

Quarterly Meeting of the Investment Committee of the Board of Trustees of the State Universities Retirement System Thursday, December 7, 2023, 9:00 a.m. Northern Trust, 333 S. Wabash Ave. – 44<sup>th</sup> Floor – Chicago, IL \*Optional Remote Connection for Members of the Public\*

This meeting was held in-person at Northern Trust in Chicago, IL.

The following trustees were present: Dr. Andriy Bodnaruk; Mr. Richard Figueroa (via zoom); Ms. Jamie-Clare Flaherty (via zoom), Dr. Fred Giertz; Mr. Scott Hendrie, chair; Mr. Pranav Kothari; Mr. John Lyons; Dr. Steven Rock; Mr. Collin Van Meter; Mr. Antonio Vasquez; and Mr. Mitch Vogel.

Others present: Ms. Suzanne Mayer, Executive Director; Mr. Doug Wesley, Chief Investment Officer (CIO); Mr. Michael Schlachter, CIO Designee; Ms. Kim Pollitt, Mr. Joe Duncan and Mr. Shane Willoughby, Sr. Investment Officers; Mr. Brian Deloriea and Mr. Alex Ramos, Investment Officers; Ms. Stephany Brinkman and Mr. Darian Saracevic, Investment Analysts; Ms. Tracy Bennett, Investment Compliance Analyst; Ms. Bianca Green, General Counsel; Ms. Tara Myers, Chief Financial Officer; Ms. Jackie Hohn, Chief Internal Auditor; Ms. Nichole Hemming, Chief Human Resources Officer; Mr. Jefferey Saiger, Chief Technology Officer; Ms. Anna Dempsey, Investment Counsel; Ms. Heather Kimmons, Associate Legal Counsel; Ms. Kristen Houch, Director of Legislative and Stakeholder Relations; Ms. Kelly Carson, Ms. Chelsea McCarty and Ms. Annette Ackerman, Executive Assistants; Mr. Munir Iman, Ms. Sally Haskins, and Ms. Jan Mende of Callan; Mr. David Sancewich and Mr. Colin Bebee, of Meketa; Mr. Mike Krems, Ms. Heidy Poon, and Ms. Laura Meck of Aksia, and Mr. Michael Calabrese of Foley.

Investment Committee roll call attendance was taken. Trustee Bodnaruk, absent; Trustee Giertz, present; Trustee Hendrie, present; Trustee Kothari, present; Trustee Lyons, present; Trustee Rock, present; Trustee Van Meter, present; Trustee Vasquez, absent; and Trustee Vogel, present.

#### TRUSTEE PARTICIPATION VIA ELECTRONIC MEANS

Trustee Rock made the following motion:

• That Trustees Figueroa and Flaherty be allowed to participate remotely via video or audio conference as allowed by 5 ILCS 120/7 due to the fact they are prevented from physically attending this meeting either because of 1) personal illness or disability, 2) employment purposes or the business of SURS, 3) a family or other emergency, or 4) unexpected childcare obligations.

Trustee Van Meter seconded the motion which passed via the following roll call vote:

Trustee Bodnaruk absent Trustee Giertz aye Trustee Hendrie aye Trustee Kothari aye Trustee Lyons aye Trustee Rock aye Trustee Van Meter aye Trustee Vasquez absent Trustee Vogel aye

Ms. Jamie-Clare Flaherty and Mr. Richard Figueroa were both admitted to participate remotely as members of the committee.

Trustee Vasquez physically joined the meeting at 9:07 a.m. Trustee Bodnaruk physically joined the meeting at 9:12 a.m.

#### **APPROVAL OF MINUTES**

Trustee Hendrie presented the minutes from the Investment Committee meeting of October 19, 2023.

Trustee Rock made the following motion:

• That the minutes from the October 19, 2023 Investment Committee meeting be approved as presented.

Trustee Giertz seconded the motion which passed via the following roll call vote:

Trustee Bodnaruk absent Trustee Figueroa aye Trustee Flaherty aye Trustee Giertz aye Trustee Hendrie aye Trustee Kothari abstain Trustee Lyons aye Trustee Rock aye Trustee Van Meter ave Trustee Vasquez absent Trustee Vogel abstain

#### **CHAIRPERSON'S REPORT**

Trustee Hendrie welcomed Mr. Michael Schlachter as the new SURS Chief Investment Officer Designee.

#### **CIO REPORT**

Mr. Douglas Wesley advised the board that the agreement has been executed for the \$410 million commitment to a co-investment fund managed by Aksia. Ms. Kim Pollitt announced that she plans to retire in May of 2024 and she thanked the board for all the years of support. Mr. Schlachter also thanked the board for giving him the opportunity to serve as the next chief investment officer for SURS.

Copies of the staff memorandums titled "Investment Contracts Approved" and "Report from the October 2023 Investment Committee Meeting" are incorporated as part of these minutes as **Exhibit 1** and **Exhibit 2**.

#### THIRD QUARTER PERFORMANCE REPORT

Mr. Colin Beebe and Mr. David Sancewich provided a review of market performance through September 30, 2023 and then highlighted SURS' final total fund performance and peer rankings through September 30, 2023.

A copy of Meketa's presentation titled "23Q3 SURS Board Report" is incorporated as part of these minutes as **Exhibit 3**.

# NON-TRADITIONAL GROWTH ASSET CLASS REVIEW AND STABILIZED GROWTH ASSET CLASS REVIEW – Educational Session

Ms. Kim Pollitt, Mr. Joe Duncan, and Mr. Shane Willoughby discussed the Non-Traditional Growth Portfolio and the Stabilized Growth Asset Class Portfolio.

This educational topic lasted 50 minutes and concluded at 10:45 a.m.

A copy of the presentations titled "Non-Traditional Growth Asset Class Review December 2023" and "Stabilized Growth Asset Class Review December 2023" are incorporated as part of these minutes as **Exhibit 4** and **Exhibit 5**.

# <u>DISCUSSION OF REDEMPTION QUEUE OF THE JP MORGAN</u> <u>STRATEGIC PROPERTY FUND</u>

Mr. Willoughby discussed organizational changes within the JP Morgan Strategic Property Fund and advised the committee that due to those management changes, SURS staff and Callan recommend that SURS enter the redemption queue by placing a full redemption request for the Strategic Property Fund. This will allow SURS to monitor and evaluate any changes and the performance of the fund while maintaining optionality to rescind its redemption request should a future change become necessary. The trustees discussed various options and the benefits of entering the redemption queue.

Trustee Rock made the following motion:

• That based on the recommendation of SURS staff and Callan, SURS enter the redemption queue by placing a full redemption request for the Strategic Property Fund.

Trustee Vasquez seconded the motion which passed via the following roll call vote:

Trustee Bodnaruk aye Trustee Figueroa aye Trustee Flaherty aye Trustee Giertz aye Trustee Hendrie aye Trustee Kothari abstain Trustee Lyons aye Trustee Rock aye Trustee Van Meter aye Trustee Vasquez aye Trustee Vogel aye

A copy of the Callan memorandum titled "JP Morgan Recommendation" is incorporated as part of these minutes as **Exhibit 6**.

# REAL ASSETS, PRIVATE CREDIT AND PRIVATE EQUITY REVIEW – Educational Session

Representatives from Meketa, (private credit), Callan (real assets), and Aksia (private equity) presented their respective strategic plans and pacing updates, along with an update of the performance of each portfolio.

The educational topic lasted 130 minutes and concluded at 1:00 p.m.

Copies of the presentations from each representative titled "Private Markets Pacing," Call Performance Pacing," "Meketa Private Credit Asset Class Review" and "Aksia Private Equity Asset Class Review" are incorporated as part of these minutes as **Exhibit 7**, **Exhibit 8**, **Exhibit 9** and **Exhibit 10**.

#### **CLOSED SESSION**

Trustee Giertz moved that the Investment Committee go into closed session pursuant to §2(c)(7) of the Illinois Open Meetings Act to consider the sale or purchase of securities or investment or to consider an investment contract. Trustee Vasquez seconded the motion which passed via the following roll call vote.

Trustee Bodnaruk - aye
Trustee Figueroa - absent
Trustee Flaherty - aye
Trustee Giertz - aye

Trustee Hendrie - aye
Trustee Kothari - aye
Trustee Lyons - aye
Trustee Rock - aye
Trustee Van Meter - aye
Trustee Vasquez - aye
Trustee Vogel - aye

#### **RETURN TO OPEN SESSION**

The Investment Committee returned to open session at 1:45 p.m.

Trustee Van Meter made the following motion:

• That based on the recommendation of SURS staff and Callan, a commitment of the lesser of \$50 million or 10% of total fund commitments be made to Ember Infrastructure Fund II, subject to successful completion of contract negotiations.

Trustee Bodnaruk seconded the motion which passed via the following roll call vote:

Trustee Bodnaruk aye Trustee Figueroa absent Trustee Flaherty aye Trustee Giertz aye Trustee Hendrie aye Trustee Kothari aye Trustee Lyons aye Trustee Rock aye Trustee Van Meter aye Trustee Vasquez aye Trustee Vogel aye

#### **CORPORATE GOVERNANCE UPDATE**

Ms. Stephany Brinkman presented an update regarding corporate governance activity since September 2023 that included a quarterly report, a Council of Institutional Investors (CII) update, proxy voting information and an update of current events.

A copy of the staff presentation titled "Corporate Gov. Update" is incorporated as part of these minutes as **Exhibit 11**.

#### **AUTHORITY OF THE CIO DESIGNEE**

Ms. Suzanne Mayer discussed the crossover of duties while Mr. Schlachter is transitioning into his new role and she explained the need for him to be able to have the same authority at SURS as the current CIO.

Trustee Vogel made the following motion:

• That Michael Schlachter, the SURS Chief Investment Officer Designee, be given the same authority as the current SURS Chief Investment Officer which will enable him to act on behalf of SURS and give direction to third parties in the same manner as the current SURS CIO.

Trustee Giertz seconded the motion which passed via the following roll call vote:

Trustee Bodnaruk aye Trustee Figueroa absent Trustee Flaherty aye Trustee Giertz aye Trustee Hendrie aye Trustee Kothari aye Trustee Lyons aye Trustee Rock aye Trustee Van Meter aye Trustee Vasquez aye Trustee Vogel aye

#### ILLINOIS INVESTMENT POLICY BOARD APPOINTMENT

Mr. Doug Wesley stated that due to his upcoming retirement, the board needs to appoint someone to serve as the SURS representative on the Illinois Investment Policy Board. It was determined that Mr. Schlachter should serve in that capacity.

Trustee Vogel made the following motion:

• That the Investment Committee appoint Mr. Michael Schlachter as the State Universities Retirement System's representative to serve on the Illinois Investment Policy Board.

Trustee Giertz seconded the motion which passed via the following roll call vote:

Trustee Bodnaruk aye Trustee Figueroa absent Trustee Flaherty aye Trustee Giertz aye Trustee Hendrie aye Trustee Kothari aye Trustee Lyons aye Trustee Rock aye Trustee Van Meter aye Trustee Vasquez aye Trustee Vogel aye

Copies of the memorandums titled "Illinois Investment Policy Board Statute" and "Public Act 99-0128 Appointment Letter" are incorporated as part of these minutes as **Exhibit 12** and **Exhibit 13**.

#### INFORMATIONAL ITEMS NOT REQUIRING COMMITTEE ACTION

- 1. Exhibit 14 Executive Summary Risk Memo
- 2. Exhibit 15 Executive Summary Risk Report
- 3. Exhibit 16 SURS FY24 Private Equity and Private Credit Comments
- 4. Exhibit 17 Supplemental Information

#### **PUBLIC COMMENT**

There were no public comments presented to the Investment Committee.

#### **ADJOURN**

There was no further business brought before the committee and Trustee Rock moved that the meeting be adjourned. The motion was seconded by Trustee Kothari which passed via the following roll call vote:

Trustee Bodnaruk aye Trustee Figueroa absent Trustee Flaherty aye Trustee Giertz aye Trustee Hendrie aye Trustee Kothari aye Trustee Lyons aye Trustee Rock aye Trustee Van Meter aye Trustee Vasquez aye Trustee Vogel aye

Respectfully submitted,

Ms. Suzanne M. Mayer

Executive Director and Secretary, Board of Trustees

SMM:kc



1901 Fox Drive, Champaign, IL 61820-7333 800-275-7877 • 217-378-8800 • (Fax) 217-378-9800 www.surs.org

Investment Department

To: Suzanne Mayer

From: Douglas C. Wesley, CFA
Date: November 22, 2023

Subject: Investment Contracts Approved

The following investment agreements were approved by the Executive Director subsequent to the mailing for the October 19, 2023, Investment Committee meeting.

#### **Defined Benefit Plan**

#### **CAPTRUST**

The consent to the assignment of the Investment Consulting Services Agreement was executed on October 19, 2023.

#### Pantheon

A consent to the extension of Pantheon Europe Fund III L.P. until December 19, 2024, was executed on October 30, 2023.

#### Aksia Co-Invest

The documents to effect the \$410 million private equity co-investment vehicle (SURS PE Co-Investment Fund II, LP) managed by Aksia LLC were executed and delivered on November 1, 2023.

#### **Homestead Capital**

A consent to the extension of the final closing date to June 30, 2024, for Homestead Capital USA Farmland Fund IV, L.P. was executed on November 20, 2023.



1901 Fox Drive, Champaign, IL 61820-7333 800-275-7877 • 217-378-8800 • (Fax) 217-378-9800 www.surs.org

Investment Department

To: Investment Committee
From: Douglas C. Wesley, CFA
Date: November 22, 2023

Subject: Report from the October 19, 2023, Investment Committee Meeting

Enclosed are the Minutes of the October 19, 2023, Investment Committee Meeting. The purpose of this memorandum is to provide a status report on the action items for Investments.

Five motions were approved during the Investment Committee Meeting. These included the approval of the minutes from the September 7, 2023, Investment Committee Meeting, and that the closed session minutes from the September 7, 2023, Investment Committee Meeting be approved and remain closed. The remaining motions approved by the Board of Trustees required further action by SURS staff. Open motions requiring further action by SURS Staff are listed below.

1. That based on the recommendation of SURS staff and Meketa, the revised Investment Policy document for the defined benefit plan be approved as presented.

The revised Investment Policy for the defined benefit plan was posted on the SURS website and filed with the Department of Insurance.

2. That based on the recommendation of SURS staff and Meketa, the revised Investment Procurement Policy document be approved as presented.

The revised Investment Procurement Policy was posted on the SURS website.

3. That based on the recommendation of SURS Staff, SURS execute consent to the assignment of the Investment Consulting Services Agreement dated April 1, 2023, between the State Universities Retirement System and CAPTRUST Financial Advisors, subject to satisfactory completion of legal review.

The consent was executed and sent to CAPTRUST on October 19, 2023.

#### Open item from September 7, 2023

4. That based upon the recommendations from SURS staff and Callan, SURS commit \$75 million to Brookfield Strategic Real Estate Fund V, subject to successful completion of contract negotiations.

The agreements to effect the investment were executed and delivered on October 18, 2023.

#### Open item from April 20, 2023

5. That based on the recommendation from SURS staff and CAPTRUST, the Delaware Small-Mid Cap Growth R6 be replaced with the Fiera Capital Small-Mid Cap Growth separate account, as soon as administratively possible with the replacement to include the mapping of the Plans' current assets and future contributions for both the RSP and DCP.

Staff is in the process of contract negotiations.

#### Open item from February 2, 2023

6. That based on the recommendation of SURS staff and Meketa, the Investment Committee approve a commitment of \$410 million to a Private Equity Co-Investment Vehicle managed by Aksia LLC, subject to successful completion of contract negotiations.

The agreements to effect the investment were executed and delivered on November 1, 2023.

#### Open item from June 2, 2022

7. That based on the recommendation from SURS staff and Meketa, the Investment Committee approve the retention of Capstone Investment Advisors to serve as the back-up manager for the tail risk and long volatility mandates, subject to successful contract negotiations.

SURS staff is in the process of contract negotiations.

Please advise if you have any questions prior to the December 7, 2023, Investment Committee meeting.



# Illinois State Universities Retirement System

**December 7, 2023** 

Third Quarter 2023
Board Report

# Illinois State Universities Retirement System

Agenda

- 1. Performance Summary
- 2. Economic and Market Update
- 3. Total Fund
- 4. Private Markets Performance
- 5. US Equity
- 6. Non US Equity
- 7. Global Equity
- 8. Inflation Sensitive
- 9. Public Credit
- 10. Principal Protection
- 11. Crisis Risk Offset ex Tail Risk
- 12. Appendix

# **Performance Summary**



# Illinois State Universities Retirement System

### Total Fund | As of September 30, 2023

Portfolio Valuation									
	Quarter-To-Date	One Year	Three Years						
Total Fund									
Beginning Market Value	\$23,066,695,089	\$21,956,728,687	\$18,175,679,228						
Net Change	-\$432,518,132	\$677,448,269	\$4,315,497,728						
Ending Market Value	\$22,634,176,957	\$22,634,176,957	\$22,634,176,957						

Performance vs. Policy Benchmark and Median Public Fund								
	QTD (%)	YTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)
Total Fund	-1.2	4.1	6.4	0.8	6.8	6.3	7.1	9.0
SURS Policy Benchmark	-1.7	4.6	7.4	-0.7	5.2	5.6	6.5	8.6
Excess Return	0.5	-0.5	-1.0	1.5	1.6	0.7	0.6	0.4
Total Fund	-1.2	4.1	6.4	8.0	6.8	6.3	7.1	9.0
InvMetrics Public DB > \$1B Median	-1.9	4.3	10.2	-1.1	5.9	5.5	6.5	-
Total Fund Rank	26	60	97	18	32	25	34	-

Returns are gross of fees.

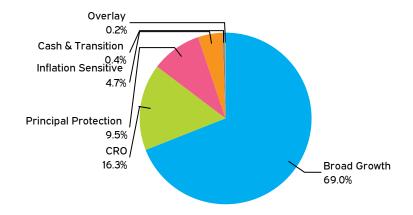
Investment Metrics (IM) Median [Gross of Fees] - Public Fund >\$1Billion Universe includes BNY Mellon Total Public Fund Greater than \$1Billion Universe and IM client data.



# Illinois State Universities Retirement System

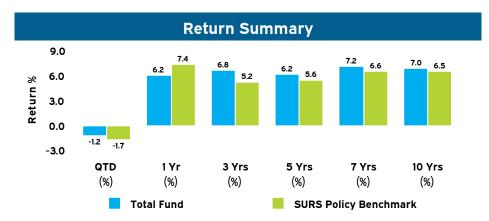
Total Fund | As of September 30, 2023

Asset Allocation vs. Target As of September 30, 2023									
	Current Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)					
Broad Growth	15,617,171,503	69.0	68.0	1.0					
Non-Traditional Growth	4,048,950,743	17.9	15.0	2.9					
Traditional Growth	7,874,223,308	34.8	36.0	-1.2					
Stabilized Growth	3,693,997,451	16.3	17.0	-0.7					
nflation Sensitive	1,053,346,944	4.7	5.0	-0.3					
Inflation Sensitive	1,053,346,944	4.7	5.0	-0.3					
Principal Protection	2,148,305,901	9.5	10.0	-0.5					
Principal Protection	2,148,305,901	9.5	10.0	-0.5					
CRO	3,693,078,497	16.3	17.0	-0.7					
Crisis Risk Offset	3,693,078,497	16.3	17.0	-0.7					
ash & Transition	80,829,118	0.4	0.0	0.4					
Cash & Transition	80,829,118	0.4	0.0	0.4					
Overlay	41,444,993	0.2	0.0	0.2					
Overlay	41,444,993	0.2	0.0	0.2					
otal	22,634,176,957	100.0	100.0	0.0					

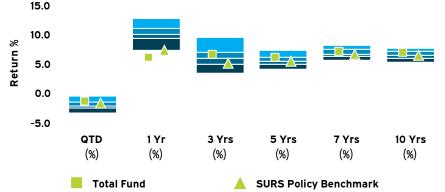


## Illinois State Universities Retirement System

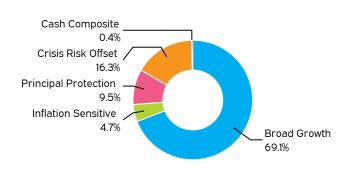
#### Total Fund | As of September 30, 2023

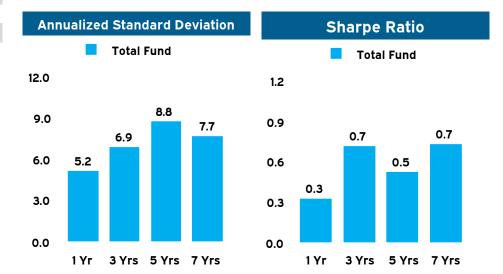


	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Total Fund	-1.2	6.2	6.8	6.2	7.2	7.0
SURS Policy Benchmark	-1.7	7.4	5.2	5.6	6.6	6.5
Excess Return	0.5	-1.2	1.6	0.6	0.6	0.5
InvMetrics Public DB > \$1B Median	-2.0	10.2	6.0	5.5	6.7	6.5
InvMetrics Public DB > \$1B Rank	22	98	30	25	36	35
45.0						



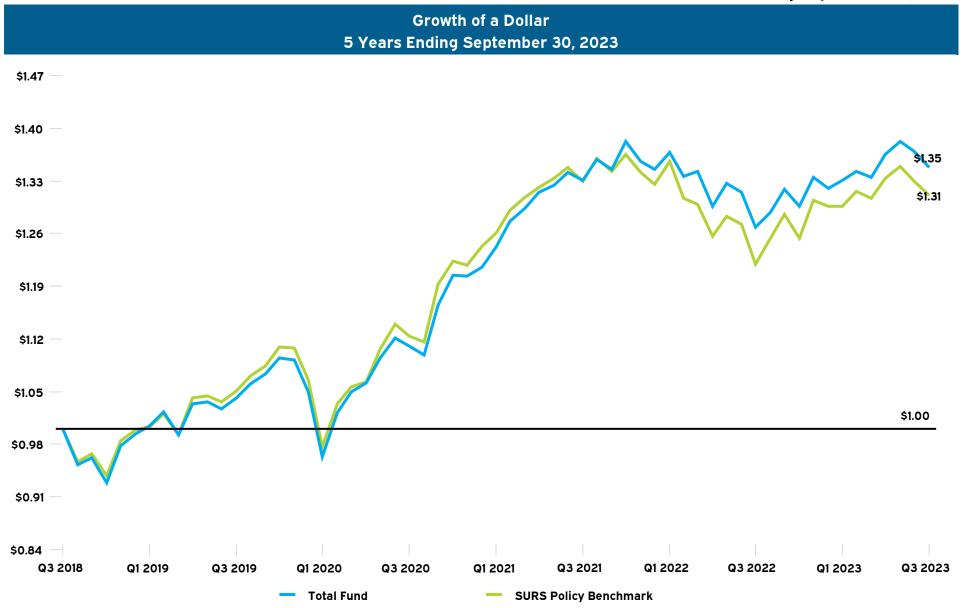
# Current Allocation





# Illinois State Universities Retirement System

Total Fund | 5 Years Ending September 30, 2023



Data as of September 30, 2023

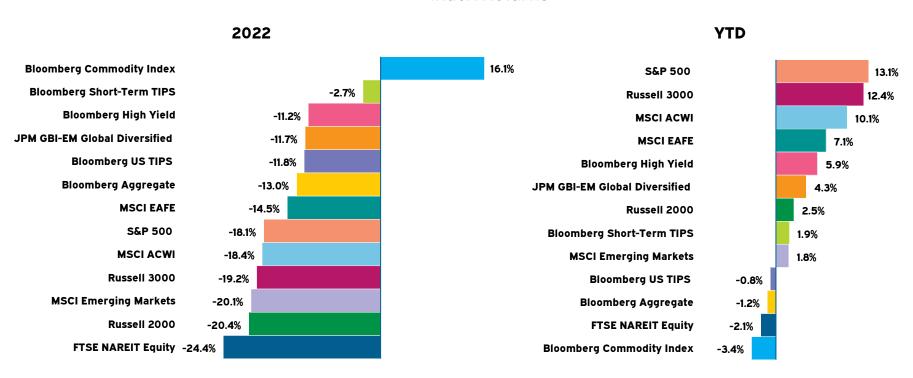
#### **Economic and Market Update**

### Commentary

- → After a strong July, global assets turned negative in August and September as expectations shifted to the Fed keeping interest rates higher for longer. Weakening economic data from Europe and China, as well as further instability in the Chinese real estate sector and a strong US dollar, weighed on results.
  - The Federal Open Markets Committee (FOMC) increased policy rates in July by 0.25% to a range of 5.25% 5.5% and kept rates at that level at their September meeting. Markets are now largely expecting the FOMC to maintain interest rates at this level through the first half of next year.
  - US equity markets (Russell 3000 index) fell in the third quarter (-3.3%), bringing the year-to-date gains to 12.4%. The technology sector remains the key driver of results this year, helped by artificial intelligence optimism.
  - Non-US developed equity markets declined more than the US in the third quarter (MSCI EAFE -4.1%) with the strength of the US dollar adding 2.8% to the quarterly declines. This widened the gap between US and international developed equities for the year (12.4% versus 7.1%).
  - Emerging market equities experienced the smallest declines in the third quarter (-2.9%). Negative results were driven by China and again the strong US dollar. Emerging markets continue to significantly trail developed market equities year-to-date, returning just 1.8%, again driven by China.
  - Interest rates generally rose over the quarter, particularly for longer-dated maturities. The broad US bond market fell (-3.2%) for the quarter and turned negative (-1.2%) year-to-date, as higher income has offset capital losses from rising rates.
- → For the rest of this year, the paths of inflation and monetary policy, slowing global growth, and the wars in Ukraine and Israel will all be key.



#### Index Returns<sup>1</sup>



- → After a particularly difficult 2022, most public market assets are up thus far in 2023, led by developed market equities.
- → While hopes for a soft landing remain in place, the prospect of higher interest rates for longer weighed on market sentiment in August and September.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2023.



### Domestic Equity Returns<sup>1</sup>

Domestic Equity	September (%)	<b>Q3</b> (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-4.8	-3.3	13.1	21.6	10.2	9.9	11.9
Russell 3000	-4.8	-3.3	12.4	20.5	9.4	9.1	11.3
Russell 1000	-4.7	-3.1	13.0	21.2	9.5	9.6	11.6
Russell 1000 Growth	-5.4	-3.1	25.0	27.7	8.0	12.4	14.5
Russell 1000 Value	-3.9	-3.2	1.8	14.4	11.1	6.2	8.4
Russell MidCap	-5.0	-4.7	3.9	13.4	8.1	6.4	9.0
Russell MidCap Growth	-4.9	-5.2	9.9	17.5	2.6	7.0	9.9
Russell MidCap Value	-5.1	-4.5	0.5	11.0	11.0	5.2	7.9
Russell 2000	-5.9	-5.1	2.5	8.9	7.2	2.4	6.6
Russell 2000 Growth	-6.6	-7.3	5.2	9.6	1.1	1.6	6.7
Russell 2000 Value	-5.2	-3.0	-0.5	7.8	13.3	2.6	6.2

### US Equities: The Russell 3000 Index fell 3.3% in the third quarter but is up 12.4% YTD.

- → US stocks fell 3.3% in the third quarter as healthy economic data and comments from the Fed caused investors to expect interest rates to remain higher for longer.
- → Large cap stocks outperformed small cap stocks during the quarter, bringing their year-to-date outperformance to over 10%. The so called "Magnificent Seven" within the large cap market drove most of this outperformance despite a weak third quarter.
- → Energy strongly led the way during the quarter posting double-digit gains while most other sectors declined. Oil prices rose after Saudi Arabia and Russia extended output cuts.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2023.







- → Except for energy, which benefited from rising oil prices, all sectors were down in the third quarter.
- ightharpoonup So far in 2023, the communication services (+38.1%) and technology (+33.0%) sectors had the best results on artificial intelligence optimism. Given the continued strength in the US consumer the consumer discretionary sector followed (+23.3%), while more defensive sectors like utilities (-16.9%) and consumer staples (-6.0%) have trailed.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2023.



### **Economic and Market Update**

### Foreign Equity Returns<sup>1</sup>

Foreign Equity	September (%)	Q3 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-3.2	-3.8	5.3	20.4	3.7	2.6	3.3
MSCI EAFE	-3.4	-4.1	7.1	25.6	5.8	3.2	3.8
MSCI EAFE (Local Currency)	-1.1	-1.3	10.7	20.3	10.8	5.7	6.8
MSCI EAFE Small Cap	-4.4	-3.5	1.8	17.9	1.1	0.8	4.3
MSCI Emerging Markets	-2.6	-2.9	1.8	11.7	-1.7	0.6	2.1
MSCI Emerging Markets (Local Currency)	-1.8	-1.4	4.0	10.9	0.6	2.7	4.9
MSCI China	-2.8	-1.9	-7.3	5.2	-14.3	-4.2	1.7

Foreign Equity: Developed international equities (MSCI EAFE) fell 4.1% in the third quarter bringing the YTD gain to 7.1%. Emerging market equities (MSCI EM) fell 2.9% in the period, rising 1.8% YTD.

- → Outside of the US, equities were also weak during the third quarter with the continued strength of the US dollar being a key driver.
- → Eurozone shares felt pressure from slowing GDP growth and an interest rate hike by the ECB, although inflation continued to ease. By contrast, the UK saw modest gains amid promising economic data including slowing inflation and GDP back around pre-pandemic levels. Japan outperformed regional peers for the guarter due in part to strong earnings.
- → Emerging market performance, while negative, outpaced developed peers. Chinese markets saw losses in-line with other emerging market countries, driven largely by unease surrounding property company Evergrande and a continued lackluster reopening of the economy.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2023.



#### Fixed Income Returns<sup>1</sup>

	September	Q3	YTD	1 YR	3 YR	5 YR	10 YR	Current Yield	Duration
Fixed Income	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(Years)
Bloomberg Universal	-2.4	-2.9	-0.6	1.6	-4.7	0.3	1.4	5.7	6.0
Bloomberg Aggregate	-2.5	-3.2	-1.2	0.6	-5.2	0.1	1.1	5.4	6.2
Bloomberg US TIPS	-1.8	-2.6	-0.8	1.2	-2.0	2.1	1.7	5.0	6.6
Bloomberg Short-term TIPS	-0.2	0.4	1.9	3.2	1.9	2.8	1.7	5.4	2.5
Bloomberg High Yield	-1.2	0.5	5.9	10.3	1.8	3.0	4.2	8.9	4.0
JPM GBI-EM Global Diversified (USD)	-3.4	-3.3	4.3	13.1	-2.7	0.0	-0.8	6.9	4.9

## Fixed Income: The Bloomberg Universal index declined 2.9% in the third guarter and -0.6% YTD.

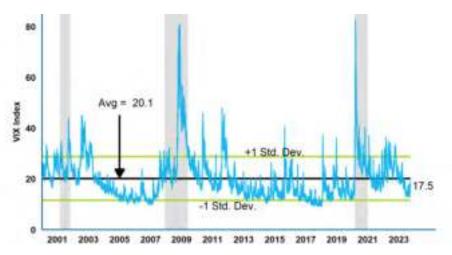
- → The downgrade of US government debt from AAA to AA+ by Fitch combined with expectations for higher borrowing put upward pressure on longer-term rates for the guarter and weighed on overall results. Expectations for policy rates to remain higher for longer than previously expected also contributed to the decline in bonds.
- → The broad US bond market (Bloomberg Aggregate) fell 3.2% for the quarter bringing YTD results into negative territory. The broader TIPS index fell by 2.6%, while the less interest-rate-sensitive short-term TIPS index outperformed most sectors, up 0.4%.
- → High yield bonds were the strongest quarterly performers, up 0.5%, while emerging market bonds were the weakest performer, falling 3.3%. The two asset classes remain the top performers for the year as risk appetite in credit markets remains robust.

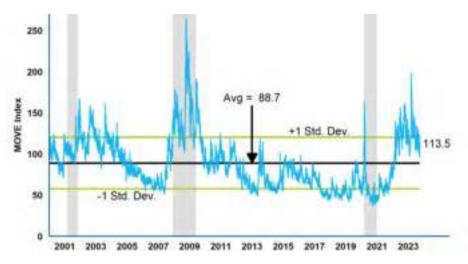
MEKETA INVESTMENT GROUP Page 14 of 85

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of September 30, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



# Equity and Fixed Income Volatility<sup>1</sup>





- → Volatility in equities (VIX) increased over the quarter but finished at a level below the long-term average. The recent increase in equity volatility has largely been driven by investors coming to terms that interest rates might remain higher for a longer period.
- → In comparison, volatility in the bond market (MOVE) remains well above its long-run average (88.7) after last year's historic losses and due to continued policy uncertainty. Over the quarter, fixed income volatility finished slightly higher compared to where it started, like equities, driven by expectations for rates to stay higher for longer.

MEKETA INVESTMENT GROUP
Page 15 of 85

<sup>&</sup>lt;sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of September 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and September 2023.



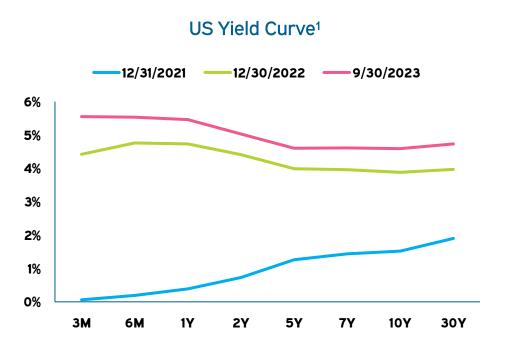
# Equity Cyclically Adjusted P/E Ratios<sup>1</sup>



- → Given the strong technology-driven rally this year, the US equity price-to-earnings ratio increased above its long-run (21st century) average. With the equity market decline in August and September the P/E ratio fell from its recent peak.
- → International developed market valuations are below their own long-term average, with those for emerging markets the lowest and well under the long-term average (close to one standard deviation below).

<sup>&</sup>lt;sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of September 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.

### **Economic and Market Update**

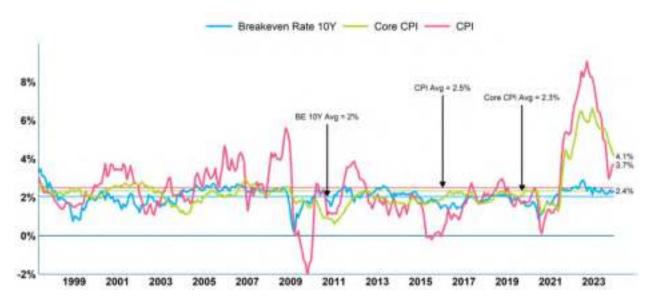


- → Overall rates have continued to increase this year, particularly at the policy sensitive front-end of the yield curve, but at much slower pace compared to last year.
- → Over the quarter, very short-term interest rates (two years or less) increased only slightly as monetary policy has likely reached close to its terminal rate for this cycle. By contrast, longer-term rates rose dramatically as US debt was downgraded and investors came to terms with rates remaining higher for longer. The ten-year Treasury yield increased from 3.8% to 4.6% over the quarter.
- → Because of the dynamic above, the yield curve's inversion decreased with the spread between two-year and ten-year Treasuries finishing the quarter at -0.47% (it started the quarter at -1.05%).

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2023.

## **Economic and Market Update**

#### Ten-Year Breakeven Inflation and CPI<sup>1</sup>

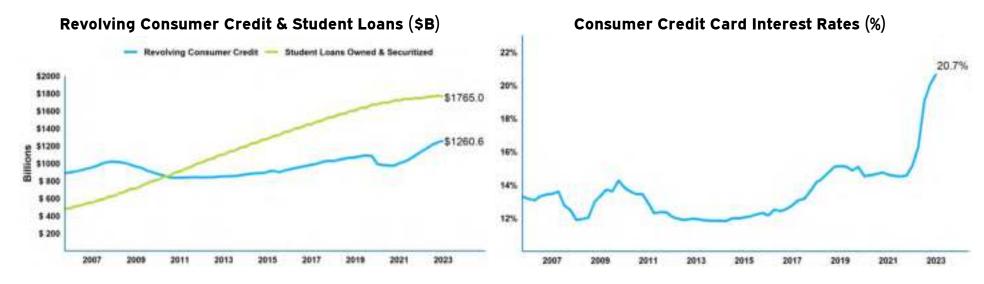


- → After the steady decline in inflation from the June 2022 peak, consumer prices recently increased driven by energy prices.
- → Year-over-year headline inflation was flat at 3.7% coming in slightly higher than expectations as improvements in energy prices were offset by higher shelter costs.
- $\rightarrow$  Core inflation excluding food and energy continued its decline (4.3% to 4.1%) year-over-year. It remains stubbornly high, though, driven by shelter costs (+7.2%), particularly owners' equivalent rent, and transportation services (+9.1%).
- → Inflation expectations (breakevens) remain well below current inflation as investors continue to expect inflation to track back toward the Fed's 2% average target.

<sup>1</sup> Source: FRED. Data is as September 30, 2023. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative

## **Economic and Market Update**

#### US Consumer Under Stress<sup>1</sup>



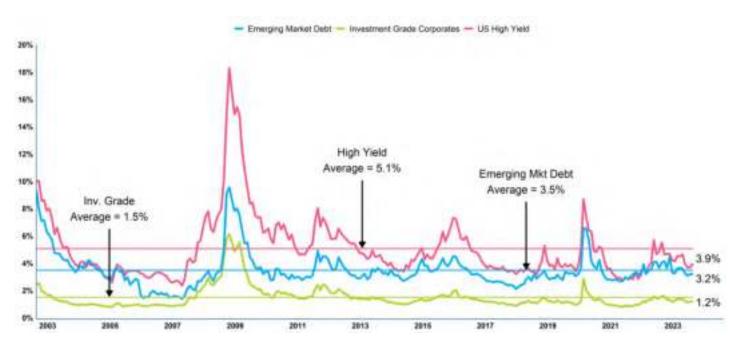
- → Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been an important driver of economic growth.
- → Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s).
- → The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially balanced by recently initiated repayment and forgiveness programs.
- → As we look ahead, the strength of the US consumers will remain key as they make up most of domestic growth (GDP).

MEKETA INVESTMENT GROUP

<sup>1</sup> Source: FRED. The most recent data is as June 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.



## Credit Spreads vs. US Treasury Bonds<sup>1</sup>



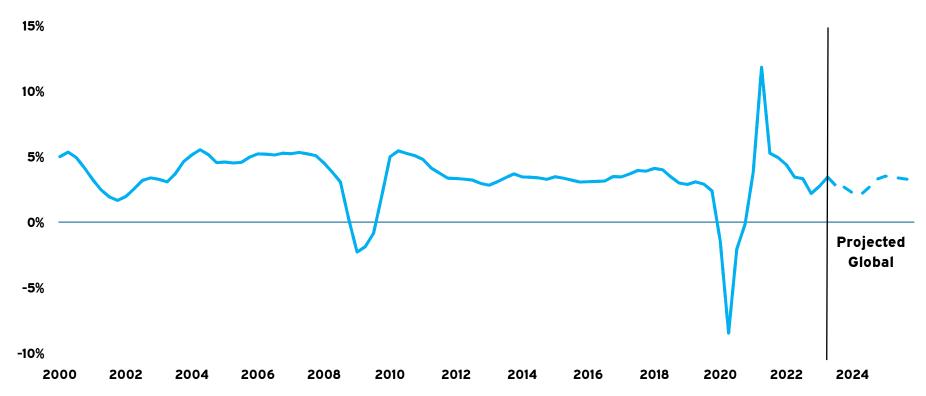
- → Credit spreads (the added yield above a comparable maturity Treasury) largely remained unchanged over the quarter.
- → High yield spreads remain well below the long-term average given the overall risk appetite this year. Investment grade and emerging market spreads are also below their respective long-term averages, but by smaller margins.

MEKETA INVESTMENT GROUP. Page 20 of 85

<sup>1</sup> Sources: Bloomberg. Data is as of September 30, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.



# Global Real Gross Domestic Product (GDP) Growth<sup>1</sup>

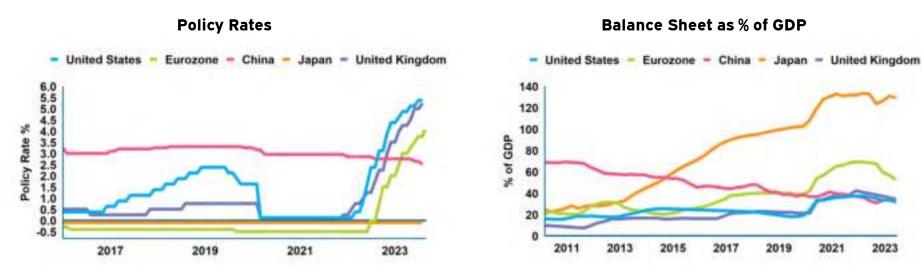


- → Global economies are expected to slow this year compared to 2022. The risk of recession remains elevated given policymakers' aggressive tightening, but optimism has started to grow over some central banks potentially navigating a soft landing.
- → The delicate balancing act of central banks trying to reduce inflation without dramatically disrupting labor markets and depressing economic growth, will remain key.

<sup>&</sup>lt;sup>1</sup> Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated September 2023.



## Central Bank Response<sup>1</sup>



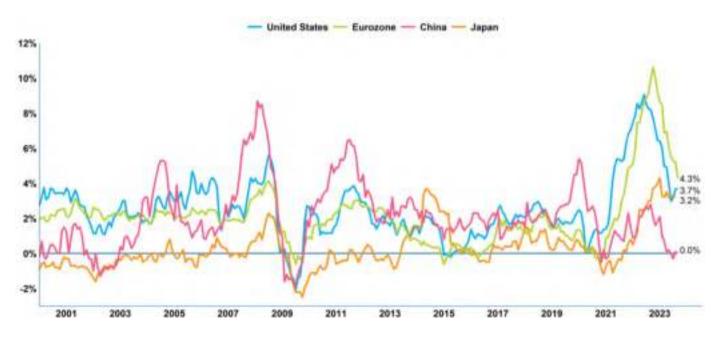
- → Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- → In July the Fed raised rates another 25 basis points to a range of 5.25% to 5.50% and then kept rates at this level at their September meeting. Markets are expecting at most one more hike later this year.
- → The European Central Bank also increased rates in July, with an additional hike in September, but rates remain lower than in the US. In Japan, expectations have increased that the BOJ will end its negative interest rate policy due to rising inflation.
- → The central bank in China has continued to cut interest rates and inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.
- → Risks remain for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and supporting growth.

MEKETA INVESTMENT GROUP

<sup>1</sup> Source: Bloomberg. Policy rate data is as of September 30, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of June 30, 2023.



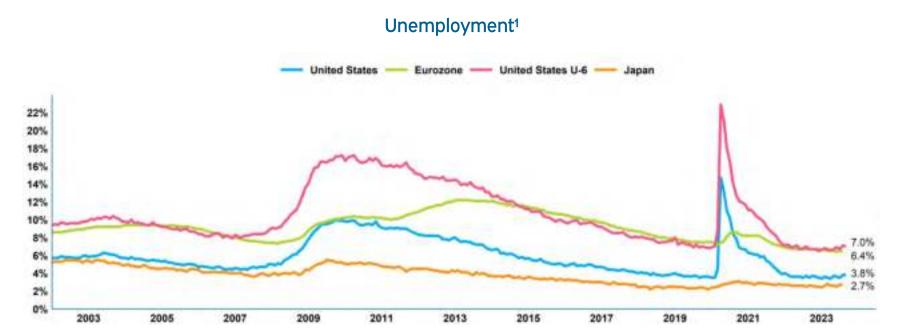
# Inflation (CPI Trailing Twelve Months)1



- → The inflation picture remains mixed across the major economies.
- → In the US, inflation was flat at 3.7%, influenced by rising shelter costs, while eurozone inflation remained higher than the US at 4.3%, a level well off its peak, however. Despite 2023's significant declines in the US and Europe, inflation levels remain elevated compared to central bank targets.
- → Inflation in Japan has increased to levels not seen in almost a decade largely driven by food and home related items. In China, deflationary pressures eased but prices were flat from a year prior.

<sup>1</sup> United States CPI and Eurozone CPI - Source: FRED. Japan CPI and China CPI - Source: Bloomberg. Data is as September 30, 2023. The most recent data for Japanese and Eurozone inflation is as of August 2023.



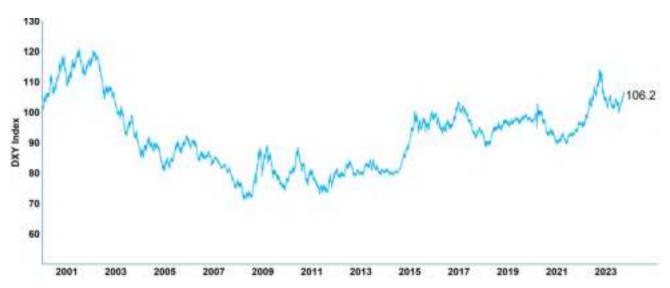


- → Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued. The pace of wage growth has slowed though, and despite remaining elevated, the number of job openings has declined from recent highs.
- → In September, unemployment remained at 3.8%, a level only 0.2% higher than the start of the quarter. The labor force participation rate remained at 62.8% well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%). Broader measures of unemployment (U-6) finished the quarter at 7.0% up only slightly from the end of June (6.9%).
- → Unemployment in Europe has also declined but remains higher than the US, while levels in Japan have been flat through the pandemic given less layoffs.

<sup>&</sup>lt;sup>1</sup> Eurozone Unemployment - Source: Bloomberg. Japan, United States, United States U-6 Unemployment – Source: FRED. Data is as September 30, 2023, for the US. The most recent data for Eurozone unemployment is as of August 2023 and Japanese unemployment is as of August 2023.

## **Economic and Market Update**





- → After a strong 2022, the US dollar declined late last year and into early this year as weaker economic data and lower inflation led to investors anticipating the end of FOMC tightening.
- → Recently though, the dollar reversed course and appreciated against major currencies as relative growth remains strong and investors anticipate the FOMC keeping interest rates higher for longer.
- → For the rest of this year, the track of inflation across economies and the corresponding monetary policies will be key drivers of currency moves.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data as of September 30, 2023.

#### **Economic and Market Update**

#### Summary

### **Key Trends:**

- → The impact of inflation still above policy targets will remain key, with bond market volatility likely to stay high.
- → Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- → Growth is expected to slow globally this year, with many economies forecasted to tip into recession. However, optimism has been building that some economies could experience a soft landing. Inflation, monetary policy, and the war will all be key.
- → In the US, consumers could feel pressure as certain components of inflation remain high (e.g., shelter), borrowing costs are elevated, and the job market may weaken.
- → The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.

  Also, the future paths of the large technology companies that have driven market gains will be important.
- → Equity valuations remain lower in emerging and developed markets, but risks remain, including the potential for recent strength in the US dollar to persist, higher inflation weighing particularly on Europe, and China's sluggish economic reopening and on-going weakness in the real estate sector. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.
- → After month-end, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

## **Total Fund**



#### Asset Allocation Compliance | As of September 30, 2023

Curre		Ass	et Allocation	vs. Interim Po	olicy	
69.09		Current Value	Policy (%)	Current (%)	Difference	Difference (%)
	Broad Growth	\$15,617,171,503	68.0	69.0	\$225,931,172	1.0
	Inflation Sensitive	\$1,053,346,944	5.0	4.7	-\$78,361,904	-0.3
	Principal Protection	\$2,148,305,901	10.0	9.5	-\$115,111,795	-0.5
	CRO	\$3,693,078,497	17.0	16.3	-\$154,731,585	-0.7
	Cash & Transition	\$80,829,118	0.0	0.4	\$80,829,118	0.4
	Overlay	\$41,444,993	0.0	0.2	\$41,444,993	0.2
	Total	\$22,634,176,957	100.0	100.0		

5.0% 4.7% 10.0% 9.5% 17.0% 16.3% 0.4% 0.0% 0.2% 0.0%

MEKETA INVESTMENT GROUP

### Illinois State Universities Retirement System

#### Asset Allocation Compliance | As of September 30, 2023

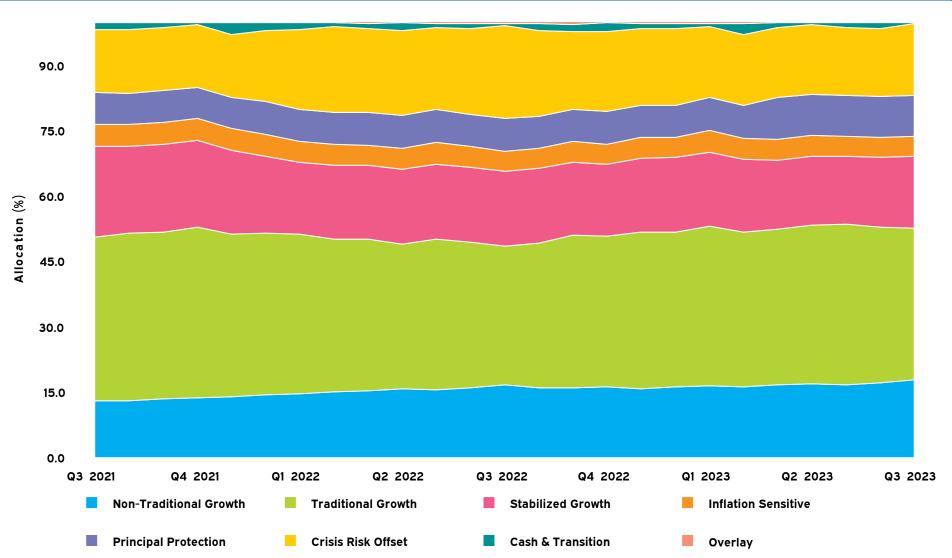
Policy	Current	Overlay
15.0%	17.9%	17.9%
36.0%	34.8%	33.9%
17.0%	16.3%	16.3%
5.0%	4.7%	4.7%
10.0%	9.5%	10.7%
17.0%	16.3%	16.3%
0.0% 0.0%	<mark>-0.4%</mark> 0.2%	0.2% 0.0%

	Asset Allocation vs. Interim Policy								
		Current Value	Policy (%)	Current (%)	Overlay (%)				
-	Non-Traditional Growth	\$4,048,950,743	15.0	17.9	17.9				
-	Traditional Growth	\$7,874,223,308	36.0	34.8	33.9				
	Stabilized Growth	\$3,693,997,451	17.0	16.3	16.3				
	Inflation Sensitive	\$1,053,346,944	5.0	4.7	4.7				
*	Principal Protection	\$2,148,305,901	10.0	9.5	10.7				
-	Crisis Risk Offset	\$3,693,078,497	17.0	16.3	16.3				
	Cash & Transition	\$80,829,118	0.0	0.4	0.2				
=	Overlay	\$41,444,993	0.0	0.2	0.0				
	Total	\$22,634,176,957	100.0	100.0	100.0				



Historical Asset Allocation | 2 Years Ending September 30, 2023





### Illinois State Universities Retirement System

Attribution Summary | As of September 30, 2023

Attribution Summary 1 Quarter Ending September 30, 2023							
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Traditional Growth	-3.2	-3.4	0.2	0.1	0.0	0.0	0.1
Stabilized Growth	-0.2	-1.3	1.1	0.2	0.0	0.0	0.2
Non Traditional Growth	1.6	4.1	-2.5	-0.4	0.1	-0.1	-0.3
Inflation Sensitive	-2.6	-2.6	0.0	0.0	0.0	0.0	0.0
Principal Protection	-2.5	-2.2	-0.3	0.0	0.0	0.0	0.0
Crisis Risk Offset ex Tail Risk	-0.2	-3.2	3.1	0.5	0.0	0.0	0.5
Total Fund	-1.3	-1.7	0.4	0.4	0.1	-0.1	0.4

Attribution Summary 1 Year Ending September 30, 2023							
	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Traditional Growth	21.3	20.2	1.2	0.3	-0.5	0.0	-0.1
Stabilized Growth	1.3	0.8	0.5	0.1	0.0	0.0	0.1
Non Traditional Growth	1.4	12.1	-10.7	-1.6	0.2	-0.4	-1.8
Inflation Sensitive	1.3	1.2	0.1	0.0	0.0	0.0	0.0
Principal Protection	0.7	0.7	-0.1	0.0	0.0	0.0	0.0
Crisis Risk Offset ex Tail Risk	-4.8	-9.7	4.8	0.9	-0.1	-0.1	0.8
Total Fund	6.3	7.5	-1.2	-0.3	-0.4	-0.6	-1.2

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

					<u> </u>		<u> </u>	
	Trailing Asset Class	Net Perforn	nance					
	Market Value	% of	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs
	(\$)	Portfolio	(%)	(%)	(%)	(%)	(%)	(%)
Total Fund	22,634,176,957	100.0	-1.3	4.0	6.3	6.7	6.2	6.8
SURS Policy Benchmark			-1.7	4.6	7.4	<i>5.2</i>	<i>5.6</i>	6.5
Total Fund ex Overlay	22,592,731,963	99.8	-1.3	4.0	6.0	6.6	6.0	6.8
SURS Policy Benchmark			-1.7	4.6	7.4	<i>5.2</i>	<i>5.6</i>	6.5
Broad Growth	15,617,171,503	69.0	-2.0	6.5	11.9	8.5	6.9	7.9
Traditional Growth	7,867,602,660	34.8	-3.2	9.7	21.3	7.6	6.8	8.2
SURS Traditional Growth Blend			-3.4	9.4	20.2	6.9	6.4	7.8
US Equity	2,111,272,066	9.3	-3.3	12.1	20.3	10.3	8.7	10.9
Dow Jones U.S. Total Stock Market Index			<i>-3.3</i>	12.4	20.5	9.3	9.0	11.2
Passive US Equity	2,111,272,066	9.3	-3.3	12.5	20.5	9.9	9.4	11.4
Dow Jones U.S. Total Stock Market Index			<i>-3.3</i>	12.4	20.5	9.3	9.0	11.2
Non US Equity	1,338,354,133	5.9	-3.0	7.1	21.9	4.7	2.5	3.7
SURS Non US Equity Blend			<i>-3.5</i>	<i>5.3</i>	20.2	<i>3.8</i>	2.7	3.4
Active Non-US Equity	1,238,864,386	5.5	-2.9	7.3	22.4	5.1	2.4	3.7
MSCI EAFE (Net)			-4.1	7.1	<i>25.6</i>	<i>5.8</i>	3.2	<i>3.8</i>
Passive Non-US Equity	99,489,747	0.4	-3.5	5.2	18.6	2.9	1.5	2.9
MSCI AC World ex USA (Net)			<i>-3.8</i>	<i>5.3</i>	20.4	<i>3.7</i>	2.6	<i>3.3</i>
Global Equity	4,417,976,461	19.5	-3.2	9.2	21.2	7.5	8.3	9.4
SURS Global Equity Blend			-3.4	9.4	20.2	6.9	6.3	7.5
Global Equity - Active	2,514,141,457	11.1	-3.3	8.5	20.8			
Global Equity - Passive	1,903,835,004	8.4	-3.1	10.1	21.7	8.3		
Stabilized Growth	3,693,997,451	16.3	-0.2	-0.3	1.3	3.1		
SURS Stabilized Growth Blend			-1.3	-2.3	0.8	<i>2.1</i>		
Stabilized Real Assets	1,741,946,564	7.7	-1.0	-6.3	-9.1	9.3	5.9	7.6
SURS Stabilized Real Assets Blend			-3.4	-11.2	-10.8	6.8	5.4	7.7

Page 32 of 85

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

		, 10000 , 1110				<i>7</i>	ptember	,
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Core	999,962,160	4.4	-1.8	-8.9	-12.8	8.3	5.0	7.2
NCREIF ODCE Net 1 Qtr Lag			-2.9	-11.O	-10.7	7.0	5.6	7.9
Core Plus	567,622,625	2.5	-0.3	-5.4	-6.5	9.9	6.8	
SURS Real Estate Blend			-2.9	-11.O	-10.7	7.0	5.6	
Core Infrastructure	174,361,779	8.0	2.1	9.9	9.8			
FTSE Developed Core Infrastructure 50/50 Index			<i>-8.5</i>	-7.5	1.3			
Public Credit	1,373,332,816	6.1	-0.4	3.7	10.0	-0.3		
SURS Credit Fixed Income Blend			-0.1	4.1	9.0	-1.0		
Diversified Credit	1,014,241,937	4.5	-0.2	4.2	10.4	0.0	2.1	2.3
SURS Credit ex EMD Blend			-0.3	4.1	9.5	-0.5	2.5	2.3
Bivium Credit	359,090,879	1.6	-0.9	2.3	8.1	-1.1		
Bivium Credit Blend			-1.2	2.2	7.3	-3.0		
Private Credit	576,199,521	2.5	2.7	6.2	6.5	10.7		
SURS Private Credit Blend			2.4	8.7	13.3	4.6		
Non Traditional Growth	4,055,571,391	17.9	1.6	3.7	1.4	19.7	14.3	12.7
SURS Non Traditional Growth Blend			4.1	17.2	12.1	11.7	10.2	
Non-Core Real Assets	939,844,434	4.2	1.6	4.5	5.8	12.5	7.9	
SURS Non Core Real Assets Blend			-1.5	-6.3	<i>-5.5</i>	9.2	7.6	
Non-Core Real Estate	620,168,224	2.7	1.5	2.0	2.9	11.9	6.8	
NCREIF ODCE Net Lagged + 1.5%			-2.5	-10.0	-9.4	8.6	7.1	
Non-Core Real Estate Debt	85,643,018	0.4	1.2	2.5	3.7	6.8	5.7	
NCREIF ODCE Net Lagged + 1.5%			-2.5	-10.0	-9.4	8.6	7.1	
Non-Core Infrastructure	169,221,023	0.7	1.8	14.2	17.5	18.9	13.8	9.7
CPI+5% 1 Qtr Lagged			2.3	6.6	8.1	<i>11.0</i>	9.1	7.8

Page 33 of 85

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

					•		•	•
	Market Value (\$)	% of Portfolio	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
Non-Core Farmland	64,812,169	0.3	3.3	8.3	8.8			
NCREIF Farmland 1 Qtr Lag			0.8	6.3	8.4			
Private Equity- Fund of Funds	2,097,391,507	9.3	8.0	0.9	-3.1	20.9	15.9	13.5
SURS PE Blend			6.1	<i>25.3</i>	17.9	12.9	11.1	13.8
Private Equity- Direct (Aksia)	1,018,335,450	4.5	3.3	10.0	9.5	18.7		
MSCI ACWI IMI +2% 1 Qtr Lag			6.1	25.6	18.1	13.0		
Inflation Sensitive	1,053,346,944	4.7	-2.6	-0.7	1.3	-2.0	1.4	1.6
SURS Inflation Sensitive Blend			-2.6	-0.8	1.2	-2.0	1.1	1.2
TIPS	1,053,346,944	4.7	-2.6	-0.7	1.3	-2.0	2.1	1.7
Blmbg. U.S. TIPS			-2.6	-0.8	1.2	-2.0	<i>2.1</i>	1.7
Principal Protection	2,148,305,901	9.5	-2.5	-0.9	0.7	-3.6	0.5	1.4
BC US Int Ag x Credit Blend			-2.2	-0.8	0.7	-4.0	0.6	1.4
Crisis Risk Offset ex Tail Risk	3,665,714,601	16.2	-0.2	1.9	-4.8	4.4		
SURS CRO Blend			-3.2	-4.3	-9.7	4.0		
Long Duration	381,028,744	1.7	-11.8	-8.5	-9.0	-15.6		-
BBgBarc US Govt Long TR			-11.8	<i>-8.5</i>	-9.0	-15.7		
Systematic Trend Following	2,173,119,634	9.6	-0.1	1.4	-9.0	14.1		
CS Mgd Futures 15% Vol			-4.1	-7.5	-17.4	14.8		
Alternative Risk Premia	745,597,519	3.3	6.7	10.5	7.7	5.0		
90 Day T-Bills +2%			1.9	5.5	7.1	4.0		
Long Volatility	365,968,705	1.6	0.0	-1.3	-3.7			
CBOE Eurekahedge Long Volatility Hedge Fund Index			1.7	-4.3	-6.0			
Tail Risk	27,363,896	0.1						
Cash Composite	80,829,118	0.4						
Total Overlay	41,444,993	0.2						

MEKETA INVESTMENT GROUP
Page 34 of 85

#### Illinois State Universities Retirement System

Plan Sponsor Peer Group Analysis | As of September 30, 2023

#### InvMetrics Public DB > \$1B Gross Return Comparison Ending September 30, 2023 35.0 20.0 Return 5.0 -10.0 -25.0 1Yr 5 Yrs QTD 2 Yrs 3 Yrs 10 Yrs 2022 2021 2020 2019 (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) -1.2 (26) 6.4 (97) 0.8 (18) 6.8 (32) 6.3 (25) 7.1 (34) -6.1 (12) 15.0 (58) 10.2 (69) 18.1 (32) Total Fund 5.6 (48) 6.5 (50) SURS Policy Benchmark -1.7 (37) 7.4 (95) -0.7 (40) 5.2 (65) -8.2 (26) 11.6 (95) 18.3 (30) 10.3 (69) 5th Percentile -0.2 12.8 3.5 9.7 7.5 8.1 -4.2 21.0 16.1 21.2 1st Quartile -1.2 11.3 0.2 7.3 6.2 7.3 -7.9 17.7 18.7 13.6 Median -1.9 10.2 -1.1 5.9 5.5 6.5 -10.7 15.8 11.9 17.3 3rd Quartile -2.5 9.1 -2.4 4.9 4.8 5.9 -12.813.6 9.6 16.0 95th Percentile -3.47.2 -4.0 3.4 4.0 4.9 -15.6 11.6 7.1 13.9 Population 88 81 74 72 70 64 120 157 168 131

Universe is InvMetrics Public DB > \$1B, which includes BNY Mellon Total Public Fund Greater than \$1Billion Universe and IM client data. Parentheses contain percentile rankings.

Calculation based on monthly periodicity.



Total Fund | As of September 30, 2023

Risk-Adjusted Return of SURS vs. Peers								
	Fiscal YTD	1 Year	3 Years	5 Years	10 Years			
Total Fund	-1.3	6.3	6.7	6.2	6.8			
Risk-Adjusted Median <sup>1</sup>	-1.3	6.4	4.1	4.3	5.2			
Excess Return	0.0	-0.1	2.6	1.9	1.6			

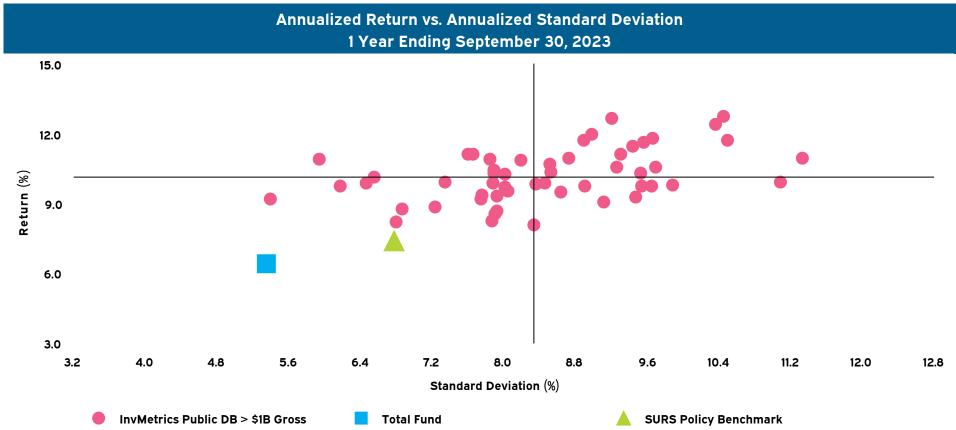
→ On a risk-adjusted basis, the SURS Total Portfolio has outperformed the Median Public Fund in all trailing time periods over one year. The pursuit of a more efficient (i.e., higher return per unit of risk) portfolio has been an explicit consideration of the SURS Board over the last two asset-liability studies, in particular.

Page 36 of 85

<sup>1</sup> Risk-adjusted median normalizes the median fund to the SURS exhibited volatility. Calculated as: risk-adjusted median = unadjusted median return \* (SURS volatility/peer volatility).



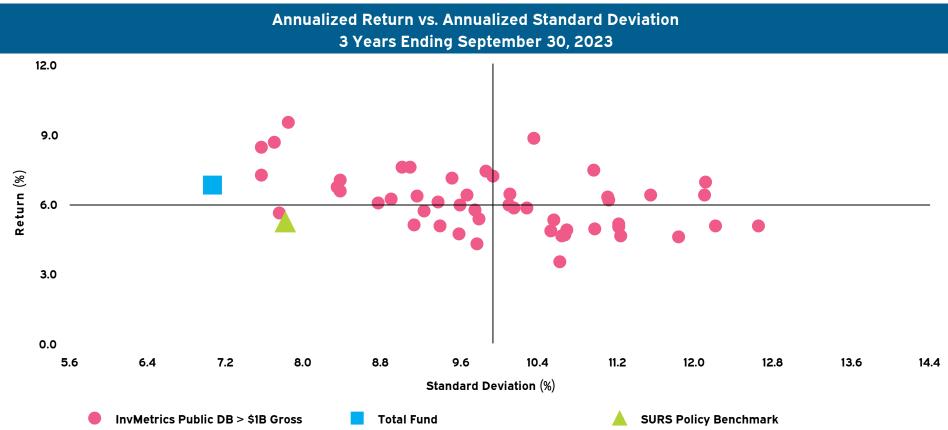
Plan Sponsor Peer Group Analysis | As of September 30, 2023



	Return	Standard Deviation	Sharpe Ratio	Information Ratio
Total Fund	6.4 (98)	5.3 (5)	0.4 (96)	-0.5 (99)
SURS Policy Benchmark	7.4 (95)	6.8 (13)	0.4 (95)	-
InvMetrics Public DB > \$1B Median	10.2	8.3	0.7	0.8



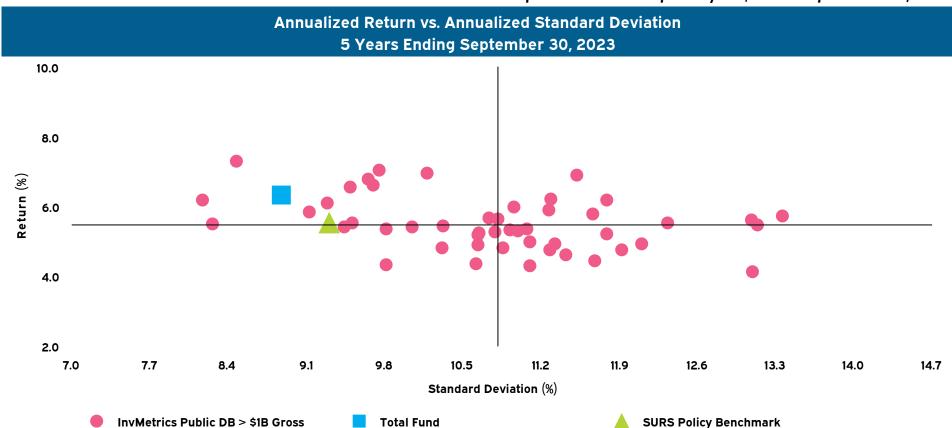
Plan Sponsor Peer Group Analysis | As of September 30, 2023



	Return	Standard Deviation	Sharpe Ratio	Information Ratio
Total Fund	6.8 (29)	7.1 (1)	0.7 (13)	0.7 (17)
SURS Policy Benchmark	5.2 (67)	7.8 (13)	0.5 (46)	-
InvMetrics Public DB > \$1B Median	6.0	9.9	0.4	0.3



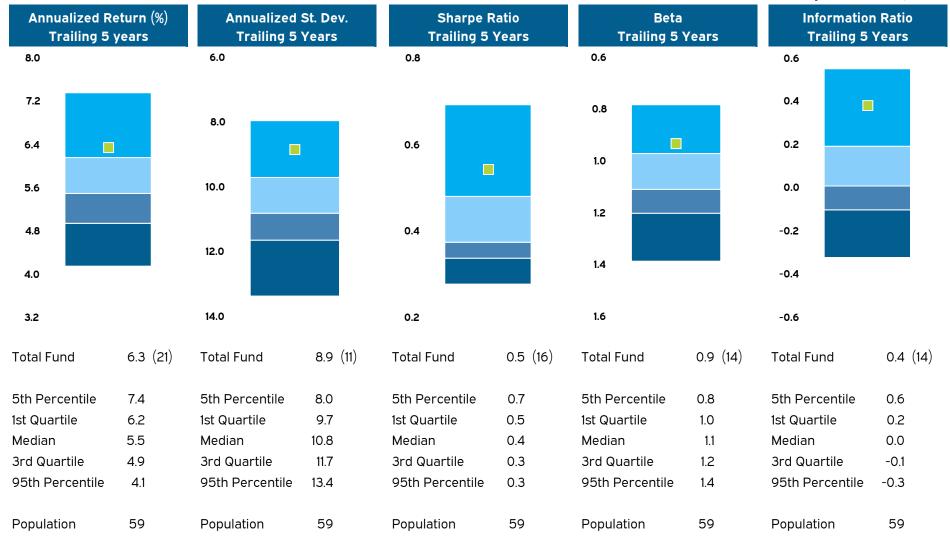
Plan Sponsor Peer Group Analysis | As of September 30, 2023



	Return	Standard Deviation	Sharpe Ratio	Information Ratio
Total Fund	6.3 (21)	8.9 (11)	0.5 (16)	0.4 (14)
SURS Policy Benchmark	5.6 (45)	9.3 (15)	0.4 (28)	-
InvMetrics Public DB > \$1B Median	5.5	10.8	0.4	0.0

#### Illinois State Universities Retirement System

#### Universe Statistics | As of September 30, 2023



Page 40 of 85

### Illinois State Universities Retirement System

MPT Stats By Group | As of September 30, 2023

		Risk Return Statistics			
		3 Yrs	5 Yrs		
	Total Fund	SURS Policy Benchmark	Total Fund	SURS Policy Benchmark	
RETURN SUMMARY STATISTI	ics				
Maximum Return	6.1	6.9	6.1	6.9	
Minimum Return	-3.5	-4.1	-8.2	-8.3	
Return	6.7	5.2	6.2	5.6	
Excess Return	5.0	3.7	4.7	4.1	
Excess Performance	1.4	0.0	0.6	0.0	
RISK SUMMARY STATISTICS					
Beta	0.9	1.0	0.9	1.0	
Up Capture	98.3	100.0	98.3	100.0	
Down Capture	82.3	100.0	92.0	100.0	
RISK/RETURN SUMMARY STA	ATISTICS				
Standard Deviation	7.1	7.8	8.9	9.3	
Sortino Ratio	1.2	0.8	0.8	0.7	
Alpha	2.0	0.0	0.9	0.0	
Sharpe Ratio	0.7	0.5	0.5	0.4	
Excess Risk	7.2	7.9	9.0	9.4	
Tracking Error	2.1	0.0	1.9	0.0	
Information Ratio	0.6	-	0.3	<del>-</del>	
CORRELATION STATISTICS					
R-Squared	0.9	1.0	1.0	1.0	
Actual Correlation	1.0	1.0	1.0	1.0	

### Illinois State Universities Retirement System

#### Benchmark History | As of September 30, 2023

Benchmark History					
From Date	To Date	Benchmark			
SURS Policy B	enchmark				
07/01/2022	Present	37.0% SURS Traditional Growth Blend, 17.0% SURS Stabilized Growth Blend, 5.0% SURS Inflation Sensitive Blend, 14.0% SURS Non Traditional Growth Blend, 19.0% SURS CRO Blend, 8.0% BC US Int Ag x Credit Blend			
06/01/2022	07/01/2022	38.0% SURS Traditional Growth Blend, 17.0% SURS Stabilized Growth Blend, 5.0% SURS Inflation Sensitive Blend, 13.0% SURS Non Traditional Growth Blend, 19.0% SURS CRO Blend, 8.0% BC US Int Ag x Credit Blend			
01/01/2022	06/01/2022	38.0% SURS Traditional Growth Blend, 21.0% SURS Stabilized Growth Blend, 5.0% SURS Inflation Sensitive Blend, 13.0% SURS Non Traditional Growth Blend, 15.0% SURS CRO Blend, 8.0% BC US Int Ag x Credit Blend			
07/01/2021	01/01/2022	39.0% SURS Traditional Growth Blend, 21.0% SURS Stabilized Growth Blend, 5.0% SURS Inflation Sensitive Blend, 12.0% SURS Non Traditional Growth Blend, 15.0% SURS CRO Blend, 8.0% BC US Int Ag x Credit Blend			
10/01/2020	07/01/2021	41.0% SURS Traditional Growth Blend, 25.0% SURS Stabilized Growth Blend, 6.0% SURS Inflation Sensitive Blend, 10.0% SURS Non Traditional Growth Blend, 10.0% SURS CRO Blend, 8.0% BC US Int Ag x Credit Blend			
07/01/2020	10/01/2020	40.0% SURS Traditional Growth Blend, 25.0% SURS Stabilized Growth Blend, 6.0% SURS Inflation Sensitive Blend, 11.0% SURS Non Traditional Growth Blend, 10.0% SURS CRO Blend, 8.0% BC US Int Ag x Credit Blend			
04/01/2020	07/01/2020	44.0% SURS Traditional Growth Blend, 25.0% SURS Stabilized Growth Blend, 6.0% SURS Inflation Sensitive Blend, 11.0% SURS Non Traditional Growth Blend, 6.0% SURS CRO Blend, 8.0% BC US Int Ag x Credit Blend			
01/01/2020	04/01/2020	46.0% SURS Traditional Growth Blend, 25.0% SURS Stabilized Growth Blend, 6.0% SURS Inflation Sensitive Blend, 10.0% SURS Non Traditional Growth Blend, 5.0% SURS CRO Blend, 8.0% BC US Int Ag x Credit Blend			
12/01/2019	01/01/2020	50.0% SURS Traditional Growth Blend, 24.0% SURS Stabilized Growth Blend, 5.5% SURS Inflation Sensitive Blend, 10.0% SURS Non Traditional Growth Blend, 2.5% SURS CRO Blend, 8.0% BC US Int Ag x Credit Blend			
10/01/2019	12/01/2019	52.0% SURS Traditional Growth Blend, 24.0% SURS Stabilized Growth Blend, 6.0% SURS Inflation Sensitive Blend, 10.0% SURS Non Traditional Growth Blend, 8.0% BC US Int Ag x Credit Blend			

## **Private Markets Performance**



#### Private Markets Performance<sup>1</sup> | As of June 30, 2023

Composite Level IRRs					
	1-Year (%)	3-Year (%)	5-Year (%)	10-Year (%)	Since Inception (%)
Real Assets <sup>1, 2</sup>	-4.6	9.7	6.7	8.1	6.9
Private Equity	2.6	21.2	17.0	14.2	20.1

	Capital Commitment (\$)	Draw Down (\$)	Distributed (\$)	Market Value (\$)	TVPI Multiple
Real Assets <sup>2</sup>	3,461,413,963	2,976,664,884	1,415,309,066	2,630,681,212	1.4
Private Equity	5,524,601,902	4,479,750,481	4,738,632,720	3,063,179,713	1.7

<sup>&</sup>lt;sup>1</sup> Information provided by Northern Trust.

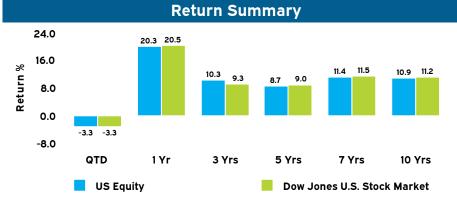
<sup>&</sup>lt;sup>2</sup> Real Assets Composite includes Real Estate, Core, and Non-Core Infrastructure.

## **US Equity**

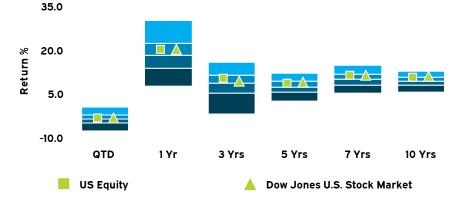
### Illinois State Universities Retirement System

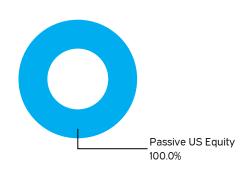
US Equity | As of September 30, 2023

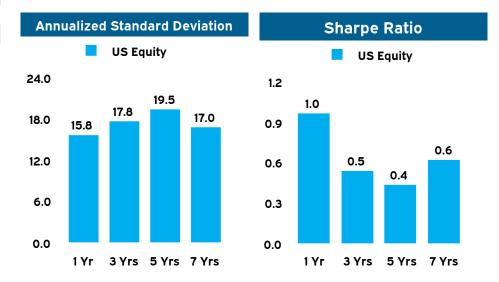
#### **Current Allocation**



	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
US Equity	-3.3	20.3	10.3	8.7	11.4	10.9
Dow Jones U.S. Total Stock Market	-3.3	20.5	9.3	9.0	11.5	11.2
Excess Return	0.0	-0.2	1.0	-0.3	-0.1	-0.3
eV US All Cap Equity Median	-3.5	18.4	8.6	7.3	10.0	9.5
eV US All Cap Equity Rank	46	37	36	30	32	25



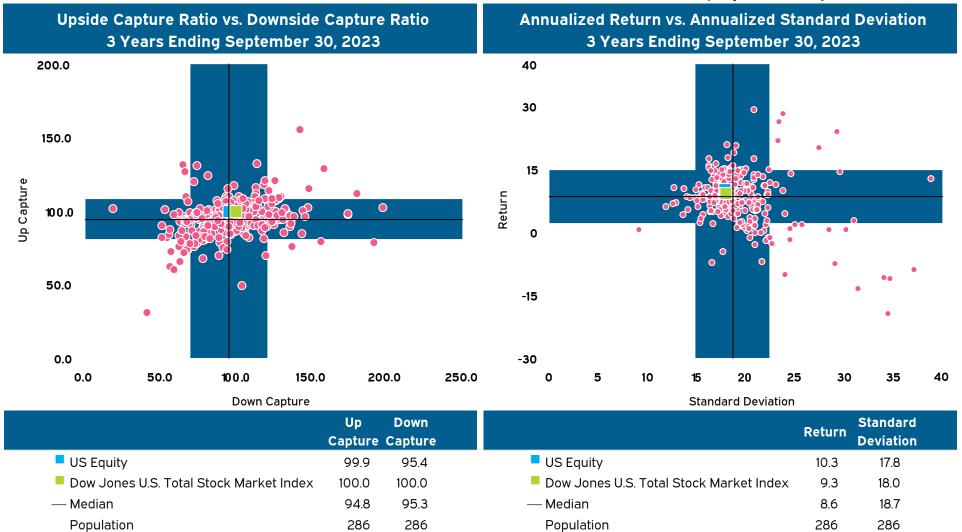




Returns are gross of fees

#### Illinois State Universities Retirement System

US Equity | As of September 30, 2023



## **Non US Equity**

### Illinois State Universities Retirement System

#### Non US Equity | As of September 30, 2023

Active Non-US Equity

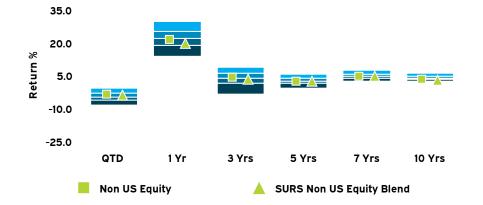
92.6%

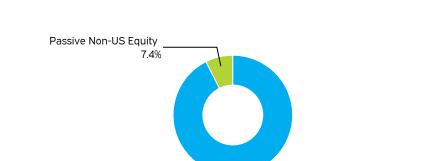


	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Non US Equity	-3.0	21.9	4.7	2.5	4.8	3.7
SURS Non US Equity Blend	-3.5	20.2	3.8	2.7	4.8	3.4
Excess Return	0.5	1.7	0.9	-0.2	0.0	0.3
eV Non-US Diversified Core Eq Median	-4.3	22.0	4.0	2.9	5.1	4.2
eV Non-US Diversified Core Eq Rank	27	51	43	65	62	72

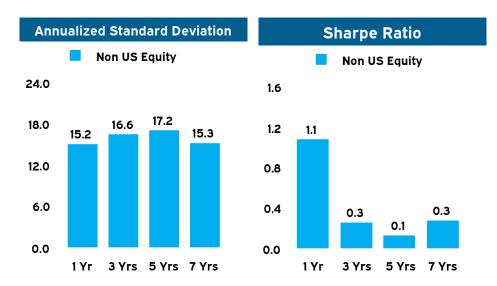
SURS Non US Equity Blend

Non US Equity





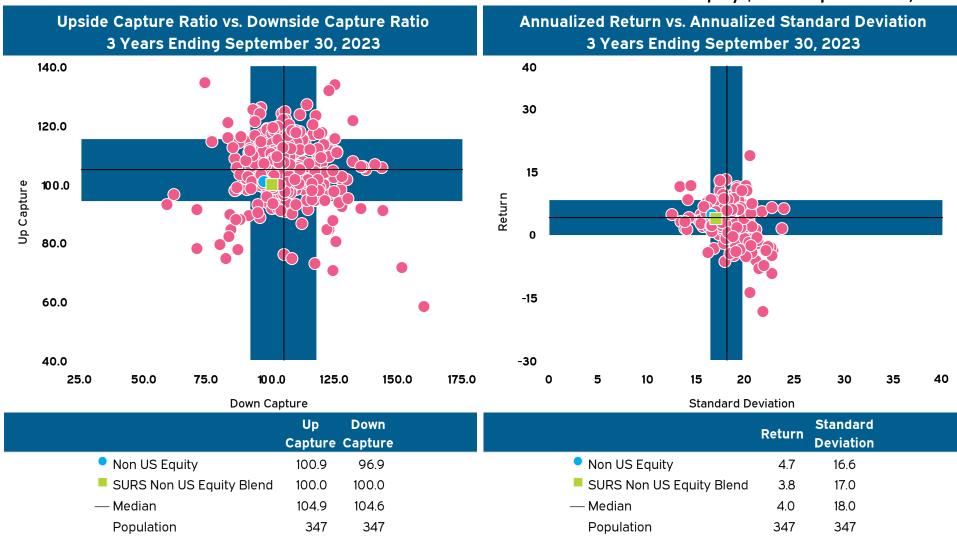
**Current Allocation** 



Returns are gross of fees

#### Illinois State Universities Retirement System

#### Non US Equity | As of September 30, 2023

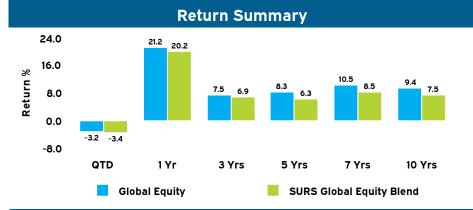


## **Global Equity**

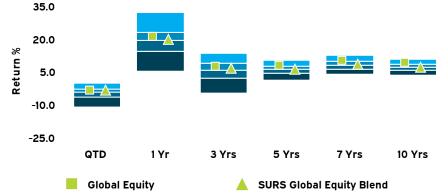
### Illinois State Universities Retirement System

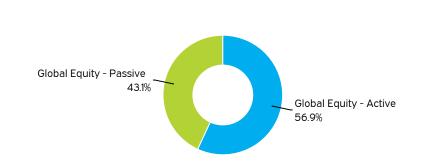
Global Equity | As of September 30, 2023

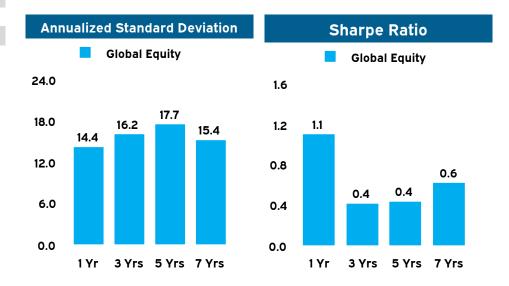




	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Global Equity	-3.2	21.2	7.5	8.3	10.5	9.4
SURS Global Equity Blend	-3.4	20.2	6.9	6.3	8.5	7.5
Excess Return	0.2	1.0	0.6	2.0	2.0	1.9
eV Global All Cap Equity Median	-4.1	19.6	6.1	6.3	8.3	7.4
eV Global All Cap Equity Rank	36	39	38	17	15	15



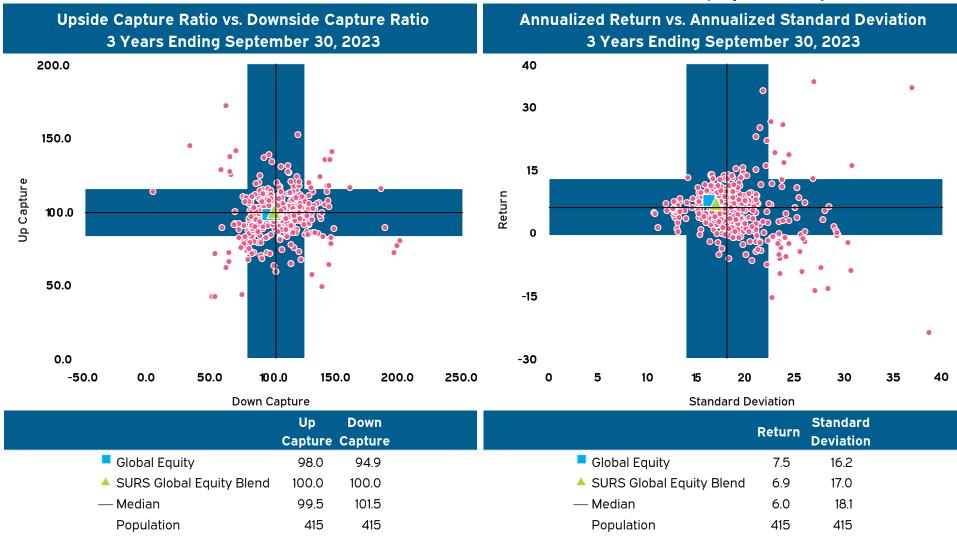




Returns are gross of fees

#### Illinois State Universities Retirement System

Global Equity | As of September 30, 2023



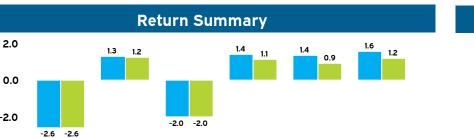
## **Inflation Sensitive**

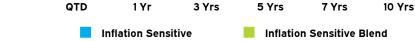
-4.0

### Illinois State Universities Retirement System

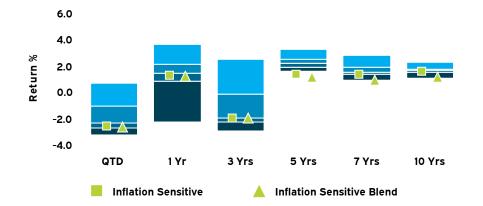
**Current Allocation** 

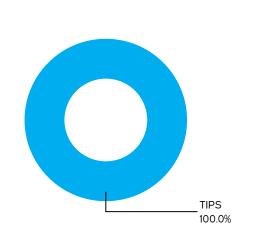
#### Inflation Sensitive | As of September 30, 2023

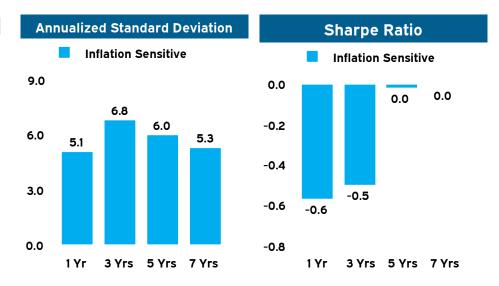




	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Inflation Sensitive	-2.6	1.3	-2.0	1.4	1.4	1.6
SURS Inflation Sensitive Blend	-2.6	1.2	-2.0	1.1	0.9	1.2
Excess Return	0.0	0.1	0.0	0.3	0.5	0.4
eV US TIPS / Inflation Fixed Inc Median	-2.2	1.5	-1.9	2.2	1.6	1.7
eV US TIPS / Inflation Fixed Inc Rank	70	58	56	98	76	71



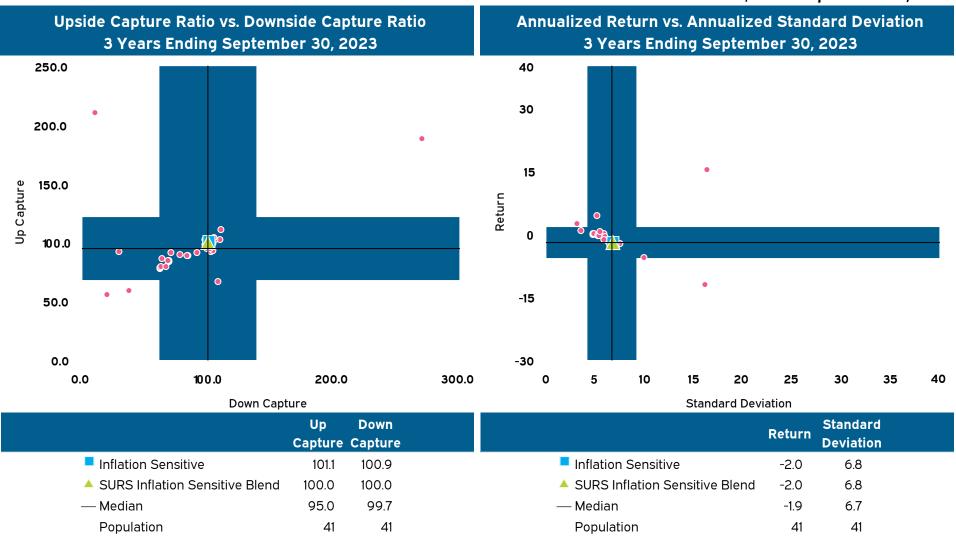




Returns are gross of fees

#### Illinois State Universities Retirement System

Inflation Sensitive | As of September 30, 2023

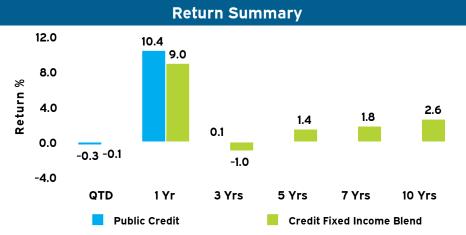


## **Public Credit**

### Illinois State Universities Retirement System

#### Public Credit | As of September 30, 2023



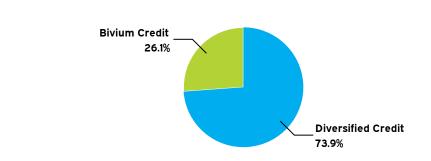


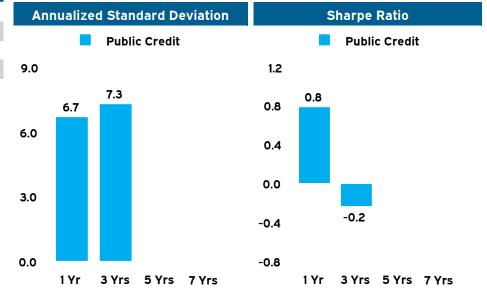
4.5	•	•				
Public Credit			Credit Fi	xed Incor	ne Blend	
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Public Credit	-0.3	10.4	0.1	-	-	-
SURS Credit Fixed Income Blend	-0.1	9.0	-1.0	-	-	-
Excess Return	-0.2	1.4	1.1	-	-	-
eV US Corporate Fixed Inc Median	-2.8	4.1	-4.4	_	_	_

4

2

2





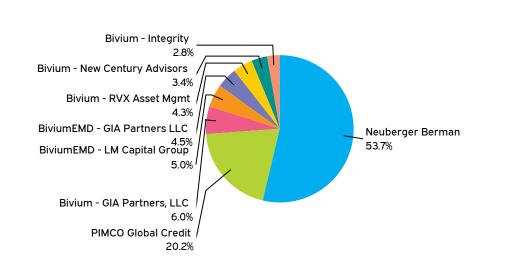
Returns are gross of fees.

eV US Corporate Fixed Inc Rank

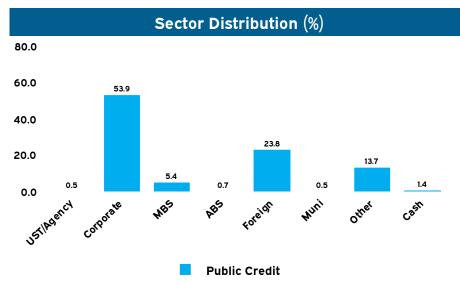


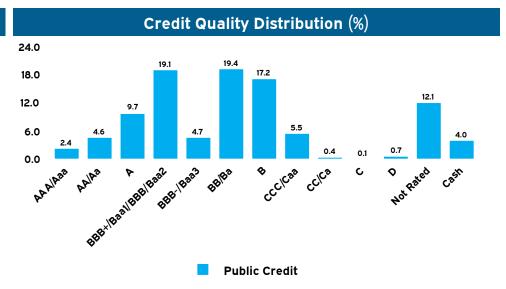
Public Credit | As of September 30, 2023

Public Credit Portfolio Characteristics					
	Portfolio				
Yield To Maturity (%)	8.3				
Effective Duration	4.7				
Avg. Quality	С				



**Current Allocation** 



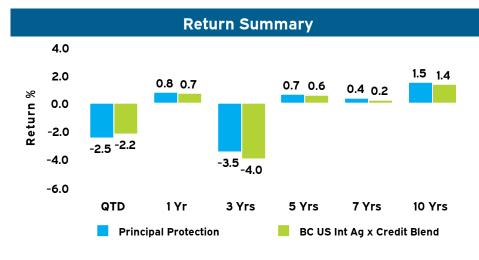


## **Principal Protection**

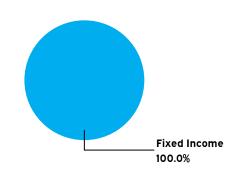
### Illinois State Universities Retirement System

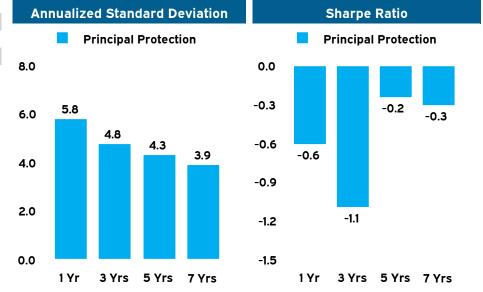
Principal Protection | As of September 30, 2023

#### **Current Allocation**



	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
Principal Protection	-2.5	8.0	-3.5	0.7	0.4	1.5
BC US Int Ag x Credit Blend	-2.2	0.7	-4.0	0.6	0.2	1.4
Excess Return	-0.3	0.1	0.5	0.1	0.2	0.1
eV US Interm Duration Fixed Inc Median	-0.8	2.6	-2.6	1.3	0.9	1.6
eV US Interm Duration Fixed Inc Rank	92	96	91	95	96	68



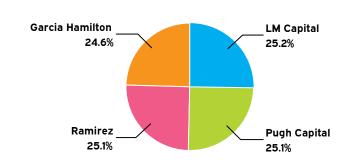


Returns are gross of fees.

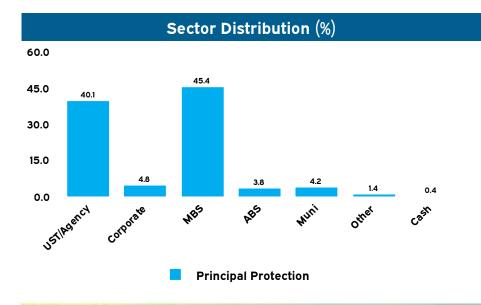


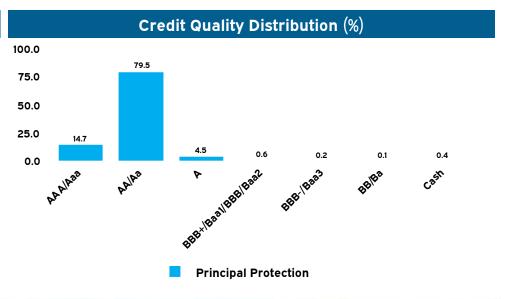
Principal Protection | As of September 30, 2023

Principal Protection Portfolio Characteristics					
	Portfolio				
Yield To Maturity (%)	5.4				
Effective Duration	4.6				
Avg. Quality	NR				



**Current Allocation** 





#### Crisis Risk Offset ex Tail Risk

#### Illinois State Universities Retirement System

#### Crisis Risk Offset ex Tail Risk | As of September 30, 2023



	ı	Rolling Down M	arket Capture	
150.0				
100.0				
50.0		/		
0.0				
-50.0				
	Q1 2022	Q3 2022	Q1 2023	Q3 2023
	— cro	ex Tail Risk	— SURS CRO	Blend

Comparative Performance						
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)		
Crisis Risk Offset ex Tail Risk	-0.2	-4.8	4.4	-		
SURS CRO Blend	-3.2	-9.7	4.0	-		
MSCI AC World Index	-3.3	21.4	7.4	7.0		
S&P 500 Index	-3.3	21.6	10.2	9.9		
Blmbg. Intermed. U.S. Government/Credit	-0.8	2.2	-2.9	1.0		
Blmbg. U.S. Aggregate Index	-3.2	0.6	-5.2	0.1		
Bloomberg Commodity Index Total Return	4.7	-1.3	16.2	6.1		

Returns are gross of fees

#### Illinois State Universities Retirement System

Crisis Risk Offset ex Tail Risk | As of September 30, 2023

	Ri	isk Return Statistics			
	1 Year	1 Year			
	Crisis Risk Offset ex Tail Risk	SURS CRO Blend	Crisis Risk Offset ex Tail Risk	SURS CRO Blend	
RETURN SUMMARY STAT	ISTICS				
Maximum Return	1.6	1.3	4.9	6.0	
Minimum Return	-5.1	-2.7	-5.1	-2.7	
Return	-4.8	-9.7	4.4	4.0	
Excess Return	-9.1	-14.4	2.8	2.5	
Excess Performance	4.8	0.0	0.4	0.0	
RISK SUMMARY STATISTI	ics				
Beta	1.1	1.0	0.8	1.0	
Up Capture	105.9	100.0	81.4	100.0	
Down Capture	60.4	100.0	67.1	100.0	
RISK/RETURN SUMMARY	STATISTICS				
Standard Deviation	6.6	4.5	7.3	7.3	
Sortino Ratio	-1.4	-2.4	0.6	0.6	
Alpha	6.0	0.0	1.1	0.0	
Sharpe Ratio	-1.4	-3.2	0.4	0.3	
Excess Risk	6.5	4.4	7.3	7.5	
Tracking Error	4.6	0.0	4.1	0.0	
Information Ratio	1.2	-	0.1	-	
CORRELATION STATISTIC	:s				
R-Squared	0.5	1.0	0.7	1.0	
Actual Correlation	0.7	1.0	0.8	1.0	

### **Appendix**

Data as of October 31, 2023

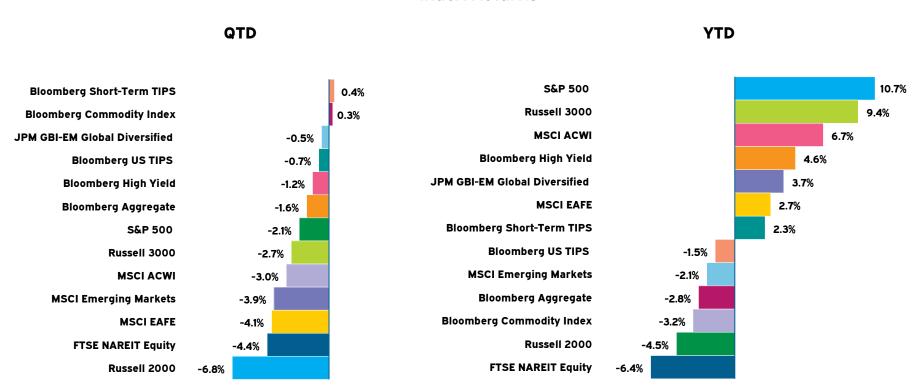
#### **Economic and Market Update**

#### Commentary

- → Global markets continued to struggle in October, as expectations remained on the Fed keeping interest rates higher for longer due to resilient economic data.
  - The Federal Open Markets Committee (FOMC), which increased policy rates in July by 0.25% to a range of 5.25% 5.5%, has been on pause since. Markets are now largely expecting the FOMC to maintain interest rates at this level through the first half of next year with cuts to follow.
  - US equity markets (Russell 3000 index) fell in October (-2.7%), lowering the year-to-date gains to 9.4%. Most sectors except utilities struggled in October.
  - Non-US developed equity markets declined more than the US in October (MSCI EAFE -4.1%), with the strength of the US dollar weighing on returns. This widened the gap between US and international developed equities for the year (to 9.4% versus 2.7%).
  - Emerging market equities also fell in October (-3.9%), with negative results driven by China and the strong US dollar. Emerging markets continue to significantly trail developed market equities year-to-date, returning -2.1%, again driven by losses from China (-11.2%).
  - Interest rates generally rose in October, particularly for longer-dated maturities. The broad US bond market declined (-1.6%) in October falling further into negative territory (-2.8%) year-to-date, as higher income has offset a portion of the capital losses from rising rates.
- → For the rest of this year and into 2024, the paths of inflation and monetary policy, slowing global growth, and the wars in Ukraine and Israel will all be key.







→ After a strong start to the year, the prospect of higher interest rates for longer given resilient economic data has weighed on markets from August through October.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.



#### Domestic Equity Returns<sup>1</sup>

	October	Q3	YTD	1 YR	3 YR	5 YR	10 YR
Domestic Equity	(%)	(%)	(%)	(%)	(%)	(%)	(%)
S&P 500	-2.1	-3.3	10.7	10.1	10.3	11.0	11.2
Russell 3000	-2.7	-3.3	9.4	8.4	9.2	10.2	10.5
Russell 1000	-2.4	-3.1	10.3	9.5	9.5	10.7	10.9
Russell 1000 Growth	-1.4	-3.1	23.2	19.0	8.7	14.2	13.8
Russell 1000 Value	-3.5	-3.2	-1.8	0.1	10.2	6.6	7.6
Russell MidCap	-5.0	-4.7	-1.3	-1.0	6.0	7.1	8.0
Russell MidCap Growth	-5.1	-5.2	4.3	3.3	0.8	8.1	9.1
Russell MidCap Value	-5.0	-4.5	-4.4	-3.6	8.8	5.7	6.9
Russell 2000	-6.8	-5.1	-4.5	-8.6	3.9	3.3	5.6
Russell 2000 Growth	-7.7	-7.3	-2.9	-7.6	-1.8	2.7	5.7
Russell 2000 Value	-6.0	-3.0	-6.5	-9.9	9.7	3.3	5.2

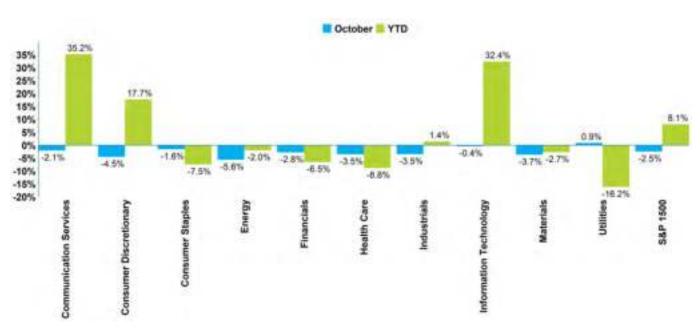
#### US Equities: The Russell 3000 Index fell 2.7% in October but is up 9.4% YTD.

- → A surprisingly strong September jobs report and third quarter GDP reading reinforced investors' expectations that the Federal Reserve will keep interest rates higher for longer and broadly weighed on US equities.
- → The utility sector was the only sector that posted a gain during October. Energy stocks experienced the steepest fall, followed by consumer discretionary stocks.
- → Large cap stocks outperformed small cap stocks during October driven by the technology sector. Microsoft and Amazon, both of which reported stronger than expected third quarter results, were significant contributors to this dynamic.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.







- $\rightarrow$  Except for utilities all sectors were down in October.
- $\rightarrow$  So far in 2023, the communication services (+35.2%) and technology (+32.4%) sectors had the best results, helped by artificial intelligence optimism. Given the continued strength in the US consumer the consumer discretionary sector followed (+17.7%), while more traditionally defensive sectors like utilities (-16.2%), health care (-8.8%), and consumer staples (-7.5%) have trailed.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.



#### **Economic and Market Update**

#### Foreign Equity Returns<sup>1</sup>

Foreign Equity	October (%)	<b>Q3</b> (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-4.1	-3.8	1.0	12.1	3.0	3.5	2.5
MSCI EAFE	-4.1	-4.1	2.7	14.4	5.7	4.1	3.1
MSCI EAFE (Local Currency)	-3.4	-1.3	7.0	10.4	11.0	6.4	6.0
MSCI EAFE Small Cap	-5.9	-3.5	-4.2	6.5	0.3	1.6	3.4
MSCI Emerging Markets	-3.9	-2.9	-2.1	10.8	-3.7	1.6	1.2
MSCI Emerging Markets (Local Currency)	-3.6	-1.4	0.3	9.8	-1.1	3.6	4.2
MSCI China	-4.3	-1.9	-11.2	21.1	-16.9	-2.6	1.0

Foreign Equity: Developed international equities (MSCI EAFE) fell 4.1% in October, dropping the YTD gain to 2.7%. Emerging market equities (MSCI EM) fell 3.9% in the period and were down 2.1% YTD.

- → Non-US equities fell for the third consecutive month with steeper declines compared to the US market. The continued strength of the US dollar contributed to losses, as well as the ongoing geopolitical crisis in the Middle East.
- → European equities struggled due to slowing growth, falling PMI, and a contraction in household and business credit supply. The UK saw greater losses, with sticky inflation, and continued wage growth suggesting that rates will be high for some time. Japan remains the best performing market year-to-date, though the TOPIX lost momentum in October.
- → Emerging market equity performance was slightly better than developed international equities, but the declines for the month brought year-to-date results into negative territory. While there were some positive data out of China on industrial production and retail sales, continued weakness in real estate and new US chip restrictions weighed on market sentiment.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.



#### Fixed Income Returns<sup>1</sup>

Fixed Income	October (%)	<b>Q3</b> (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-1.5	-2.9	-2.1	1.2	-5.0	0.2	1.2	6.0	5.9
Bloomberg Aggregate	-1.6	-3.2	-2.8	0.4	-5.6	-0.1	0.9	5.6	6.1
Bloomberg US TIPS	-0.7	-2.6	-1.5	-0.7	-2.0	2.3	1.6	5.2	6.6
Bloomberg Short-term TIPS	0.4	0.4	2.3	2.6	2.1	3.0	1.7	5.4	2.5
Bloomberg High Yield	-1.2	0.5	4.6	6.2	1.2	3.0	3.9	9.5	4.0
JPM GBI-EM Global Diversified (USD)	-0.5	-3.3	3.7	13.5	-3.0	0.3	-1.2	7.0	4.9

#### Fixed Income: The Bloomberg Universal index declined 1.5% in October and 2.1% YTD.

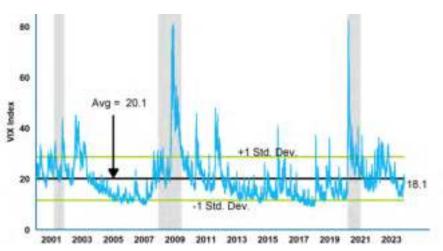
- → Expectations for policy rates to remain higher for longer than previously expected continued to weigh on yields in October.
- → The broad US bond market (Bloomberg Aggregate) fell 1.6% in the month, driving year-to-date performance further into negative territory. The broader TIPS index fell by 0.7%, while the less interest-rate-sensitive short-term TIPS index outperformed most sectors, up 0.4%.
- → High yield bonds also weakened, declining 1.2%, and emerging market bonds fell 0.5%. Volatility in both asset classes is being driven by movement in broader interest rates, but also a modest deterioration in risk appetite.

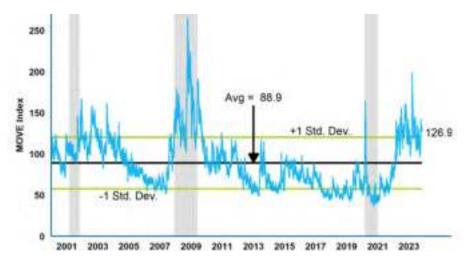
MEKETA INVESTMENT GROUP Page 73 of 85

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of October 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



#### Equity and Fixed Income Volatility<sup>1</sup>





- → Volatility in equities (VIX) increased in October but finished at a level near the long-term average. The recent increase in equity volatility has largely been driven by investors coming to terms that interest rates might remain higher for a longer period.
- → In comparison, volatility in the bond market (MOVE) remains well above its long-run average (88.9) after last year's historic losses and due to continued policy uncertainty. In October, fixed income volatility finished higher compared to where it started, like equities, driven by expectations for rates to stay higher for longer and increased concerns about future US debt issuance.

MEKETA INVESTMENT GROUP
Page 74 of 85

<sup>&</sup>lt;sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of October 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and October 2023.



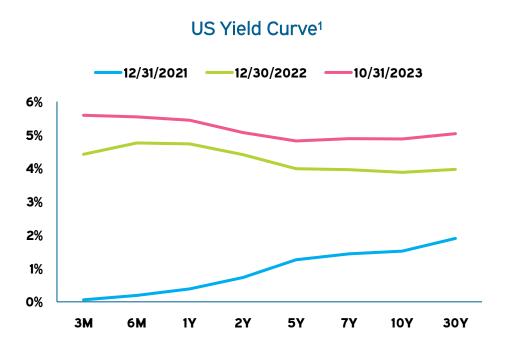
#### Equity Cyclically Adjusted P/E Ratios<sup>1</sup>



- → Given the strong technology-driven rally this year, the US equity price-to-earnings ratio increased above its long-run (21st century) average. With the equity market decline in August through October, the P/E ratio fell from its recent peak.
- → International developed market valuations are below their own long-term average, with those for emerging markets the lowest and well under the long-term average (close to one standard deviation below).

<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E - Source: Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of October 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end

#### **Economic and Market Update**

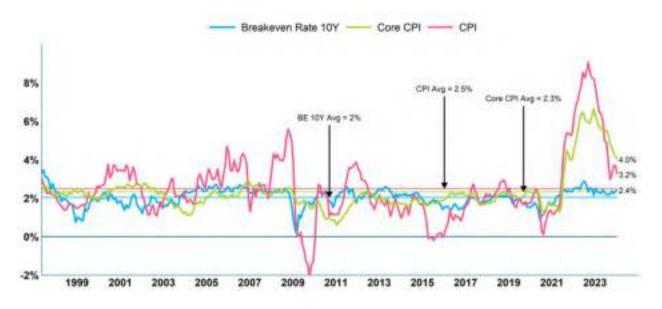


- → Overall rates continued to increase this year, particularly at the policy sensitive front-end of the yield curve, but at a much slower pace compared to last year.
- → In October, very short-term interest rates (two years or less) increased only slightly as monetary policy has likely reached close to its terminal rate for this cycle. By contrast, longer-term rates continued their dramatic rise as investors come to terms with rates remaining higher for longer. The ten-year Treasury yield has experienced a significant increase from 3.9% to 4.9% since the beginning of the year.
- → Because of the dynamic above, the yield curve's inversion decreased further with the spread between two-year and ten-year Treasuries at -0.15% at the end of October (it started the third quarter at -1.05%).

