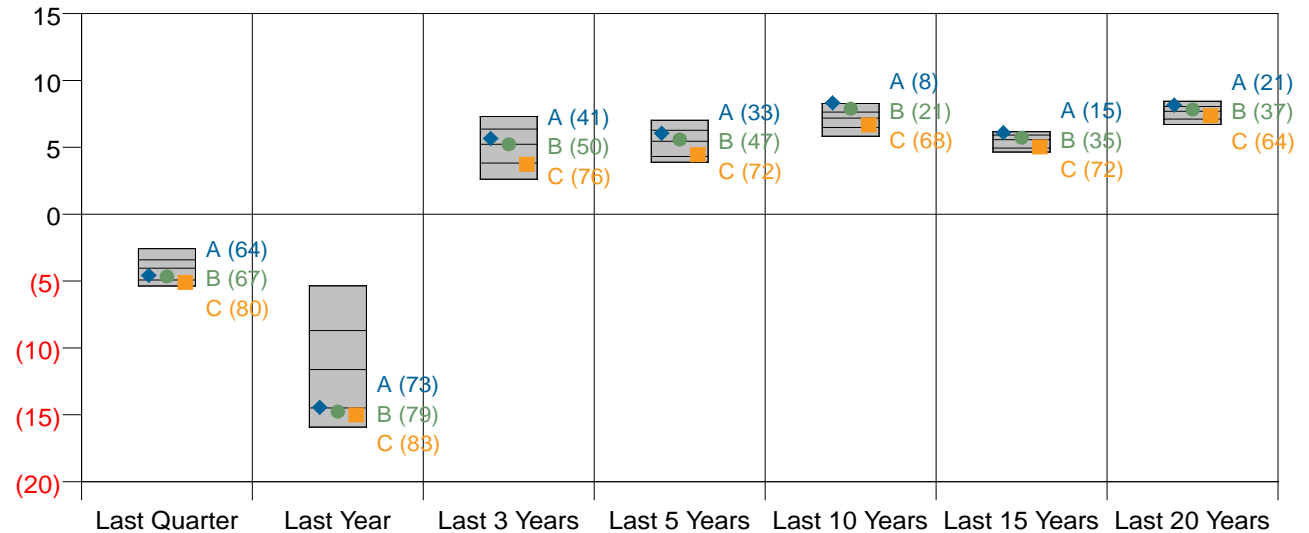
	September 30, 2022			June 30, 2022		
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
<b>Domestic Equity</b>	<b>\$764,846,310</b>	<b>26.95%</b>	<b>\$(18,791,640)</b>	<b>\$(31,881,900)</b>	<b>\$815,519,851</b>	<b>27.22%</b>
Parametric Domestic Equity Futures (1)	-42,267,009	(1.49%)	(15,168,207)	3,923,691	-31,022,493	(1.04%)
SSGA Russell 1000 Index (2)	604,134,366	21.29%	(2,808,807)	(29,050,546)	635,993,719	21.23%
DFA Small Cap Core	202,978,953	7.15%	(814,626)	(6,755,045)	210,548,625	7.03%
<b>International Equity</b>	<b>\$535,216,284</b>	<b>18.86%</b>	<b>\$14,258,792</b>	<b>\$(59,467,336)</b>	<b>\$580,424,828</b>	<b>19.38%</b>
Morgan Stanley Value	154,027,300	5.43%	0	(20,402,402)	174,429,702	5.82%
Artisan Partners Growth	152,986,243	5.39%	0	(13,035,914)	166,022,157	5.54%
TimesSquare Intl Small Cap	84,231,167	2.97%	(204,969)	(7,689,983)	92,126,119	3.08%
FIAM Select Emerging Equity	86,929,384	3.06%	0	(11,862,920)	98,792,303	3.30%
Parametric International Equity Futures	57,042,190	2.01%	14,463,761	(6,476,117)	49,054,546	1.64%
<b>Fixed Income</b>	<b>\$631,469,062</b>	<b>22.25%</b>	<b>\$(8,279,064)</b>	<b>\$(33,270,694)</b>	<b>\$673,018,820</b>	<b>22.47%</b>
Wellington Core Plus	275,696,573	9.71%	(2,566,023)	(12,470,302)	290,732,898	9.71%
Western Intermediate Credit	151,764,554	5.35%	(1,373,224)	(4,380,623)	157,518,401	5.26%
Colchester Global	135,242,015	4.76%	(152,790)	(12,303,796)	147,698,601	4.93%
Parametric Fixed Income Futures	68,765,920	2.42%	(4,187,027)	(4,115,973)	77,068,920	2.57%
<b>Real Assets</b>	<b>\$476,889,377</b>	<b>16.80%</b>	<b>\$(3,580,522)</b>	<b>\$(11,966,403)</b>	<b>\$492,436,302</b>	<b>16.44%</b>
<b>Real Estate</b>	<b>\$271,795,412</b>	<b>9.58%</b>	<b>\$(3,546,943)</b>	<b>\$4,144,581</b>	<b>\$271,197,774</b>	<b>9.05%</b>
Woodmont	18,099,990	0.64%	0	0	18,099,990	0.60%
UBS Trumbull Property Fund	116,910,481	4.12%	(933,919)	20,118	117,824,282	3.93%
AEW Core Property Trust	136,784,941	4.82%	(1,306,482)	2,817,920	135,273,503	4.52%
<b>Public Real Assets</b>	<b>\$205,093,965</b>	<b>7.23%</b>	<b>\$(33,578)</b>	<b>\$(16,110,984)</b>	<b>\$221,238,527</b>	<b>7.39%</b>
INVESCO Commodities Fund	51,507,412	1.81%	(33,578)	(4,849,669)	56,390,659	1.88%
BlackRock TIPS Index Fund	54,720,889	1.93%	0	(2,962,522)	57,683,410	1.93%
KBI Global Resources Fund	49,862,067	1.76%	0	(2,587,708)	52,449,775	1.75%
Blackrock REIT Index Fund	49,003,597	1.73%	0	(5,711,086)	54,714,683	1.83%
<b>Opportunistic (3)</b>	<b>\$53,722,238</b>	<b>1.89%</b>	<b>\$(186,965)</b>	<b>\$1,485,894</b>	<b>\$52,423,308</b>	<b>1.75%</b>
CarVal Credit Value V	15,439,956	0.54%	(55,577)	357,206	15,138,327	0.51%
Fortress Credit Opps Fund V	10,701,104	0.38%	(35,563)	14,777	10,721,890	0.36%
Varde Dislocation Fund	27,581,178	0.97%	(95,825)	1,113,911	26,563,091	0.89%
<b>Private Equity (4)</b>	<b>\$376,121,867</b>	<b>13.25%</b>	<b>\$(5,621,073)</b>	<b>\$(0)</b>	<b>\$381,742,940</b>	<b>12.74%</b>
Abbott ACE VI	42,256,064	1.49%	0	0	42,256,064	1.41%
Abbott ACE VII	46,822,513	1.65%	(3,150,000)	0	49,972,513	1.67%
Abbott 2016	70,631,065	2.49%	(1,050,000)	0	71,681,065	2.39%
Abbott 2017	20,286,319	0.71%	0	0	20,286,319	0.68%
Abbott 2021	7,745,950	0.27%	1,825,000	0	5,920,950	0.20%
Pathway PPEF 2008	52,873,443	1.86%	(1,519,252)	(0)	54,392,695	1.82%
Pathway PE I-7	36,577,382	1.29%	(2,160,774)	0	38,738,156	1.29%
Pathway PE I-8	66,706,928	2.35%	(846,405)	(0)	67,553,333	2.26%
Pathway PE I-9	16,665,335	0.59%	0	0	16,665,335	0.56%
Pathway PE I-10	15,556,867	0.55%	1,280,357	0	14,276,510	0.48%
<b>Total Fund</b>	<b>\$2,838,265,137</b>	<b>100.0%</b>	<b>\$(22,200,471)</b>	<b>\$(135,100,440)</b>	<b>\$2,995,566,049</b>	<b>100.0%</b>



## Total Fund Performance – Annualized

Returns for Periods Ended September 30, 2022

Group: Callan Public Fund Sponsor - Large (>1B)



	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 15 Years	Last 20 Years
10th Percentile	(2.56)	(5.35)	7.31	7.03	8.29	6.18	8.45
25th Percentile	(3.40)	(8.69)	6.38	6.28	7.63	5.92	8.06
Median	(4.04)	(11.60)	5.24	5.46	7.19	5.58	7.70
75th Percentile	(4.92)	(14.48)	3.82	4.33	6.49	4.95	7.12
90th Percentile	(5.36)	(15.92)	2.62	3.89	5.83	4.65	6.72

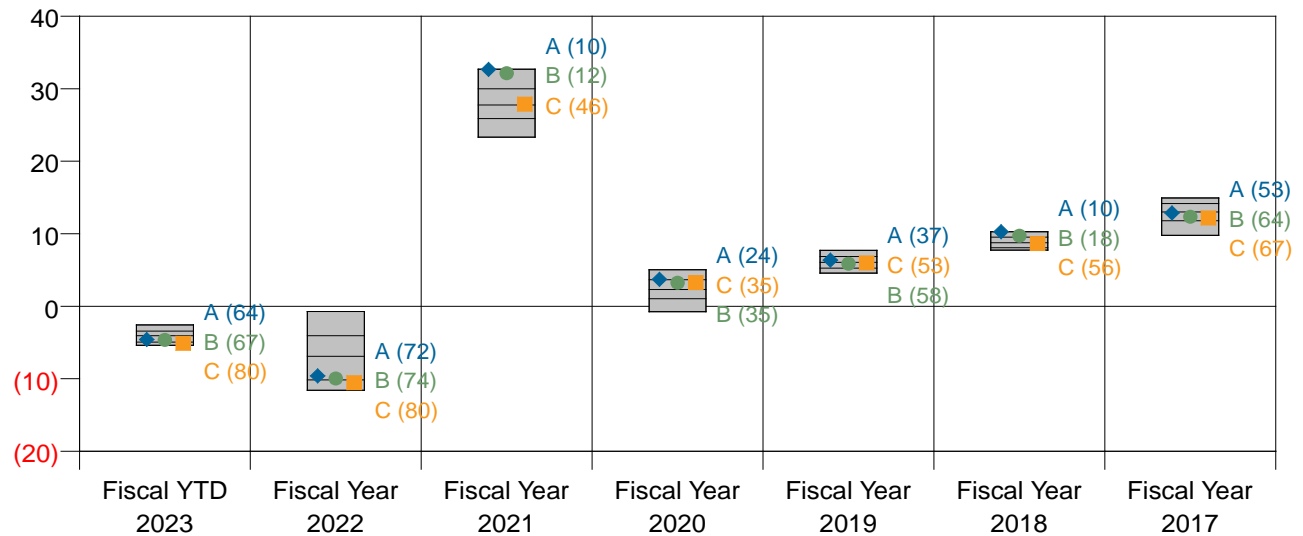
MCERA Total Fund - Gross	◆ A	(4.56)	(14.44)	5.67	6.06	8.33	6.10	8.17
MCERA Total Fund - Net	● B	(4.64)	(14.75)	5.24	5.60	7.89	5.72	7.84
MCERA Total Fund Target	■ C	(5.09)	(15.00)	3.74	4.45	6.69	5.04	7.36

Current Quarter Target = 32.0% Russell 3000 Index, 22.0% MSCI ACWI ex US IMI Index, 11.5% Bloomberg Aggregate Index, 5.8% Bloomberg Intermediate Credit Index, 5.8% FTSE World Government Bond Index, 8.0% NCREIF NFI-ODCE Equal Weight Net, 1.8% Bloomberg Commodity Price Index, 1.8% S&P Global Natural Resources Index, 1.8% S&P DJ US Select REIT Index, 1.8% Bloomberg US TIPS Index, 4.8% Russell 3000 Index (Lagged) and 3.2% MSCI ACWI ex US IMI Index (Lagged).

