



February 27, 2024

1:30 P.M.

BOARD ROOM

BOARD OF RETIREMENT

AGENDA

832 12th Street
Suite 600
Modesto, CA 95354

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. Member ID: 278857.

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
- 5) Public Comment
- 6) Emergency Declaration
- 7) Consent Items:
 - (a) Approval of January 23, 2024 Meeting Minutes [View](#)
 - (b) Application for Service Retirement(s)
Government Code Section 31499.17, 31670, 31662.2 & 31810
See attached for details [View](#)
 - (c) Application for Disability - Government Code Section 31724
 - i. Rocha, Kendall – Service-Connected Disability - Effective 04-27-2023
 - (d) Investment Matrix [View](#)
 - (e) 2024 Cost of Living
Agenda Item [View](#) Attachment [View](#)
 - (f) Conference/Meeting Summary [View](#)
 - (g) Fiscal Year 2023-2024 Mid-Year Budget Review
Agenda Item [View](#) Attachment [View](#)
- 8) Investment:
 - (a) NEPC – Investment Consultant – January Flash Report [View](#)
 - (b) NEPC Quarter 4 Performance Report as of December 31, 2023 [View](#)
 - (c) NEPC Quarter 4 Private Real Assets Report as of December 31, 2023 [View](#)
 - (d) Alternate Investment Fee and Expense Report (AB 2833)
Agenda Item [View](#) Attachment [View](#)
 - (e) US TIPS Manager Search
Agenda Item [View](#) Attachment [View](#)
- 9) Administrative:
 - (a) June 30, 2023 Cheiron Actuarial Valuation
Agenda Item [View](#) Attachment [View](#)
- 10) Committee Reports:
 - (a) Due Diligence Committee
Agenda Item [View](#) Attachment [View](#)

11) Closed Session:

(a) Personnel Discussion

Stanislaus County Employees' Retirement Association
832 12th Street, Suite 600 Modesto CA 95354
Government Code Section 54957 (b)(1)

(b) Exposure to Litigation 1 Case

Stanislaus County Employees' Retirement Association
832 12th Street, Suite 600 Modesto CA 95354
Government Code Section 54956.9(d)(2)

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

13) Adjournment



January 23, 2024
1:30 P.M.
BOARD ROOM

BOARD OF RETIREMENT

AGENDA

832 12th Street
Suite 600
Modesto, CA 95354

BOARD OF RETIREMENT MINUTES

- 1) Call Meeting to Order
- 2) Pledge of Allegiance
- 3) Roll Call

Trustees Present

Donna Riley
Mandip Dhillon
Delilah Vasquez
Darin Gharat
Mike Lynch
Terry Withrow
Joshua Clayton
Rhonda Biesemeier
Jeff Grover

Trustees Present by Video Conference

Samuel Sharpe

Others Present:

Tom Stadelmaier, Executive Director
Fred Silva – General Legal Counsel
Stan Conwell, Retirement Investment Officer
Kellie Gomes, Business and Operations Manager
Alaine Taa, Executive Board Assistant
Jamie Gingerich, Member and Employer Services Specialist
Daniel Hennessy, NEPC Investment Consultant

4) Announcements

Tom Stadelmaier announced staff had a meeting this week with Cheiron and provided the Board with a preliminary update on the June 30, 2023 valuation results. Results appear as expected with plan funding fairly steady and aggregate employer contribution levels will be slightly higher. Cheiron will present full valuation results at the February Board Meeting. Tom also passed along that Cheiron provided updated plan CPI results and the Cost-of-Living Adjustment (COLA) change for the year resulted in a slightly lower-than-expected increase of 2.5%. Most retirees will get the maximum 3% COLA by using banked increases but the most recent retirees will only get 2.5%. The COLA update will be presented to the Board for review and approval in February.

Tom also discussed the Due Diligence Committee assignments and encouraged other Trustees to participate in the committee if they are interested. This will be a particular busy year for due diligence activities as it relates to investments.

Alaine Taa announced the rotation of Officers. Pursuant to Bylaws Section 1.5, Trustee Darin Gharat is the Chair for the 2024 Board of Retirement, and Trustee Mike Lynch is Vice-Chair.

5) Public Comment - NONE

6) Emergency Declaration - NONE

7) Consent Items:

(a) Approval of December 12, 2023 Meeting Minutes

(b) Application for Service Retirement(s)

Government Code Section 31499.17, 31670, 31662.2 & 31810

See attached for details

(c) Application for Disability - Government Code Section 31787 & 31724

McDonald, Paula – Stanislaus County - Non-Service Connected Disability –
Approval - Effective 06-02-2023

(d) Investment Matrix

(e) Quarter 2 Private Market Program Report as of September 2023

(f) Investment Fee Summary and Value-Added Reports as of September 2023

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

Roll Call Vote was as follows:

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

Motion passed unanimously

8) Investment:

(a) NEPC – Investment Consultant – November and December Flash Reports

(b) Rebalance Plan

(c) Fixed Income Education – TIPS

9) Administrative:

(a) Strategic Plan update

Tom Stadelmaier updated the Board on progress of electronic advice notices. Only about 20-30 are now printed per month for retirees requesting paper advice notices resulting in both a dollar savings for print-and-mail expense and a time savings for staff. Tom credited staff with doing a great job preparing for communications with members which has resulted in more members registering for the member portal as well. Staff will continue to focus on positive communications with members and increasing awareness of the tools available on the portal. PBI enhanced death reporting services were implemented in December 2023. PBI has already found deaths that were not reported to StanCERA allowing staff to prevent overpayments.

Staff is spending time meeting in the 1Q to review all projects in progress and update the strategic plan action items to reflect current work and progress. Board members are encouraged to reach out to staff with questions or feedback regarding the strategic plan action items.

10) Closed Session:

Motion was made by Trustee Dhillon and seconded by Trustee Riley to enter Closed Session.

Roll Call Vote was as follows:

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

Motion passed unanimously

2:39 p.m. Staff was excused from the meeting and left the room.

(a) Personnel Discussion

Stanislaus County Employees' Retirement Association
832 12th Street, Suite 600 Modesto CA 95354
Government Code Section 54957 (b)(1)

2:52 p.m. Trustee Dhillon recused himself from meeting and left the room.

(b) Exposure to Litigation 1 Case

Stanislaus County Employees' Retirement Association
832 12th Street, Suite 600 Modesto CA 95354
Government Code Section 54956.9(d)(2)

Motion was made by Trustee Dhillon and seconded by Trustee Riley to enter Open Session.

Roll Call Vote was as follows:

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

Motion passed unanimously

3:08 p.m. StanCERA Staff returned to meeting.

There was no reportable action to report from Closed Session.

11) Members' Forum (Information and Future Agenda Requests Only)

12) Adjournment – Meeting adjourned at 3:10 p.m.

