



BOARD OF RETIREMENT

September 26, 2023 1:30 p.m.

Boardroom

832 12th Street Suite 600 Modesto, CA 95354

AGENDA

The Board of Retirement welcomes you to its meetings, which are regularly held on the fourth Tuesday of each month. Your interest is encouraged and appreciated.

The StanCERA boardroom, is currently open to public access. Members of the public who wish to attend Board meetings may also do so by teleconference, by calling (669) 900-6833. The Meeting ID: 859 3221 9325. If you wish to make a public comment during the Public Comment section of the meeting, or if you wish to comment on a specific agenda item, please press *9 on your phone to alert the Chair that you wish to speak. As permitted by Gov. Code § 54954.3(b)(1), each public comment is limited to three minutes.

You may also submit public comments in writing. If you wish to make a general public comment or a comment on a specific agenda item in writing, please submit your comment via email or fax no later than 4:30 p.m. on the day before a Board meeting. Comments can be submitted via email at taaa@stancera.org or via fax at (209) 558-4976. If your comment pertains to a specific agenda item, please include the agenda item number in the subject line. As permitted by Gov. Code § 54954.3(b)(1), each public comment is limited to 400 words. Comments submitted in writing will be read aloud during the meeting.

CONSENT/ACTION ITEMS: Consent matters include routine administrative actions and are identified under the Consent Items heading. All other items are action items, "Action" means that the Board may dispose of any item by any action, including but not limited to the following acts: approve, disapprove, authorize, modify, defer, table, take no action, or receive and file.

BOARD AGENDAS & MINUTES: Board agendas, minutes and copies of items to be considered by the Board of Retirement are customarily posted on the Internet by Friday afternoon preceding a meeting at the following website: www.stancera.org.

NOTICE REGARDING NON-ENGLISH SPEAKERS: Board of Retirement meetings are conducted in English and translation to other languages is not provided. Please make arrangements for an interpreter if necessary.

In compliance with the Americans with Disabilities Act: If you require an accommodation, auxiliary aid, or service in order to participate in this meeting, please contact StanCERA at (209) 525-6393 as far in advance as possible but no later than 48 hours before the scheduled event.

1. Call Meeting to Order
2. Pledge of Allegiance
3. Roll Call

4. Announcements

Board Member Election – Seat Number 7 (Safety Representative)
The following are important dates and activities for this election process:

<u>DATE</u>	<u>ACTIVITY</u>
September 17, 2023	Notice of Election Distributed to Safety Members
October 2, 2023	Deadline to Submit Nomination Papers*
October 12, 2023	Distribution of Election Ballots
November 1, 2023	Final Date to Receive Ballots
November 2, 2023	Canvassing (counting) the Ballots

5. Public Comment

6. Emergency Declaration

- a. Emergency Declaration – AB 361

7. Consent Items

- a. Approval of July 25, 2023 Meeting Minutes [View](#)
- b. Applications for Service Retirement(s)
Government Code Sections 31499.14, 31670, 31662.2 & 31810
See attachment for details [View](#)
- c. Applications for Disability
Government Code Section 31837
 - 1. Withdrawal of Disability Application – Charles Lopez
- d. Investment Matrix [View](#)
- e. Private Markets Commitment Notices
 - 1. Ares Senior Direct Lending Fund III [View](#)
 - 2. KSL Capital Partners [View](#)
- f. Conference Summary [View](#)

8. Investment

- a. NEPC – Investment Consultant - Flash Report
July [View](#) August [View](#)
- b. NEPC Quarter 2 Investment Report as of June 30, 2023 [View](#)
- c. NEPC Asset Allocation/Liability Overview – Jennifer Appel and Dan Hennessey [View](#)
- d. Annual Funding Plan for the Liquidity Sub-Portfolio – Stan Conwell [View](#)

9. Administrative
 - a. Pension Benefit Information (PBI) – CertiDeath Monitoring Recommendation – Tom Stadelmaier
Agenda Item [View](#) Attachment [View](#)
10. Committee Reports and Recommendations
 - a. Internal Governance Committee Meeting update – Elective Official Policy – Tom Stadelmaier, Donna Riley, Mandip Dhillon and Rhonda Biesemeier
Agenda Item [View](#) Attachment [View](#)
11. Closed Session
 - a. 6th Floor Raymond James Lease update
Stanislaus County Employees' Retirement Association
832 12th Street STE 601 Modesto CA 95354
Government Code Section 54956.8
 - b. Personnel Discussion: 2 Matters
Stanislaus County Employees' Retirement Association
832 12th Street STE 600 Modesto CA 95354
Government Code Section 54957(b) (1)
12. Members' Forum (Information and Future Agenda Requests Only)
13. Adjournment



BOARD OF RETIREMENT

July 25, 2023 1:30 p.m.

Boardroom

832 12th Street Suite 600 Modesto, CA 95354

Board of Retirement Minutes

The Board of Retirement welcomes you to its meetings, which are regularly held on the fourth Tuesday of each month. Your interest is encouraged and appreciated.

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1. Call Meeting to Order

2. Pledge of Allegiance

3. Roll Call

Trustees Present

Mandip Dhillon – Chair

Darin Gharat – Vice Chair

Donna Riley

Samuel Sharpe

Jeff Grover

Terry Withrow

Rhonda Biesemeier
Joshua Clayton
Delilah Vasquez

Trustees Absent

Michael Lynch

Other's Present

Tom Stadelmaier, Executive Director
Stan Conwell, Retirement Investment Officer
Brittany Smith-Atkins, Retirement Fiscal Manager
Kellie Gomes, Business and Operations Manager
Fred Silva, General Legal Counsel
Alaine Taa, Executive Board Assistant
Daniel Hennessy, NEPC Investment Consultant
Maytak Chin, Fiduciary Counsel

4. Announcements

5. Public Comment – NONE

6. Emergency Declaration

- a. Emergency Declaration – AB 361

7. Consent Items

- a. Approval of June 27, 2023 Meeting Minutes
- b. Applications for Service Retirement(s)
Government Code Sections 31499.14, 31670, 31662.2 & 31810
See attachment for details
- c. Applications for Disability
Government Code Section 31837

1. Kimothy Bankston – Stanislaus County – Service-Connected Reciprocal Disability – Effective 11-07-2022

- d. Application of Death Benefit
Government Code Section 31781, 31781.1, 31781.3

1. Jorge Contreras (Active Reciprocal) Non-Service Connected – Stanislaus County – Effective 05-21-2023

2. James Howard (Active) Non-Service Connected – ESMAD – Effective 07-06-2023

- e. Investment Matrix

- f. Private Markets Commitment Notice
 - 1. Crestline Opportunity Fund V

- g. Investment Fee Summary, Value Added, and Cash Flow Reports as of March 31, 2023

- h. Private Market Program Report as of March 2023

Motion was made by Trustee Grover and seconded by Trustee Gharat to approve all consent items as presented.

Roll Call Vote was as follows:

Trustee Dhillon	YES
Trustee Gharat	YES
Trustee Riley	YES
Trustee Biesemeier	YES
Trustee Grover	YES
Trustee Clayton	YES
Trustee Withrow	YES
Trustee Vasquez	YES

Motion passed unanimously

8. Investment

- a. June Flash Report - NEPC – Investment Consultant

9. Administrative

None

10. Committee Reports and Recommendations

- a. Due Diligence Committee

11. Closed Session

Motion was made by Trustee Gharat and seconded by Trustee Riley to enter closed session at 2:07 p.m.

Roll Call Vote was as follows:

Trustee Dhillon	YES
Trustee Gharat	YES
Trustee Riley	YES
Trustee Biesemeier	YES
Trustee Grover	YES
Trustee Clayton	YES
Trustee Withrow	YES
Trustee Vasquez	YES

Motion passed unanimously

- a. Elected Officials Policy Update
Stanislaus County Employees' Retirement Association
832 12th Street STE 600 Modesto CA 95354
Government Code Section 54956.9 (d) (2)
- b. Personnel Discussion
Stanislaus County Employees' Retirement Association
832 12th Street STE 600 Modesto CA 95354
Government Code Section 54957(b) (1)
- c. Sixth Floor Lease Negotiations
Stanislaus County Employees' Retirement Association
StanCERA Negotiators: Executive Director and General Counsel
Tenant Negotiators: Raymond James
Real Property: 832 12th Street STE 601 Modesto CA 95354
Government Code Section 54956.8

2:13 p.m. Trustee Clayton recused himself from meeting

Motion was made by Trustee Gharat and seconded by Trustee Grover to enter open session at 2:57 p.m.

Roll Call Vote was as follows:

Trustee Dhillon	YES
Trustee Gharat	YES
Trustee Riley	YES
Trustee Biesemeier	YES
Trustee Grover	YES
Trustee Clayton	YES
Trustee Withrow	YES
Trustee Vasquez	YES

Motion passed unanimously

Reportable Action: None.

12. Members' Forum (Information and Future Agenda Requests Only)

13. Adjournment

Meeting adjourned at 2:59 p.m.

Respectfully submitted,

By 
Thomas Stadelmaier, Executive Director

APPROVED AS TO FORM

By 
Fred A. Silva, General Legal Counsel

StanCERA APPLICATIONS FOR SERVICE RETIREMENT(S)

*GOVERNMENT CODE SECTIONS 31499.14, 31670,
31662.2, 318/10 & 31700*

09/26/2023 Item 7.b

1. Aja, Vasiliki –Stanislaus County – Effective 08/03/2023
2. Alanis, Juan – Stanislaus County – Effective 07/08/2023
3. Anderson, Kimberlee – Stanislaus County – Effective 08/31/2023
4. Bache, Ronald – Stanislaus County – Effective 08/11/2023
5. Basmajian, Adam – Stanislaus County – Effective 08/25/2023
6. Bettencourt, John – Stanislaus County – Effective 09/09/2023
7. Botto, Charlene – Stanislaus County – Effective 08/02/2023
8. Branham, Terri – Stanislaus County – Effective 09/09/2023
9. Covolo, Charles – Stanislaus County – Effective 09/01/2023
10. Cramton, Brenda – Stanislaus County – Effective 08/02/2023
11. Fessenden, Sari – Stanislaus County – Effective 08/15/2023
12. Flores, Donna – Stanislaus County – Effective 08/05/2023
13. Frederick, Dee – Stanislaus County – Effective 09/03/2023
14. Gee, John – Stanislaus County – Effective 09/30/2023
15. Gharibian, Raffie – Stanislaus County – Effective 08/05/2023
16. Hoach, Kenneth – Stanislaus County – Effective 09/08/2023
17. Lilly, Susan – Stanislaus County – Effective 07/25/2023
18. Maroudas, George – City of Ceres – Effective 09/13/2023
19. Mauldin, Ryan – Stanislaus County – Effective 08/26/2023
20. Maxwell, Virginia – Stanislaus County – Effective 09/22/2023
21. McClure, Jonathan – Stanislaus County – Effective 09/08/2023
22. Mello, Rebecca – Stanislaus County – Effective 08/12/2023
23. Rao, Ashok – Stanislaus County – Effective 07/28/2023
24. Shelton Jr., James – Stanislaus County – Effective 09/07/2023
25. Solorio, Gloria – Stanislaus County – Effective 08/04/2023
26. Ziman, George – Stanislaus County – Effective 08/01/2023

**Effective date Revision:*

Solorio, Gloria – Stanislaus County – Effective date 08-04-2023

September 26, 2023

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

- I. SUBJECT: Investment Matrix
- II. ITEM NUMBER: 7.d.
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: N/A
- V. ANALYSIS:

a) *Investment Program Activities:*

The annual funding plan was completed this month. The plan includes forecasting StanCERA's monthly cash shortfall and developing a rebalance plan to replenish the liquidity sub portfolio. Typically, as with the prior year, the process incorporates the fiscal year-end performance number to increase the accuracy of the contributions forecast. This year that additional step was unnecessary because the fiscal year-end performance was very close to the actuarial assumed rate of return of 6.75%. As we move closer to the asset/liability study later this year, staff finalized a work plan with both NEPC and Verus. The study occurs every three years at most and will likely result in changes to the plan's strategic asset allocation and is the most important investment decision the Board can make. StanCERA committed to the Ares Senior Direct Lending Fund III as well as the KSL Capital Partners Credit Opportunities Fund IV. Additional details on the funds can be found in the private market commitment notices. The fiscal year-end also brought additional opportunities to support the fiscal team on the annual audit and production of StanCERA's financial statements.

b) *Money Transfer Report:*

July & August 2023: Capital Calls

From			To		
Manager	Asset Class	Amount	Manager	Asset Class	Amount
StanCERA Cash	Cash	\$-237,799.88	Genstar Capital Partners X	Private Equity	\$237,799.88

StanCERA Cash	Cash	\$-279,149.00	Vista Foundation Fund IV	Private Equity	\$279,149.00
NT Russell 3000 Fund	Public Equity	\$-805,228.42	Genstar Capital Partners X	Private Equity	\$805,228.42
StanCERA Cash	Cash	\$-2,636,174.00	Blue Wolf Capital V	Private Equity	\$2,636,174.00
StanCERA Cash	Cash	\$-1,172,389.01	Audax Private Equity VII	Private Equity	\$1,172,389.01
BlackRock US Real Estate Fund	Public Equity	\$-955,861.00	Grandview I-A	Private Real Estate	\$955,861.00
BlackRock US High Yield Fund	Public Fixed Income	\$-955,034.59	ABRY Senior Equity VI	Private Credit	\$955,034.59
StanCERA Cash	Cash	\$-86,087.00	Grandview II	Private Real Estate	\$86,087.00

c) *Manager Meetings:*

Graham Global Management

A small but important part of StanCERA's portfolio is the liquid absolute return strategies that include the Graham Proprietary Matrix fund and the Invesco Global Targeted Return fund. As the absolute return name implies these funds target a set return regardless of market conditions. Absolute return acts as a diversifier in the portfolio offsetting risk in the growth portfolio while also remaining highly liquid. The Graham Proprietary matrix fund provides a mix of systematic trend following strategies and discretionary strategies diversified across a talented team of portfolio managers who are responsible for a small portion of the fund. Recently, the CIO of quantitative strategies retired. Graham seems to have implemented a good succession management plan and has a sufficient pool of talent to draw from to manage the change. The meeting also covered performance attribution and focused on their investment process including an overview of their technology and operations team capabilities and recent enhancements. Risk management was also an important topic and details on their risk overlay process and daily risk committee meetings were discussed.

AQR

Staff met with a principal and senior researcher for the risk parity strategy and other representatives from AQR for an overview of the strategy and a update on the firm and fund. The AQR risk parity fund balances risk across three broad asset groups. These groups are equities, bonds, and inflation sensitive assets. The inflation sensitive assets include inflation-linked bonds and commodities.

Risk Parity is meant to provide diversification to the broader portfolio while offering a more consistent level of volatility versus a traditional portfolio allocation over long time periods. One important team change was noted during the call. A senior researcher who supported the risk parity strategy departed AQR recently. As a large financial firm, staff along with NEPC, have comfort in AQR's ability to attract a suitable replacement. While risk parity strategies faced a difficult 2022, AQR has performed ahead of their peers during that time frame. Additional future changes to the strategy were discussed as well.

JP Morgan IIF

Staff arranged a meeting with JP Morgan representatives to review the Infrastructure Investments Fund (IIF). IIF is an open-ended private infrastructure fund. The fund invests in core/core+ infrastructure assets with a focus on regulated and contracted sectors that operate on a monopolistic basis leading to stable cash flows and low volatility of returns across market cycles. The fund was founded in 2006 and currently has about \$34.3 Billion in assets. StanCERA is invested in the currency hedged version of the fund which should provide a smoother return profile. The IIF Team remains stable and well resourced. IIF has performed as expected reporting a 9.6% return since StanCERA initial investment in April, 2022.

IFM Global Infrastructure Fund

IFM is a global infrastructure fund founded and owned by public pension funds in Australia. This unique ownership structure provides an additional layer of alignment given the long-term interests of StanCERA overlap with other public pension funds. IFM and IIF together provide StanCERA with excellent exposure to a diversified portfolio of high-quality core infrastructure assets. While IFM also invests in regulated and contracted assets, it has more exposure to transportation assets like seaports, toll roads and airports. The IFM Global infrastructure fund was established in 2004 and manages about \$72.8 Billion in assets. IFM's performance is in line with expectations through June 30 with a 9.7% return since the initial funding in August 2022.

d) *Conferences & Trainings:*

ALTS SV 2023

Staff attended the ALTS SV 2023 conference in Mountain View, CA on September 7th. The conference focused on alternative investments and featured a large line up of speakers from many different roles including institutional investors, investment consultants and investment managers. The event was hosted by the CFA Society San Francisco, CAIA Association and the CalALTs Association. The agenda included a number of fireside chats with executives of California public pension funds as well as multiple panel discussions on the current state of private credit. One keynote interview was with Robert Smith founder of Vista Equity Partners. Staff also attended a roundtable discussion on LP document management and data aggregation technology solutions. The conference also provided many opportunities to network many different types of institutional investors.

- VI. RISK: None
- VII. STRATEGIC PLAN: N/A
- VIII. ADMINISTRATIVE BUDGET IMPACT: None

September 26, 2023

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

I. SUBJECT: Private Markets Commitment Notice

II. ITEM NUMBER: 7.e.1

III. ITEM TYPE: Information Only

IV. STAFF RECOMMENDATION: N/A

V. Executive Summary:

On July 28, 2023 StanCERA committed \$20 million to the Ares Senior Direct Lending Fund III. Ares is a global alternative investment firm with approximately \$340 Billion in AUM. The credit group represents the largest business segment at Ares and direct lending is the largest strategy within the credit group. The Ares credit platforms covers the entire middle market direct lending market, with the SDL III fund focusing almost exclusively on first lien senior secured loans to sponsor backed private borrowers. Portfolio risk is managed through diversification by company, industry, sponsor, credit selectivity, negotiated terms, and structural protections. Ares benefits from its notoriety and scale allowing it to be a preferred capital provider by borrowers. This advantage can lead to increased opportunities and the ability to influence terms and enhance yields when compared to other lenders. The Ares credit group is well resourced with over 350 investment professionals and 180 are focused on direct lending. Ares also employs a workout group that is dedicated exclusively to underperforming companies. Ares was founded in 1997 and became a publicly traded company in 2014. Ares is headquartered in Los Angeles, CA with over 30 offices worldwide and employs over 2500 people globally.

StanCERA has an 8.0% target allocation to the private credit asset class with a sub-asset class target allocation of 5.0% to direct lending and 3.0% to special situations. The commitment to Ares SDL III will be allocated to the direct lending sub-asset class and is in compliance with StanCERA's Private Markets Investment Policy Statement. For each private market investment, several due diligence reports, including a comprehensive executive summary, are completed by the investment consultant and staff. These reports contain confidential and proprietary information and are available to Trustees upon request.

VI. RISK: None

VII. STRATEGIC PLAN: N/A

VIII. ADMINISTRATIVE BUDGET IMPACT: NONE

September 26, 2023

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

I. SUBJECT: Private Markets Commitment Notice

II. ITEM NUMBER: 7.e.2

III. ITEM TYPE: Information Only

IV. STAFF RECOMMENDATION: N/A

V. Executive Summary:

On September 13, 2023 StanCERA committed \$15 million to the KSL Capital Partners Credit Opportunity Fund IV. KSL Capital partners is a real estate investment firm focused exclusively on the travel and leisure industry. With \$18 Billion in AUM including \$6.3 Billion under their capital solutions platform, KSL has extensive experience in both equity and credit investing. The fund is expected to invest in senior and subordinated, floating rate, loans within the travel and leisure industry. Most debt investments will be backed by high quality hotels and resorts in high barrier to entry markets. KSL and its predecessors have 30 years of experience investing and operating a diverse set of travel and leisure businesses. As a result, KSL enjoys an sourcing advantage over competitors due to their long history as a trusted and knowledgeable partner. KSL's extensive experience across the hospitality industry also means the fund has the in-house capability to manage a problem asset to maximize recovery. KSL was founded in 2005 and is headquartered in Denver, CO. The firm employs over 120 employees with 11 investment professionals dedicated to the credit team. Given the increase in rates and the retrenchment of traditional lenders real estate debt, managed by a proven sector specialist, offers an attractive way to diversify the program while also generating an attractive risk-adjusted return.

StanCERA has a 12.5% target allocation to the real estate asset class with a sub-asset class target allocation of 6.5% to Core Real Estate and 6.0% to Value-Add Real Estate. The commitment to KSL Capital Partners Credit Opportunity Fund IV will be allocated to the Value-Add Real Estate sub-asset class and is in compliance with StanCERA's Private Markets Investment Policy Statement. For each private market investment, several due diligence reports, including a comprehensive executive summary, are completed by the investment consultant and staff. These reports contain confidential and proprietary information and are available to Trustees upon request.

VI. RISK: None

VII. STRATEGIC PLAN: N/A

VIII. ADMINISTRATIVE BUDGET IMPACT: NONE



Conference Summary

1. **Attendee Name:** Tom Stadelmaier
2. **Event Name:** SACRS/UC Berkeley Program
3. **Event Date:** July 16-19, 2023
4. **Event Location:** UC Berkeley

5. **Describe what was good about the event:**

This event focused on investment topics, governance, and also included academic insights into the management of public pension plans.

6. **Would you recommend this event to other trustees/staff?**

Yes. The event was very well organized, and the presenters offered diverse points-of-view. The event also allowed for extensive interaction with colleagues at other public pension plans and experts in the field.

This event was unique in its approach and offered valuable insights I have not found through other venues.

7. **Number of Education Credits:** N/A



MONTHLY PERFORMANCE REPORT

STANISLAUS COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

JULY 31, 2023

Dan Hennessy, CFA, CAIA, Senior Consultant

Sam Austin, Partner

Leah Tongco, Consulting Analyst



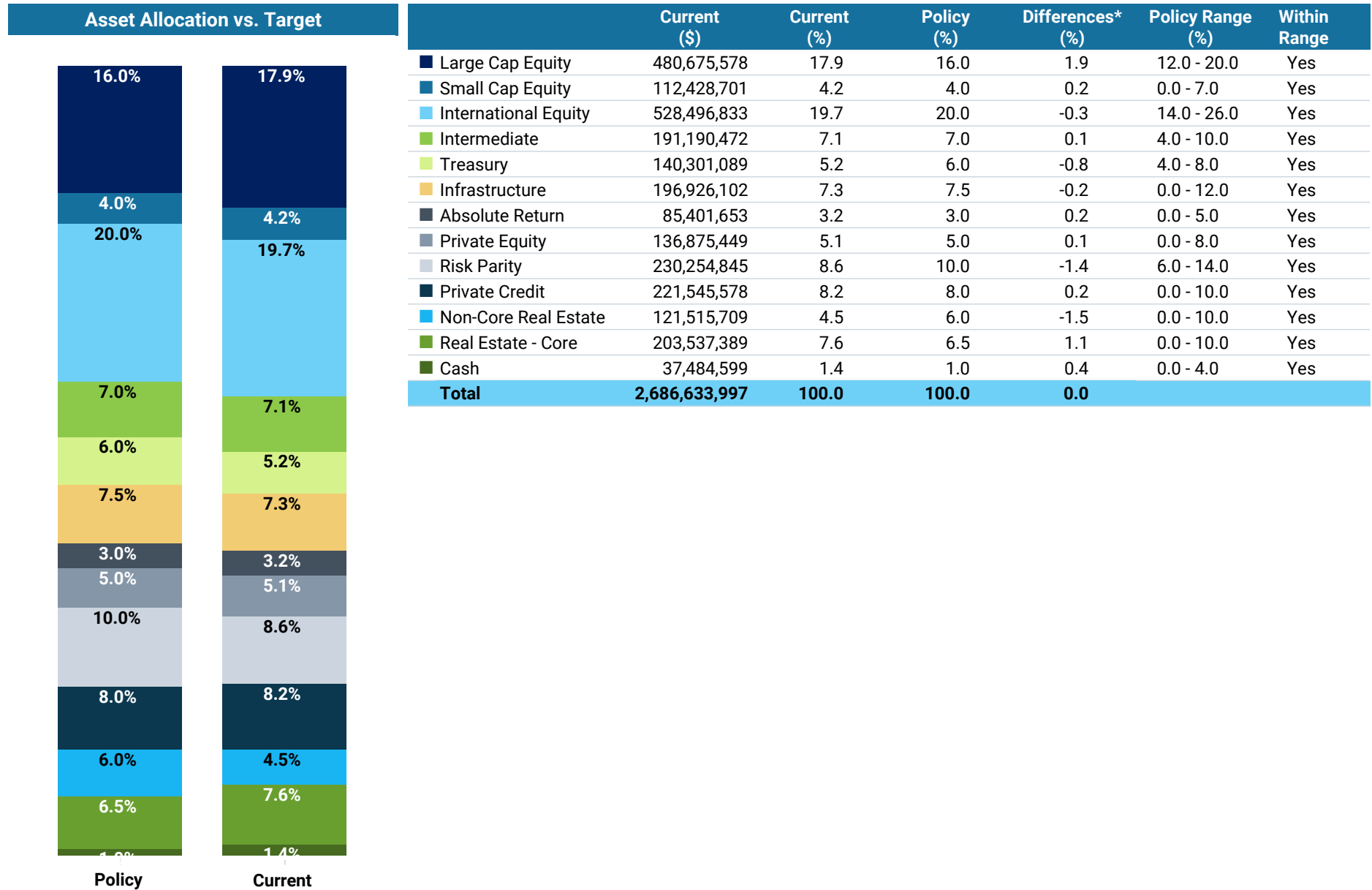
CALENDAR YEAR INDEX PERFORMANCE

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Jul	YTD
S&P 500	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	28.7%	-18.1%	3.2%	20.6%
Russell 1000	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	26.5%	-19.1%	3.4%	20.7%
Russell 2000	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	14.8%	-20.4%	6.1%	14.7%
Russell 2500	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	18.2%	-18.4%	5.0%	14.2%
MSCI EAFE	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	11.3%	-14.5%	3.2%	15.3%
MSCI EM	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	-2.5%	-20.1%	6.2%	11.4%
MSCI ACWI	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	18.5%	-18.4%	3.7%	18.1%
Private Equity	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	45.0%	-9.3%	-	2.1%
BBG TIPS	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	6.0%	-11.8%	0.1%	2.0%
BBG Municipal	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	1.5%	-8.5%	0.4%	3.1%
BBG Muni High Yield	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	7.8%	-13.1%	0.7%	5.1%
BBG US Corporate HY	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	5.3%	-11.2%	1.4%	6.8%
BBG US Agg Bond	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	-1.5%	-13.0%	-0.1%	2.0%
BBG Global Agg	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	-4.7%	-16.2%	0.7%	2.1%
BBG Long Treasuries	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	-4.6%	-29.3%	-2.2%	1.5%
BBG US Long Credit	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	-1.2%	-25.3%	-0.1%	4.8%
BBG US STRIPS 20+ Yr	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	24.0%	-5.2%	-39.6%	-3.8%	1.1%
JPM GBI-EM Global Div	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	2.7%	-8.7%	-11.7%	2.9%	10.9%
JPM EMBI Glob Div	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	-1.8%	-17.8%	1.9%	6.1%
CS Hedge Fund	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	6.4%	8.2%	1.1%	-	1.9%
BBG Commodity	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	27.1%	16.1%	6.3%	-2.0%
Alerian Midstream	-	16.4%	-37.3%	33.8%	-2.4%	-13.3%	24.0%	-23.4%	38.4%	21.5%	3.3%	8.0%
FTSE NAREIT Equity REITs	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	43.2%	-24.4%	2.9%	8.4%

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag
Source: FactSet, Barclays, Thomson One



ASSET ALLOCATION VS. POLICY



*Difference between Policy and Current Allocation

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	2,686,633,997	100.0	2.1	7.7	5.1	7.3	6.0	7.2	6.9	8.6	Jan-95
Policy Index			2.2	10.1	7.5	7.7	6.7	7.3	7.2	7.9	
Allocation Index			2.3	9.3	5.5	6.7					
Liquidity Sub-Portfolio	228,675,071	8.5	0.5	2.5	1.4	-0.2	2.8	2.1		1.8	Aug-14
StanCERA Liquidity Blended BM			0.3	1.9	-0.8	-1.7	1.8	1.4		1.3	
Cash	37,484,599	1.4	0.5	3.3	5.1	3.0	2.5	2.1		1.8	Aug-14
FTSE 1 Month T-Bill			0.4	2.8	4.1	1.4	1.6	1.4		1.1	
Cashflow-Matched Bonds	191,190,472	7.1	0.5	2.3	0.8	-1.1	2.5			2.1	Jul-17
Blmbg. Intermed. U.S. Government/Credit			0.3	1.8	-1.4	-2.6	1.3			1.0	
Insight	191,190,472	7.1	0.5	2.3	0.8	-1.1	2.5			2.1	Jul-17
Blmbg. Intermed. U.S. Government/Credit			0.3	1.8	-1.4	-2.6	1.3			1.0	
Growth Sub-Portfolio	2,002,001,339	74.5	2.5	9.5	8.1	10.6	7.6	9.2	8.6	8.1	Jan-04
StanCERA Growth Blended BM			2.7	11.7	9.7	11.3	8.7	9.7			
US Equities	593,104,279	22.1	4.1	19.6	13.7	15.4	10.9	12.6	11.5	9.9	Jan-04
Russell 3000 Index			3.6	20.3	12.6	13.1	11.4	12.8	12.1	9.6	
US Large Equity	480,675,578	17.9	3.8	20.9	13.6	14.2	12.1	13.6	12.6	12.6	Jan-95
Russell 1000 Index			3.4	20.7	12.9	13.2	11.9	13.1	12.4	10.5	
BlackRock Russell 1000 Growth	240,888,697	9.0	3.4	33.3	17.3	12.2	15.2	16.7	15.5	16.1	Aug-10
Russell 1000 Growth Index			3.4	33.4	17.3	12.2	15.2	16.7	15.5	16.1	
BlackRock Russell 1000 Value	118,940,623	4.4	3.5	8.8	8.3	14.1	8.1	9.1	9.1	11.4	Aug-09
Russell 1000 Value Index			3.5	8.8	8.3	14.1	8.0	9.0	9.0	11.3	
Dodge & Cox-Equity	120,846,257	4.5	4.9	12.3	12.1	18.8	9.7	12.2	11.0	11.9	Jan-95
Russell 1000 Value Index			3.5	8.8	8.3	14.1	8.0	9.0	9.0	9.7	
US Small Equity	112,428,701	4.2	5.7	14.3	13.7	21.4	6.7	9.3	8.2	12.0	Jan-09
Russell 2000 Index			6.1	14.7	7.9	12.0	5.1	8.8	8.2	11.5	
Attucks Small Cap	112,428,701	4.2	5.7	14.3	13.7	21.4	6.7	10.0	8.9	12.2	Jan-09
Russell 2000 Value Index			7.5	10.2	3.9	17.5	4.7	8.0	7.4	10.3	
International Equity	528,496,833	19.7	4.2	14.8	17.0	9.7	4.8	7.0	5.4	6.3	Oct-04
MSCI AC World ex USA (Net)			4.1	13.9	13.4	7.1	3.9	6.2	4.7	5.7	
LSV Int'l Large Cap Value	281,600,427	10.5	4.6	15.4	18.9	12.1	4.5	7.2	5.4	6.2	Oct-04
MSCI AC World ex USA Value (Net)			5.1	13.7	16.3	11.5	3.0	5.7	3.7	5.0	
Fidelity Int'l Growth	246,896,406	9.2	3.8	14.1	14.9	7.3	4.9	6.7	5.2	4.2	May-06
MSCI AC World ex USA Growth (Net)			3.1	14.2	10.7	2.8	4.3	6.4	5.5	4.2	

- Cash Composite includes the Transaction Account Value.

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Real Estate	203,537,389	7.6	0.1	0.1	-2.0	7.8	5.5	4.5	6.3	3.1	Apr-08
NCREIF Property Index			0.0	-3.8	-6.6	6.8	5.9	6.2	7.8	6.0	
Prime Property Fund	100,243,157	3.7	0.0	-3.5	-7.1	8.5	6.8	7.4		7.5	Oct-15
NCREIF ODCE			0.0	-5.8	-10.0	8.0	6.5	7.0		7.2	
BlackRock Real Estate Securities	5,572,737	0.2	2.9	8.7	-6.4	8.8	3.6	2.3	5.9	6.3	Oct-12
Dow Jones U.S. Select RESI			2.9	8.9	-6.3	9.0	3.7	2.4	6.0	6.3	
PGIM Real Estate US Debt Fund	97,721,495	3.6	0.0	3.5	6.9	5.5				5.3	Sep-18
Blmbg. U.S. Investment Grade: CMBS Index			0.2	1.3	-3.4	-3.1				1.1	
Value-Add Real Estate	121,515,709	4.5	0.0	-6.1	-6.4	9.4	9.0	9.9		10.0	Aug-14
NCREIF Property Index +2%			0.2	-2.6	-4.7	8.9	8.0	8.4		9.6	
American Strategic Value Realty	84,650,893	3.2	0.0	-4.6	-6.5	7.4	7.1	8.1		9.4	Jan-15
NCREIF Property Index			0.0	-3.8	-6.6	6.8	5.9	6.2		7.1	
Greenfield Acquisition Partners VII	1,111,515	0.0	0.0	7.8	1.9	5.4	7.0	8.9		9.2	Aug-14
NCREIF-ODCE +1%			0.1	-5.2	-9.1	9.1	7.6	8.0		9.4	
Grandview Property Partners I	18,712,031	0.7	0.0	-11.7	-10.1	16.6	14.8			18.0	Apr-18
NCREIF-ODCE +1%			0.1	-5.2	-9.1	9.1	7.6			7.5	
Grandview Property Partners II	17,041,270	0.6	0.0	-7.8	1.3					-1.4	Dec-21
NCREIF-ODCE +1%			0.1	-5.2	-9.1					6.6	
Infrastructure	196,926,102	7.3	0.3	3.8	5.3	0.2	4.3	6.8		5.1	Jun-15
CPI + 5% (Unadjusted)			0.6	6.0	8.3	10.9	9.1	8.7		8.3	
MS Infrastructure Partners II	13,679,141	0.5	0.0	-2.5	10.5	6.4	8.2	9.6		7.4	Jun-15
CPI + 5% (Unadjusted)			0.6	6.0	8.3	10.9	9.1	8.7		8.3	
Palistar Communications Infrastructure Fund II	13,850,401	0.5	0.0	-1.2	5.8					6.1	Jan-22
CPI + 5% (Unadjusted)			0.6	6.0	8.3					11.3	
JP Morgan IIF Hedged LP	33,193,969	1.2	0.0	3.4	10.6					9.2	Apr-22
CPI + 5% (Unadjusted)			0.6	6.0	8.3					9.9	
Northern Trust Infrastructure Fund	81,391,498	3.0	0.8	4.9	-1.3					-2.0	Jul-21
67% STOXX Global Broad Infra / 33% Bloomberg US TIPS			0.9	4.8	-1.0					-1.8	
IFM Global Infrastructure Fund	54,811,094	2.0	0.0	5.1	9.6					8.9	Jul-22
CPI + 5% (Unadjusted)			0.6	6.0	8.3					8.1	

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	136,875,449	5.1	1.3	0.8	-4.6	10.7				12.3	Dec-18
Russell 3000 + 3%			3.8	22.4	16.0	16.5				16.2	
Private Equity	88,692,128	3.3	0.0	-8.8	-12.6	14.1				12.6	Apr-20
Russell 3000 + 3%			3.8	22.4	16.0	16.5				24.2	
Private Equity Proxy	48,183,320	1.8	3.6	20.4	12.7	13.1	12.6	13.5	12.8	10.0	Dec-03
Russell 3000 Index			3.6	20.3	12.6	13.1	11.4	12.8	12.1	9.8	
Private Credit	221,545,578	8.2	0.5	3.7	5.1	2.2	0.4	0.9	2.1	2.3	Jun-13
S&P/LSTA Leveraged Loan Index +2%			1.5	9.1	12.0	8.2	6.3	6.7	6.2	6.1	
Private Credit	118,873,647	4.4	0.0	0.3	3.5	5.2	2.1	2.2	3.0	3.2	Jun-13
S&P/LSTA Leveraged Loan Index +2%			1.5	9.1	12.0	8.2	6.3	6.7	6.2	6.1	
Private Credit Proxy	102,671,932	3.8	1.2	7.5	6.9					-0.7	Jul-21
ICE BofA US High Yield Master II Constrained			1.4	6.9	4.2					-1.7	
Risk-Diversifying Sub-Portfolio	455,957,587	17.0	1.1	3.0	-4.6	-2.2	1.1	1.1	2.1	3.9	Dec-03
StanCERA Risk-Diversifying Blended BM			1.2	7.1	2.7	-0.4	2.2	1.4	1.7		
Risk Parity	230,254,845	8.6	2.0	4.3	-8.8	-1.0	2.3			2.0	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			2.5	11.5	6.6	3.9	4.8			4.6	
AQR Global Risk Premium - EL	123,619,798	4.6	2.6	5.3	-3.4	1.4	3.2			3.3	Apr-18
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			2.5	11.5	6.6	3.9	4.8			4.7	
PanAgora Risk Parity Multi Asset	106,635,047	4.0	1.3	3.2	-14.4	-3.5	1.4			1.0	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			2.5	11.5	6.6	3.9	4.8			4.6	
US Treasury Bonds	140,301,089	5.2	-0.5	1.2	-5.1	-6.2	0.3	0.5	1.7	3.6	Dec-03
Blmbg. U.S. Treasury: 7-10 Year			-0.6	1.0	-6.5	-6.5	0.6	-0.5	1.3	3.4	
Northern Trust Intermediate Gov't Bond	100,215,955	3.7	0.1	1.2	-2.2	-3.0	0.8			0.5	Aug-17
Blmbg. U.S. Government: Intermediate			0.1	1.2	-2.2	-2.9	0.9			0.5	
Northern Trust Long Term Gov't Bond	40,085,135	1.5	-2.1	1.4	-11.4	-13.1	-0.5			-0.6	Aug-17
Blmbg. U.S. Government: Long Term Bond Index			-2.2	1.5	-11.2	-13.8	-1.0			-1.0	
Liquid Absolute Return	85,401,653	3.2	1.3	2.3	7.7					11.2	Oct-21
30 Day T-Bill + 4%			0.8	5.1	8.2					6.4	
Graham Global Investment Fund I SPC LTD	57,054,890	2.1	2.2	1.8	6.4					15.7	Nov-21
HFRI Macro (Total) Index			0.6	-0.2	1.0					4.0	
Invesco Global Targeted Return	28,346,763	1.1	-0.4	3.4	9.4					3.8	Dec-21
30 Day T-Bill + 4%			0.8	5.1	8.2					6.7	

CASH FLOW SUMMARY BY MANAGER

	1 Month Ending July 31, 2023				
	Beginning Market Value	Contributions	Withdrawals	Net Investment Change	Ending Market Value
Abry Senior Equity VI, L.P.	\$6,973,983	-	-	-	\$6,973,983
American Strategic Value Realty	\$84,650,893	-	-	-	\$84,650,893
AQR Global Risk Premium - EL	\$120,416,073	-	-	\$3,203,725	\$123,619,798
Blackrock High Yield Fund	\$84,261,019	-	-	\$1,190,055	\$85,451,074
BlackRock Real Estate Securities	\$5,417,195	-	-	\$155,543	\$5,572,737
BlackRock Russell 1000 Growth	\$233,031,121	-	-	\$7,857,576	\$240,888,697
BlackRock Russell 1000 Value	\$114,892,853	-	-	\$4,047,771	\$118,940,623
Blue Wolf Capital Fund V-A, L.P.	\$3,146,374	-	-	-	\$3,146,374
Callodine Loan Fund II LP	\$12,561,129	-	-	-	\$12,561,129
Cash Account	\$39,494,800	\$10,524	-\$2,527,878	\$197,114	\$37,174,561
Channing	\$29,774,545	-	-	\$1,416,803	\$31,191,348
Clayton, Dublier, & Rice	\$14,740,345	-	-	-	\$14,740,345
Dodge & Cox-Equity	\$115,261,599	-	-\$60,723	\$5,645,381	\$120,846,257
Fidelity Int'l Growth	\$237,773,499	-	-	\$9,122,907	\$246,896,406
Genstar Capital Partners X	\$9,001,315	\$1,043,028	-	-	\$10,044,343
Graham Global Investment Fund I SPC LTD	\$55,847,649	-	-	\$1,207,241	\$57,054,890
Grandview Property Partners I	\$18,712,031	-	-	-	\$18,712,031
Grandview Property Partners II	\$17,041,270	-	-	-	\$17,041,270
Great Hill EP VIII	-\$364,181	-	-	-	-\$364,181
Greenfield Acquisition Partners VII	\$1,111,515	-	-	-	\$1,111,515
Gryphon Partners VI LP	\$12,813,857	-	-	-	\$12,813,857
IFM Global Infrastructure Fund	\$54,830,313	-	-	-\$19,220	\$54,811,094
Insight	\$194,177,106	-	-\$3,996,158	\$1,009,524	\$191,190,472
Insight Partners XI	\$21,067,704	-	-	-	\$21,067,704
Invesco Global Targets Returns	\$28,460,703	-	-	-\$113,940	\$28,346,763
JP Morgan IIF Hedged LP	\$33,193,969	-	-	-	\$33,193,969
LSV Int'l Large Cap Value	\$269,250,131	-	-\$1,192	\$12,351,489	\$281,600,427
Medley Capital	\$2,558,209	-	-	-	\$2,558,209
Monroe Private Credit IV	\$17,220,858	-	-	-	\$17,220,858

CASH FLOW SUMMARY BY MANAGER

	Beginning Market Value	Contributions	Withdrawals	Net Investment Change	Ending Market Value
MS Infrastructure Partners II	\$13,679,141	-	-	-	\$13,679,141
Northern Trust Infrastructure Fund	\$80,758,810	-	-	\$632,688	\$81,391,498
Northern Trust Intermediate Gov't Bond	\$100,096,995	-	-	\$118,960	\$100,215,955
Northern Trust Long Term Gov't Bond	\$40,960,534	-	-	-\$875,399	\$40,085,135
Northern Trust Russell 3000	\$47,295,943	-	-\$805,228	\$1,692,606	\$48,183,320
Owl Rock First Lien Fund	\$8,918,474	-	-	-	\$8,918,474
Pacific Ridge	\$17,235,726	-	-	\$1,253,313	\$18,489,039
Palistar Communications Infrastructure Fund II	\$13,850,401	-	-	-	\$13,850,401
PanAgora Risk Parity Multi Asset	\$105,228,671	-	-	\$1,406,376	\$106,635,047
PGIM Real Estate US Debt Fund	\$97,721,495	-	-	-	\$97,721,495
Phocas'	\$25,211,168	-	-	\$1,552,306	\$26,763,473
Prime Property Fund	\$100,243,157	-	-	-	\$100,243,157
Raven Opportunity III	\$55,627,212	-	-	-	\$55,627,212
Seizert	\$34,160,550	-	-	\$1,824,291	\$35,984,841
Sole Source Capital Partners II	\$12,518,076	-	-	-	\$12,518,076
Strategic Values Special Situations Fund V, L.P.	\$5,536,305	-	-\$7,198	-	\$5,529,107
Transition Account	\$170,749	\$139,279	-\$1,000	\$1,010	\$310,038
Vista Foundation Fund IV	\$14,446,461	\$279,149	-	-	\$14,725,610
White Oak Pinnacle	\$26,705,533	-	-	-	\$26,705,533
Total	\$2,637,683,275	\$1,471,981	-\$7,399,378	\$54,878,119	\$2,686,633,997

NOTES

- All performance is shown net of investment management fees. Market values for MS Infrastructure Partners II, Palistar Communications Infrastructure Fund II, and JP Morgan IIF Hedged LP are carried over from 03/31/23 and subject to change once finalized.
- Graham Global Investment Fund I SPC LTD and LSV Int'l Large Cap Value are preliminary and subject to change once finalized.
- Performance history is provided by Verus through June 2020. As of July 1, 2020 performance is calculated and reported by NEPC.
- Policy Index history:
 - **Inception - 6/30/2017:** 14.4% Russell 1000 Value, 11.3% Russell 1000 Growth, 4.8% S&P 500, 4% Russell 2000 Value, 3.7% Russell 2000 Growth, 18% MSCI ACWI ex USA Gross, 29.8%Bloomberg US Aggregate TR, 3.5% DJ US Select RESI TR USD, 7.5% 9% Annual, 3% CPI + 4%
 - **7/1/2017 - 8/31/2018:** 18.5% Russell 1000, 5.5% Russell 2000, 24% MSCI ACWI ex USA Gross, 19% Bloomberg US Govt/Credit 1-3 Yr. TR, 1% FTSE T-Bill 1 Month TR, 3% Bloomberg US Treasury 7-10 Yr TR, 7.7% NCREIF Property Index, 1.7% NCREIF Property Index +2%, 0.6% CPI + 5%, 5% Bloomberg US High Yield + 2%, 14% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
 - **9/1/2018 - 5/30/2019:** 10% Russell 1000, 3% Russell 2000, 6% Russell 3000 +3%, 27% MSCI ACWI ex USA Gross, 20% Bloomberg US Govt/Credit 1-3 Yr. TR, 1% FTSE T-Bill 1 Month TR, 3%Bloomberg US Treasury 7-10 Yr TR, 5% NCREIF Property Index, 5% NCREIF Property Index +2%, 1% CPI + 5%, 6% S&P/LSTA Leveraged Loan Index+2%, 13% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
 - **6/1/2019 - 6/30/2020:** 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 3% Bloomberg US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% Bloomberg Global Aggregate
 - **7/1/2020 - 12/31/2020:** 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 8% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 3% Bloomberg US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% Bloomberg Global Aggregate, 11%Bloomberg US Intermediate.
 - **1/1/2021 - 06/30/2021:** 16% Russell 1000, 3.5% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 8% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 5% Bloomberg US Treasury 7-10 Yr, 6% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 4.5% S&P/LSTA Leveraged Loan Index + 2%, 13% 60%MSCI ACWI / 40% Bloomberg Global Aggregate, 7%Bloomberg US Intermediate.
 - **07/01/2021 - Present:** 16% Russell 1000, 4% Russell 2000, 5% Russell 3000 + 3%, 20% MSCI ACWI ex USA Gross, 6.5% NCREIF Property Index, 6% NCREIF Property Index + 2%, 7.5% CPI + 5% (Unadjusted), 8% S&P/LSTA Leveraged Loan Index +2%, 6% Bloomberg US Treasury 7-10 Yr TR, 10% 60% MSCI ACWI (Net)/ 40%Bloomberg Global Agg, 3% 30 Day T-Bill + 4%, 1% FTSE T-Bill 1 Month TR, 7% Bloomberg US Govt/Credit Int TR.
- Starting July 1, 2020, the small Capital Prospects transition cash balance is moved from the Cash composite to the Capital Prospects account. Historical performance for Capital Prospects, US Small, US Equities, Growth Sub-Portfolio, Cash, and Liquidity Sub-Portfolio prior to July 1, 2020 reflects performance of these composites before this change.
- Private Equity investments are valued one quarter lagged and adjusted for capital calls and distributions between quarter-end months.
- Value-Add Real Estate managers are valued quarterly adjusted for current cash flows.
- Fiscal Year End Date June 30.

DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

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Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv





MONTHLY PERFORMANCE REPORT

STANISLAUS COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

AUGUST 31, 2023

Dan Hennessy, CFA, CAIA, Senior Consultant

Sam Austin, Partner

John Tolar, Consulting Analyst



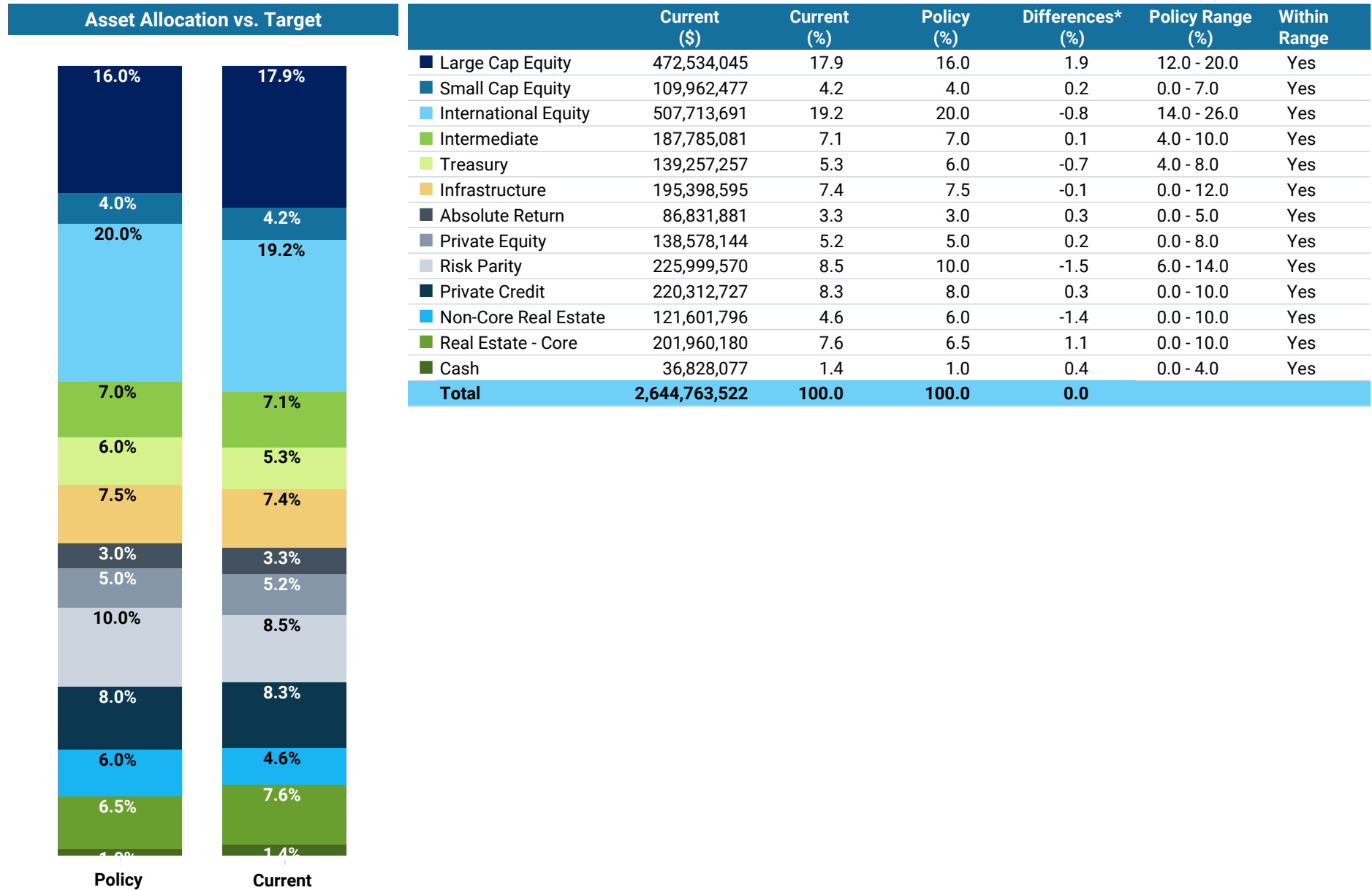
CALENDAR YEAR INDEX PERFORMANCE

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Aug	YTD
S&P 500	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	28.7%	-18.1%	-1.6%	18.7%
Russell 1000	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	26.5%	-19.1%	-1.7%	18.6%
Russell 2000	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	14.8%	-20.4%	-5.0%	9.0%
Russell 2500	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	18.2%	-18.4%	-3.9%	9.7%
MSCI EAFE	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	11.3%	-14.5%	-3.8%	10.9%
MSCI EM	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	-2.5%	-20.1%	-6.2%	4.6%
MSCI ACWI	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	18.5%	-18.4%	-2.8%	14.8%
Private Equity	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	45.0%	-9.3%	-	2.1%
BBG TIPS	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	6.0%	-11.8%	-0.9%	1.1%
BBG Municipal	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	1.5%	-8.5%	-1.4%	1.6%
BBG Muni High Yield	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	7.8%	-13.1%	-1.5%	3.5%
BBG US Corporate HY	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	5.3%	-11.2%	0.3%	7.1%
BBG US Agg Bond	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	-1.5%	-13.0%	-0.6%	1.4%
BBG Global Agg	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	-4.7%	-16.2%	-1.4%	0.7%
BBG Long Treasuries	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	-4.6%	-29.3%	-2.8%	-1.4%
BBG US Long Credit	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	-1.2%	-25.3%	-1.9%	2.8%
BBG US STRIPS 20+ Yr	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	24.0%	-5.2%	-39.6%	-4.9%	-3.8%
JPM GBI-EM Global Div	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	2.7%	-8.7%	-11.7%	-2.7%	7.9%
JPM EMBI Glob Div	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	-1.8%	-17.8%	-1.5%	4.5%
CS Hedge Fund	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	6.4%	8.2%	1.1%	-	3.2%
BBG Commodity	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	27.1%	16.1%	-0.8%	-2.8%
Alerian Midstream	-	16.4%	-37.3%	33.8%	-2.4%	-13.3%	24.0%	-23.4%	38.4%	21.5%	-0.1%	7.8%
FTSE NAREIT Equity REITs	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	43.2%	-24.4%	-3.1%	5.0%

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag
Source: FactSet, Barclays, Thomson One



ASSET ALLOCATION VS. POLICY



*Difference between Policy and Current Allocation

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)									
	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	2,644,763,522	100.0	-1.4	0.7	6.2	6.2	5.8	5.6	6.9	6.9	8.5	Jan-95
Policy Index			-1.5	0.7	8.4	8.1	6.0	6.2	7.0	7.2	7.8	
Allocation Index			-1.7	0.6	7.4	6.3	4.9					
Liquidity Sub-Portfolio	224,613,158	8.5	0.2	0.7	2.7	2.3	-0.2	2.7	2.1		1.8	Aug-14
StanCERA Liquidity Blended BM			0.0	0.3	1.9	1.0	-1.7	1.7	1.4		1.3	
Cash	36,828,077	1.4	0.5	1.0	3.9	5.4	3.2	2.5	2.2		1.9	Aug-14
FTSE 1 Month T-Bill			0.5	0.9	3.2	4.3	1.6	1.6	1.4		1.1	
Cashflow-Matched Bonds	187,785,081	7.1	0.1	0.6	2.4	1.9	-1.1	2.4			2.0	Jul-17
Blmbg. Intermed. U.S. Government/Credit			0.0	0.2	1.8	0.6	-2.6	1.2			0.9	
Insight	187,785,081	7.1	0.1	0.6	2.4	1.9	-1.1	2.4			2.0	Jul-17
Blmbg. Intermed. U.S. Government/Credit			0.0	0.2	1.8	0.6	-2.6	1.2			0.9	
Growth Sub-Portfolio	1,968,061,656	74.4	-1.7	0.8	7.7	8.9	8.6	7.1	8.8	8.6	8.0	Jan-04
StanCERA Growth Blended BM			-1.8	0.9	9.8	9.8	9.1	8.2	9.4			
US Equities	582,496,523	22.0	-1.8	2.3	17.5	15.8	12.0	9.8	12.2	11.6	9.8	Jan-04
Russell 3000 Index			-1.9	1.6	18.0	14.8	9.8	10.3	12.4	12.2	9.5	
US Large Equity	472,534,045	17.9	-1.7	2.0	18.8	15.9	10.8	11.0	13.2	12.6	12.5	Jan-95
Russell 1000 Index			-1.7	1.6	18.6	15.4	9.9	10.8	12.8	12.6	10.4	
BlackRock Russell 1000 Growth	238,704,326	9.0	-0.9	2.4	32.1	21.9	8.2	13.8	16.6	15.6	15.9	Aug-10
Russell 1000 Growth Index			-0.9	2.4	32.2	21.9	8.3	13.8	16.6	15.6	15.9	
BlackRock Russell 1000 Value	115,726,249	4.4	-2.7	0.7	5.9	8.6	11.6	7.2	8.6	9.2	11.1	Aug-09
Russell 1000 Value Index			-2.7	0.7	5.9	8.6	11.6	7.1	8.5	9.1	11.1	
Dodge & Cox-Equity	118,103,471	4.5	-2.3	2.5	9.7	12.2	16.0	8.8	11.5	11.1	11.7	Jan-95
Russell 1000 Value Index			-2.7	0.7	5.9	8.6	11.6	7.1	8.5	9.1	9.6	
US Small Equity	109,962,477	4.2	-2.0	3.5	11.9	15.5	18.7	5.9	8.8	8.2	11.8	Jan-09
Russell 2000 Index			-5.0	0.8	9.0	4.7	8.1	3.1	7.7	8.0	11.0	
Attucks Small Cap	109,962,477	4.2	-2.0	3.5	11.9	15.5	18.7	5.9	9.4	9.0	12.0	Jan-09
Russell 2000 Value Index			-4.8	2.4	4.9	2.2	13.5	3.2	6.9	7.4	9.8	
International Equity	507,713,691	19.2	-3.7	0.4	10.6	16.4	6.9	4.4	6.3	5.2	6.1	Oct-04
MSCI AC World ex USA (Net)			-4.5	-0.6	8.8	11.9	4.0	3.3	5.4	4.4	5.4	
LSV Int'l Large Cap Value	272,456,339	10.3	-2.7	1.7	12.3	20.1	9.7	4.5	6.5	5.3	6.0	Oct-04
MSCI AC World ex USA Value (Net)			-3.9	0.9	9.3	14.6	8.4	2.9	4.9	3.4	4.8	
Fidelity Int'l Growth	235,257,352	8.9	-4.7	-1.1	8.7	12.3	4.0	4.1	6.0	4.9	3.9	May-06
MSCI AC World ex USA Growth (Net)			-5.1	-2.1	8.3	9.3	-0.4	3.5	5.7	5.2	3.9	

- Cash Composite includes the Transaction Account Value.

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)									
	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Real Estate	201,960,180	7.6	-0.3	-0.2	-0.2	-1.2	7.7	4.9	4.8	7.1	3.1	Apr-08
NCREIF Property Index			0.0	0.0	-3.8	-6.6	6.8	5.9	6.2	7.8	6.0	
Prime Property Fund	100,243,157	3.8	0.0	0.0	-3.5	-7.1	8.5	6.8	7.4		7.5	Oct-15
NCREIF ODCE			0.0	0.0	-5.8	-10.0	8.0	6.5	7.0		7.2	
BlackRock Real Estate Securities	4,445,528	0.2	-3.2	-0.4	5.2	-3.4	7.4	2.4	2.3	6.3	5.9	Oct-12
Dow Jones U.S. Select RESI			-3.2	-0.4	5.4	-3.2	7.6	2.5	2.4	6.4	6.0	
PGIM Real Estate US Debt Fund	97,271,495	3.7	-0.5	-0.5	3.0	6.4	5.4	5.1			5.1	Sep-18
Blmbg. U.S. Investment Grade: CMBS Index			0.0	0.2	1.2	-1.0	-3.2	1.0			1.0	
Value-Add Real Estate	121,601,796	4.6	0.0	0.0	-6.1	-6.4	9.4	9.0	9.8		9.9	Aug-14
NCREIF Property Index +2%			0.2	0.3	-2.5	-4.7	8.9	8.0	8.4		9.5	
American Strategic Value Realty	84,650,893	3.2	0.0	0.0	-4.6	-6.5	7.4	7.1	7.9		9.3	Jan-15
NCREIF Property Index			0.0	0.0	-3.8	-6.6	6.8	5.9	6.2		7.1	
Greenfield Acquisition Partners VII	1,111,515	0.0	0.0	0.0	7.8	1.9	5.4	7.0	8.9		9.1	Aug-14
NCREIF-ODCE +1%			0.1	0.2	-5.1	-9.1	9.1	7.6	8.0		9.3	
Grandview Property Partners I	18,712,031	0.7	0.0	0.0	-11.7	-10.1	16.6	14.8			17.7	Apr-18
NCREIF-ODCE +1%			0.1	0.2	-5.1	-9.1	9.1	7.6			7.4	
Grandview Property Partners II	17,127,357	0.6	0.0	0.0	-7.8	1.3					-1.4	Dec-21
NCREIF-ODCE +1%			0.1	0.2	-5.1	-9.1					6.3	
Infrastructure	195,398,595	7.4	-1.3	-1.0	3.0	6.2	-0.1	4.2	6.7		4.9	Jun-15
CPI + 5% (Unadjusted)			0.8	1.4	6.9	8.8	11.0	9.2	8.7		8.3	
MS Infrastructure Partners II	13,627,765	0.5	0.0	0.0	-2.9	10.1	6.3	8.1	9.5		7.3	Jun-15
CPI + 5% (Unadjusted)			0.8	1.4	6.9	8.8	11.0	9.2	8.7		8.3	
Palistar Communications Infrastructure Fund II	14,461,540	0.5	0.0	0.0	3.2	10.5					8.5	Jan-22
CPI + 5% (Unadjusted)			0.8	1.4	6.9	8.8					11.3	
JP Morgan IIF Hedged LP	33,647,788	1.3	0.0	0.0	4.8	12.1					9.7	Apr-22
CPI + 5% (Unadjusted)			0.8	1.4	6.9	8.8					10.0	
Northern Trust Infrastructure Fund	79,193,345	3.0	-2.7	-1.9	2.1	-0.5					-3.2	Jul-21
67% STOXX Global Broad Infra / 33% Bloomberg US TIPS			-2.7	-1.8	2.0	-0.6					-3.0	
IFM Global Infrastructure Fund	54,468,157	2.1	-0.6	-0.7	4.5	9.0					7.6	Jul-22
CPI + 5% (Unadjusted)			0.8	1.4	6.9	8.8					8.2	

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)									
	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	138,578,144	5.2	-0.7	0.6	0.1	-3.4	8.0				11.9	Dec-18
Russell 3000 + 3%			-1.7	2.1	20.4	18.2	13.1				15.5	
Private Equity	92,500,691	3.5	0.0	0.0	-8.8	-12.6	14.1				12.3	Apr-20
Russell 3000 + 3%			-1.7	2.1	20.4	18.2	13.1				22.9	
Private Equity Proxy	46,077,452	1.7	-1.9	1.6	18.1	14.8	9.8	11.5	13.2	12.9	9.8	Dec-03
Russell 3000 Index			-1.9	1.6	18.0	14.8	9.8	10.3	12.4	12.2	9.7	
Private Credit	220,312,727	8.3	0.1	0.7	3.9	6.5	2.2	0.4	0.9	2.1	2.3	Jun-13
S&P/LSTA Leveraged Loan Index +2%			1.3	2.8	10.6	11.6	8.1	6.5	6.8	6.3	6.2	
Private Credit	118,858,716	4.5	0.0	0.0	0.3	3.5	5.2	2.1	2.2	3.0	3.2	Jun-13
S&P/LSTA Leveraged Loan Index +2%			1.3	2.8	10.6	11.6	8.1	6.5	6.8	6.3	6.2	
Private Credit Proxy	101,454,011	3.8	0.3	1.4	7.7	9.8					-0.5	Jul-21
ICE BofA US High Yield Master II Constrained			0.3	1.7	7.2	7.0					-1.5	
Risk-Diversifying Sub-Portfolio	452,088,708	17.1	-0.9	0.2	2.1	-2.3	-2.3	0.8	0.9	2.1	3.8	Dec-03
StanCERA Risk-Diversifying Blended BM			-1.3	-0.1	5.8	4.6	-0.8	1.9	1.3	1.6		
Risk Parity	225,999,570	8.5	-1.9	0.1	2.4	-5.5	-2.1	1.8			1.6	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			-2.2	0.2	9.0	8.3	1.9	4.2			4.1	
AQR Global Risk Premium - EL	121,667,148	4.6	-1.6	1.0	3.6	-0.7	0.3	2.6			3.0	Apr-18
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			-2.2	0.2	9.0	8.3	1.9	4.2			4.1	
PanAgora Risk Parity Multi Asset	104,332,422	3.9	-2.2	-0.9	0.9	-10.5	-4.7	0.9			0.6	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			-2.2	0.2	9.0	8.3	1.9	4.2			4.1	
US Treasury Bonds	139,257,257	5.3	-0.7	-1.3	0.5	-3.1	-6.0	-0.1	0.3	1.7	3.6	Dec-03
Blmbg. U.S. Treasury: 7-10 Year			-0.7	-1.4	0.2	-3.5	-6.5	0.2	-0.5	1.3	3.3	
Northern Trust Intermediate Gov't Bond	100,270,612	3.8	0.1	0.2	1.2	-0.2	-2.9	0.7			0.5	Aug-17
Blmbg. U.S. Government: Intermediate			0.1	0.2	1.3	-0.1	-2.8	0.8			0.5	
Northern Trust Long Term Gov't Bond	38,986,644	1.5	-2.7	-4.8	-1.4	-9.7	-12.6	-1.4			-1.0	Aug-17
Blmbg. U.S. Government: Long Term Bond Index			-2.8	-4.9	-1.3	-9.6	-13.4	-1.9			-1.5	
Liquid Absolute Return	86,831,881	3.3	1.7	3.0	4.1	7.0					11.7	Oct-21
30 Day T-Bill + 4%			0.8	1.6	6.0	8.5					6.6	
Graham Global Investment Fund I SPC LTD	58,358,897	2.2	2.3	4.6	4.2	4.9					16.4	Nov-21
HFRI Macro (Total) Index			-0.5	0.2	-0.6	-0.7					3.6	
Invesco Global Targeted Return	28,472,984	1.1	0.4	0.0	3.9	11.5					3.8	Dec-21
30 Day T-Bill + 4%			0.8	1.6	6.0	8.5					6.8	

CASH FLOW SUMMARY BY MANAGER

	1 Month Ending August 31, 2023				
	Beginning Market Value	Contributions	Withdrawals	Net Investment Change	Ending Market Value
Abry Senior Equity VI, L.P.	\$6,973,983	\$995,035	-	-	\$7,969,018
American Strategic Value Realty	\$84,650,893	-	-	-	\$84,650,893
Audax Private Equity VII	-	\$1,172,389	-	-	\$1,172,389
AQR Global Risk Premium - EL	\$123,619,798	-	-	-\$1,952,650	\$121,667,148
Blackrock High Yield Fund	\$85,451,074	-	-\$995,035	\$255,811	\$84,711,850
BlackRock Real Estate Securities	\$5,572,737	-	-\$955,861	-\$171,348	\$4,445,528
BlackRock Russell 1000 Growth	\$240,888,697	-	-	-\$2,184,372	\$238,704,326
BlackRock Russell 1000 Value	\$118,940,623	-	-	-\$3,214,374	\$115,726,249
Blue Wolf Capital Fund V-A, L.P.	\$3,146,374	\$2,636,174	-	-	\$5,782,548
Callodine Loan Fund II LP	\$12,561,129	-	-\$708,544	-	\$11,852,585
Cash Account	\$37,174,561	\$1,901,822	-\$2,742,871	\$183,590	\$36,517,102
Channing	\$31,191,348	-	-\$53,537	-\$882,727	\$30,255,084
Clayton, Dublier, & Rice	\$14,740,345	-	-	-	\$14,740,345
Dodge & Cox-Equity	\$120,846,257	-	-	-\$2,742,786	\$118,103,471
Fidelity Int'l Growth	\$246,896,406	-	-	-\$11,639,054	\$235,257,352
Genstar Capital Partners X	\$10,044,343	-	-	-	\$10,044,343
Graham Global Investment Fund I SPC LTD	\$57,054,890	-	-\$33,594	\$1,337,601	\$58,358,897
Grandview Property Partners I	\$18,712,031	\$955,861	-\$955,861	-	\$18,712,031
Grandview Property Partners II	\$17,041,270	\$86,087	-	-	\$17,127,357
Great Hill EP VIII	-\$364,181	-	-	-	-\$364,181
Greenfield Acquisition Partners VII	\$1,111,515	-	-	-	\$1,111,515
Gryphon Partners VI LP	\$12,813,857	-	-	-	\$12,813,857
IFM Global Infrastructure Fund	\$54,811,094	-	-	-\$342,937	\$54,468,157
Insight	\$191,190,472	-	-\$3,668,208	\$262,817	\$187,785,081
Insight Partners XI	\$21,067,704	-	-	-	\$21,067,704
Invesco Global Targets Returns	\$28,346,763	-	-	\$126,221	\$28,472,984
JP Morgan IIF Hedged LP	\$33,647,788	-	-	-	\$33,647,788
LSV Int'l Large Cap Value	\$281,600,427	-	-\$1,520,350	-\$7,623,738	\$272,456,339
Medley Capital	\$2,558,209	-	-	-	\$2,558,209

CASH FLOW SUMMARY BY MANAGER

	Beginning Market Value	Contributions	Withdrawals	Net Investment Change	Ending Market Value
Monroe Private Credit IV	\$17,220,858	-	-\$478,697	-	\$16,742,161
MS Infrastructure Partners II	\$13,627,765	-	-	-	\$13,627,765
Northern Trust Infrastructure Fund	\$81,391,498	\$1,193	-\$1,193	-\$2,198,153	\$79,193,345
Northern Trust Intermediate Gov't Bond	\$100,215,955	\$10,566	-\$10,566	\$54,657	\$100,270,612
Northern Trust Long Term Gov't Bond	\$40,085,135	\$4,378	-\$4,378	-\$1,098,490	\$38,986,644
Northern Trust Russell 3000	\$48,183,320	\$2,583	-\$1,174,972	-\$933,479	\$46,077,452
Owl Rock First Lien Fund	\$8,918,474	-	-\$301,421	-	\$8,617,053
Pacific Ridge	\$18,489,039	-	-\$43,036	-\$565,340	\$17,880,663
Palistar Communications Infrastructure Fund II	\$14,461,540	-	-	-	\$14,461,540
PanAgora Risk Parity Multi Asset	\$106,635,047	-	-	-\$2,302,624	\$104,332,422
PGIM Real Estate US Debt Fund	\$97,721,495	-	-	-\$450,000	\$97,271,495
Phocas'	\$26,763,473	-	-\$42,598	-\$370,071	\$26,350,804
Prime Property Fund	\$100,243,157	-	-	-	\$100,243,157
Raven Opportunity III	\$55,627,212	-	-	-	\$55,627,212
Seizert	\$35,984,841	-	-\$49,627	-\$459,289	\$35,475,926
Sole Source Capital Partners II	\$12,518,076	-	-	-	\$12,518,076
Strategic Values Special Situations Fund V, L.P.	\$5,529,107	-	-	-	\$5,529,107
Transition Account	\$310,038	-	-	\$937	\$310,975
Vista Foundation Fund IV	\$14,725,610	-	-	-	\$14,725,610
White Oak Pinnacle	\$26,705,533	-	-	-	\$26,705,533
Total	\$2,687,647,580	\$7,766,088	-\$13,740,349	-\$36,909,797	\$2,644,763,522

NOTES

- All performance is shown net of investment management fees.
- PanAgora Risk Parity Multi Asset is preliminary and subject to change once finalized
- Performance history is provided by Verus through June 2020. As of July 1, 2020 performance is calculated and reported by NEPC.
- Policy Index history:
 - **Inception - 6/30/2017:** 14.4% Russell 1000 Value, 11.3% Russell 1000 Growth, 4.8% S&P 500, 4% Russell 2000 Value, 3.7% Russell 2000 Growth, 18% MSCI ACWI ex USA Gross, 29.8%Bloomberg US Aggregate TR, 3.5% DJ US Select RESI TR USD, 7.5% 9% Annual, 3% CPI + 4%
 - **7/1/2017 - 8/31/2018:** 18.5% Russell 1000, 5.5% Russell 2000, 24% MSCI ACWI ex USA Gross, 19% Bloomberg US Govt/Credit 1-3 Yr. TR, 1% FTSE T-Bill 1 Month TR, 3% Bloomberg US Treasury 7-10 Yr TR, 7.7% NCREIF Property Index, 1.7% NCREIF Property Index +2%, 0.6% CPI + 5%, 5% Bloomberg US High Yield + 2%, 14% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
 - **9/1/2018 - 5/30/2019:** 10% Russell 1000, 3% Russell 2000, 6% Russell 3000 +3%, 27% MSCI ACWI ex USA Gross, 20% Bloomberg US Govt/Credit 1-3 Yr. TR, 1% FTSE T-Bill 1 Month TR, 3%Bloomberg US Treasury 7-10 Yr TR, 5% NCREIF Property Index, 5% NCREIF Property Index +2%, 1% CPI + 5%, 6% S&P/LSTA Leveraged Loan Index+2%, 13% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
 - **6/1/2019 - 6/30/2020:** 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 3% Bloomberg US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% Bloomberg Global Aggregate
 - **7/1/2020 - 12/31/2020:** 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 8% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 3% Bloomberg US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% Bloomberg Global Aggregate, 11%Bloomberg US Intermediate.
 - **1/1/2021 - 06/30/2021:** 16% Russell 1000, 3.5% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 8% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 5% Bloomberg US Treasury 7-10 Yr, 6% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 4.5% S&P/LSTA Leveraged Loan Index + 2%, 13%60% MSCI ACWI / 40% Bloomberg Global Aggregate, 7%Bloomberg US Intermediate.
 - **07/01/2021 - Present:** 16% Russell 1000, 4% Russell 2000, 5% Russell 3000 + 3%, 20% MSCI ACWI ex USA Gross, 6.5% NCREIF Property Index, 6% NCREIF Property Index + 2%, 7.5% CPI + 5% (Unadjusted), 8% S&P/LSTA Leveraged Loan Index +2%, 6% Bloomberg US Treasury 7-10 Yr TR, 10% 60% MSCI ACWI (Net)/ 40%Bloomberg Global Agg, 3% 30 Day T-Bill + 4%, 1% FTSE T-Bill 1 Month TR, 7% Bloomberg US Govt/Credit Int TR.
- Starting July 1, 2020, the small Capital Prospects transition cash balance is moved from the Cash composite to the Capital Prospects account. Historical performance for Capital Prospects, US Small, US Equities, Growth Sub-Portfolio, Cash, and Liquidity Sub-Portfolio prior to July 1, 2020 reflects performance of these composites before this change.
- Private Equity investments are valued one quarter lagged and adjusted for capital calls and distributions between quarter-end months.
- Value-Add Real Estate managers are valued quarterly adjusted for current cash flows.
- Fiscal Year End Date June 30.

DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

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Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv





QUARTERLY PERFORMANCE REPORT

STANISLAUS COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

JUNE 30, 2023

Dan Hennessy, CFA, CAIA, Senior Consultant
Sam Austin, Partner
Leah Tongco, Consulting Analyst



PROPRIETARY & CONFIDENTIAL



MARKET ENVIRONMENT



PROPRIETARY & CONFIDENTIAL

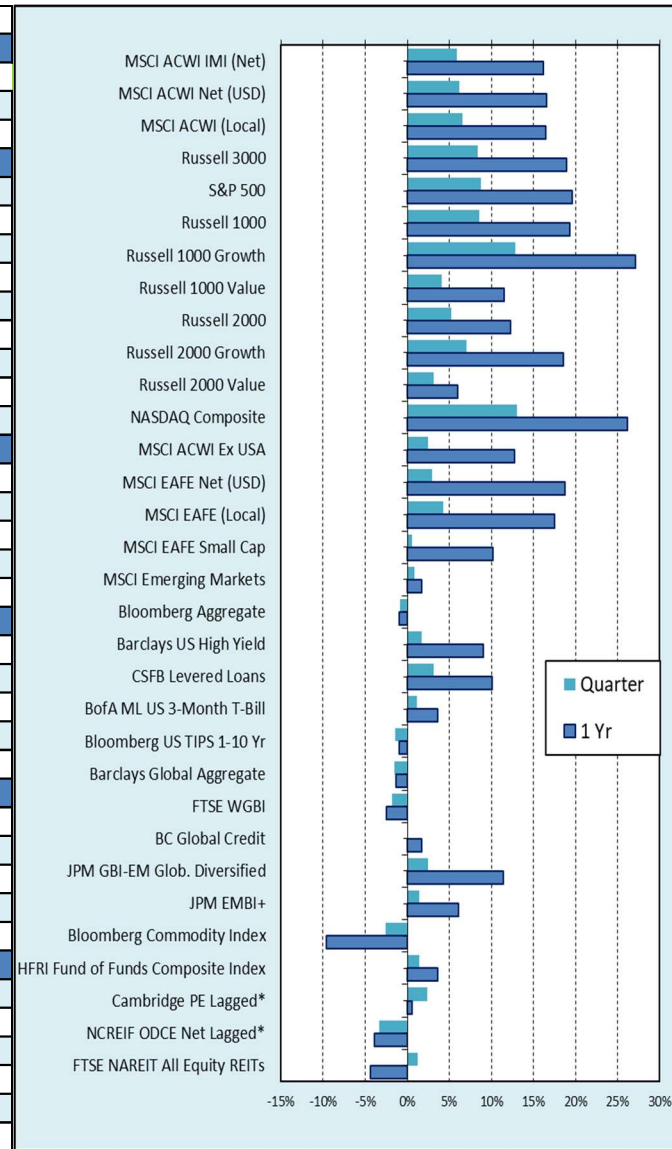
ECONOMIC ENVIRONMENT

- **Q2 Real GDP (first estimate) increased at an annual rate of 2.4%.**
 - Retail sales ended May at +0.9% on a YoY basis. In the same period last year the YoY growth rate was +8.9%.
 - Corporate profits as a percent of GDP ended January 2022 at 10.1%, down from 11.5% in the same period last year and remain elevated relative to historical levels.
 - The inventory-to-sales ratio ended May at 1.4 up from 1.3 one year ago. Levels have remained relatively constant since early 2010 with a spike to 1.7 in April 2020.
 - The U.S. trade deficit narrowed in May as imports decreased to their lowest level since late 2021.
- **The unemployment rate was 3.6% ended Q2, up from 3.5% in Q1; U-6, a broader measure of unemployment, increased to 6.9% in Q2 from 6.7% in Q1.**
 - The labor force participation rate ended Q2 flat at 62.6% versus Q1. Labor force participation declined to 60.2% in April 2020 and is at levels below the 10 year pre-pandemic average of 63.0%.
- **The Case-Shiller Home Price Index (ended May) increased to 305.2 from 297.1 in Q1 and remains at levels higher than that of pre-financial crisis levels of 150.9.**
- **Rolling 12-month seasonally-adjusted CPI ended Q2 at 3.09% down from 4.98% in Q1. In the same period last year, it was 8.93%; Capacity Utilization decreased to 78.90 in Q2 from 79.51 Q1.**
- **Fed Funds rate increased in Q2 by 0.25% to a targeted range of 5.00%-to-5.25% up from a targeted range of 4.75%-to-5.00% ended Q1. The 10-year Treasury Yield (constant maturity) finished Q2 at 3.75% up from 3.66% in Q1.**
- **The Fed continues scaling back asset purchases. The Fed continues to reduce the size of its balance sheet after a period of rapid growth post-pandemic.**
- **S&P valuations (using Shiller CAPE ratio) increased in Q2 to 31.04x, up from 28.94x in Q1 and are lower than the 10-year average of 29.3x.**
 - Cyclically adjusted Shiller PE ratio remains above the long-term average of 17.04x.

MARKET ENVIRONMENT

Q2 2023 OVERVIEW

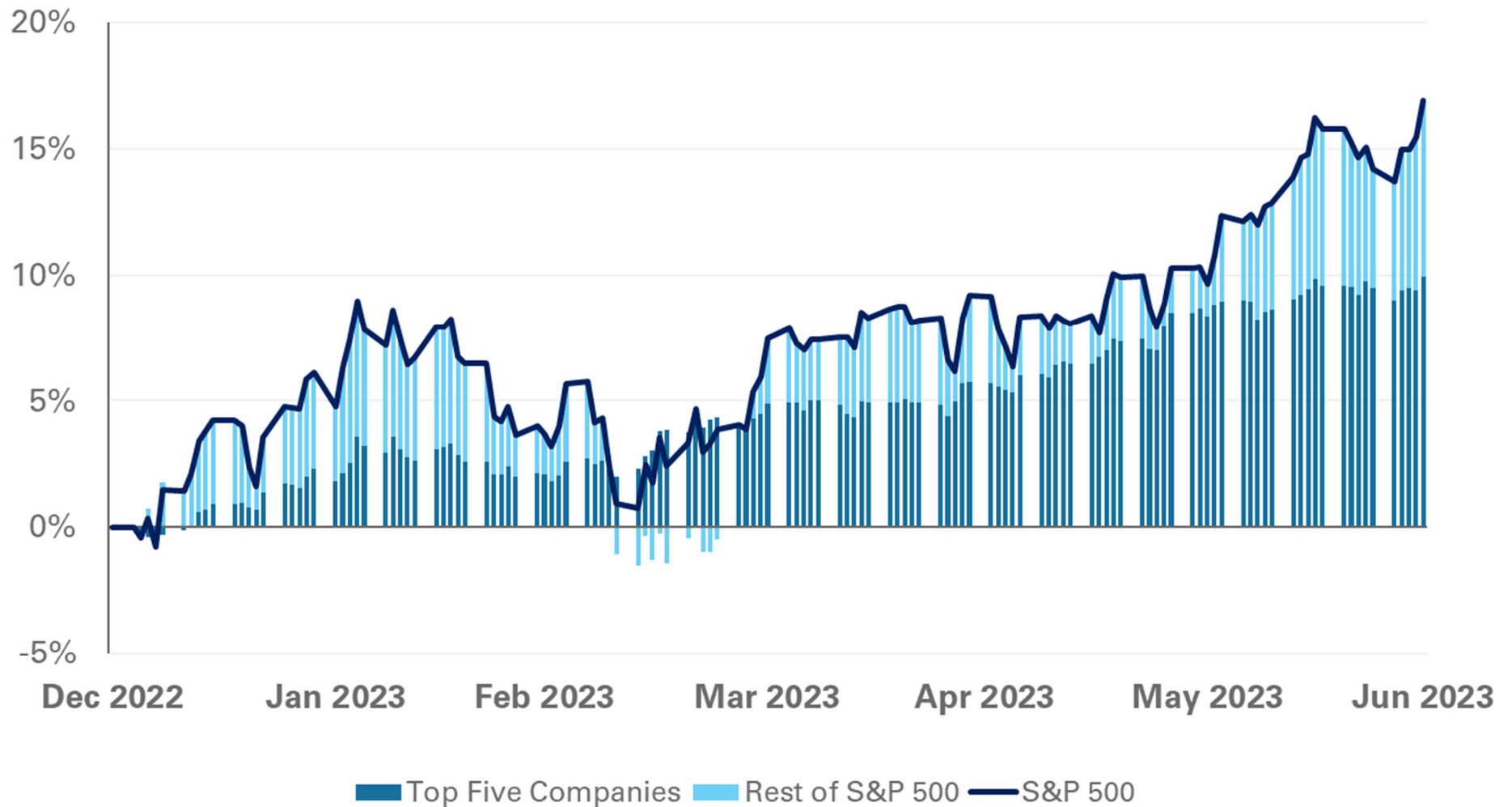
		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI IMI (Net)	World with Small Cap	5.89%	16.14%	10.97%	7.65%	8.62%
MSCI ACWI Net (USD)	World W/O Small Cap	6.18%	16.53%	10.99%	8.10%	8.75%
MSCI ACWI (Local)	World (Local Currency)	6.55%	16.47%	11.80%	8.87%	9.83%
Domestic Equity Benchmarks						
Russell 3000	Domestic All Cap	8.39%	18.95%	13.89%	11.39%	12.34%
S&P 500	Large Core	8.74%	19.59%	14.60%	12.31%	12.86%
Russell 1000	Large Core	8.58%	19.36%	14.09%	11.92%	12.64%
Russell 1000 Growth	Large Growth	12.81%	27.11%	13.73%	15.14%	15.74%
Russell 1000 Value	Large Value	4.07%	11.54%	14.30%	8.11%	9.22%
Russell 2000	Small Core	5.21%	12.31%	10.82%	4.21%	8.26%
Russell 2000 Growth	Small Growth	7.05%	18.53%	6.10%	4.22%	8.83%
Russell 2000 Value	Small Value	3.18%	6.01%	15.43%	3.54%	7.29%
NASDAQ Composite	Large Growth	13.05%	26.14%	11.94%	13.93%	16.21%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	2.44%	12.71%	7.22%	3.52%	4.75%
MSCI EAFE Net (USD)	Int'l Developed	2.95%	18.77%	8.93%	4.39%	5.41%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	4.28%	17.50%	11.73%	6.42%	7.67%
MSCI EAFE Small Cap	Small Cap Int'l	0.58%	10.18%	5.70%	1.30%	6.19%
MSCI Emerging Markets	Emerging Equity	0.90%	1.75%	2.32%	0.93%	2.95%
Domestic Fixed Income Benchmarks						
Bloomberg Aggregate	Core Bonds	-0.84%	-0.94%	-3.97%	0.77%	1.52%
Barclays US High Yield	High Yield	1.75%	9.06%	3.13%	3.36%	4.43%
CSFB Levered Loans	Bank Loans	3.12%	10.10%	6.16%	4.02%	4.13%
BofA ML US 3-Month T-Bill	Cash	1.17%	3.59%	1.27%	1.55%	0.98%
Bloomberg US TIPS 1-10 Yr	Inflation	-1.42%	-0.92%	1.15%	2.75%	1.98%
Global Fixed Income Benchmarks						
Barclays Global Aggregate	Global Core Bonds	-1.53%	-1.32%	-4.96%	-1.09%	0.20%
FTSE WGBI	World Gov. Bonds	-1.79%	-2.49%	-6.49%	-2.04%	-0.48%
BC Global Credit	Global Bonds	0.08%	1.71%	-3.77%	0.21%	1.34%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	2.51%	11.38%	-1.42%	0.29%	-0.56%
JPM EMBI+	Em. Mkt. Bonds	1.43%	6.11%	-7.21%	-2.02%	0.96%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	-2.56%	-9.61%	17.82%	4.73%	-0.99%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	1.43%	3.58%	5.01%	3.30%	3.38%
Cambridge PE Lagged*	Private Equity	2.41%	0.56%	23.85%	15.93%	14.55%
NCREIF ODCE Net Lagged*	Real Estate	-3.38%	-3.91%	7.46%	6.56%	8.47%
FTSE NAREIT All Equity REITs	REIT	1.20%	-4.39%	6.12%	4.78%	6.81%
CPI + 2%	Inflation/Real Assets	1.17%	5.15%	7.86%	5.97%	4.77%



* As of 3/31/2023

TOP FIVE COMPANIES LED THE S&P 500 HIGHER

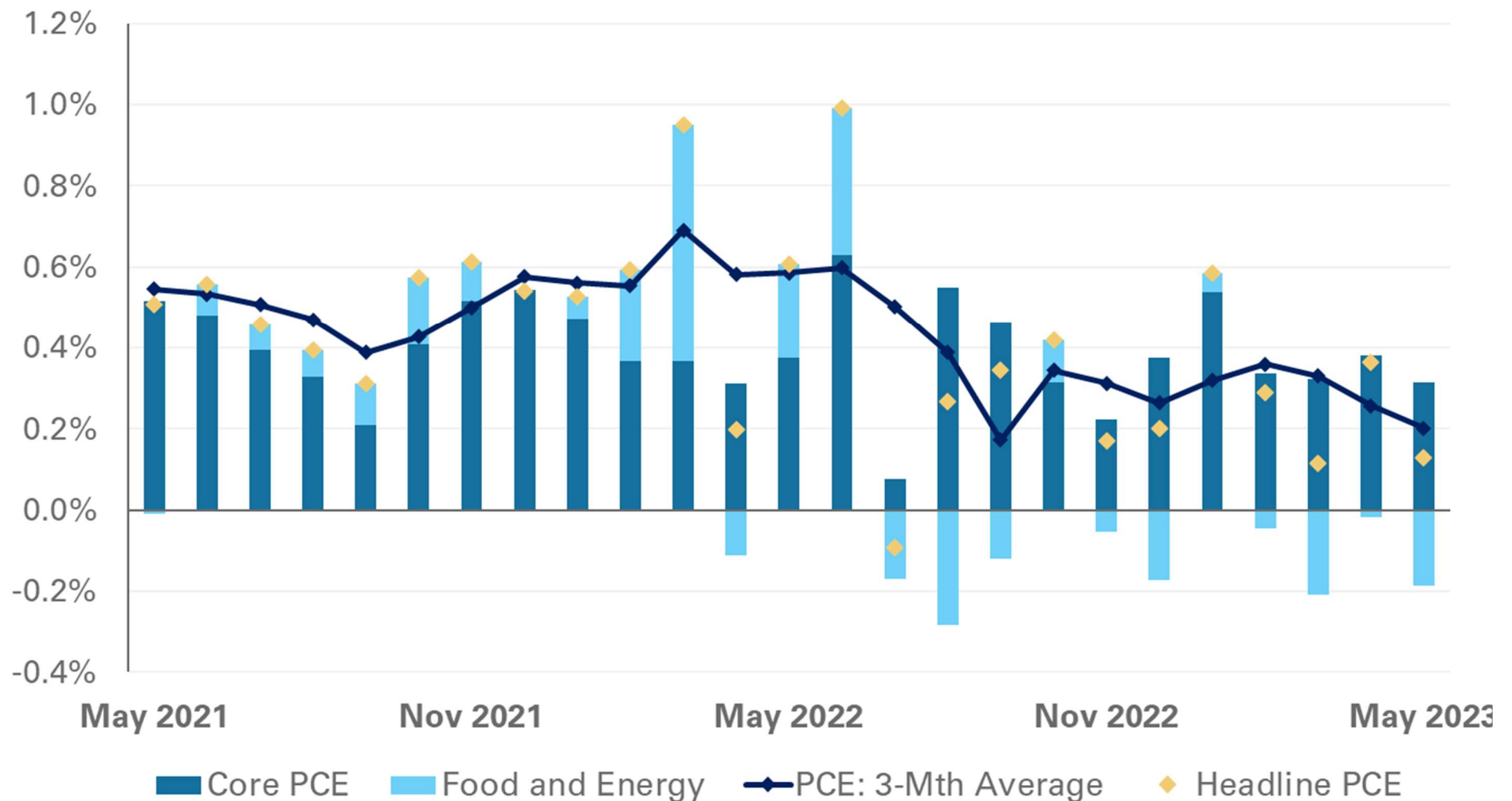
CUMULATIVE TOTAL RETURNS



Top Five Companies represent Apple, Amazon, Alphabet, Microsoft, and NVidia,
Source: FactSet

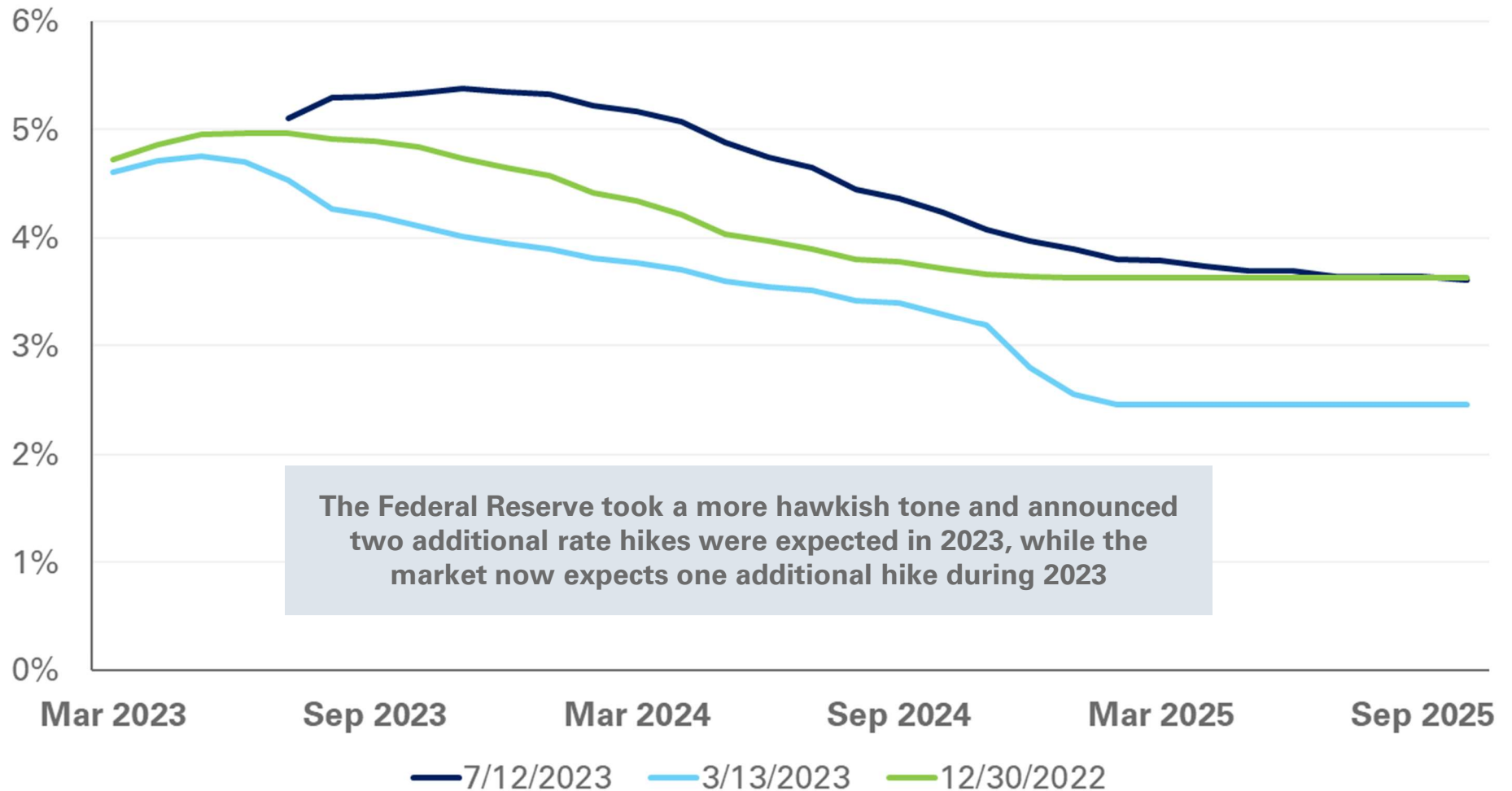
CORE INFLATION REMAINED ELEVATED

MONTHLY U.S. PCE PRICE INDEX CHANGES



MARKET RATE HIKE EXPECTATIONS ROSE

FEDERAL FUNDS FUTURES



THE YIELD CURVE FURTHER INVERTED

10-2 U.S. TREASURY YIELD SPREAD



U.S. ECONOMIC OUTLOOK



Market expectations for interest rates have converged with FOMC projections – signaling a higher-for-longer bias



Interest rate-sensitive sectors of the economy are still realizing the impact of a tighter monetary policy environment



Resilient data from the services sector and labor market strength continue to underpin “no landing” and “soft landing” outcomes