## Total Fund Performance – Fiscal Year

### Fiscal Year Returns

Group: Callan Public Fund Sponsor - Large (>1B)

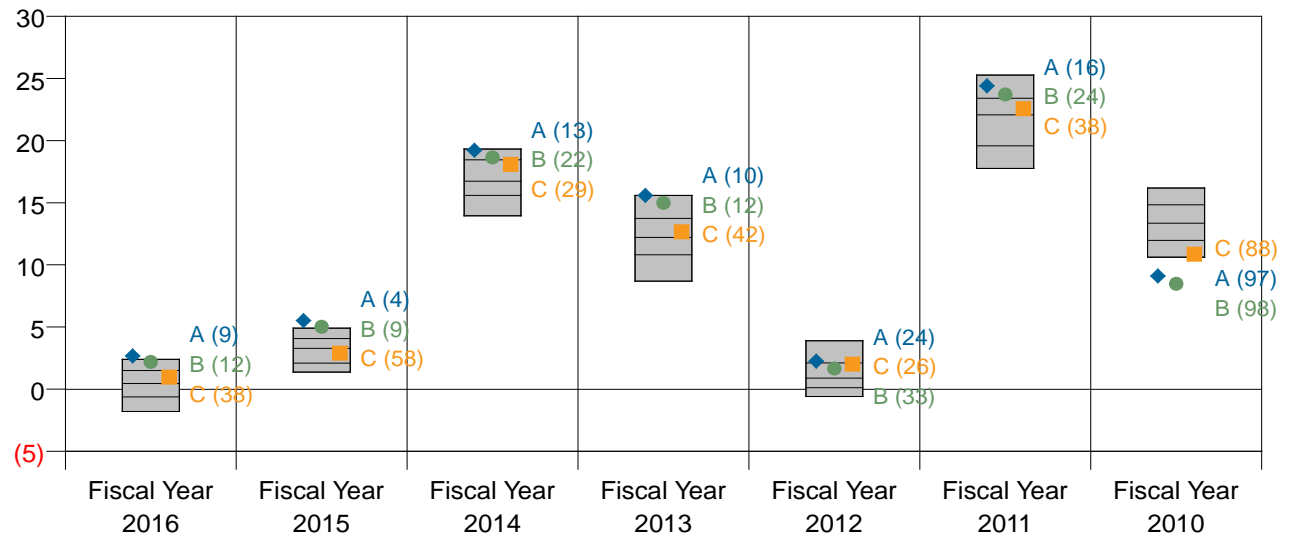


10th Percentile		(2.56)	(0.70)	32.69	5.06	7.73	10.29	14.95
25th Percentile		(3.40)	(4.06)	30.02	3.68	6.86	9.56	14.17
Median		(4.04)	(6.90)	27.78	2.32	6.08	8.79	13.02
75th Percentile		(4.92)	(10.13)	25.89	1.05	5.28	8.07	11.82
90th Percentile		(5.36)	(11.58)	23.33	(0.75)	4.58	7.74	9.78
MCERA Total Fund - Gross	◆ A	(4.56)	(9.59)	32.69	3.74	6.39	10.29	12.88
MCERA Total Fund - Net	● B	(4.64)	(9.94)	32.15	3.26	5.88	9.74	12.37
MCERA Total Fund Target	■ C	(5.09)	(10.52)	27.89	3.29	5.99	8.67	12.20

## Total Fund Performance – Fiscal Year

### Fiscal Year Returns

Group: Callan Public Fund Sponsor - Large (>1B)

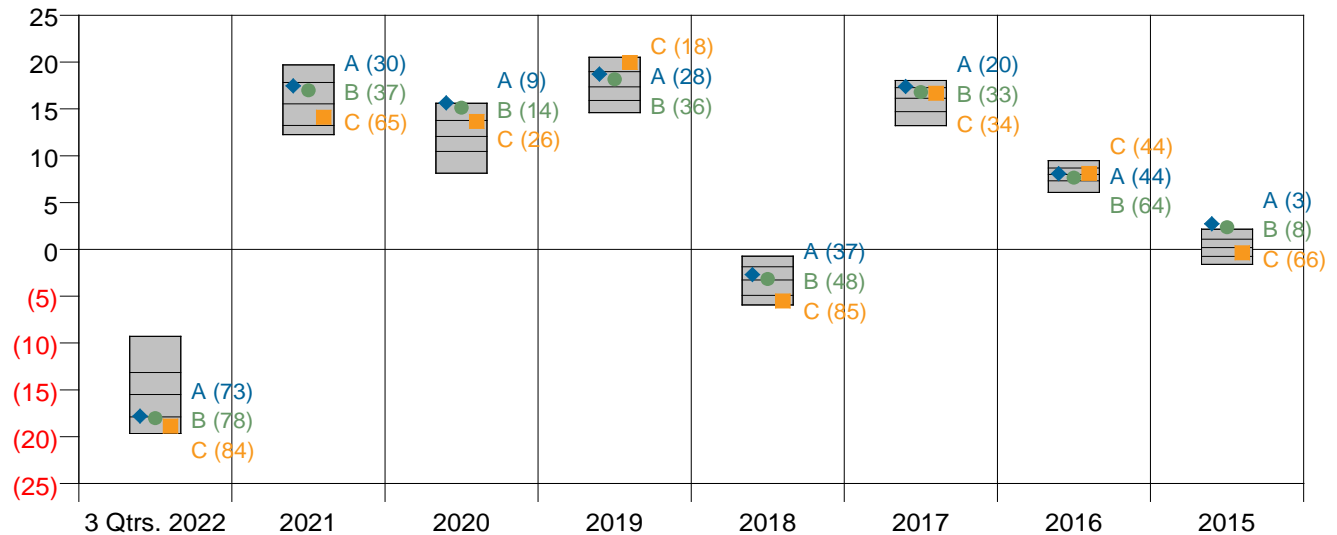


MCERA Total Fund - Gross	◆ A	2.68	5.52	19.22	15.60	2.26	24.42	9.11
MCERA Total Fund - Net	● B	2.19	5.02	18.65	15.01	1.67	23.71	8.49
MCERA Total Fund Target	■ C	0.98	2.91	18.09	12.68	2.02	22.58	10.87

## Total Fund Performance – Calendar Years

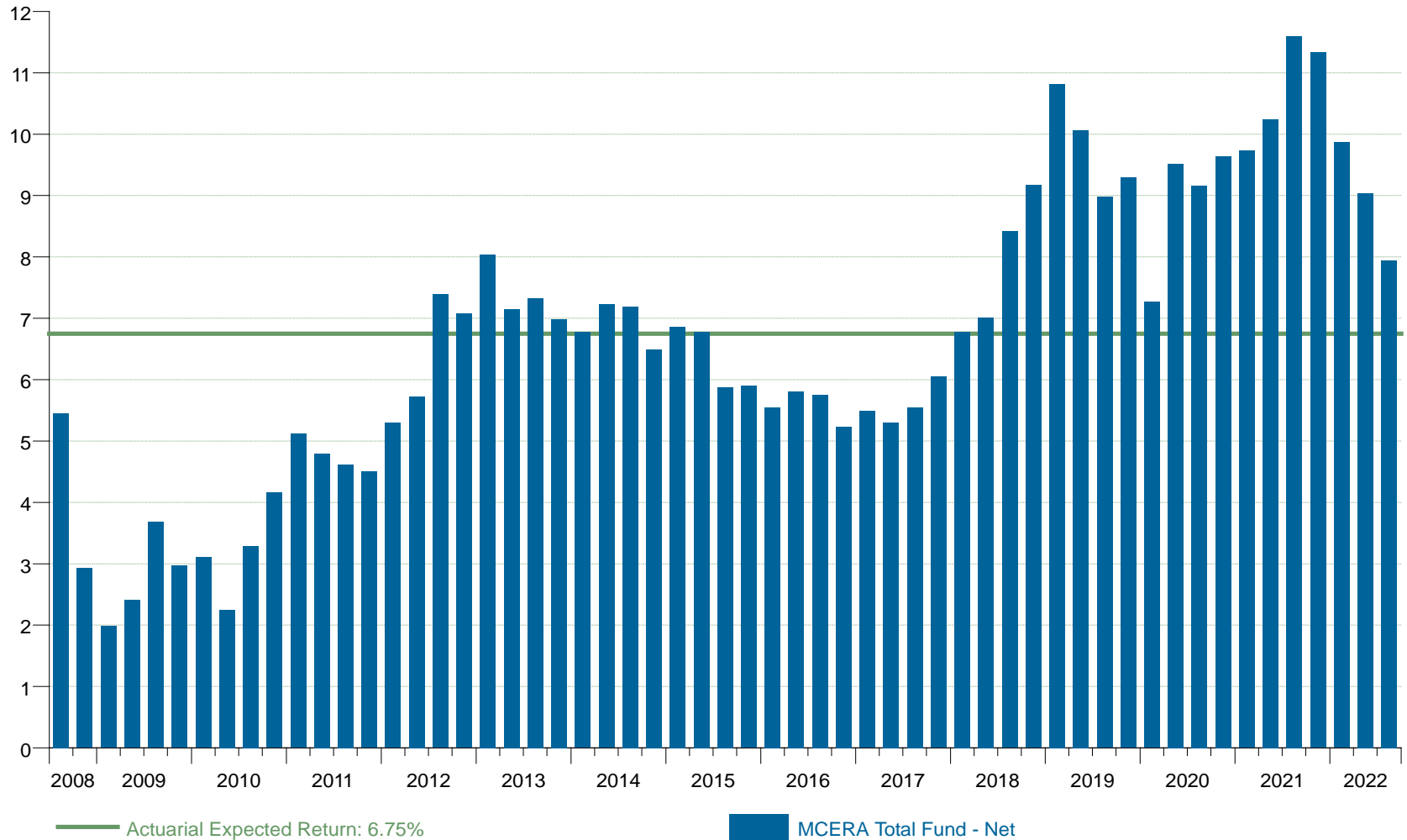
Returns for Periods Ended September 30, 2022

Group: Callan Public Fund Sponsor - Large (>1B)



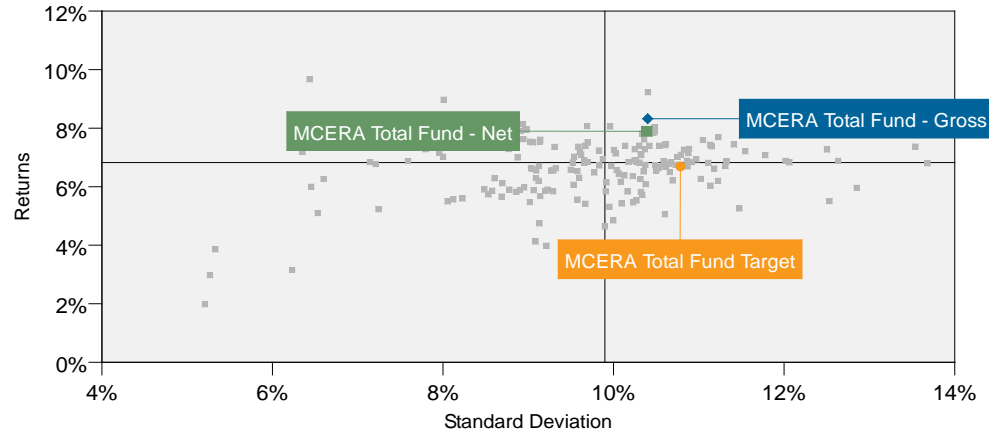
10th Percentile	(9.28)	19.72	15.61	20.52	(0.71)	18.05	9.49	2.17
25th Percentile	(13.14)	17.84	13.77	18.99	(1.84)	17.28	8.71	1.10
Median	(15.48)	15.55	12.08	17.36	(3.26)	16.15	8.02	0.20
75th Percentile	(17.87)	13.26	10.48	15.92	(4.89)	14.72	7.33	(0.73)
90th Percentile	(19.64)	12.26	8.15	14.62	(5.92)	13.22	6.09	(1.59)
Total Fund - Gross	◆ A (17.79)	17.47	15.66	18.73	(2.68)	17.41	8.10	2.73
MCERA Total Fund - Net	● B (18.01)	17.01	15.16	18.19	(3.16)	16.81	7.68	2.37
Total Fund Target	■ C (18.86)	14.12	13.68	19.97	(5.49)	16.68	8.13	(0.34)

## Annualized 10 Year Total Fund Net Returns (Quarterly Roll)

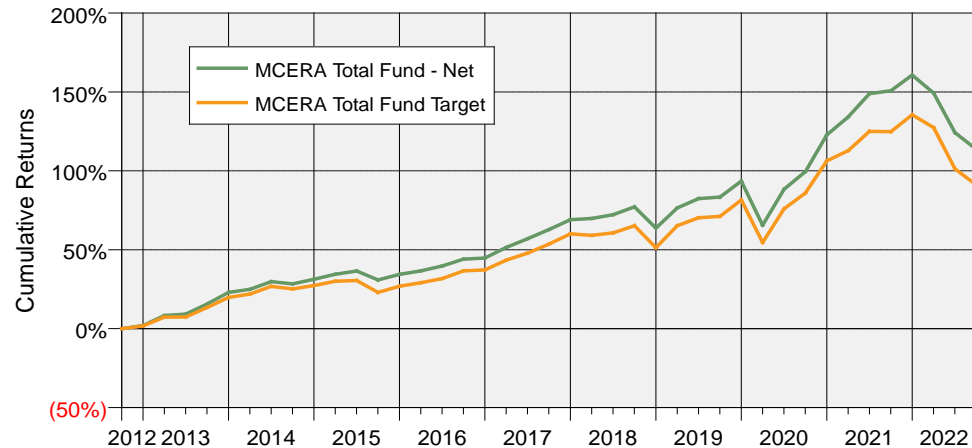


## Total Fund – Cumulative Returns Relative to Target

Ten Year Annualized Risk vs. Return  
As of September 30, 2022



Total Fund Cumulative Returns vs. Target  
10 Years Ended September 30, 2022



## Watchlist

### Investment Manager Monitoring Summary Report Active Managers as of September 30, 2022

Investment Manager	Organization/ Team	3 Year Performance vs Benchmark	3 Year Performance vs Peers	5 Year Performance vs Benchmark	5 Year Performance vs Peers	Qualify for Watchlist?	Date Added
DFA Small Cap Core Equity <i>Russell 2000 Index</i>				N/A	N/A		
Morgan Stanley International Value Equity <i>MSCI EAFE Index</i>						Yes	4Q17
Artisan International Growth Equity <i>MSCI EAFE Index</i>						Yes	4Q17
TimesSquare International Small Cap Equity <i>MSCI EAFE Small Cap Index</i>				N/A	N/A		
Fidelity Emerging Markets Equity <i>MSCI Emerging Markets Index</i>		N/A	N/A	N/A	N/A		
Wellington Core Plus Fixed Income <i>Bloomberg Barclays Aggregate Index</i>						No	
Western Asset Intermediate Credit Fixed Income <i>Bloomberg Barclays Intermediate Credit Index</i>						No	
Colchester Global Fixed Income <i>FTSE World Government Bond Index</i>						Yes	Terminated Oct. 2022
Invesco Balanced Risk Commodity Fund <i>Bloomberg Commodity Index</i>						Yes	4Q20
KBI Global Natural Resources Fund <i>S&amp;P Global Natural Resource Index</i>			N/A		N/A	No	
UBS Trumbull Property Fund* <i>NFI-ODCE Index</i>		N/A	N/A	N/A	N/A	Under Review	4Q19

\*UBS Trumbull Property Fund placed on watch for organizational concerns. Quantitative criteria for private market portfolios under review by Governance Committee.