Respectfully submitted,

APPROVED AS TO FORM

By Thomas Stadelmaier

Thomas Stadelmaier, Executive Director

By Fred A. Silva

Fred A. Silva, General Legal Counsel

StanCERA APPLICATIONS FOR SERVICE RETIREMENT(S)

GOVERNMENT CODE SECTIONS 31499.14, 31670,

31662.2, 318/10 & 31700

02/27/2024 Item 7.b

Cambra, Lynda - Stanislaus County - Effective 01/31/2024
Camp, Mark - Stanislaus County - Effective 01/26/2024
Cavil, Eileen - Stanislaus County - Effective 02/24/2024
DIAS, LETICIA - City of Ceres - Effective 01/23/2024
Garcia, Saul - Stanislaus County - Effective 02/10/2024
Gonzalez, Esmeralda - Stanislaus County - Effective 02/10/2024
Haley, Teresa - Stanislaus County - Effective 12/30/2023
Hernandez, Corazon - Stanislaus County - Effective 02/10/2024
Marshall, Dennis - Stanislaus County - Effective 02/24/2024
Martin, Melinda - Stanislaus County - Effective 02/10/2024
Meabrod, Karl - Stanislaus County - Effective 02/16/2024
Murray, John - Stanislaus County - Effective 02/08/2024
Phillips, Nancy - Stanislaus Superior Court - Effective 02/07/2024
Reno, Gina - Stanislaus County - Effective 02/09/2024
Roy, Rolea - Stanislaus County - Effective 02/10/2024
Tumlinson, Blanca - Stanislaus County - Effective 02/10/2024
Turnbough, Leslie - Stanislaus County - Effective 01/17/2024
Velarde, Lisa - Stanislaus County - Effective 01/31/2024
Vink, Keira - Stanislaus County - Effective 02/10/2024
Williams, Christopher - Stanislaus County - Effective 02/08/2024

February 27, 2024

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:

A large portion of staff time in February was dedicated to manager searches including meetings and inquiries with perspective managers and NEPC. Staff and NEPC were able to complete the evaluation of 0-5 year US TIPS index investment managers. A joint recommendation was prepared for February's meeting. The Liquid Absolute Return manager search continues and a recommendation to the Board will be a top priority by staff going forward. Staff also completed an update to the Alternative Investment Fee Disclosure report (AB 2833). The process utilized existing fee data from StanCERA's internal database as well as data from fund financial statements and direct inquiries with managers. StanCERA also hosted many investment manager meetings throughout the month including a few in person.

b) Money Transfer Report:

January 2024: Capital Calls

From			To		
Manager	Asset Class	Amount	Manager	Asset Class	Amount
NT STIF Fund	Cash	-\$56,108.57	Genstar Capital Partners X	Private Equity	\$56,108.57
NT STIF Fund	Cash	-\$186,899.81	Genstar Capital Partners X	Private Equity	\$186,899.81

NT STIF Fund	Cash	-\$359,192.00	Vista Foundation Fund IV	Private Equity	\$359,192.00
NTAM Infrastructure Proxy Fund	Public Equities	-\$2,174,241.00	Carlyle RSE Fund II	Private Infrastructure	\$2,174,241.00
NTAM Russell 3000	Public Equities	-\$2,220,473.75	Audax Fund VII	Private Equity	\$2,220,473.75
NT STIF Fund	Cash	-\$819,310.00	Grandview Partners II-A	Private Real Estate	\$819,310.00

c) *Manager Meetings:*

Grandview Partners

In February, staff met with Partners of Grandview for an update meeting and broader discussion on real estate markets more generally. StanCERA is currently invested in three Grandview funds within the value-add real estate asset class. Together the three funds total about \$35 million as of 9/30/2023. Performance is in line with or above expectations. Grandview II, the most recent fund with a vintage year of 2021, has seen performance trend up as the fund continues to deploy capital. Grandview focuses on the industrial and residential property types which have demonstrated good stability versus other property types including retail and office. The current state of the real estate market and Grandview's strategy was reviewed. Grandview Partners remains stable as a firm with low employee turnover overall and good continuity within the investment team.

Raven Capital Management

StanCERA Staff arranged a meeting with Senior management of Raven for a update call on the Raven III fund. Raven III is part of the legacy private credit portfolio, and the fund is currently harvesting investments. If you recall, Raven was considering a continuation fund for the real estate assets in Fund III. The continuation fund was put on hold. Raven is in the process of stabilizing the real estate assets in preparation for an exit from the fund. The acquisition by MetLife Investment Management was also discussed. Raven still operates with its own autonomy but benefits from additional resources and support in the area of operations and compliance as result of the acquisition. Additional integration between the companies is expected over time.

VI. RISK: None

VII. STRATEGIC PLAN: N/A

VIII. ADMINISTRATIVE BUDGET IMPACT: None

February 27, 2024

Retirement Board Agenda Item

TO: Retirement Board

FROM: Tom Stadelmaier, Executive Director

- I. SUBJECT: 2024 Cost of Living Adjustment
- II. ITEM NUMBER: 7.e
- III. ITEM TYPE: Consent
- IV. STAFF RECOMMENDATION: Approve Cheiron's recommendation for Cost of Living Adjustments (COLA) for all of StanCERA's non-tier 3 retired member's monthly benefit beginning April 1, 2024 for those that retired prior to April 2, 2024, based on the chart provided in the attached memo.
- V. EXECUTIVE SUMMARY: Attachment 1 contains Cheiron's recommendation for the Cost of Living Adjustments referenced in staff's recommendation.

Currently, StanCERA bases its COLA increases on the All-Urban Consumer Index for the San Francisco/Oakland/Hayward (previously San Francisco/Oakland/San Jose) area. The COLA change for retirees' 2024 benefit is based on the change in the December over December measures (2022 to 2023). The 2022 and 2023 measures turned out to be 331.222 and 339.915, respectively. This equates to an increase of 2.625%, which when rounded, results in a final value of 2.5%.

Based on Code Section 31870.1 which StanCERA and its employers adhere to, members are to receive the lesser of 3% or the actual year over year change in the index, plus any available banked increase up to a maximum increase of 3%. All non-tier 3 retirees that retired prior to 4/2/2023 will receive the maximum 3% increase by using 0.5% of their accumulated bank. Non-tier 3 retirees with a retirement date from 4/2/2023 to 4/1/2024 will receive a 2.5% increase.

VI. RISK: None

VII. STRATEGIC PLAN: N/A

ADMINISTRATIVE BUDGET IMPACT: None

January 22, 2024

Mr. Tom Stadelmaier
Executive Director
Stanislaus County Employees' Retirement Association
832 12th Street, Suite 600
Modesto, California 95354

Re: Cost of Living Adjustment (COLA) as of April 1, 2024

Dear Tom:

Pursuant to the scope of retainer services under Cheiron's agreement to provide actuarial services to the Stanislaus County Employees' Retirement Association (StanCERA), we have computed the Cost of Living Adjustment (COLA) percentages to be used as of April 1, 2024. The calculations outlined herein have been performed in accordance with 31870.1 of the County Employees Retirement Law of 1937.

Background

The Cost of Living Adjustment (COLA) is determined annually based on increases in the December Consumer Price Index (CPI) for All Urban Consumers in the San Francisco-Oakland-Hayward (previously San Francisco-Oakland-San Jose) area, using a base period of 1982-1984. The ratio is calculated and rounded to the nearest one-half percent.

COLA Calculations

The CPIs described above were 339.915 and 331.222 for December 2023 and December 2022, respectively. This represents an increase of 2.625%, which is rounded to 2.50%. As a point of comparison, the U.S. City CPI increased by 3.35% over the same time period.

Retirees – other than members of Tier 3 – are subject to the provisions of Section 31870.1, which limits annual COLA increases to 3.0% annually. Therefore, members that retire from April 2, 2023 to April 1, 2024 should receive an increase in benefits of 2.5%, based on the current year change in the CPI. However, members who retired on April 1, 2023 and earlier will receive an increase in benefits of 3.0%, due to prior accumulated carry-over in their bank. The carry-over balances for these members will decrease by 0.5%, based on the difference of the rounded CPI increase versus the current year COLA adjustment. The enclosed exhibit summarizes the COLA calculations and carry-over balances for these Tiers. Tier 3 members do not receive an automatic COLA from the Association.

Mr. Tom Stadelmaier


January 22, 2024

Page 2

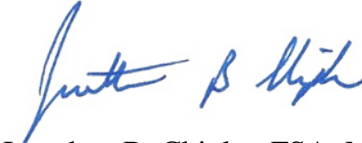
Please contact us if you have any questions regarding these calculations.