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of October 31, 2023.

#### **Economic and Market Update**

#### Ten-Year Breakeven Inflation and CPI<sup>1</sup>

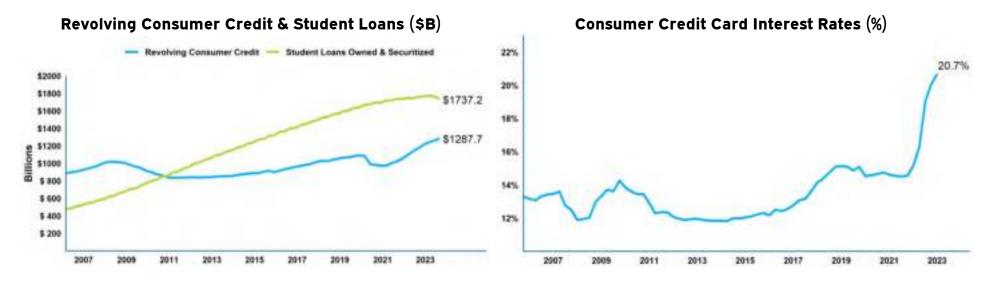


- → Year-over-year headline inflation fell from 3.7% to 3.2%, coming in slightly below expectations. Declines were driven by energy, used cars and trucks, and medical services.
- → Core inflation excluding food and energy fell slightly (4.1% to 4.0%) year-over-year. It remains stubbornly high, though, driven by shelter costs (+6.7%), particularly owners' equivalent rent, and transportation services (+9.2%).
- → Inflation expectations (breakevens) remain below current inflation as investors continue to expect inflation to track back toward the Fed's 2% average target.

<sup>1</sup> Source: FRED. Data is as October 31, 2023. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative

#### **Economic and Market Update**

#### US Consumer Under Stress?1

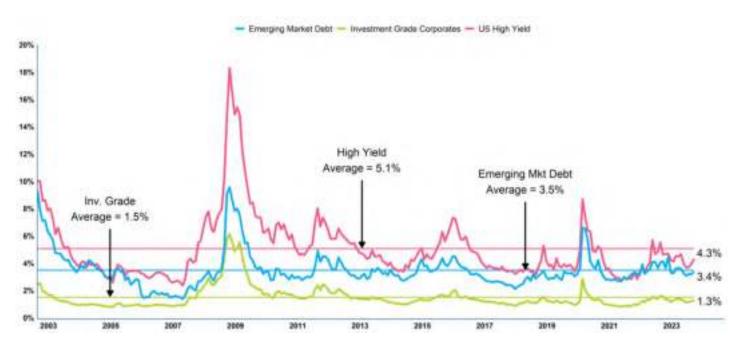


- → Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been an important driver of economic growth.
- → Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s).
- → The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially balanced by recently initiated repayment and forgiveness programs.
- → As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

<sup>1</sup> Source: FRED. Revolving Consumer Credit and Student Loans data is as of September 30,2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season. Consumer Credit Card Interest Rates data is as of June 30.2023.



#### Credit Spreads vs. US Treasury Bonds<sup>1</sup>

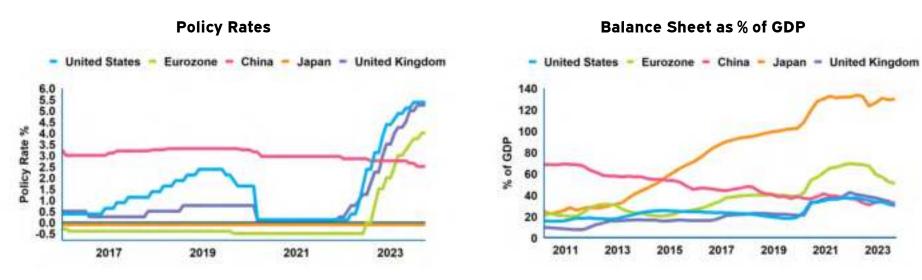


- → Credit spreads (the added yield above a comparable maturity Treasury) increased in October but remained below their respective long run averages.
- → High yield spreads continue to be the furthest below their long-term average given the overall risk appetite this year. Investment-grade and emerging market spreads are also below their respective long-term averages, but by smaller margins.

<sup>1</sup> Sources: Bloomberg. Data is as of October 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.



#### Central Bank Response<sup>1</sup>



- → Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- → In July, the Fed raised rates another 25 basis points to a range of 5.25% to 5.50% and then kept rates at this level at their September and October/November meetings. Markets are not expecting any additional rate hikes.
- → The European Central Bank paused in October, with lower-than-expected inflation and weaker growth. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- → The central bank in China has continued to cut interest rates and inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.
- → Risks remain for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and supporting growth.

<sup>1</sup> Source: Bloomberg. Policy rate data is as of October 31, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of September 30, 2023.



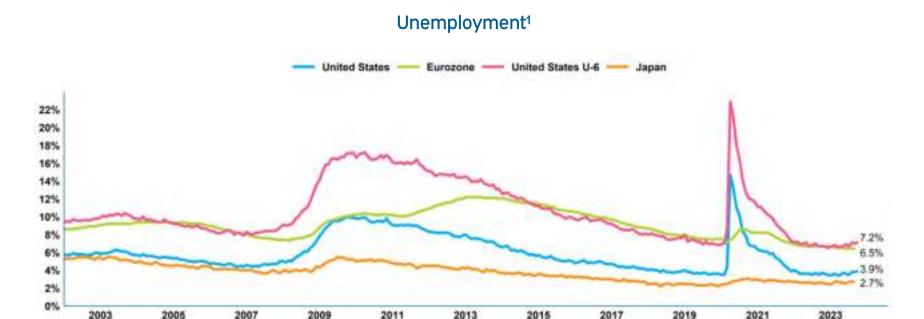
#### Inflation (CPI Trailing Twelve Months)<sup>1</sup>



- ightarrow The inflation picture remains mixed across the major economies.
- → In the US, inflation fell from 3.7% to 3.2%, driven by falling energy prices. In the eurozone inflation experienced a dramatic decline in October (4.3% to 2.9%), to a level below the US, also driven by a decline in energy prices. Despite 2023's significant declines in the US and Europe, inflation levels remain elevated compared to central bank targets.
- → Inflation in Japan, has increased to levels not seen in almost a decade, driven by food and home related items. In China, deflationary pressures returned in October, as consumption declined after the holiday earlier in the month.

<sup>1</sup> United States CPI and Eurozone CPI – Source: FRED. Japan CPI and China CPI - Source: Bloomberg. Data is as October 31, 2023. The most recent data for Japanese inflation is as of September 30, 2023.



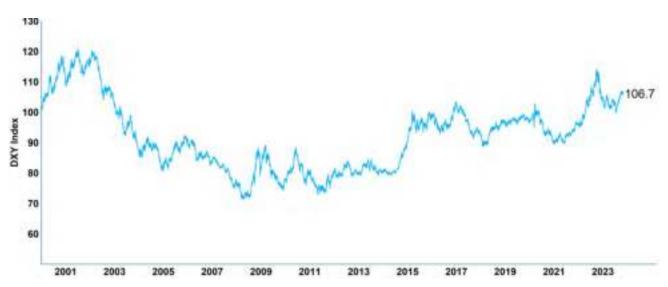


- → Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued. The pace of wage growth has slowed though, and despite remaining elevated, the number of job openings has declined from recent highs.
- → In October, US unemployment increased slightly (3.8% to 3.9%), with job gains of 150,000 coming in below expectations of 180,000. The labor force participation rate declined slightly over the month from 62.8% to 62.7%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%). Broader measures of unemployment (U-6) finished the quarter at 7.2%, up from the September reading of 7.0%.
- → Unemployment in Europe (6.5%) remains higher than the US, while levels in Japan (2.7%) remained low through the pandemic given less layoffs.

<sup>&</sup>lt;sup>1</sup> Eurozone Unemployment - Source: Bloomberg. Japan, United States, United States U-6 Unemployment – Source: FRED. Data is as October 31, 2023, for the US. The most recent data for Eurozone and Japan unemployment is as of September 30, 2023.

#### **Economic and Market Update**





- → After a strong 2022, the US dollar declined late last year and into early this year as weaker economic data and lower inflation led to investors anticipating the end of FOMC tightening.
- → Recently though, the dollar reversed course and appreciated against major currencies as relative growth remains strong and investors anticipate the FOMC keeping interest rates higher for longer.
- → For the rest of this year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data as of October 31, 2023.

#### **Economic and Market Update**

#### Summary

#### **Key Trends:**

- → The impact of inflation still above policy targets will remain key, with bond market volatility likely to stay high.
- → Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- → Growth is expected to slow globally this year, with many economies forecasted to tip into recession. However, optimism has been building that some economies could experience soft landings. Inflation, monetary policy, and the war will all be key.
- → In the US, consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- → The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.

  Also, the future paths of the large technology companies that have driven market gains will be important.
- → Equity valuations remain lower in emerging and developed markets, but risks remain, including the potential for recent strength in the US dollar to persist, higher inflation weighing particularly on Europe, and China's sluggish economic reopening and on-going weakness in the real estate sector. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.
- → Recent, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

#### **Disclaimer**

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

MEKETA INVESTMENT GROUP
Page 85 of 85



# Private Equity & Non-Core Real Assets Non-Traditional Growth Asset Class Review

December 2023



## **Functional Asset Class Review Schedule**

Meeting	Functional Asset Class	Strategies	
September	Annual Review/Investment Plan		
October	Stabilized Growth, Principal Protection & Inflation Sensitive	Public Liquid Credit, Principal Protection & TIPS	
December	Stabilized Growth, Non-Traditional Growth	Private Credit, Private Equity & Real Assets	
March	Defined Contribution		
April	Traditional Growth	Public Equity	
June	Crisis Risk Offset	Trend Following, Alternative Risk Premia	



# **SURS Policy Targets**

	Classes/Strategies	Current Strategic Policy Target %	Long-Term Strategic Policy Target %		
	Broad Growth	68%	68%		
	Traditional Growth	36%	35%		
	Public Equity	36%	35%		
	Stabilized Growth	17%	17%		
	Core Real Assets	8%	8%		
	Liquid Credit	6.5%	4%		
	Private Credit	2.5%	5%		
	Non-Traditional Growth	15%	16%		
>	Private Equity	11%	11%		
	Non-Core Real Assets	4%	5%		
	Inflation Sensitive	5%	5%		
	TIPS	5%	5%		
	Principal Protection	10%	10%		
	Crisis Risk Offset	17%	17%		
	Long Duration	2%	2%		
	Long Volatility	1.7%	1.7%		
	Tail Risk	0.3%	0.3%		
	Trend Following	10%	10%		
	Alt. Risk Premia	3%	3%		
	Total	100%	100%		

The Current Strategic Policy Target % may change over time and reflects gradual shifting of assets to the Long-Term Strategic Policy Target %, due to practical implementation considerations and liquidity constraints.



### **Investment Beliefs**



- SURS believes that an appropriately diversified strategic allocation policy is the primary policy tool for maximizing the investment program's long-term return in light of its risk profile. The timing and magnitude of projected SURS's employer contributions and future benefit payments (i.e., its funding policy) can have significant cash flow implications and thus should receive explicit consideration during SURS's risk-framing and asset allocation decision-making process.
- SURS believes that, in order to achieve its objectives, it must incur a certain amount of
  investment risk that is tied to economic performance. Exposure to economic growth comes
  about primarily through the equity risk premium which, while highly variable, produces a
  significantly positive long-term return.



SURS believes that diversification within strategic classes helps to mitigate the risks of the class.
 Appropriate manager diversification helps to maximize the breadth of capturing alpha after accounting for the major biases in a portfolio. As a result, added value consistency should improve.



• SURS believes disciplined allocation of capital is necessary to manage the systematic risk of the portfolio and maximize the likelihood of achieving its long-term expectations. Key examples of maintaining disciplined capital allocation includes consistently rebalancing back to strategic targets where appropriate and dollar-cost averaging (and/or pacing) new capital allocations over time into both public-market and private-market portfolios.



### **Investment Beliefs**

- SURS believes that utilization of passive approaches in highly-efficient publicly-traded markets should take priority because it is extremely difficult to add consistent value, net of fees, in these markets. In addition, passive management typically provides for rapid, relatively liquid, low-cost exposure to the major risk premiums of the global investment markets.
- SURS believes active management can prove beneficial in certain market segments when there is evidence that active management can produce consistent significantly-positive, net of fee performance over various market cycles.
- SURS believes that investment costs (fees, expenses and frictional costs) directly impact
  investment returns and should be monitored and managed carefully. Such costs should be
  evaluated relative to both expected and realized returns and take into account appropriate
  alignment of interest considerations.
- SURS believes that the private markets should produce higher returns than public markets due to exposure to the illiquidity risk premium. While illiquidity risk can cause a portfolio's risk to increase, over the long-term the illiquidity risk premium is positive and material.
- SURS is committed to enhancing diversity by incorporating emerging (minority, woman-owned and disability-owned) investment managers into the portfolio.
- SURS believes that addressing material environmental, social and governance-related (ESG) issues can lead to positive portfolio and governance outcomes. To integrate ESG issues into its investment process SURS may apply certain investment and/or engagement strategies/approaches to its portfolio investments. In addition, proxy rights attached to shareholder interests in public companies are also "plan assets" of SURS and represent a key mechanism for expressing SURS's positions relating to specific ESG issues.

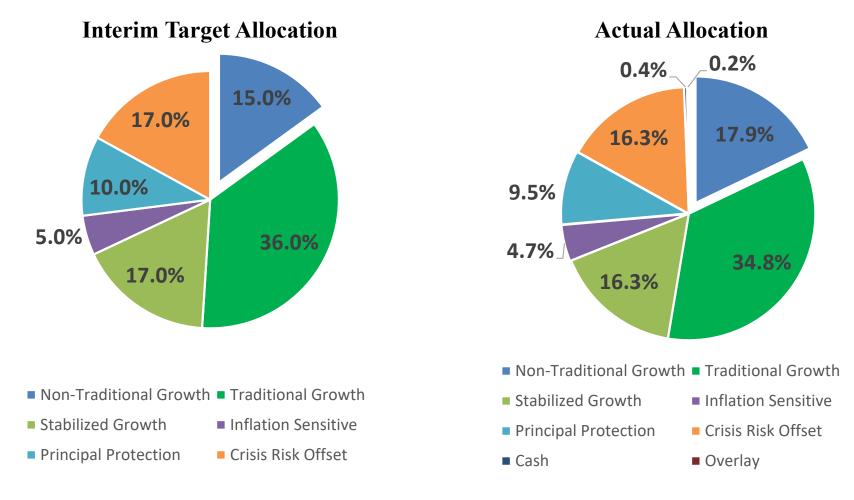


# **Due Diligence Process**

- Manager due diligence is an essential component of the investment process
- Due diligence is completed both before (RFP) and after managers are hired
- Staff conducts regular meetings/calls with Aksia and Callan and formally reviews them on an annual basis
- Key areas of the manager due diligence process include:
  - Ownership
  - Staffing
  - Assets Under Management
  - Investment Process
  - Performance
  - Compliance
  - Fees
  - Client Service
  - Diversity & Inclusion
  - ESG



# Non-Traditional Growth Target vs. Actual Allocation



Non-Traditional Growth was above its target allocation



### **Non-Traditional Growth**

- Private Equity
- Non-Core Real Assets

Two Primary Components



# **Private Equity**

The role of the Private Equity asset class is to earn Risk-Adjusted Returns in excess of the public Equity markets, primarily due to the Liquidity Premium demanded by investors. The Private Equity portfolio is also expected to decrease the volatility of the Portfolio, through the diversification benefits of having lower correlations with other Asset Classes.

Venture capital, buyout, and other private equity strategies



# **Private Equity Program**

- Aksia (formerly TorreyCove Capital Partners) has served as discretionary
   Private Equity advisor since September 2019
- SURS staff is involved in monitoring the portfolio and program:
  - Regular calls with Aksia to discuss opportunities in market, current portfolio activities, and pipeline
  - Annual planning meeting to discuss current year and look ahead to next
  - Annual questionnaire sent with questions concerning organization/staffing, ESG & inclusion, other items



# Accomplishments

#### 2023 Accomplishments:

- Partnered with Aksia to continue making commitments in private equity:
  - Committed total of \$530 million to five Vintage Year 2023 funds
  - Areas of focus:
    - Expansion of co-investment portfolio to represent approximately
       15% of capital to be deployed over next four to five years
    - Follow-on commitment of additional \$100 million to Fairview Lincoln Fund Series C (approved in late 2022) to continue investment at small end of VC and buyout markets
- Initiated quarterly calls with diverse firms via Diverse Manager
   Outreach Portal, providing an opportunity to have initial discussions with several MWDBE firms



### **Initiatives**

#### Current Initiatives:

- Continue to work with Aksia on implementation of the multi-year Investment Plan for private equity
- Regularly scheduled calls with Aksia to discuss opportunities in market, current investments, pipeline, and cash flows
- Annual planning meeting to discuss current year and look ahead to next
- Target minimum of 20% of all new commitments, per policy, in MWDBE funds



# **Private Equity Strategic Plan**

- To achieve the objectives for the Private Equity allocation:
  - Annual commitment target of \$400 million per year per pacing update
  - Target investment size of \$25-\$75 million per fund commitment
    - Aksia's commitments have averaged approximately \$31 million
  - Diversify across strategy, geography, industry, investment manager, vehicle and vintage year
  - Target minimum of 20% of all new commitments, per policy, in emerging and MWDBE funds
    - Aksia has exceeded the minimum expectation since September 2019, committing 35% of total to MWDBE-owned funds
    - \$475 million committed to 10 diverse-owned GPs
    - Additional \$200 million commitment to Fairview Capital focused on MWDBE-owned funds in complementary strategies (\$100 million each to Lincoln Fund Series B and C)



## **Non-Core Real Assets**



## **Non-Core Real Assets**

The role of the non-core real assets class is to earn risk-adjusted returns in excess of the public equity markets, primarily due to repositioning and development of real asset projects, the use of leverage, and to a liquidity premium demanded by investors. At the margin, the non-core real asset portfolio is also expected to diversify the broader non-traditional growth portfolio, which also includes private equity.

Equity or debt Investments in real estate, infrastructure, or agriculture



## **Real Assets Program**

- Callan was hired as the non-discretionary real assets consultant in September
   2018 and rehired in September 2023 for an additional five-year term
- SURS staff is involved in monitoring the portfolio and program:
  - Frequent calls with Callan to discuss opportunities in market, due diligence, current portfolio activities, and pipeline
  - Annual planning meeting to discuss current year and look ahead to next
  - Annual questionnaire sent with questions concerning organization/staffing, ESG & inclusion, other items
  - Periodic meetings with fund managers via annual meeting attendance, advisory committee representation where appropriate, quarterly update calls, due diligence meetings, other interactions as necessary



## Accomplishments

### 2023 Accomplishments:

- Worked with Callan to continue meeting long-term targets in noncore real assets:
  - Funded approximately \$105 million in capital calls for new fund investments
  - 3 of 4 proposed/approved commitments resulted in fee savings ranging from 4-month fee holiday to 15-25bps savings over the life of the fund
  - 3 of 4 proposed/approved commitments were to MWDBE managers
    - \$140 million of total \$215 million in proposed/approved commitments
  - Initiated quarterly calls with diverse firms via Diverse Manager Outreach Portal, providing an opportunity to have initial discussions with several MWDBE firms
  - Evaluated changes to Limited Partnership Agreements affecting multiple funds in the portfolio



## **Initiatives**

#### Current Initiatives:

- Continue to work with Callan on implementation of the multi-year Investment Plan for real assets
- Regularly scheduled calls with Callan to discuss opportunities in the market, current investments, pipeline, and cash flows
- Annual planning meeting to discuss current year and look ahead to next
- Target minimum of 20% of all new commitments, per policy, in MWDBE funds



# 2019-2023 Strategic Plan Non-Core Real Assets

- To achieve the objectives for Non-Traditional Growth/Non-Core allocation:
  - Invest across vintage years with commitments of +/-\$50-100 million per fund, as appropriate
    - √ 18 of 24 proposed/approved commitments since 2019 were for at least \$50M
  - Target 20% of all new commitments, per policy, directly in emerging and MWDBE funds versus fund of funds, bringing sector specific managers into the portfolio and reducing fees
    - ✓ Ten proposed/approved commitments of ~ \$425M to 5 MWDBE managers since 2019
    - ✓ ~ 33% of total commitments
  - Diversify into Europe, Asia, and infrastructure based on opportunity set
    - √ \$225M to four such commitments since 2019 (two real estate and two infrastructure)
  - Potential commitment(s) to new asset class Agriculture
    - √ \$60M commitment to Homestead Fund III and \$40M to Fund IV
  - Maintain relationships with existing strong managers, limit total number to 15 managers
    - ✓ Currently 21 managers in the non-core portfolio



# Private Credit & Core Real Assets Stabilized Growth Asset Class Review

December 2023



## **Functional Asset Class Review Schedule**

	Meeting	Functional Asset Class	Strategies
	September	Annual Review/Investment Plan	
	October	Stabilized Growth, Principal Protection & Inflation Sensitive	Public Liquid Credit, Principal Protection & TIPS
•	December	Stabilized Growth, Non-Traditional Growth	Private Credit, Private Equity & Real Assets
	March	Defined Contribution	
	April	Traditional Growth	Public Equity
	June	Crisis Risk Offset	Trend Following, Alternative Risk Premia





## **SURS Policy Targets**

Classes/Strategies	Current Strategic Policy Target %	Long-Term Strategic Policy Target %		
Broad Growth	68%	68%		
Traditional Growth	36%	35%		
Public Equity	36%	35%		
Stabilized Growth	17%	17%		
Core Real Assets	8%	8%		
Liquid Credit	6.5%	4%		
Private Credit	2.5%	5%		
Non-Traditional Growth	15%	16%		
Private Equity	11%	11%		
Non-Core Real Assets	4%	5%		
Inflation Sensitive	5%	5%		
TIPS	5%	5%		
Principal Protection	10%	10%		
Crisis Risk Offset	17%	17%		
Long Duration	2%	2%		
Long Volatility	1.7%	1.7%		
Tail Risk	0.3%	0.3%		
Trend Following	10%	10%		
Alt. Risk Premia	3%	3%		
Total	100%	100%		

The Current Strategic Policy Target % may change over time and reflects gradual shifting of assets to the Long-Term Strategic Policy Target %, due to practical implementation considerations and liquidity constraints.

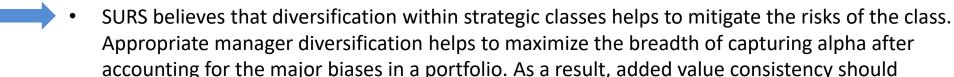




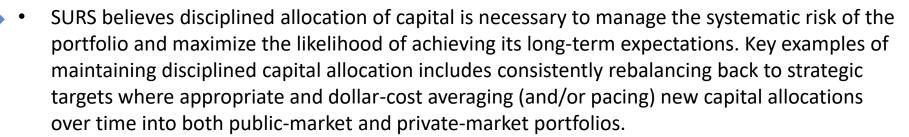
## **Investment Beliefs**



- SURS believes that an appropriately diversified strategic allocation policy is the primary policy tool for maximizing the investment program's long-term return in light of its risk profile. The timing and magnitude of projected SURS's employer contributions and future benefit payments (i.e., its funding policy) can have significant cash flow implications and thus should receive explicit consideration during SURS's risk-framing and asset allocation decision-making process.
- SURS believes that, in order to achieve its objectives, it must incur a certain amount of
  investment risk that is tied to economic performance. Exposure to economic growth comes
  about primarily through the equity risk premium which, while highly variable, produces a
  significantly positive long-term return.



improve.







## **Investment Beliefs**

- SURS believes that utilization of passive approaches in highly-efficient publicly-traded markets should take priority because it is extremely difficult to add consistent value, net of fees, in these markets. In addition, passive management typically provides for rapid, relatively liquid, low-cost exposure to the major risk premiums of the global investment markets.
- SURS believes active management can prove beneficial in certain market segments when there is evidence that active management can produce consistent significantly-positive, net of fee performance over various market cycles.
- SURS believes that investment costs (fees, expenses and frictional costs) directly impact
  investment returns and should be monitored and managed carefully. Such costs should be
  evaluated relative to both expected and realized returns and take into account appropriate
  alignment of interest considerations.
- SURS believes that the private markets should produce higher returns than public markets due to exposure to the illiquidity risk premium. While illiquidity risk can cause a portfolio's risk to increase, over the long-term the illiquidity risk premium is positive and material.
- SURS is committed to enhancing diversity by incorporating emerging (minority, woman-owned and disability-owned) investment managers into the portfolio.
- SURS believes that addressing material environmental, social and governance-related (ESG) issues can lead to positive portfolio and governance outcomes. To integrate ESG issues into its investment process SURS may apply certain investment and/or engagement strategies/approaches to its portfolio investments. In addition, proxy rights attached to shareholder interests in public companies are also "plan assets" of SURS and represent a key mechanism for expressing SURS's positions relating to specific ESG issues.



## **Due Diligence Process**

- Manager due diligence is an essential component of the investment process
- Due diligence is completed both before (RFP) and after managers are hired
- Staff conducts regular meetings/calls with existing managers in the portfolio and formally reviews them on an annual basis
- Key areas of the manager due diligence process include:
  - Ownership
  - Staffing
  - Assets Under Management
  - Investment Process
  - Performance
  - Compliance
  - Fees
  - Client Service
  - Diversity & Inclusion
  - ESG



## **Stabilized Growth**

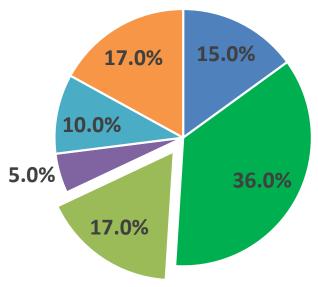
The role of the Stabilized Growth asset class is to provide growth through strategies that are exposed to market beta, exhibiting expected returns similar to Traditional Growth but with lower volatility.

**Public Liquid Credit, Private Credit, and Core Real Assets** 



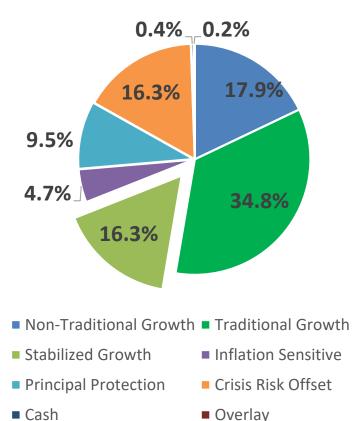
# Stabilized Growth Target vs. Actual Allocation





- Non-Traditional Growth Traditional Growth
- Stabilized GrowthInflation Sensitive
- Principal ProtectionCrisis Risk Offset

#### **Actual Allocation**



Stabilized Growth was slightly below its target allocation



## **Stabilized Growth**

- Credit Focused Fixed Income
  - Public Credit Fixed Income (Reviewed in October)
  - Private Credit
- Stabilized Real Assets
  - Core Real Assets

**Three Main Components** 



## **Private Credit**



## **Private Credit**

The Private Credit portfolio is expected to earn absolute returns in excess of the Public Credit markets over time, reflecting a modest illiquidity premium. The Private Credit portfolio is also expected to produce stable income and downside collateral protection.

Direct Lending, Asset-Based, Special Situations, and Diversifying Strategies



# **Private Credit Program**

- Meketa was hired as a discretionary private credit advisor in September 2020
  - First discretionary commitment was made in January 2021
  - 5% long-term target allocation
- SURS staff is involved in monitoring the portfolio and program:
  - Frequent calls with Meketa to discuss opportunities in market, current portfolio activities, and pipeline
  - Annual planning meeting to discuss current year and look ahead to next
  - Annual questionnaire sent with questions concerning organization/staffing, ESG & inclusion, other items



# **Accomplishments**

- 2023 Accomplishments:
  - Worked with Meketa to continue making commitments in private credit:
    - Committed \$600M across seven funds in 2023:
      - Ares Pathfinder Fund II
      - Sixth Street TAO
      - HPS Specialty Loan Fund VI
      - Atalaya Asset Income Fund
      - ICG Senior Debt Partners Fund V
      - Turning Rock Fund III
      - Brightwood Fund VI
  - First investment in dedicated non-U.S. exposure:
    - ICG Senior Debt Partners Fund V
  - Initiated quarterly calls with diverse firms via Diverse Manager
     Outreach Portal, providing an opportunity to have initial discussions with several MWDBE firms



## **Initiatives**

- Current Initiatives:
  - Continue to work with Meketa on implementation of the multi-year Investment Plan for private credit
  - Regularly scheduled calls with Meketa to discuss opportunities in market, current investments, pipeline, and cash flows
  - Annual planning meeting to discuss current year and look ahead to next
  - Target minimum of 20% of all new commitments, per policy, in MWDBE funds:
    - ~23% of commitments ITD have been made to MWDBE firms
    - \$400 million of commitments to four MWDBE-owned firms across 5 fund commitments



# **Private Credit Strategic Plan**

- To achieve the objectives for the Private Credit allocation:
  - Annual commitment target of \$500 million per year
  - Diversify across strategy, collateral, vintage year, geography, and manager
  - Target minimum of 20% of all new commitments, per policy, in emerging and MWDBE funds
  - Negotiate fee savings whenever possible
  - Regularly scheduled calls with Aksia to discuss opportunities in market, current investments, pipeline, and cash flows
  - Annual planning meeting to discuss current year and look ahead to next year



## **Core Real Assets**



## **Real Assets Program**

- Callan was hired as the non-discretionary real assets consultant in September 2018 and rehired in September 2023 for an additional five-year term
- SURS staff is involved in monitoring the portfolio and program:
  - Frequent calls with Callan to discuss opportunities in market, due diligence, current portfolio activities, and pipeline
  - Annual planning meeting to discuss current year and look ahead to next
  - Annual questionnaire sent with questions concerning organization/staffing, ESG & inclusion, other items
  - Periodic meetings with fund managers via annual meeting attendance, advisory committee representation where appropriate, quarterly update calls, due diligence meetings, other interactions as necessary



# Accomplishments

- 2023 Accomplishments:
  - Worked with Callan to continue meeting long-term targets in core real assets:
    - Completed funding of Clarion Lion Properties Fund in March
      - Phased in commitment funding from September 2022-March 2023 to lessen potential impact of uncertainty in the asset class
    - Funded entire IFM Global Infrastructure Fund commitment in March
      - Diversifies the infrastructure portfolio both broadly and within Stabilized Growth
    - Incrementally funded other Stabilized Growth funds, including BlackRock Global Renewable Power Fund III and GI Partners ETS Fund
      - Brings further sustainable infrastructure component
      - Adds additional focused data center and life sciences exposure



## **Initiatives**

- Current Initiatives:
  - Continue to work with Callan on implementation of the multi-year Investment Plan for real assets
  - Frequent dialogue with managers to assess current market conditions
  - Target minimum of 20% of all new commitments, per policy, in MWDBE funds



# 2019-2023 Strategic Plan Stabilized Real Assets

- To achieve the objectives for Stabilized Growth/Core allocation:
  - Add an industrial allocation to immediately increase portfolio weight to property sector
    - √ \$100M commitment to Prologis made in 2019
  - Evaluate benefits of increasing allocations with existing managers
    - ✓ Allocated an additional \$100M to Carlyle Property Investors in 2021
  - Consider new infrastructure opportunities
    - ✓ Committed \$100M to BlackRock Global Renewable Power Fund III in 2020
    - ✓ Committed \$100M to IFM Global Infrastructure Fund in 2022
  - Diversify portfolio with open-end debt fund commitment
    - ✓ Potential commitment being contemplated
  - Monitor market for MWDB opportunities
    - ✓ Open-end debt fund manager mentioned above is female-owned
  - Likely add new managers to the existing manager lineup
    - ✓ Prologis, BlackRock, IFM, GI Partners, Clarion are all new relationships



# JP Morgan Strategic Property Fund Portfolio Management Change

### Notified in early November of a change in senior leadership at the Fund

- Kim Adams, Senior Portfolio Manager, has left the firm.
- Two existing JPM professionals added as Co-PMs.

#### Assessment of the situation

- Ms. Adams has been a transparent communicator, a constant reliable source of information and consistently executed on any plans she shared for the fund.
- Her presence has been a key mitigant to preserving capital as the Fund has undergone midterm performance challenges.
- Additions to the team reflect the bandwidth and experience necessary to replace her.
- As of 2Q23 the Fund has underperformed over the 1-, 3-, 5-, and 7-year periods. SPF has made strides to change its allocation from significant overweight to office and retail to more in line with the benchmark. The repositioning has yet to translate to consistent outperformance.
- The Fund's redemption queue expected to increase given this announcement. It currently sits at 19% of fund NAV vs 14.3% for the broader ODCE constituents.



# JP Morgan Strategic Property Fund Portfolio Management Change, Cont.

### **SURS history with the Fund**

- Committed \$150 million in March 2014.
- SURS current market value of \$265 million with Fund GAV of \$41 billion (\$29.8 billion net).

#### **Redemption mechanics**

- Investors may withdraw from the Fund once per quarter subject to "Available Cash", as determined by the Fund.
- Written withdrawal request required within 30 days of quarter end (i.e., not later than March 1 for the first quarter).
- If withdrawal requests exceed Available Cash, distributions are prorated based on the investor's interest in the Fund.
- Unsatisfied requests carry forward until satisfied or canceled by written notice.
- Redemptions are treated as nonbinding requests and investors can cancel at any time.

#### Recommendation

SURS staff and consultant recommend entering the redemption queue in the first quarter of 2024 for a full redemption of the JP Morgan Strategic Property Fund

### Callan

#### Memorandum

To: Illinois State Universities Retirement System ("SURS")

From: Callan LLC

Date: December 7, 2023

Subject: Recommendation – J.P. Morgan Strategic Property Fund

#### **Background**

- On November 6, 2023, the Callan Real Assets Consulting team was notified by J.P. Morgan that Kim Adams, Senior Portfolio Manager of J.P. Morgan Strategic Property Fund (SPF), had chosen to depart J.P. Morgan, effective immediately, for a new role outside the firm.
- The portfolio management team structure is changing due to Kim's departure. Ms. Adams was the senior portfolio manager with two portfolio managers under her direction, Sue Kolasa and Jason Curran. The new team for SPF will now consist of co-portfolio managers Brian Nottage, Sue Kolasa, and Caitlin Simon, all of whom are based in New York, as well as assistant portfolio manager Jason Curran who joined the Fund team in 2022 and is based in Los Angeles. All individuals will be 100% dedicated to the Fund.
- Mr. Nottage, PH.D., CFA has been with J.P. Morgan Real Estate Americas since 2005 and held various roles in research, strategy, and portfolio management, including Head of Research for U.S. Separate Accounts and Acting Head of Research for Europe from 2009 to 2011. Most recently, he served as Head of Portfolio Strategy & Separate Accounts where he oversaw fund strategy, positioning, and analytics for the commingled funds and separately managed accounts. He has been relieved of his responsibility to work full-time on the Strategic Property Fund. Ms. Simon has been with JP Morgan Real Estate Americas since 2021 and most recently served as Co-Head of Transactions for the Central Region, where she worked on some of the fund's transactions including some joint venture partnerships across sectors. She has been relieved of her responsibility to work full-time on the Strategic Property Fund.

#### Recommendation

Callan considers this announcement to be material and recommends that SURS enter the redemption queue by placing a full redemption request for the Strategic Property Fund.

Given Callan believes there is a wider range of potential outcomes for the fund in the coming quarters, placing a full redemption request will allow SURS to monitor and evaluate the personnel changes and performance, while maintaining optionality to rescind its redemption request should a future change become necessary.

#### **Important Information and Disclosures**

Information contained in this document may include confidential, trade secret and/or proprietary information of Callan and the client. It is incumbent upon the user to maintain such information in strict confidence. Neither this document nor any specific information contained herein is to be used other than by the intended recipient for its intended purpose.

The content of this document is particular to the client and should not be relied upon by any other individual or entity. There can be no assurance that the performance of any account or investment will be comparable to the performance information presented in this document.

Certain information herein has been compiled by Callan from a variety of sources believed to be reliable but for which Callan has not necessarily verified for accuracy or completeness. Information contained herein may not be current. Callan has no obligation to bring current the information contained herein.

This content of this document may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. The opinions expressed herein may change based upon changes in economic, market, financial and political conditions and other factors. Callan has no obligation to bring current the opinions expressed herein.

The statements made herein may include forward-looking statement regarding future results. The forward-looking statements herein: (i) are best estimations consistent with the information available as of the date hereof and (ii) involve known and unknown risks and uncertainties. Actual results may vary, perhaps materially, from the future results projected in this document. Undue reliance should not be placed on forward-looking statements.

Callan disclaims any responsibility for reviewing the risks of individual securities or the compliance/non-compliance of individual security holdings with a client's investment policy guidelines.

This document should not be construed as legal or tax advice on any matter. You should consult with legal and tax advisers before applying any of this information to your particular situation.

Reference to, or inclusion in this document of, any product, service or entity should not necessarily be construed as recommendation, approval, or endorsement or such product, service or entity by Callan.

This document is provided in connection with Callan's consulting services and should not be viewed as an advertisement of Callan, or of the strategies or products discussed or referenced herein.

The issues considered and risks highlighted herein are not comprehensive and other risks may exist that the user of this document may deem material regarding the enclosed information.

Any decision you make on the basis of this document is sole responsibility of the client, as the intended recipient, and it is incumbent upon you to make an independent determination of the suitability and consequences of such a decision.

Callan undertakes no obligation to update the information contained herein except as specifically requested by the client.

Past performance is no guarantee of future results.





# Private Markets Aggregate Pacing Summary



## **Pacing Summary**

Commitments (\$ million)									
Year	<b>Private Equity</b>	<b>Private Credit</b>	Real Assets	Total					
2024	400	500	200	1,100					
2025	475	500	200	1,175					
2026	<u>550</u>	<u>450</u>	<u>200</u>	<u>1,200</u>					
3-year Totals	1,425	1,450	600	3,475					

Each of our private market partners will discuss the specifics of their pacing plan.

Pacing in private markets is critical to build time diversification into the portfolio.

Pacing is imperfect and includes assumptions about cash flows, asset class performance, and total fund performance. As a result, the pacing for each class is reviewed annually.

Commitment does not equal cash flow as private assets are self-liquidating.

## Callan



December 2023

Real Assets
Portfolio Review and 2024
Plan

State Universities Retirement System of Illinois

#### **Sally Haskins**

Senior Vice President, Co-Manager Real Assets

#### **Munir Iman**

Vice President

#### Jan Mende

Senior Vice President

Important Disclosures regarding the use of this document are included at the end of this document. These disclosures are an integral part of this document and should be considered by the user.

### **Market Dynamics**

Portfolio Overview

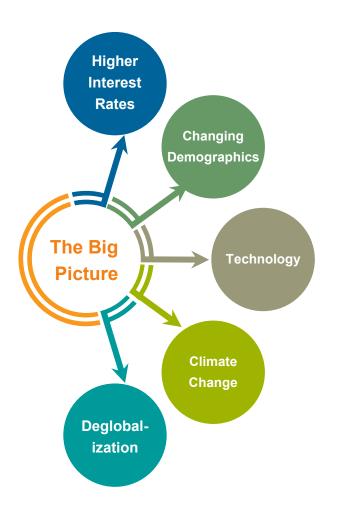
Performance

2024 Pacing

Appendix and Glossary



### **Real Estate Market Dynamics**



Market Environment: Valuations falling; constrained liquidity; denominator effect; housing unaffordability

Hot: Direct lending, distressed debt, opportunistic real estate; housing; affordable markets

Not: Existing portfolios

Market Environment: Aging population, shrinking workforce, how real estate is "consumed."

Hot: Eds; beds; sheds; necessity retail. Larger universe of markets

Not: Capital intensive property types

Market Environment: Technological disruption, AI, Biomedical research

Hot: "Meds" strategies: life science, medical office, med-tail. Cold storage, data centers.

Not: Traditional office

Market Environment: Policy responses, asset values/expenses, local market outlook, migration(?)

Hot: Amenity-rich, green buildings, selective office to resi conversions.

Not: Obsolescence, uninsurable buildings/locations

Market Environment: Policy responses, trade, on-shoring, migration, energy security, U.S. and non-

U.S. real estate markets diverging.

Hot: Sheds, cold storage. Locations where job creation expected from IRA

Not: China



#### U.S. Real Assets Performance as of 9/30/2023

Higher interest rates are negatively impacting real estate valuations

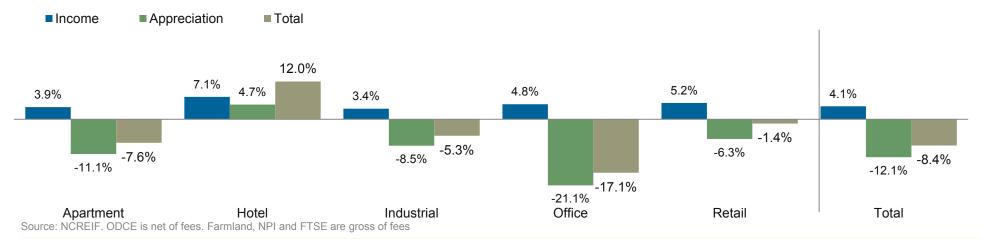
- Income returns for real estate remain positive
- Office is impacted by interest rate changes and continued weak fundamentals

Farmland and infrastructure have been less impacted compared to real estate

As of Sept. 30, 2023	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years	Last 20 Years
NCREIF ODCE	-2.1%	-12.9%	6.2%	4.7%	7.2%	6.6%
Income	0.7%	2.0%	2.8%	3.0%	3.3%	4.1%
Appreciation	-2.8%	-15.2%	3.3%	1.7%	3.8%	2.5%
NCREIF Property Index	-1.4%	-8.4%	6.0%	5.3%	7.4%	8.0%
Income	1.1%	4.1%	4.1%	4.2%	4.6%	5.4%
Appreciation	-2.4%	-12.1%	1.9%	1.0%	2.7%	2.5%
NCREIF Farmland Index	-0.3%	5.8%	7.2%	6.1%	8.0%	12.5%
FTSE Dev Core Infra 50/50	-8.8%	0.4%	2.4%	3.0%	5.2%	
FTSE NAREIT Equity Index	-7.1%	3.0%	5.8%	2.8%	6.0%	7.7%

Returns are geometrically linked

#### NCREIF Property Index One-Year Returns by Property Type

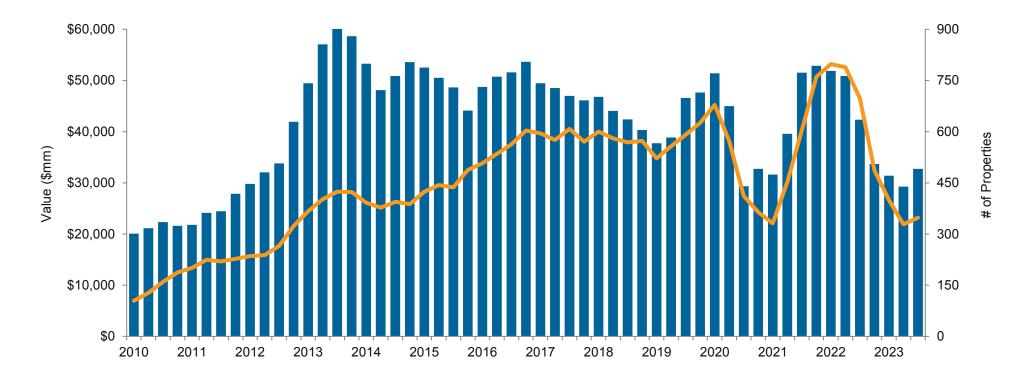




# Capital markets freeze began in 2H 2022 and continues

Buyers, sellers, and lenders are largely sidelined due to wide bid-ask spread

#### **Transaction Volume**

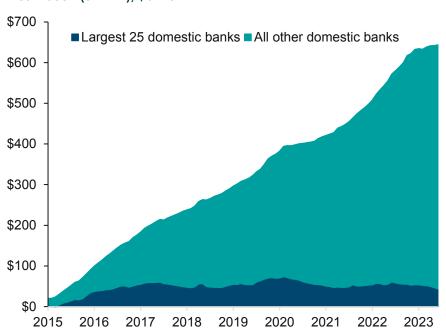


Source: NCREIF rolling 4-quarter transaction totals



#### **Record Debt Maturities on the Horizon**

# Cumulative increase in bank commercial real estate Loan book (ex. MF), \$billion



#### Loan Maturities by Sector, \$ bil ■ Multifamily Office ■ Industrial Retail Healthcare Hotel Other \$800 \$700 \$600 \$500 \$400 \$300 \$200 \$100 \$0 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 Later

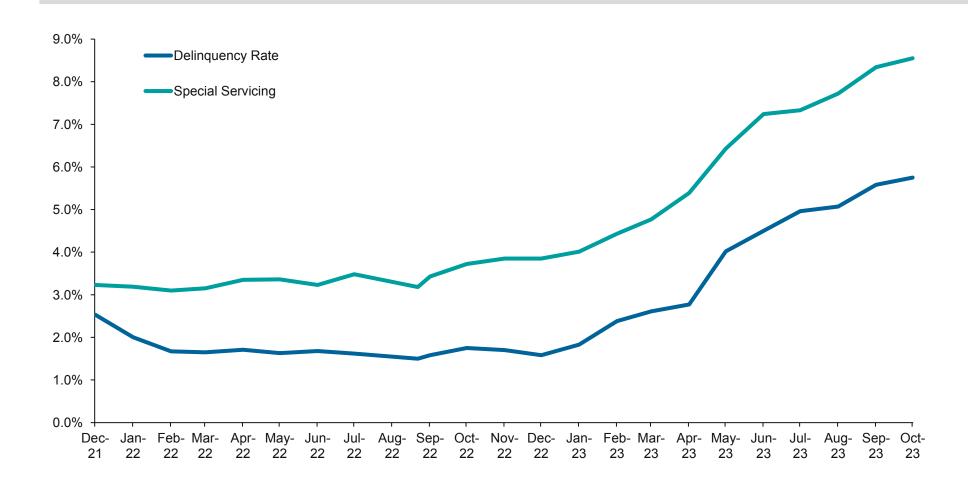
- ▶ A sizeable pool of loans maturing in 2023–2025, particularly office, will put further pressure on lending markets and banks
- ➤ Signature Valley Bank portfolio is being liquidated by the FDIC and expected to trade before year end -- \$33 bn loan pool across property types
- ▶ Discounted loan sales will be driven by liquidity needs, industry regulations, loan workout resources, and relationship preservation
- ► Significant opportunity for private capital to provide new debt financing and purchase existing loans at attractive risk/return

Sources: JP Morgan Asset Management, Moody's, FDIC, MBA



# Office Property Loan Problems Increasing Quickly

Share of CMBS office loans that are delinquent or in special servicing



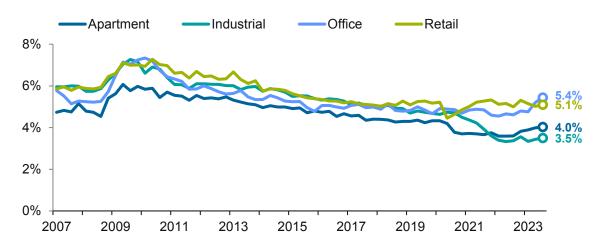
Source: TREPP, AEW



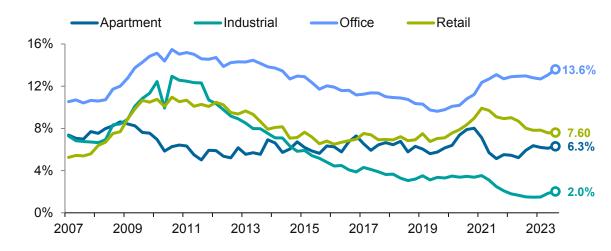
# Re-pricing expected to continue against a backdrop of reasonably healthy fundamentals, ex-office

- Cap rates are increasing modestly but re- pricing will need to continue for returns to make sense relative to other asset classes.
- ► The average historical spread of cap rates to 10-year Treasuries is ~360 bps.
- With the exception of office, vacancy rates are relatively low reflecting reasonable fundamentals
  - Not all office is created equal
- Multi-family is absorbing new supply that was started in prior years in certain markets
- New construction starts going forward are limited due to interest rates, lack of financing, and costs

#### **Real Estate Cap Rates**



#### **Vacancy by Property Type**



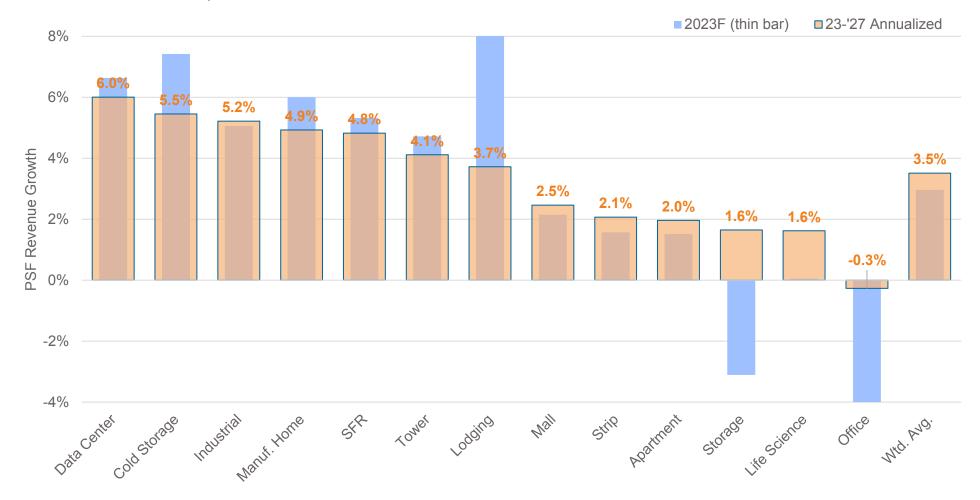
Source: NCREIF (through 3Q23)



#### Revenue Growth Forecast for Most Sectors to Maintain Trend

### Alternative Property Types Lead

GREEN STREET RENTAL GROWTH FORECASTS BY SECTOR 2023 VS 2023-2027 ANNUALIZED, AS OF NOVEMBER 2023



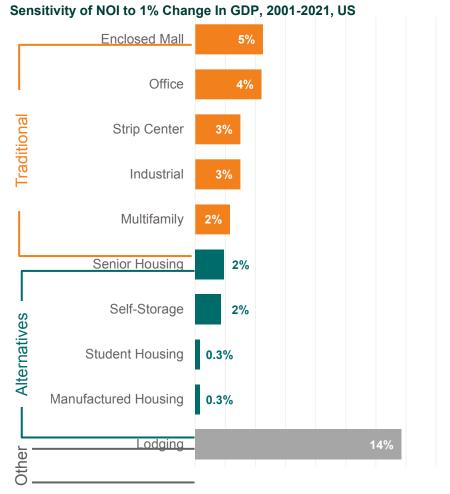
"Rental Growth" is defined as Green Street's "M-RevPAF" metric, its preferred measure of revenue growth. It stands for "Market Revenue per Available Square Foot," and is calculated as Rent multiplied by Occupancy.

Underlying Data Sources: Heitman, Green Street database, accessed 2023 Q4

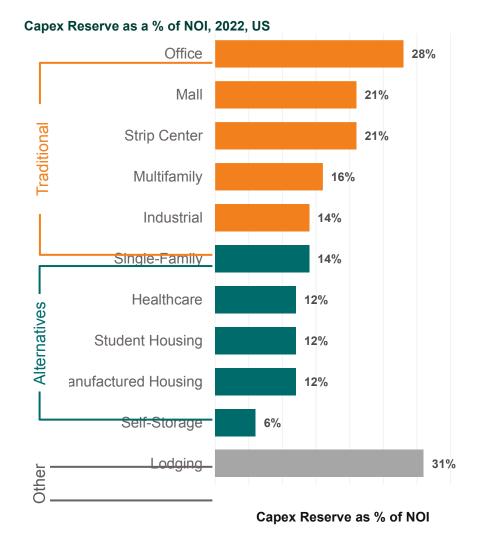


## What is the Appeal of Alternative Sectors?

### Less Reliant on Macro Conditions and Require Lower Capex



Change in NOI Due to 1% Change in GDP

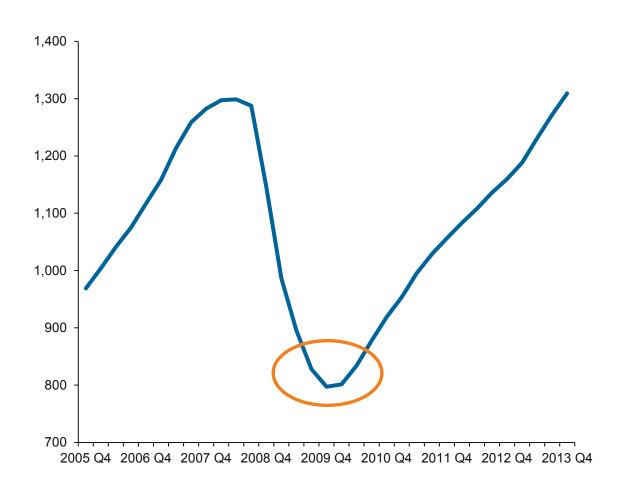


Source: Heitman, Green Street



# Long Term Investors Don't Need to Call the Bottom

ODCE Total Return Index during Global Financial Crisis (GFC) Index = 100 in 1977 Q4



Early 1990s		5-Year Return
	1995 Q2	11.92%
	1995 Q3	12.30%
Trough	1995 Q4	12.99%
	1996 Q1	12.97%
	1996 Q2	12.69%

Tech Crash		5-Year Return
	2002 Q1	12.68%
	2002 Q2	13.51%
Trough	2002 Q3	14.01%
	2002 Q4	14.04%
	2003 Q1	12.50%

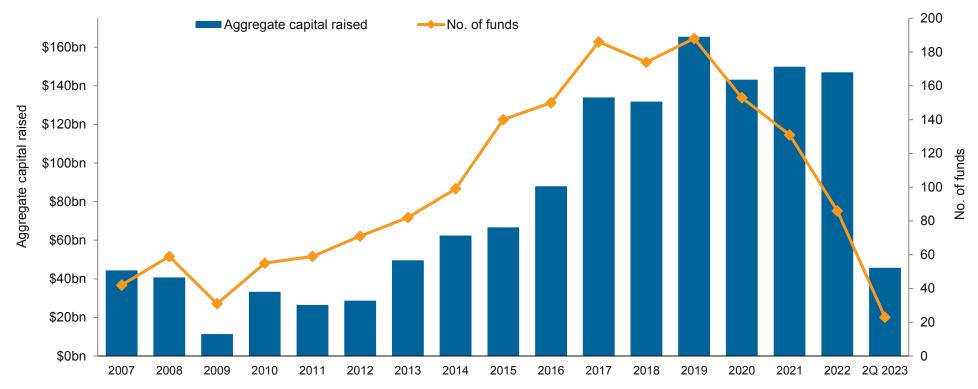
<b>Financial Crisis</b>		5-Year Return
	2009 Q3	11.34%
	2009 Q4	12.85%
Trough	2010 Q1	13.44%
	2010 Q2	13.33%
	2010 Q3	12.94%

Source: NCREIF, AEW



### Infrastructure Fundraising Decelerated in 1H 2023

Mega-funds continue to dominate fundraising, which has led to fewer funds raised in recent years



- The closed-end fund market continues to expand, with infrastructure debt, emerging markets and sector-specific strategies (e.g., digital and renewables).
- The open-end fund market is increasing, with multiple new funds launched in the past four years.
- Since 2020, assets with guaranteed/contracted revenue or more inelastic demand patterns (e.g., renewables, telecoms, and utilities)
   fared better than assets with GDP/demand-based revenue (e.g. airports, seaports, midstream-related).
- Fund raising has slowed in part due to denominator effect.



Source: Institutional Infrastructure Investor data and Callan research, 2Q 2023

### **Global Infrastructure Market Trends**

# Renewable Energy Targets, Data Storage/Transmission, Aging Infrastructure

Sector	Demand driver	Infrastructure Type
Digital	Increased demand with new	Fiber, towers, data centers,
	technology and work from	small cell
	home. Artificial Intelligence	
Energy	Trend for reduced carbon	Wind, solar, hydro,
Transition	emissions and non-nuclear	biomass, geothermal,
(including	power. Inflation Reduction	transmission assets,
renewables)	Act ("IRA") tax credits	batteries and storage,
		electrification
Water /	Increased demand, historic	Water utilities, wastewater
Wastewater	under-investment and aging	systems
	infrastructure	
Sustainability	ESG considerations	Energy/water efficiency and
		monitoring
Transport	Increased demand, historic	Airports, roads, ports, rail
	under-investment and aging	and electric vehicle-related
	infrastructure	infrastructure
Energy	Development of oil and	Utilities, mid-stream energy
	shale resources in the US	related transmission,
		storage and export facilities
Social	Insufficient municipal	Healthcare, judicial,
	budgets	education facilities, Public
		Private Partnerships





**Market Dynamics** 

**Portfolio Overview** 

Performance

2024 Pacing

Appendix and Glossary



### SURS' Real Asset Allocation – June 30, 2023

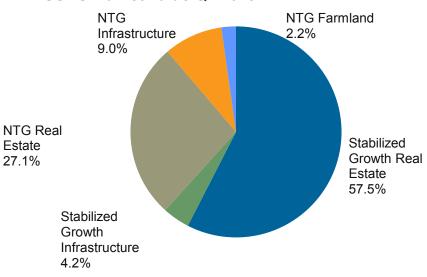
### Asset allocation changes are being implemented in the portfolio over several years

Real Assets, which includes Real Estate, Infrastructure, and Farmland, is a component of the Broad Growth strategic class of the asset allocation model.

- Unfunded commitments are significant due to commitment activity since 2019 and an increased target to real assets.
- Commitment activity in 2023 was focused on Non-Traditional Growth and Infrastructure\*. Non-traditional growth commitments included, opportunistic and value-add focused managers.

Q2 2023	\$ Millions	(%)
Total Plan Assets	\$23,066.7	100.0%
Real Assets Interim Target (FY2024)	\$2,537.3	11.0%
Real Assets Target (2025) Stabilized Growth at 8% Non-Traditional Growth at 5%	\$2,998.7	13.0%
Plan's Real Estate Market Value	\$2,534.2	11.0%
Unfunded Commitments	\$840.8	3.6%
Market Value & Unfunded Commitments	\$3,374.4	14.6%

#### **SURS Market Value Q2 2023**



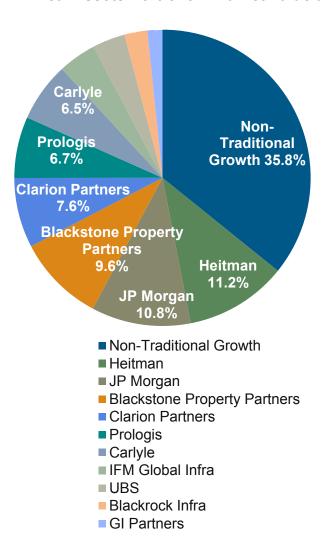
\*Pending approval of \$50mm infrastructure investment at the December 2023 Board Meeting



# **Manager Diversification**

### Portfolio is well diversified by manager

#### Real Assets Portfolio - Market Value as of 2Q2023



#### Non-Traditional Growth Portfolio as of 2Q2023

Firm	Sector	NAV (\$000)	% RA Total Portfolio
Macquarie	Infra	\$122,906	4.8%
Dune	RE	\$112,670	4.4%
Brookfield	RE	\$100,550	4.0%
Franklin Templeton**	RE	\$67,008	2.6%
Blackstone NTG	RE	\$63,166	2.5%
Homestead <sup>^</sup>	Farmland	\$56,217	2.2%
Longpoint*	RE	\$48,352	1.9%
Cabot	RE	\$47,436	1.9%
Basis*	RE Debt	\$46,262	1.8%
Crow	RE	\$43,773	1.7%
Westbrook	RE	\$32,602	1.3%
Torchlight	RE Debt	\$32,221	1.3%
Pantheon	Infra	\$30,382	1.2%
Long Wharf*	RE	\$29,632	1.2%
Brasa*	RE	\$22,911	0.9%
StepStone	RE	\$13,558	0.5%
Ember*	Infra	\$11,836	0.5%
Blue Vista	RE	\$11,827	0.5%
Oaktree	RE Debt	\$8,967	0.4%
Newport*	RE	\$4,700	0.2%
Alinda	Infra	\$158	0.0%

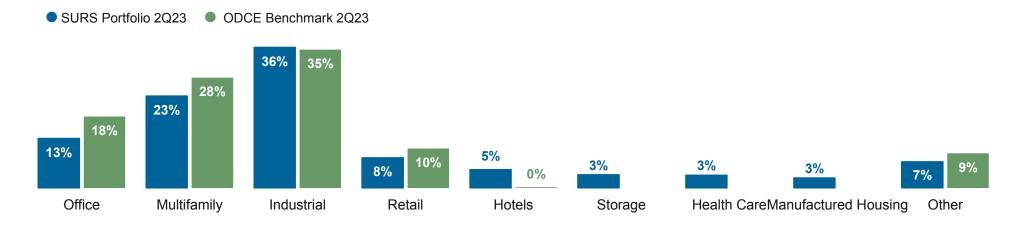
Note: Fund NAV amounts of in excess of 5% have been labeled. \*Diverse owned firms, ^50% Diverse ownership, \*\*Firm is not diverse owned; underlying strategy focused on investing with diverse-owned firms.



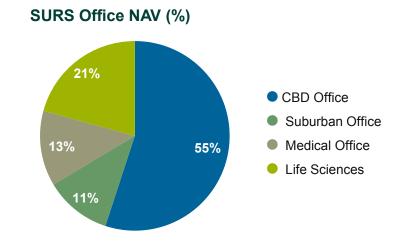
# Portfolio is Diversified by Property Type

Significant tilt to low cap-ex property types and alternatives with low office exposure is favorable

#### **SURS Portfolio Is Diversified Across Multiple Sectors**



2Q2023	SURS Market Value	% Office	Office Market Value
Stabilized Growth	\$1.5 billion	12%	\$181 million
Non-Traditional Growth	\$0.7 billion	13%	\$90 million
Total Real Estate	\$2.1 billion	13%	\$270 million



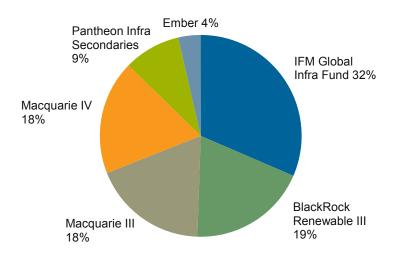
\*Other includes Healthcare, Land, Senior Housing, Student Housing, Mixed Use, Data Center, Manufactured Housing, Cash



### Infrastructure Portfolio Has Dry Powder in Multiple Strategies

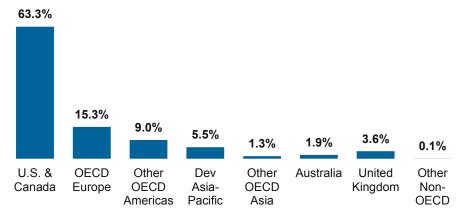
Pantheon (secondaries), Ember\* (small deals) and BlackRock (energy transition)

#### Infrastructure Portfolio Market Value

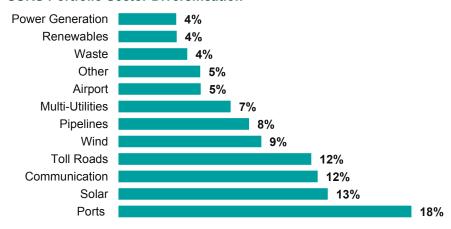


- ▶ The Portfolio is geographically concentrated in the U.S.
- ► The Portfolio is diversified by sector.
  - Transportation, Communication and Renewables account for the majority of the market value of the portfolio.
  - Other includes water and gas utilities, energy and other transport investments.

#### **SURS Portfolio Geographic Diversification**



#### **SURS Portfolio Sector Diversification**



\*Ember is a diverse-owned manager



### **Investment Activity Has Been Substantial Across Vintage Years**

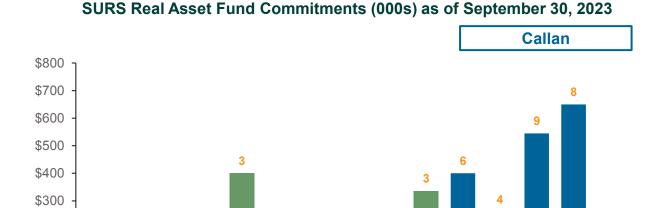
\$200

\$100

\$0

Commitments to 30 private real assets funds ~\$2.0 billion of commitments across vintage years

- Pre 2019 commitment activity followed the fundraising of key noncore managers. Infrastructure was part of the opportunistic allocation and did not have a formal place in the SURS program
- Since 2019 commitments have been made across vintage years
- 2022 commitments (and beyond) reflect increased real assets allocation by Meketa
- 30 total commitments including 16 new managers and 14 re-ups with existing managers
- 30% of funds and 20% of commitments allocated to diverseowned firms
- Fee discounts on 20 funds based on size, early closing, and/or Callan client aggregation discounts. Nine funds did not offer fee discounts



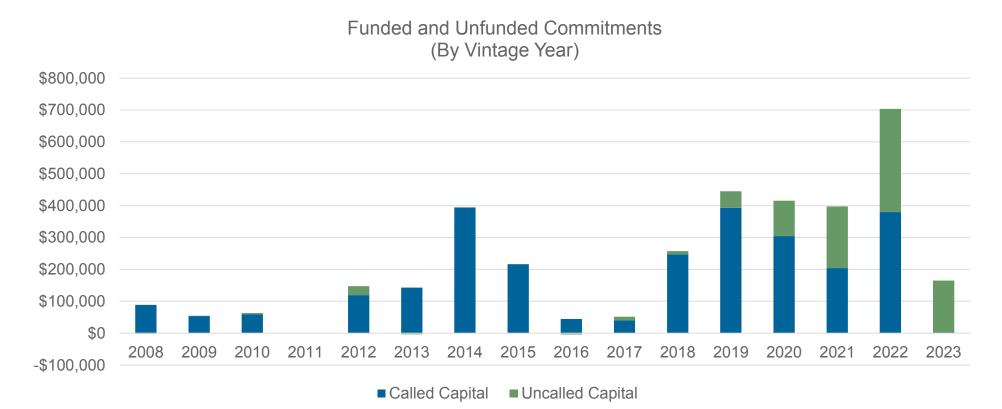
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023\*

\*One additional non-traditional growth commitment totaling \$50mm is being recommended by Callan at the December 2023 meeting, bringing the 2023 pacing to \$225mm / 4 funds if approved.



### **Capital Deployment**

As of June 30, 2023



 Unfunded commitments are being invested as pricing adjusts into debt, non-core real estate, non-traditional growth infrastructure and farmland strategies

Vintage year is determined by year initial capital was called and may not match the year the commitment was approved. 2023 Unfunded adjusted for commitments made subsequent to quarter end.



### **Sourcing Summary**

471 funds submitted information since 2019, including 56 funds managed by diverse-owned firms\*

		# of Funds Submitted	Funds Managed by Diverse Owned Firms,	All Funds Approved	Funds Managed by Diverse Owned Firms and Approved by SURS
Fund Type	# of Funds Submitted	by Diverse-owned Firms*	Approved by SURS (# and \$committed)	by SURS (# and \$committed)	(% of Funds and % of Commitments)
Stabilized Growth					
Real Estate	58	2	0	4 (\$500M)	0%
Infrastructure	15	0	0	2 (\$200M)	0%
Non-Traditional Growth					
Real Estate	278	40	8 (\$350M)	20 (\$1,080M)	40% of funds and 32% of commitments
Infrastructure	96	9	1 (\$50M)^	2 (\$150M)	50% of funds and 33% of commitments
Farmland	24	5	0	2 (\$100M)**	0%**
Total	471	56	9	30	30% of funds
Callan courced and	rocommonded dive	waa awaad funda	(\$400M)	(\$2,030M)	20% of commitments

#### Callan sourced and recommended diverse-owned funds:

- ➤ Basis Investment Group Fund II, Brasa Real Estate Fund II & III, Ember Infrastructure Fund I^, Long Wharf Real Estate Partners VI & VII, Longpoint Realty Fund II & III and Newport Capital Partners Fund III. These meet the SURS definition of diverse-owned.
- ➤ \*\*Additional commitments to Homestead Farmland Fund III & IV. Homestead is 50% diverse-owned and not reflected as a diverse manager per SURS' definition.

<sup>\*</sup> SURS' definition of diverse-owned firms requires at least 51% diverse ownership. ^Does not include the proposed Ember Infrastructure II investment being considered at the December 2023 Board Meeting bringing the potential total to 31 funds, 10 funds managed by diverse owned firms (32%), totaling \$450mm of funds managed by diverse owned firms (21.6%) and totaling \$2,080m.



**Market Dynamics** 

Portfolio Overview

**Performance** 

2024 Pacing

Appendix and Glossary



# **SURS Real Assets Portfolio Outperformed The Benchmark**

Q2 2023

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Core Funds	<b>(1.79%)</b>	<b>(9.09%)</b>	<b>9.56%</b>	<b>6.35%</b>	<b>7.67%</b>
NCREIF NFI-ODCE Val Wt Nt	(2.88%)	(10.73%)	7.04%	5.56%	7.77%
Total Non-Core Funds NCREIF ODCE + 1.5%	<b>0.41%</b> (2.47%)	<b>1.85%</b> (9.23%)	<b>11.96%</b> 8.56%	<b>6.67%</b> 7.07%	<b>9.83%</b> 9.28%
Total Private Real Estate	(1.17%)	(6.21%)	10.17%	6.46%	8.31%
Total Farmland	3.92%	7.92%	-	-	-
NCREIF Farmland Index	0.80%	8.19%	7.60%	6.45%	8.34%
Total Private Infrastructure	2.43%	<b>15.35%</b>	<b>17.52%</b>	<b>13.47%</b>	<b>9.21%</b>
CPI + 5%	2.27%	7.97%	10.78%	8.90%	7.71%
FTSE Dev Core Inf 50/50 N	(0.58%)	(1.29%)	6.72%	4.81%	6.67%
Total Real Assets Total Real Assets Benchmark*	(0.85%)	<b>(4.79%)</b>	<b>10.70%</b>	<b>7.37%</b>	<b>8.36%</b>
	(2.38%)	(8.93%)	7.82%	6.60%	7.78%

<sup>\*</sup> Current Quarter Target = 66.0% NCREIF NFI-ODCE Val Wt Nt, 26.0% NCREIF NFI-ODCE Val Wt Nt+1.5%, 6.0% CPI-W+5.0% and 2.0% NCREIF Farmland Index.



### **SURS Performance at Q2 2023**

### Stabilized Growth Time Weighted Returns

			Last	Last	Last	
	Last	Last	3	5	10	
	Quarter	Year	Years	Years	Years	
Total Core Funds	(1.79%)	(9.09%)	9.56%	6.35%	7.67%	
NCREIF NFI-ODCE Val Wt Nt	(2.88%)	(10.73%)	7.04%	5.56%	7.77%	
Blackrock Global Renewable Power III	3.83%	23.96%	-	-	-	
Blackstone Property Partners	1.80%	(11.70%)	6.57%	-	-	
Carly le Property Investors	(1.88%)	(3.08%)	14.38%	10.88%	-	
Clarion Partners Lion Properties Fund	(6.12%)	(15.81%)	-	-	-	
GI Partners ETS Fund	(2.29%)	2.69%	-	-	-	
Heitman America Real Estate Trust (HART)	(2.20%)	(9.09%)	9.64%	5.74%	-	
IFM Glb Infras Fund (GIF)	2.53%	-	-	-	-	
JP Morgan Strategic Property Fund (SPF)	(1.77%)	(11.13%)	6.34%	4.95%	-	
Prologis US Logistics Fund (USLF)	(4.04%)	(10.44%)	19.29%	-	-	
UBS Trumbull Property Fund (TPF)	(3.52%)	(15.37%)	2.05%	0.61%	4.39%	

- Core portfolio experiencing repricing; some underperformance driven by write-downs and disposition of office assets
- Prologis values reflect the rapid rise in borrowing costs causing values to adjust
- Strategies with more alternative investments (GI Partners, Carlyle, Heitman) and infrastructure are performing better
- IFM Global Infrastructure Fund fully funded as of 1Q2023



# **SURS Performance at Q2 2023 Non-Traditional Growth Time Weighted Returns**

Returns Reflect J Curve and Market Impacts Over 1 Year Period. Infra and Farmland Leading RE

	Last	Last	Last 3	Last 5	Last 10
	Quarter	Year	Years	Years	Years
Total Non-Core Funds	0.41%	1.85%	11.96%	6.67%	9.83%
NCREIF ODCE + 1.5%	(2.47%)	(9.23%)	8.56%	7.07%	9.28%
Basis Real Estate Debt Fund I	0.62%	8.69%	9.52%	11.80%	-
Basis Real Estate Debt Fund II	2.53%	8.75%	-	-	-
Blackstone European VI (3)	3.24%	4.67%	18.73%	-	-
Blackstone RE Partners Asia III	(0.56%)	(18.87%)	-	-	-
Blue Vista Real Estate IV **	(11.63%)	(25.16%)	6.89%	8.07%	-
Brasa II	(0.93%)	8.14%	-	-	-
Brookfield Strategic Real Estate II	0.29%	(2.55%)	14.03%	10.95%	-
Brookfield Strategic RE III	3.06%	11.83%	15.99%	10.25%	-
Brookfield Strategic RE IV	0.83%	23.60%	-	-	-
Cabot Industrial Value VI (CIVF)	0.50%	(2.33%)	26.75%	-	-
Crow Holdings Realty VII	(3.85%)	(22.33%)	(3.10%)	1.37%	-
Crow Holdings Realty VIII	(8.53%)	(11.94%)	19.62%	16.52%	-
Crow Holdings Realty IX	(0.33%)	(3.68%)	-	-	_
Dune Real Estate Partners II	(0.25%)	(0.33%)	3.87%	0.78%	6.85%
Dune Real Estate Partners III	2.47%	1.88%	5.23%	0.54%	4.84%
Dune Real Estate Partners IV	1.32%	15.59%	13.02%	3.33%	-
Franklin Templeton FTPREF	(5.08%)	(15.53%)	(7.02%)	(9.33%)	6.48%
Franklin Templeton EMREFF	(5.69%)	(39.33%)	(11.28%)	(16.38%)	(2.28%)
Franklin Templeton MDP RE 2015	(1.71%)	(1.11%)	10.25%	3.57%	(2.2070)
Longpoint Realty Fund II	2.03%	7.02%	10.2070	-	_
Long Wharf VI	0.19%	5.64%	35.29%	-	
Newport Capital Partners Fund III	1.51%	39.70%	-	<del>-</del>	_
Oaktree Real Estate Debt Fund II	(6.12%)	(10.39%)	1.76%	(0.62%)	-
StepSt Partner RE II (fka MFIRE) (2)	0.07%	(0.86%)	1.76%	(0.02%)	4.53%
	0.07%	3.84%	1.24 /0	(0.0170)	4.5576
Torchlight Debt VII		3.04%	-		
Torchlight Debt VIII Westbrook XI	(3.07%) 1.49%	- 11.02%	-	-	-
Westblook A	1.49%	11.02%	-	-	-
Total Private Real Estate	(1.17%)	(6.21%)	10.17%	6.46%	8.31%
Homestead USA Farmland Fund III	3.92%	7.92%	_	_	_
NCREIF Farmland Index	0.80%	8.19%	7.60%	6.45%	8.34%
Fotal Private Infrastructure	2.43%	15.35%	17.52%	13.47%	9.21%
CPI + 5%	2.27%	7.97%	10.78%	8.90%	7.71%
FTSE Dev Core Inf 50/50 N	(0.58%)	(1.29%)	6.72%	4.81%	6.67%
	(0.5676)	(1.23/0)	0.72/0	4.01/0	0.07 76
Ember Infrastructure I	(2.72%)	(10.12%)	-	-	-
Macquarie Infrastructure Partners III	5.14%	44.67%	33.22%	23.58%	-
Macquarie Infrastructure Partners IV	0.81%	2.51%	12.34%	8.68%	-
Pantheon Glb Infrast Secondaries IV	1.80%	2.68%	-	-	-
Total Real Assets	(0.85%)	(4.79%)	10.70%	7.37%	8.36%
Total Real Assets Benchmark*(1)	(2.38%)	(8.93%)	7.82%	6.60%	7.78%

Current Quarter Target = 66.0% NCREIF NEI-ODCE Val Wt Nt. 26.0% NCREIF NEI-ODCE Val Wt Nt+1.5% 6.0% CPI-W+5.0% and 2.0% NCREIF Farmland Index



# **Real Assets Portfolio Performance (Stabilized Growth)**

June 30, 2023

Fund	Vintage Year	Capital Commitment (\$000s)	Paid-In Capital (\$000s)	Uncalled Capital (\$000s)	% Paid-In	Distributed Capital (\$000s)	Net Asset Value (\$000s)	DPI	RVPI	TVPI	Net IRR
Stabilized Growth Funds											
UBS Trumbull Property Fund	2006	284,879	284,879	0	100.00%	401,012	90,703	1.41x	0.32x	1.73x	6.25%
Heitman America Real Estate Trust	2014	210,405	210,405	0	100.00%	60,405	282,670	0.29x	1.34x	1.63x	7.47%
JP Morgan Strategic Property Fund	2014	150,000	150,000	0	100.00%	0	274,784	0.00x	1.83x	1.83x	6.89%
Carlyle Property Investors	2018	121,746	121,746	0	100.00%	22,632	163,838	0.19x	1.35x	1.53x	11.71%
Blackstone Property Partners	2019	219,849	219,849	0	100.00%	19,849	242,410	0.09x	1.10x	1.19x	4.88%
Prologis US Logistics Fund	2020	109,756	109,756	0	100.00%	10,076	169,459	0.09x	1.54x	1.64x	21.58%
BlackRock Global Renewable III	2020	100,000	60,604	43,885	60.60%	4,760	63,656	0.08x	1.05x	1.13x	12.70%
GI Partners ETS Fund	2022	75,000	37,861	37,139	50.48%	0	41,246	0.00x	1.09x	1.09x	9.45%
IFM Global Infrastructure Fund	2022	100,000	100,000	0	100.00%	0	105,161	0.00x	1.05x	1.05x	5.22%
Clarion Partners Lion Properties Fund	2022	228,175	228,175	0	100.00%	4,524	193,177	0.02x	0.85x	0.87x	-20.54%



# **Real Assets Portfolio Performance (Non-Traditional Growth)**

June 30, 2023

Fund	Vintage Year	Capital Commitment (\$000s)	Paid-In Capital (\$000s)	Uncalled Capital (\$000s)	% Paid-In	Distributed Capital (\$000s)	Net Asset Value (\$000s)	DPI	RVPI	TVPI	Net IRR
Non-Traditional Growth Funds											
Mature (10+ years)											
Dune Real Estate Partners II	2008	40,000	40,458	0	101.15%	66,998	6,390	1.66x	0.16x	1.81x	14.31%
Alinda Infrastructure Fund II	2009	40,000	53,410	1,174	133.52%	53,562	158	1.00x	0.00x	1.01x	0.12%
Franklin Templeton FTPREF	2010	50,000	58,445	4,625	116.89%	79,908	461	1.37x	0.01x	1.38x	20.51%
Franklin Templeton EMREFF	2012	75,000	80,038	7,244	106.72%	106,812	2,399	1.33x	0.03x	1.36x	11.91%
StepSt Partner RE II (fka MFIRE)	2012	60,000	39,413	20,587	65.69%	43,663	13,558	1.11x	0.34x	1.45x	6.53%
Dune Real Estate Partners III	2013	100,000	142,791	0	142.79%	112,388	66,162	0.79x	0.46x	1.25x	5.56%
Crow Holdings Realty VII	2014	35,000	32,877	2,123	93.93%	44,249	1,141	1.35x	0.03x	1.38x	11.05%
Maturing (5-9 years)											
Blue Vista Real Estate IV	2015	35,000	35,000	0	100.00%	41,360	11,827	1.18x	0.34x	1.52x	11.04%
Brookfield Strategic Real Estate II	2015	35,000	39,787	10	116.81%	39,524	23,682	0.97x	0.58x	1.55x	11.70%
Franklin Templeton MDP RE 2015	2015	90,000	87,302	2,698	97.00%	34,399	64,148	0.39x	0.73x	1.13x	3.84%
Macquarie Infra Partners III	2015	50,000	49,920	5,419	99.84%	53,128	61,663	1.00x	1.16x	2.17x	17.55%
Crow Holdings Realty VIII	2017	20,000	17,483	2,517	87.41%	27,101	1,107	1.55x	0.06x	1.61x	23.45%
Oaktree Real Estate Debt Fund II	2017	30,000	22,590	8,848	75.30%	16,028	8,967	0.71x	0.40x	1.11x	4.09%
Basis Real Estate Debt Fund I	2016	30,000	44,548	2,396	148.00%	34,807	20,108	0.78x	0.45x	1.24x	12.42%
Brookfield Strategic Real Estate III	2018	35,000	34,211	789	97.75%	8,118	36,968	0.24x	1.08x	1.32x	12.24%
Dune Real Estate IV	2018	50,000	37,730	13,029	75.46%	2,558	40,118	0.07x	1.06x	1.13x	6.66%
Macquarie Infra Partners IV	2018	50,000	50,719	3,023	101.44%	13,976	61,243	0.26x	1.14x	1.40x	10.76%



# **Real Assets Portfolio Performance (Non-Traditional Growth)**

June 30, 2023

Fund	Vintage Year	Capital Commitment (\$000s)	Paid-In Capital (\$000s)	Uncalled Capital (\$000s)	% Paid-In	Distributed Capital (\$000s)	Net Asset Value (\$000s)	DPI	RVPI	TVPI	Net IRR
Non-Traditional Growth Funds											
Immature (Less than 5 years)											
Homestead Farmland Fund III	2019	60,000	51,115	8,909	85.19%	1,598	56,290	0.03x	1.10x	1.13x	8.26%
Long Wharf VI	2019	40,000	39,524	476	98.81%	20,535	27,620	0.52x	0.70x	1.22x	19.44%
Cabot Industrial Value VI	2019	50,000	38,044	11,956	76.09%	375	48,077	0.01x	1.26x	1.27x	16.34%
Westbrook XI	2019	75,000	44,903	30,097	59.87%	21,042	32,602	0.47x	0.73x	1.19x	21.59%
Blackstone European VI	2020	89,535	64,819	36,120	72.39%	24,185	56,731	0.37x	0.88x	1.25x	NM
Crow Holdings Realty IX	2020	50,000	44,072	5,928	88.14%	12,011	41,525	0.27x	0.94x	1.21x	NM
Torchlight Debt VII	2020	50,000	25,031	24,969	50.06%	31	26,437	0.00x	1.06x	1.06x	NM
Longpoint Realty Fund II	2021	50,000	45,000	5,000	90.00%	373	49,111	0.01x	1.09x	1.10x	NM
Brookfield Strategic RE IV	2021	75,000	39,262	35,738	52.35%	1,829	39,900	0.05x	1.02x	1.06x	NM
Ember Infrastructure I	2021	34,108	14,013	20,095	41.08%	112	11,836	0.01x	0.84x	0.85x	NM
Basis Real Estate Debt Fund II	2021	50,000	43,855	18,859	87.71%	18,934	26,154	0.43x	0.60x	1.03x	NM
Newport Capital Partners Fund III	2021	30,000	7,754	25,820	25.85%	3,714	4,700	0.48x	0.61x	1.09x	NM
Pantheon Glb Infra Secondaries IV	2021	100,000	31,162	69,590	31.16%	889	30,382	0.03x	0.97x	1.00x	NM
Brasa II	2021	40,000	23,274	17,819	58.18%	1,093	22,911	0.05x	0.98x	1.03x	NM
Blackstone RE Partners Asia III	2022	50,000	7,442	42,558	14.88%	0	6,435	0.00x	0.86x	0.86x	NM
Crow Holdings Realty X	2022	50,000	0	50,000	0.00%	0	0	-	-	-	NM
Cabot Industrial Value VII	2022	50,000	0	50,000	0.00%	0	-641	-	-	-	NM
Torchlight Debt VIII	2022	50,000	6,250	43,750	12.50%	0	5,784	0.00x	0.93x	0.93x	NM
Longpoint Realty Fund III	2022	60,000	0	60,000	0.00%	0	-759	-	-	-	NM
Homestead Farmland Fund IV	2022	40,000	0	40,000	0.00%	0	-73	-	-	-	NM
Long Wharf VII	2023	40,000	2,430	37,570	6.07%	0	2,012	0.00x	0.83x	0.83x	NM
Brasa III	2023	50,000	0	50,000	0.00%	0	0	-	-	-	NM
Brookfield Strategic Real Estate V*	2023	75,000	0	75,000	0.00%	0	0	-	-	-	NM

<sup>\*</sup>Subsequent quarter end a \$75mm commitment to Brookfield Strategic Real Estate V was approved at the September Board Meeting



**Market Dynamics** 

Portfolio Overview

Performance

2024 Pacing

Appendix and Glossary



### **Pacing Study**

### Background

The pacing study forecasts how much additional capital will be required on an annual basis for SURS to reach and maintain its investment in Real Assets at the policy targets.

Portfolio pacing is updated on an annual basis to account for changes in asset allocation, total plan assets and growth rate, uncalled capital commitment balance, net asset value, and projected real asset returns. Major factors impacting this pacing plan include:

- Total Plan growth rate was increased in 2022 from 3.9% to 4.2%\*.
- A new asset allocation was approved in June 2021 that, among broader changes, substantially increased the targets to the two components of Real Assets.
  - Stabilized Growth (Core) was increased from 6.0% to 8.0% of Total Plan Assets
  - Non-Traditional Growth (Non-Core) was increased from 4.0% to 5.0% of Total Plan Assets
  - Meketa recommended that SURS work to achieve the new targets by July 1, 2025, with proposed interim targets as shown below:

		Long-Term Target	Interim Targets							
Real Assets	2018 Target	Adopted Jun 2021	Jul 2021	Jul 2022	Jul 2023	Jul 2024	Jul 2025	There- after		
Stabilized Growth (core)	6.0%	8.0%	4.5%	5.5%	6.5%	7.0%	8.0%	8.0%		
Non-Traditional Growth (non-core)	4.0%	5.0%	2.5%	3.0%	3.5%	4.0%	5.0%	5.0%		





### **SURS Strategy 2024**

- Target \$150 million to \$250 million of new investment in Non-Traditional Growth investments. No new capital is anticipated to be invested in Traditional Growth in the near term
  - Expand real estate debt investment either through dedicated debt managers or managers with combination of debt and equity mandate
  - Continue to invest in property sectors with lower capital expenditure requirements, income growth above inflation and demographic-driven tailwinds
  - Continue to deploy capital in non-traditional growth infrastructure
  - Maintain caution on Asia and modestly increase investment in Europe
- Over the medium term, re-allocate capital in Traditional Growth portfolio from underperforming manager(s) to better-performing existing SURS managers and/or new funds. Immediate re-allocation is not possible due to redemption gueues for the underperforming managers.
- Expand farmland investment to be more meaningful for the portfolio. Consider both stabilized growth and non-traditional growth implementation
- Maintain focus on sourcing investments with MWDBE firms to reach or exceed policy target of 20% of new capital commitments to MWDBE firms.
  - Utilize new and existing managers
  - Develop efficient program to reach smaller managers
- Continue to incorporate ESG considerations into the evaluation and portfolio monitoring processes and seek to support standards of measurability as technology and investors' demand change.

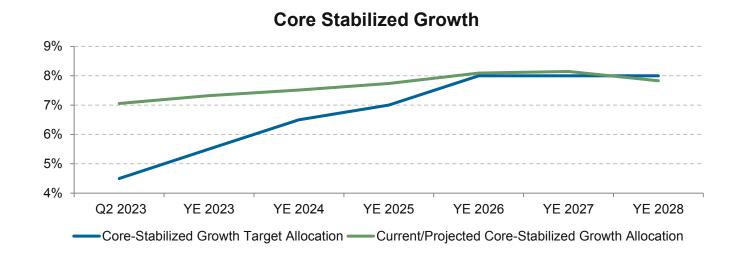


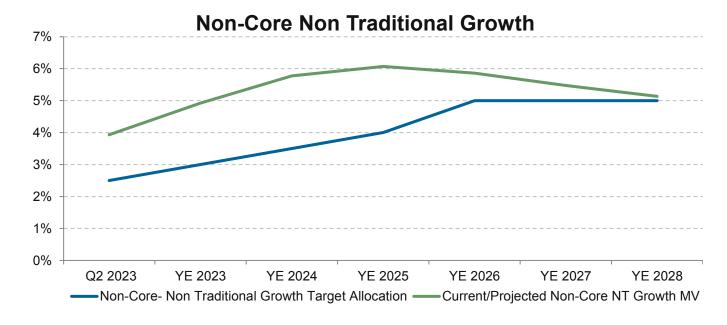
### **2024 Pacing Target**

Actual depends on volatility, funds in the market, any changes to plan growth rate, etc.

Year	Core SG Commitments (\$MM)
2024	(ψιντιντ <i>)</i> -
2025	-
2026	\$50 to \$150
2027	-
2028	-

Year	Non-Core NTG Commitments (\$MM)
2024	\$150 to \$250
2025	\$150 to \$250
2026	\$150 to \$250
2027	\$150 to \$250
2028	\$150 to \$250







Market Dynamics

Portfolio Overview

Performance

2024 Pacing

**Appendix and Glossary** 



### **Debt Market Conditions: That Was Then This Is Now**

#### Max Loan Size (single asset)

Then: **\$250mm+** (**healthy** syndication market)

Now: **\$125mm** (**challenging** syndication market)

#### **Maximum Loan to Value**

Then: 60% to 75%

Now: 50% to 60%

#### **Amortization**

Then: 10 years interest only (<50% loan-to-value)

Now: **5 years interest only** (<50% loan-to-value)

#### **Lender Pull Back**

Then: Now:

Fannie Mae / Freddie Mac
Life companies
Life companies (selective)
Banks
Regional banks (selective?)
CMBS
Debt funds (opportunistically)

Debt funds

#### **Construction Loans - Recourse Requirement**

Then: 0% to 10%

Now: 20% to 25%

#### **Construction Loans – Maximum Loan to Cost**

Then: **65%** 

Now: **55%** 

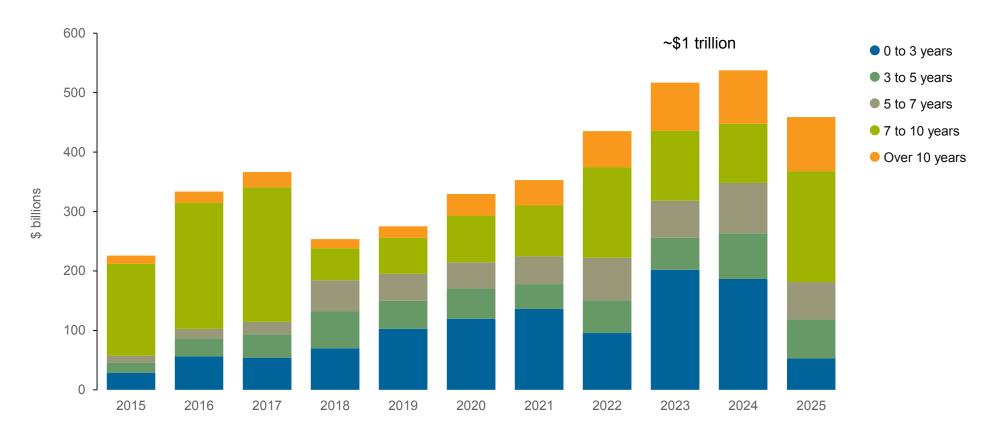
Source: AEW Capital Management



### Record Debt Maturities in 2023 and 2024

A significant share of near-term maturities were originated since 2020 at peak pricing

#### **Chart Title**



Sources: BentallGreenOak, Real Capital Analytics, Newmark

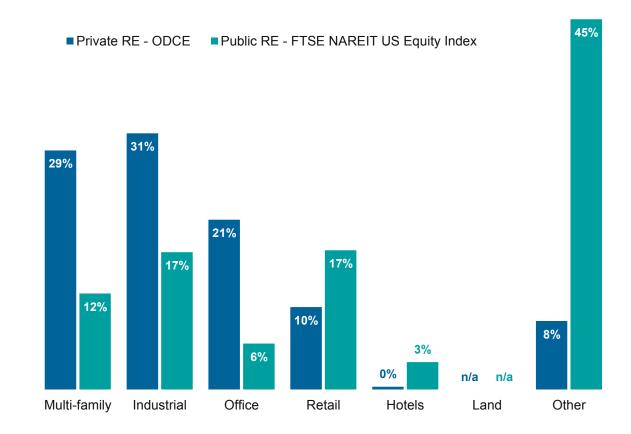


### Property sectors across private and public markets have diverged

### Private market portfolios are evolving

- ▶ Public markets have transitioned away from high cap ex sectors to "Alternatives"
- Private market portfolios are following public markets but many are hampered by legacy portfolios.
- Other for REITS consists of mixed use (2%), healthcare (11%), self storage (8%), data centers (11%), gaming (4%), single family home rentals (3%), manufactured homes (3%), freestanding − triple net lease (6%), specialty (3%)
- Other in ODCE Index is currently a smaller subset of property types including storage, single family rental, student housing

#### **Private and Public Real Estate Allocations**

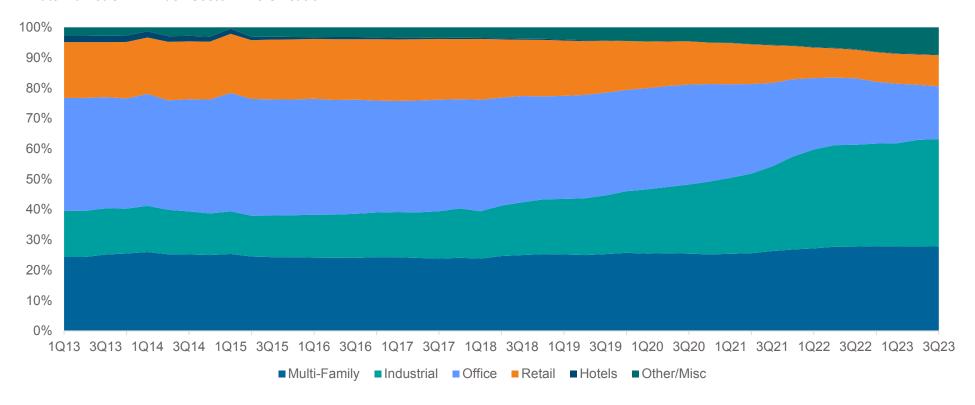


Source: NCREIF, FTSE. Data as of 3/31/2023.



# **Property Sector Evolution of Private Market Real Estate**

#### **Private Market ODCE Index Sector Diversification**

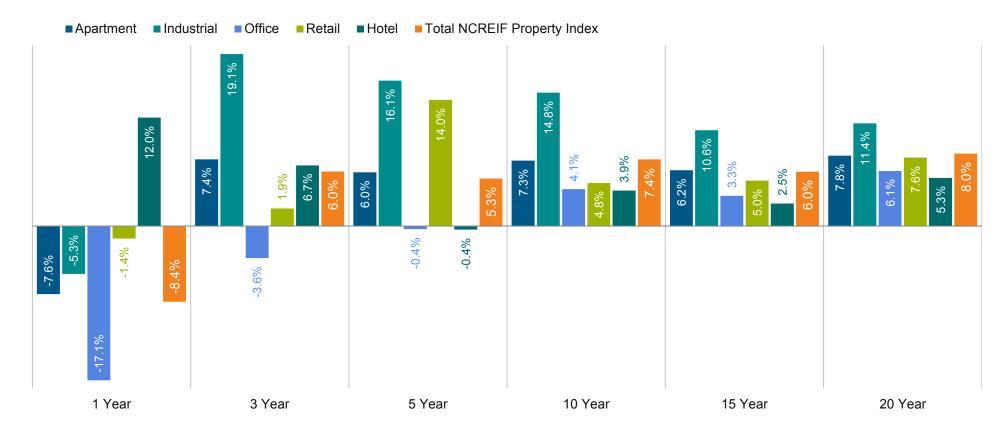




# **Property type returns for NCREIF Property Index**

Higher capex property types lag over the long term

#### **Unlevered Returns By Property Type**



Source: NCREIF as of 3Q 2023



### Stabilized Growth Funds Office Portfolio Characteristics

Firm	% of SURS RA Portfolio	CBD Office	Suburban Office	Medical Office	Life Sciences	Occupancy	WALT (YRS)	# of Office Investments
Fund A	10%	14%	0%	0%	3%	76%	6	16
Fund B	6%	0%	0%	10%	0%	94%	6	28
Fund C	8%	9%	8%	0%	12%	78%	5	13
Fund D	2%	0%	0%	0%	61%	69%	7	51
Fund E	11%	8%	2%	5%	0%	85%	5	31
Fund F	11%	19%	3%	0%	0%	90%	3	29
Fund G	4%	16%	3%	0%	0%	80%	4	9

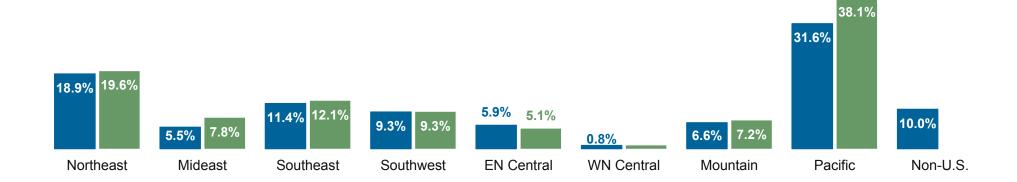
- % Average occupancy: ranges from 68% to 94% vs 84% (USA national occupancy)
  - Occupancy varies between traditional office and life sciences or medical office
  - -68% represents a core plus life science strategy taking repositioning and leasing risk
- Weighted Average Lease Term (WALT): All but one fund has >4 years WALT, total weighted WALT: 6 years
  - In-place leases ensure cash flow to service debt and maintain the building
- Since 4Q2019 CBD and suburban office investment equity values have been written down significantly
- Newer, well-amenitized buildings have been less impacted



# **Private Real Estate Regional Diversification**

As of June 30, 2023

#### **SURS Portfolio Is Diversified Across Regions**





#### **Definitions**

**Capitalization rate:** Commonly known as cap rate, is a rate that helps in evaluating a real estate investment. Cap rate = Net operating income / Current market value (Sales price) of the asset.

**Net operating income:** Commonly known as NOI, is the annual income generated by an income-producing property after taking into account all income collected from operations, and deducting all expenses incurred from operations.

**Retail - Community Center:** In addition to convenience goods, provides for the sale of goods such as apparel or furniture. Typical area is 100,000 to 350,000 square feet with two or more anchor tenants (primarily Grocery and Drug).

**Retail - Neighborhood Center:** Provides for the sale of daily living needs of the immediate area. Typical property is 30,000 to 150,000 square feet with at least one anchor tenant.

**Retail - Regional Center:** Provides a variety of goods comparable to those of a central business district in a small city, including general merchandise, apparel and home furnishings, as well as a variety of services and perhaps recreational facilities. Two or more full-line department stores anchor a total area of 400,000 to 800,000 square feet.

**Retail - Super-Regional Center:** Provides an extensive variety of shopping goods comparable to those of the central business district of a major metropolitan area. The anchors are three or more full-line department stores, with total area in excess of 800,000 square feet.

**NFI-ODCE Index:** time-weighted return Index with an inception date of 12/31/1977. The Index is comprised of 25 open-end commingled funds. Inclusion within the Index requires (a) minimum of 80% of net fund assets invested in the multifamily, retail, industrial, office, or hotel property type, (b) maximum of 20% of net fund assets invested in real estate debt or private/public company equity, (c) at least 80% of net assets invested in properties with a minimum occupancy of 60%, (d) no more than 70% of real estate net assets invested in a single property type or region, (e) maximum of 35% leverage, and (f) at least 95% of net real estate assets invested within the U.S. market.



## **Definitions – Investment Styles**

**Core:** Direct investments in operating, fully leased, office, retail, industrial, or multifamily properties using little or no leverage (normally less than 30%).

**Value-Added:** Core returning investments that take on moderate additional risk from one or more of the following sources: leasing, re-development, exposure to non-traditional property types, the use of leverage.

**Opportunistic:** Investments that take on additional risk in order to achieve a higher return. Typical sources of risks are: development, land investing, operating company investing, international exposure, high leverage, distressed properties.

Non Core: Includes both value added and opportunistic strategies

**Closed-End Fund:** A commingled fund with a stated maturity (termination) date with few or no additional investors after the initial formation of the fund. Closed-end funds typically purchase a portfolio of properties to hold for the duration of the fund and, as sales occur, typically do not invest the sales proceeds. (Source: NCREIF PREA Reporting Standards).

**Commingled Funds:** A term applied to all open-end and closed-end pooled investment vehicles designed for institutional tax-exempt investors. A commingled fund may be organized as a group trust, a partnership, a corporation, an insurance company separate account, or another multiple ownership entity.

**Open-End Fund:** A commingled fund with no finite life that allows continuous entry and exit of investors, typically on a quarterly basis, and engages in ongoing property operations as well as investment purchase and sale activities.

**Real Estate Investment Trust (REIT):** A corporation or business trust that combines the capital of many investors to acquire or provide financing for all forms of income-producing real estate. (Source: National Association of Real Estate Investment Trusts)



# **Definitions – Performance Monitoring**

Vintage Year: Year of first drawdown

**Paid-In Capital**: Cash funded to the investment for acquisition and capital items (i.e., initial investment cost or significant capital improvements).

**Uncalled Capital:** Capital allocated to managers which remains to be called for investment. Amounts are as reported by managers.

**Distributed Capital:** Actual cash returned from the investment, representing distributions of income from operations. Withdrawals: Cash returned from the investment, representing returns of capital or net sales proceeds.

**Net Asset Value:** The value of an investment as determined by actual sales dollars invested and withdrawn plus the effects of appreciation and reinvestment; market value is equal to the ending cumulative balance of the cash flow statement (NAV).

**Net IRR:** IRR after advisory fees, incentive and promote. This includes actual cash flows and a reversion representing the LP Net Assets at market value as of the period end reporting date.

**TVPI Multiple:** The ratio of Total Value to Paid-in-Capital (TVPIC). It represents the Total Return of the investment to the original investment not taking into consideration the time invested. Total Value is computed by adding the Residual Value and Distributions. It is calculated net of all investment advisory and incentive fees and promote.

**DPI Multiple:** The ratio of distributions paid to the investor divided by the amount of contributions paid by the investor. It is calculated net of all investment advisory and incentive fees and promote. It is calculated net of all investment advisory and incentive fees and promote

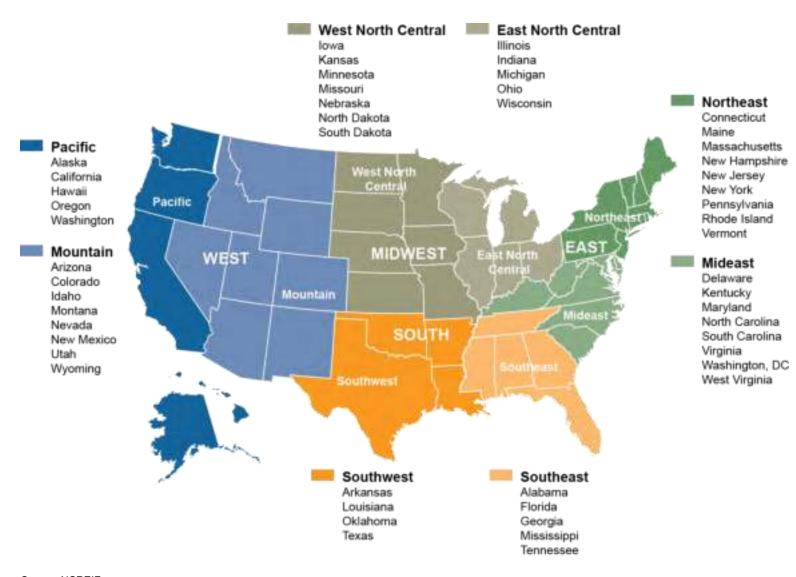
**RVPI Multiple:** The ratio of net asset value divided by the amount of contributions paid by the investor.

**Net IRR:** The total net return for an investment or portfolio over the period of time the client has funds invested. Total portfolio Inception Returns include returns from investments no longer held in the current portfolio.



# **NCREIF Region Map**

# Geographic Regions and Divisions



Source: NCREIF



#### **Disclaimers**

Information contained in this document may include confidential, trade secret and/or proprietary information of Callan and the client. It is incumbent upon the user to maintain such information in strict confidence. Neither this document nor any specific information contained herein is to be used other than by the intended recipient for its intended purpose.

The content of this document is particular to the client and should not be relied upon by any other individual or entity. There can be no assurance that the performance of any account or investment will be comparable to the performance information presented in this document.

Certain information herein has been compiled by Callan from a variety of sources believed to be reliable but for which Callan has not necessarily verified for accuracy or completeness. Information contained herein may not be current. Callan has no obligation to bring current the information contained herein.

This content of this document may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. The opinions expressed herein may change based upon changes in economic, market, financial and political conditions and other factors. Callan has no obligation to bring current the opinions expressed herein.

The statements made herein may include forward-looking statement regarding future results. The forward-looking statements herein: (i) are best estimations consistent with the information available as of the date hereof and (ii) involve known and unknown risks and uncertainties. Actual results may vary, perhaps materially, from the future results projected in this document. Undue reliance should not be placed on forward-looking statements.

Callan disclaims any responsibility for reviewing the risks of individual securities or the compliance/non-compliance of individual security holdings with a client's investment policy guidelines.

This document should not be construed as legal or tax advice on any matter. You should consult with legal and tax advisers before applying any of this information to your particular situation.

Reference to, or inclusion in this document of, any product, service or entity should not necessarily be construed as recommendation, approval, or endorsement or such product, service or entity by Callan.

This document is provided in connection with Callan's consulting services and should not be viewed as an advertisement of Callan, or of the strategies or products discussed or referenced herein.

The issues considered and risks highlighted herein are not comprehensive and other risks may exist that the user of this document may deem material regarding the enclosed information.

Any decision you make on the basis of this document is sole responsibility of the client, as the intended recipient, and it is incumbent upon you to make an independent determination of the suitability and consequences of such a decision.

Callan undertakes no obligation to update the information contained herein except as specifically requested by the client.

Past performance is no guarantee of future results.

Performance numbers in this presentation are based on quarterly data collected from SURS investment managers and calculated by Callan beginning in the third quarter of 2018. Quarterly performance history prior to the third quarter of 2018 was calculated and provided to Callan by the previous consultant, NEPC.





**December 7, 2023** 

2024 Private Credit Asset Class Review & Pacing Update

# M

# State Universities Retirement System of Illinois

#### **Table of Contents**

- 1. Overview
- 2. Market Environment
- 3. Activity and Performance Update
- 4. Commitment Pacing
- 5. Summary
- 6. Appendix



# Overview



#### Overview

# → IL SURS initiated an allocation to private credit in 2020

- Targeting 5% of total assets within the Stabilized Growth Class
- Objective: 9-11% net IRR
  - Emphasizing yield-oriented opportunities
  - Includes 20% MWDBE objective
  - Policy benchmark of 50% BB Global HY + 50% LSTA Leveraged Loans + 1%

# → Program consists of 11 partnerships totaling \$1.3B commitments\*

- Net ITD IRR of 8.6% compares favorably to the policy benchmark of 5.1%.
- \$600M of commitments made across 7 funds in 2023\*\*

<sup>\*</sup>All data as of June 30, 2023 unless otherwise noted.

<sup>\*\*</sup>Inclusive of approved commitments through November 2023



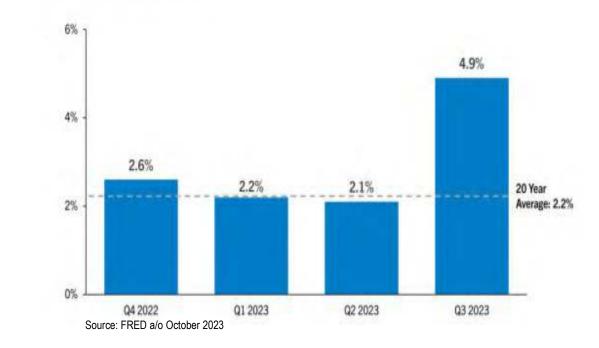
# **Market Environment**



#### **Key Macro Factors since COVID**

- → Inflation surged to 1970 levels in 2022 before falling rapidly
  - 65% decline YOY in U.S. CPI from peak levels
- → Significant and rapid Fed rate hikes
  - +525bps in 18 months (5.3% SOFR)
- → Against this backdrop a recession has not (yet) occurred
  - U.S. GDP at or above 20-year average for the past 4 quarters

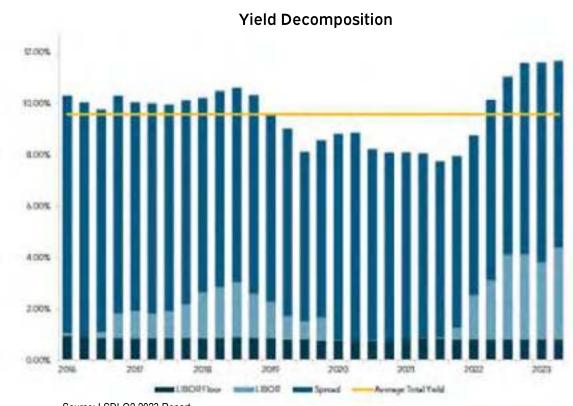






#### **Direct Lending**

- → Yields have increased significantly since Q1 2022 as both SOFR and spreads have widened
- → New origination has slowed YTD for many sponsor-focused GPs given the decline in private equity deal volume
- → Megatranche deals (>\$1 billion) have grown significantly since 2021
  - Over \$108B of loans greater than \$1B have been privately originated since 2021
  - In 2023, a \$5.3 billion deal, the largest private loan (Finastra/Vista), was completed



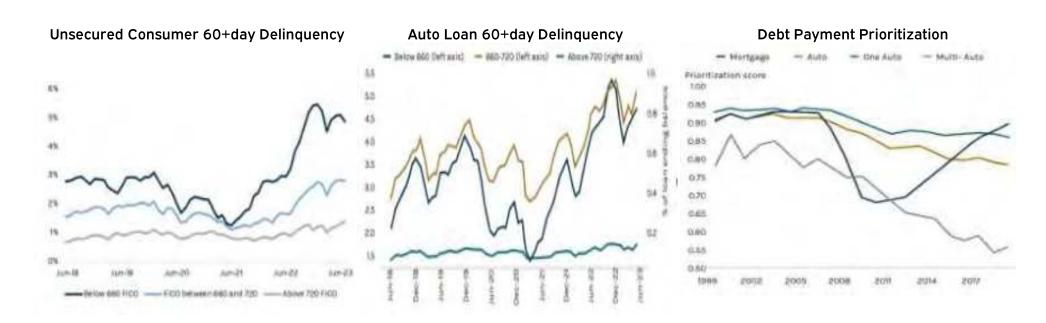
Source: LSDI Q2 2023 Report

# M

### State Universities Retirement System of Illinois

#### **Asset-Based/Specialty Finance**

→ Consumers, who had seen a meaningful spike in savings during the pandemic, have largely spent down that savings. Consumers, however, are not a monolith and all debt is not the same – i.e., payment priority.