#### Quantitative Criteria

If a manager trails its relevant benchmark by more than 100 basis points (net of fees) and ranks in the bottom quartile of its peer universe (gross of fees ranking) for the trailing three years, or if a manager trails its relevant benchmark (net of fees) or ranks below median of its peer universe (gross of fees ranking) for the trailing five years, then the manager may be placed on the Watchlist.

#### Color Code

	meets watch list criteria, no concerns, no actions recommended
	concerns exist, no actions recommended
	violates watch list criteria, concerns exist, action to be determined

## Watchlist

Investment Manager	3 Year Net Return Trails Benchmark by more than 100 bps (relative return shown in bps)	AND	3 Year Gross Return Ranks 75th - 100th%	OR	5 Year Net Return Trails Benchmark (relative return shown in bps)	OR	5 Year Gross Return Ranks 50th - 100th%	Qualify for Watchlist (Quantitative)
<b>DFA Small Cap Core Equity</b> <i>Russell 2000 Index</i>	306		25th		N/A		N/A	No
<b>Morgan Stanley International Value Equity</b> <i>MSCI EAFE Index</i>	-87		85th		-57		45th	Yes
<b>Artisan International Growth Equity</b> <i>MSCI EAFE Index</i>	-223		94th		57		55th	Yes
<b>TimesSquare International Small Cap Equity</b> <i>MSCI EAFE Small Cap Index</i>	-344		92nd		N/A		N/A	Yes
<b>Fidelity Emerging Markets Equity</b> <i>MSCI Emerging Markets Index</i>	N/A		N/A		N/A		N/A	No
<b>Wellington Core Plus Fixed Income</b> <i>Bloomberg Barclays Aggregate Index</i>	62		51st		50		48th	No
<b>Western Asset Intermediate Credit Fixed Income</b> <i>Bloomberg Barclays Intermediate Credit Index</i>	89		3rd		45		2nd	No
<b>Colchester Global Fixed Income</b> <i>FTSE World Government Bond Index</i>	68		65th		3		73rd	Yes
<b>Invesco Balanced Risk Commodity Fund</b> <i>Bloomberg Commodity Index</i>	-222		83rd		-125		97th	Yes
<b>KBI Global Natural Resources Fund</b> <i>S&amp;P Global Natural Resource Index</i>	492		N/A		401		N/A	No
<b>UBS Trumbull Property Fund</b> <i>NCREIF NFI-ODCE Index</i>	Quantitative criteria for private markets portfolios under review by Governance Committee. On watch due to organizational changes.							Under Review

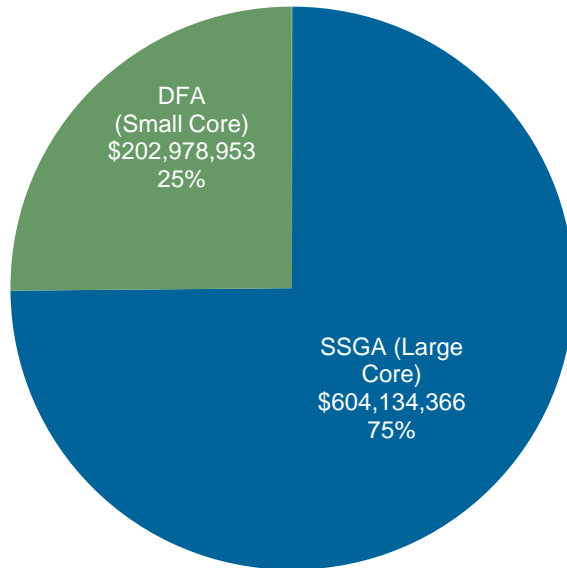


Callan

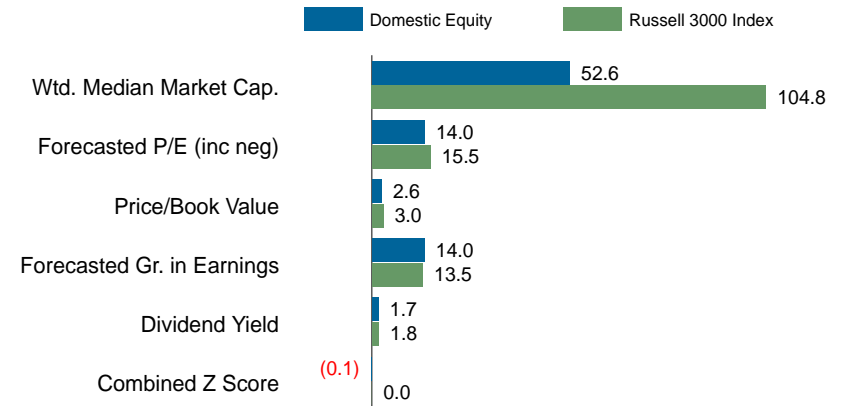
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## **MCERA Asset Class Review**

# Domestic Equity Composite



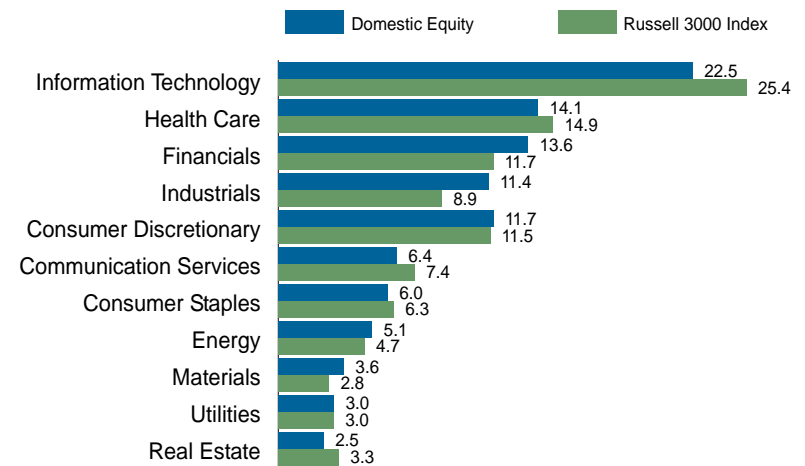
## Portfolio Characteristics as of September 30, 2022



## Style Exposure Matrix Holdings as of September 30, 2022

	-- Domestic Equity				-- Russell 3000 Index			
	Value	Core	Growth	Total	Value	Core	Growth	Total
Large	17.9% (112)	14.2% (81)	30.3% (104)	62.4% (297)	22.4% (112)	17.8% (81)	37.9% (104)	78.0% (297)
Mid	4.6% (170)	5.9% (208)	6.4% (210)	16.8% (588)	5.0% (173)	5.1% (208)	5.2% (213)	15.3% (594)
Small	4.7% (234)	6.9% (373)	5.9% (284)	17.5% (891)	1.6% (303)	2.4% (519)	1.9% (367)	5.9% (1189)
Micro	1.5% (378)	1.1% (267)	0.6% (132)	3.3% (777)	0.2% (261)	0.4% (467)	0.2% (164)	0.8% (892)
Total	28.7% (894)	28.1% (929)	43.2% (730)	100.0% (2553)	29.2% (849)	25.6% (1275)	45.2% (848)	100.0% (2972)

## Sector Allocation as of September 30, 2022



## Domestic Equity Composite

### Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Domestic Equity - Net</b>	<b>(4.13)</b>	<b>(16.81)</b>	<b>8.34</b>	<b>8.56</b>	<b>11.19</b>
Domestic Equity Target	(4.46)	(17.63)	7.70	8.62	11.39
<b>SSGA - Net</b>	<b>(4.61)</b>	<b>(17.16)</b>	<b>7.38</b>	<b>8.76</b>	<b>11.47</b>
Large Cap Blended Benchmark	(4.61)	(17.22)	7.38	8.77	11.46
Ranking vs. Large Cap Equity	47	51	46	49	54
<b>DFA Small Core - Net</b>	<b>(3.32)</b>	<b>(16.29)</b>	<b>7.35</b>	<b>--</b>	<b>--</b>
Russell 2000 Index	(2.19)	(23.50)	4.29	3.55	8.55
Ranking vs. Small Cap Equity	41	28	25	--	--

### Returns and Rankings for Calendar Years

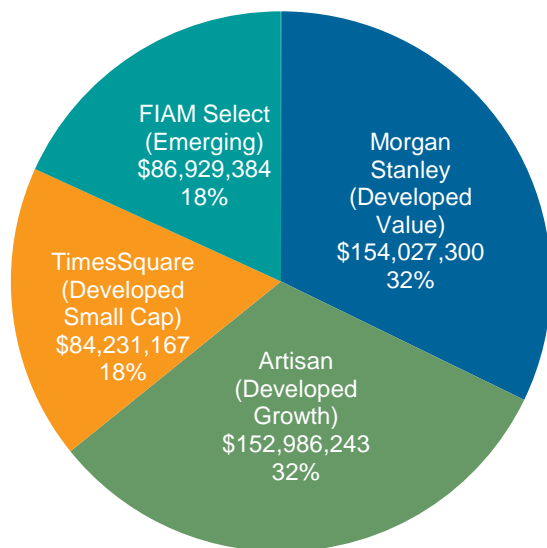
	3 Qtrs. 2022	2021	2020	2019	2018	2017
<b>Domestic Equity - Net</b>	<b>(23.70)</b>	<b>29.74</b>	<b>17.85</b>	<b>28.77</b>	<b>(5.34)</b>	<b>20.61</b>
Domestic Equity Target	(24.62)	25.66	20.89	31.02	(5.24)	21.13
<b>SSGA - Net</b>	<b>(24.55)</b>	<b>27.16</b>	<b>18.33</b>	<b>31.43</b>	<b>(4.38)</b>	<b>21.83</b>
Large Cap Blended Benchmark	(24.59)	27.15	18.40	31.49	(4.38)	21.83
Ranking vs. Large Cap Equity	52	49	53	43	46	51
<b>DFA Small Core - Net</b>	<b>(21.06)</b>	<b>29.22</b>	<b>11.74</b>	<b>21.77</b>	<b>--</b>	<b>--</b>
Russell 2000 Index	(25.10)	14.82	19.96	25.52	(11.01)	14.65
Ranking vs. Small Cap Equity	22	21	54	71	--	--

- The domestic equity composite outperformed the benchmark over the quarter due to the slight overweight in small cap. DFA's relative outperformance over the last year had been positive for the composite's relative returns.
- DFA trailed its benchmark over the third quarter due to its exclusion of stocks with the lowest profitability and highest relative prices. However, over the last year its exclusion of these stocks has contributed to its strong relative performance.

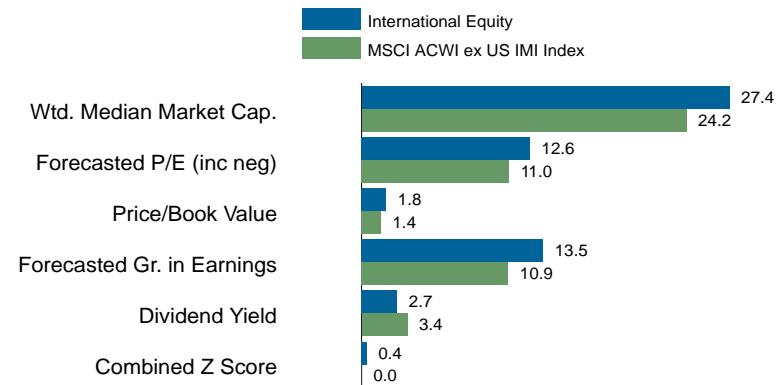
The Domestic Equity Target is comprised of 51.1% S&P/BARRA Value, 22.2% S&P 500, 15.6% Russell 2000 and 11.1% S&P/BARRA Growth through 12/31/1999, 80% S&P 500 and 20% Russell 2000 from 12/31/1999 to 06/30/2010, and 100% Russell 3000 from 06/30/2010 to present.

The Large Cap Blended Benchmark consists of the S&P 500 Index to 7/31/2021 and the Russell 1000 Index thereafter.