Sincerely,

Cheiron



Graham A. Schmidt, FSA, FCA, MAAA, EA
Principal Consulting Actuary



Jonathan B. Chipko, FSA, MAAA, EA
Consulting Actuary

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

COST OF LIVING ADJUSTMENTS (COLA) - Section 31870.1

As of April 1, 2024

Maximum Annual COLA: 3.0%

Initial Retirement Date	April 1, 2023	Increase in the Annual Average CPI ¹		April 1, 2024	
	Accumulated Carry-Over (A)	Average CPI ¹		COLA (D)	Accumulated Carry-Over (E)
		Actual (B)	Rounded (C)		
On or Before 4/1/1970	70.0%	2.62%	2.5%	3.0%	69.5%
04/02/1970 to 04/01/1971	67.5%	2.62%	2.5%	3.0%	67.0%
04/02/1971 to 04/01/1972	65.5%	2.62%	2.5%	3.0%	65.0%
04/02/1972 to 04/01/1973	64.5%	2.62%	2.5%	3.0%	64.0%
04/02/1973 to 04/01/1974	64.0%	2.62%	2.5%	3.0%	63.5%
04/02/1974 to 04/01/1975	61.0%	2.62%	2.5%	3.0%	60.5%
04/02/1975 to 04/01/1976	54.0%	2.62%	2.5%	3.0%	53.5%
04/02/1976 to 04/01/1977	47.0%	2.62%	2.5%	3.0%	46.5%
04/02/1977 to 04/01/1978	44.5%	2.62%	2.5%	3.0%	44.0%
04/02/1978 to 04/01/1979	40.0%	2.62%	2.5%	3.0%	39.5%
04/02/1979 to 04/01/1980	33.5%	2.62%	2.5%	3.0%	33.0%
04/02/1980 to 04/01/1981	28.0%	2.62%	2.5%	3.0%	27.5%
04/02/1981 to 04/01/1982	16.0%	2.62%	2.5%	3.0%	15.5%
04/02/1982 to 04/01/1983	6.0%	2.62%	2.5%	3.0%	5.5%
04/02/1983 to 04/01/2017	3.5%	2.62%	2.5%	3.0%	3.0%
04/02/2017 to 04/01/2022	3.0%	2.62%	2.5%	3.0%	2.5%
04/02/2022 to 04/01/2023	2.0%	2.62%	2.5%	3.0%	1.5%
04/02/2023 to 04/01/2024	0.0%	2.62%	2.5%	2.5%	0.0%

¹ All Urban Consumers, San Francisco-Oakland-Hayward Area (1982-84 base). (G.C. 31870.1)

Conference Summary

1. **Attendee Name:** Mandip Dhillon
2. **Event Name:** Public Funds Workshop 2024
3. **Event Date:** January 30-31, 2024
4. **Event Location:** Tempe, AZ

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

The conference was highly commendable for several reasons. Firstly, the organizers curated a diverse range of sessions covering crucial topics such as Capital Markets, Public Funds, Private Equity, Portfolio Leverage, African Investing, and Evolving Infrastructure Opportunities. This ensured that attendees gained valuable insights into various aspects of investment and finance, making the event relevant and intellectually stimulating.

The inclusion of presentations on the profiles of pension plans of different sizes was a notable highlight. This allowed for meaningful discussions on the challenges and opportunities associated with managing government pension plans, fostering an exchange of ideas that could contribute to improvements in the field.

The revelation that the average assumed rate of return for participating plans is 6.75% added a layer of practical relevance, particularly for StanCERA, as we share the same rate of return. This alignment provided a common ground for understanding and benchmarking, enhancing the overall relevance of the conference content.

Furthermore, the inclusion of educational sessions on Effective Board Management and Geopolitical Risks demonstrated a commitment to the holistic development of attendees. These topics are crucial for Trustees, and their incorporation showcased a thoughtful approach to addressing not only investment-related challenges but also broader governance and geopolitical considerations.

The overall organization of the conference was commendable, reflecting a high level of professionalism and attention to detail. The positive reception indicates that the event met or exceeded expectations, providing a valuable platform for learning and networking. Lastly, the opportunity for in-person interactions and networking after a prolonged period of virtual engagements added a personal touch, fostering stronger connections among attendees and creating a sense of community within the industry.

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

Yes, I strongly recommend it.

7. **Number of Education Credits:** 15



Conference Summary

1. **Attendee Name:** Tom Stadelmaier
2. **Event Name:** NEPC Public Funds Investment Workshop
3. **Event Date:** January 30-31, 2024
4. **Event Location:** Tempe, Arizona
5. **Describe what was good about the event:**

This was a great opportunity to hear from many other public funds and get an update on activities at other pension plans. It was also a great opportunity to meet other contacts facing similar challenges and learn from those experiences and get feedback on our approach as well.

NEPC also provides excellent expertise from a wide range of sources within their organization and also several interesting outside speakers with a focus on education. This was a great opportunity for us to get an update on the current landscape in the investment world and a great opportunity for the trustees on our due diligence committee to receive input that will be helpful for the year ahead.

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

NEPC limits participation in this event to keep it more intimate and allow for more dialogue. It is a great event to attend when the opportunity is available.

7. **Number of Education Credits:**

NA

February 27, 2024

Retirement Board Agenda Item

TO: Retirement Board

FROM: Brittany Smith-Atkins, Financial Services Manager

- I. SUBJECT: Fiscal Year 2023-2024 Mid-Year Budget Review
- II. ITEM NUMBER: 7.g
- III. ITEM TYPE: Consent
- IV. STAFF RECOMMENDATION: Accept Mid-Year Administrative Budget Review for Fiscal Year 2023-2024 (Attachment 1)
- V. EXECUTIVE SUMMARY: Each year staff prepares a budget of general operating expenses for review and approval by the Board of Retirement (Board). The Fiscal Year 2023-2024 budget of \$5,333,240 was approved on May 23, 2023. On September 26, 2023, the Board approved an increase of \$93,786 attributed to the newly reached tenant agreement, inclusive of increased revenue and capital improvements. The revised 2023-2024 budget is \$5,427,026.

As in years past, a formal mid-year review of the budget is presented to the Board; the review of the expenses illustrated below encompasses expenditures incurred through January 31, 2024.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

FISCAL YEAR 2023-2024

MID YEAR BUDGET REVIEW

	Fiscal Year 2023-2024 Final Budget ⁽¹⁾⁽²⁾	Fiscal Year 2023-2024 Budget Adjustments ⁽³⁾	Fiscal Year 2023-2024 Revised Budget	Fiscal Year 2023-2024 Mid Year Expenditures	Expenditures as a Percent of 2023-2024 Budget
Salaries & Benefits	2,451,080	-	2,451,080	907,092	37%
Technology	523,088	-	523,088	225,935	43%
Legal & Other Professional Services	799,233	-	799,233	409,826	51%
General Operations	70,100	-	70,100	31,203	45%
Communications & Printing	61,731	-	61,731	9,671	16%
County Support Services	284,492	-	284,492	107,498	38%
Fiduciary Education & Travel	95,100	-	95,100	38,508	40%
Total Administrative Expenses	4,284,825	-	4,284,825	1,729,734	40%
12th St Lobby Upgrade	50,000	-	50,000	-	0%
6th Floor Lease Improvements	-	98,020	98,020	-	0%
Financial Reporting: Workiva	-	-	-	-	n/a
Pension Administration System	320,000	-	320,000	34,960	11%
StanCERA Website Maintenance & Development	40,000	-	40,000	-	n/a
Total Capital Expenses	410,000	98,020	508,020	34,960	7%
Capital Depreciation	746,923	-	746,923	373,462	50%
6th Floor Lease Revenue	(108,508)	(4,234)	(112,743)	(63,563)	56%
TOTAL BUDGET	5,333,240	93,786	5,427,026	2,074,593	38%

Notes

(1) 2023-2024 Budget Adopted by the Board

(2) Includes Technology Adjustment §31580.2(b)

(3) Approved Budget Adjustments: Approved after May 2023

- VI. ANALYSIS: StanCERA's administrative expense budget is within range through the analysis period and expected to stay within budget by year's end. Salary and benefits are tracking below budget with two budgeted positions not filled as of February 20, 2024. Expenditures are projected to stay within budget.