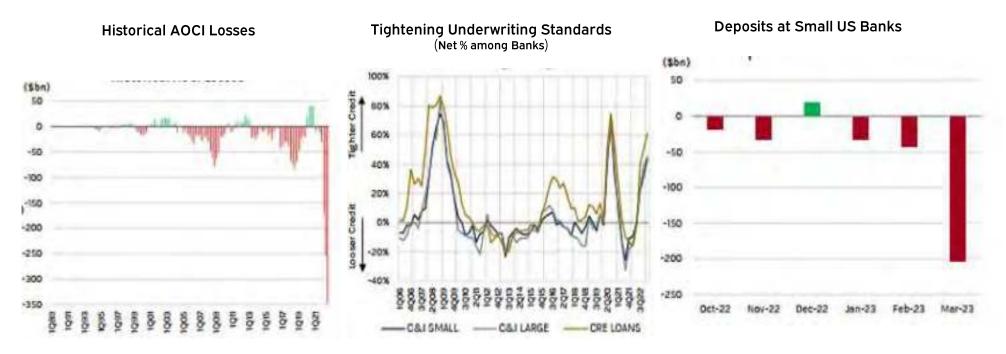


Source: Citi Research a/o August 2023; Ares (left); Citi Research a/o August 2023; Ares (center); New York Consumer Credit Panel/Equifax; Ares (right)



#### **Asset-Based/Specialty Finance**

- → Banks continue to tighten underwriting standards as Accumulated Other Comprehensive Income (AOCI) losses mount and deposits decline, creating an opportunity rich environment for asset-based finance GPs
  - 5 bank failures YTD (Silicon Valley Bank, Signature Bank, First Republic Bank, Heartland Tri-State Bank, Citizens Bank)

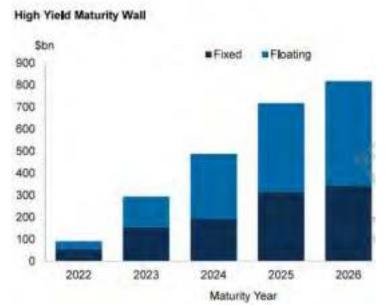


Source: Barclays Research, FDIC (left); Federal Reserve Board (center); Federal Reserve Board (right)

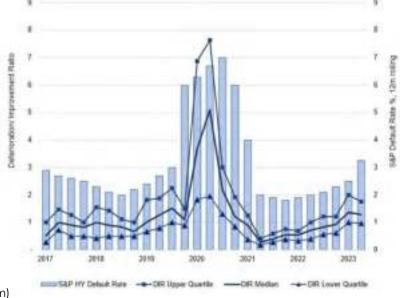


#### **Special Situations**

- → Meaningful uptick in maturities coming as higher rates make refinancing more challenging
  - 40% of CLO market out of reinvestment period by the end of 2023
- → Defaults have trending up to 4.1% as of September 2023. S&P expects defaults to reach 5% (trailing 12month) by September 2024, according to their base-line estimate.
- → Interest coverage ratios have trended down materially since Q2 2022.



High Yield Default Rate & Deterioration/Improvement Ratio



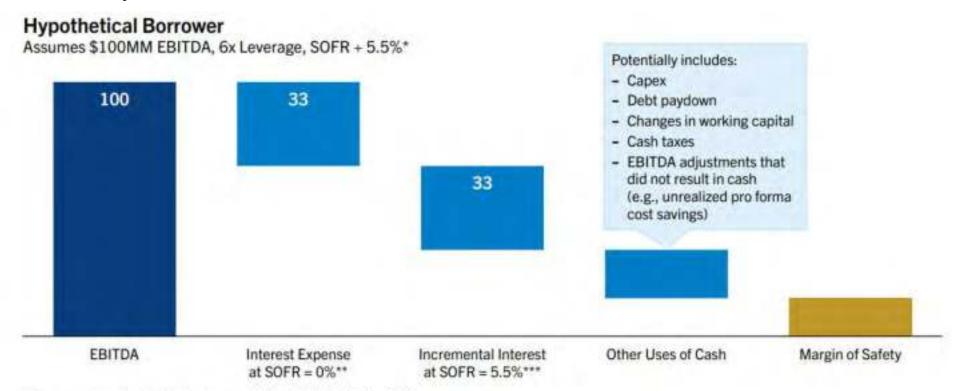
Source: S&P Global Ratings Research a/o July 2023 (top); Credit Benchmark; S&P (bottom)



#### **Special Situations**

→ Higher rates have increased Interest Coverage Ratios and compressed the "margin of safety" for companies. This likely will create opportunities for Capital Solutions.

#### **Math of Higher Interest Rates**



<sup>\*</sup> Represents an illustrative deal executed by Golub Capital in 2021.

\*\* SOFR's average rate in 2021 was 0.0%.

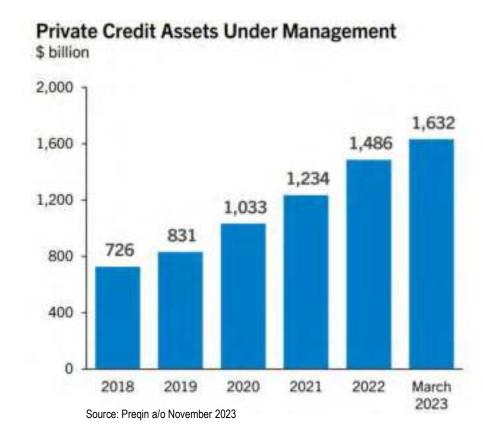
Source: Golub Capital

<sup>\*\*\*</sup> As of November 10, 2023, SOFR's quarter-to-date average rate was 5.3%. We are using 5.5% for illustrative purposes only.



#### **Fundraising**

- → Private Credit assets continue to grow and now exceeds \$1.6 trillion
  - Investors continue to favor North America and Direct Lending
  - Fund sizes continue to trend ups with the average fund exceeding \$1 billion





**Activity and Performance Update** 



#### **2023 Private Credit Commitment Activity**

## **2023 Private Credit Commitment Activity**

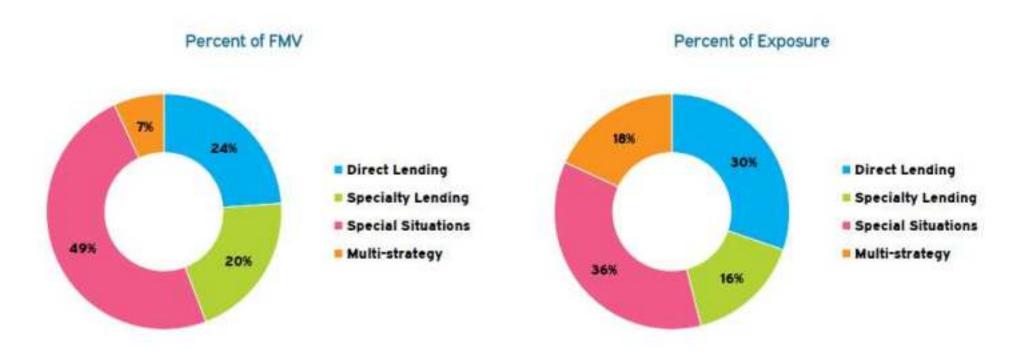
Fund	Strategy	Commitment (\$M)	Date
Ares Pathfinder Fund II	<b>Specialty Lending</b>	100.0	Q1 2023
Sixth Street TAO Global	Special Situations	100.0	Q3 2023
HPS Specialty Loan Fund VI	<b>Direct Lending</b>	100.0	Q3 2023
Atalaya Asset Income Fund	Specialty Lending	100.0	Q3 2023
ICG Senior Debt Partners 5	Direct Lending	100.0	Q3 2023
Turning Rock Fund III	Special Situations	50.0	Q4 2023
Brightwood Fund V	Direct Lending	50.0	Q4 2023

- $\rightarrow$  \$600 million committed across 7 funds in 2023.
- $\rightarrow$  ~17% of commitments to MWDBE funds in 2023 with ~23% of commitments ITD.



Exposure as of June 30, 2023

## By Strategy

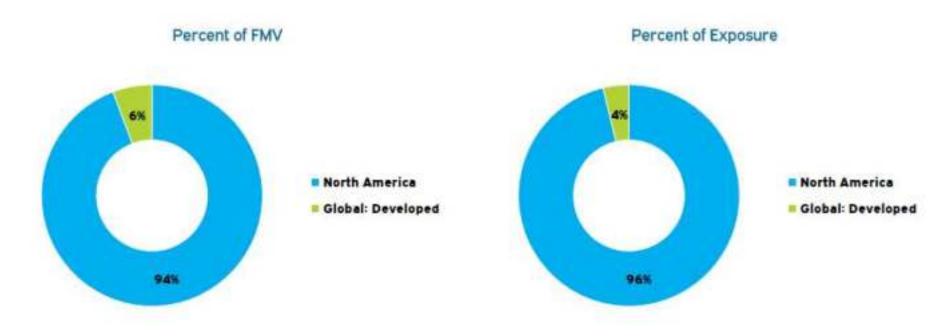


→ Continue to diversify across investment strategies and collateral types.



#### Exposure as of June 30, 2023

## By Geographic Focus



→ Commitment to ICG Senior Debt Partners V (European direct lending) made in Q3 2023, first dedicated non-U.S. exposure.



# **Fee Negotiations**

Fund	Fee Discount	Fee Discount
Fund A	0.30%	Management fee discount (consultant aggregation)
Fund B	1.00%	Co-investments
Fund C	0.50%	Management fee discount (consultant aggregation & early close)
Fund D	0.50%	Management fee & preferred return (existing LP & first close)
Fund E	0.53%	Management fee discount (consultant aggregation & first close)
Fund F	0.25%	Management fee discount (consultant aggregation & first close)
Fund G	0.10%	Management fee discount (consultant aggregation)
Fund H	0.50%	Management fee discount (consultant aggregation)
Fund I	0.15%	Management fee discount (consultant aggregation)

→ Meketa has secured fee discounts on approximately 53% of commitments (as a % of total committed capital).



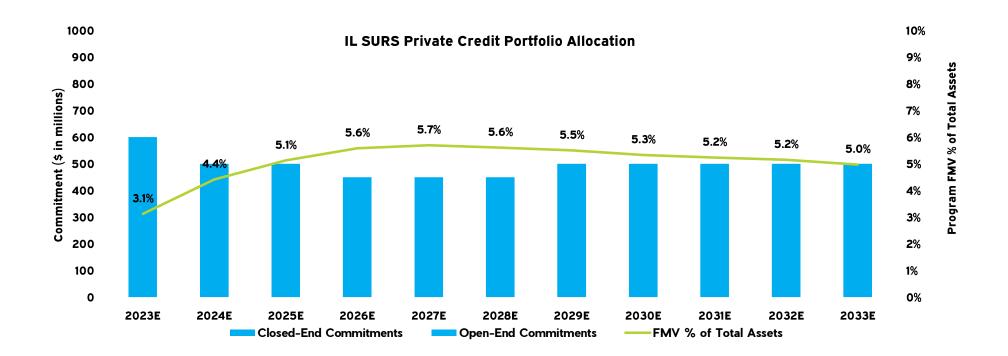
Commitment Pacing and Investment Plan



#### **Commitment Pacing and Investment Plan**

# **Commitment Pacing**

- → Annual commitment target of \$500 million per year
  - Opportunistically exceeded annual target in 2023



Assumptions: Long term target allocation of 5% to private credit. Total Plan growth rate of 4.2% growth rate. Portfolio data as of June 30, 2023.



# **Commitment Pacing and Investment Plan**

#### Cash Flows

- ightarrow Modeled to achieve target allocation in 2025
  - At approximately \$1.3B of market value

(\$ in millions)	2020A	2021A	2022A	2023E	2024E	2025E	2026E	2027E	2028E	2029E	2030E	2031E	2032E	2033E
Private Market Investments														
Commitments	225	450	500	600	500	500	450	450	450	500	500	500	500	500
Contributions	-68	-205	-247	-264	-496	-529	-504	-472	-461	-474	-476	-488	-501	-494
Distributions	0	54	78	84	219	406	448	516	564	588	613	602	614	645
Net Cash Flow	-68	-151	-169	-180	-277	-123	-56	44	104	114	136	114	113	152
Fair Market Value	74	248	424	734	1083	1309	1488	1581	1622	1658	1674	1713	1757	1766
FMV % of Total Assets	0.3%	1.0%	1.9%	3.1%	4.4%	5.1%	5.6%	5.7%	5.6%	5.5%	5.3%	5.2%	5.2%	5.0%

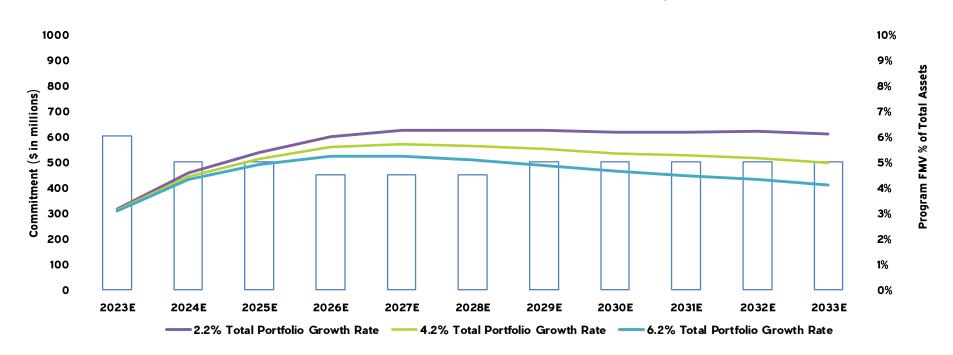


#### **Commitment Pacing and Investment Plan**

## Scenario Analysis

- → Actual allocation a function of multiple factors
  - Growth of the total portfolio a material input
- → Update commitment pacing targets annually

# Illinois SURS Private Debt Portfolio Allocation Model Scenario Analysis





**Summary** 



#### **Summary**

- → Portfolio performing strongly and in-line with expectations.
  - IL SURS Private Credit has generated a since inception net IRR of 8.6% versus 5.1% for the Policy Benchmark as of June 30, 2023.
  - Meketa has secured fee savings on over 50% of commitments made on behalf of IL SURS.
- → Capital commitments of \$500 million in 2024 expected.



#### 2023 Investment Plan Status

- → Continue to utilize a core/satellite approach with an emphasis on yield-oriented strategies
- → Continue to actively utilize MWDBE-managed funds
- → Continue to negotiate attractive terms on behalf of IL SURS
- → Areas of focus include the following
  - Increase geographic diversification
  - Emphasize strategies that focus on re-investing rather than distributing income to increase Multiple on Invested Capital (MOIC) over time
  - Focus on European strategies and asset-based strategies

STATUS: On Track



#### **2024 Investment Plan Summary**

- → Areas of focus include the following
  - Expect to diversify special situations exposure
  - Continue to increase geographic diversification
  - Emphasize strategies that focus on re-investing rather than distributing income to increase MOIC over time
- → Continue to actively utilize MWDBE-managed funds
- → Continue to negotiate attractive terms on behalf of IL SURS



# **Appendix**

# M

### State Universities Retirement System of Illinois

#### Strategy Allocation – Meketa Private Credit Universe

#### **Direct Lending**

#### Capital Structure

- First Lien
- Unitranche
- Second Lien
- Mezzanine/Junior Debt

#### Geography

- U.S.
- Europe
- Asia/Emerging Markets
- Global

#### Industry

- Healthcare
- Franchise
- Technology

#### **Asset-Based**

#### Consumer

- Credit Cards
- Student Loans
- Auto Loans
- Consumer Installment

#### Commercial

- Accounts Receivables
- Trade Finance
- Small Balance

#### **Hard Assets**

- Equipment Leasing
- Mortgage Credit
- Solar/Renewable Energy
- Transportation

#### Soft Assets

- Intellectual Property
- Fund Finance

#### **Special Situations**

#### Distressed

- Corporate
- Mortgage
- Commercial Real Estate

#### **Capital Solutions**

- Rescue Financing
- Growth Financing

#### Non-Performing Loans

- Commercial Real Estate
- Residential Real Estate
- Consumer
- Small Medium Enterprises (SMEs)

#### Diversifying

- Infrastructure
- Capital Relief
- Royalties
- Secondaries

The above universe is meant to be representative of the broad private credit universe and is not specific to IL SURS. As a growing asset class, the opportunity set is expected to evolve over time.

# M

#### State Universities Retirement System of Illinois

#### **Disclaimer**

The material contained in this report is confidential and may not be reproduced, disclosed, or distributed, in whole or in part, to any person or entity other than the intended recipient. The data are provided for informational purposes only, may not be complete, and cannot be relied upon for any purpose other than for discussion.

Meketa Investment Group has prepared this report on the basis of sources believed to be reliable. The data are based on matters as they are known as of the date of preparation of the report, and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available.

If we manage your assets on a discretionary basis, please contact us if there are any changes in your financial situation or investment objectives, or if you want to impose any reasonable restrictions on our management of your account or reasonably modify existing restrictions.

In general, the valuation numbers presented in this report are prepared by the custodian bank for listed securities, and by the fund manager or appropriate General Partner in the case of unlisted securities. The data used in the market comparison sections of this report are sourced from various databases. These data are continuously updated and are subject to change.

This report does not contain all the information necessary to fully evaluate the potential risks of any of the investments described herein. Because of inherent uncertainties involved in the valuations of investments that are not publicly traded, any estimated fair values shown in this report may differ significantly from the values that would have been used had a ready market for the underlying securities existed, and the differences could be material.

This document may contain certain forward-looking statements, forecasts, estimates, projections, and opinions ("Forward Statements"). No representation is made or will be made that any Forward Statements will be achieved or will prove to be correct. A number of factors, in addition to any risk factors stated in this material, could cause actual future results to vary materially from the Forward Statements. No representation is given that the assumptions disclosed in this document upon which Forward Statements may be based are reasonable. There can be no assurance that the investment strategy or objective of any fund or investment will be achieved, or that the client will receive a return of the amount invested.

In some cases Meketa Investment Group assists the client in handling capital calls or asset transfers among investment managers. In these cases we do not make any representations as to the managers' use of the funds, but do confirm that the capital called or transferred is within the amounts authorized by the client.

Because there is no readily accessible market for private markets assets (companies and partnerships), the values placed on private markets assets are calculated by General Partners using conservative and industry standard pricing procedures. Annually, an independent auditor reviews the pricing procedures employed by the General Partner of each partnership.

The values of companies and partnerships are audited at year-end, and are not audited at other quarter-end periods. While financial information may be audited, there is some discretion as to the method employed to price private companies and, therefore, private markets partnerships. At all times, Meketa Investment Group expects General Partners to utilize conservative and industry standard pricing procedures, and requires the General Partners to disclose those procedures in their reports. However, because of the inherent uncertainty of valuation, these estimated values may differ from the values that would be used if a ready market for the investments existed, and the differences could be significant.

# Private Equity Asset Class Review

State Universities Retirement System of Illinois

December 2023



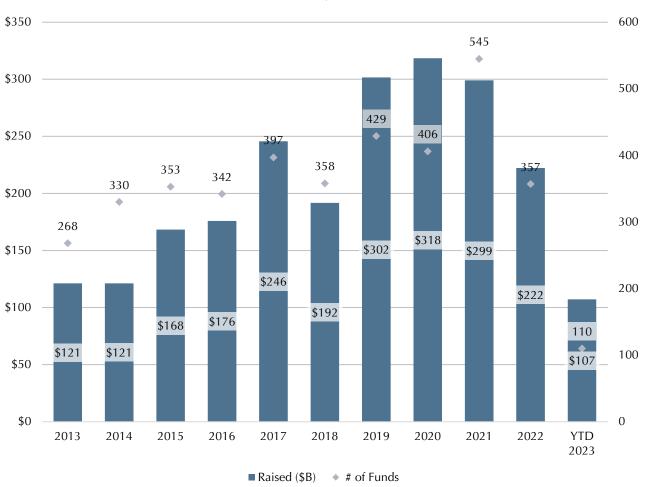
### **Table of Contents**

- P. 3 Market Overview
- P. 11 Private Equity Performance Update
- P. 19 Portfolio Exposures
- P. 22 Investment Pacing and Investment Plan
- P. 29 Appendix: Holdings Details



- Buyout fundraising continues to face challenges in 2023 as investors grapple with economic uncertainty.
- This has resulted in a crowded fundraising market with some managers extending timelines and falling short of targets.

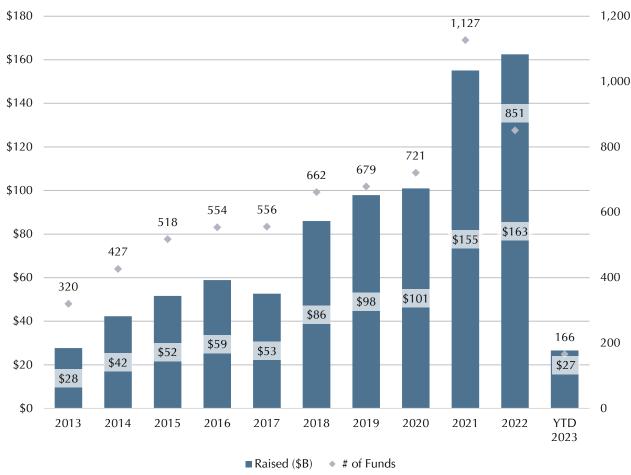
# Buyout Fundraising As of June 2023 | USD Billion





- We have seen larger managers garner more capital as LPs have concentrated their relationships.
- The amount of funds and capital raised during 1H 2023 was approximately onethird the amount raised in 1H 2022.
- We expect total fundraising in 2023 to ultimately be lower than 2022.



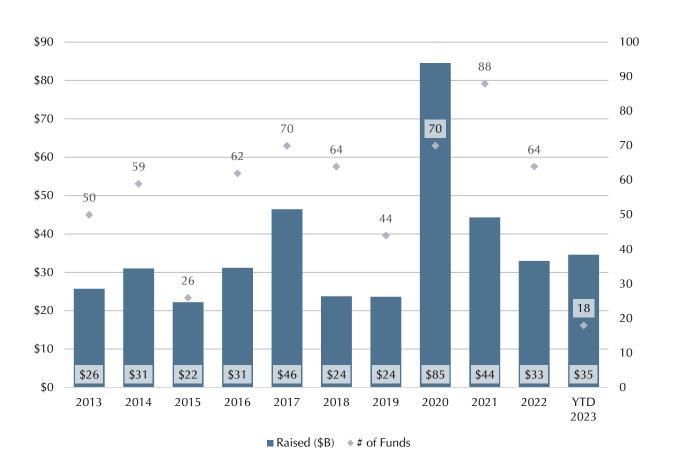


Source: Pitchbook, as of June 30, 2023. Data has not been reviewed by Pitchbook analysts. The above represents Aksia's market observations. Observations are subject to change.



The amount of capital raised by secondary funds during 1H 2023 has already passed the total amount raised in 2022, which is driven in-part by one large manager who closed on approximately \$25 billion.

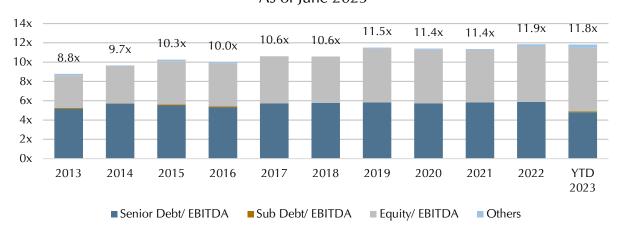
### Secondary Funds Fundraising As of June 2023 | USD Billion



### Private Equity Asset Class Overview

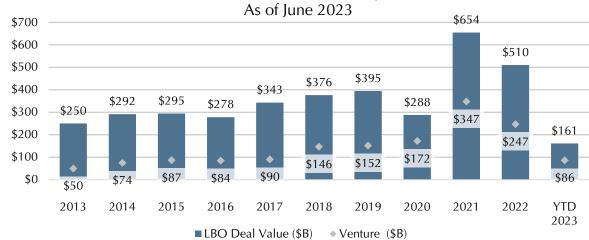
- Private market valuation multiples have remained relatively stable despite the volatility in public equity markets and the increased cost of financing.
- We believe there has been an increase of quality in companies being brought to market, which could be buoying buyout valuations.
- Within VC, managers have mostly marked portfolios down proactively based on public comps. We believe with extended cash runways, however, investment activity is likely to remain slow until 2H 2024.

## LBO Sources of Proceeds/EBITDA & Equity Contribution: All Loans As of June 2023



Source: Leveraged Commentary & Data (LCD), Pitchbook as of June 30, 2023

### U.S. LBO & VC Investment Activity | \$ Billion



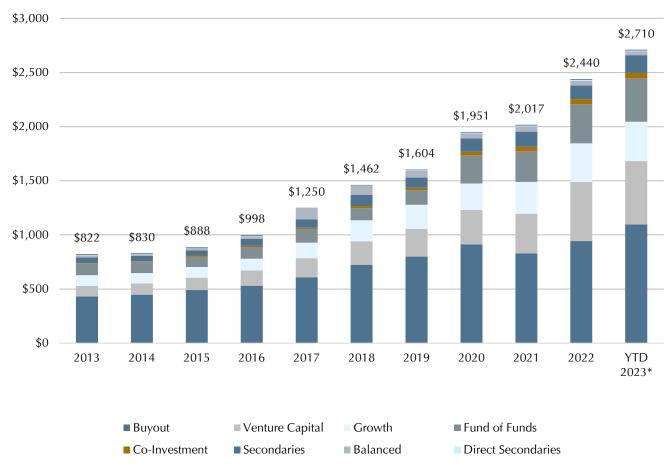
Source: Pitchbook & National Venture Capital Association, as of June 30, 2023

## Private Equity Asset Class Overview



## Dry Powder by Strategy | \$Billion

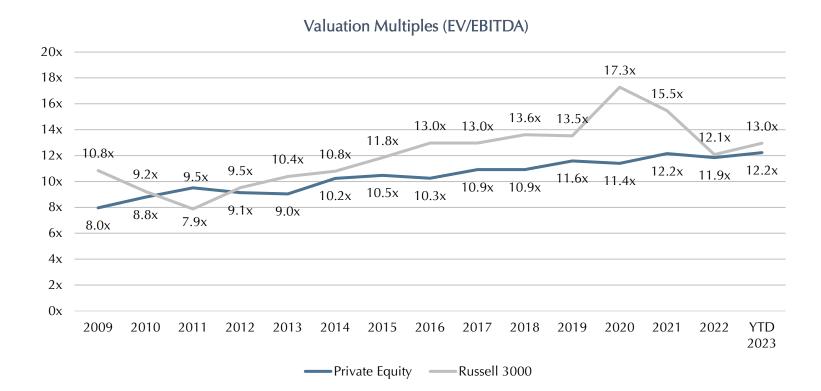
 Tighter credit markets and macroeconomic uncertainty have slowed the pace of capital deployment, contributing to the record levels of dry powder.



\*Source: Preqin, as of August 22, 2023. The above represents Aksia's market observations. Observations are subject to change.

## Acquisition Multiples – Public vs Private Markets

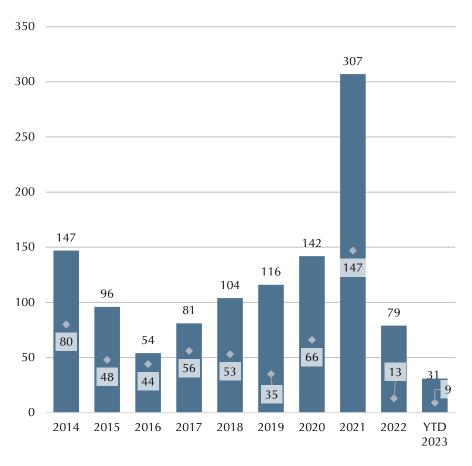
• The spread in valuations between private equity and public equity markets widened slightly in the first half of 2023 but remain narrow by historical standards.



Source: Bloomberg; Russell Investment Group, as of June 30, 2023. Russell Investment Group is the source and owner of the trademarks, service marks and copyrights related to the Russell Indexes. June 30, 2023 S&P Leveraged Commentary & Data for private equity. Data is for buyouts greater than \$500 million in value. Past performance is not indicative of future results. The above represents Aksia's market observations. Observations are subject to change.

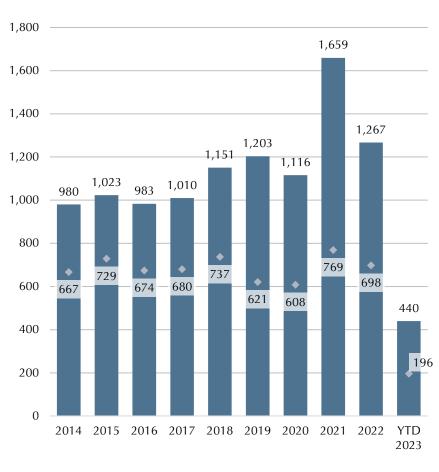
## Private Equity Asset Class Overview





■ Venture Backed ◆ PE Backed

# Number of U.S.-Based M&A Events USD Billion



■ Venture Backed ◆ PE Backed

Source: Pitchbook & National Venture Capital Association, as of June 30, 2023, The above represents Aksia's market observations. Observations are subject to change.

## Private Equity Outlook



<u>Cost of Debt:</u> Interest rate increases have meaningfully decreased free cash flow to equity owners.

Lower free cash flow challenges acquisition strategies and reinvestment for growth.

Availability of Debt: Not a major issue. Lenders are cautious but have capital to deploy.

Growth Expectations: Lower growth relative to prior years is expected. Companies which had aggressive growth

assumptions may need more time to reach underwritten values, which could result in

longer holding periods.

<u>Transaction Prices:</u> Measured as a multiple of EBITDA, acquisition prices have been elevated but are starting

to show signs of coming down.

<u>Continuation Vehicles:</u> Likely to persist in the market and will impact a minority of the portfolio. Investors have the choice

to "roll" or take liquidity, possibly at a discount.

NAV Facilities: Not widespread in use yet, but competitive pressures encourage adoption. Likely to support

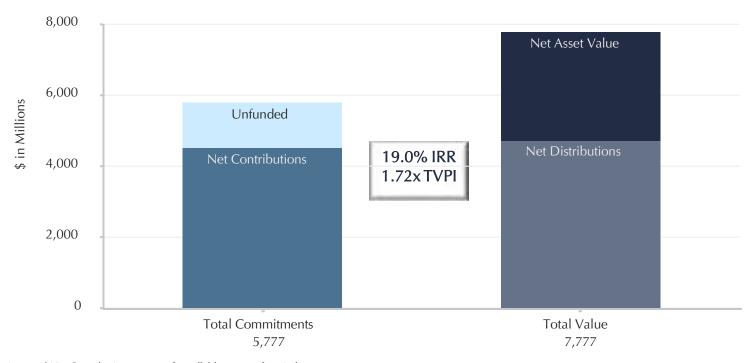
distributions to LPs in some cases and support of portfolio companies in others.

- Higher debt costs are helping put downward pressure on transaction multiples. Returns to debt are quite attractive relative to equity in many cases.
- Lower transaction prices will be a headwind for existing holdings but will help future return generation.
- "Buy-and-build" acquisition strategies may need to be funded with more equity as greater interest rates decrease free cash flow. This could lower returns.
- Lower middle market strategies tend to have lower acquisition values and typically utilize less debt. This segment may offer interesting opportunities.



### Portfolio Update | As of June 30, 2023

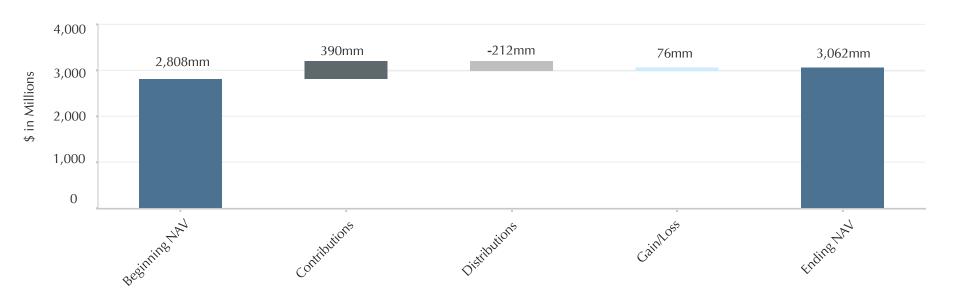
- The portfolio has generated a net internal rate of return ("IRR")<sup>2</sup> of 19.0% and a Total Value to Paid-in Capital ("TVPI") of 1.72x.
- Private equity fair market value ("FMV") of \$3.1 billion represented 13.3% of total pension value.
- Net distributions<sup>1</sup> total \$4.7 billion, or 105% of net contributed capital<sup>1</sup>.
- From inception (1990) to June 30, 2023, SURS committed \$5.8 billion to 86 private equity investments. The portfolio had 33 unique managers overseeing 82 active funds and a market value of \$3.1 billion.



<sup>&</sup>lt;sup>1</sup> Net Distributions and Net Contribution are net of recallable return of capital.

<sup>&</sup>lt;sup>2</sup> The net internal rate of return (IRR) is the net return on investment calculated on daily cash flows taking into account contributions for management fees, expenses and carry.

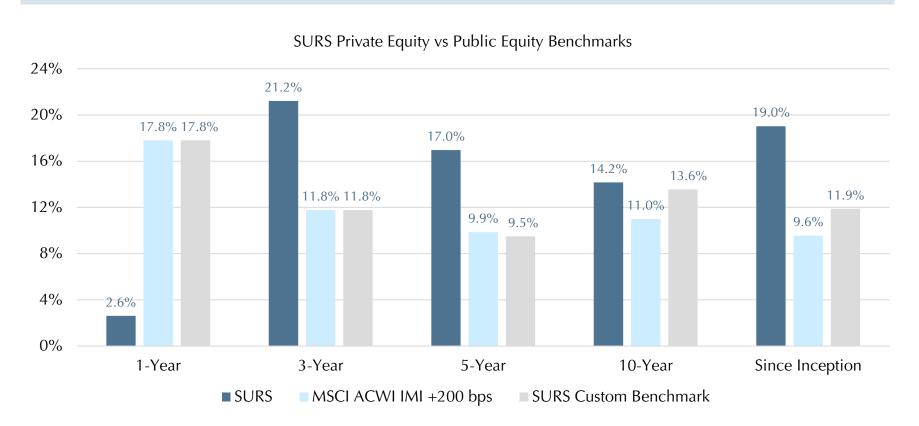
### Portfolio Value Bridge | July 1, 2022 through June 30, 2023



- From June 30, 2022 to June 30, 2023, the portfolio appreciated by \$76 million, or 2.7% of beginning net asset value.
- Contributions of \$390 million outpaced distributions of \$212 million, generating negative cash flow from the program of \$178 million.
- Total market value at June 30, 2023 was \$3.1 billion.
- Total committed but unfunded value at June 30, 2023 was \$1.3 billion.



### Portfolio Performance | As of June 30, 2023

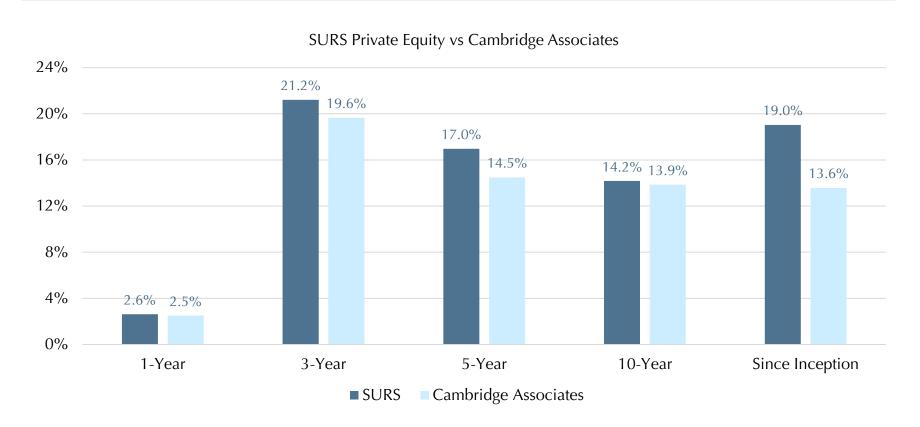


The portfolio outperformed its opportunity cost benchmark for most periods apart from 1 year.

Note: The internal rate of return (IRR) is the net return on investment calculated based on daily cash flows, taking into account contributions for management fees, expenses and carry. Custom Benchmark is the Wilshire 5000 + 3% (1Q lag) through December 2019 and ACWI IMI + 2% from January 2020 forward.



### Portfolio Performance | As of June 30, 2023

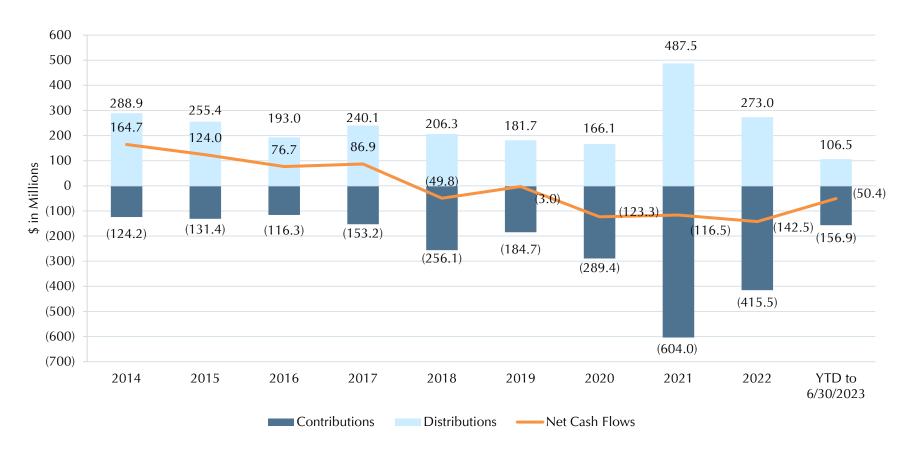


• The portfolio outperformed its peer benchmark over all periods.

Note: The Cambridge Associates benchmark incorporates all private equity fund strategies, but excludes Real Estate, Timber and Infrastructure. SURS' Private Equity portfolio was activated in July 1990.

### Annual Contributions, Distributions & Net Cash Flows

- Distributions exceeded contributions from 2014 through 2017. Since then, contributions have exceeded distributions due to an increase in commitments to meet target exposure.
- Since the beginning of 2014, private equity program contributions have exceeded distributions by \$33.2 million.





### Cumulative Program Cash Flows and Market Value | As of June 30, 2023 | USD

- The private equity program has steadily created value over the 10-year period from 2014 through June 30, 2023.
- Cumulative profit for the private equity program totaled \$3.3 billion with value creation of \$1.8 billion since the beginning of 2014.





### Top 10 Managers Ranked by Exposure<sup>1</sup> | As of June 30, 2023 | \$ in million

Manager	Commitment	Fair Market Value	% of Fair Market Value	Unfunded	Total Exposure <sup>1</sup>	% of Total Exposure	TVPI	IRR <sup>2</sup>
Adams Street Partners LLC	2,075.6	965.6	31.5%	139.0	1,104.6	25.4%	1.9x	24.9%
Pantheon Ventures	1,379.1	523.6	17.1%	126.9	650.5	15.0%	1.7x	11.1%
Mesirow Private Equity Investments	320.0	362.3	11.8%	77.7	439.9	10.1%	1.7x	21.5%
Fairview Capital Partners <sup>3</sup>	275.0	130.6	4.3%	176.7	307.4	7.1%	1.7x	13.8%
Aksia CA LLC	200.0	191.0	6.2%	41.8	232.8	5.4%	1.3x	n.m.
Harvest Partners	120.0	88.9	2.9%	46.4	135.4	3.1%	1.4x	17.2%
Muller & Monroe Asset Management LLC <sup>3</sup>	150.0	123.8	4.0%	5.4	129.2	3.0%	1.7x	10.9%
HgCapital	99.2	49.0	1.6%	60.2	109.2	2.5%	1.2x	n.m.
Thoma Bravo LP	100.0	78.9	2.6%	25.5	104.4	2.4%	1.1x	n.m.
Clearlake Capital Group LP <sup>3</sup>	80.0	72.7	2.4%	25.2	97.8	2.3%	1.3x	21.5%
Top 10 Managers	4,798.9	2,586.5	84.5%	724.7	3,311.2	76.2%	1.8x	19.6%
Remaining Manager Relationships	978.0	475.6	15.5%	560.3	1,035.9	23.8%	1.2x	9.0%
Total Portfolio	5,777.0	3,062.1	100.0%	1,285.0	4,347.2	100.0%	1.7x	19.0%

<sup>&</sup>lt;sup>1</sup>Total Exposure = FMV + Unfunded

<sup>&</sup>lt;sup>2</sup>The internal rate of return (IRR) is based on daily cash flows. IRRs of investments held less than two years generally are not meaningful and are therefore labeled NM.

<sup>&</sup>lt;sup>3</sup>Qualifies as a MWBE manager

### Fees

Aksia 🌌

Management Fees, Expenses & Carry | Last Twelve Months as of March 31, 2023 | \$ in million

	Fees Pa	aid		
	Net Management Fee	Expenses	Realized Carry	Total <sup>1</sup>
Fund-of-Funds Manager Level	\$9.3	\$2.8	\$3.2	\$15.3
Primary Fund Manager Level <sup>1</sup>	\$28.3	\$9.6	\$16.2	\$54.1
Total	\$37.6	\$12.4	\$19.4	\$69.4

Fees Paid / Beginning of Period Total Exposure <sup>2</sup>					
	Net Management Fee	Expenses	Realized Carry	Total <sup>1</sup>	
Fund-of-Funds Manager Level	0.22%	0.07%	0.08%	0.36%	
Primary Fund Manager Level <sup>1</sup>	0.66%	0.23%	0.38%	1.27%	
Total	0.88%	0.29%	0.46%	1.63%	
	<b>↓</b> contractu	al fees (1.18% total)			

- \$50.0 million of net management fees and expenses were paid or accrued from April 1, 2022 to March 31, 2023. This equals 1.18% of beginning of period total exposure.
- Carried interest of \$19.4 million was paid over the same time frame

<sup>1:</sup> Primary Fund Manager Level includes fees to funds selected by Aksia as well as underlying funds/holdings within Fund-of-Funds.

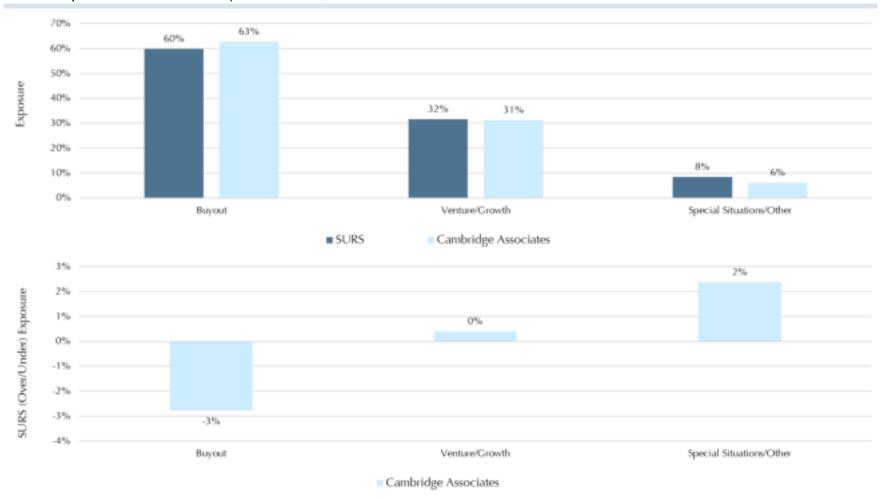
<sup>2:</sup> March 31, 2022 private equity Total Exposure equaled \$4.3 billion (fair market value of \$2.9 billion + unfunded commitments of \$1.4 billion).

<sup>3:</sup> Numbers may not add due to rounding

## Portfolio Exposures



### Sector Exposure vs. Benchmark<sup>1,2</sup> | As of June 30, 2023



<sup>1</sup>Reflects fund-level strategy labels. Percentages reflect fair market value for SURS data and total capitalization for Cambridge Associates data.

<sup>&</sup>lt;sup>2</sup>Cambridge Associates is an index tracking the performance of thousands of global private funds and their underlying private equity and venture capital investment positions. Venture Capital includes both venture capital and growth equity components of the Cambridge Associates index. Special Situations/Other includes control-oriented distressed.



### Geography Exposure vs. Benchmark<sup>1,2,3</sup> | As of June 30, 2023



<sup>1</sup>Based on FMV of the underlying portfolio companies.

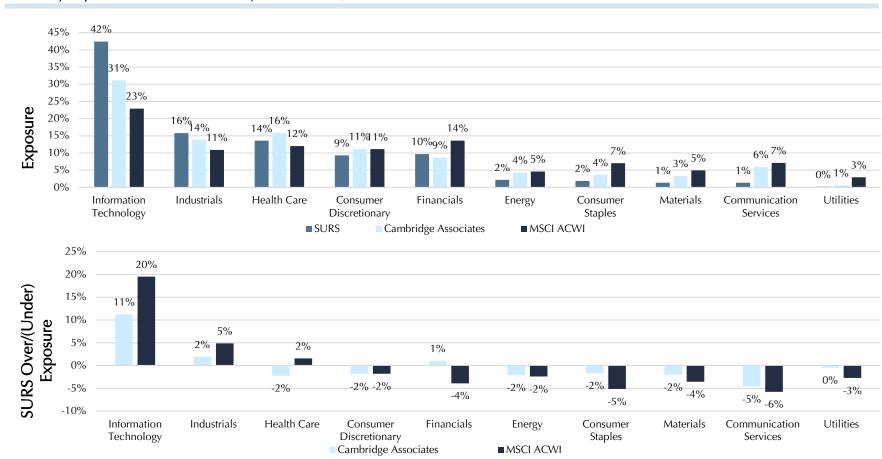
<sup>1</sup>Cambridge Associates is an index tracking the performance of thousands of global private funds and their underlying private equity and venture capital investment positions.

<sup>3</sup>MSCI 'All Country World Index'— is a market-capitalization-weighted index comprised of public stocks across 23 developed markets and 26 emerging markets countries designed to provide a broad measure of equity-market performance throughout the world. Europe is represented only by UK, and Asia Pacific is represented by Japan and China. MSCI data as of May-23

## Portfolio Exposures



### Industry Exposure vs. Benchmark<sup>1,2,3</sup> | As of June 30, 2023



<sup>&</sup>lt;sup>1</sup>Based on FMV of the underlaying portfolio companies.

<sup>&</sup>lt;sup>1</sup>Cambridge Associates is an index tracking the performance of thousands of global private funds and their underlying private equity and venture capital investment positions.

<sup>3</sup>MSCI 'All Country World Index' is a market-capitalization-weighted index comprised of public stocks across 23 developed markets and 26 emerging markets countries designed to provide a broad measure of equity-market performance throughout the world. Europe is represented only by UK, and Asia Pacific is represented by Japan and China. Excludes Real Estate. MSCI ACWI IMI data as of May 2023.



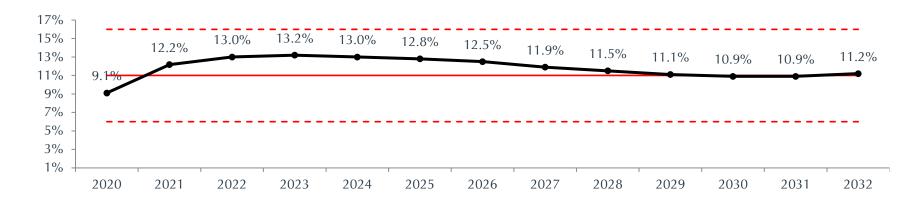
### Investment Activity Through October 31, 2023



- 2023 investment activity totaled about \$530 million, including \$120 million of Aksia commitments
- SURS committed an additional \$100 million to a Fairview fund-of-funds, which is expected to be deployed over 2-4 years

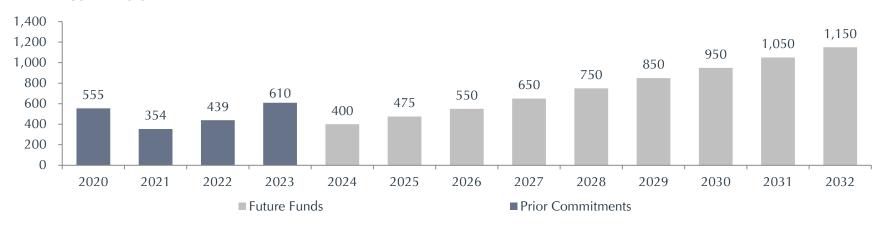


### Private Equity as a % of Total Assets – Aksia Base Case<sup>1</sup>



### Vintage Year Commitments

**USD** Millions

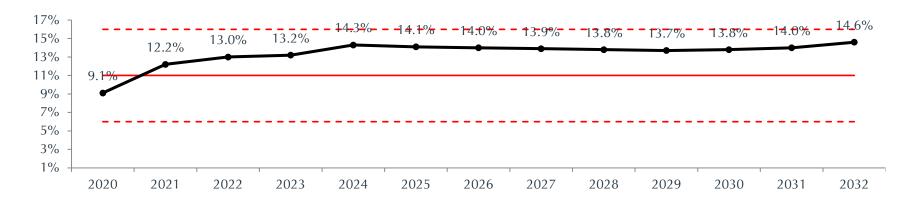


<sup>1</sup> Assumes net returns of 4.2% for the pension and gross IRRs of 16.0%, 18.0%, and 12.7% for buyouts, venture capital, and distressed & special situations, respectively. Assumes 70% of capital deployed to buyout funds, 15% to venture capital funds, 15% to distressed & special situations investments.

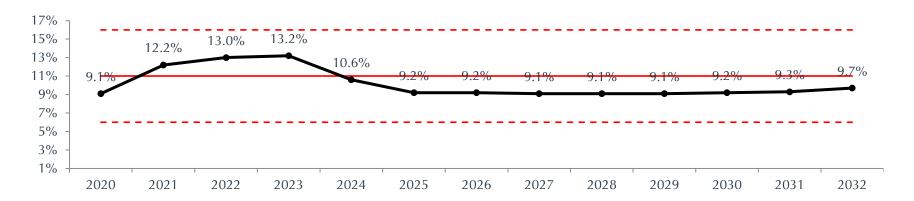
<sup>2 2023</sup> vintage year commitments includes \$100 million to a Fairview Capital fund-of-funds, which is expected to make primary fund commitments between 2023-2026.



### Private Equity as a % of Total Assets – Aksia Downside Scenario



### Private Equity as a % of Total Assets – Aksia Upside Scenario



## Program Plan – Future Commitments



### Commitment Levels for 2024

**USD** Millions

Sub Sector	Current Exposure <sup>1</sup>	Target Allocation	Annual Allocation	Commitment Range
Buyouts	60%	65%-80%	\$200-\$375	\$25-\$75
Venture Capital	32%	0%-25%	\$0-\$125	\$25-\$75
Special Situations/Other	8%	5%-25%	\$25-\$125	\$25-\$75
Geography	Current Exposure <sup>1</sup>	Target Allocation	Annual Allocation	Commitment Range
North America	70%	50%-70%	\$150-\$325	\$25-\$75
Western Europe	14%	15%-30%	\$50-\$125	\$25-\$75
Asia	7%	5%-25%	\$25-\$100	\$25-\$75
Rest-of-World	10%	0%-5%	\$0-\$25	\$25-\$50
Total			\$325-\$475	

- Proposed investment of \$325 million to \$475 million for 2024, with expected target of \$400 million.
- Aksia believes it is reasonable to consider a five-year aggregate total commitment target of \$2.9 billion as a base case scenario.

## Investment Initiatives for the Coming Year



#### **Fund Investments**

- Evaluate deployment in the following areas
  - U.S. lower middle market funds
  - Special Situations opportunities
  - Europe and Asia, highly selectively
- Opportunistic consideration of secondary purchases
- Continue to deploy capital with MWBE managers

#### Co-Investments

- Communicate to managers larger co-investment sizing
- Focus on durable businesses capable of success in a lower growth environment.
- Focus on deals at reasonable valuations, cognizant of potential pricing contraction.
- Continue to take advantage of no-fee, no-carry opportunities and other fee-saving deals.
- Deals will be considered both from existing SURS managers as well as others.

## SURS 2024 Working Investment Plan



### Base Case Commitments | \$ In millions

Investment	Strategy/ Market Segment	Geography	Relationship	MWBE	2024
Fund 1	Buyouts – Large	North America	Existing		50
Fund 2	Buyouts – Large	North America	Existing	X	50
Fund 3	Buyouts – Middle Market	North America	Existing		25
Fund 4	Buyouts – Lower Middle Market	North America	Existing	X	25
Fund 5	Buyouts – Lower Middle Market	North America	Existing	X	25
Fund 6	Buyouts – Middle Market	North America	Existing		25
Fund 7	Buyouts – Large	Asia	Existing	X	30
Fund 8	Venture Capital	North America	Existing	X	30
Fund 9	Buyouts – Lower Middle Market	North America	New		50
Fund 10	Buyouts – Lower Middle Market	North America	New		40
Fund 11	Buyouts – Middle Market	North America	New		50
Total					400
Base Case Range					325-475

- Five planned commitments qualify as MWBE managers with projected total commitments of \$160 million, or 40% of the total.
- The working investment plan is subject to revision as the year progresses.

<sup>1</sup> Note: About \$40 million of additional 2024 vintage exposure expected from the Fairview fund-of-funds Lincoln Fund I (Series C).



We are proud to work with SURS.

Thank you for allowing us to be your private equity partner.

## Appendix

- I. Fund-of-Funds Holding Details
- II. Direct Primary Funds Holding Details
- III. Pacing Model Assumptions

## Fund-of-Funds Holdings Details



### As of June 30, 2023 | \$ in millions

Fund	Vintage Year	Commitment	Unfunded	Investment- to-Date Contributions <sup>1</sup>	Investment- to-Date Distributions <sup>2</sup>	Fair Market Value	TVPI <sup>3</sup>	IRR⁴
Adams Street 2007 Global Opportunities Portfolio	2007	100.0	8.7	91.3	148.4	1.7	1.6x	8.1%
Adams Street 2012 Global Fund	2012	80.0	7.6	72.4	87.1	66.1	2.1x	13.8%
Adams Street 2013 Global Fund	2013	100.0	7.6	92.4	92.9	104.9	2.1x	14.3%
Adams Street 2014 Global Fund	2014	100.0	7.8	92.2	85.2	118.4	2.2x	16.1%
Adams Street 2015 Global Fund	2015	125.0	15.6	109.4	86.3	163.8	2.3x	22.9%
Adams Street 2016 Global Fund	2016	150.0	26.5	123.5	53.8	190.9	2.0x	20.3%
Adams Street 2017 Global Fund	2017	90.0	18.1	71.9	20.4	121.5	2.0x	21.9%
Adams Street 2018 Global Fund	2018	90.0	20.6	69.4	11.6	102.6	1.6x	22.7%
Adams Street Partnership Fund - 2004 Non-U.S. Fund	2004	40.0	1.9	38.1	52.3	1.9	1.4x	5.9%
Adams Street Partnership Fund - 2008 Non-U.S. Fund	2008	40.0	3.5	36.5	56.2	16.1	2.0x	11.2%
Adams Street Partnership Fund - 2008 U.S. Fund	2008	50.0	3.5	46.5	95.1	15.4	2.4x	16.1%
Adams Street Partnership Fund - 2009 Non-U.S. Developed Markets Fund	2009	30.0	3.3	26.7	40.6	12.9	2.0x	13.2%
Adams Street Partnership Fund - 2009 Non-U.S. Emerging Markets Fund	2009	10.0	0.8	9.2	10.5	7.2	1.9x	9.0%
Adams Street Partnership Fund - 2009 U.S. Fund	2009	50.0	4.1	45.9	85.1	27.4	2.5x	15.7%
Adams Street SMA (1990-2007) - SURS	1990	906.2	1.3	927.2	1692.3	2.0	1.8x	27.0%
Brinson Non-U.S. Partnership Fund Trust Program	1998	39.4	0.1	42.5	76.6	0.3	1.8x	12.2%
Venture Partnership Acquisition Fund II (VPAF II)	1990	10.0	0.0	10.0	19.7	0.0	2.0x	25.3%
Adams Street Partners LLC		2010.6	131.1	1905.2	2714.1	953.2	1.9x	25.0%
Lincoln Fund I (Series A)	2014	75.0	7.0	68.0	36.6	99.9	2.0x	14.6%
Lincoln Fund I (Series B)	2021	100.0	69.7	30.3	0.0	30.7	1.0x	n.m.
Lincoln Fund I (Series C)	2023	100.0	100.0	0.0	0.0	0.0	0.0x	n.m.
Fairview Capital Partners		275.0	176.7	98.3	36.6	130.6	1.7x	13.8%

<sup>&</sup>lt;sup>1</sup>In some instances, ITD Contributions may exceed Commitment due to management fees being outside of commitment, the ability to recycle capital or other reasons described in the limited partnership agreement.

<sup>&</sup>lt;sup>2</sup>ITD Distributions include Recallable Return of Capital.

<sup>&</sup>lt;sup>3</sup>TVPI is calculated net of Recallable. In practice, both total distributions and contributions are reduced by the amount of Recallable in the numerator and denominator of the calculation, respectively.

<sup>&</sup>lt;sup>4</sup>IRRs of investments held less than two years generally are not meaningful and are therefore labeled NM.

## Fund-of-Funds Holdings Details



### As of June 30, 2023 | \$ in millions

Fund	Vintage Year	Commitment	Unfunded	Investment- to-Date Contributions <sup>1</sup>	Investment- to-Date Distributions <sup>2</sup>	Fair Market Value	TVPI <sup>3</sup>	IRR⁴
Mesirow Financial Private Equity Fund VII-B	2017	40.0	0.4	39.7	42.9	70.3	2.8x	36.1%
Mesirow Financial Private Equity Special Fund B	2018	280.0	77.2	202.8	0.0	292.0	1.4x	15.6%
Mesirow Private Equity Investments		320.0	77.7	242.5	42.9	362.3	1.7x	21.5%
Illinois Private Equity Fund-of-Funds	2005	25.0	0.0	21.5	18.9	0.0	0.9x	-2.5%
M2 - SURS Emerging Private Equity Fund-of-Funds	2016	100.0	5.4	101.3	70.7	123.8	1.9x	21.8%
M2 Private Equity Fund-of-Funds	2007	25.0	0.0	24.4	36.3	0.0	1.5x	8.3%
Muller & Monroe Asset Management LLC		150.0	5.4	147.2	125.9	123.8	1.7x	10.9%
Pantheon Access (US) - SURS 2017	2017	90.0	21.8	68.2	7.0	92.7	1.5x	14.5%
Pantheon Access (US) - SURS 2018	2019	180.0	49.7	130.3	5.0	167.2	1.3x	14.9%
Pantheon Europe Fund III	2002	65.0	3.7	83.7	151.1	2.0	1.8x	14.6%
Pantheon Europe Fund VI	2007	42.1	1.8	37.4	58.9	7.4	1.8x	10.0%
Pantheon Europe Fund VII	2011	39.6	3.3	33.5	45.7	19.7	2.0x	12.9%
Pantheon Global Secondary Fund II	2004	25.0	1.3	23.8	28.1	0.4	1.2x	4.3%
Pantheon Multi-Strategy Program 2014 (US) - SURS 2014	2014	125.0	17.4	107.6	58.9	134.1	1.8x	15.2%
Pantheon USA Fund IX	2011	85.0	7.9	77.5	128.3	62.4	2.5x	17.0%
Pantheon USA Fund VIII	2007	103.3	7.4	95.8	177.0	31.7	2.2x	12.9%
Pantheon USA Primary Investments	2002	599.1	12.7	569.2	965.6	5.9	1.7x	10.3%
Private Opportunities Fund	2005	25.0	0.0	25.0	25.1	0.0	1.0x	0.0%
Pantheon Ventures		1379.1	126.9	1252.1	1650.7	523.6	1.7x	11.1%
Overal Portfolio		5,777.0	1,285.0	4,568.1	4,784.7	3,062.1	1.72x	19.0%

<sup>&</sup>lt;sup>1</sup>In some instances, ITD Contributions may exceed Commitment due to management fees being outside of commitment, the ability to recycle capital or other reasons described in the limited partnership agreement.

<sup>&</sup>lt;sup>2</sup>ITD Distributions include Recallable Return of Capital.

<sup>&</sup>lt;sup>3</sup>TVPI is calculated net of Recallable. In practice, both total distributions and contributions are reduced by the amount of Recallable in the numerator and denominator of the calculation, respectively.

<sup>&</sup>lt;sup>4</sup>IRRs of investments held less than two years generally are not meaningful and are therefore labeled NM.

## Direct Primary Funds Holdings Details



### Closed Deals as of October 31, 2023 | Performance as of June 30, 2023 | \$ in millions

Fund	Vintage Year	Market Size / Segment	Geography	Committed	Unfunded	Contributed <sup>2</sup>	Distributed <sup>3</sup>	Fair Market Value	TVPI	IRR <sup>4</sup>
Advent International GPE X	2022	Buyout - Large	Multi-Region	25.0	19.2	5.8	0.0	5.5	0.9x	n.m.
Altaris Health Partners V	2021	Buyout - Medium	North America	25.0	12.6	12.4	0.0	15.4	1.2x	15.9%
Avance Investment Partners <sup>1</sup>	2021	Buyout - Small	North America	25.0	13.7	13.5	2.4	11.8	1.1x	5.7%
Base10 Advancement Initiative I <sup>1</sup>	2021	Late/Growth	North America	25.0	3.6	21.4	0.3	18.0	0.9x	-8.2%
Base10 Advancement Initiative II <sup>1</sup>	2022	Late/Growth	North America	25.0	21.6	3.4	0.0	2.9	0.8x	n.m.
Base10 Partners III <sup>1</sup>	2022	Venture - Early	North America	20.0	15.0	5.0	0.0	4.3	0.9x	n.m.
Bregal Sagemount III-B	2019	Late/Growth	North America	50.0	7.1	43.0	5.7	45.0	1.2x	12.4%
Bregal Sagemount IV-B <sup>1</sup>	2022	Late/Growth	North America	25.0	22.6	2.4	0.0	1.9	0.8x	n.m.
Clearlake Capital Partners VI <sup>1</sup>	2020	Buyout - Medium	North America	30.0	0.8	30.4	2.5	45.9	1.6x	26.2%
Clearlake Capital Partners VII <sup>1</sup>	2021	Buyout - Medium	North America	50.0	24.3	25.7	0.0	26.8	1.0x	4.9%
Cortec Group Fund VII	2019	Buyout - Medium	North America	35.0	4.4	34.3	22.1	30.7	1.5x	26.9%
Cortec Group Fund VIII	2023	Buyout - Medium	North America	35.0	31.5	3.5	0.0	3.2	0.9x	n.m.
GGV Capital IX LP	2023	Venture - Multi-Stage	Multi-Region	32.0	32.0	0.0	0.0	0.0	0.0x	n.m.
GGV Capital IX Plus LP	2023	Venture - Multi-Stage	Multi-Region	8.0	8.0	0.0	0.0	0.0	0.0x	n.m.
GGV Capital VIII	2021	Venture - Multi-Stage	Multi-Region	21.6	9.0	12.6	0.0	14.2	1.1x	8.1%
GGV Capital VIII Plus	2021	Venture - Multi-Stage	Multi-Region	5.4	2.9	2.5	0.0	2.6	1.0x	2.3%
GGV Discovery III	2021	Venture - Multi-Stage	Multi-Region	9.0	4.5	4.5	0.0	6.6	1.4x	26.2%
Great Hill Equity Partners VIII-Pref	2022	Buyout – Small	North America	25.0	19.8	5.2	0.0	4.1	0.8x	n.m.
Greenbriar Equity Fund VI LP	2022	Buyout – Medium	North America	22.5	22.5	0.0	0.0	-0.1	0.0x	n.m.
Harvest Partners IX	2021	Buyout – Medium	North America	50.0	38.3	12.6	1.0	10.6	0.9x	-18.6%
Harvest Partners VIII	2019	Buyout – Medium	North America	70.0	8.1	72.5	25.6	78.4	1.4x	18.2%
Hg Genesis 9	2020	Buyout – Medium	Europe	13.7	3.2	13.0	2.3	13.2	1.2x	18.7%

<sup>&</sup>lt;sup>1</sup> Qualifies as a MWBE manager

<sup>&</sup>lt;sup>2</sup> In some instances, ITD Contributions may exceed Commitment due to management fees being outside of commitment, the ability to recycle capital or other reasons described in the limited partnership agreement.

<sup>&</sup>lt;sup>3</sup> Distributions include Recallable Return of Capital.

<sup>&</sup>lt;sup>4</sup> IRRs of investments held less than two years generally are not meaningful and are therefore labeled NM.

## Direct Primary Funds Holdings Details



### Closed Deals as of October 31, 2023 | Performance as of June 30, 2023 | \$ in millions

Fund	Vintage Year	e Market Size / Segment	Geography	Committed	Unfunded	Contributed <sup>2</sup>	Distributed <sup>3</sup>	Fair Market Value	TVPI	IRR⁴
Hg Saturn 3 A	2022	Buyout - Large	Europe	35.0	30.7	4.3	0.0	4.5	1.1x	n.m.
HgCapital Genesis 10 A	2022	Buyout - Large	Europe	13.0	11.6	1.5	0.0	1.5	1.0x	n.m.
HgCapital Saturn Fund 2	2020	Buyout - Large	Europe	37.5	14.6	32.7	12.3	29.8	1.3x	22.7%
Inflexion Buyout Fund VI	2022	Buyout - Medium	Europe	24.5	19.2	3.6	0.0	3.4	1.0x	n.m.
MBK Partners Fund V	2021	Buyout - Large	Asia Pacific	50.0	23.5	27.1	0.6	39.2	1.5x	40.7%
Nautic Partners X	2021	Buyout - Medium	North America	25.0	16.7	8.4	0.1	9.2	1.1x	11.0%
Nordic Capital XI Beta	2022	Buyout - Large	Europe	50.1	52.5	0.0	0.0	-1.0	0.0x	n.m.
Oak HC-FT Partners IV1	2021	Venture - Multi-Stage	e North America	25.0	3.6	21.5	0.1	24.2	1.1x	8.5%
Oak HC-FT Partners V <sup>1</sup>	2022	Venture - Multi-Stage	e North America	40.0	34.5	5.5	0.0	5.9	1.1x	n.m.
OceanSound Partners Fund <sup>1</sup>	2019	Buyout - Medium	North America	25.0	5.7	25.7	7.1	29.7	1.4x	20.4%
OceanSound Partners Fund II	2023	Buyout - Medium	North America	25.0	16.5	8.5	0.0	8.1	1.0x	n.m.
One Equity Partners VIII	2021	Buyout - Medium	North America	25.0	3.7	23.6	2.3	25.6	1.2x	27.6%
One Rock Capital Partners III <sup>1</sup>	2021	Buyout - Medium	North America	35.0	12.1	26.5	3.6	32.3	1.4x	28.1%
Orchid Asia VIII	2021	Late/Growth	Asia Pacific	30.0	21.5	9.1	0.6	6.8	0.8x	-32.2%
PAI Partners VIII-1 SCSp	2023	Buyout - Large	Europe	50.0	49.6	0.0	0.0	-0.3	0.0x	n.m.
Reverence Capital Partners Ops II <sup>1</sup>	2018	Buyout - Medium	North America	50.0	11.2	41.2	7.4	73.2	2.0x	31.6%
Rubicon Technology Partners III	2020	Buyout - Small	North America	32.5	3.3	29.2	0.0	31.7	1.1x	4.4%
Rubicon Technology Partners IV	2022	Buyout - Small	North America	32.5	28.3	4.2	0.0	3.4	0.8x	n.m.
Stellex Capital Partners II <sup>1</sup>	2021	Buyout - Small	North America	25.0	8.5	17.0	1.2	17.3	1.1x	8.1%
Thoma Bravo Discover Fund IV	2022	Buyout - Large	North America	25.0	16.7	8.3	0.0	8.7	1.0x	n.m.
Thoma Bravo Fund XIV	2021	Buyout - Large	North America	50.0	0.7	49.3	0.0	53.5	1.1x	4.7%
Thoma Bravo Fund XV	2022	Buyout - Medium	North America	25.0	8.0	17.0	0.0	16.7	1.0x	n.m.
Total				1,357.2	<i>7</i> 1 <i>7</i> .5	690.5	100.0	764.4	1.25x	16.4%

- As of October 31, 2023, Aksia has closed on 44 private equity funds on behalf of SURS for a total of \$1.4 billion in commitments.
- 29.5% of commitments have been with MWBE managers.

<sup>&</sup>lt;sup>1</sup> Qualifies as a MWBE manager

<sup>&</sup>lt;sup>2</sup> In some instances, ITD Contributions may exceed Commitment due to management fees being outside of commitment, the ability to recycle capital or other reasons described in the limited partnership agreement.

<sup>&</sup>lt;sup>3</sup> Distributions include Recallable Return of Capital.

<sup>&</sup>lt;sup>4</sup> IRRs of investments held less than two years generally are not meaningful and are therefore labeled NM.

## Pacing Model Assumptions



- Aksia's model uses actual fund level historical cash flows and then employs multiple variables as key inputs to project future
  capital calls, distributions and net asset values, allowing for the projection of an annual pacing commitment target
- For existing investments, the model uses default assumptions at the sector level. Additional adjustments may be made on a fund-by-fund basis
- Separately Managed Accounts use fund-by-fund assumptions based on historical performance and cash flows
- Aksia stands ready to run this pacing analysis using any other assumptions upon request

	Assumed Gross IRR
Sector	
Venture Capital	18.0%
Buyouts	16.0%
Distressed-for-Control & Special Situations	12.7%
Growth Equity	17.0%
PE Fund-of-Funds	11.0%
PE Secondaries Fund	16.0%
PE Co-Investment Fund	16.0%

Investment Period
5 years
5 years
5 years
5 years
7 years
5 years
5 years

Har	vest Period
	7 years
	8 years
	5 years
	7 years

#### **Annual % Contribution**

	Bow	
(Distribution	on Exponential I	Rate

	Year 1	Year 2	Year 3 and after	
Sector				
Venture Capital	12%	23%	31%	2.5
Buyouts	10%	22%	28%	2.0
Distressed-for-Control & Special Situations	20%	31%	38%	2.0
Growth Equity	11%	24%	34%	2.3
PE Fund-of-Funds	5%	12%	19%	2.3
PE Secondaries Fund	14%	16%	27%	1.5
PE Co-Investment Fund	10%	22%	28%	2.0

NOTE: The assumptions shown as well as the pacing results they inform are based on Aksia's experience with and expectations for the specified asset class, typical fund structures, and historical performance and cash flow profile. We believe these assumptions are reasonable and note that the results are intended to provide insights, not conclusions. In addition, Aksia does rely on client input to inform these assumptions and produce the pacing results. As such, the output shown can be changed to reflect additional assumptions that the client believes could be relevant to its portfolio considerations and appropriate to its risk tolerance.

## Pacing Model Scenarios Detail



	Upside Scenario	Downside Scenario
Plan Growth		
2024	20%	-10%
2025	-	-10%
Contribution Rate Change		
2024	1.25x	0.75x
2025	1.50x	0.50x
Bow Factor Change		
2024	x0.75	1.50x
2025	x0.50	1.25x
Annual Growth Change		
2024	-	0.00x
2025	1.50x	-0.25x

NOTE: The assumptions shown as well as the pacing results they inform are based on Aksia's experience with and expectations for the specified asset class, typical fund structures, and historical performance and cash flow profile. We believe these assumptions are reasonable and note that the results are intended to provide insights, not conclusions. In addition, Aksia does rely on client input to inform these assumptions and produce the pacing results. As such, the output shown can be changed to reflect additional assumptions that the client believes could be relevant to its portfolio considerations and appropriate to its risk tolerance.

### Disclaimer



This report contains confidential information provided to Aksia solely for the purpose of evaluating the portfolio. All references to Aksia herein refer to Aksia LLC, together with its wholly owned subsidiaries (collectively "Aksia"). This information shall be maintained as confidential and shall not be provided to anyone other than the portfolio administrator, its officers, employees, and lawful agents. This report is provided for information purposes only. It does not constitute legal, securities, tax, or investment advice. Past performance is not indicative of future performance.

This analysis covers the significant events that have occurred with respect to the limited partnership investments, co-investments, and direct investments, as they apply, in the portfolio (collectively referred to as "investment(s)"). Aksia monitors the portfolio's investments in various partnerships. To complete this independent analysis, Aksia requested and then collected information from representatives of the portfolio and the individual partnerships as well as the portfolio's custodian where applicable. Further, this review relies upon information received during its preparation, as well as the facts, assumptions and valuation approach contained herein, which have been reviewed with the portfolio administrator staff. Aksia has not independently verified this information. Aksia has accurately relayed the information received in its independent analysis of the portfolio's performance and current portfolio valuation. The portfolio's performance is summarized using all or a selection of the following portfolio performance calculation methods: distribution to paid-in multiple, internal rate of return, total value to paid-in multiple, and time-weighted rate of return. Additional details regarding the performance calculations can be found in Definitions. Subsequent analysis will reflect future developments, as well as refine the analysis of past activities as Aksia receives new or revised information.

For individual investment return purposes, investments are typically marked-to-market using comparable public market valuations or third-party transactions. Publicly traded partnership investments are typically marked-to-market. In general, the valuation policies of the portfolio's general partners appear to be in line with FASB ASC 820-10, Fair Value Measurements. Generally, the first few years of an investment's life demonstrate low or negative returns. These returns are not very meaningful due to the fact that management fees have not been offset by capital gains typically generated by more mature portfolio companies (termed the J-curve effect). Reports are available that are customized based on the portfolio administrator's definition of meaningful data.



1901 Fox Drive, Champaign, IL 61820-7333 800-275-7877 • 227-378-8800 • (Fax) 217-378-9800 www.surs.org

Investment Department

To: Investment Committee From: Investment Staff Date: November 22, 2023

Re: Corporate Governance Update

Below please find a status update of governance activity since our September meeting.

### **Proxy Voting Provider**

#### • Quarterly Report

This summary report offers quarterly analysis of the top agenda items voted against management, top agenda items voted against Glass Lewis standard policy, shareholder proposal trends, and ballot and proposal statistics reports.

Agenda items voted against Glass Lewis standard policy pertain to topics where SURS guidelines – made up by an overlay of U.S., Public Pension, and International proxy voting guidelines – offer a more restrictive directive.

- Election of Directors: SURS voted in favor of female representation on companies' boards, as well as sufficient disclosure concerning workforce diversity. SURS voted against the chair of the board in instances where companies were not signatories or participants in the United Nations Global Compact (UNGC) or haven't adopted a human rights policy aligned with the Universal Declaration on Human Rights (UDHR) or International Labor Organization (ILO).
- Ratification of Auditor: SURS voted against the ratification of an auditor when the auditor's tenure has not changed for 20 years or more.
- Advisory Vote on Executive Compensation: SURS voted against compensation plans
  that do not align pay with performance and do not link compensation to sustainability
  metrics.

There were 38 shareholder proposals (SHP) during the quarter. The most common SHPs were:

- SHP Regarding Election of Board Members(s) During a Contested Election –
   Dissident Nominee: SURS generally supports a dissident nominee that plans to enhance
   and protect shareholder value.
- SHP Regarding Golden Parachutes: SURS voted in support of shareholders being consulted before a company enters into severance agreements that provide benefits exceeding 2.99 times salary and bonus.

• SHP Regarding Reporting and Reducing Greenhouse Gas Emissions: SURS voted in favor of proposals that increase disclosure of greenhouse gas emissions but not proposals requesting that companies take specific actions to reduce emissions.

The quarterly report is attached to this memo as Exhibit A.

### **2024 Updated Proxy Voting Guidelines**

Glass Lewis has published the updated **US Policy Guidelines**, now also available on the SURS website. Changes to the guidelines include:

- Material weaknesses
- Cyber risk oversight
- Board oversight of environmental and social issues
- Clawback provisions
- Board accountability for climate related issues
- Executive ownership guidelines
- Proposals for equity awards to shareholders
- Net Operating Loss (NOL) Pills
- Control share statutes

#### Clarifying amendments:

- Board responsiveness
- Interlocking directorships
- Board gender diversity
- Underrepresented community diversity
- Non-GAAP to GAAP reconciliation disclosure
- Pay vs performance disclosure
- Company responsiveness for say-on-pay opposition

#### Legislative Update

SURS staff has created a Sustainability Disclosure form for prospective investment managers to complete in accordance with 30 ILCS 238/10.

#### **Council of Institutional Investors (CII)**

The CII's Fall Conference took place in Long Beach, CA, September 11-13. Videos of most conference sessions are available on the CII website (login required): <a href="https://www.cii.org/media.archive">https://www.cii.org/media.archive</a>

Highlights of the event included:

- Leaders across several industries discussed the business transformations that generative artificial intelligence is driving, including opportunities and implications for investors.
- A panel of law and banking experts discussed causes and key takeaways from Silicon Valley Bank's bankruptcy in March.
- CIOs of large public pension funds discussed their views on the current financial environment including the risks and opportunities they see in this economic regime.

•	Law and corporate governance experts discussed the effect that the anti-ESG backlash is
	having on shareholder advocacy.



TO: State Universities Retirement System (SURS) FROM: Lucas Swertloff, Director, Custom Policy

**DATE: October 25, 2023** 

**RE: Review of Vote Activity Report for Third Quarter 2023** 

The Voting Activity Report for the Third Quarter 2023 summarizes Glass Lewis' votes for the State Universities Retirement System of Illinois (SURS), of which we highlighted and analyzed the most frequent occurrences of votes against management, votes against Glass Lewis and shareholder proposal trends.



#### Top Three Agenda Items Against Management – 3Q2023

Votes against management account for 695 of the 2,474 proposals, or 28.10% of the votes. The top categories of votes against management are:

**Election of Directors** – Votes on the election of directors account for 488 of the 695 votes against management, or about 70.22% of the votes against management, and 19.73% of the total votes.

The top three reasons for votes against management are:

Insufficient gender diversity accounts for 265 votes against management. The Public Pension Policy has strengthened its policy concerning gender diversity on boards. The policy has been updated to provide that, if less than 30% of the board is female, the Public Pension policy will vote against the entire nominating committee.

The company is a UNGC participant or signatory OR the Human Rights Policy does not align with UNDHR accounts for 112 votes against management. The Public Pension Policy will vote against the chair of the board in instances where companies who are not signatories or participants in the United Nations Global Compact (UNGC) or that have not adopted a human rights policy that is aligned with the standards set forth by the International Labor Organization (ILO) or the Universal Declaration on Human Rights (UDHR).

Lack of EEO1 reporting disclosure accounts for 79 votes against management. For U.S. companies listed in the S&P 500 index, the Public Pension Policy will evaluate whether companies have provided sufficient disclosure concerning their workforce diversity. In instances where these companies have not disclosed their full EEO-1 reports, the Public Pension Policy will vote against the nominating and governance chair.

Ratification of Auditor - Votes on the ratification of auditor account for 50 of the 695 votes against management, or about 7.20% of the votes against management, and 2.03% of the total votes.

The top reason for votes against management is:

The auditor's tenure is excessive, which accounts for 49 of the votes against management. Rotating auditors is an important safeguard against the relationship between the auditor and the company becoming too close, resulting in a lack of oversight due to complacency or conflicts of interest. Accordingly, the Public Pension policy will vote against auditor ratification proposals in instances where a company's auditor has not been changed for 20 or more years.

Advisory Vote on Executive Compensation – Votes on the advisory vote on executive compensation account for 45 of the 695 votes against management, or about 6.48% of the votes against management, and 1.82% of the total votes.

The top three reasons for votes against management are:

Concerning pay practices accounts for 14 of the votes against management. The Public Pension policy on this issue is to follow the Glass Lewis standard approach.

The Company has pay for performance issues and does not link any long-term incentive grant to sustainability metrics accounts for 12 of the votes against management. The Public Pension policy will vote against compensation plans where a company has both failed to provide an adequate link between pay and performance, and the company has neglected to incentivize environmental and social performance.

Pay and performance disconnect accounts for 8 of the votes against management. The Public Pension policy will vote against the approval of a compensation report or policy when there is a significant disconnect between pay and performance.

#### Top Three Agenda Items Against Glass Lewis – 3Q2023

Votes against the Glass Lewis standard policy account for 410 of the 2,474 proposals, or about 16.58% of the votes. The top categories for votes against the Glass Lewis standard policy are:

Election of Directors – Votes on the election of directors account for 332 of the 410 votes against Glass Lewis or about 80.98% of the votes against Glass Lewis and 13.42% of the total votes.

The top three reasons for votes against Glass Lewis are:

Insufficient gender diversity on the board of directors accounts for 174 of the votes against Glass Lewis. The Public Pension policy has strengthened its policy concerning gender diversity on boards. The policy has been updated to provide that, if less than 30% of the board is female, the Public Pension Policy will vote against the entire nominating committee.

The company is a UNGC participant or signatory OR the Human Rights Policy does not align with UNDHR accounts for 100 votes against Glass Lewis. The Public Pension policy will vote against the chair of the board in instances where companies who are not signatories or participants in the United Nations Global Compact (UNGC) or that have not adopted a human rights policy that is aligned with the standards set forth by the International Labor Organization (ILO) or the Universal Declaration on Human Rights (UDHR).

Lack of EE01 reporting disclosure accounts for 43 votes against Glass Lewis. For U.S. companies listed in the S&P 500 index, the Public Pension policy will evaluate whether companies have provided sufficient disclosure concerning their workforce diversity. In instances where these companies have not disclosed their full EEO-1 reports, the Public Pension policy will vote against the nominating and governance chair.

Ratification of Auditor - Votes on the ratification of auditor account for 49 of the 410 votes against Glass Lewis or about 11.96% of the votes against Glass Lewis, and 1.99% of the total votes.

The top reason for votes against Glass Lewis is:

The auditor's tenure is excessive accounts for all 49 votes against Glass Lewis. Rotating auditors is an important safeguard against the relationship between the auditor and the company becoming too close, resulting in a lack of oversight due to complacency or conflicts of interest. Accordingly, the Public Pension policy will vote against auditor ratification proposals in instances where a company's auditor has not been changed for 20 or more years.

• Advisory Vote on Executive Compensation – Votes on the advisory vote on executive compensation account for 12 of the 410 votes against Glass Lewis or about 2.93% of the votes against Glass Lewis, and 0.49% of the total votes.

The top reason for votes against Glass Lewis is:

The Company has pay for performance issues and does not link any long-term incentive grant to sustainability metrics accounts for all 12 votes against Glass Lewis. The Public Pension policy will vote against compensation plans where a company has both failed to provide an adequate link between pay and performance, and the company has neglected to incentivize environmental and social performance.

#### **Shareholder Proposals - 3Q2023**

During quarter three there were 38 shareholder proposals (SHPs), accounting for 1.54% of the total proposals. Governance proposals were the most common, accounting for 17 of the 38 SHPs or 44.74% of the SHPs. Overall, SURS voted SHPs against management 24 times, while SURS voted SHPs against Glass Lewis 10 times.

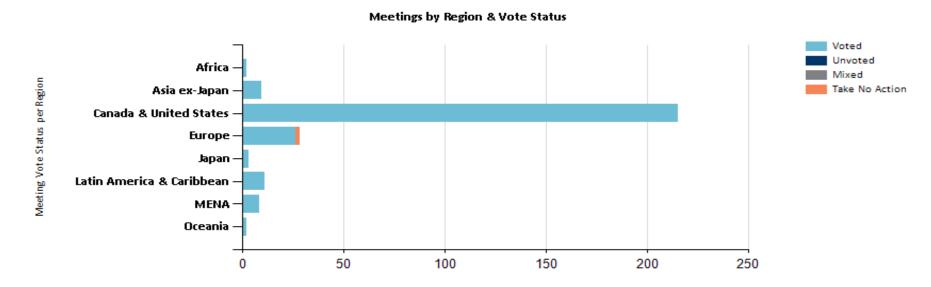
The three most common SHPs are:

- SHP Regarding Election of Board Member(s) During a Contested Election Dissident Nominee accounts for 8 of the 38 SHPs or 21.06%. In the case of contested merger situations, or board proxy fights, the Public Pension Policy will evaluate the plan presented by the dissident party and how, if elected, it plans to enhance or protect shareholder value. The Public Pension policy will also consider any concerns presented by the board, including any plans for improving the performance of the company, when making the ultimate recommendation. In addition, the Public Pension Policy will support shareholder proposals asking a company to consider the effects of a merger, spin-off, or other transaction on its employees and other stakeholders.
- SHP Regarding Golden Parachutes accounts for 4 of the 38 SHPs, or about 10.52%. The Public Pension policy will generally support shareholder proposals regarding "golden parachute" transactions.
- SHP Regarding Reporting and Reducing Greenhouse Gas Emissions accounts for 4 of the 38 SHPs, or about 10.52%. The public pension policy on this issue is to follow the Glass Lewis standard policy. Glass Lewis evaluates all shareholder proposals on a case-by-case basis with a view to promoting long-term shareholder value.

### **Meeting Statistics Report**

#### **SURS Q3 2023 Reporting**

From 7/1/2023 to 9/30/2023



Region	Country Of Origin	Voted	Unvoted	Mixed	Take No Action	Total
Total for all Regions		276	0	0	2	278
Africa		2	0	0	0	2
	Mauritius	1	0	0	0	1
	South Africa	1	0	0	0	1
Asia ex-Japan		9	0	0	0	9
	China	5	0	0	0	5
	Hong Kong	1	0	0	0	1
	India	1	0	0	0	1
	Korea, Republic of	1	0	0	0	1
	Singapore	1	0	0	0	1
Canada & United States		215	0	0	0	215
	Canada	1	0	0	0	1

	United States	214	0	0	0	214
Europe		26	0	0	2	28
	France	1	0	0	0	1
	Germany	1	0	0	0	1
	Ireland	6	0	0	0	6
	Jersey	1	0	0	0	1
	Netherlands	4	0	0	0	4
	Spain	1	0	0	0	1
	Sweden	1	0	0	0	1
	Switzerland	1	0	0	2	3
	United Kingdom	10	0	0	0	10
Japan		3	0	0	0	3
	Japan	3	0	0	0	3
Latin America & Caribbean		11	0	0	0	11
	Bermuda	1	0	0	0	1
	Brazil	4	0	0	0	4
	Cayman Islands	5	0	0	0	5
	Virgin Islands (British)	1	0	0	0	1
MENA		8	0	0	0	8
	Israel	8	0	0	0	8
Oceania		2	0	0	0	2
	Australia	1	0	0	0	1
	Marshall Islands	1	0	0	0	1

Voted Unvoted

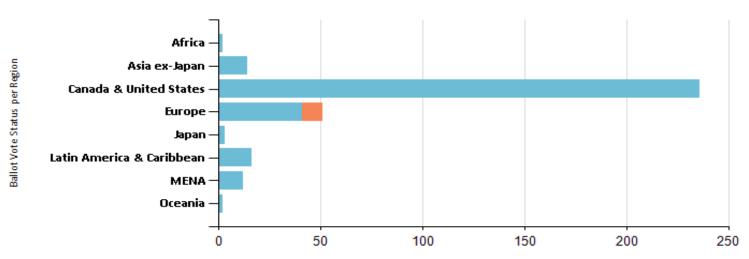
Take No Action

### **Ballot Statistics Report**

#### **SURS Q3 2023 Reporting**

From 7/1/2023 to 9/30/2023





Region	Country Of Origin	Voted	Unvoted	Take No Action	Total
Total for all Regions		326	0	10	336
Africa		2	0	0	2
	Mauritius	1	0	0	1
	South Africa	1	0	0	1
Asia ex-Japan		14	0	0	14
	China	6	0	0	6
	Hong Kong	1	0	0	1
	India	1	0	0	1
	Korea, Republic of	2	0	0	2
	Singapore	4	0	0	4
Canada & United States		236	0	0	236
	Canada	1	0	0	1
	United States	235	0	0	235

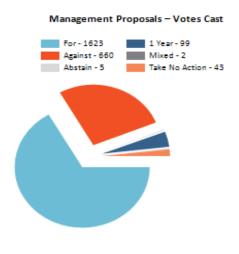
Europe		41	0	10	51
	France	1	0	0	1
	Germany	2	0	0	2
	Ireland	10	0	0	10
	Jersey	3	0	0	3
	Netherlands	7	0	0	7
	Spain	1	0	0	1
	Sweden	1	0	0	1
	Switzerland	2	0	10	12
	United Kingdom	14	0	0	14
Japan		3	0	0	3
	Japan	3	0	0	3
Latin America & Caribbean		16	0	0	16
	Bermuda	1	0	0	1
	Brazil	4	0	0	4
	Cayman Islands	10	0	0	10
	Virgin Islands (British)	1	0	0	1
MENA		12	0	0	12
	Israel	12	0	0	12
Oceania		2	0	0	2
	Australia	1	0	0	1
	Marshall Islands	1	0	0	1

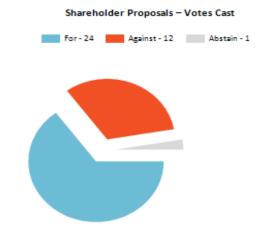
#### **Proposal Statistics Report**

#### **SURS Q3 2023 Reporting**

From 7/1/2023 to 9/30/2023

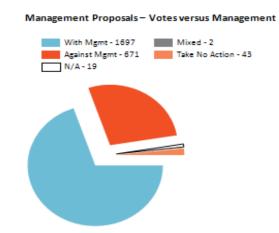
	Mgmt Proposals	SHP Proposals	<b>Total Proposals</b>
For	1623	24	1647
Against	660	12	672
Abstain	5	1	6
1 Year	99	0	99
2 Years	0	0	0
3 Years	0	0	0
Mixed	2	0	2
Take No Action	43	0	43
Unvoted	0	0	0
Totals	2432	37	2469

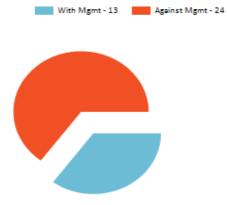




Shareholder Proposals - Votes versus Management

	Mgmt Proposals	SHP Proposals	<b>Total Proposals</b>
With Management	1697	13	1710
Against Management	671	24	695
N/A	19	0	19
Mixed	2	0	2
Take No Action	43	0	43
Unvoted	0	0	0
Totals	2432	37	2469



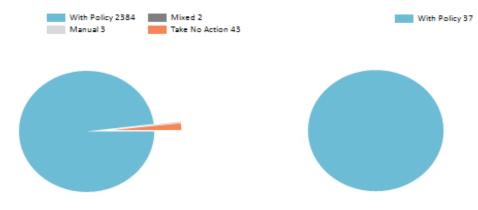


Mgmt Proposals SHP Proposals Total Proposals

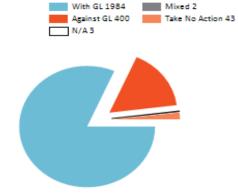
Management Proposals - Votes versus Policy

Shareholder Proposals - Votes versus Policy

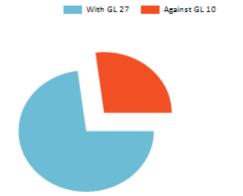
With Policy	2384	37	2421
Against Policy	0	0	0
Manual	3	0	3
N/A	0	0	0
Mixed	2	0	2
Take No Action	43	0	43
Unvoted	0	0	0
Totals	2432	37	2469



	Mgmt Proposals	SHP Proposals	<b>Total Proposals</b>
With Glass Lewis	1984	27	2011
Against Glass Lewis	400	10	410
N/A	3	0	3
Mixed	2	0	2
Take No Action	43	0	43
Unvoted	0	0	0
Totals	2432	37	2469



Management Proposals - Votes versus Glass Lewis



Shareholder Proposals - Votes versus Glass Lewis

(40 ILCS 5/1-110.16) Illinois Pension Code

(b) There shall be established an Illinois Investment Policy Board. The Illinois Investment Policy Board shall consist of 7 members. Each board of a pension fund or investment board created under Article 15, 16, or 22A of this Code shall appoint one member, and the Governor shall appoint 4 members.



1901 Fox Drive, Champaign, IL 61820-7333 800-275-7877 • 217-378-8800 • (Fax) 217-378-9800 www.surs.org

Friday, December 8, 2023

Governor JB Pritzker 207 Statehouse Springfield, Illinois 62706

To the Honorable Governor Pritzker:

During the quarterly meeting of the Board of Trustees of the State Universities Retirement System of Illinois on Friday, December 8, 2023, the Board voted to designate Mr. Michael Schlachter as the System's representative on the Illinois Investment Policy Board, pursuant to subsection (b) of Section 1-110.16 of the Illinois Pension Code.

The appointment of Mr. Michael Schlachter replaces the System's previous appointment of Mr. Douglas Wesley and takes effect immediately.

Please direct all correspondence regarding meetings of the Illinois Investment Policy Board to Mr. Michael Schlachter at the contact information listed above or directly at <a href="MSchlachter@surs.org">MSchlachter@surs.org</a>.

Sincerely,

John Lyons Chairperson, Board of Trustees

cc: Monica-Kaye Gamble, Administrator for the Illinois Investment Policy Board David Finnigan, Director of the Index Department, Office of Secretary of State Alexi Giannoulias



1901 Fox Drive, Champaign, IL 61820-7333 800-275-7877 • 227-378-8800 • (Fax) 217-378-9800 www.surs.org

Investment Department

To: Investment Committee
From: Investment Staff
Date: November 22, 2023
Re: Summary Risk Report

Attached is the Summary Risk Report for the quarter ending September 30, 2023. Highlights for the quarter include:

- Appropriation Summary FY 2024 state appropriations received were approximately \$533 million, or 100% of the anticipated FYTD appropriations due, as of September 30, 2023. The total FY 2024 appropriation is \$2,133,335,000. The actuarial benefit payment projection for FY 2024 is \$3,227,454,000. The total FY 2023 appropriation of \$2,118,567,000 was paid in full as of June 2, 2023.
- Cash Account Summary Ending cash on hand was approximately \$79 million as of September 30, 2023. Net private partnership cash flows during the quarter were negative and approximately \$184 million.
- SURS Risk Exposures 82% of Total Risk comes from the Non-Traditional Growth, Traditional Growth, and Stabilized Growth classes as of September 30, 2023.
- Total portfolio risk decreased from 6.17% to 5.25%.
  - Benchmark Risk decreased from 7.07% to 6.47%.
  - Active Risk fell slightly from 4.12% to 3.65%.
- Liquidity Assets in Principal Protection, TIPS, CRO, Overlay, Cash, and Transition, the most liquid categories, amount for 31% of assets. Assets in these classes would allow the fund to cover 2.0 years of benefits assuming no contributions to the System or 7.3 years assuming contributions from the state and members. SURS projected annual net cash outflows are between \$887 million and \$1,022 million over the next 5 years.
- Risk Environment & Sentiment:
  - Market risk levels are above average for Fixed Income Volatility, while Yield Curve Slope Level is in the bottom decile compared to historical numbers.
  - U.S Equity and Private Equity Valuations remain high. Real Estate vs Treasury Spreads are in the top decile based on historical averages.
  - Market sentiment towards economic growth continued a slight upward trend, moving into positive territory in the third quarter. This indicator had been negative between June 2022 and June 2023.
- Operational Risk Summary: Shows a snapshot of key contracts and procedures to be reviewed periodically. No issues to report.



# **Summary Risk Report**

Quarter Ending September 30, 2023



## **Appropriation Summary**

<u>Month</u>	<b>Amount Received</b>	Amount Due	(Under)/Over	% Received
July	\$177,777,917	\$177,777,917	-	100%
August	\$177,777,917	\$177,777,917	-	100%
September	\$177,777,917	\$177,777,917	-	100%
October				
November				
December				
January				
February				
March				
April				
May				
June				
FYTD	\$533,333,750	\$533,333,750	-	100%

Total appropriation for FY 2024 is \$2,133,335,000

Actuarial benefit payments projection for FY 2024: \$3,227,454,000

Total FY 2023 appropriation was paid in full in as of June 2, 2023



### **Cash Account Summary**

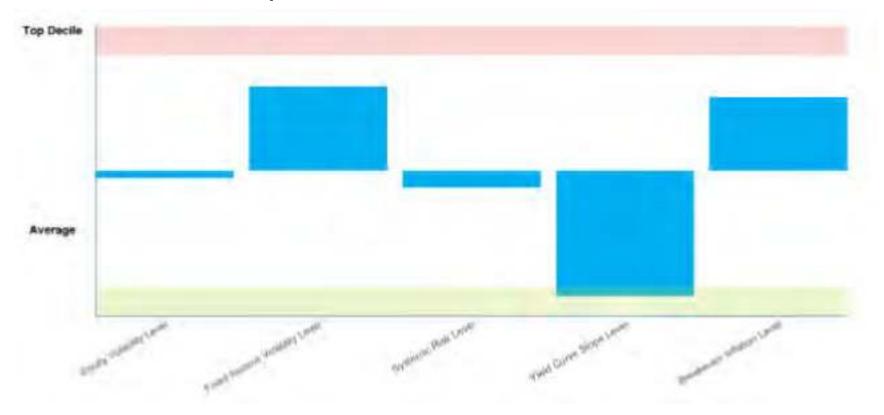
October 1, 2022 – September 30, 2023					
	Oct 1 – Dec 31	Jan 1 – Mar 31	April 1 – June 30	<b>July 1 – Sept 30</b>	
Beginning Balance	\$101,904,304	\$458,562,824	\$144,795,528	\$94,886,349	
Cash In:					
Partnership Distributions	57,470,494	122,630,908	60,768,880	65,549,262	
Transfers	833,915,910	454,226,637	1,257,409,501	320,516,902	
Total Cash In:	891,386,404	576,857,544	1,318,178,381	385,586,163	
Cash Out:					
Partnership Capital Calls	(450,599,381)	(393,413,557)	(237,382,551)	(249,066,473)	
Transfers	(79,115,414)	(124,113,511)	(928,825,002)	(8,058,005)	
Net Contributions (Contributions less Benefit Payments)	(5,013,088)	(373,097,773)	(201,880,008)	(143,734,847)	
Total Cash Out:	(534,727,883)	(890,624,841)	(1,368,087,560)	(400,859,325)	
Ending Balance	\$458,562,824	\$144,795,528	\$94,886,349	\$79,133,186	

Net private partnership cash flows were negative \$184 million for the quarter

Net contributions (contributions less benefit payments) were negative \$144 million for the quarter.



#### Today's Risk Environment – Risk & Valuation



Market Risk Levels: Current level of each indicator compared to its history.

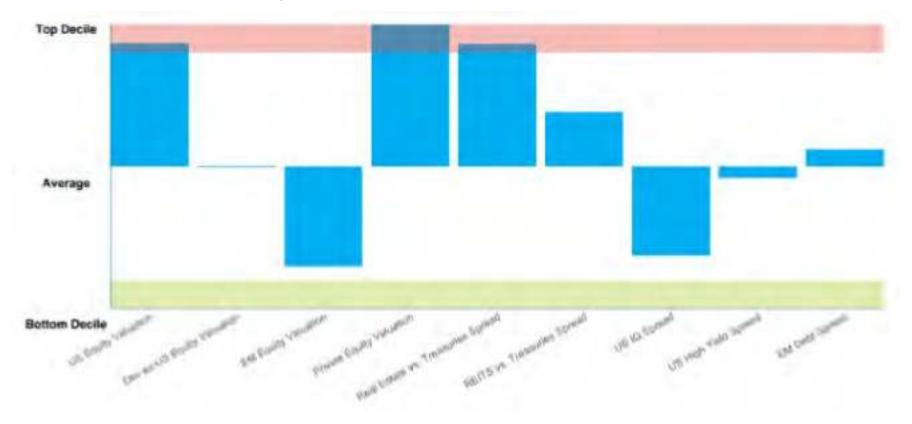
Systematic Risk Level remains slightly below average based on historical data.

Equity Volatility Level increased from last quarter, moving to near average levels. Fixed Income Volatility Level remained above average.

Yield Curve Slope Level indicator stayed in the bottom decile based on historical information.



### Today's Risk Environment – Risk & Valuation



Market Valuations: Current state of valuation metrics per asset class relative to their own history.

U.S. Equity Valuation and Private Equity Valuation and Real Estate vs Treasuries Spreads are all very high. EM Equity valuations and US Investment Grade Spreads are below average.



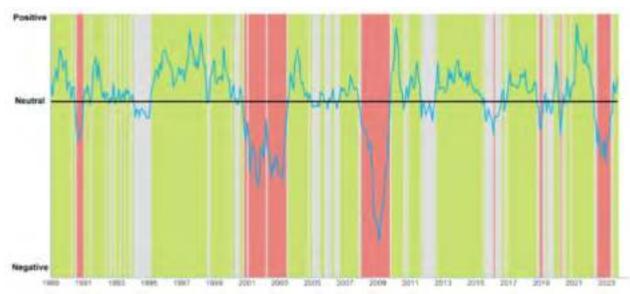
## Today's Risk Environment – Sentiment/Concern

Market Sentiment Indicator (Last three years)



Green indicator shows that market sentiment towards growth risk had moved into positive territory in the third quarter.

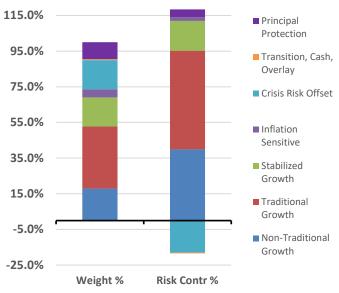
Market Sentiment Indicator (All History)



Market's sentiment towards growth has trended up over the past two quarters.

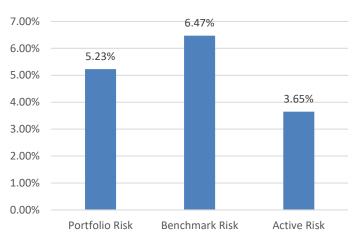


# **SURS Risk Exposures**

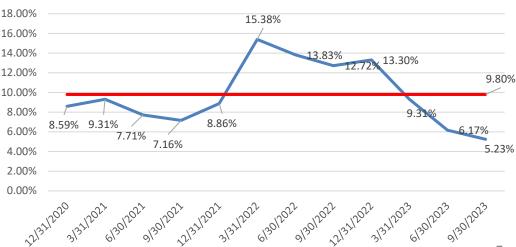


- Total Portfolio Risk comes primarily from the Traditional Growth and Non-Traditional Growth asset classes.
- Portfolio Risk and Benchmark Risk decreased slightly in the quarter.
- Portfolio Risk decreased from 6.17% to 5.25% over the past quarter, remaining below than the 9.80% average over time.





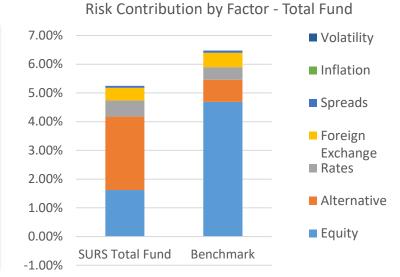
#### Portfolio Risk Over Time





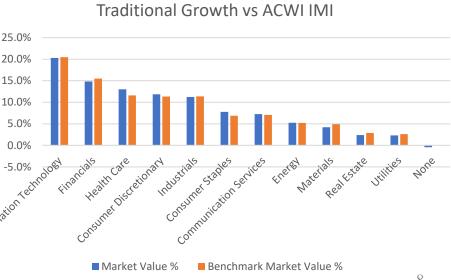
# **SURS Risk Exposures**

- SURS' Risk Factor exposure by factor is higher in alternatives than the benchmark due to our significant private market allocation, however overall risk is slightly lower than the benchmark.
- SURS' public equity market cap allocations are in line with the benchmark, with a slight overweight in large cap and slight underweight in small cap.
- Public equity sector weights are in line with the benchmark, with some expected minor variances due to active investment manager positioning.



**Sector Weights** 







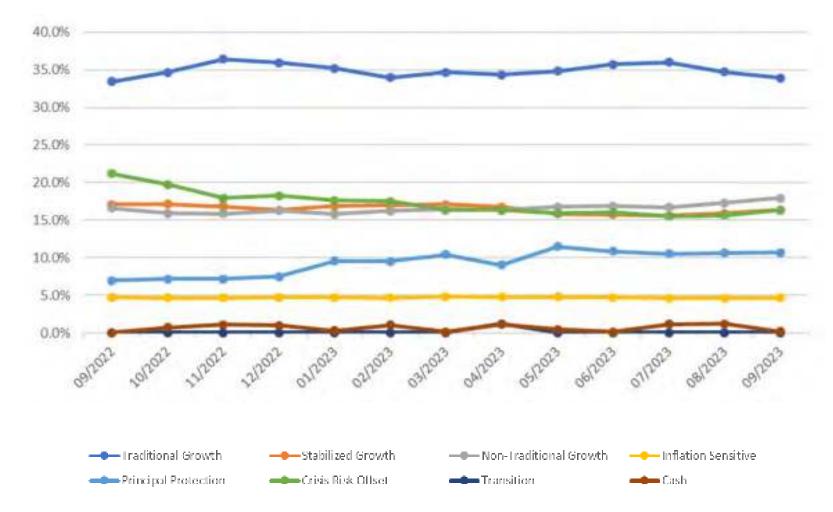
## **SURS Asset Allocation vs Targets**



- SURS Total Fund allocation is line with policy targets
- A slight overweight to Non-Traditional Growth persists due to market gains in the private equity portfolio in recent years



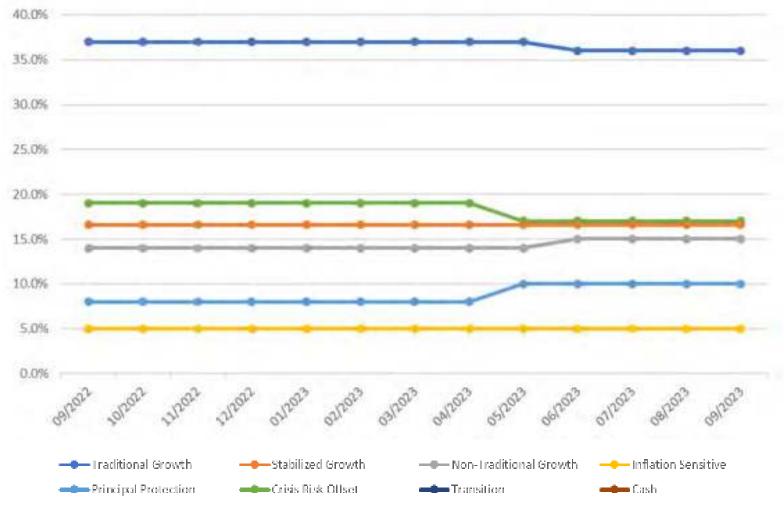
# SURS Asset Allocation Over Time Overlay Adjusted



- Asset Allocation among the six functional asset classes has been stable through the past 12 months
- The overlay program has minimized cash drag in the portfolio, and kept Traditional Growth and Principal Protection asset classes within acceptable ranges, while avoiding transaction costs of physical rebalancing



### **SURS Interim Policy Target Over Time**



- Changes to SURS' functional asset class target weights occurred in May and June 2023, decreasing the weights to Traditional Growth and Crisis Risk Offset, and increasing targets to Principal Protection and Non-Traditional Growth
- Some minor adjustments to sub-asset targets have also occurred over the past 12 months



## **Scenario Analysis**

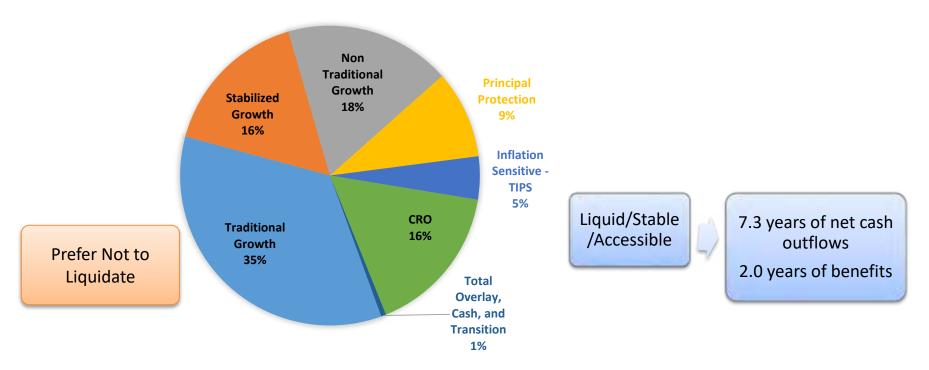
Scenario	Description	% Loss/Gain
Credit '07	Credit & liquidity crisis stemming from a severe slowdown in the housing market causing significant widening of credit spreads and increased implied volatility.	(7.24%)
Crash '08	Credit & liquidity crisis and equity market crash set off by Lehman Brothers bankruptcy. Significant credit spreads widening caused by massive deleveraging.	(14.52%)
FOMC Policy Paths-Lingering Inflation	Lingering Inflation Proves Markets Wrong.	(8.48%)
FOMC Policy Paths-Fed Engineers a Hard Landing	The effects of the Feds policy response in 2022-23 are lagged and prove to be more significant than expected. Growth slows and cracks in the labor market begin to show. Market prices in a significant recession in the US, driving a sizable risk-off reaction.	(8.24%)
Equity Volatility Increase	1% probability VIX Up movement.	(3.62%)
US Debt Ceiling - Last Minute Agreement	Negotiations are reached close to X-date, with a risk-of in the market	(3.69%)
US Debt Ceiling - Technical Default	Negotiations are not reached in time for the X-date; Government has a technical default	(8.44%)
Military Action in the Gulf	Escalating tensions in the Gulf region lead to further military action.	(4.74%)
Stock Market Drop Global	1% probability movement of MSCI World Market Down.	(4.74%)

Current portfolio stress tested using historical scenarios.