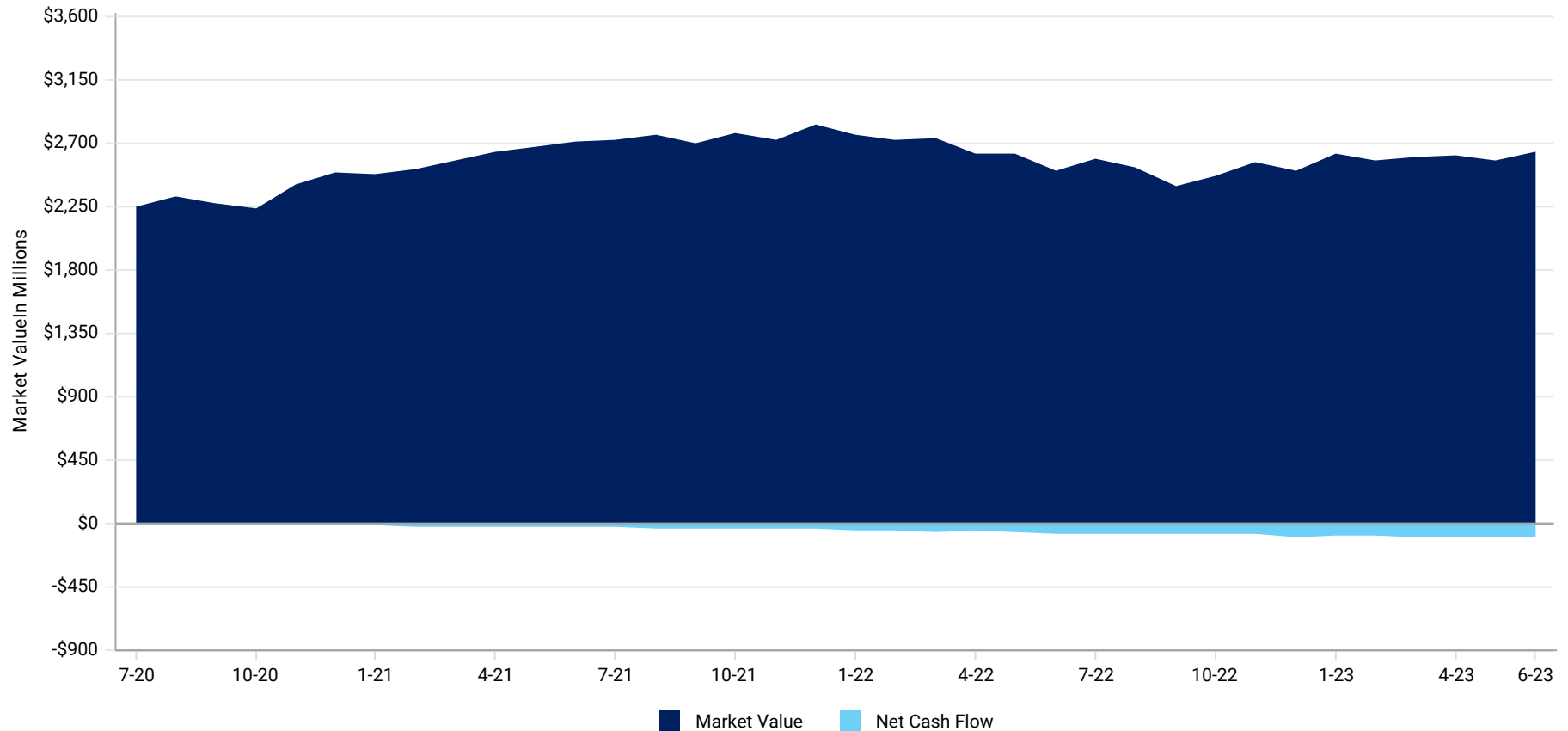
TOTAL FUND PERFORMANCE



PROPRIETARY & CONFIDENTIAL

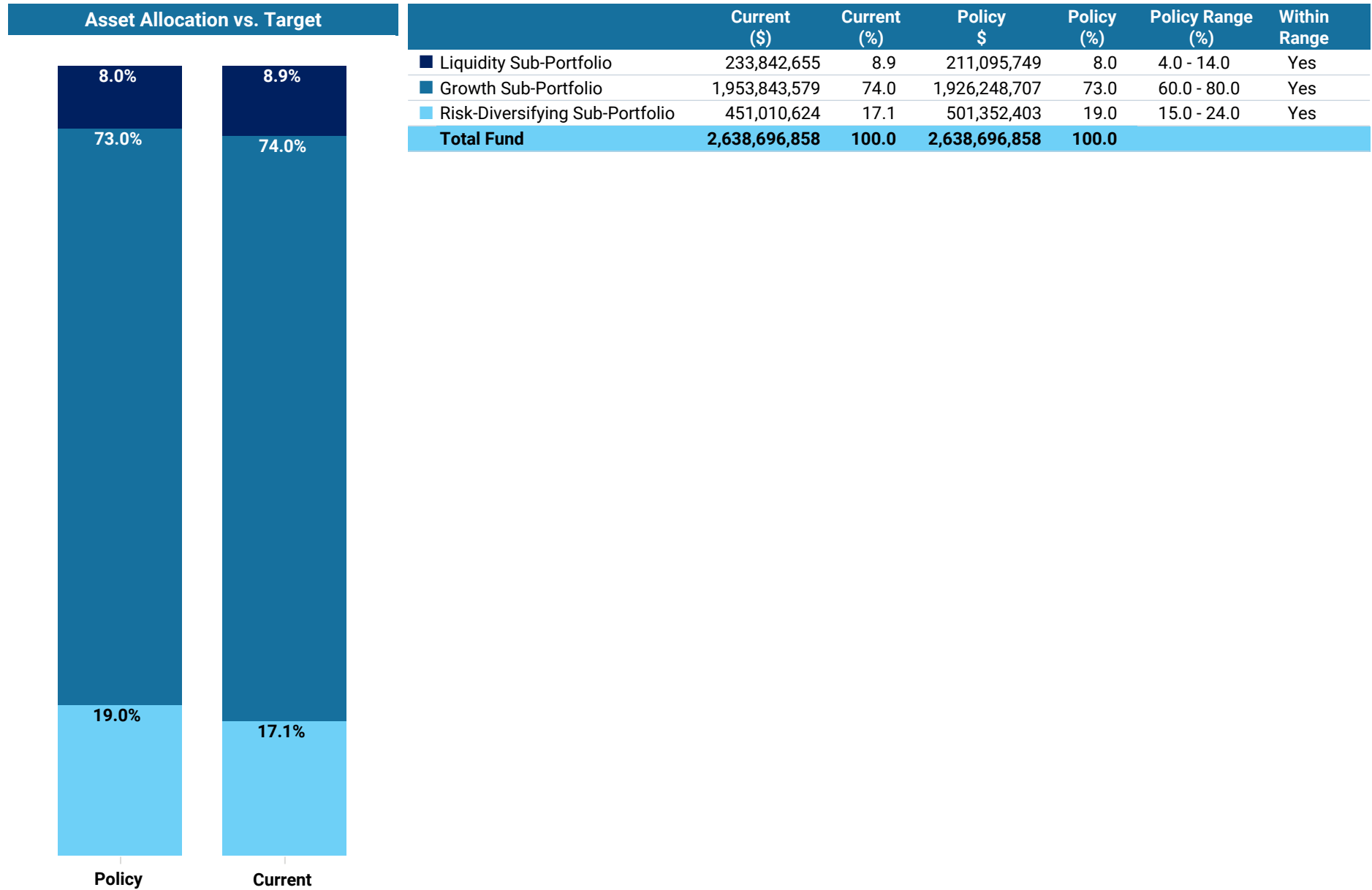
ASSET GROWTH SUMMARY

3 Years Ending June 30, 2023



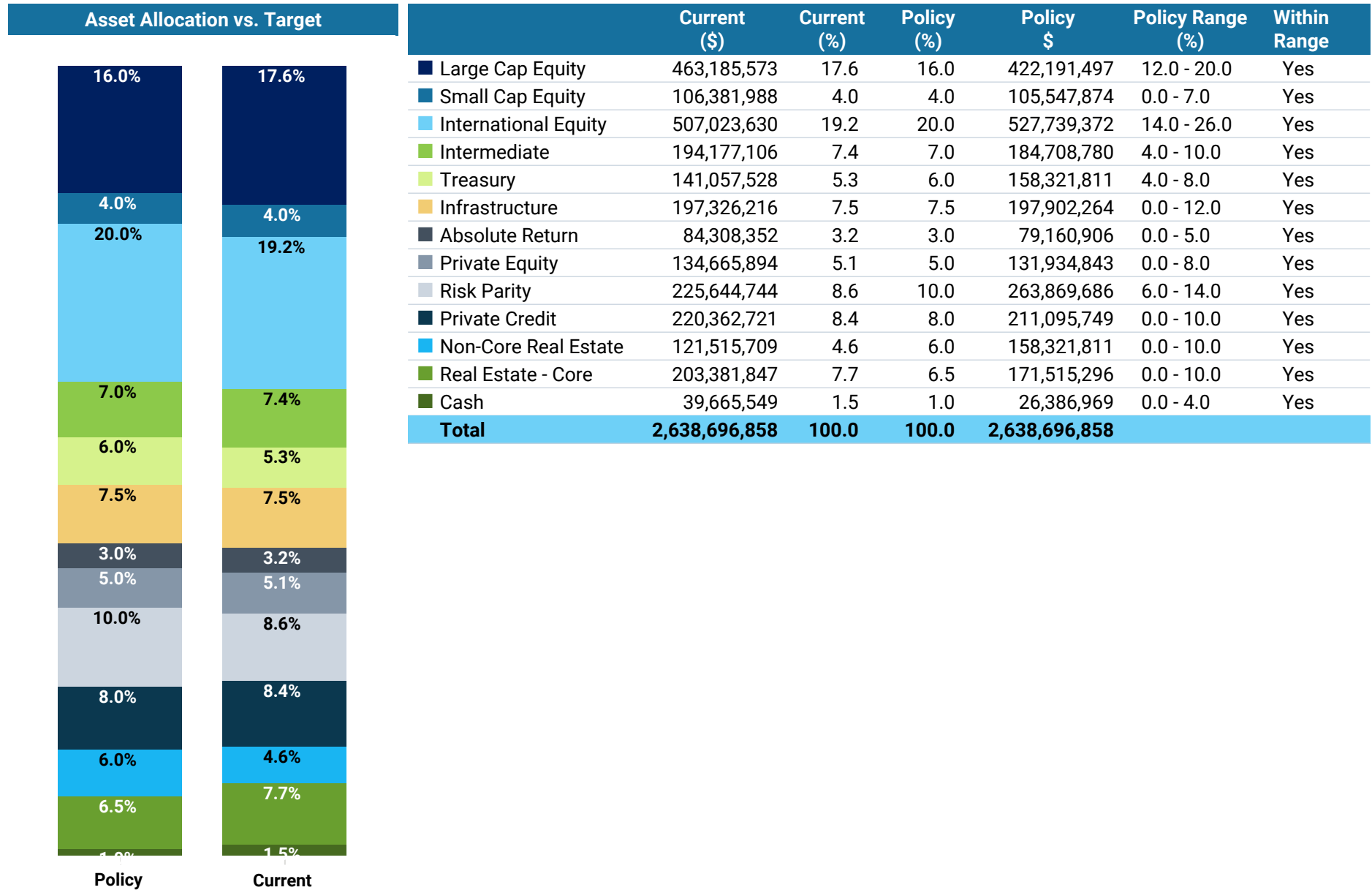
	Last Three Months	Year To Date	1 Year
Beginning Market Value	2,596,742,041	2,506,524,410	2,507,413,470
Net Cash Flow	-10,139,199	-6,822,853	-35,626,090
Net Investment Change	52,094,016	138,995,301	166,909,477
Ending Market Value	2,638,696,858	2,638,696,858	2,638,696,858
Net Change	41,954,817	132,172,448	131,283,388

ASSET ALLOCATION VS. POLICY



*Difference between Policy and Current Allocation

ASSET ALLOCATION VS. POLICY



*Difference between Policy and Current Allocation

PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	2,638,696,858	100.0	2.0	5.5	6.8	7.7	5.9	7.4	7.1	8.6	Jan-95
Policy Index			<u>3.0</u>	<u>7.7</u>	<u>9.5</u>	<u>8.0</u>	<u>6.6</u>	<u>7.4</u>	<u>7.3</u>	<u>7.9</u>	
Allocation Index			<u>2.8</u>	<u>6.8</u>	<u>7.6</u>	<u>7.0</u>					
InvMetrics Public DB > \$1 Billion Rank			85	80	70	69	66	50	48	11	
Liquidity Sub-Portfolio	233,842,655	8.9	0.1	1.9	1.8	0.0	2.7	2.0		1.8	Aug-14
StanCERA Liquidity Blended BM			<u>-0.6</u>	<u>1.6</u>	<u>0.4</u>	<u>-1.4</u>	<u>1.7</u>	<u>1.3</u>		<u>1.3</u>	
Cash	39,665,549	1.5	1.5	2.8	4.7	2.9	2.4	2.0		1.8	Aug-14
FTSE 1 Month T-Bill			<u>1.2</u>	<u>2.3</u>	<u>3.7</u>	<u>1.3</u>	<u>1.5</u>	<u>1.3</u>		<u>1.0</u>	
Cashflow-Matched Bonds	194,177,106	7.4	-0.1	1.8	1.3	-0.8	2.4			2.0	Jul-17
Blmbg. Intermed. U.S. Government/Credit			<u>-0.8</u>	<u>1.5</u>	<u>-0.1</u>	<u>-2.5</u>	<u>1.2</u>			<u>0.9</u>	
eV US Government Fixed Inc Rank			5	37	4	4	1			2	
Insight	194,177,106	7.4	<u>-0.1</u>	<u>1.8</u>	<u>1.3</u>	<u>-0.8</u>	<u>2.4</u>			<u>2.0</u>	<u>Jul-17</u>
Blmbg. Intermed. U.S. Government/Credit			<u>-0.8</u>	<u>1.5</u>	<u>-0.1</u>	<u>-2.5</u>	<u>1.2</u>			<u>0.9</u>	
eV US Government Fixed Inc Rank			5	37	4	4	1			2	
Growth Sub-Portfolio	1,953,843,579	74.0	3.0	6.9	9.8	11.1	7.5	9.5	8.9	8.0	Jan-04
StanCERA Growth Blended BM			<u>3.9</u>	<u>8.8</u>	<u>11.6</u>	<u>11.7</u>	<u>8.6</u>	<u>9.8</u>			

PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
US Equities	569,567,561	21.6	8.1	14.8	18.7	15.8	10.7	12.8	11.7	9.7	Jan-04
Russell 3000 Index			<u>8.4</u>	<u>16.2</u>	<u>19.0</u>	<u>13.9</u>	<u>11.4</u>	<u>12.9</u>	<u>12.3</u>	<u>9.5</u>	
US Large Equity	463,185,573	17.6	8.7	16.5	19.0	14.9	12.1	13.8	12.7	12.5	Jan-95
Russell 1000 Index			<u>8.6</u>	<u>16.7</u>	<u>19.4</u>	<u>14.1</u>	<u>11.9</u>	<u>13.1</u>	<u>12.6</u>	<u>10.4</u>	
eV US Large Cap Equity Rank			32	33	36	28	26	25	28	6	
BlackRock Russell 1000 Growth	233,031,121	8.8	12.8	29.0	27.1	13.7	15.1	16.9	15.7	15.9	Aug-10
Russell 1000 Growth Index			<u>12.8</u>	<u>29.0</u>	<u>27.1</u>	<u>13.7</u>	<u>15.1</u>	<u>16.9</u>	<u>15.7</u>	<u>15.9</u>	
eV US Large Cap Growth Equity Rank			34	30	26	17	9	11	10	6	
BlackRock Russell 1000 Value	114,892,853	4.4	4.1	5.1	11.5	14.3	8.2	9.0	9.3	11.2	Aug-09
Russell 1000 Value Index			<u>4.1</u>	<u>5.1</u>	<u>11.5</u>	<u>14.3</u>	<u>8.1</u>	<u>8.9</u>	<u>9.2</u>	<u>11.1</u>	
eV US Large Cap Value Equity Rank			45	45	51	58	61	69	60	52	
Dodge & Cox-Equity	115,261,599	4.4	5.6	7.1	12.4	17.9	9.6	12.3	11.1	11.7	Jan-95
Russell 1000 Value Index			<u>4.1</u>	<u>5.1</u>	<u>11.5</u>	<u>14.3</u>	<u>8.1</u>	<u>8.9</u>	<u>9.2</u>	<u>9.6</u>	
eV US Large Cap Value Equity Rank			23	27	42	16	31	12	18	5	
US Small Equity	106,381,988	4.0	5.6	8.2	17.4	20.3	6.1	9.3	8.3	11.7	Jan-09
Russell 2000 Index			<u>5.2</u>	<u>8.1</u>	<u>12.3</u>	<u>10.8</u>	<u>4.2</u>	<u>8.8</u>	<u>8.3</u>	<u>11.1</u>	
eV US Small Cap Value Equity Rank			22	30	18	25	36	34	46	44	
Attucks Small Cap	106,381,988	4.0	5.6	8.2	17.4	20.3	6.1	9.9	9.0	11.9	Jan-09
Russell 2000 Value Index			<u>3.2</u>	<u>2.5</u>	<u>6.0</u>	<u>15.4</u>	<u>3.5</u>	<u>7.7</u>	<u>7.3</u>	<u>9.8</u>	
eV US Small Cap Value Equity Rank			22	30	18	25	36	28	30	37	
International Equity	507,023,630	19.2	3.4	10.1	14.8	9.7	4.3	7.2	5.5	6.1	Oct-04
MSCI AC World ex USA (Net)			<u>2.4</u>	<u>9.5</u>	<u>12.7</u>	<u>7.2</u>	<u>3.5</u>	<u>6.3</u>	<u>4.7</u>	<u>5.5</u>	
eV ACWI ex-US Large Cap Equity Rank			35	75	64	23	52	52	59	58	
LSV Int'l Large Cap Value	269,250,131	10.2	4.0	10.4	15.8	11.5	4.1	7.4	5.5	5.9	Oct-04
MSCI AC World ex USA Value (Net)			<u>3.0</u>	<u>8.3</u>	<u>12.2</u>	<u>10.4</u>	<u>2.7</u>	<u>5.7</u>	<u>3.7</u>	<u>4.8</u>	
eV ACWI ex-US Large Cap Equity Rank			19	73	51	12	60	48	59	59	
Fidelity Int'l Growth	237,773,499	9.0	2.6	9.9	13.7	7.8	4.4	6.8	5.3	4.0	May-06
MSCI AC World ex USA Growth (Net)			<u>1.9</u>	<u>10.7</u>	<u>13.3</u>	<u>4.0</u>	<u>4.1</u>	<u>6.7</u>	<u>5.6</u>	<u>4.0</u>	
eV ACWI ex-US Large Cap Equity Rank			64	77	75	47	52	59	64	46	

PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Real Estate	203,381,847	7.7	-0.2	0.0	-0.6	7.9	5.6	4.9	6.4	3.1	Apr-08
NCREIF Property Index			<u>-2.0</u>	<u>-3.8</u>	<u>-6.6</u>	<u>6.8</u>	<u>5.9</u>	<u>6.2</u>	<u>7.8</u>	<u>6.1</u>	
Prime Property Fund	100,243,157	3.8	<u>-2.2</u>	<u>-3.5</u>	<u>-7.1</u>	<u>8.5</u>	<u>6.8</u>	<u>7.4</u>		<u>7.6</u>	Oct-15
NCREIF ODCE			<u>-2.7</u>	<u>-5.8</u>	<u>-10.0</u>	<u>8.0</u>	<u>6.5</u>	<u>7.0</u>		<u>7.3</u>	
BlackRock Real Estate Securities	5,417,195	0.2	<u>2.8</u>	<u>5.7</u>	<u>-0.9</u>	<u>9.0</u>	<u>3.2</u>	<u>2.5</u>	<u>5.7</u>	<u>6.0</u>	Oct-12
Dow Jones U.S. Select RESI			<u>3.0</u>	<u>5.8</u>	<u>-0.8</u>	<u>9.1</u>	<u>3.3</u>	<u>2.6</u>	<u>5.7</u>	<u>6.1</u>	
PGIM Real Estate US Debt Fund	97,721,495	3.7	<u>1.8</u>	<u>3.5</u>	<u>6.9</u>	<u>5.5</u>				<u>5.4</u>	Sep-18
Blmbg. U.S. Investment Grade: CMBS Index			<u>-0.6</u>	<u>1.1</u>	<u>-1.9</u>	<u>-2.7</u>				<u>1.0</u>	
Value-Add Real Estate	121,515,709	4.6	-3.5	-6.1	-6.4	9.5	9.7	9.9		10.1	Aug-14
NCREIF Property Index +2%			<u>-1.5</u>	<u>-2.8</u>	<u>-4.7</u>	<u>8.9</u>	<u>8.0</u>	<u>8.4</u>		<u>9.7</u>	
American Strategic Value Realty	84,650,893	3.2	<u>-2.2</u>	<u>-4.6</u>	<u>-6.5</u>	<u>7.4</u>	<u>7.1</u>	<u>8.1</u>		<u>9.5</u>	Jan-15
NCREIF Property Index			<u>-2.0</u>	<u>-3.8</u>	<u>-6.6</u>	<u>6.8</u>	<u>5.9</u>	<u>6.2</u>		<u>7.2</u>	
Greenfield Acquisition Partners VII	1,111,515	0.0	<u>13.8</u>	<u>7.8</u>	<u>1.9</u>	<u>5.8</u>	<u>8.0</u>	<u>8.9</u>		<u>9.3</u>	Aug-14
NCREIF-ODCE +1%			<u>-2.4</u>	<u>-5.3</u>	<u>-9.1</u>	<u>9.1</u>	<u>7.6</u>	<u>8.0</u>		<u>9.5</u>	
Grandview Property Partners I	18,712,031	0.7	<u>-11.3</u>	<u>-11.7</u>	<u>-10.1</u>	<u>17.2</u>	<u>19.3</u>			<u>18.3</u>	Apr-18
NCREIF-ODCE +1%			<u>-2.4</u>	<u>-5.3</u>	<u>-9.1</u>	<u>9.1</u>	<u>7.6</u>			<u>7.7</u>	
Grandview Property Partners II	17,041,270	0.6	<u>-0.7</u>	<u>-7.8</u>	<u>1.3</u>					<u>-1.5</u>	Dec-21
NCREIF-ODCE +1%			<u>-2.4</u>	<u>-5.3</u>	<u>-9.1</u>					<u>6.9</u>	

PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Infrastructure	197,326,216	7.5	1.5	4.0	8.2	1.4	5.0	6.8		5.2	Jun-15
<i>CPI + 5% (Unadjusted)</i>			<u>2.3</u>	<u>5.3</u>	<u>8.1</u>	<u>11.1</u>	<u>9.1</u>	<u>8.6</u>		<u>8.3</u>	
eV Infrastructure Rank			29	47	23	100	87	32		58	
MS Infrastructure Partners II	13,627,765	0.5	-0.4	-2.9	10.1	7.5	8.7	9.5		7.4	Jun-15
<i>CPI + 5% (Unadjusted)</i>			<u>2.3</u>	<u>5.3</u>	<u>8.1</u>	<u>11.1</u>	<u>9.1</u>	<u>8.6</u>		<u>8.3</u>	
eV Infrastructure Rank			78	100	16	68	18	4		11	
Northern Trust Infrastructure Fund	80,758,810	3.1	0.8	4.1	1.8					-2.5	Jul-21
<i>67% STOXX Global Broad Infra / 33% Bloomberg US TIPS</i>			<u>0.7</u>	<u>3.9</u>	<u>2.3</u>					-2.3	
Palistar Communications Infrastructure Fund II	14,461,540	0.5	4.4	3.2	10.5					9.5	Jan-22
<i>CPI + 5% (Unadjusted)</i>			<u>2.3</u>	<u>5.3</u>	<u>8.1</u>					<u>11.5</u>	
JP Morgan IIF Hedged LP	33,647,788	1.3	1.4	4.8	12.1					11.1	Apr-22
<i>CPI + 5% (Unadjusted)</i>			<u>2.3</u>	<u>5.3</u>	<u>8.1</u>					<u>10.1</u>	
IFM Global Infrastructure Fund	54,830,313	2.1	2.5	5.2						9.7	Aug-22
<i>CPI + 5% (Unadjusted)</i>			<u>2.3</u>	<u>5.3</u>						<u>7.7</u>	

PERFORMANCE DETAIL

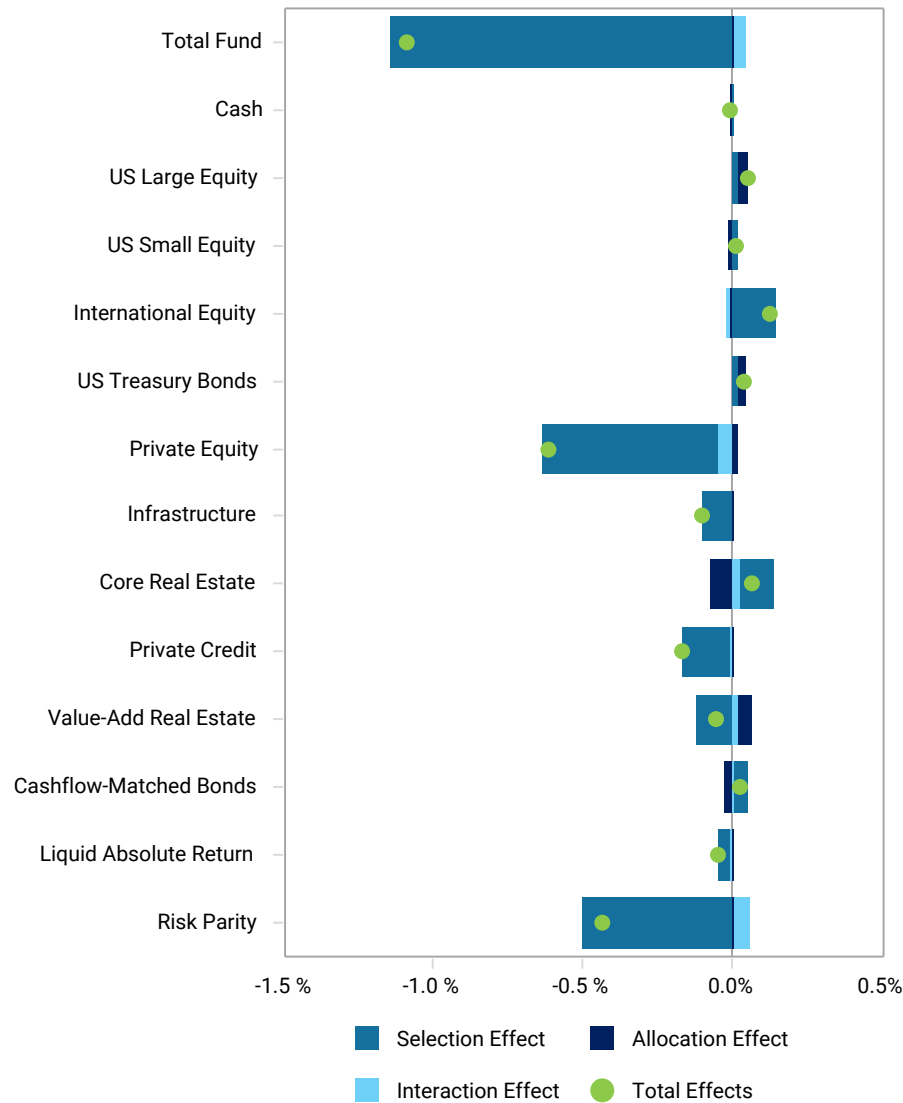
	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	134,665,894	5.1	-2.8	-0.5	-1.3	12.3				12.3	Dec-18
Russell 3000 + 3%			<u>9.2</u>	<u>17.9</u>	<u>22.5</u>	<u>17.3</u>				<u>15.6</u>	
Private Equity	87,369,951	3.3	-8.2	-8.8	-12.6	14.1				13.0	Apr-20
Russell 3000 + 3%			<u>9.2</u>	<u>17.9</u>	<u>22.5</u>	<u>17.3</u>				<u>23.5</u>	
Private Equity Proxy	47,295,943	1.8	8.4	16.2	19.0	13.9	12.6	13.6	13.0	9.8	Dec-03
Russell 3000 Index			<u>8.4</u>	<u>16.2</u>	<u>19.0</u>	<u>13.9</u>	<u>11.4</u>	<u>12.9</u>	<u>12.3</u>	<u>9.7</u>	
eV US Large Cap Equity Rank			34	33	36	42	20	28	25	37	
Private Credit	220,362,721	8.4	1.6	3.2	7.6	2.0	0.1	0.8	2.1	2.3	Jun-13
S&P/LSTA Leveraged Loan Index +2%			<u>3.7</u>	<u>7.5</u>	<u>12.9</u>	<u>8.4</u>	<u>6.2</u>	<u>6.7</u>	<u>6.1</u>	<u>6.1</u>	
Private Credit	118,880,845	4.5	0.4	0.3	3.5	5.2	2.0	2.2	3.1	3.2	Jun-13
S&P/LSTA Leveraged Loan Index +2%			<u>3.7</u>	<u>7.5</u>	<u>12.9</u>	<u>8.4</u>	<u>6.2</u>	<u>6.7</u>	<u>6.1</u>	<u>6.1</u>	
Private Credit Proxy	101,481,877	3.8	3.0	6.2	11.9					-0.7	Jun-21
ICE BofA US High Yield Master II Constrained			<u>1.6</u>	<u>5.4</u>	<u>8.9</u>					<u>-1.8</u>	
Risk-Diversifying Sub-Portfolio	451,010,624	17.1	-1.3	1.9	-2.5	-2.3	0.9	1.1	2.1	3.8	Dec-03
StanCERA Risk-Diversifying Blended BM			<u>1.4</u>	<u>5.8</u>	<u>5.2</u>	<u>-0.7</u>	<u>2.0</u>	<u>1.2</u>	<u>1.6</u>		
Risk Parity	225,644,744	8.6	-1.9	2.3	-5.7	-0.4	1.8			1.7	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			<u>3.1</u>	<u>8.8</u>	<u>9.2</u>	<u>4.5</u>	<u>4.6</u>			<u>4.2</u>	
AQR Global Risk Premium - EL	120,416,073	4.6	-1.1	2.6	-1.8	1.6	2.6			2.9	Apr-18
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			<u>3.1</u>	<u>8.8</u>	<u>9.2</u>	<u>4.5</u>	<u>4.6</u>			<u>4.2</u>	
PanAgora Risk Parity Multi Asset	105,228,671	4.0	-2.7	1.9	-9.8	-2.5	1.0			0.8	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			<u>3.1</u>	<u>8.8</u>	<u>9.2</u>	<u>4.5</u>	<u>4.6</u>			<u>4.2</u>	

PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
US Treasury Bonds	141,057,528	5.3	-1.5	1.8	-2.9	-5.6	0.3	0.7	1.8	3.7	Dec-03
Blmbg. U.S. Treasury: 7-10 Year			-1.8	1.6	-3.1	-6.0	0.6	-0.4	1.3	3.4	
eV US Government Fixed Inc Rank			88	36	86	95	76	5	4	1	
Northern Trust Intermediate Gov't Bond	100,096,995	3.8	-1.2	1.0	-1.1	-2.9	0.8			0.5	Aug-17
Blmbg. U.S. Government: Intermediate			-1.1	1.1	-1.0	-2.8	0.8			0.5	
eV US Government Fixed Inc Rank			52	86	20	20	20			27	
Northern Trust Long Term Gov't Bond	40,960,534	1.6	-2.4	3.6	-6.9	-11.2	-0.4			-0.2	Aug-17
Blmbg. U.S. Government: Long Term Bond Index			-2.3	3.7	-6.8	-12.0	-0.9			-0.7	
eV US Long Duration Fixed Inc Rank			97	92	96	95	93			93	
Liquid Absolute Return	84,308,352	3.2	0.9	1.0	6.1					11.0	Oct-21
30 Day T-Bill + 4%			2.2	4.3	7.9					6.3	
Graham Global Investment Fund I SPC LTD	55,847,649	2.1	0.9	-0.4	3.0					15.1	Nov-21
HFRI Macro (Total) Index			1.7	-0.8	-0.4					3.8	
Invesco Global Targeted Return	28,460,703	1.1	0.9	3.9	12.1					3.2	Nov-21
30 Day T-Bill + 4%			2.2	4.3	7.9					6.4	

ATTRIBUTION ANALYSIS

Attribution Effects 1 Quarter Ending June 30, 2023



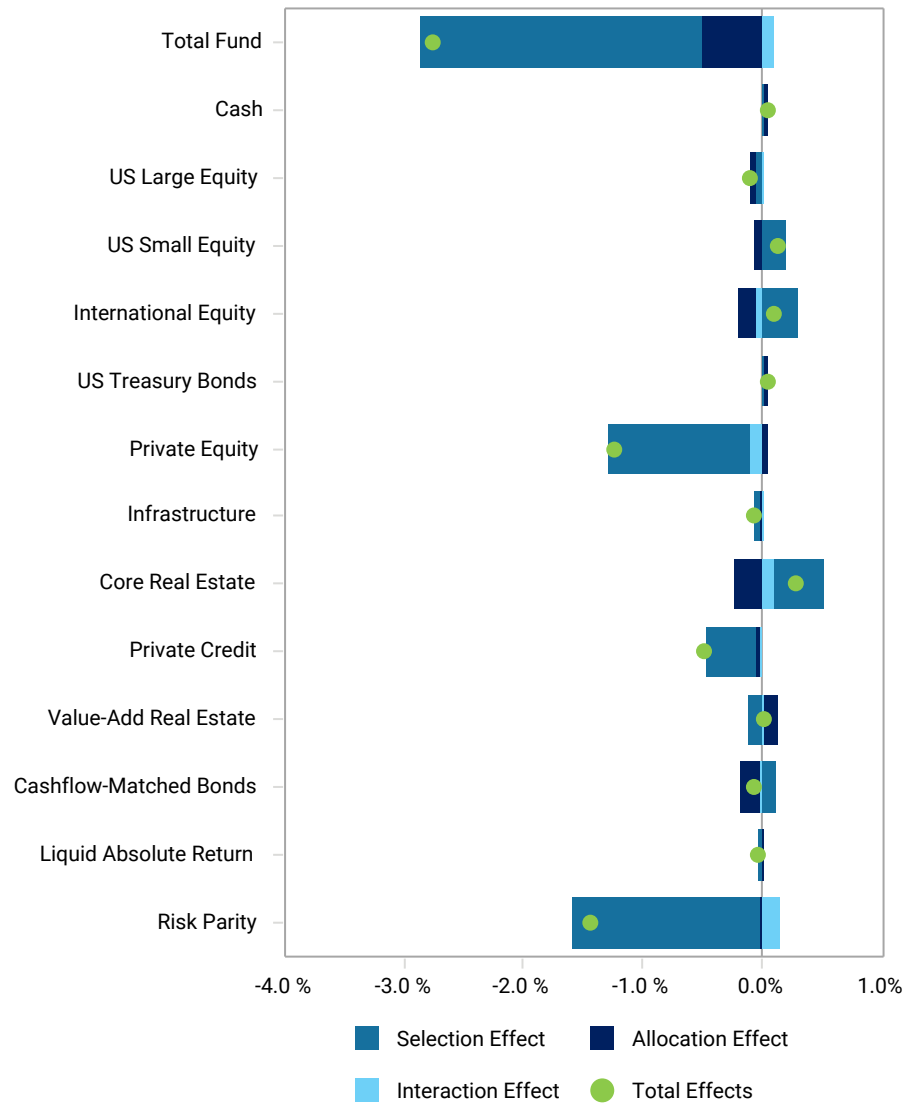
Attribution Summary 1 Quarter Ending June 30, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	1.5	1.2	0.3	0.0	0.0	0.0	0.0
US Large Equity	8.7	8.6	0.1	0.0	0.0	0.0	0.1
US Small Equity	5.6	5.2	0.4	0.0	0.0	0.0	0.0
International Equity	3.4	2.7	0.7	0.1	0.0	0.0	0.1
US Treasury Bonds	-1.5	-1.8	0.3	0.0	0.0	0.0	0.0
Private Equity	-2.8	9.2	-12.0	-0.6	0.0	0.0	-0.6
Infrastructure	1.0	2.3	-1.3	-0.1	0.0	0.0	-0.1
Core Real Estate	-0.2	-2.0	1.8	0.1	-0.1	0.0	0.1
Private Credit	1.6	3.7	-2.0	-0.2	0.0	0.0	-0.2
Value-Add Real Estate	-3.5	-1.5	-2.0	-0.1	0.0	0.0	-0.1
Cashflow-Matched Bonds	-0.1	-0.8	0.7	0.0	0.0	0.0	0.0
Liquid Absolute Return	0.9	2.2	-1.3	0.0	0.0	0.0	0.0
Risk Parity	-1.9	3.1	-4.9	-0.5	0.0	0.1	-0.4
Total Fund	2.0	3.0	-1.1	-1.1	0.0	0.0	-1.1

*Total Actual and Index returns are weighted average calculations.

ATTRIBUTION ANALYSIS

Attribution Effects 1 Year Ending June 30, 2023



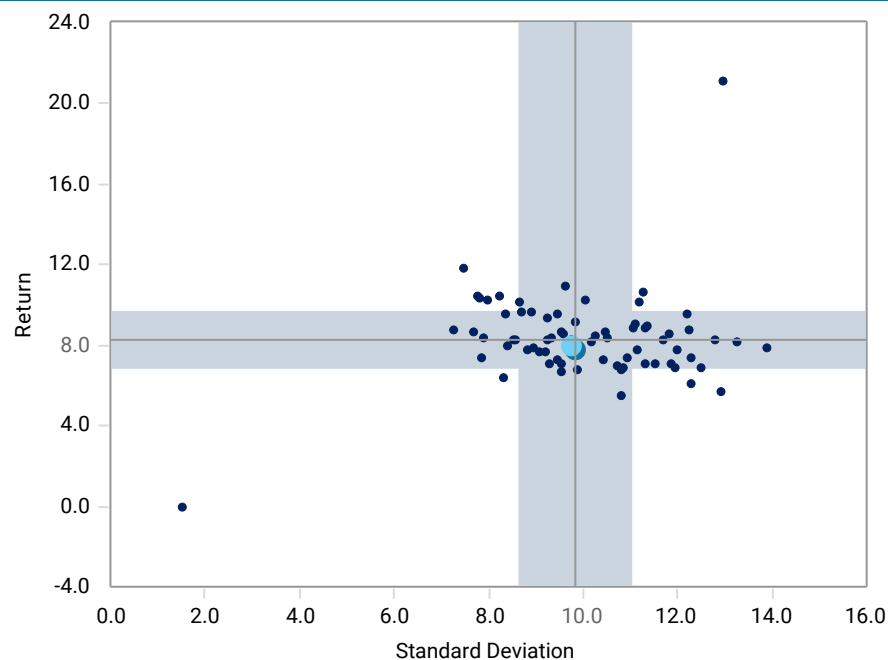
Attribution Summary 1 Year Ending June 30, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	4.7	3.7	1.0	0.0	0.0	0.0	0.0
US Large Equity	19.0	19.4	-0.3	0.0	-0.1	0.0	-0.1
US Small Equity	17.4	12.3	5.1	0.2	-0.1	0.0	0.1
International Equity	14.8	13.3	1.5	0.3	-0.2	0.0	0.1
US Treasury Bonds	-2.9	-3.1	0.2	0.0	0.0	0.0	0.1
Private Equity	-1.3	22.5	-23.8	-1.2	0.1	-0.1	-1.2
Infrastructure	7.6	8.1	-0.5	-0.1	0.0	0.0	-0.1
Core Real Estate	-0.6	-6.6	6.0	0.4	-0.2	0.1	0.3
Private Credit	7.6	12.9	-5.3	-0.4	0.0	0.0	-0.5
Value-Add Real Estate	-6.4	-4.7	-1.7	-0.1	0.1	0.0	0.0
Cashflow-Matched Bonds	1.3	-0.1	1.4	0.1	-0.2	0.0	-0.1
Liquid Absolute Return	6.1	7.9	-1.8	0.0	0.0	0.0	0.0
Risk Parity	-5.7	9.2	-15.0	-1.6	0.0	0.2	-1.4
Total Fund	6.8	9.5	-2.8	-2.4	-0.5	0.1	-2.8

*Total Actual and Index returns are weighted average calculations.

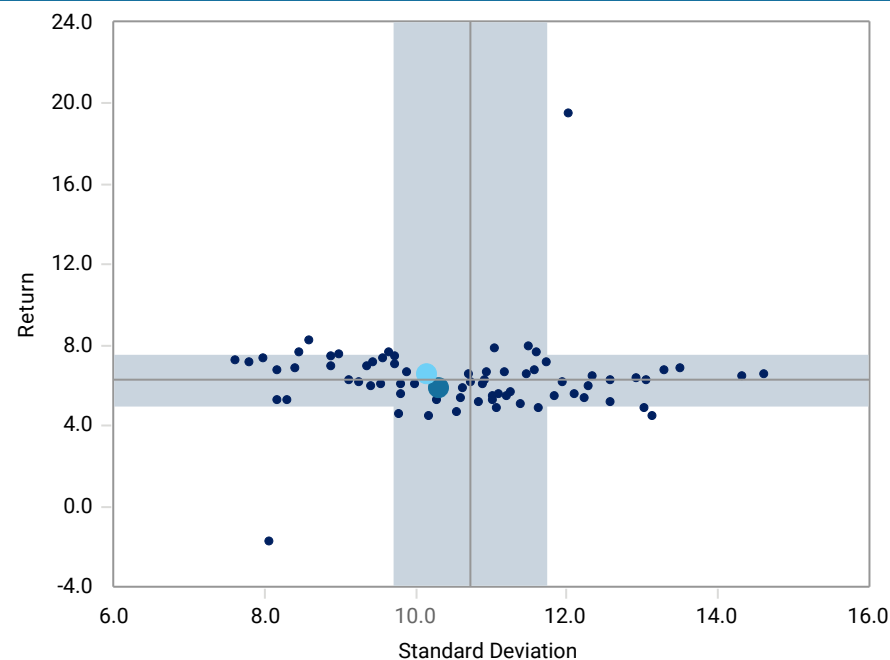
RISK VS. RETURN

3 Years Ending June 30, 2023



● InvMetrics Public DB > \$1 Billion ● Total Fund
● Policy Index

5 Years Ending June 30, 2023



● InvMetrics Public DB > \$1 Billion ● Total Fund
● Policy Index

3 Years Ending June 30, 2023

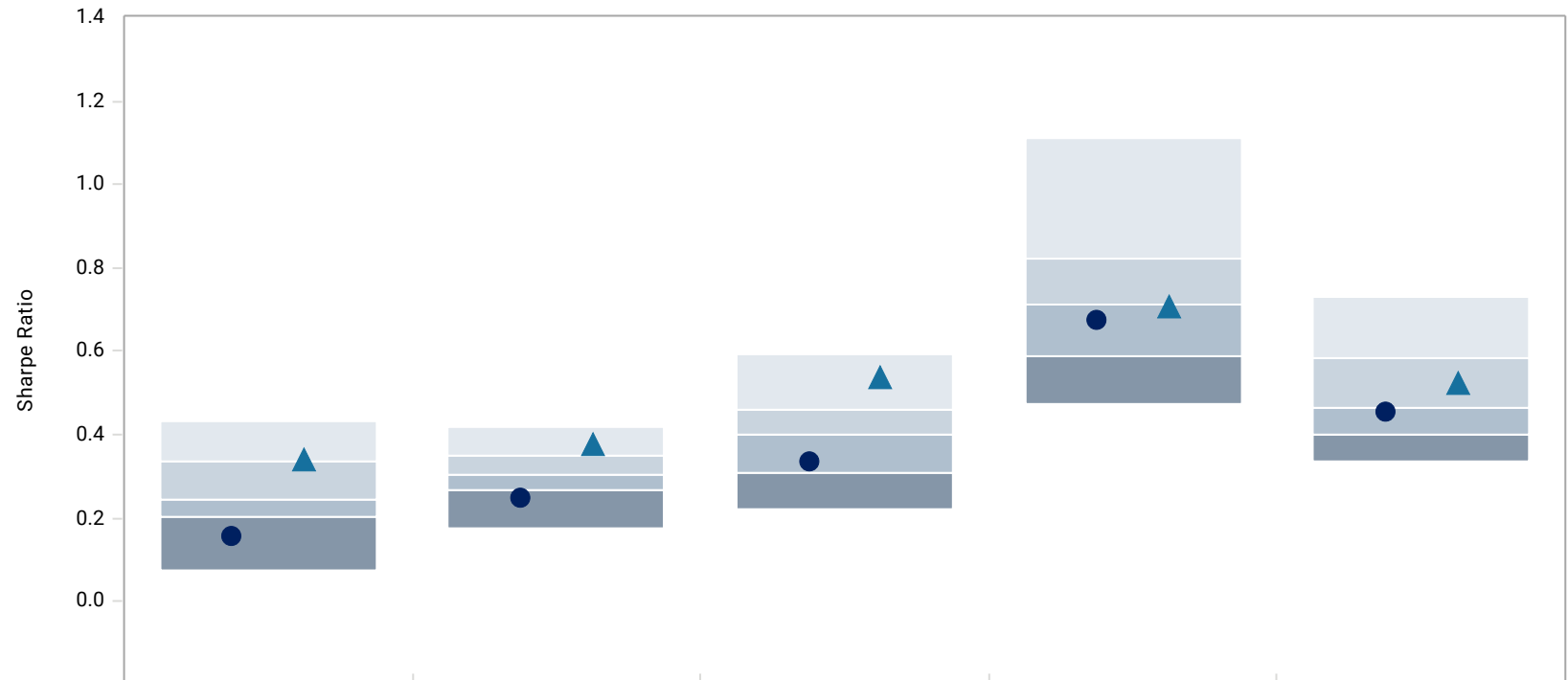
	Return	Standard Deviation	Sharpe Ratio
Total Fund	7.7 (69)	9.8 (47)	0.7 (61)
Policy Index	8.0 (60)	9.8 (46)	0.7 (53)
Population	74	74	74

5 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
Total Fund	5.9 (66)	10.3 (41)	0.5 (53)
Policy Index	6.6 (40)	10.1 (38)	0.5 (32)
Population	73	73	73

TOTAL FUND SHARPE RATIO RANKINGS

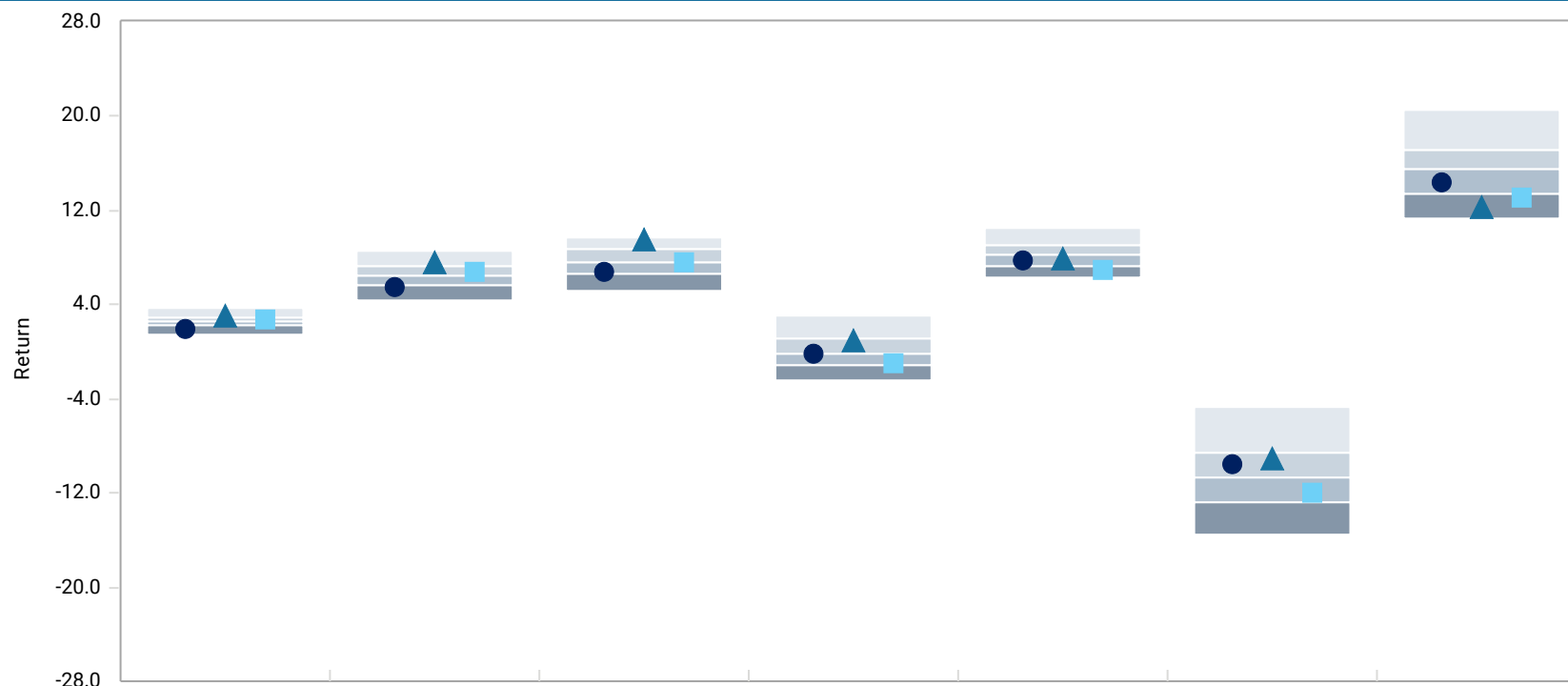
Total Fund vs. InvMetrics Public DB > \$1 Billion



	3 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
● Total Fund	0.2 (86)	0.3 (85)	0.3 (67)	0.7 (61)	0.5 (53)
▲ Policy Index	0.3 (25)	0.4 (15)	0.5 (9)	0.7 (53)	0.5 (32)
5th Percentile	0.4	0.4	0.6	1.1	0.7
1st Quartile	0.3	0.3	0.5	0.8	0.6
Median	0.2	0.3	0.4	0.7	0.5
3rd Quartile	0.2	0.3	0.3	0.6	0.4
95th Percentile	0.1	0.2	0.2	0.5	0.3
Population	91	88	86	74	73

RETURN SUMMARY VS. PEER UNIVERSE

Total Fund vs. InvMetrics Public DB > \$1 Billion



	3 Mo	YTD	1 Year	2 Years	3 Years	2022	2021
● Total Fund	2.0 (85)	5.5 (80)	6.8 (70)	-0.1 (48)	7.7 (69)	-9.6 (38)	14.3 (62)
▲ Policy Index	3.0 (23)	7.7 (15)	9.5 (11)	1.0 (27)	8.0 (60)	-9.1 (34)	12.2 (91)
■ Allocation Index	2.8 (32)	6.8 (39)	7.6 (51)	-0.9 (73)	7.0 (85)	-11.9 (67)	13.0 (80)
5th Percentile	3.7	8.6	9.8	3.1	10.5	-4.6	20.6
1st Quartile	2.9	7.3	8.8	1.1	9.0	-8.5	17.2
Median	2.6	6.5	7.6	-0.2	8.3	-10.6	15.5
3rd Quartile	2.3	5.7	6.6	-1.1	7.3	-12.9	13.5
95th Percentile	1.5	4.3	5.1	-2.5	6.3	-15.6	11.4
Population	91	88	86	77	74	99	134

FEE SCHEDULE

Account Name	Fee Schedule	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Cash Account	0.1 % of Assets	39,494,800	39,495	0.1
Transition Account		170,749		
Insight	0.1 % of Assets	194,177,106	233,013	0.1
BlackRock Russell 1000 Growth	0.0 % of Assets	233,031,121	46,606	0.0
BlackRock Russell 1000 Value	0.0 % of Assets	114,892,853	22,979	0.0
Dodge & Cox-Equity	0.4 % of First \$10 M 0.2 % of Next \$90 M 0.2 % Thereafter	115,261,599	242,892	0.2
Callodine Loan Fund II LP		12,561,129		
Channing	0.5 % of Assets	29,774,545	148,873	0.5
Pacific Ridge	0.6 % of Assets	17,235,726	103,414	0.6
Seizert		34,160,550		
Phocas'		25,211,168		
LSV Int'l Large Cap Value	0.3 % of Assets	269,250,131	673,125	0.3
Fidelity Int'l Growth	0.3 % of Assets	237,773,499	594,434	0.3
Prime Property Fund	0.8 % of Assets	100,243,157	842,043	0.8
BlackRock Real Estate Securities	0.1 % of First \$100 M 0.1 % Thereafter	5,417,195	4,875	0.1
PGIM Real Estate US Debt Fund		97,721,495		
American Strategic Value Realty	0.8 % of First \$25 M 0.7 % of Next \$25 M 0.6 % of Next \$50 M 0.5 % Thereafter	84,650,893	540,580	0.6
Greenfield Acquisition Partners VII		1,111,515		
Grandview Property Partners I		18,712,031		
Grandview Property Partners II		17,041,270		
MS Infrastructure Partners II		13,627,765		
Palistar Communications Infrastructure Fund II		14,461,540		
JP Morgan IIF Hedged LP		33,647,788		
Northern Trust Infrastructure Fund		80,758,810		
IFM Global Infrastructure Fund		54,830,313		