The Technology budget includes the maintenance, support, disaster recovery, StanCERA's pension software system (current and past), County Information Technology (I.T.) services, computers and other I.T. related equipment used by StanCERA staff. Staff has noted that County I.T. data processing services is expected to exceed its forecasted annual expenses and should be offset by other items; this increase is due to system enhancements completed by Stanislaus County. Overall, it is expected that the Technology expenditures will remain within budget.

StanCERA contracts with several specialized legal service providers which are utilized as needed, (fiduciary, litigation, real estate, information technology, disability administration, tax, domestic relations, and general governance). It is expected that Legal Counsel & Services will stay within budget.

County Support Services include building maintenance, utilities, security, mailroom services, and various administrative services provided by the County, such as human relations, auditor support, purchasing and some insurances. These expenditures are expected to stay within budget.

Communication & Printing reflect funds set aside for postage and trustee elections, member statements, and retiree payroll. This category is expected to remain under budget due to recent production changes as Staff increases the awareness and utilization of StanCERA's member portal to its members, retirees, and beneficiaries.

General Operation funds are used for office supplies, 6th floor building expenses and other professional services such as StanCERA's external financial auditor or other professional consultants. These expenditures are expected to stay within budget.

Fiduciary Education & Travel includes education and travel for trustees, executive, and general staff. In recent years, StanCERA Staff has proposed a conservative budget based on experience. To date, Staff Education & Travel has utilized 71.2% of its budget and is expected to remain within the approved budget allocation for the fiscal year. Overall, it is expected that Fiduciary Education & Travel will stay within budget.

As of January 31, 2024, Capital Expenditures is significantly below its expected expenses. This is in part due to the nature of the items within the category. For instance, the 6th Floor Lease Improvements is dependent on the proposal from StanCERA's tenant; additionally, these costs may be realized through August 2024. Other items have not incurred costs due to timing and invoice receipt. Overall, it is expected that Capital Expenditures will remain within budget.

Non- Administrative Expenses

Section 31596.1 of the CERL states: The following expenses shall not be considered a cost of administration to the retirement system but shall be considered as a reduction in earnings from those investments or a charge against the assets of the retirement system as determined by the Board. These expenses are governed by individual agreements and are reported in the audited financial statements presented to the Board of Retirement in the Annual Comprehensive Financial Report. The Other Investment Fees consist of mainly other professional fees and interest expense for the alternative assets, and Northern Trust sweep fees. The un-audited mid-year expenses are listed below.

	Mid Year Expenditures
Actuarial Fees	74,503
Investment Consultant Fees	291,214
Attorney Fees - Directly Related to Investments	105,454
Investment Manager Fees	9,962,594
Custodial Bank Fees	176,022
Other Investment Fees	44,759

- VII. RISK: Government Code section 31580.2 allows for expenditures for administrative services (other than software, hardware, and computer technology consulting services) to be the greater of 0.21% of the accrued actuarial liability or \$2,000,000.

As of the most recent valuation, StanCERA's accrued liability is \$3.535B which suggests StanCERA's administrative budget to not exceed \$7,424,107. Upon the completion of this analysis, StanCERA is well within the parameters of this government code and will continue to exercise prudence in budgeting administrative expenses as well as continued review of expenditures.

- VIII. STRATEGIC PLAN: N/A

- IX. ADMINISTRATIVE BUDGET IMPACT: A total of \$5,427,026 was approved for the Fiscal Year 2023-2024 Administrative budget. No additional administrative funds are being requested at this time.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

FISCAL YEAR 2023-2024

MID YEAR BUDGET REVIEW

	Fiscal Year 2023-2024 Final Budget ⁽¹⁾⁽²⁾	Fiscal Year 2023-2024 Budget Adjustments ⁽³⁾	Fiscal Year 2023-2024 Revised Budget	Fiscal Year 2023-2024 Mid Year Expenditures	Expenditures as a Percent of 2023-2024 Budget
SALARIES & BENEFITS					
Salary and Wages	1,475,329		1,475,329	601,872	40.8%
Project Help Wages	133,575		133,575	23,503	17.6%
Employee Benefits	842,176		842,176	281,717	33.5%
Salaries & Benefits	2,451,080	-	2,451,080	907,092	37.0%
TECHNOLOGY					
Computers & Office Equipment	25,000		25,000	49	0.2%
Copier Lease & Maint	16,000		16,000	6,677	41.7%
I.T. Consulting Services	60,000		60,000	-	0.0%
SBT - Data Processing Services	78,717		78,717	53,737	68.3%
SBT - Embedded Employees	-		-	-	n/a
SBT - Telecommunications	7,771		7,771	4,467	57.5%
Software Licenses & Fees	68,800		68,800	13,346	19.4%
StanCERA Website Hosting Fees	11,400		11,400	760	6.7%
Tegrit Hosting Fees	114,000		114,000	66,500	58.3%
Tegrit Software Maintenance	141,400		141,400	80,400	56.9%
Technology	523,088	-	523,088	225,935	43.2%
LEGAL & OTHER PROFESSIONAL SERVICES					
Auditing Services	48,850		48,850	42,880	87.8%
Insurance (Fiduciary & Cyber)	160,383		160,383	136,192	84.9%
Cyber	84,930		84,930	67,067	79.0%
Fiduciary	75,454		75,454	69,125	91.6%
Legal Counsel - Disability	175,000		175,000	76,959	44.0%
Legal Counsel - Domestic Relation Orders	75,000		75,000	12,913	17.2%
Legal Counsel - General	250,000		250,000	104,269	41.7%
Legal Counsel - O'Neal vs StanCERA	-		-	-	n/a
Reimbursement from Travelers Ins	-		-	-	n/a
Legal Counsel - StanCERA vs Buck	30,000		30,000	-	0.0%
Medical Exams, Reviews, Hearings	40,000		40,000	15,600	39.0%
Other Professional Services	20,000		20,000	21,014	105.1%
Legal & Other Professional & Services	799,233	-	799,233	409,826	51.3%
GENERAL OPERATIONS					
Office Supplies	7,500		7,500	1,377	18.4%
Other Office Expense	20,000		20,000	11,404	57.0%
6th Floor Maint	12,000		12,000	-	0.0%
6th Floor Janitorial & Supplies	28,250		28,250	17,026	60.3%
6th Floor Security	600		600	-	0.0%
6th Floor Taxes (Downtown Redevelopment)	1,750		1,750	1,397	79.8%
General Operations	70,100	-	70,100	31,203	44.5%
COMMUNICATION & PRINTING					
Member Statements, Trustee Elections	17,750		17,750	2,589	14.6%
Postage	43,981		43,981	7,083	16.1%
Communication & Printing	61,731	-	61,731	9,671	15.7%
COUNTY SUPPORT & BUILDING SERVICES					
Auditor	9,353		9,353	2,792	29.9%
Building Janitorial	3,502		3,502	395	11.3%
Building Maintenance	73,954		73,954	30,396	41.1%
Building Security	77,250		77,250	21,676	28.1%
Building Utilities	51,294		51,294	19,565	38.1%
Central Services & Mail Room	22,145		22,145	7,643	34.5%
CEO/Personnel (true up)	13,225		13,225	8,122	61.4%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