## International Equity Composite



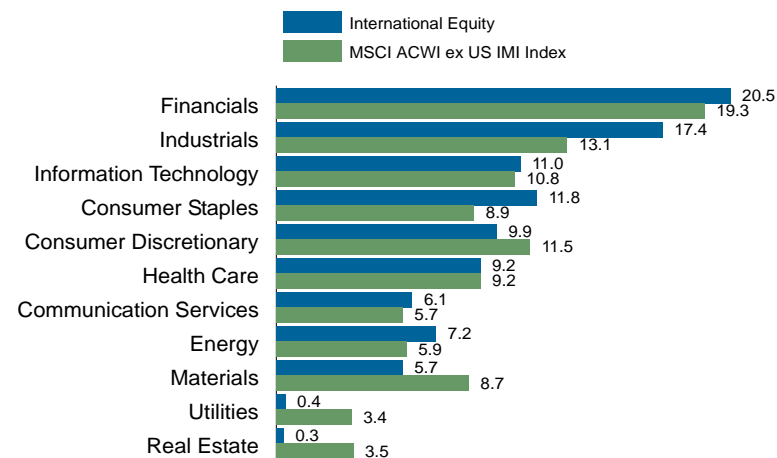
### Portfolio Characteristics as of September 30, 2022



### Region & Style Exposure Matrix Holdings as of September 30, 2022

	-- International Equity				-- MSCI ACWI ex US IMI Index			
	Value	Core	Growth	Total	Value	Core	Growth	Total
Europe	14.3% (26)	15.5% (35)	28.6% (60)	58.4% (121)	12.5%	12.6%	15.6%	40.6%
N. America	0.8% (1)	1.4% (3)	6.2% (9)	8.4% (13)	1.3%	2.0%	1.4%	4.8%
Pacific	0.5% (2)	2.4% (8)	7.4% (23)	10.4% (33)	8.7%	7.5%	8.4%	24.6%
Emerging	3.6% (28)	8.6% (40)	10.5% (46)	22.8% (114)	7.9%	10.9%	11.2%	30.0%
Total	19.2% (57)	28.0% (86)	52.8% (138)	100.0% (281)	30.4%	32.9%	36.6%	100.0%

### Sector Allocation as of September 30, 2022



## International Equity Composite

### Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>International Equity - Net</b>	<b>(10.09)</b>	<b>(29.03)</b>	<b>(3.79)</b>	<b>(1.75)</b>	<b>3.25</b>
International Equity - Target	(9.69)	(25.72)	(1.27)	(0.78)	3.19
<b>MSIM - Net</b>	<b>(11.83)</b>	<b>(25.19)</b>	<b>(2.70)</b>	<b>(1.41)</b>	<b>3.06</b>
MSCI EAFE Index	(9.36)	(25.13)	(1.83)	(0.84)	3.67
Ranking vs. Non-US Developed Value Equity	78	97	85	45	64
<b>Artisan - Net</b>	<b>(7.85)</b>	<b>(28.53)</b>	<b>(4.06)</b>	<b>(0.27)</b>	<b>3.64</b>
MSCI EAFE Index	(9.36)	(25.13)	(1.83)	(0.84)	3.67
Ranking vs. Non-US Developed Growth Equity	29	44	94	55	70
<b>TimesSquare - Net</b>	<b>(8.37)</b>	<b>(36.80)</b>	<b>(5.60)</b>	--	--
MSCI EAFE Small Cap	(9.83)	(32.06)	(2.16)	(1.79)	5.28
Ranking vs. International Small Cap Equity	22	81	92	--	--
<b>FIAM Select EM - Net</b>	<b>(12.01)</b>	<b>(31.41)</b>	--	--	--
MSCI Emerging Markets Index	(11.57)	(28.11)	(2.07)	(1.80)	1.05
Ranking vs. Emerging Markets Equity	64	69	--	--	--

### Returns and Rankings for Periods Ended September 30, 2022

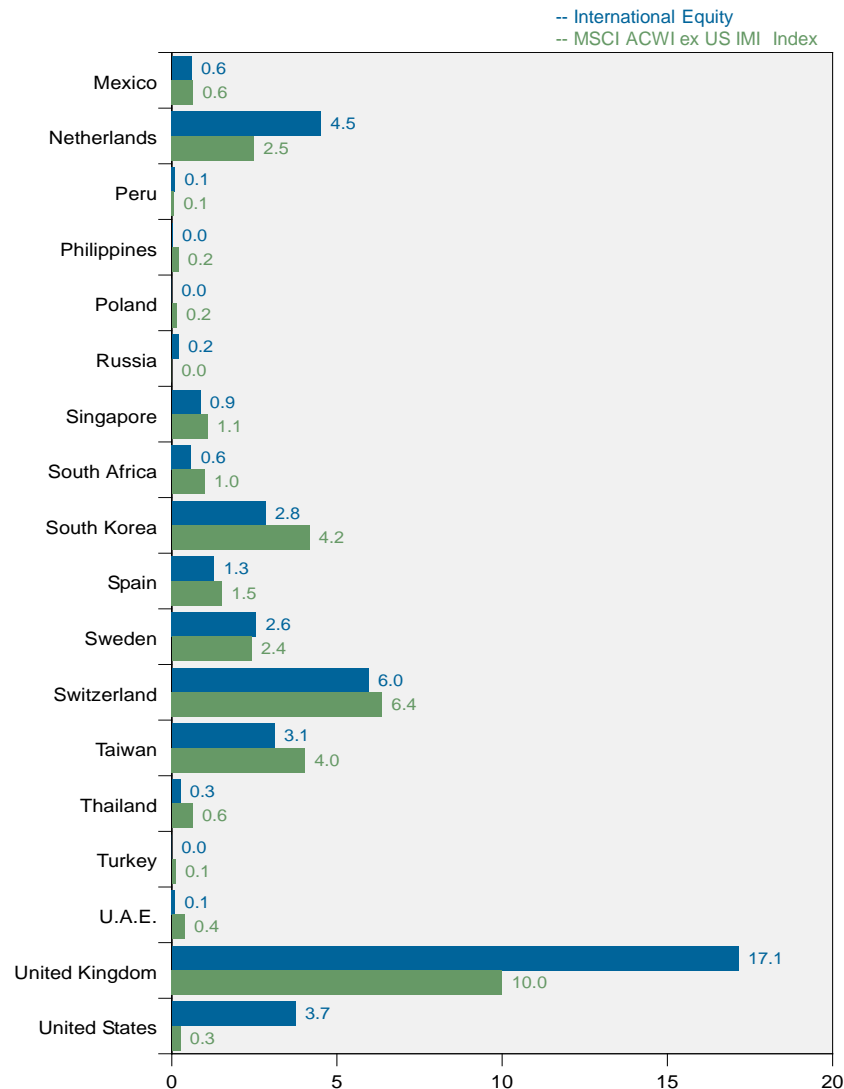
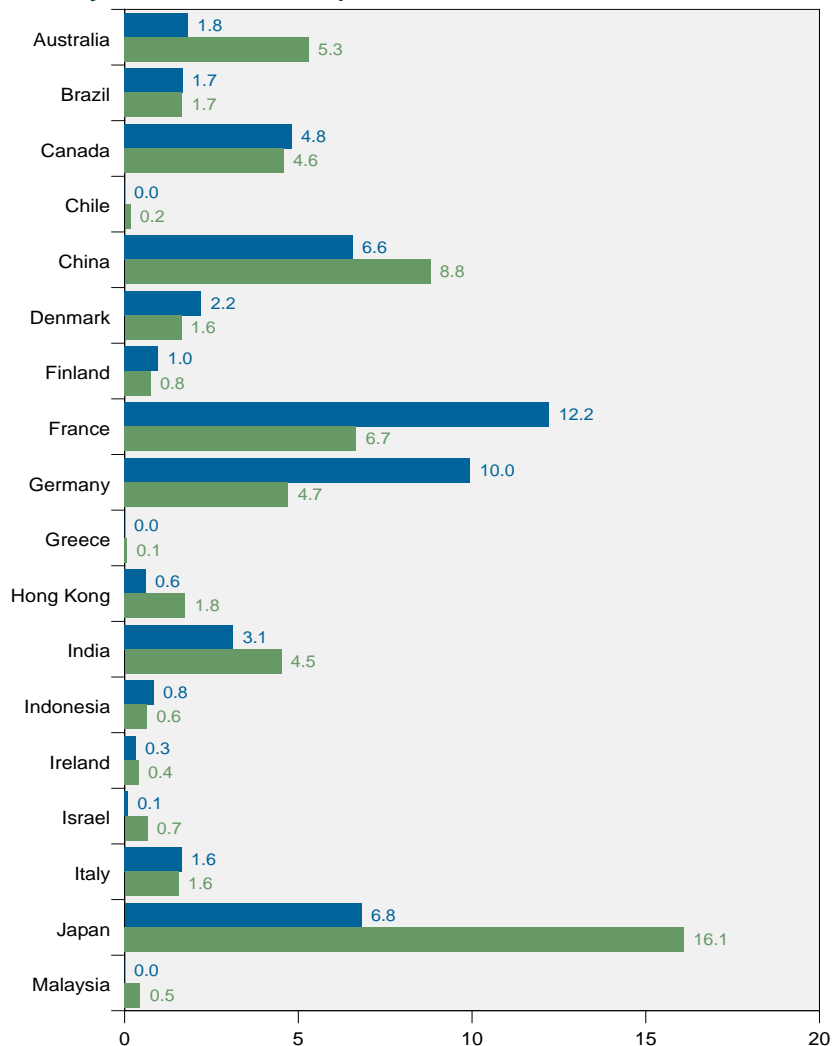
	3 Qtrs. 2022	2021	2020	2019	2018
<b>International Equity - Net</b>	<b>(29.70)</b>	<b>5.28</b>	<b>10.79</b>	<b>23.52</b>	<b>(13.50)</b>
International Equity - Target	(26.92)	8.53	11.12	21.63	(14.76)
<b>MSIM - Net</b>	<b>(26.90)</b>	<b>4.70</b>	<b>12.00</b>	<b>20.93</b>	<b>(13.46)</b>
MSCI EAFE Index	(27.09)	11.26	7.82	22.01	(13.79)
Ranking vs. Non-US Developed Value Equity	92	98	1	34	14
<b>Artisan - Net</b>	<b>(30.31)</b>	<b>8.59</b>	<b>8.09</b>	<b>29.62</b>	<b>(10.53)</b>
MSCI EAFE Index	(27.09)	11.26	7.82	22.01	(13.79)
Ranking vs. Non-US Developed Growth Equity	39	60	96	26	13
<b>TimesSquare - Net</b>	<b>(35.52)</b>	<b>2.18</b>	<b>13.87</b>	--	--
MSCI EAFE Small Cap	(32.11)	10.10	12.34	24.96	(17.89)
Ranking vs. International Small Cap Equity	75	93	39	--	--
<b>FIAM Select EM - Net</b>	<b>(30.71)</b>	--	--	--	--
MSCI Emerging Markets Index	(27.16)	(2.54)	18.31	18.44	(14.57)
Ranking vs. Emerging Markets Equity	69	--	--	--	--

- The International Equity composite underperformed on a relative basis during the last quarter and the last year.
  - Morgan Stanley: stock selection in health care and consumer staples hurt during the quarter. Performance over the last year is in line with the benchmark as the portfolio's positive overweight in consumer staples was offset by underweights to energy and materials.
  - Artisan: outperformed as growth oriented stocks were back in favor. Artisan's underperformance over the last year primarily stems from 1Q22 with the outbreak of the Russia-Ukraine war. The market swung swiftly from growth to value stocks, and Artisan also owned two Russian names.
  - TimesSquare: outperformed over the quarter. For the year, the portfolio's quality growth style has weighed on performance.
  - FIAM: Chinese stock selection in IT and health care were large detractors during the quarter and year.

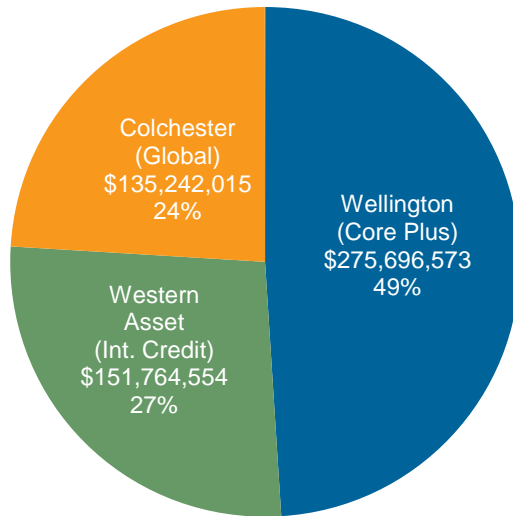
The International Equity Target is comprised of 100% MSCI EAFE Index through 06/30/2010, and 100% MSCI ACWI ex-US IMI Index thereafter.