FEE SCHEDULE

Account Name	Fee Schedule	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Vista Foundation Fund IV		14,446,461		
Insight Partners XI		21,067,704		
Gryphon Partners VI LP	0.0 % of Assets	12,813,857	2,563	0.0
Clayton, Dublier, & Rice		14,740,345		
Genstar Capital Partners X		9,001,315		
Sole Source Capital Partners II		12,518,076		
Great Hill EP VIII		-364,181		
Blue Wolf Capital Fund V-A, L.P.		3,146,374		
Northern Trust Russell 3000	0.0 % of Assets	47,295,943	9,459	0.0
Medley Capital		2,558,209		
Owl Rock First Lien Fund	0.7 % of Assets	8,918,474	62,429	0.7
Raven Opportunity III		55,627,212		
White Oak Pinnacle		26,705,533		
Abry Senior Equity VI, L.P.		6,973,983		
Strategic Values Special Situations Fund V, L.P.		5,536,305		
Blackrock High Yield Fund		84,261,019		
Monroe Private Credit IV		17,220,858		
AQR Global Risk Premium - EL	0.4 % of Assets	120,416,073	457,581	0.4
PanAgora Risk Parity Multi Asset	0.4 % of Assets	105,228,671	368,300	0.4
Northern Trust Intermediate Gov't Bond	0.1 % of First \$25 M 0.0 % Thereafter	100,096,995	42,539	0.0
Northern Trust Long Term Gov't Bond	0.1 % of First \$25 M 0.0 % Thereafter	40,960,534	18,884	0.0
Graham Global Investment Fund I SPC LTD		55,847,649		
Invesco Global Targeted Return		28,460,703		
Investment Management Fees		2,638,696,858	4,454,084	0.2

RISK STATISTICS

3 Years Ending June 30, 2023											
	Return	Excess Return	Standard Deviation	Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Capture	Down Capture
American Strategic Value Realty	7.4	6.2	7.2	0.2	1.1	1.4	1.0	0.8	0.5	110.0	111.6
NCREIF Property Index	6.8	5.5	6.7	0.0	1.0	0.0	1.0	0.8		100.0	100.0
AQR Global Risk Premium - EL	1.6	0.9	10.4	-1.8	0.7	5.1	0.9	0.1	-0.6	70.5	80.6
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	4.5	4.0	12.9	0.0	1.0	0.0	1.0	0.3		100.0	100.0
BlackRock Real Estate Securities	9.0	9.5	20.8	-0.1	1.0	0.1	1.0	0.5	-1.9	99.7	100.1
Dow Jones U.S. Select RESI	9.1	9.6	20.8	0.0	1.0	0.0	1.0	0.5		100.0	100.0
BlackRock Russell 1000 Growth	13.7	13.9	21.7	0.0	1.0	0.0	1.0	0.6	-1.6	99.9	100.0
Russell 1000 Growth Index	13.7	14.0	21.7	0.0	1.0	0.0	1.0	0.6		100.0	100.0
BlackRock Russell 1000 Value	14.3	13.6	17.4	0.0	1.0	0.0	1.0	0.8	-0.7	100.0	100.0
Russell 1000 Value Index	14.3	13.6	17.4	0.0	1.0	0.0	1.0	0.8		100.0	100.0
Capital Prospects Transition	0.0	-1.3	0.0	0.0	0.0	22.7		-2.4	-0.7	0.0	0.0
Russell 2000 Value Index	15.4	15.6	22.7	0.0	1.0	0.0	1.0	0.7		100.0	100.0
Channing	16.3	16.6	23.7	1.3	1.0	7.9	0.9	0.7	0.1	99.1	94.3
Russell 2000 Value Index	15.4	15.6	22.7	0.0	1.0	0.0	1.0	0.7		100.0	100.0
Dodge & Cox-Equity	17.9	17.1	19.6	2.2	1.1	4.9	0.9	0.9	0.7	110.0	98.9
Russell 1000 Value Index	14.3	13.6	17.4	0.0	1.0	0.0	1.0	0.8		100.0	100.0
LSV Int'l Large Cap Value	11.5	11.1	17.5	1.3	1.0	2.2	1.0	0.6	0.4	101.6	97.3
MSCI AC World ex USA Value (Net)	10.4	10.2	17.9	0.0	1.0	0.0	1.0	0.6		100.0	100.0
Fidelity Int'l Growth	7.8	7.8	17.9	4.0	1.0	5.5	0.9	0.4	0.7	101.1	83.9
MSCI AC World ex USA Growth (Net)	4.0	4.1	17.7	0.0	1.0	0.0	1.0	0.2		100.0	100.0
Greenfield Acquisition Partners VII	5.8	5.2	13.2	4.2	0.3	14.5	0.0	0.4	-0.2	58.0	23.9
NCREIF-ODCE +1%	9.1	7.8	8.9	0.0	1.0	0.0	1.0	0.9		100.0	100.0
Grandview Property Partners I	17.2	16.9	22.7	9.5	1.0	20.9	0.2	0.7	0.4	149.8	19.4
NCREIF-ODCE +1%	9.1	7.8	8.9	0.0	1.0	0.0	1.0	0.9		100.0	100.0
Insight Partners XI	22.6	21.9	24.2	20.8	0.2	27.7	0.0	0.9	0.2	62.1	-3.2
Russell 3000 + 3%	17.3	16.5	18.5	0.0	1.0	0.0	1.0	0.9		100.0	100.0

RISK STATISTICS

	Return	Excess Return	Standard Deviation	Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Capture	Down Capture
Medley Capital	9.9	14.2	40.5	-2.1	2.1	39.8	0.0	0.4	0.2	148.2	4.0
S&P/LSTA Leveraged Loan Index +2%	8.4	6.9	4.0	0.0	1.0	0.0	1.0	1.7		100.0	100.0
MS Infrastructure Partners II	7.5	6.4	9.2	7.6	0.0	9.3	0.0	0.7	-0.3	72.7	
CPI + 5% (Unadjusted)	11.1	9.3	1.4	0.0	1.0	0.0	1.0	5.7		100.0	
Northern Trust Intermediate Gov't Bond	-2.9	-4.1	3.7	-0.1	1.0	0.2	1.0	-1.1	-0.4	98.6	100.2
Blmbg. U.S. Government: Intermediate	-2.8	-4.1	3.7	0.0	1.0	0.0	1.0	-1.1		100.0	100.0
Northern Trust Long Term Gov't Bond	-11.2	-12.3	13.4	0.7	1.0	1.9	1.0	-0.9	0.4	101.1	97.2
Blmbg. U.S. Government: Long Term Bond Index	-12.0	-13.1	13.5	0.0	1.0	0.0	1.0	-1.0		100.0	100.0
Northern Trust Russell 3000	13.9	13.5	18.5	0.0	1.0	0.1	1.0	0.7	-0.1	100.0	100.0
Russell 3000 Index	13.9	13.5	18.5	0.0	1.0	0.0	1.0	0.7		100.0	100.0
Owl Rock First Lien Fund	13.9	12.2	8.9	16.2	-0.2	10.1	0.0	1.4	0.5	113.2	-67.9
S&P/LSTA Leveraged Loan Index +2%	8.4	6.9	4.0	0.0	1.0	0.0	1.0	1.7		100.0	100.0
Pacific Ridge	16.2	16.1	22.0	3.3	0.9	9.0	0.9	0.7	0.1	92.6	83.7
Russell Microcap Value Index	14.7	15.2	23.8	0.0	1.0	0.0	1.0	0.6		100.0	100.0
PanAgora Risk Parity Multi Asset	-2.5	-2.7	15.1	-6.8	1.1	6.2	0.8	-0.2	-1.1	87.6	126.8
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	4.5	4.0	12.9	0.0	1.0	0.0	1.0	0.3		100.0	100.0
PGIM Real Estate US Debt Fund	5.5	4.2	2.3	5.4	-0.1	5.6	0.0	1.9	1.4	46.3	-38.9
Blmbg. U.S. Investment Grade: CMBS Index	-2.7	-3.9	4.8	0.0	1.0	0.0	1.0	-0.8		100.0	100.0
Prime Property Fund	8.5	7.2	8.3	1.2	0.9	2.2	0.9	0.8	0.2	92.9	66.3
NCREIF ODCE	8.0	6.8	8.9	0.0	1.0	0.0	1.0	0.7		100.0	100.0
Raven Opportunity III	7.0	5.9	8.5	16.3	-1.0	11.0	0.2	0.7	-0.1	16.3	-235.7
S&P/LSTA Leveraged Loan Index +2%	8.4	6.9	4.0	0.0	1.0	0.0	1.0	1.7		100.0	100.0
White Oak Pinnacle	6.4	5.3	8.5	4.6	0.3	9.0	0.0	0.6	-0.2	80.8	84.2
S&P/LSTA Leveraged Loan Index +2%	8.4	6.9	4.0	0.0	1.0	0.0	1.0	1.7		100.0	100.0

MANAGER PROFILES



PROPRIETARY & CONFIDENTIAL



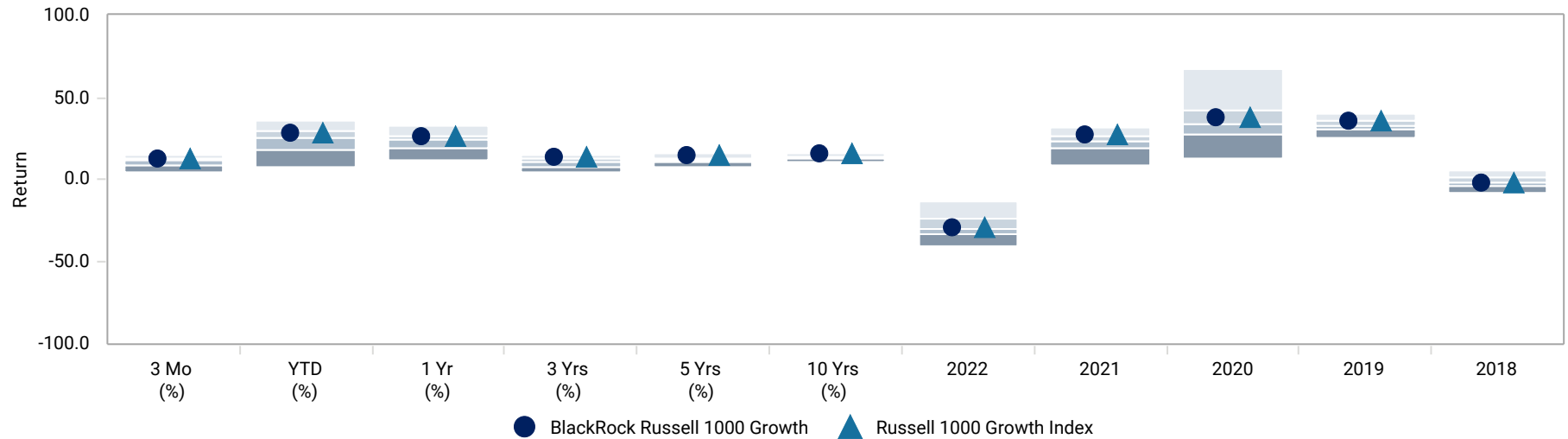
DOMESTIC EQUITY



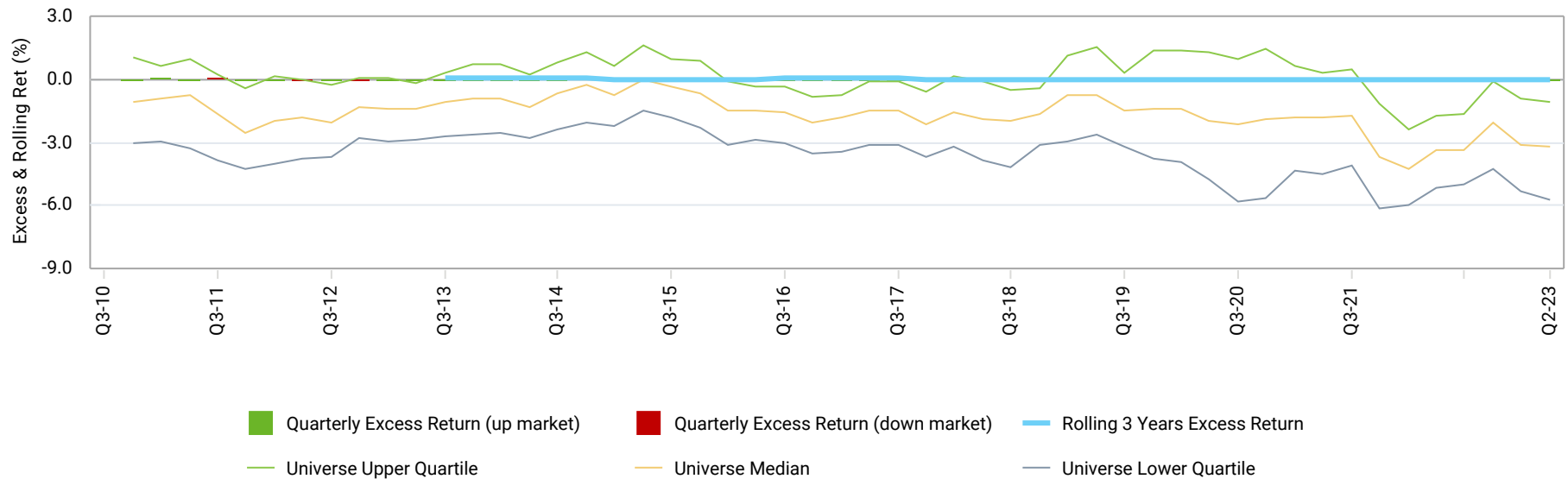
PROPRIETARY & CONFIDENTIAL

BLACKROCK RUSSELL 1000 GROWTH

eV US Large Cap Growth Equity (net of fees)

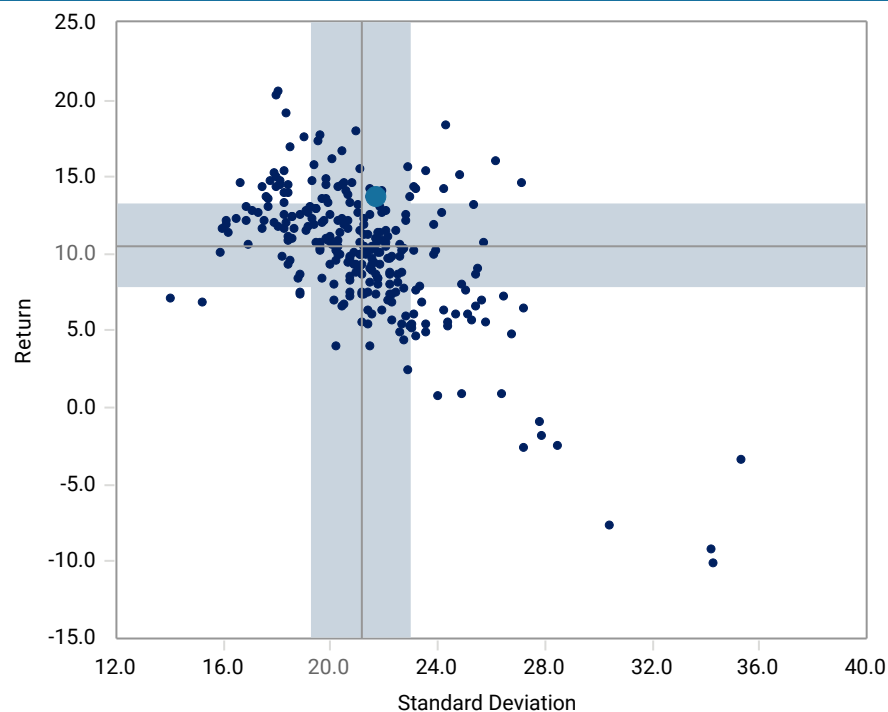


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



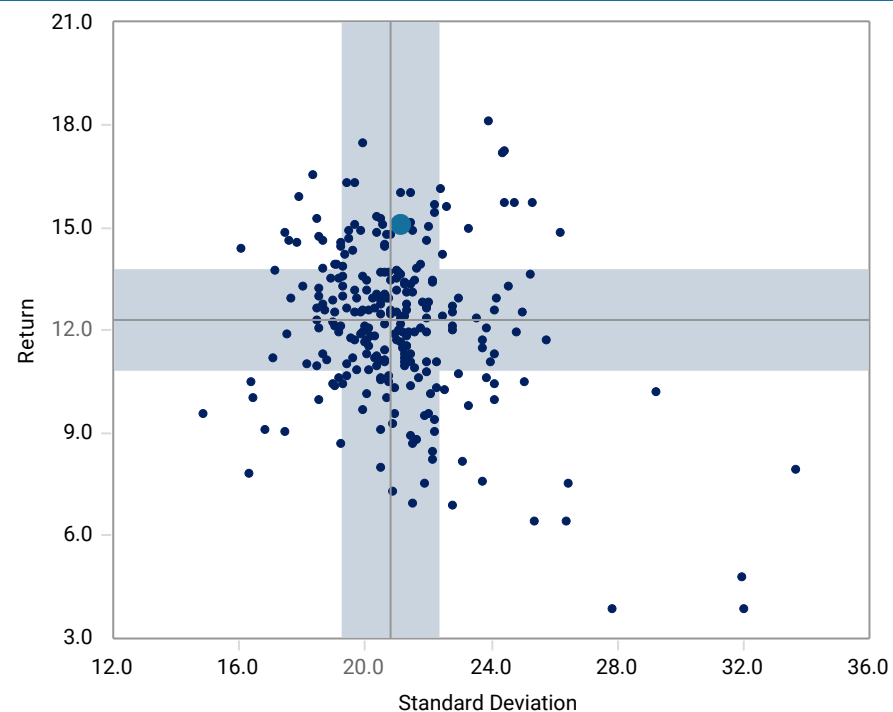
RISK VS. RETURN

3 Years Ending June 30, 2023



● eV US Large Cap Growth Equity ● BlackRock Russell 1000 Growth

5 Years Ending June 30, 2023



● eV US Large Cap Growth Equity ● BlackRock Russell 1000 Growth

3 Years Ending June 30, 2023

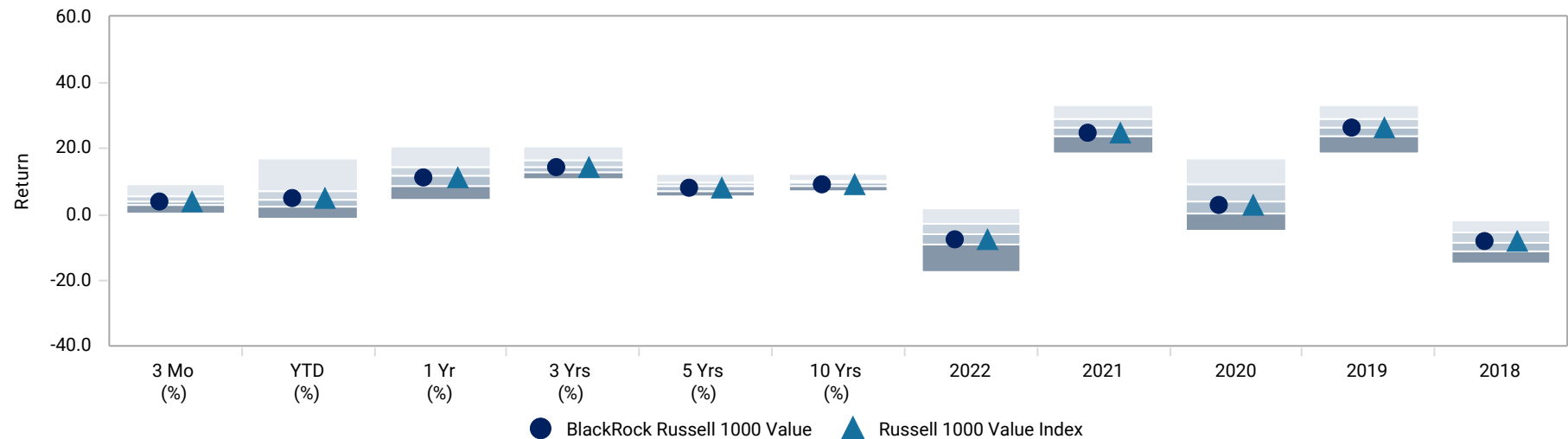
	Return	Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Growth	13.7 (17)	21.7 (62)	0.6 (27)
Russell 1000 Growth Index	13.7 (17)	21.7 (62)	0.6 (26)
eV US Large Cap Growth Equity Median	10.5	21.1	0.5
Population	272	272	272

5 Years Ending June 30, 2023

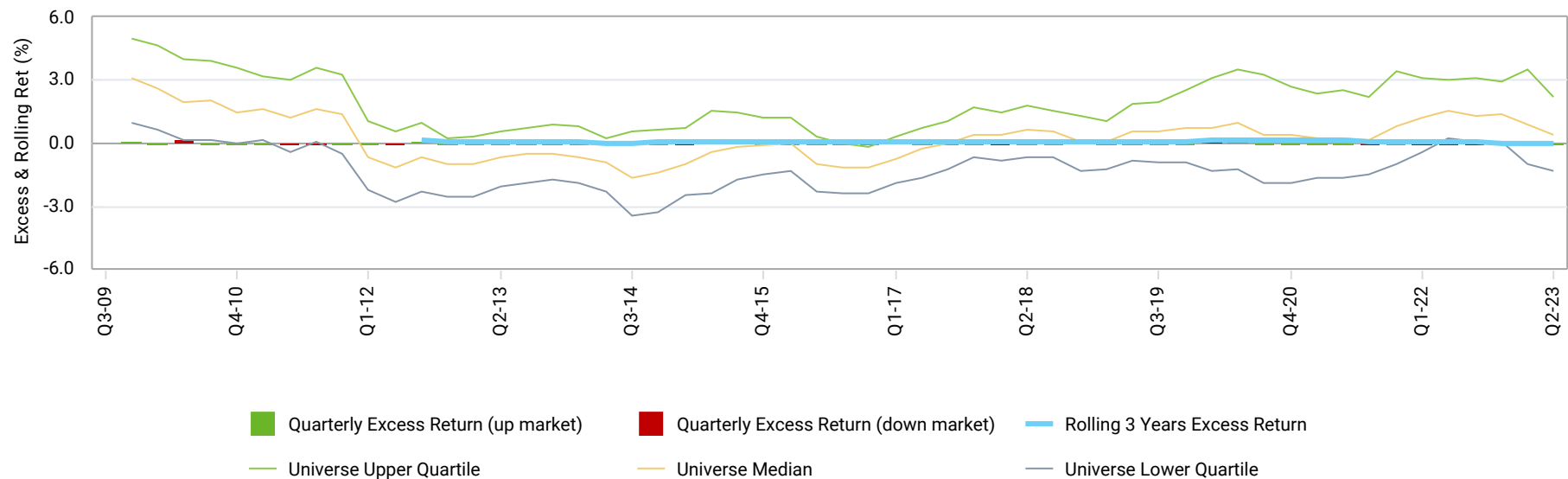
	Return	Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Growth	15.1 (9)	21.1 (58)	0.7 (13)
Russell 1000 Growth Index	15.1 (9)	21.1 (58)	0.7 (13)
eV US Large Cap Growth Equity Median	12.3	20.8	0.6
Population	259	259	259

BLACKROCK RUSSELL 1000 VALUE

eV US Large Cap Value Equity (net of fees)

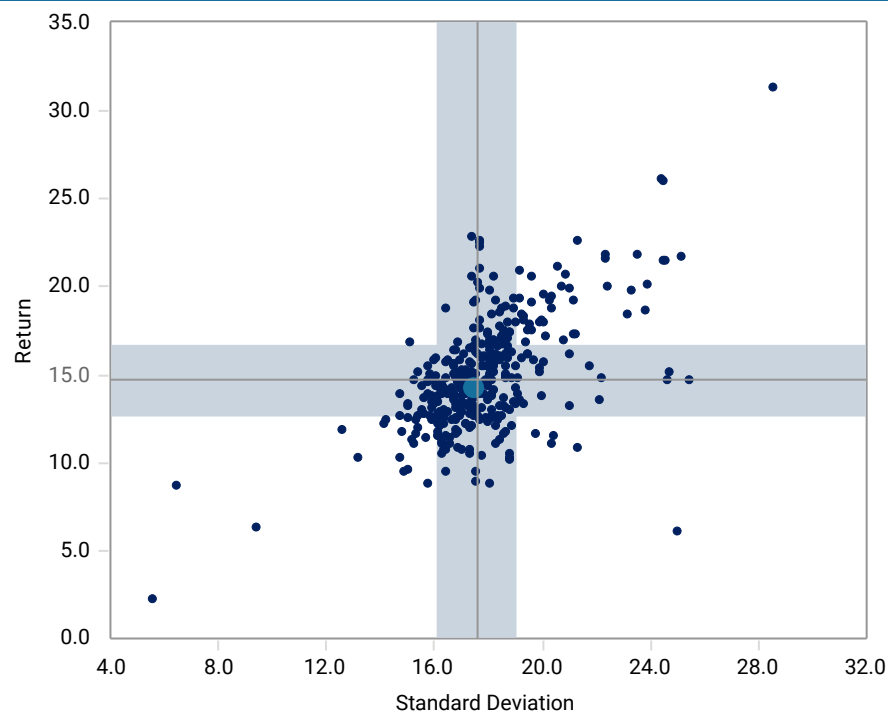


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



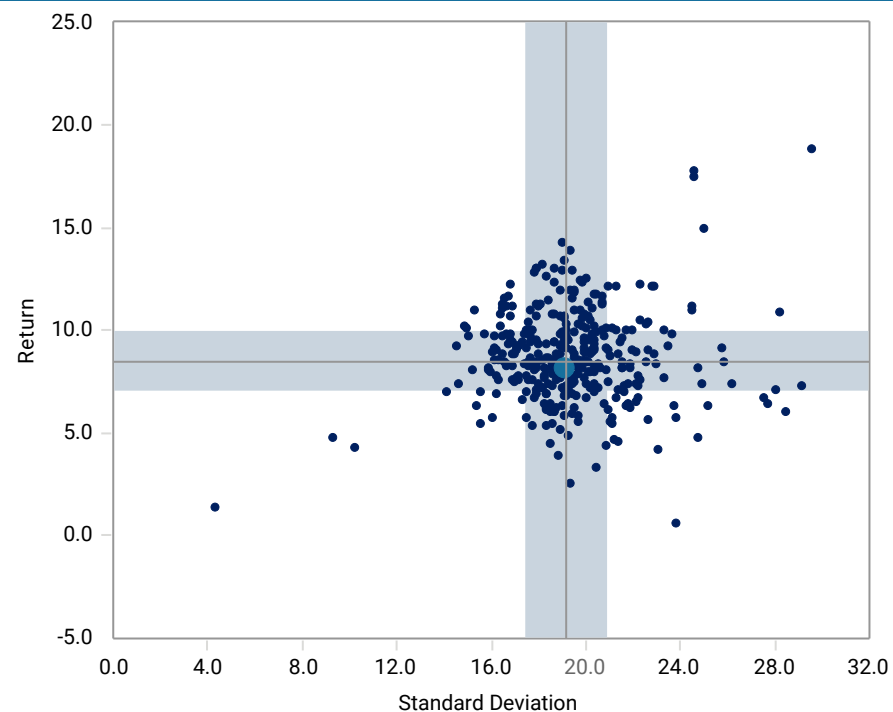
RISK VS. RETURN

3 Years Ending June 30, 2023



● eV US Large Cap Value Equity ● BlackRock Russell 1000 Value

5 Years Ending June 30, 2023



● eV US Large Cap Value Equity ● BlackRock Russell 1000 Value

3 Years Ending June 30, 2023

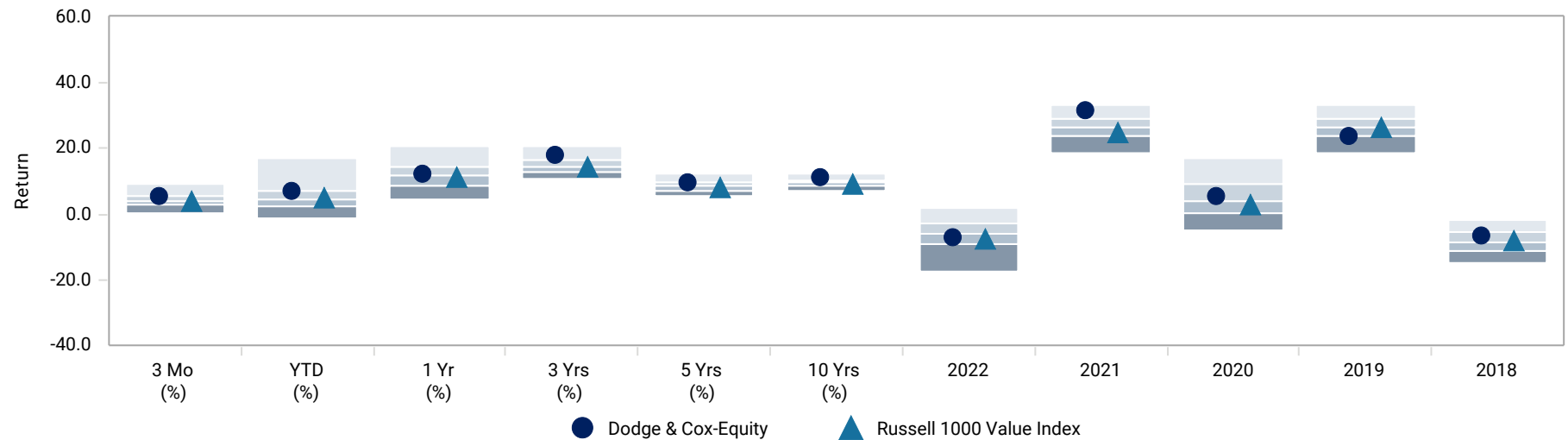
	Return	Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Value	14.3 (58)	17.4 (45)	0.8 (61)
Russell 1000 Value Index	14.3 (58)	17.4 (45)	0.8 (60)
eV US Large Cap Value Equity Median	14.7	17.6	0.8
Population	365	365	365

5 Years Ending June 30, 2023

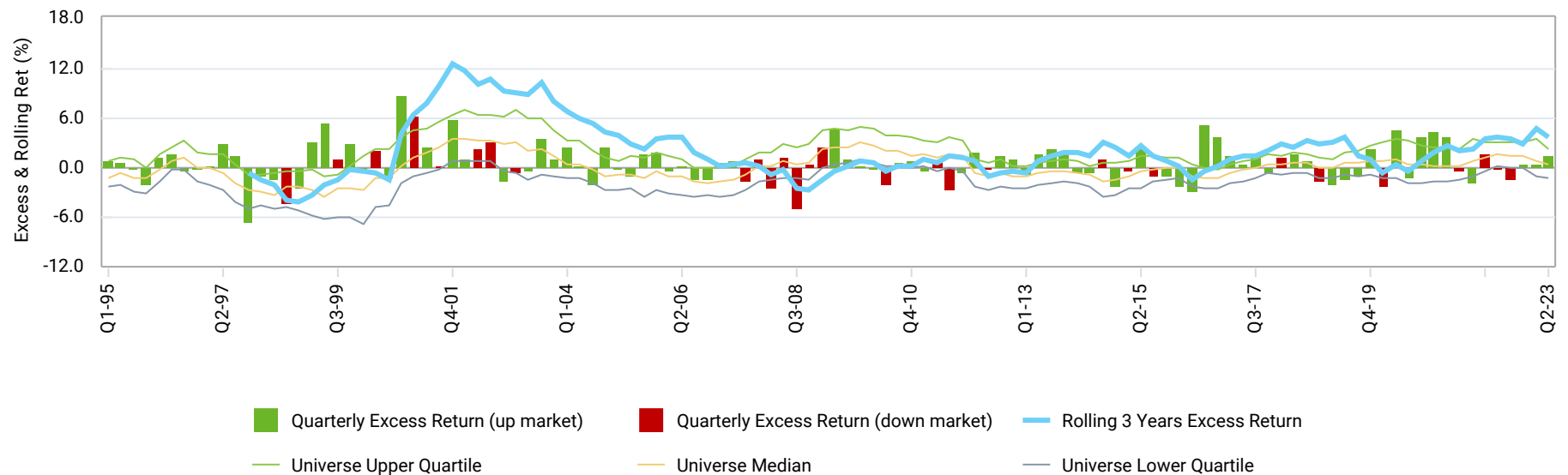
	Return	Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Value	8.2 (61)	19.1 (47)	0.4 (60)
Russell 1000 Value Index	8.1 (63)	19.1 (48)	0.4 (61)
eV US Large Cap Value Equity Median	8.5	19.2	0.4
Population	357	357	357

DODGE & COX-EQUITY

eV US Large Cap Value Equity (net of fees)

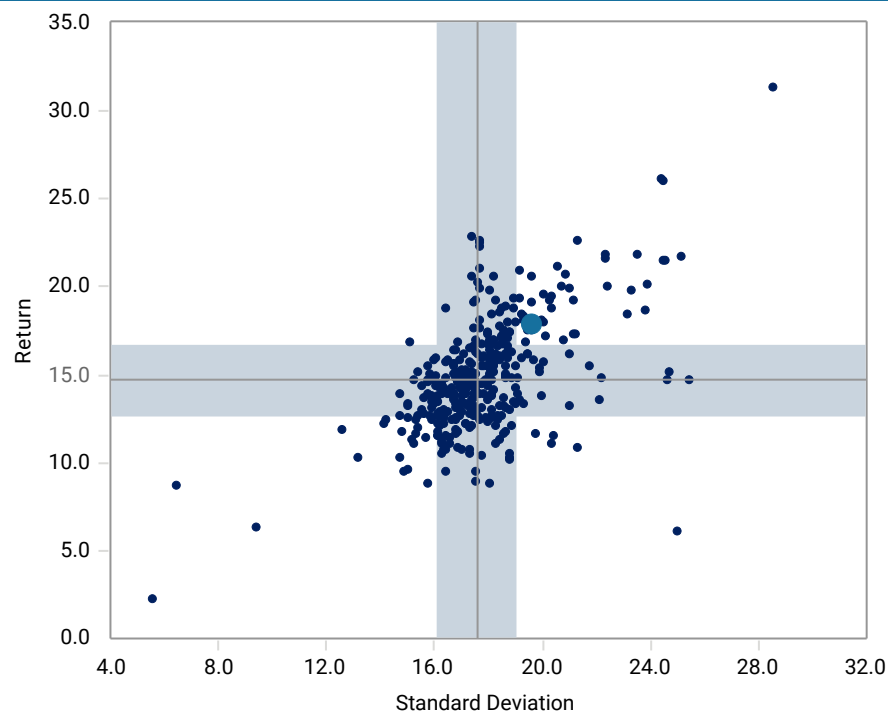


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



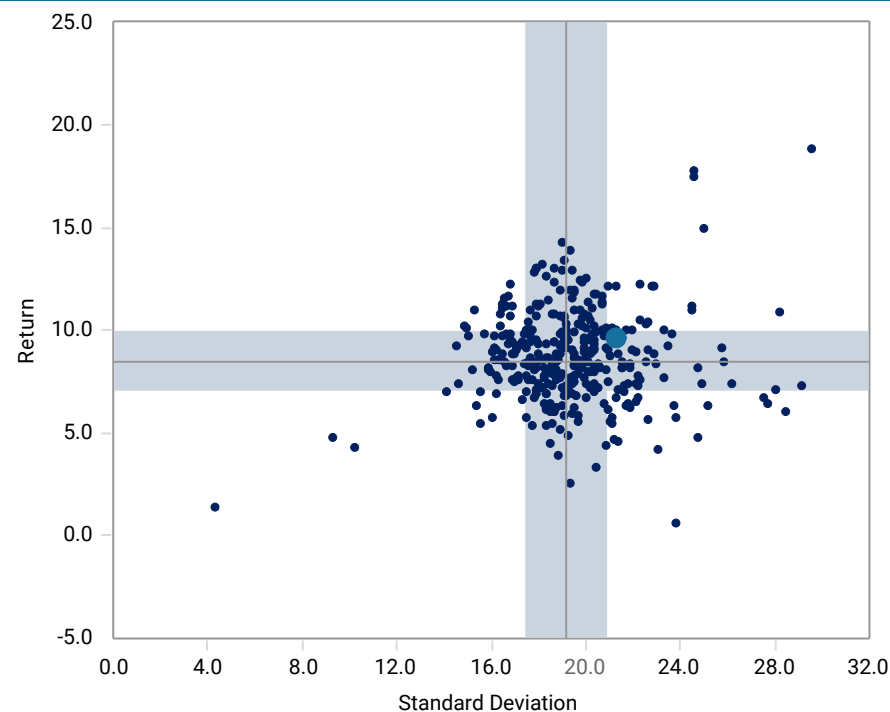
RISK VS. RETURN

3 Years Ending June 30, 2023



● eV US Large Cap Value Equity ● Dodge & Cox-Equity

5 Years Ending June 30, 2023



● eV US Large Cap Value Equity ● Dodge & Cox-Equity

3 Years Ending June 30, 2023

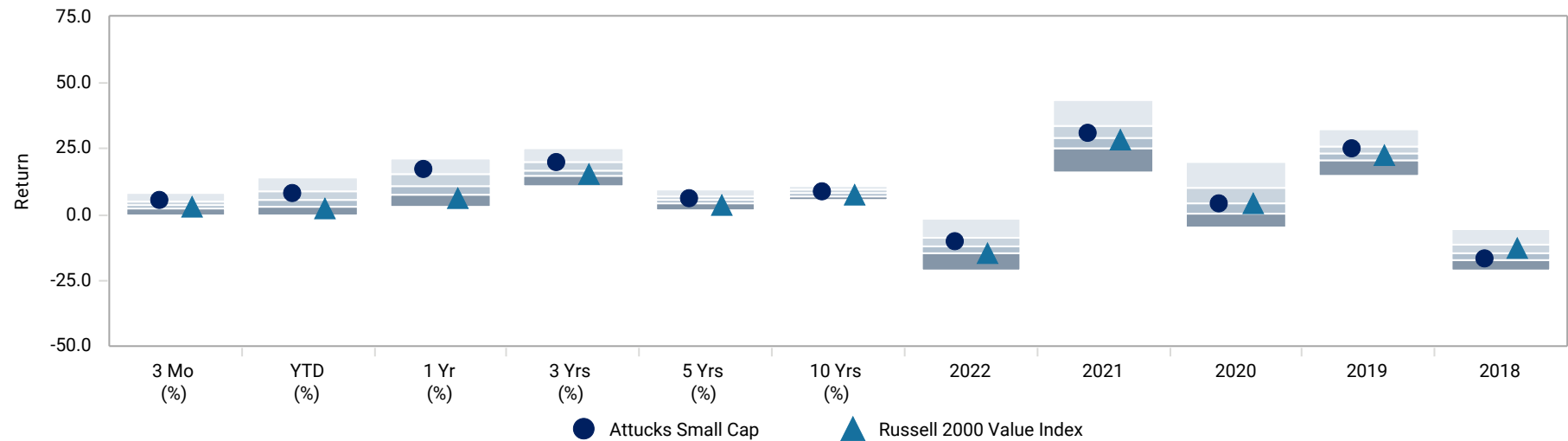
	Return	Standard Deviation	Sharpe Ratio
Dodge & Cox-Equity	17.9 (16)	19.6 (86)	0.9 (24)
Russell 1000 Value Index	14.3 (58)	17.4 (45)	0.8 (60)
eV US Large Cap Value Equity Median	14.7	17.6	0.8
Population	365	365	365

5 Years Ending June 30, 2023

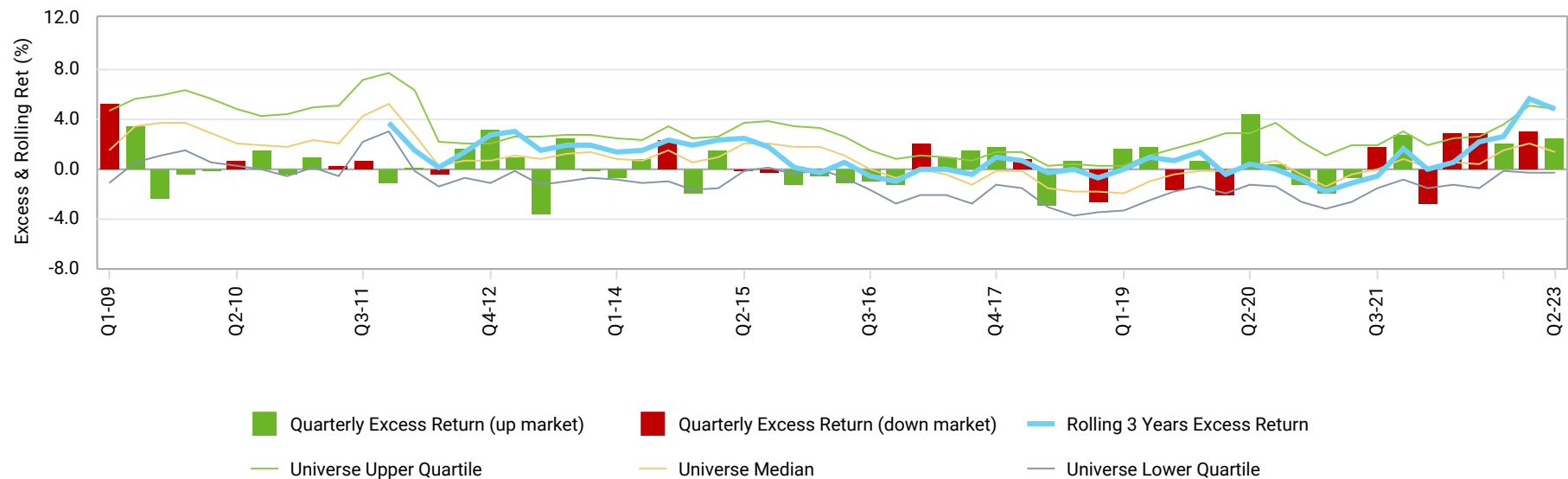
	Return	Standard Deviation	Sharpe Ratio
Dodge & Cox-Equity	9.6 (31)	21.3 (81)	0.5 (43)
Russell 1000 Value Index	8.1 (63)	19.1 (48)	0.4 (61)
eV US Large Cap Value Equity Median	8.5	19.2	0.4
Population	357	357	357

ATTUCKS SMALL CAP

eV US Small Cap Value Equity (net of fees)

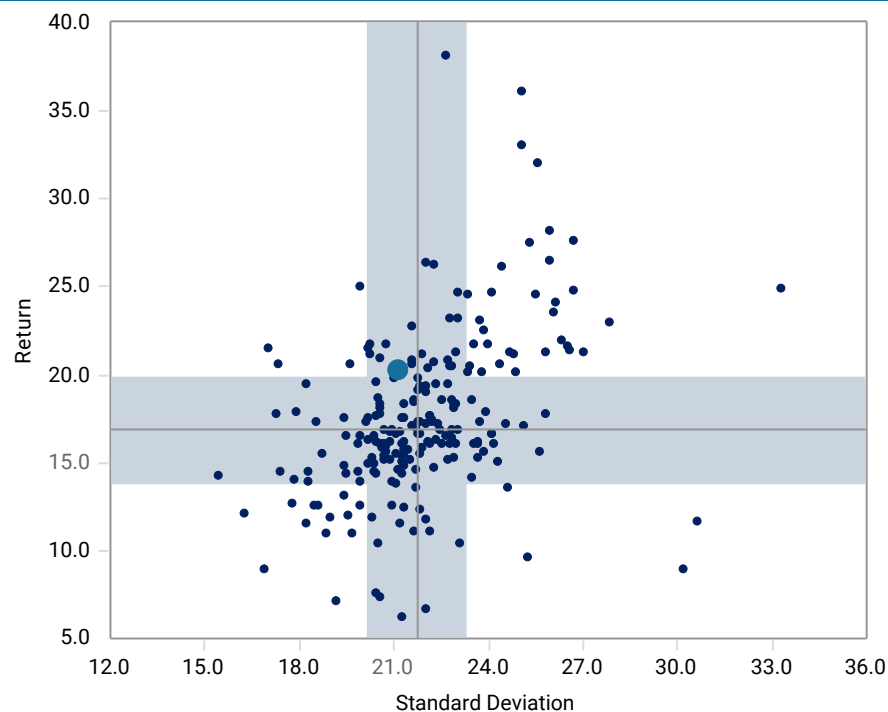


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



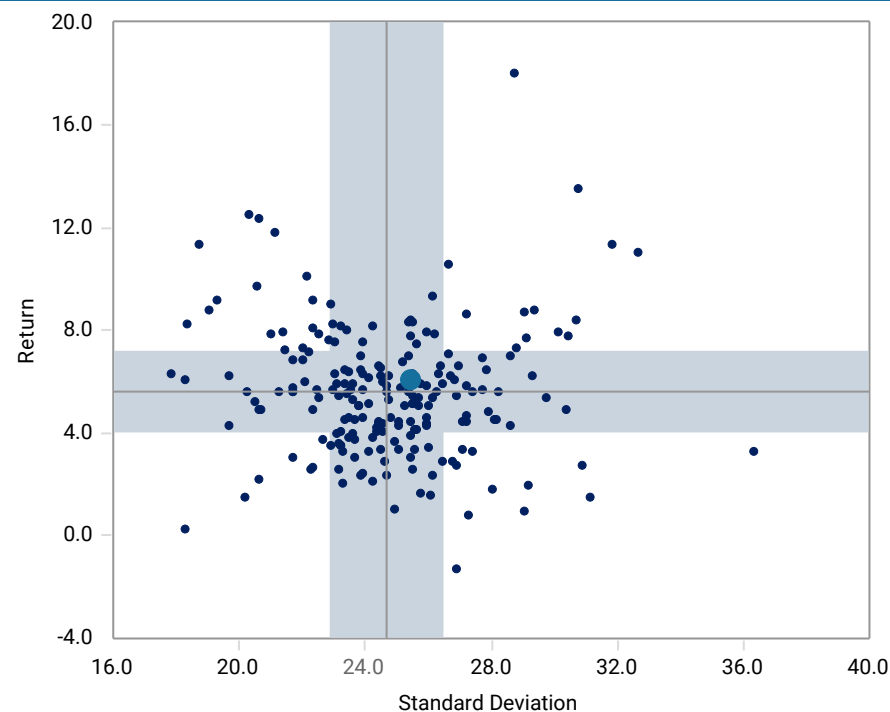
RISK VS. RETURN

3 Years Ending June 30, 2023



● eV US Small Cap Value Equity ● Attucks Small Cap

5 Years Ending June 30, 2023



● eV US Small Cap Value Equity ● Attucks Small Cap

3 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
Attucks Small Cap	20.3 (25)	21.1 (36)	0.9 (16)
Russell 2000 Value Index	15.4 (72)	22.7 (66)	0.7 (81)
eV US Small Cap Value Equity Median	16.9	21.7	0.8
Population	216	216	216

5 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
Attucks Small Cap	6.1 (36)	25.4 (61)	0.3 (37)
Russell 2000 Value Index	3.5 (81)	24.9 (52)	0.2 (81)
eV US Small Cap Value Equity Median	5.6	24.7	0.3
Population	208	208	208