FISCAL YEAR 2023-2024

MID YEAR BUDGET REVIEW

	Fiscal Year 2023-2024 Final Budget ⁽¹⁾⁽²⁾	Fiscal Year 2023-2024 Budget Adjustments ⁽³⁾	Fiscal Year 2023-2024 Revised Budget	Fiscal Year 2023-2024 Mid Year Expenditures	Expenditures as a Percent of 2023-2024 Budget
GSA - ADA Compliance	721		721	323	44.8%
Human Relations	17,215		17,215	9,513	55.3%
Insurance (General Liability & Auto)	14,390		14,390	7,074	49.2%
Purchasing	618		618	-	0.0%
Salvage & Disposal	824		824	-	0.0%
County Support Services & Building Services	284,492	-	284,492	107,498	37.8%
FIDUCIARY EDUCATION & TRAVEL					
Professional Memberships	12,100		12,100	6,871	56.8%
Professional Publications & Subscriptions	6,000		6,000	-	0.0%
Staff Education & Travel	35,000		35,000	24,907	71.2%
Trustee Education & Travel	30,000		30,000	3,730	12.4%
Trustee Meeting Allowance	12,000		12,000	3,000	25.0%
Fiduciary Education & Travel	95,100	-	95,100	38,508	40.5%
CAPITAL EXPENDITURES					
12th St Lobby Upgrade	50,000	-	50,000	-	0.0%
6th Floor Lease Improvements	-	98,020	98,020	-	n/a
Financial Reporting: Workiva	-	-	-	-	n/a
Pension Administration System	320,000	-	320,000	34,960	10.9%
StanCERA Website Maintenance & Development	40,000	-	40,000	-	n/a
Capital Expenditures	410,000	98,020	508,020	34,960	6.9%
Capital Depreciation	746,923	-	746,923	373,462	50.0%
6th Floor Lease Revenue	(108,508)	(4,234)	(112,743)	(63,563)	56.4%
TOTAL BUDGET	5,333,240	93,786	5,427,026	2,074,593	38.2%

Notes

(1) 2023-2024 Budget Adopted by the Board

(2) Includes Technology Adjustment \$31580.2(b)

(3) Approved Budget Adjustments: Approved after May 2023



MONTHLY PERFORMANCE REPORT

STANISLAUS COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

JANUARY 31, 2024

Dan Hennessy, CFA, CAIA, Senior Consultant

Sam Austin, Partner

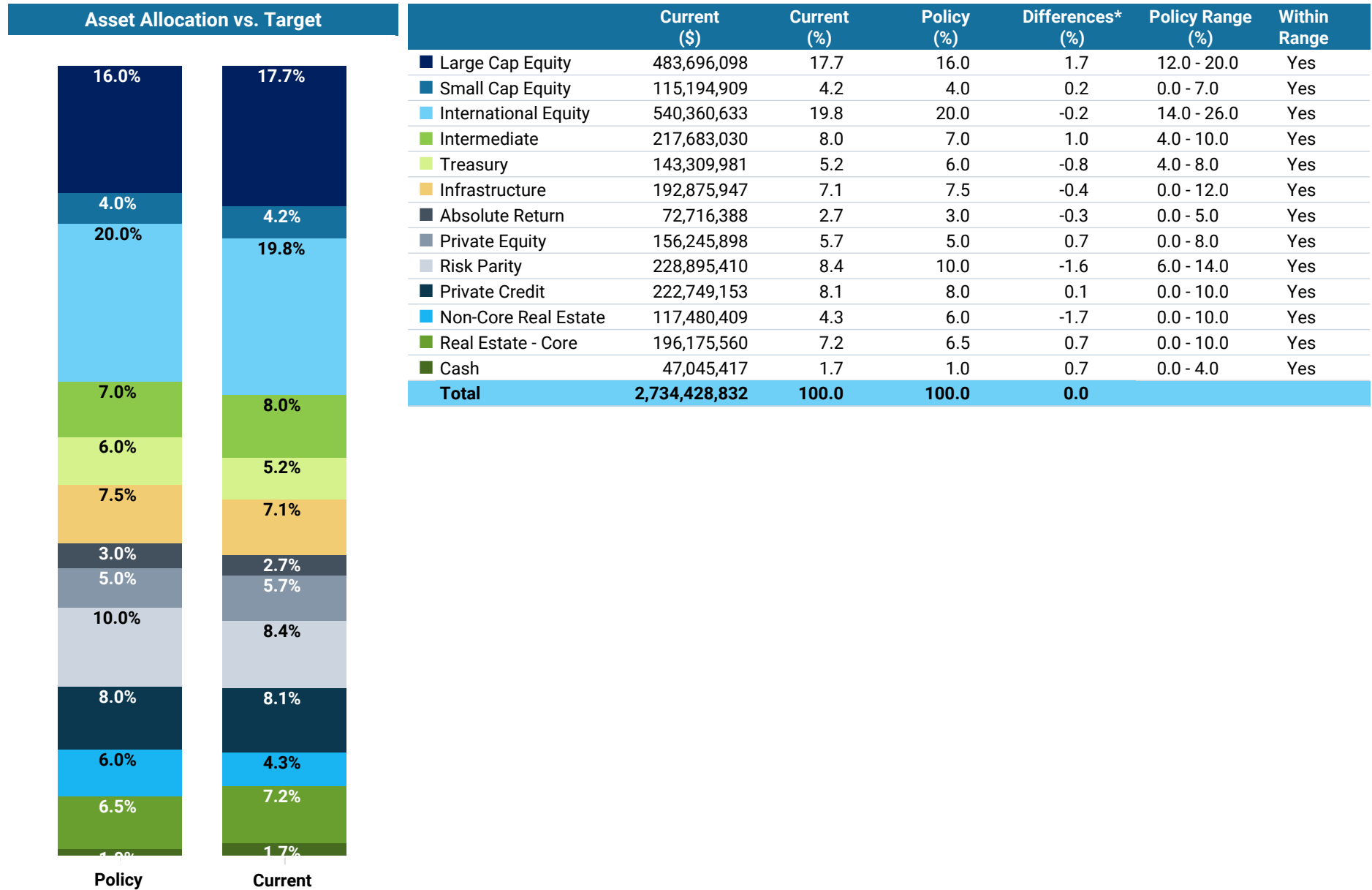
John Tolar, Consulting Analyst

CALENDAR YEAR INDEX PERFORMANCE

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Jan	YTD
S&P 500	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	28.7%	-18.1%	26.3%	1.7%	1.7%
Russell 1000	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	26.5%	-19.1%	26.5%	1.4%	1.4%
Russell 2000	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	14.8%	-20.4%	16.9%	-3.9%	-3.9%
Russell 2500	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	18.2%	-18.4%	17.4%	-2.6%	-2.6%
MSCI EAFE	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	11.3%	-14.5%	18.2%	0.6%	0.6%
MSCI EM	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	-2.5%	-20.1%	9.8%	-4.6%	-4.6%
MSCI ACWI	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	18.5%	-18.4%	22.2%	0.6%	0.6%
Private Equity	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	45.0%	-9.3%	3.1%*	-	-
BBG TIPS	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	6.0%	-11.8%	3.9%	0.2%	0.2%
BBG Municipal	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	1.5%	-8.5%	6.4%	-0.5%	-0.5%
BBG Muni High Yield	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	7.8%	-13.1%	9.2%	-0.5%	-0.5%
BBG US Corporate HY	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	5.3%	-11.2%	13.4%	0.0%	0.0%
BBG US Agg Bond	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	-1.5%	-13.0%	5.5%	-0.3%	-0.3%
BBG Global Agg	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	-4.7%	-16.2%	5.7%	-1.4%	-1.4%
BBG Long Treasuries	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	-4.6%	-29.3%	3.1%	-2.2%	-2.2%
BBG US Long Credit	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	-1.2%	-25.3%	10.7%	-0.9%	-0.9%
BBG US STRIPS 20+ Yr	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	24.0%	-5.2%	-39.6%	1.1%	-4.6%	-4.6%
JPM GBI-EM Global Div	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	2.7%	-8.7%	-11.7%	12.7%	-1.5%	-1.5%
JPM EMBI Glob Div	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	-1.8%	-17.8%	11.1%	-1.0%	-1.0%
CS Hedge Fund	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	6.4%	8.2%	1.1%	5.8%	-	-
BBG Commodity	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	27.1%	16.1%	-7.9%	0.4%	0.4%
Alerian Midstream	16.4%	-37.3%	33.8%	-2.4%	-13.3%	24.0%	-23.4%	38.4%	21.5%	14.0%	0.2%	0.2%
FTSE NAREIT Equity REITs	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	43.2%	-24.4%	13.7%	-4.2%	-4.2%