# **Liquidity Profile**

#### **SURS TOTAL PORTFOLIO**



Liquid/Stable group consists of Principal Protection, Inflation Sensitive – TIPS, CRO and Total Overlay which constitute for 31% of SURS portfolio.

SURS Projected Annual Net Contributions: -\$887M to -\$1,022M over next 5 years



# S•U•R•S Operational Risk Summary

Operational Risk	Target Review Cycle	Last Reviewed	Comments
Asset Allocation	3-5 Years	June 2021	Minor Changes to Strategic Allocation Targets approved April 2023
Investment Beliefs	3-5 Years	January 2020	
Investment Policy	Annual	September 2023	
Investment Procurement Policy	Annual	September 2023	
Private Real Assets Pacing and Strategic Plan	Annual	December 2022	
Private Equity Pacing and Strategic Plan	Annual	December 2022	
Private Credit Pacing and Strategic Plan	Annual	February 2023	
Capital Market Assumptions Review	Annual	March 2023	
Custodial Review	Annual	November 2023	
Securities Lending Review	Annual	March 2022	
Proxy Voting Guidelines	Annual	January 2022	2023 U.S., Public Pension and International Guidelines published on SURS website



# S·U·R·S Operational Risk Summary

Relationships with Contract Terms	Contracted To	Comments
Northern Trust - Custodian	December 2026	
Meketa - General Consultant	March 1, 2028	
CAPTRUST - DC Specialty	March 31, 2028	
Voya – DC Recordkeeper	August 2025	One year extension available at SURS discretion
Callan - Real Assets Specialty	September 30, 2028	
Meketa – Private Credit Advisor	December 10, 2025	
Aksia – Private Equity Advisor	September 1, 2024	
Glass Lewis - Proxy Voting Services	October 1, 2024	
ISBI, TRS, SURS Agreement - Quarterly Restricted Securities	June 30, 2025	ISBI negotiated an annual contract with MSCI to provide the quarterly restricted securities list through June 30, 2023, and renews annually through 2025 at the discretion of the parties involved. Costs for these services are shared equally between SURS, ISBI and TRS.

SURS FY 2024 Private Equity & Private Credit Commitment Activity

Date Closed	Fund	Vintage Year	Strategy	Sub-Strategy	Geography	Commitment (USD)					
	No Private Equity commitments closed during the July 1, 2023 to September 30, 2023 quarter.										
	FY 2024 Private Equity Commitments					\$ -					

rivate Credit Cor 7/3/2023	nmitments Sixth Street TAO Global	2023	Private Debt	Opportunistic	North America / W. Europe	İ¢	100,000,00
7/28/2023	HPS Specialty Loan Fund VI	2023	Private Debt	Direct Lending	Global Developed	\$	100,000,00
8/1/2023	Atalaya Asset Income Fund	2023	Private Debt	Specialty Finance	North America	\$	100,000,000
9/18/2023	ICG Senior Debt Partners Fund V	2023	Private Debt	Direct Lending	Non-U.S.	\$	100,000,00
	FY 2024 Private Credit Commitments					\$	400,000,00

<sup>\*</sup>MWDBE-owned firm



# Illinois State Universities Retirement System

**December 7, 2023** 

Third Quarter 2023
Supplement to the Board Report

### Illinois State Universities Retirement System

Agenda

- 1. Performance Results
- 2. Private Markets
- 3. Capital Markets Outlook & Risk Metrics
- 4. Appendix

### **Performance Results**

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	<b>QTD</b> (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
US Equity	2,111,272,066	-3.3	12.1	20.3	10.3	8.7	11.4	10.9	11.0	Oct-80
Dow Jones U.S. Total Stock Market Index		-3.3	12.4	20.5	9.3	9.0	11.5	11.2		
Over/Under		0.0	-0.3	-0.2	1.0	-0.3	-0.1	-0.3		
Passive US Equity	2,111,272,066	-3.3	12.5	20.5	9.9	9.4	11.9	11.4	11.1	Oct-80
Dow Jones U.S. Total Stock Market Index		-3.3	12.4	20.5	9.3	9.0	11.5	11.2		
Over/Under		0.0	0.1	0.0	0.6	0.4	0.4	0.2		
Rhumbline	2,111,272,066	-3.3	12.5	20.5	9.8	9.4	11.9	11.5	9.2	Feb-05
Rhumbline Equity Index		-3.3	12.5	20.5	9.7	9.4	11.8	11.5	9.2	
Over/Under		0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	

MEKETA INVESTMENT GROUP
Page 4 of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

			- 1000	7 1110 0				1 7 10 0.	оортониво.	
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Non US Equity	1,338,354,133	-3.0	7.1	21.9	4.7	2.5	4.8	3.7	5.8	May-86
SURS Non US Equity Blend		-3.5	5.3	20.2	3.8	2.7	4.8	3.4		
Over/Under		0.5	1.8	1.7	0.9	-0.2	0.0	0.3		
Active Non-US Equity	1,238,864,386	-2.9	7.3	22.4	5.1	2.4	4.7	3.7	5.6	Oct-03
MSCI EAFE (Net)		-4.1	7.1	25.6	<i>5.8</i>	3.2	<i>5.3</i>	3.8	5.9	
Over/Under		1.2	0.2	-3.2	-0.7	-0.8	-0.6	-0.1	-0.3	
Strategic Global Advisors	344,380,679	-3.0	10.5	27.5	5.3	2.2	4.3	4.5	5.1	Sep-08
MSCI EAFE (Net)		-4.1	7.1	25.6	5.8	3.2	<i>5.3</i>	3.8	3.6	
Over/Under		1.1	3.4	1.9	-0.5	-1.0	-1.0	0.7	1.5	
Ativo	283,435,298	-2.1	7.3	20.5	2.2	1.1	3.0	2.9	3.2	Aug-08
MSCI ACWI ex US		-3.8	<i>5.3</i>	20.4	<i>3.7</i>	2.6	4.7	3.3	2.8	
Over/Under		1.7	2.0	0.1	-1.5	-1.5	-1.7	-0.4	0.4	
GlobeFlex Capital	349,982,381	-3.7	6.4	21.5	8.4	3.2	5.8	4.9	6.8	Dec-11
MSCI AC World ex USA (Net)		-3.8	<i>5.3</i>	20.4	<i>3.7</i>	2.6	4.7	3.3	4.9	
Over/Under		0.1	1.1	1.1	4.7	0.6	1.1	1.6	1.9	
Solstein Capital	91,579,307	-4.9	4.0	18.5	1.7	4.2			4.1	Nov-17
MSCI EAFE (Net)		-4.1	7.1	25.6	<i>5.8</i>	3.2			2.9	
Over/Under		-0.8	-3.1	-7.1	-4.1	1.0			1.2	
Nipun Emerging Markets	89,106,545	1.4	8.5						7.5	Dec-22
MSCI Emerging Markets (Net)		-2.9	1.8						0.4	
Over/Under		4.3	6.7						7.1	

MEKETA INVESTMENT GROUP
Page 5 of 89

#### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
William Blair Emerging Markets Growth	80,376,319	-4.1							0.9	Mar-23
MSCI Emerging Markets (Net)		-2.9							0.9	
Over/Under		-1.2							0.0	
Passive Non-US Equity	99,489,747	-3.5	5.2	18.6	2.9	1.5	4.0	2.9	5.9	May-86
MSCI AC World ex USA (Net)		-3.8	<i>5.3</i>	20.4	<i>3.7</i>	2.6	4.7	3.3		
Over/Under		0.3	-0.1	-1.8	-0.8	-1.1	-0.7	-0.4		
NTAM ACWI Ex-US IMI	99,032,321	-3.5	5.2	21.0	4.0				4.6	Aug-20
MSCI AC World ex USA IMI (Net)		-3.5	<i>5.3</i>	20.2	3.8				4.3	
Over/Under		0.0	-0.1	8.0	0.2				0.3	

Page 6 of 89

#### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

			7.0000	7 1110 0				1 7 10 01	Сортонные	,
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Global Equity	4,417,976,461	-3.2	9.2	21.2	7.5	8.3	10.5	9.4	7.7	May-02
SURS Global Equity Blend		-3.4	9.4	20.2	6.9	6.3	8.5	7.5	6.8	
Over/Under		0.2	-0.2	1.0	0.6	2.0	2.0	1.9	0.9	
Global Equity - Active	2,514,141,457	-3.3	8.5	20.8					7.9	Nov-20
Wellington	571,359,202	-3.2	9.6	19.9	6.7	6.9	9.4	8.8	7.8	Jun-02
MSCI AC World Index (Net)		-3.4	10.1	20.8	6.9	6.5	8.6	7.6	7.0	
Over/Under		0.2	-0.5	-0.9	-0.2	0.4	0.8	1.2	0.8	
Mondrian	526,473,310	-2.0	10.6	25.8	9.4	6.9	8.2	7.2	8.2	Dec-11
MSCI AC World Index (Net)		-3.4	10.1	20.8	6.9	6.5	8.6	7.6	8.9	
Over/Under		1.4	0.5	5.0	2.5	0.4	-0.4	-0.4	-0.7	
T. Rowe Price Global	353,432,552	-4.8	12.1	21.7	2.1	9.6	12.7	12.1	12.7	Nov-08
MSCI AC World Index (Net)		-3.4	10.1	20.8	6.9	6.5	8.6	7.6	9.3	
Over/Under		-1.4	2.0	0.9	-4.8	3.1	4.1	4.5	3.4	
Ariel Investments	234,085,538	-3.3	4.3	15.7	7.3				7.4	Aug-20
MSCI AC World Index (Net)		-3.4	10.1	20.8	6.9				7.4	
Over/Under		0.1	-5.8	-5.1	0.4				0.0	
Earnest Global	365,608,983	-3.7	5.1	18.2	9.4				9.8	Aug-20
MSCI AC World IMI (Net)		-3.4	9.4	20.2	6.9				7.4	
Over/Under		-0.3	-4.3	-2.0	2.5				2.4	
Strategic Global Advisors	179,875,939	-1.9	13.2	25.3	9.8				9.8	Aug-20
MSCI World Index (Net)		<i>-3.5</i>	11.1	22.0	8.1				8.7	
Over/Under		1.6	2.1	3.3	1.7				1.1	

Page 7 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

Kponance Global Equity         283,305,933         -4.2         11.0         24.1				,	,	 	 , , ,,		,
MSCI AC World Index (Net)         -34         101         208   <								Inception (%)	Inception Date
Over/Under         -0.8         0.9         3.3	(ponance Global Equity	283,305,933	-4.2	11.0	24.1	 	 	0.4	Jan-21
Xponance - Arga Inv ACWI         29,174,654         -1.1         14,2         36.7	MSCI AC World Index (Net)		-3.4	10.1	20.8	 	 	2.3	
MSCI AC World Index (Net)       -3.4       10.1       20.8 <td>Over/Under</td> <td></td> <td>-0.8</td> <td>0.9</td> <td>3.3</td> <td> </td> <td> </td> <td>-1.9</td> <td></td>	Over/Under		-0.8	0.9	3.3	 	 	-1.9	
Over/Under         2.3         4.1         15.9	Xponance - Arga Inv ACWI	29,174,654	-1.1	14.2	36.7	 	 	8.3	Jan-21
Xponance - Channing       14,244,384       -4.9       11.6       23.9 </td <td>MSCI AC World Index (Net)</td> <td></td> <td>-3.4</td> <td>10.1</td> <td>20.8</td> <td> </td> <td> </td> <td>2.3</td> <td></td>	MSCI AC World Index (Net)		-3.4	10.1	20.8	 	 	2.3	
MSCI AC World Index (Net)       -3.4       10.1       20.8 <td>Over/Under</td> <td></td> <td>2.3</td> <td>4.1</td> <td>15.9</td> <td> </td> <td> </td> <td>6.0</td> <td></td>	Over/Under		2.3	4.1	15.9	 	 	6.0	
Over/Under         -1.5         1.5         3.1	Xponance - Channing	14,244,384	-4.9	11.6	23.9	 	 	-0.2	Jan-21
Xponance - Frontier GL       13,917,568       -6.6       9.7       20.9	MSCI AC World Index (Net)		-3.4	10.1	20.8	 	 	2.3	
MSCI AC World Index (Net)       -3.4       10.1       20.8 <td>Over/Under</td> <td></td> <td>-1.5</td> <td>1.5</td> <td>3.1</td> <td> </td> <td> </td> <td>-2.5</td> <td></td>	Over/Under		-1.5	1.5	3.1	 	 	-2.5	
Over/Under       -3.2       -0.4       0.1 </td <td>Xponance - Frontier GL</td> <td>13,917,568</td> <td>-6.6</td> <td>9.7</td> <td>20.9</td> <td> </td> <td> </td> <td>-2.2</td> <td>Jan-21</td>	Xponance - Frontier GL	13,917,568	-6.6	9.7	20.9	 	 	-2.2	Jan-21
Xponance - Fithian       34,777,222       -9.3       12.4       26.1 <td>MSCI AC World Index (Net)</td> <td></td> <td>-3.4</td> <td>10.1</td> <td>20.8</td> <td> </td> <td> </td> <td>2.3</td> <td></td>	MSCI AC World Index (Net)		-3.4	10.1	20.8	 	 	2.3	
MSCI AC World Index (Net)       -3.4       10.1       20.8 <td>Over/Under</td> <td></td> <td>-3.2</td> <td>-0.4</td> <td>0.1</td> <td> </td> <td> </td> <td>-4.5</td> <td></td>	Over/Under		-3.2	-0.4	0.1	 	 	-4.5	
Over/Under       -5.9       2.3       5.3             Xponance - Foresight       46,251,284       -2.6       -0.2       12.0             MSCI AC World Index (Net)       -3.4       10.1       20.8             Over/Under       0.8       -10.3       -8.8             Xponance - Martin       33,484,253       -3.7       6.7       15.9             MSCI AC World Index (Net)       -3.4       10.1       20.8	Xponance - Fithian	34,777,222	-9.3	12.4	26.1	 	 	-4.0	Mar-22
Xponance - Foresight       46,251,284       -2.6       -0.2       12.0              MSCI AC World Index (Net)       -3.4       10.1       20.8              Over/Under       0.8       -10.3       -8.8              Xponance - Martin       33,484,253       -3.7       6.7       15.9             MSCI AC World Index (Net)       -3.4       10.1       20.8	MSCI AC World Index (Net)		-3.4	10.1	20.8	 	 	-1.9	
MSCI AC World Index (Net)       -3.4       10.1       20.8 <td>Over/Under</td> <td></td> <td>-5.9</td> <td>2.3</td> <td>5.3</td> <td> </td> <td> </td> <td>-2.1</td> <td></td>	Over/Under		-5.9	2.3	5.3	 	 	-2.1	
Over/Under       0.8       -10.3       -8.8   <	Xponance - Foresight	46,251,284	-2.6	-0.2	12.0	 	 	-4.0	Mar-22
Xponance - Martin       33,484,253       -3.7       6.7       15.9              MSCI AC World Index (Net)       -3.4       10.1       20.8	MSCI AC World Index (Net)		-3.4	10.1	20.8	 	 	-1.9	
MSCI AC World Index (Net) -3.4 10.1 20.8	Over/Under		0.8	-10.3	-8.8	 	 	-2.1	
	Xponance - Martin	33,484,253	-3.7	6.7	15.9	 	 	-5.6	Mar-22
Over/Under -0.3 -3.4 -4.9	MSCI AC World Index (Net)		-3.4	10.1	20.8	 	 	-1.9	
2.5.7.	Over/Under		-0.3	-3.4	-4.9	 	 	-3.7	

Page 8 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	<b>QTD</b> (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Xponance - Maytech	35,723,447	-2.1	38.8	39.5					0.0	Mar-22
MSCI AC World Index (Net)		-3.4	10.1	20.8					-1.9	
Over/Under		1.3	28.7	18.7					1.9	
Xponance - Centerstone	33,975,557	-7.1	4.0						4.2	Dec-22
MSCI AC World Index (Net)		-3.4	10.1						<i>5.7</i>	
Over/Under		-3.7	-6.1						-1.5	
Xponance - Promethos	41,752,030	-2.5	8.9						8.5	Dec-22
MSCI AC World Index (Net)		-3.4	10.1						<i>5.7</i>	
Over/Under		0.9	-1.2						2.8	
Global Equity - Passive	1,903,835,004	-3.1	10.1	21.7	8.3				8.8	Aug-20
BTC Global Alpha Tilts	1,903,835,004	-3.1	10.1	21.7	8.3				8.8	Aug-20
MSCI AC World IMI (Net)		-3.4	9.4	20.2	6.9				7.4	
Over/Under		0.3	0.7	1.5	1.4				1.4	

MEKETA INVESTMENT GROUP
Page 9 of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

								•	•	•
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Stabilized Real Assets	1,741,946,564	-1.0	-6.3	-9.1	9.3	5.9	6.1	7.6	7.4	Jul-13
SURS Stabilized Real Assets Blend		-3.4	-11.2	-10.8	6.8	5.4	5.9	7.7	7.9	
Over/Under		2.4	4.9	1.7	2.5	0.5	0.2	-0.1	-0.5	
Core	999,962,160	-1.8	-8.9	-12.8	8.3	5.0	5.4	7.2	7.0	Jul-13
NCREIF ODCE Net 1 Qtr Lag		-2.9	-11.0	-10.7	7.0	5.6	6.2	7.9	8.1	
Over/Under		1.1	2.1	-2.1	1.3	-0.6	-0.8	-0.7	-1.1	
UBS Trumbull Property Fund	89,133,860	-1.6	-11.9	-16.6	1.6	0.2	1.8	4.4	4.0	Jun-06
SURS Real Estate Blend		-2.9	-11.O	-10.7	7.0	<i>5.6</i>	6.2	7.9	<i>5.8</i>	
Over/Under		1.3	-0.9	-5.9	-5.4	-5.4	-4.4	-3.5	-1.8	
JP Morgan Strategic	265,716,763	-3.3	-8.0	-12.8	5.2	3.9	4.7		6.3	Jun-14
SURS Real Estate Blend		-2.9	-11.O	-10.7	7.0	5.6	6.2		7.6	
Over/Under		-0.4	3.0	-2.1	-1.8	-1.7	-1.5		-1.3	
Heitman Hart Fund	277,233,742	-1.9	-7.6	-12.2	8.5	4.9	5.6		7.0	Jul-14
SURS Real Estate Blend		-2.9	-11.O	-10.7	7.0	<i>5.6</i>	6.2		7.6	
Over/Under		1.0	3.4	-1.5	1.5	-0.7	-0.6		-0.6	
Prologis Target US Logis	175,751,376	-0.2	-6.6	-7.0					21.3	Nov-20
SURS Real Estate Blend		-2.9	-11.0	-10.7					7.3	
Over/Under		2.7	4.4	3.7					14.0	
Clarion Lion Properties Fund, LP	192,093,429	-1.3	-12.3	-16.8					-14.3	Aug-22
SURS Real Estate Blend		-2.9	-11.0	-10.7					-5.8	
Over/Under		1.6	-1.3	-6.1					-8.5	

MEKETA INVESTMENT GROUP
Page 10 of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

								1 73 01	о прости	,
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Plus	567,622,625	-0.3	-5.4	-6.5	9.9	6.8			6.8	Oct-18
SURS Real Estate Blend		-2.9	-11.0	-10.7	7.0	5.6			5.6	
Over/Under		2.6	5.6	4.2	2.9	1.2			1.2	
Blackstone Property Partners	242,410,427	2.3	-10.9	-11.7	6.6				4.3	Mar-19
SURS Real Estate Blend		-2.9	-11.O	-10.7	7.0				5.7	
Over/Under		5.2	0.1	-1.0	-0.4				-1.4	
Carlyle Property Investors	259,472,367	-2.3	-1.1	-3.3	13.9	10.2			10.2	Oct-18
SURS Real Estate Blend		-2.9	-11.O	-10.7	7.0	5.6			5.6	
Over/Under		0.6	9.9	7.4	6.9	4.6			4.6	
GI Partners ETS FUND	65,739,831	-2.0	3.4	9.2					2.0	Apr-22
SURS Real Estate Blend		-2.9	-11.O	-10.7					0.0	
Over/Under		0.9	14.4	19.9					2.0	
Core Infrastructure	174,361,779	2.1	9.9	9.8					-2.8	Feb-21
FTSE Developed Core Infrastructure 50/50 Index		-8.5	-7.5	1.3					1.6	
Over/Under		10.6	17.4	8.5					-4.4	
Blackrock GL Renewable	68,294,298	4.1	17.6	17.5					-0.3	Feb-21
FTSE Developed Core Infrastructure 50/50 Index		-8.5	-7.5	1.3					1.6	
Over/Under		12.6	25.1	16.2					-1.9	
IFM Global Infrastructure Fund	106,067,481	0.9	6.1						6.1	Jan-23
FTSE Developed Core Infrastructure 50/50 Index		-8.5	-7.5						-7.5	
Over/Under		9.4	13.6						13.6	

MEKETA INVESTMENT GROUP
Page 11 of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

				7				1 7 10 0.	образии.	
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Public Credit	1,373,332,816	-0.4	3.7	10.0	-0.3				0.3	Oct-19
SURS Credit Fixed Income Blend		-0.1	4.1	9.0	-1.O				0.0	
Over/Under		-0.3	-0.4	1.0	0.7				0.3	
Diversified Credit	1,014,241,937	-0.2	4.2	10.4	0.0	2.1	1.9	2.3	2.4	Jul-13
SURS Credit ex EMD Blend		-0.3	4.1	9.5	-0.5	2.5	1.6	2.3	2.3	
Over/Under		0.1	0.1	0.9	0.5	-0.4	0.3	0.0	0.1	
PIMCO Global Credit	276,987,103	-0.3	3.5	9.1	-0.3				0.5	Oct-19
SURS Credit ex EMD Blend		-0.3	4.1	9.5	-0.5				0.6	
Over/Under		0.0	-0.6	-0.4	0.2				-0.1	
Neuberger Berman	737,254,834	-0.1	4.6	11.0	0.3				1.0	Oct-19
SURS Credit ex EMD Blend		-0.3	4.1	9.5	-0.5				0.6	
Over/Under		0.2	0.5	1.5	8.0				0.4	
Bivium Credit	359,090,879	-0.9	2.3	8.1	-1.1				3.4	Apr-20
Bivium Credit Blend		-1.2	2.2	7.3	-3.0				0.9	
Over/Under		0.3	0.1	0.8	1.9				2.5	
BiviumEMD - LM Capital Group	69,130,296	-0.8	2.2	8.1	0.1	2.4	2.6		3.0	May-15
JPM CEMBI Broad Index		-1.0	1.7	6.5	-3.4	1.2	1.6		2.3	
Over/Under		0.2	0.5	1.6	3.5	1.2	1.0		0.7	
BiviumEMD - GIA Partners LLC	61,684,489	0.2	3.0	10.1	0.0	2.5	2.8		3.2	May-15
JPM CEMBI Broad Index		-1.0	1.7	6.5	-3.4	1.2	1.6		2.3	
Over/Under		1.2	1.3	3.6	3.4	1.3	1.2		0.9	

MEKETA INVESTMENT GROUP
Page 12 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

									p	,
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Bivium - RVX Asset Mgmt	59,420,331	-1.7	1.6	7.7	-1.6				-1.1	Jan-20
JPM CEMBI Broad Index		-1.0	1.7	6.5	-3.4				-1.8	
Over/Under		-0.7	-0.1	1.2	1.8				0.7	
Bivium - New Century Advisors	47,256,439	-3.2	-0.4	4.9	-5.6				-2.4	Nov-19
BBgBC Global Corp Agg Blend		-2.7	0.7	6.1	<i>-5.3</i>				-2.4	
Over/Under		-0.5	-1.1	-1.2	-0.3				0.0	
Bivium - Integrity	38,307,766	-2.9	-0.4	2.4	-4.8				-2.0	Nov-19
Blmbg. U.S. Corporate Investment Grade Index		-3.1	0.0	3.6	-4.9				-2.1	
Over/Under		0.2	-0.4	-1.2	0.1				0.1	
Bivium - GIA Partners, LLC	83,028,418	1.0	5.2	11.7	2.4				1.7	Dec-19
ICE/BAML GI HY Const Hedge Blend		0.9	5.9	11.4	1.0				1.2	
Over/Under		0.1	-0.7	0.3	1.4				0.5	
Bivium Cash	425	1.2	3.4	4.3	1.4				1.3	Sep-19
ICE BofA 3 Month U.S. T-Bill		1.3	3.6	4.5	1.7				1.6	
Over/Under		-0.1	-0.2	-0.2	-0.3				-0.3	
Bivium Fixed Income Transition	5	0.0	0.0	0.0	0.0				8.0	Nov-19
Bivium Credit Blend		-1.2	2.2	7.3	-3.0				-1.2	
Over/Under		1.2	-2.2	-7.3	3.0				9.2	

MEKETA INVESTMENT GROUP
Page 13 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

								·	<u>,                                     </u>	·
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Credit	576,199,521	2.7	6.2	6.5	10.7				9.5	Jul-20
SURS Private Credit Blend		2.4	8.7	13.3	4.6				5.6	
Over/Under		0.3	-2.5	-6.8	6.1				3.9	
PIMCO Disco III	4,957,157	-10.0	-14.4	-15.5	1.5				1.1	Jul-20
SURS Private Credit Blend		2.4	8.7	13.3	4.6				5.6	
Over/Under		-12.4	-23.1	-28.8	-3.1				-4.5	
Silver Rock Tactical Allocation Fund, L.P.	138,026,194	2.5	5.2	5.0					4.6	Feb-21
SURS Private Credit Blend		2.4	<i>8.7</i>	13.3					2.8	
Over/Under		0.1	-3.5	-8.3					1.8	
Crayhill Principal Strategies Fund II	31,138,766	2.0	3.4	3.8					30.1	Jun-21
SURS Private Credit Blend		2.4	<i>8.7</i>	13.3					2.3	
Over/Under		-0.4	-5.3	-9.5					27.8	
NB Private Debt Fund IV	123,833,922	3.6	9.2	11.0					10.7	Oct-21
SURS Private Credit Blend		2.4	<i>8.7</i>	13.3					1.8	
Over/Under		1.2	0.5	-2.3					8.9	
Turning Rock Fund II	38,131,603	2.4	5.6	7.6					5.4	Feb-22
SURS Private Credit Blend		2.4	8.7	13.3					2.5	
Over/Under		0.0	-3.1	-5.7					2.9	
Fortress Lending Fund III	30,382,895	5.4	12.7	11.7					4.4	Mar-22
SURS Private Credit Blend		2.4	8.7	13.3					3.4	
Over/Under		3.0	4.0	-1.6					1.0	

MEKETA INVESTMENT GROUP
Page 14 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Ares Pathfinder Core Fund	74,859,019	1.9	6.0	6.2					4.9	Jul-22
SURS Private Credit Blend		2.4	8.7	13.3					10.9	
Over/Under		-0.5	-2.7	-7.1					-6.0	
Silver Rock Tactical Allocation Fund 2022	88,945,440	2.9	5.9	4.4					5.2	Aug-22
SURS Private Credit Blend		2.4	<i>8.7</i>	13.3					8.4	
Over/Under		0.5	-2.8	-8.9					-3.2	
Silver Point Specialty Credit Fund III	22,447,980	1.8							-1.9	Mar-23
SURS Private Credit Blend		2.4							5.5	
Over/Under		-0.6							-7.4	
Atalaya Asset Income Fund Evergreen	23,476,544									
Sixth Street TAO (C) LP.	1									

MEKETA INVESTMENT GROUP
Page 15 of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

			/ 1000	7				1 7 10 0.	оортониво.	00, _0_0
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Non-Core Real Estate	620,168,224	1.5	2.0	2.9	11.9	6.8	8.2		8.5	Sep-15
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6	7.1	7.8		8.5	
Over/Under		4.0	12.0	12.3	3.3	-0.3	0.4		0.0	
Blackstone Re Part Asia	6,932,066	-0.6	-16.9	-19.6					-16.0	Jul-22
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4					-4.0	
Over/Under		1.9	-6.9	-10.2					-12.0	
Blackstone RE EU VI	57,581,601	-0.7	2.7	7.5	13.8				7.1	Nov-19
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6				7.3	
Over/Under		1.8	12.7	16.9	5.2				-0.2	
Blue Vista RE Partners IV	11,826,709	-11.6	-19.1	-25.5	10.2	9.8	9.8		6.7	May-16
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6	7.1	7.8		7.9	
Over/Under		-9.1	-9.1	-16.1	1.6	2.7	2.0		-1.2	
Brasa Real Estate Fund II	22,911,482	-0.9	2.2	15.4					4.0	Mar-22
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4					6.3	
Over/Under		1.6	12.2	24.8					-2.3	
Brookfield Fund III	37,415,716	2.1	7.8	8.2	14.0				7.8	Apr-19
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6				7.0	
Over/Under		4.6	17.8	17.6	5.4				0.8	
Brookfield Strategy RE Partners IV	44,753,996	2.2	2.2	14.6					5.3	Aug-22
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4					-4.3	
Over/Under		4.7	12.2	24.0					9.6	

MEKETA INVESTMENT GROUP
Page 16 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

			71000	711100	40.0			1 710 0.	<u> </u>	00, _0_0
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Brookfield Strategy RE Partners II	21,927,173	-1.8	-4.9	-2.7	15.0	12.4	11.8		11.5	Feb-16
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6	7.1	7.8		8.1	
Over/Under		0.7	5.1	6.7	6.4	5.3	4.0		3.4	
Cabot Industrial Value VI	49,163,694	0.5	-1.4	-2.3	17.6				17.1	Sep-20
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6				7.8	
Over/Under		3.0	8.6	7.1	9.0				9.3	
CHC Realty Partners IX	41,524,815	-0.3	-4.7	-3.5					13.9	Oct-21
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4					8.6	
Over/Under		2.2	5.3	5.9					5.3	
Dune Fund III	66,161,664	2.5	1.2	1.9	5.4	1.6	4.6	6.0	5.7	Jul-13
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6	7.1	7.8	9.5	9.7	
Over/Under		5.0	11.2	11.3	-3.2	-5.5	-3.2	-3.5	-4.0	
Dune Fund II	6,389,862	-0.3	5.3	-0.3	7.3	3.7	5.5	9.0	6.8	Apr-09
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6	7.1	7.8	9.5	7.5	
Over/Under		2.2	15.3	9.1	-1.3	-3.4	-2.3	-0.5	-0.7	
Dune Fund IV	42,291,049	1.3	6.0	13.9	10.8				1.4	Aug-19
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6				7.1	
Over/Under		3.8	16.0	23.3	2.2				-5.7	
Franklin Templeton MDP RE 2015	64,148,545	11.1	11.0	11.0	10.4	3.8	2.1		-0.6	Sep-15
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6	7.1	7.8		8.5	
Over/Under		13.6	21.0	20.4	1.8	-3.3	-5.7		-9.1	

MEKETA INVESTMENT GROUP
Page 17 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Long Wharf RE Partners VI	27,286,276	1.1	2.3	2.6	36.2				19.4	Sep-19
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6				7.2	
Over/Under		3.6	12.3	12.0	27.6				12.2	
Longpoint Realty Partners	49,111,078	1.8	3.7	6.0					9.4	Dec-21
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4					9.3	
Over/Under		4.3	13.7	15.4					0.1	
StepStone RE Global Partnership	13,557,948	1.6	-1.4	-3.0	0.4	0.0	2.2	5.4	3.2	Apr-12
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6	7.1	7.8	9.5	9.9	
Over/Under		4.1	8.6	6.4	-8.2	-7.1	-5.6	-4.1	-6.7	
New Cap Partners Fund III	5,693,592									
Westbrook Real Estate Fund XI	44,423,272	0.5	15.7	11.1					15.9	Dec-20
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4					9.1	
Over/Under		3.0	25.7	20.5					6.8	
Long Wharf RE Partners VII	2,431,654									

MEKETA INVESTMENT GROUP
Page 18 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Non-Core Real Estate Debt	85,643,018	1.2	2.5	3.7	6.8	5.7			6.7	Dec-17
NCREIF ODCE Net Lagged + 1.5%		-2.5	-10.0	-9.4	8.6	7.1			7.7	
Over/Under		3.7	12.5	13.1	-1.8	-1.4			-1.0	
Basis Investment Group Fund I	19,807,910									
Oaktree RE Debt Fund II	8,924,053									
Basis Investment Group Fund II	24,847,725									
Torchlight Debt Fund VII	26,279,557									
Torchlight Debt Fund VIII	5,783,773									
Non-Core Farmland	64,812,169	3.3	8.3	8.8					1.3	Nov-20
NCREIF Farmland 1 Qtr Lag										
Over/Under										
Homestead Capital III	61,757,018	4.0	9.0	9.5					1.5	Nov-20
NCREIF Farmland 1 Qtr Lag										
Over/Under										
Homestead Capital IV	3,055,151									

MEKETA INVESTMENT GROUP
Page 19 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Non-Core Infrastructure	169,221,023	1.8	14.2	17.5	18.9	13.8	10.5	9.7	8.0	Jan-10
CPI+5%1 Qtr Lagged		2.3	6.6	8.1	11.0	9.1	8.6	7.8	7.7	
Over/Under		-0.5	7.6	9.4	7.9	4.7	1.9	1.9	0.3	
Macquarie Inf Partners Fnd III	50,396,023	5.2	37.7	47.3	35.4	23.8	21.1		15.3	Nov-14
CPI+5% 1 Qtr Lagged		2.3	6.6	8.1	11.0	9.1	8.6		7.9	
Over/Under		2.9	31.1	39.2	24.4	14.7	12.5		7.4	
Macquarie Infra Partners IV	61,242,630									
Ember Infrastructure Partners	18,175,206	-2.4	-10.6	-16.9					-15.5	Sep-21
CPI+5%1 Qtr Lagged		2.3	6.6	8.1					11.5	
Over/Under		-4.7	-17.2	-25.0					-27.0	
Pantheon Global Infra Fund IV	39,249,445	0.1	7.2	22.9					5.6	Mar-22
CPI+5%1 Qtr Lagged		2.3	6.6	8.1					11.3	
Over/Under		-2.2	0.6	14.8					-5.7	

Page 20 of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

								•	,	,
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity- Fund of Funds	2,097,391,507	0.8	0.9	-3.1	20.9	15.9	15.8	13.5	15.0	Jul-90
SURS PE Blend		6.1	25.3	17.9	12.9	11.1	13.6	13.8	13.2	
Over/Under		-5.3	-24.4	-21.0	8.0	4.8	2.2	-0.3	1.8	
Pantheon Ventures	5,482,537									
Pantheon 2014 Global Fund	132,626,297	1.9	5.5	5.6	22.6	15.2	14.8		10.8	Feb-15
SURS PE Blend		6.1	<i>25.3</i>	17.9	12.9	11.1	13.6		12.3	
Over/Under		-4.2	-19.8	-12.3	9.7	4.1	1.2		-1.5	
Pantheon Europe VI	6,685,915									
Pantheon Europe VII	19,162,576	0.3	-2.0	9.8	14.7	12.8	14.7	11.4	10.8	Jan-13
SURS PE Blend		6.1	<i>25.3</i>	17.9	12.9	11.1	13.6	13.8	14.4	
Over/Under		-5.8	-27.3	-8.1	1.8	1.7	1.1	-2.4	-3.6	
Pantheon USA IX	59,629,696	1.5	-3.6	-3.6	23.8	19.8	19.9	16.6	15.7	Jan-13
SURS PE Blend		6.1	<i>25.3</i>	17.9	12.9	11.1	13.6	13.8	14.4	
Over/Under		-4.6	-28.9	-21.5	10.9	8.7	6.3	2.8	1.3	
Pantheon USA VIII	30,349,647									
Fairview Capital	99,409,442	0.6	-11.3	-11.3	18.2	15.4	14.2		6.1	Apr-14
SURS PE Blend		6.1	25.3	17.9	12.9	11.1	13.6		12.5	
Over/Under		-5.5	-36.6	-29.2	5.3	4.3	0.6		-6.4	
Fairview Lincoln Fund Series B	34,221,367	-1.0	-7.9	-7.9					4.7	Mar-21
SURS PE Blend		6.1	<i>25.3</i>	17.9					7.3	
Over/Under		-7.1	-33.2	-25.8					-2.6	

MEKETA INVESTMENT GROUP
Page 21of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

								, , , , , , , ,	оориния.	,
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
M2-EM PE Fund	124,283,190	1.6	1.8	1.8	26.6	22.5	13.6		13.6	Oct-16
SURS PE Blend		6.1	25.3	17.9	12.9	11.1	13.6		13.6	
Over/Under		-4.5	-23.5	-16.1	13.7	11.4	0.0		0.0	
Adams Street 2008	34,357,090									
Adams Street 2009	49,472,475									
Adams Street 2012	64,509,412	0.0	-1.9	-14.3	17.3	14.4	14.7	12.5	9.7	Apr-12
SURS PE Blend		6.1	25.3	17.9	12.9	11.1	13.6	13.8	<i>15.1</i>	
Over/Under		-6.1	-27.2	-32.2	4.4	3.3	1.1	-1.3	-5.4	
Adams Street 2013	102,187,680	-0.4	-2.4	-14.4	15.9	14.4	14.8	11.5	10.0	Mar-13
SURS PE Blend		6.1	<i>25.3</i>	17.9	12.9	11.1	13.6	13.8	14.7	
Over/Under		-6.5	-27.7	-32.3	3.0	3.3	1.2	-2.3	-4.7	
Adams Street 2014	115,670,288	0.3	-1.5	-12.4	17.5	16.1	15.9		12.6	May-14
SURS PE Blend		6.1	25.3	17.9	12.9	11.1	13.6		13.0	
Over/Under		-5.8	-26.8	-30.3	4.6	5.0	2.3		-0.4	
Adams Street 2015 Global Fund	159,804,066	1.4	1.0	-10.6	21.5	18.8	22.2		24.4	Sep-15
SURS PE Blend		6.1	25.3	17.9	12.9	11.1	13.6		12.2	
Over/Under		-4.7	-24.3	-28.5	8.6	7.7	8.6		12.2	
Adams Street 2016 Global Fund	186,337,854	1.1	3.3	-4.5	23.1	17.8			21.0	Dec-16
SURS PE Blend		6.1	<i>25.3</i>	17.9	12.9	11.1			13.2	
Over/Under		-5.0	-22.0	-22.4	10.2	6.7			7.8	
Adams Street 2017 Global Fund	120,423,616									
Adams Street 2018 Global	102,641,439									

Page 22 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Adams Street Secondary Fund 5	5,488,697	0.0	-7.6	-11.0	7.2	4.2	6.8	5.5	4.2	Oct-12
SURS PE Blend		6.1	<i>25.3</i>	17.9	12.9	11.1	13.6	13.8	14.7	
Over/Under		-6.1	-32.9	-28.9	-5.7	-6.9	-6.8	-8.3	-10.5	
Pantheon Multi-Strategy 2017	93,087,657									
Mesirow Private Equity	304,768,513									
Mesirow Co-Inv	69,894,235									
Pantheon Access 2018	167,240,414									

Page 23 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					, ,	оортонию.	
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity- Direct (Aksia)	1,018,335,450	3.3	10.0	9.5	18.7				9.7	Dec-19
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1	13.0				11.5	
Over/Under		-2.8	-15.6	-8.6	5.7				-1.8	
Cortec Group Fund VII	30,601,140	3.9	21.4	21.7	25.2				23.2	Dec-19
MSCI ACWI IMI +2% 1 Qtr Lag		6.1	25.6	18.1	13.0				11.5	
Over/Under		-2.2	-4.2	3.6	12.2				11.7	
Oceansound Partners Fund	31,872,897	3.8	23.9	28.8	23.3				12.6	Feb-20
MSCI ACWI IMI +2% 1 Qtr Lag		6.1	25.6	18.1	13.0				10.5	
Over/Under		-2.3	-1.7	10.7	10.3				2.1	
Harvest Partners VIII	78,385,979	5.3	6.0	7.1	22.0				14.4	Dec-19
MSCI ACWI IMI +2% 1 Qtr Lag		6.1	25.6	18.1	13.0				11.5	
Over/Under		-0.8	-19.6	-11.0	9.0				2.9	
Bregal Sagemount III	44,977,108	1.5	12.7	14.4	-3.7				-18.9	Jan-20
MSCI ACWI IMI +2% 1 Qtr Lag		6.1	25.6	18.1	13.0				11.1	
Over/Under		-4.6	-12.9	-3.7	-16.7				-30.0	
Reverence Capital II (TC)	72,145,788	3.6	15.1	22.1	29.2				28.4	Mar-20
MSCI ACWI IMI +2% 1 Qtr Lag		6.1	25.6	18.1	13.0				9.9	
Over/Under		-2.5	-10.5	4.0	16.2				18.5	
Clearlake Capital Partners VI	44,722,291	0.7	7.7	4.8	26.7				19.5	May-20
MSCI ACWI IMI +2% 1 Qtr Lag		6.1	25.6	18.1	13.0				9.6	
Over/Under		-5.4	-17.9	-13.3	13.7				9.9	

Page 24 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
HG Capital Genesis 9 (TC)	13,498,273	3.5	16.9	35.1					19.2	Mar-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					7.4	
Over/Under		-2.6	-8.7	17.0					11.8	
HG Capital Saturn Fund 2	36,252,558	5.8	22.4	19.4	86.5				80.5	Aug-20
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1	13.0				<i>15.1</i>	
Over/Under		-0.3	-3.2	1.3	73.5				65.4	
HG Capital Saturn Fund 3	10,863,857									
Rubicon Tech Partners 3	31,749,003	0.6	0.7	-1.1	6.0				0.5	Jul-20
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1	13.0				18.4	
Over/Under		-5.5	-24.9	-19.2	-7.0				-17.9	
Torrey Cove Co-Investment Fund	205,839,379	2.9	4.5	5.3	15.0				14.6	Sep-20
MSCI ACWI IMI +2%1 Qtr Lag		6.1	<i>25.6</i>	18.1	13.0				13.8	
Over/Under		-3.2	-21.1	-12.8	2.0				0.8	
MBK Partners Fund V (TC)	41,116,968	6.3	63.8	40.3					27.1	Mar-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					7.4	
Over/Under		0.2	38.2	22.2					19.7	
Altaris Health PTR V	18,061,659	8.1	10.3	15.5					5.4	Apr-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					5.5	
Over/Under		2.0	-15.3	-2.6					-0.1	
Avance Inv Partners	11,801,798	1.2	7.1	11.4					6.6	Jul-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					3.6	
Over/Under		-4.9	-18.5	-6.7					3.0	

MEKETA INVESTMENT GROUP
Page 25 of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

			A33CI	Alloca		PELION	mance	A5 UI	September	30, 2023
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Base 10 Adv Initiative FD	18,090,585	-4.1	-11.1	-14.8					-5.9	Apr-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					5.5	
Over/Under		-10.2	-36.7	-32.9					-11.4	
GGV Capital VIII	15,290,063	-0.7	-1.8	2.6					-2.5	Apr-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					5.5	
Over/Under		-6.8	-27.4	-15.5					-8.0	
GGV Discovery III	6,703,393	0.2	3.7	15.8					17.9	Apr-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					5.5	
Over/Under		-5.9	-21.9	-2.3					12.4	
Oak HC-FT Partners V-A	6,010,113									
Oak HC-FT Partners IV	24,203,091	1.5	4.7	4.4					0.9	Apr-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					5.5	
Over/Under		-4.6	-20.9	-13.7					-4.6	
Stellex Capital Partners II	17,276,899	3.7	4.8	2.1					-3.3	Apr-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					5.5	
Over/Under		-2.4	-20.8	-16.0					-8.8	
Thoma Bravo Fund XIV	53,469,901	9.0	22.8	11.5					1.9	Apr-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					5.5	
Over/Under		2.9	-2.8	-6.6					-3.6	
GGV Capital VIII Plus	2,577,558									
One Rock Capital III	36,249,472	7.3	21.4	21.4					20.0	Jun-21
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					4.7	
Over/Under		1.2	-4.2	3.3					15.3	

Page 26 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Nautic Partners X	9,076,784	2.5	9.2	18.5					-1.3	Jan-22
MSCI ACWI IMI +2%1 Qtr Lag		6.1	25.6	18.1					0.8	
Over/Under		-3.6	-16.4	0.4					-2.1	
Orchid Asia VIII	6,353,743									
One Equity Partners VIII	26,689,912									
Base 10 Partners III (TC)	5,226,664									
Clearlake Capital Partners VII	29,390,084									
Thoma Bravo Fund XV	16,748,277									
Inflexion Buyout Fund VI	4,997,458									
Bregal Sagemount IV	2,895,824									
Harvest Partners IX	14,677,335									
HG Capital Genesis 10	2,222,126									
Advent Int'l GPE X	7,108,841									
Rubicon Tech Partners IV Fund	3,384,363									
Great Hill Equity Partners VIII	4,091,241									
Thoma Bravo Discover Fund IV-A	10,652,423									
Base 10 Adv Initiative II	2,851,528									
Cortec Group Fund VIII	3,991,164									
OceanSound Partners Fund II	9,597,261									

Page 27 of 89



#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Greenbriar Equity Fund VI	2,492,066									
Nordic Capital Fund XI	4,128,581									
PAI Partners VII	1									

Page 28 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Inflation Sensitive	1,053,346,944	-2.6	-0.7	1.3	-2.0	1.4	1.4	1.6	1.6	Jul-13
SURS Inflation Sensitive Blend		-2.6	-0.8	1.2	-2.0	1.1	0.9	1.2	1.2	
Over/Under		0.0	0.1	0.1	0.0	0.3	0.5	0.4	0.4	
TIPS	1,053,346,944	-2.6	-0.7	1.3	-2.0	2.1	1.5	1.7	3.6	Jan-04
Blmbg. U.S. TIPS		-2.6	-0.8	1.2	-2.0	2.1	1.5	1.7	3.4	
Over/Under		0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	
Rhumbline TIPS	1,053,346,944	-2.6	-0.7	1.3	-2.0	2.1			1.7	Jun-17
Blmbg. U.S. TIPS		-2.6	-0.8	1.2	-2.0	2.1			1.7	
Over/Under		0.0	0.1	0.1	0.0	0.0			0.0	

Page 29 of 89

### Illinois State Universities Retirement System

#### Asset Allocation & Performance | As of September 30, 2023

	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Principal Protection	2,148,305,901	-2.5	-0.9	0.7	-3.6	0.5	0.3	1.4	1.4	Jul-13
BC US Int Ag x Credit Blend		-2.2	-0.8	0.7	-4.0	0.6	0.2	1.4	1.4	
Over/Under		-0.3	-0.1	0.0	0.4	-0.1	0.1	0.0	0.0	
Garcia Hamilton	527,610,705	-4.2	-2.4	-0.3	-3.5				-1.7	Oct-19
BC US Int Ag x Credit Blend		-2.2	-0.8	0.7	-4.0				-1.7	
Over/Under		-2.0	-1.6	-1.0	0.5				0.0	
Pugh Capital	539,296,463	-2.1	-0.6	0.8	-3.9				-1.8	Oct-19
BC US Int Ag x Credit Blend		-2.2	-0.8	0.7	-4.0				-1.7	
Over/Under		0.1	0.2	0.1	0.1				-0.1	
LM Capital	542,355,681	-1.7	-0.1	1.4	-3.5				-1.4	Oct-19
BC US Int Ag x Credit Blend		-2.2	-0.8	0.7	-4.0				-1.7	
Over/Under		0.5	0.7	0.7	0.5				0.3	
Ramirez	539,043,051	-2.1	-0.6	0.6	-3.7				-1.6	Oct-19
BC US Int Ag x Credit Blend		-2.2	-0.8	0.7	-4.0				-1.7	
Over/Under		0.1	0.2	-0.1	0.3				0.1	

Page 30 of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

								<u> </u>	<u> </u>	<u> </u>
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Crisis Risk Offset	3,693,078,497	-0.2	1.0	-6.7	3.6				3.5	Dec-19
SURS CRO Blend		-3.2	-4.3	-9.7	4.0				4.1	
Over/Under		3.0	5.3	3.0	-0.4				-0.6	
Long Duration	381,028,744	-11.8	-8.5	-9.0	-15.6				-8.3	Jan-20
BBgBarc US Govt Long TR		-11.8	-8.5	-9.0	-15.7				-8.2	
Over/Under		0.0	0.0	0.0	0.1				-0.1	
Rhumbline Long Duration	381,028,744	-11.8	-8.5	-9.0	-15.6				-8.3	Jan-20
BBgBarc US Govt Long TR		-11.8	-8.5	-9.0	-15.7				-8.2	
Over/Under		0.0	0.0	0.0	0.1				-0.1	
Systematic Trend Following	2,173,119,634	-0.1	1.4	-9.0	14.1				9.2	Dec-19
CS Mgd Futures 15% Vol		-4.1	-7.5	-17.4	14.8				9.0	
Over/Under		4.0	8.9	8.4	-0.7				0.2	
Credit Suisse Asset Mgmt	535,501,020	-3.7	-7.4	-16.4	16.9				11.7	Jan-20
CS Mgd Futures 15% Vol		-4.1	-7.5	-17.4	14.8				9.5	
Over/Under		0.4	0.1	1.0	2.1				2.2	
Campbell & Company	544,403,951	0.5	3.3	-8.8	17.3				11.0	Dec-19
CS Mgd Futures 15% Vol		-4.1	-7.5	-17.4	14.8				9.0	
Over/Under		4.6	10.8	8.6	2.5				2.0	
Aspect Capital	584,908,463	-0.2	4.2	-2.1	16.2				11.6	Dec-19
CS Mgd Futures 15% Vol		-4.1	-7.5	-17.4	14.8				9.0	
Over/Under		3.9	11.7	15.3	1.4				2.6	

MEKETA INVESTMENT GROUP
Page 31of 89

### Illinois State Universities Retirement System

Asset Allocation & Performance | As of September 30, 2023

			ASSEL	Alloca		Pellol	mance	A5 01	Sebrenine	30, 2023
	Market Value (\$)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Longtail Alpha	508,306,200	3.5	6.9	-8.1	4.8				3.2	Jan-20
CS Mgd Futures 15% Vol		-4.1	-7.5	-17.4	14.8				9.5	
Over/Under		7.6	14.4	9.3	-10.0				-6.3	
Alternative Risk Premia	745,597,519	6.7	10.5	7.7	5.0				3.1	Dec-19
90 Day T-Bills +2%		1.9	5.5	7.1	4.0				<i>3.7</i>	
Over/Under		4.8	5.0	0.6	1.0				-0.6	
PIMCO Commodity Alpha Fund	185,482,894	3.4	17.1	25.5	14.8	10.9	11.1		11.7	Jun-16
PIMCO Commodity Alpha Fund Benchmark		1.8	5.4	7.0	4.4	-0.5	0.0		0.0	
Over/Under		1.6	11.7	18.5	10.4	11.4	11.1		11.7	
Versor	261,986,836	7.9	6.9	4.3	1.4				-3.7	Dec-19
90 Day T-Bills +2%		1.9	5.5	7.1	4.0				3.7	
Over/Under		6.0	1.4	-2.8	-2.6				-7.4	
PIMCO Alternative Risk	298,127,789	7.8	10.6	4.8	9.6				8.9	May-20
90 Day T-Bills +2%		1.9	<i>5.5</i>	7.1	4.0				3.8	
Over/Under		5.9	5.1	-2.3	5.6				5.1	
Long Volatility	365,968,705	0.0	-1.3	-3.7					-2.6	Jul-22
CBOE Eurekahedge Long Volatility Hedge Fund Index		2.4	-3.6	-5.4					-3.0	
Over/Under		-2.4	2.3	1.7					0.4	
One River	365,968,705	0.0	-1.3	-3.7					-2.6	Jul-22
CBOE Eurekahedge Long Volatility Hedge Fund Index		2.4	-3.6	-5.4					-3.0	
Over/Under		-2.4	2.3	1.7					0.4	
Tail Risk	27,363,896									
LongTail Tail Risk	27,363,896									

Page 32 of 89

### Illinois State Universities Retirement System

#### SURS Legacy Accounts | As of September 30, 2023

Manager	Market Value
Adams Street 2007	\$1,687,975
Adams Street Global Op	\$219,484
Adams Street Non-US	\$2,207,257
Adams Street Partners	\$2,289,938
Alinda Capital Partners	\$157,719
BlackRock Intl Equity Fund	\$457,426
CHC RE Fund VIII	\$635,503
Crow Holdings Realty Partners VII	\$1,140,581
Franklin Templeton EMREFF	\$2,399,441
Franklin Templeton FTPREF	\$460,507
GQG Partners	\$1
Muller and Monroe MPEFF	\$1
Neuberger Berman S&P 500	\$133,055
Newport Monarch	\$2,385,495
Pantheon Europe III	\$1,974,528
Pantheon Global	\$2
Pantheon Global II	\$361,512
Pantheon One Line Asset	\$21,792
Progress Venture Capital	\$894,914
RREEF Funds	\$32,989
Sanctioned Asset - SUR58	\$120,951
Sanctioned Asset - SUR75	\$141,758
Xponance - Applied Research	\$5,534
Xponance Non-US Equity	\$3,859
Total	\$17,732,222

Legacy accounts include managers with less than \$2.9 million market value and closing accounts.



### Overlay Performance Detail<sup>1</sup> | As of September 30, 2023

Asset Class	Overlay Exposure (\$)
Traditional Growth	-130,140,047
Non-Traditional Growth	0
Principal Protection	274,430,498
Stabilized Growth	0
Inflation Sensitive	0
Crisis Risk Offset	0
Net Exposure	144,290,451

Overlay Performance	Incremental Gain/Loss (\$)(Gross)	Return as a % of Total Fund (Gross)
Quarter	-2,929,209	-0.01
Since Inception <sup>2</sup>	168,419,435	0.10

Index	QTD	YTD	1 Year
S&P 500	-3.27%	13.07%	21.62%
MSCI EAFE	-4.11%	7.08%	25.65%
Bloomberg Agg.	-3.23%	-1.21%	0.64%
Bloomberg Commodity Index	4.71%	-3.44%	-1.30%

<sup>&</sup>lt;sup>1</sup> Data on this page provided by FARAMETINE

<sup>&</sup>lt;sup>2</sup> Inception Date: September 2014

### **Private Markets**



#### Infrastructure & Real Estate Internal Rates of Return Trailing Periods<sup>1</sup> | As of June 30, 2023

Infrastructure Investments									
	3 YR	5 YR	Since Inception						
Investment Name	(%)	(%)	(%)						
Liquidated									
Macquarie Infrastructure Partners II	30.24	15.09	8.97						
Mature									
Alinda Infrastructure II, L.P.	-7.76	-7.64	0.01						
Maturing (5-9 Years)									
Macquarie Infrastructure Partners III	33.29	21.79	18.00						
Macquarie Infrastructure Partners IV	12.52	11.42	11.08						

	Real Estate Investme	ents		
	3 YR	5 YR	10YR	Since Inception
Investment Name	(%)	(%)	(%)	(%)
Liquidated				
RREEF America REIT II				2.97
Mature (10+ Years)				
Dune Real Estate Fund II	4.47	0.42	11.10	14.29
UBS Trumbull Property Fund	2.07	0.98	6.98	6.28
RREEF America REIT III	0.00	0.00	18.04	-3.78
Franklin Templeton EMREFF	-6.52	-10.34	12.63	12.49
Maturing (5-9 Years)				
Dune Real Estate Fund III	5.42	0.18		6.02
Franklin Templeton Private Real Estate Fund	-4.65	2.33	23.51	20.31
Heitman America Real Estate Trust, L.P.	9.64	5.73		7.53
JP Morgan Strategic Property Fund	6.34	4.95		6.89
MFIRE Global Partnership Fund II, L.P.	1.44	0.07	6.48	6.49
Franklin Templeton MDP RE 2015, L.P.	11.22	4.47		3.91
Blue Vista Real Estate Partners IV	16.70	12.62		10.83
Brookfield Real Estate Partners II	16.70	12.67		12.67
Crow Holdings Realty Partners VII	4.47	0.42	11.10	14.29
Crow Holdings VIII	11.58	9.47		10.91
Brookfield Strategic Real Estate Partners III	15.72			12.23
Carlyle Property Investors	11.46			9.52
BIG Real Estate Fund I	9.62	8.81		9.38
Oaktree Real Estate Debt Fund II	5.04	3.11		3.94

<sup>&</sup>lt;sup>1</sup> Performance data provided by Northern Trust.



#### Real Estate Tracking Schedule<sup>1</sup> | As of June 30, 2023

	Vintage	Capital Commitment	Draw Dawn	Distributed	Market Value	TVDI	ITD IDB
Investment Name	Vintage Year	(\$)	Draw Down (\$)	(\$)	Market Value (\$)	TVPI Multiple	ITD IRR (%)
Liquidated							
RREEF America REIT II	2005	160,106,290	160,106,291	188,512,381		1.2	3.0
Mature (10+ Years)							
RREEF America REIT III	2006	30,719,155	30,719,155	22,215,109	6,688	0.7	-3.8
UBS Trumbull Property Fund	2006	220,000,000	247,229,525	363,628,813	90,703,370	1.8	6.3
Dune Real Estate Fund II	2009	40,000,000	46,650,688	73,152,806	6,389,862	1.7	14.3
Franklin Templeton EMREFF	2011	75,000,000	67,423,459	95,431,548	2,399,441	1.5	12.5
Maturing (5-9 Years)							
Franklin Templeton Private Real Estate Fund	2012	50,000,000	45,605,929	66,966,984	460,507	1.5	20.3
MFIRE Global Partnership Fund II, L.P.	2012	60,000,000	39,300,000	43,478,439	13,567,970	1.5	6.5
Dune Real Estate Fund III	2013	100,000,000	102,132,261	73,759,307	66,161,664	1.4	6.0
Heitman America Real Estate Trust, L.P.	2014	150,000,000	163,968,672	14,773,915	282,670,304	1.8	7.5
JP Morgan Strategic Property Fund	2014	150,000,000	150,000,000	4,583	274,784,337	1.8	6.9
Franklin Templeton MDP RE 2015, L.P.	2015	90,000,000	77,495,499	24,777,862	64,148,050	1.2	3.9
Blue Vista Real Estate Partners IV	2016	35,000,000	35,000,000	41,026,721	11,826,709	1.5	10.8
Brookfield Strategic Real Estate Partners II	2016	35,000,000	25,056,926	25,548,742	23,683,000	2.0	12.7
Crow Holdings Realty Partners VII	2016	35,000,000	35,003,517	46,512,700	1,140,581	1.4	10.9
Oaktree Real Estate Debt Fund II	2017	30,000,000	19,922,393	13,267,188	8,967,181	1.1	3.9
BIG Real Estate Fund I	2018	30,000,000	25,464,023	13,863,962	20,107,836	1.3	9.4
Carlyle Property Investors, L.P.	2018	200,000,000	218,344,288	17,729,831	258,966,852	1.3	9.5
Crow Holdings VIII	2018	20,000,000	19,291,097	28,740,057	1,106,753	1.6	23.1
Immature (Less than 5 Years)							
Blackstone Property Partners L.P.	2019	200,000,000	200,084,987	84,987	242,410,427	1.2	4.9
Blackstone Real Estate Partners Europe VI	2019	81,825,008	57,997,853	16,857,327	56,736,124	1.3	16.3
Brookfield Strategic Real Estate Partners III	2019	35,000,000	26,119,239		36,968,309	1.4	12.2
Dune Real Estate Fund IV	2019	50,000,000	36,963,630	1,800,185	40,117,939	1.1	6.7
Long Wharf Real Estate VI	2019	40,000,000	39,525,078	20,535,183	27,620,213	1.2	19.5

<sup>&</sup>lt;sup>1</sup> Performance data provided by Northern Trust.



#### Real Estate Tracking Schedule<sup>1</sup> | As of June 30, 2023

	Vintage	Capital Commitment	Draw Down	Distributed	Market Value	TVPI	ITD IRR
Investment Name	Year	(\$)	(\$)	(\$)	(\$)	Multiple	(%)
Immature (Less than 5 Years)							
Cabot Industrial Fund VI	2020	50,000,000	37,668,970		48,076,694	1.3	16.6
Prologis Targeted US Logistics Holdings, L.P.	2020	100,000,000	100,000,000	11,088	169,459,315	1.7	21.5
Westbrook Realty Management XI	2020	75,000,000	39,915,917	14,919,904	32,601,644	1.2	18.4
Homestead Capital USA Farmland Fund III	2020	60,000,000	51,097,713	1,259,210	56,289,820	1.1	7.8
Big Real Estate Fund II, L.P.	2021	48,800,000	28,651,170	4,072,436	26,153,915	1.1	5.9
Brasa Real Estate Fund II, L.P.	2021	40,000,000	22,222,123		22,911,482	1.0	2.9
Crow Holdings Realty Partners IX, L.P.	2021	50,000,000	46,330,009	13,839,133	41,524,815	1.2	16.3
Longpoint Realty Fund II, L.P	2021	50,000,000	45,000,000	373,413	49,111,078	1.1	11.0
Newport Capital Partners Fund III, L.P.	2021	6,055,556	11,495,707	7,529,223	4,699,692	1.1	15.1
Torchlight Debt Fund VII, L.P.	2021	50,000,000	25,000,000		26,436,807	1.1	3.9
Blackstone Real Estate Partners Asia III	2022	50,000,000	7,463,878		6,434,663	0.9	-17.4
Brookfield Strategic Real Estate Partners IV	2022	75,000,000	37,417,106		39,899,527	1.1	12.0
CF Clarion Lion Properties Fund	2022	225,000,000	226,108,695	6,808,763	193,176,781	0.9	-17.9
GI Partners ETS Fund, L.P.	2022	75,000,000	38,699,023		41,246,170	1.1	7.0
Long Wharf Real Estate Partners VII, L.P.	2023	24,800,000	2,444,205		2,012,059	0.8	-26.2
Torchlight Debt Fund VIII, L.P.	2023	50,000,000	6,250,000		5,783,773	0.9	-16.8

MEKETA INVESTMENT GROUP Page 38 of 89



#### Infrastructure Tracking Schedule<sup>1</sup> | As of June 30, 2023

Investment Name	Vintage Year	Commitment Amount (\$)	Draw Down (\$)	Distributed (\$)	Market Value (\$)	TVPI Multiple	IRR (%)
Liquidated		(-)	(-)	(-)			
Macquarie Infrastructure Partners II	2010	40,000,000	48,263,681	77,498,177		1.6	9.0
Mature (10+ Years)							
Alinda Infrastructure II, L.P.	2009	40,000,000	43,098,403	42,971,523	157,719	1.0	0.0
Maturing (5-9 Years)							
Macquarie Infrastructure Partners III	2014	50,000,000	44,300,470	45,191,561	61,662,566	2.4	18.0
Macquarie Infrastructure Partners IV	2018	50,000,000	46,097,104	6,986,729	61,242,630	1.5	11.1
Immature (Less than 5 Years)							
Global Renewable Power III	2021	100,000,000	56,198,574	203,279	63,655,686	1.1	12.3
Ember Infrastructure	2021	34,107,954	13,926,909	80,816	11,835,948	0.9	-14.9
PGIF IV Feeder, L.P.	2022	100,000,000	29,610,718	845,180	30,203,552	1.1	11.0
IFM Global Infrastructure, L.P.	2023	100,000,000	100,000,000		105,160,759	1.1	5.2

<sup>&</sup>lt;sup>1</sup> Information provided by Northern Trust.



	Vinters	Capital Commitment	Draw Daws	Distributed	Markat Value	TVDI	ITD IDD
Investment Name	Vintage Year	(\$)	Draw Down (\$)	(\$)	Market Value (\$)	TVPI Multiple	ITD IRR (%)
Liquidated							
Adams Street Venture Partnership Acq. Fund II LP	1990	10,000,000	10,000,000	20,658,228	-	2.1	28.1
Muller & Monroe - ILPEFF	2005	25,000,000	21,006,042	18,387,253	-	0.9	-2.5
Private Opportunity Fund	2004	25,000,000	25,000,000	25,050,000	-	1.0	0.0
Mature (10+ Years)							
Adams Street 2007 Global Opportunities Portfolio	2007	100,000,000	91,713,646	148,413,988	1,687,975	1.6	8.1
Adams Street 2008 Global Offering	2008	100,000,000	92,903,014	173,731,769	35,284,696	2.3	14.2
Adams Street 2009 Global Offering	2009	100,000,000	91,572,000	152,978,073	50,356,488	2.2	14.0
Adams Street 2012 Global Fund LP	2012	80,000,000	72,430,078	87,084,402	66,103,883	2.1	13.8
Adams Street Global Opportunities Secondary Fund	2009	25,000,000	22,125,000	36,968,286	268,019	1.7	11.6
Adams Street Global Secondary Fund 5 LP	2012	20,000,000	15,422,938	15,546,125	5,475,927	1.4	6.5
Adams Street Separate Account	1990	901,378,251	885,283,081	1,688,539,410	1,668,868	1.9	28.2
Brinson Non-US Partnership Fund - 1998	1998	79,405,010	76,288,292	130,110,137	2,207,258	1.7	11.6
Muller & Monroe - MPEFF	2003	25,000,000	24,199,726	36,082,976	1	1.5	8.3
Pantheon Europe Fund III LP	2004	87,608,642	83,724,747	151,127,511	2,034,674	1.8	14.6
Pantheon Europe Fund VI LP	2008	39,185,632	37,359,377	58,963,485	7,392,290	1.8	10.1
Pantheon Europe Fund VII LP	2011	36,770,768	33,504,285	45,760,175	19,746,276	2.0	13.0
Pantheon Global Secondary Fund II Ltd	2004	25,000,000	23,750,000	27,354,925	361,512	1.2	3.5
Pantheon USA Fund IX LP	2013	85,444,334	79,159,682	129,284,998	62,448,909	2.4	16.9
Pantheon Separate Account (SURS) LP	2002	599,121,922	570,856,142	956,698,452	5,905,528	1.7	10.2
Pantheon USA Fund VIII LP	2007	103,188,193	96,314,611	177,522,898	31,655,103	2.2	12.9
Progress Venture Capital	1995	19,899,949	19,900,608	17,344,285	275,413	0.9	-2.3

<sup>&</sup>lt;sup>1</sup> Information provided by Northern Trust. Nominal IRR reported for funds with less than 1 year of data.

### Illinois State Universities Retirement System

		O-wit-1					
Investment Name	Vintage Year	Capital Commitment (\$)	Draw Down (\$)	Distributed (\$)	Market Value (\$)	TVPI Multiple	ITD IRR (%)
Maturing (5-9 Years)		(2)			(1)		
Adams Street 2013 Global Fund LP	2013	100,000,000	92,426,324	92,940,662	104,875,376	2.1	14.3
Adams Street 2014 Global Fund LP	2014	100,000,000	92,180,699	85,198,367	118,405,300	2.2	16.1
Adams Street 2015 Global Fund LP	2015	125,000,000	109,419,554	86,288,245	163,846,260	2.3	22.9
Adams Street 2016 Global Fund LP	2016	150,000,000	123,461,936	53,823,162	189,626,797	2.0	20.2
Adams Street 2017 Global Fund LP	2017	90,000,000	71,890,233	20,372,431	120,423,616	2.0	21.6
Adams Street 2018 Global Fund LP	2018	90,000,000	69,490,251	11,585,629	102,641,439	1.6	22.7
Fairview Capital Lincoln Fund I LP	2014	175,000,000	98,255,597	36,617,982	130,633,047	1.7	13.8
Mesirow Financial Private Equity Fund VII-B LP	2017	40,000,000	39,747,031	42,943,902	70,294,235	2.9	36.3
Mesirow Financial Private Equity Special Fund B, LP	2018	280,000,000	202,760,000		291,973,122	1.4	15.6
Muller & Monroe - EPEFF	2016	100,000,000	98,101,405	67,503,012	123,810,119	2.0	21.8
Pantheon Multi-Strat 2014 LP	2014	125,000,000	107,639,358	58,875,000	134,113,166	1.8	15.2
Pantheon Multi-Strat 2017 LP	2017	90,000,000	68,248,643	16,220,517	92,674,209	1.6	19.6
Pantheon Multi-Strat 2018 LP	2018	180,000,000	130,324,011	5,040,000	167,240,414	1.3	14.9
Immature (Less than 5 Years)							
Advent International GPE X Limited Partners	2023	25,000,000	5,812,500		5,515,091	1.0	-13.6
Altaris Health Partners V	2021	25,000,000	12,368,612		15,389,111	1.2	15.9
Avance Investment Partners, LP	2022	25,000,000	11,295,355	184,652	11,801,798	1.1	5.8
Base10 Advancement Initiative I	2021	25,000,000	21,350,233	255,699	17,993,777	0.9	-8.2
Base10 Advancement Initiative II	2023	25,000,000	3,375,000		2,851,528	0.8	-15.5
Base10 Partners III	2022	20,000,000	5,025,070		4,290,390	0.9	-17.3
Bregal Sagemount III-B, LP	2020	50,000,000	42,919,650	5,553,529	44,977,108	1.2	12.4
Bregal Sagemount IV-B, LP	2022	25,000,000	2,386,452		1,869,149	0.8	-35.7
Clearlake Capital Partners VI	2020	30,000,000	29,162,392	1,319,087	45,897,335	1.6	26.2
Clearlake Capital Partners VII LP	2022	50,000,000	25,686,722	1,217	26,795,474	1.0	5.0
Cortec Group Fund VII LP	2019	35,000,000	30,552,754	18,374,125	30,717,510	1.6	26.9
Cortec Group Fund VIII LP	2023	35,000,000	3,534,790		3,240,757	0.9	-8.3



	Vintage	Capital Commitment	Draw Down	Distributed	Market Value	TVPI	ITD IRR
Investment Name	Year	(\$)	(\$)	(\$)	(\$)	Multiple	(%)
Immature (Less than 5 Years)							
GGV Capital VIII	2022	21,600,000	12,636,000		14,210,063	1.1	8.1
GGV Capital VIII Plus	2022	5,400,000	2,484,000		2,577,558	1.0	2.3
GGV Discovery III	2021	9,000,000	4,545,000		6,568,393	1.5	26.2
Great Hill Equity Partners VIII	2023	25,000,000	5,207,249		4,091,241	8.0	-38.5
Harvest Partners IX, LP	2022	50,000,000	11,624,503		10,551,451	0.9	-15.7
Harvest Partners VIII, LP	2019	70,000,000	65,888,316	19,192,893	78,385,979	1.5	18.3
Hg Genesis 9A	2021	15,172,501	10,646,000		13,909,437	1.3	23.2
Hg Saturn 2A	2020	37,500,000	22,891,871	2,479,330	32,121,321	1.5	27.6
Inflexion Buyout Fund VI	2022	21,860,100	3,556,857		3,414,654	1.0	-12.2
MBK Partners Fund V	2021	50,000,000	26,535,001		39,160,795	1.5	40.7
Nautic Partners X, LP	2022	25,000,000	8,277,990		9,154,745	1.1	11.0
Hg Saturn 3 A LP	2023	35,000,000	4,283,244		4,532,223	1.06	104.9
Hg Genesis 10 A LP	2023	12,066,600	1,457,778		1,525,204	1.1	61.2
Oak Hc/FT Partners IV	2021	25,000,000	21,398,918		24,203,091	1.1	8.5
Oak Hc/FT Partners V	2022	40,000,000	5,481,246		5,895,658	1.1	18.2
OceanSound Partners	2020	25,000,000	18,640,916	403,224	29,747,362	1.6	21.4
One Equity Partners VIII, LP	2022	25,000,000	21,341,038	38,201	25,622,675	1.2	27.6
One Rock Capital Partners III, LP	2021	35,000,000	22,941,151	49,744	32,331,562	1.4	28.1
Orchid Asia VIII, LP	2022	30,000,000	8,539,028	99,106	6,756,667	0.8	-32.2

<sup>&</sup>lt;sup>1</sup> Information provided by Northern Trust. Nominal IRR reported for funds with less than 1 year of data.



		Capital					
	Vintage	Commitment	Draw Down	Distributed	Market Value	TVPI	ITD IRR
Investment Name	Year	(\$)	(\$)	(\$)	(\$)	Multiple	(%)
Immature (Less than 5 Years)							
Reverence Capital Partners Opportunities Fund III	2020	50,000,000	40,177,458	6,375,213	73,195,000	2.0	31.6
Rubicon Technology Partners III LP	2020	32,500,000	29,242,106		31,749,003	1.1	4.5
Rubicon Technology Partners IV LP	2022	32,500,000	4,220,339		3,384,363	0.8	-22.3
Stellex Capital Partners II	2021	25,000,000	16,576,401	841,427	17,276,899	1.1	8.4
Thoma Bravo Discover Fund IV LP	2023	25,000,000	8,312,938		8,686,924	1.0	6.3
Thoma Bravo Fund XIV LP	2021	50,000,000	49,253,099		53,469,901	1.1	4.7
Thoma Bravo Fund XV LP	2022	25,000,000	16,969,879		16,748,277	1.0	-2.0
Torreycove Co-Investment Fund I LP	2020	200,000,000	158,185,497	8,448,986	190,992,010	1.3	16.7
Total		5,524,601,902	4,479,750,481	4,738,632,720	3,063,179,713	1.7	20.1

<sup>&</sup>lt;sup>1</sup> Information provided by Northern Trust. Nominal IRR reported for funds with less than 1 year of data.

As of September 30, 2023

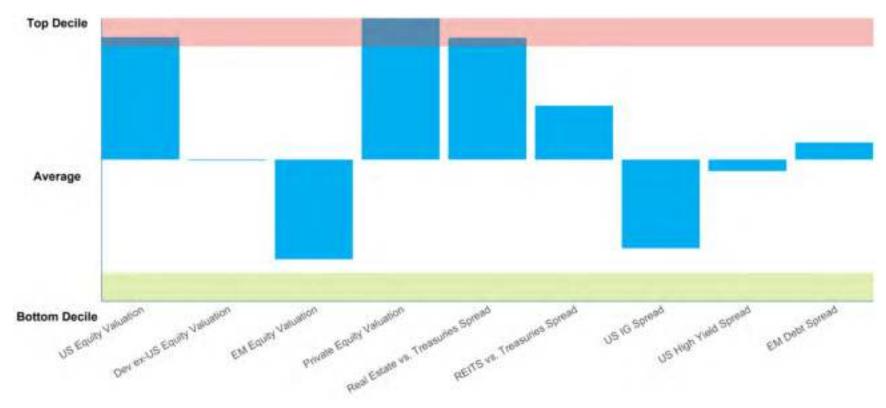


#### Capital Markets Outlook

- → In September, the Federal Reserve held interest rates steady (5.25 5.50%) while verbally indicating a willingness to hike rates again before the end of the year. Headline inflation reaccelerated slightly (to 3.7%) while core inflation remained elevated (at 4.3%).
- → In general, bond and equity markets sold-off in September as markets re-priced deteriorating sentiment on slowing global growth and persistent inflation and higher interest rates.
- → US stocks declined more than non-US equities, though they remain ahead year to date. Value stocks outperformed growth stocks on a relative basis, and large cap fared better than small cap stocks.
- → After a strong start to the year, developed market stocks lagged emerging market stocks on a relative basis in September. However, on a year-to-date basis, developed markets have soundly outperformed emerging market stocks.
- → Concerns about China's economy and its troubled real estate sector continue to weigh on Chinese stocks despite a series of policy support initiatives from the People's Bank of China which has cut lending rates and stabilized the RmB.
- → Perceived hawkishness from the Fed and the ECB put pressure on global bond markets across most sectors in September as yields rose. Threats of a government shutdown in the US also contributed to bond market turmoil.
- → Infrastructure, public real estate, and natural resource stocks declined in September, driven by higher interest rates and slowing growth prospects.





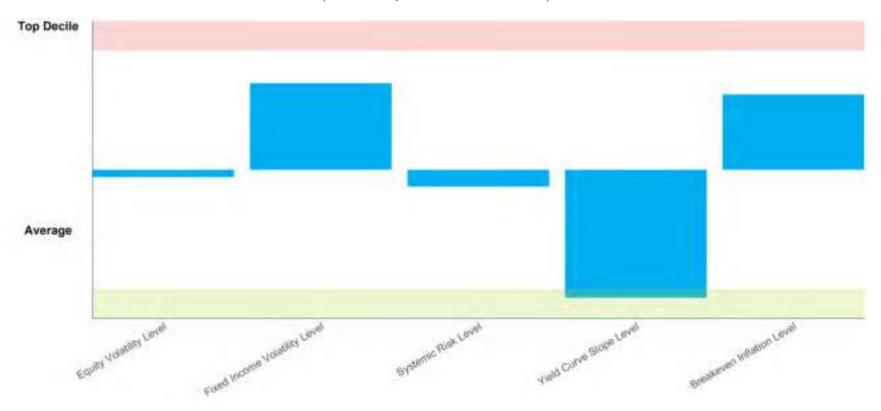


→ Dashboard (1) summarizes the current state of the different valuation metrics per asset class relative to their own history.

<sup>&</sup>lt;sup>1</sup> With the exception of Private Equity Valuation, that is YTD as of December 31, 2022.



Risk Overview/Dashboard (2) (As of September 30, 2023)



ightarrow Dashboard (2) shows how the current level of each indicator compares to its respective history.



# Market Sentiment Indicator (All History) (As of September 30, 2023)



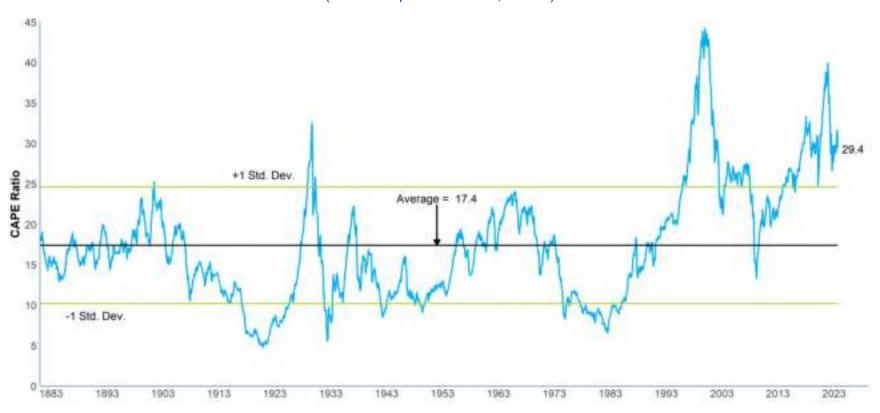


## Market Sentiment Indicator (Last Three Years) (As of September 30, 2023)





### US Equity Cyclically Adjusted P/E<sup>1</sup> (As of September 30, 2023)



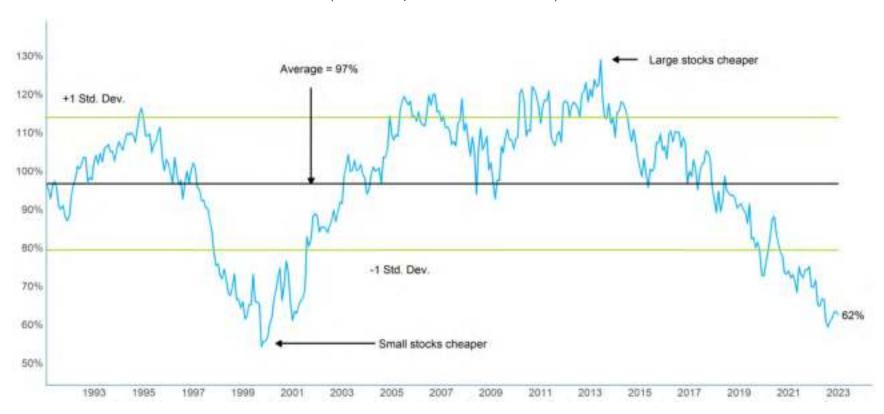
→ This chart details one valuation metric for US equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

MEKETA INVESTMENT GROUP

<sup>&</sup>lt;sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group.



### Small Cap P/E vs. Large Cap P/E<sup>1</sup> (As of September 30, 2023)



→ This chart compares the relative attractiveness of small cap US equities vs. large cap US equities on a valuation basis. A higher (lower) figure indicates that large cap (small cap) is more attractive.

MEKETA INVESTMENT GROUP

<sup>&</sup>lt;sup>1</sup> Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) - Source: Russell Investments and Bloomberg. Prior months unavailable on Bloomberg are backfilled with last reported earnings. Earnings figures represent 12-month "as reported" earnings.







→ This chart compares the relative attractiveness of US growth equities vs. US value equities on a valuation basis. A higher (lower) figure indicates that value (growth) is more attractive.

<sup>&</sup>lt;sup>1</sup> Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E - Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.



### Developed International Equity Cyclically Adjusted P/E<sup>1</sup> (As of September 30, 2023)



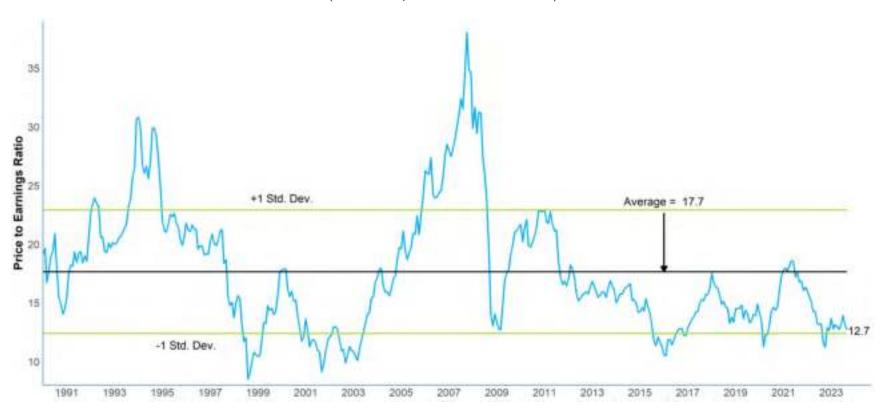
→ This chart details one valuation metric for developed international equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

MEKETA INVESTMENT GROUP

<sup>&</sup>lt;sup>1</sup> Developed International Equity (MSCI EAFE Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.



### Emerging Market Equity Cyclically Adjusted P/E<sup>1</sup> (As of September 30, 2023)



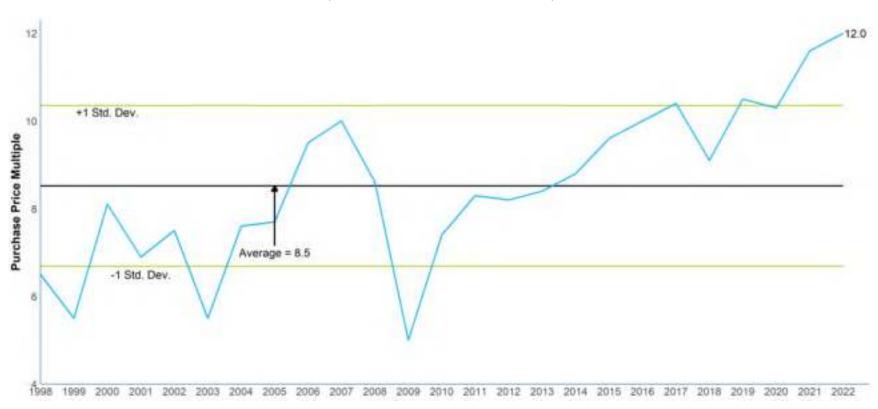
→ This chart details one valuation metric for emerging markets equities. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

MEKETA INVESTMENT GROUP

<sup>&</sup>lt;sup>1</sup> Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.



### Private Equity Multiples<sup>1</sup> (As of September 30, 2023)

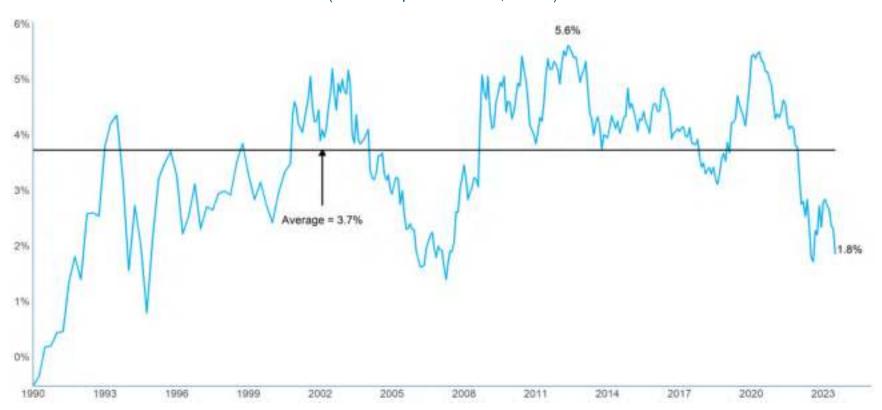


→ This chart details one valuation metric for the private equity market. A higher (lower) figure indicates more expensive (cheaper) valuation relative to history.

<sup>&</sup>lt;sup>1</sup> Private Equity Multiples - Source: Preqin Median EBITDA Multiples Paid in All LBOs.



### Core Real Estate Spread vs. Ten-Year Treasury<sup>1</sup> (As of September 30, 2023)

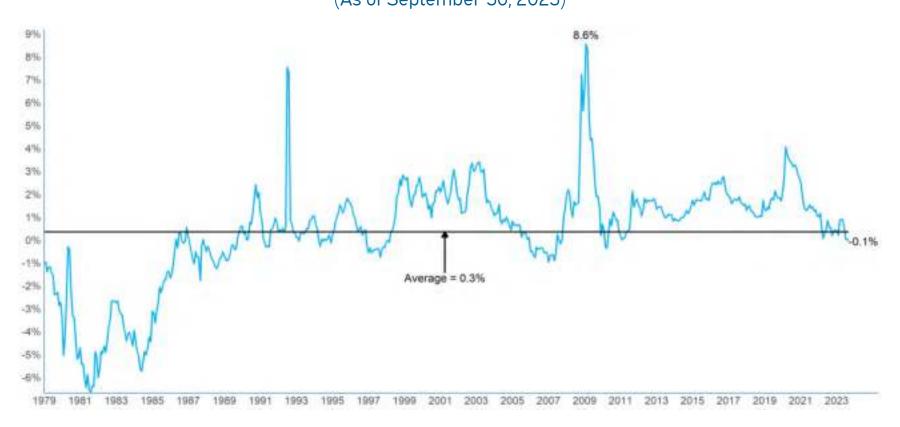


→ This chart details one valuation metric for the private core real estate market. A higher (lower) figure indicates cheaper (more expensive) valuation.

<sup>&</sup>lt;sup>1</sup> Core Real Estate Spread vs. Ten-Year Treasury – Source: Real Capital Analytics, FRED, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.



### REITs Dividend Yield Spread vs. Ten-Year Treasury<sup>1</sup> (As of September 30, 2023)



→ This chart details one valuation metric for the public REITs market. A higher (lower) figure indicates cheaper (more expensive) valuation.

<sup>&</sup>lt;sup>1</sup> REITs Dividend Yield Spread vs. Ten-Year Treasury – Source: NAREIT, Bloomberg, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.







→ This chart details one valuation metric for the US credit markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

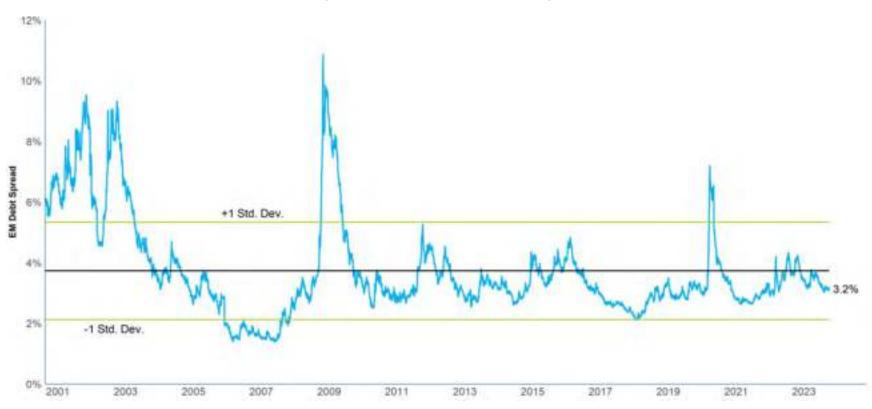
MEKETA INVESTMENT GROUP. Page 58 of 89

<sup>&</sup>lt;sup>1</sup> Credit Spreads – Source: Bloomberg. High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg US Corporate Investment Grade Index. Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year US Treasury yield.



#### Emerging Market Debt Spreads<sup>1</sup>

(As of September 30, 2023)

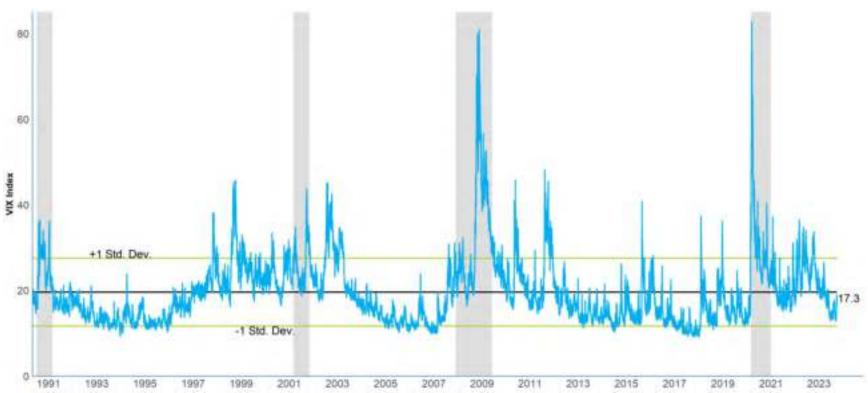


→ This chart details one valuation metric for the EM debt markets. A higher (lower) figure indicates cheaper (more expensive) valuation relative to history.

<sup>&</sup>lt;sup>1</sup> EM Spreads – Source: Bloomberg. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.



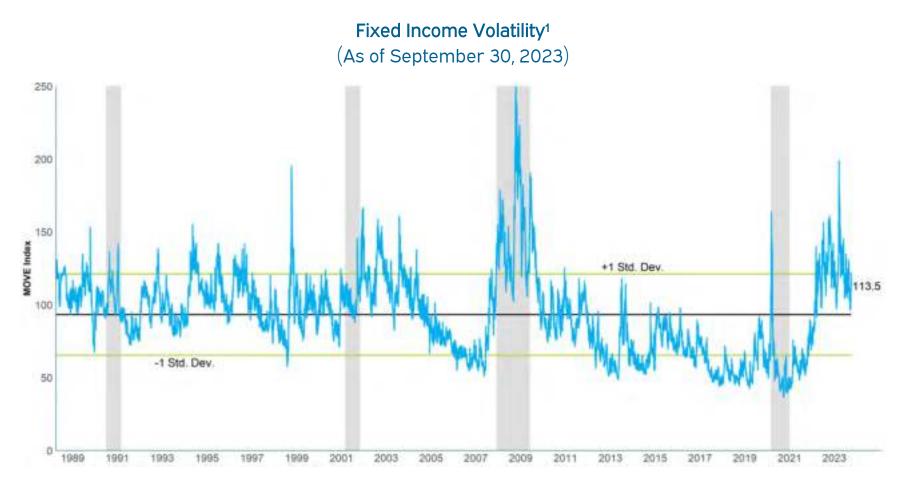




→ This chart details historical implied equity market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

<sup>&</sup>lt;sup>1</sup> Equity Volatility – Source: FRED, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.



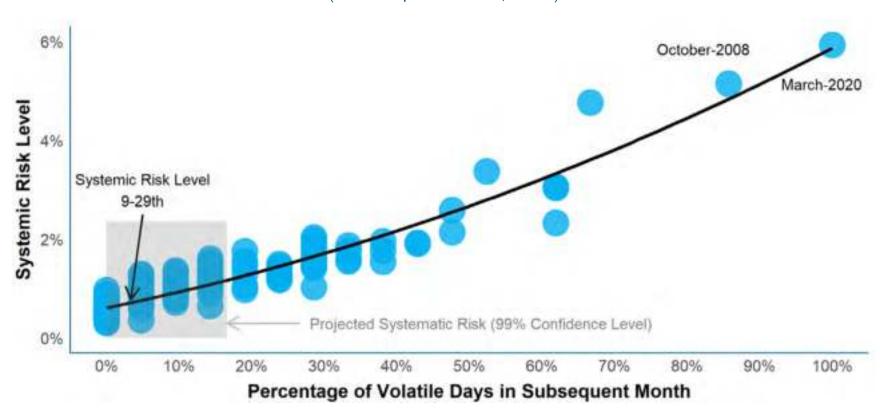


→ This chart details historical implied fixed income market volatility. This metric tends to increase during times of stress/fear and while declining during more benign periods.

<sup>1</sup> Fixed Income Volatility - Source: Bloomberg, and Meketa Investment Group. Fixed Income Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.



### Systemic Risk and Volatile Market Days<sup>1</sup> (As of September 30, 2023)

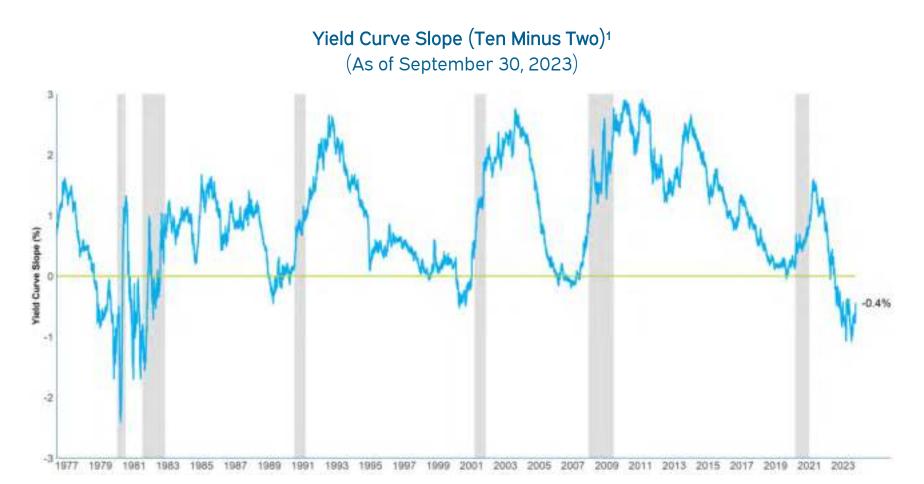


→ Systemic Risk is a measure of 'System-wide' risk, which indicates herding type behavior.

MEKETA INVESTMENT GROUP

<sup>&</sup>lt;sup>1</sup> Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.





→ This chart details the historical difference in yields between ten-year and two-year US Treasury bonds/notes. A higher (lower) figure indicates a steeper (flatter) yield curve slope.

<sup>1</sup> Yield Curve Slope (Ten Minus Two) - Source: FRED. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.



### Ten-Year Breakeven Inflation<sup>1</sup> (As of September 30, 2023)



→ This chart details the difference between nominal and inflation-adjusted US Treasury bonds. A higher (lower) figure indicates higher (lower) inflation expectations.

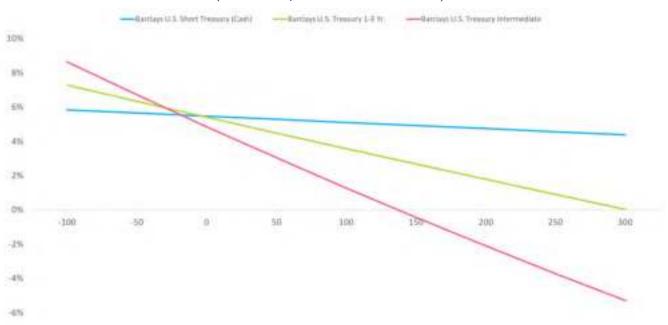
<sup>&</sup>lt;sup>1</sup> Ten-Year Breakeven Inflation – Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

Page 65 of 89



#### Capital Markets Outlook & Risk Metrics

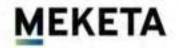
### Total Return Given Changes in Interest Rates (bps)<sup>1</sup> (As of September 30, 2023)



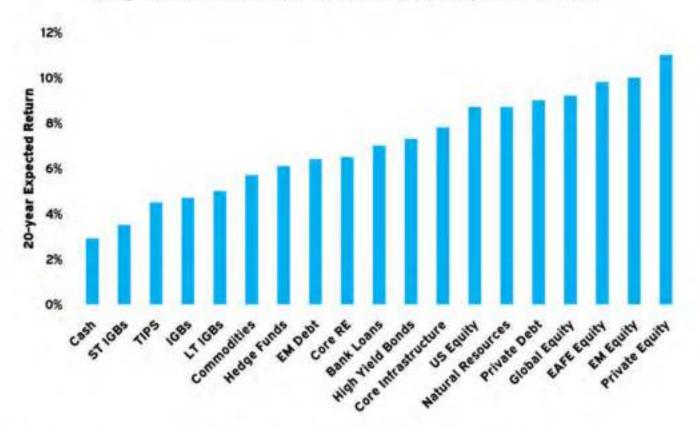
		Total Return for Given Changes in Interest Rates (bps)									Statistics	
	-100	-50	0	50	100	150	200	250	300	Duration	YTW	
Barclays US Short Treasury (Cash)	6.0%	5.8%	5.6%	5.5%	5.3%	5.1%	4.9%	4.7%	4.6%	4.4%	0.37	
Barclays US Treasury 1-3 Yr.	8.2%	7.3%	6.3%	5.4%	4.5%	3.6%	2.7%	1.8%	0.9%	0.0%	1.85	
Barclays US Treasury Intermediate	10.6%	8.6%	6.7%	4.9%	3.0%	1.3%	-0.4%	-2.1%	-3.7%	-5.3%	3.68	
Barclays US Treasury Long	31.2%	21.7%	12.9%	4.9%	-2.4%	-8.8%	-14.5%	-19.4%	-23.6%	-26.9%	15.25	

MEKETA INVESTMENT GROUP

<sup>&</sup>lt;sup>1</sup> Data represents the expected total return from a given change in interest rates (shown in basis points) over a 12-month period assuming a parallel shift in rates. Source: Bloomberg, and Meketa Investment Group.



#### Long-Term Outlook - 20-Year Annualized Expected Returns<sup>1</sup>



→ This chart details Meketa's long-term forward-looking expectations for total returns across asset classes.

Source: Meketa Investment Group's 2023 Asset Study.



#### **Appendix**

#### Data Sources and Explanations<sup>1</sup>

- → US Equity Cyclically Adjusted P/E on S&P 500 Index Source: Robert Shiller and Yale University.
- → Small Cap P/E (Russell 2000 Index) vs. Large Cap P/E (Russell 1000 Index) Source: Russell Investments. Earnings figures represent 12-month "as reported" earnings.
- → Growth P/E (Russell 3000 Growth Index) vs. Value (Russell 3000 Value Index) P/E Source: Bloomberg, MSCI, and Meketa Investment Group. Earnings figures represent 12-month "as reported" earnings.
- → Developed International Equity (MSCI EAFE) Cyclically Adjusted P/E Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.
- → Emerging Market Equity (MSCI Emerging Markets Index) Cyclically Adjusted P/E Source: MSCI and Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years.
- → Private Equity Multiples Source: S&P LCD Average EBITDA Multiples Paid in All LBOs.
- → Core Real Estate Spread vs. Ten-Year Treasury Source: Real Capital Analytics, US Treasury, Bloomberg, and Meketa Investment Group. Core Real Estate is proxied by weighted sector transaction-based indices from Real Capital Analytics and Meketa Investment Group.

<sup>&</sup>lt;sup>1</sup> All Data as of September 30, 2023, unless otherwise noted.

### **MEKETA**

#### Capital Markets Outlook & Risk Metrics

#### **Appendix**

#### Data Sources and Explanations<sup>1</sup>

- → REITs Dividend Yield Spread vs. Ten-Year Treasury Source: NAREIT, US Treasury. REITs are proxied by the yield for the NAREIT Equity Index.
- → Credit Spreads Source: Bloomberg High Yield is proxied by the Bloomberg High Yield Index and Investment Grade Corporates are proxied by the Bloomberg US Corporate Investment Grade Index.
  - Spread is calculated as the difference between the Yield to Worst of the respective index and the 10-Year Treasury Yield.
- → EM Debt Spreads Source: Bloomberg, and Meketa Investment Group. Option Adjusted Spread (OAS) for the Bloomberg EM USD Aggregate Index.
- → Equity Volatility Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by VIX Index, a Measure of implied option volatility for US equity markets.
- → Fixed Income Volatility Source: Bloomberg, and Meketa Investment Group. Equity Volatility proxied by MOVE Index, a Measure of implied option volatility for US Treasury markets.
- → Systemic Risk and Volatile Market Days Source: Meketa Investment Group. Volatile days are defined as the top 10 percent of realized turbulence, which is a multivariate distance between asset returns.
- → Systemic Risk, which measures risk across markets, is important because the more contagion of risk that exists between assets, the more likely it is that markets will experience volatile periods.

<sup>&</sup>lt;sup>1</sup> All Data as of September 30, 2023, unless otherwise noted.



#### **Appendix**

#### Data Sources and Explanations<sup>1</sup>

- → Yield Curve Slope (Ten Minus Two) Source: Bloomberg, and Meketa Investment Group. Yield curve slope is calculated as the difference between the 10-Year US Treasury Yield and 2-Year US Treasury Yield.
- → Ten-Year Breakeven Inflation Source: US Treasury and Federal Reserve. Inflation is measured by the Consumer Price Index (CPI-U NSA).

<sup>&</sup>lt;sup>1</sup> All Data as of September 30, 2023, unless otherwise noted



# Meketa Market Sentiment Indicator Explanation, Construction and Q&A

### **MEKETA**

#### Capital Markets Outlook & Risk Metrics

Meketa has created the MIG Market Sentiment Indicator (MIG-MSI) to <u>complement</u> our valuation-focused Risk Metrics. This measure of sentiment is meant to capture significant and persistent shifts in long-lived market trends of economic growth risk, either towards a risk-seeking trend or a risk-aversion trend.

#### This appendix explores:

- → What is the Meketa Market Sentiment Indicator?
- → How do I read the indicator graph?
- → How is the Meketa Market Sentiment Indicator constructed?
- → What do changes in the indicator mean?



Meketa has created a market sentiment indicator for monthly publication (the MIG-MSI – see below) to complement Meketa's Risk Metrics.

→ Meketa's Risk Metrics, which rely significantly on standard market measures of relative valuation, often provide valid early signals of increasing long-term risk levels in the global investment markets. However, as is the case with numerous valuation measures, the Risk Metrics may convey such risk concerns long before a market correction take place. The MIG-MSI helps to address this early-warning bias by measuring whether the markets are beginning to acknowledge key Risk Metrics trends, and / or indicating non-valuation-based concerns. Once the MIG-MSI indicates that the market sentiment has shifted, it is our belief that investors should consider significant action, particularly if confirmed by the Risk Metrics. Importantly, Meketa believes the Risk Metrics and MIG-MSI should always be used in conjunction with one another and never in isolation. The questions and answers below highlight and discuss the basic underpinnings of the Meketa MIG-MSI:

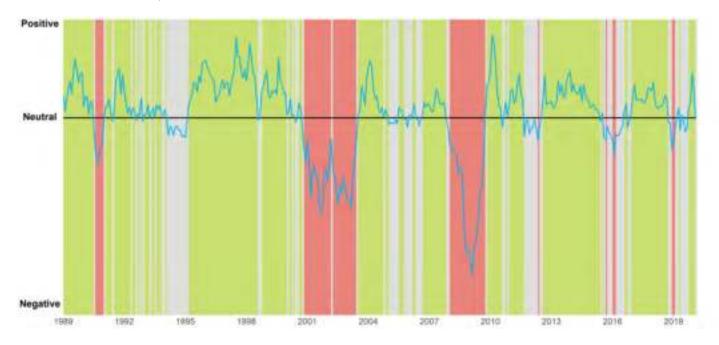
#### What is the Meketa Market Sentiment Indicator (MIG-MSI)?

→ The MIG-MSI is a measure meant to gauge the market's sentiment regarding economic growth risk. Growth risk cuts across most financial assets and is the largest risk exposure that most portfolios bear. The MIG-MSI takes into account the momentum (trend over time, positive or negative) of the economic growth risk exposure of publicly traded stocks and bonds, as a signal of the future direction of growth risk returns; either positive (risk seeking market sentiment), or negative (risk averse market sentiment).



#### How do I read the Meketa Market Sentiment Indicator graph?

- → Simply put, the MIG-MSI is a color-coded indicator that signals the market's sentiment regarding economic growth risk. It is read left to right chronologically. A green indicator on the MIG-MSI indicates that the market's sentiment towards growth risk is positive. A gray indicator indicates that the market's sentiment towards growth risk is neutral or inconclusive. A red indicator indicates that the market's sentiment towards growth risk is negative. The black line on the graph is the level of the MIG-MSI. The degree of the signal above or below the neutral reading is an indication the signal's current strength.
- → Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.





#### How is the Meketa Market Sentiment Indicator (MIG-MSI) Constructed?

- → The MIG-MSI is constructed from two sub-elements representing investor sentiment in stocks and bonds:
  - Stock return momentum: Return momentum for the S&P 500 Equity Index (trailing 12-months).
  - Bond yield spread momentum: Momentum of bond yield spreads (excess of the measured bond yield over the identical duration US Treasury bond yield) for corporate bonds (trailing 12-months) for both investment grade bonds (75% weight) and high yield bonds (25% weight).
  - Both measures are converted to Z-scores and then combined to get an "apples to apples" comparison without the need of re-scaling.
- → The black line reading on the graph is calculated as the average of the stock return momentum measure and the bonds spread momentum measure. The color reading on the graph is determined as follows:
  - If both stock return momentum and bond spread momentum are positive = GREEN (positive).
  - If one of the momentum indicators is positive, and the other negative = GRAY (inconclusive).
  - If both stock return momentum and bond spread momentum are negative = RED (negative).

MEKETA INVESTMENT GROUP

<sup>&</sup>lt;sup>1</sup> Momentum as we are defining it is the use of the past behavior of a series as a predictor of its future behavior.

<sup>&</sup>quot;Time Series Momentum" Moskowitz, Ooi, Pedersen, August 2010. http://pages.stern.nyu.edu/~lpederse/papers/TimeSeriesMomentum.pdf

### **MEKETA**

#### Capital Markets Outlook & Risk Metrics

#### What does the Meketa Market Sentiment Indicator (MIG-MSI) mean? Why might it be useful?

→ There is strong evidence that time series momentum is significant and persistent. Across an extensive array of asset classes, the sign of the trailing 12-month return (positive or negative) is indicative of future returns (positive or negative) over the next 12-month period. The MIG-MSI is constructed to measure this momentum in stocks and corporate bond spreads. A reading of green or red is agreement of both the equity and bond measures, indicating that it is likely that this trend (positive or negative) will continue over the next 12 months. When the measures disagree, the indicator turns gray. A gray reading does not necessarily mean a new trend is occurring, as the indicator may move back to green, or into the red from there. The level of the reading (black line) and the number of months at the red or green reading, gives the user additional information on which to form an opinion, and potentially take action.



#### **Disclaimer Information**

This material is provided by Meketa Investment Group, Inc. ("Meketa") for informational purposes only and may contain information that is not suitable for all clients. No portion of this commentary is to be construed as a solicitation or recommendations to buy or sell a security, or the provision of personalized investment advice, tax, or legal advice. Past performance may not be indicative of future results and may have been impacted by market events and economic conditions that will not prevail in the future. There can be no assurance that any particular investment or strategy will prove profitable, and the views, opinions, and projects expressed herein may not come to pass. Any direct or indirect reference to a market index is included for illustrative purposes only, as an index is not a security in which an investment can be made. Indices are benchmarks that serve as market or sector indicators and do not account for the deduction of management fees, transaction costs and other expenses associated with investable products. Meketa does not make any representation as to the accuracy, timeliness, suitability, completeness, or relevance of any information prepared by any unaffiliated third party and takes no responsibility, therefore. Any data provided regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of futures results. Investing involves risk, including the potential loss of principal and clients should be guided accordingly.

### **Appendix**



#### Illinois State Universities Retirement System

#### SURS Legacy Accounts | As of September 30, 2023

	conto Legacy Accounts   As all depicting of Copie				
Manager	Market Value				
Adams Street 2007	\$1,687,975				
Adams Street Global Op	\$219,484				
Adams Street Non-US	\$2,207,257				
Adams Street Partners	\$2,289,938				
Alinda Capital Partners	\$157,719				
BlackRock Intl Equity Fund	\$457,426				
CHC RE Fund VIII	\$635,503				
Crow Holdings Realty Partners VII	\$1,140,581				
Franklin Templeton EMREFF	\$2,399,441				
Franklin Templeton FTPREF	\$460,507				
GQG Partners	\$1				
Muller and Monroe MPEFF	\$1				
Neuberger Berman S&P 500	\$133,055				
Newport Monarch	\$2,385,495				
Pantheon Europe III	\$1,974,528				
Pantheon Global	\$2				
Pantheon Global II	\$361,512				
Pantheon One Line Asset	\$21,792				
Progress Venture Capital	\$894,914				
RREEF Funds	\$32,989				
Sanctioned Asset - SUR58	\$120,951				
Sanctioned Asset - SUR75	\$141,758				
Xponance - Applied Research	\$5,534				
Xponance Non-US Equity	\$3,859				
Total	\$17,732,222				
<u> </u>					

Legacy accounts include managers with less than \$2.9 million market value and closing accounts.



#### Illinois State Universities Retirement System

**Appendix** 

#### **Glossary Of Terms**

Alpha - The premium an investment earns above a set standard. This is usually measured in terms of a common index (i.e., how the stock performs independent of the market). An Alpha is usually generated by regressing a security's excess return on the market's excess return.

**Annualized Performance** - The annual rate of return that when compounded t times generates the same t-period holding return as actually occurred from period 1 to period t.

Attribution - a means to ascribe values to specific categories based on underlying characteristics.

Batting Average - Percentage of periods a portfolio outperforms a given index.