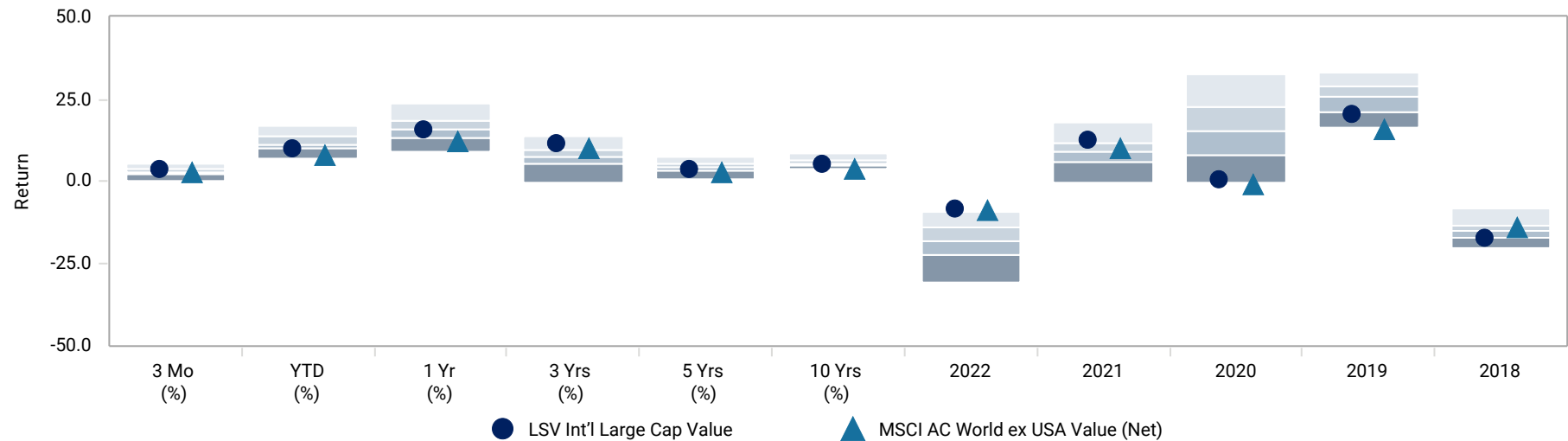
INTERNATIONAL EQUITY



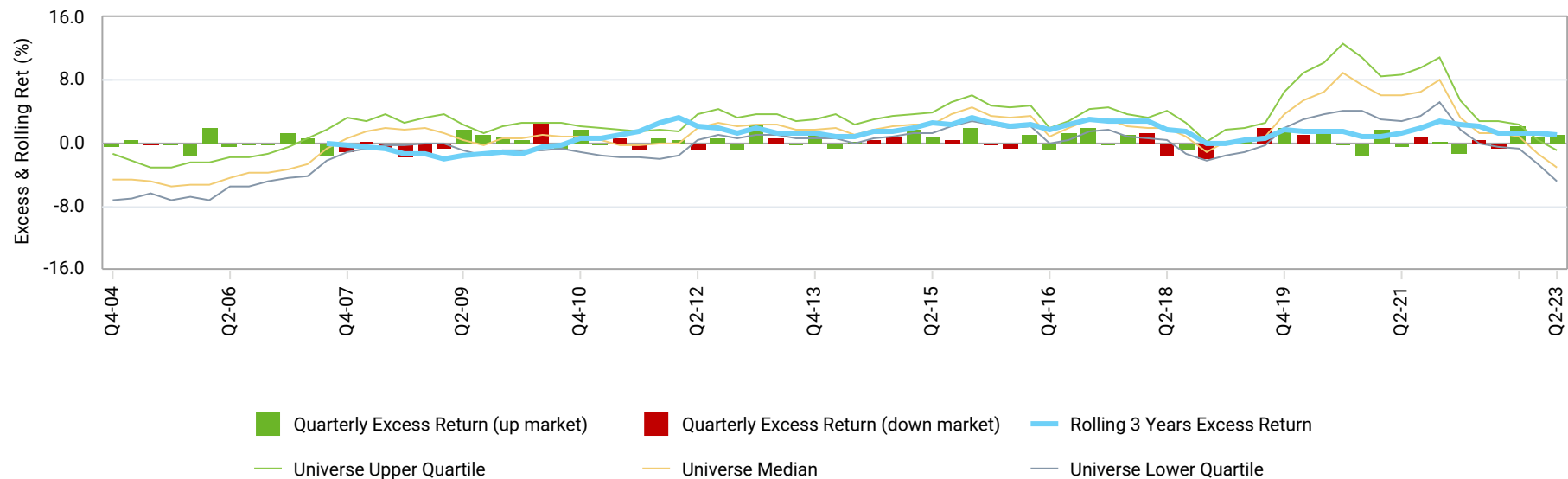
PROPRIETARY & CONFIDENTIAL

LSV INT'L LARGE CAP VALUE

eV ACWI ex-US Large Cap Equity (net of fees)

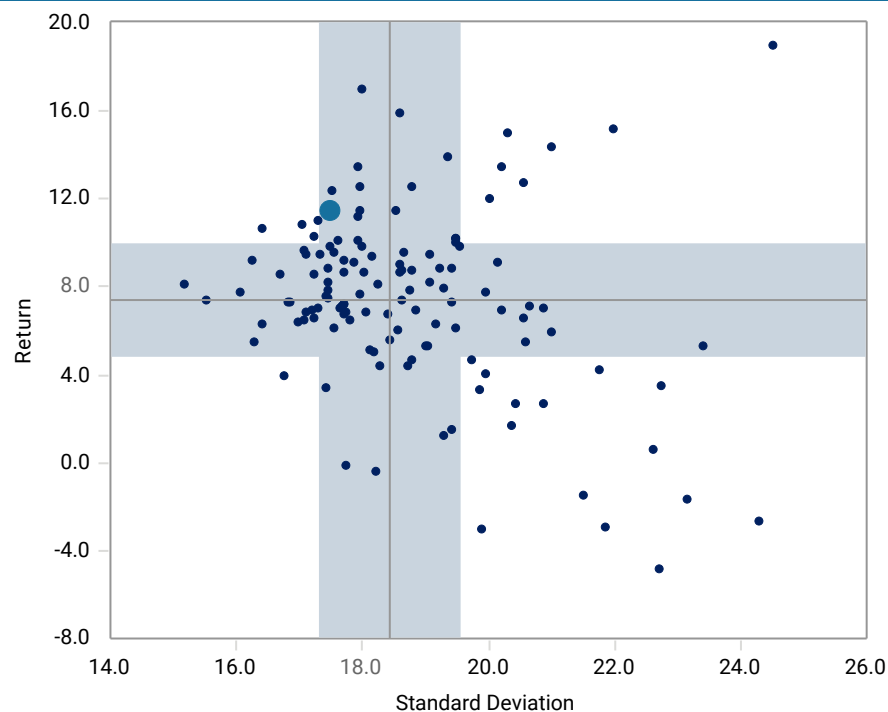


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



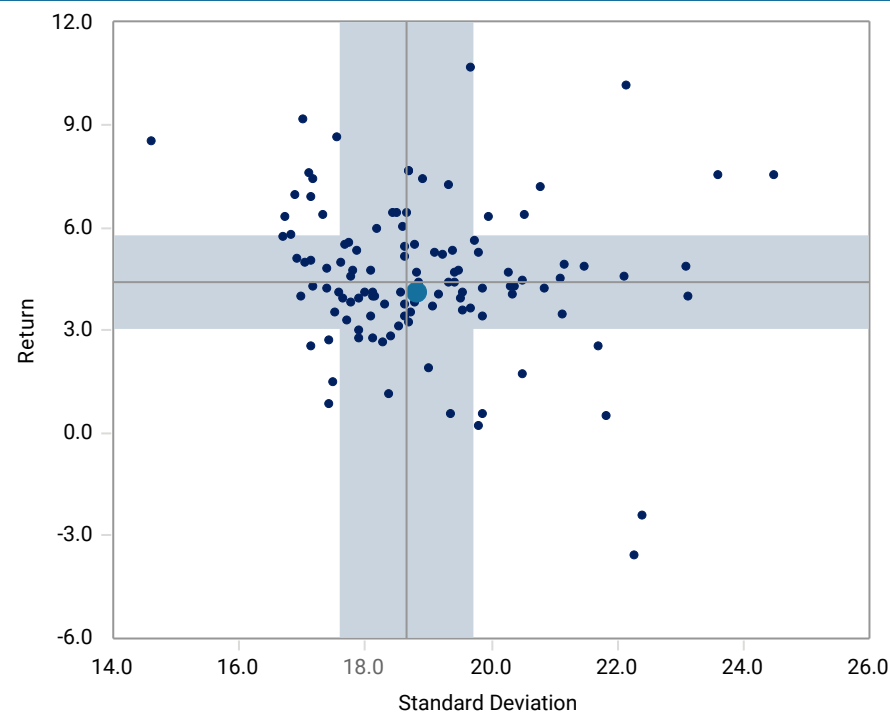
RISK VS. RETURN

3 Years Ending June 30, 2023



● eV ACWI ex-US Large Cap Equity ● LSV Int'l Large Cap Value

5 Years Ending June 30, 2023



● eV ACWI ex-US Large Cap Equity ● LSV Int'l Large Cap Value

3 Years Ending June 30, 2023

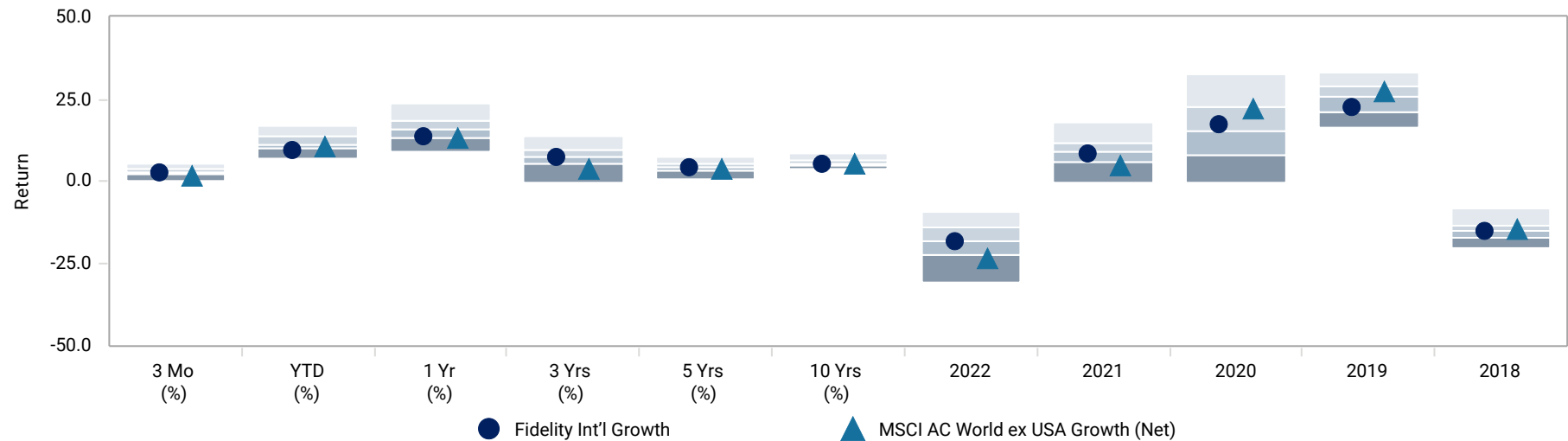
	Return	Standard Deviation	Sharpe Ratio
LSV Int'l Large Cap Value	11.5 (12)	17.5 (23)	0.6 (10)
MSCI AC World ex USA Value (Net)	10.4 (16)	17.9 (36)	0.6 (17)
eV ACWI ex-US Large Cap Equity Median	7.4	18.4	0.4
Population	126	126	126

5 Years Ending June 30, 2023

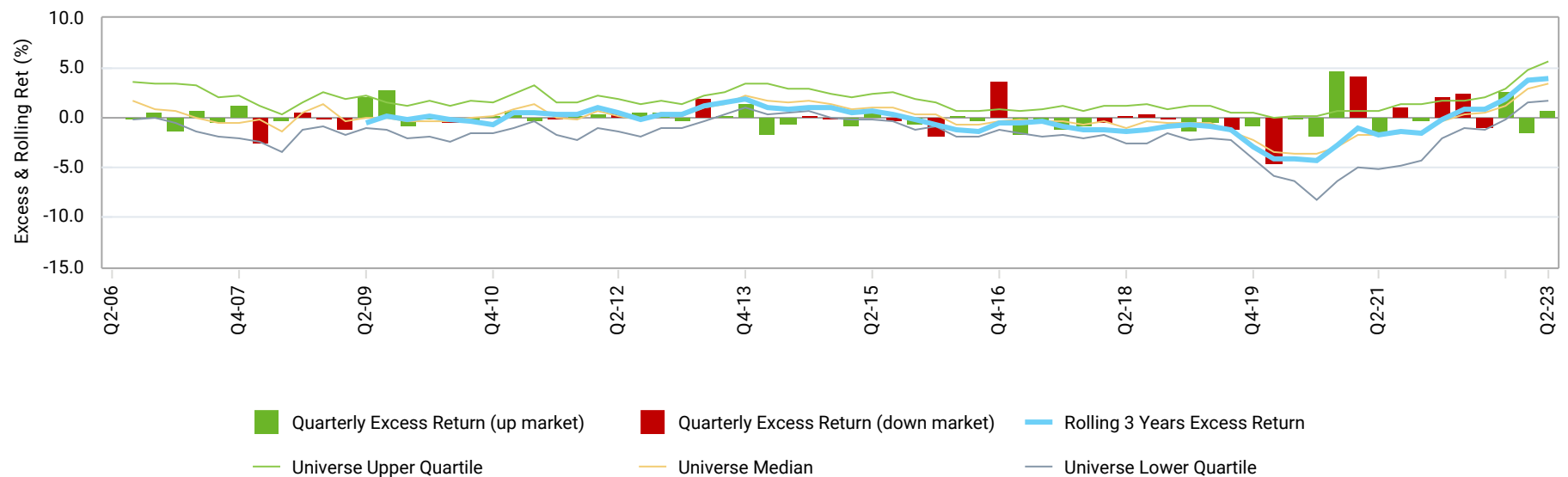
	Return	Standard Deviation	Sharpe Ratio
LSV Int'l Large Cap Value	4.1 (60)	18.8 (56)	0.2 (60)
MSCI AC World ex USA Value (Net)	2.7 (89)	18.8 (54)	0.2 (90)
eV ACWI ex-US Large Cap Equity Median	4.4	18.6	0.2
Population	114	114	114

FIDELITY INT'L GROWTH

eV ACWI ex-US Large Cap Equity (net of fees)

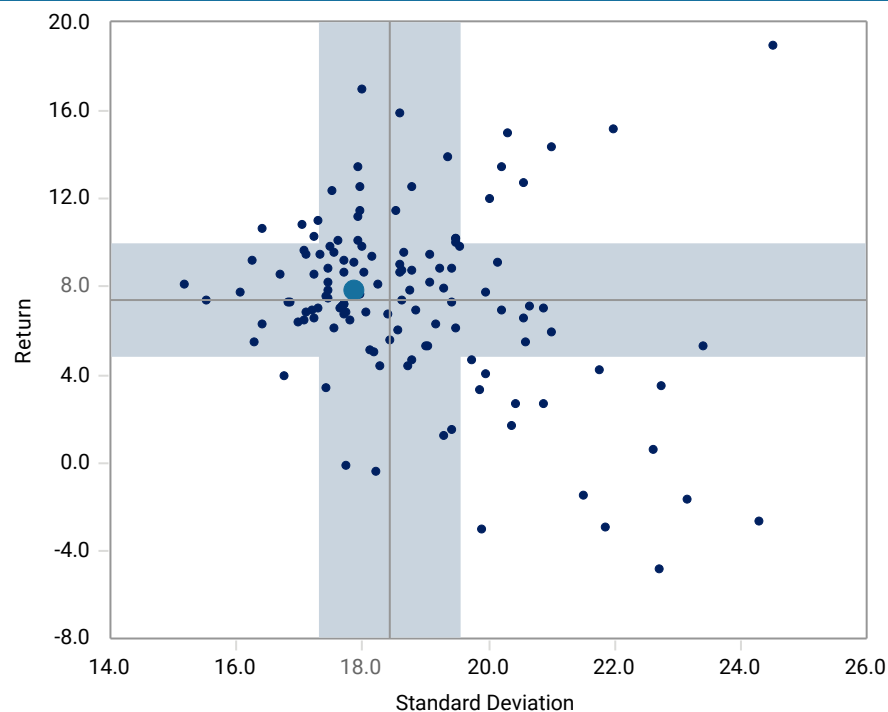


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



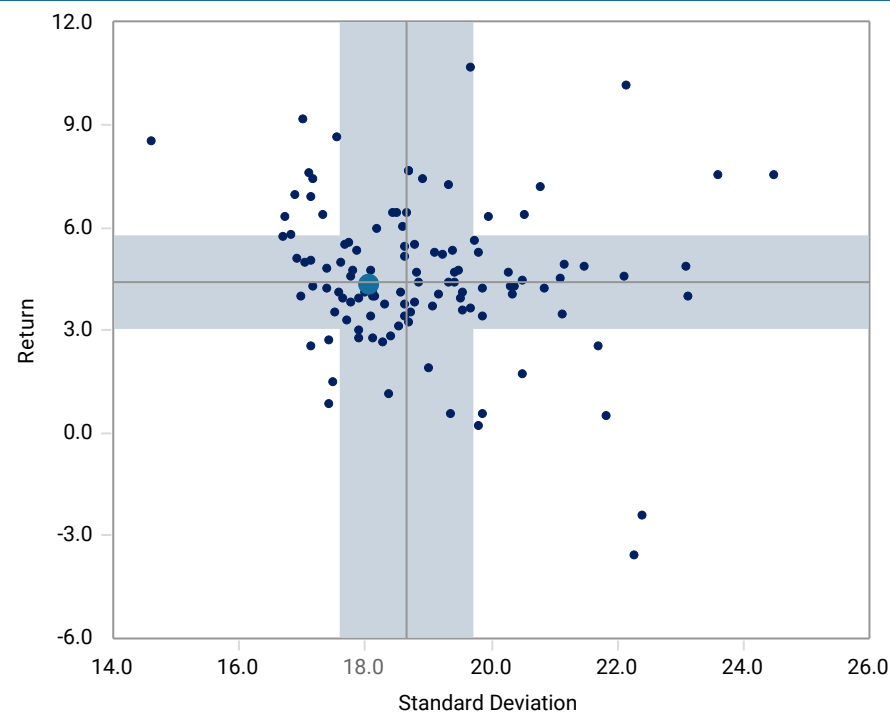
RISK VS. RETURN

3 Years Ending June 30, 2023



● eV ACWI ex-US Large Cap Equity ● Fidelity Int'l Growth

5 Years Ending June 30, 2023



● eV ACWI ex-US Large Cap Equity ● Fidelity Int'l Growth

3 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
Fidelity Int'l Growth	7.8 (47)	17.9 (36)	0.4 (46)
MSCI AC World ex USA Growth (Net)	4.0 (87)	17.7 (33)	0.2 (87)
eV ACWI ex-US Large Cap Equity Median	7.4	18.4	0.4
Population	126	126	126

5 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
Fidelity Int'l Growth	4.4 (52)	18.0 (32)	0.2 (49)
MSCI AC World ex USA Growth (Net)	4.1 (64)	17.5 (17)	0.2 (62)
eV ACWI ex-US Large Cap Equity Median	4.4	18.6	0.2
Population	114	114	114

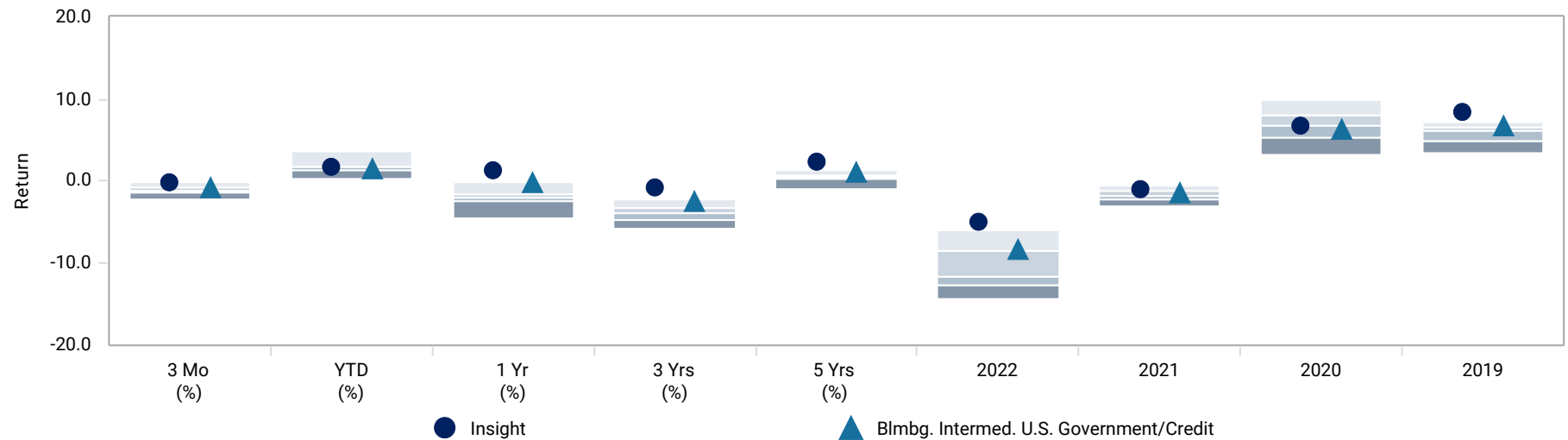


DOMESTIC FIXED INCOME

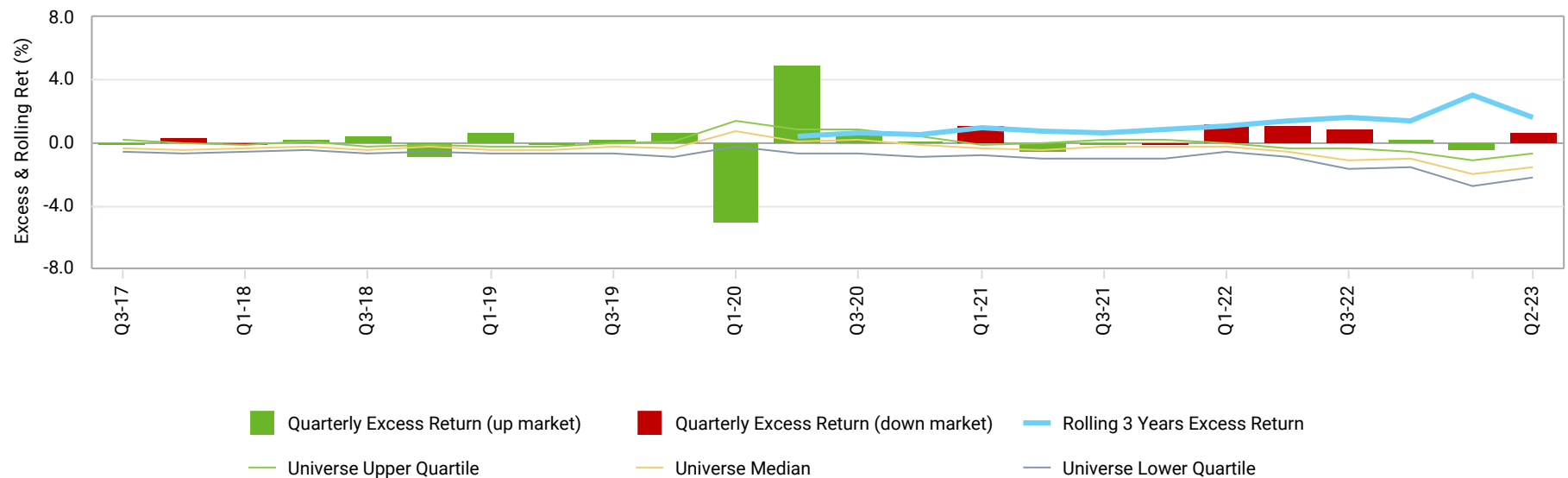


PROPRIETARY & CONFIDENTIAL

eV US Government Fixed Inc (net of fees)

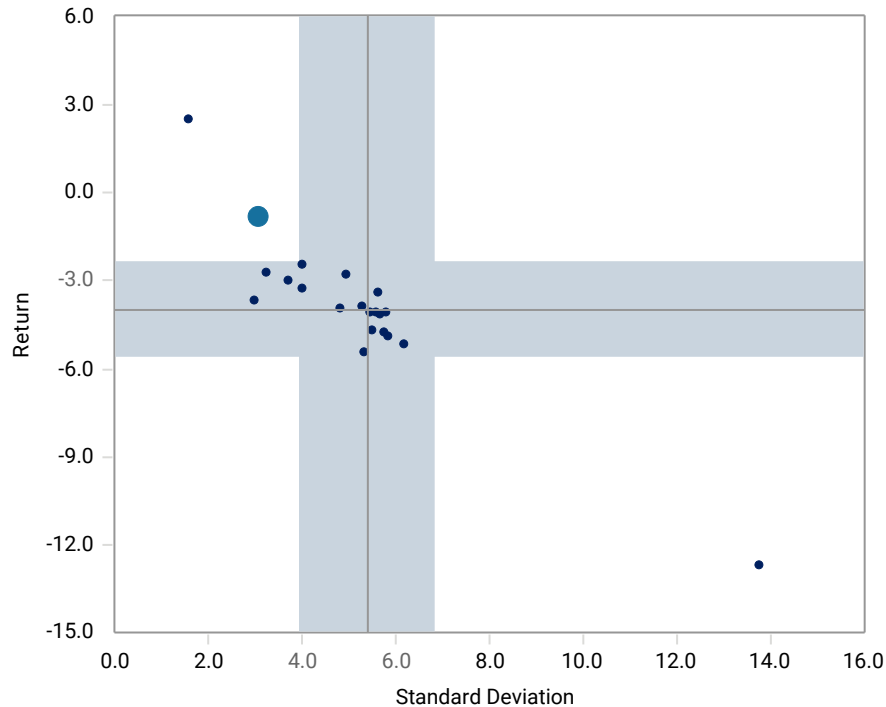


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



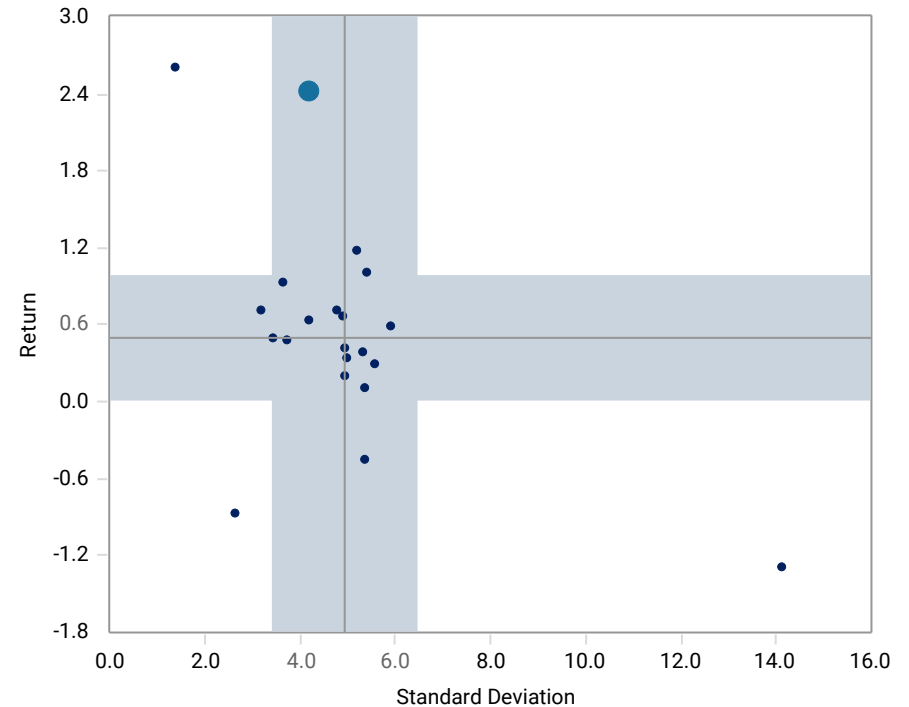
RISK VS. RETURN

3 Years Ending June 30, 2023



● eV US Government Fixed Inc ● Insight

5 Years Ending June 30, 2023



● eV US Government Fixed Inc ● Insight

3 Years Ending June 30, 2023

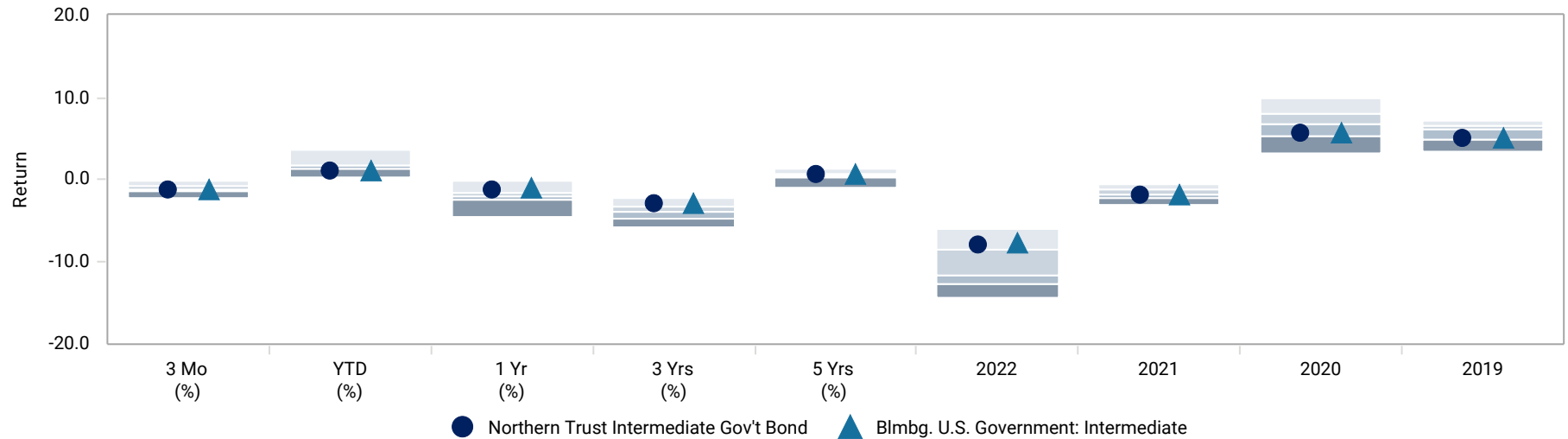
	Return	Standard Deviation	Sharpe Ratio
Insight	-0.8 (4)	3.0 (6)	-0.7 (5)
Blmbg. Intermed. U.S. Government/Credit	-2.5 (6)	4.1 (26)	-0.9 (16)
eV US Government Fixed Inc Median	-4.0	5.4	-1.0
Population	20	20	20

5 Years Ending June 30, 2023

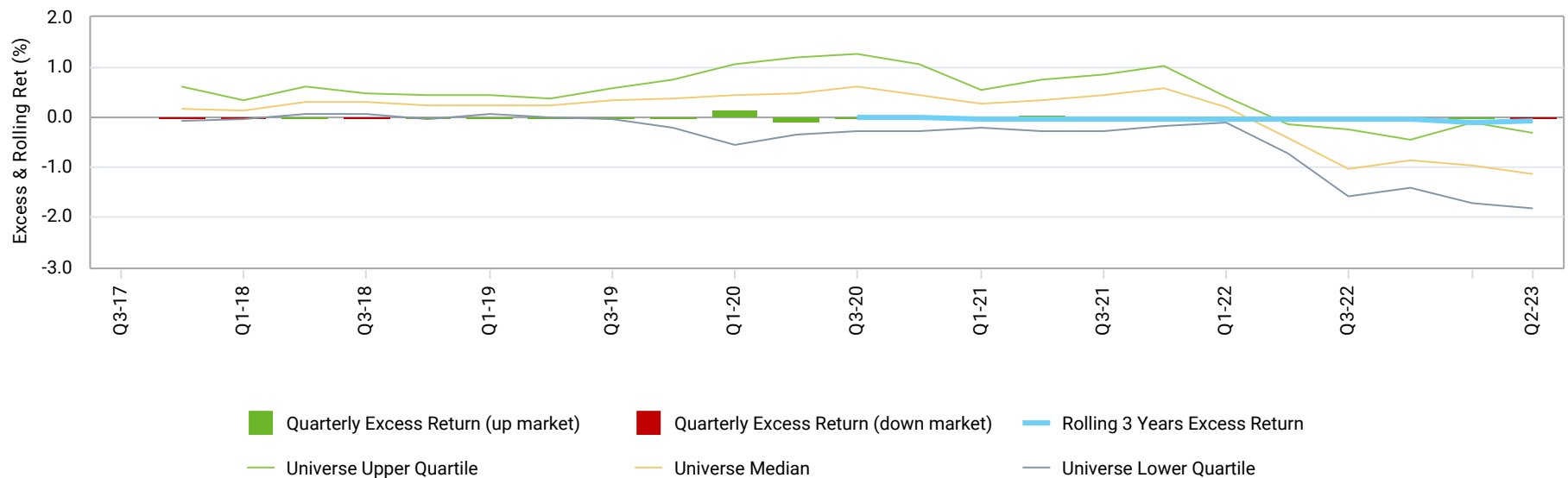
	Return	Standard Deviation	Sharpe Ratio
Insight	2.4 (1)	4.2 (31)	0.2 (4)
Blmbg. Intermed. U.S. Government/Credit	1.2 (6)	3.7 (25)	-0.1 (10)
eV US Government Fixed Inc Median	0.5	4.9	-0.2
Population	20	20	20

NORTHERN TRUST INTERMEDIATE GOV'T BOND

eV US Government Fixed Inc (net of fees)

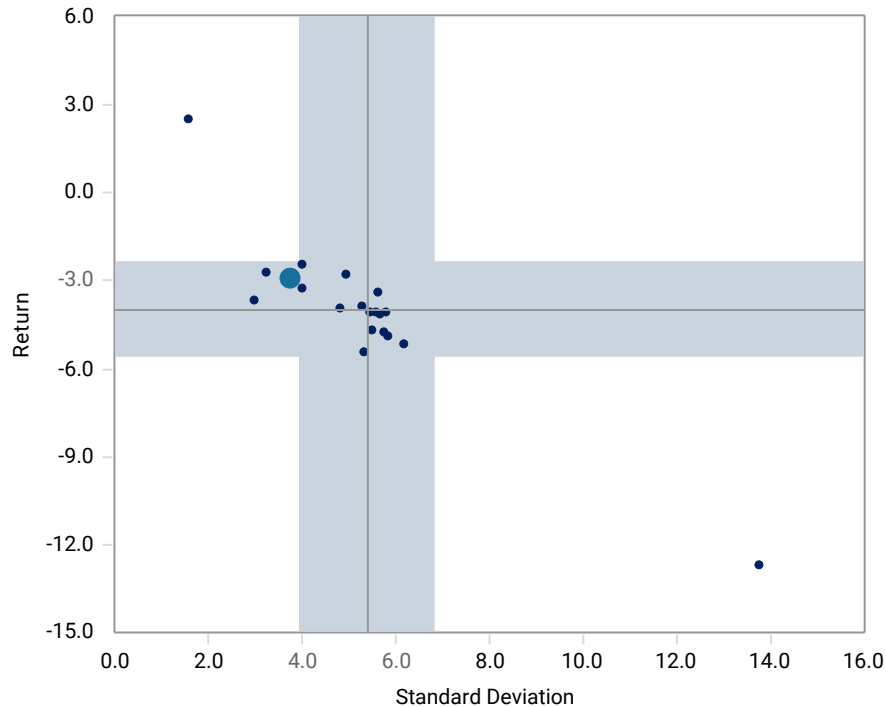


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



RISK VS. RETURN

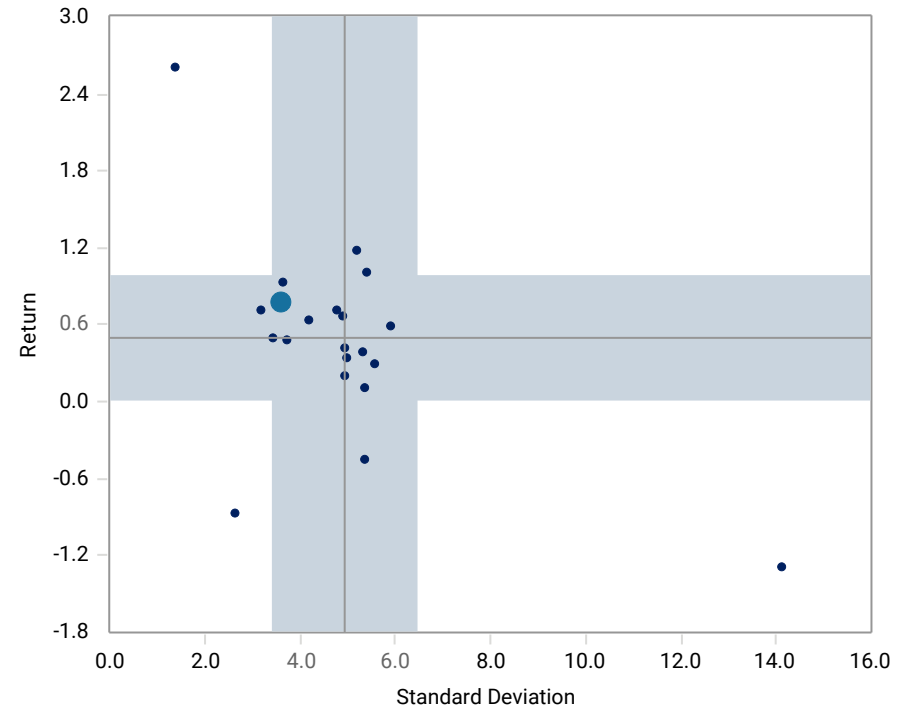
3 Years Ending June 30, 2023



● eV US Government Fixed Inc

● Northern Trust Intermediate Gov't Bond

5 Years Ending June 30, 2023



● eV US Government Fixed Inc

● Northern Trust Intermediate Gov't Bond

3 Years Ending June 30, 2023

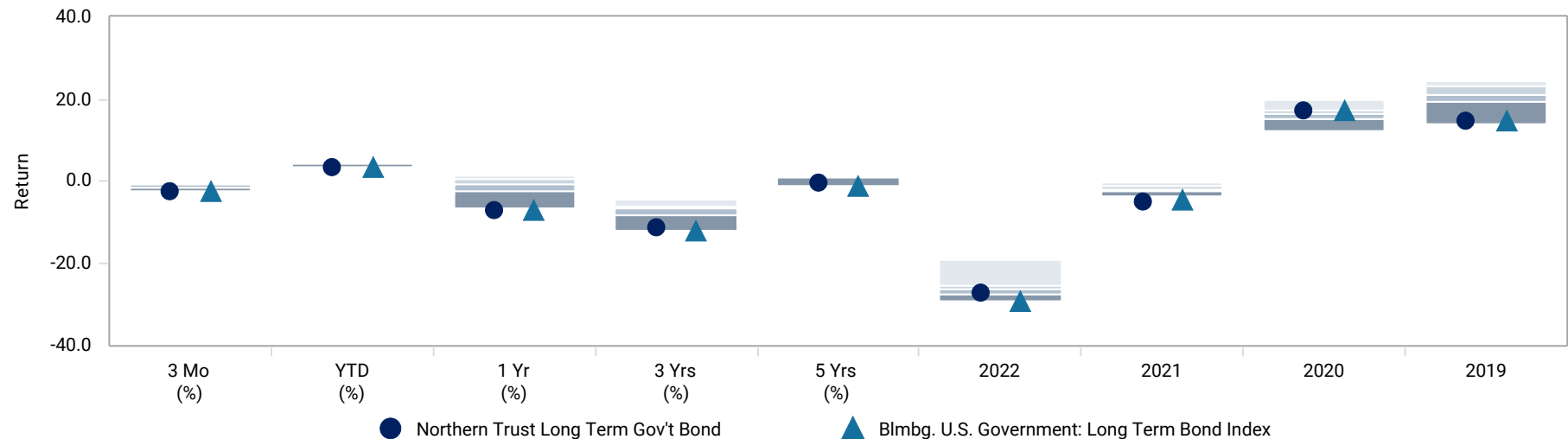
	Return	Standard Deviation	Sharpe Ratio
Northern Trust Intermediate Gov't Bond	-2.9 (20)	3.7 (16)	-1.1 (81)
Blmbg. U.S. Government: Intermediate	-2.8 (19)	3.7 (16)	-1.1 (78)
eV US Government Fixed Inc Median	-4.0	5.4	-1.0
Population	20	20	20

5 Years Ending June 30, 2023

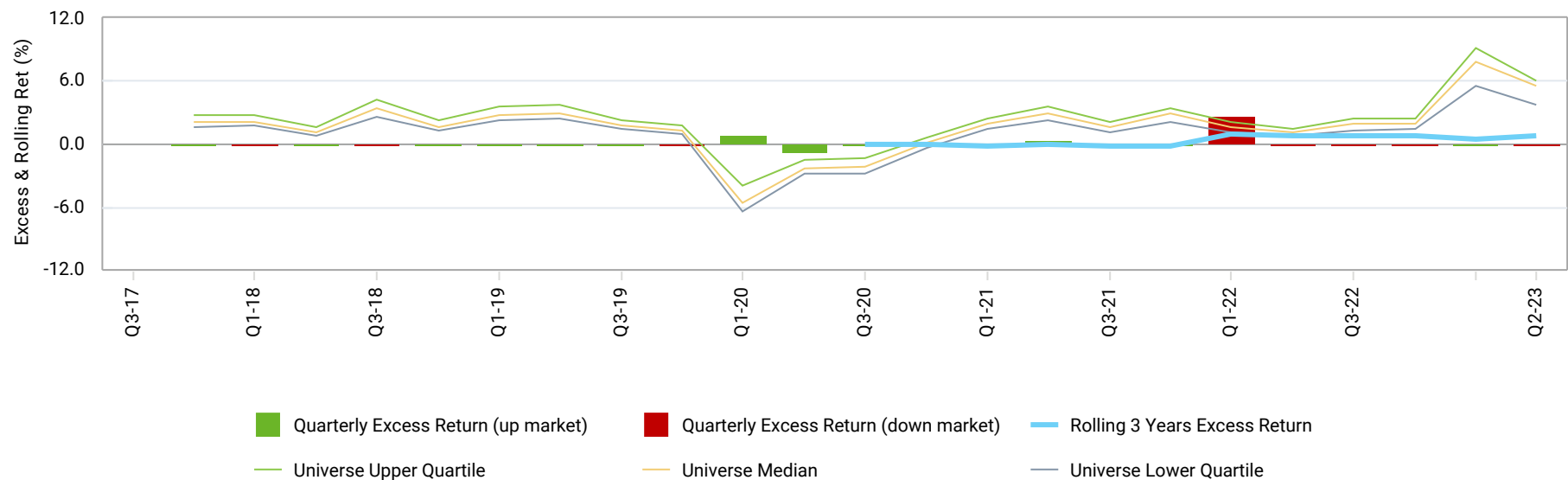
	Return	Standard Deviation	Sharpe Ratio
Northern Trust Intermediate Gov't Bond	0.8 (20)	3.6 (19)	-0.2 (51)
Blmbg. U.S. Government: Intermediate	0.8 (19)	3.6 (19)	-0.2 (42)
eV US Government Fixed Inc Median	0.5	4.9	-0.2
Population	20	20	20

NORTHERN TRUST LONG TERM GOV'T BOND

eV US Long Duration Fixed Inc (net of fees)

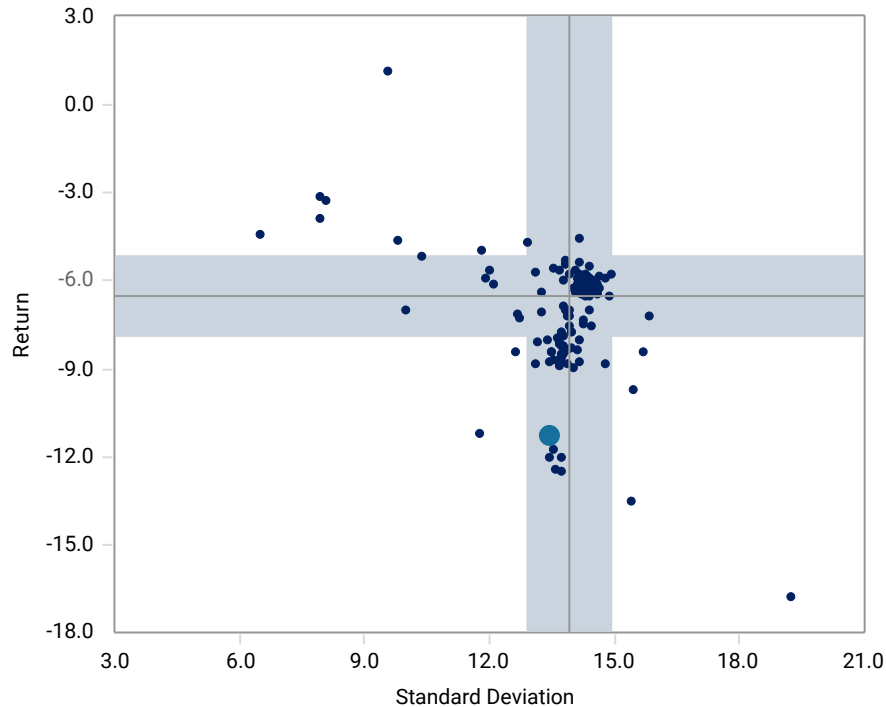


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



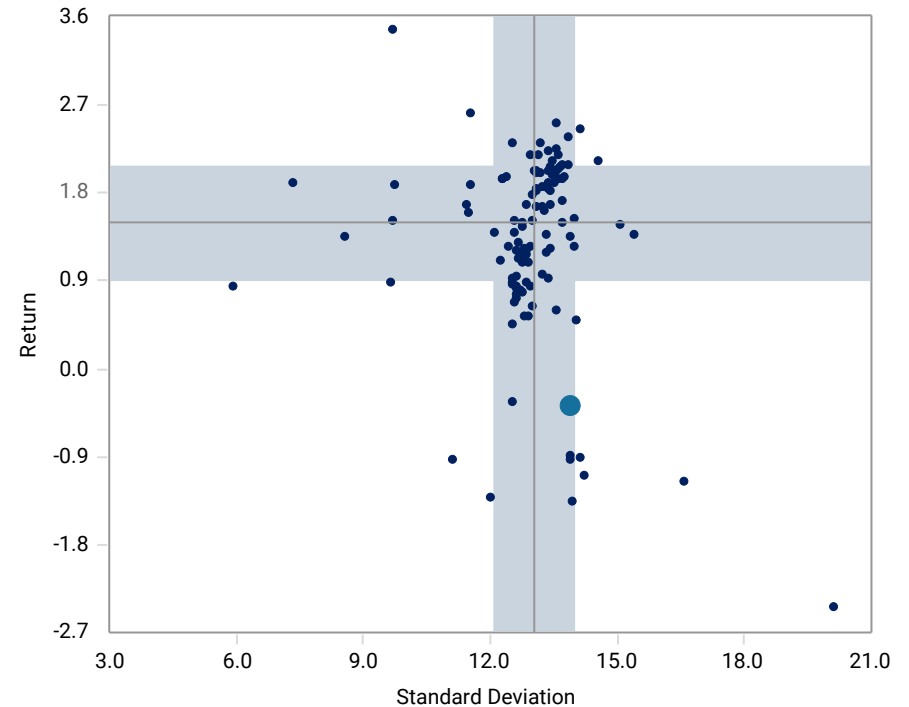
RISK VS. RETURN

3 Years Ending June 30, 2023



● eV US Long Duration Fixed Inc ● Northern Trust Long Term Gov't Bond

5 Years Ending June 30, 2023



● eV US Long Duration Fixed Inc ● Northern Trust Long Term Gov't Bond

3 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
Northern Trust Long Term Gov't Bond	-11.2 (95)	13.4 (19)	-0.9 (95)
Blmbg. U.S. Government: Long Term Bond Index	-12.0 (97)	13.5 (20)	-1.0 (98)
eV US Long Duration Fixed Inc Median	-6.5	13.9	-0.5
Population	121	121	121

5 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
Northern Trust Long Term Gov't Bond	-0.4 (93)	13.9 (89)	-0.1 (92)
Blmbg. U.S. Government: Long Term Bond Index	-0.9 (94)	13.9 (89)	-0.1 (96)
eV US Long Duration Fixed Inc Median	1.5	13.0	0.1
Population	117	117	117