*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 (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	2,734,428,832	100.0	0.1	4.3	5.9	4.5	6.9	6.9	6.5	8.5	Jan-95
Policy Index			0.1	5.1	8.1	4.9	7.6	7.3	7.0	7.9	
Allocation Index			0.0	4.8	6.9	3.7					
Liquidity Sub-Portfolio	264,728,447	9.7	0.4	4.3	4.9	0.9	3.1	2.5		2.1	Aug-14
StanCERA Liquidity Blended BM			0.2	3.8	3.8	-0.9	2.1	1.9		1.6	
Cash	47,045,417	1.7	0.5	3.5	5.9	3.8	2.9	2.4		2.0	Aug-14
FTSE 1 Month T-Bill			0.5	3.2	5.2	2.3	1.9	1.8		1.3	
Cashflow-Matched Bonds	217,683,030	8.0	0.4	4.6	4.8	0.1	2.8			2.5	Jul-17
Blmbg. Intermed. U.S. Government/Credit			0.2	3.9	3.5	-1.5	1.5			1.4	
Insight	217,683,030	8.0	0.4	4.6	4.8	0.1	2.8			2.5	Jul-17
Blmbg. Intermed. U.S. Government/Credit			0.2	3.9	3.5	-1.5	1.5			1.4	
Growth Sub-Portfolio	2,024,778,605	74.0	0.0	4.9	7.3	6.8	8.8	8.6	8.1	8.0	Jan-04
StanCERA Growth Blended BM			0.1	5.3	8.9	7.0	9.8	9.5			
US Equities	598,891,007	21.9	0.5	10.1	17.6	10.6	13.5	12.1	11.2	10.0	Jan-04
Russell 3000 Index			1.1	9.6	19.1	9.1	13.5	12.7	12.0	9.7	
US Large Equity	483,696,098	17.7	1.2	10.5	20.4	10.5	14.3	13.4	12.3	12.6	Jan-95
Russell 1000 Index			1.4	10.0	20.2	9.8	14.0	13.1	12.3	10.6	
BlackRock Russell 1000 Growth	235,022,411	8.6	2.5	13.3	35.0	10.0	18.0	17.5	15.5	16.3	Aug-10
Russell 1000 Growth Index			2.5	13.3	35.0	10.0	18.0	17.5	15.5	16.2	
BlackRock Russell 1000 Value	121,954,251	4.5	0.1	6.1	6.1	9.2	9.3	8.3	8.9	11.2	Aug-09
Russell 1000 Value Index			0.1	6.1	6.1	9.2	9.3	8.2	8.8	11.1	
Dodge & Cox-Equity	126,719,435	4.6	0.0	9.9	10.6	13.0	11.7	10.5	10.6	11.8	Jan-95
Russell 1000 Value Index			0.1	6.1	6.1	9.2	9.3	8.2	8.8	9.7	
US Small Equity	115,194,909	4.2	-2.5	8.5	6.7	10.9	10.2	7.9	7.4	11.8	Jan-09
Russell 2000 Index			-3.9	4.0	2.4	-0.8	6.8	6.7	7.0	10.9	
Attucks Small Cap	115,194,909	4.2	-2.5	8.5	6.7	10.9	10.2	8.0	8.3	12.0	Jan-09
Russell 2000 Value Index			-4.5	6.8	-0.1	4.5	6.7	5.5	6.7	9.9	
International Equity	540,360,633	19.8	-0.5	6.8	9.2	4.2	7.0	6.6	5.1	6.3	Oct-04
MSCI AC World ex USA (Net)			-1.0	4.6	5.9	1.1	5.3	5.7	4.2	5.6	
LSV Int'l Large Cap Value	293,486,433	10.7	-0.2	9.5	12.8	7.8	7.0	6.6	5.2	6.2	Oct-04
MSCI AC World ex USA Value (Net)			-1.2	7.0	7.5	5.4	4.6	4.7	3.3	5.0	
Fidelity Int'l Growth	246,874,200	9.0	-0.8	3.8	5.1	0.5	6.7	6.4	4.7	4.1	May-06
MSCI AC World ex USA Growth (Net)			-0.8	2.2	4.3	-3.1	5.8	6.4	5.0	4.0	

- Cash Composite includes the Transaction Account Value.

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Core Real Estate	196,175,560	7.2	0.0	-0.1	-0.4	6.5	5.2	5.1	6.4	3.0	Apr-08
NCREIF Property Index			0.0	-4.3	-7.9	4.6	4.3	5.0	6.8	5.5	
Prime Property Fund	95,874,930	3.5	0.0	-2.4	-5.8	6.7	5.5	6.3		6.8	Oct-15
NCREIF ODCE			0.0	-6.6	-12.0	4.9	4.2	5.3		5.9	
PGIM Real Estate US Debt Fund	100,300,630	3.7	0.0	2.6	6.2	5.6	5.5			5.3	Sep-18
Blmbg. U.S. Investment Grade: CMBS Index			0.8	5.0	3.4	-2.2	1.5			1.8	
Value-Add Real Estate	117,480,409	4.3	0.0	-4.2	-10.1	5.6	7.4	8.4		8.9	Aug-14
NCREIF Property Index +2%			0.2	-3.2	-6.1	6.7	6.4	7.1		8.7	
American Strategic Value Realty	79,600,547	2.9	0.0	-6.0	-10.3	4.7	5.0	6.3		8.1	Jan-15
NCREIF Property Index			0.0	-4.3	-7.9	4.6	4.3	5.0		6.2	
Greenfield Acquisition Partners VII	1,053,770	0.0	0.0	2.5	10.5	2.4	6.6	8.4		9.0	Aug-14
NCREIF-ODCE +1%			0.1	-6.1	-11.1	6.0	5.3	6.4		8.1	
Grandview Property Partners I	16,039,799	0.6	0.0	-0.4	-12.1	9.9	14.7			16.2	Apr-18
NCREIF-ODCE +1%			0.1	-6.1	-11.1	6.0	5.3			5.7	
Grandview Property Partners II	15,786,293	0.6	0.0	0.1	-7.7					-1.1	Dec-21
NCREIF-ODCE +1%			0.1	-6.1	-11.1					2.0	
TA Realty Value Fund XIII	5,000,000	0.2	0.0							0.0	Dec-23
NCREIF-ODCE +1%			0.1							-4.7	
Infrastructure	190,701,706	7.0	0.0	-1.7	0.2	0.8	3.0	7.1		4.6	Jun-15
CPI + 5% 1 Qtr Lag (Unadjusted)			0.4	4.9	8.4	11.0	9.2	8.7		8.3	
MS Infrastructure Partners II	13,096,525	0.5	0.0	-1.6	-4.5	6.9	6.7	9.8		6.7	Jun-15
CPI + 5% 1 Qtr Lag (Unadjusted)			0.4	4.9	8.4	11.0	9.2	8.7		8.3	
Palistar Communications Infrastructure Fund II	15,060,862	0.6	0.0	1.4	4.7					7.8	Feb-22
CPI + 5% 1 Qtr Lag (Unadjusted)			0.4	4.9	8.4					10.7	
JP Morgan IIF Hedged LP	34,538,655	1.3	0.0	2.6	7.6					9.0	Apr-22
CPI + 5% 1 Qtr Lag (Unadjusted)			0.4	4.9	8.4					10.8	
Northern Trust Infrastructure Fund	72,712,922	2.7	0.0	-5.9	-5.9					-4.2	Jul-21
67% STOXX Global Broad Infra/33% Blmbg. US TIPS 1 Qtr Lag			0.0	-5.4	-5.2					-3.9	
IFM Global Infrastructure Fund	55,292,742	2.0	0.0	0.8	5.2					6.9	Aug-22
CPI + 5% 1 Qtr Lag (Unadjusted)			0.4	4.9	8.4					9.4	

- Greenfield and Grandview funds are stated as of 9/30/2023 and cash adjusted to date.