**Beta** - The measure of an asset's risk in relation to the Market (for example, the S&P 500) or to an alternative benchmark or factors. Roughly speaking, a security with a Beta of 1.5 will have moved, on average, 1.5 times the market return.

**Bottom-up** - A management style that de-emphasizes the significance of economic and market cycles, focusing instead on the analysis of individual stocks.

Breakeven Inflation - The difference between the yield of a nominal bond and an Inflation-linked bond of like maturity. It represents the amount of annualized inflation expected over the life of a bond by the marketplace, but it can also be thought of as the amount of annualized inflation required for being indifferent to holding the nominal or the ILB. If actual inflation turns out to be higher (lower) than the breakeven rate, the ILB will have a higher (lower) return than a nominal of like maturity. The market shortcut is to subtract the real yield from the nominal yield: Breakeven Inflation = Nominal Yield - Real Yield.

Breakeven Inflation Curve - The difference between nominal and real yields of like maturities at every available point along the yield curve.

**Credit Quality** - A measure of a bond issuer's ability to repay interest and principal in a timely manner.

**Current Yield** - Annual income (interest or dividends) divided by the current price of the security.

Dividend Yield - Annualized dividend rate divided by last closing price.

#### Illinois State Universities Retirement System

**Appendix** 

**Down Market Capture Ratio** - Is the portion of the market's performance that was captured by the manager using only periods where the market return is negative. A down market capture of less than 100% is considered desirable.

**Duration** - A measure of the price sensitivity of a fixed-income security to a change in interest rates. Calculation is based on the weighted average of the present value for all cash flows.

Earnings Growth Rate - rate of change in earnings over the latest 5-year period as expressed in an annual percentage.

**Excess Standard Deviation (annualized)** - The annualized standard deviation of the difference between the performance of a portfolio and its benchmark. Also referred to as tracking error.

Fair Value Pricing - Is a daily price adjustment made to the value of a security to more accurately reflect the true market value of a security. A fund will use fair value pricing if the value of a security is materially affected by events occurring before the fund's pricing time but after the close of the primary markets or exchanges on which the security is traded. It is an industry-wide practice required by the Securities and Exchange Commission.

**Growth Stocks** - Common stock of a company that has an opportunity to invest money and earn more than the opportunity cost of capital.

Inflation-linked Bonds (ILBs) - A bond whose principal is increased (decreased) in proportion to the amount of inflation (deflation) from the date of issue to the date of maturity, and whose coupons are paid on the inflation-adjusted principal. At maturity, the inflation-adjusted principal is redeemed. The mechanics of an ILB imply that its cash flows and principal at maturity are unknown and are determined by the path of inflation over its life.

**Information Ratio** - The ratio of annualized expected residual return to residual risk. A central measurement for active management, value added is proportional to the square of the information ratio.

Market Capitalization - Is calculated as the product of price and shares outstanding.

**Median Market Capitalization** - The midpoint of market capitalization (market price multiplied by the number of shares outstanding) of the stocks in a portfolio. Half the stocks in the portfolio will have higher market capitalizations; half will have lower.

#### Illinois State Universities Retirement System

**Appendix** 

**Nominal Yield** - The interest rate stated on the face of a bond, which represents the percentage of interest to be paid by the issuer on the face value of the bond. (Also known as the coupon rate.)

**Price/Book (P/B) Ratio** - The price per share of a stock divided by its book value (i.e. net worth) per share. For a portfolio, the ratio is the weighted average price/book ratio of the stocks it holds.

**Price/Earnings (P/E) Ratio** - The share price of a stock divided by its per-share earnings over the past year. For a portfolio, the weighted average P/E ratio of the stocks in the portfolio. P/E is a good indicator of market expectations about a company's prospects; the higher the P/E, the greater the expectations for a company's future growth.

**R-Squared** - Square of the correlation coefficient. The proportion of the variability in one series that can be explained by the variability of one or more other series a regression model. A measure of the quality of fit. 100% R-square means perfect predictability.

Real Yield - Return from an investment adjusted for the effects of inflation.

Semi Standard Deviation (Downside) - Is a measure of risk using only the variance of returns below a target rate, such as the benchmark.

**Sharpe Ratio** - A measure of a portfolio's excess return relative to the total variability of the portfolio. The higher the portfolio's Sharpe Ratio, the better the portfolio's returns have been relative to the risk it has taken on.

**Standard Deviation** - The square root of the variance. A measure of dispersion of a set of data from its mean.

**Style Analysis** - A returns-based analysis using a multi-factor attribution model. The model calculates a product's average exposure to particular investment styles over time (i.e., the product's normal style benchmark).

**Top-down** - Investment style that begins with an assessment of the overall economic environment and makes a general asset allocation decision regarding various sectors of the financial markets and various industries.

Tracking Error - The standard deviation of the difference between the performance of a portfolio and an appropriate benchmark.

**Turnover** - For mutual funds, a measure of trading activity during the previous year, expressed as a percentage of the average total assets of the fund. A turnover rate of 25% means that the value of trades represented one-fourth of the assets of the fund.

#### Illinois State Universities Retirement System

**Appendix** 

**Up Market Capture Ratio** - Is the portion of the market's performance that was captured by the manager using only periods where the market return is positive. An up market capture of greater than 100% is considered desirable.

Unrealized Gain/Loss - The increased or decreased market value of an asset that is still being held compared with its cost of acquisition.

**Value Stocks** - Stocks with low price/book ratios or price/earnings ratios. Historically, value stocks have enjoyed higher average returns than growth stocks (stocks with high price/book or P/E ratios) in a variety of countries.

Weighted Average Life (WAL) - The average number of years for which each dollar of unpaid principal on a loan or mortgage remains outstanding. Once calculated, WAL tells how many years it will take to pay half of the outstanding principal. The time weightings are based on the principal paydowns - the higher the dollar amount, the more weight that corresponding time period will have. For example, if the majority of the repayment amount is in 10 years the WAL will be closer to 10 years. Let's say there's an outstanding bond with five years of \$1,000 annual payments. The weighted average life would be three years, assuming payment is made at the end of each year. This indicates that after three years over half of the payments will be made.

Yield Curve - A representation on a chart of the <u>yields</u> on <u>bonds</u> with identical <u>credit ratings</u> but different <u>maturities</u>. On the yield curve, the maturities are represented on the x-axis, and the yield is represented on the y-axis. That is, if the yield curve trends upward, it indicates that <u>interest rates</u> for long-term <u>debt securities</u> are higher than short-term debt securities; this is called a <u>normal yield curve</u>. A <u>negative yield curve</u> indicates that interest rates for short-term debt securities are higher, and a <u>flat yield curve</u> indicates that they are roughly the same. Yield curves are most commonly plotted with <u>U.S. Treasuries</u> with different maturities; this is used to predict future trends in <u>interest rates</u>.

**Yield Curve Management** - Any investment strategy that seeks to profit from changes in the yield curve of US Treasury securities. For example, one may buy a bond at a certain interest rate expecting prevailing interest rates to decline. If and when they do, the price of the bond one holds will increase, allowing one to sell the bond for a profit.

Yield to Maturity - The rate of return an investor would receive if the securities held by a portfolio were held to their maturity dates.



**Appendix** 

#### Risk Metrics Description – Rationale for Selection and Calculation Methodology

#### **US Equity Markets:**

Metric: P/E ratio = Price / "Normalized" earnings for the S&P 500 Index

To represent the price of US equity markets, we have chosen the S&P 500 index. This index has the longest published history of price, is well known, and also has reliable, long-term, published quarterly earnings. The price=P of the P/E ratio is the current price of the market index (the average daily price of the most recent full month for the S&P 500 index). Equity markets are very volatile. Prices fluctuate significantly during normal times and extremely during periods of market stress or euphoria. Therefore, developing a measure of earnings power (E) which is stable is vitally important, if the measure is to provide insight. While equity prices can and do double, or get cut in half, real earnings power does not change nearly as much. Therefore, we have selected a well-known measure of real, stable earnings power developed by Yale Professor Robert Shiller known as the Shiller E-10. The calculation of E-10 is simply the average real annual earnings over the past 10 years. Over 10 years, the earnings shenanigans and boom and bust levels of earnings tend to even out (and often times get restated). Therefore, this earnings statistic gives a reasonably stable, slow-to-change estimate of average real earnings power for the index. Professor Shiller's data and calculation of the E-10 are available on his website at <a href="http://www.econ.yale.edu/~shiller/data.htm">http://www.econ.yale.edu/~shiller/data.htm</a>. We have used his data as the base for our calculations. Details of the theoretical justification behind the measure can be found in his book *Irrational Exuberance* [Princeton University Press 2000, Broadway Books 2001, 2nd ed., 2005].



**Appendix** 

#### **Developed Equity Markets Excluding the US:**

Metric: P/E ratio = Price / "Normalized" earnings for the MSCI EAFE Index

To represent the price of non-US developed equity markets, we have chosen the MSCI EAFE index. This index has the longest published history of price for non-US developed equities. The price=P of the P/E ratio is the current price of the market index (the average daily price of the most recent full month for the MSCI EAFE index). The price level of this index is available starting in December 1969. Again, for the reasons described above, we elected to use the Shiller E-10 as our measure of earnings (E). Since 12/1972, a monthly price earnings ratio is available from MSCI. Using this quoted ratio, we have backed out the implied trailing-twelve month earnings of the EAFE index for each month from 12/1972 to the present. These annualized earnings are then inflation adjusted using CPI-U to represent real earnings in US dollar terms for each time period. The Shiller E-10 for the EAFE index (10 year average real earnings) is calculated in the same manner as detailed above.

However, we do not believe that the pricing and earnings history of the EAFE markets are long enough to be a reliable representation of pricing history for developed market equities outside of the US. Therefore, in constructing the Long-Term Average Historical P/E for developed ex-US equities for comparison purposes, we have elected to use the US equity market as a developed market proxy, from 1881 to 1982. This lowers the Long-Term Average Historical P/E considerably. We believe this methodology provides a more realistic historical comparison for a market with a relatively short history.

#### **Emerging Market Equity Markets:**

Metric: Ratio of Emerging Market P/E Ratio to Developed Market P/E Ratio

To represent the Emerging Markets P/E Ratio, we have chosen the MSCI Emerging Market Free Index, which has P/E data back to January 1995 on Bloomberg. To represent the Developed Markets PE Ratio, we have chosen the MSCI World Index, which also has data back to January 1995 on Bloomberg. Although there are issues with published, single time period P/E ratios, in which the denominator effect can cause large movements, we feel that the information contained in such movements will alert investors to market activity that they will want to interpret.



**Appendix** 

#### **US Private Equity Markets:**

Metrics: S&P LCD Average EBITDA Multiples Paid in LBOs and US Quarterly Deal Volume

The Average Purchase Price to EBITDA multiples paid in LBOs is published quarterly by S&P in their LCD study. This is the total price paid (both equity and debt) over the trailing-twelve month EBITDA (earnings before interest, taxes, depreciation and amortization) as calculated by S&P LCD. This is the relevant, high-level pricing metric that private equity managers use in assessing deals. Data is published monthly.

US quarterly deal volume for private equity is the total deal volume in \$ billions (both equity and debt) reported in the quarter by Thomson Reuters Buyouts. This metric gives a measure of the level of activity in the market. Data is published quarterly.

#### **US Private Real Estate Markets:**

Metrics: US Cap Rates, Cap Rate Spreads, and Transactions as a % of Market Value

Real estate cap rates are a measure of the price paid in the market to acquire properties versus their annualized income generation before financing costs (NOI=net operating income). The data, published by NCREIF, describes completed and leased properties (core) on an unleveraged basis. We chose to use current value cap rates. These are capitalization rates from properties that were revalued during the quarter. This data relies on estimates of value and therefore tends to be lagging (estimated prices are slower to rise and slower to fall than transaction prices). The data is published quarterly.

Spreads between the cap rate (described above) and the 10-year nominal Treasury yield, indicate a measure of the cost of properties versus a current measure of the cost of financing.

Transactions as a % of Market Value Trailing Four Quarters is a measure of property turnover activity in the NCREIF Universe. This quarterly metric is a measure of activity in the market.



**Appendix** 

#### **Credit Markets Fixed Income:**

Metric: Spreads

The absolute level of spreads over treasuries and spread trends (widening / narrowing) are good indicators of credit risk in the fixed income markets. Spreads incorporate estimates of future default, but can also be driven by technical dislocations in the fixed income markets. Abnormally narrow spreads (relative to historical levels) indicate higher levels of valuation risk, wide spreads indicate lower levels of valuation risk and / or elevated default fears. Investment grade bond spreads are represented by the Bloomberg Barclays Capital US Corporate Investment Grade Index Intermediate Component. The high yield corporate bond spreads are represented by the Bloomberg Barclays Capital US Corporate High Yield Index.

#### Measure of Equity Market Fear / Uncertainty

Metric: VIX - Measure of implied option volatility for US equity markets

The VIX is a key measure of near-term volatility conveyed by implied volatility of S&P 500 index option prices. VIX increases with uncertainty and fear. Stocks and the VIX are negatively correlated. Volatility tends to spike when equity markets fall.

#### Measure of Monetary Policy

Metric: Yield Curve Slope

We calculate the yield curve slope as the 10 year treasury yield minus the 1 year treasury yield. When the yield curve slope is zero or negative, this is a signal to pay attention. A negative yield curve slope signals lower rates in the future, caused by a contraction in economic activity. Recessions are typically preceded by an inverted (negatively sloped) yield curve. A very steep yield curve (2 or greater) indicates a large difference between shorter-term interest rates (the 1 year rate) and longer-term rates (the 10 year rate). This can signal expansion in economic activity in the future, or merely higher future interest rates.



**Appendix** 

#### Measures of US Inflation Expectations

Metrics: Breakeven Inflation and Inflation Adjusted Commodity Prices

Inflation is a very important indicator impacting all assets and financial instruments. Breakeven inflation is calculated as the 10 year nominal treasury yield minus the 10 year real yield on US TIPS (treasury inflation protected securities). Abnormally low long-term inflation expectations are indicative of deflationary fears. A rapid rise in breakeven inflation indicates an acceleration in inflationary expectations as market participants sell nominal treasuries and buy TIPs. If breakeven inflation continues to rise quarter over quarter, this is a signal of inflationary worries rising, which may cause Fed action and / or dollar decline.

Commodity price movement (above the rate of inflation) is an indication of anticipated inflation caused by real global economic activity putting pressure on resource prices. We calculate this metric by adjusted in the Dow Jones UBS Commodity Index (formerly Dow Jones AIG Commodity Index) by US CPI-U. While rising commodity prices will not necessarily translate to higher US inflation, higher US inflation will likely show up in higher commodity prices, particularly if world economic activity is robust.

These two measures of anticipated inflation can, and often are, conflicting.

#### Measures of US Treasury Bond Interest Rate Risk

Metrics: 10-Year Treasury Forward-Looking Real Yield and 10-Year Treasury Duration

The expected annualized real yield of the 10 year US Treasury Bond is a measure of valuation risk for US Treasuries. A low real yield means investors will accept a low rate of expected return for the certainly of receiving their nominal cash flows. MEKETA estimates the expected annualized real yield by subtracting an estimate of expected 10 year inflation (produced by the Survey of Professional Forecasters as collected by the Federal Reserve Bank of Philadelphia), from the 10 year Treasury constant maturity interest rate.

Duration for the 10-Year Treasury Bond is calculated based on the current yield and a price of 100. This is a measure of expected percentage movements in the price of the bond based on small movements in percentage yield. We make no attempt to account for convexity.



**Appendix** 

#### Definition of "Extreme" Metric Readings

A metric reading is defined as "extreme" if the metric reading is in the top or bottom decile of its historical readings. These "extreme" reading should cause the reader to pay attention. These metrics have reverted toward their mean values in the past.

#### Disclaimer

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

CERTAIN INFORMATION CONTAINED IN THIS REPORT MAY CONSTITUTE "FORWARD - LOOKING STATEMENTS," WHICH CAN BE IDENTIFIED BY THE USE OF TERMINOLOGY SUCH AS "MAY," "WILL," "SHOULD," "EXPECT," "AIM", "ANTICIPATE," "TARGET," "PROJECT," "ESTIMATE," "INTEND," "CONTINUE" OR "BELIEVE," OR THE NEGATIVES THEREOF OR OTHER VARIATIONS THEREON OR COMPARABLE TERMINOLOGY. ANY FORWARD-LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION ARE BASED UPON CURRENT ASSUMPTIONS. CHANGES TO ANY ASSUMPTIONS MAY HAVE A MATERIAL IMPACT ON FORWARD - LOOKING STATEMENTS, FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS. ACTUAL RESULTS MAY THEREFORE BE MATERIALLY DIFFERENT FROM ANY FORECASTS, PROJECTIONS, VALUATIONS, OR RESULTS IN THIS PRESENTATION.

PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

## Callan

June 30, 2023

State Universities Retirement
System of Illinois
Real Estate

Investment Measurement Service
Quarterly Review

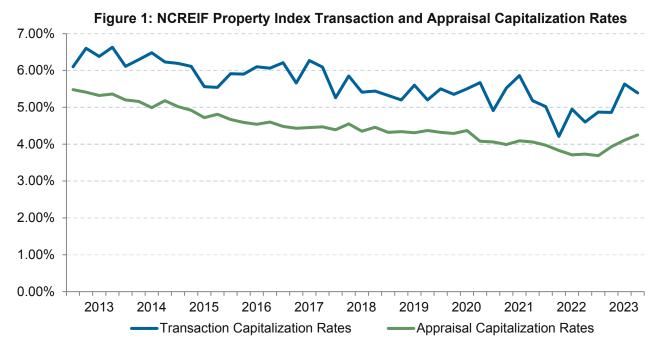
#### Table of Contents June 30, 2023

Real Estate Snapshots	
Commercial Real Estate Snapshot	
Summary Analysis	4
Core Funds	
Total Core Funds	19
Non-Core Funds	
Total Non-Core Funds	26
Farmland	32
Infrastructure	
Total Infrastructure	38
Definitions	43
Callan Research/Education	46

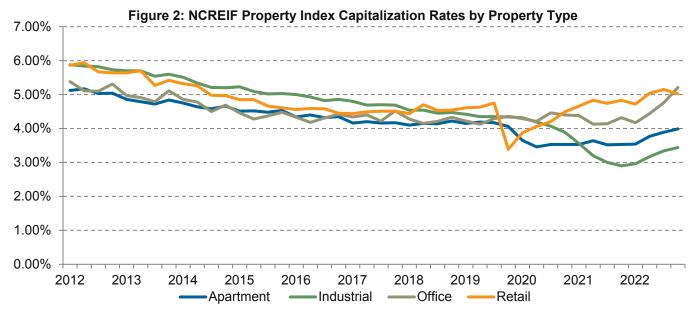


## Commercial Real Estate Market Snapshot Second Quarter 2023

The NCREIF Property Index, a measure of U.S. institutional real estate assets, fell 2.0% during 2Q23. The income return was 1.0% while the appreciation return was -3.0%. Hotels, which represent a small portion of the index, led property sector performance with a gain of 4.0%. Office finished last with a loss of -5.6%. Regionally, the South led with a loss of 0.8%, while the East was the worst performer with a loss of 2.7%. The NCREIF Open-End Diversified Core Equity Index, representing equity ownership positions in U.S. core real estate, fell 2.7% during 2Q, with an income return of 0.9% and an appreciation return of -3.6%.



As seen in Figure 1, appraisal capitalization rates increased to 4.3% during 2Q, and capitalization rates measured in active trades actually fell by 24 basis points to 5.4%. At quarter end, the 10-year average appraisal capitalization rate was 4.4% and the 10-year average transaction capitalization rate was 5.6%. The spread between the two measures, which reflects pricing expectations between buyers and holders of real estate, remained constant at 118 basis points.



Market-weighted capitalization rates by property type increased for Apartment (4.0%), Industrial (3.4%), and Office (5.2%), and decreased slightly in Retail (5.0%).





Figure 3: NCREIF Property Index Rolling 4-Quarter Transaction Totals

As shown in Figure 3, rolling four-quarter transaction volume totaled \$21.9 billion across 439 transactions. NCREIF recorded 104 transactions during 2Q, representing \$4.4 billion of value, compared to \$3.5 billion in 1Q. The average transaction size was \$42.4 million, compared to \$43.0 million in 1Q.

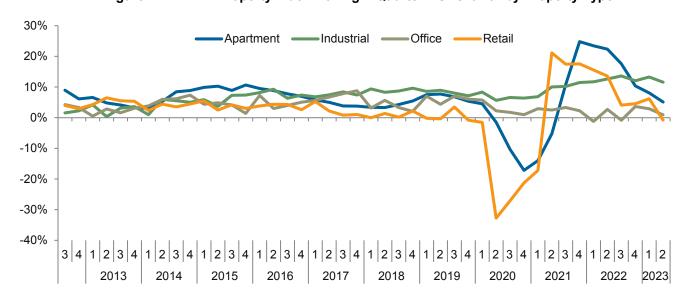


Figure 4: NCREIF Property Index Rolling 4-Quarter NOI Growth by Property Type

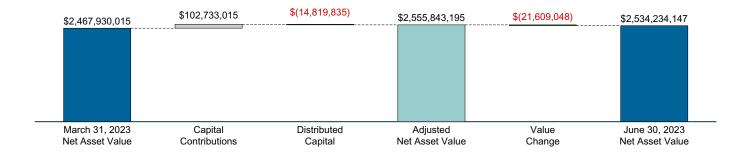
Rolling four-quarter net operating income growth during the quarter remained positive in all sectors except Retail, and declined on a quarter-over-quarter basis in all four property types, including Apartment (5.1%), Industrial (11.6%), Office (0.9%), and Retail (-0.8%).



#### **Total Real Assets Fund Overview** Period Ended June 30, 2023

Quarterly Position Change	March 31, 2023	Quarterly Change	June 30, 2023
Client Commitment	\$4,484,194,160	\$40,000,000	\$4,524,194,160
Paid-In Capital	\$3,748,481,082	\$102,733,015	\$3,851,214,097
Remaining Commitment	\$873,822,384	\$(60,112,519)	\$813,709,865
Distributions	\$2,576,352,880	\$14,819,835	\$2,591,172,715
Recallable Distributions	\$134,008,903	\$2,620,496	\$136,629,399
Non-Recallable Distributions	\$2,442,343,977	\$12,199,339	\$2,454,543,316
Net Asset Value	\$2,467,930,015	\$66,304,132	\$2,534,234,147
Total Distributed Capital and Net Asset Value	\$5,044,282,895	\$81,123,967	\$5,125,406,862

		Quarterly	
Performance Change	March 31, 2023	Change	June 30, 2023
Net Internal Rate of Return, Since Inception	7.02%	(0.23%)	6.80%
Total Value to Paid-in Capital (TVPI)	1.35x	(0.01x)	1.33x
Distributions to Paid-in Capital (DPI)	0.69x	(0.01x)	0.67x
Residual Value to Paid-in Capital (RVPI)	0.66x	(0.00x)	0.66x
% of Commitments Contributed	83.59%	(1.53%)	85.12%

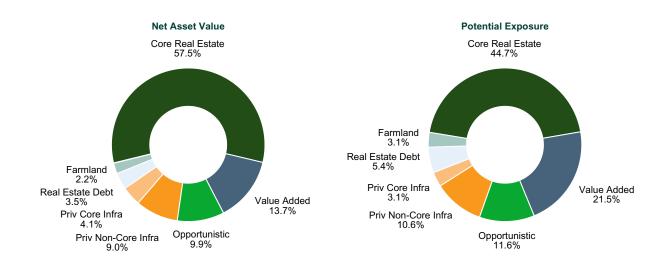




#### Portfolio Diversification Total Real Assets Period Ended June 30, 2023

The following tables illustrate current and potential exposure by Strategy type as of June 30, 2023 in USD millions.

Portfolio Exposure by Strategy Type	Net Asset Value	%	Unfunded Commitments	%	Potential Exposure	%
Core Real Estate	\$1,458	57.54%	\$37	4.56%	\$1,495	44.67%
Value Added	\$348	13.73%	\$370	45.48%	\$718	21.45%
Opportunistic	\$250	9.87%	\$138	16.95%	\$388	11.59%
Priv Non-Core Infra	\$229	9.03%	\$128	15.67%	\$356	10.65%
Priv Core Infra	\$105	4.15%	\$0	0.00%	\$105	3.14%
Real Estate Debt	\$87	3.45%	\$92	11.32%	\$180	5.36%
Farmland	\$56	2.22%	\$49	6.01%	\$105	3.14%
Global REITS	\$0	0.00%	\$0	0.00%	\$0	0.00%
Total Real Assets	\$2,534		\$814		\$3,348	





#### **Investment Manager Asset Allocation**

The table below contrasts the distribution of assets across the Fund's investment managers as of June 30, 2023, with the distribution as of March 31, 2023. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

#### **Asset Distribution Across Investment Managers**

	June 30, 2	2023			March 31,	2023
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Private Real Estate	\$2,312,736,720	91.26%	\$58,963,252	\$(20,124,495)	\$2,273,897,962	92.14%
Total Core Funds	\$1,627,104,828	64.20%	\$7,552,676	\$(26,002,198)	\$1,645,554,350	66.68%
BlackRock Global Renewable Power III	63,655,686	2.51%	10,279,432	2,362,511	51,013,742	2.07%
Blackstone Property Partners	242,410,427	9.57%	(559,128)	4,837,544	238,132,011	9.65%
Carlyle Property Investors	163,837,707	6.46%	(168,109)	(2,792,807)	166,798,623	6.76%
Clarion Partners Lion Properties Fund	193,176,781	7.62%	(442,140)	(12,268,724)	205,887,645	8.34%
GI Partners ETS Fund	41,246,170	1.63%	(124,111)	(840,411)	42,210,692	1.71%
Heitman America Real Estate Trust (HAI		11.15%	(509,444)	(5,843,131)	289,022,879	11.71%
IFM Glb Infras Fund (GIF)	105,160,759	4.15%	(199,069)	2,789,608	102,570,220	4.16%
JP Morgan Strategic Property Fund (SPF		10.84%	(565,218)	(4,389,204)	279,738,729	11.33%
Prologis US Logistics Fund (USLF)	169,459,315	6.69%				7.14%
UBS Trumbull Property Fund (TPF)	90,703,370	3.58%	(12,680) (146,857)	(6,698,722) (3,158,863)	176,170,718 94,009,090	3.81%
, , ,	, ,		• • •			
Total Non-Core Funds	\$685,631,892	27.05%	\$51,410,576	\$5,877,704	\$628,343,613	25.46%
Basis Real Estate Debt Fund I	20,107,836	0.79%	939,857	185,507	18,982,472	0.77%
Basis Real Estate Debt Fund II	26,153,915	1.03%	8,028,483	661,849	17,463,583	0.71%
Blackstone BREP Europe VI (1)	56,730,918	2.24%	10,912,280	1,853,020	43,965,618	1.78%
Blackstone BREP Asia III	6,434,663	0.25%	159,018	152,299	6,123,346	0.25%
Blue Vista Real Estate IV (2)	11,826,709	0.47%	(47,359)	(1,509,256)	13,383,324	0.54%
Brasa II	22,911,482	0.90%	3,370,715	(63,793)	19,604,560	0.79%
Brookfield Strategic Real Estate II	23,681,859	0.93%	(102,788)	171,729	23,612,918	0.96%
Brookfield Strategic Real Estate III	36,968,309	1.46%	1,441,643	1,137,541	34,389,125	1.39%
Brookfield Strategic RE IV	39,899,527	1.57%	10,682,654	528,403	28,688,470	1.16%
Cabot Industrial Value VI (CIVF)	48,076,694	1.90%	899,500	423,279	46,753,915	1.89%
Cabot Industrial Value VII (CIVF)	-640,943	(0.03%)	033,300	420,273	-640,943	(0.03%)
Crow Holdings Realty VII	1,140,581	0.05%	0	(45,703)	1,186,284	0.05%
Crow Holdings Realty VIII		0.04%	(26,946)			0.05%
	1,106,753			(98,881)	1,232,580	
Crow Holdings Realty IX	41,524,815	1.64%	(115,112)	(20,386)	41,660,313	1.69%
Dune Real Estate Partners II	6,389,862	0.25%	(10,516)	(5,732)	6,406,110	0.26%
Dune Real Estate Partners III	66,161,664	2.61%	(126,278)	1,685,789	64,602,153	2.62%
Dune Real Estate IV	40,117,939	1.58%	(131,183)	655,247	39,593,875	1.60%
Franklin Templeton FTPREF	460,507	0.02%	(13,158)	(11,486)	485,151	0.02%
Franklin Templeton EMREFF	2,399,441	0.09%	(19,683)	(125,049)	2,544,173	0.10%
Franklin Templeton MDP RE 2015	64,148,050	2.53%	145,653	(1,035,746)	65,038,143	2.64%
Longpoint Realty Fund II	49,111,078	1.94%	4,853,072	1,027,734	43,230,272	1.75%
Longpoint Realty Fund III	-759,084	(0.03%)	(209,425)	(78,856)	-470,803	(0.02%)
Long Wharf VI	27,620,213	1.09%	236,020	148,213	27,235,980	1.10%
Long Wharf VII	2,012,059	0.08%	2,153,313	(141,254)	, , , <u>-</u>	-
Newport Capital Partners Fund III	4,699,692	0.19%	528,879	97,407	4,073,405	0.17%
Oaktree Real Estate Debt Fund II	8,967,181	0.35%	(137,694)	(557,437)	9,662,312	0.39%
StepSt Glb Partner RE II (fka MFIRE) (3)		0.53%	(101,601.)	0	13,557,948	0.55%
Torchlight Debt VII	26,436,807	1.04%	(175,000)	194,776	26,417,031	1.07%
Torchlight Debt VIII	5,783,773	0.23%	3,593,750	77,364	2,112,659	0.09%
Westbrook XI	32,601,644	1.29%	4,580,881	571,124	27,449,639	1.11%
Formland	<b>\$EC 040 700</b>	9 999/	¢4 570 000	¢0 202 202	<b>\$50.004.005</b>	0.400/
Farmland	\$56,216,762	2.22%	\$1,572,088	\$2,323,309	\$52,321,365 53,334,365	2.12%
Homestead USA Farmland Fund III	56,289,820	2.22%	1,631,429	2,337,026	52,321,365	2.12%
Homestead USA Farmland Fund IV	-73,058	(0.00%)	(59,341)	(13,717)	-	-
Total Private Infrastructure	\$165,280,665	6.52%	\$19,881,272	\$3,688,706	\$141,710,688	5.74%
Alinda Infrastructure Fund II	157,719	0.01%	0	(14,855)	172,574	0.01%
Ember Infrastructure I	11,835,948	0.47%	4,113,201	(100,231)	7,822,978	0.32%
Macquarie Infrastructure Partners III	61,662,566	2.43%	(127,368)	3,143,297	58,646,636	2.38%
Macquarie Infrastructure Partners IV	61,242,630	2.42%	(170,044)	660,494	60,752,180	2.46%
Pantheon Glb Infrast Secondaries IV	30,381,802	1.20%	16,065,482	0	14,316,320	0.58%
	, ,		-,,		,,	

\$80,416,612

\$(14,112,480)

\$2,534,234,147

100.0%

<sup>(4)</sup> Values shown are minus accrued incentive fee.



Total Fund (4)

\$2,467,930,015

100.0%

<sup>(1)</sup> Reported in Euro's by manager and then coverted to US \$.

<sup>(2)</sup> Year end figure is based on estimate. YE audit takes 120 days.

<sup>(3)</sup> Current market values are those of the prior quarter, adjusted for capital calls and distributions of current quarter.

#### **Investment Manager Returns**

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

#### Returns for Periods Ended June 30, 2023

			Last	
	Last	Last	3	
	Quarter	Year	Years	
Total Core Funds	(1.79%)	(9.09%)	9.56%	
NCREIF NFI-ODCE Val Wt Nt	(2.88%)	(10.73%)	7.04%	
Blackrock Global Renewable Power III	3.83%	23.96%		
Blackstone Property Partners	1.80%	(11.70%)	6.57%	
Carlyle Property Investors	(1.88%)	(3.08%)	14.38%	
Clarion Partners Lion Properties Fund	(6.12%)	(15.81%)	-	
GI Partners ETS Fund	(2.29%)	2.69%	-	
Heitman America Real Estate Trust (HART)	(2.20%)	(9.09%)	9.64%	
IFM Glb Infras Fund (GIF)	2.53%	· <b>-</b>	=	
JP Morgan Strategic Property Fund (SPF)	(1.77%)	(11.13%)	6.34%	
Prologis US Logistics Fund (USLF)	(4.04%)	(10.44%)	19.29%	
UBS Trumbull Property Fund (TPF)	(3.52%)	(15.37%)	2.05%	
Total Non-Core Funds	0.40%	1.85%	11.96%	
NCREIF ODCE + 1.5%	(2.47%)	(9.23%)	8.56%	
Basis Real Estate Debt Fund I	0.62%	8.69%	9.52%	
Basis Real Estate Debt Fund II	2.53%	8.75%	-	
Blackstone European VI (3)	3.24%	4.67%	18.73%	
Blackstone RE Partners Àsia III	(0.56%)	(18.87%)	=	
Blue Vista Real Estate IV **	(11.63%)	(25.16%)	6.89%	
Brasa II	(0.93%)	8.14%		
Brookfield Strategic Real Estate II	0.29%	(2.55%)	14.03%	
Brookfield Strategic RE III	3.06%	11.83%	15.99%	
Brookfield Strategic RE IV	0.83%	23.60%	-	
Cabot Industrial Value VI (CIVF) Crow Holdings Realty VII	0.50% (3.85%)	(2.33%) (22.33%)	26.75% (3.10%)	
Crow Holdings Realty VIII	(8.53%)	(22.33%) (11.94%)	19.62%	
Crow Holdings Realty IX	(0.33%)	(3.68%)	19.02 /0	
Dune Real Estate Partners II	(0.25%)	(0.33%)	3.87%	
Dune Real Estate Partners III	2.47%	1.88%	5.23%	
Dune Real Estate Partners IV	1.32%	15.59%	13.02%	
Franklin Templeton FTPREF	(5.08%)	(15.53%)	(7.02%)	
Franklin Templeton EMREFF	(5.69%)	(39.33%)	(11.28%)	
Franklin Templeton MDP RE 2015	(1.71%)	(1.11%)	10.25%	
Longpoint Realty Fund II	2.03%	7.02%	-	
Long Wharf VI	0.19%	5.64%	35.29%	
Newport Capital Partners Fund III	1.51%	39.70%	4.700/	
Oaktree Real Estate Debt Fund II	(6.12%)	(10.39%) (0.93%)	1.76%	
StepSt Partner RE II (fka MFIRE) (2) Torchlight Debt VII	0.00% 0.07%	3.84%	1.21%	
Torchlight Debt VIII	(3.07%)	3.04 /0		
Westbrook XI	1.49%	11.02%	-	
Total Private Real Estate	(1.17%)	(6.22%)	10.17%	
III	0.00%	7.000/		
Homestead USA Farmland Fund III NCREIF Farmland Index	3.92%	7.92%	7.00%	
NCREIF Farmland Index	0.80%	8.19%	7.60%	
Total Private Infrastructure	2.21%	15.37%	17.53%	
CPI + 5%	2.27%	7.97%	10.78%	
FTSE Dev Core Inf 50/50 N	(0.58%)	(1.29%)	6.72%	
Ember Infrastructure I	(2.72%)	(10.12%)	_	
Macquarie Infrastructure Partners III	5.14%	44.67%	33.22%	
Macquarie Infrastructure Partners IV	0.81%	2.51%	12.34%	
Pantheon Glb Infrast Secondaries IV	0.00%	3.38%	<u> </u>	
Total Real Assets	(0.86%)	(4.78%)	10.70%	
Total Real Assets Benchmark*(1)	(2.38%)	(8.93%)	7.82%	
Total Neal Assets Delicilliant (1)	(2.30 /0)	(0.3370)	1.02/0	



<sup>\*</sup> Current Quarter Target = 66.0% NCREIF NFI-ODCE Val Wt Nt, 26.0% NCREIF NFI-ODCE Val Wt Nt+1.5%, 6.0% CPI-W+5.0% and 2.0% NCREIF Farmland Index.

(1) The quarterly Total Real Asset Benchmark returns are calculated by weighting the benchmark return for each asset class.

<sup>(2)</sup> Current market values are those of the prior quarter, adjusted for capital calls and distributions of current quarter.

All returns are shown net of fees.

<sup>(3)</sup> Reported in Euro's by manager and then coverted to US \$.

\*\* Year end figure is based on estimate. YE audit takes 120 days.

#### **Investment Manager Returns**

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30, 2023. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

#### Returns for Periods Ended June 30, 2023

	Last	Last	
	5	10	Since
	Years	Years	Inception
Total Core Funds NCREIF NFI-ODCE Val Wt Nt	<b>6.35%</b> 5.56%	<b>7.67%</b> 7.77%	<b>5.08%</b> (4/05) 6.38% (4/05)
Blackrock Global Renewable Power III	-	-	3.59% (1/21)
Blackstone Property Partners Carlyle Property Investors	10.88%	<del>-</del>	4.49% (1/19) 10.88% (7/18)
Clarion Partners Lion Properties Fund	10.00%	- -	10.88% (7/18) (15.81%) (7/22)
GI Partners ETS Fund	_	<u>-</u>	12.45% (1/22)
Heitman America Real Estate Trust (HART)	5.74%	-	7.30% (4/14)
IFM Glb Infras Fund (GIF)	-	-	5.16% (1/23)
JP Morgan Strategic Property Fund (SPF) Prologis US Logistics Fund (USLF)	4.95%	-	6.77% (4/14) 19.29% (7/20)
UBS Trumbull Property Fund (TPF)	0.61%	4.39%	19.29% (7/20) 4.19% (4/06)
Total Non-Core Funds	6.67%	9.83%	<b>8.35%</b> (4/09)
NCREIF ODCE + 1.5%	7.07%	9.28%	8.55% (4/09)
Basis Real Estate Debt Fund I	11.80%	<u>-</u>	12.20% (10/17)
Basis Real Estate Debt Fund II	=	-	3.27% (4/21)
Blackstone European VI (3)	-	-	6.80% (10/19)
Blackstone RE Partners Àsia III	- 0.070/	<del>-</del>	(15.41%) (4/22)
Blue Vista Real Estate IV ** Brasa II	8.07%	- -	0.32% (10/15) 2.41% (1/22)
Brookfield Strategic Real Estate II	10.95%	- -	12.04% (1/16)
Brookfield Strategic RE III	10.25%	-	9.27% (1/18)
Brookfield Strategic RE IV	-	-	23.60% (7/22)
Cabot Industrial Value VI (CIVF)	-	-	26.75% (7/20)
Crow Holdings Realty VII Crow Holdings Realty VIII	1.37% 16.52%	-	4.56% (10/15) 16.52% (7/18)
Crow Holdings Realty IX	10.52 %		16.52% (7/18) 15.81% (7/21)
Dune Real Estate Partners II	0.78%	6.85%	6.68% (4/09)
Dune Real Estate Partners III	0.54%	4.84%	4.72% (4/13)
Dune Real Estate Partners IV	3.33%	-	2.89% (10/17)
Franklin Templeton FTPREF	(9.33%)	6.48%	6.23% (4/12)
Franklin Templeton EMREFF Franklin Templeton MDP RE 2015	(16.38%) 3.57%	(2.28%)	(0.47%) (7/11) 2.45% (7/15)
Longpoint Realty Fund II	-	- -	11.16% (10/21)
Long Wharf VI	-	-	17.05% (7/19)
Newport Capital Partners Fund III	-	-	26.76% (7/21)
Oaktree Real Estate Debt Fund II	(0.62%)	4.500/	1.85% (10/17)
StepSt Partner RE II (fka MFIRE) (2) Torchlight Debt VII	(0.03%)	4.53%	4.70% (1/12) 3.03% (4/21)
Torchlight Debt VIII	_	- -	(17.94%) (10/22)
Westbrook XI	-	-	29.12% (10/20)
Total Private Real Estate	6.46%	8.31%	<b>5.53%</b> (4/05)
Homestead USA Farmland Fund III	-	_	10.17% (10/20)
NCREIF Farmland Index	6.45%	8.34%	7.95% (10/20)
Total Private Infrastructure	13.47%	9.22%	<b>8.87%</b> (10/09)
CPI + 5%	8.90%	7.71%	7.55% (10/09)
FTSE Dev Core Inf 50/50 N	4.81%	6.67%	8.13% (10/09)
Ember Infrastructure I		-	(15.98%) (7/21)
Macquarie Infrastructure Partners III	23.58%	-	15.85% (1/15)
Macquarie Infrastructure Partners IV Pantheon Glb Infrast Secondaries IV	8.68% -	- -	6.86% (1/18) 2.24% (1/22)
Total Real Assets	7.37%	8.36%	<b>5.36%</b> (4/05)
Total Real Assets Benchmark*(1)	6.60%	7.78%	6.11% (4/05)
. S.a Sai / loods Bollolillant (1)	0.0070	1.1070	0.1170 (4700)



<sup>\*</sup> Current Quarter Target = 66.0% NCREIF NFI-ODCE Val Wt Nt, 26.0% NCREIF NFI-ODCE Val Wt Nt+1.5%, 6.0% CPI-W+5.0% and 2.0% NCREIF Farmland Index.

<sup>(1)</sup> The quarterly Total Real Asset Benchmark returns are calculated by weighting the benchmark return for each asset class.

<sup>(2)</sup> Current market values are those of the prior quarter, adjusted for capital calls and distributions of current quarter.

All returns are shown net of fees.

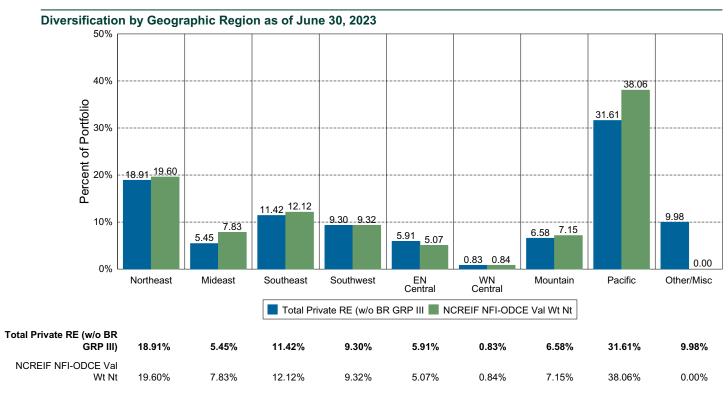
<sup>(3)</sup> Reported in Euro's by manager and then coverted to US \$.

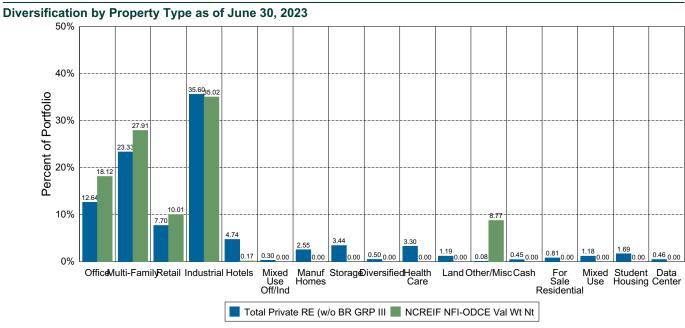
\*\* Year end figure is based on estimate. YE audit takes 120 days.

## Total Private RE (w/o BR GRP III) Diversification Analysis as of June 30, 2023

#### **Diversification Analysis**

The following charts provide information on the diversification of the portfolio with regards to both Geographic Region and Property Type. Similar information is provided on the relevant market index for comparison.





#### Total Private RE (w/o BR

GRP III) 12.64% 23.33% 7.70% 35.60% 4.74% 0.30% 2.55% 3.44% 0.50% 3.30% 1.19% 0.08% 0.45% 0.81% 1.18% 1.69% 0.46%

NCREIF NFI-ODCE Val

Wt Nt 18.12% 27.91% 10.01% 35.02% 0.17% 0.00% 0.00% 0.00% 0.00% 0.00% 0.00% 8.77% 0.00% 0.00% 0.00% 0.00% 0.00%



#### **Total Private Real Estate Real Estate Portfolio Quarterly Changes in Market Value**

Period   P		Beg. of	Capital				Dist. of	Return	Dist. of	End of
66/2005         42,493,963         34,412,979         0         0         2,392,432         852,473         0         42,049,963           12/2005         78,542,902         34,515,560         0         0         2,237,961         1,217,584         0         0         123,652,438           03/2006         133,652,438         1,679,008         0         0         7,754,988         1,679,008         0         0         23,824,238           06/2006         131,407,426         15,313,912         17,260         0         0,754,988         1,679,008         0         0         23,917,396           06/2006         283,966,992         7,421,001         1,708,539         34,414         6,091,615         1,887,109         0         0         2,498,173         311,496,696           06/2007         318,149,699         1,842,480         1,807,242         359,826         14,785,736         1,842,480         0         0         303,286,624           03/2007         343,339,888         1,674,352         683,76         1,569,797         1,988,386         0         0         304,323,006           12/2007         346,323,006         3,528,084         3,142,415         3,824,894         3,424,415         3,824,894 <t< th=""><th></th><th>Period</th><th>+ Contri-</th><th>+ Accounting</th><th>- Mgmt.</th><th>+ Appre</th><th></th><th>-</th><th></th><th>= Period</th></t<>		Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre		-		= Period
092005         42,049.683         34,412.979         0         0         2,932.432         852.473         0         0         123,652.438           032006         123,652.438         1,679,008         0         0         (2,207.961)         1,217.564         0         123,652.438           08/2006         133,692.438         1,679,008         0         0         7,549.88         1,879,008         0         0         131,407.46           08/2006         233,971.396         653,259         1,719,275         0         (370,023)         1,829,477         0         0         289,966,92           12/2007         302,966,692         7,421,001         1,708,539         334,114         6,091,615         1,887,109         0         2,458,173         318,149,659           08/2007         318,149,659         1,882,480         1,807,242         3,898,81         1,568,758         1,882,450         0         2,458,173         318,149,659         334,332,102         1,708,658         3,884,18         1,568,737         1,988,366         0         2,245,813         334,332,11         0         0         352,809,428           08/2008         352,286,658         1,988,366         1,988,366         1,988,366         0         0		<u>Market</u>	<u>butions</u>	Income	Fees	<u>ciation</u>	Real. Gains	<u>Capital</u>	_Capital_	<u>Market</u>
122005         78,542,902         48,535,080         0         0         02,07,991         121,7584         0         12,3652,438           08/2006         131,407,426         154,313,912         17,260         0         7,754,988         1,879,008         0         0         283,971,396           08/2006         283,971,396         6,538,259         1,719,275         0         (379,023)         1,882,915         0         0         283,966,992           03/2007         302,966,624         6,918,111         1,875,233         334,414         6,016,161         1,887,109         0         0         030,966,692           03/2007         318,149,659         1,842,480         1,807,242         358,282         1,4785,736         1,842,480         0         0         0         334,482,812         0         0         0         334,382,812         0         0         0         334,382,812         0         0         0         334,382,812         0         0         0         334,382,812         0         0         0         334,382,812         0         0         0         303,282,812         0         0         0         334,382,812         0         0         0         352,282,842         0 <t< td=""><td>06/2005</td><td>0</td><td></td><td>0</td><td>0</td><td>(0)</td><td>123,467</td><td>0</td><td>0</td><td>42,049,963</td></t<>	06/2005	0		0	0	(0)	123,467	0	0	42,049,963
032006         123,652,438         1,679,008         0         7,754,988         1,679,008         0         131,407,426           06/2006         238,971,396         6,538,259         1,719,275         0         62,225         1,229,427         0         0         283,971,396         0         283,971,396         0         0         283,971,396         0         0         283,971,396         0         0         283,971,396         0         0         283,971,396         0         0         283,971,396         0         0         283,971,396         0         0         283,971,396         0         0         283,971,396         0         0         283,971,396         0         0         0         283,971,396         0         0         0         283,971,396         0         0         0         283,971,341         0         0         0         343,82,812         0         0         0         343,22,812         0         0         346,230,006         1         1,894,230         0         0         346,230,006         0         345,230,006         0         345,230,006         0         343,230,006         0         343,302,812         0         0         0         343,230,006         0         34						2,932,432	•	0	0	78,542,902
06/2006         131,407,426         154,313,912         17,260         0         62,225         1,829,427         0         283,971,396         0         283,971,396         0         283,971,396         0         283,971,396         0         289,966,992         1,7742,1001         1,708,539         334,414         1,887,109         0         0         296,666,24         0,918,111         1,675,293         334,414         1,887,109         0         0         2,956,662         0,920,707         334,382,812         2,266,946         1,724,761         380,988         1,0165,598         1,826,842         1,266,946         1,724,761         380,988         1,1065,598         1,826,848         1,724,761         380,988         1,1065,598         1,826,121         0         0         343,823,300         1,998,886         1,764,352         663,376         1,589,797         1,988,386         0         0         352,809,428         8,831,700         1,822,454         128,447         1(7,340,577)         2,918,086         0         0         342,438,766         340,975,849         3,142,415         1,822,454         128,447         1(7,340,577)         2,918,708         0         0         342,438,766         342,438,766         3,443,454         1,824,447         0         0         242,438	12/2005	78,542,902	48,535,080	0	0	(2,207,961)	1,217,584	0	0	123,652,438
09/2006         283,971,396         6,538,259         1,719,275         0         (379,023)         1,882,1915         0         0         289,966,992           12/2006         289,966,992         7,421,001         1,708,559         334,414         6,091,615         1,887,109         0         0         302,966,624         0         2,458,173         318,149,659         318,149,659         1,824,480         1,807,242         359,826         14,785,736         1,824,480         0         0         334,382,812           09/2007         343,382,812         2,265,946         1,724,761         380,988         10,165,589         1,822,480         0         0         360,232,006         360,228,655         0         0         360,228,655         0         0         362,280,428         0         0         0         352,280,428         8,831,700         1,822,464         128,447         1(7,540,577)         2,918,708         0         0         343,075,849         0         0         343,075,849         0         0         343,075,849         0         0         343,075,849         0         0         343,075,849         0         0         343,075,849         0         0         343,075,849         0         0         243,075,249         0	03/2006	123,652,438	1,679,008	0	0	7,754,988	1,679,008	0	0	131,407,426
122006         289,966,992         7,421,001         1,708,539         334,414         6,091,615         1,887,109         0         0         302,966,624           03/2007         302,966,624         6,918,111         1,675,293         348,138         13,086,106         3,680,165         0         2,458,173         318,149,659           06/2007         318,149,659         1,842,480         1,824,480         0         343,328,112         0         0         346,323,006           12/2007         334,328,812         2,265,946         1,724,761         380,988         10,156,598         1,866,121         0         0         350,228,655           06/2008         350,228,655         1,998,366         1,674,352         663,376         1,569,797         1,988,366         0         0         350,228,655           06/2008         352,294,28         8,831,700         1,822,648         182,447         (17,340,577)         2,918,708         0         0         342,438,766           09/2008         342,438,766         3,143,110         1,881,551         286,163         (44,893,159)         4,244,862         0         0         298,634,064           03/2009         236,692,544         3,600,000         1,780,444         569,230	06/2006		154,313,912	17,260	0	62,225	1,829,427	0	0	283,971,396
03/2007         302,966,624         6,918,111         1,675,293         348,138         13,086,106         3,080,165         0         2,458,173         318,149,659           06/2007         318,149,659         1,842,480         1,907,242         359,826         14,785,736         1,842,480         0         0         343,382,812         0         0         346,323,006         1,956,882         1,690,561         380,881         10,165,599         1,868,386         0         0         350,228,655           03/2008         350,228,655         1,988,386         1,674,352         663,376         1,569,977         1,988,386         0         0         342,438,758,89           09/2008         343,075,849         3,142,415         1,822,648         128,447         1,7340,5777         2,918,708         0         0         342,438,766           12/2008         342,438,766         3,143,110         1,881,551         286,163         (45,400,090)         3,143,110         0         0         286,34064         0         0         264,092,54         0         0         24,249,831,59         0         0         0         24,248,83,66         0         0         224,248,83         0         0         0         202,437,804         0	09/2006		6,538,259	1,719,275	0	(379,023)	1,882,915	0	0	
06/2007         318,149,659         1,842,480         1,807,242         359,826         14,785,736         1,824,880         0         0         334,382,312           09/2007         334,382,812         2,265,946         1,724,761         380,988         10,156,598         1,826,121         0         0         346,323,006           12/2007         346,323,006         1,956,882         1,690,561         388,418         6,3366         5,689,8851         0         0         350,228,655           03/2008         352,289,428         8,831,700         1,822,454         128,447         (1,340,577)         2,918,708         0         0         342,438,766           12/2008         342,438,766         3,143,110         1,881,551         286,163         (46,400,909)         3,143,110         0         0         288,634,064           03/2009         228,634,064         3,043,682         1,823,223         273,693         (48,831,59)         4,264,862         0         0         254,089,254           06/2009         233,559,843         0         1,703,642         575,906         (12,246,283)         2,003,491         0         0         22,437,804           03/2010         234,207,074         27,040,000         2,015,326         21	12/2006	289,966,992	7,421,001	1,708,539	334,414	6,091,615	1,887,109	0	0	302,966,624
09/2007         334,382,812         2,265,946         1,724,761         380,988         10,156,598         1,826,121         0         0         346,323,006           12/2007         346,323,006         1,956,882         1,690,561         388,418         6,338,475         5,699,861         0         0         350,228,655           03/2008         352,809,428         8,831,700         1,822,454         128,447         (17,340,577)         2,918,708         0         0         343,075,849           09/2008         343,075,849         3,142,415         1,822,648         376,323         (2,083,408)         3,142,415         0         0         298,634,064         3,043,682         1,823,223         273,693         (44,893,159)         4,264,862         0         0         254,069,254           06/2009         254,069,254         3,600,000         1,840,942         556,900         (12,246,83)         20,034,941         0         0         220,437,804           1/2/2009         220,437,804         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         224,477,64           03/2010         267,524,774         25,000,000         2,907,443         249,457         5,765,693         2,456,070 <td>03/2007</td> <td>302,966,624</td> <td>6,918,111</td> <td>1,675,293</td> <td>348,138</td> <td></td> <td>3,690,165</td> <td>0</td> <td>2,458,173</td> <td>318,149,659</td>	03/2007	302,966,624	6,918,111	1,675,293	348,138		3,690,165	0	2,458,173	318,149,659
12/2007         346,323,006         1,956,882         1,690,561         388,418         6,336,475         5,689,851         0         0         350,228,655           03/2008         350,228,655         1,988,386         1,674,352         663,376         1,569,797         1,988,386         0         0         343,075,428           06/2008         343,075,849         3,142,415         1,822,648         376,323         (2,083,408)         3,142,415         0         0         342,438,766           12/2008         342,438,766         3,143,110         1,881,551         286,163         (45,400,090)         3,143,110         0         256,069,254           06/2009         254,069,254         3,600,000         1,840,942         552,000         (23,368,122)         1,989,933         0         0         233,559,843           09/2009         234,578,04         0         1,703,642         575,906         (12,246,283)         2,003,491         0         0         234,277,074           09/2010         234,207,074         27,040,000         2,015,326         210,612         734,572         2,061,158         0         0         234,277,074           09/2011         347,171,108         6,169,565         3,049,562         672,479         <	06/2007	318,149,659	1,842,480		359,826	14,785,736	1,842,480	0	0	
03/2008         350,228,655         1,988,386         1,674,352         663,376         1,569,797         1,988,386         0         0         352,809,428         8,831,700         1,822,454         128,447         (17,340,577)         2,918,708         0         0         343,075,849         0         342,375,849         0         342,438,766         0         342,438,766         0         242,838,766         0         243,836,66         0         298,634,064         0         342,438,766         0         298,634,064         0         0         298,634,064         0         0         298,634,064         0         0         0         298,634,064         0         203,408         1,41,110         0         0         0         298,634,064         0         0         0         254,069,254         0         0         0         235,559,843         0         1,703,642         575,906         (12,246,283)         2,003,491         0         0         20,247,804           03/2010         208,728,946         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         0         267,524,774           06/2010         267,524,774         25,000,000         2,015,326         487,973         <	09/2007	334,382,812	2,265,946	1,724,761	380,988	10,156,598		0	0	346,323,006
06/2008         352,809,428         8,831,700         1,822,454         128,447         (17,340,577)         2,918,708         0         0         343,075,849           09/2008         343,075,849         3,142,415         1,822,648         376,323         (2,083,408)         3,142,415         0         0         243,83,766           12/2008         298,634,064         3,043,682         1,823,223         273,693         (44,893,159)         4,264,862         0         0         254,069,254           06/2009         254,069,254         3,600,000         1,840,942         592,300         (23,388,122)         1,989,933         0         0         220,437,804           09/2009         233,559,843         0         1,703,642         575,906         (12,246,283)         2,003,491         0         0         220,437,804           03/2010         208,728,946         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         234,207,074           09/2010         234,207,074         25,000,000         3,997,524         239,447         5,875,693         2,466,070         0         0         267,524,774           09/2011         361,882,119         2,800,000         3,595,824 <td< td=""><td>12/2007</td><td>346,323,006</td><td>1,956,882</td><td>1,690,561</td><td>388,418</td><td>6,336,475</td><td>5,689,851</td><td>0</td><td>0</td><td>350,228,655</td></td<>	12/2007	346,323,006	1,956,882	1,690,561	388,418	6,336,475	5,689,851	0	0	350,228,655
09/2008         343,075,849         3,142,415         1,822,648         376,323         (2,083,408)         3,142,415         0         0         342,438,766           12/2008         342,438,766         3,143,110         1,881,551         286,163         (45,400,090)         3,143,110         0         0         298,634,064           03/2009         254,069,254         3,600,000         1,840,942         592,300         (23,368,122)         1,989,933         0         0         233,559,843           09/2009         233,559,843         0         1,768,774         566,083         (10,965,797)         1,965,752         0         0         224,378,044           03/2010         2204,378,044         0         1,788,774         566,083         (10,965,797)         1,965,752         0         0         234,207,074           06/2010         234,207,074         27,040,000         3,097,524         239,447         5,875,693         2,456,070         0         0         267,524,774           09/2010         237,7714         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         347,717,108           06/2011         371,1815,419         2,220,005         2,938,893         679,	03/2008	350,228,655	1,988,386	1,674,352	663,376	1,569,797	1,988,386	0	0	
12/2008         342,438,766         3,143,110         1,881,551         286,163         (45,400,090)         3,143,110         0         0         298,634,064           03/2009         298,634,064         3,043,682         1,823,223         273,693         (44,893,159)         4,264,862         0         0         0         254,069,254           06/2009         233,559,843         0         1,703,642         575,906         (12,246,283)         2,003,491         0         0         220,437,804           03/2010         200,728,946         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         234,207,074           06/2010         234,207,074         27,040,000         3,097,524         239,447         5,875,693         2,456,070         0         0         234,207,074           09/2010         267,524,774         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         311,882,119           12/2010         311,882,119         26,840,000         3,525,226         487,973         8,721,683         3,282,799         0         0         361,111,450           06/2011         377,815,419         2,222,095         2,938,89	06/2008	352,809,428	8,831,700	1,822,454	128,447	(17,340,577)	2,918,708	0	0	343,075,849
03/2009         298,634,064         3,043,682         1,823,223         273,693         (44,893,159)         4,264,862         0         0         254,069,254           06/2009         254,069,254         3,600,000         1,840,942         592,300         (23,368,122)         1,989,933         0         0         233,559,843           09/2009         223,3559,843         0         1,703,642         575,906         (12,246,283)         2,003,491         0         0         220,437,804           03/2010         208,728,946         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         234,207,074           06/2010         234,207,074         27,040,000         3,097,524         239,447         5,875,693         2,456,070         0         0         0         267,524,774           09/2010         267,524,774         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         347,171,08           03/2011         347,171,08         6,169,856         3,049,562         672,479         8,721,683         3,328,279         0         0         341,114,50           06/2011         361,111,460         4,373,333         3,139,247 </td <td>09/2008</td> <td>343,075,849</td> <td>3,142,415</td> <td>1,822,648</td> <td>376,323</td> <td>(2,083,408)</td> <td>3,142,415</td> <td>0</td> <td>0</td> <td>342,438,766</td>	09/2008	343,075,849	3,142,415	1,822,648	376,323	(2,083,408)	3,142,415	0	0	342,438,766
06/2009         254,069,254         3,600,000         1,840,942         592,300         (23,368,122)         1,989,933         0         0         233,559,843           09/2009         233,559,843         0         1,703,642         575,906         (12,246,83)         2,003,491         0         0         220,437,804           12/2009         220,437,804         0         1,788,774         566,083         (10,965,797)         1,965,752         0         0         208,728,946           03/2010         234,207,074         27,040,000         3,097,524         239,447         5,875,693         2,456,070         0         0         267,524,774           09/2010         267,524,774         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         0         347,171,08           03/2011         314,882,119         26,840,000         3,525,226         487,973         8,721,683         3,289,692         0         0         347,171,08           06/2011         361,111,450         4,373,333         3,139,247         663,418         14,060,049         4,205,243         0         0         37,815,419           09/2011         377,815,419         2,222,095         2,938,893	12/2008	342,438,766	3,143,110	1,881,551	286,163	(45,400,090)	3,143,110	0	0	298,634,064
09/2009         233,559,843         0         1,703,642         575,906         (12,246,283)         2,003,491         0         0         220,437,804           12/2009         20,437,804         0         1,788,774         566,083         (10,965,797)         1,965,752         0         0         0         208,728,946           03/2010         2234,207,074         27,040,000         2,015,326         210,612         734,572         2,061,158         0         0         234,207,074           09/2010         267,524,774         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         311,882,119           12/2010         311,882,119         26,840,000         3,525,226         487,973         8,701,428         3,289,692         0         0         361,111,450           03/2011         347,171,108         6,169,856         3,049,562         672,479         8,721,683         3,328,9692         0         0         361,111,450           09/2011         377,815,419         2,222,095         2,938,893         679,965         15,992,933         3,423,940         0         0         344,865,435           12/2011         394,865,435         16,655,942         2,952,521	03/2009	298,634,064	3,043,682	1,823,223	273,693	(44,893,159)	4,264,862	0	0	254,069,254
12/2009         220,437,804         0         1,788,774         566,083         (10,965,797)         1,965,752         0         0         208,728,946           03/2010         286,728,946         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         234,207,074           06/2010         234,207,074         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         267,524,774           09/2010         267,524,774         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         347,171,108           03/2011         347,171,108         6,169,856         3,049,562         672,479         8,721,683         3,238,279         0         0         361,111,450           06/2011         361,111,450         4,373,333         3,139,247         663,418         14,060,049         4,205,243         0         0         378,815,419           09/2011         377,815,419         2,222,095         2,938,893         679,965         15,992,933         3,423,940         0         0         403,530,615           03/2012         418,973,609         12,851,428         3,070,176         811	06/2009	254,069,254	3,600,000	1,840,942	592,300	(23,368,122)	1,989,933	0	0	233,559,843
03/2010         208,728,946         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         234,207,074           06/2010         234,207,074         27,040,000         3,097,524         239,447         5,875,693         2,456,070         0         0         267,524,774           09/2010         267,524,774         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         311,882,119           12/2010         311,882,119         26,840,000         3,525,226         487,973         8,701,428         3,289,692         0         0         347,171,108           03/2011         347,171,108         6,169,856         3,049,562         672,479         8,721,604         4,205,243         0         0         347,115,169           06/2011         361,111,450         4,373,333         3,139,247         663,418         14,060,049         4,205,243         0         0         377,815,419           09/2011         377,815,419         2,222,095         2,938,893         679,965         15,992,933         3,423,940         0         0         0         341,8973,609           06/2012         418,973,609         12,851,428         3,070	09/2009	233,559,843	0	1,703,642	575,906	(12,246,283)	2,003,491	0	0	220,437,804
06/2010         234,207,074         27,040,000         3,097,524         239,447         5,875,693         2,456,070         0         0         267,524,774           09/2010         267,524,774         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         311,882,119           12/2010         311,882,119         26,840,000         3,525,226         487,973         8,701,428         3,289,692         0         0         347,171,108           03/2011         347,171,108         6,169,856         3,049,562         672,479         8,721,683         3,328,279         0         0         361,111,450           06/2011         361,111,450         4,373,333         3,139,247         663,418         14,060,049         4,205,243         0         0         377,815,419           09/2011         377,815,419         2,222,095         2,938,893         679,965         15,992,933         3,423,940         0         0         394,865,435           12/2011         394,865,435         16,655,942         2,952,521         703,273         (6,843,995)         3,399,014         0         0         418,973,609           06/2012         418,973,609         12,851,428         3,070,176	12/2009	220,437,804	0	1,788,774	566,083	(10,965,797)	1,965,752	0	0	208,728,946
09/2010         267,524,774         25,000,000         2,907,443         294,552         19,471,475         2,727,021         0         0         311,882,119           12/2010         311,882,119         26,840,000         3,525,226         487,973         8,701,428         3,289,692         0         0         347,171,108           03/2011         347,171,108         6,169,856         3,049,562         672,479         8,721,683         3,328,279         0         0         361,111,450           06/2011         361,111,450         4,373,333         3,139,247         663,418         14,060,049         4,205,243         0         0         377,815,419           09/2011         378,815,419         2,222,095         2,938,893         679,965         15,992,933         3,423,940         0         0         403,530,615           12/2011         394,865,435         16,655,942         2,952,521         703,273         (6,843,995)         3,396,014         0         0         403,530,615           06/2012         418,973,609         12,861,428         3,070,176         811,541         6,66,680         6,007,837         0         544,391         433,998,123           09/2012         433,998,123         12,453,309         3,465,912	03/2010	208,728,946	25,000,000	2,015,326	210,612	734,572	2,061,158	0	0	234,207,074
12/2010         311,882,119         26,840,000         3,525,226         487,973         8,701,428         3,289,692         0         0         347,171,108           03/2011         347,171,108         6,169,856         3,049,562         672,479         8,721,683         3,328,279         0         0         361,111,450           06/2011         361,111,450         4,373,333         3,139,247         663,418         14,060,049         4,205,243         0         0         377,815,419           09/2011         377,815,419         2,222,095         2,938,893         679,965         15,992,933         3,423,940         0         0         394,865,435           12/2011         394,865,435         16,655,942         2,952,521         703,273         (6,843,995)         3,396,014         0         0         403,530,615           03/2012         403,530,615         5,777,016         3,237,093         712,989         10,670,378         3,528,506         0         0         418,973,609           09/2012         418,973,609         12,851,428         3,070,176         811,541         6,466,680         6,007,837         0         544,391         433,998,123           12/2012         450,415,721         21,304,116         2,985,126	06/2010	234,207,074	27,040,000	3,097,524	239,447	5,875,693	2,456,070	0	0	267,524,774
03/2011         347,171,108         6,169,856         3,049,562         672,479         8,721,683         3,328,279         0         0         361,111,450           06/2011         361,111,450         4,373,333         3,139,247         663,418         14,060,049         4,205,243         0         0         377,815,419           09/2011         377,815,419         2,222,095         2,938,893         679,965         15,992,933         3,423,940         0         0         394,865,435           12/2011         394,865,435         16,655,942         2,952,521         703,273         (6,843,995)         3,396,014         0         0         403,530,615           03/2012         403,530,615         5,777,016         3,237,093         712,989         10,670,378         3,528,506         0         0         418,973,609           06/2012         418,973,609         12,851,428         3,070,176         811,541         6,466,680         6,007,837         0         544,391         433,998,123           12/2012         450,415,721         21,304,116         2,985,126         836,210         7,740,575         5,848,715         0         1,311,525         474,449,087           03/2013         474,449,087         8,924,696         3,361,755	09/2010	267,524,774	25,000,000	2,907,443	294,552	19,471,475	2,727,021	0	0	311,882,119
06/2011         361,111,450         4,373,333         3,139,247         663,418         14,060,049         4,205,243         0         0         377,815,419           09/2011         377,815,419         2,222,095         2,938,893         679,965         15,992,933         3,423,940         0         0         394,865,435           12/2011         394,865,435         16,655,942         2,952,521         703,273         (6,843,995)         3,396,014         0         0         403,530,615           03/2012         403,530,615         5,777,016         3,237,093         712,989         10,670,378         3,528,506         0         0         418,973,609           06/2012         418,973,609         12,851,428         3,070,176         811,541         6,466,680         6,007,837         0         544,391         433,998,123           09/2012         433,998,123         12,453,309         3,465,912         821,801         8,311,113         5,430,310         0         1,560,625         450,415,721           12/2012         450,415,721         21,304,116         2,985,126         836,210         7,740,575         5,848,715         0         1,311,525         474,449,087           03/2013         474,449,087         8,924,696	12/2010	311,882,119	26,840,000	3,525,226	487,973	8,701,428	3,289,692	0	0	347,171,108
09/2011         377,815,419         2,222,095         2,938,893         679,965         15,992,933         3,423,940         0         0         394,865,435           12/2011         394,865,435         16,655,942         2,952,521         703,273         (6,843,995)         3,396,014         0         0         403,530,615           03/2012         403,530,615         5,777,016         3,237,093         712,989         10,670,378         3,528,506         0         0         418,973,609           06/2012         418,973,609         12,851,428         3,070,176         811,541         6,466,680         6,007,837         0         544,391         433,998,123           09/2012         433,998,123         12,453,309         3,465,912         821,801         8,311,113         5,430,310         0         1,560,625         450,415,721           12/2012         450,415,721         21,304,116         2,985,126         836,210         7,740,575         5,848,715         0         1,311,525         474,449,087           03/2013         474,449,087         8,924,696         3,361,755         842,722         9,867,263         4,936,044         0         5,912,217         484,911,819           06/2013         484,911,819         13,690,142	03/2011	347,171,108	6,169,856	3,049,562	672,479	8,721,683	3,328,279	0	0	361,111,450
12/2011         394,865,435         16,655,942         2,952,521         703,273         (6,843,995)         3,396,014         0         0         403,530,615           03/2012         403,530,615         5,777,016         3,237,093         712,989         10,670,378         3,528,506         0         0         418,973,609           06/2012         418,973,609         12,851,428         3,070,176         811,541         6,466,680         6,007,837         0         544,391         433,998,123           09/2012         433,998,123         12,453,309         3,465,912         821,801         8,311,113         5,430,310         0         1,560,625         450,415,721           12/2012         450,415,721         21,304,116         2,985,126         836,210         7,740,575         5,848,715         0         1,311,525         474,449,087           03/2013         474,449,087         8,924,696         3,361,755         842,722         9,867,263         4,936,044         0         5,912,217         484,911,819           06/2013         484,911,819         13,690,142         3,408,964         813,391         9,856,009         130,555,101         0         35,883         380,462,559           09/2013         380,462,559         28,876,958 <td>06/2011</td> <td>361,111,450</td> <td>4,373,333</td> <td>3,139,247</td> <td>663,418</td> <td>14,060,049</td> <td>4,205,243</td> <td>0</td> <td>0</td> <td>377,815,419</td>	06/2011	361,111,450	4,373,333	3,139,247	663,418	14,060,049	4,205,243	0	0	377,815,419
03/2012         403,530,615         5,777,016         3,237,093         712,989         10,670,378         3,528,506         0         0         418,973,609           06/2012         418,973,609         12,851,428         3,070,176         811,541         6,466,680         6,007,837         0         544,391         433,998,123           09/2012         433,998,123         12,453,309         3,465,912         821,801         8,311,113         5,430,310         0         1,560,625         450,415,721           12/2012         450,415,721         21,304,116         2,985,126         836,210         7,740,575         5,848,715         0         1,311,525         474,449,087           03/2013         474,449,087         8,924,696         3,361,755         842,722         9,867,263         4,936,044         0         5,912,217         484,911,819           06/2013         484,911,819         13,690,142         3,408,964         813,391         9,856,009         130,555,101         0         35,883         380,462,559           09/2013         380,462,559         28,876,958         3,159,030         1,277,279         6,839,123         12,324,318         0         1,719,937         404,016,136           03/2014         471,279,164         8,36	09/2011	377,815,419	2,222,095	2,938,893	679,965	15,992,933	3,423,940	0	0	
06/2012         418,973,609         12,851,428         3,070,176         811,541         6,466,680         6,007,837         0         544,391         433,998,123           09/2012         433,998,123         12,453,309         3,465,912         821,801         8,311,113         5,430,310         0         1,560,625         450,415,721           12/2012         450,415,721         21,304,116         2,985,126         836,210         7,740,575         5,848,715         0         1,311,525         474,449,087           03/2013         474,449,087         8,924,696         3,361,755         842,722         9,867,263         4,936,044         0         5,912,217         484,911,819           06/2013         484,911,819         13,690,142         3,408,964         813,391         9,856,009         130,555,101         0         35,883         380,462,559           09/2013         380,462,559         28,876,958         3,159,030         1,277,279         6,839,123         12,324,318         0         1,719,937         404,016,136           12/2013         404,016,136         62,878,607         3,041,081         1,020,951         7,460,729         4,845,993         0         250,445         471,279,164           03/2014         471,279,164	12/2011	394,865,435	16,655,942	2,952,521	703,273	(6,843,995)	3,396,014	0	0	403,530,615
09/2012         433,998,123         12,453,309         3,465,912         821,801         8,311,113         5,430,310         0         1,560,625         450,415,721           12/2012         450,415,721         21,304,116         2,985,126         836,210         7,740,575         5,848,715         0         1,311,525         474,449,087           03/2013         474,449,087         8,924,696         3,361,755         842,722         9,867,263         4,936,044         0         5,912,217         484,911,819           06/2013         484,911,819         13,690,142         3,408,964         813,391         9,856,009         130,555,101         0         35,883         380,462,559           09/2013         380,462,559         28,876,958         3,159,030         1,277,279         6,839,123         12,324,318         0         1,719,937         404,016,136           12/2013         404,016,136         62,878,607         3,041,081         1,020,951         7,460,729         4,845,993         0         250,445         471,279,164           03/2014         471,279,164         8,361,763         3,496,147         1,123,862         18,364,484         13,093,727         0         1,444,640         485,839,330           06/2014         637,264,227	03/2012	403,530,615	5,777,016	3,237,093	712,989		3,528,506	0	0	418,973,609
12/2012         450,415,721         21,304,116         2,985,126         836,210         7,740,575         5,848,715         0         1,311,525         474,449,087           03/2013         474,449,087         8,924,696         3,361,755         842,722         9,867,263         4,936,044         0         5,912,217         484,911,819           06/2013         484,911,819         13,690,142         3,408,964         813,391         9,856,009         130,555,101         0         35,883         380,462,559           09/2013         380,462,559         28,876,958         3,159,030         1,277,279         6,839,123         12,324,318         0         1,719,937         404,016,136           12/2013         404,016,136         62,878,607         3,041,081         1,020,951         7,460,729         4,845,993         0         250,445         471,279,164           03/2014         471,279,164         8,361,763         3,496,147         1,123,862         18,364,484         13,093,727         0         1,444,640         485,839,330           06/2014         485,839,330         168,387,475         4,383,107         1,207,697         10,271,773         10,045,299         2,417         20,362,045         637,264,227           09/2014         637,264,22	06/2012	418,973,609	12,851,428	3,070,176	811,541	6,466,680	6,007,837	0	544,391	433,998,123
03/2013         474,449,087         8,924,696         3,361,755         842,722         9,867,263         4,936,044         0         5,912,217         484,911,819           06/2013         484,911,819         13,690,142         3,408,964         813,391         9,856,009         130,555,101         0         35,883         380,462,559           09/2013         380,462,559         28,876,958         3,159,030         1,277,279         6,839,123         12,324,318         0         1,719,937         404,016,136           12/2013         404,016,136         62,878,607         3,041,081         1,020,951         7,460,729         4,845,993         0         250,445         471,279,164           03/2014         471,279,164         8,361,763         3,496,147         1,123,862         18,364,484         13,093,727         0         1,444,640         485,839,330           06/2014         485,839,330         168,387,475         4,383,107         1,207,697         10,271,773         10,045,299         2,417         20,362,045         637,264,227           09/2014         637,264,227         101,636,642         6,181,480         1,409,298         13,167,818         11,957,185         0         449,945         744,433,739           12/2014         744,433	09/2012	433,998,123	12,453,309	3,465,912	821,801	8,311,113	5,430,310	0	1,560,625	450,415,721
06/2013         484,911,819         13,690,142         3,408,964         813,391         9,856,009         130,555,101         0         35,883         380,462,559           09/2013         380,462,559         28,876,958         3,159,030         1,277,279         6,839,123         12,324,318         0         1,719,937         404,016,136           12/2013         404,016,136         62,878,607         3,041,081         1,020,951         7,460,729         4,845,993         0         250,445         471,279,164           03/2014         471,279,164         8,361,763         3,496,147         1,123,862         18,364,484         13,093,727         0         1,444,640         485,839,330           06/2014         485,839,330         168,387,475         4,383,107         1,207,697         10,271,773         10,045,299         2,417         20,362,045         637,264,227           09/2014         637,264,227         101,636,642         6,181,480         1,409,298         13,167,818         11,957,185         0         449,945         744,433,739           12/2014         744,433,739         77,116,484         6,866,500         1,267,082         15,668,216         9,096,964         0         22,718,143         811,002,750           03/2015         81	12/2012	450,415,721	21,304,116	2,985,126	836,210	7,740,575	5,848,715	0	1,311,525	474,449,087
09/2013         380,462,559         28,876,958         3,159,030         1,277,279         6,839,123         12,324,318         0         1,719,937         404,016,136           12/2013         404,016,136         62,878,607         3,041,081         1,020,951         7,460,729         4,845,993         0         250,445         471,279,164           03/2014         471,279,164         8,361,763         3,496,147         1,123,862         18,364,484         13,093,727         0         1,444,640         485,839,330           06/2014         485,839,330         168,387,475         4,383,107         1,207,697         10,271,773         10,045,299         2,417         20,362,045         637,264,227           09/2014         637,264,227         101,636,642         6,181,480         1,409,298         13,167,818         11,957,185         0         449,945         744,433,739           12/2014         744,433,739         77,116,484         6,866,500         1,267,082         15,668,216         9,096,964         0         22,718,143         811,002,750           03/2015         811,002,750         21,635,146         7,674,697         1,760,301         20,980,550         15,152,959         0         2,674,991         841,704,892           06/2015         <	03/2013	474,449,087	8,924,696	3,361,755	842,722	9,867,263	4,936,044	0	5,912,217	484,911,819
12/2013       404,016,136       62,878,607       3,041,081       1,020,951       7,460,729       4,845,993       0       250,445       471,279,164         03/2014       471,279,164       8,361,763       3,496,147       1,123,862       18,364,484       13,093,727       0       1,444,640       485,839,330         06/2014       485,839,330       168,387,475       4,383,107       1,207,697       10,271,773       10,045,299       2,417       20,362,045       637,264,227         09/2014       637,264,227       101,636,642       6,181,480       1,409,298       13,167,818       11,957,185       0       449,945       744,433,739         12/2014       744,433,739       77,116,484       6,866,500       1,267,082       15,668,216       9,096,964       0       22,718,143       811,002,750         03/2015       811,002,750       21,635,146       7,674,697       1,760,301       20,980,550       15,152,959       0       2,674,991       841,704,892         06/2015       841,704,892       22,866,436       7,861,829       1,820,086       22,507,085       12,887,424       0       1,339,019       878,893,713	06/2013	484,911,819	13,690,142	3,408,964	813,391	9,856,009	130,555,101	0	35,883	380,462,559
03/2014         471,279,164         8,361,763         3,496,147         1,123,862         18,364,484         13,093,727         0         1,444,640         485,839,330           06/2014         485,839,330         168,387,475         4,383,107         1,207,697         10,271,773         10,045,299         2,417         20,362,045         637,264,227           09/2014         637,264,227         101,636,642         6,181,480         1,409,298         13,167,818         11,957,185         0         449,945         744,433,739           12/2014         744,433,739         77,116,484         6,866,500         1,267,082         15,668,216         9,096,964         0         22,718,143         811,002,750           03/2015         811,002,750         21,635,146         7,674,697         1,760,301         20,980,550         15,152,959         0         2,674,991         841,704,892           06/2015         841,704,892         22,866,436         7,861,829         1,820,086         22,507,085         12,887,424         0         1,339,019         878,893,713	09/2013	380,462,559	28,876,958	3,159,030	1,277,279	6,839,123	12,324,318	0	1,719,937	404,016,136
06/2014         485,839,330         168,387,475         4,383,107         1,207,697         10,271,773         10,045,299         2,417         20,362,045         637,264,227           09/2014         637,264,227         101,636,642         6,181,480         1,409,298         13,167,818         11,957,185         0         449,945         744,433,739           12/2014         744,433,739         77,116,484         6,866,500         1,267,082         15,668,216         9,096,964         0         22,718,143         811,002,750           03/2015         811,002,750         21,635,146         7,674,697         1,760,301         20,980,550         15,152,959         0         2,674,991         841,704,892           06/2015         841,704,892         22,866,436         7,861,829         1,820,086         22,507,085         12,887,424         0         1,339,019         878,893,713	12/2013	404,016,136	62,878,607	3,041,081	1,020,951	7,460,729	4,845,993	0	250,445	471,279,164
09/2014       637,264,227       101,636,642       6,181,480       1,409,298       13,167,818       11,957,185       0       449,945       744,433,739         12/2014       744,433,739       77,116,484       6,866,500       1,267,082       15,668,216       9,096,964       0       22,718,143       811,002,750         03/2015       811,002,750       21,635,146       7,674,697       1,760,301       20,980,550       15,152,959       0       2,674,991       841,704,892         06/2015       841,704,892       22,866,436       7,861,829       1,820,086       22,507,085       12,887,424       0       1,339,019       878,893,713	03/2014	471,279,164	8,361,763	3,496,147	1,123,862	18,364,484	13,093,727	0	1,444,640	485,839,330
12/2014     744,433,739     77,116,484     6,866,500     1,267,082     15,668,216     9,096,964     0     22,718,143     811,002,750       03/2015     811,002,750     21,635,146     7,674,697     1,760,301     20,980,550     15,152,959     0     2,674,991     841,704,892       06/2015     841,704,892     22,866,436     7,861,829     1,820,086     22,507,085     12,887,424     0     1,339,019     878,893,713	06/2014	485,839,330	168,387,475	4,383,107	1,207,697	10,271,773	10,045,299	2,417	20,362,045	637,264,227
03/2015     811,002,750     21,635,146     7,674,697     1,760,301     20,980,550     15,152,959     0     2,674,991     841,704,892       06/2015     841,704,892     22,866,436     7,861,829     1,820,086     22,507,085     12,887,424     0     1,339,019     878,893,713	09/2014	637,264,227	101,636,642	6,181,480	1,409,298	13,167,818	11,957,185	0	449,945	744,433,739
06/2015 841,704,892 22,866,436 7,861,829 1,820,086 22,507,085 12,887,424 0 1,339,019 878,893,713	12/2014	744,433,739	77,116,484	6,866,500	1,267,082	15,668,216	9,096,964	0	22,718,143	811,002,750
	03/2015	811,002,750	21,635,146	7,674,697	1,760,301	20,980,550	15,152,959	0	2,674,991	841,704,892
09/2015 878,893,713 11,216,301 7,918,911 1,780,676 22,613,392 20,089,832 0 827,939 897,943,868	06/2015	841,704,892	22,866,436	7,861,829	1,820,086	22,507,085	12,887,424	0	1,339,019	878,893,713
	09/2015	878,893,713	11,216,301	7,918,911	1,780,676	22,613,392	20,089,832	0	827,939	897,943,868
12/2015 897,943,868 20,871,212 7,874,144 2,481,710 21,862,704 13,671,377 0 388,596 932,010,245	12/2015	897,943,868	20,871,212	7,874,144	2,481,710	21,862,704	13,671,377	0	388,596	932,010,245
03/2016 932,010,245 20,295,944 8,143,230 1,988,116 13,286,274 16,368,188 0 225,653 955,153,736	03/2016	932,010,245	20,295,944	8,143,230	1,988,116	13,286,274	16,368,188	0	225,653	955,153,736
06/2016 955,153,736 31,896,620 8,292,447 2,190,974 13,707,723 10,963,886 0 183,426 995,712,241	06/2016	055 450 700	21 806 620	9 202 447	2 100 074	13 707 723	10 963 886	0	183 426	995 712 241
09/2016 995,712,241 14,378,035 8,174,346 2,185,457 15,342,583 24,149,725 0 86,935 1,007,185,087		955,153,736	31,090,020	0,292,447	2,130,374	13,707,723	10,505,000	J	100,120	333,7 12,241
12/2016 1,007,185,087 27,586,682 8,235,734 2,364,750 15,926,218 28,938,749 0 1,810,102 1,025,820,120	09/2016									



#### **Total Private Real Estate Real Estate Portfolio Quarterly Changes in Market Value**

	Beg. of	Capital				Dist. of	Return	Dist. of	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- of	- Recallable	= Period
	<u>Market</u>	<u>butions</u>	Income	Fees	<u>ciation</u>	Real. Gains	<u>Capital</u>	_Capital_	<u>Market</u>
03/2017	1,025,820,120	11,467,605	8,016,983	2,109,415	6,876,693	11,830,339	0	329,195	1,037,912,453
06/2017	1,037,912,453	18,021,595	8,891,970	2,168,112	11,363,646	22,346,158	0	655,280	1,051,020,114
09/2017	1,051,020,114	15,302,424	8,886,731	2,100,113	12,667,629	8,101,029	0	31,875	1,077,643,881
12/2017	1,077,643,881	17,510,963	9,161,490	2,130,216	19,482,853	19,827,764	0	665,618	1,101,175,590
03/2018	1,101,175,590	33,732,281	9,803,113	2,442,601	13,309,923	16,417,883	930,000	678,961	1,137,551,462
06/2018	1,137,551,462	22,164,160	9,952,779	2,632,871	10,651,214	9,158,610	135,685,504	162,915	1,032,679,716
09/2018	1,032,679,716	28,558,458	9,640,728	2,696,531	10,205,147	13,635,013	64,763,357	3,584,690	996,404,457
12/2018	996,404,457	20,147,456	9,929,615	2,533,802	11,192,031	7,728,893	73,649,942	2,727,413	951,033,509
03/2019	951,033,509	133,117,644	13,792,179	2,593,684	2,441,843	10,093,011	39,731,922	0	1,047,966,557
06/2019	1,047,966,557	206,422,697	10,768,865	2,615,134	(2,815,011)	11,490,391	21,807,071	2,518,787	1,223,911,726
09/2019	1,223,911,726	26,737,418	10,550,915	3,992,533	3,046,783	13,565,961	23,690,852	620,309	1,222,377,188
12/2019	1,222,377,188	19,441,272	12,989,793	3,298,225	299,675	10,011,050	11,871,388	1,980,829	1,227,946,436
03/2020	1,227,946,436	30,094,014	9,862,632	3,273,348	(24,719,577)	10,909,231	17,644,036	1,437,607	1,209,919,283
06/2020	1,209,919,283	20,755,150	7,696,750	3,418,980	(43,185,497)	7,121,328	1,923,758	167,748	1,182,553,872
09/2020	1,182,553,872	21,920,519	8,651,977	3,833,535	4,045,070	8,566,129	7,202,553	983,605	1,196,585,616
12/2020	1,196,585,616	120,321,194	10,436,634	3,900,012	21,340,128	10,379,146	5,891,878	0	1,328,512,536
03/2021	1,328,512,536	41,191,888	10,377,413	5,714,627	29,055,048	15,947,023	14,595,748	758,311	1,372,121,176
06/2021	1,372,121,176	47,072,652	14,944,024	5,029,301	58,604,929	14,552,671	19,194,335	2,007,955	1,451,958,520
09/2021	1,451,958,520	49,754,843	12,868,413	5,464,391	100,490,984	18,376,344	15,353,164	1,141,075	1,574,737,786
12/2021	1,574,737,786	83,289,038	15,766,726	7,536,957	117,834,400	32,823,752	35,002,390	0	1,716,264,851
03/2022	1,716,264,851	74,059,704	13,270,922	6,390,117	125,028,303	17,102,414	5,722,495	3,561,349	1,895,847,405
06/2022	1,895,847,405	54,640,844	11,792,176	6,730,458	57,248,280	32,699,220	27,290,138	16,007,371	1,936,801,519
09/2022	1,936,801,519	105,079,152	11,288,094	6,697,575	(2,432,948)	16,115,366	13,677,513	2,046,462	2,012,198,902
12/2022	2,012,198,902	155,114,229	12,201,479	6,460,818	(68,549,560)	14,269,841	13,539,245	3,155,116	2,073,540,029
03/2023	2,073,540,029	281,939,859	13,469,815	7,102,133	(59,913,519)	18,088,047	9,611,075	336,967	2,273,897,962
06/2023	2,273,897,962	79,713,355	13,161,815	7,040,079	(33,021,415)	10,444,572	909,850	2,620,496	2,312,736,720
	0:	2,875,683,038	447,331,996	147,848,255	622,063,132	810,317,998	559,690,630	114,484,562	2,312,736,720

Returns

Net Since Inception IRR = 6.42%

Ratios

Capital Account = \$2,312,736,720 Total Value = \$3,797,229,910

Committed Capital = \$3,439,018,632

Paid In Capital = \$2,875,683,038

Remaining Commitment = \$681,168,504

PIC Multiple (Paid In Capital/Committed Capital) = 83.62%

Total Economic Exposure (Capital Account + Remaining Commitment) = \$2,993,905,224

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.32x

DPI Realization Multiple (Distributions/Paid In Capital) = 0.52x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.80x

Working on updating historical cashflows on several managers to include detail cashflows. Callan data feed at inception of relationship did not include fee amounts and income amounts. Mangers that still need updating: Brookfield II, Crow VII & VIII, Franklin EMREFF, MDP RE 2015, & FTPREF, Macquarie II & III.

Capital commitments reflects the sum of: (i) aggregate capital contributions translated to U.S. Dollars as of the date of each capital contribution transaction; and (ii) reported uncalled capital commitments translated to U.S. Dollars as of guarter end date.



## State Universities Retirement System of Illinois Manager Detail as of June 30, 2023

The following table summarizes changes in each manager's aggregated cash flows and valuation information as of June 30, 2023.

Manager	Vintage Year	Capital Commitments (\$000s)	Paid-In Capital (\$000s)	Uncalled Capital (\$000s)	% Paid-In	Distributed Capital (\$000s)	Net Asset Value (\$000s)	DPI	RVPI	TVPI	Net IRR
		(+)	(+)	(+)		(+	(+)				
Stabilized Growth Funds											
UBS Trumbull Property Fund (TPF)	2006	\$284,879	284,879	-0	100.00%	401,012	90,703	1.41x	0.32x	1.73x	6.25%
Heitman America Real Estate Trust (HART	,	\$210,405	210,405	0	100.00%	60,405	282,670	0.29x	1.34x	1.63x	7.47%
JP Morgan Strategic Property Fund (SPF)	2014	\$150,000	150,000	0	100.00%	2	274,784	0.00x	1.83x	1.83x	6.89%
Carlyle Property Investors	2018	\$121,746	121,746	0	100.00%	22,632	163,838	0.19x	1.35x	1.53x	11.71%
Blackstone Property Partners	2019	\$219,849	219,849	0	100.00%	19,849	242,410	0.09x	1.10x	1.19x	4.88%
Prologis US Logistics Fund (USLF)	2020	\$109,756	109,756	-0	100.00%	10,076	169,459	0.09x	1.54x	1.64x	21.58%
BlackRock Global Renewable Power III	2020	\$100,000	60,604	43,885	60.60%	4,760	63,656	0.08x	1.05x	1.13x	12.70%
GI Partners ETS Fund	2022	\$75,000	37,861	37,139	50.48%	0	41,246	0.00x	1.09x	1.09x	9.45%
IFM Glb Infras Fund (GIF)	2022	\$100,000	100,000	0	100.00%	0	105,161	0.00x	1.05x	1.05x	5.22%
Clarion Partners Lion Properties Fund	2022	\$228,175	228,175	0	100.00%	4,524	193,177	0.02x	0.85x	0.87x	(20.54%)
Non-Traditional Growth Funds											
Mature (10+ years)											
Dune Real Estate Partners II	2008	\$40,000	40,458	0	101.15%	66,998	6,390	1.66x	0.16x	1.81x	14.31%
Macquarie Infrastructure Partners II	2008	\$40,000	48,268	-2,006	120.67%	75,686	0	1.57x	0.00x	1.57x	8.38%
Alinda Infrastructure Fund II	2009	\$40,000	53,410	1,174	133.52%	53,562	158	1.00x	0.00x	1.01x	0.12%
Franklin Templeton FTPREF	2010	\$50,000	58,445	4,625	116.89%	79,908	461	1.37x	0.01x	1.38x	20.51%
Franklin Templeton EMREFF	2012	\$75,000	80,038	7,244	106.72%	106,812	2,399	1.33x	0.03x	1.36x	11.91%
StepSt Partner RE II (fka MFIRE) (2)	2012	\$60,000	39,413	20,587	65.69%	43,663	13,558	1.11x	0.34x	1.45x	6.53%
Dune Real Estate Partners III	2013	\$100,000	142,791	-3,750	142.79%	112,388	66,162	0.79x	0.46x	1.25x	5.56%
Maturing (5-9 years)											
Crow Holdings Realty VII	2014	\$35,000	32,877	2,123	93.93%	44,249	1,141	1.35x	0.03x	1.38x	11.05%
Blue Vista Real Estate IV **	2015	\$35,000	35,000	-0	100.00%	41,360	11,827	1.18x	0.34x	1.52x	11.04%
Brookfield Strategic Real Estate II	2015	\$35,000	40,883	-944	116.81%	39,524	23,682	0.97x	0.58x	1.55x	11.70%
Franklin Templeton MDP RE 2015	2015	\$90,000	87,302	2,698	97.00%	34,399	64,148	0.39x	0.73x	1.13x	3.84%
Macquarie Infrastructure Partners III	2015	\$50,000	52,958	-1,683	105.92%	53,128	61,663	1.00x	1.16x	2.17x	17.55%
Crow Holdings Realty VIII	2017	\$20,000	17,483	2,517	87.41%	27,101	1,107	1.55x	0.06x	1.61x	23.45%
Oaktree Real Estate Debt Fund II	2017	\$30,000	22,590	8,848	75.30%	16,028	8,967	0.71x	0.40x	1.11x	4.09%
Basis Real Estate Debt Fund I	2016	\$30,000	44,399	-4,285	148.00%	34,807	20,108	0.78x	0.45x	1.24x	12.42%
Brookfield Strategic Real Estate III	2018	\$35,000	34,211	789	97.75%	8,118	36,968	0.24x	1.08x	1.32x	12.24%

<sup>\*\*</sup> Year end figures is based on estimate. YE audit takes 120.
(2) Current EMV are those of the prior quarter, adjusted for capital calls and distributions of current quarter.



## State Universities Retirement System of Illinois Manager Detail as of June 30, 2023

The following table summarizes changes in each manager's aggregated cash flows and valuation information as of June 30, 2023.

	Vintage	Capital Commitments	Paid-In Capital	Uncalled Capital	%	Distributed Capital	Net Asset Value				Net
Manager	Year	(\$000s)	(\$000s)	(\$000s)	Paid-In	(\$000s)	(\$000s)	DPI	RVPI	TVPI	IRR
Immature (Less than 5 years)											
Dune Real Estate IV	2018	\$50,000	37,730	13,029	75.46%	2,558	40,118	0.07x	1.06x	1.13x	6.66%
Macquarie Infrastructure Partners IV	2018	\$50,000	53,538	-3,538	107.08%	13,976	61,243	0.26x	1.14x	1.40x	10.76%
Homestead USA Farmland Fund III	2019	\$60,000	51,115	8,909	85.19%	1,598	56,290	0.03x	1.10x	1.13x	8.26%
Long Wharf VI	2019	\$40,000	39,524	476	98.81%	20,535	27,620	0.52x	0.70x	1.22x	19.44%
Blackstone European VI (3)	2020	\$89,535	64,819	36,120	72.39%	24,185	56,731	0.37x	0.88x	1.25x	16.92%
Cabot Industrial Value VI (CIVF)	2019	\$50,000	38,044	11,956	76.09%	375	48,077	0.01x	1.26x	1.27x	16.34%
Crow Holdings Realty IX	2020	\$50,000	44,072	5,928	88.14%	12,011	41,525	0.27x	0.94x	1.21x	17.12%
Longpoint Realty Fund II	2021	\$50,000	45,000	5,000	90.00%	373	49,111	0.01x	1.09x	1.10x	10.97%
Westbrook XI	2019	\$75,000	44,903	30,097	59.87%	21,042	32,602	0.47x	0.73x	1.19x	21.59%
Torchlight Debt VII	2020	\$50,000	25,031	24,969	50.06%	31	26,437	0.00x	1.06x	1.06x	3.86%
Brookfield Strategic Real Estate IV	2021	\$75,000	39,262	35,738	52.35%	1,829	39,900	0.05x	1.02x	1.06x	13.48%
Ember Infrastructure I	2021	\$34,108	14,013	20,095	41.08%	112	11,836	0.01x	0.84x	0.85x	(15.18%)
Basis Real Estate Debt Fund II	2021	\$50,000	43,855	18,859	87.71%	18,934	26,154	0.43x	0.60x	1.03x	4.48%
Newport Capital Partners Fund III	2021	\$30,000	7,754	25,820	25.85%	3,714	4,700	0.48x	0.61x	1.09x	16.01%
Pantheon Glb Infrast Secondaries IV	2021	\$100,000	31,162	69,590	31.16%	889	30,382	0.03x	0.97x	1.00x	0.77%
Blackstone RE Partners Asia III	2022	\$50,000	7,442	42,558	14.88%	0	6,435	0.00x	0.86x	0.86x	(17.18%)
Brasa II	2021	\$40,000	23,274	17,819	58.18%	1,093	22,911	0.05x	0.98x	1.03x	3.02%
Crow Holdings Realty X	2022	\$50,000	0	50,000	0.00%	0	0	-	-	-	0.00%
Cabot Industrial Value VII (CIVF)	2022	\$50,000	0	50,000	0.00%	0	-641	-	-	-	0.00%
Torchlight Debt VIII	2022	\$50,000	6,250	43,750	12.50%	0	5,784	0.00x	0.93x	0.93x	(28.09%)
Longpoint Realty Fund III	2022	\$60,000	0	60,000	0.00%	0	-759	-	-	-	0.00%
Homestead USA Farmland Fund IV	2022	\$40,000	0	40,000	0.00%	0	-73	-	-	-	0.00%
Long Wharf VII	2023	\$40,000	2,430	37,570	6.07%	0	2,012	0.00x	0.83x	0.83x	(31.83%)
Brasa III	2023	\$50,000	0	50,000	0.00%	0	0	-	-	-	0.00%
Total Real Assets (3)	2005	\$4,524,194	3,851,214	813,710	85.12%	2,591,173	2,534,234	0.67x	0.66x	1.33x	6.80%

commitments translated to U.S. Dollars as of quarter end date. \*\* Year end figures is based on estimate. YE audit takes 120.



<sup>(2)</sup> Current EMV are those of the prior quarter, adjusted for capital calls and distributions of current quarter.

<sup>(3)</sup> Capital commitments reflects the sum of: (i) aggregate capital contributions translated to U.S.

Dollars as of the date of each capital contribution transaction; and (ii) reported uncalled capital

# State Universities Retirement System of Illinois Real Estate Portfolio Snapshot - Subreturn Breakdown As of June 30, 2023

Subreturn Breakdown	Last Quarter			Last Yea	ır		Last 3 Yea	ars	Last 5 Years			
	INC	APP	TNET	INC	APP	TNET	INC	APP	TNET	INC	APP	TNET
Total Core Funds	0.44%	(2.22%)	(1.79%)	1.69%	(10.65%)	(9.09%)	2.11%	7.34%	9.56%	2.44%	3.85%	6.35%
BlackRock Glb Renewable Power III	(0.35%)	4.18%	3.83%	(1.89%)	26.24%	23.96%	-	-	-	-	-	-
Blackstone Property Partners	0.09%	1.71%	1.80%	0.37%	(12.05%)	(11.70%)	0.26%	6.29%	6.57%	-	-	-
Carlyle Property Investors	(0.05%)	(1.83%)	(1.88%)	0.35%	(3.42%)	(3.08%)	2.22%	12.01%	14.38%	-	-	10.88%
Clarion Partners Lion Properties Fur	nd 0.64%	(6.77%)	(6.12%)	-	-	(15.81%)	-	-	-	-	-	-
GI Partners ETS Fund	(0.08%)	(2.21%)	(2.29%)	(0.87%)	3.56%	2.69%	-	-	-	-	-	-
Heitman America Real Estate Trust	0.76%	(2.96%)	(2.20%)	2.91%	(11.74%)	(9.09%)	3.25%	6.24%	9.64%	3.46%	2.22%	5.74%
IFM Glb Infras Fund (GIF)	0.29%	2.24%	2.53%	-	-	-	-	-	-	-	-	-
JP Morgan Strategic Property Fund	0.56%	(2.33%)	(1.77%)	2.13%	(13.05%)	(11.13%)	2.48%	3.80%	6.34%	2.67%	2.24%	4.95%
Prologis US Logistics Fund (USLF)	0.64%	(4.68%)	(4.04%)	2.29%	(12.51%)	(10.44%)	-	-	19.29%	-	-	-
UBS Trumbull Property Fund (TPF)	0.79%	(4.31%)	(3.52%)	2.84%	(17.82%)	(15.37%)	3.14%	(1.06%)	2.05%	3.27%	(2.60%)	0.61%
Total Non-Core Funds	(0.13%)	0.53%	0.40%	(0.71%)	2.57%	1.85%	0.12%	11.84%	11.96%	0.96%	5.68%	6.67%
Basis Real Estate Debt Fund I	2.47%	(1.85%)	0.62%	13.30%	(4.19%)	8.69%	13.39%	(3.52%)	9.52%	10.27%	1.20%	11.80%
Basis Real Estate Debt Fund II	3.13%	(0.60%)	2.53%	11.13%	` '	8.75%	-	-	-	-	-	-
Blackstone European VI	(0.71%)	3.95%	3.24%	(3.31%)	, ,	4.67%	(4.44%)	23.90%	18.73%	_	_	_
Blackstone RE Partners Asia III	(0.44%)			(18.50%)		(18.87%)	-	-	-	_	_	_
Blue Vista Real Estate IV	` ,	(11.57%)	(11.63%)	` '	(25.68%)	` '	1.95%	4.93%	6.89%	2.10%	5.92%	8.07%
Brasa II	(1.04%)	0.11%	(0.93%)	(5.31%)	13.96%	8.14%	-	-	-	-	-	-
Brookfield Strategic Real Estate II	(0.41%)	0.70%	0.29%	0.67%		(2.55%)	2.71%	10.55%	14.03%	3.17%	7.24%	10.95%
Brookfield Strategic RE III	(0.13%)	3.18%	3.06%	(0.42%)	12.28%	11.83%	(1.57%)	17.63%	15.99%	-	-	10.25%
Brookfield Strategic RE IV	(0.10%)	0.93%		(10.53%)		23.60%	-	-	-	_	_	-
Cabot Industrial Value VI (CIVF)	0.51%	(0.01%)	0.50%	1.83%			(12.28%)	30.19%	26.75%	_	_	_
Crow Holdings Realty VII	(0.52%)	(3.33%)	(3.85%)		(23.54%)		2.72%	(5.71%)	(3.10%)	2.70%	(1.31%)	1.37%
Crow Holdings Realty VIII	(0.10%)	, ,	(8.53%)		(11.45%)		2.38%	17.06%	, ,	(20.19%)	16.00%	16.52%
Crow Holdings Realty IX	(0.14%)	, ,	(0.33%)	0.27%		(3.68%)	-	-	-	-	-	-
Dune Real Estate Partners II	(0.26%)	0.01%	(0.25%)	(1.26%)	0.93%	(0.33%)	(1.18%)	5.10%	3.87%	(1.12%)	1.92%	0.78%
Dune Real Estate Partners III	(0.59%)	3.06%	2.47%	(1.05%)	2.94%	1.88%	(0.84%)	6.10%	5.23%	-	-	0.54%
Dune RE IV	(0.41%)	1.74%	1.32%	(3.23%)		15.59%	(5.30%)	19.12%	13.02%	_	_	3.33%
Franklin Templeton FTPREF	` ,	(13.97%)	(5.08%)	` ′	(18.10%)		. ,	(16.65%)			(36.82%)	(9.33%)
Franklin Templeton EMREFF	(1.44%)	(4.25%)	(5.69%)	(3.07%)	. ,	` '		(12.64%)	, ,		(21.37%)	, ,
Franklin Templeton MDP RE 2015	0.39%	(2.10%)	, ,	0.60%	. ,	` '	2.42%	7.74%	10.25%	3.12%	0.49%	3.57%
Longpoint Realty Fund II	(0.63%)	2.66%	2.03%	(3.20%)	10.45%	. ,	(158.09%)	95.54%	-	-	-	-
Long Wharf VI	0.35%	(0.16%)	0.19%	0.35%	5.28%	5.64%	(2.22%)	38.00%	35.29%	_	_	-
Newport Capital Partners Fund III	1.03%	0.48%		(16.87%)		39.70%	-	-	-	_	_	-
Oaktree Real Estate Debt Fund II	0.96%	(7.07%)	(6.12%)	` '	(15.20%)		6.15%	(4.17%)	1.76%	6.59%	(6.85%)	(0.62%)
Torchlight Debt VII	0.93%	(0.85%)	0.07%	3.23%	,	3.84%	-	-	-	-	-	-
Torchlight Debt VIII	(8.41%)	5.35%	(3.07%)	-	-	_	-	_	_	-	-	-
StepSt Partner RE II (fka MFIRE) (2)	0.00%	0.00%	0.00%	(0.89%)	(0.04%)	(0.93%)	(1.09%)	2.32%	1.21%	(1.06%)	1.05%	(0.03%)
Westbrook XI	(1.40%)	2.88%	1.49%		16.21%		-	-	-	- 1	-	-
Total Private Real Estate	0.28%	(1.45%)	(1.17%)	1.03%	(7.19%)	(6.22%)	1.55%	8.54%	10.17%	2.02%	4.38%	6.46%
Total Non-C w/ Infrastructure	(0.07%)	0.81%	0.74%	0.07%	4.17%	4.25%	0.46%	12.70%	13.19%	0.86%	7.38%	8.28%
Formland												
Farmland	0.050′	0.070/	0.000/	(0.000()	7.050/	7.000/						
Homestead USA Farmland Fund III	0.25%	3.67%	3.92%	(0.02%)	7.95%	7.92%	-	-	=	-	-	-
Total Private Infrastructure	0.17%	2.04%	2.21%	3.50%	11.64%	15.37%	1.95%	15.37%	17.53%	0.75%	12.67%	13.47%
Ember Infrastructure I	(1.39%)	(1.33%)	(2.72%)	(9.38%)	(0.84%)	(10.12%)	-	-	-	-	-	-
Macquarie Infrastructure Partners III	0.86%	4.28%	5.14%	12.27%	30.36%	44.67%	6.15%	25.98%	33.22%	3.36%	19.83%	23.58%
Macquarie Infrastructure Partners IV	(0.21%)	1.01%	0.81%	(0.91%)	3.44%	2.51%	0.49%	11.75%	12.34%	(3.17%)	12.08%	8.68%
Pantheon Glb Infrast Secondaries IV	0.00%	0.00%	0.00%	(1.44%)	4.67%	3.38%	-	-	-	-	-	-
Total Real Assets	0.27%	(1.13%)	(0.86%)	1.15%	(5.89%)	(4.78%)	1.49%	9.11%	10.70%	1.85%	5.45%	7.37%



# State Universities Retirement System of Illinois Real Estate Portfolio Snapshot - Subreturn Breakdown As of June 30, 2023

Subreturn Breakdown	L	ast 10 Ye	ars			
	INC	APP	TNET	NET IRR	TVPI	
Total Core Funds	3.14%	4.43%	7.67%	5.60%	1.36x	
BlackRock Glb Renewable Power III	-	-	-	12.70%	1.13x	
Blackstone Property Partners	-	_	-	4.88%	1.19x	
Carlyle Property Investors	-	-	-	11.71%	1.53x	
Clarion Partners Lion Properties Fund	i -	_	_	(20.54%)	0.87x	
GI Partners ETS Fund	_	_	_	9.45%	1.09x	
Heitman America Real Estate Trust	_	_	-	7.47%	1.63x	
FM Glb Infras Fund (GIF)	_	_	-	5.22%	1.05x	
JP Morgan Strategic Property Fund	_	_	_	6.89%	1.83x	
Prologis US Logistics Fund (USLF)	-	_	_	21.58%	1.64x	
JBS Trumbull Property Fund (TPF)	3.57%	0.80%	4.39%	6.25%	1.73x	
See Transair Toperty Fana (TFT)	0.07 /0	0.0070	4.00 /0	0.2070	1.70%	
Total Non-Core Funds	0.01%	9.82%	9.83%	10.01%	1.26x	
Basis Real Estate Debt Fund I	-	_	-	12.42%	1.24x	
Basis Real Estate Debt Fund II	-	-	-	4.48%	1.03x	
Blackstone European VI	-	_	-	16.92%	1.25x	
Blackstone RE Partners Asia III	_	_	-	(17.18%)	0.86x	
Blue Vista Real Estate IV	-	_	-	11.04%	1.52x	
Brasa II	_	_	_	3.02%	1.03x	
Brookfield Strategic Real Estate II	_	_	_	11.70%	1.55x	
Brookfield Strategic RE III	_	_	_	12.24%	1.32x	
Brookfield Strategic RE IV	-	_	-	13.48%	1.06x	
Cabot Industrial Value VI (CIVF)	-	-	-	16.34%	1.06x 1.27x	
·	_	-	-	11.05%	1.27x 1.38x	
Crow Holdings Realty VII	-	-	-		1.38x 1.61x	
Crow Holdings Realty VIII	-	-	-	23.45%		
Crow Holdings Realty IX	-	7 540/	- C 050/	17.12%	1.21x	
· ·	(0.62%)	7.51%	6.85%	14.31%	1.81x	
Dune Real Estate Partners III	-	-	4.84%	5.56%	1.25x	
Dune RE IV	-	-	-	6.66%	1.13x	
•		(11.55%)	6.48%	20.51%	1.38x	
Franklin Templeton EMREFF		(5.43%)	(2.28%)	11.91%	1.36x	
Franklin Templeton MDP RE 2015	-	-	-	3.84%	1.13x	
ongpoint Realty Fund II	-	-	-	10.97%	1.10x	
∟ong Wharf VI	-	-	-	19.44%	1.22x	
Newport Capital Partners Fund III	-	-	-	16.01%	1.09x	
Daktree Real Estate Debt Fund II	-	-	-	4.09%	1.11x	
Forchlight Debt VII	-	-	-	3.86%	1.06x	
Forchlight Debt VIII	-	-	-	(28.09%)	0.93x	
StepSt Partner RE II (fka MFIRE) (2) (	(1.33%)	5.91%	4.53%	6.53%	1.45x	
Vestbrook XI	-	-	-	21.59%	1.19x	
Total Private Real Estate	2.28%	5.93%	8.31%	6.42%	1.32x	
Total Non-C w/ Infrastructure	0.05%	9.49%	9.54%	9.56%	1.29x	
Farmland				0.000	4.40	
Homestead USA Farmland Fund III	-	-	-	8.26%	1.13x	
Total Private Infrastructure	0.18%	9.03%	9.22%	8.62%	1.43x	
Ember Infrastructure I	-	-	-	(15.18%)	0.85x	
Macquarie Infrastructure Partners III	-	-	-	17.55%	2.17x	
Macquarie Infrastructure Partners IV	-	-	-	10.76%	1.40x	
Pantheon Glb Infrast Secondaries IV	-	-	-	0.77%	1.00x	



# State Universities Retirement System of Illinois Real Estate Portfolio Snapshot - Quarterly Cashflows As of June 30, 2023

	Beginning	Capital	Accounting				Ending	
Quarterly Cash Flow Activity (\$		Contribution	Income	Mgmt. Fees	Appreciation	Distributions	Market Value	LTV
BR Glb Renewable (GRP) III	\$51,013,742	\$10,500,734	\$26,702	\$221,301	\$2,335,809	\$0	\$63,655,686	3.78%
Blackstone Property Partners	\$238,132,011	\$1,192,106	\$774,601	\$559,128	\$4,062,943	\$1,192,106	\$242,410,427	45.00%
Carlyle Property Investors	\$166,798,623	\$1,071,590	\$280,520	\$354,038	\$-3,073,327	\$885,661	\$163,837,707	50.00%
Clarion Partners LPF Fund	\$205,887,645	\$1,729,754	\$1,758,834	\$411,815	\$-14,027,558	\$1,760,079	\$193,176,781	24.10%
GI Partners ETS Fund	\$42,210,692	\$0	\$93,411	\$124,111	\$-933,822	\$0	\$41,246,170	42.95%
Heitman (HART)	\$289,022,879	\$1,921,902	\$2,707,786	\$509,444	\$-8,550,917	\$1,921,902	\$282,670,304	24.23%
IFM Glb Infras Fund (GIF)	\$102,570,220	\$0	\$492,525	\$199,069	\$2,297,083	\$0	\$105,160,759	34.60%
JP Morgan (SPF)	\$279,738,729	\$0	\$2,129,958	\$565,218	\$-6,519,162	\$0	\$274,784,308	27.45%
Prologis US Logistics Fund	\$176,170,718	\$1,146,525	\$1,555,531	\$419,342	\$-8,254,253	\$739,864	\$169,459,315	12.30%
UBS (TPF)	\$94,009,090	\$674,212	\$891,304	\$146,857	\$-4,050,167	\$674,212	\$90,703,370	20.42%
,	\$1,645,554,350	\$18,236,823	\$10,711,171	\$3,510,323	\$-36,713,370	\$7,173,824	\$1,627,104,828	20.42 /0
Total Cole Fullus \$	1,043,334,330	\$10,230,023	φ10,711,171	φ3,310,323	φ-30,7 13,370	φ1,113,024	\$1,027,104,020	
Basis Real Estate Debt Fund I	\$18,982,472	\$1,810,669	\$538,735	\$66,133	\$-353,228	\$437,523	\$20,107,836	42.00%
Basis Real Estate Debt Fund II	\$17,463,583	\$11,087,486	\$781,241	\$155,822	\$-119,392	\$2,903,181	\$26,153,915	-
Blackstone BREP Europe VI	\$43,965,618	\$11,283,888	\$-34,925	\$305,834	\$1,887,945	\$65,773	\$56,730,918	69.00%
Blackstone RE Partners Asia III	\$6,123,346	\$346,518	\$160,322	\$187,500	\$-8,023	\$0	\$6,434,663	-
Blue Vista Real Estate IV	\$13,383,324	\$0	\$42,684	\$47,359	\$-1,551,940	\$0	\$11,826,709	63.90%
Brasa II	\$19,604,560	\$3,510,331	\$-85,948	\$139,616	\$22,156	\$0	\$22,911,482	32.60%
Brookfield Strategic Real Estate II		\$0	\$5,429	\$102,788	\$166,300	\$0	\$23,681,859	59.00%
Brookfield Strategic RE III	\$34,389,125	\$1,709,470	\$33,768	\$342,860	\$1,368,667	\$174,933	\$36,968,309	51.00%
Brookfield Strategic RE IV	\$28,688,470	\$11,471,053	\$211,119	\$245,463	\$317,284	\$506,795	\$39,899,527	61.00%
Cabot Industrial Value VI	\$46,753,915	\$1,087,000	\$426,076	\$187,500	\$-2,797	\$0	\$48,076,694	43.10%
Cabot Industrial Value VII	\$-640,943	\$0	\$0	\$0	\$0	\$0	\$-640,943	-
Crow Holdings Realty VII	\$1,186,284	\$0	\$-6,150	\$0	\$-39,553	\$0	\$1,140,581	64.98%
Crow Holdings Realty VIII	\$1,232,580	\$0	\$3,969	\$4,925	\$-102,850	\$22,021	\$1,106,753	60.60%
Crow Holdings Realty IX	\$41,660,313	\$0	\$56,168	\$115,112	\$-76,554	\$0	\$41,524,815	40.00%
Dune Real Estate Partners II	\$6,406,110	\$0	\$-6,380	\$10,516	\$648	\$0	\$6,389,862	-
Dune Real Estate Partners III	\$64,602,153	\$0	\$-288,741	\$91,532	\$1,974,530	\$34,746	\$66,161,664	_
Dune Real Estate Partners IV	\$39,593,875	\$0	\$-32,603	\$131,183	\$687,850	\$0	\$40,117,939	48.20%
Franklin Templeton FTPREF	\$485,151	\$0	\$56,425	\$13,158	\$-67,911	\$0	\$460,507	39.00%
Franklin Templeton EMREFF	\$2,544,173	\$0 \$0	\$-16,382	\$19,683	\$-108,667	\$0 \$0	\$2,399,441	69.00%
Franklin Templeton MDP RE 2015		\$342,794	\$332,764	\$78,737	\$-1,368,510	\$118,404	\$64,148,050	56.00%
·						\$110,404		
Longpoint Realty Fund II  Longpoint Realty Fund III	\$43,230,272 \$-470,803	\$5,000,000	\$-127,679 \$2,202	\$146,928 \$200,425	\$1,155,413	\$0 \$0	\$49,111,078	41.00%
· ·		\$0 \$067.304	\$3,393 \$192,050	\$209,425	\$-82,249		\$-759,084	- 50.00%
Long Wharf VI	\$27,235,980	\$967,294		\$96,983	\$-43,837	\$516,351	\$27,620,213	50.00%
Long Wharf VII	\$0	\$2,429,833	\$-141,254 \$75,015	\$276,197	\$0 \$22.202	\$0 \$50,000	\$2,012,059	- E0 66%
Newport Capital Partners Fund III		\$606,000	\$75,015	\$27,121	\$22,392	\$50,000	\$4,699,692	59.66%
Oaktree Real Estate Debt Fund II		\$0 \$0	\$125,740	\$32,749	\$-683,177	\$104,945	\$8,967,181	63.90%
StepSt Partner RE II (fka MFIRE)		\$0 ©0	\$0	\$0 \$475,000	\$0 © 224 574	\$0 ©0	\$13,557,948	32.00%
Torchlight Debt VII	\$26,417,031	\$0	\$419,347	\$175,000	\$-224,571	\$0	\$26,436,807	47.22%
Torchlight Debt VIII	\$2,112,659	\$3,750,000	\$-53,687	\$156,250	\$131,051	\$0	\$5,783,773	-
Westbrook XI	\$27,449,639	\$6,074,196	\$-219,853	\$163,382	\$790,977	\$956,572	\$32,601,644	44.20%
Total Non-Core Funds	\$628,343,613	\$61,476,532	\$2,450,643	\$3,529,756	\$3,691,955	\$5,891,245	\$685,631,892	
Homestead USA Farmland III	\$52,321,365	\$1,996,397	\$351,472	\$215,409	\$1,985,554	\$149,559	\$56,289,820	30.00%
Homestead USA Farmland Fund	IV \$0	\$0	\$-13,717	\$59,341	\$0	\$0	\$-73,058	-
Farmland	\$52,321,365	\$1,996,397	\$337,755	\$274,750	\$1,985,554	\$149,559	\$56,216,762	
Alinda Infrastructure Fund II	¢170 574	\$0	¢ 1 222	\$0	¢_12 622	\$0	¢157 710	_
Macquarie Infrastructure III	\$172,574 \$58,646,636	\$509,632	\$-1,233 \$632,145	\$127,368	\$-13,622 \$2,511,153		\$157,719 \$61,662,566	39.00%
•	\$58,646,636 \$60,753,190				\$2,511,153	\$509,632 \$141,376	\$61,662,566 \$61,242,620	
Macquarie Infrastructure IV	\$60,752,180	\$141,376 \$4,306,773	\$44,346	\$170,044	\$616,148	\$141,376	\$61,242,630	35.00%
Ember Infrastructure I	\$7,822,978	\$4,306,773	\$26,405	\$149,222	\$-126,636	\$44,350	\$11,835,948	0.00%
Pantheon Glb Infrast Second IV	\$14,316,320	\$16,065,482	\$0	\$0	\$0	\$0	\$30,381,802	39.00%
Total Private Infrastructure	<b>\$141,710,688</b>	\$21,023,263	\$701,662	\$446,633	\$2,987,043	\$695,358	\$165,280,665	
Total Portfolio \$	2,467,930,015	\$102,733,015	\$14,201,232	\$7,761,462	\$-28,048,818	\$13,909,985	\$2,534,234,147	



#### Total Core Fund Period Ended June 30, 2023

#### **Quarterly Summary and Highlights**

- Total Core Fund's portfolio posted a (1.79)% return for the quarter placing it in the 63 percentile of the Callan Real Estate ODCE group for the quarter and in the 48 percentile for the last year.
- Total Core Fund's portfolio outperformed the NCREIF NFI-ODCE Val Wt Nt by 1.10% for the quarter and outperformed the NCREIF NFI-ODCE Val Wt Nt for the year by 1.64%.