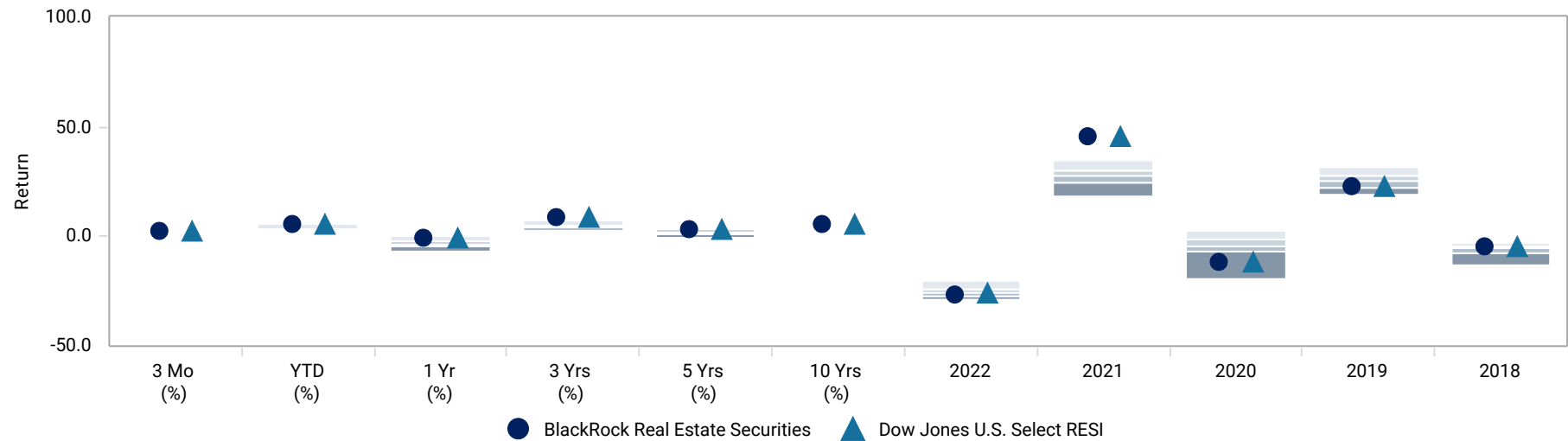


REAL ESTATE

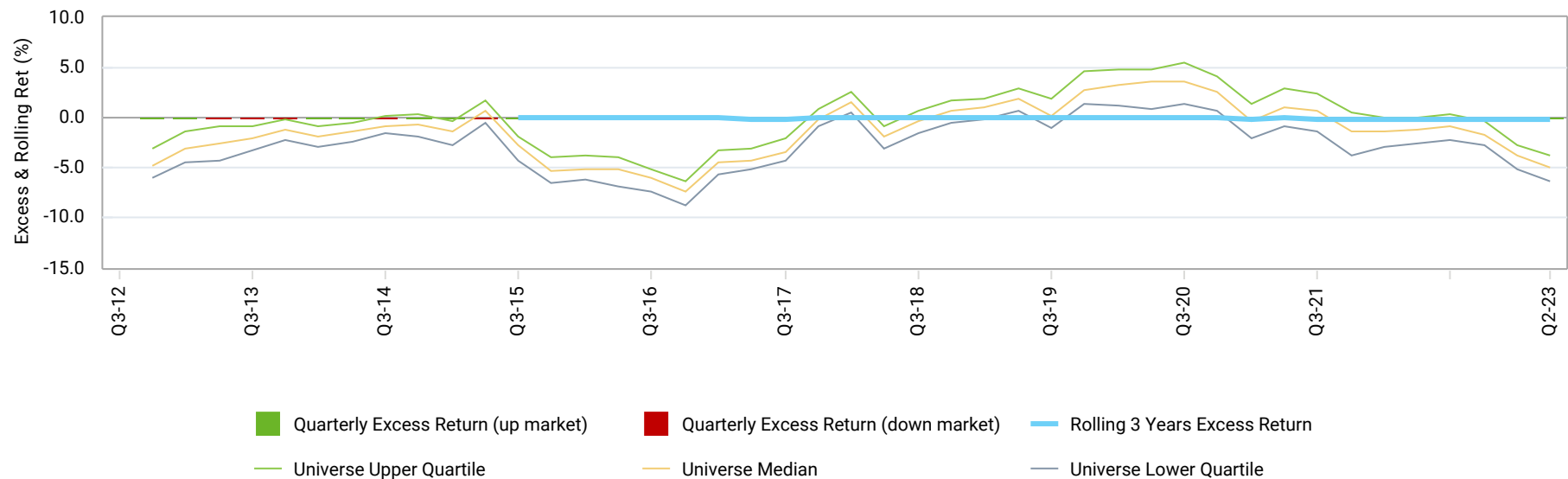
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BLACKROCK REAL ESTATE SECURITIES

eV Global REIT (net of fees)

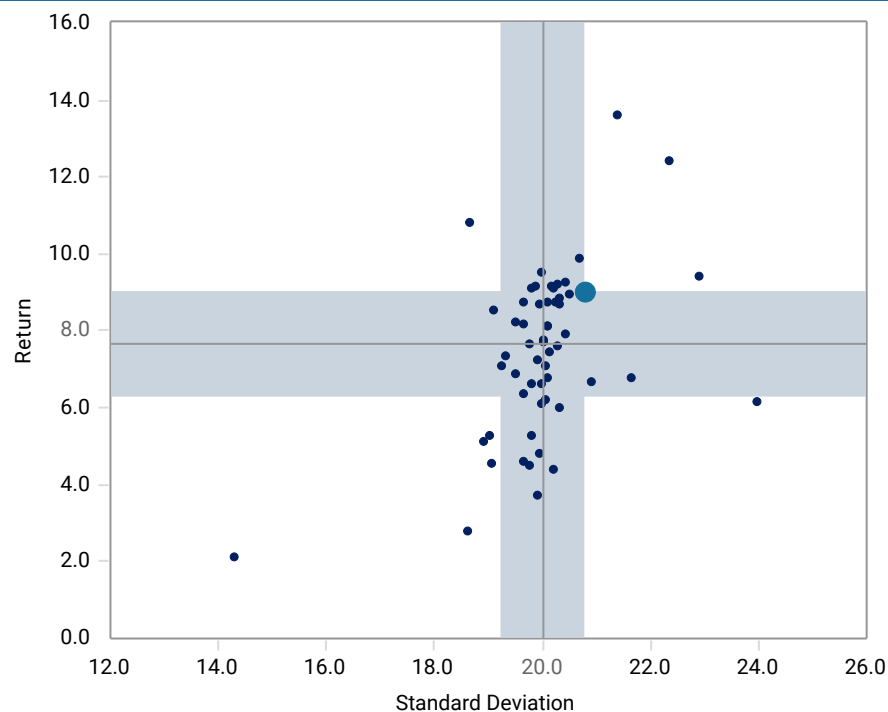


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



RISK VS. RETURN

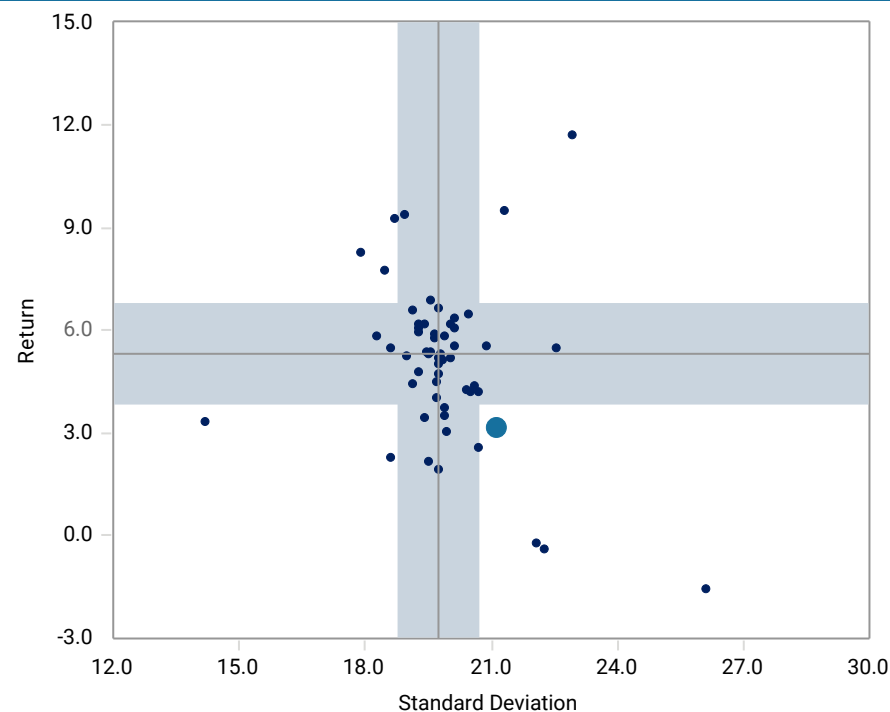
3 Years Ending June 30, 2023



● eV US REIT

● BlackRock Real Estate Securities

5 Years Ending June 30, 2023



● eV US REIT

● BlackRock Real Estate Securities

3 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
BlackRock Real Estate Securities	9.0 (22)	20.8 (89)	0.5 (25)
Dow Jones U.S. Select RESI	9.1 (17)	20.8 (90)	0.5 (20)
eV US REIT Median	7.7	20.0	0.4
Population	56	56	56

5 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
BlackRock Real Estate Securities	3.2 (87)	21.1 (89)	0.2 (87)
Dow Jones U.S. Select RESI	3.3 (86)	21.1 (89)	0.2 (86)
eV US REIT Median	5.4	19.7	0.3
Population	55	55	55

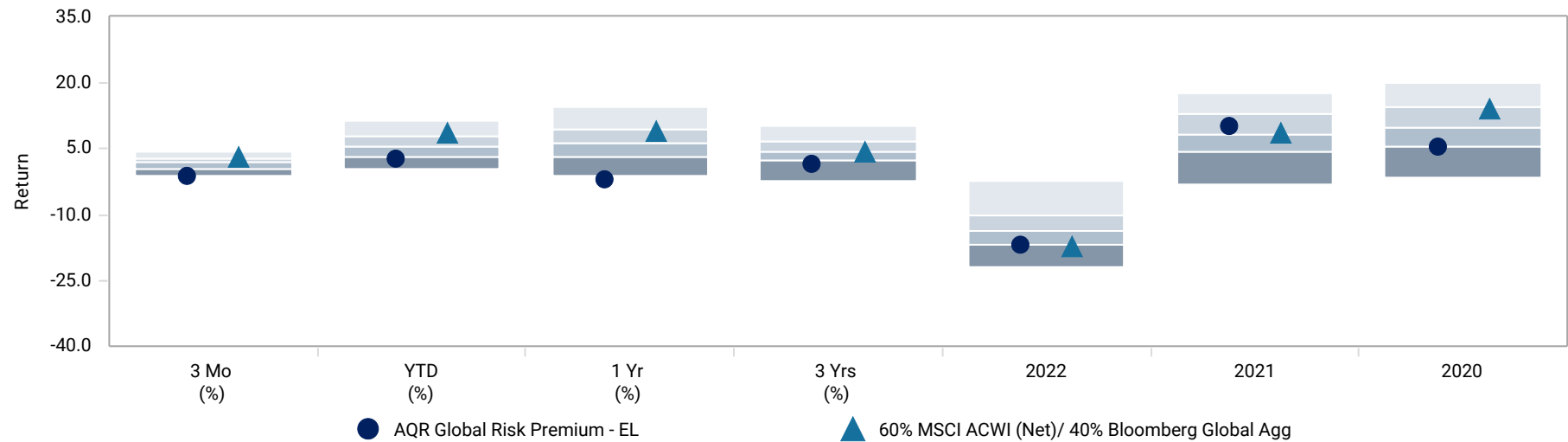
RISK PARITY



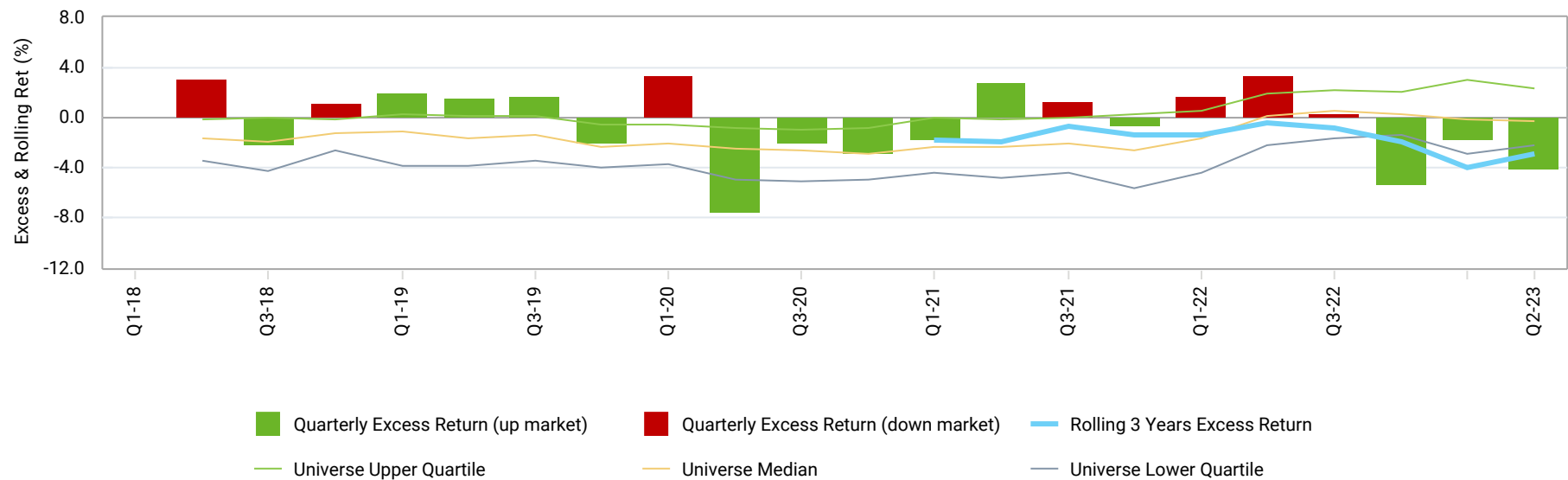
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AQR GLOBAL RISK PREMIUM - EL

eV Global TAA (net of fees)

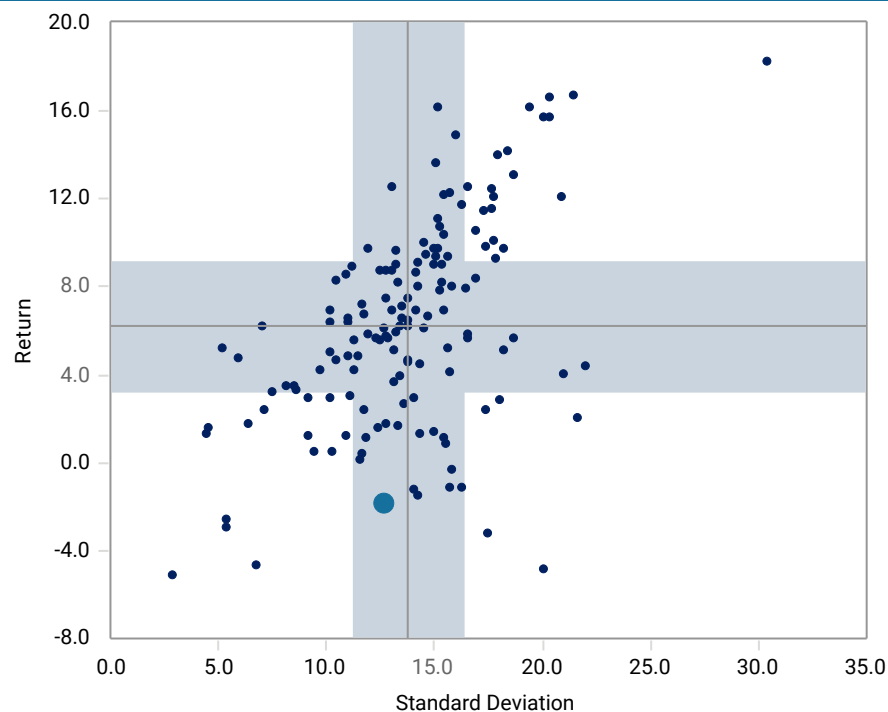


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



RISK VS. RETURN

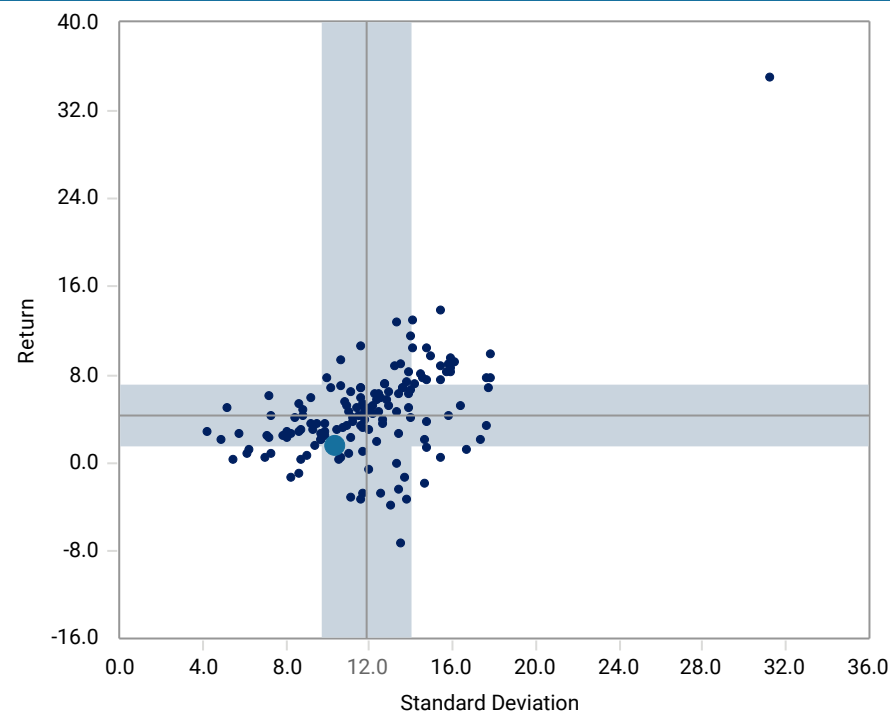
1 Year Ending June 30, 2023



● eV Global TAA

● AQR Global Risk Premium - EL

3 Years Ending June 30, 2023



● eV Global TAA

● AQR Global Risk Premium - EL

1 Year Ending June 30, 2023

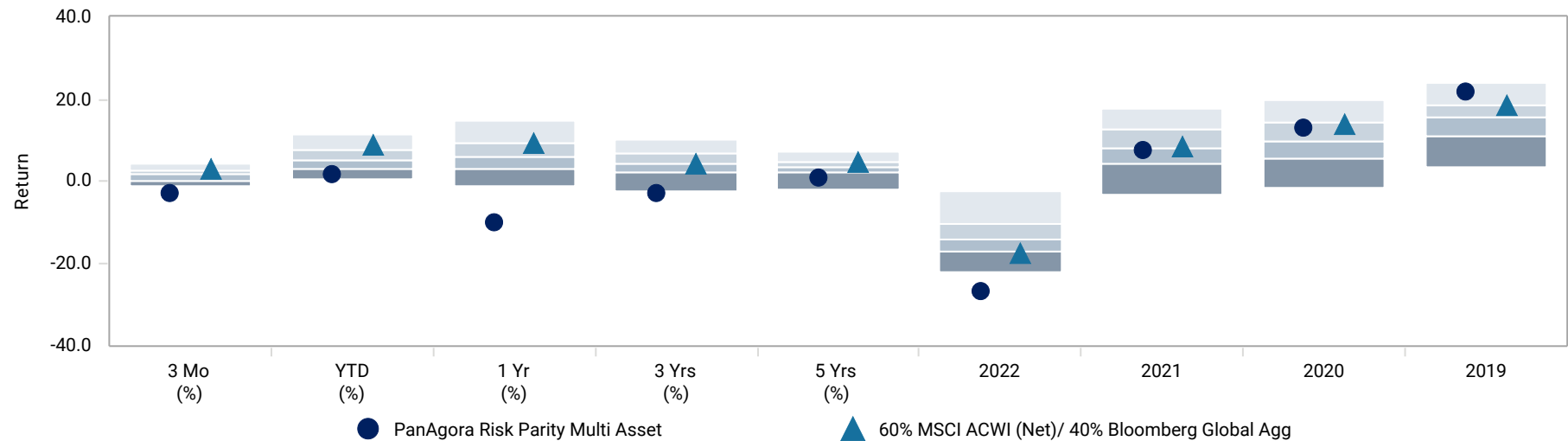
	Return	Standard Deviation	Sharpe Ratio
AQR Global Risk Premium - EL	-1.8 (97)	12.7 (33)	-0.4 (97)
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	9.2 (26)	15.4 (67)	0.4 (30)
eV Global TAA Median	6.2	13.8	0.3
Population	147	147	147

3 Years Ending June 30, 2023

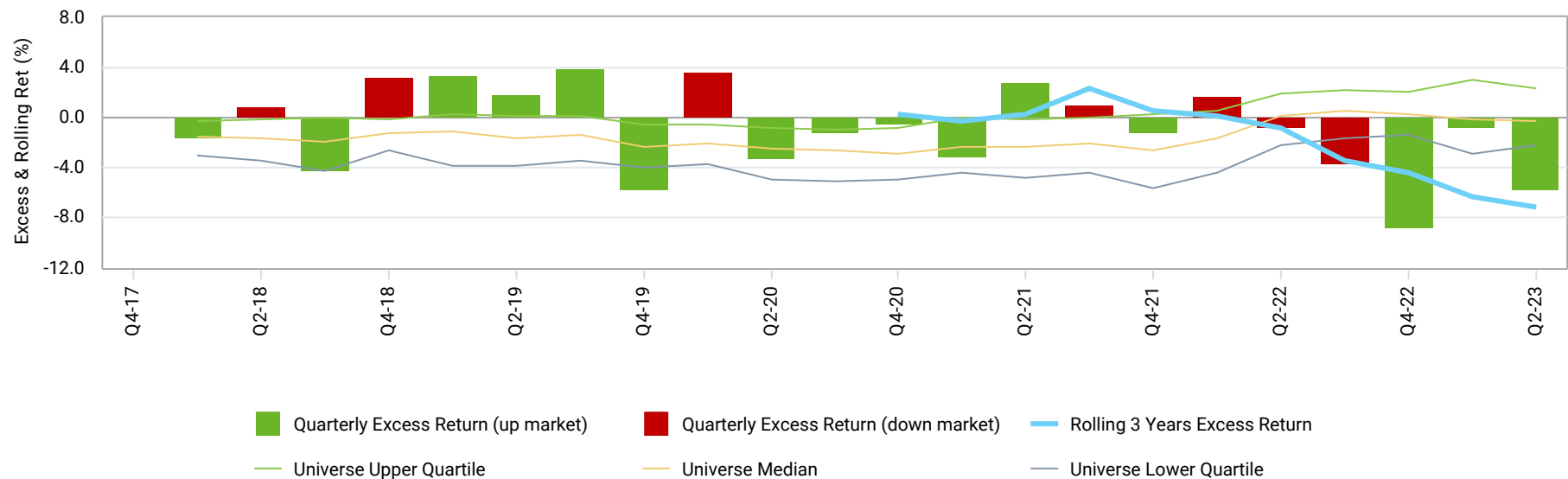
	Return	Standard Deviation	Sharpe Ratio
AQR Global Risk Premium - EL	1.6 (81)	10.4 (28)	0.1 (81)
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	4.5 (49)	12.9 (62)	0.3 (53)
eV Global TAA Median	4.3	11.9	0.3
Population	146	146	146

PANAGORA RISK PARITY MULTI ASSET

eV Global TAA (net of fees)

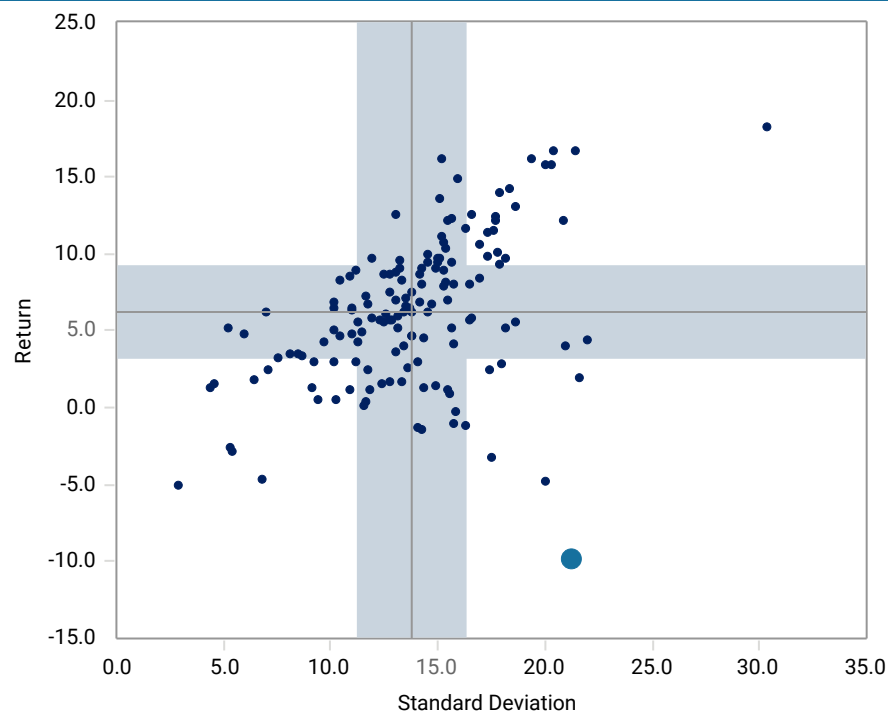


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending June 30, 2023



RISK VS. RETURN

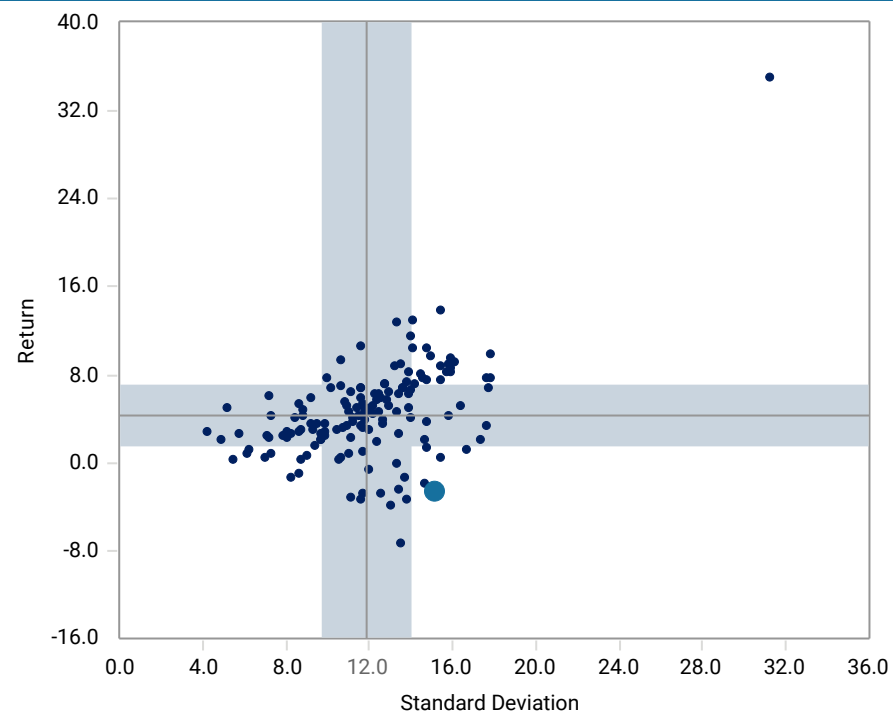
1 Year Ending June 30, 2023



● eV Global TAA

● PanAgora Risk Parity Multi Asset

3 Years Ending June 30, 2023



● eV Global TAA

● PanAgora Risk Parity Multi Asset

1 Year Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
PanAgora Risk Parity Multi Asset	-9.8 (100)	21.2 (97)	-0.6 (98)
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	9.2 (26)	15.4 (67)	0.4 (30)
eV Global TAA Median	6.2	13.8	0.3
Population	147	147	147

3 Years Ending June 30, 2023

	Return	Standard Deviation	Sharpe Ratio
PanAgora Risk Parity Multi Asset	-2.5 (96)	15.1 (85)	-0.2 (94)
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	4.5 (49)	12.9 (62)	0.3 (53)
eV Global TAA Median	4.3	11.9	0.3
Population	146	146	146



APPENDIX

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NOTES

- All performance is shown net of investment management fees.
- Performance history is provided by Verus through June 2020. As of July 1, 2020 performance is calculated and reported by NEPC.
- Policy Index history:
 - **Inception - 6/30/2017:** 14.4% Russell 1000 Value, 11.3% Russell 1000 Growth, 4.8% S&P 500, 4% Russell 2000 Value, 3.7% Russell 2000 Growth, 18% MSCI ACWI ex USA Gross, 29.8%Bloomberg US Aggregate TR, 3.5% DJ US Select RESI TR USD, 7.5% 9% Annual, 3% CPI + 4%
 - **7/1/2017 - 8/31/2018:** 18.5% Russell 1000, 5.5% Russell 2000, 24% MSCI ACWI ex USA Gross, 19% Bloomberg US Govt/Credit 1-3 Yr. TR, 1% FTSE T-Bill 1 Month TR, 3% Bloomberg US Treasury 7-10 Yr TR, 7.7% NCREIF Property Index, 1.7% NCREIF Property Index +2%, 0.6% CPI + 5%, 5% Bloomberg US High Yield + 2%, 14% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
 - **9/1/2018 - 5/30/2019:** 10% Russell 1000, 3% Russell 2000, 6% Russell 3000 +3%, 27% MSCI ACWI ex USA Gross, 20% Bloomberg US Govt/Credit 1-3 Yr. TR, 1% FTSE T-Bill 1 Month TR, 3%Bloomberg US Treasury 7-10 Yr TR, 5% NCREIF Property Index, 5% NCREIF Property Index +2%, 1% CPI + 5%, 6% S&P/LSTA Leveraged Loan Index+2%, 13% 60% MSCI ACWI Net/40% Bloomberg Global Aggregate
 - **6/1/2019 - 6/30/2020:** 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 19% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 3% Bloomberg US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% Bloomberg Global Aggregate
 - **7/1/2020 - 12/31/2020:** 14% Russell 1000, 3% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 8% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 3% Bloomberg US Treasury 7-10 Yr, 5% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 6% S&P/LSTA Leveraged Loan Index + 2%, 13% 60% MSCI ACWI / 40% Bloomberg Global Aggregate, 11%Bloomberg US Intermediate.
 - **1/1/2021 - 06/30/2021:** 16% Russell 1000, 3.5% Russell 2000, 6% Russell 3000 + 3%, 23% MSCI ACWI ex-USA, 8% Bloomberg US Gov't/Credit 1-3 Yr, 1% Citi 1 Month T-Bills, 5% Bloomberg US Treasury 7-10 Yr, 6% NCREIF Property, 5% NCREIF Property +2%, 2% CPI +5%, 4.5% S&P/LSTA Leveraged Loan Index + 2%, 13% 60%MSCI ACWI / 40% Bloomberg Global Aggregate, 7%Bloomberg US Intermediate.
 - **07/01/2021 - Present:** 16% Russell 1000, 4% Russell 2000, 5% Russell 3000 + 3%, 20% MSCI ACWI ex USA Gross, 6.5% NCREIF Property Index, 6% NCREIF Property Index + 2%, 7.5% CPI + 5% (Unadjusted), 8% S&P/LSTA Leveraged Loan Index +2%, 6% Bloomberg US Treasury 7-10 Yr TR, 10% 60% MSCI ACWI (Net)/ 40%Bloomberg Global Agg, 3% 30 Day T-Bill + 4%, 1% FTSE T-Bill 1 Month TR, 7% Bloomberg US Govt/Credit Int TR.
- Starting July 1, 2020, the small Capital Prospects transition cash balance is moved from the Cash composite to the Capital Prospects account. Historical performance for Capital Prospects, US Small, US Equities, Growth Sub-Portfolio, Cash, and Liquidity Sub-Portfolio prior to July 1, 2020 reflects performance of these composites before this change.
- Private Equity investments are valued one quarter lagged and adjusted for capital calls and distributions between quarter-end months.
- Value-Add Real Estate managers are valued quarterly adjusted for current cash flows.
- Fiscal Year End Date June 30.

DISCLAIMERS & DISCLOSURES

Past performance is no guarantee of future results.

Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.

A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.

NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.

All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.

The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.

This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

Source of private fund performance benchmark data: Cambridge Associates, via Refinitiv



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ASSET ALLOCATION EDUCATION

ASSET CLASS ASSUMPTIONS AND
STANCERA RETURN EXPECTATIONS

SEPTEMBER 26, 2023

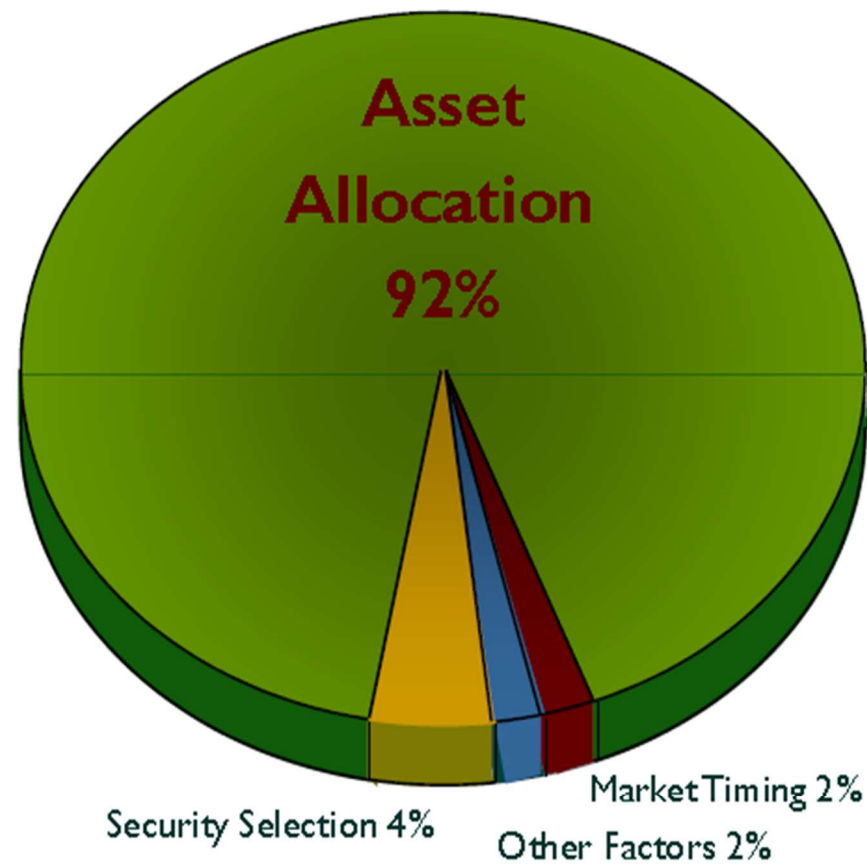
Jennifer Appel, CFA
Daniel Hennessy, CFA, CAIA



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ASSET ALLOCATION: THE KEY INVESTMENT DECISION

Determinants of Portfolio Performance



Source: *Determinants of Portfolio Performance II: An Update*, Brinson, et al, *Financial Analysts Journal*, May/June 1991, pp 40-48.

STANCERA'S INVESTMENT OBJECTIVES

The investment objectives of the Investment Program are:

- **To provide liquidity to meet retiree benefit payments in a timely manner;**
 - Liquidity sub-portfolio
- **To produce long-term growth to meet future retiree benefit payments and, if applicable, to close a funding gap over time; and**
 - Growth sub-portfolio
- **To protect the assets against the adverse impacts of rising inflation and investment market volatility.**
 - Diversifying sub-portfolio

ASSET CLASS OBJECTIVES

Asset Class	Portfolio Role	Current Target
Liquidity		
Cash and Cashflow-Matched Bonds	<ul style="list-style-type: none"> Covers shortfall between contributions and benefits/fees Ensures short-term needs so the rest of the portfolio can be managed for the long-term 	8%
Growth		
Public Equity	<ul style="list-style-type: none"> Capital appreciation Capture global growth 	40%
Private Equity and Credit	<ul style="list-style-type: none"> Higher return expectations than public equity and credit 	13%
Real Assets (Real Estate and Infrastructure)	<ul style="list-style-type: none"> Inflation hedge Income production potential 	20%
Risk-Diversifying		
Treasuries and Other Safe-Haven Bonds	<ul style="list-style-type: none"> Downside protection Adds diversification 	6%
Risk Parity	<ul style="list-style-type: none"> Adds diversification 	10%
Liquid Absolute Return Strategies	<ul style="list-style-type: none"> Skill-based active management Adds diversification 	3%

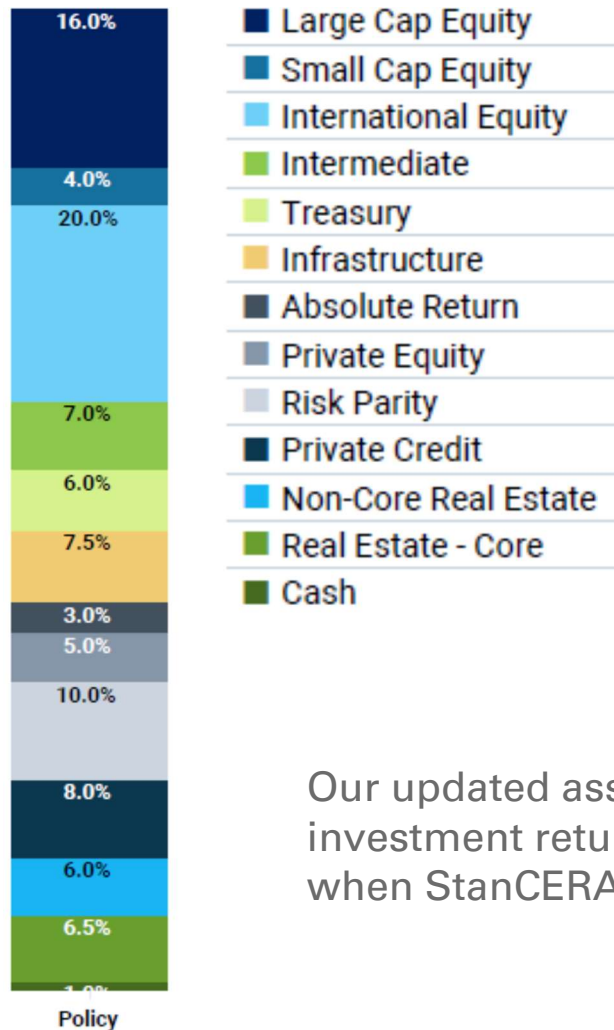
CORE ASSET CLASS RETURN ASSUMPTIONS

	Asset Class	06/30/23 10-Year Return	Change 2020- 2023	Economic Volatility
	Cash	4.0%	+3.4%	0.6%
	U.S. Inflation	2.7%	+1.0%	
Equity	U.S. Large-Cap Equity	4.6%	-1.7%	16.9%
	Non-U.S. Developed Equity	5.0%	-1.7%	19.6%
	Emerging Market Equity	9.2%	+0.1%	28.6%
	Global Equity*	5.7%	-1.5%	18.0%
	Private Equity*	9.1%	-1.3%	25.7%
Fixed Income	U.S. Treasury Bond	4.2%	+3.6%	5.4%
	U.S. Municipal Bond	4.1%	+1.8%	6.0%
	U.S. Aggregate Bond*	4.7%	+3.4%	5.8%
	U.S. TIPS	4.6%	+3.7%	6.1%
	U.S. High Yield Corporate Bond	6.8%	+2.5%	11.1%
	Private Debt*	8.6%	+1.8%	11.8%
Real Assets	Commodity Futures	4.8%	+3.1%	18.5%
	REIT	6.4%	-0.2%	21.7%
	Real Estate - Core	5.3%	+0.9%	15.0%
	Real Estate – Non-Core	6.7%	+1.4%	18.5%
	Private Real Assets - Infrastructure	6.3%	+0.4%	12.4%
Multi- Asset	60% MSCI ACWI & 40% U.S. Agg.	5.6%	+0.5%	11.3%
	Risk Parity 10% Volatility	5.5%	+1.8%	10.8%
	Liquid Absolute Return*	5.6%	+1.0%	9.3%

*Calculated as a blend of other asset classes

STANCERA'S EXPECTED FUTURE RETURNS

BASED ON NEPC'S 6/30/2023 AND 6/30/2020 ASSUMPTIONS

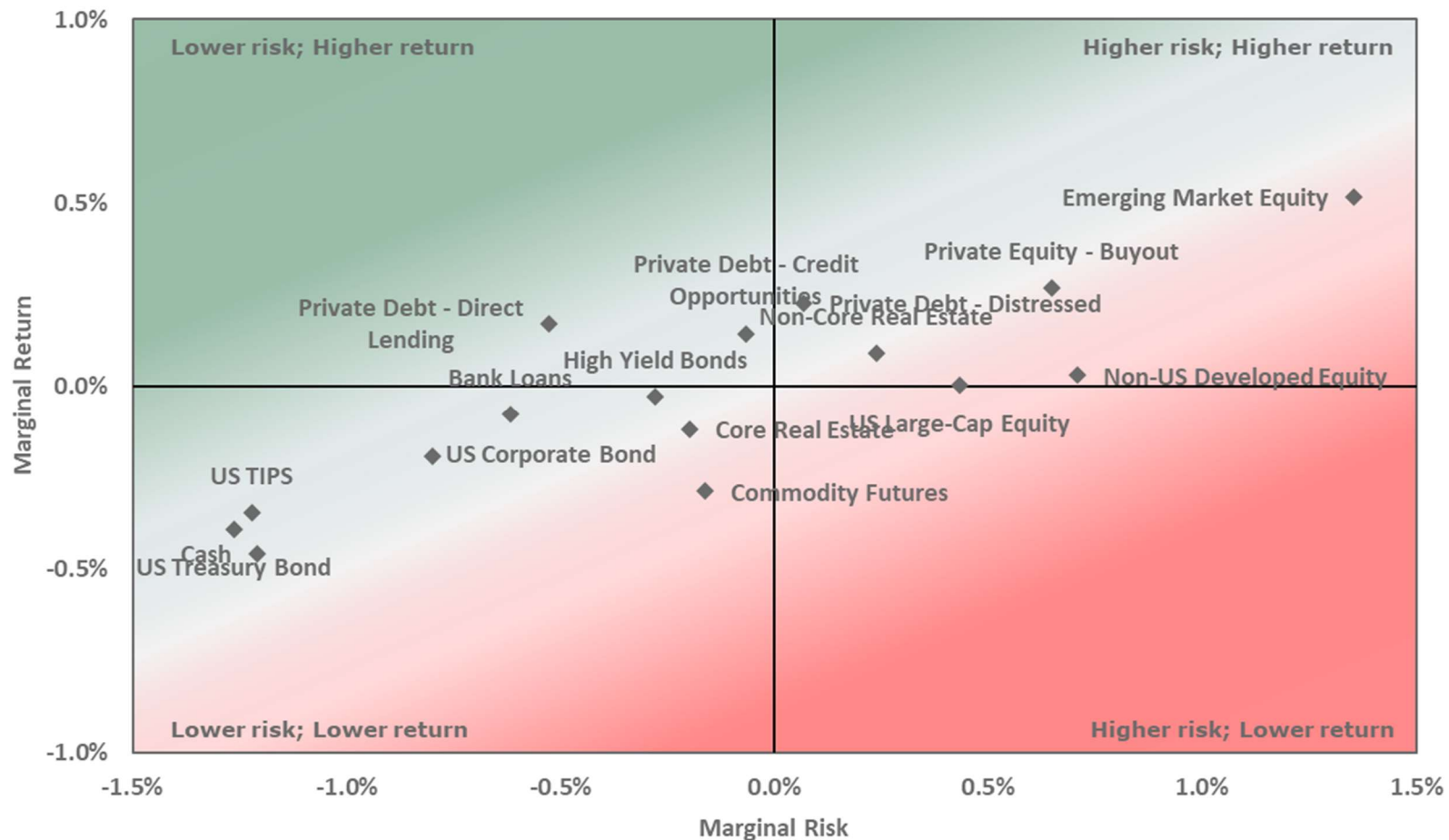


	10 Year Annualized		30 Year Annualized	
	2023	2020	2023	2020
Expected Return	6.4%	6.1%	7.3%	6.9%
Expected Volatility	12.0%	11.7%	12.0%	11.7%
Return/ Volatility	0.53	0.52	0.61	0.59
Sharpe Ratio	0.20	0.47	0.33	0.43

Our updated asset class assumptions now predict significantly better future investment returns over the next 10 and 20 years than we expected three years ago when StanCERA selected its current long-term asset allocation targets

MARGINAL RISK/RETURN HEAT MAP

IMPACT OF 10% ALLOCATION SHIFT TO CURRENT POLICY



This heat map shows how various potential investments would impact the expected long-term risk/return of StanCERA's current policy target

METHODOLOGY FOR ASSET-LIABILITY STUDY

- **Gather information about assets and liabilities**
 - Assets (information provided by NEPC)
 - Current asset allocation targets
 - Expected asset class returns/volatility/correlations
 - Liquidity of underlying investments
 - Liabilities (information provided by Cheiron)
 - Current valuation of plan
 - Current plan provisions
 - Assumptions underlying valuation of liabilities
 - Projections of expected future cashflows
- **Select an alternative asset allocation mix for comparison**
 - Seeking to lower volatility and downside risk without impacting expected returns
- **Run long-term projections to understand asset-liability dynamics**
 - Deterministic forecasting – baseline projections of assets, liabilities, and cashflows
 - Stochastic forecasting – projections based on range of forecasts, ranked to understand probabilities/likelihood of different outcomes



ASSET CLASS ASSUMPTIONS



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ASSET CLASS ASSUMPTIONS

OVERVIEW

- **NEPC's capital market assumptions are available each quarter and reflect June 30, 2023 market data**
- **Higher interest rates have lifted fixed income return expectations, while equity valuation expansion has weighed on future returns**
- **Public fixed income returns offer an increasingly attractive risk-return profile relative to public equities**
- **NEPC's expectation for inflation is elevated over the near-term, but the long-term outlook reflects a more stable inflation environment consistent with the Federal Reserve target of 2-3%**

ASSET CLASS ASSUMPTIONS

DEVELOPMENT

- **Assumptions are published for over 70 asset classes**
 - NEPC publishes return forecasts for 10-year and 30-year periods
- **Market data as of 06/30/2023**
 - Assumptions are developed with NEPC valuations models and rely on a building block approach
- **The 10-year return outlook is intended to support strategic asset allocation analysis**
- **30-year return assumptions are used for actuarial inputs and long-term planning**

Asset Allocation Process

1. Finalize list of new asset classes
2. Calculate asset class volatility and correlation assumptions
3. Set model terminal values, growth, and inflation inputs
4. Model data updated at quarter-end
5. Review model outputs and produce asset class return assumptions
6. Assumptions released on the 15th calendar day after quarter-end

ASSET CLASS BUILDING BLOCKS

METHODOLOGY

- Asset models reflect current and forecasted market data to inform expected returns
- Systematic inputs are paired with a long-term trend to terminal values
- Model inputs are aggregated to capture key return drivers for each asset class
- Building block inputs will differ across asset class categories



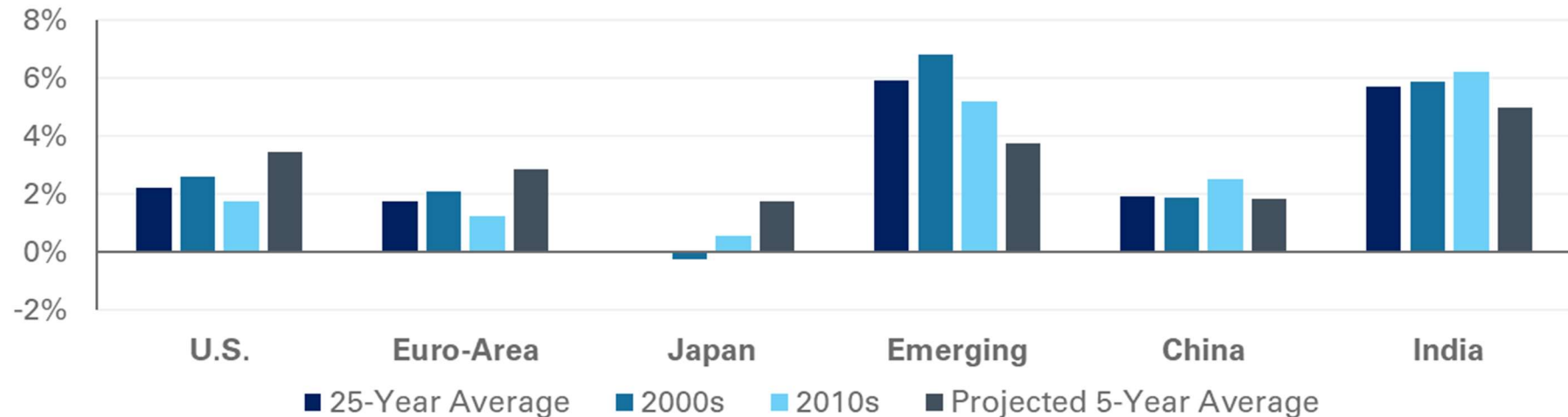


MACROECONOMIC

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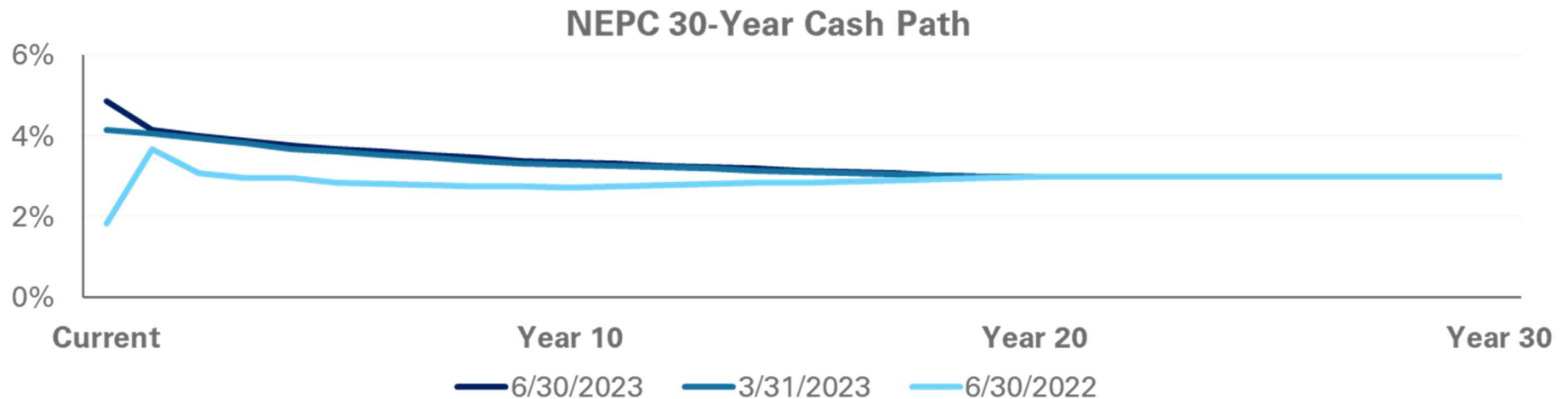
GLOBAL INFLATION