TOTAL FUND PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	156,245,898	5.7	0.3	3.9	5.2	7.3	12.3			12.6	Dec-18
Russell 3000 + 3%			1.4	11.5	22.7	12.4	16.9			16.1	
Private Equity	118,793,569	4.3	0.0	2.3	-0.1	13.1				13.6	Apr-20
Russell 3000 + 3%			1.4	11.5	22.7	12.4				23.0	
Private Equity Proxy	37,452,329	1.4	1.1	9.6	19.2	9.1	13.5	13.5	12.7	10.0	Dec-03
Russell 3000 Index			1.1	9.6	19.1	9.1	13.5	12.7	12.0	9.9	
Private Credit	224,923,394	8.2	0.0	3.5	4.0	4.4	0.2	1.3	2.3	2.4	Jun-13
S&P/LSTA Leveraged Loan Index +2%			0.8	8.4	13.3	7.7	7.5	6.9	6.5	6.5	
Private Credit	125,736,613	4.6	0.0	-0.5	-0.7	6.4	1.4	2.1	2.9	3.0	Jun-13
S&P/LSTA Leveraged Loan Index +2%			0.8	8.4	13.3	7.7	7.5	6.9	6.5	6.5	
Private Credit Proxy	99,186,780	3.6	0.1	8.7	10.1					1.6	Jul-21
ICE BofA US High Yield Master II Constrained			0.0	7.7	9.2					0.9	
Risk-Diversifying Sub-Portfolio	444,921,779	16.3	0.1	2.2	0.4	-1.7	0.9	1.4	2.0	3.8	Dec-03
StanCERA Risk-Diversifying Blended BM			0.0	4.6	6.4	0.4	2.4	2.2	2.0		
Risk Parity	228,895,410	8.4	-0.8	1.2	-1.6	-4.0	2.2			1.7	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			-0.2	5.9	9.1	1.4	5.9			4.7	
AQR Global Risk Premium - EL	124,861,534	4.6	-0.2	3.5	2.1	-0.9	3.5			3.2	Apr-18
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			-0.2	5.9	9.1	1.4	5.9			4.8	
PanAgora Risk Parity Multi Asset	104,033,876	3.8	-1.5	-1.3	-5.6	-7.2	0.8			0.5	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			-0.2	5.9	9.1	1.4	5.9			4.7	
US Treasury Bonds	143,309,981	5.2	-0.5	1.5	0.4	-4.4	0.1	0.9	1.6	3.6	Dec-03
Blmbg. U.S. Treasury: 7-10 Year			-0.2	1.8	0.2	-4.8	0.2	0.7	1.4	3.4	
Northern Trust Intermediate Gov't Bond	103,479,323	3.8	0.2	3.3	2.8	-1.7	0.9			0.9	Aug-17
Blmbg. U.S. Government: Intermediate			0.2	3.4	2.9	-1.7	1.0			1.0	
Northern Trust Long Term Gov't Bond	39,830,658	1.5	-2.2	-2.8	-5.4	-10.1	-1.3			-0.6	Aug-17
Blmbg. U.S. Government: Long Term Bond Index			-2.2	-2.8	-5.2	-10.9	-1.8			-1.0	
Liquid Absolute Return	72,716,388	2.7	4.5	4.7	4.7					10.3	Oct-21
30 Day T-Bill + 4%			0.8	5.6	9.5					7.1	
Graham Proprietary Matrix	72,716,388	2.7	4.5	8.1	6.9					14.9	Nov-21
HFRI Macro (Total) Index			0.5	1.0	-0.2					3.3	

CASH FLOW SUMMARY BY MANAGER

	1 Month Ending January 31, 2024				
	Beginning Market Value	Contributions	Withdrawals	Net Investment Change	Ending Market Value
Abry Senior Equity VI, L.P.	\$9,157,899	-	-	-	\$9,157,899
American Strategic Value Realty	\$79,600,547	-	-	-	\$79,600,547
AQR Global Risk Premium - EL	\$125,113,546	-	-	-\$252,012	\$124,861,534
Audax Private Equity VII	\$2,742,762	\$2,220,474	-	-	\$4,963,236
Blackrock High Yield Fund	\$82,453,464	-	-	\$65,121	\$82,518,585
BlackRock Russell 1000 Growth	\$229,305,642	-	-	\$5,716,769	\$235,022,411
BlackRock Russell 1000 Value	\$121,832,633	-	-	\$121,618	\$121,954,251
Blue Wolf Capital Fund V-A, L.P.	\$5,564,435	-	-	-	\$5,564,435
Callodine Loan Fund II LP	\$12,157,354	-	-	-	\$12,157,354
Cash Account	\$46,983,383	\$935,884	-\$1,421,510	\$230,422	\$46,728,178
Carlyle Renewable Energy Fund	-	\$2,174,241	-	-	\$2,174,241
Channing	\$31,702,602	-	-	-\$757,612	\$30,944,991
Clayton, Dublier, & Rice	\$17,092,369	-	-	-	\$17,092,369
Crestline Opportunity Fund IV	\$6,808,808	-	-	-	\$6,808,808
Dodge & Cox-Equity	\$126,646,407	-	-	\$73,028	\$126,719,435
Fidelity Int'l Growth	\$248,975,227	-	-	-\$2,101,027	\$246,874,200
Genstar Capital Partners X	\$14,375,724	\$243,008	-	-	\$14,618,732
Graham Proprietary Matrix	\$69,553,852	-	-	\$3,162,536	\$72,716,388
Grandview Property Partners I	\$15,220,489	\$819,310	-	-	\$16,039,799
Grandview Property Partners II	\$16,322,815	-	-\$536,522	-	\$15,786,293
Great Hill EP VIII	\$3,280,224	-	-	-	\$3,280,224
Greenfield Acquisition Partners VII	\$1,053,770	-	-	-	\$1,053,770
Gridiron Capital Fund V	\$4,360,412	-	-	-	\$4,360,412
Gryphon Partners VI LP	\$18,357,340	-	-	-	\$18,357,339
IFM Global Infrastructure Fund	\$55,292,742	-	-	-	\$55,292,742
Insight	\$220,809,787	-	-\$3,932,946	\$806,189	\$217,683,030
Insight Partners XI	\$21,206,565	-	-	-	\$21,206,565
JP Morgan IIF Hedged LP	\$34,538,655	-	-	-	\$34,538,655
LSV Int'l Large Cap Value	\$294,114,934	-	-	-\$628,502	\$293,486,433