#### **Quarterly Asset Growth**

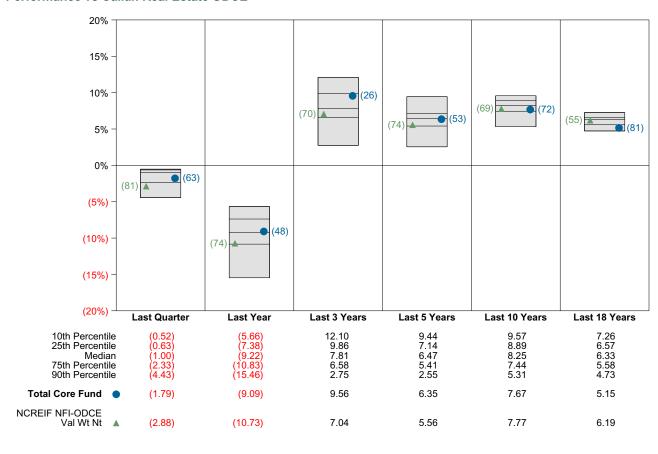
 Beginning Market Value
 \$1,645,554,350

 Net New Investment
 \$11,062,999

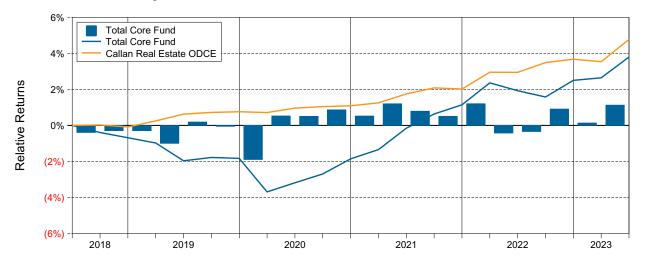
 Investment Gains/(Losses)
 \$-29,512,521

Ending Market Value \$1,627,104,828

#### Performance vs Callan Real Estate ODCE



#### Cumulative and Quarterly Relative Returns vs NCREIF NFI-ODCE Val Wt Nt



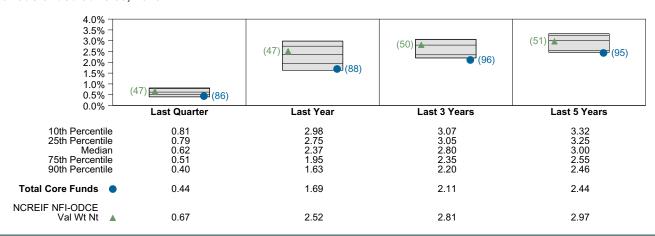


## Total Core Funds Return Analysis

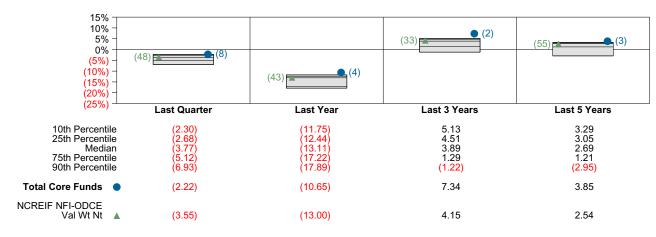
#### **Return Analysis**

The graphs below give a detailed analysis of the portfolio's return by decomposing it into component subreturns. The first chart shows the portfolio's income return ranked against the income returns of the appropriate peer group. The second chart performs the same comparison using appreciation returns. The bottom graph illustrates the historical composition of total return on an income versus appreciation basis.

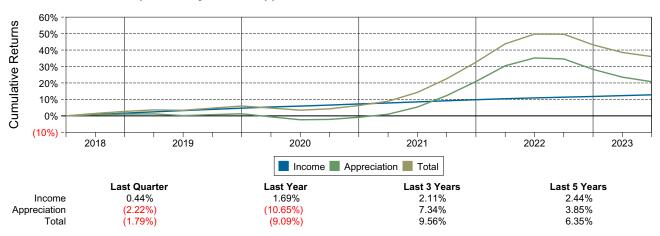
### Income Rankings vs Callan Real Estate ODCE Periods ended June 30, 2023



### Appreciation Rankings vs Callan Real Estate ODCE Periods ended June 30, 2023



#### **Cumulative Return Composition by Income/Appreciation**

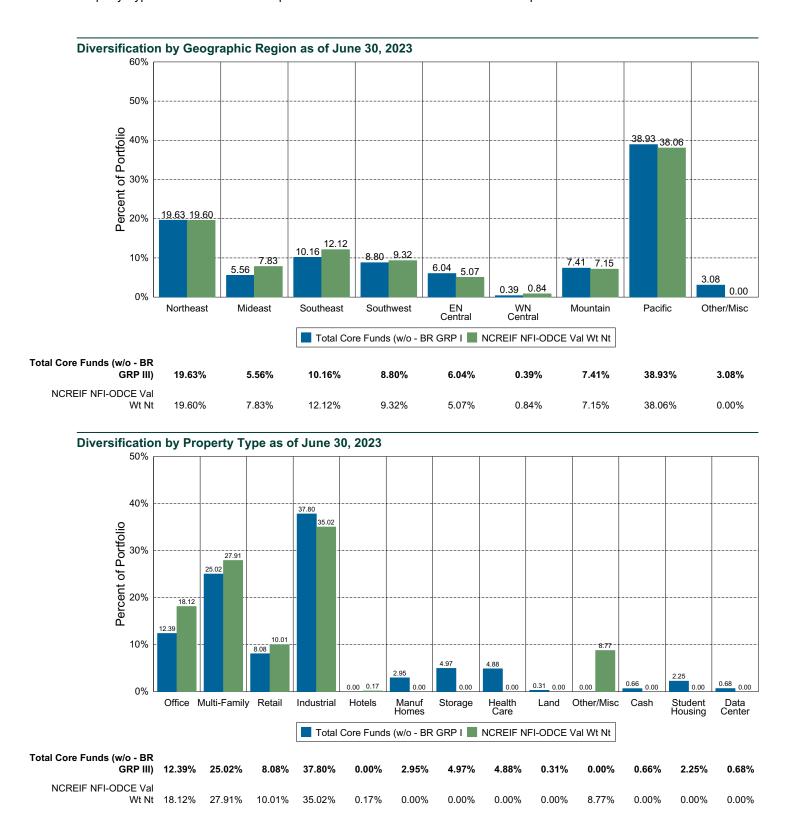




## Total Core Funds (w/o - BR GRP III) Diversification Analysis as of June 30, 2023

#### **Diversification Analysis**

The following charts provide information on the diversification of the portfolio with regards to both Geographic Region and Property Type. Similar information is provided on the relevant market index for comparison.

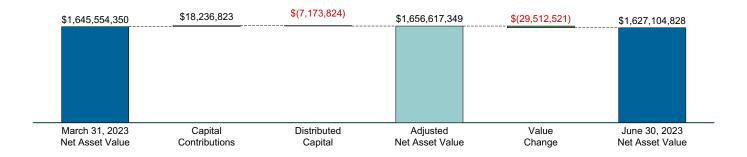




#### **Total Core Funds Fund Overview** Period Ended June 30, 2023

Quarterly Position Change	March 31, 2023	Quarterly Change	June 30, 2023
Client Commitment	\$1,804,483,515	\$0	\$1,804,483,515
Paid-In Capital	\$1,712,167,104	\$18,236,823	\$1,730,403,927
Remaining Commitment	\$99,263,550	\$(18,236,823)	\$81,026,727
Distributions	\$715,281,305	\$7,173,824	\$722,455,128
Recallable Distributions	\$6,947,139	\$0	\$6,947,139
Non-Recallable Distributions	\$708,334,166	\$7,173,824	\$715,507,990
Net Asset Value	\$1,645,554,350	\$(18,449,522)	\$1,627,104,828
Total Distributed Capital and Net Asset Value	\$2,360,835,654	\$(11,275,698)	\$2,349,559,956

		Quarterly	
Performance Change	March 31, 2023	Change	June 30, 2023
Net Internal Rate of Return, Since Inception	5.93%	(0.33%)	5.60%
Total Value to Paid-in Capital (TVPI)	1.38x	(0.02x)	1.36x
Distributions to Paid-in Capital (DPI)	0.42x	(0.00x)	0.42x
Residual Value to Paid-in Capital (RVPI)	0.96x	(0.02x)	0.94x
% of Commitments Contributed	94.88%	(1.01%)	95.89%





#### **Total Core Funds Real Estate Portfolio Quarterly Changes in Market Value**

		Beg. of	Capital				Dist. of	Return	Dist. of	End of
0920005         4.0         42,173,431         0         0         (0)         123,467         0         42,049,983         34,412,979         0         2.932,432         852,473         0         0         78,542,902         12,205,438         0         0         78,542,902         0         78,542,902         0         12,205,631         0         0         12,205,631         0         0         12,205,631         0         0         13,407,428         16,313,912         117,200         0         0         0         12,205,700         0         0         0         0         0         0         0         0         0         0         0         0         0         0         0         28,911,309         0         0         28,911,318         0         0         0         28,911,318         0         0         0         28,911,318         0         0         0         28,911,318         0         0         0         28,911,318         0         0         0         0         28,911,318         0         0         0         22,966,624         0         0         0         28,966,624         0         0         0         24,965,624         0         0         0		Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre				= Period
09/2006         42,049,686         34,412,679         0         2,932,432         852,473         0         0         78,542,902           12/2005         78,542,802         48,555,808         0         0         0         2,267,981         1,217,584         0         0         13,467,426           08/2006         123,802,438         1,679,008         1         0         0         77,54888         1,679,008         0         0         131,467,426           08/2006         23,911,396         15,835,399         1,712,77         0         0         2,295,113         0         0         2,296,669,696           08/2007         30,966,624         6,181,111         1,765,539         334,414         6,091,615         1,887,109         0         0         0,302,666,624         6,181,111         1,675,539         334,341         1,508,661         3,691,618         0         2,481,113         1,882,600         1,882,813         1,882,813         1,882,813         1,882,813         1,882,813         1,882,813         1,882,813         1,882,813         1,882,813         1,882,813         1,882,813         0         3,532,824,823         0         3,532,824,823         0         3,532,824,823         0         3,532,824,823         0		<u>Market</u>	<u>butions</u>	Income	Fees	<u>ciation</u>	Real. Gains	<u>Capital</u>	_Capital_	<u>Market</u>
122005 78,842,902 48,535,008 0 0 0 (2.207,961) 1,217,584 0 0 0 132,652,438 03,000 131,407,426 154,413,912 17,260 0 0 62,225 1,829,427 0 0 283,971,986 09,2006 283,971,986 6,538,259 1,719,275 0 0 (379,023) 1,882,915 0 0 0 289,966,924 03,2007 302,966,624 6,918,111 1,675,293 344,144 0,016,15 1,887,109 0 0 239,966,624 03,2007 302,966,524 6,918,111 1,675,293 344,138 13.08,106 3,690,165 0 2,458,173 316,149,659 0,000,000 1,140,140,140 1,140,140 1,140,140 1,140,140 1,140,140 1,140,140 1,140,140,140 1,140,140,140 1,140,140 1,140,140 1,140,140 1,140,140 1,140,140 1,140,1				0	0	` '		0	0	
03/0006         123,852,438         1,673,008         0         0         7,754,988         1,679,008         0         0         231,407,426         154,31,912         17,280         0         62,225         1,829,427         0         0         283,971,396               06/2006             283,971,396             6,638,259             1,719,275             3             0             629,966,992               12/2006             298,966,992             7,421,001             1,708,759             334,414             6,091,615             1,887,109             0             2,929,666,994               08/2007             314,149,689             1,8142,480             1,807,246             1,890,561             380,818             1,816,868             1,814,869               09/2007             343,323,000             1,356,882             1,690,561             380,418             6,368,757             1,882,810             0             340,228,655               03/2008             350,228,655             1,983,330             1,893,831             1,869,797             1,983,886             0             0             342,438,766               04/2008             342,438,766             3,142,415             1,822,444             124,447             1,744,747							•			
68/2006         131.407,426         15.437,319         17.19,275         0         62.225         1,829,427         0         0         283,971,396         6,586,259         1,719,275         0         (379,023)         1,882,915         0         0         289,966,992         0         289,966,992         0         289,966,992         0         289,966,992         0         24,981,10         0         24,981,13         13,081,10         3,081,105         0         2,459,173         311,149,659         13,149,659         13,149,659         1,742,461         18,072,22         398,281         13,086,106         3,890,165         0         2,459,173         311,149,659         1,142,480         1,142,441         1,142,441         1,142,441         1,142,441         1,142,441         1,142,441         1,142,441         1,142,441         1,142,441         1,142,441         1,142,44						,				
092006         283,971,398         6,538,259         1,719,275         0         (379,023)         1,882,915         0         289,966,992         7,421,001         1,708,539         334,138         13,086,106         369,015         0         2,483,173         318,149,659         1,811         1,675,293         348,138         13,086,106         369,016         0         2,483,173         318,149,659         1,812,480         1,807,242         359,826         14,785,736         1,842,480         0         0         334,382,812         0         0         348,231         0         0         348,231         0         0         348,231         0         0         348,231         0         0         348,231         0         0         348,231         0         0         348,231,00         1,724,761         388,418         6,336,475         5,689,881         0         0         350,228,685         0         348,232,00         1,689,886         0         1,699,886         0         1,699,886         0         1,699,848         0         0         320,028,886         0         1,882,464         1,340,677,440,747         1,988,386         0         0         324,075,448         0         1,882,464         1,404,407,774         1,405,774,407         1,405						7,754,988		0	0	
122006         289,966,924         7,421,001         1,708,539         334,414         6,016,165         1,887,109         0         0         302,666,624           06/2007         318,149,659         1,842,480         1,907,424         359,826         14,785,736         1,842,480         0         2,458,173         318,149,659           06/2007         318,149,659         1,842,480         1,907,424         359,826         14,785,736         1,842,480         0         0         343,332,006           12/2007         344,832,3008         1,966,882         1,680,561         380,888         10,156,588         1,826,121         0         362,280,428           06/2008         352,280,428         8,831,700         1,822,464         128,447         (17,340,577)         2,918,708         0         342,435,768           12/2008         342,430,768         3,143,110         1,881,551         286,163         (45,400,900)         3,143,110         0         298,634,064         1,244,15         1,822,464         367,323         (20,340,88)         3,143,110         0         254,069,244           12/2009         230,082,288         0         1,983,364         245,169,344         (44,803,30)         1,444,862         0         1,944,962         0				•		•				
03/02/007         302,896,624         6,918,111         1,675,293         348,138         13,086,196         3,690,165         0         2,458,173         318,149,659           06/2007         314,149,659         1,842,480         1,807,242         359,826         14,785,736         1,842,480         0         0         343,332,812           12/2007         346,322,006         1,966,892         1,680,561         388,418         6,336,475         5,689,861         0         0         352,289,628           06/2008         350,289,482         1,883,86         1,674,352         660,376         1,586,977         1,988,366         0         0         342,285,666           06/2008         342,495,766         3,143,110         1,882,544         128,447         (17,340,577)         2,918,708         0         0         242,435,766           12/2008         342,495,766         3,143,110         1,881,551         228,613         (46,400,090)         3,143,110         0         2,968,534,064           03/2009         230,632,288         0         1,856,664         229,116         (12,623,050)         2,003,491         0         296,634,664           03/2010         26,529,466         25,000,000         2,015,326         219,629         (12								0		
06/2007         318,149,659         1,842,480         1,807,242         359,826         14,785,736         1,842,480         0         334,382,812         0         334,382,812         0         346,323,006         0         365,223,066         1,724,761         389,888         10,155,588         1,826,121         0         0         362,228,655         0         0         352,208,655         1,889,386         0         0         352,809,428         88,31,700         1,822,454         1,828,474         (17,440,577)         1,988,386         0         0         343,075,849         0         343,075,849         3,142,415         1,822,454         128,447         (17,440,577)         2,918,708         0         343,075,849         3,142,415         1,882,245         268,163         (45,400,090)         3,142,415         0         342,488,766         3,143,110         1,881,551         286,163         (45,400,090)         3,142,110         0         286,834,064         0         1,983,364         245,510         (23,744,888)         1,889,933         0         0         258,634,064         0         1,993,364         245,510         (23,744,888)         1,889,933         0         0         262,524         0         0,944,949         0         1,983,462,464         265,510										
092007         343,432,812         2,265,946         1,724,761         380,988         10,156,588         1,826,121         0         346,323,006         0,365,228,655         1,886,386         1,690,561         380,418         6,336,475         5,886,581         0         350,228,655         1,988,386         1,674,552         663,376         1,586,777         1,988,386         0         0         342,075,849         0         343,075,849         341,2415         1         0         342,438,766         1,343,110         1,822,464         128,447         (17,340,577)         2,918,708         0         342,438,766         1,343,110         0         236,406,443,8766         3,143,110         1,882,648         376,323         (2,883,408)         3,142,415         0         342,438,766         3,143,141         1,881,651         226,163         (44,800,199)         3,142,415         0         0         296,469,254         64,602,264         0         1,893,364         244,891,919         4,264,862         0         0         245,609,254         60,000,000         1,856,064         229,116         (12,623,050)         2,003,491         0         0         224,609,254         60,000,000         2,015,226         210,612         734,572         2,061,158         0         0         224,609,254 <td></td> <td>* *</td> <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td></td>		* *			•					
1222007         346,323,006         1,956,882         1,690,661         388,418         6,336,475         5,689,851         0         350,228,655           06/2008         352,228,655         1,988,386         1,674,352         663,376         1,569,797         1,988,386         0         352,269,428           06/2008         352,809,428         8,831,700         1,822,454         128,447         (17,340,577)         2,918,708         0         342,438,766           06/2009         28,634,064         3,142,415         1,822,2648         376,323         (2,083,408)         3,142,415         0         298,634,064           06/2009         286,634,064         3,043,682         1,823,223         273,693         (44,893,159)         4,264,862         0         254,089,254           06/2009         245,089,254         0         1,983,864         245,510         (23,744,888)         1,989,333         0         0         256,092,246           08/2009         247,082,695         0         1,941,196         219,293         (10,579,600)         1,965,752         0         0         265,292,46           08/2010         231,737,374         2500,000         2,907,443         294,552         19,481,662         2,727,021         0         0 <td></td> <td></td> <td>1,842,480</td> <td></td> <td></td> <td></td> <td></td> <td>0</td> <td>0</td> <td></td>			1,842,480					0	0	
03/2008         350/228,6855         1,988,386         1,674,362         668,376         1,566,977         1,988,386         0         352,809,428         3,831,700         1,822,454         124,447         (17,340,577)         2,918,708         0         0         343,075,849         09/2008         343,075,849         3,142,415         0         0         342,738,766         1,200,008         342,748,766         3,143,110         1,821,451         1,822,648         376,323         (2,083,400)         3,142,415         0         288,634,064         0         2,848,6766         3,443,110         1,822,648         366,636,648         4         0         1,983,346         445,610         2,244,848,862         0         0         2,993,344         2,648,862         0         2,250,002,223         2,736,693         (4,48,83,159)         4,264,862         0         0         2250,002,228         0         1,983,344         245,510         2,274,448,883         1,989,393         0         2250,002,200         2,002,178,228         2,002,002         2,003,418         0         221,737,201         0         217,002,695         0         1,941,198         219,293         1,057,800         1,965,752         0         0         220,3243         220,204         0         220,5246         0		334,382,812	2,265,946	1,724,761	•	10,156,598		0	0	346,323,006
06/2008         352,809,428         8,831,700         1,822,454         128,447         (17,340,577)         2,918,708         0         343,075,849         3,142,415         1,822,648         376,323         (2,083,408)         3,142,415         0         342,438,766         0         298,634,064         0         298,634,064         3,043,682         1,823,223         273,693         (44,693,159)         4,264,662         0         0         254,069,254           06/2009         254,069,254         0         1,993,364         229,116         (12,623,050)         2,003,491         0         230,082,288           08/2009         230,082,288         0         1,856,064         229,116         (12,623,050)         2,003,491         0         217,082,695           12/2009         217,082,695         0         1,941,198         219,293         (10,579,600)         1,965,752         0         0         203,515,074           09/2010         250,050,000         2,917,433         294,552         19,481,662         2,767,01         0         231,737,374           09/2011         360,356,66         25,000,000         3,508,214         352,327         8,301,755         3,288,279         0         348,530,991           08/2011         348,530,991<				1,690,561		6,336,475		0	0	350,228,655
09/2008         343,075,849         3,142,415         1,822,648         376,323         (2,083,408)         3,142,415         0         342,438,766         3,143,110         1,881,551         286,163         (45,400,090)         3,143,110         0         0         298,634,064           03/2009         298,634,064         3,043,682         1,832,323         273,683         (4,889,159)         4,264,882         0         0         2254,089,254           06/2009         230,082,288         0         1,896,604         229,116         (12,623,050)         2,003,491         0         0         217,082,695           03/2010         206,259,246         25,000,000         2,015,326         210,612         734,572         2,061,168         0         231,737,374           06/2010         231,737,374         25,000,000         3,997,244         294,552         19,481,662         2,727,002         0         263,015,074           09/2010         307,382,606         25,000,000         3,508,214         352,327         8,301,755         3,289,692         0         0         348,530,991           09/2011         340,550,556         729,856         3,075,967         536,833         8,039,725         3,328,596         0         0         348,530,991 <td>03/2008</td> <td>350,228,655</td> <td>1,988,386</td> <td>1,674,352</td> <td>663,376</td> <td>1,569,797</td> <td>1,988,386</td> <td>0</td> <td>0</td> <td>352,809,428</td>	03/2008	350,228,655	1,988,386	1,674,352	663,376	1,569,797	1,988,386	0	0	352,809,428
12/2008         342,438,766         3,143,110         1,881,551         286,163         (45,400,090)         3,143,110         0         298,634,064         3,043,682         1,823,223         273,693         (44,893,159)         8,248,862         0         0         254,069,254           06/2009         220,082,288         0         1,983,346         229,116         (12,623,050)         2,003,491         0         217,082,685           07/2009         217,082,695         0         1,941,196         219,293         (10,579,600)         5,065,722         0         0         206,259,246           03/2010         206,259,246         25,000,000         2,015,326         210,612         734,572         2,061,188         0         231,737,374         0         25,000,000         2,907,443         294,552         19,481,662         2,727,021         0         0         263,015,074         0         203,7382,606         25,000,000         2,907,443         352,327         8,301,755         3,288,607         0         304,550,556         0         304,550,556         0         304,550,556         729,856         3,075,967         536,833         8,039,725         3,328,279         0         348,530,991         0         348,530,991         0         348,530,991		352,809,428	8,831,700	1,822,454			2,918,708	0		343,075,849
03/2009         298,634,064         3,043,682         1,823,223         273,693         (44,893,159)         4,264,862         0         254,069,254         0         1,993,364         245,510         (23,744,888)         1,989,933         0         0         230,082,288         0         1,856,064         229,116         (12,623,050)         2,003,491         0         0         217,082,695         0         1,941,196         219,293         (10,579,600)         1,965,752         0         0         206,259,246         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         231,737,374         26,000,000         3,097,524         239,447         5,875,693         2,456,070         0         0         263,015,074         25,000,000         2,907,443         294,552         19,481,662         2,772,021         0         0         307,382,606         12,2010         307,382,606         25,000,000         3,508,214         352,327         8,301,755         3,289,692         0         0         346,550,991         0         346,530,991         0         346,530,991         0         346,530,991         0         348,530,991         373,333         3,164,967         532,587         13,112,189         3,312,655         0										342,438,766
06/2009         254,069,254         0         1,993,364         245,510         (23,744,888)         1,989,933         0         230,082,288         0         1,856,064         229,116         (12,623,050)         2,003,491         0         27,082,695         0         26,259,246         229,116         (12,623,050)         2,003,491         0         206,259,246         0         26,592,46         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         231,737,373,373,373         26,000,000         2,097,433         239,447         5,875,693         2,456,070         0         0         283,015,074         0         307,382,606         25,000,000         2,907,443         294,552         19,481,662         2,727,021         0         0         363,015,074         0         307,382,606         0         340,550,556         729,856         3,075,967         536,833         8,039,725         3,282,879         0         0         343,530,991         0         313,333         3,164,967         532,887         13,112,189         3,312,655         0         0         361,336,239         0         2,826,761         548,964         8,061,155         3,423,940         0         0         362,51251         0         3,284,565	12/2008	342,438,766	3,143,110		286,163	(45,400,090)	3,143,110	0	0	298,634,064
09/2009         230,082,288         0         1,856,064         229,116         (12,623,050)         2,003,491         0         217,082,695           12/2009         217,082,695         0         1,941,996         219,293         (10,679,600)         1,965,752         0         0         206,259,246           06/2010         231,737,374         25,000,000         3,097,524         239,447         5,875,693         2,466,070         0         0         231,737,374           09/2010         236,15,074         25,000,000         2,907,443         294,552         19,481,662         2,727,021         0         0         307,382,606           12/2010         304,550,566         729,856         3,075,967         536,833         8,039,725         3,288,692         0         348,530,991           06/2011         348,530,991         373,333         3,164,967         532,587         13,112,189         3,312,655         0         0         368,351,251           12/2011         368,251,251         2,742,886         2,951,718         573,696         326,262         3,371,343         0         0         370,327,638           03/2012         370,327,638         0         3,281,515,595         584,466         10,96,537         3,511,3	03/2009	298,634,064	3,043,682	1,823,223	273,693	(44,893,159)	4,264,862	0	0	254,069,254
12/2009         217,082,695         0         1,941,196         219,293         (10,579,600)         1,965,752         0         206,259,246         25,000,000         2,015,326         210,612         734,572         2,061,158         0         231,737,373,373,373,373,373,373,373,373,3	06/2009	254,069,254	0	1,993,364	245,510	(23,744,888)	1,989,933	0	0	230,082,288
03/2010         206,259,246         25,000,000         2,015,326         210,612         734,572         2,061,158         0         0         231,737,374         25,000,000         3,097,524         239,447         5,875,693         2,466,070         0         0         263,015,074         0         0         263,015,074         0         0         263,015,074         0         0         263,015,074         0         0         263,015,074         0         0         307,382,606         12/2010         307,382,606         25,000,000         3,508,214         352,327         8,301,755         3,289,692         0         0         340,550,556         0         340,550,556         729,856         3,075,967         536,833         8,039,725         3,328,279         0         0         361,336,239         0         2,826,761         548,964         8,061,155         3,232,940         0         0         368,251,251         1,742,886         2,951,718         573,696         326,262         3,370,782         0         0         379,619,962         0         3,281,575         584,466         10,096,537         3,371,343         0         0         379,619,962         0         3,281,575         593,560         5,820,257         3,614,621         0         0	09/2009	230,082,288	0	1,856,064	229,116	(12,623,050)	2,003,491	0	0	217,082,695
06/2010         231,737,374         25,000,000         3,097,524         239,447         5,875,693         2,456,070         0         263,015,074         25,000,000         2,907,443         294,552         19,481,662         2,727,021         0         0         307,382,606           12/2010         307,382,606         25,000,000         3,508,214         352,327         8,301,755         3,288,692         0         0         340,550,556           03/2011         340,550,556         729,856         3,075,967         536,833         8,039,725         3,288,279         0         0         346,530,991           06/2011         361,336,239         0         2,826,761         548,964         8,061,155         3,423,940         0         0         361,336,239           09/2011         361,336,239         0         2,826,761         564,866         10,096,537         3,371,343         0         0         370,327,638           06/2012         379,619,962         0         3,284,552         593,560         15,820,257         3,614,621         0         394,772,217           09/2012         384,516,590         0         3,281,072         602,425         7,045,754         3,588,911         0         0         394,772,217	12/2009		0	1,941,196	219,293	(10,579,600)	1,965,752	0	0	206,259,246
09/2010         263,015,074         25,000,000         2,907,443         294,552         19,481,662         2,727,021         0         0         307,382,606           12/2010         307,382,606         25,000,000         3,508,214         352,327         8,301,755         3,289,692         0         0         340,550,566           03/2011         340,550,556         729,856         3,075,967         536,833         8,039,725         3,328,279         0         0         348,530,991           06/2011         361,336,239         0         2,826,761         548,964         8,061,155         3,423,940         0         0         366,251,251           12/2011         368,251,251         2,742,886         2,951,718         573,696         326,262         3,370,782         0         0         379,3619,962           06/2012         379,327,638         0         3,151,595         584,466         10,096,537         3,371,343         0         0         379,3619,962           06/2012         384,516,590         0         3,281,072         602,425         7,045,754         3,538,911         0         394,772,217           03/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592	03/2010	206,259,246	25,000,000	2,015,326	210,612	734,572	2,061,158	0	0	231,737,374
12/2010         307,382,606         25,000,000         3,508,214         352,327         8,301,755         3,289,692         0         0         340,550,556           03/2011         340,550,556         729,856         3,075,967         536,833         8,039,725         3,288,679         0         0         348,530,991           06/2011         361,336,239         0         2,826,761         548,664         8,061,155         3,423,940         0         0         368,251,251           12/2011         368,251,251         2,742,886         2,951,718         573,696         326,262         3,370,782         0         0         379,619,962           06/2012         379,619,962         0         3,284,552         593,560         5,820,257         3,614,621         0         0         394,772,217           09/2012         390,702,080         0         3,281,072         602,425         7,045,754         3,538,911         0         394,772,217           03/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370         0         394,772,217           03/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370	06/2010	231,737,374	25,000,000	3,097,524	239,447	5,875,693		0	0	263,015,074
03/2011         340,550,556         729,856         3,075,967         536,833         8,039,725         3,328,279         0         0         348,530,991           06/2011         348,530,991         373,333         3,164,967         532,587         13,112,189         3,312,655         0         0         361,336,239           09/2011         361,336,239         0         2,826,761         548,964         8,061,155         3,423,940         0         0         368,251,251           12/2011         368,251,251         2,742,886         2,951,718         573,696         326,262         3,370,782         0         0         370,327,638           03/2012         379,619,962         0         3,284,552         593,560         5,820,257         3,614,621         0         0         394,772,217           09/2012         384,516,590         0         3,281,072         602,425         7,045,754         3,538,911         0         390,775,408           09/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370         0         399,775,408           09/2013         281,024,706         2,020,815         3,306,339         620,609         2,839,703         126,297,490	09/2010	263,015,074	25,000,000	2,907,443	294,552	19,481,662	2,727,021	0	0	307,382,606
06/2011         348,530,991         373,333         3,164,967         532,587         13,112,189         3,312,655         0         0         361,336,239         0         2,826,761         548,964         8,061,155         3,423,940         0         0         368,251,251           12/2011         368,251,251         2,742,886         2,951,718         573,696         326,262         3,370,782         0         0         370,327,638           03/2012         379,619,962         0         3,284,552         593,560         5,820,257         3,614,621         0         0         384,516,590           09/2012         384,516,590         0         3,281,072         602,425         7,045,754         3,538,911         0         390,702,080           12/2012         390,702,080         0         3,233,484         617,047         5,101,569         3,618,228         0         0         394,772,217           03/2013         399,775,408         2,020,815         3,306,339         620,669         2,839,703         126,297,490         0         281,024,706           09/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332         2,015,83         0         287,912,241           12/	12/2010	307,382,606		3,508,214	352,327	8,301,755	3,289,692	0	0	340,550,556
09/2011         361,336,239         0         2,826,761         548,964         8,061,155         3,423,940         0         0         368,251,251           12/2011         368,251,251         2,742,886         2,951,718         573,696         326,262         3,370,782         0         0         370,327,638           03/2012         370,327,638         0         3,151,595         584,466         10,096,537         3,371,343         0         0         379,619,962           06/2012         379,619,962         0         3,284,552         593,560         5,820,257         3,614,621         0         0         384,516,590           09/2012         384,516,590         0         3,223,843         617,047         5,101,569         3,614,6228         0         0         390,702,080           09/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370         0         0         399,775,408           06/2013         399,775,408         2,020,815         3,306,339         620,069         2,839,703         126,297,490         0         0         287,912,241           12/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332	03/2011	340,550,556	729,856	3,075,967	536,833	8,039,725	3,328,279	0	0	348,530,991
12/2011         368,251,251         2,742,886         2,951,718         573,696         326,262         3,370,782         0         0         370,327,638           03/2012         370,327,638         0         3,151,595         584,466         10,096,537         3,371,343         0         0         379,619,962           06/2012         379,619,962         0         3,284,552         593,560         5,820,257         3,614,621         0         0         384,516,590           09/2012         384,516,590         0         3,281,072         602,425         7,045,754         3,538,911         0         390,702,080           12/2012         390,702,080         0         3,203,843         617,047         5,101,569         3,618,228         0         0         394,772,217           03/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370         0         0         381,024,706           09/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332         2,021,583         0         0         287,912,241           12/2013         287,912,241         2,019,211         3,327,480         662,689         2,876,014         2,01	06/2011	348,530,991	373,333	3,164,967	532,587	13,112,189	3,312,655	0	0	361,336,239
03/2012         370,327,638         0         3,151,595         584,466         10,096,537         3,371,343         0         0         379,619,962           06/2012         379,619,962         0         3,284,552         593,560         5,820,257         3,614,621         0         0         384,516,590           09/2012         384,516,590         0         3,281,072         602,425         7,045,754         3,538,911         0         0         390,702,080           12/2012         390,702,080         0         3,203,843         617,047         5,101,569         3,618,228         0         0         394,772,217           03/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370         0         0         399,775,408           06/2013         399,775,408         2,020,815         3,306,339         620,069         2,839,703         126,297,490         0         0         281,024,706           09/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332         2,021,583         0         0         287,912,241           12/2014         293,453,046         2,026,127         3,498,662         675,676         4,092,66	09/2011	361,336,239	0	2,826,761	548,964	8,061,155	3,423,940	0	0	368,251,251
06/2012         379,619,962         0         3,284,552         593,560         5,820,257         3,614,621         0         0         384,516,590           09/2012         384,516,590         0         3,281,072         602,425         7,045,754         3,538,911         0         0         390,702,080           12/2012         390,702,080         0         3,203,843         617,047         5,101,569         3,618,228         0         0         394,772,217           03/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370         0         0         399,775,408           06/2013         399,775,408         2,020,815         3,306,339         620,069         2,839,703         126,297,490         0         0         281,024,706           09/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332         2,021,583         0         0         287,912,241           12/2013         287,912,241         2,019,211         3,327,480         662,689         2,876,014         2,019,211         0         299,285,881           06/2014         299,285,881         152,141,703         4,332,981         673,661         6,063,865	12/2011	368,251,251	2,742,886	2,951,718	573,696	326,262	3,370,782	0	0	370,327,638
09/2012         384,516,590         0         3,281,072         602,425         7,045,754         3,538,911         0         390,702,080           12/2012         390,702,080         0         3,203,843         617,047         5,101,569         3,618,228         0         0         394,772,217           03/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370         0         0         399,775,408           06/2013         399,775,408         2,020,815         3,306,339         620,069         2,839,703         126,297,490         0         0         281,024,706           09/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332         2,021,583         0         0         287,912,241           12/2013         287,912,241         2,019,211         3,327,480         662,689         2,876,014         2,019,211         0         0         293,453,046           03/2014         293,453,046         2,026,127         3,498,662         675,676         4,092,666         3,108,944         0         0         299,285,881           06/2014         299,285,881         152,141,703         4,332,981         673,661         6,068,365<	03/2012	370,327,638	0	3,151,595	584,466	10,096,537	3,371,343	0	0	379,619,962
12/2012         390,702,080         0         3,203,843         617,047         5,101,569         3,618,228         0         0         394,772,217           03/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370         0         0         399,775,408           06/2013         399,775,408         2,020,815         3,306,339         620,069         2,839,703         126,297,490         0         0         281,024,706           09/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332         2,021,583         0         0         287,912,241           12/2013         287,912,241         2,019,211         3,327,480         662,689         2,876,014         2,019,211         0         0         293,453,046           03/2014         299,285,881         152,141,703         4,332,981         673,661         6,068,365         5,473,448         2,417         0         455,679,403           09/2014         455,679,403         84,701,781         6,614,316         876,265         9,483,935         2,558,418         0         0         533,043,9872           12/2014         553,044,752         70,384,249         7,193,542         1	06/2012	379,619,962	0	3,284,552	593,560	5,820,257	3,614,621	0	0	384,516,590
03/2013         394,772,217         1,877,167         3,134,604         623,802         4,126,592         3,511,370         0         0         399,775,408           06/2013         399,775,408         2,020,815         3,306,339         620,069         2,839,703         126,297,490         0         0         281,024,706           09/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332         2,021,583         0         0         287,912,241           12/2013         287,912,241         2,019,211         3,327,480         662,689         2,876,014         2,019,211         0         0         293,453,046           03/2014         293,453,046         2,026,127         3,498,662         675,676         4,092,666         3,108,944         0         0         299,285,881           06/2014         299,285,881         152,141,703         4,332,981         673,661         6,068,365         5,473,448         2,417         0         455,679,403           09/2014         455,679,403         84,701,781         6,614,316         876,265         9,483,935         2,558,418         0         0         533,044,752           03/2015         633,439,872         3,519,884         7,666,902	09/2012	384,516,590	0	3,281,072	602,425	7,045,754	3,538,911	0	0	390,702,080
06/2013         399,775,408         2,020,815         3,306,339         620,069         2,839,703         126,297,490         0         0         281,024,706           09/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332         2,021,583         0         0         287,912,241           12/2013         287,912,241         2,019,211         3,327,480         662,689         2,876,014         2,019,211         0         0         293,453,046           03/2014         293,453,046         2,026,127         3,498,662         675,676         4,092,666         3,108,944         0         0         299,285,881           06/2014         299,285,881         152,141,703         4,332,981         673,661         6,068,365         5,473,448         2,417         0         455,679,403           09/2014         455,679,403         84,701,781         6,614,316         876,265         9,483,935         2,558,418         0         0         553,044,752           12/2014         553,044,752         70,384,249         7,193,542         1,046,808         8,474,091         4,609,954         0         0         652,390,002           06/2015         652,390,002         3,717,568         7,928,194	12/2012	390,702,080	0	3,203,843	617,047	5,101,569	3,618,228	0	0	394,772,217
09/2013         281,024,706         2,021,583         3,486,244         640,041         4,041,332         2,021,583         0         0         287,912,241           12/2013         287,912,241         2,019,211         3,327,480         662,689         2,876,014         2,019,211         0         0         293,453,046           03/2014         293,453,046         2,026,127         3,498,662         675,676         4,092,666         3,108,944         0         0         299,285,881           06/2014         299,285,881         152,141,703         4,332,981         673,661         6,068,365         5,473,448         2,417         0         455,679,403           09/2014         455,679,403         84,701,781         6,614,316         876,265         9,483,935         2,558,418         0         0         553,044,752           12/2014         553,044,752         70,384,249         7,193,542         1,046,808         8,474,091         4,609,954         0         0         633,439,872           03/2015         633,439,872         3,519,884         7,666,902         1,388,073         13,754,118         4,602,702         0         0         652,390,002           06/2015         652,390,002         3,717,568         7,928,194	03/2013	394,772,217	1,877,167		623,802	4,126,592	3,511,370	0	0	399,775,408
12/2013         287,912,241         2,019,211         3,327,480         662,689         2,876,014         2,019,211         0         0         293,453,046           03/2014         293,453,046         2,026,127         3,498,662         675,676         4,092,666         3,108,944         0         0         299,285,881           06/2014         299,285,881         152,141,703         4,332,981         673,661         6,068,365         5,473,448         2,417         0         455,679,403           09/2014         455,679,403         84,701,781         6,614,316         876,265         9,483,935         2,558,418         0         0         553,044,752           12/2014         553,044,752         70,384,249         7,193,542         1,046,808         8,474,091         4,609,954         0         0         633,439,872           03/2015         633,439,872         3,519,884         7,666,902         1,388,073         13,754,118         4,602,702         0         0         652,390,002           06/2015         652,390,002         3,717,568         7,928,194         1,412,134         15,151,776         6,632,846         0         0         671,142,561           09/2015         671,142,561         3,867,915         8,024,405	06/2013	399,775,408	2,020,815	3,306,339	620,069	2,839,703	126,297,490	0	0	281,024,706
03/2014         293,453,046         2,026,127         3,498,662         675,676         4,092,666         3,108,944         0         0         299,285,881           06/2014         299,285,881         152,141,703         4,332,981         673,661         6,068,365         5,473,448         2,417         0         455,679,403           09/2014         455,679,403         84,701,781         6,614,316         876,265         9,483,935         2,558,418         0         0         553,044,752           12/2014         553,044,752         70,384,249         7,193,542         1,046,808         8,474,091         4,609,954         0         0         633,439,872           03/2015         633,439,872         3,519,884         7,666,902         1,388,073         13,754,118         4,602,702         0         0         652,390,002           06/2015         652,390,002         3,717,568         7,928,194         1,412,134         15,151,776         6,632,846         0         0         671,142,561           09/2015         671,142,561         3,867,915         8,024,405         1,460,732         14,216,218         6,783,192         0         0         689,007,175           12/2015         689,007,175         4,272,921         8,040,970 <td>09/2013</td> <td>281,024,706</td> <td>2,021,583</td> <td>3,486,244</td> <td>640,041</td> <td>4,041,332</td> <td>2,021,583</td> <td>0</td> <td>0</td> <td>287,912,241</td>	09/2013	281,024,706	2,021,583	3,486,244	640,041	4,041,332	2,021,583	0	0	287,912,241
06/2014         299,285,881         152,141,703         4,332,981         673,661         6,068,365         5,473,448         2,417         0         455,679,403           09/2014         455,679,403         84,701,781         6,614,316         876,265         9,483,935         2,558,418         0         0         553,044,752           12/2014         553,044,752         70,384,249         7,193,542         1,046,808         8,474,091         4,609,954         0         0         633,439,872           03/2015         633,439,872         3,519,884         7,666,902         1,388,073         13,754,118         4,602,702         0         0         652,390,002           06/2015         652,390,002         3,717,568         7,928,194         1,412,134         15,151,776         6,632,846         0         0         671,142,561           09/2015         671,142,561         3,867,915         8,024,405         1,460,732         14,216,218         6,783,192         0         0         689,007,175           12/2015         689,007,175         4,272,921         8,040,970         1,514,522         14,635,278         5,272,445         0         0         709,169,378           03/2016         709,169,378         4,167,510         8,208,628	12/2013	287,912,241	2,019,211	3,327,480	662,689	2,876,014	2,019,211	0	0	293,453,046
09/2014         455,679,403         84,701,781         6,614,316         876,265         9,483,935         2,558,418         0         0         553,044,752           12/2014         553,044,752         70,384,249         7,193,542         1,046,808         8,474,091         4,609,954         0         0         633,439,872           03/2015         633,439,872         3,519,884         7,666,902         1,388,073         13,754,118         4,602,702         0         0         652,390,002           06/2015         652,390,002         3,717,568         7,928,194         1,412,134         15,151,776         6,632,846         0         0         671,142,561           09/2015         671,142,561         3,867,915         8,024,405         1,460,732         14,216,218         6,783,192         0         0         689,007,175           12/2015         689,007,175         4,272,921         8,040,970         1,514,522         14,635,278         5,272,445         0         0         709,169,378           03/2016         709,169,378         4,167,510         8,208,628         1,549,352         6,593,212         4,750,566         0         0         721,838,810           06/2016         721,838,810         4,335,126         8,472,874 <td>03/2014</td> <td>293,453,046</td> <td>2,026,127</td> <td>3,498,662</td> <td>675,676</td> <td>4,092,666</td> <td>3,108,944</td> <td>0</td> <td>0</td> <td>299,285,881</td>	03/2014	293,453,046	2,026,127	3,498,662	675,676	4,092,666	3,108,944	0	0	299,285,881
12/2014       553,044,752       70,384,249       7,193,542       1,046,808       8,474,091       4,609,954       0       0       633,439,872         03/2015       633,439,872       3,519,884       7,666,902       1,388,073       13,754,118       4,602,702       0       0       652,390,002         06/2015       652,390,002       3,717,568       7,928,194       1,412,134       15,151,776       6,632,846       0       0       671,142,561         09/2015       671,142,561       3,867,915       8,024,405       1,460,732       14,216,218       6,783,192       0       0       689,007,175         12/2015       689,007,175       4,272,921       8,040,970       1,514,522       14,635,278       5,272,445       0       0       709,169,378         03/2016       709,169,378       4,167,510       8,208,628       1,549,352       6,593,212       4,750,566       0       0       721,838,810         06/2016       721,838,810       4,335,126       8,472,874       1,572,576       5,759,930       4,335,126       0       0       734,499,038         09/2016       734,499,038       4,434,732       8,241,544       1,601,396       5,820,143       5,684,137       0       0       745,709,924	06/2014	299,285,881	152,141,703	4,332,981	673,661	6,068,365	5,473,448	2,417	0	455,679,403
03/2015       633,439,872       3,519,884       7,666,902       1,388,073       13,754,118       4,602,702       0       0       652,390,002         06/2015       652,390,002       3,717,568       7,928,194       1,412,134       15,151,776       6,632,846       0       0       671,142,561         09/2015       671,142,561       3,867,915       8,024,405       1,460,732       14,216,218       6,783,192       0       0       689,007,175         12/2015       689,007,175       4,272,921       8,040,970       1,514,522       14,635,278       5,272,445       0       0       709,169,378         03/2016       709,169,378       4,167,510       8,208,628       1,549,352       6,593,212       4,750,566       0       0       721,838,810         06/2016       721,838,810       4,335,126       8,472,874       1,572,576       5,759,930       4,335,126       0       0       734,499,038         09/2016       734,499,038       4,434,732       8,241,544       1,601,396       5,820,143       5,684,137       0       0       745,709,924	09/2014	455,679,403	84,701,781	6,614,316	876,265	9,483,935	2,558,418	0	0	553,044,752
06/2015       652,390,002       3,717,568       7,928,194       1,412,134       15,151,776       6,632,846       0       0       671,142,561         09/2015       671,142,561       3,867,915       8,024,405       1,460,732       14,216,218       6,783,192       0       0       689,007,175         12/2015       689,007,175       4,272,921       8,040,970       1,514,522       14,635,278       5,272,445       0       0       709,169,378         03/2016       709,169,378       4,167,510       8,208,628       1,549,352       6,593,212       4,750,566       0       0       721,838,810         06/2016       721,838,810       4,335,126       8,472,874       1,572,576       5,759,930       4,335,126       0       0       734,499,038         09/2016       734,499,038       4,434,732       8,241,544       1,601,396       5,820,143       5,684,137       0       0       745,709,924	12/2014	553,044,752	70,384,249	7,193,542	1,046,808	8,474,091	4,609,954	0	0	633,439,872
09/2015       671,142,561       3,867,915       8,024,405       1,460,732       14,216,218       6,783,192       0       0       689,007,175         12/2015       689,007,175       4,272,921       8,040,970       1,514,522       14,635,278       5,272,445       0       0       709,169,378         03/2016       709,169,378       4,167,510       8,208,628       1,549,352       6,593,212       4,750,566       0       0       721,838,810         06/2016       721,838,810       4,335,126       8,472,874       1,572,576       5,759,930       4,335,126       0       0       734,499,038         09/2016       734,499,038       4,434,732       8,241,544       1,601,396       5,820,143       5,684,137       0       0       745,709,924	03/2015	633,439,872	3,519,884	7,666,902	1,388,073	13,754,118	4,602,702	0	0	652,390,002
12/2015       689,007,175       4,272,921       8,040,970       1,514,522       14,635,278       5,272,445       0       0       709,169,378         03/2016       709,169,378       4,167,510       8,208,628       1,549,352       6,593,212       4,750,566       0       0       721,838,810         06/2016       721,838,810       4,335,126       8,472,874       1,572,576       5,759,930       4,335,126       0       0       734,499,038         09/2016       734,499,038       4,434,732       8,241,544       1,601,396       5,820,143       5,684,137       0       0       745,709,924	06/2015	652,390,002	3,717,568	7,928,194	1,412,134	15,151,776	6,632,846	0	0	671,142,561
03/2016       709,169,378       4,167,510       8,208,628       1,549,352       6,593,212       4,750,566       0       0       721,838,810         06/2016       721,838,810       4,335,126       8,472,874       1,572,576       5,759,930       4,335,126       0       0       734,499,038         09/2016       734,499,038       4,434,732       8,241,544       1,601,396       5,820,143       5,684,137       0       0       745,709,924	09/2015	671,142,561	3,867,915	8,024,405	1,460,732	14,216,218	6,783,192	0	0	689,007,175
06/2016     721,838,810     4,335,126     8,472,874     1,572,576     5,759,930     4,335,126     0     0     734,499,038       09/2016     734,499,038     4,434,732     8,241,544     1,601,396     5,820,143     5,684,137     0     0     745,709,924	12/2015	689,007,175	4,272,921	8,040,970	1,514,522	14,635,278	5,272,445	0	0	709,169,378
09/2016 734,499,038 4,434,732 8,241,544 1,601,396 5,820,143 5,684,137 0 0 745,709,924	03/2016	709,169,378	4,167,510	8,208,628	1,549,352	6,593,212	4,750,566	0	0	721,838,810
	06/2016	721,838,810	4,335,126	8,472,874	1,572,576	5,759,930	4,335,126	0	0	734,499,038
12/2016 745,709,924 4,710,518 8,183,833 1,636,823 6,081,369 4,710,518 0 0 758,338,303	09/2016	734,499,038	4,434,732	8,241,544	1,601,396	5,820,143	5,684,137	0	0	745,709,924
	12/2016	745,709,924	4,710,518	8,183,833	1,636,823	6,081,369	4,710,518	0	0	758,338,303



#### **Total Core Funds Real Estate Portfolio Quarterly Changes in Market Value**

	Beg. of	Capital				Dist. of	Return	Dist. of	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- of	- Recallable	= Period
	<u>Market</u>	<u>butions</u>	Income	Fees	<u>ciation</u>	Real. Gains	<u>Capital</u>	_Capital_	<u>Market</u>
03/2017	758,338,303	4,510,381	8,202,553	1,650,585	2,387,989	4,510,381	0	0	767,278,261
06/2017	767,278,261	4,717,467	8,561,851	1,575,382	1,672,771	4,717,467	0	0	775,937,501
09/2017	775,937,501	4,811,873	8,668,062	1,517,962	4,301,622	4,811,873	0	0	787,389,223
12/2017	787,389,223	4,884,337	8,737,135	1,548,066	8,037,307	5,140,413	0	0	802,359,524
03/2018	802,359,524	5,077,191	8,571,446	1,504,409	7,825,050	5,077,191	0	0	817,251,610
06/2018	817,251,610	1,549,715	7,467,734	1,596,780	5,913,199	4,879,789	119,628,173	0	706,077,517
09/2018	706,077,517	1,775,347	6,915,587	1,365,857	4,780,026	4,114,053	50,284,018	0	663,784,548
12/2018	663,784,548	6,947,898	6,338,602	1,313,594	2,391,377	3,735,032	63,423,650	0	610,990,149
03/2019	610,990,149	113,654,176	6,846,065	1,423,701	623,660	4,342,627	34,576,819	0	691,770,903
06/2019	691,770,903	186,146,039	6,736,636	1,420,271	(6,944,894)	4,106,202	7,168,475	0	865,013,736
09/2019	865,013,736	4,158,572	7,923,305	1,892,184	4,841,562	5,174,187	10,884,652	0	863,986,152
12/2019	863,986,152	3,933,949	7,829,458	1,892,887	4,499,919	4,918,291	7,853,492	0	865,584,807
03/2020	865,584,807	4,168,567	7,771,540	1,839,350	(15,901,831)	5,117,692	5,425,695	0	849,240,346
06/2020	849,240,346	3,989,577	6,171,756	1,809,652	(14,857,456)	4,689,952	0	0	838,044,620
09/2020	838,044,620	3,218,928	6,672,844	1,837,097	1,702,352	3,881,575	0	0	843,920,072
12/2020	843,920,072	105,111,015	8,036,584	2,037,822	12,382,967	5,698,577	0	0	961,714,239
03/2021	961,714,239	14,313,574	8,280,655	3,000,546	18,139,004	5,548,240	0	0	993,898,686
06/2021	993,898,686	10,013,547	8,463,402	2,307,488	42,933,308	5,759,845	0	2,007,955	1,045,233,656
09/2021	1,045,233,656	5,952,143	9,097,047	2,432,976	69,286,716	6,028,209	0	0	1,121,108,377
12/2021	1,121,108,377	12,048,110	9,173,401	2,624,972	85,960,962	6,279,645	0	0	1,219,386,232
03/2022	1,219,386,232	10,019,442	9,313,885	2,808,874	96,683,476	6,958,964	0	0	1,325,635,197
06/2022	1,325,635,197	26,451,741	9,327,206	3,160,547	48,834,343	6,933,806	0	1,283,269	1,398,870,866
09/2022	1,398,870,866	45,011,576	8,765,689	3,147,851	(6,040,575)	7,017,913	0	953,372	1,435,488,419
12/2022	1,435,488,419	126,475,615	9,410,773	3,347,924	(72,760,983)	7,194,279	0	244,370	1,487,827,250
03/2023	1,487,827,250	220,955,058	11,336,583	3,585,255	(62,950,618)	8,028,667	0	0	1,645,554,350
06/2023	1,645,554,350	18,236,823	10,711,171	3,510,323	(36,713,370)	7,173,824	0	0	1,627,104,828
	0	1,730,403,927	376,619,251	84,027,192	326,563,970	416,260,599	299,247,391	6,947,139	1,627,104,828

Returns

Net Since Inception IRR = 5.60%

Ratios

Capital Account = \$1,627,104,828

Total Value = \$2,349,559,956

Committed Capital = \$1,704,483,515

Paid In Capital = \$1,730,403,927

Remaining Commitment = \$(18,973,273)

PIC Multiple (Paid In Capital/Committed Capital) = 101.52%

Total Economic Exposure (Capital Account + Remaining Commitment) = \$1,608,131,555

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.36x

DPI Realization Multiple (Distributions/Paid In Capital) = 0.42x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.94x



## Total Non-Core Fund Period Ended June 30, 2023

#### **Quarterly Summary and Highlights**

- Total Non-Core Fund's portfolio posted a 0.40% return for the quarter placing it in the 12 percentile of the Callan Total Domestic Real Estate DB group for the quarter and in the 17 percentile for the last year.
- Total Non-Core Fund's portfolio outperformed the NCREIF ODCE + 1.5% by 2.88% for the quarter and outperformed the NCREIF ODCE + 1.5% for the year by 11.07%.

#### **Quarterly Asset Growth**

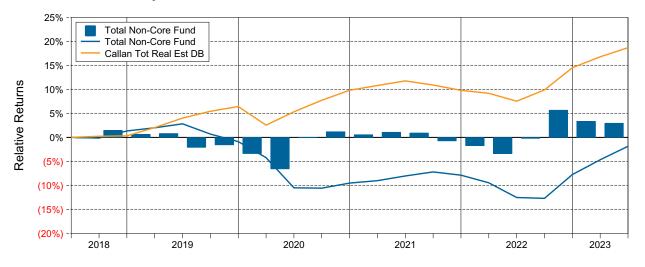
Beginning Market Value\$628,343,613Net New Investment\$54,675,438Investment Gains/(Losses)\$2,612,842

Ending Market Value \$685,631,892

#### Performance vs Callan Total Domestic Real Estate DB



#### Cumulative and Quarterly Relative Returns vs NCREIF ODCE + 1.5%

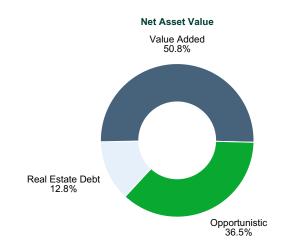


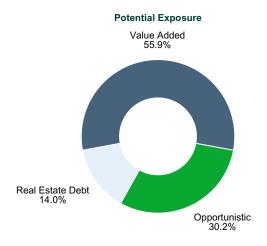


# **Portfolio Diversification Total Non-Core Funds** Period Ended June 30, 2023

The following tables illustrate current and potential exposure by Strategy type as of June 30, 2023 in USD millions.

Portfolio Exposure by Strategy Type	Net Asset Value	%	Unfunded Commitments	%	Potential Exposure	%
Value Added	\$348	50.76%	\$370	61.67%	\$718	55.85%
Opportunistic	\$250	36.48%	\$138	22.98%	\$388	30.18%
Real Estate Debt	\$87	12.75%	\$92	15.35%	\$180	13.97%
Total Non-Core Funds	\$686		\$600		\$1,286	

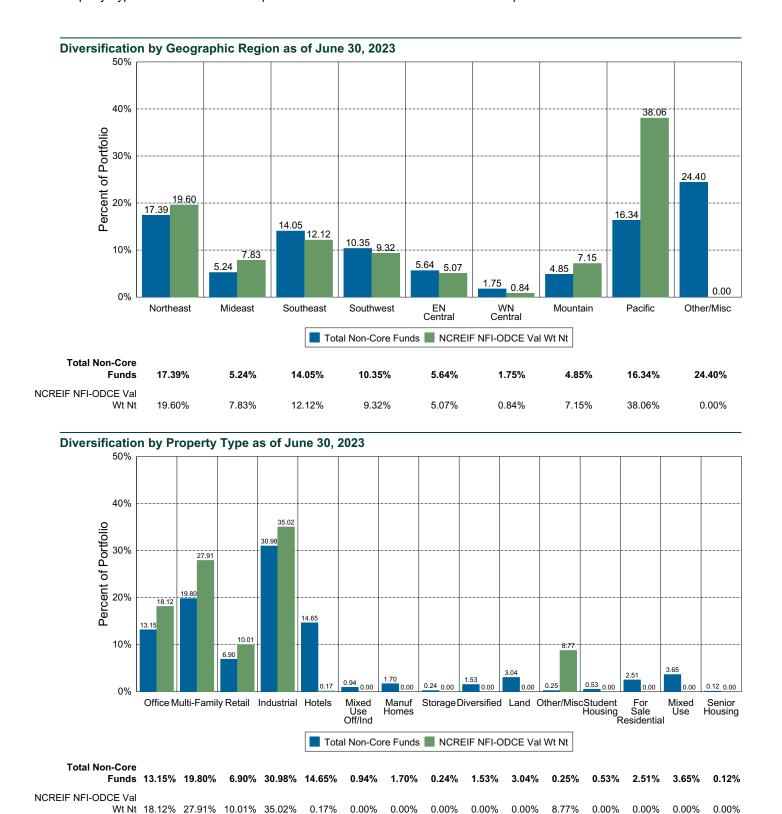




## Total Non-Core Funds Diversification Analysis as of June 30, 2023

#### **Diversification Analysis**

The following charts provide information on the diversification of the portfolio with regards to both Geographic Region and Property Type. Similar information is provided on the relevant market index for comparison.

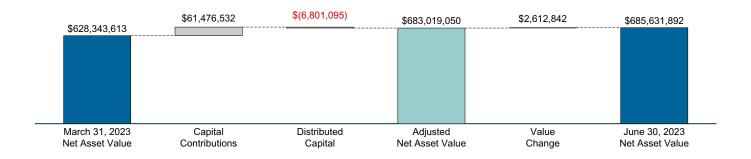




## **Total Non-Core Funds Fund Overview** Period Ended June 30, 2023

Quarterly Position Change	March 31, 2023	Quarterly Change	June 30, 2023
Client Commitment	\$1,634,535,117	\$0	\$1,634,535,117
Paid-In Capital	\$1,083,802,579	\$61,476,532	\$1,145,279,111
Remaining Commitment	\$658,997,814	\$(58,856,036)	\$600,141,777
Distributions	\$755,236,968	\$6,801,095	\$762,038,062
Recallable Distributions	\$104,916,928	\$2,620,496	\$107,537,424
Non-Recallable Distributions	\$650,320,040	\$4,180,598	\$654,500,638
Net Asset Value	\$628,343,613	\$57,288,279	\$685,631,892
Total Distributed Capital and Net Asset Value	\$1,383,580,580	\$64,089,374	\$1,447,669,954

		Quarterly	
Performance Change	March 31, 2023	Change	June 30, 2023
Net Internal Rate of Return, Since Inception	10.31%	(0.30%)	10.01%
Total Value to Paid-in Capital (TVPI)	1.28x	(0.01x)	1.26x
Distributions to Paid-in Capital (DPI)	0.70x	(0.03x)	0.67x
Residual Value to Paid-in Capital (RVPI)	0.58x	0.02x	0.60x
% of Commitments Contributed	66.31%	(3.76%)	70.07%





# **Total Non-Core Funds Real Estate Portfolio Quarterly Changes in Market Value**

	Beg. of	Capital				Dist. of	Return	Dist. of	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre	Income &	- of	- Recallable	= Period
	<u>Market</u>	<u>butions</u>	Income	Fees	<u>ciation</u>	Real. Gains	<u>Capital</u>	<u>Capital</u>	<u>Market</u>
06/2009	0	3,600,000	(152,422)	346,790	376,767	0	0	0	3,477,555
09/2009	3,477,555	0	(152,422)	346,790	376,767	0	0	0	3,355,109
12/2009	3,355,109	0	(152,422)	346,790	(386,197)	0	0	0	2,469,700
03/2010	2,469,700	0	0	0	0	0	0	0	2,469,700
06/2010	2,469,700	2,040,000	0	0	0	0	0	0	4,509,700
09/2010	4,509,700	0	0	0	(10,187)	0	0	0	4,499,513
12/2010	4,499,513	1,840,000	17,012	135,646	399,673	0	0	0	6,620,552
03/2011	6,620,552	5,440,000	(26,405)	135,646	681,958	0	0	0	12,580,459
06/2011	12,580,459	4,000,000	(25,720)	130,831	947,860	892,588	0	0	16,479,180
09/2011	16,479,180	2,222,095	112,132	131,001	7,931,778	0	0	0	26,614,184
12/2011	26,614,184	13,913,056	803	129,577	(7,170,257)	25,232	0	0	33,202,977
03/2012	33,202,977	5,777,016	85,498	128,523	573,841	157,163	0	0	39,353,647
06/2012	39,353,647	12,851,428	(214,376)	217,981	646,423	2,393,217	0	544,391	49,481,533
09/2012	49,481,533	12,453,309	184,840	219,376	1,265,359	1,891,400	0	1,560,625	59,713,641
12/2012	59,713,641	21,304,116	(218,717)	219,163	2,639,006	2,230,488	0	1,311,525	79,676,870
03/2013	79,676,870	7,047,529	227,151	218,920	5,740,672	1,424,674	0	5,912,217	85,136,411
06/2013	85,136,411	11,669,328	102,625	193,322	7,016,306	4,257,611	0	35,883	99,437,853
09/2013	99,437,853	26,855,375	(327,214)	637,238	2,797,791	10,302,735	0	1,719,937	116,103,895
12/2013	116,103,895	60,859,397	(286,399)	358,262	4,584,715	2,826,783	0	250,445	177,826,118
03/2014	177,826,118	6,335,636	(2,515)	448,186	14,271,818	9,984,783	0	1,444,640	186,553,449
06/2014	186,553,449	16,245,772	50,126	534,036	4,203,408	4,571,851	0	20,362,045	181,584,824
09/2014	181,584,824	16,934,861	(432,836)	533,033	3,683,883	9,398,767	0	449,945	191,388,987
12/2014	191,388,987	6,732,235	(327,042)	220,274	7,194,125	4,487,010	0	22,718,143	177,562,878
03/2015	177,562,878	18,115,262	7,795	372,228	7,226,431	10,550,257	0	2,674,991	189,314,890
06/2015	189,314,890	19,148,867	(66,365)	407,952	7,355,309	6,254,578	0	1,339,019	207,751,152
09/2015	207,751,152	7,348,386	(105,494)	319,945	8,397,174	13,306,640	0	827,939	208,936,693
12/2015	208,936,693	16,598,291	(166,826)	967,189	7,227,426	8,398,932	0	388,596	222,840,867
03/2016	222,840,867	16,128,434	(65,398)	438,764	6,693,062	11,617,622	0	225,653	233,314,926
06/2016	233,314,926	27,561,495	(180,427)	618,398	7,947,793	6,628,760	0	183,426	261,213,203
09/2016	261,213,203	9,943,302	(67,198)	584,061	9,522,440	18,465,588	0	86,935	261,475,163
12/2016	261,475,163	22,876,164	51,901	727,927	9,844,850	24,228,231	0	1,810,102	267,481,817
03/2017	267,481,817	6,957,225	(185,570)	458,830	4,488,704	7,319,959	0	329,195	270,634,192
06/2017	270,634,192	13,304,128	330,119	592,730	9,690,874	17,628,691	0	655,280	275,082,613
09/2017	275,082,613	10,490,552	218,669	582,151	8,366,006	3,289,156	0	31,875	290,254,658
12/2017	290,254,658	12,626,626	424,355	582,150	11,445,546	14,687,351	0	665,618	298,816,066
03/2018	298,816,066	28,655,090	1,231,667	938,192	5,484,873	11,340,691	930,000	678,961	320,299,852
06/2018	320,299,852	20,614,445	2,485,045	1,036,091	4,738,015	4,278,821	16,057,331	162,915	326,602,199
09/2018	326,602,199	26,783,111	2,725,141	1,330,674	5,425,121	9,520,960	14,479,339	3,584,690	332,619,909
12/2018	332,619,909	13,199,558	3,591,013	1,220,208	8,800,654	3,993,860	10,226,293	2,727,413	340,043,360
03/2019	340,043,360	19,463,468	6,946,114	1,169,984	1,818,183	5,750,384	5,155,104	0	356,195,654
06/2019	356,195,654	20,276,659	4,032,229	1,194,863	4,129,883	7,384,189	14,638,596	2,518,787	358,897,990
09/2019	358,897,990	22,578,846	2,627,610	2,100,348	(1,794,779)	8,391,774	12,806,200	620,309	358,391,036
12/2019	358,391,036	15,507,323	5,160,335	1,405,338	(4,200,243)	5,092,759	4,017,896	1,980,829	362,361,628
03/2020	362,361,628	25,925,447	2,091,093	1,433,998	(8,817,746)	5,791,539	12,218,341	1,437,607	360,678,937
06/2020	360,678,937	16,765,573	1,524,993	1,609,328	(28,328,041)	2,431,376	1,923,758	167,748	344,509,252
09/2020	344,509,252	18,701,590	1,979,133	1,996,439	2,342,718	4,684,554	7,202,553	983,605	352,665,544
12/2020	352,665,544	15,210,179	2,400,050	1,862,190	8,957,161	4,680,569	5,891,878	0	366,798,297



## **Total Non-Core Funds** Real Estate Portfolio **Quarterly Changes in Market Value**

	Beg. of Period	Capital + Contri-		- Mgmt.	+ Appre-	Dist. of	Return - of	Dist. of - Recallable	End of Period
	<u>Market</u>	<u>butions</u>	<u>Income</u>	Fees	<u>ciation</u>	Real. Gains	<u>Capital</u>	<u>Capital</u>	Market
03/2021	366,798,297	26,878,314	2,096,758	2,714,081	10,916,044	10,398,783	14,595,748	758,311	378,222,490
06/2021	378,222,490	37,059,106	6,480,622	2,721,813	15,671,621	8,792,825	19,194,335	0	406,724,864
09/2021	406,724,864	43,802,700	3,771,366	3,031,415	31,204,268	12,348,134	15,353,164	1,141,075	453,629,409
12/2021	453,629,409	71,240,929	6,593,325	4,911,985	31,873,438	26,544,107	35,002,390	0	496,878,619
03/2022	496,878,619	64,040,262	3,957,036	3,581,243	28,344,828	10,143,450	5,722,495	3,561,349	570,212,208
06/2022	570,212,208	28,189,103	2,464,970	3,569,911	8,413,937	25,765,414	27,290,138	14,724,102	537,930,653
09/2022	537,930,653	60,067,576	2,522,405	3,549,724	3,607,628	9,097,452	13,677,513	1,093,090	576,710,483
12/2022	576,710,483	28,638,614	2,790,706	3,112,894	4,211,423	7,075,562	13,539,245	2,910,746	585,712,779
03/2023	585,712,779	60,984,801	2,133,231	3,516,877	3,037,099	10,059,380	9,611,075	336,967	628,343,613
06/2023	628,343,613	61,476,532	2,450,643	3,529,756	3,691,955	3,270,749	909,850	2,620,496	685,631,892
	0	1.145.279.111	70.712.745	63.821.063	295.499.161	394.057.399	260.443.239	107.537.424	685.631.892

Returns Net Since Inception IRR = 10.01%

Ratios

Capital Account = \$685,631,892 Total Value = \$1,447,669,954

Committed Capital = \$1,634,535,117

Paid In Capital = \$1,145,279,111

Remaining Commitment = \$600,141,777

PIC Multiple (Paid In Capital/Committed Capital) = 70.07%

Total Economic Exposure (Capital Account + Remaining Commitment) = \$1,285,773,669

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.26x

DPI Realization Multiple (Distributions/Paid In Capital) = 0.67x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.60x

Working on updating historical cashflows on several managers to include detail cashflows. Callan data feed at inception of relationship did not include fee amounts and income amounts. Mangers that still need updating: Brookfield II, Crow VII & VIII, Franklin EMREFF, MDP RE 2015 & FTPREF, Macquarie II & III.

Capital commitments reflects the sum of: (i) aggregate capital contributions translated to U.S. Dollars as of the date of each capital contribution transaction; and (ii) reported uncalled capital commitments translated to U.S. Dollars as of guarter end date.



## Farmland Period Ended June 30, 2023

#### **Investment Philosophy**

Homestead Capital USA Farmland Fund III, LP plans to acquire and manage a portfolio of diversified U.S. farmland and will focus on pursuing investments in high-quality row and permanent cropland in the Mountain West, Pacific, Midwest and Delta regions. The Fund has a differentiated "private equity" approach to its farmland investment strategy because it primarily focuses on acquiring farms across the U.S. where meaningful value can be created. The Fund intends to create value through a variety of strategies including capital improvements, operational efficiencies, management and operating changes, crop rotations, conversion to higher and better uses, development of strategic partnerships and platforms, and valuation arbitrage. The Fund will implement a bottom-up investment approach utilizing a team of farm managers on the ground in each region. The bottom-up approach will be paired with a top-down overlay in an effort to ensure proper diversification and an appropriate risk and reward profile at the portfolio level.

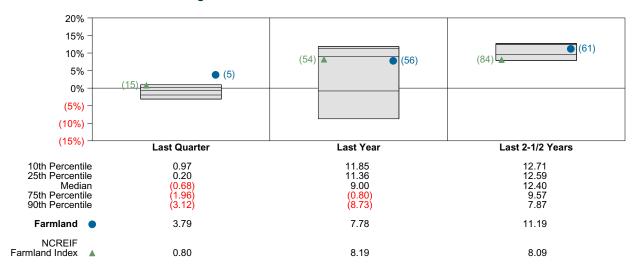
#### **Quarterly Summary and Highlights**

- Farmland's portfolio posted a 3.79% return for the quarter placing it in the 5 percentile of the Callan Real Estate Agriculture Funds group for the quarter and in the 56 percentile for the last year.
- Farmland's portfolio outperformed the NCREIF Farmland Index by 2.98% for the quarter and underperformed the NCREIF Farmland Index for the year by 0.41%.

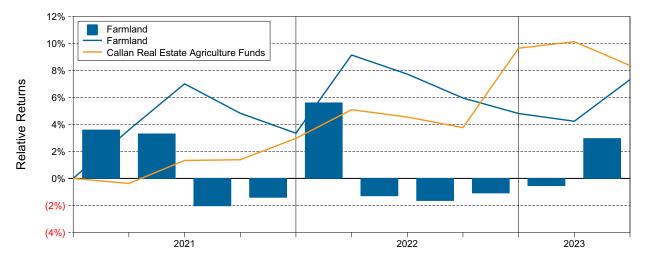
### **Quarterly Asset Growth**

Beginning Market Value	\$52,321,365
Net New Investment	\$1,846,838
Investment Gains/(Losses)	\$2,048,559
Ending Market Value	\$56,216,762

#### Performance vs Callan Real Estate Agriculture Funds



#### **Cumulative and Quarterly Relative Returns vs NCREIF Farmland Index**

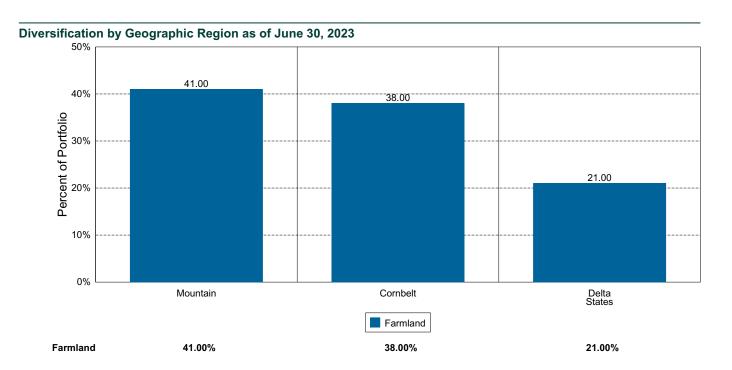


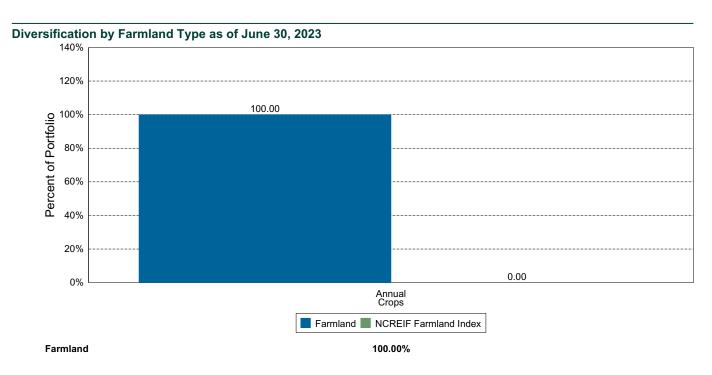


# Farmland Diversification Analysis as of June 30, 2023

### **Diversification Analysis**

The following charts provide information on the diversification of the portfolio with regards to both Geographic Region and Farmland Type. Similar information is provided on the relevant market index for comparison.



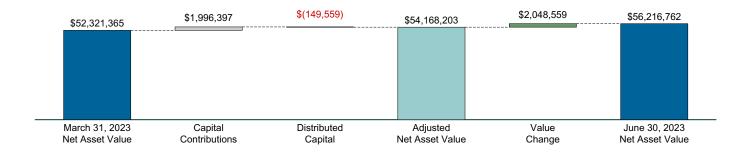




## **Farmland Fund Overview** Period Ended June 30, 2023

Quarterly Position Change	March 31, 2023	Quarterly Change	June 30, 2023
Client Commitment	\$100,000,000	\$0	\$100,000,000
Paid-In Capital	\$49,118,427	\$1,996,397	\$51,114,824
Remaining Commitment	\$50,905,343	\$(1,996,397)	\$48,908,946
Distributions	\$1,448,642	\$149,559	\$1,598,201
Recallable Distributions	\$23,770	\$0	\$23,770
Non-Recallable Distributions	\$1,424,872	\$149,559	\$1,574,431
Net Asset Value	\$52,321,365	\$3,895,397	\$56,216,762
Total Distributed Capital and Net Asset Value	\$53,770,007	\$4,044,956	\$57,814,963

		Quarterly	
Performance Change	March 31, 2023	Change	June 30, 2023
Net Internal Rate of Return, Since Inception	6.81%	1.36%	8.17%
Total Value to Paid-in Capital (TVPI)	1.09x	0.04x	1.13x
Distributions to Paid-in Capital (DPI)	0.03x	0.00x	0.03x
Residual Value to Paid-in Capital (RVPI)	1.07x	0.03x	1.10x
% of Commitments Contributed	49.12%	(2.00%)	51.11%





## **Farmland Real Estate Portfolio Quarterly Changes in Market Value**

	Beg. of	Capital				Dist. of	Return	Dist. of	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	- Income &	- of	- Recallable	= Period
	<u>Market</u>	<u>butions</u>	Income	Fees	<u>ciation</u>	Real. Gains	<u>Capital</u>	_Capital_	<u>Market</u>
12/2020	0	12,658,888	157,999	1,526,906	(76,196)	173,154	220,183	23,770	10,796,678
03/2021	10,796,678	1,186,700	(10,200)	208,432	715,874	0	0	0	12,480,620
06/2021	12,480,620	3,377,979	152,390	222,455	739,401	171,141	0	0	16,356,794
09/2021	16,356,794	2,785,988	(16,698)	214,347	138,648	0	0	0	19,050,385
12/2021	19,050,385	11,334,417	86,414	215,619	696,054	114,866	0	0	30,836,785
03/2022	30,836,785	5,480,956	375,825	187,563	2,464,765	400,268	0	0	38,570,500
06/2022	38,570,500	0	(18,876)	207,177	277,361	0	0	0	38,621,808
09/2022	38,621,808	2,783,357	(40,387)	225,000	384,489	0	0	0	41,524,267
12/2022	41,524,267	6,661,463	458,147	217,081	629,956	290,514	54,746	0	48,711,492
03/2023	48,711,492	2,848,679	135,541	202,817	828,470	0	0	0	52,321,365
06/2023	52,321,365	1,996,397	337,755	274,750	1,985,554	149,559	0	0	56,216,762
	0	38,744,976	1,617,910	3,702,147	20,774,600	1,126,348	92,229	0	56,216,762

Returns

Net Since Inception IRR = 35.99%

Ratios

Capital Account = \$56,216,762

Total Value = \$57,435,339 Committed Capital = \$60,000,000

Paid In Capital = \$38,744,976

Remaining Commitment = \$21,255,024

PIC Multiple (Paid In Capital/Committed Capital) = 64.57%

Total Economic Exposure (Capital Account + Remaining Commitment) = \$77,471,786

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.48x

DPI Realization Multiple (Distributions/Paid In Capital) = 0.03x

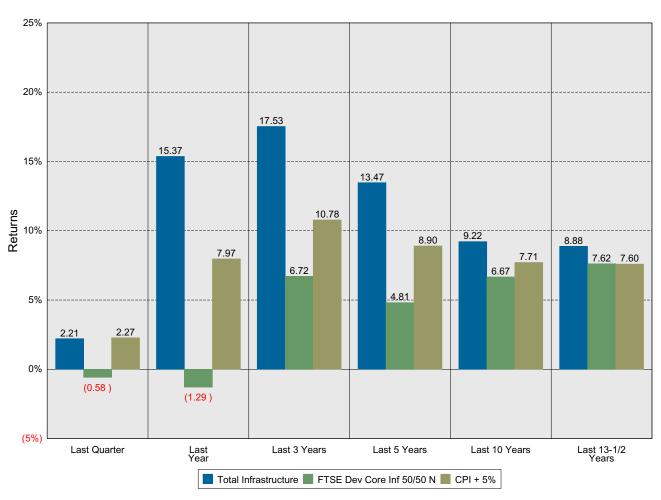
RVPI Residual Multiple (Capital Account/Paid In Capital) = 1.45x



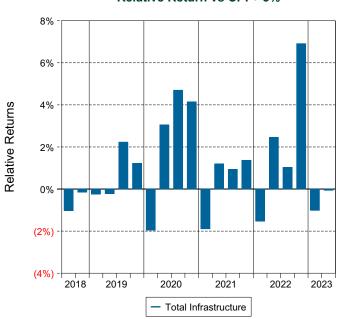
## Total Infrastructure Period Ended June 30, 2023

#### **Quarterly Summary and Highlights**

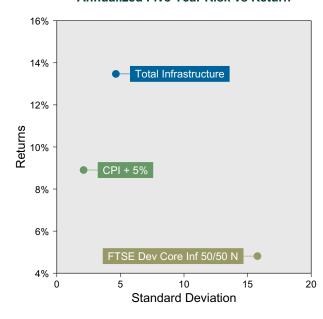
• Total Infrastructure's portfolio underperformed the CPI + 5% by 0.06% for the quarter and outperformed the CPI + 5% for the year by 7.40%.



### Relative Return vs CPI + 5%



### Annualized Five Year Risk vs Return

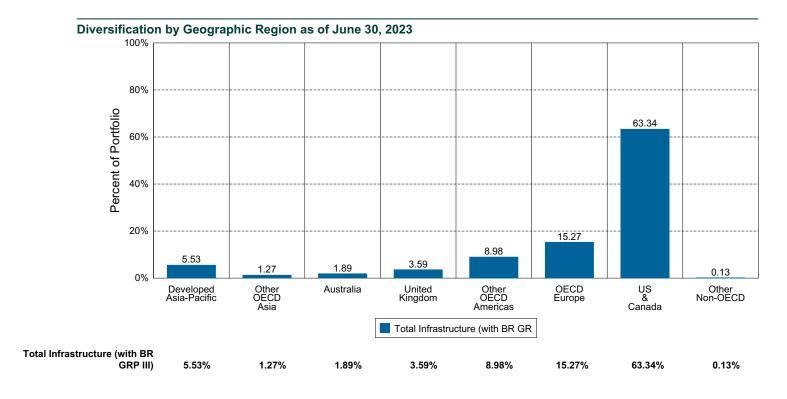


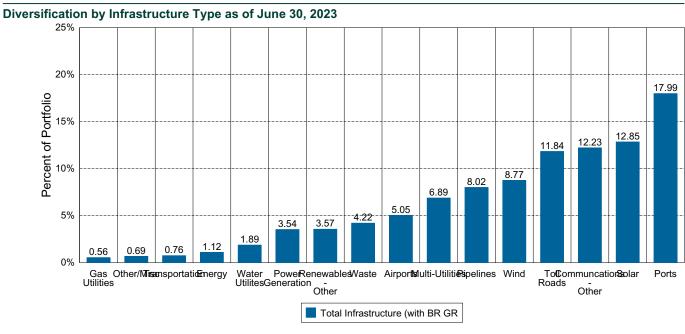


# Total Infrastructure (with BR GRP III) Diversification Analysis as of June 30, 2023

#### **Diversification Analysis**

The following charts provide information on the diversification of the portfolio with regards to both Geographic Region and Infrastructure Type. Similar information is provided on the relevant market index for comparison.





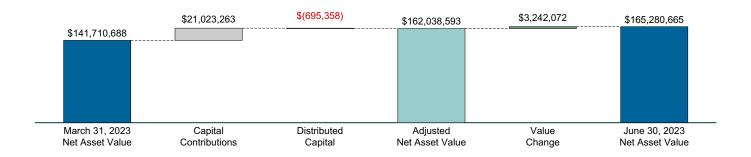
Total Infrastructure (with BR GRP III) 0.56% 0.69% 0.76% 1.12% 1.89% 3.54% 3.57% 4.22% 5.05% 6.89% 8.02% 8.77% 11.84% 12.23% 12.85% 17.99%



## **Total Private Infrastructure Fund Overview** Period Ended June 30, 2023

Quarterly Position Change	March 31, 2023	Quarterly Change	June 30, 2023
Client Commitment	\$314,107,954	\$0	\$314,107,954
Paid-In Capital	\$232,325,398	\$21,023,263	\$253,348,661
Remaining Commitment	\$104,655,678	\$(21,023,263)	\$83,632,415
Distributions	\$196,657,018	\$695,358	\$197,352,376
Recallable Distributions	\$22,121,067	\$0	\$22,121,067
Non-Recallable Distributions	\$174,535,952	\$695,358	\$175,231,309
Net Asset Value	\$141,710,688	\$23,569,977	\$165,280,665
Total Distributed Capital and Net Asset Value	\$338,367,706	\$24,265,335	\$362,633,041

		Quarterly	
Performance Change	March 31, 2023	Change	June 30, 2023
Net Internal Rate of Return, Since Inception	8.61%	0.01%	8.62%
Total Value to Paid-in Capital (TVPI)	1.46x	(0.03x)	1.43x
Distributions to Paid-in Capital (DPI)	0.85x	(0.07x)	0.78x
Residual Value to Paid-in Capital (RVPI)	0.61x	0.04x	0.65x
% of Commitments Contributed	73.96%	(6.69%)	80.66%





# **Total Infrastructure Infrastructure Portfolio Quarterly Changes in Market Value**

	Beg. of	Capital				Dist. of	Return	Dist. of	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	Income &	- of	- Recallable	= Period
	Market	butions	Income	Fees	ciation	Real. Gains	<u>Capital</u>	Capital	Market
12/2009	0	7,848,586	78,175	1,035,616	1,113,909	458,762	0	16,597	7,529,695
03/2010	7,529,695	604,661	2,420	350,000	305,337	0	0	585,224	7,506,889
06/2010	7,506,889	22,373,970	100,792	2,215,084	704,795	0	0	277,003	28,194,359
09/2010	28,194,359	673,974	168,948	161,710	2,260,461	0	0	644,134	30,491,898
12/2010	30,491,898	4,032,951	32,558	161,710	1,186,244	0	0	0	35,581,941
03/2011	35,581,941	3,632,210	145,903	164,100	770,475	0	0	229,698	39,736,731
06/2011	39,736,731	3,161,617	146,130	164,100	934,848	0	0	345,169	43,470,057
09/2011	43,470,057	5,011,352	161,229	132,058	1,237,961	0	0	149,002	49,599,539
12/2011	49,599,539	8,891,407	(42,712)	132,058	1,020,407	0	0	469,436	58,867,147
03/2012	58,867,147	6,731,784	159,082	115,311	478,344	0	0	0	66,121,046
06/2012	66,121,046	47,824	280,821	115,311	1,273,290	0	0	211,978	67,395,692
09/2012	67,395,692	420,388	86,608	173,950	1,640,428	0	0	680,410	68,688,756
12/2012	68,688,756	4,588,704	46,818	170,673	3,330,945	0	0	702,613	75,781,937
03/2013	75,781,937	2,752,906	156,175	312,126	1,265,278	0	0	3,492,782	76,151,388
06/2013	76,151,388	832,318	103,778	319,475	(35,314)	777,982	0	481,746	75,472,967
09/2013	75,472,967	3,105,050	(10,413)	272,070	2,155,584	501,392	0	1,866,413	78,083,313
12/2013	78,083,313	4,420,671	106,410	195,348	(296,065)	22,295,109	0	309,940	59,513,932
03/2014	59,513,932	8,585,708	185,692	166,570	3,186,654	1,489,341	0	2,896,277	66,919,798
06/2014	66,919,798	740,153	126,600	137,238	2,450,569	775,008	0	527,844	68,797,029
09/2014	68,797,029	778,185	17,847	238,275	(800,247)	56,231	0	267,296	68,231,012
12/2014	68,231,012	2,312,635	(195,503)	764,548	826,326	184,720	0	1,046,792	69,178,411
03/2015	69,178,411	8,134,342	94,546	381,562	1,837,269	85,533	0	485,777	78,291,696
06/2015	78,291,696	1,276,086	11,054	340,700	1,558,044	34,806	0	1,253,253	79,508,121
09/2015	79,508,121	458,868	443,191	354,681	1,788,364	427,677	0	431,192	80,984,994
12/2015	80,984,994	1,439,368	435,839	352,106	1,668,634	473,310	0	1,241,461	82,461,958
03/2016	82,461,958	4,006,958	270,850	353,464	1,146,414	149,385	0	212,193	87,171,138
06/2016	87,171,138	10,885,041	750,789	359,408	1,088,386	137,959	0	586,453	98,811,534
09/2016	98,811,534	7,111,855	221,669	425,145	365,192	175,491	0	865,857	105,043,757
12/2016	105,043,757	11,448,295	548,069	414,798	(3,089,524)	1,666,632	64,272	304,620	111,500,276
03/2017	111,500,276	1,853,672	472,995	400,300	6,754,926	1,381,714	0	581,377	118,218,478
06/2017	118,218,478	399,048	755,664	402,809	(1,857,523)	7,967,095	0	260,931	108,884,831
09/2017	108,884,831	213,489	338,024	387,816	926,380	2,679,673	0	161,822	107,133,414
12/2017	107,133,414	454,311	775,254	380,978	(2,160,339)	1,775,100	0	141,874	103,904,688
03/2018	103,904,688	307,740	149,259	751,823	1,448,049	134,276	0	201,398	104,722,238
06/2018	104,722,238	4,992,602	(135,177)	469,301	2,881,352	12,440,017	5,040,451	0	94,511,247
09/2018	94,511,247	2,289,864	117,514	388,630	615,817	409,948	0	0	96,735,863
12/2018	96,735,863	6,472,515	87,866	422,957	939,865	930,019	139,450	0	102,743,683
03/2019	102,743,683	10,733,092	423,561	408,556	2,277,961	719,459	1,519,068	0	113,531,215
06/2019	113,531,215	5,584,716	44,826	380,840	2,127,179	700,080	17,412,920	58,226	102,735,870
09/2019	102,735,870	10,769,066	294,824	423,008	4,057,204	1,704,669	2,226,460	0	113,502,827
12/2019	113,502,827	15,535,595	(279,484)	395,393	3,629,217	3,349,613	11,442,770	127,673	117,072,705
03/2020	117,072,705	1,693,654	253,449	366,811	(274,087)	71,357	138,791	0	118,168,762
06/2020	118,168,762	93,795	12,605	367,804	5,305,358	93,795	0	0	123,118,921
09/2020	123,118,921	2,425,028	146,289	369,830	8,795,977	206,452	368,001	0	133,541,932
12/2020	133,541,932	408,317	28,457	348,985	6,887,031	15,200,971	14,737,219	0	110,578,563
03/2021	110,578,563	711,013	389,784	311,556	900,818	5,155,812	2,319,555	6,606	104,786,648
06/2021	104,786,648	1,585,576	2,229,130	304,619	3,018,540	40,690	8,975,817	0	102,298,769



## **Total Infrastructure Infrastructure Portfolio Quarterly Changes in Market Value**

	Beg. of	Capital				Dist. of	Return	Dist. of	End of
	Period	+ Contri-	+ Accounting	- Mgmt.	+ Appre-	Income &	- of	- Recallable	= Period
	<u>Market</u>	<u>butions</u>	Income	Fees	<u>ciation</u>	Real. Gains	<u>Capital</u>	_Capital_	<u>Market</u>
09/2021	102,298,769	5,653,567	360,628	765,451	3,573,710	290,390	1,327,832	0	109,503,000
12/2021	109,503,000	1,498,761	(12,281)	406,260	4,987,011	4,062,388	0	0	111,507,843
03/2022	111,507,843	3,935,806	224,517	829,218	3,590,387	973,514	0	0	117,455,822
06/2022	117,455,822	8,322,026	3,314,300	771,015	5,358,024	30,921	3,230,520	0	130,417,716
09/2022	130,417,716	3,773,934	875,446	676,370	2,976,674	0	1,025,687	0	136,341,713
12/2022	136,341,713	1,917,686	4,507,872	678,834	7,274,383	1,606,121	12,241,637	0	135,515,063
03/2023	135,515,063	4,392,659	1,090,208	664,803	2,089,651	712,090	0	0	141,710,688
06/2023	141,710,688	21,023,263	701,662	446,633	2,987,043	695,358	0	0	165,280,665
	0	253,348,661	21,800,558	22,999,793	110,483,615	93,020,860	82,210,449	22,121,067	165,280,665

Returns

Net Since Inception IRR = 8.62%

Ratios

Capital Account = \$165,280,665

Total Value = \$362,633,041

Committed Capital = \$180,000,000

Paid In Capital = \$253,348,661

Remaining Commitment = \$(50,475,539)

PIC Multiple (Paid In Capital/Committed Capital) = 140.75%

Total Economic Exposure (Capital Account + Remaining Commitment) = \$114,805,126

TVPI Investment Multiple (Total Value/Paid In Capital) = 1.43x

DPI Realization Multiple (Distributions/Paid In Capital) = 0.78x

RVPI Residual Multiple (Capital Account/Paid In Capital) = 0.65x



### **Definitions**

### **Style Groups**

Total Domestic Real Estate Database: The Total Domestic Real Estate Funds Database consists of both open and closed-end commingled funds managed by real estate firms that report to the Callan Database and invest in private domestic real estate.

Open-End Core Commingled RE: The Open-End Real Estate Database consists of all open end real estate funds that report to the Callan Database.

Real Estate REIT: The Real Estate REIT Database consists of products investing in domestic equity real estate through portfolios consisting primarily of equity Real Estate Investment Trusts (REIT). The Database is comprised of returns for both separate account composites and commingled vehicles as reported to Callan by the mangers of those products.

\*The above groups are based on time-weighted returns.

Vintage Year Database Groups: The Vintage Year Groups are comprised of closed end funds that report to the database. The groups are based on IRRs derived from cash flows submitted to the Callan Database by the managers of those funds. A fund is placed in a vintage year based on the year the initial drawdown of capital was made for the fund.

#### **Indices**

NAREIT Equity Index: This is an index of Equity Real Estate Investment Trust returns reflecting the stock value changes of REIT issues as determined through public market transactions.

The NFI-ODCE Value-Weight Index is a time-weighted return Index with an inception date of 12/31/1977. The Index is comprised of 33 open-end commingled funds, in which 24 are still actively investing. Inclusion within the Index requires (a) minimum of 80% of net fund assets invested in the multifamily, retail, industrial, office, or hotel property type, (b) maximum of 20% of net fund assets invested in real estate debt or private/public company equity, (c) at least 80% of net assets invested in properties with a minimum occupancy of 60%, (d) no more than 70% of real estate net assets invested in a single property type or region, (e) maximum of 40% leverage, and (f) at least 95% of net real estate assets invested within the U.S. market.



## **Notes**

Information in the report is based on qualitative and quantitative data submitted to Callan directly by the client's real estate investment managers. It is not based on custodian data nor has it been reconciled to custodian data.



# **Education**

2nd Quarter 2023

# **Quarterly Highlights**

The Callan Institute provides research to update clients on the latest industry trends and carefully structured educational programs to enhance the knowledge of industry professionals. Visit www.callan.com/research-library to see all of our publications, and www.callan.com/blog to view our blog. For more information contact Barb Gerraty at 415-274-3093 / institute@callan.com.

### **New Research from Callan's Experts**

**2023 Private Credit Fees and Terms Study** | Catherine Beard and Jared Ungar assess private credit partnerships in our first fees and terms study for this asset class.

**2Q23** Real Assets Reporter: Life Sciences Investments | Christine Mays describes life sciences investments and the role they can play in institutional portfolios.

The Critical Underlying Technology Behind Digital Assets:

A Primer for Institutional Investors | This paper provides background on key concepts around digital assets: blockchains and distributed ledgers; cryptography; validation protocols; smart contracts; and tokenization.

#### **Blog Highlights**

Biodiversity: A Relatively New Theme for ESG-Focused Investors | Biodiversity investments include companies that support the sustainable use of natural resources and ecosystem services or technologies, or products or services that reduce biodiversity threats or restore natural habitats.

Higher Interest Rates Meet Lower Valuations: Implications for the CRE Industry | The commercial real estate (CRE) industry, already facing challenges with economic uncertainty, the shift to remote work, and recent layoffs by many major office tenants, now confronts higher interest rates and plummeting pricing.

<u>How to Improve DC Plans with DEI</u> For defined contribution (DC) plan sponsors, understanding the diversity within the employee population supports inclusiveness and equality in access and opportunities.

### **Webinar Replays**

Research Cafe: ESG Interview Series | During this interview, Aaron Quach, Callan ESG team member, interviews Jan Mende, Callan real assets specialist and author of our white paper on energy transition. They will discuss the growing opportunities for investment within the energy transition space and how they can be incorporated into the portfolios of institutional investors.

#### **Quarterly Periodicals**

<u>Private Equity Update, 1Q23</u> | A high-level summary of private equity activity in the quarter through all the investment stages

Active vs. Passive Charts, 1Q23 | A comparison of active managers alongside relevant benchmarks over the long term

<u>Market Pulse</u>, <u>1Q23</u> | A quarterly market reference guide covering trends in the U.S. economy, developments for institutional investors, and the latest data on the capital markets

<u>Capital Markets Review, 1Q23</u> | Analysis and a broad overview of the economy and public and private markets activity each quarter across a wide range of asset classes

<u>Hedge Fund Update</u>, <u>1Q23</u> | Commentary on developments for hedge funds and multi-asset class (MAC) strategies

Real Assets Update, 1Q23 | A summary of market activity for real assets and private real estate during the quarter

<u>Private Credit Update, 1Q23</u> | A review of performance and fundraising activity for private credit during the quarter

#### **Events**

A complete list of all upcoming events can be found on our website: callan.com/events-education.

Please mark your calendar and look forward to upcoming invitations:

Webinar: The End of the Low-Yield Environment Aug 9, 2023 – Virtual

#### 2023 October Workshops

Oct. 24, 2023 – New York Oct. 26, 2023 – Chicago

#### 2024 National Conference

April 8-10, 2024 - San Francisco

For more information about events, please contact Barb Gerraty: 415-274-3093 / gerraty@callan.com

### **Education: By the Numbers**

Unique pieces of research the Institute generates each year

Attendees (on average) of the Institute's annual National Conference

**3,700** Total attendees of the "Callan College" since 1994

#### **Education**

Founded in 1994, the "Callan College" offers educational sessions for industry professionals involved in the investment decision-making process.

### Introduction to Investments Sept. 26-28 – Virtual

This program familiarizes institutional investor trustees and staff and asset management advisers with basic investment theory, terminology, and practices. This course is designed for individuals with less than two years of experience with asset-management oversight and/or support responsibilities.

# Alternative Investments Aug. 23-24 – Virtual

Alternative investments like private equity, hedge funds, and real estate can play a key role in any portfolio. In our "Callan College" on Alternatives, you will learn about the importance of allocations to alternatives, and how to consider integrating, evaluating, and monitoring them.

Our virtual sessions are held over two to three days with virtual modules of 2.5-3 hours, while in-person sessions run either a full day or one-and-a-half days. Virtual tuition is \$950 per person and includes instruction and digital materials. In-person tuition is \$2,350 per person and includes instruction, all materials, breakfast and lunch on each day, and dinner on the first evening with the instructors.

Additional information including registration can be found at: callan.com/events-education



"Research is the foundation of all we do at Callan, and sharing our best thinking with the investment community is our way of helping to foster dialogue to raise the bar across the industry."

Greg Allen, CEO and Chief Research Officer







#### Important Disclosures

Information contained in this document may include confidential, trade secret and/or proprietary information of Callan and the client. It is incumbent upon the user to maintain such information in strict confidence. Neither this document nor any specific information contained herein is to be used other than by the intended recipient for its intended purpose.

The content of this document is particular to the client and should not be relied upon by any other individual or entity. There can be no assurance that the performance of any account or investment will be comparable to the performance information presented in this document.

Certain information herein has been compiled by Callan from a variety of sources believed to be reliable but for which Callan has not necessarily verified for accuracy or completeness. Information contained herein may not be current. Callan has no obligation to bring current the information contained herein. This content of this document may consist of statements of opinion, which are made as of the date they are expressed and are not statements of fact. The opinions expressed herein may change based upon changes in economic, market, financial and political conditions and other factors. Callan has no obligation to bring current the opinions expressed herein.

The statements made herein may include forward-looking statement regarding future results. The forward-looking statement herein: (i) are best estimations consistent with the information available as of the date hereof and (ii) involve known and unknown risks and uncertainties. Actual results may vary, perhaps materially, from the future result projected in this document. Undue reliance should not be placed on forward-looking statements.

Callan disclaims any responsibility for reviewing the risks of individual securities or the compliance/non-compliance of individual security holdings with a client's investment policy guidelines.

This document should not be construed as legal or tax advice on any matter. You should consult with legal and tax advisers before applying any of this information to your particular situation.

Reference to, or inclusion in this document of, any product, service or entity should not necessarily be construed as recommendation, approval, or endorsement or such product, service or entity by Callan. This document is provided in connection with Callan's consulting services and should not be viewed as an advertisement of Callan, or of the strategies or products discussed or referenced herein.

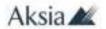
The issues considered and risks highlighted herein are not comprehensive and other risks may exist that the user of this document may deem material regarding the enclosed information. Any decision you make on the basis of this document is sole responsibility of the client, as the intended recipient, and it is incumbent upon you to make an independent determination of the suitability and consequences of such a decision.

Callan undertakes no obligation to update the information contained herein except as specifically requested by the client.

Past performance is no guarantee of future results.



PRIVATE AND CONFIDENTIAL: These materials are strictly confidential, constitute trade secrets, are intended solely for the use of the individual or entity named herein ("Intended Recipient") and may not be reproduced, distributed, posted electronically or incorporated into other documents in whole or in part except for the personal reference of the Intended Recipient. If you are not the Intended Recipient you are hereby requested to either destroy or return these documents to Aksia LLC, or any of its affiliates.