HISTORICAL INFLATION



- **Non-U.S. forecasts are guided by IMF forecasts, local consumer and producer price indices, and global interest rate curves**
- **Near-term inflation levels for developed markets are projected to be higher relative to history**
 - Long-term inflation assumptions reflect NEPC and central bank targets
 - The expected inflation differential between emerging and developed markets has narrowed significantly

U.S. CASH EXPECTATIONS

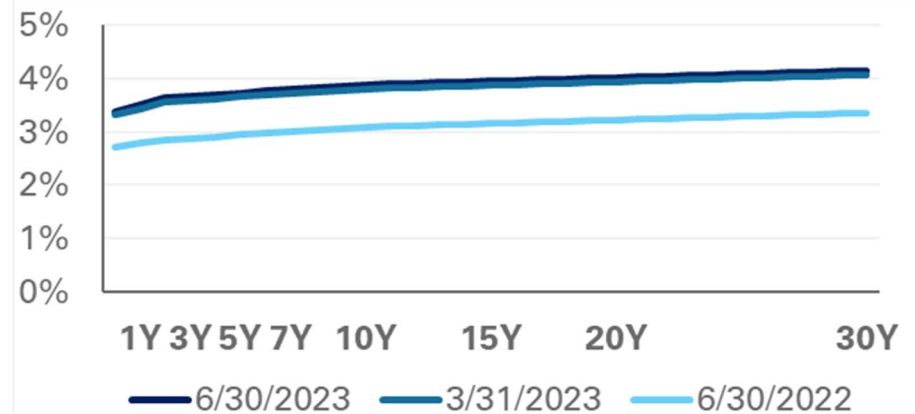


- **Cash is a foundational input for all asset class return expectations**
 - Cash + risk premia is an input for long-term asset class return projections
- **Cash assumptions reflect inflation and real interest rates**
- **U.S. nominal rate forecasts reflect continued tighter policy in the near-term, but long-term expectations remain subdued relative to history**

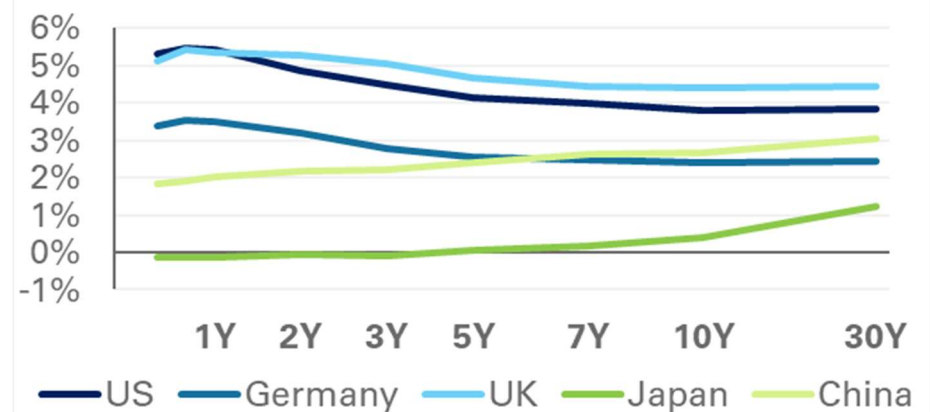
GLOBAL INTEREST RATE EXPECTATIONS

- **Real yields have normalized, reflecting a tighter policy environment**
 - Higher real rates support returns in the long-term, but also signal a shift in risk posture for markets
- **More restrictive Fed policy has lifted bond yield forecasts**
- **The outlook is relatively poor for non-U.S. developed markets due to the nominal yield differential**
- **Emerging market real rates and nominal interest rates are higher relative to the developed world**

NEPC 10-Year Forward Curve



Global Yield Curves





PUBLIC EQUITY

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PUBLIC EQUITY ASSUMPTIONS

OVERVIEW

- **Current valuation multiples across public equities have moved higher and weighed on forward-looking return expectations**
 - U.S. mega-cap outperformance has driven current index valuations above terminal P/E levels
- **Non-U.S. Developed Market assumptions reflect negative real earnings growth as current profit margins remain near cyclical highs**
- **The inflation methodology change will impact nominal earnings expectations for markets with significant U.S. revenue exposure**
- **NEPC's strategic equity targets reflect a bias to the U.S. and Emerging Markets over Non-U.S. Developed relative to the MSCI ACWI IMI**
- **NEPC encourages a strategic bias to small-cap with the use of active management relative to small-cap exposure in the MSCI ACWI IMI**

PUBLIC EQUITY ASSUMPTIONS

BUILDING BLOCKS

Illiquidity Premium	The return expected for assets with illiquidity risk
Valuation	Represents P/E multiple contraction or expansion relative to long-term trend
Inflation	Market-specific inflation based on country-level revenue exposure
Real Earnings Growth	Market-specific real growth based on a weighted-average of country revenue exposure and GDP growth
Dividend Yield	Income distributed to shareholders adjusted to reflect market trends

Asset Class	06/30/23 10-Yr Return	3-Year Change
U.S. Large-Cap Equity	4.6%	-1.7%
U.S. Small/Mid-Cap Equity	6.5%	-0.3%
Non-U.S. Developed Equity	5.0%	-1.7%
Non-U.S. Developed Small-Cap Equity	7.3%	-0.1%
Emerging Market Equity	9.2%	+0.1%
Emerging Market Small-Cap Equity	8.6%	-0.9%
China Equity	9.9%	+1.7%
Hedge Fund - Equity	5.7%	+1.2%
Global Equity*	5.7%	-1.5%
Private Equity*	9.1%	-1.3%

Source: NEPC

*Calculated as a blend of other asset classes

PUBLIC EQUITY

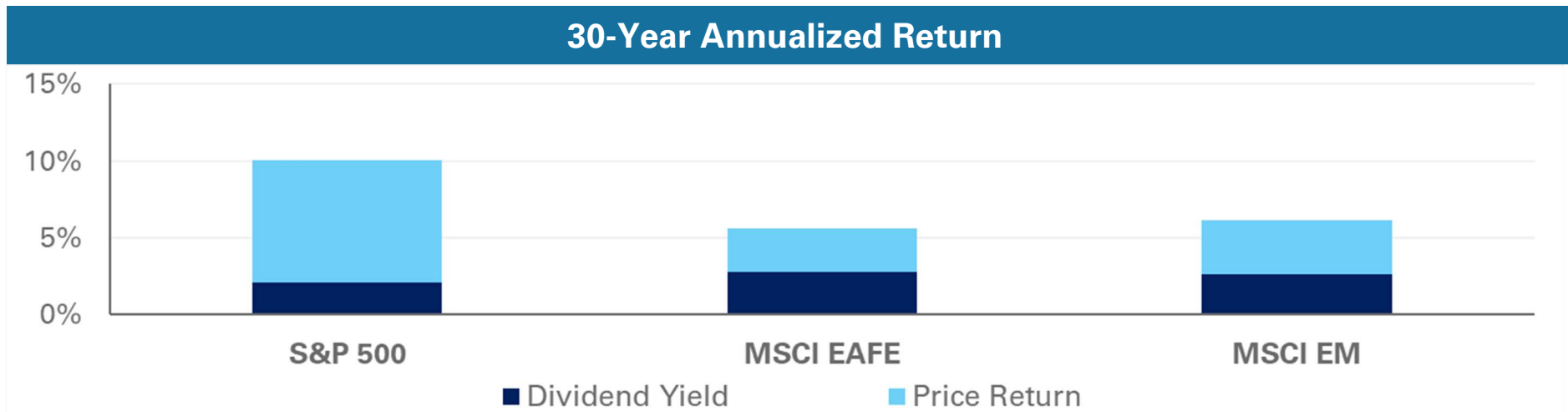
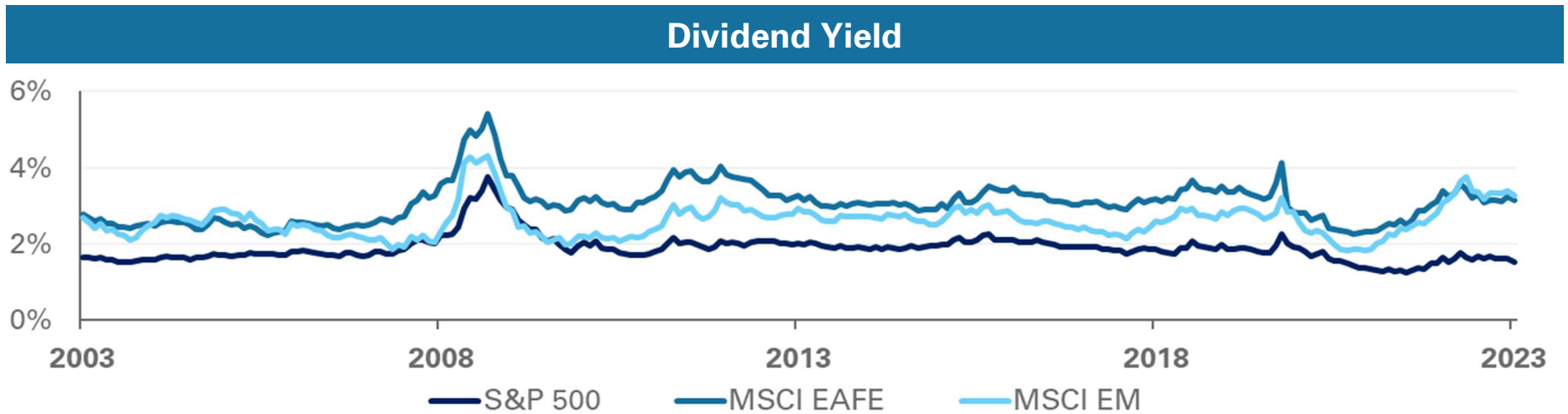
REAL EARNINGS GROWTH

- **Regions reliant on revenue from emerging markets are forecasted to benefit from higher earnings growth**
 - Non-U.S. stocks benefit from a greater portion of revenue from EM than U.S. stocks
- **We expect elevated real earnings growth for small-caps over the long-term relative to large-cap**
 - Over the long-term we expect a forward-looking risk premium for small-cap and mid-cap equities relative to large-cap stocks



PUBLIC EQUITY DIVIDEND YIELD

NON-U.S. EQUITY OFFERS HIGHER YIELDS RELATIVE TO THE U.S.

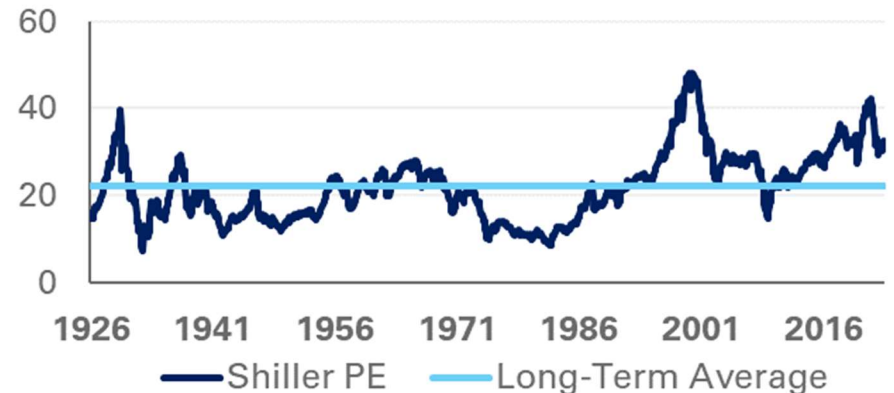


PUBLIC EQUITY

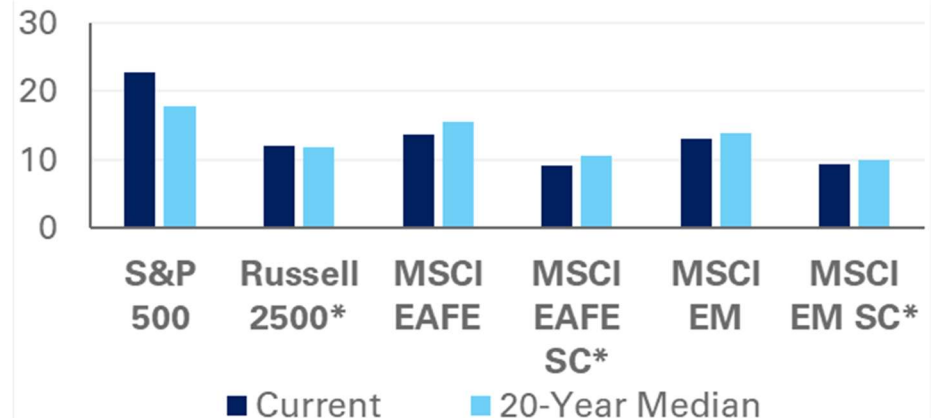
VALUATION

- **Valuations in the U.S. rose and remain elevated relative to long-term averages**
 - Non-U.S. equity valuations increased, but remain below 20-year historical medians levels
- **Non-US developed market valuation inputs are lower relative to the US and reflect the economic growth profile**
- **Emerging market stocks offer an elevated total return opportunity relative to developed markets**

S&P 500 Shiller PE Ratio



Trailing PE Relative Median

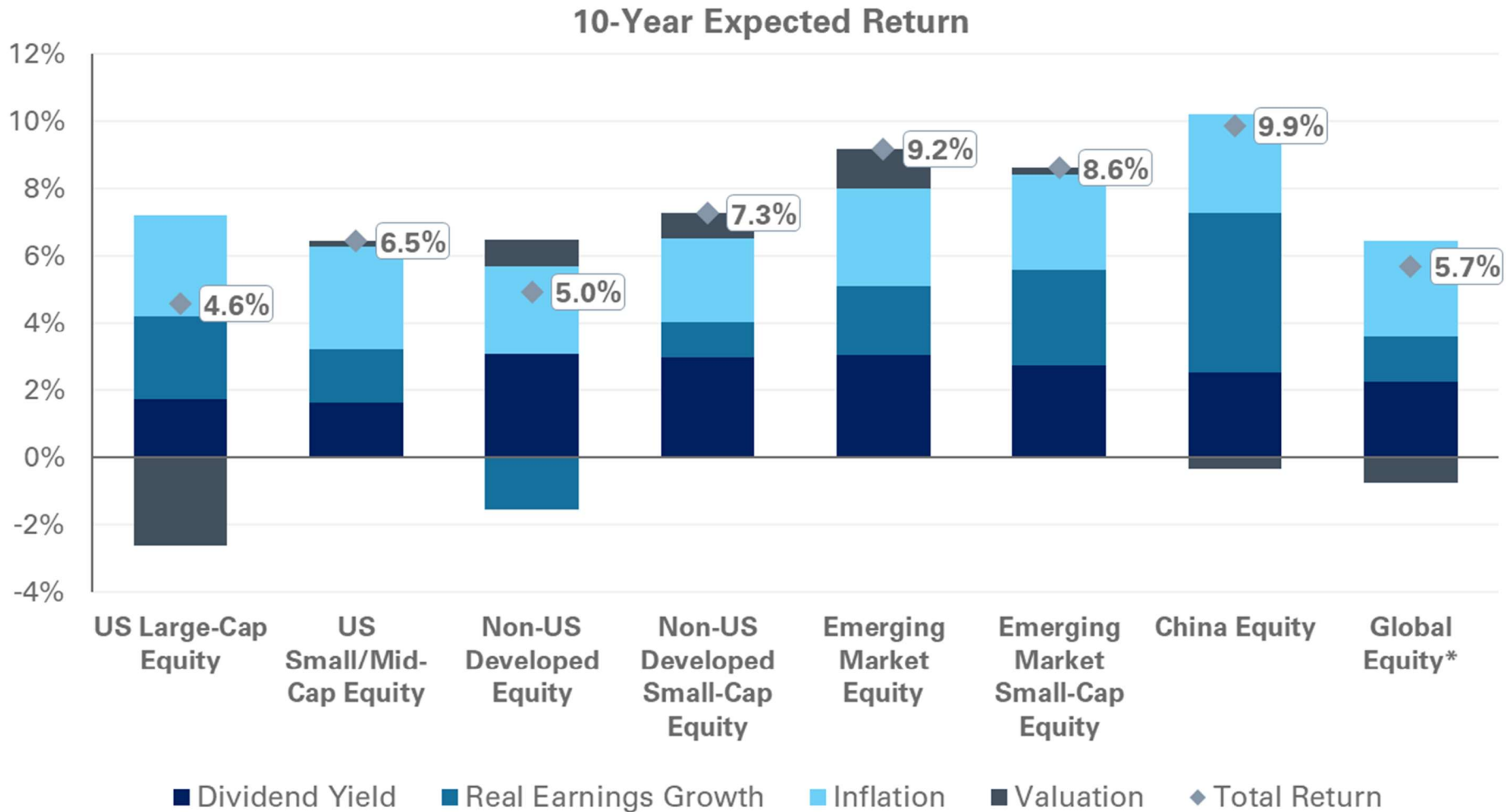


Sources: S&P, Shiller, Russell, MSCI, FactSet, NEPC; Shiller PE long-term average beginning in 1926

Note: *Small cap indices valuations based on EV/EBITDA multiples; MSCI EM Small Cap median calculated since 3/31/2003

PUBLIC EQUITY

BUILDING BLOCKS



Source: NEPC

*Calculated as a blend of other classes



FIXED INCOME



PROPRIETARY & CONFIDENTIAL

FIXED INCOME ASSUMPTIONS

OVERVIEW

- **Fixed income return assumptions are higher, reflecting the impact of tighter monetary policy backdrop and higher real interest rates**
- **We encourage a dedicated safe-haven fixed income allocation to serve as a critical liquidity source for the portfolio**
 - Sizing of the safe-haven exposure is a strategic exercise and reflects investor return objectives, risk-tolerance, and private market pacing plan needs
- **High-quality fixed income is an asset class group designed to support lower volatility portfolios and larger strategic targets to fixed income**
 - Investment grade credit and TIPS offer exposure to nominal and real interest rates plus cyclical diversification benefits to the overall fixed income portfolio
- **We encourage the use of return-seeking credit investments, specifically high yield bonds, in a strategic asset allocation policy**

FIXED INCOME ASSUMPTIONS

BUILDING BLOCKS

Illiquidity Premium	The return expected for assets with illiquidity risk
Government Rates Price Change	Change due to shifts in current yields relative to forecasted rates
Credit Deterioration	The average loss for credit assets due to defaults and recovery rates
Spread Price Change	Valuation change due to changes in credit spreads relative to long-term targets
Credit Spread	Yield premium provided by securities with credit risk
Government Rates	The yield attributed to sovereign bonds that do not have credit risk

Asset Class	06/30/23 10-Yr Return	3-Year Change
U.S. TIPS	4.6%	+3.7%
U.S. Treasury Bond	4.2%	+3.6%
U.S. Corporate Bond	5.7%	+3.1%
U.S. MBS	4.5%	+3.7%
U.S. High Yield Corporate	6.8%	+2.5%
U.S. Leveraged Loan	7.6%	+3.5%
EMD External Debt	7.7%	+3.3%
EMD Local Currency Debt	6.5%	+1.2%
Non-U.S. Govt. Bond	2.6%	+2.0%
U.S. Muni Bond (1-10 Year)	3.2%	+1.9%
U.S. High Yield Muni Bond	5.8%	+1.8%
Hedge Fund – Credit	6.9%	+0.4%
U.S. Aggregate Bond*	4.7%	+0.3%
Private Debt*	8.6%	+1.8%

Source: NEPC

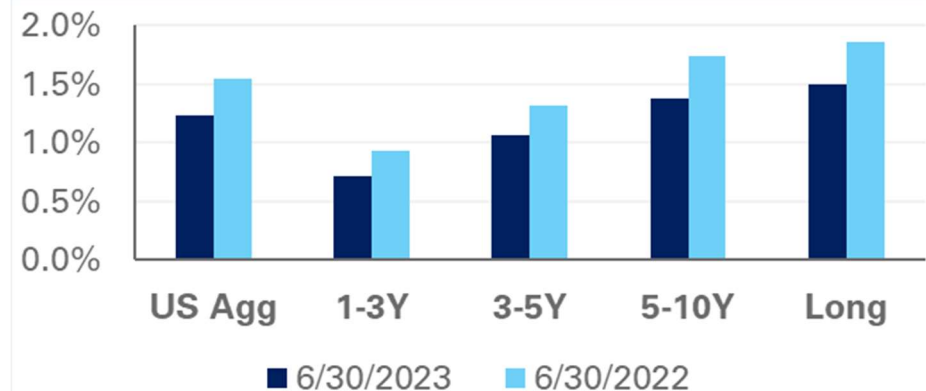
*Calculated as a blend of other asset classes

FIXED INCOME

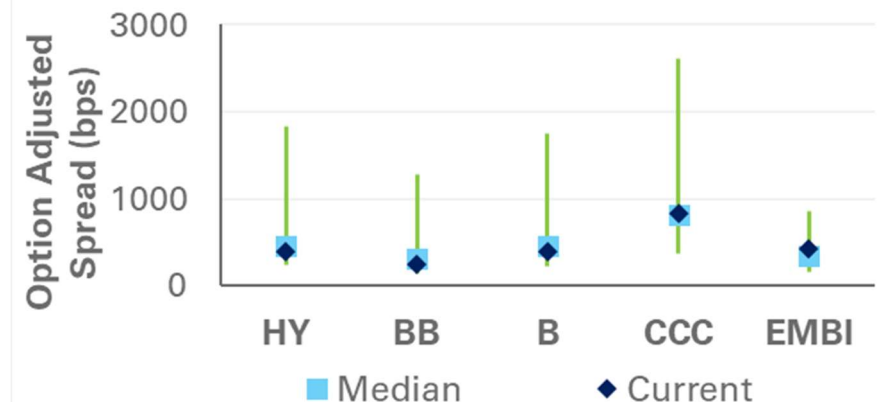
CREDIT SPREADS

- **Credit spreads tightened and are moderately below median levels**
- **Lower credit spread levels weigh on future return expectations**
- **Credit spread assumptions reflect a multi-year path for default rates**
 - CCC spreads relative to expected default rates reflect heightened economic concerns and are a drag on high yield return assumptions
- **Default and recovery rates are informed by long-term history**

U.S. Corporate OAS by Maturity



Return-Seeking Credit Spreads

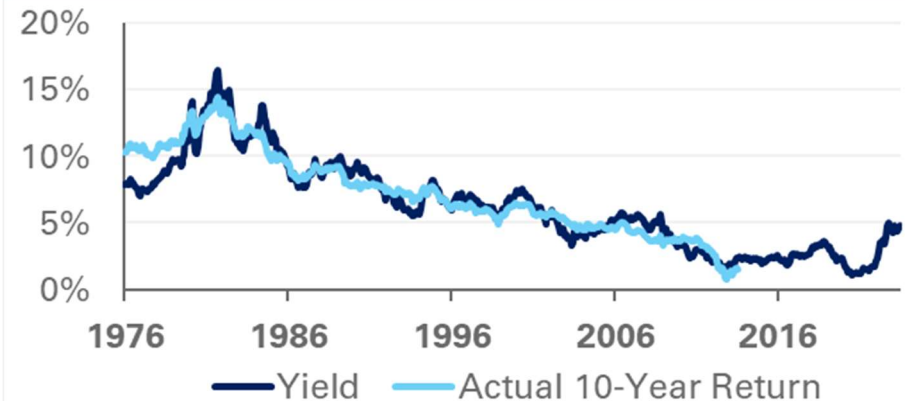


FIXED INCOME

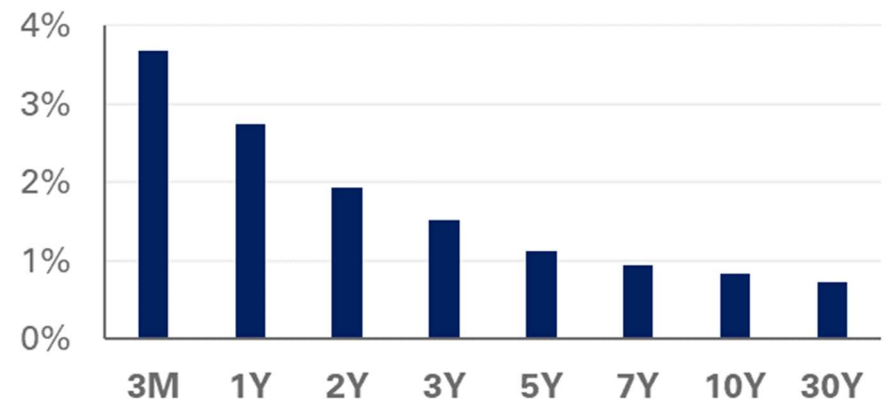
GOVERNMENT RATES

- **Government rates price change reflects shifts in interest rates, the yield curve, and roll down**
 - Roll down refers to the price change due to the aging of a bond along the yield curve
- **Expectations for rising rates are a headwind for return expectations**
 - However, higher interest rates boost the long-term return due to the increased yield benefit
- **A steeper yield curve relative to forward interest rates can offer relief from rising rates**

Barclays U.S. Aggregate Bond

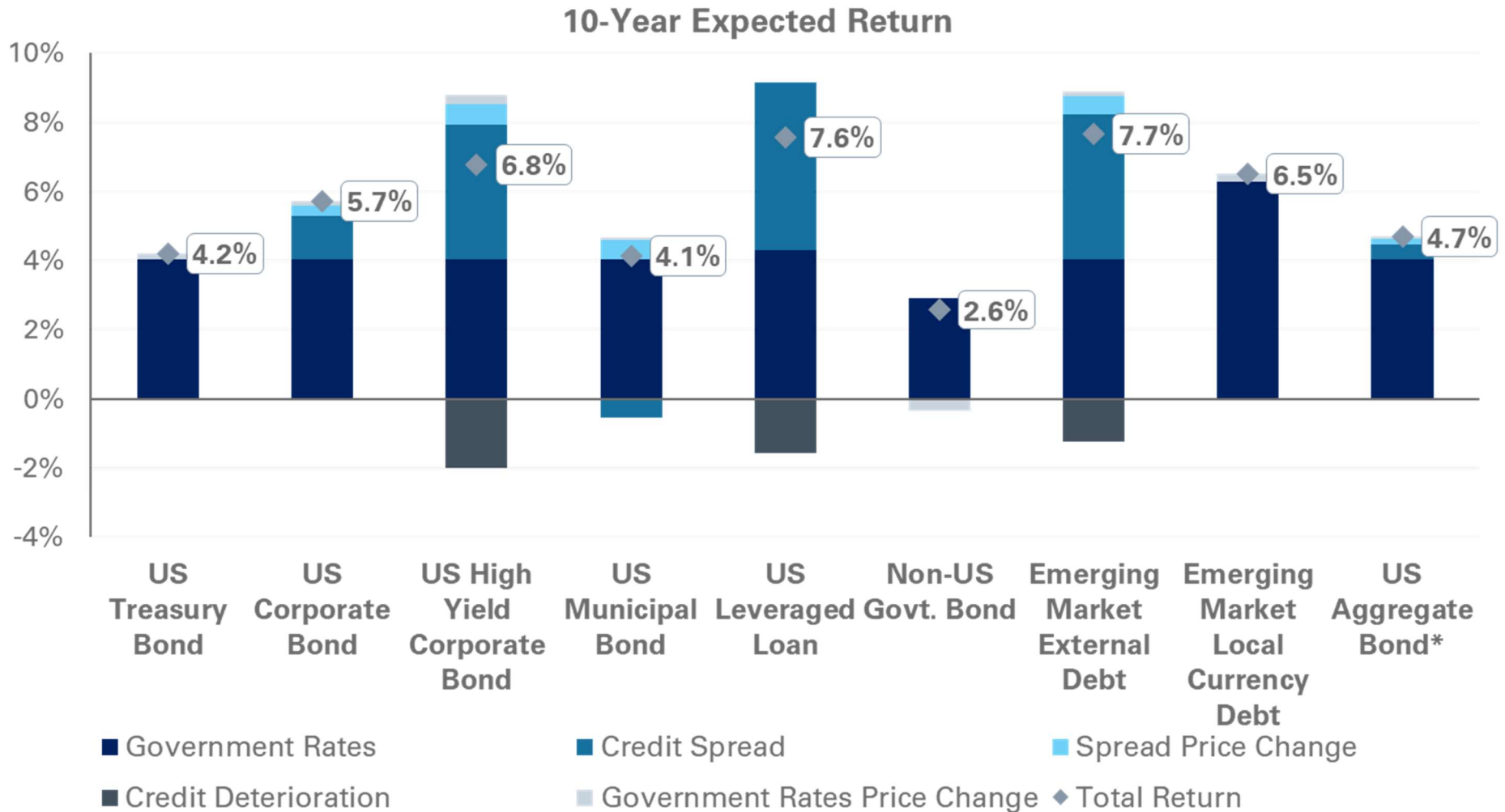


Annual Change in Treasury Yields



FIXED INCOME

BUILDING BLOCKS

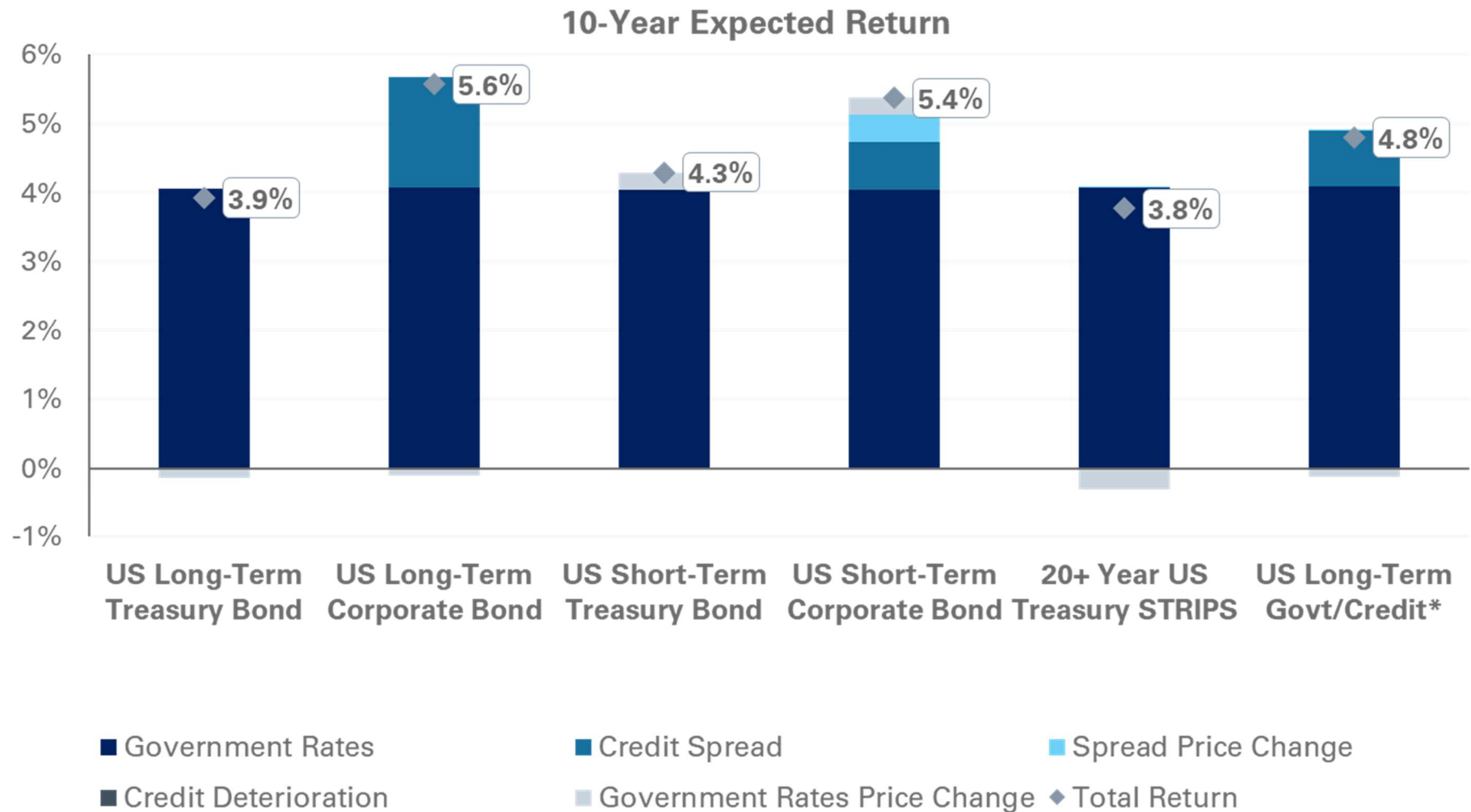


Source: NEPC

*Calculated as a blend of other classes

FIXED INCOME

BUILDING BLOCKS



Source: NEPC

*Calculated as a blend of other classes



REAL ASSET

PROPRIETARY & CONFIDENTIAL

REAL ASSET ASSUMPTIONS

OVERVIEW

- **A stickier inflation backdrop is supportive of real asset investments given their inflation sensitivity and exposure to real economic growth**
- **Real assets exhibit different betas to inflation and each asset class is exposed to various economic factors**
 - Diversification and correlation benefits are helpful to a portfolio but must be carefully considered relative to the expected risk premium
- **A strategic allocation to real assets can positively influence portfolio-level outcomes over a full market cycle**
- **Strategic asset allocation targets for real assets are determined by investor objectives, including the need for portfolio inflation sensitivity**
 - Short-term changes in market inflation dynamics should not dictate a portfolio's strategic need for real asset exposure

REAL ASSET ASSUMPTIONS

BUILDING BLOCKS

Illiquidity Premium	The return expected for assets with illiquidity risk
Valuation	The change in price of the asset moving to a terminal value or real average level
Inflation	Based on the inflation path as defined by breakeven-inflation rates and NEPC assumptions
Growth	Market-specific real growth based on a weighted-average of country-level revenue exposure and GDP growth
Real Income	The inflation-adjusted income produced by the asset

Asset Class	06/30/23 10-Yr Return	3-Year Change
Commodity Futures	4.8%	+3.1%
Midstream Energy	6.0%	-1.4%
REIT	6.4%	-0.2%
Global Infrastructure Equity	5.9%	-0.4%
Global Natural Resources Equity	6.8%	-0.7%
Real Estate - Core	5.3%	+0.9%
Real Estate – Non-Core	6.7%	+1.4%
Private Debt - Real Estate	6.3%	+2.2%
Private Real Assets - Natural Resources	8.5%	-
Private Real Assets - Infrastructure	6.3%	+0.4%

Source: NEPC

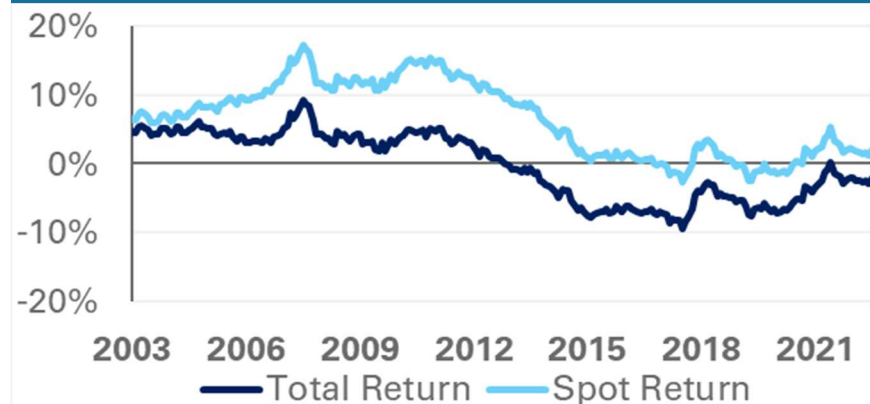
*Calculated as a blend of other asset classes

REAL ASSET

REAL INCOME

- **Equity: Real income is inflation-adjusted dividend yield**
 - Includes public infrastructure, REITS, midstream energy, and natural resource equity
- **Real Estate: Real income is net operating income (NOI)**
 - NOI growth tracks the business cycle and economic regimes
- **Commodity Futures: Real income reflects collateral return and the futures roll yield**
 - Collateral is based on a cash proxy over the time horizon

Commodities Rolling 10-Year Returns



Real Assets Yields

	06/30/23	06/30/22
Midstream Energy	5.7%	5.6%
Real Estate - Core	2.4%	2.9%
US REITs	4.4%	3.8%
Global Infrastructure Equities	3.5%	3.1%
Natural Resource Equities	4.2%	3.8%
US 10-Year Breakeven Inflation	2.2%	2.3%
Commodity Index Roll Yield	4.2%	8.4%

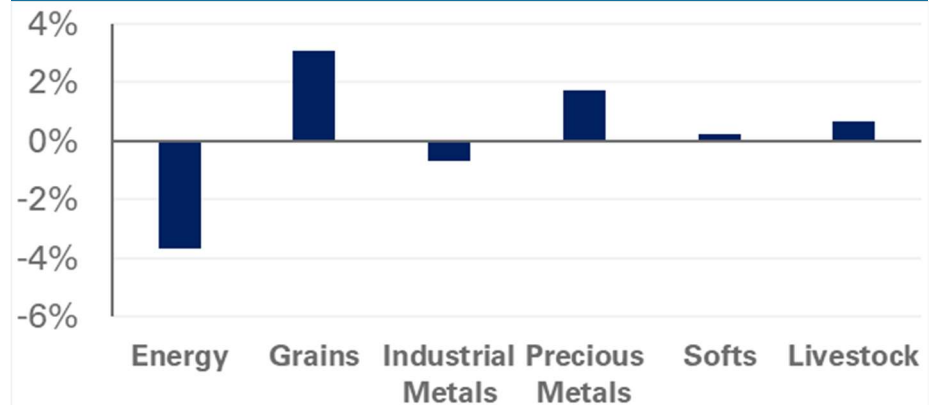
Sources: Bloomberg, NCREIF, Alerian, NAREIT, S&P, FactSet, NEPC

*Commodity Index Roll Yield represents a proprietary calculation methodology

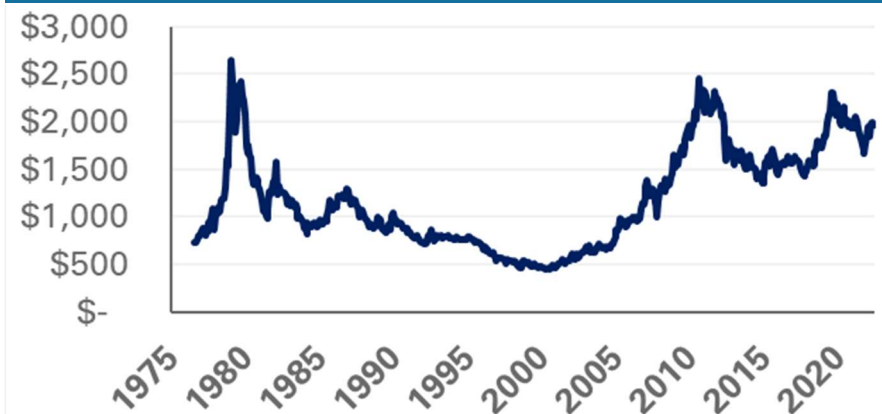
REAL ASSET VALUATION

- **Commodity valuation inputs reflect the long-term average of spot prices**
 - Many areas of the commodity index are trading at a premium to long-term real averages
- **Valuation assumptions for other real assets are based on asset-specific valuation inputs**
 - Capitalization rates are used for core real estate, price-to-earnings for global infrastructure and global natural resources equity
 - Gold's valuation incorporates the asset's historical risk premia and the impact of the macroeconomic market regime

Discount/Premium to 10-Year Real Average

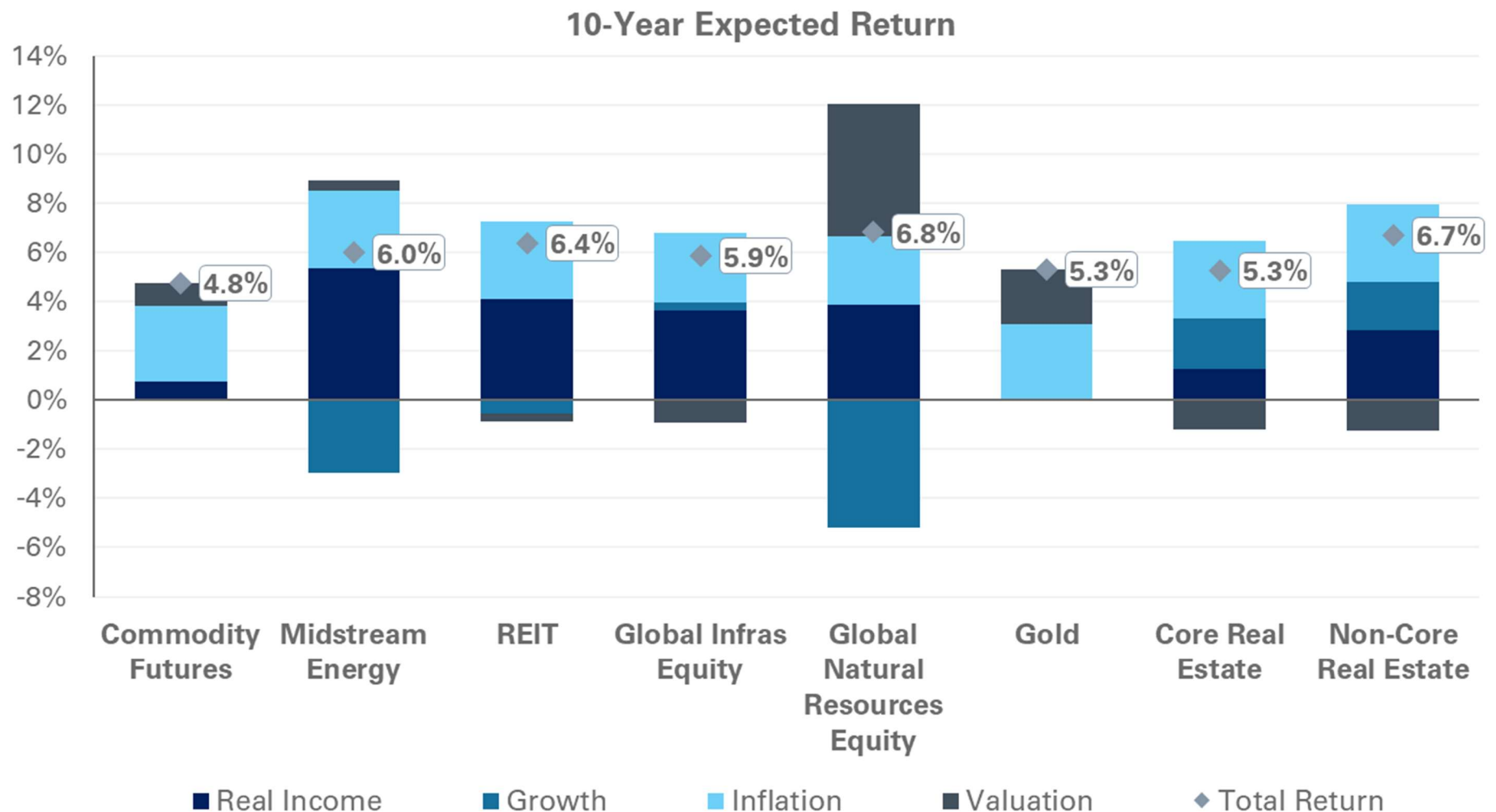


Real Price of Gold



REAL ASSET

BUILDING BLOCKS





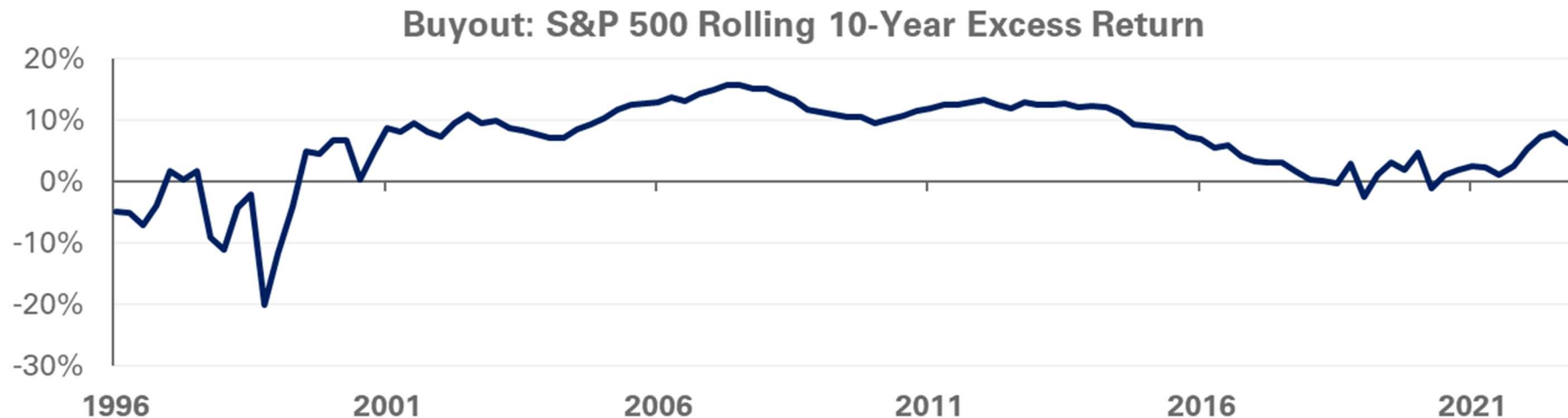
ALTERNATIVE ASSETS



PROPRIETARY & CONFIDENTIAL

ALTERNATIVE ASSETS

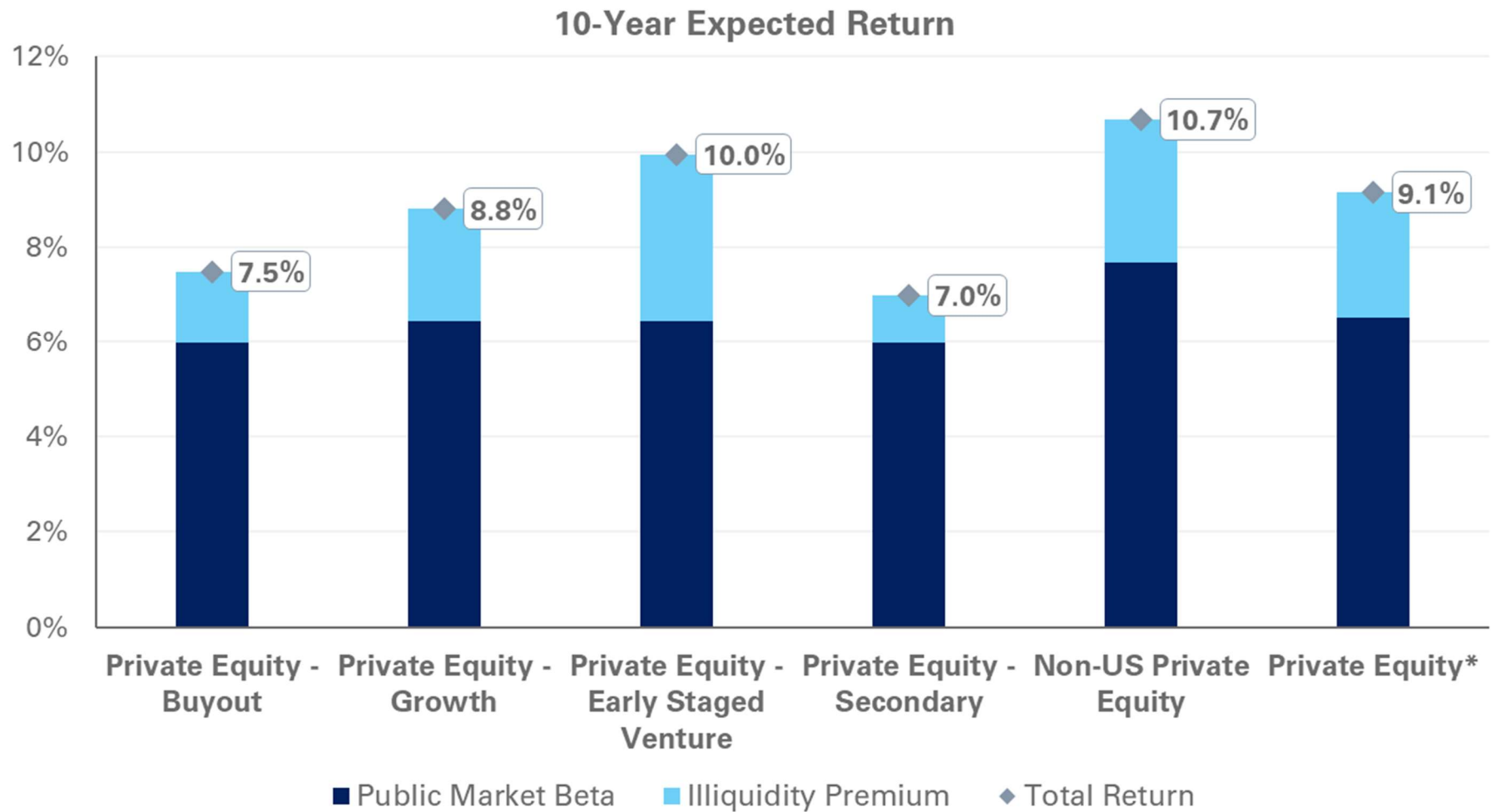
METHODOLOGY



- **Private market assumptions are constructed from betas to public markets with an added illiquidity premia**
 - Historically, the observed illiquidity premium has been a significant component driving private market returns
- **Hedge fund assumptions are constructed from betas to public markets with an added alpha assumption**