# International Equity Composite

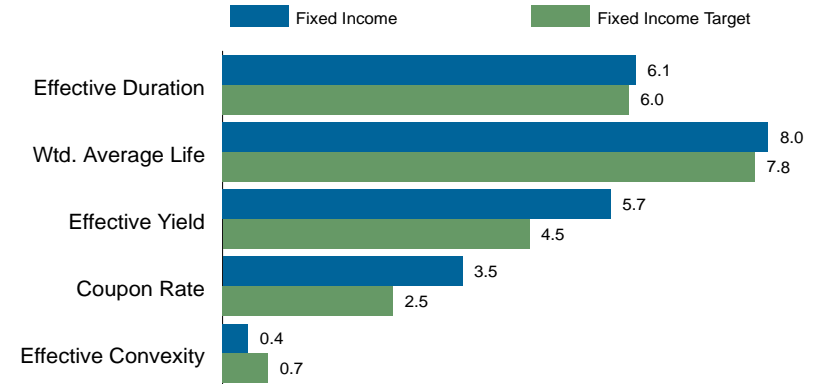
Country Allocations as of September 30, 2022



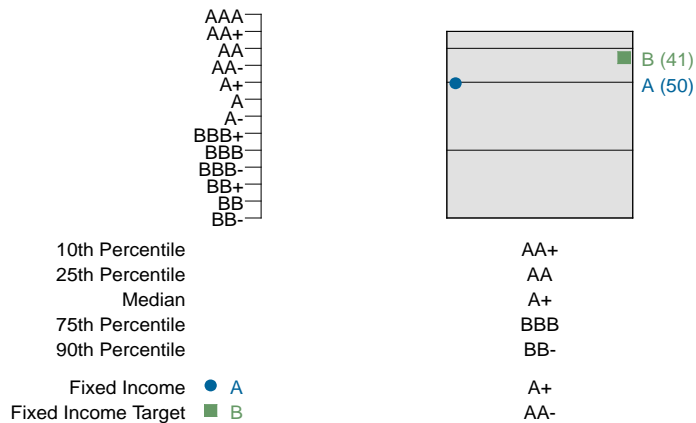
## Fixed Income Composite



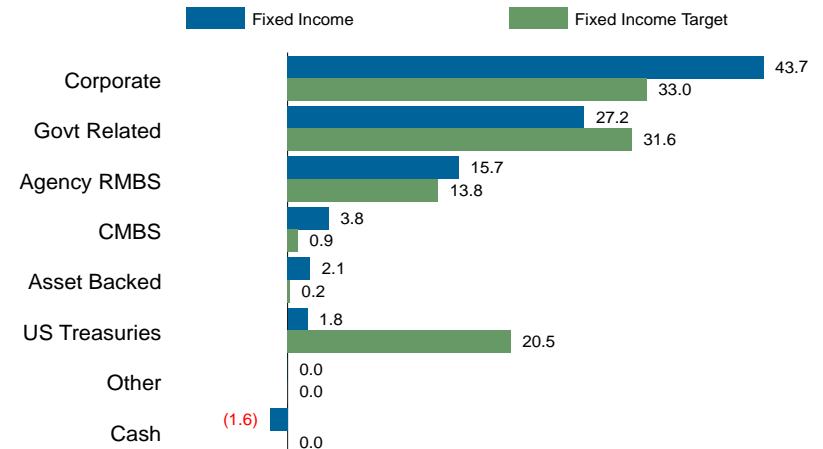
### Portfolio Characteristics as of September 30, 2022



### Quality Rating as of September 30, 2022 Total Domestic Fixed Income Database



### Sector Allocation as of September 30, 2022



## Fixed Income Composite

### Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Fixed Income - Net</b>	<b>(5.03)</b>	<b>(16.15)</b>	<b>(2.66)</b>	<b>(0.14)</b>	<b>1.20</b>
Fixed Income Target	(5.05)	(15.85)	(3.81)	(0.74)	0.44
<b>Wellington - Net</b>	<b>(4.37)</b>	<b>(15.72)</b>	<b>(2.64)</b>	<b>0.23</b>	<b>1.70</b>
Bloomberg Aggregate Index	(4.75)	(14.60)	(3.26)	(0.27)	0.89
Ranking vs. Core Plus Fixed Income	52	71	51	48	52
<b>Western Asset - Net</b>	<b>(2.87)</b>	<b>(12.68)</b>	<b>(0.79)</b>	<b>1.10</b>	<b>2.07</b>
Bloomberg Intermediate Credit Index	(3.08)	(11.82)	(1.73)	0.60	1.60
Ranking vs. Intermediate Fixed Income	16	96	3	2	1
<b>Colchester - Net</b>	<b>(8.43)</b>	<b>(22.47)</b>	<b>(6.35)</b>	<b>(3.04)</b>	<b>--</b>
FTSE World Government Bond Index	(7.61)	(22.14)	(7.03)	(3.07)	(1.76)
Ranking vs. Global Fixed Income (Uhedged)	87	76	65	73	--

### Returns and Rankings for Calendar Years

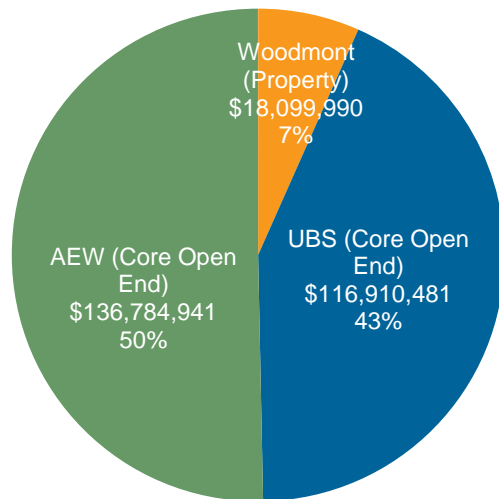
	3 Qtrs.					
	2022	2021	2020	2019	2018	2017
<b>Fixed Income - Net</b>	<b>(15.79)</b>	<b>(2.50)</b>	<b>11.47</b>	<b>8.60</b>	<b>(0.34)</b>	<b>5.15</b>
Fixed Income Target	(15.50)	(2.79)	8.10	8.21	(0.17)	4.55
<b>Wellington - Net</b>	<b>(15.82)</b>	<b>(0.71)</b>	<b>9.93</b>	<b>9.95</b>	<b>(0.39)</b>	<b>4.87</b>
Bloomberg Aggregate Index	(14.61)	(1.54)	7.51	8.72	0.01	3.54
Ranking vs. Core Plus Fixed Income	74	63	26	44	42	41
<b>Western Asset - Net</b>	<b>(12.04)</b>	<b>(0.43)</b>	<b>10.03</b>	<b>9.82</b>	<b>(0.35)</b>	<b>4.13</b>
Bloomberg Intermediate Credit Index	(11.33)	(1.03)	7.08	9.52	0.01	3.67
Ranking vs. Intermediate Fixed Income	96	2	2	1	99	2
<b>Colchester - Net</b>	<b>(21.22)</b>	<b>(8.01)</b>	<b>11.12</b>	<b>7.55</b>	<b>(0.90)</b>	<b>8.20</b>
FTSE World Government Bond Index	(21.27)	(6.97)	10.11	5.90	(0.84)	7.49
Ranking vs. Global Fixed Income (Uhedged)	70	97	28	59	17	37

- The Fixed Income composite slightly outperformed during the quarter versus the benchmark but trailed over the last year.
  - Wellington: outperformed due to an increased duration position and allocations to high yield and emerging markets debt.
  - Western Asset: issue selection within the energy and consumer cyclical sectors contributed as well as an overweight to higher quality.
  - Colchester: several central banks around the world continued to implement tighter monetary policies leading to large declines in global bond returns. The strength of the U.S. dollar has further weakened Colchester's returns which are reported in unhedged terms (3Q22 index hedged: -3.8%).
- It was decided to restructure the fixed income allocation to 100% U.S. Core Plus managed by Wellington and Western Asset. Colchester was terminated in October and the assets were moved to Western Asset. They repositioned their current portfolio to Core Plus in November.

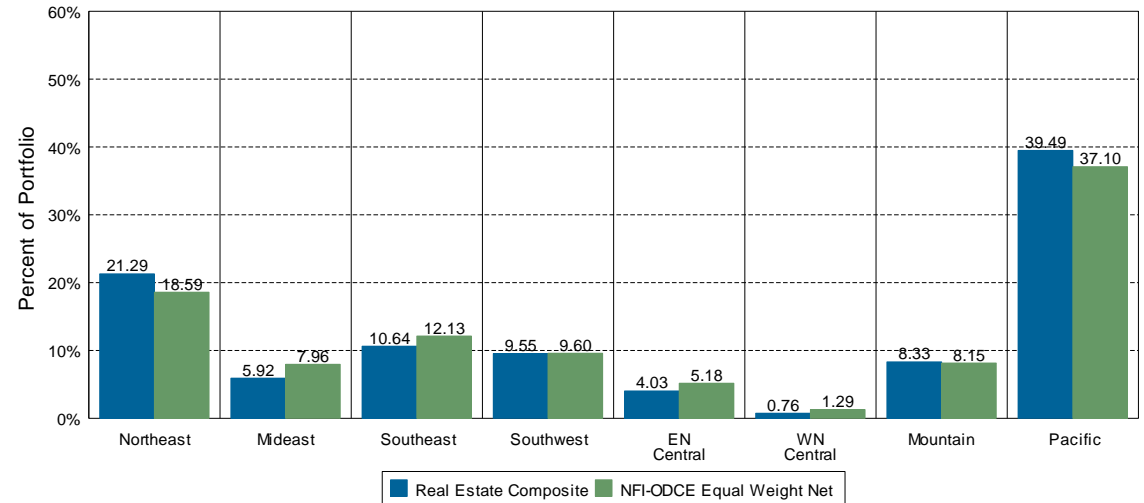
Fixed Income Target is comprised of 100% Bloomberg Aggregate Index until 03/31/2014 and 50% Bloomberg Aggregate Index, 25% Bloomberg Intermediate Credit Index, and 25% FTSE World Government Bond Index thereafter.



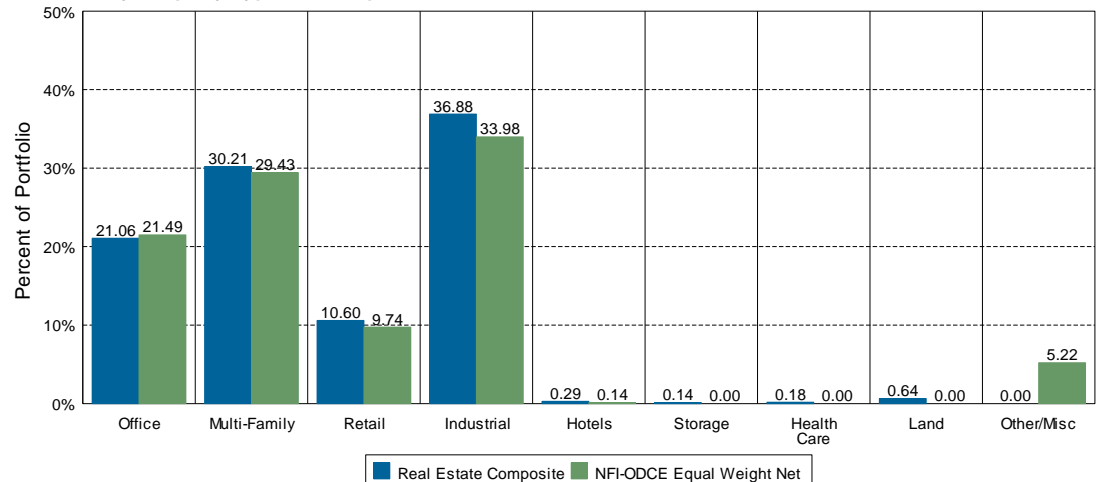
# Real Estate Composite



Diversification by Geographic Region as of September 30, 2022



Diversification by Property Type as of September 30, 2022



## Real Estate Composite

### Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
<b>Real Estate - Net</b>	<b>0.89</b>	<b>18.16</b>	<b>8.32</b>	<b>6.71</b>	<b>10.12</b>
Real Estate Target	0.77	21.68	12.13	9.87	10.23
<b>AEW Core Property Trust - Net</b>	<b>1.90</b>	<b>23.71</b>	<b>11.78</b>	<b>9.66</b>	--
NFI-ODCE Equal Wt Net Index	0.77	21.68	12.13	9.87	10.26
Ranking vs. Core Open End Funds	60	48	64	70	--
<b>UBS Trumbull Property Fund - Net</b>	<b>(0.14)</b>	<b>16.58</b>	<b>6.89</b>	<b>5.18</b>	--
NFI-ODCE Equal Wt Net Index	0.77	21.68	12.13	9.87	10.26
Ranking vs. Core Open End Funds	92	92	95	98	--