# **Table Of Contents**

Portfolio Snapshot		3
Portfolio Overview		5
Performance Review		6
		8
TVPI Distribution		9
		10
Portfolio Summary		13
Portfolio Summary by Vintage Year		19
Period Chart Analysis		26
Movement By Sector - QTD		27
Movement By Sector - LTM		28
Top QTD Contributors/Detractors		29
		30
Portfolio IRR vs Benchmarks		31
Portfolio Composition - Sector		32
	<del>\</del>	33
		2.4



# Portfolio Snapshot

# Summary



# Portfolio Summary

Total Pension	n Assets			\$23.1 bn as of	06/30/2023				
GP Relations	hips				33				
Holdings		8:							
# of Underly	ing Active Inve	estments			1095				
% of Public 0	Companies				2.0%				
Total Commi	itment Amount				\$5.8 bn				
Net Contribu	itions			\$4.5 bn					
Net Distribut	ions				\$4.7 bn				
Net Asset Va	lue			\$3.1 bn					
Weighted Av	erage Age	15.1Y							
Unfunded Co	ommitment				\$1.3 bn				
Minimum Ar	nnual Pacing				375.0 mm				
Maximum Ar	nnual Pacing				525.0 mm				
Portfolio Allo	ocation				13.3%				
Minimum Ta	rget Allocation		11.0%						
Maximum Ta	arget Allocation	1			11.0%				
1Y IRR	2.6%	2Y IRR	5.7%	3Y IRR	21.2%				
5Y IRR	17.0%	7Y IRR	16.5%	10Y IRR	14.2%				
ITD IRR*	19.0%	ITD TVPI*	1.7x						

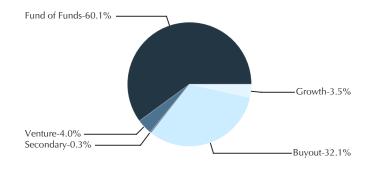
<sup>\*</sup> Jul-1990 - Jun-2023

Position Analytics data based on GP provided information as of Jun-2023 IRR not meaningful for investments held less than 36 months Weighted Average Age (WAA) is based on net contributions WAA is calculated as the sum of the individual net contributions divided by the overall net contribution and then multiplied by the age Total Exposure = Unfunded + NAV

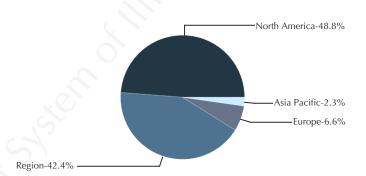


# Portfolio Snapshot

# Total Exposure by Sector



# Total Exposure by Region

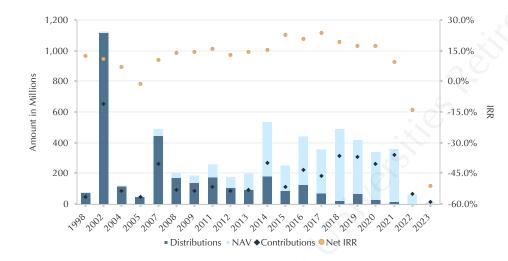


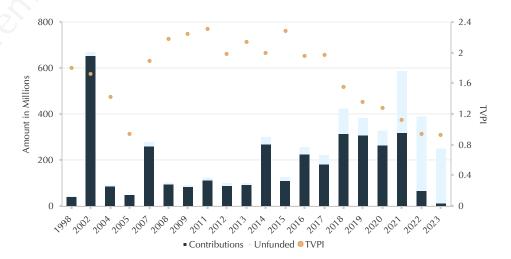
Position Analytics data based on GP provided information as of Jun-2023 IRR not meaningful for investments held less than 36 months Weighted Average Age (WAA) is based on net contributions WAA is calculated as the sum of the individual net contributions divided by the overall net contribution and then multiplied by the age Total Exposure = Unfunded + NAV

# Sector Portfolio Summary

	# Of Funds	Weighted Average Age	NAV (\$mm)	Total Commitment (\$mm)	Unfunded Commitment (\$mm)	Total Exposure (\$mm)	Contributions (\$mm)	Distributions (\$mm)	Net IRR	TVPI
Buyout	32	2.9	823.2	1,241.2	573.4	1,396.6	715.1	99.0	18.6%	1.3x
Fund of Funds	32	17.8	2,093.9	4,129.8	516.6	2,610.5	3,641.3	4,559.3	19.3%	1.8x
Growth	5	2.9	74.4	155.0	76.5	150.9	79.2	6.6	1.7%	1.0x
Secondary	3	17.2	6.1	70.0	8.7	14.8	61.3	80.5	7.7%	1.4x
Venture	10	5.8	64.4	181.0	109.9	174.3	71.2	39.3	13.6%	1.5x
<b>SURS - Private Equity</b>	82	15.1	3,062.1	5,777.0	1,285.0	4,347.2	4,568.1	4,784.7	19.0%	1.7x

# Performance Review by Vintage Year

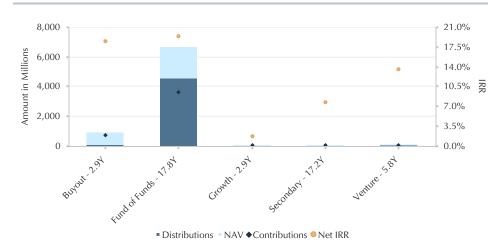


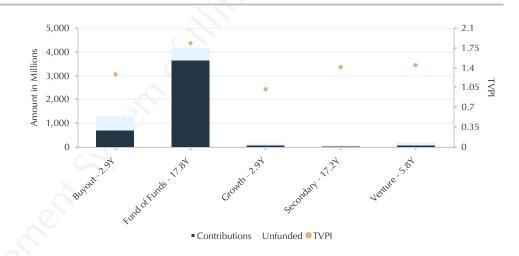


Total Exposure = Unfunded + NAV



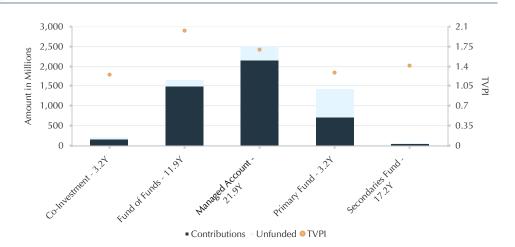
# Performance Review by Sector





# Performance Review by Structure





Weighted Average Age (WAA) is based on net contributions

WAA is calculated as the sum of the individual net contributions divided by the overall net contribution and then multiplied by the age

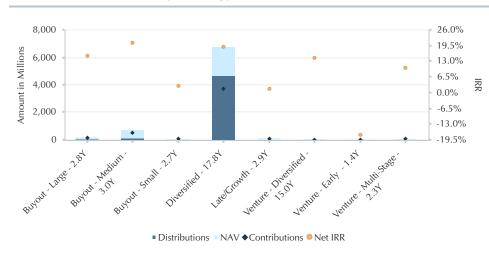
Reporting Period:

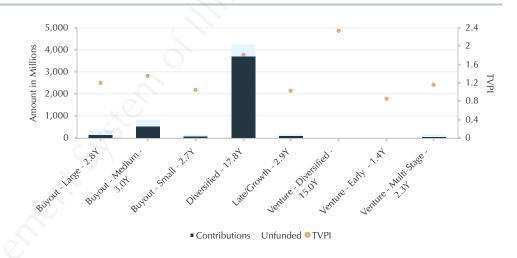
View this portfolio online

As Of Jun-2023

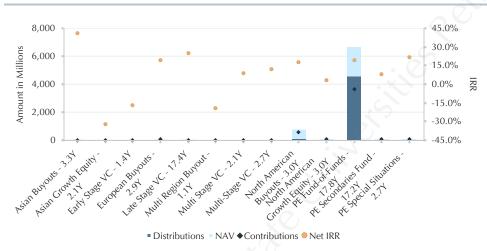


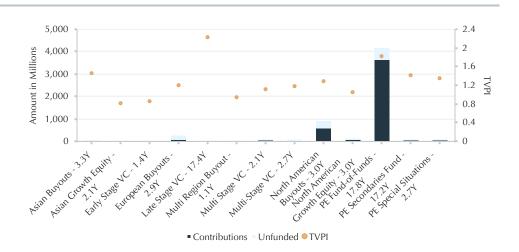
# Performance Review by Strategy





# Performance Review by Sub-Strategy





Weighted Average Age (WAA) is based on net contributions

WAA is calculated as the sum of the individual net contributions divided by the overall net contribution and then multiplied by the age

Aksia 🜌

# Portfolio QoQ Overview

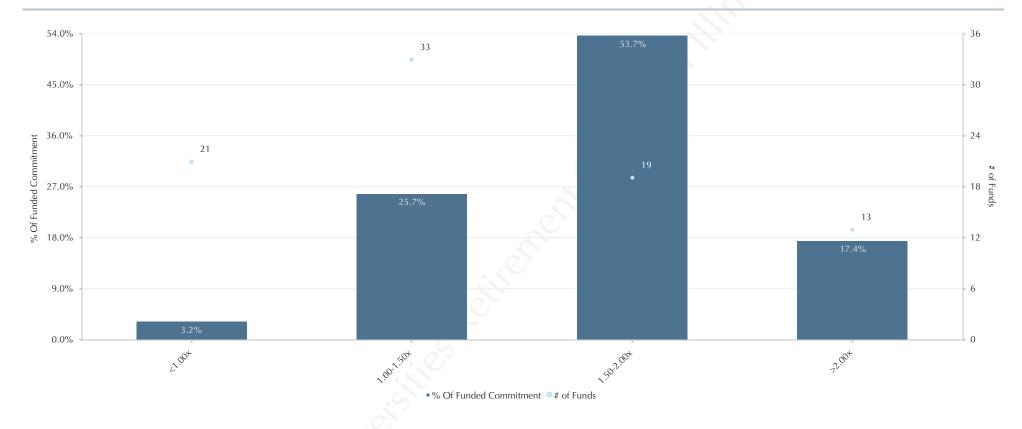
# **Performance Statistics**

						% Change	% Change	% Change	Jun-2023	Jun-2023
As Of Jun-2023	Jun-2022	Sep-2022	Dec-2022	Mar-2023	Jun-2023	(YTD)	(Quarter)	(Annual)	Active	Liquidated
Committed Capital	5,529.5	5,529.5	5,554.5	5,777.0	5,777.0	4.0%	<u> </u>	4.5%	5,692.0	85.0
Unfunded Commitment	1,419.3	1,302.9	1,215.4	1,367.8	1,285.0	5.7%	-6.1%	-9.5%	1,285.0	0.0
Net Contributed Capital	4,121.6	4,228.0	4,353.0	4,425.0	4,509.2	3.6%	1.9%	9.4%	4,424.2	85.0
Net Distributed Capital	4,509.7	4,568.6	4,610.6	4,671.0	4,714.5	2.3%	0.9%	4.5%	4,614.6	99.9
Recallable Capital	63.1	65.0	67.6	68.6	70.2	3.8%	2.4%	11.2%	70.2	0.0
Net Asset Value	2,807.9	2,817.2	2,918.5	2,973.3	3,062.1	4.9%	3.0%	9.1%	3,062.1	0.0
Net Gain/Loss	3,202.6	3,164.9	3,185.6	3,230.9	3,278.8	2.9%	1.5%	2.4%	3,259.7	19.0
Total Value	7,317.6	7,385.8	7,529.1	7,644.4	7,776.6	3.3%	1.7%	6.3%	7,676.7	99.9
Total Exposure (mm)	4,227.2	4,120.1	4,133.9	4,341.1	4,347.2	5.2%	0.1%	2.8%	4,347.2	0.0
DPI	1.1x	1.1x	1.1x	1.1x	1.0x	0.0x	0.0x	0.0x	1.0x	1.2x
Total Value to Paid-In (TVPI)	1.8x	1.7x	1.7x	1.7x	1.7x	0.0x	0.0x	0.0x	1.7x	1.2x
Net Internal Rate of Return (IRR)	19.4%	19.3%	19.2%	19.1%	19.0%	-0.1%	-0.1%	-0.4%	19.4%	6.9%

Total Exposure = Unfunded + NAV



## **TVPI** Distribution

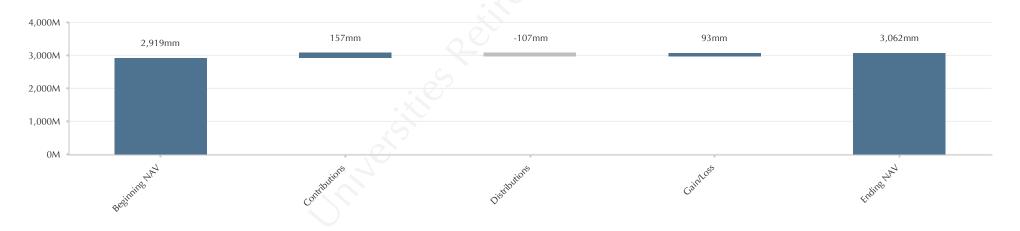




# Quarterly Valuation Bridge (Apr-2023 to Jun-2023)



# YTD Valuation Bridge (Jan-2023 to Jun-2023)



10

Last 12 Months Valuation Bridge (Jul-2022 to Jun-2023)

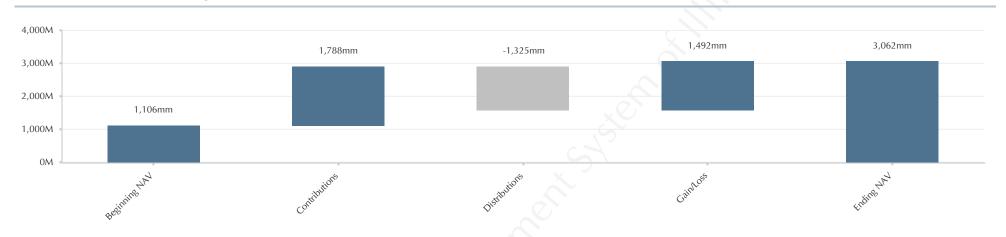


Last 3 Years Valuation Bridge (Jul-2020 to Jun-2023)

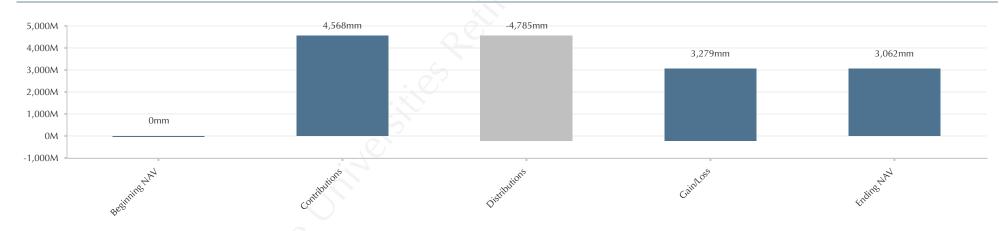


11

Last 5 Years Valuation Bridge (Jul-2018 to Jun-2023)



### LTD Valuation Bridge (Jul-1990 to Jun-2023)





## SURS - Private Equity

	NAV Weight	Total Commitment (\$mm)	Contributions (\$mm)	Distributions (\$mm)	Unfunded Commitment (\$mm)	Total Exposure (\$mm)	Gain/Loss (\$mm)	NAV (\$mm)	Net IRR	TVPI
Sector					(					
Buyout	26.9%	1,241.2	715.1	99.0	573.4	1,396.6	207.2	823.2	18.6%	1.3x
Fund of Funds	68.4%	4,129.8	3,641.3	4,559.3	516.6	2,610.5	3,012.0	2,093.9	19.3%	1.8x
Growth	2.4%	155.0	79.2	6.6	76.5	150.9	1.8	74.4	1.7%	1.0x
Secondary	0.2%	70.0	61.3	80.5	8.7	14.8	25.3	6.1	7.7%	1.4x
Venture	2.1%	181.0	71.2	39.3	109.9	174.3	32.5	64.4	13.6%	1.5x
SURS - Private Equity	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x
Strategy										
Buyout - Large	4.6%	335.5	129.0	12.9	219.1	360.6	25.4	141.4	n.m.¹	1.2x
Buyout - Medium	20.0%	765.7	516.9	82.6	280.7	894.2	179.1	613.5	20.8%	1.3x
Buyout - Small	2.2%	140.0	69.1	3.6	73.6	141.9	2.7	68.3	n.m.¹	1.0x
Diversified	68.6%	4,199.8	3,702.6	4,639.8	525.3	2,625.3	3,037.3	2,100.0	19.1%	1.8x
Late/Growth	2.4%	155.0	79.2	6.6	76.5	150.9	1.8	74.4	1.7%	1.0x
Venture - Diversified	0.2%	20.0	19.6	39.2	0.4	7.1	26.3	6.7	14.4%	2.3x
Venture - Early	0.1%	20.0	5.0	0.0	15.0	19.3	-0.7	4.3	n.m.¹	0.9x
Venture - Multi-Stage	1.7%	141.0	46.6	0.1	94.5	147.9	6.9	53.5	n.m.¹	1.1x
SURS - Private Equity	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x



# Portfolio Summary

	NAV Weight	Total Commitment (\$mm)	Contributions (\$mm)	Distributions (\$mm)	Unfunded Commitment (\$mm)	Total Exposure (\$mm)	Gain/Loss (\$mm)	NAV (\$mm)	Net IRR	TVPI
SubStrategy										
Asian Buyouts	1.3%	50.0	27.1	0.6	23.5	62.6	12.6	39.2	n.m.¹	1.5x
Asian Growth Equity	0.2%	30.0	9.1	0.6	21.5	28.2	-1.7	6.8	n.m.¹	0.8x
Early Stage VC	0.1%	20.0	5.0	0.0	15.0	19.3	-0.7	4.3	n.m.¹	0.9x
European Buyouts	1.7%	223.7	55.0	14.6	181.4	232.7	10.9	51.2	n.m.¹	1.2x
Late Stage VC	0.2%	30.0	29.6	58.9	0.4	7.1	36.0	6.7	24.6%	2.2x
Multi Region Buyout	0.2%	25.0	5.8	0.0	19.2	24.7	-0.3	5.5	n.m.¹	0.9x
Multi Stage VC	1.0%	65.0	27.0	0.1	38.1	68.2	3.2	30.1	n.m.¹	1.1x
Multi-Stage VC	0.8%	76.0	19.7	0.0	56.3	79.7	3.7	23.4	n.m.¹	1.2x
North American Buyouts	21.4%	862.5	571.1	81.3	324.2	978.8	164.8	654.6	17.6%	1.3x
North American Growth Equity	2.2%	125.0	70.1	5.9	55.0	122.7	3.5	67.7	3.4%	1.0x
PE Fund-of-Funds	68.4%	4,119.8	3,631.3	4,539.6	516.6	2,610.5	3,002.3	2,093.9	19.1%	1.8x
PE Secondaries Fund	0.2%	70.0	61.3	80.5	8.7	14.8	25.3	6.1	7.7%	1.4x
PE Special Situations	2.4%	80.0	56.0	2.5	25.2	97.8	19.2	72.7	21.5%	1.3x
<b>SURS - Private Equity</b>	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x



# Portfolio Summary

Vintage	NAV Weight	Total Commitment (\$mm)	Contributions (\$mm)	Distributions (\$mm)	Unfunded Commitment (\$mm)	Total Exposure (\$mm)	Gain/Loss (\$mm)	NAV (\$mm)	Net IRR	TVPI
2023	0.4%	250.0	12.0	0.0	237.6	248.7	-0.9	11.1	n.m.¹	0.9x
2022	2.0%	387.6	66.1	0.0	322.2	384.0	-4.3	61.8	n.m.¹	0.9x
2021	11.3%	576.0	318.0	12.3	269.0	613.6	38.9	344.6	n.m.¹	1.1x
2020	10.2%	313.7	263.5	25.6	63.7	375.4	73.7	311.6	17.2%	1.3x
2019	11.5%	360.0	305.8	65.5	75.0	426.1	110.8	351.1	17.4%	1.4x
2018	15.3%	420.0	313.3	19.0	109.1	576.9	173.4	467.8	19.4%	1.6x
2017	9.3%	220.0	179.9	70.3	40.3	324.8	174.9	284.5	23.8%	2.0x
2016	10.3%	250.0	224.8	124.5	31.9	346.7	214.5	314.7	20.9%	2.0x
2015	5.4%	125.0	109.4	86.3	15.6	179.4	140.7	163.8	22.9%	2.3x
2014	11.5%	300.0	267.8	180.7	32.2	384.6	265.3	352.4	15.4%	2.0x
2013	3.4%	100.0	92.4	92.9	7.6	112.4	105.4	104.9	14.3%	2.1x
2012	2.3%	100.0	87.8	102.7	12.2	83.7	86.4	71.6	12.8%	2.0x
2011	2.7%	124.6	111.0	174.0	11.2	93.4	145.1	82.2	15.8%	2.3x
2009	1.5%	90.0	81.8	136.1	8.2	55.7	101.8	47.5	14.1%	2.2x
2008	1.1%	100.0	92.9	168.2	7.1	41.5	109.7	34.4	14.0%	2.2x
2007	1.5%	280.4	258.6	442.9	18.2	62.7	228.8	44.5	10.5%	1.9x
2005	-	50.0	46.5	43.9	0.0	0.0	-2.6	0.0	-1.2%	0.9x
2004	0.1%	90.0	84.0	117.3	6.0	8.6	35.8	2.6	6.9%	1.4x
2002	0.3%	664.1	653.0	1,116.7	16.4	24.4	471.7	8.0	10.8%	1.7x
1998	0.0%	39.4	42.5	76.6	0.1	0.4	34.3	0.3	12.2%	1.8x
1995	0.0%	20.0	19.8	17.2	0.0	0.8	-1.8	0.8	-1.6%	0.9x
1990	0.1%	916.2	937.2	1,712.0	1.3	3.4	776.9	2.0	26.8%	1.8x
SURS - Private Equity	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x

Reporting Period:

Jul-1990 - Jun-2023

View this portfolio online



	NAV Weight	Total Commitment (\$mm)	Contributions (\$mm)	Distributions (\$mm)	Unfunded Commitment (\$mm)	Total Exposure (\$mm)	Gain/Loss (\$mm)	NAV (\$mm)	Net IRR	TVPI
Structure										
Co-Investment	6.2%	200.0	158.2	8.4	41.8	232.8	41.3	191.0	n.m.¹	1.3x
Fund of Funds	41.4%	1,629.4	1,492.8	1,751.5	159.7	1,428.3	1,527.3	1,268.5	14.2%	2.0x
Managed Account	27.0%	2,500.3	2,148.4	2,807.8	356.8	1,182.2	1,484.7	825.4	21.5%	1.7x
Primary Fund	25.2%	1,377.2	707.3	136.4	717.9	1,489.0	200.2	771.1	15.9%	1.3x
Secondaries Fund	0.2%	70.0	61.3	80.5	8.7	14.8	25.3	6.1	7.7%	1.4x
<b>SURS - Private Equity</b>	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x
Region										
Asia Pacific	1.7%	90.0	45.4	11.7	45.7	98.8	19.4	53.1	12.7%	1.4x
Europe	3.0%	400.4	236.2	310.9	193.6	286.8	167.9	93.3	13.5%	1.7x
Multi-Region	49.3%	1,720.4	1,390.9	930.7	332.9	1,841.2	1,048.2	1,508.3	12.9%	1.8x
North America	46.0%	3,566.1	2,895.6	3,531.3	712.8	2,120.3	2,043.2	1,407.4	21.1%	1.7x
SURS - Private Equity	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x



# Portfolio Summary

	NAV Weight	Total Commitment (\$mm)	Contributions (\$mm)	Distributions (\$mm)	Unfunded Commitment (\$mm)	Total Exposure (\$mm)	Gain/Loss (\$mm)	NAV (\$mm)	Net IRR	TVPI
CommitmentYear										
1990	0.1%	916.2	937.2	1,712.0	1.3	3.4	776.9	2.0	26.8%	1.8x
1995	0.0%	20.0	19.8	17.2	0.0	0.8	-1.8	0.8	-1.6%	0.9x
1998	0.0%	39.4	42.5	76.6	0.1	0.4	34.3	0.3	12.2%	1.8x
2001	-	25.0	25.0	25.1	0.0	0.0	0.1	0.0	0.0%	1.0x
2002	0.3%	664.1	653.0	1,116.7	16.4	24.4	471.7	8.0	10.8%	1.7x
2004	0.1%	115.0	105.5	136.1	6.0	8.6	33.2	2.6	5.3%	1.3x
2007	1.3%	270.4	248.8	420.6	17.9	58.6	212.5	40.7	10.2%	1.9x
2008	1.2%	100.0	92.8	173.6	7.2	42.5	116.1	35.3	14.2%	2.3x
2009	1.6%	100.0	91.6	153.0	8.4	58.8	111.8	50.4	14.0%	2.2x
2012	5.0%	224.6	198.9	276.7	23.4	177.2	231.5	153.8	14.6%	2.2x
2013	3.4%	100.0	92.4	92.9	7.6	112.4	105.4	104.9	14.3%	2.1x
2014	11.5%	300.0	267.8	180.7	32.2	384.6	265.3	352.4	15.4%	2.0x
2015	5.4%	125.0	109.4	86.3	15.6	179.4	140.7	163.8	22.9%	2.3x
2016	10.3%	250.0	224.8	124.5	31.9	346.7	214.5	314.7	20.9%	2.0x
2017	18.8%	500.0	382.6	70.3	117.6	694.0	264.1	576.4	20.4%	1.7x
2018	3.4%	90.0	69.4	11.6	20.6	123.3	44.8	102.6	22.7%	1.6x
2019	13.0%	390.0	336.1	68.0	75.9	472.8	128.8	397.0	18.2%	1.4x
2020	17.0%	554.7	426.2	35.8	147.8	667.7	129.6	519.9	18.4%	1.3x
2021	4.6%	354.5	146.0	4.5	210.7	352.1	-0.1	141.4	n.m.¹	1.0x
2022	2.7%	415.5	86.2	2.4	333.9	417.7	0.0	83.8	n.m.¹	1.0x
2023	0.4%	222.5	12.0	0.0	210.5	221.8	-0.7	11.3	n.m.¹	0.9x
SURS - Private Equity	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x

Reporting Period:

Jul-1990 - Jun-2023

View this portfolio online



# Portfolio Summary

	NAV Weight	Total Commitment (\$mm)	Contributions (\$mm)	Distributions (\$mm)	Unfunded Commitment (\$mm)	Total Exposure (\$mm)	Gain/Loss (\$mm)	NAV (\$mm)	Net IRR	TVPI
AssetClass										
Private Equity	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x
SURS - Private Equity	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x

<sup>&</sup>lt;sup>1</sup> IRR not meaningful for investments held less than 36 months



<sup>\*</sup> Total figures take into account all current and closed portfolio positions as at Jun-2023

Total Exposure = Unfunded + NAV

	Currency	NAV Weight	Total Commitment (mm)	Contributions (mm)	Distributions (mm)	Unfunded Commitment (mm)	Total Exposure (mm)	Gain/Loss (mm)	NAV (mm)	Net IRR	TVPI
2023											
Cortec Group Fund VIII	USD	0.1%	35.0	3.5	0.0	31.5	34.7	-0.3	3.2	n.m.¹	0.9x
GGV Capital IX LP	USD	-	32.0	0.0	0.0	32.0	32.0	0.0	$0.0^{2}$	n.m.	0.0x
GGV Capital IX Plus LP	USD	-	8.0	0.0	0.0	8.0	8.0	0.0	$0.0^{2}$	n.m.	0.0x
Lincoln Fund I (Series C)	USD	-	100.0	0.0	0.0	100.0	100.0	0.0	$0.0^{2}$	n.m.	0.0x
OceanSound Partners Fund II	USD	0.3%	25.0	8.5	0.0	16.5	24.6	-0.4	8.1	n.m.¹	1.0x
PAI Partners VIII-1 SCSp	USD	0.0%	50.0	0.0	0.0	49.6	49.4	-0.3	-0.3	n.m.	0.0x
Total 2023 2022	USD	0.4%	250.0	12.0	0.0	237.6	248.7	-0.9	11.1	n.m.¹	0.9x
Advent International GPE X	USD	0.2%	25.0	5.8	0.0	19.2	24.7	-0.3	5.5	n.m.¹	0.9x
Base10 Advancement Initiative II	USD	0.1%	25.0	3.4	0.0	21.6	24.5	-0.5	2.9	n.m.¹	0.8x
Base10 Partners III	USD	0.1%	20.0	5.0	0.0	15.0	19.3	-0.7	4.3	n.m.¹	0.9x
Bregal Sagemount IV-B	USD	0.1%	25.0	2.4	0.0	22.6	24.5	-0.5	1.9	n.m.¹	0.8x
Great Hill Equity Partners VIII-Pref	USD	0.1%	25.0	5.2	0.0	19.8	23.9	-1.1	4.1	n.m.¹	0.8x
Greenbriar Equity Fund VI LP	USD	0.0%	22.5	0.0	0.0	22.5	22.4	-0.1	-0.1	n.m.	0.0x
Hg Saturn 3 A	USD	0.1%	35.0	4.3	0.0	30.7	35.2	0.2	4.5	n.m.¹	1.1x
HgCapital Genesis 10 A	USD	0.0%	13.0	1.5	0.0	11.6	13.2	0.1	1.5	n.m.¹	1.0x
Inflexion Buyout Fund VI	USD	0.1%	24.5	3.6	0.0	19.2	22.6	-0.1	3.4	n.m.¹	1.0x
Nordic Capital XI Beta	USD	0.0%	50.1	0.0	0.0	52.5	51.5	-1.0	-1.0	n.m.	0.0x
Oak HC-FT Partners V	USD	0.2%	40.0	5.5	0.0	34.5	40.4	0.4	5.9	n.m.¹	1.1x
Rubicon Technology Partners IV	USD	0.1%	32.5	4.2	0.0	28.3	31.7	-0.8	3.4	n.m.¹	0.8x
Thoma Bravo Discover Fund IV	USD	0.3%	25.0	8.3	0.0	16.7	25.4	0.4	8.7	n.m.¹	1.0x
Thoma Bravo Fund XV	USD	0.5%	25.0	17.0	0.0	8.0	24.8	-0.2	16.7	n.m.¹	1.0x
Total 2022	USD	2.0%	387.6	66.1	0.0	322.2	384.0	-4.3	61.8	n.m.¹	0.9x

Reporting Period:

As Of Jun-2023



	Currency	NAV Weight	Total Commitment (mm)	Contributions (mm)	Distributions (mm)	Unfunded Commitment (mm)	Total Exposure (mm)	Gain/Loss (mm)	NAV (mm)	Net IRR	TVPI
2021											
Altaris Health Partners V	USD	0.5%	25.0	12.4	0.0	12.6	28.0	3.0	15.4	n.m.¹	1.2x
Avance Investment Partners	USD	0.4%	25.0	13.5	2.4	13.7	25.5	0.7	11.8	n.m.¹	1.1x
Base10 Advancement Initiative I	USD	0.6%	25.0	21.4	0.3	3.6	21.6	-3.1	18.0	n.m.¹	0.9x
Clearlake Capital Partners VII	USD	0.9%	50.0	25.7	0.0	24.3	51.1	1.1	26.8	n.m.¹	1.0x
GGV Capital VIII	USD	0.5%	21.6	12.6	0.0	9.0	23.2	1.6	14.2	n.m.¹	1.1x
GGV Capital VIII Plus	USD	0.1%	5.4	2.5	0.0	2.9	5.5	0.1	2.6	n.m.¹	1.0x
GGV Discovery III	USD	0.2%	9.0	4.5	0.0	4.5	11.0	2.0	6.6	n.m.¹	1.4x
Harvest Partners IX	USD	0.3%	50.0	12.6	1.0	38.3	48.9	-1.1	10.6	n.m.¹	0.9x
Lincoln Fund I (Series B)	USD	1.0%	100.0	30.3	0.0	69.7	100.5	0.5	30.7	n.m.¹	1.0x
MBK Partners Fund V	USD	1.3%	50.0	27.1	0.6	23.5	62.6	12.6	39.2	n.m.¹	1.5x
Nautic Partners X	USD	0.3%	25.0	8.4	0.1	16.7	25.9	0.9	9.2	n.m.¹	1.1x
Oak HC-FT Partners IV	USD	0.8%	25.0	21.5	0.1	3.6	27.8	2.8	24.2	n.m.¹	1.1x
One Equity Partners VIII	USD	0.8%	25.0	23.6	2.3	3.7	29.3	4.3	25.6	n.m.¹	1.2x
One Rock Capital Partners III	USD	1.1%	35.0	26.5	3.6	12.1	44.4	9.4	32.3	n.m.¹	1.4x
Orchid Asia VIII	USD	0.2%	30.0	9.1	0.6	21.5	28.2	-1.7	6.8	n.m.¹	0.8x
Stellex Capital Partners II	USD	0.6%	25.0	17.0	1.2	8.5	25.8	1.5	17.3	n.m.¹	1.1x
Thoma Bravo Fund XIV	USD	1.7%	50.0	49.3	0.0	0.7	54.2	4.2	53.5	n.m.¹	1.1x
Total 2021	USD	11.3%	576.0	318.0	12.3	269.0	613.6	38.9	344.6	n.m.¹	1.1x



	Currency	NAV Weight	Total Commitment (mm)	Contributions (mm)	Distributions (mm)	Unfunded Commitment (mm)	Total Exposure (mm)	Gain/Loss (mm)	NAV (mm)	Net IRR	TVPI
2020											
Clearlake Capital Partners VI	USD	1.5%	30.0	30.4	2.5	0.8	46.7	18.1	45.9	26.2%	1.6x
Hg Genesis 9	USD	0.4%	13.7	13.0	2.3	3.2	16.4	2.6	13.2	n.m.¹	1.2x
HgCapital Saturn Fund 2	USD	1.0%	37.5	32.7	12.3	14.6	44.4	9.4	29.8	n.m.¹	1.3x
Rubicon Technology Partners III	USD	1.0%	32.5	29.2	0.0	3.3	35.0	2.5	31.7	n.m.¹	1.1x
SURS TorreyCove Co-Investment Fund I	USD	6.2%	200.0	158.2	8.4	41.8	232.8	41.3	191.0	n.m.¹	1.3x
Total 2020	USD	10.2%	313.7	263.5	25.6	63.7	375.4	73.7	311.6	17.2%	1.3x
2019				C							
Bregal Sagemount III-B	USD	1.5%	50.0	43.0	5.7	7.1	52.1	7.6	45.0	12.4%	1.2x
Cortec Group Fund VII	USD	1.0%	35.0	34.3	22.1	4.4	35.2	18.5	30.7	26.9%	1.5x
Harvest Partners VIII	USD	2.6%	70.0	72.5	25.6	8.1	86.5	31.5	78.4	18.2%	1.4x
OceanSound Partners Fund	USD	1.0%	25.0	25.7	7.1	5.7	35.4	11.1	29.7	20.4%	1.4x
Pantheon Access (US) - SURS 2018	USD	5.5%	180.0	130.3	5.0	49.7	216.9	42.0	167.2	14.9%	1.3x
Total 2019	USD	11.5%	360.0	305.8	65.5	75.0	426.1	110.8	351.1	17.4%	1.4x
2018											
Adams Street 2018 Global Fund	USD	3.4%	90.0	69.4	11.6	20.6	123.3	44.8	102.6	22.7%	1.6x
Mesirow Financial Private Equity Special Fund B	USD	9.5%	280.0	202.8	0.0	77.2	369.2	89.2	292.0	15.6%	1.4x
Reverence Capital Partners Opportunities Fund II	USD	2.4%	50.0	41.2	7.4	11.2	84.4	39.4	73.2	31.6%	2.0x
Total 2018	USD	15.3%	420.0	313.3	19.0	109.1	576.9	173.4	467.8	19.4%	1.6x



	Currency	NAV Weight	Total Commitment (mm)	Contributions (mm)	Distributions (mm)	Unfunded Commitment (mm)	Total Exposure (mm)	Gain/Loss (mm)	NAV (mm)	Net IRR	TVPI
2017											
Adams Street 2017 Global Fund	USD	4.0%	90.0	71.9	20.4	18.1	139.6	70.0	121.5	21.9%	2.0x
Mesirow Financial Private Equity Fund VII-B	USD	2.3%	40.0	39.7	42.9	0.4	70.7	73.5	70.3	36.1%	2.8x
Pantheon Access (US) - SURS 2017	USD	3.0%	90.0	68.2	7.0	21.8	114.4	31.4	92.7	14.5%	1.5x
Total 2017	USD	9.3%	220.0	179.9	70.3	40.3	324.8	174.9	284.5	23.8%	2.0x
2016					5						
Adams Street 2016 Global Fund	USD	6.2%	150.0	123.5	53.8	26.5	217.5	121.3	190.9	20.3%	2.0x
M2 - SURS Emerging Private Equity Fund-of-Funds	USD	4.0%	100.0	101.3	70.7	5.4	129.2	93.2	123.8	21.8%	1.9x
Total 2016	USD	10.3%	250.0	224.8	124.5	31.9	346.7	214.5	314.7	20.9%	2.0x
2015											
Adams Street 2015 Global Fund	USD	5.4%	125.0	109.4	86.3	15.6	179.4	140.7	163.8	22.9%	2.3x
Total 2015	USD	5.4%	125.0	109.4	86.3	15.6	179.4	140.7	163.8	22.9%	2.3x
2014			.05								
Adams Street 2014 Global Fund	USD	3.9%	100.0	92.2	85.2	7.8	126.3	111.4	118.4	16.1%	2.2x
Lincoln Fund I (Series A)	USD	3.3%	75.0	68.0	36.6	7.0	106.9	68.5	99.9	14.6%	2.0x
Pantheon Multi-Strategy Program 2014 (US) - SURS 2014	USD	4.4%	125.0	107.6	58.9	17.4	151.5	85.3	134.1	15.2%	1.8x
Total 2014	USD	11.5%	300.0	267.8	180.7	32.2	384.6	265.3	352.4	15.4%	2.0x
2013											
Adams Street 2013 Global Fund	USD	3.4%	100.0	92.4	92.9	7.6	112.4	105.4	104.9	14.3%	2.1x
Total 2013	USD	3.4%	100.0	92.4	92.9	7.6	112.4	105.4	104.9	14.3%	2.1x

Reporting Period:

As Of Jun-2023

View this portfolio online



	Currency	NAV Weight	Total Commitment (mm)	Contributions (mm)	Distributions (mm)	Unfunded Commitment (mm)	Total Exposure (mm)	Gain/Loss (mm)	NAV (mm)	Net IRR	TVPI
2012											
Adams Street 2012 Global Fund	USD	2.2%	80.0	72.4	87.1	7.6	73.7	80.8	66.1	13.8%	2.1x
Adams Street Global Secondary Fund 5	USD	0.2%	20.0	15.4	15.6	4.6	10.1	5.6	5.5	6.5%	1.4x
Total 2012	USD	2.3%	100.0	87.8	102.7	12.2	83.7	86.4	71.6	12.8%	2.0x
2011											
Pantheon Europe Fund VII	USD	0.6%	39.6	33.5	45.7	3.3	23.1	32.0	19.7	12.9%	2.0x
Pantheon USA Fund IX	USD	2.0%	85.0	77.5	128.3	7.9	70.4	113.2	62.4	17.0%	2.5x
Total 2011	USD	2.7%	124.6	111.0	174.0	11.2	93.4	145.1	82.2	15.8%	2.3x
2009											
Adams Street Partnership Fund - 2009 Non-U.S. Developed Markets Fund	USD	0.4%	30.0	26.7	40.6	3.3	16.2	26.7	12.9	13.2%	2.0x
Adams Street Partnership Fund - 2009 Non-U.S. Emerging Markets Fund	USD	0.2%	10.0	9.2	10.5	0.8	8.0	8.5	7.2	9.0%	1.9x
Adams Street Partnership Fund - 2009 U.S. Fund	USD	0.9%	50.0	45.9	85.1	4.1	31.5	66.6	27.4	15.7%	2.5x
Total 2009	USD	1.5%	90.0	81.8	136.1	8.2	55.7	101.8	47.5	14.1%	2.2x
2008											
Adams Street 2009 Direct Fund	USD	0.1%	10.0	9.8	16.8	0.2	3.1	9.9	2.9	13.0%	2.0x
Adams Street Partnership Fund - 2008 Non-U.S. Fund	USD	0.5%	40.0	36.5	56.2	3.5	19.6	35.8	16.1	11.2%	2.0x
Adams Street Partnership Fund - 2008 U.S. Fund	USD	0.5%	50.0	46.5	95.1	3.5	18.8	63.9	15.4	16.1%	2.4x
Total 2008	USD	1.1%	100.0	92.9	168.2	7.1	41.5	109.7	34.4	14.0%	2.2x

23

Aksia 🖊

Reporting Period: As Of Jun-2023

	Currency	NAV Weight	Total Commitment (mm)	Contributions (mm)	Distributions (mm)	Unfunded Commitment (mm)	Total Exposure (mm)	Gain/Loss (mm)	NAV (mm)	Net IRR	TVPI
2007											
Adams Street 2007 Global Opportunities Portfolio	USD	0.1%	100.0	91.3	148.4	8.7	10.4	58.8	1.7	8.1%	1.6x
Adams Street 2008 Direct Fund	USD	0.1%	10.0	9.7	22.3	0.3	4.0	16.3	3.8	15.2%	2.7x
Pantheon Europe Fund VI	USD	0.2%	42.1	37.4	58.9	1.8	9.2	28.9	7.4	10.0%	1.8x
Pantheon USA Fund VIII	USD	1.0%	103.3	95.8	177.0	7.4	39.1	112.9	31.7	12.9%	2.2x
Liquidated Holdings (1)	USD	-	25.0	24.4	36.3	0.0	0.0	11.9	-	8.3%	1.5x
Total 2007	USD	1.5%	280.4	258.6	442.9	18.2	62.7	228.8	44.5	10.5%	1.9x
2005											
Liquidated Holdings (2)	USD	-	50.0	46.5	43.9	0.0	0.0	-2.6	-	-1.2%	0.9x
Total 2005	USD	-	50.0	46.5	43.9	0.0	0.0	-2.6	0.0	-1.2%	0.9x
2004											
Adams Street Global Opportunities Secondary Fund	USD	0.0%	25.0	22.1	36.8	2.9	3.1	15.0	0.3	11.5%	1.7x
Adams Street Partnership Fund - 2004 Non-U.S. Fund	USD	0.1%	40.0	38.1	52.3	1.9	3.8	16.1	1.9	5.9%	1.4x
Pantheon Global Secondary Fund II	USD	0.0%	25.0	23.8	28.1	1.3	1.6	4.7	$0.4^{3}$	4.3%	1.2x
Total 2004	USD	0.1%	90.0	84.0	117.3	6.0	8.6	35.8	2.6	6.9%	1.4x
2002											
Pantheon Europe Fund III	USD	0.1%	65.0	83.7	151.1	3.7	5.8	69.4	2.0	14.6%	1.8x
Pantheon USA Primary Investments	USD	0.2%	599.1	569.2	965.6	12.7	18.6	402.3	5.9	10.3%	1.7x
Total 2002	USD	0.3%	664.1	653.0	1,116.7	16.4	24.4	471.7	8.0	10.8%	1.7x

24

Aksia 🖊

Reporting Period: As Of Jun-2023

<b>SURS - Private Equity</b>	USD	100.0%	5,777.0	4,568.1	4,784.7	1,285.0	4,347.2	3,278.8	3,062.1	19.0%	1.7x
Total 1990	USD	0.1%	916.2	937.2	1,712.0	1.3	3.4	776.9	2.0	26.8%	1.8x
Liquidated Holdings (1)	USD	-	10.0	10.0	19.7	0.0	0.0	9.7	-	25.3%	2.0x
Adams Street SMA (1990-2007) - SURS	USD	0.1%	906.2	927.2	1,692.3	1.3	3.4	767.2	2.0	27.0%	1.8x
1990											
Total 1995	USD	0.0%	20.0	19.8	17.2	0.0	0.8	-1.8	0.8	-1.6%	0.9x
Progress Alternative Investment Program	USD	0.0%	20.0	19.8	17.2	0.0	0.8	-1.8	0.8	-1.6%	0.9x
1995					×						
Total 1998	USD	0.0%	39.4	42.5	76.6	0.1	0.4	34.3	0.3	12.2%	1.8x
Brinson Non-U.S. Partnership Fund Trust Program	USD	0.0%	39.4	42.5	76.6	0.1	0.4	34.3	0.3	12.2%	1.8x
1998											
	Currency	NAV Weight	Total Commitment (mm)	Contributions (mm)	Distributions (mm)	Unfunded Commitment (mm)	Total Exposure (mm)	Gain/Loss (mm)	NAV (mm)	Net IRR	TVPI

<sup>&</sup>lt;sup>1</sup> IRR not meaningful for investments held less than 36 months

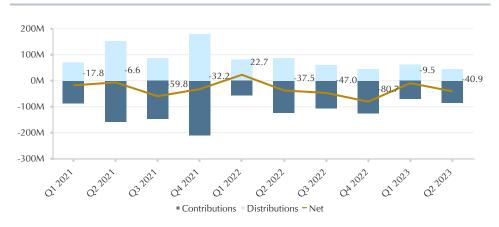


<sup>&</sup>lt;sup>2</sup> Adjusted for additional contributions and distributions since last valuation, which is prior to the report date.

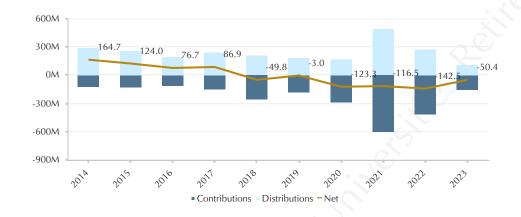
<sup>&</sup>lt;sup>3</sup> NÁV is not up-to-date:Pantheon Global Secondary Fund II as of Dec-2022

<sup>\*</sup> Total figures take into account all current and closed portfolio positions as at Jun-2023 Total Exposure = Unfunded + NAV

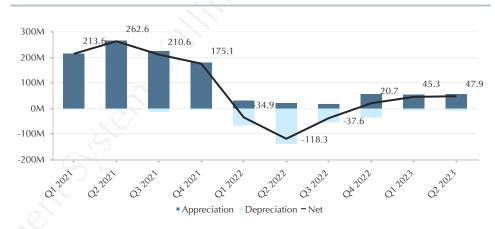
### Cash Flows Quarterly



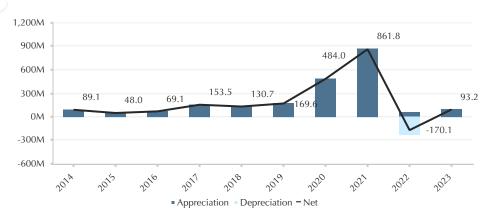
#### Cash Flows Yearly



### Appreciation/Depreciation Quarterly



#### Appreciation/Depreciation Yearly



# Movement By Sector - QTD

		Gain		Loss	Net Gain/	Loss	Distribu	tions	Contribu	itions	NAV (mm)
	Total Millions	# Of Funds	Total Millions	# Of Funds	Net Millions	% Of Total Net	<b>Total Millions</b>	%	<b>Total Millions</b>	%	
Buyout	30.1	25	-2.1	7	28.1	58.6%	14.3	31.7%	56.2	65.3%	823.2
Fund of Funds	23.3	22	-2.9	9	20.4	42.7%	29.6	65.7%	16.4	19.0%	2,093.9
Growth	0.7	1	-1.5	4	-0.9	-1.8%	0.7	1.6%	9.7	11.3%	74.4
Secondary	0.0	2	0.0	0	0.0	0.1%	0.5	1.0%	0.0	-	6.1
Venture	0.6	4	-0.3	4	0.2	0.5%	0.0	-	3.7	4.4%	64.4
Total	<b>54.</b> 7	54	-6.9	24	47.9	100.0%	45.1	100.0%	86.0	100.0%	3,062.1

Above reporting references both active and closed funds



## SURS - Private Equity

		Gain		Loss	Net Gain/	Loss	Distribu	ıtions	Contribu	tions	NAV (mm)
	Total Millions	# Of Funds	Total Millions	# Of Funds	Net Millions	% Of Total Net	<b>Total Millions</b>	%	<b>Total Millions</b>	%	
Buyout	73.4	22	-3.8	10	69.6	91.3%	44.0	20.8%	239.2	61.3%	823.2
Fund of Funds	51.9	19	-46.3	13	5.7	7.4%	157.8	74.5%	111.2	28.5%	2,093.9
Growth	4.8	1	-5.0	4	-0.2	-0.2%	6.4	3.0%	22.9	5.9%	74.4
Secondary	0.0	1	0.0	2	0.0	0.0%	0.9	0.4%	0.0	-	6.1
Venture	2.3	5	-1.2	3	1.1	1.5%	2.7	1.3%	16.6	4.3%	64.4
Total	132.5	48	-56.3	32	76.2	100.0%	211.8	100.0%	389.9	100.0%	3,062.1

28

Above reporting references both active and closed funds



Reporting Period:

# Top QTD Contributors/Detractors

### Top Contributors

			T. 10 1				
	Vintage	% Funded Commitment	Total Commitment Amount (\$mm)	Gain (\$K)	NAV (\$mm)	QTD IRR*	ITD IRR*
SURS TorreyCove Co-Investment Fund I	2020	79.1%	200.0	5,676	191.0	n.m.¹	n.m.¹
Mesirow Financial Private Equity Special F	2018	72.4%	280.0	4,987	292.0	1.7%	15.6%
Thoma Bravo Fund XIV	2021	98.5%	50.0	4,432	53.5	n.m.¹	n.m.¹
M2 - SURS Emerging Private Equity Fund-o	2016	94.6%	100.0	2,825	123.8	2.4%	21.8%
MBK Partners Fund V	2021	53.1%	50.0	2,789	39.2	n.m.¹	n.m.¹
		_					
Gain	-	-	680.0	20,709	699.4	3.1%	17.8%
Gain (Remaining)	-	-	2,772.6	34,024	1,952.4	1.8%	13.2%
Total Gain	-	-	3,452.6	54,733	2,651.8	2.1%	13.4%

<sup>\*</sup> IRR calculated at portfolio currency. IRR not meaningful for investments held less than 36 months <sup>1</sup> IRR not meaningful for investments held less than 36 months

#### Top Detractors

	Vintage	% Funded Commitment	Total Commitment Amount (\$mm)	Loss (\$K)	NAV (\$mm)	QTD IRR*	ITD IRR*
Pantheon USA Primary Investments	2002	97.9%	599.1	-1,374	5.9	-18.6%	10.3%
Base10 Advancement Initiative I	2021	85.4%	25.0	-783	18.0	n.m.¹	n.m.¹
Inflexion Buyout Fund VI	2022	14.5%	24.5	-584	3.4	n.m.¹	n.m.¹
Adams Street 2013 Global Fund	2013	92.4%	100.0	-389	104.9	-0.4%	14.3%
Orchid Asia VIII	2021	28.5%	30.0	-382	6.8	n.m.¹	n.m.¹
Loss	-	_ =	778.6	-3,512	139.0	-2.5%	10.6%
Loss (Remaining)	-	<del>-</del>	1,545.8	-3,342	271.4	-1.3%	26.0%
Total Loss	X	-	2,324.4	-6,853	410.3	-1.7%	22.0%
* IRR calculated at portfolio currency. IRR not meaning IRR not meaningful for investments held less than 3		eld less than 36 months					
Total Portfolio(82)	-	78.1%	5,777.0	47,879	3,062.1	1.6%	19.0%

Reporting Period:

As Of Jun-2023



# Top LTM Contributors/Detractors

### Top Contributors

	Vintage	% Funded Commitment	Total Commitment Amount (\$mm)	Gain (\$K)	NAV (\$mm)	1Y IRR*	ITD IRR*
Mesirow Financial Private Equity Fund VII-	2017	98.9%	40.0	12,291	70.3	18.0%	36.1%
MBK Partners Fund V	2021	53.1%	50.0	11,566	39.2	n.m.¹	n.m.¹
Mesirow Financial Private Equity Special F	2018	72.4%	280.0	10,451	292.0	3.8%	15.6%
Reverence Capital Partners Opportunities F	2018	77.6%	50.0	10,007	73.2	15.4%	31.6%
Cortec Group Fund VII	2019	87.3%	35.0	7,168	30.7	21.3%	26.9%
Gain	-	-	455.0	51,482	505.3	11.1%	23.6%
Gain (Remaining)	-	-	2,973.2	81,027	1,737.7	5.1%	11.5%
<b>Total Gain</b>	-	-	3,428.2	132,508	2,243.0	6.5%	11.9%

<sup>\*</sup> IRR calculated at portfolio currency. IRR not meaningful for investments held less than 36 months  $^{\rm I}$  IRR not meaningful for investments held less than 36 months

#### Top Detractors

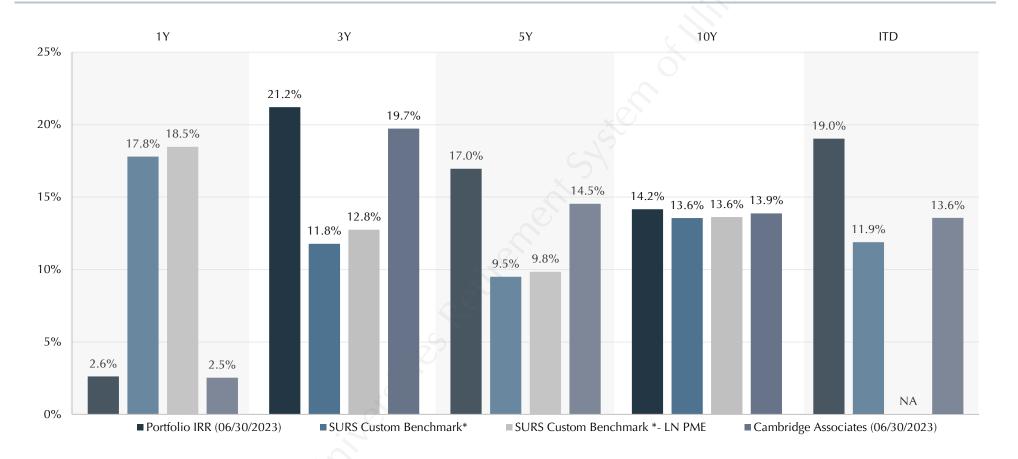
	Vintage	% Funded Commitment	Total Commitment Amount (\$mm)	Loss (\$K)	NAV (\$mm)	1Y IRR*	ITD IRR*
Lincoln Fund I (Series A)	2014	90.7%	75.0	-12,700	99.9	-11.3%	14.6%
Adams Street 2013 Global Fund	2013	92.4%	100.0	-7,699	104.9	-6.4%	14.3%
Adams Street 2014 Global Fund	2014	92.2%	100.0	-6,525	118.4	-4.9%	16.1%
Adams Street 2012 Global Fund	2012	90.5%	80.0	-4,306	66.1	-5.7%	13.8%
Adams Street 2015 Global Fund	2015	87.5%	125.0	-3,776	163.8	-2.1%	22.9%
Loss	- \	_ =	480.0	-35,005	553.1	-5.7%	16.1%
Loss (Remaining)	- 0	-	1,868.8	-21,297	266.0	-8.4%	25.8%
Total Loss	X.	-	2,348.8	-56,303	819.1	-6.5%	25.6%
* IRR calculated at portfolio currency. IRR not mean	ningful for investments hel	d less than 36 months					
Total Portfolio(82)	<b>9</b> .	78.1%	5,777.0	76,206	3,062.1	2.6%	19.0%

Reporting Period:

As Of Jun-2023



#### Portfolio IRR vs Benchmarks

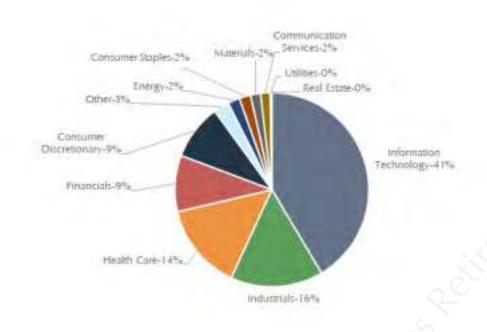


Custom Benchmark is the Wilshire 5000 + 3% (1Q lag) through December 2019 and ACWI IMI + 2% from 2020 on forward.

LN PME is a dollar-weighted Long-Nickels calculation of monthly changes in the Custom Benchmark. SURS Private Equity portfolio was activated in July 1990; therefore, inception to date PME was not calculated. Cambridge Associates IRR reflects all Private Equity funds data excluding Real Estate, Timber and Infrastructure.



### Sector Exposure by FMV

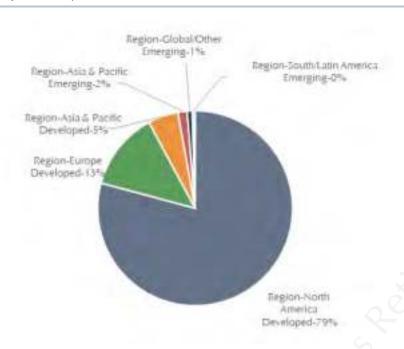


	% of Total NAV	NAV
Information Technology	41.4%	1,269,094,519
Industrials	15.5%	473,454,344
Health Care	14.4%	441,995,457
Financials	9.4%	288,231,738
Consumer Discretionary	9.2%	282,562,728
Other	2.6%	79,888,736
Energy	2.0%	60,292,503
Consumer Staples	1.9%	58,502,256
Materials	1.7%	50,886,754
Communication Services	1.6%	49,509,089
Utilities	0.2%	5,171,549
Real Estate	0.1%	2,541,323

Position Analytics data based on GP provided information as of Jun-2023

# Portfolio Composition - Geography (Region)

### Region Exposure by FMV

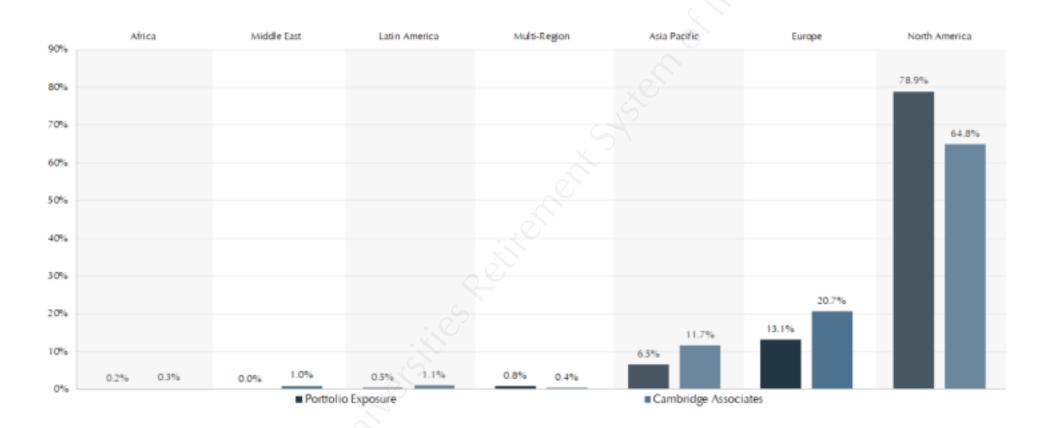


	% of Total NAV	NAV
Region-North America Developed	78.8%	2,413,018,785
Region-Europe Developed	12.9%	395,179,193
Region-Asia & Pacific Developed	5.0%	153,253,831
Region-Asia & Pacific Emerging	1.5%	46,183,414
Region-Global/Other Emerging	0.8%	25,824,196
Region-South/Latin America Emerging	0.5%	14,613,699
Region-Europe Emerging	0.2%	6,849,700
Region-Africa Emerging	0.2%	5,178,710
Region-North America Emerging	0.1%	1,927,713

Company headquarters represents location provided by the manager most recently or at initial investment date. Position Analytics data based on GP provided information as of Jun-2023



### Portfolio Exposure vs Cambridge Benchmark - Region

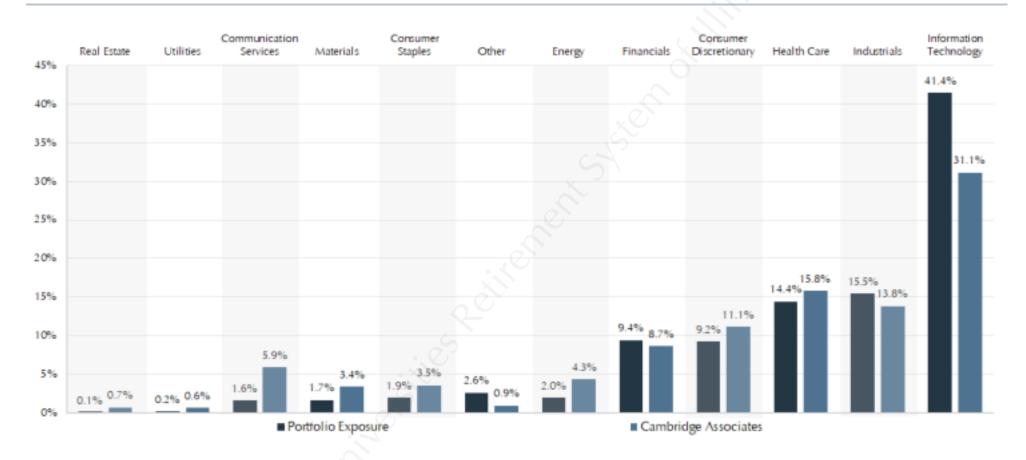


Portfolio Exposure based on Fair Market Value of the portfolio's underlying companies Position Analytics data based on General Partner provided information as of Jun-2023



# Portfolio Composition - Cambridge Comparison

#### Portfolio Exposure vs Cambridge Benchmark - Industry



Portfolio Exposure based on Fair Market Value of the portfolio's underlying companies Position Analytics data based on General Partner provided information as of Jun-2023



**PRIVATE AND CONFIDENTIAL:** These materials are strictly confidential and proprietary, intended solely for the use of the individual or entity to which Aksia LLC, Aksia CA LLC, Aksia Chicago LLC, and/or any of their other affiliates, as applicable (collectively, "Aksia") have sent these materials ("Intended Recipient") and constitute Aksia's trade secrets for all purposes, including for purposes of the Freedom of Information Act or any comparable law or regulation of any government, municipality or regulator. These materials may not be reproduced or distributed, posted electronically or incorporated into other documents in whole or in part except for the personal reference of the Intended Recipient. If you are not the Intended Recipient, you are hereby requested to notify Aksia and either destroy or return these documents to Aksia. The Intended Recipient shall not use Aksia's name or logo or explicitly reference Aksia's research and/or advisory services in the Intended Recipient's materials.

**NO OFFERING:** These materials do not in any way constitute an offer or a solicitation of an offer to buy or sell funds, private investments or securities mentioned herein. These materials are provided only for use in conjunction with Aksia's services, as such services are defined in an executed agreement between Aksia and the Intended Recipient, these materials shall not constitute advice or an obligation to provide such services.

**RECOMMENDATIONS:** Any Aksia reasonably believes to be true. Recommendation or opinion contained in these materials is a statement of opinion provided in good faith by Aksia and based upon information which Aksia reasonably believes to be true. Recommendations or opinions expressed in these materials reflect Aksia's judgment as of the date shown, and are subject to change without notice. Actual results may differ materially from any forecasts discussed in the materials. Except as otherwise agreed between Aksia and the Intended Recipient, Aksia is under no future obligation to review, revise or update its recommendations or opinions.

NOT TAX, LEGAL OR REGULATORY ADVICE: An investor should consult its tax, legal and regulatory advisors before allocating to a private investment fund or other investment opportunity. Aksia is not providing due diligence or tax advice concerning the tax treatments of an investment or an investor's allocations to such private investment fund or opportunity. Tax treatment depends on the individual circumstances of each client and may be subject to change in the future.

**RESPONSIBILITY FOR INVESTMENT DECISIONS:** The Intended Recipient is responsible for performing his, her or its own reviews of any funds or other investment vehicles or opportunities described herein including, but not limited to, a thorough review and understanding of each vehicle's or opportunity's offering materials. The Intended Recipient is advised to consult his, her or its tax, legal and compliance professionals to assist in such reviews. For clients who receive non-discretionary advisory or research services from Aksia: the Intended Recipient acknowledges that it (and not Aksia) is responsible for its investment decisions with respect to any investment vehicles or opportunities described herein.

No assurances can be given that a particular investment or portfolio will meet its investment objectives. Any projections, forecasts or market outlooks provided herein should not be relied upon as events which will occur. Past performance is not indicative of future results. Use of advanced portfolio construction processes, risk management techniques and proprietary technology does not assure any level of performance or guarantee against loss of capital.

**PERFORMANCE DATA:** In cases where an investment manager or general partner implements an investment strategy through multiple investment vehicles (for tax purposes, participation in side pockets and new issues, domicile, currency denomination, etc.,) Aksia may use the returns of one class or series of an investment vehicle in a particular program in its reports to represent the returns of all the investment vehicles in such investment program. The returns for the particular class or series used in Aksia's reports may be different from the returns of the class or series in which the Intended Recipient is invested. To obtain the actual performance of the particular class or series in the Intended Recipient's portfolio, the Intended Recipient should contact the investment manager or general partner directly.

**RELIANCE ON THIRD PARTY DATA:** These materials reflect and rely upon information provided by fund managers and other third parties which Aksia reasonably believes to be accurate and reliable. Such information may be used by Aksia without independent verification of accuracy or completeness, and Aksia makes no representations as to its accuracy and completeness. For the avoidance of doubt, these materials have not been produced, reviewed, verified or approved by the fund managers and other third parties to which the materials relate. As such, they do not necessarily reflect the views or opinions of such fund managers and third parties. Furthermore, any reference to EBITDA (or ratios using EBITDA as a component) included in the report, reflect Adjusted EBITDA provided by the fund manager typically as defined in the loan agreements. Adjusted EBITDA can be expected to be higher than EBITDA figures calculated based on GAAP or IFRS compliant financial statements, which will result in relatively lower debt/EBITDA and higher interest coverage ratios. In addition, any fund IRRs shown are as reported by the manager/administrator or calculated using cash flows provided by the manager/administrator, and may benefit from such fund's use of a subscription line.

RATING DOWNGRADES (LIQUID INVESTMENTS): Aksia client assets, in aggregate, may represent a large percentage of a manager's or fund's assets under management, and, as such, a rating downgrade by Aksia's research teams could result in redemptions or withdrawals that may have an adverse effect on the performance of a fund.

CONFLICTS OF INTEREST DISCLOSURE: Family members of Aksia personnel may from time to time be employed by managers that Aksia recommends to its clients. While this may pose a potential conflict of interest, we monitor such relationships to seek to minimize any impact of such potential conflict.

PRIVATE INVESTMENT FUND DISCLOSURE: Investments in private investment funds and other similar investment opportunities involve a high degree of risk and you could lose all or substantially all of your investment. Any person or institution making such investments must fully understand and be willing to assume the risks involved. Some private investment funds and opportunities described herein may not be suitable for all investors. Such investments or investment vehicles may use leverage, hold significant illiquid positions, suspend redemptions indefinitely, provide no opportunity to redeem, modify investment strategy and documentation without notice, short sell securities, incur high fees and contain conflicts of interests. Such private investment funds or opportunities may also have limited operating history, lack transparency, manage concentrated portfolios, exhibit high volatility, depend on a concentrated group or individual for investment management or portfolio management and lack any regulatory oversight.

For a description of the risks associated with a specific private investment fund or investment opportunity, investors and prospective investors are strongly encouraged to review each private investment fund or opportunity's offering materials which contain a more specific description of the risks associated with each investment. Offering materials may be obtained from the fund manager.

FOR RECIPIENTS OF REPORTS DISTRIBUTED BY AKSIA EUROPE LIMITED: Aksia Europe Limited is authorized and regulated by the Financial Conduct Authority; such authorization does not indicate endorsement or approval by the FCA of the services offered by Aksia.

The Market Abuse Regulation (Regulation (EU) No 596/2014) ("MAR") requires that persons who produce or disseminate investment recommendations or other information recommending or suggesting an investment in financial instruments admitted to trading on an EU market (each a "Recommendation") are required to take reasonable care to ensure that such information is objectively presented, and to disclose their interests or indicate conflicts of interest concerning the financial instruments to which that information relates. Aksia's primary research focus is on private investment funds whose shares are typically not listed on any exchange. Certain private funds may, however, list their shares on an EU market, even though there is typically no secondary market or trading of those shares. Unless stated otherwise, the person or persons responsible for the production of a Recommendation is not aware of any conflicts of interest that may impact the objectivity of any Recommendation. To the extent required by MAR, further information, including information regarding the author(s) of a Recommendation is available upon request at compliance@aksia.com.

Bregal Investments Inc: CONFLICTS OF INTEREST DISCLOSURE: THE MANAGER OF THIS CO-INVESTMENT OPPORTUNITY IS AFFILIATED WITH OR UNDER COMMON OWNERSHIP WITH A CLIENT OF AKSIA. AKSIA ATTEMPTS TO MITIGATE ANY POTENTIAL CONFLICT OF INTEREST THAT MAY RESULT BY IMPLEMENTING A MULTIPLE LEVEL OF REVIEW OF EACH DUE DILIGENCE REPORT BY MULTIPLE INDIVIDUALS.





Illinois State Universities Retirement System

**Second Quarter 2023** 

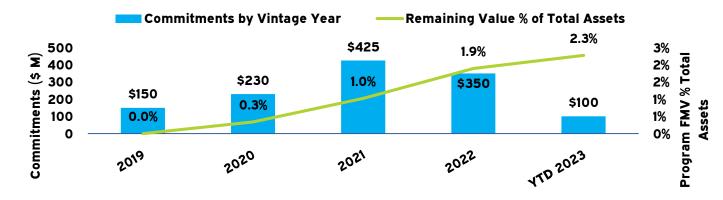
Private Credit Program



Overview | As of June 30, 2023

#### Introduction

Illinois State Universities Retirement System ("SURS") has set a target allocation of 5% of plan net asset value to private credit fund investments within the Stabilized Growth Class. SURS' private credit program targets a mix of strategies, both yield-oriented and opportunistic, with an emphasis on yield-oriented. The first commitment was approved in June of 2020. As of the end of Q2 2023, eleven private credit fund commitments totaling \$1.3 billlion have been made to the Program.



<sup>\*</sup>Defined by the date of initial investment

#### **Program Status**

No. of Investments	11
Committed (\$ M)	1,255.0
Contributed (\$ M)	634.6
Distributed (\$ M)	165.2
Remaining Value (\$ M)	524.5

#### Performance Since Inception<sup>1</sup>

	Program	PME <sup>2</sup>
DPI	0.26x	
TVPI	1.09x	
IRR	8.6%	5.1%

<sup>&</sup>lt;sup>1</sup> The initial capital call was made on July 9, 2020.

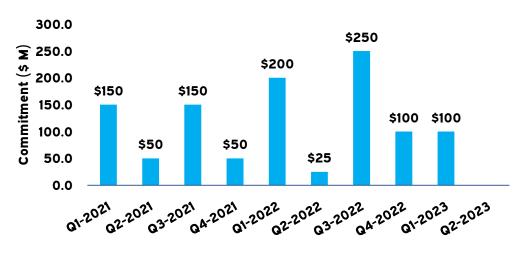
<sup>&</sup>lt;sup>2</sup> 50% BB Global High Yield + 50% S&P LSTA Global Leveraged Loan +1%



Recent Activity | As of June 30, 2023

#### Commitments

#### **Recent Quarterly Commitments**



#### **Commitments This Quarter**

Fund	Strategy	Region	Amount (M)
	71		` '

None to report.



Recent Activity | As of June 30, 2023

#### **Recent Commitment Activity**

		Amount	
Fund	Strategy	(\$M)	Date
Turning Rock Fund II	Special Situations	50.00	Q1 2022
Fortress Lending Fund III	Multi-Strategy	50.00	Q1 2022
Ares Pathfinder Core Fund	Specialty Lending	150.00 <sup>1</sup>	Q1 2022
Silver Rock Tactical Allocation Fund – Vintage 2022	Special Situations	200.00	Q3 2022
Silver Point Specialty Credit Fund III	Specialty Lending	100.00	Q4 2022
Ares Pathfinder Fund II	Direct Lending	100.00	Q1 2023

#### Commitments made subsequent to quarter end included:

- ightarrow \$100 million commitment to Sixth Street TAO Global, a multi-strategy fund
- → \$100 million commitment to Atalya Asset Income Fund, a consumer-oriented specialty lending fund
- → \$100 million commitment to HPS Specialty Loan Fund VI, a direct lending fund focused on larger borrowers
- → \$50 million commitment to Turning Rock Fund III, a special situations fund targeting lower middle market companies
- → \$100 million commitment to ICG Senior Debt Partners 5, a European focused direct lending fund

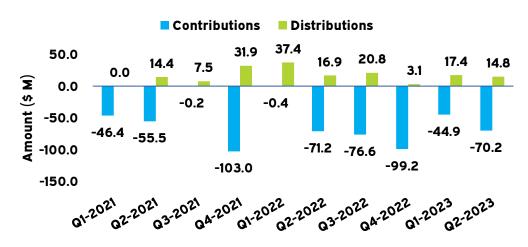
<sup>&</sup>lt;sup>1</sup> Increased commitment by \$50 million in Q3 2022.



Recent Activity | As of June 30, 2023

#### Cash Flows

#### **Recent Quarterly Cash Flows**



#### **Largest Contributions This Quarter**

#### **Largest Distributions This Quarter**

Fund	Vintage	Strategy	Region	Amount (\$M)	Fund	Vintage	Strategy	Region	Amount (\$M)
Silver Rock Tac 2022	2022	Special Situations	North America	29.05	Silver Rock Tactical	2019	Special Situations	North America	7.30
Ares Pathfinder Core	2021	Specialty Lending	North America	22.11	NB Debt Fund IV	2021	Direct Lending	North America	2.54
Silver Point III	2023	Direct Lending	North America	10.29	PIMCO DISCO III	2020	Multi-strategy	North America	1.85



Performance Analysis | As of June 30, 2023

### By Strategy

Group	Number	Committed (\$ M)	Contributed (\$ M)	Unfunded (\$ M)	Distributed (\$ M)	Remaining Value (\$ M)	Exposure (\$ M)	DPI (X)	TVPI (X)	IRR (%)
Direct Lending	3	375.0	120.2	255.9	12.5	125.2	381.1	0.10	1.15	14.1
Multi-strategy	2	230.0	122.3	199.8	104.1	36.4	236.2	0.85	1.14	11.5
Special Situations	4	450.0	275.0	195.6	28.8	256.3	451.9	0.10	1.04	3.4
Specialty Lending	2	200.0	117.1	92.1	19.8	106.6	198.7	0.17	1.08	13.7
Total	11	1,255.0	634.6	743.4	165.2	524.5	1,267.9	0.26	1.09	8.6

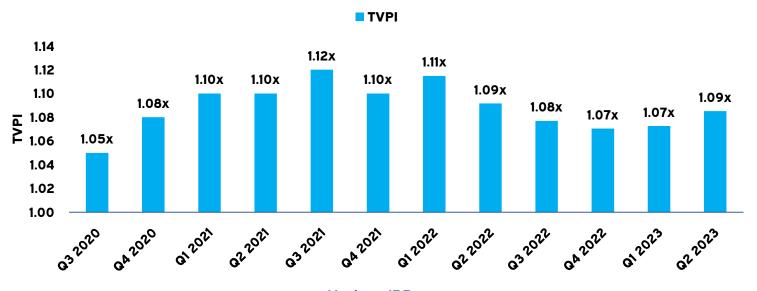
### By Vintage

Group	Number	Committed (\$ M)	Contributed (\$ M)	Unfunded (\$ M)	Distributed (\$ M)	Remaining Value (\$ M)	Exposure (\$ M)	DPI (X)	TVPI (X)	IRR (%)
Open-end Fund	1	150.0	75.5	74.5	2.6	76.6	151.1	0.03	1.05	9.8
2019	1	150.0	149.5	12.1	18.8	134.2	146.3	0.13	1.02	1.6
2020	2	230.0	131.9	197.6	118.0	35.0	232.6	0.89	1.16	13.7
2021	3	275.0	159.2	126.1	22.5	156.7	282.8	0.14	1.13	11.5
2022	2	250.0	103.4	148.4	3.3	106.7	255.1	0.02	1.05	NM
2023	2	200.0	15.2	184.8	0.0	15.3	200.0	0.00	1.00	NM
Total	11	1,255.0	634.6	743.4	165.2	524.5	1,267.9	0.26	1.09	8.6



Performance Analysis | As of June 30, 2023

#### Since Inception Performance Over Time

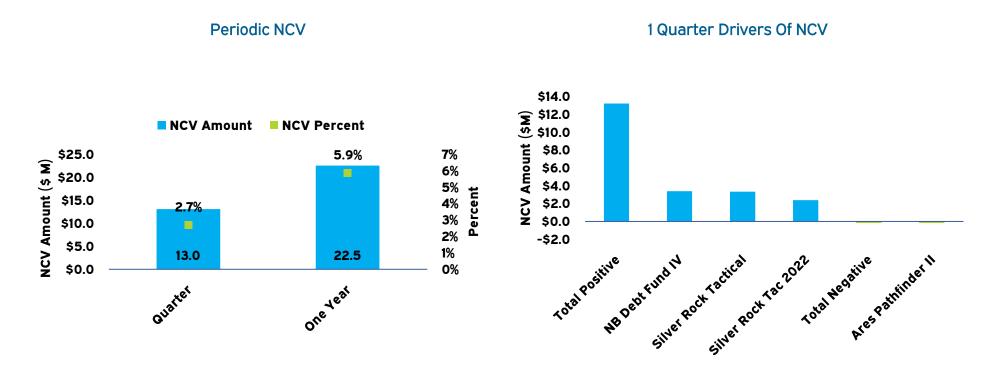


#### **Horizon IRRs**

	1 Year (%)	3 Year (%)	5 Year (%)	10 Year (%)	Since Inception (%)
Aggregate Portfolio	6.0	NM	NM	NM	8.6



Performance Analysis | As of June 30, 2023





Performance Analysis | As of June 30, 2023

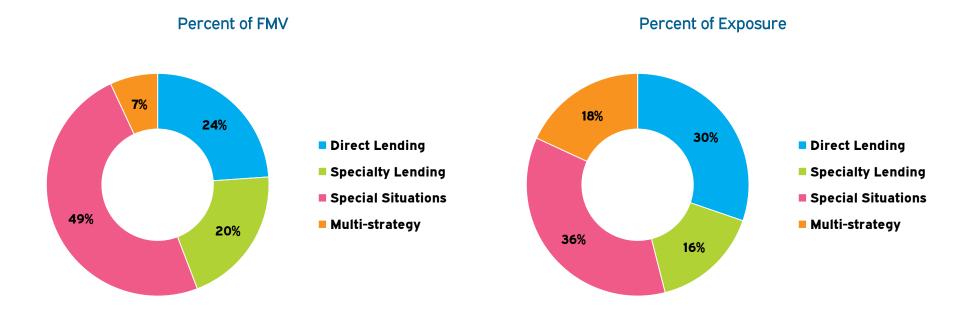
### Fund Performance: Sorted By Vintage And Strategy

By Investment	Vintage	Strategy	Committed (\$ M)	Contributed (\$ M)	Unfunded (\$ M)	Distributed (\$ M)	Remaining Value (\$ M)	TVPI (X)	IRR (%)
Ares Pathfinder Core	Open-End	Specialty Lending	150.0	75.5	74.5	2.6	76.6	1.05	9.8
Silver Rock Tactical	2019	Special Situations	150.0	149.5	12.1	18.8	134.2	1.02	1.6
PIMCO DISCO III	2020	Multi-strategy	180.0	90.3	180.0	100.8	5.0	1.17	12.7
Crayhill Fund II	2020	Specialty Lending	50.0	41.6	17.6	17.2	30.0	1.13	18.1
NB Debt Fund IV	2021	Direct Lending	175.0	105.0	71.1	12.5	109.9	1.17	14.1
Silver Rock Colnvest	2021	Special Situations	50.0	15.6	39.5	6.0	9.6	1.00	NM
Turning Rock Fund II	2021	Special Situations	50.0	38.5	15.4	3.9	37.2	1.07	8.8
Fortress Lending III	2022	Multi-strategy	50.0	32.1	19.8	2.3	31.4	1.05	NM
Silver Rock Tac 2022	2022	Special Situations	200.0	71.3	128.7	0.0	75.3	1.05	NM
Ares Pathfinder II	2023	Direct Lending	100.0	0.0	100.0	0.0	NM	NM	NM
Silver Point III	2023	Direct Lending	100.0	15.2	84.8	0.0	15.4	1.01	NM
Total			1,255.0	634.6	743.4	165.2	524.5	1.09	8.6



Fund Diversification | As of June 30, 2023

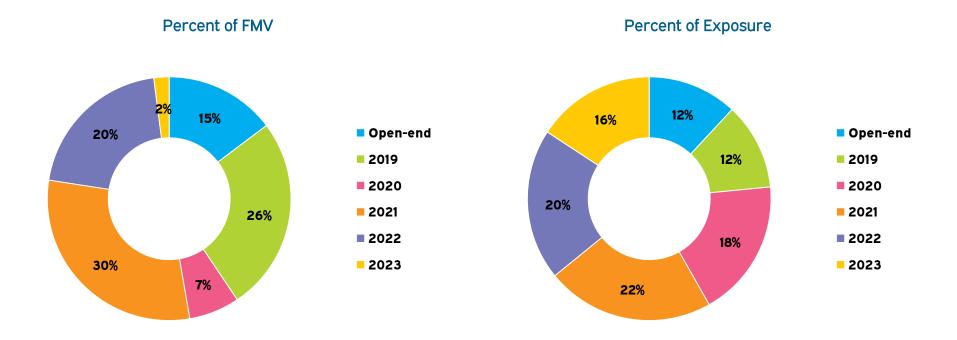
### By Strategy





Fund Diversification | As of June 30, 2023

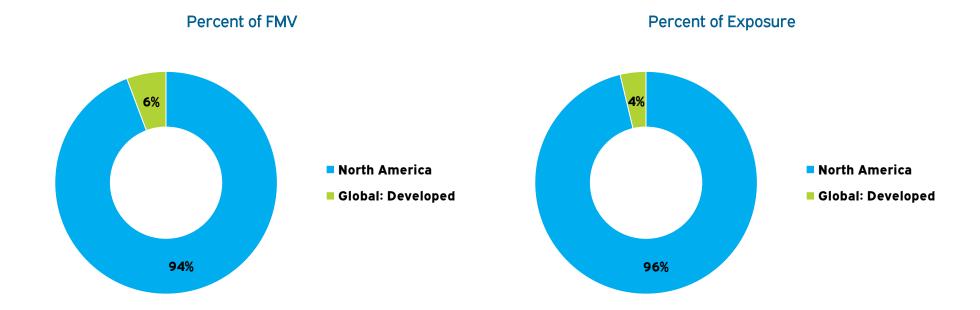
### By Vintage





Fund Diversification | As of June 30, 2023

## By Geographic Focus





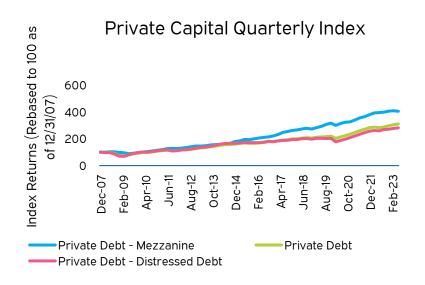
Market & Industry Analysis | As of June 30, 2023

## Private Credit: Performance Update (Q2-23)

- → The Pregin All Private Debt Index returned 2.1% in the second quarter despite a mixed demand backdrop driven by lower M&A volumes, refinancing activity and other corporate actions.
- → Private Debt fundraising rebounded in Q2 led by Direct Lending and Mezzanine focused funds. A survey of private credit funds found that only 56% reported raising a fund that was larger than the predecessor, down from 75% in 2022.1
- → Senior Direct Lending registered a strong Q2 with the Lincoln Senior Debt Index returning 3.2% its strongest quarterly return since inception.<sup>2</sup> Fair value across loans represented in the index increased to 96.9.

## Pregin All Private Debt Index (as of 3/31/2023)

Trailing Time Period	Horizon IRR (%)
1 year	5.8
3 years	9.8
5 years	6.3
10 years	7.5



MEKETA INVESTMENT GROUP 13 of 19

<sup>&</sup>lt;sup>1</sup> PDI, "Future of Private Debt Report" (October 2023)

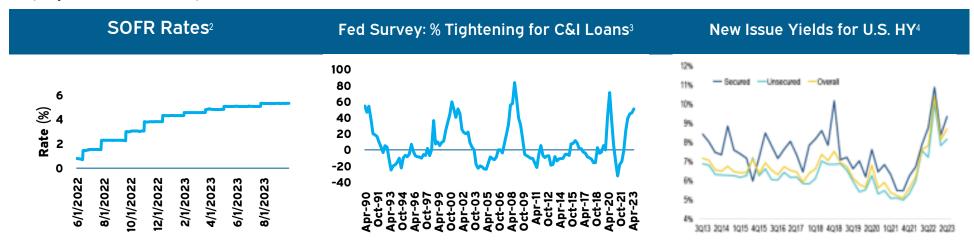
<sup>&</sup>lt;sup>2</sup> Lincoln Senior Debt Index inception was September 30, 2014.



Market & Industry Analysis | As of June 30, 2023

## **Private Credit: Key Economic Drivers**

- → The Federal Reserve paused the aggressive rate hiking cycle during their September 2023 meeting, acknowledging the probability that tighter credit conditions will likely weigh on economic activity.
- → Tighter credit conditions persisted with the percentage of domestic banks reporting tightening credit standards for commercial and industrial loans increasing from 41% to 51% between Q1 and Q3 2023.
- → Average new issue yields for unsecured borrowers ticked upwards to 8.2% from 7.6% a year earlier, while Q2 issuance was dominated by double-B (including split rated BB/B) borrowers.¹ This reflects the continued challenges lower rated issuers face in accessing capital markets.
- → Moody's Investor Services modestly lowered its expectations for corporate defaults to 4.6% by January 2024, noting that its projections for credit spreads had come in from earlier estimates.



MEKETA INVESTMENT GROUP. 14 of 19

<sup>&</sup>lt;sup>1</sup> Source: PitchBook LCD; US Credit Markets Quarterly Wrap (Q2 2023)

<sup>&</sup>lt;sup>2</sup> Source: Federal Reserve Bank of New York

<sup>3</sup> Source: St. Louis Fed

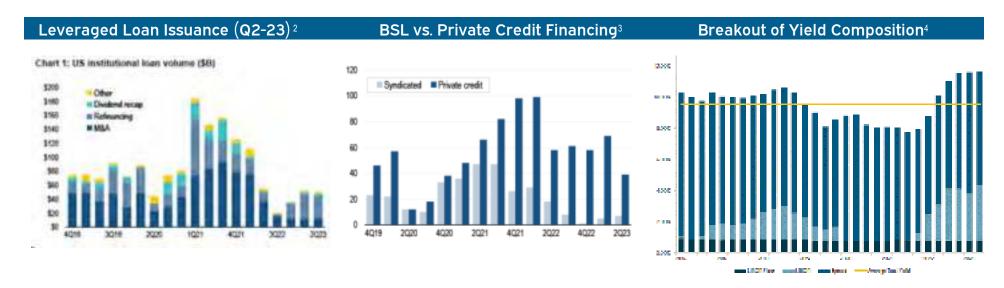
<sup>&</sup>lt;sup>4</sup> Source: PitchBook LCD (a/o 6/30/2023)



Market & Industry Analysis | As of June 30, 2023

## Private Credit: U.S. Senior Direct Lending

- → U.S. leveraged loan issuance volume showed little improvement over the prior quarter with \$51.5 billion pricing in Q2. Refinancing dominated the use of proceeds as M&A activity remained low.
- → Private lenders retained a dominant position over the syndicated market in LBO financing. Notably, the spread between direct lending and the syndicated market narrowed to 2.1% (as captured by the LSDI Index versus the Morningstar LSTA index).¹
- → Direct lending yields remain elevated, largely driven by the increase in base rates and to a lesser extent spread.



MEKETA INVESTMENT GROUP

<sup>&</sup>lt;sup>1</sup> Lincoln International, LSDI Q2 2023 Report

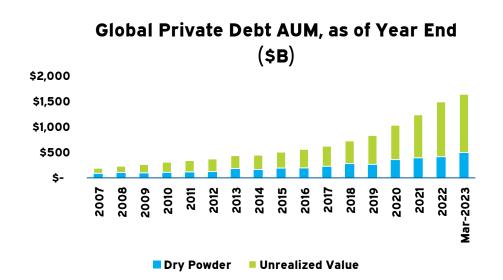
<sup>&</sup>lt;sup>2</sup> Source: PitchBook LCD as of 6/30/2023.

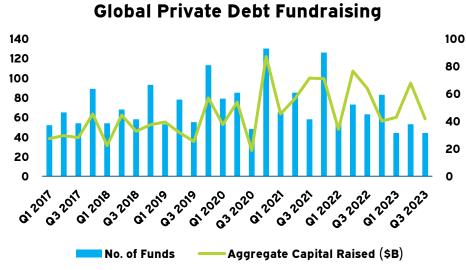
<sup>&</sup>lt;sup>3</sup> Source: PitchBook LCD as of 6/30/2023.

<sup>&</sup>lt;sup>4</sup> Source: Lincoln International, LSDI Q2 2023 Report.

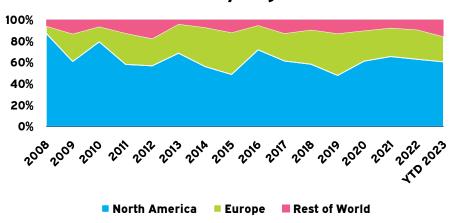


Market & Industry Analysis | As of June 30, 2023

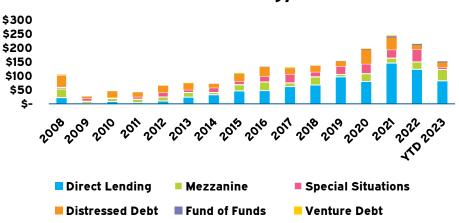




# Global Private Debt Fundraising, by Primary Region



## Global Private Debt Fund Raising, by Fund Strategy





Endnotes | As of June 30, 2023

Below are details on specific terminology and calculation methodologies used throughout this report:

Committed	The original commitment amount made to a given fund. Some funds may be denominated in non-USD currencies, and such commitment amounts represent the sum of fund contributions translated to USD at their daily conversion rates plus the unfunded balance translated at the rate as of the date of this report.
Contributed	The amount of capital called by a fund manager against the commitment amount. Contributions may be used for new or follow-on investments, fees, and expenses, as outlined in each fund's limited partnership agreement. Some capital distributions from funds may reduce contributed capital balances. Some funds may be denominated in non-USD currencies, and such aggregate contributions represent the sum of each fund contribution translated to USD at its daily conversion rate.
Distributed	The amount of capital returned from a fund manager for returns of invested capital, profits, interest, and other investment related income. Some distributions may be subject to re-investment, as outlined in each fund's limited partnership agreement. Some funds may be denominated in non-USD currencies, and such aggregate distributions represent the sum of each fund distribution translated to USD at its daily conversion rate.
DPI	Acronym for "Distributed-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculation equals Distributed divided by Contributed. DPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.
Exposure	Represents the sum of the investor's Unfunded and Remaining Value.
IRR	Acronym for "Internal Rate of Return", which is a performance measurement for Private Market investments. IRRs are calculated by Meketa based on daily cash flows and Remaining Values as of the date of this report. IRRs for funds and groupings of funds are net of all fund fees and expenses as reported by fund managers to Meketa.
NCV	Acronym for "Net Change in Value", which is a performance measurement for Private Market investments. The performance calculation equals the appreciation or depreciation over a time period neutralized for the impact of cash flows that occurred during the time period.
NM	Acronym for "Not Meaningful", which indicates that a performance calculation is based on data over too short a timeframe to yet be meaningful or not yet possible due to inadequate data. Meketa begins reporting IRR calculations for investments once they have reached more than two years since first capital call. NM is also used within this report in uncommon cases where the manager has reported a negative Remaining Value for an investment.



Endnotes | As of June 30, 2023

#### **Peer Universe**

The performance for a set of comparable private market funds. The peer returns used in this report are provided by Thomson ONE, based on data from Cambridge Associates as of the date of this report. Program-level peer universe performance represents the pooled return for a set of funds of corresponding vintages and strategies across all regions globally. Fund-level peer performance represents the median return for a set of funds of the same vintage and the program's set of corresponding strategies across all regions globally. Data sets that include less than five funds display performance as "NM". Meketa utilizes the following Thomson ONE strategies for peer universes:

Private Credit: Private Debt

### Public Market Equivalent ("PME")

A calculation methodology that seeks to compare the performance of a portfolio of private market investments with public market indices. The figures presented in this report are based on the PME+ framework, which represents a net IRR value based on the actual timing and size of the private market program's daily cash flows and the daily appreciation or depreciation of an equivalent public market index. Meketa utilizes the following indices for private market program PME+ calculations:

Private Debt: 50% BB Global High Yield + 50% S&P LSTA Global Leveraged Loan +1%

#### Remaining Value

The investor's value as reported by a fund manager on the investor's capital account statement. All investor values in this report are as of the date of this report, unless otherwise noted. Some funds may be denominated in non-USD currencies, and such remaining values represent the fund's local currency value translated to USD at the rate as of the date of this report.

#### **TVPI**

Acronym for "Total Value-to-Paid-In", which is a performance measurement for Private Market investments. The performance calculations represents Distributed plus Remaining Value, then divided by Contributed. TVPIs for funds and groupings of funds are net of all fund fees and expenses as reported to by fund managers to Meketa.

#### Unfunded

The remaining balance of capital that a fund manager has yet to call against a commitment amount. Meketa updates unfunded balances for funds to reflect all information provided by fund managers provided in their cash flow notices. Some funds may be denominated in non-USD currencies, and such unfunded balances represent the fund's local currency unfunded balance translated to USD at the rate as of the date of this report.



Disclaimer | As of June 30, 2023

The material contained in this report is confidential and may not be reproduced, disclosed, or distributed, in whole or in part, to any person or entity other than the intended recipient. The data are provided for informational purposes only, may not be complete, and cannot be relied upon for any purpose other than for discussion

Meketa Investment Group has prepared this report on the basis of sources believed to be reliable. The data are based on matters as they are known as of the date of preparation of the report, and not as of any future date, and will not be updated or otherwise revised to reflect information that subsequently becomes available.

If we manage your assets on a discretionary basis, please contact us if there are any changes in your financial situation or investment objectives, or if you want to impose any reasonable restrictions on our management of your account or reasonably modify existing restrictions.

In general, the valuation numbers presented in this report are prepared by the custodian bank for listed securities, and by the fund manager or appropriate General Partner in the case of unlisted securities. The data used in the market comparison sections of this report are sourced from various databases. These data are continuously updated and are subject to change.

This report does not contain all the information necessary to fully evaluate the potential risks of any of the investments described herein. Because of inherent uncertainties involved in the valuations of investments that are not publicly traded, any estimated fair values shown in this report may differ significantly from the values that would have been used had a ready market for the underlying securities existed, and the differences could be material.

This document may contain certain forward-looking statements, forecasts, estimates, projections, and opinions ("Forward Statements"). No representation is made or will be made that any Forward Statements will be achieved or will prove to be correct. A number of factors, in addition to any risk factors stated in this material, could cause actual future results to vary materially from the Forward Statements. No representation is given that the assumptions disclosed in this document upon which Forward Statements may be based are reasonable. There can be no assurance that the investment strategy or objective of any fund or investment will be achieved, or that the client will receive a return of the amount invested.

In some cases Meketa Investment Group assists the client in handling capital calls or asset transfers among investment managers. In these cases we do not make any representations as to the managers' use of the funds, but do confirm that the capital called or transferred is within the amounts authorized by the client.

Because there is no readily accessible market for private markets assets (companies and partnerships), the values placed on private markets assets are calculated by General Partners using conservative and industry standard pricing procedures. Annually, an independent auditor reviews the pricing procedures employed by the General Partner of each partnership.

The values of companies and partnerships are audited at year-end, and are not audited at other quarter-end periods. While financial information may be audited, there is some discretion as to the method employed to price private companies and, therefore, private markets partnerships. At all times, Meketa Investment Group expects General Partners to utilize conservative and industry standard pricing procedures, and requires the General Partners to disclose those procedures in their reports. However, because of the inherent uncertainty of valuation, these estimated values may differ from the values that would be used if a ready market for the investments existed, and the differences could be significant.

# STATE UNIVERSITIES RETIREMENT SYSTEM OF ILLINOIS 3RD QUARTER, 2023

# DEFINED CONTRIBUTION QUARTERLY REVIEW

#### **CAPTRUST**

40 Wall Street, 56th Floor New York, NY 10005

Our mission is to enrich the lives of our clients, colleagues and communities through sound financial advice, integrity, and a commitment to service beyond expectation.



SURS Retirement Savings Plan SURS Deferred Compensation Plan

3rd Quarter, 2023 Quarterly Review

**Executive Summary** 

Section 1

RETIREMENT INDUSTRY UPDATES

Section 2

MARKET COMMENTARY AND REVIEW

Section 3

**PLAN INVESTMENT REVIEW** 

Section 4

**INACTIVE PLAN REVIEW** 

Section 5

**FUND FACT SHEETS** 

**Appendix** 



State Universities Retirement System

	RETIREMENT SAVINGS PLAN (RSP)	DEFERRED COMPENSATION PLAN (DCP)			
Total Program Assets	\$3,621,610,218 (+7.7% YTD)	\$32,831,784 (+104% YTD)			
Voya Assets	\$3,273,136,523	\$32,831,784			
Frozen Assets - TIAA	\$348,473,695	N/A			
Program Expense Overview					
Voya Recordkeeping Fee / Benchmark	\$30 annual fee per part	cicipant (\$7.50/quarter)			
Lifetime Income Strategy Overview					
Total LIS Participants	21,081	2,310			
Total SIP Participants	6,309	833			
Activated Participants (Quarter/Inception)	22 / 272	0/0			
Avg Activated GLWB % (Quarter/Inception)	3.53% / 3.27%	0.00% / 0.00%			
Investment Overview					
Stable Value Crediting Rate	2.25% (effective November 1, 2023)				
Watchlist	Delaware Mid Cap Growth Equity R6 (DFZRX) - Pending Replacement				

Review Period	4Q 2022 (February/March)	1Q 2023 (May/June)	(Au	2Q 2023 gust/September)	3Q 2023 (November/December)
Standard Topics	<ul> <li>Industry &amp; Regulatory Trends</li> <li>Fiduciary Training</li> <li>Plan Assets/Allocation</li> <li>Market Update &amp; Investment Analysis</li> </ul>	<ul> <li>Industry &amp; Regulatory Trends</li> <li>Fiduciary Training</li> <li>Plan Assets/Allocation</li> <li>Market Update &amp; Investment Analysis</li> </ul>	<ul><li>Tren</li><li>Fidu</li><li>Plan</li></ul>	ciary Training Assets/Allocation et Update & Investment	<ul> <li>Industry &amp; Regulatory Trends</li> <li>Fiduciary Training</li> <li>Plan Assets/Allocation</li> <li>Market Update &amp; Investment Analysis</li> </ul>
Additional Fiduciary and Educational Topics	<ul> <li>Fiduciary Document Review</li> <li>Investment Policy Statement</li> <li>Committee Charter, as needed</li> <li>SURS Lifetime Income Strategy Education</li> <li>SURS Lifetime Income Strategy Assumptive Inputs Review and Implementation</li> <li>Annual Summary Report</li> </ul>	SURS Lifetime Income Strategy: Retirement Income Strategies Comparative Analysis	<ul> <li>Investment Menu Review         <ul> <li>Investment Structure Review</li> <li>Investment Expense &amp; Share Class Evaluation</li> </ul> </li> <li>Plan Fee Review         <ul> <li>Fee Allocation Philosophy</li> <li>Recordkeeper Fee Benchmarking</li> </ul> </li> <li>Plan Expense Account Review</li> <li>SURS LIS Demographic Data Review</li> </ul>		<ul> <li>Cybersecurity Review and Update</li> <li>Advisor Year End Disclosures and Certifications</li> </ul>
Review Period	Every 1-3 Y	ears (or as needed)		Ad Hoc	
Topics	<ul> <li>Investment Menu Architecture         <ul> <li>Target Date Evaluation (SU</li> <li>Capital Preservation / Incor</li> </ul> </li> <li>Comprehensive Fiduciary Train</li> <li>Review 3(38) Investment Management</li> </ul>	ne Solutions Review	<ul> <li>New Committee Mer Training</li> <li>Recordkeeper RFI/R</li> <li>Plan Design Benchm</li> <li>Plan Document/Desi</li> </ul>	arking	



<b>SECTION 1: RETIREMENT</b>	INDUSTRY UPDATES
------------------------------	------------------

Industry Updates.....



## FIDUCIARY UPDATE

Retirement plan fiduciaries should be mindful of recent compliance issues that may be relevant to their plans.



# SECURE ACT 2.0 ROTH CATCH-UP DELAY

On August 25, the IRS announced a two-year delay in the implementation of the new mandatory Roth catch-up rule under SECURE Act 2.0.

- The rule mandates that catch-up contributions after age 50 for people earning more than \$145,000 a year must be made as Roth contributions. It was scheduled to take effect on January 1, 2024. However, with new IRS guidance in the form of Notice 2023-62, the mandate will now take effect on January 1, 2026.
- The notice also addressed a SECURE 2.0 drafting error that would have eliminated all catch-up contributions beginning in 2024, by clarifying that such catch-up contributions would be permitted after 2023.
- The notice indicated that the IRS is considering an exemption from this rule for all self-employed individuals as well as state and local governmental employees who are FICA-exempt. It also asked for comments on whether plans should be able to allow for pre-tax catch-up contributions only. The notice comment period will end on October 24, 2023.



## SECURE ACT 2.0 SERIES: SMALL BALANCE FORCE OUTS

## WHAT & HOW BENEFITS CONSIDERATIONS

Small balance force outs are a plan design option by which plan sponsors can automatically distribute separated participant accounts with balances of \$5,000 or less without participant consent. With the passing of SECURE Act 2.0, the allowed threshold increases to \$7,000 after December 31, 2023.

To implement automatic distributions, the following rules apply:

- The plan document must be amended to allow small balances to be forced out.
- An updated summary plan description (SPD) must be provided to notify all participants of the change.
- The sponsor must select a rollover IRA provider. This is a fiduciary decision under ERISA. As a best practice, follow the safe harbor conditions provided by the DOL.
- If the amount of the distribution is less than \$5,000 (or \$7,000 starting January 1, 2024) but more than \$1,000, the account must be rolled over into an automatic rollover IRA.
- If the amount is \$1,000 or less, sponsors have the option of sending a check directly to the participant or rolling over the account to a qualified IRA (provider permitting).

Small balance force outs can be a valuable tool to the plan and plan sponsor. Some potential benefits include the following:

- Reduced Fiduciary Responsibility:
   Small balance force outs eliminate fiduciary responsibility for separated participant accounts that are removed from the plan.
- Reduced Tracking Needs: These force outs can eliminate or substantially reduce the need to track and find missing participants to furnish required notices and statements. This can reduce fiduciary liability and plan expenses.
- Reduced Recordkeeping Costs:
   Small balance force outs also can increase the average account balance of the plan and positively impact recordkeeping costs.
- Reduced Audit Expenses: Audit expenses can be avoided if the removal of small balances of separated participants keeps the participant count below audit thresholds.

Whenever implementing plan design changes, it is important to consider the impact to the plan. Some additional considerations are:

- SECURE Act 2.0: If your plan already utilizes mandatory distributions and would like to increase to the new amount, contact your recordkeeper to discuss the implementation process.
- Distribution Frequency: Mandatory distributions are typically implemented annually. For plans with high employee turnover or auto-enrollment, it may be helpful to ask the recordkeeper if it can administer mandatory distributions more frequently.
- Reducing Rollover Minimums:
   Rollover IRA providers may not accept small balance force out amounts below \$1,000, but some will. Inquire with your rollover IRA provider about options for account totals below this threshold.
   This can help reduce administrative duties and the need for paper distribution checks.



## **SECURE ACT 2.0 SERIES: AUTO-PORTABILITY**

Auto-portability has existed for years but lacked a permanent legal foundation. SECURE Act 2.0 provides legislative support for plan sponsors to automatically transfer small balances of former employees to a new employer's plan.

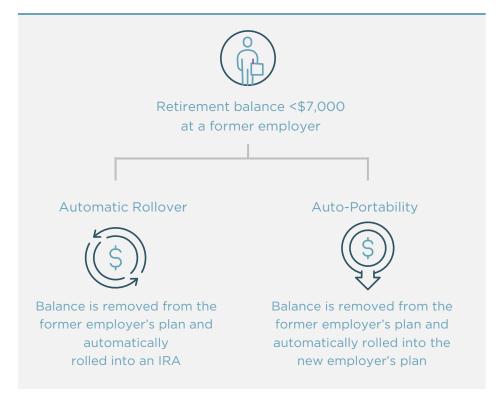


#### **AUTO-PORTABILITY KEY TAKEAWAYS**

- The primary objective of auto-portability is to reduce assets leaving employer-sponsored plans.
- SECURE Act 2.0 increases the threshold for small balance force outs from \$5,000 to \$7,000, effective January 1, 2024.
- Auto-portability requires a technology network to connect recordkeeping platforms, track participants, and transfer assets.
- The most notable auto-portability network is the Portability Services Network Consortium founded by Retirement Clearinghouse, Vanguard, Fidelity, and Alight. Empower, Principal, and TIAA are also members.
- There is a fee to the participant for the automatic transfer.
- Other provisions in SECURE Act 2.0, such as mandatory autoenrollment and long-term part-time employee participation, could lead to a greater number of participants with small balances in plans.



#### **OPTIONS FOR IMPACTED PARTICIPANTS**





## TARGET-DATE FUND GLIDEPATHS AND MARKET EVOLUTION

With the passing of the Pension Protection Act in 2006, target-date funds (TDF) quickly became the dominant qualified default investment alternative option for defined contribution plans. Since then, TDFs have experienced tremendous growth and change. Recently, CAPTRUST studied the evolution of the TDF industry and examined glidepath data to highlight trends. Below, we discuss the implications of these trends on fund selection and monitoring.

#### **KEY TAKEAWAYS**

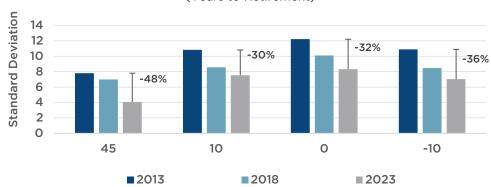
- As the chart on the right shows, the variation between TDF glidepaths has decreased over the past 10 years.
   Depending on the point in the glidepath, the average difference in equity exposures is now 30-48% smaller than it was in 2013.
- Also, the proportion of distinct glidepaths is shrinking in relation to the total number of TDF series.

#### THE IMPACT

- Given the changes described above, CAPTRUST is altering the peer groups used in its TDF monitoring process.
- Before making this decision, the team retroactively studied potential impacts to TDF scoring and found no meaningful changes to scores. CAPTRUST evaluates TDFs across 14 quantitative and qualitative metrics to provide a full assessment and limit the impact of any one data point.
- As of September 30, 2023, the peer groups used in client reports have changed from Morningstar risk-based peer groups (categorized as aggressive, moderate, or conservative by vintage year) to broader, year-based peer groups (e.g., 2025, 2030, etc.).
- These new peer groups more accurately reflect the current TDF industry and provide a more equitable comparison.







Surveyed TDF Market Characteristics	2013	2018	2023
Total Number of Firms	44	49	46
Firms with Multiple Offerings	14	24	23
Series Represented by These Firms	44	75	107
Firms with a Single Offering	30	25	23
Total Number of TDF Series	74	100	130
Total Distinct Glidepaths	52	62	59

Source: CAPTRUST Research



SECTION 3: MARKET COMMENTARY AND REVIEW
M 1 1 0
Market Commentary
Market Review
Asset Class Returns
Index Performance

## **2022 REPLAY**

Fed Chairman Jerome Powell has repeatedly stated that monetary policy will remain restrictive for an extended period to combat inflation. It appears investors have finally heard the message. The result is a rare bear-steepening yield curve, when long-term interest rates rise faster than short-term rates. In the third quarter, this surge in longer maturity yields put pressure on nearly all asset classes, creating a reiteration of the 2022 investment landscape.

- Large-cap U.S. equity markets were pinched this quarter. As in 2022, the energy sector took top honors, accompanied by communication services as the only two sectors in positive territory. The interest-rate-sensitive utilities sector felt the most pressure from the rise in yields.
- Despite the challenging quarter, the broad largecap benchmark is up double digits year-to-date.
- Bond investors, specially those holding longermaturity instruments, also felt the impact of rising rates. Bonds are now in negative territory for the year.
- Outside the U.S., equity markets across Europe and the Pacific were mixed; however, a strengthening U.S. dollar pulled dollar-based returns across those regions down for the quarter.
- Real estate markets ended the quarter deeply in the red while commodities were the standout (again, like 2022), supported by rising oil prices.



Asset class returns are represented by the following indexes: Bloomberg U.S. Aggregate Bond Index (U.S. bonds), S&P 500 Index (U.S. large-cap stocks), Russell 2000® (U.S. small-cap stocks), MSCI EAFE Index (international developed market stocks), MSCI Emerging Market Index (emerging market stocks), Dow Jones U.S. Real Estate Index (real estate), and Bloomberg Commodity Index (commodities).