PRIVATE EQUITY

BUILDING BLOCKS

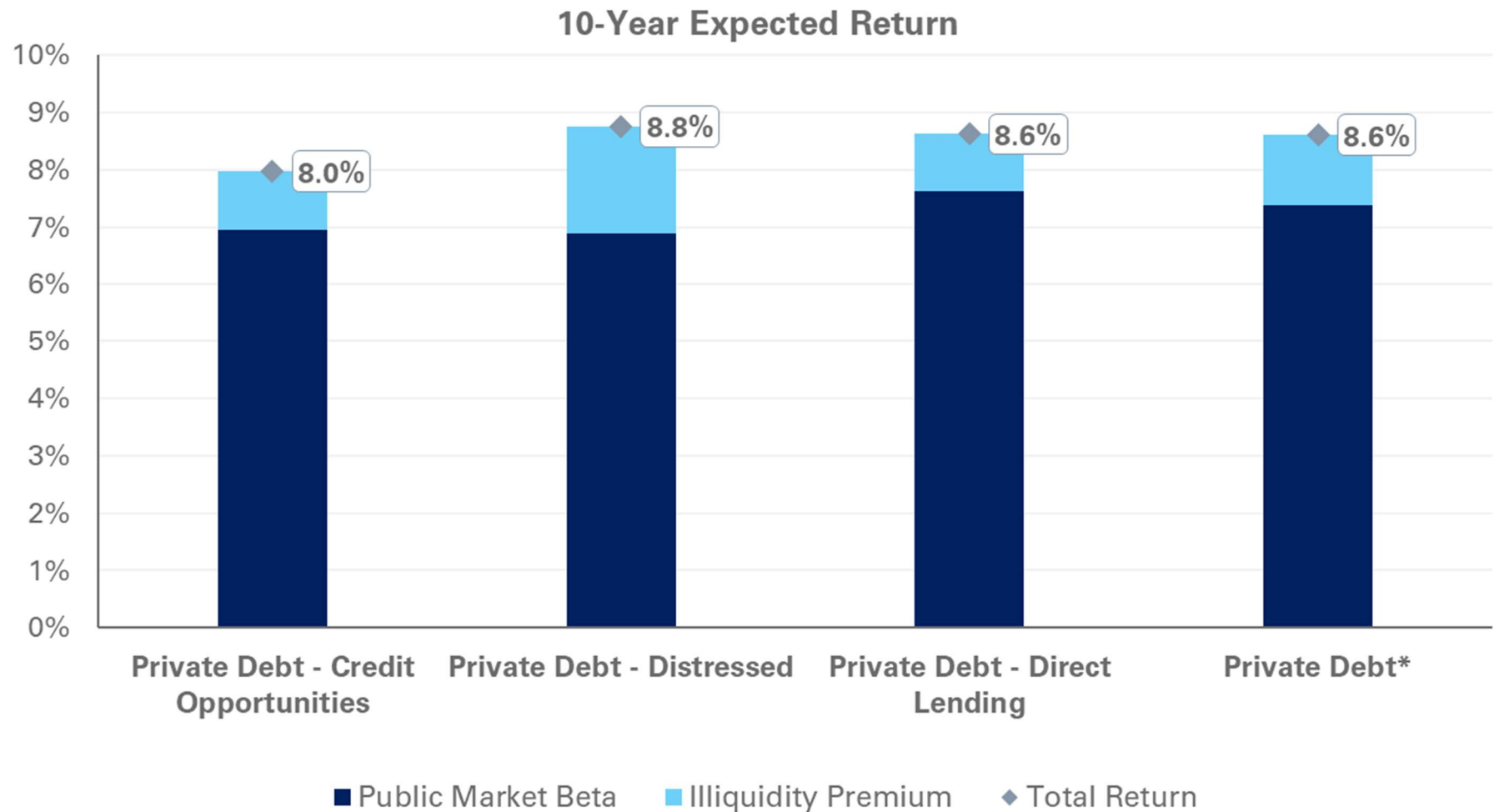


Source: NEPC

*Private Equity is a derived composite of 34% U.S. Buyout, 34% U.S. Growth, 8.5% U.S. Secondary, 8.5% U.S. Venture, 15% Non-U.S. PE

PRIVATE DEBT

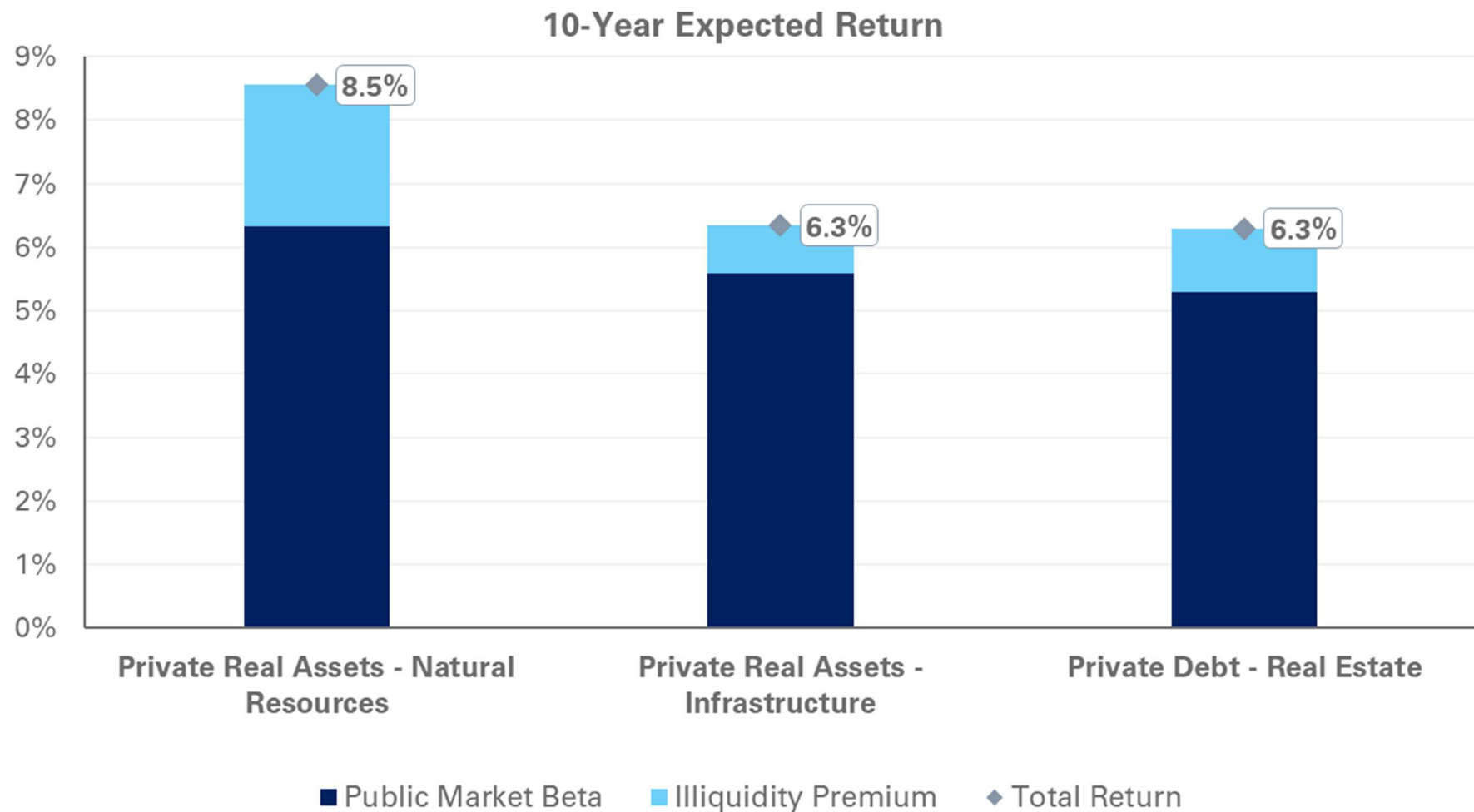
BUILDING BLOCKS



Source: NEPC

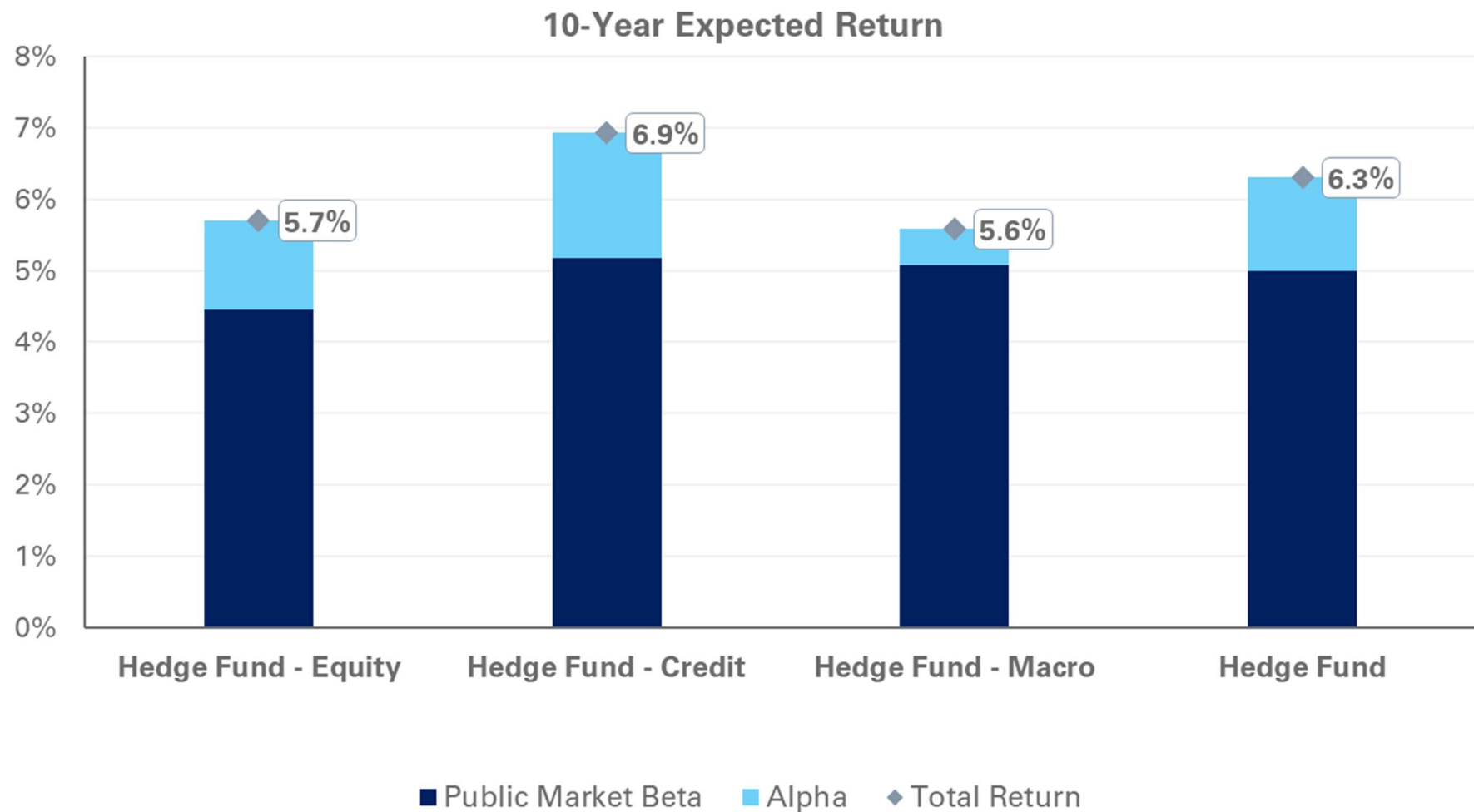
*Private Debt is a derived composite of 25% Mezzanine, 25% Distressed, 50% Direct Lending

PRIVATE REAL ASSET BUILDING BLOCKS



HEDGE FUND

BUILDING BLOCKS



Source: NEPC

*Hedge Funds is a derived composite of 40% Long/Short, 40% Credit, 20% Macro



APPENDIX

PROPRIETARY & CONFIDENTIAL

10-YEAR RETURN FORECASTS

EQUITY

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
U.S. Large-Cap Equity	4.6%	5.8%	-1.2%
U.S. Small/Mid-Cap Equity	6.5%	7.2%	-0.7%
Non-U.S. Developed Equity	5.0%	6.4%	-1.4%
Non-U.S. Developed Equity (USD Hedge)	5.1%	6.5%	-1.4%
Non-U.S. Developed Small-Cap Equity	7.3%	7.4%	-0.1%
Emerging Market Equity	9.2%	9.6%	-0.4%
Emerging Market Small-Cap Equity	8.6%	9.3%	-0.7%
Hedge Fund - Equity	5.7%	5.5%	+0.2%
Private Equity - Buyout	7.5%	8.3%	-0.8%
Private Equity - Growth	8.8%	9.3%	-0.5%
Private Equity - Early Stage Venture	10.0%	10.5%	-0.5%
Private Equity - Secondary	7.0%	7.8%	-0.8%
Non-U.S. Private Equity	10.7%	11.0%	-0.3%
China Equity	9.9%	9.4%	+0.5%
U.S. Microcap Equity	7.4%	8.0%	-0.6%
Global Equity*	5.7%	6.8%	-1.1%
Private Equity*	9.1%	9.8%	-0.7%



*Calculated as a blend of other asset classes

10-YEAR RETURN FORECASTS

FIXED INCOME

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
Cash	4.0%	2.9%	+1.1%
US TIPS	4.6%	3.0%	+1.6%
US Treasury Bond	4.2%	3.2%	+1.0%
US Corporate Bond	5.7%	5.2%	+0.5%
US Corporate Bond - AAA	4.7%	4.3%	+0.4%
US Corporate Bond - AA	4.9%	4.3%	+0.6%
US Corporate Bond - A	5.5%	4.8%	+0.7%
US Corporate Bond - BBB	6.1%	5.5%	+0.6%
US Mortgage-Backed Securities	4.5%	3.4%	+1.1%
US Securitized Bond	5.3%	4.1%	+1.2%
US Collateralized Loan Obligation	5.8%	4.7%	+1.1%
US Municipal Bond	4.1%	4.0%	+0.1%
US Municipal Bond (1-10 Year)	3.2%	3.0%	+0.2%
US Taxable Municipal Bond	5.3%	4.5%	+0.8%

10-YEAR RETURN FORECASTS

FIXED INCOME

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
Non-US Government Bond	2.6%	2.1%	+0.5%
Non-US Government Bond (USD Hedge)	2.8%	2.3%	+0.5%
Non-US Inflation-Linked Bond (USD Hedge)	3.8%	1.7%	+2.1%
US Short-Term TIPS (1-3 Year)	4.6%	2.8%	+1.8%
US Short-Term Treasury Bond (1-3 Year)	4.3%	3.1%	+1.2%
US Short-Term Corporate Bond (1-3 Year)	5.4%	4.4%	+1.0%
US Intermediate-Term TIPS (3-10 Year)	4.6%	3.1%	+1.5%
US Intermediate-Term Treasury Bond (3-10 Year)	4.3%	3.2%	+1.1%
US Intermediate-Term Corporate Bond (3-10 Year)	6.0%	5.3%	+0.7%
US Long-Term TIPS (10-30 Year)	4.5%	3.5%	+1.0%
US Long-Term Treasury Bond (10-30 Year)	3.9%	3.2%	+0.7%
US Long-Term Corporate Bond (10-30 Year)	5.6%	5.4%	+0.2%
20+ Year US Treasury STRIPS	3.8%	3.1%	+0.7%
10 Year US Treasury Bond	4.0%	3.4%	+0.6%
10 Year Non-US Government Bond (USD Hedge)	2.1%	1.4%	+0.7%
US Aggregate Bond*	4.7%	3.8%	+0.9%



*Calculated as a blend of other asset classes

10-YEAR RETURN FORECASTS

FIXED INCOME

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
US High Yield Corporate Bond	6.8%	6.9%	-0.1%
US Corporate Bond - BB	7.5%	7.2%	+0.3%
US Corporate Bond - B	6.9%	7.4%	-0.5%
US Corporate Bond - CCC/Below	2.0%	2.3%	-0.3%
US Short-Term High Yield Corporate Bond (1-3 Year)	5.9%	5.5%	+0.4%
US Leveraged Loan	7.6%	6.6%	+1.0%
Emerging Market External Debt	7.7%	7.3%	+0.4%
Emerging Market Local Currency Debt	6.5%	6.9%	-0.4%
US High Yield Securitized Bond	8.9%	6.6%	+2.3%
US High Yield Collateralized Loan Obligation	8.5%	7.3%	+1.2%
US High Yield Municipal Bond	5.8%	5.0%	+0.8%
Hedge Fund - Credit	6.9%	6.5%	+0.4%
Private Debt - Credit Opportunities	8.0%	7.9%	+0.1%
Private Debt - Distressed	8.8%	8.7%	+0.1%
Private Debt - Direct Lending	8.6%	7.6%	+1.0%
Private Debt*	8.6%	8.0%	+0.6%



*Calculated as a blend of other asset classes

10-YEAR RETURN FORECASTS

REAL ASSETS

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
Commodity Futures	4.8%	3.4%	+1.4%
Midstream Energy	6.0%	6.0%	-
REIT	6.4%	6.1%	+0.3%
Global Infrastructure Equity	5.9%	6.1%	-0.2%
Global Natural Resources Equity	6.8%	6.4%	+0.4%
Gold	5.3%	4.4%	+0.9%
Real Estate - Core	5.3%	4.4%	+0.9%
Real Estate - Non-Core	6.7%	5.7%	+1.0%
Private Debt - Real Estate	6.3%	5.3%	+1.0%
Private Real Assets - Natural Resources	8.5%	7.9%	+0.6%
Private Real Assets - Infrastructure	6.3%	6.1%	+0.2%

30-YEAR RETURN FORECASTS

EQUITY

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
U.S. Large-Cap Equity	6.7%	6.9%	-0.2%
U.S. Small/Mid-Cap Equity	7.5%	7.5%	-
Non-U.S. Developed Equity	6.5%	7.0%	-0.5%
Non-U.S. Developed Equity (USD Hedge)	6.7%	7.2%	-0.5%
Non-U.S. Developed Small-Cap Equity	7.8%	7.8%	-
Emerging Market Equity	9.4%	9.5%	-0.1%
Emerging Market Small-Cap Equity	9.3%	9.6%	-0.3%
Hedge Fund - Equity	6.1%	5.9%	+0.2%
Private Equity - Buyout	8.8%	8.9%	-0.1%
Private Equity - Growth	9.8%	9.9%	-0.1%
Private Equity - Early Stage Venture	10.6%	10.7%	-0.1%
Private Equity - Secondary	8.3%	8.3%	-
Non-U.S. Private Equity	10.9%	11.0%	-0.1%
China Equity	9.5%	9.3%	+0.2%
U.S. Microcap Equity	8.3%	8.4%	-0.1%
Global Equity*	7.4%	7.7%	-0.3%
Private Equity*	10.2%	10.3%	-0.1%



*Calculated as a blend of other asset classes

30-YEAR RETURN FORECASTS

FIXED INCOME

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
Cash	3.4%	2.9%	+0.5%
US TIPS	4.4%	3.6%	+0.8%
US Treasury Bond	4.1%	3.4%	+0.7%
US Corporate Bond	5.8%	5.3%	+0.5%
US Corporate Bond - AAA	5.0%	4.4%	+0.6%
US Corporate Bond - AA	4.9%	4.4%	+0.5%
US Corporate Bond - A	5.4%	4.8%	+0.6%
US Corporate Bond - BBB	6.0%	5.5%	+0.5%
US Mortgage-Backed Securities	4.3%	3.7%	+0.6%
US Securitized Bond	5.1%	4.5%	+0.6%
US Collateralized Loan Obligation	5.1%	4.6%	+0.5%
US Municipal Bond	3.8%	3.5%	+0.3%
US Municipal Bond (1-10 Year)	3.4%	3.1%	+0.3%
US Taxable Municipal Bond	5.8%	5.2%	+0.6%

30-YEAR RETURN FORECASTS

FIXED INCOME

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
Non-US Government Bond	3.1%	2.8%	+0.3%
Non-US Government Bond (USD Hedge)	3.3%	3.0%	+0.3%
Non-US Inflation-Linked Bond (USD Hedge)	3.7%	2.6%	+1.1%
US Short-Term TIPS (1-3 Year)	3.9%	3.2%	+0.7%
US Short-Term Treasury Bond (1-3 Year)	3.8%	3.2%	+0.6%
US Short-Term Corporate Bond (1-3 Year)	4.9%	4.3%	+0.6%
US Intermediate-Term TIPS (3-10 Year)	4.4%	3.7%	+0.7%
US Intermediate-Term Treasury Bond (3-10 Year)	4.2%	3.6%	+0.6%
US Intermediate-Term Corporate Bond (3-10 Year)	5.9%	5.4%	+0.5%
US Long-Term TIPS (10-30 Year)	4.6%	3.8%	+0.8%
US Long-Term Treasury Bond (10-30 Year)	4.2%	3.4%	+0.8%
US Long-Term Corporate Bond (10-30 Year)	6.0%	5.5%	+0.5%
20+ Year US Treasury STRIPS	4.2%	3.3%	+0.9%
10 Year US Treasury Bond	4.0%	3.9%	+0.1%
10 Year Non-US Government Bond (USD Hedge)	3.0%	2.5%	+0.5%
US Aggregate Bond*	4.7%	4.0%	+0.7%

30-YEAR RETURN FORECASTS

FIXED INCOME

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
US High Yield Corporate Bond	7.1%	6.9%	+0.2%
US Corporate Bond - BB	7.7%	7.3%	+0.4%
US Corporate Bond - B	7.0%	7.0%	-
US Corporate Bond - CCC/Below	1.8%	1.7%	+0.1%
US Short-Term High Yield Corporate Bond (1-3 Year)	5.4%	5.0%	+0.4%
US Leveraged Loan	6.8%	6.3%	+0.5%
Emerging Market External Debt	7.1%	6.5%	+0.6%
Emerging Market Local Currency Debt	5.7%	5.9%	-0.2%
US High Yield Securitized Bond	8.1%	6.8%	+1.3%
US High Yield Collateralized Loan Obligation	7.7%	7.1%	+0.6%
US High Yield Municipal Bond	5.7%	5.2%	+0.5%
Hedge Fund - Credit	7.0%	6.6%	+0.4%
Private Debt - Credit Opportunities	8.4%	8.1%	+0.3%
Private Debt - Distressed	9.3%	9.1%	+0.2%
Private Debt - Direct Lending	9.0%	8.6%	+0.4%
Private Debt*	9.1%	8.7%	+0.4%



*Calculated as a blend of other asset classes

30-YEAR RETURN FORECASTS

REAL ASSETS

Geometric Expected Return			
Asset Class	06/30/2023	06/30/2022	Delta
Commodity Futures	3.6%	3.3%	+0.3%
Midstream Energy	6.8%	6.7%	+0.1%
REIT	7.4%	7.3%	+0.1%
Global Infrastructure Equity	6.7%	6.7%	-
Global Natural Resources Equity	7.2%	6.7%	+0.5%
Gold	4.9%	4.4%	+0.5%
Real Estate - Core	5.8%	5.2%	+0.6%
Real Estate - Non-Core	7.3%	6.7%	+0.6%
Private Debt - Real Estate	6.3%	5.7%	+0.6%
Private Real Assets - Natural Resources	8.8%	8.4%	+0.4%
Private Real Assets - Infrastructure	6.9%	6.8%	+0.1%

PRIVATE MARKETS COMPOSITES

PUBLIC MARKET BETA INPUTS FOR PRIVATE MARKETS

PRIVATE EQUITY

Buyout: 25% U.S. Large Cap, 75% U.S. Small/Mid Cap

Secondary: 25% U.S. Large Cap, 75% U.S. Small/Mid Cap

Growth: 50% U.S. Small/Mid Cap, 50% U.S. Microcap

Early-Stage Venture: 25% U.S. Small/Mid Cap, 75% U.S. Microcap

Non-U.S.: 70% International Small Cap, 30% Emerging Small Cap

Composite: 34% Buyout, 34% Growth, 15 % Non-U.S., 8.5% Secondary, 8.5% Early Venture

PRIVATE DEBT

Direct Lending: 100% Bank Loans

Distressed: 20% U.S. Small/Mid Cap, 60% U.S. High Yield, 20% Bank Loans

Credit Opportunities: 34% U.S. SMID Cap, 33% U.S. High Yield, 33% Bank Loans

Composite: 50% Direct Lending, 25% Credit Opportunities, 25% Distressed

PRIVATE REAL ASSETS

Energy: 30% Comm., 35% Midstream, 35% Public Resource Equity

Infra/Land: 30% Commodities, 70% Public Infrastructure

Private Real Estate Debt: 50% CMBS, 50% Real Estate - Core

INFORMATION DISCLAIMER

Past performance is no guarantee of future results.

The goal of this report is to provide a basis for substantiating asset allocation recommendations. The opinions presented herein represent the good faith views of NEPC as of the date of this report and are subject to change at any time.

Information on market indices was provided by sources external to NEPC. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.

All investments carry some level of risk. Diversification and other asset allocation techniques do not ensure profit or protect against losses.

This report is provided as a management aid for the client's internal use only. This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.

September 26, 2023

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

- I. SUBJECT: Annual Funding Plan for the Liquidity Sub-Portfolio
- II. ITEM NUMBER: 8.d.
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: N/A

V. ANALYSIS:

Background

StanCERA follows a functionally focused investment policy. This strategy divides the portfolio into three functional sub-portfolios: liquidity, growth, and diversifying. Each sub-portfolio addresses a separate investment objective. The liquidity sub-portfolio provides liquidity to meet current retiree benefit payments in a timely manner, the growth sub-portfolio seeks to provide long-term growth to meet future retiree payments and the diversifying sub-portfolio is intended to offset some of the risks in the growth sub-portfolio. While the three sub-portfolios are aligned with the investment objectives individually, collectively they provide appropriate risk and return characteristics to meet StanCERA's overall investment goals.

The liquidity sub-portfolio acts as a drawdown vehicle during the year and needs to be replenished annually. In accordance with the investment policy, an annual funding plan is produced by staff on how best to replenish the liquidity sub-portfolio. In conjunction with the annual funding plan, the policy also requires the investment consultant, NEPC, to provide the current capital market assumptions to the Board and if necessary, recommend changes to the asset allocation. Given an asset/liability study is planned for later this year, NEPC, is not recommending any changes at this time. Changes to the asset allocation are very likely to be recommended to the Board as part of the asset/liability study scheduled for the end of 2023.

Liquidity Sub-Portfolio Sizing

The liquidity sub-portfolio is composed of the cash-flow matched bond portfolio as well as a 1% strategic target to cash. The cash-flow matched bond portfolio, managed by Insight Investment is measured in dollars rather than a percentage of the total fund. The size of the cash flow matched portfolio will vary based on the number of years of cash shortfalls that need to be funded and the current interest rates. The market value of the cashflow match bond portfolio as of 8/30/2023 was \$187,602,993 and will cover the cash shortfalls for through June 2029. To maintain six years of cash shortfalls, another \$36.7 Million will need be added to the liquidity sub-portfolio as part of the annual funding plan. As a

percentage of the portfolio, the allocation to the liquidity sub-portfolio is estimated to change from 7% of the total fund to about 8.5% of the total fund. That percentage will trend down over time as the bond portfolio makes monthly distributions to meet the cash needs of the plan.

Rebalance Plan and Timing with Asset/Liability Study

StanCERA will be conducting an asset/liability study in the coming months, so the rebalance plan will need to be cognizant of the likely changes to the strategic asset allocation. For example, rebalancing the portfolio now to the current target allocation when those targets are likely to change in a few months would expose the plan to unnecessary risks and transaction costs. Given that, this year's rebalance plan was deliberately simplified and only those assets that are over target and very unlikely to increase as a result of the asset/liability study are proposed to be redeemed to replenish the liquidity sub-portfolio.

StanCERA's total return for the fiscal year ending 2023 was about 6.8%. A large portion of that return was driven by large cap growth equity which enjoyed a rally earlier this year and remains overweight currently. Using the NEPC marginal risk/return heat map as a tool to determine the relative attractiveness of various asset classes we can see that large cap equity is unlikely to gain exposure in any upcoming asset allocation recommendation. Given those two factors, large cap growth equity is a good asset class to trim exposure while also reducing risk. StanCERA's strategic cash allocation will make up the rest of the capital to fully replenish the liquidity sub-portfolio. The cash allocation is currently overweight target and the rebalance with return it to its long-term target.

The proposed rebalance plan is detailed below:

From			To		
Manager	Asset Class	Amount	Manager	Asset Class	Amount
BlackRock Russell 1000 Growth	Public Equity	-\$25,000,000	Insight Investment	Short-term Bonds	\$36,771,886
StanCERA Cash	Cash	-\$11,771,886			

Summary

StanCERA's investment policy requires staff to provide an annual funding plan to the Board every year to replenish the liquidity sub-portfolio. The investment consultant will also provide the current capital market assumptions to the Board and recommend asset allocation changes if needed. The cash-flow matched bond portfolio within the liquidity sub-portfolio is measured in dollars rather than a target percentage of the total fund. \$36.7 million will be added to the liquidity sub-portfolio from other areas of the portfolio that are currently overweight and unlikely gain in exposure as a result of the upcoming asset/liability study. The two best asset classes to pull capital from are large cap growth equity and StanCERA cash.

VI. RISK: None

VII. STRATEGIC PLAN: N/A

VIII. ADMINISTRATIVE BUDGET IMPACT: None

September 26, 2023

Retirement Board Agenda Item

TO: Retirement Board

FROM: Tom Stadelmaier, Executive Director

- I. SUBJECT: Pension Benefit Information (PBI) CertiDeath Monitoring Services
- II. ITEM NUMBER: 9.a.
- III. ITEM TYPE: Discussion and Action
- IV. STAFF RECOMMENDATION: Accept staff recommendation to contract with PBI to provide CertiDeath continuous monitoring service and ad-hoc address location services.
- V. ANALYSIS: Earlier this year, PBI completed the purchase of The Berwyn Group which is the company StanCERA has used for death audit services. PBI will be discontinuing the base services provided by Berwyn.

PBI offers CertiDeath which is a far more extensive death verification process that utilizes multiple data sources and incorporates PBI review of the records resulting in a more accurate and timely identification of pensioners that have died. This is a proven process, and this change will allow StanCERA to utilize the service for a one-year period and monitor the results. PBI will also offer address location services on an ad-hoc basis that will allow StanCERA to replace another existing vendor used for that purpose.

Once approved, staff will work with PBI to setup the continuous monitoring services.

- VI. RISK: Utilization of PBI CertDeath will reduce the risks associated with overpayment to deceased pensioners and also reduce the risk of false positive identifications.
- VII. ADMINISTRATIVE BUDGET IMPACT: There is an immediate budget impact of approximately \$15,000 which is the initial cost of the service for a one-year period. Over time we anticipate that cost will be offset through the reduction of vendors, reduction of mailing and postage costs and the reduction in overpayments to pensioners. The cost of the service going forward will be evaluated in the budget for the new fiscal year starting in July 2024. The Board's approval of this recommendation will result in a budget change to recognize the initial cost to using CertiDeath and ad-hoc location services through PBI.



CertiDeath

Certified Results. Guaranteed Returns.

The industry's only true death audit solution.

Prepared for: StanCERA

By: Jeff Anderson, PBI Research

September 5, 2023



CertiDeath

Certified Results. Guaranteed Returns.

Industry Leader

Using AI, over 26,000 obituary databases and the largest team of experts in the industry, PBI provides the fastest and most accurate death audit in the market. We can help you save time, minimize overpayments, reduce fraud and meet fiduciary responsibilities.

- \$200,000,000+ in overpayment savings by our CertiDeath® clients
- 65,000,000+ record database
- 32,000+ obits reviewed every month by our experts
- 26,000+ data sources reviewed daily
- 7x faster than using the Social Security Administration (SSA) Death Master File (DMF)
- 98% of our CertiDeath clients renew their contracts

PBI Advantages

Selecting the right death audit provider is crucial to effectively and efficiently managing your pension plan participant pool. With PBI, you have access to resources, products and security that are unmatched in the market.

Experts in Your Corner - Your dedicated Account Manager provides you with the tools you need to navigate market complexities. We have the largest team of data scientists, product developers, security, and subject matter experts in the industry.

Minimize Overpayments and Maximize the Longevity of Your Fund - Your overpayment savings is 4X amount paid for CertiDeath services. So, you save \$4 for every dollar paid, plus you can release millions in unnecessary funding liability by eliminating fraudulent payments.

Reduce Fraud - With 99.9% data accuracy and fast turnaround, you can be confident that fraudulent payments are stopped quickly and precisely.

Save Time - PBI is the only death audit provider who incorporates human expertise into the process, which reduces false positives and provides you verified answers without all the additional time and resources that would normally be required by your organization.

Effectively Manage Your Participants - Take advantage of industry best practices, defined process, and comprehensive reporting. Save time and resources while meeting fiduciary responsibilities and identifying beneficiaries.

Confidence Your Data is Secure - Protecting and securing your information is our highest priority. Our formalized security program follows industry-recognized security frameworks and undergoes an annual SSAE 18 SOC 2, Type II audit.



CertiDeath

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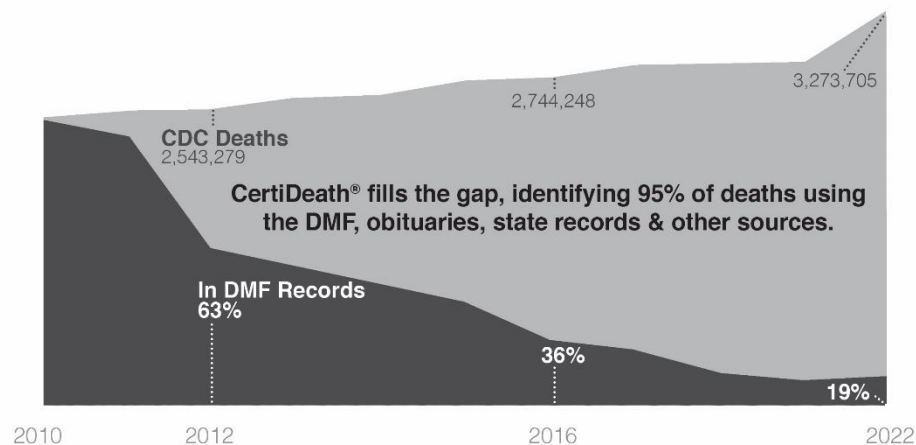
CertiDeath Proposal

Prepared for: StanCERA

For over 40 years, PBI has been the leader in the death audit industry. Thousands of organizations including pensions, corporations, insurance companies, and government agencies have turned to PBI to minimize overpayments, meet fiduciary obligations, reduce fraud, and save time and resources.

CertiDeath provides validated results making it the only true death audit solution.

Since 2011, the SSA has dramatically decreased the amount of data available via the DMF. Today, the SSA DMF provides organizations only 19% of the deaths that take place, negatively impacting death audits and increasing overpayments. CertiDeath fills that gap. Using artificial intelligence, integrated databases, and human expertise, CertiDeath identifies 95% of decedents with 99.9% accuracy.



Source	Methodology	% Death ID'd
DMF Before 2011	Death Audit	95%
CertiDeath	Death Audit	95%
DMF Today + State + Obits	Death Data	70%
DMF Today + State	Death Data	Up to 34%
DMF Today	Death Data	19%

With CertiDeath you will minimize overpayments, reduce fraud, save time, and meet fiduciary responsibilities.



CertiDeath

Certified Results. Guaranteed Returns.

CertiDeath Cost Proposal

StanCERA

Number of records: Up to 6,000 records

Annual rate: \$15,000. annually. for continuous monitoring and weekly reports

This pricing quote is valid through September 2023

Onboarding Process

Client will be assigned a dedicated account management contact and granted access to our secure CertiDeath portal for file upload and retrieval of results.

- Client uploads file with each participant SSN, name (spouse name, if available), DOB and address.
- PBI reviews client data and provides feedback and recommendations as needed.
- **CertiDeath process begins with database scan and PBI human review for validation of potential matches** (initial cleanup is typically 1-3 weeks depending on file size and data quality).

Ongoing Services

- PBI scans our proprietary CertiDeath database – includes SSA DMF, state records, and over 26,000 sources for obits, tributes, and other records of potential deaths.
- **PBI expert team will analyze, research, and identify death matches with 99.9% accuracy after initial file upload.**
- Notification email will be sent to authorized users when the weekly report is ready.
- Easy to navigate dashboard with options to filter results.

Weekly Reporting

- Email alert indicating when your report is ready and a summary of the number of matches for the week.
- Report includes list of identified deaths along with appropriate informational details.
 - **Date of Death** along with source documentation: SSA, STA, or **link to obit**
- SSA DMF and state records will be clearly identified by matching SSN.
- **Obituary matches validated by our team will include a link to the obituary.**
- Your report can be exported to Excel.

Additional Details

- PBI is the only vendor that is data independent for obituaries (no 3rd party reliance).
- PBI offers clients the highest security measures in the industry including the:
 - only death audit provider that is SOC II Type 2 compliant and audited annually by a third party.
 - capabilities to mask the data which means if accessed, the data is unreadable.
- Our team of data scientists are continuously improving algorithms to provide the best results.
- **CertiDeath is the only solution in the industry providing matches validated with human expertise.**

While obituary review is increasing and becoming more complex, your workload is minimized, and your monitored population is more accurate on a timely basis.

**CertiDeath**

Certified Results. Guaranteed Returns.

CertiDeath® Value - Financial Impact to Pensions

Overpayment Prevention with CertiDeath® Death Audit

The Pro Forma statement below illustrates the financial impact to a pension fund when deaths are missed. Estimates provided are based on file comparisons. A three-month average for overpayments is used, although many times overpayments can go undetected for much longer. While there is a significant financial impact to “non pay” participants such as term vested or named beneficiaries, the easiest to measure are the in-pay population we have focused our attention to in the chart below.

The estimate below is an example of the likely return on investment to be achieved annually only from the population currently in a payment status.



CertiDeath® Pro Forma

PLAN NAME:		
Population Size	6,000	Retiree's in Pay Status
Overpayments		
Number of Deaths in Population Per Year	144	*Assumes 2.4% death rate (Avg US Death Rate Age 65+)
Percent of Deaths Identified via CertiDeath	95%	
Percent of Deaths Identified via Other (Standard)	70%	Current Process with other Vendors "death data"
Number of Deaths Identified via CertiDeath	137	
Number of Deaths Identified via Other (Standard)	101	
Number of Incremental Deaths Identified via CertiDeath	36	Deaths Missed Without CertiDeath
Annual Payment to Pension Participant	\$ 18,000.00	Average Annual Pension
Total Overpayment Prevention with CertiDeath	\$ 162,000	Incremental Deaths * 3 months of Payment

Please let me know if you have any questions about this proposal and thank you in advance for your consideration.

Sincerely,

Jeff Anderson

New Business Development Manager

PBI Research Services

952.567.3697 phone

janderson@pbinfo.com

September 26, 2023

Retirement Board Agenda Item

TO: Retirement Board

FROM: Internal Governance Committee (IGC)
Tom Stadelmaier, Executive Director

- I. SUBJECT: StanCERA Elective Officer Policy
- II. ITEM NUMBER: 10.a.
- III. ITEM TYPE: Discussion and Action
- IV. COMMITTEE RECOMMENDATION: Accept the attached StanCERA Elective Officer Policy and implement all provisions
- V. ANALYSIS: After initial review of a drafted policy for elective officers that may participate in StanCERA, the Board referred the policy draft to the IGC for a detailed review.
An IGC meeting was held on August 22, 2023, to review the policy. Staff along with general counsel and fiduciary counsel for the Board reviewed the policy in detail and collected feedback provided by the IGC members along with comments from staff and legal counsel and produced the attached draft policy for final review by the full Board.
Legislative changes made in 2018 have been incorporated into the policy along with other provisions contained in the code. Staff consulted with other CERL plans as well and provided all findings to the IGC to consider in the policy.
The policy does allow elective officers to potentially commence benefits while still holding office, subject to Plan rules.
Once approved, staff will need to work on implementing the policy and providing communications to current and future elective officers.
- VI. RISK: potential litigation risk however this is mitigated by extensive legal review of the policy and the process followed to produce the drafted policy for consideration
- VII. ADMINISTRATIVE BUDGET IMPACT: NA

1. SCOPE OF POLICY

Membership in Stanislaus County Employee's Retirement Association (StanCERA) while holding elective office¹ is optional under Government Code § 31553. Members holding elective office may do so in retirement status meaning they may collect or commence retirement benefits while in office subject to certain conditions. This policy provides guidance on membership and benefits available with StanCERA for those who hold elective office. Members holding elective office are encouraged to contact StanCERA for any clarification regarding how the policy applies to the member's specific situation.

2. MEMBERSHIP IN STANCERA

A. Individuals in Elective Office Who are Not in Retirement Status with StanCERA

Individuals who are not in retirement status with StanCERA have the option of becoming a member of StanCERA or earning additional service credit in StanCERA based on their service in elective office. StanCERA provides communications to newly elective officers at the beginning of each term with basic information and a declaration form. The declaration form from StanCERA allows the newly elective officer the choice to opt-in or opt-out of membership in StanCERA. The newly elective officer is encouraged to explore their options with StanCERA before making a declaration regarding StanCERA membership.

(1) Opt-In

- a. If the elective officer opt-ins to StanCERA, that declaration is irrevocable for the period of the term in which they serve in office, and they will contribute to the Plan and earn benefits in the Plan per the rules of the Plan for their time in office, unless they retire while holding office.
- b. If the declaration to opt-in is made and submitted to StanCERA within the first 30 days in elective office, it will be effective from the start of the term. If it is completed and submitted to StanCERA after 30 days in office, it will be effective with the next pay-period available. Members may have the option to purchase time in elective office if they were not a member of StanCERA at the time they submitted their declaration to opt-in to the Plan based on their service in elective office.

(2) Opt-Out

- a. If the elective officer opts-out of StanCERA membership, they will NOT contribute to the Plan and they will NOT receive any service credit in StanCERA.
- b. However, an elective officer can change their declaration to opt-out of membership at any time during their term by contacting StanCERA and making the declaration to opt-in, provided that the elective officer is not in retirement status with StanCERA. Any change from opt-out to opt-in will be applied prospectively only. Members may have the option to purchase time in elective office if they are not a member of StanCERA at the time they submitted their declaration to StanCERA to opt-in to the Plan based on their service in elective office.

If elected or appointed to another term in the elective office, they will once again have the same options for the new term (if they are not in retirement status at the time of the new term). If no

membership declaration is made for a new term, the member will have any recorded choice from the prior term carry-over.

B. StanCERA Retired Members (meaning retired from StanCERA)

An individual who is already receiving a monthly retirement benefit from StanCERA is considered to be in retirement status.

(1) Continues to Receive Retirement Allowance

An individual who is already receiving a monthly retirement benefit from StanCERA at the time they take elective office AND chooses to continue to receive their monthly benefit does NOT have the option of rejoining StanCERA as an active member. In such circumstance, the elective officer is automatically opted-out of StanCERA as an active member and will continue to collect their retirement benefit as a retiree of StanCERA.²

(2) Discontinuing Retirement Allowance

Discontinuing retirement allowance from StanCERA is NOT permitted for a person serving in elective office. (Government Code § 31680.7, which allows for elective officers to discontinue their retirement allowance and rejoin the Plan has NOT been adopted by the local Board of Supervisors.)

C. Forfeiture of Membership

Under Government Code § 31563, an individual ceases to be a member of StanCERA for any portion of their service that is forfeited due to a qualifying felony conviction under Government Code §§ 7522.70, 7522.72, and/or 7522.74.

3. PURCHASE OF SERVICE

A. Under Government Code § 31648.5, an elective officer who is not a member of StanCERA and initially opted out of StanCERA membership, and later submits a declaration to opt-in to become a StanCERA active member can purchase their time served in office before they became a member of StanCERA. For such an elective officer to purchase that county service, the elective officer must pay:

- (1) The contributions they would have made if they had been a member of the Plan at the time the county service subject to purchase was rendered, and
- (2) Interest, using the same interest-crediting method that applies to StanCERA member contributions.

Under Government Code § 31648, the payment of member contribution and applicable interest for the purchased county service must occur within one year after the submission of the declaration to join StanCERA as a new member and before the elective official's application for retirement is filed.

4. RETIREMENT WHILE IN ELECTIVE OFFICE

A. An elective officer who is a member of StanCERA may commence their benefit if eligible for retirement based upon their tier. Once the elective officer retires, they will no longer contribute to the Plan and will no longer earn service credits and additional benefits in the Plan.

- B. Under IRS Tax Code, the elective officer must be of normal retirement age to commence their retirement benefits. That age is at least Age 62 for general employees and Age 50 for public safety employees. The employee designation is based on the member's service prior to elected office.³
- C. If an elective officer retires while in office, they will receive a partial retirement benefit, as of their effective retirement date, that will be calculated only for prior service while NOT in the current office per Government Code § 31680.15(b). The wages used to calculate the partial benefit will be the wages recorded prior to service in the elective office as well. The portion of the retired elective officer's retirement benefit attributable to their service while in that elective office shall be suspended during their incumbency in that elective office. All contributions to the Plan will stop as of the retirement date and the elective officer will no longer earn additional service credits or benefits in the Plan as of that effective retirement date.
- D. Once a retired elective officer leaves their incumbent office and is no longer employed in an eligible position, StanCERA will recalculate their benefit to include the portion of the retired elective officer's retirement benefit attributable to their service that was previously suspended under Government Code § 31680.15(b) while in office. The updated benefit will be based on:
 - (1) The original tier and rules using age at the time of the original partial retirement calculation as of the effective retirement date, and
 - (2) Service and pay that includes time in office, prior to their effective retirement date.

The updated benefit will also have COLAs applied back to the elective officer's effective retirement date as follows:

StanCERA will apply the COLA calculation to the original partial retirement benefit and then apply the COLA calculation to the updated full retirement benefit calculation and provide the member the difference between the two benefit calculation amounts.

The updated benefit will be paid using the same option as the original partial retirement, effective the day after the member leaves incumbent office and is no longer employed in an eligible position. Moreover, the payment of the updated benefit will occur after the member's last date in elective office and will not be treated as a retroactive payment to the original date of retirement.

- E. Any benefit election on file (including any beneficiary designations) at the time of retirement from StanCERA shall be irrevocable once the retired elective officer receives their first monthly retirement benefit from StanCERA.

5. DEATH OF MEMBER WHILE IN ELECTIVE OFFICE

In the circumstance that an active member dies while holding elective office, StanCERA will recalculate the member's retirement allowance under Government Code § 31680.15(b) as if the member vacated office on the date of death.

6. REFUNDS BASED ON ELECTIVE OFFICE

- A. Under Government Code § 31553, an elective officer leaving office may rescind their declaration to join StanCERA for that term in office provided they do so within 60 days of leaving office or within 60 days of expiration of that term in office. If the declaration to join StanCERA is rescinded, contributions for that term are refunded to the individual.

- B. If a newly elected official does NOT submit a declaration to join the Plan for the term in office, they will NOT be members of the Plan and any contributions taken for that period will be refunded if they were taken in error.

7. EFFECT OF THIS POLICY

- A. To the extent the Legislature amends or otherwise changes the provisions of the County Employees Retirement Law (CERL) or otherwise provides statutory changes to the existing law at the time this policy is adopted, the Legislature's amendments or changes control the provisions of this policy.

Notes

- ¹ Cal. Elections Code § 201 does not distinguish between appointed and elected for those who hold elective office and other County Employees Retirement Law (CERL) systems do not make that distinction. Moreover, CERL 31553 and 31680.15 use elective office instead of elected official.
- ² Under § 31680.15 a person who is retired may serve without reinstatement from retirement or loss or interruption of benefits under this chapter, as an elective officer. However, for all other retired members (i.e., those not in elective office), they are subject to reinstatement under Public Employees' Retirement Act (PEPRA) § 7522.56, which outlines the rules for the reinstatement of a retired member to active membership.
- ³ Under IRS Code Section 401(a), members cannot have in-service distributions prior to reaching normal retirement age, as defined by the Plan with the IRS.