### Returns and Rankings for Calendar Years

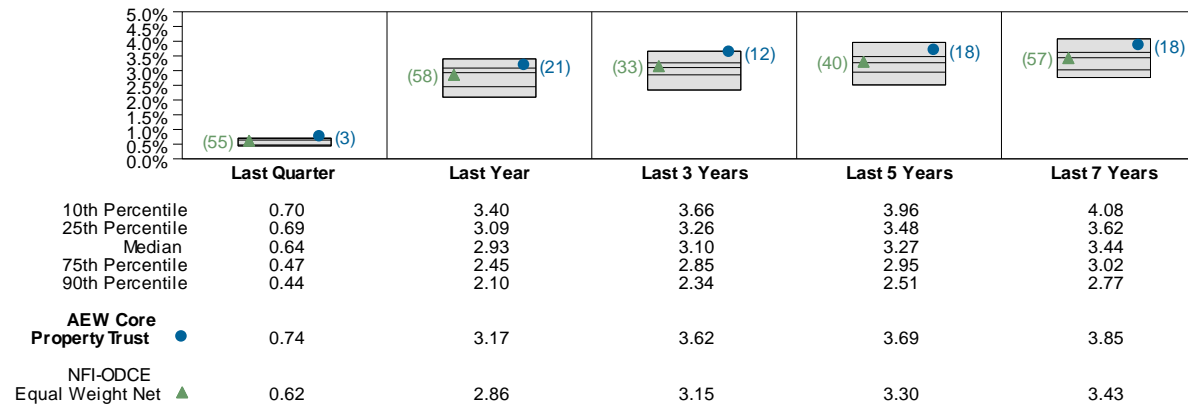
	3 Qtrs.					
	2022	2021	2020	2019	2018	2017
<b>Real Estate - Net</b>	<b>11.61</b>	<b>16.16</b>	<b>(2.29)</b>	<b>0.64</b>	<b>6.46</b>	<b>5.66</b>
Real Estate Target	13.32	21.88	0.75	5.18	7.30	6.92
<b>AEW Core Property Trust - Net</b>	<b>13.71</b>	<b>21.00</b>	<b>0.57</b>	<b>5.29</b>	<b>6.77</b>	<b>6.99</b>
NFI-ODCE Equal Wt Net Index	13.32	21.88	0.75	5.18	7.30	6.92
Ranking vs. Core Open End Funds	67	59	66	71	76	43
<b>UBS Trumbull Property Fund - Net</b>	<b>11.17</b>	<b>15.41</b>	<b>(4.68)</b>	<b>(2.88)</b>	<b>6.12</b>	<b>5.32</b>
NFI-ODCE Equal Wt Net Index	13.32	21.88	0.75	5.18	7.30	6.92
Ranking vs. Core Open End Funds	87	89	96	96	89	85

- The AEW Core Property Trust's current leverage is 24.4% (NFI-ODCE leverage: 21.5%).
  - All sectors produced positive returns for AEW during the quarter. The industrial and multifamily sectors led performance.
- The UBS Trumbull Property Fund's current leverage is 17.9%.
  - During the quarter, multifamily and industrial produced positive returns; whereas office, retail, and hotel were negative.

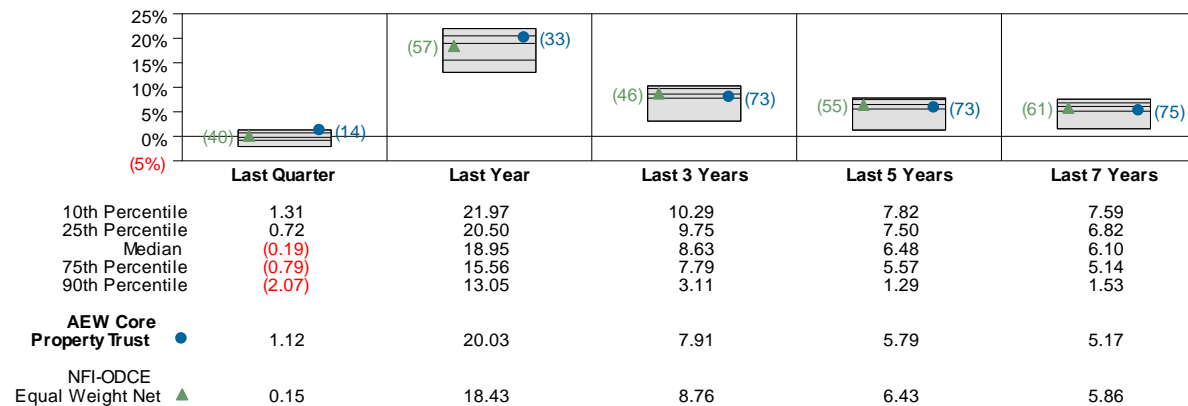
The Real Estate Target is comprised of the NCREIF Classic Index through 12/31/2004, NCREIF Total Property Index through 12/31/2014, and the NFI-ODCE Equal Weight Net thereafter.

# AEW Income and Appreciation Returns

## Income Rankings vs Callan Real Estate ODCE Periods ended September 30, 2022

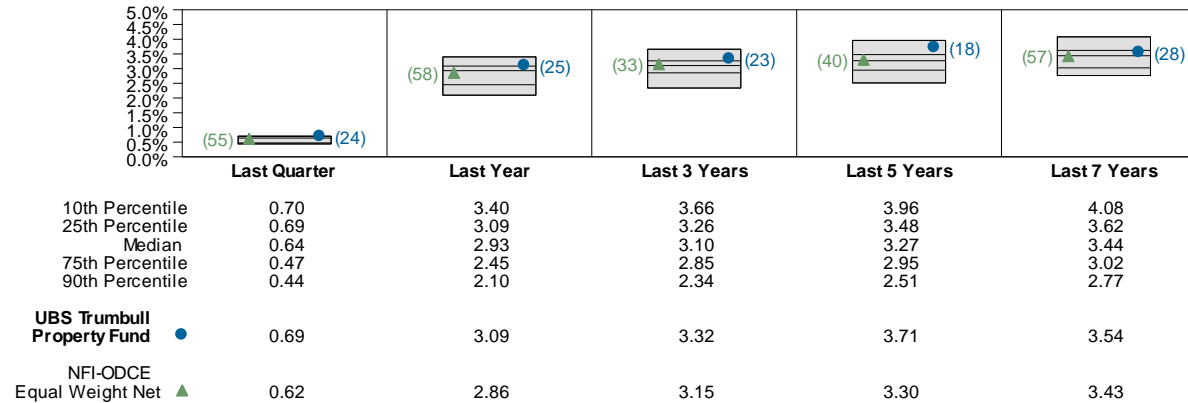


## Appreciation Rankings vs Callan Real Estate ODCE Periods ended September 30, 2022

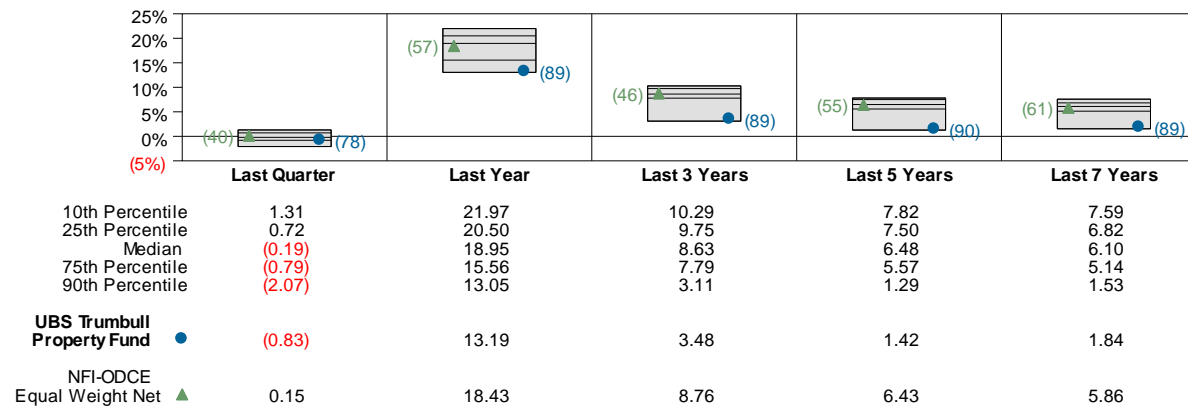


# UBS Income and Appreciation Returns

## Income Rankings vs Callan Real Estate ODCE Periods ended September 30, 2022



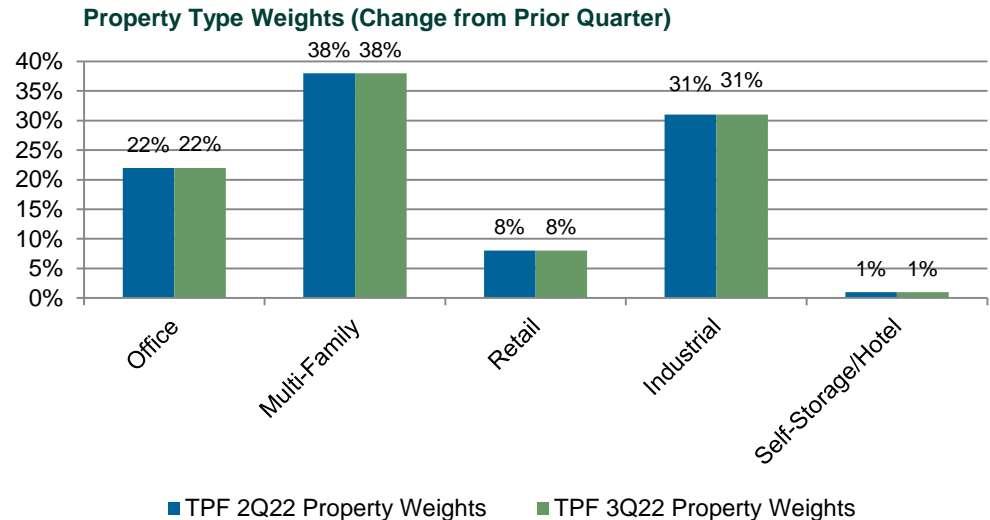
## Appreciation Rankings vs Callan Real Estate ODCE Periods ended September 30, 2022



## UBS Trumbull Property Fund Snapshot

As of September 30, 2022

As of 3Q 2022	
Gross Asset Value	\$17.8B
Net Asset Value	\$14.5B
Leverage	17.9%
Number of Investments	145
Number of Investors	439
Redemption Queue	\$7.2 billion
3Q22 Redemption Queue Payout	\$200 million
Contribution Queue	\$0 million



- The Fund has a current redemption pool of \$7.2 billion. The Fund made a 3Q 2022 redemption payment of \$200 million. The Fund's initial target for 2022 redemption payments was \$2.5 billion; following the fourth payment in October 2022, a total of \$1.85 billion was paid out. The Fund has successfully sold 65% and transferred 12% of the Non-Strategic Asset pool to date. Including the targeted dispositions in 2022, the Non-Strategic Asset pool is expected to be 88% divested by year-end 2022, with the final dispositions occurring in 2023.
- MCERA submitted a partial redemption request for \$20 million in January 2020 and has now received the full amount.
- For now, Callan is comfortable with UBS as they carry out the fund restructuring and sell off their non-strategic assets and would like to continue to monitor that progress.

## NFI-ODCE Funds - Net of Fee Returns

As of September 30, 2022

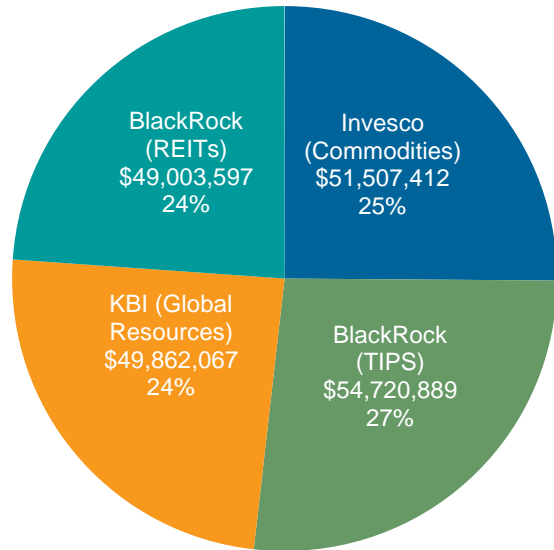
Fund Name	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>AEW Core Property Trust</b>	<b>1.88%</b>	<b>23.79%</b>	<b>11.85%</b>	<b>9.73%</b>
AFL-CIO Building Investment Trust	-0.69%	8.58%	5.49%	5.42%
ARA Core Property Fund	1.42%	24.57%	12.10%	9.86%
ASB Allegiance Real Estate Fund	2.03%	18.96%	10.22%	8.24%
Bailard Real Estate Fund	3.16%	23.47%	14.31%	13.06%
Barings Core Property Fund	-3.49%	13.72%	8.53%	7.70%
BentallGreenOak BGO Diversified	1.74%	22.94%	12.41%	9.93%
BlackRock U.S. Core Property Fund	1.28%	22.26%	12.00%	9.95%
CBRE U.S. Core Partners LP	1.53%	29.96%	18.20%	14.25%
CIM Urban Income Investments	0.56%	21.44%	11.96%	10.35%
Clarion Lion Property Fund	0.41%	23.71%	13.28%	10.98%
DWS RREEF America REIT II	-0.80%	23.72%	12.41%	10.28%
GWL U.S. Property Fund L.P.	0.47%	24.89%	13.64%	10.42%
Heitman America Real Estate Trust	1.54%	25.63%	11.88%	9.30%
Intercontinental U.S. Real Estate Investment Fund	1.44%	22.31%	12.66%	11.02%
Invesco Core Real Estate USA	1.23%	19.05%	10.56%	9.17%
J.P. Morgan Strategic Property Fund	-1.52%	17.91%	10.29%	8.08%
LaSalle US Property Fund	0.82%	23.16%	12.20%	10.11%
MetLife Core Property Fund	2.33%	24.70%	14.35%	11.81%
Morgan Stanley Prime Property Fund	-0.06%	20.76%	11.22%	9.67%
NYL Madison Core Property Fund	2.29%	31.17%	14.65%	11.79%
PGIM PRISA	-0.01%	19.29%	11.73%	9.78%
Principal U.S. Core Property	0.45%	22.26%	11.61%	9.90%
Stockbridge Smart Markets Fund	0.68%	21.41%	14.20%	11.41%
TA Realty	1.38%	24.86%	17.01%	--
<b>UBS Trumbull Property Fund</b>	<b>-0.16%</b>	<b>16.55%</b>	<b>6.86%</b>	<b>5.18%</b>