## **DIGGING DEEPER: STOCKS AND BONDS**

## **Equities**

	Q3 2023	YTD 2023	Last 12 Months
U.S. Stocks	-3.3%	13.1%	21.6%
Q3 Best Sector: Energy	12.2%	6.0%	30.2%
Q3 Worst Sector:     Utilities	-9.2%	-14.4%	-7.0%
International Stocks	-4.0%	7.6%	26.3%
Emerging Markets Stocks	-2.8%	2.2%	12.2%

#### **Fixed Income**

	9.30.23	6.30.23	9.30.22
1-Year U.S. Treasury Yield	5.46%	5.35%	4.07%
10-Year U.S. Treasury Yield	4.59%	3.77%	3.83%
	OTD	VIII	
	QTD 2023	YTD 2023	Last 12 Months

## Equities - Relative Performance by Market Capitalization and Style

	Q3	2023			YTD 2023				Last 12	2 Months	
	Value	Blend	Growth		Value	Blend	Growth		Value	Blend	Growth
Large	-3.2%	-3.3%	-3.1%	Large	1.8%	13.1%	25.0%	Large	14.4%	21.6%	27.7%
Mid	-4.5%	-4.7%	-5.2%	Mid	0.5%	3.9%	9.9%	Mid	11.0%	13.4%	17.5%
Small	-3.0%	-5.1%	-7.3%	Small	-0.5%	2.5%	5.2%	Small	7.8%	8.9%	9.6%

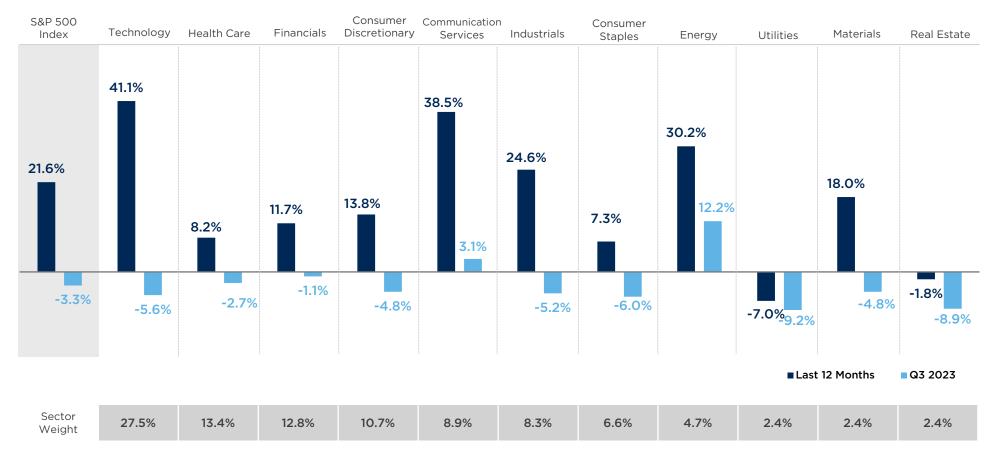
Sources: Morningstar, U.S. Treasury, Federal Reserve Bank of St. Louis. Asset class returns are represented by the following indexes: S&P 500 Index (U.S. stocks), MSCI EAFE Index (international developed market stocks), and MSCI Emerging Markets Index (emerging market stocks). Relative performance by market capitalization and style is based upon the Russell US Style Indexes except for large-cap blend, which is based upon the S&P 500 Index.



## **DIGGING DEEPER: U.S. EQUITY MARKETS**

The S&P 500 Index is a market-capitalization-weighted index of U.S. large-cap stocks across a diverse set of industry sectors. The stocks represented in these 11 sectors generated a range of returns for the last 12 months and the most recent quarter.

## Returns by S&P 500 Sector



Source: Morningstar, S&P Global. All calculations are cumulative total return, not annualized, including dividends for the stated period. Past performance is not indicative of future returns.



ASSET CLASS RETURNS

Period Ending 9.30.23 | Q3 23

2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	YTD 2023
Small-Cap Growth 29.09%	Fixed Income 7.84%	Mid-Cap Value 18.51%	Small-Cap Growth 43.30%	Mid-Cap Value 14.75%	Large-Cap Growth 5.67%	Small-Cap Value 31.74%	Large-Cap Growth 30.21%	Cash 1.87%	Large-Cap Growth 36.39%	Large-Cap Growth 38.49%	Mid-Cap Value 28.34%	Cash 1.46%	Large-Cap Growth 24.98%
Mid-Cap Growth 26.38%	Large-Cap Growth 2.64%	Small-Cap Value 18.05%	Mid-Cap Growth 35.74%	Large-Cap Value 13.45%	Fixed Income 0.55%	Mid-Cap Value 20.00%	International Equities 25.62%	Fixed Income 0.01%	Mid-Cap Growth 35.47%	Mid-Cap Growth 35.59%	Small-Cap Value 28.27%	Large-Cap Value -7.54%	Mid-Cap Growth 9.88%
Mid-Cap Value 24.75%	Large-Cap Value 0.39%	International Equities 17.90%	Small-Cap Value 34.52%	Large-Cap Growth 13.05%	Cash 0.05%	Large-Cap Value 17.34%	Mid-Cap Growth 25.27%	Large-Cap Growth -1.51%	Small-Cap Growth 28.48%	Small-Cap Growth 34.63%	Large-Cap Growth 27.60%	Mid-Cap Value -12.03%	International Equities 7.59%
Small-Cap Value 24.50%	Cash 0.10%	Large-Cap Value 17.51%	Large-Cap Growth 33.48%	Mid-Cap Growth 11.90%	Mid-Cap Growth -0.20%	Small-Cap Growth 11.32%	Small-Cap Growth 22.17%	Mid-Cap Growth -4.75%	Mid-Cap Value 27.06%	International Equities 8.28%	Large-Cap Value 25.16%	Fixed Income -13.01%	Small-Cap Growth 5.24%
Large-Cap Growth 16.71%	Mid-Cap Value -1.38%	Mid-Cap Growth 15.81%	Mid-Cap Value 33.46%	Fixed Income 5.97%	International Equities -0.39%	Mid-Cap Growth 7.33%	Large-Cap Value 13.66%	Large-Cap Value -8.27%	Large-Cap Value 26.54%	Fixed Income 7.51%	Mid-Cap Growth 12.73%	International Equities -14.01%	Cash 3.60%
Large-Cap Value 15.51%	Mid-Cap Growth -1.65%	Large-Cap Growth 15.26%	Large-Cap Value 32.53%	Small-Cap Growth 5.60%	Small-Cap Growth -1.38%	Large-Cap Growth 7.08%	Mid-Cap Value 13.34%	Small-Cap Growth -9.31%	International Equities 22.66%	Mid-Cap Value 4.96%	International Equities 11.78%	Small-Cap Value -14.48%	Large-Cap Value 1.79%
International Equities 8.21%	Small-Cap Growth -2.91%	Small-Cap Growth 14.59%	International Equities 23.29%	Small-Cap Value 4.22%	Large-Cap Value -3.83%	Fixed Income 2.65%	Small-Cap Value 7.84%	Mid-Cap Value -12.29%	Small-Cap Value 22.39%	Small-Cap Value 4.63%	Small-Cap Growth 2.83%	Small-Cap Growth -26.36%	Mid-Cap Value 0.54%
Fixed Income 5.89%	Small-Cap Value -5.50%	Fixed Income 4.22%	Cash 0.07%	Cash 0.03%	Mid-Cap Value -4.78%	International Equities 1.51%	Fixed Income 3.54%	Small-Cap Value -12.86%	Fixed Income 8.72%	Large-Cap Value 2.80%	Cash 0.05%	Mid-Cap Growth -26.72%	Small-Cap Value -0.53%
Cash 0.13%	International Equities -11.73%	Cash 0.11%	Fixed Income -2.02%	International Equities -4.48%	Small-Cap Value -7.47%	Cash 0.33%	Cash 0.86%	International Equities -13.36%	Cash 2.28%	Cash 0.67%	Fixed Income -1.54%	Large-Cap Growth -29.14%	Fixed Income -1.21%
Small-Cap Value Stocks (Russell 2000 Value)  Small-Cap Growth Stocks (Russell 2000 Growth)  Large-Cap Growth Stocks (Russell 1000 Growth)  Large-Cap Growth Stocks (Russell 1000 Growth)  Mid-Cap Value Stocks (Russell Mid-Cap Value)  International Equities (MSCI EAFE)  Fixed Income (Bloomberg U.S. Aggregate Bond)  Mid-Cap Value Stocks (Russell Mid-Cap Value)  Cash (Merrill Lynch 3-Month Treasury Bill)													

The information contained in this report is from sources believed to be reliable but is not warranted by CAPTRUST to be accurate or complete.



## **ECONOMIC OUTLOOK**

While an economic soft landing seems more likely now than at the start of the year, a rising debt burden is impacting consumer behavior. Also, key data points remain polarized, leaving the economy's trajectory unclear. Looking forward, tighter lending standards, higher debt burdens, and a Fed committed to 2 percent inflation may present potholes.

### **HEADWINDS**

#### **Conflicting Economic Signals**

 Some indicators, such as gross domestic product (GDP) and low unemployment, point to economic strength. Others, such as gross domestic income (GDI), suggest underlying weakness.



#### **Consumer Challenges Ahead**

 Most consumers have depleted excess stimulus-related savings and are increasingly relying on credit cards to pay bills. As credit card debt and loans mount for borrowers, consumer spending may come under pressure.

#### **Rising Deficit Compounds Federal Interest Issues**

 The federal deficit continues to grow as a percentage of GDP, with government officials at odds about how to curb spending. New and refinanced debt is now being issued at peak interest rates, adding to the government's growing interest burden.

#### **TAILWINDS**

#### Soft Landing on the Horizon?

 The economy seems to be withstanding the Fed's aggressive rate-hike cycle, largely due to a robust labor market and steady wage growth. GDP continues to trend positively, while inflation wanes.

#### **Consumer Strength**

 Despite rising debt levels, employed consumers benefit from strong employment and wage growth and retired consumers benefit from higher interest income and continue to confidently spend.

#### **Productivity Potential**

 Workforce productivity has been trending below average due to labor shortages and misaligned skillsets. The introduction of artificial intelligence (AI) promises a boost. Corporations are investing heavily, supporting economic growth even before AI technology reaches its full potential.

Experts across the economic landscape are drawing opposing conclusions from the same set of economic data, showing that conflicting signals across critical variables can support nearly any position. Is economic growth resilient (GDP) or weakening (GDI)? Is the rare bear-steepening of the inverted yield curve driven by economic momentum or credit concerns? Will the economy capture the productivity enhancements from AI to support today's high equity valuations, or is it too early to know? Given these questions, investors should remain vigilant, diversified, and prepared for a wide range of potential outcomes.



## **KEY INDICATORS TELL OPPOSING STORIES**

Gross domestic product (GDP) and gross domestic income (GDI) are two alternative measures of economic growth that should provide similar guidance. Yet, divergence between the two is near an all-time high, providing the Fed with conflicting data about the strength of the economy.



**Real Gross Domestic Product** 

#### Real Gross Domestic Income

#### **ECONOMIC RESILIENCE**

- **GDP** measures economic output through the production of goods and services.
- Recent Results: The four-quarter period ending June 30 saw GDP grow 2.4 percent despite unprecedented Fed tightening policies—a powerful indicator of economic resilience.
- Potential Outcome: A stronger economy may lead to continued restrictive measures by the Fed to prevent inflation from reaccelerating.

#### **RECESSION SIGNALS**

- GDI measures economic output through wages and profits.
- Recent Results: GDI has significantly lagged GDP the last three quarters, bringing its trailing four-quarter advance barely above the break-even point (+0.2%) on an inflationadjusted basis.
- Potential Outcomes: A slowing economy would indicate the Fed's aggressive rate-hike cycle is working and more measures may not be required.

How the Fed reconciles these differences will be critical in plotting the correct forward policy path.

Sources: U.S. Bureau of Economic Analysis, CAPTRUST Research. Data as of 9.30.2023



## **BEAR-STEEPENING DEBATES**

An *inverted yield curve* is when short-term rates are higher than long-term rates, and it generally reflects the market's expectation of an imminent economic slowdown that will require the Fed to reduce short-term rates to stimulate economic growth. A *bear-steepening yield curve* occurs when long-term rates rise faster than short-term rates. These are typically seen after the Fed has taken stimulative measures. While both are expected during different cycles, it is extremely rare to have bear steepening with an inverted yield curve. Investor interpretations of the current environment have given rise to three key arguments.



#### **BULLISH ARGUMENT**

The market has grown increasingly optimistic that the Fed may orchestrate an economic soft landing. Bond investors have been forced to acknowledge economic resilience and have readjusted the yield curve to reflect the Fed's higher-for-longer policy path.

#### **BEARISH ARGUMENT**

Sticky inflation, a surge in Treasury issuance, reduced purchasing activity by historic buyers (including banks, foreign governments, and the Fed), and a credit downgrade of U.S. Treasurys by Fitch Ratings have driven the market-clearing cost of capital for U.S. debt higher.

#### SPECULATIVE ARGUMENT

Speculators have established growing shortterm positions in longer-maturity Treasurys, creating downward pressure on bond prices and upward momentum for yields. Shortsellers feel the ample supply of new issuance should allow for a quick cover if yields reverse.

It is likely all three arguments are influencing the shape of the current yield curve which creates significant investment positioning challenges.

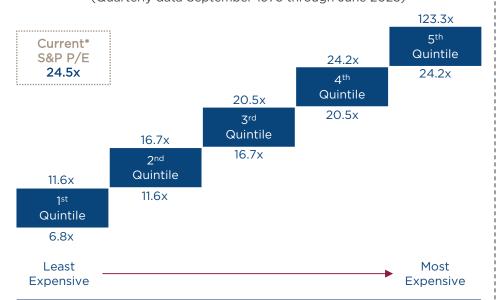
Sources: U.S. Department of Treasury, CAPTRUST Research



## LABOR PRODUCTIVITY LIFTS EQUITY VALUATIONS

The U.S. Bureau of Labor Statistics captures labor productivity with its output-per-hour calculation. Historically, when productivity is elevated, equity markets have supported higher valuations. The anticipation of artificial intelligence-fueled productivity gains has pushed valuations to lofty levels. To solidify the foundation for further equity gains, this anticipation needs to become reality.

# Median S&P Trailing One-Year Price-to-Earnings Quintiles (Quarterly data September 1973 through June 2023)



#### **VALUATION HEADWIND**

The current price-to-earnings (P/E) ratio is 24.5x, a level that lands in the top 20 percent of historical observations over the last fifty years. All else being equal, this valuation starting point presents a challenge for future equity market gains.

# Productivity as Trailing One-Year Output Per Hour Medians per productivity level

(Quarterly data September 1973 through June 2023)

Change in Productivity	Historical Frequency (% of Observations)	Median P/E Ratio
< 0.0%	12.0% (24/200)	13.5x
0.0% to 1.0%	19.5% (39/200)	16.8x
1.0% to 2.0%	29.0% (58/200)	18.5x
2.0% to 3.0%	19.0% (38/200)	19.1x
> 3.0%	20.5% (41/200)	24.3x

#### PRODUCTIVITY TAILWIND

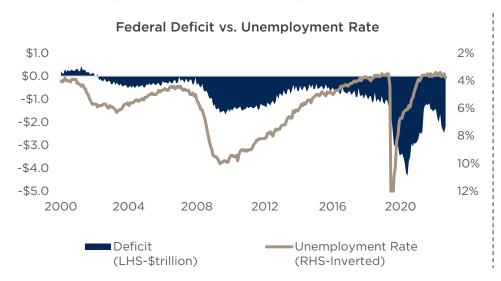
In previous cycles, annual productivity changes exceeded 3 percent in one fifth of all historical observations. Accelerated productivity supported median P/E ratios of 24.3x, matching current valuations. Consequently, with an Al boost, current valuations can support further gains.

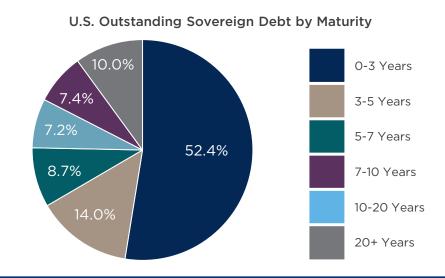


<sup>\*</sup>Current S&P P/E, as of 9.30.2023, is based on estimated trailing one-year earnings Sources: Sources: U.S. Bureau of Labor Statistics, Robert Shiller, Yale Department of Economics, CAPTRUST Research

## RISING DEFICIT COUNTERS HEALTHY EMPLOYMENT

Historically, the federal budget deficit has moved in tandem with the level of employment. In periods of low unemployment, the budget deficit shrinks due to rising tax revenues and lower spending on social safety net programs. The past year has been an anomaly as employment remains robust yet the deficit continues to grow.





#### FEDERAL DEFICIT EXPANDING DESPITE A ROBUST LABOR MARKET

- Despite unemployment levels near all-time lows, government deficit spending continues to increase.
- The primary spending increases are mandatory as the government programs indexed to inflation have experienced two consecutive years of outsized increases due to high inflation, while the interest expense on outstanding debt continues to rise.
- Breaking this cycle seems improbable since the Fed must keep interest rates restrictive to prevent inflation from reigniting and more than half of the country's outstanding debt will be refinanced at these higher rates over the next three years.
- The ultimate path is to pay elevated interest costs while the Fed defeats inflation then refinance debt at lower rates. This will bring mandatory expenses back to a more manageable level. The rhetorical question is this: Does the political landscape have the patience and discipline to navigate this critical path?

Sources: U.S. Bureau of Economic Analysis, U.S. Office of Management and Budget, CAPTRUST Research. Data as of 9.30.2023



SECTION 5: PLAN INVESTMENT REVIEW
Plan Assets
Investment Policy Monitor
Investment Review Select Commentary
Investment Performance Summary

## PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 9.30.23 | Q3 23

Retirement Savings Plan	Г				
		_	MARKET	VALUE —	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2022	(%)	CURRENT	(%)
Money Market	Vanguard Federal Money Market Investor*	\$1,286,589	0.04%	\$1,101,006	0.03%
Stable Value	Voya Fixed Plus Account III	\$58,217,801	1.93%	\$52,137,825	1.59%
Inflation Protected Bond	Vanguard Inflation-Protected Secs I	\$18,507,081	0.61%	\$15,536,865	0.47%
Intermediate Core Bond	State Street U.S. Bond Index Securities Lending Series Fund Class XIV	\$36,951,550	1.22%	\$40,748,970	1.24%
Intermediate Core Bond	TIAA-CREF Core Impact Bond Instl	\$3,799,626	0.13%	\$3,966,460	0.12%
Multisector Bond	PIMCO Income Instl	\$12,188,318	0.40%	\$14,754,691	0.45%
High Yield	PGIM High Yield R6	\$8,667,012	0.29%	\$10,766,081	0.33%
Large Company Blend	BlackRock Equity Index F	\$280,232,536	9.28%	\$335,686,677	10.26%
Medium Company Blend	BlackRock Extended Equity Market F	\$46,923,246	1.55%	\$54,673,319	1.67%
Medium Company Growth	Delaware Mid Cap Growth Equity R6	\$31,372,340	1.04%	\$37,829,671	1.16%
Global Large Stock Blend	BlackRock MSCI ACWI ESG Focus Index Fund F	\$15,600,645	0.52%	\$18,283,077	0.56%
Foreign Large Value	Columbia Trust Overseas Value Fund Founders Class	\$7,982,767	0.26%	\$7,997,683	0.24%
Foreign Large Blend	State Street Global All Cap Equity Ex-U.S. Index Securities Lending Series Fund Class II	\$25,790,452	0.85%	\$29,816,071	0.91%
Foreign Large Growth	Vanguard International Growth Adm	\$21,982,827	0.73%	\$24,202,748	0.74%
Small Company Value	Earnest Partners SMID Cap Value	\$15,944,469	0.53%	\$15,939,301	0.49%
Specialty-Real Estate	Vanguard Real Estate Index Institutional	\$17,022,473	0.56%	\$15,978,327	0.49%

<sup>\*</sup>This fund is used as the investment for plan-level forfeiture amounts. It is not available for participant-directed investment within the core investment array.

CONTINUED...

Information provided by Record Keeper. For informational purposes. Not a substitute for official statements produced by the plan custodian. Information has been obtained from sources considered reliable, but its accuracy and completeness are not guaranteed. This report is not an illustration of investment performance, but rather a historical illustration of asset allocation.



# PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 9.30.23 | Q3 23

Retirement Savings Plan					
		_	MARKE	rvalue —	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2022	(%)	CURRENT	(%)
Target Date	SURS Lifetime Income Strategy Bond Portfolio	\$276,298,303	9.15%	\$272,332,617	8.32%
Target Date	SURS Lifetime Income Strategy Cash Portfolio	\$2,140,556	0.07%	\$2,716,539	0.08%
Target Date	SURS Lifetime Income Strategy Equity Portfolio	\$1,313,611,613	43.48%	\$1,353,509,843	41.35%
Target Date	SURS Lifetime Income Strategy Real Asset Portfolio	\$90,965,272	3.01%	\$90,085,529	2.75%
Target Date	SURS Lifetime Income Strategy Secure Income Portfolio	\$735,372,663	24.34%	\$875,073,223	26.74%
	TOTALS	\$3,020,858,136	100%	\$3,273,136,523	100%

Information provided by Record Keeper. For informational purposes. Not a substitute for official statements produced by the plan custodian. Information has been obtained from sources considered reliable, but its accuracy and completeness are not guaranteed. This report is not an illustration of investment performance, but rather a historical illustration of asset allocation.



## ASSET INVESTMENT REVIEW | SUMMARY

Period Ending 9.30.23 | Q3 23

**SURS Deferred Compensation Plan** 

		_	MARKET	VALUE —	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2022	(%)	CURRENT	(%)
Stable Value	Voya Fixed Plus Account III	\$873,390	5.43%	\$1,039,370	3.17%
Inflation Protected Bond	Vanguard Inflation-Protected Secs I	\$208,901	1.30%	\$418,829	1.28%
Intermediate Core Bond	State Street U.S. Bond Index Securities Lending Series Fund Class XIV	\$212,999	1.33%	\$385,344	1.17%
Intermediate Core Bond	TIAA-CREF Core Impact Bond Instl	\$34,493	0.21%	\$75,186	0.23%
Multisector Bond	PIMCO Income Insti	\$120,568	0.75%	\$284,340	0.87%
High Yield	PGIM High Yield R6	\$170,172	1.06%	\$308,325	0.94%
Large Company Blend	BlackRock Equity Index F	\$2,913,475	18.12%	\$6,388,565	19.46%
Medium Company Blend	BlackRock Extended Equity Market F	\$531,772	3.31%	\$979,588	2.98%
Medium Company Growth	Delaware Mid Cap Growth Equity R6	\$416,395	2.59%	\$832,893	2.54%
Global Large Stock Blend	BlackRock MSCI ACWI ESG Focus Index Fund F	\$232,212	1.44%	\$468,224	1.43%
Foreign Large Value	Columbia Trust Overseas Value Fund Founders Class	\$164,719	1.02%	\$292,000	0.89%
Foreign Large Blend	State Street Global All Cap Equity Ex-U.S. Index Securities Lending Series Fund Class II	\$341,673	2.13%	\$637,005	1.94%
Foreign Large Growth	Vanguard International Growth Adm	\$252,068	1.57%	\$496,377	1.51%
Small Company Value	Earnest Partners SMID Cap Value	\$249,630	1.55%	\$440,106	1.34%
Specialty-Real Estate	Vanguard Real Estate Index Institutional	\$349,046	2.17%	\$572,833	1.74%

CONTINUED...

Information provided by Record Keeper. For informational purposes. Not a substitute for official statements produced by the plan custodian and/or administrator. Information has been obtained from sources considered reliable, but its accuracy and completeness are not guaranteed. This report is not an illustration of investment performance, but rather a historical illustration of asset allocation.



# ASSET INVESTMENT REVIEW | SUMMARY

Period Ending 9.30.23 | Q3 23

STIDS	Deferred	Come	ancation	Dlan

		_	MARKET	TVALUE —	
FUND OPTION	CURRENT INVESTMENT NAME	12.31.2022	(%)	CURRENT	(%)
Target Date	SURS Lifetime Income Strategy Bond Portfolio	\$1,573,541	9.79%	\$2,079,825	6.33%
Target Date	SURS Lifetime Income Strategy Cash Portfolio	\$28,408	0.18%	\$4,322	0.01%
Target Date	SURS Lifetime Income Strategy Equity Portfolio	\$6,074,904	37.79%	\$11,513,150	35.07%
Target Date	SURS Lifetime Income Strategy Real Asset Portfolio	\$406,883	2.53%	\$693,285	2.11%
Target Date	SURS Lifetime Income Strategy Secure Income Portfolio	\$919,808	5.72%	\$4,922,218	14.99%
	TOTALS	\$16,075,058	100%	\$32,831,784	100%

Information provided by Record Keeper. For informational purposes. Not a substitute for official statements produced by the plan custodian and/or administrator. Information has been obtained from sources considered reliable, but its accuracy and completeness are not guaranteed. This report is not an illustration of investment performance, but rather a historical illustration of asset allocation.



INVESTMENT				QUANTI	TATIVE				QUALITA	ATIVE	тот	ALS
		Risk-Adjusted Performance		Peers mance	St	yle	Confi	dence	Fund	Fund	Overall	Total
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	Management	Firm		Score
Inflation Protected Bond Vanguard Inflation-Protected Secs I												86
Intermediate Core Bond TIAA-CREF Core Impact Bond Instl												91
High Yield PGIM High Yield R6												96
Medium Company Growth Delaware Mid Cap Growth Equity R6*	_	_	<u> </u>	_			_	_				52
Foreign Large Value Columbia Overseas Value Inst3**												94
Foreign Large Growth Vanguard International Growth Adm												84
Small Company Value Earnest Partners SMID Cap Value												93

<sup>\*</sup>Pending replacement based on Investment Committee approval during the April 2023 Board meeting. Assets and future contributions will be mapped to the Fiera SMID Growth Fund separate account.

#### **LEGEND**



The CAPTRUST Investment Policy Monitor ("Scorecard") is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields for actively managed investment options. Quantitative scoring areas include Risk Adjusted Performance vs. Relevant Peer Group; Style Attribution; and Confidence. Qualitative Scoring Areas measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items. Qualitative areas of analysis are subjective in nature. CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. This material is for institutional investor use only and is not intended to be shared with individual investors.



<sup>\*\*</sup>The mutual fund is shown here for comparative purposes due to the lack of historical data for the Columbia Trust Overseas Value Fund Founders Class CIT.

#### **CAPITAL PRESERVATION INVESTMENTS**

INVESTMENT	Overall	Commentary
Vanguard Federal Money Market Investor*		This Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.
Voya Fixed Plus Account III	_	This Capital Preservation option has been marked for review as its crediting rate has lagged peers. Crediting rates may vary at the client/plan level and should be confirmed.

<sup>\*</sup>This fund is used as the investment for plan-level forfeiture amounts. It is not available for participant-directed investment within the core investment array.

#### **INVESTMENTS IN DISTINCT ASSET CLASSES**

INVESTMENT	Overall	Commentary
Multi-Sector Bond PIMCO Income Instl	•	This fund currently meets the guidelines set forth by CAPTRUST for distinct investments in the Investment Policy Statement. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, excess return, and risk-adjusted performance.

#### CONTINUED...

The CAPTRUST Financial Advisors Investment Scorecard is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields. Quantitative scoring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Relevant Peer Group; and Glidepath. Qualitative Scoring Areas for target date funds measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items.

Qualitative areas of analysis are subjective in nature. Qualitative Scoring for Target Date funds also includes a score for Portfolio Construction and Underlying Investment vehicles to express CAPTRUST's views on the manager or strategy.

CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. Capital Preservation options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative metrics, depending on the type of capital preservation option being evaluated, and may include quantitative criteria such as: Crediting Rate/Yield, Market to Book Ratio, Average Crediting Quality, Insurer Quality/Diversification, Duration, and Sector Allocations, and/or qualitative criteria such as: Tracking Error, Fees, and Performance versus relevant peer group, and/or qualitative criteria such as index replication strategy, securiti



#### **PASSIVE INVESTMENTS**

INVESTMENT	Overall	Commentary
State Street U.S. Bond Index Securities Lending Series Fund Class XIV		This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
BlackRock Equity Index F		This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
BlackRock Extended Equity Market F	•	This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
BlackRock MSCI ACWI ESG Focus Index Fund F	•	This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
State Street Global All Cap Equity Ex-U.S. Index Securities Lending Series Fund Class II	•	This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.
Vanguard Real Estate Index Institutional	•	This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.

The CAPTRUST Financial Advisors Investment Scorecard is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields. Quantitative scoring areas for target date funds include Risk Adjusted Performance (3 & 5 yr.); Performance vs. Relevant Peer Group; and Glidepath. Qualitative Scoring Areas for target date funds measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items.

Qualitative areas of analysis are subjective in nature. Qualitative Scoring for Target Date funds also includes a score for Portfolio Construction and Underlying Investment vehicles to express CAPTRUST's views on the manager or strategy.

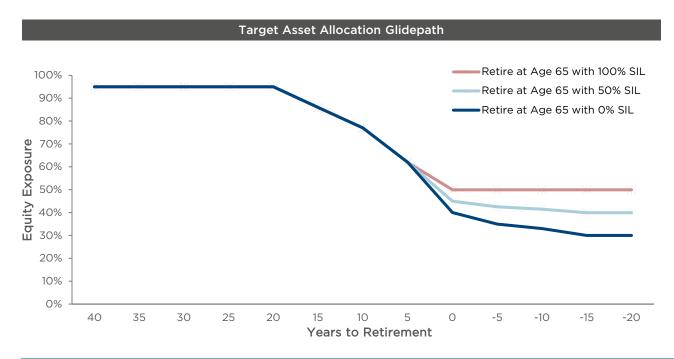
CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. Capital Preservation options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative metrics and may include quantitative metrics and may include quantitative metrics and may include quantitative criteria such as: Tracking Error, Fees, and Performance versus relevant peer group, and/or qualitative criteria such as index replication strategy, securities lending practices, and fair value pricing methodology. Distinct investment options are evaluated using a comprehensive scoring methodology proprietary to the Investment



#### **INVESTMENT STATUS**

INVESTMENT	TICKER	STATUS	# OF QUARTERS	RATIONALE
Delaware Smid Cap Growth R6	DFZRX	Pending Replacement	N/A	Pending replacement based on Investment Committee approval during the April 2023 Board meeting. Assets and future contributions will be mapped to the Fiera SMID Growth Fund separate account.  Delaware Small-Mid Cap Growth changed its name to Delaware Mid Cap Growth. The strategy also changed its benchmark to the Russell Mid Cap Growth index.  The strategy has undergone a litany of personnel changes over the last few years, both on the analyst and portfolio manager side. In December 2022, Portfolio Managers Kim Scott, Nathan Brown, and Brad Halverson took over the strategy from Portfolio Manager Alexander Ely. On the analyst team, the strategy had gone from 11 analysts to 5 in the last two years, coinciding with Ivy's acquisition of Macquarie, though it has recently expanded to 15 members. Separately, the strategy changed from a Small-Mid Cap Growth portfolio to a Mid-Cap growth mandate in late April 2023. Process wise, the team looks for companies with sustainable growth, healthy balance sheets, and trustworthy managers, by allocating approximately one-third of the strategy's assets toward companies with durable businesses models and moderate growth rates of their top and bottom lines. Another 20%-40% of the portfolio is invested in riskier companies, while the rest of the portfolio's assets are allocated to contrarian companies whose growth is either mistrusted by the market or temporarily impeded. This has not led to strong results, with the portfolio having underperformed its benchmark over 3-, 5-, and 10-years. With a new portfolio team, continued underperformance, and a recent change in mandate, we continue to recommend this fund for replacement.





Dedicated Asset Class/Dive	ersification
Equity	
U.S. Large Cap	Р
U.S. Mid Cap	Р
U.S. Small Cap	Р
International Equity	Р
Fixed Income	
U.S. Fixed Income	Р
U.S. TIPs	А
High Yield	-
Emerging Markets Debt	-
International Fixed Income	-
Alternative	
Commodities	-
Real Estate	Р
A = Active Mar	nagement

P = Passive Management

Component Portfolio Name	Underlying Fund Name	Allocation
	State Universities Retirement System Extended Equity Market U/A	11%
SURS Lifetime Income Strategy Equity Portfolio	State Universities Retirement System Equity Index U/A	49%
	State Street Global All Cap ex-US Index SL CI II	40%
CLIDC Lifetime Income Churterus Denel Deutlelie	State Street US Bond Index SL CI XIV	65%
SURS Lifetime In <b>c</b> ome Strategy Bond Portfolio	Vanguard Inflation-Protected Securities Institutional	35%
SURS Lifetime Income Strategy Real Asset Portfolio	Vanguard Real Estate Index Institutional	100%
SURS Lifetime Income Strategy Cash Portfolio	Vanguard Federal Money Market Investor	100%
SURS Lifetime Income Strategy Secure Income Portfolio	AB Balanced 50/50 Collective Trust	100%

Important Disclosures: This slide is intended solely for institutional use. The opinions expressed in this report are subject to change without notice. The statistics and data have been compiled from sources believed to be reliable but are not guaranteed to be accurate or complete. Any performance quoted represents past performance and does not guarantee future results.



116.87

INVESTMENT NAME			TOTA	L RETURN	
		3Q 2023	YTD 2023	1 Year	Since Inception*
SURS Lifetime Income Strategy Equ	ity Portfolio	(3.47)	9.53	20.71	5.92
Custom Benchmark		(3.36)	9.51	20.44	5.86
SURS Lifetime Income Strategy Rea	l Asset Portfolio	(8.51)	(5.39)	(1.31)	1.68
Custom Benchmark		(8.33)	(5.61)	(1.71)	2.08
SURS Lifetime Income Strategy Bon	nd Portfolio	(2.98)	(1.01)	0.69	(4.05)
Custom Benchmark		(3.01)	(1.05)	0.87	(3.95)
SURS Lifetime Income Strategy Cas	h Portfolio	1.35	3.65	4.58	1.62
Custom Benchmark		1.38	3.80	4.71	1.73
SURS Lifetime Income Strategy Sec	ure Income Portfolio	(3.71)	3.45	9.63	0.86
Custom Benchmark		(3.38)	4.16	10.77	2.00
TOTAL EXPENSE RATIO (in ba	asis points)				
	SURS LIS Equity Portfolio	SURS LIS Real Asset Portfolio	SURS LIS Bond Portfolio	SURS LIS Cash Portfolio	SURS LIS Secure Income Portfolio
Manager Fees	3.49	10.00	4.53	11.00	5.95
Asset Allocation / Implementation / Ongoing Services Fees	5.93	5.93	5.93	5.93	5.82
Custody Account Fee	0.10	0.10	0.10	0.10	0.10
Benefit Admin / Contract Allocation Fees	-	-	-	-	10.00
Insurance Fees	-	-	-	-	95.00

<sup>\*</sup>Inception date is 08/26/2020 except for the Secure Income Portfolio which has an inception date of 9/14/2020.

9.51

All portfolio performance calculations are net of fees and are expressed as percentages. Periods of more than one year are annualized. The benchmark for a Lifetime Income Strategy Component is a customized benchmark that has the same target asset allocation as the corresponding component strategy's target asset allocation and uses index returns to represent performance of the asset classes. The benchmark returns were calculated by weighting the monthly index returns of each asset class by the corresponding component strategy's monthly target allocation for each asset class.

10.56

17.03

16.03

The Equity Portfolio is benchmarked against a custom fixed-weight benchmark comprising: 49% S&P 500 Index, 11% Dow Jones US Completion Total Stock Market Index and 40% MSCI ACWI Ex USA IMI Index. The Real Asset Portfolio is benchmarked against the FTSE Nareit All Equity REITs Index. The Bond Portfolio is benchmarked against a custom fixed-weight benchmark comprising: 65% Bloomberg Barclays US Global Aggregate Index and 35% Bloomberg Barclays US TIPS Index. The Cash Portfolio is benchmarked against the FTSE 3 Month US T-Bill Index. The Secure Income Portfolio is benchmarked against a custom benchmark comprising: 25% S&P 500 Index, 8% Russell 2000 Index, 17% MSCI EAFE Index, 30% Bloomberg Barclays US Aggregate Bond Index, and 20% Bloomberg Barclays US TIPS Index.



Total

401(a) Plan
3Q 2023
21,081
6,309
3Q 2023
577
1,583
31
49
3Q 2023 / Since Inception
22 / 272
3.53% / 3.27%
66.1 / 66.8

<sup>/</sup> 457(b) Plan
3Q 2023
2,898
840
3Q 2023
28
159
8
12
3Q 2023 / Since Inception
0/0
0.00% / 0.00%
0/0

SIP (Secure Income Portfolio) is the insured portfolio used to fund the Guaranteed Income Withdrawal Amount. Assets in this portfolio are insured through multiple group-insurance contracts. Allocations among the group-insurance contracts are unique to each participant. If your Secure Income Level is greater than 0%, your assets will be gradually allocated to the Secure Income Portfolio, beginning approximately 15 years before you are scheduled to retire. SIL (Secure Income Level) is the target percentage of your SURS LIS account – between 0% and 100% - that you want allocated over time to the Secure Income Portfolio and used to fund your Guaranteed Income Withdrawal Amount. (The default Secure Income Level is 100%.) GLWB (Guaranteed Lifetime Withdrawal Benefit) is the amount you can withdraw monthly from the Secure Income Portfolio during retirement and the amount that participating insurers will pay you annually for the remainder of your lifetime (or for the remainder of your social union partner's lifetime, if applicable) if the Secure Income Portfolio account balance is exhausted because the Guaranteed Income Withdrawal Amount depleted your account. The amount is recalculated each year on your birthday.



# INSURANCE COMPANIES

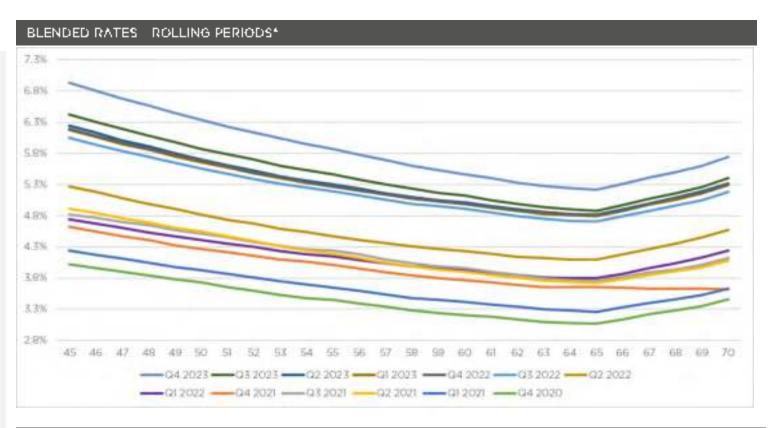
 LiS uses group contracts to provide guaranteed income withcrawal benefit

# PARTICIPATING COMPANIES

- Jackson National Life insurance
- L'incoln National Life insurance Company
- Nationwide Life Insurance Company
- Prudential Retirement Insurance and Annuity Company (Empower Annuity Insurance Col)

# LIS RESTRICTIONS

- At least 90 days must pass between changing elections (secure income level and/or retirement age)
- If members transfer money out of SURS LIS, they cannot transfer funds into SURS LIS for 90 days
- New contributions and rollovers are not affected by the 90 day restriction



FINANCIA	FINANCIAL STRENGTH RATINGS AND OUTLOOK											
	Jackson Lincoln			ln .	Nationwi	de	Prudeni	Prodential				
5&P	A (61161 20)	Stable	A (31 of 20)	Stable	A (516/20)	Stable	AAH (411 of 20)	Positive				
Moody's	A3 (711 of 21)	Stable	A2 (61 of 21)	Stable	A1 (311 of 21)	Stable	Aa3 (41 of 21)	Stable				
Filch	A (61 of 21)	Stable	A (31 of 21)	Negative	-	_	AA ( <b>3</b> 1 of 21)	Stable				
AM Best	A (3/1 of 13)	Stable	A (30 of 15)	Stable	A (3º1 of 15)	Stable	A (3º1 of 15)	Stable				

<sup>&</sup>quot;Elended Rates not, de Octorred Retirement Son, si Assumesia regrement agle of 65-



# FUND FIRM ITEMS COMMENTARY

# **Voya Funds**

Voya has announced that Paul Zemsky, CIO of Multi-Asset Strategies and Solutions (MASS), will retire at the end of the year. Barbara Reinhard, head of Asset Allocation for MASS, will assume the role of CIO on November 1, 2023. In addition, Lanyon Blair, head of Manager Research and Selection for MASS, has been added as a portfolio manager for Voya's target date suite and other multi-asset and multi-manager portfolios. In further changes, Amit Sinha, head of Multi-Asset Design, two members of his team, and Jay Rausch, head of Portfolio Implementation, left the firm. Victor Hucke has become head of Portfolio Implementation and reports to Susanna Jacob, who has assumed management responsibilities for the Strategy Research and Portfolio Implementation teams. Ms. Jacob reports to Ms. Reinhard.

Voya has announced several changes to across their investment leadership platforms. First, Matt Toms, with Voya for 13 years, has been named global CIO. In this newly created role reporting to CEO Christine Hurtsellers, Mr. Toms will oversee the firm's investment teams across all asset classes while retaining his CIO, Fixed Income title and responsibility for the fixed income platform, including existing portfolio management responsibilities. Second, Michael Pytosh, Co-CIO of Voya's New York Equities platform, left the firm to pursue other opportunities. Vincent Costa, previously co-CIO alongside Mr. Pytosh, is now the sole CIO of the platform, reporting to Mr. Toms. Third, Jeff Bianchi, head of Growth Equities, has left the firm and Leigh Todd has assumed the role. Finally, due to the retirement of Jeff Bakalar, Voya's Leveraged Credit team has become part of the Public Credit team. Mohamed Basma, with Voya for 22 years, has been promoted to head of Leveraged Credit and will report to Randy Parrish, head of Public Credit.

# **Prudential Global Investment Management**

Michael Lillard, head of PGIM Fixed Income, will retire in April 2024. Effective January 1, 2024, John Vibert will become president and CEO, and Mr. Lillard will transition to an advisory role until his retirement in April. PGIM Fixed Income is a subsidiary of Prudential.

# Columbia Funds

Annabelle Plotkin, global head of Risk, left the firm. Her responsibilities were assumed by Neil Duncan, chief risk officer & head of Operational Risk, EMEA & APAC, and Adam Leishman, vice president, Risk Management, North America. Mr. Leishman will report directly to the chief risk officer of Ameriprise, Michael Jordan.



INVESTMENT NAME	Q3 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
MONEY MARKET											
Vanguard Federal Money Market Investor	1.32%	3.70%	1.55%	0.01%	0.45%	2.14%	1.78%	4.61%	1.75%	1.67%	1.07%
ICE BofA ML US Treasury Bill 3 Mon USD	1.31%	3.60%	1.46%	0.05%	0.67%	2.28%	1.87%	4.47%	1.70%	1.72%	1.11%
STABLE VALUE											
Voya Fixed Plus Account III	-	-		Cre	diting rate: 1.	70%		-	-	-	-
ICE BofA ML US Treasury Bill 3 Mon USD	1.31%	3.60%	1.46%	0.05%	0.67%	2.28%	1.87%	4.47%	1.70%	1.72%	1.11%
Morningstar US Stable Value GR USD	0.74%	2.10%	1.89%	1.74%	2.26%	2.52%	2.26%	2.66%	2.09%	2.22%	2.04%
INFLATION PROTECTED BOND											
Vanguard Inflation-Protected Secs I	-2.57%	-0.75%	-11.90%	5.72%	11.05%	8.18%	-1.40%	1.05%	-2.04%	2.02%	1.67%
Bloomberg US Treasury US TIPS TR USD	-2.60%	-0.78%	-11.85%	5.96%	10.99%	8.43%	-1.26%	1.25%	-1.98%	2.12%	1.74%
Inflation Protected Bond Universe	-2.27%	-0.61%	-11.69%	5.25%	9.70%	7.51%	-1.62%	1.53%	-2.04%	1.92%	1.42%
INTERMEDIATE CORE BOND											
State Street U.S. Bond Index Securities Lending Series Fund Class XIV	-3.23%	-1.03%	-13.13%	-1.62%	7.67%	8.74%	0.03%	0.62%	-5.22%	0.13%	1.14%
TIAA-CREF Core Impact Bond InstI	-2.98%	-0.44%	-14.01%	-1.03%	7.45%	8.73%	0.33%	0.74%	-4.94%	0.08%	1.68%
Bloomberg US Agg Bond TR USD	-3.23%	-1.21%	-13.01%	-1.55%	7.51%	8.72%	0.01%	0.64%	-5.21%	0.10%	1.13%
Intermediate Core Bond Universe	-3.13%	-1.04%	-13.45%	-1.56%	7.85%	8.42%	-0.43%	0.56%	-5.20%	0.01%	1.02%
MULTISECTOR BOND											
PIMCO Income Insti	-0.54%	3.23%	-7.81%	2.61%	5.80%	8.05%	0.58%	6.76%	0.66%	2.37%	4.00%
Bloomberg US Agg Bond TR USD	-3.23%	-1.21%	-13.01%	-1.55%	7.51%	8.72%	0.01%	0.64%	-5.21%	0.10%	1.13%
Multisector Bond Universe	-0.97%	2.29%	-10.84%	2.44%	6.32%	10.35%	-1.89%	5.09%	-0.80%	1.41%	2.49%



INVESTMENT NAME	Q3 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
HIGH YIELD											
PGIM High Yield R6	0.37%	5.04%	-11.55%	6.47%	5.72%	16.26%	-1.18%	8.90%	1.61%	3.11%	4.49%
Bloomberg US Corporate High Yield TR USD	0.46%	5.86%	-11.19%	5.28%	7.11%	14.32%	-2.08%	10.28%	1.76%	2.96%	4.24%
High Yield Bond Universe	0.53%	5.26%	-10.75%	4.87%	5.26%	13.50%	-2.94%	9.57%	1.59%	2.37%	3.43%
LARGE COMPANY BLEND											
BlackRock Equity Index F	-3.27%	13.08%	-18.10%	28.74%	18.48%	31.55%	-4.34%	21.63%	10.17%	9.96%	11.96%
S&P 500 Index	-3.27%	13.07%	-18.11%	28.71%	18.40%	31.49%	-4.38%	21.62%	10.15%	9.92%	11.91%
Large Blend Universe	-3.29%	11.31%	-18.15%	26.68%	17.19%	29.78%	-5.65%	20.26%	9.33%	8.72%	10.55%
MEDIUM COMPANY BLEND											
BlackRock Extended Equity Market F	-3.37%	8.86%	-26.36%	12.45%	32.16%	28.23%	-9.15%	14.49%	4.74%	4.59%	8.00%
Russell Mid Cap	-4.68%	3.91%	-17.32%	22.58%	17.10%	30.54%	-9.06%	13.45%	8.09%	6.38%	8.98%
Mid Blend Universe	-4.36%	3.59%	-15.19%	24.16%	12.93%	26.87%	-11.30%	13.53%	9.64%	5.51%	7.88%
MEDIUM COMPANY GROWTH											
Delaware Mid Cap Growth Equity R6	-11.15%	5.50%	-45.28%	-8.12%	94.51%	35.77%	0.44%	3.08%	-13.02%	1.03%	8.37%
Russell Mid Cap Growth	-5.22%	9.88%	-26.72%	12.73%	35.59%	35.47%	-4.75%	17.47%	2.61%	6.97%	9.94%
Mid Growth Universe	-5.53%	8.12%	-28.34%	11.92%	35.93%	33.40%	-5.53%	14.16%	1.20%	5.98%	9.02%
GLOBAL LARGE STOCK BLEND											
BlackRock MSCI ACWI ESG Focus Index Fund F	-3.71%	9.74%	-19.13%	18.22%	19.00%	26.87%	-	20.59%	6.59%	-	-
MSCI ACWI NR USD	-3.40%	10.06%	-18.36%	18.54%	16.25%	26.60%	-9.41%	20.80%	6.89%	6.46%	7.56%
Global Large Stock Blend	-4.03%	7.39%	-17.43%	18.08%	14.15%	26.06%	-9.99%	19.32%	6.16%	5.77%	7.07%



INVESTMENT NAME	Q3 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
FOREIGN LARGE VALUE											
Columbia Overseas Value Inst3	0.30%	7.86%	-5.88%	10.97%	-0.06%	22.61%	-16.38%	27.99%	10.40%	3.54%	4.82%
Columbia Trust Overseas Value Fund	0.42%	8.21%	-5.01%	11.05%	-	-	-	28.56%	12.82%	-	-
MSCI EAFE	-4.05%	7.59%	-14.01%	11.78%	8.28%	22.66%	-13.36%	26.31%	6.28%	3.74%	4.32%
Foreign Large Value Universe	-2.26%	8.59%	-10.36%	11.78%	2.65%	18.23%	-16.50%	28.44%	8.54%	2.86%	3.08%
FOREIGN LARGE BLEND											
State Street Global All Cap Equity Ex-U.S. Index Securities Lending Series Fund Class II	-3.71%	5.58%	-16.29%	8.74%	11.36%	22.04%	-14.57%	21.11%	3.98%	2.86%	3.76%
MSCI EAFE	-4.05%	7.59%	-14.01%	11.78%	8.28%	22.66%	-13.36%	26.31%	6.28%	3.74%	4.32%
Foreign Large Blend Universe	-4.76%	5.69%	-15.91%	10.07%	9.73%	22.04%	-15.23%	23.38%	4.23%	2.79%	3.61%
FOREIGN LARGE GROWTH											
Vanguard International Growth Adm	-9.17%	3.09%	-30.79%	-0.74%	59.74%	31.48%	-12.58%	16.10%	-4.69%	4.86%	6.70%
MSCI EAFE	-4.05%	7.59%	-14.01%	11.78%	8.28%	22.66%	-13.36%	26.31%	6.28%	3.74%	4.32%
Foreign Large Growth Universe	-7.82%	3.99%	-25.10%	8.66%	22.29%	27.95%	-14.46%	18.39%	-1.00%	2.69%	4.07%
SMALL COMPANY VALUE											
Earnest Partners SMID Cap Value	-3.78%	2.32%	-8.94%	25.57%	20.23%	-	-	13.11%	14.23%	-	-
Russell 2000 Value	-2.96%	-0.53%	-14.48%	28.27%	4.63%	22.39%	-12.86%	7.84%	13.32%	2.59%	6.19%
Small Value Universe	-2.77%	2.11%	-11.46%	31.17%	3.39%	21.79%	-15.42%	13.68%	15.57%	4.19%	6.60%
SPECIALTY-REAL ESTATE											
Vanguard Real Estate Index Institutional	-8.50%	-5.34%	-26.17%	40.41%	-4.67%	29.02%	-5.93%	-1.22%	2.34%	2.46%	5.53%
Dow Jones US Select REIT	-7.40%	-2.05%	-25.96%	45.91%	-11.20%	23.10%	-4.22%	2.61%	6.12%	1.56%	5.28%
Specialty-Real Estate Universe	-7.77%	-3.58%	-26.33%	41.45%	-4.43%	27.87%	-5.92%	0.16%	3.48%	2.87%	5.65%



CECTI	ON 7	· ELIMID	EACT	SHEETS
SECII		. FUND	FACI	SHEELS

Fund Fact Sheets.....



# PLAN INVESTMENT REVIEW | ASSET SUMMARY

Period Ending 9.30.23 | Q3 23

SURS	Self	Managed	Plan -	Frozen

			_	MARKET	VALUE -	
FUND OPTION	CURRENT INVESTMENT NAME		12.31.2022	(%)	CURRENT	(%)
Money Market	CREF Money Market R3		\$6,705,935	1.97%	\$6,123,918	1.76%
Stable Value	TIAA Traditional - Retirement Choice		\$146,158,562	42.88%	\$144,974,245	41.60%
Inflation Protected Bond	CREF Inflation-Linked Bond R3		\$7,670,786	2.25%	\$7,366,198	2.11%
Intermediate Core Bond	CREF Core Bond R3		\$15,823,414	4.64%	\$15,021,564	4.31%
Global Allocation	CREF Social Choice R3		\$20,712,173	6.08%	\$21,185,916	6.08%
Specialty-Private Real Estate	TIAA Real Estate Account		\$3,458,066	1.01%	\$3,044,976	0.87%
Large Company Blend	CREF Equity Index R3		\$43,278,055	12.70%	\$47,002,169	13.49%
Large Company Growth	CREF Growth R3		\$253,749	0.07%	\$298,358	0.09%
Global Large Stock Blend	CREF Global Equities R3		\$23,098,953	6.78%	\$24,634,528	7.07%
Global Large Stock Blend	CREF Stock R3		\$73,708,574	21.62%	\$78,821,821	22.62%
		TOTALS	\$340,868,267	100%	\$348,473,695	100%

Information provided by Record Keeper. For informational purposes. Not a substitute for official statements produced by the plan custodian. Information has been obtained from sources considered reliable, but its accuracy and completeness are not guaranteed. This report is not an illustration of investment performance, but rather a historical illustration of asset allocation.



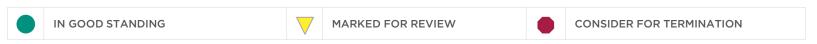
# INVESTMENT REVIEW | INVESTMENT POLICY MONITOR

Period Ending 9.30.23 | Q3 23

SURS Self Managed Plan - Frozen

INVESTMENT		QUANTITATIVE							QUALITATIVE		TOTALS	
		Risk-Adjusted Performance		Peers rmance	St	Style		dence	Fund	Fund	Overall	Total
	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	3 Yr	5 Yr	Management	Firm		Score
Inflation Protected Bond CREF Inflation-Linked Bond R3												100
Intermediate Core Bond CREF Core Bond R3												100
Global Allocation CREF Social Choice R3												97
Large Company Growth CREF Growth R3	_						_	_				81
Global Large Stock Blend CREF Global Equities R3												95

#### **LEGEND**



The CAPTRUST Investment Policy Monitor ("Scorecard") is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields for actively managed investment options. Quantitative scoring areas include Risk Adjusted Performance vs. Relevant Peer Group; Style Attribution; and Confidence. Qualitative Scoring Areas measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items. Qualitative areas of analysis are subjective in nature. CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. This material is for institutional investor use only and is not intended to be shared with individual investors.



Period Ending 9.30.23 | Q3 23

SURS Self Managed Plan - Frozen

#### **CAPITAL PRESERVATION INVESTMENTS**

INVESTMENT	Overall	Commentary
CREF Money Market R3		This Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.
TIAA Traditional - Retirement Choice		This Capital Preservation option is in good standing per the guidelines as established by the Investment Policy Statement.

#### **PASSIVE INVESTMENTS**

INVESTMENT	Overall	Commentary
CREF Equity Index R3	•	This fund currently meets the guidelines set forth by CAPTRUST for passively managed investments. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, tracking error, and cost.

#### **INVESTMENTS IN DISTINCT ASSET CLASSES**

INVESTMENT	Overall	Commentary
CREF Stock R3	•	This fund currently meets the guidelines set forth by CAPTRUST for distinct investments in the Investment Policy Statement. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, excess return, and risk-adjusted performance.
TIAA Real Estate Account	•	This fund currently meets the guidelines set forth by CAPTRUST for distinct investments in the Investment Policy Statement. This assessment is based on both quantitative and qualitative data. Examples of quantitative and qualitative items considered include, but are not limited to, quality of management, excess return, and risk-adjusted performance.

The CAPTRUST Financial Advisors Investment Scorecard is an illustration of our monitoring system and is designed to assist our clients in their efforts to provide fiduciary oversight to investment assets. It is not intended as a solicitation to buy any security. The scoring system measures quantitative areas as well as qualitative (or subjective) fields. Quantitative scoring areas for target date funds measure the quality of the Management Team while also considering the stewardship of the investment option's parent company under Investment Family Items.

Qualitative areas of analysis are subjective in nature. Qualitative Scoring for Target Date funds also includes a score for Portfolio Construction and Underlying Investment vehicles to express CAPTRUST's views on the manager or strategy.

CAPTRUST typically requires at least 3 months of monitoring before including an investment in this report. Investments that have been added to our system less than 3 months prior to a report being generated may have a Fund Management assessment of '25' as a default, but will be updated, if necessary, after the first quarter of monitoring to more accurately reflect our system. Investments that are not mutual funds or have less than 3 years of performance history may not be scored. Capital Preservation options are evaluated using a comprehensive scoring methodology proprietary to the Investment Consultant. This methodology incorporates both qualitative and quantitative erriteria such as: Crediting Rate/Yield, Market to Book Ratio, Average Crediting Quality, Insurer Quality/Diversification, Duration, and Sector Allocations, and/or qualitative criteria such as quantitative and quantitative oriteria such as: Tracking Error, Fees,



INVESTMENT NAME	Q3 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
MONEY MARKET											
CREF Money Market R3	1.28%	3.61%	1.24%	0.00%	0.38%	2.02%	1.46%	4.45%	1.61%	1.55%	0.93%
ICE BofA ML US Treasury Bill 3 Mon USD	1.31%	3.60%	1.46%	0.05%	0.67%	2.28%	1.87%	4.47%	1.70%	1.72%	1.11%
STABLE VALUE											
TIAA Traditional - Retirement Choice	-	-	-	-	-	-	-	-	-	-	-
ICE BofA ML US Treasury Bill 3 Mon USD	1.31%	3.60%	1.46%	0.05%	0.67%	2.28%	1.87%	4.47%	1.70%	1.72%	1.11%
Morningstar US Stable Value GR USD	0.74%	2.10%	1.89%	1.74%	2.26%	2.52%	2.26%	2.66%	2.09%	2.22%	2.04%
INFLATION PROTECTED BOND											
CREF Inflation-Linked Bond R3	-0.79%	0.88%	-6.34%	5.28%	8.03%	6.53%	-0.49%	2.39%	0.30%	2.71%	1.86%
Bloomberg US Treasury US TIPS TR USD	-2.60%	-0.78%	-11.85%	5.96%	10.99%	8.43%	-1.26%	1.25%	-1.98%	2.12%	1.74%
Inflation Protected Bond Universe	-2.27%	-0.61%	-11.69%	5.25%	9.70%	7.51%	-1.62%	1.53%	-2.04%	1.92%	1.42%
INTERMEDIATE CORE BOND											
CREF Core Bond R3	-2.87%	-0.32%	-13.14%	-1.23%	7.92%	9.03%	-0.19%	1.46%	-4.60%	0.39%	1.41%
Bloomberg US Agg Bond TR USD	-3.23%	-1.21%	-13.01%	-1.55%	7.51%	8.72%	0.01%	0.64%	-5.21%	0.10%	1.13%
Intermediate Core Bond Universe	-3.13%	-1.04%	-13.45%	-1.56%	7.85%	8.42%	-0.43%	0.56%	-5.20%	0.01%	1.02%
GLOBAL ALLOCATION											
CREF Social Choice R3	-3.57%	4.47%	-15.47%	12.64%	13.52%	20.80%	-4.29%	12.27%	2.84%	4.78%	5.94%
60% MSCI World 40% Bloomberg Agg Index	-3.31%	5.50%	-16.02%	10.20%	13.49%	19.41%	-5.52%	12.50%	2.11%	4.21%	5.18%
Global Allocation Universe	-3.57%	2.41%	-13.46%	10.75%	7.25%	17.22%	-7.55%	11.13%	3.18%	2.95%	3.95%



INVESTMENT NAME	Q3 '23	YTD '23	2022	2021	2020	2019	2018	1 YEAR*	3 YEAR*	5 YEAR*	10 YEAR*
SPECIALTY-PRIVATE REAL ESTATE	ı										
TIAA Real Estate Account	-2.47%	-9.19%	8.19%	17.87%	-0.84%	5.51%	4.79%	-12.37%	5.22%	4.11%	5.57%
NCREIF Property Index	-1.36%	-5.07%	5.53%	17.70%	1.60%	6.42%	6.72%	-8.39%	6.04%	5.26%	7.40%
NCREIF ODCE Index	-1.99%	-7.64%	7.46%	22.18%	1.18%	5.34%	8.35%	-12.23%	7.10%	5.63%	8.14%
LARGE COMPANY BLEND											
CREF Equity Index R3	-3.27%	12.26%	-19.25%	25.52%	20.63%	30.73%	-5.37%	20.30%	9.25%	8.99%	11.06%
S&P 500 Index	-3.27%	13.07%	-18.11%	28.71%	18.40%	31.49%	-4.38%	21.62%	10.15%	9.92%	11.91%
Large Blend Universe	-3.29%	11.31%	-18.15%	26.68%	17.19%	29.78%	-5.65%	20.26%	9.33%	8.72%	10.55%
LARGE COMPANY GROWTH											
CREF Growth R3	-2.90%	26.94%	-32.34%	20.43%	40.76%	31.66%	-2.46%	31.61%	4.86%	9.79%	13.10%
Russell 1000 Growth	-3.13%	24.98%	-29.14%	27.60%	38.49%	36.39%	-1.51%	27.72%	7.97%	12.42%	14.48%
Large Growth Universe	-3.67%	21.20%	-30.85%	21.97%	34.85%	32.81%	-1.63%	24.36%	4.76%	9.16%	11.82%
GLOBAL LARGE STOCK BLEND											
CREF Global Equities R3	-3.67%	11.31%	-18.49%	15.65%	22.75%	28.28%	-12.36%	23.26%	6.74%	7.00%	7.94%
CREF Stock R3	-3.54%	9.83%	-18.45%	18.92%	17.91%	27.45%	-9.65%	21.00%	7.11%	6.46%	8.38%
MSCI ACWI NR USD	-3.40%	10.06%	-18.36%	18.54%	16.25%	26.60%	-9.41%	20.80%	6.89%	6.46%	7.56%
Global Large Stock Blend	-4.03%	7.39%	-17.43%	18.08%	14.15%	26.06%	-9.99%	19.32%	6.16%	5.77%	7.07%



CECTI	ONL	5 · E	IND	EACT	SHEET!	2
SECII	UN:	96 6	י שאיט	FACI	SHEELS	•

Fund Fact Sheets.....



#### INDUSTRY ANALYSIS:

In the third quarter, the yield converdisplayed signs of flat ening, but the conversable or remains inverted, in 1 uion proves persistent as year over year levels have slightly increased in relation to the second quarter. The Federal Release elected using a increase to the evenight broking or elect 25 least spoints beak in July more close to seve rates, unchanged in September. The final larger range was set between 3.25% 3.56% as of quarter end. When establishing guaranteed and fining rates, spolicable to potential new leasiness, is successly sically rely on the onlibes of the interest rate environment and longuage backing methode byy, with crediting rates for existing contracts to rack at allog. As a convex expect potential new money guaranteed shell ting rates to ramping tractice with the sample in decreased in the contract in the same general direction. As a caninder rising interest rate increase long rise present one isting general recount uncertainting port is is in the altern term, as the value of current port is in the diagraph of the object of the particle of the object in the object that higher yields will support the oblits to offer higher guarantees and or uncertaintiments.

# CAPTRUST ANALYSIS

The Voya Fixed Account Fire III is a Voya Betirement Intan and a mic Annuity Company (VR AC) group fide fundibleated innuity centres. The product is a "general recount" product meaning participant reversal recomming betwithin the heurance general recount it. Voya iA I ground to such intended packed by the handalstrength made time beying additive VR AC.

The rate indedared mentally with interest chedites on indaily basis in minimum of feet we rate. The product chedits interest under in particle interest chediting method in which indideposits reserve. The same natural regardless of date of initial deposit. This product is only real indeposits Voyanacordiags of auto-

#### GROSS CREDITING RATE

# Current Crediting Rate is 1.70%

(increased to 2.25% as of November 1, 2023).

INVESTMENT DETAILS							
Crediting Rate Details:	New and existing manay accorediced equally rates in a read monthly.						
Competing Options:	Comparing options are allowed, but they are subject to a SC day equity wish.						
Minimum Rate:	The minimum coeffling rate is 1,000s as of 6/30/2013.						

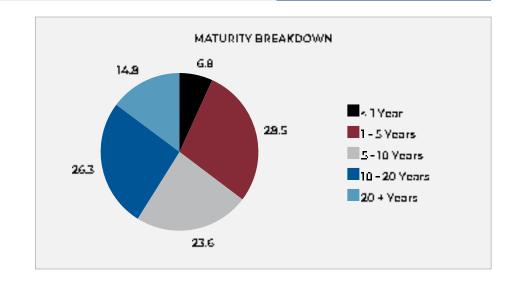
LIQUIDITY PROVISIONS									
Plan Sponsor	Participant								
Plan sponsor-directed transfers from the Fixed-Interest Option to another investment option would be restricted to 20 percent per year for five years	Benefit Responsive								

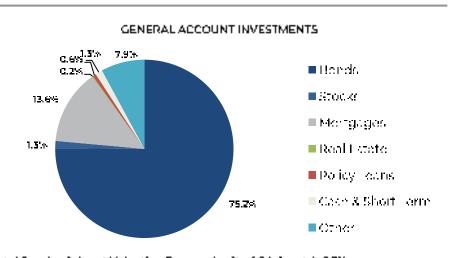
Impertant Assistance in a slide is interned so elvior institutional use. The opinions evoressed in this report are subject to change without het deline states and data have been complete, any concept to be reported and despired and despired as a construction of the subject to be reported and despired and despired as a construction of the subject to be a control of the s



AGENCY RATINGS							
A.M. Best (15 muings)	NR						
Standard & Poors (20)	A+ (5)						
Moody's (21)	A2 (0)						
Fitch (21)	A (C)						
Weiss (10)	B (5)						
Comdex Ranking (Percent to Rank)	81						

den dag Kankrig ingengara assignora berbar italiank bel apur og beste er heir ladner bert selle kanal Kanar alfastik ihan darragist partikost orkalan dag Kankrig var 1,600 am bel beste allent manked.





Total Surplus & Asset Valuation Reserve (as % of GA Assets): 6.7%

BOND QUALITY (%) 95.6 4.4 Non-Investment Grade Investment Grade

'egan de laines de of most expert quarter or dyall other de lace of most expert year or de Action and to a control of the far amount of the action of

Not buy a Maria.

# **INDUSTRY ANALYSIS**

The Federal Reserve continued with money tightening in the third quarter. The overnight banking rate has been increased eleven times since 2022. Additionally, inflation remains persistent, with year-over-year levels slightly increasing in the third quarter. Although the yield curve remains inverted, the spread between 2- and 10-year treasury yields declined and the shape of the curve began to flatten out over the third quarter. Short-term interest rates remain elevated, resulting in yields earned on money market funds continuing to be in excess of capital preservation alternatives that invest in longer-dated debt securities. After increasing the overnight banking rate in July and leaving rates unchanged in September, the Federal Reserve is expected to hike rates once more before the close of 2023, with rate cuts to potentially occur at some point in 2024. At this time, investors can expect yields earned on money market funds to remain at elevated levels as short-term debt securities continue to benefit from higher interest rates and the inverted shape of the yield curve.

	Last Qtr.	CYTD	1 Yr	3 Yr	5 Yr	10 Yr
Vanguard Federal Money Market Investor	1.32	3.70	4.61	1.75	1.67	1.07
FTSE 3 Month T-Bill	1.38	3.80	4.71	1.78	1.74	1.11

	2022	2021	2020	2019	2018
Vanguard Federal Money Market Investor	1.55	0.01	0.45	2.14	1.78
FTSE 3 Month T-Bill	1.50	0.05	0.58	2.25	1.86

	STD DEV / 5 YEAR
Vanguard Federal Money Market Investor	0.49
FTSE 3 Month T-Bill	0.50

# 

-1.83

Vanguard Federal Money Market Investor

-1.22

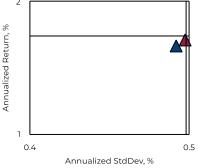
Excess Annualized Return %

-0.61

# Ticker VMFXX

Fund Inception Date 1981
Prospectus Expense Ratio 0.11 %
SEC Yield -

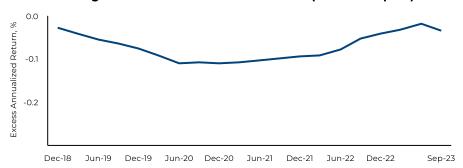
# Performance vs Risk - 5 Year



Vanguard Federal Money Market Investor

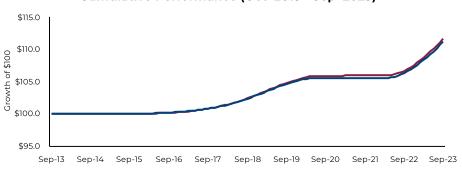
90 Day U.S. Treasury Bill

# Rolling 3 Year Annualized Excess Return (Dec-18 - Sep-23)



# Cumulative Performance (Oct 2013 - Sep 2023)

0.00



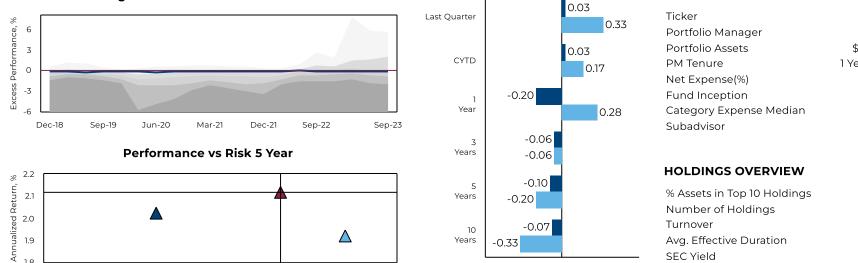
For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Money Market [mutual] fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit <a href="https://www.captrust.com/important-disclosures/">https://www.captrust.com/important-disclosures/</a>.



**Rolling 3 Year Annualized Excess Return** 

	TRAILING AND CALENDAR RETURNS													
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018			
Vanguard Inflation-Protected Secs I	-2.57	-0.75	1.05	-2.04	2.02	1.67	-11.90	5.72	11.05	8.18	-1.40			
Blmbg. U.S. TIPS Index	-2.60	-0.78	1.25	-1.98	2.12	1.74	-11.85	5.96	10.99	8.43	-1.26			
Inflation-Protected Bond Median	-2.27	-0.61	1.53	-2.04	1.92	1.42	-11.69	5.25	9.70	7.51	-1.62			
Rank (%)	66	57	64	50	42	21	57	32	26	30	43			
Population	192	192	192	187	187	172	193	197	198	214	222			

	KEY MEASURES/5 YEAR												
Sharpe Alpha Beta R-Squared Up Down Information Ratio Ratio Capture Capture Ratio													
Vanguard Inflation-Protected Secs I	0.08	-0.05	0.98	0.99	97.38	97.98	-0.21						
Blmbg. U.S. TIPS Index	0.09	0.00	1.00	1.00	100.00	100.00	-						
Inflation-Protected Bond Median	0.06	-0.13	0.97	0.92	92.57	98.12	-0.14						



# VIPIX Madziyire,J \$11,486 Million 1 Year 10 Months 0.07 % 2003 0.58

**INVESTMENT PROFILE** 

# 31.93 % 58 Turnover 28.00 % Avg. Effective Duration 6.72 Years SEC Yield 2.36 %



Δ

For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Mutual fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/.

10

Years

-0.07

0.30

0.60

-0.33

1.9

1.8

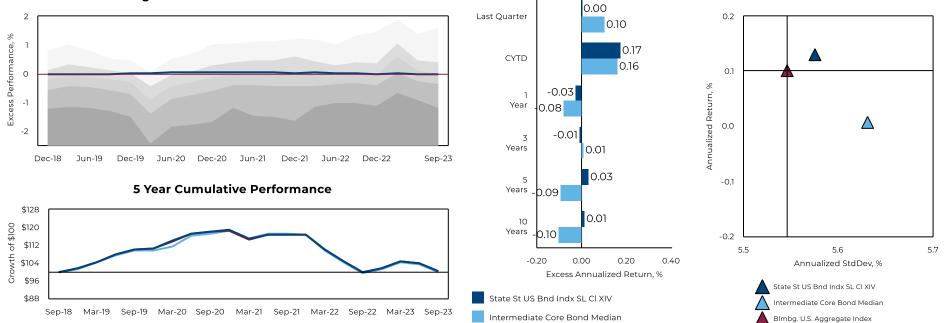
5.8

Performance vs Risk 5 Year

	TRAILING AND CALENDAR RETURNS												
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018		
State St US Bnd Indx SL Cl XIV	-3.23	-1.03	0.62	-5.22	0.13	1.14	-13.13	-1.62	7.67	8.74	0.03		
Blmbg. U.S. Aggregate Index	-3.23	-1.21	0.64	-5.21	0.10	1.13	-13.01	-1.55	7.51	8.72	0.01		
Intermediate Core Bond Median	-3.13	-1.04	0.56	-5.20	0.01	1.02	-13.45	-1.56	7.85	8.42	-0.43		
Rank (%)	63	50	47	52	39	38	33	52	57	32	26		
Population	430	430	430	411	398	355	428	430	432	450	451		

	KEY MEASURES/5 YEAR												
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio						
State St US Bnd Indx SL CI XIV	-0.25	0.03	1.00	1.00	100.97	100.58	0.25						
Blmbg. U.S. Aggregate Index	-0.26	0.00	1.00	1.00	100.00	100.00	-						
Intermediate Core Bond Median	-0.27	-0.09	1.00	0.96	101.75	102.42	-0.08						





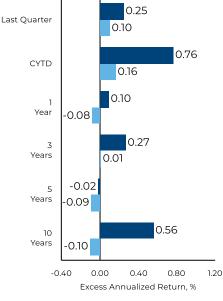
For use with CAPTRUST clients only. Performance summarized here represents past performance on a net of fees basis and does not guarantee future results. Actual account performance will be reduced by investment management fees. Data has been obtained from Morningstar and/or other sources believed to be reliable but cannot be guaranteed to be accurate or complete. Investing in a Separately Managed Account involves risk. For a prospectus on the underlying fund with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit <a href="https://www.captrust.com/important-disclosures/">https://www.captrust.com/important-disclosures/</a>.

	TRAILING AND CALENDAR RETURNS													
Last Quarter CYTD 1 Year 3 Years 5 Years 10 Years 2022 2021 2020 2019 2018														
TIAA-CREF Core Impact Bond Instl	-2.98	-0.44	0.74	-4.94	0.08	1.68	-14.01	-1.03	7.45	8.73	0.33			
Blmbg. U.S. Aggregate Index	-3.23	-1.21	0.64	-5.21	0.10	1.13	-13.01	-1.55	7.51	8.72	0.01			
Intermediate Core Bond Median	-3.13	-1.04	0.56	-5.20	0.01	1.02	-13.45	-1.56	7.85	8.42	-0.43			
Rank (%)	25	18	39	32	43	5	72	24	65	33	13			
Population	430	430	430	411	398	355	428	430	432	450	451			

	KEY MEASURES/5 YEAR												
Sharpe Alpha Beta R-Squared Up Down Information Ratio Capture Capture Ratio													
TIAA-CREF Core Impact Bond Instl	-0.24	0.00	1.01	0.89	106.50	106.67	0.00						
Blmbg. U.S. Aggregate Index	-0.26	0.00	1.00	1.00	100.00	100.00	-						
Intermediate Core Bond Median	-0.27	-0.09	1.00	0.96	101.75	102.42	-0.08						

# Excess Performance, % Dec-18 Jun-20 Mar-21 Dec-21 Sep-22 Sep-23 Sep-19

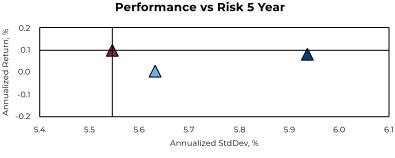
**Rolling 3 Year Annualized Excess Return** 





**INVESTMENT PROFILE** 





Blmbg. U.S. Aggregate Index

TIAA-CREF Core Impact Bond Instl Intermediate Core Bond Median

For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Mutual fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/.

	TRAILING AND CALENDAR RETURNS												
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018		
PIMCO Income Instl	-0.54	3.23	6.76	0.67	2.37	4.00	-7.81	2.61	5.80	8.05	0.58		
Blmbg. U.S. Aggregate Index	-3.23	-1.21	0.64	-5.21	0.10	1.13	-13.01	-1.55	7.51	8.72	0.01		
Multisector Bond Median	-0.97	2.29	5.09	-0.80	1.41	2.49	-10.84	2.44	6.32	10.35	-1.89		
Rank (%)	35	23	26	17	13	1	19	44	56	79	14		
Population	330	330	329	314	265	198	333	337	335	312	336		

KEY MEASURES/5 YEAR											
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio				
PIMCO Income Instl	0.14	2.39	0.68	0.38	86.48	54.04	0.45				
Blmbg. U.S. Aggregate Index	-0.26	0.00	1.00	1.00	100.00	100.00	-				
Multisector Bond Median	0.00	1.55	0.77	0.34	94.53	77.52	0.24				

# 

Mar-21

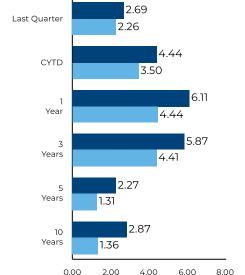
Performance vs Risk 5 Year

Dec-21

Sep-22

Sep-23

**Rolling 3 Year Annualized Excess Return** 



Excess Annualized Return, %

# **INVESTMENT PROFILE**

Ticker	PIMIX
Portfolio Manager	Anderson,J/Ivascyn, D/Murata,A
Portfolio Assets	\$75,757 Million
PM Tenure	16 Years 6 Months
Net Expense(%)	0.62 %
Fund Inception	2007
Category Expense Median	0.91
Subadvisor	-

# **HOLDINGS OVERVIEW**

% Assets in Top 10 Holdings	27.07 %
Number of Holdings	8558
Turnover	426.00 %
Avg. Effective Duration	4.01 Years
SEC Yield	5.56 %

m,%	3.0						<u> </u>					
Annualized Return, %	1.0			4						_		
	-1.0 4	.8	5.1	5.4	5.7	6.0	6.3	6.6	6.9	7.2	7.5	7.8
	A PI	мсо	Income In	stl	<b>Λ</b> Λ		alized Sto Bond Med		▲ Blmbs	g. U.S. Aggı	regate Ind	ex

PIMCO Income Instl

Multisector Bond Median

For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Mutual fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit <a href="https://www.captrust.com/important-disclosures/">https://www.captrust.com/important-disclosures/</a>.



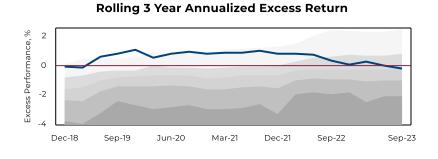
Dec-18

Sep-19

Jun-20

TRAILING AND CALENDAR RETURNS												
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018	
PGIM High Yield R6	0.37	5.04	8.90	1.61	3.11	4.49	-11.55	6.47	5.72	16.26	-1.18	
ICE BofA U.S. High Yield, Cash Pay Index	0.51	5.88	10.19	1.80	2.80	4.15	-11.10	5.29	6.21	14.40	-2.26	
High Yield Bond Median	0.53	5.26	9.57	1.59	2.37	3.43	-10.75	4.87	5.26	13.50	-2.94	
Rank (%)	62	59	68	50	20	6	70	17	40	5	13	
Population	617	617	616	603	585	525	629	646	659	693	711	

KEY MEASURES/5 YEAR											
Sharpe Alpha Beta R-Squared Up Down Informa Ratio Reti											
PGIM High Yield R6	0.19	0.29	1.01	0.99	101.84	99.11	0.28				
ICE BofA U.S. High Yield, Cash Pay Index	0.16	0.00	1.00	1.00	100.00	100.00	=				
High Yield Bond Median	0.12	-0.30	0.97	0.98	95.20	97.51	-0.25				



Performance vs Risk 5 Year



# **INVESTMENT PROFILE**

Ticker	PHYQX
Portfolio Manager	Team Managed
Portfolio Assets	\$7,517 Million
PM Tenure	15 Years 11 Months
Net Expense(%)	0.38 %
Fund Inception	2011
Category Expense Median	0.81
Subadvisor	PGIM Limited

# **HOLDINGS OVERVIEW**

% Assets in Top 10 Holdings	11.80 %
Number of Holdings	770
Turnover	38.00 %
Avg. Effective Duration	3.65 Years
SEC Yield	8.13 %

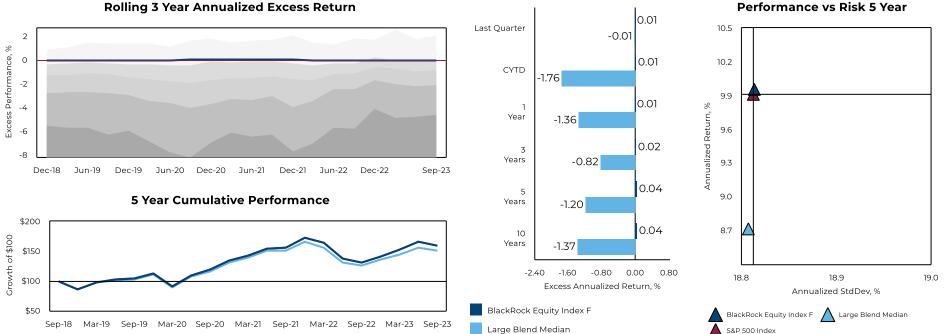
% 3.3 0.5 0.5					<b>A</b>		5 Years	-0.
Annualized Return, 7.2 2.2 4.7 4		Δ					10 Years	-0.72
	9.1	9.2	9.3 Annualized S	9.4 StdDev, %	9.5	9.6	-1.8	0 -1.20 Excess A
		PGIM High Yield R6 ICE BofA U.S. High Yield, Cas		High Yield Bond N	Median		PGIM High Y	

For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Mutual fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit <a href="https://www.captrust.com/important-disclosures/">https://www.captrust.com/important-disclosures/</a>.

	TRAILING AND CALENDAR RETURNS												
Last Quarter CYTD 1 Year 3 Years 5 Years 10 Years 2022 2021 2020 2019													
BlackRock Equity Index F	-3.27	13.08	21.63	10.17	9.96	11.96	-18.10	28.74	18.48	31.55	-4.34		
S&P 500 Index	-3.27	13.07	21.62	10.15	9.92	11.91	-18.11	28.71	18.40	31.49	-4.38		
Large Blend Median	-3.29	11.31	20.26	9.33	8.72	10.55	-18.15	26.68	17.19	29.78	-5.65		
Rank (%)	47	22	26	27	14	6	49	20	34	21	22		
Population	1,177	1,177	1,176	1,122	1,082	965	1,176	1,189	1,221	1,265	1,297		

			KEY MEASU	RES/5 YEAR								
Sharpe Ratio  Alpha Beta R-Squared Up Down Information Capture Capture Ratio												
BlackRock Equity Index F	0.51	0.04	1.00	1.00	100.09	99.95	1.68					
S&P 500 Index	0.51	0.00	1.00	1.00	100.00	100.00	-					
Large Blend Median	0.45	-0.85	1.00	0.98	97.07	100.22	-0.44					

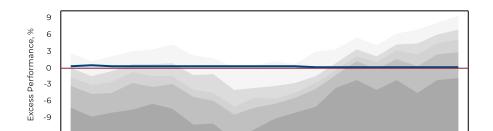
# **Rolling 3 Year Annualized Excess Return**



For use with CAPTRUST clients only. Performance summarized here represents past performance on a net of fees basis and does not guarantee future results. Actual account performance will be reduced by investment management fees. Data has been obtained from Morningstar and/or other sources believed to be reliable but cannot be guaranteed to be accurate or complete. Investing in a Separately Managed Account involves risk. For a prospectus on the underlying fund with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/.

TRAILING AND CALENDAR RETURNS												
Last Quarter CYTD 1 Year 3 Years 5 Years 10 Years 2022 2021 2020 2019 2018												
BlackRock Extended Equity Market F	-3.37	8.86	14.49	4.74	4.59	8.00	-26.36	12.45	32.16	28.23	-9.15	
Dow Jones U.S. Completion Total Stock Market Indx	-3.38	8.76	14.28	4.58	4.40	7.79	-26.54	12.35	32.16	27.94	-9.57	
Mid-Cap Blend Median	-4.36	3.59	13.53	9.64	5.51	7.88	-15.19	24.16	12.93	26.87	-11.30	
Rank (%)	23	10	41	91	72	47	98	97	2	41	26	
Population	347	347	347	333	317	262	351	352	364	386	401	

	KEY MEASURES/5 YEAR											
Sharpe Alpha Beta R-Squared Up Down Informat Ratio Beta R-Squared Capture Capture Ratio												
BlackRock Extended Equity Market F	0.24	0.18	1.00	1.00	100.38	99.85	1.51					
Dow Jones U.S. Completion Total Stock Market Indx	0.23	0.00	1.00	1.00	100.00	100.00	=					
Mid-Cap Blend Median	0.28	1.52	0.84	0.91	84.56	80.72	0.08					



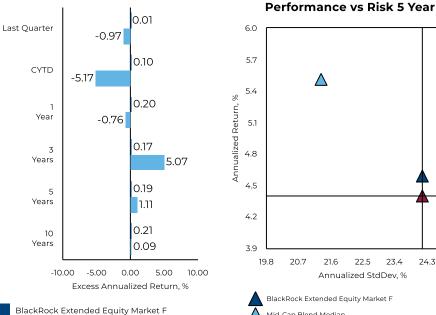
Dec-20

Jun-21

Dec-21

Jun-22 Dec-22

**Rolling 3 Year Annualized Excess Return** 





Jun-20

Jun-19

Dec-19

Growth of \$100 \$150 \$100 \$50 Sep-19 Mar-20 Sep-20 Mar-21 Sep-21 Mar-22 Sep-22 Mar-23 Sep-23

Mid-Cap Blend Median Dow Jones U.S. Completion Total Stock Market Indx

21.6

22.5

Annualized StdDev, %

23.4

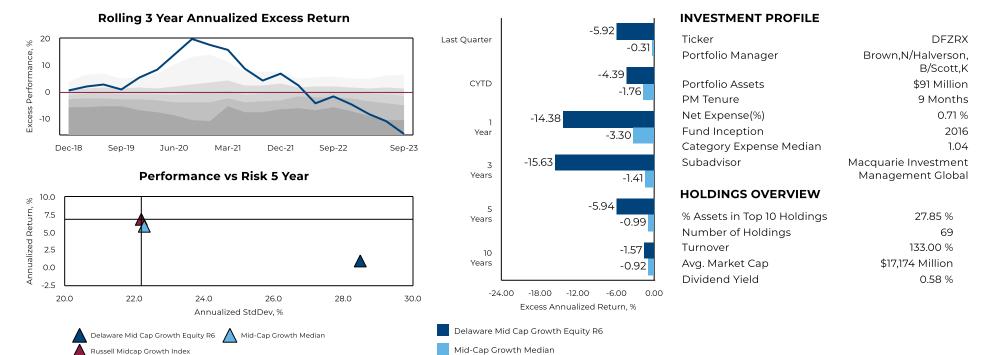
24.3 25.2

For use with CAPTRUST clients only, Performance summarized here represents past performance on a net of fees basis and does not guarantee future results. Actual account performance will be reduced by investment management fees. Data has been obtained from Morningstar and/or other sources believed to be reliable but cannot be guaranteed to be accurate or complete. Investing in a Separately Managed Account involves risk. For a prospectus on the underlying fund with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/.

Sep-23

	TRAILING AND CALENDAR RETURNS												
Last Quarter CYTD 1 Year 3 Years 5 Years 10 Years 2022 2021 2020 2019 2018													
Delaware Mid Cap Growth Equity R6	-11.15	5.50	3.08	-13.02	1.03	8.37	-45.28	-8.12	94.51	35.77	0.44		
Russell Midcap Growth Index	-5.22	9.88	17.47	2.61	6.97	9.94	-26.72	12.73	35.59	35.47	-4.75		
Mid-Cap Growth Median	-5.53	8.12	14.16	1.20	5.98	9.02	-28.34	11.92	35.93	33.40	-5.53		
Rank (%)	98	73	94	98	93	65	97	97	4	33	11		
Population	538	538	538	526	512	484	551	566	575	588	599		

	KEY MEASURES/5 YEAR											
Sharpe Alpha Beta R-Squared Up Down Information Capture Capture Ratio												
Delaware Mid Cap Growth Equity R6	0.12	-5.72	1.19	0.86	110.02	129.51	-0.36					
Russell Midcap Growth Index	0.34	0.00	1.00	1.00	100.00	100.00	=					
Mid-Cap Growth Median	0.30	-0.66	0.98	0.94	98.01	101.31	-0.17					

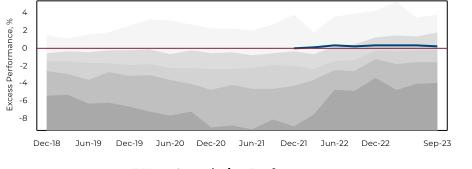


For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Mutual fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit <a href="https://www.captrust.com/important-disclosures/">https://www.captrust.com/important-disclosures/</a>.

TRAILING AND CALENDAR RETURNS												
Last Quarter CYTD 1 Year 3 Years 5 Years 10 Years 2022 2021 2020 2019 20												
BlackRock MSCI ACWI ESG Focus Index F	-3.71	9.75	20.59	6.59	-	-	-19.13	18.22	18.99	26.87	-	
MSCI AC World ESG Focus Index (Net)	-3.52	9.75	20.12	6.42	6.60	7.99	-19.54	18.31	18.55	27.44	-8.69	
Global Large-Stock Blend Median	-4.03	7.39	19.32	6.16	5.77	7.07	-17.43	18.08	14.15	26.06	-9.99	
Rank (%)	38	17	34	45	-	-	76	48	16	39	-	
Population	339	339	335	324	300	231	335	351	347	337	327	

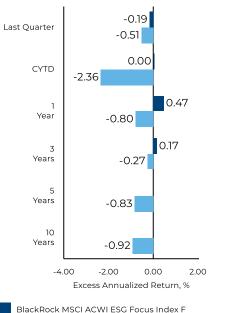
KEY MEASURES/5 YEAR									
Sharpe Alpha Beta R-Squared Up Down Information Ratio Capture Capture Ratio									
BlackRock MSCI ACWI ESG Focus Index F	-	-	-	-	-	-	-		
MSCI AC World ESG Focus Index (Net)	0.35	0.00	1.00	1.00	100.00	100.00	-		
Global Large-Stock Blend Median	0.31	-0.50	0.98	0.96	96.96	99.09	-0.25		

# **Rolling 3 Year Annualized Excess Return**

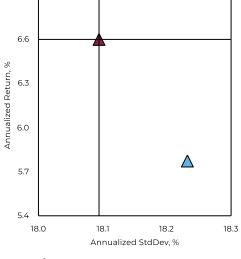








Global Large-Stock Blend Median



Performance vs Risk 5 Year

6.9

BlackRock MSCI ACWI ESG Focus Index F
Global Large-Stock Blend Median
MSCI AC World ESG Focus Index (Net)

For use with CAPTRUST clients only. Performance summarized here represents past performance on a net of fees basis and does not guarantee future results. Actual account performance will be reduced by investment management fees. Data has been obtained from Morningstar and/or other sources believed to be reliable but cannot be guaranteed to be accurate or complete. Investing in a Separately Managed Account involves risk. For a prospectus on the underlying fund with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit <a href="https://www.captrust.com/important-disclosures/">https://www.captrust.com/important-disclosures/</a>.

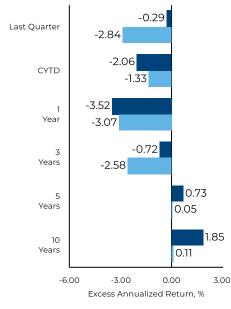
COC\/\

TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
Columbia Overseas Value Inst3	0.30	7.86	27.99	10.40	3.54	4.82	-5.88	10.97	-0.06	22.61	-16.38
MSCI EAFE Value Index (Net)	0.59	9.92	31.51	11.11	2.81	2.97	-5.58	10.89	-2.63	16.09	-14.78
Foreign Large Value Median	-2.26	8.59	28.44	8.54	2.86	3.08	-10.36	11.78	2.65	18.23	-16.50
Rank (%)	8	58	54	25	29	5	17	58	73	13	49
Population	322	322	322	301	282	249	321	322	336	349	344

KEY MEASURES/5 YEAR							
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio
Columbia Overseas Value Inst3	0.19	0.76	1.06	0.97	110.73	108.48	0.26
MSCI EAFE Value Index (Net)	0.15	0.00	1.00	1.00	100.00	100.00	=
Foreign Large Value Median	0.15	0.13	0.99	0.93	102.28	103.02	0.00

# 

**Rolling 3 Year Annualized Excess Return** 



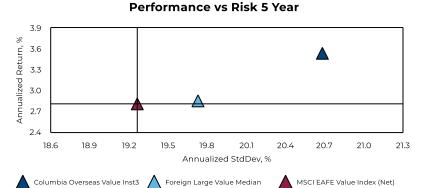
# INVESTMENT PROFILE

-- ·

licker	COSYX
Portfolio Manager	Copper,F/Nomoto,D
Portfolio Assets	\$847 Million
PM Tenure	15 Years 6 Months
Net Expense(%)	0.77 %
Fund Inception	2015
Category Expense Median	0.95
Subadvisor	-

# **HOLDINGS OVERVIEW**

% Assets in Top 10 Holdings	27.36 %
Number of Holdings	120
Turnover	36.00 %
Avg. Market Cap	\$20,653 Million
Dividend Yield	4.78 %



Columbia Overseas Value Inst3

Foreign Large Value Median

For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Mutual fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit <a href="https://www.captrust.com/important-disclosures/">https://www.captrust.com/important-disclosures/</a>.

TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
Columbia Trust Overseas Value Founders	0.42	8.21	28.56	12.82	-	-	-5.01	11.05	-	-	-
MSCI EAFE Value Index (Net)	0.59	9.92	31.51	11.11	2.81	2.97	-5.58	10.89	-2.63	16.09	-14.78
Foreign Large Value Median	-2.26	8.59	28.44	8.54	2.86	3.08	-10.36	11.78	2.65	18.23	-16.50
Rank (%)	7	54	49	11	-	-	11	56	-	-	-
Population	322	322	322	301	282	249	321	322	336	349	344

KEY MEASURES/5 YEAR									
Sharpe Alpha Beta R-Squared Up Down Information Ratio Capture Capture Ratio									
Columbia Trust Overseas Value Founders	-	-	-	-	-	-	-		
MSCI EAFE Value Index (Net)	0.15	0.00	1.00	1.00	100.00	100.00	-		
Foreign Large Value Median	0.15	0.13	0.99	0.93	102.28	103.02	0.00		

Last Quarter

CYTD

Year

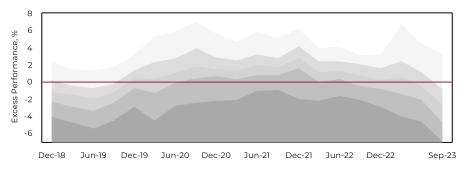
Years

Years

Foreign Large Value Median

3 Years

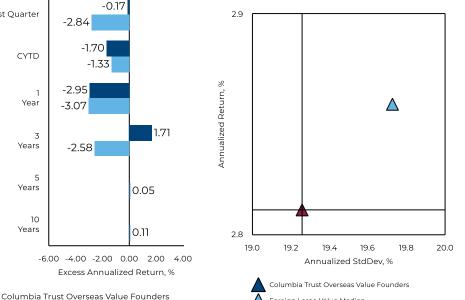
# **Rolling 3 Year Annualized Excess Return**



# **5 Year Cumulative Performance**



# Performance vs Risk 5 Year

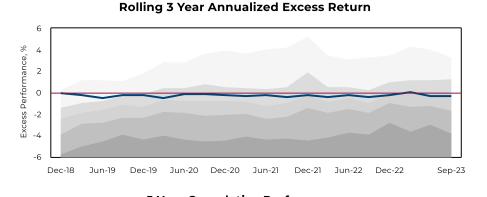


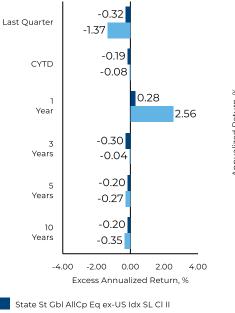
Foreign Large Value Median MSCI EAFE Value Index (Net)

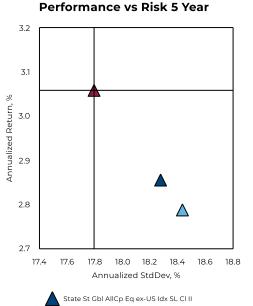
For use with CAPTRUST clients only, Performance summarized here represents past performance on a net of fees basis and does not guarantee future results. Actual account performance will be reduced by investment management fees. Data has been obtained from Morningstar and/or other sources believed to be reliable but cannot be guaranteed to be accurate or complete. Investing in a Separately Managed Account involves risk. For a prospectus on the underlying fund with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/.

TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
State St Gbl AllCp Eq ex-US Idx SL CI II	-3.71	5.58	21.11	3.98	2.86	3.76	-16.29	8.74	11.36	22.04	-14.57
MSCI AC World ex USA IMI	-3.39	5.77	20.82	4.27	3.06	3.96	-16.15	8.99	11.59	22.24	-14.35
Foreign Large Blend Median	-4.76	5.69	23.38	4.23	2.79	3.61	-15.91	10.07	9.73	22.04	-15.23
Rank (%)	21	53	69	53	48	41	56	63	40	50	41
Population	658	658	658	634	605	497	678	711	747	755	751

KEY MEASURES/5 YEAR							
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio
State St Gbl AllCp Eq ex-US ldx SL Cl II	0.15	-0.22	1.02	0.99	102.77	103.84	-0.08
MSCI AC World ex USA IMI	0.16	0.00	1.00	1.00	100.00	100.00	-
Foreign Large Blend Median	0.15	-0.18	1.01	0.95	102.72	103.83	-0.04









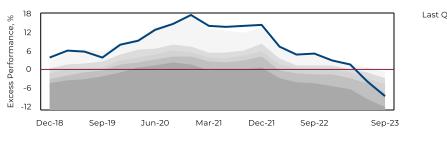
Foreign Large Blend Median

Foreign Large Blend Median MSCI AC World ex USA IMI

For use with CAPTRUST clients only, Performance summarized here represents past performance on a net of fees basis and does not guarantee future results. Actual account performance will be reduced by investment management fees. Data has been obtained from Morningstar and/or other sources believed to be reliable but cannot be guaranteed to be accurate or complete. Investing in a Separately Managed Account involves risk. For a prospectus on the underlying fund with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/.

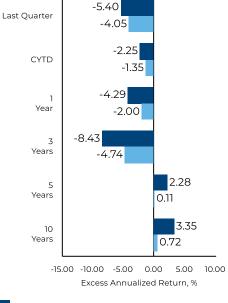
TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
Vanguard International Growth Adm	-9.17	3.09	16.10	-4.69	4.86	6.70	-30.79	-0.74	59.74	31.48	-12.58
MSCI AC World ex USA (Net)	-3.77	5.34	20.39	3.74	2.58	3.35	-16.00	7.82	10.65	21.51	-14.20
Foreign Large Growth Median	-7.82	3.99	18.39	-1.00	2.69	4.07	-25.10	8.66	22.29	27.95	-14.46
Rank (%)	71	64	73	81	14	8	82	89	2	22	34
Population	406	406	406	385	366	321	426	434	425	430	443

KEY MEASURES/5 YEAR							
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio
Vanguard International Growth Adm	0.25	2.54	1.19	0.82	130.19	120.95	0.32
MSCI AC World ex USA (Net)	0.14	0.00	1.00	1.00	100.00	100.00	-
Foreign Large Growth Median	0.15	0.23	1.02	0.87	109.38	107.90	0.06



**Rolling 3 Year Annualized Excess Return** 

Performance vs Risk 5 Year



Ticker	VWILX
Portfolio Manager	Team Managed
Portfolio Assets	\$34,803 Million
PM Tenure	13 Years 9 Months
Net Expense(%)	0.34 %
Fund Inception	2001
Category Expense Median	0.99
Subadvisor	-

**INVESTMENT PROFILE** 

**HOLDINGS OVERVIEW** 

# % Assets in Top 10 Holdings 32.51 % Number of Holdings 147 Turnover 15.00 % Avg. Market Cap \$59,174 Million Dividend Yield 1.22 %

5					
, L		<u> </u>			
, L					
16.0	18.0	20.0	22.0	24.0	26.0
		Annualized	l StdDev, %		
	Vanguard Internationa	l Growth Adm	Foreign Large Grov	vth Median	
	MSCI AC World ex USA	(Net)			
	CAPTRICT				

Vanguard International Growth Adm
Foreign Large Growth Median

For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Mutual fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit <a href="https://www.captrust.com/important-disclosures/">https://www.captrust.com/important-disclosures/</a>.

6.3

5.4

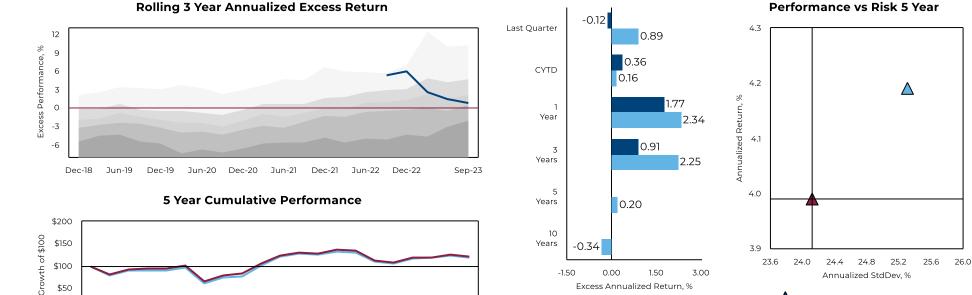
4.5

2.7

Sep-18 Mar-19 Sep-19 Mar-20 Sep-20 Mar-21 Sep-21 Mar-22 Sep-22 Mar-23 Sep-23

TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
EARNEST Partners Smid Cap Value 1	-3.78	2.32	13.11	14.23	-	-	-8.94	25.57	20.23	-	-
Russell 2500 Value Index	-3.66	1.95	11.34	13.32	3.99	6.95	-13.08	27.78	4.88	23.56	-12.36
Small Value Median	-2.77	2.11	13.68	15.57	4.19	6.60	-11.46	31.17	3.39	21.79	-15.42
Rank (%)	68	47	53	72	=	-	31	83	4	-	-
Population	446	446	446	428	412	383	449	451	458	489	506

KEY MEASURES/5 YEAR							
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio
EARNEST Partners Smid Cap Value 1	-	-	-	-	-	-	=
Russell 2500 Value Index	0.22	0.00	1.00	1.00	100.00	100.00	=
Small Value Median	0.22	0.30	1.03	0.96	103.46	103.69	0.10



For use with CAPTRUST clients only. Performance summarized here represents past performance on a net of fees basis and does not guarantee future results. Actual account performance will be reduced by investment management fees. Data has been obtained from Morningstar and/or other sources believed to be reliable but cannot be guaranteed to be accurate or complete. Investing in a Separately Managed Account involves risk. For a prospectus on the underlying fund with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/.

Page 60 of 64

EARNEST Partners Smid Cap Value 1

Small Value Median

\$50

\$0

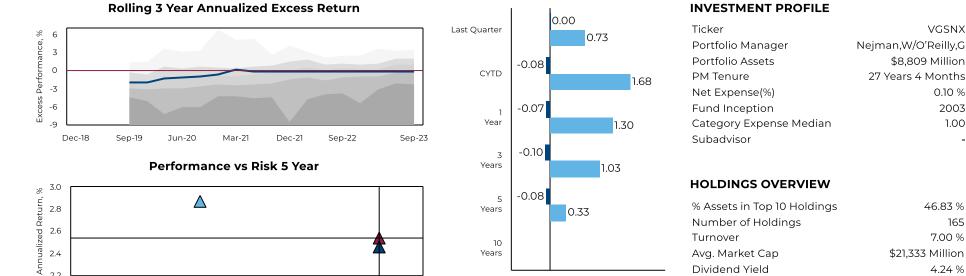
EARNEST Partners Smid Cap Value 1

Small Value Median

Russell 2500 Value Index

TRAILING AND CALENDAR RETURNS											
	Last Quarter	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	2019	2018
Vanguard Real Estate Index Institutional	-8.50	-5.34	-1.22	2.34	2.46	5.53	-26.17	40.41	-4.67	29.02	-5.93
MSCI U.S. IMI Real Estate 25/50 Index	-8.50	-5.26	-1.14	2.45	2.54	-	-26.12	40.56	-4.55	29.03	-4.59
Real Estate Median	-7.77	-3.58	0.16	3.48	2.87	5.65	-26.33	41.45	-4.43	27.87	-5.92
Rank (%)	77	80	73	74	66	55	47	64	53	37	51
Population	215	215	215	211	208	183	221	229	233	251	249

KEY MEASURES/5 YEAR							
	Sharpe Ratio	Alpha	Beta	R-Squared	Up Capture	Down Capture	Information Ratio
Vanguard Real Estate Index Institutional	0.14	-0.08	1.00	1.00	99.82	100.10	-1.07
MSCI U.S. IMI Real Estate 25/50 Index	0.14	0.00	1.00	1.00	100.00	100.00	=
Real Estate Median	0.16	0.42	0.96	0.98	97.71	96.66	0.06



For use with CAPTRUST clients only. Performance summarized here represents past performance and does not guarantee future results. Data has been obtained from Morningstar and is not guaranteed to be accurate or complete. Mutual fund investing involves risk. For a prospectus with a complete description of the risks associated with investing in this fund, please call CAPTRUST at (800)216-0645. For a detailed description of the risks associated with investing by asset class, please visit https://www.captrust.com/important-disclosures/.

Real Estate Median

10 Years

-0.80

0.00

Vanguard Real Estate Index Institutional

0.80

Excess Annualized Return, %

1.60

2.40

**VGSNX** 

0.10 %

2003

1.00

46.83 %

4.24 %

\$21.333 Million

Avg. Market Cap

Dividend Yield

165 7.00 %

2.2

19.4

19.6

MSCI U.S. IMI Real Estate 25/50 Index

19.8

Vanguard Real Estate Index Institutional Real Estate Median

Annualized StdDev. %

20.0

20.2

20.4

APPENDIX
Period Ending 9.30.23 | Q3 23

APPENDIX
Glossary of Terms
Evaluation Methodology



GLOSSARY

Period Ending 9.30.23 | Q3 23

## **ALPHA**

Alpha measures a manager's rate of return in excess of that which can be explained by its systematic risk, or Beta. It is a result of regressing a manager's returns against those of a benchmark index. A positive alpha implies that a manager has added value relative to its benchmark on a risk-adjusted basis.

#### **BATTING AVERAGE**

Batting Average, an indicator of consistency, measures the percentage of time an active manager outperformed the benchmark.

# **BETA**

Beta measures a manager's sensitivity to systematic, or market risk. Beta is a result of the analysis regressing a manager's returns against those of a benchmark Index. A manager with a Beta of 1 should move perfectly with a benchmark. A Beta of less than 1 implies that a manager's returns are less volatile than the market's (i.e., selected benchmarks). A Beta of greater than 1 implies that a manager exhibits greater volatility than the market (i.e., selected benchmark).

#### **CAPTURE RATIO**

Up Market Capture is the average return of a manager relative to a benchmark index using only periods where the benchmark return was positive. Down Market Capture is the average return of a manager relative to a benchmark index using only periods where the benchmark return was negative. An Up Market Capture of greater than 100% and a Down Market Capture of less than 100% is considered desirable.

#### **INFORMATION RATIO**

The Information Ratio measures a manager's excess return over the passive index divided by the volatility of that excess return, or Tracking Error. To obtain a higher Information Ratio, which is preferable, a manager must demonstrate the ability to generate returns above its benchmark while avoiding large performance swings relative to that same benchmark.

# PERCENTILE RANK

Percentile Rankings are based on a manager's performance relative to all other available funds in its universe.

Percentiles range from 1, being the best, to 100 being the worst. A ranking in the 50th percentile or above demonstrates that the manager has performed better on a relative basis than at least 50% of its peers.

#### **RISK-ADJUSTED PERFORMANCE**

Risk-adjusted Performance, or RAP, measures the level of return that an investment option would generate given a level of risk equivalent to the benchmark index.

## **R-SQUARED**

R-squared measures the portion of a manager's movements that are explained by movements in a benchmark index. R-squared values range from 0 to 100. An R-squared of 100 means that all movements of a manager are completely explained by movements in the index. This measurement is identified as the coefficient of determination from a regression equation. A high R-squared value supports the validity of the Alpha and Beta measures, and it can be used as a measure of style consistency.

# **SHARPE RATIO**

Sharpe ratio measures a manager's return per unit of risk, or standard deviation. It is the ratio of a manager's excess return above the risk-free rate divided by a manager's standard deviation. A higher Sharpe ratio implies greater manager efficiency.

# STANDARD DEVIATION

Standard Deviation is a measure of the extent to which observations in a series vary from the arithmetic mean of the series. This measure of volatility or risk allows the estimation of a range of values for a manager's returns. The wider the range, the more uncertainty, and, therefore, the riskier a manager is assumed to be.

# TRACKING ERROR

Tracking Error is the standard deviation of the portfolio's residual (i.e. excess) returns. The lower the tracking error, the closer the portfolio returns have been to its risk index. Aggressively managed portfolios would be expected to have higher tracking errors than portfolios with a more conservative investment style.

#### **TREYNOR RATIO**

The Treynor Ratio is a measure of reward per unit of risk. With Treynor, the numerator (i.e. reward) is defined as the excess return of the portfolio versus the risk-free rate. The denominator (i.e. risk) is defined as the portfolio beta. The result is a measure of excess return per unit of portfolio systematic risk. As with Sharpe and Sortino ratios, the Treynor Ratio only has value when it is used as the basis of comparison between portfolios. The higher the Treynor Ratio, the better.



# $\bigvee$

# MARKED FOR REVIEW

The following categories of the Investment Policy Monitor appear "Marked For Review" when:

# **CAPTRUST's Investment Policy Monitoring Methodology**

The Investment Policy Monitoring Methodology document describes the systems and procedures CAPTRUST uses to monitor and evaluate the investment vehicles in your plan/account on a quarterly basis.

Our current Investment Policy Monitoring Methodology document can be accessed through the following link:

captrust.com/investmentmonitoring

# QUANTITATIVE EVALUATION ITEMS

# 3/5 Year Risk- adjusted Performance

The investment option's 3 or 5 Year Annualized Risk Adjusted Performance falls below the 50th percentile of the peer group.

#### 3/5 Year Performance vs. Peers

The investment option's 3 or 5 Year Annualized Peer Relative Performance falls below the 50th percentile of the peer group.

# 3/5 Year Style

The investment option's 3 or 5 Year R-Squared measure falls below the absolute threshold set per asset class.

#### 3/5 Year Confidence

The investment option's 3 or 5 Year Confidence Rating falls below the 50<sup>th</sup> percentile of the peer group.

# Glidepath Assessment

% of Equity Exposure: The combined percentage of an investment option's equity exposure ranks in the top 20th percentile or bottom 20th percentile of the peer group.

Regression to the Benchmark: The investment option's sensitivity to market risk - as measured by beta relative to a Global Equity Index - is above 0.89.

# QUALITATIVE EVALUATION ITEMS

# **Fund Management**

A significant disruption to the investment option's management team has been discovered.

# **Fund Family**

A significant disruption to the investment option's parent company has been discovered.

# **Portfolio Construction**

The investment option's combined Portfolio Construction score is 6 or below out of a possible 15 points.

# **Underlying Investment Vehicles**

The investment option's combined Underlying Investment Vehicles score is 6 or below out of a possible 15 points.