## NFI-ODCE Funds - Gross of Fee All Sector Returns

As of September 30, 2022

Fund	Retail 3Q 2022	Apartment 3Q 2022	Industrial 3Q 2022	Office 3Q 2022
<b>AEW</b>	<b>0.07%</b>	<b>2.33%</b>	<b>3.33%</b>	<b>0.92%</b>
AFL-CIO	-6.62%	-0.11%	2.01%	-0.90%
ARA	0.94%	2.88%	2.13%	-1.97%
ASB	0.67%	3.83%	1.15%	0.25%
Bailard	1.53%	4.68%	5.22%	-1.59%
Barings	1.48%	1.05%	2.57%	-14.27%
BGO	0.18%	1.83%	2.31%	-0.28%
BlackRock	1.00%	1.94%	1.44%	-0.25%
CBRE	-1.32%	2.65%	0.62%	-2.54%
CIM Group	1.76%	1.51%	3.96%	-2.58%
Clarion	-1.02%	0.93%	1.54%	-1.11%
DWS	-0.82%	-1.34%	0.92%	-2.42%
Everwest	0.62%	1.29%	1.91%	-3.45%
Heitman	-0.52%	1.58%	2.69%	-0.35%
Intercontinental	2.97%	1.87%	0.29%	-0.36%
Invesco	2.38%	1.28%	0.36%	-0.12%
JP Morgan	0.73%	0.28%	-2.60%	-1.04%
LaSalle	1.23%	0.34%	0.52%	-0.14%
MSIM	0.51%	-3.39%	2.47%	0.10%
NYLIM	1.72%	1.33%	3.69%	-0.09%
PGIM	0.89%	0.99%	-1.28%	-0.81%
Principal	1.05%	0.75%	1.23%	-1.20%
Stockbridge	1.33%	-1.46%	1.84%	0.34%
TA Realty	3.94%	-1.07%	3.77%	-1.55%
<b>UBS</b>	<b>-1.31%</b>	<b>1.03%</b>	<b>1.42%</b>	<b>-3.90%</b>

## Real Assets Composite



- The BlackRock TIPS and REITs Funds are passive.
- The Invesco Balanced Risk Commodities Fund underperformed during the quarter and year mainly due to its strategic underweight to natural gas. The ongoing uncertainty with Europe's gas supply has caused prices to soar.
- KBI underperformed the index with the water utilities segment being the largest detractor. The issues with Europe's gas supply is infecting other utility sectors, not just gas and electricity.

### Returns and Rankings for Periods Ended September 30, 2022

	Last Quarter	Last Year	Last 3 Years	Last 5 Years
<b>Real Assets - Net</b>	<b>(7.35)</b>	<b>(8.54)</b>	<b>6.43</b>	<b>5.37</b>
Real Assets Target	(6.09)	(3.72)	5.74	4.73
<b>BlackRock TIPS Index Fund - Net</b>	<b>(5.14)</b>	<b>(11.58)</b>	<b>0.86</b>	<b>2.03</b>
Bloomberg US TIPS Index	(5.14)	(11.57)	0.79	1.95
Ranking vs. Real Returns Database	41	53	35	36
<b>BlackRock REIT Index Fund - Net</b>	<b>(10.45)</b>	<b>(17.26)</b>	<b>(3.36)</b>	<b>1.90</b>
S&P Dow Jones US Select REIT	(10.37)	(17.15)	(3.29)	1.95
Ranking vs. Real Estate Mutual Funds	46	46	85	83
<b>Invesco Commodity Fund - Net</b>	<b>(8.66)</b>	<b>5.70</b>	<b>11.23</b>	<b>5.71</b>
Bloomberg Commodity Index	(4.11)	11.80	13.45	6.96
Ranking vs. Commodities Funds	83	78	83	98
<b>KBI Global Resources Fund - Net</b>	<b>(5.14)</b>	<b>(12.56)</b>	<b>12.35</b>	<b>8.11</b>
S&P Global Natural Resources Index	(4.74)	0.33	8.38	5.02
KBI Custom Benchmark	(4.09)	(18.39)	10.92	7.53

### Returns and Rankings Calendar Years

	3 Qtrs. 2022	2021	2020	2019
<b>Real Assets - Net</b>	<b>(14.90)</b>	<b>23.96</b>	<b>11.08</b>	<b>15.51</b>
Real Assets Target	(9.42)	25.60	0.57	14.08
<b>BlackRock TIPS Index Fund - Net</b>	<b>(13.58)</b>	<b>5.92</b>	<b>11.17</b>	<b>8.49</b>
Bloomberg US TIPS Index	(13.61)	5.96	10.99	8.43
Ranking vs. Real Returns Database	47	41	18	32
<b>BlackRock REIT Index Fund - Net</b>	<b>(29.40)</b>	<b>45.80</b>	<b>(11.21)</b>	<b>23.08</b>
S&P Dow Jones US Select REIT Index	(29.32)	45.91	(11.20)	23.10
Ranking vs. Real Estate Mutual Funds	62	17	96	89
<b>Invesco Commodity Fund - Net</b>	<b>2.13</b>	<b>19.68</b>	<b>7.58</b>	<b>5.49</b>
Bloomberg Commodity Index	13.57	27.11	(3.12)	7.69
Ranking vs. Commodities Funds	83	87	1	81
<b>KBI Global Resources Fund - Net</b>	<b>(18.36)</b>	<b>24.08</b>	<b>29.17</b>	<b>24.81</b>
S&P Global Natural Resources Index	(6.39)	24.40	(0.05)	16.41
KBI Custom Benchmark	(21.75)	7.22	46.83	28.74

The Real Assets Target is comprised of 25% Bloomberg US TIPS Index, 25% Bloomberg Commodity Index, 25% S&P Dow Jones US Select REIT Index, and 25% S&P Global Natural Resources Index.  
 The KBI Custom Benchmark consists of 1/3 each: S-Network Global Water Index, Wilderhill New Energy Global Innovation Index, and Dax Global Agribusiness Index.



## Private Equity Portfolio (as of 6/30/22)

- 89% Paid-In through 6/30/22.
- When ranked against the Thomson-Cambridge Private Equity Database, MCERA is ranked in the second quartile for Total Value to Paid-In (TVPI) basis.
- The total portfolio is well diversified by vintage year and investment type.

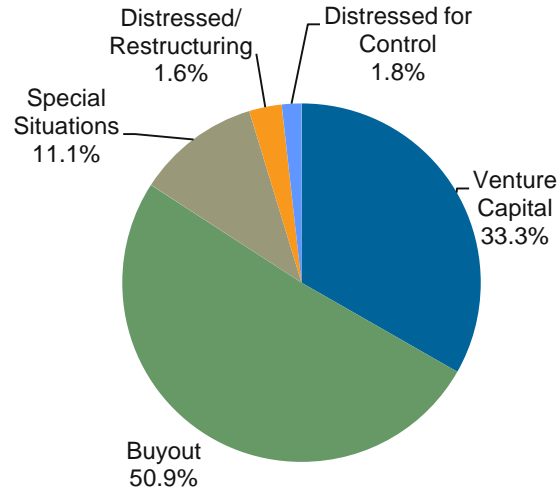
	June 30, 2022	Quarter Change	March 31, 2022
<b>Summary</b>			
Vintage Years	15 in 2008-2022		15 in 2008-2022
# Total Partnerships	516	17	499
# Active Partnerships	497	17	480
# Liquidated Partnerships	19	-	19
<b>Changes in Value</b>			
Capital Commitments	\$450,000,000	-	\$450,000,000
Paid-In Capital	\$402,187,648	\$3,185,691	\$399,001,957
Uncalled Capital	\$62,492,718	\$(2,868,913)	\$65,361,631
% Paid-In	89.38%	0.71%	88.67%
Distributed Capital	\$438,954,777	\$6,851,890	\$432,102,887
Net Asset Value	\$381,742,940	\$(33,750,147)	\$415,493,087
<b>Total Realized and Unrealized Value</b>	<b>\$820,697,717</b>	<b>\$(26,898,257)</b>	<b>\$847,595,974</b>
<b>Ratios and Performance</b>			
Distributions to Paid-In Capital (DPI)	1.09x	0.01x	1.08x
Residual Value to Paid-In Capital (RVPI)	0.95x	(0.09)x	1.04x
Total Value to Paid-In Capital (TVPI)	2.04x	(0.08)x	2.12x
Quartile Ranking	2nd		2nd
Net IRR	16.32%	(0.93%)	17.25%
<b>Additional Performance Metrics</b>			
Distribution Rate, as % of Beginning NAV		1.65%	
Unrealized Gain/(Loss), Dollars		\$(30,083,948)	
Unrealized Gain/(Loss), %		(7.24%)	

Quartile Rankings against the All Private Equity, All Regions Refinitiv/Cambridge Database.

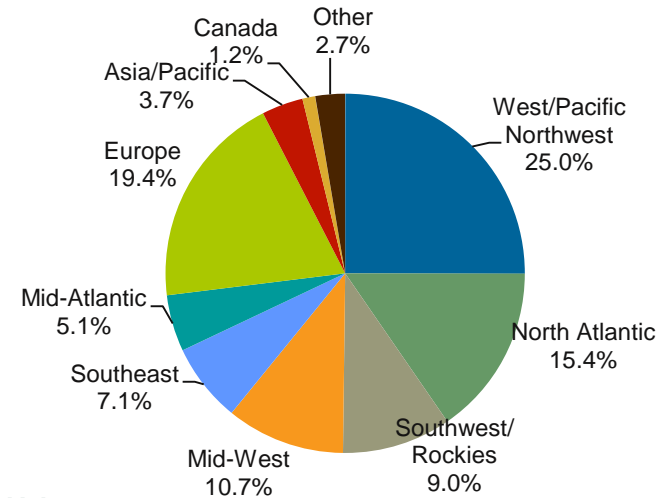
Uncalled capital above does not reflect currency fluctuations for Pathway's investments in foreign partnerships.

# Private Equity Portfolio Exposure

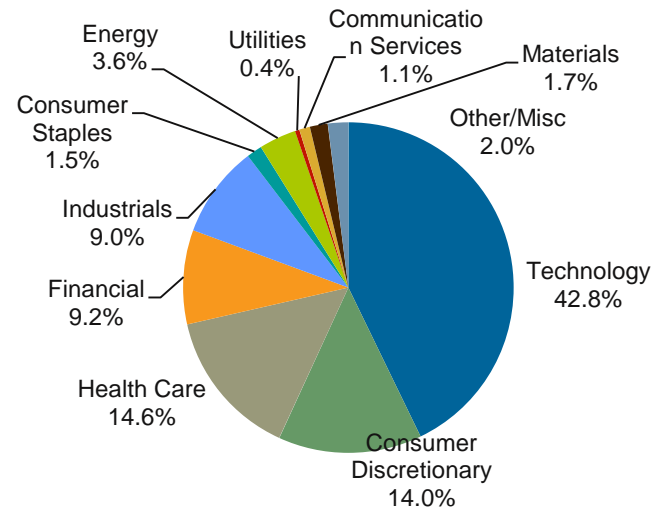
## Strategy Mix by Net Asset Value



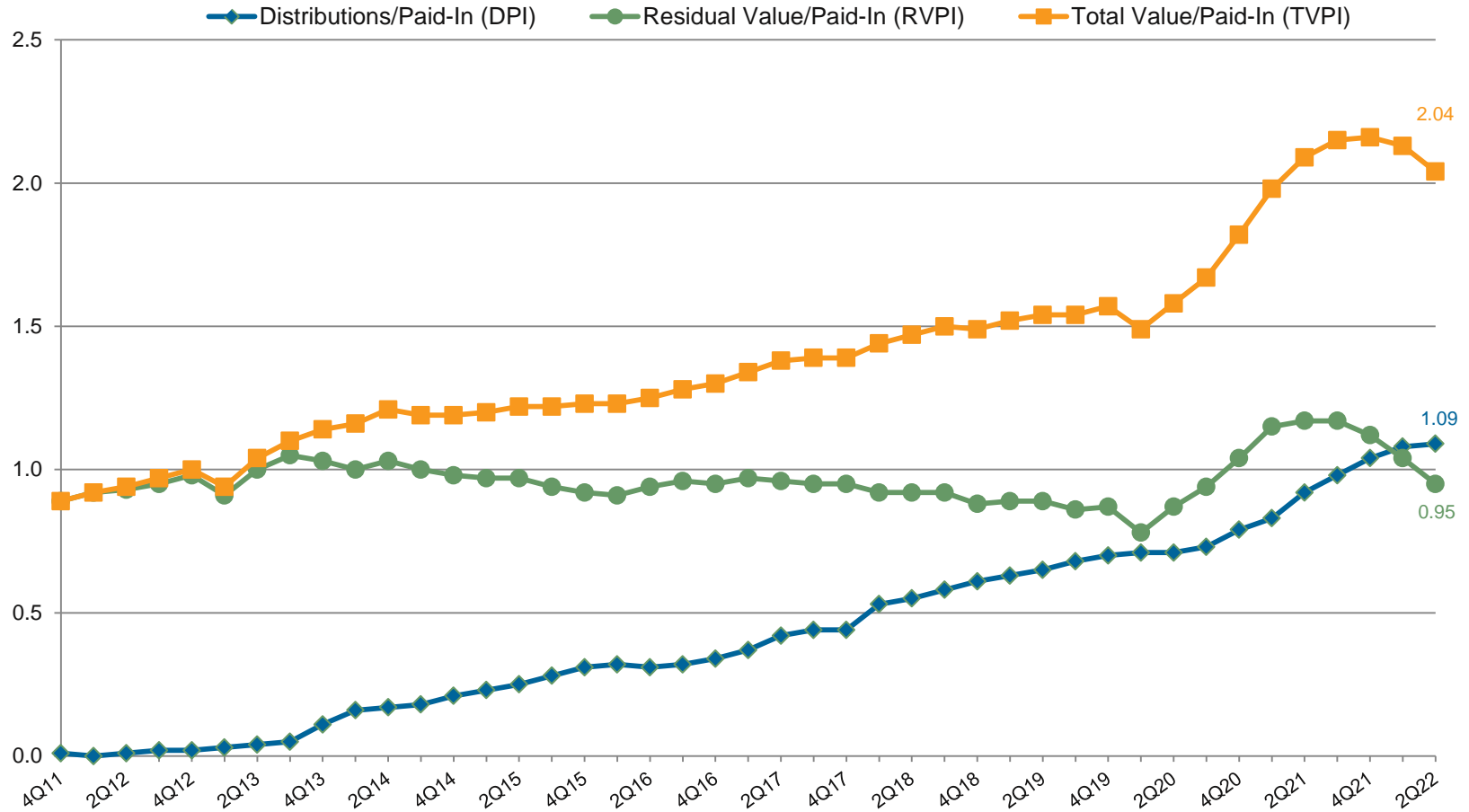
## Geographic Mix by Net Asset Value



## Industry Mix by Net Asset Value



## Private Equity Ratios – Changes Over Time



## Opportunistic Portfolio

- 53.2% Paid-In through 9/30/2022.
- The total portfolio is diversified by industry type and geographic location.

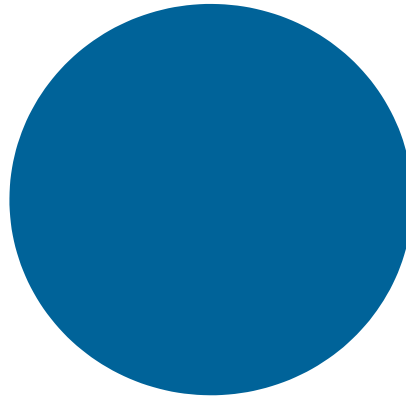
	September 30, 2022	Quarter Change	June 30, 2022
<b>Summary</b>			
Vintage Year	2020		2020
# Total Partnerships	193	-	193
# Active Partnerships	193	-	193
# Liquidated Partnerships	0	-	0
<b>Changes in Value</b>			
Capital Commitments	\$100,000,000	-	\$100,000,000
Paid-In Capital	\$53,159,127	-	\$53,159,127
Uncalled Capital	\$48,669,782	-	\$48,669,782
% Paid-In	53.16%	-	53.16%
Distributed Capital	\$2,142,541	-	\$2,142,541
Net Asset Value	\$53,722,238	\$1,298,929	\$52,423,308
<b>Total Realized and Unrealized Value</b>	<b>\$55,864,779</b>	<b>\$1,298,929</b>	<b>\$54,565,849</b>
<b>Ratios and Performance</b>			
Distributions to Paid-In Capital (DPI)	0.04x	-	0.04x
Residual Value to Paid-In Capital (RVPI)	1.01x	0.02x	0.99x
Total Value to Paid-In Capital (TVPI)	1.05x	0.02x	1.03x
Quartile Ranking	3rd		3rd
Net IRR	4.46%	1.49%	2.97%
<b>Additional Performance Metrics</b>			
Distribution Rate, as % of Beginning NAV		0.00%	
Unrealized Gain/(Loss), Dollars		\$1,298,929	
Unrealized Gain/(Loss), %		2.48%	

Quartile rankings against the 2020 vintage Control Oriented Distressed and Credit Opportunities Refinitiv/Cambridge Database.

## Opportunistic Portfolio Exposure

Strategy Mix by Net Asset Value

Special Situations  
100.0%



Industry Mix by Net Asset Value

Other/Misc	48.66%
Financial	16.98%
Consumer Discretionary	12.11%
Energy	6.31%
Communication Services	5.75%
Materials	3.61%
Industrials	2.41%
Utilities	2.39%
Consumer Staples	0.98%
Technology	0.80%

Geographic Mix by Net Asset Value

United States	62.12%
Europe	18.07%
Other	2.30%
Asia/Pacific	14.17%
Latin America & Caribbean	3.34%

**Marin County Employees' Retirement Association  
Defined Benefit Plan**

<b>Managers</b>	<b>October 2022 Market Value</b>	<b>Fiscal Year To Date 7/1/22 - 10/31/22</b>	<b>Calendar Year To Date 1/1/22 - 10/31/22</b>
<b>Domestic Equity</b>	<b>\$931,743,165</b>	<b>4.4%</b>	<b>-16.8%</b>
<i>Russell 3000 Index</i>		3.4%	-18.4%
<b>SSGA Russell 1000 Index</b>	<b>\$651,838,605</b>	<b>3.1%</b>	<b>-18.5%</b>
<i>Russell 1000 Index</i>		3.0%	-18.6%
<b>Dimensional Fund Advisors</b>	<b>\$227,513,241</b>	<b>8.4%</b>	<b>-11.5%</b>
<i>Russell 2000 Index</i>		8.6%	-16.9%
<b>Parametric Domestic Equity Overlay</b>	<b>\$52,391,319</b>		
<b>International Equity</b>	<b>\$619,447,795</b>	<b>-7.5%</b>	<b>-26.8%</b>
<i>MSCI ACWI ex-US IMI Index</i>		-7.0%	-24.7%
<b>Morgan Stanley</b>	<b>\$162,272,456</b>	<b>-7.1%</b>	<b>-22.7%</b>
<b>Artisan Partners</b>	<b>\$165,346,721</b>	<b>-0.4%</b>	<b>-24.7%</b>
<i>MSCI EAFE Index</i>		-4.5%	-23.2%
<b>TimesSquare</b>	<b>\$87,547,907</b>	<b>-4.7%</b>	<b>-32.9%</b>
<i>MSCI EAFE Small Cap Index</i>		-6.0%	-29.2%
<b>FIAM/Parametric Emerging Markets</b>	<b>\$83,301,879</b>	<b>-15.7%</b>	<b>-33.6%</b>
<i>MSCI Emerging Markets Index</i>		-14.3%	-29.4%
<b>Parametric International Equity Overlay</b>	<b>\$120,978,832</b>		
<b>Fixed Income</b>	<b>\$642,846,856</b>	<b>-6.0%</b>	<b>-17.1%</b>
<i>Blended Benchmark</i>		-6.1%	-16.4%
<b>Wellington</b>	<b>\$270,953,955</b>	<b>-5.7%</b>	<b>-17.0%</b>
<i>Bloomberg US Aggregate Index</i>		-6.0%	-15.7%
<b>Western Asset</b>	<b>\$150,607,668</b>	<b>-3.3%</b>	<b>-12.4%</b>
<i>Bloomberg US Intermediate Credit Index</i>		-3.5%	-11.7%
<b>Colchester*</b>	<b>\$133,387,358</b>	<b>-9.6%</b>	<b>-22.2%</b>
<i>FTSE World Government Bond Index</i>		-8.8%	-22.3%
<b>Parametric Fixed Income Overlay</b>	<b>\$87,897,875</b>		

All market values and returns shown are preliminary and subject to revision.

\*Colchester was terminated in mid-October and its portfolio value was overlaid with U.S. fixed income futures. Performance for the Bloomberg U.S. Aggregate Index was used as a proxy for the October return during this transition period. Western Asset received these assets and transitioned their portfolio to core plus fixed income in November. Performance for the fixed income composite will be updated and revised.

**Marin County Employees' Retirement Association  
Defined Benefit Plan**

<b>Managers</b>	<b>October 2022 Market Value</b>	<b>Fiscal Year To Date 7/1/22 - 10/31/22</b>	<b>Calendar Year To Date 1/1/22 - 10/31/22</b>
<b>Public Real Assets</b>	<b>\$198,411,376</b>	<b>-3.3%</b>	<b>-11.3%</b>
<i>Blended Benchmark</i>		<i>-1.9%</i>	<i>-5.0%</i>
<b>BlackRock TIPS Index Fund</b>	<b>\$55,406,884</b>	<b>-4.0%</b>	<b>-12.5%</b>
<i>Bloomberg US TIPS Index</i>		<i>-4.0%</i>	<i>-12.5%</i>
<b>BlackRock REIT Index Fund</b>	<b>\$51,202,511</b>	<b>-6.4%</b>	<b>-26.2%</b>
<i>DJ S&amp;P US Select REIT Index</i>		<i>-6.4%</i>	<i>-26.2%</i>
<b>Invesco Balanced Risk Commodities Fund</b>	<b>\$53,610,165</b>	<b>-4.7%</b>	<b>6.3%</b>
<i>Bloomberg Commodities Index</i>		<i>-2.2%</i>	<i>15.8%</i>
<b>KBI Global Resources Fund</b>	<b>\$53,646,242</b>	<b>2.1%</b>	<b>-11.6%</b>
<i>S&amp;P Global Natural Resources Index</i>		<i>4.9%</i>	<i>3.0%</i>
<b>Parametric Real Assets Overlay</b>	<b>-\$15,454,426</b>		
<b>Real Estate(1)</b>	<b>\$265,136,904</b>	<b>1.2%</b>	<b>12.5%</b>
<i>NFI-ODCE Equal Weight Net(1)</i>		<i>1.0%</i>	<i>13.6%</i>
<b>Woodmont</b>	<b>\$18,099,990</b>	<b>-</b>	<b>-</b>
<b>UBS Trumbull Property Fund</b>	<b>\$117,824,282</b>	<b>-</b>	<b>-</b>
<b>AEW Core Property Trust</b>	<b>\$135,273,503</b>	<b>-</b>	<b>-</b>
<b>Parametric Real Estate Overlay</b>	<b>-\$6,060,871</b>		
<b>Private Equity(2)</b>	<b>\$259,569,379</b>	<b>0.0%</b>	<b>-9.1%</b>
<b>Abbott ACE VI</b>	<b>\$42,256,064</b>	<b>-</b>	<b>-</b>
<b>Abbott ACE VII</b>	<b>\$49,972,513</b>	<b>-</b>	<b>-</b>
<b>Abbott AP 2016</b>	<b>\$71,681,065</b>	<b>-</b>	<b>-</b>
<b>Abbott AP 2017</b>	<b>\$20,286,319</b>	<b>-</b>	<b>-</b>
<b>Abbott AP 2021</b>	<b>\$5,920,950</b>	<b>-</b>	<b>-</b>
<b>Pathway PPEF 2008</b>	<b>\$54,392,695</b>	<b>-</b>	<b>-</b>
<b>Pathway PPEF I-7</b>	<b>\$38,738,156</b>	<b>-</b>	<b>-</b>
<b>Pathway PPEF I-8</b>	<b>\$67,553,333</b>	<b>-</b>	<b>-</b>
<b>Pathway PPEF I-9</b>	<b>\$16,665,335</b>	<b>-</b>	<b>-</b>
<b>Pathway PPEF I-10</b>	<b>\$14,276,510</b>	<b>-</b>	<b>-</b>
<b>Parametric Private Equity Overlay</b>	<b>-\$122,173,561</b>		
<b>Opportunistic(3)</b>	<b>\$52,423,308</b>	<b>3.3%</b>	<b>-1.6%</b>
<b>CarVal Credit Value Fund V</b>	<b>\$15,138,327</b>	<b>-</b>	<b>-</b>
<b>Fortress Credit Opportunities Fund V Expansion</b>	<b>\$10,721,890</b>	<b>-</b>	<b>-</b>
<b>Varde Dislocation Fund</b>	<b>\$26,563,091</b>	<b>-</b>	<b>-</b>
<b>Total Fund</b>	<b>\$2,969,578,783</b>	<b>-1.4%</b>	<b>-14.7%</b>

(1)Market values as of September 30, 2022. FYTD and YTD returns use MCERA's and ODCE's pro-rata performance of prior quarter.

(2)Market values as of September 30, 2022. FYTD and YTD returns use MCERA's pro-rata performance of prior quarter.

(3)Market values as of September 30, 2022. FYTD and YTD returns use MCERA's pro-rata performance of prior quarter.

All market values and returns shown are preliminary and subject to revision.