CASH FLOW SUMMARY BY MANAGER

	Beginning Market Value	Contributions	Withdrawals	Net Investment Change	Ending Market Value
Medley Capital	\$364,100	-	-	-	\$364,100
Monroe Private Credit IV	\$16,668,195	-	-	-	\$16,668,195
MS Infrastructure Partners II	\$13,096,525	-	-	-	\$13,096,525
Northern Trust Infrastructure Fund	\$75,280,256	-	-\$2,567,334	-	\$72,712,922
Northern Trust Intermediate Gov't Bond	\$103,238,188	-	-	\$241,136	\$103,479,323
Northern Trust Long Term Gov't Bond	\$40,719,629	-	-	-\$888,971	\$39,830,658
Northern Trust Russell 3000	\$39,267,979	-	-\$2,220,474	\$404,823	\$37,452,329
Owl Rock First Lien Fund	\$9,279,965	-	-	-	\$9,279,965
Pacific Ridge	\$19,886,361	-	-	-\$932,117	\$18,954,244
Palistar Communications Infrastructure Fund II	\$15,060,862	-	-	-	\$15,060,862
PanAgora Risk Parity Multi Asset	\$105,610,936	-	-	-\$1,577,059	\$104,033,876
PGIM Real Estate US Debt Fund	\$100,300,630	-	-	-	\$100,300,630
Phocas'	\$28,024,957	-	-	-\$800,265	\$27,224,692
Prime Property Fund	\$95,874,930	-	-	-	\$95,874,930
Raven Opportunity III	\$51,649,570	-	-	-	\$51,649,570
Seizert	\$38,554,081	-	-	-\$483,099	\$38,070,982
Sole Source Capital Partners II	\$13,978,274	-	-	-	\$13,978,274
Strategic Values Special Situations Fund V, L.P.	\$6,299,038	-	-	-	\$6,299,038
TA Realty Value Fund XIII	\$5,000,000	-	-	-	\$5,000,000
Transition Account	\$316,055	-	-	\$1,184	\$317,239
Vista Foundation Fund IV	\$15,012,791	\$359,192	-	-	\$15,371,983
White Oak Pinnacle	\$27,845,639	-	-	-	\$27,845,639
Total	\$2,735,953,348	\$6,752,109	-\$10,678,786	\$2,402,162	\$2,734,428,832

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 - 06/30/2023:** 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.
- **07/01/2023 - 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% 1 Qtr Lag (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.

- As of 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.

- As of July 1, 2023, Infrastructure funds (MS Infrastructure Partners II, Northern Infrastructure Fund, Palistar Communications Infrastructure Fund II, JP Morgan IF Hedged LP, and IFM Global Infrastructure Fund) are valued one quarter lagged and adjusted for capital calls and distributions between quarter-end months. Northern Trust Infrastructure Fund's benchmark of 67% STOXX Global Broad Infra/33% Bloomberg US TIPS is valued one quarter lagged.

- 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





QUARTERLY PERFORMANCE REPORT

STANISLAUS COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

DECEMBER 31, 2023

Dan Hennessy, CFA, CAIA, Senior Consultant
Sam Austin, Partner
John Tolar, Consulting Analyst

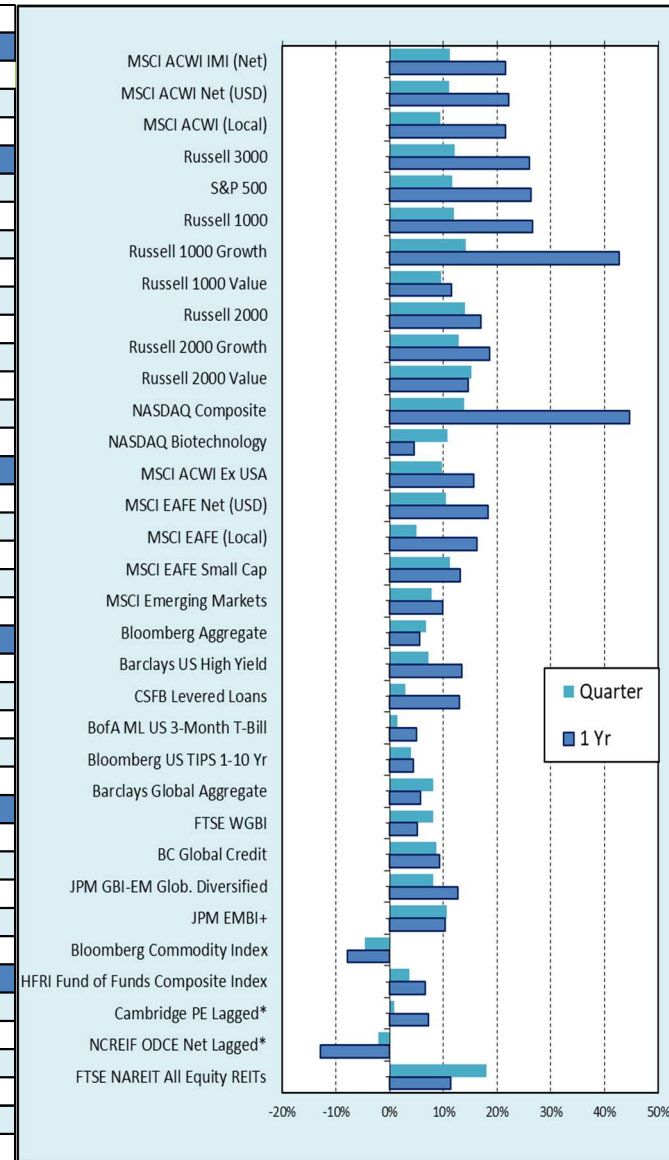


MARKET ENVIRONMENT

MARKET ENVIRONMENT

Q4 2023 OVERVIEW

		Qtr.	1 Yr.	3 Yr.	5 Yr.	10 Yr.
World Equity Benchmarks						
MSCI ACWI IMI (Net)	World with Small Cap	11.14%	21.58%	5.46%	11.49%	7.77%
MSCI ACWI Net (USD)	World W/O Small Cap	11.03%	22.20%	5.75%	11.72%	7.92%
MSCI ACWI (Local)	World (Local Currency)	9.38%	21.61%	7.30%	12.24%	9.04%
Domestic Equity Benchmarks						
Russell 3000	Domestic All Cap	12.07%	25.96%	8.54%	15.16%	11.48%
S&P 500	Large Core	11.69%	26.29%	10.00%	15.69%	12.03%
Russell 1000	Large Core	11.96%	26.53%	8.97%	15.52%	11.80%
Russell 1000 Growth	Large Growth	14.16%	42.68%	8.86%	19.50%	14.86%
Russell 1000 Value	Large Value	9.50%	11.46%	8.86%	10.91%	8.40%
Russell 2000	Small Core	14.03%	16.93%	2.22%	9.97%	7.16%
Russell 2000 Growth	Small Growth	12.75%	18.66%	-3.50%	9.22%	7.16%
Russell 2000 Value	Small Value	15.26%	14.65%	7.94%	10.00%	6.76%
NASDAQ Composite	Large Growth	13.79%	44.64%	6.04%	18.75%	14.80%
NASDAQ Biotechnology	Biotech	10.75%	4.59%	-2.03%	8.26%	6.89%
International Equity Benchmarks						
MSCI ACWI Ex USA	World ex-US	9.75%	15.62%	1.55%	7.08%	3.83%
MSCI EAFE Net (USD)	Int'l Developed	10.42%	18.24%	4.02%	8.16%	4.28%
MSCI EAFE (Local)	Int'l Developed (Local Currency)	4.96%	16.16%	8.64%	9.49%	6.61%
MSCI EAFE Small Cap	Small Cap Int'l	11.14%	13.16%	-0.69%	6.58%	4.80%
MSCI Emerging Markets	Emerging Equity	7.86%	9.83%	-5.08%	3.69%	2.66%
Domestic Fixed Income Benchmarks						
Bloomberg Aggregate	Core Bonds	6.82%	5.53%	-3.31%	1.10%	1.81%
Barclays US High Yield	High Yield	7.16%	13.44%	1.98%	5.37%	4.60%
CSFB Levered Loans	Bank Loans	2.85%	13.04%	5.64%	5.56%	4.44%
BofA ML US 3-Month T-Bill	Cash	1.37%	5.02%	2.15%	1.88%	1.25%
Bloomberg US TIPS 1-10 Yr	Inflation	3.89%	4.36%	0.73%	3.43%	2.31%
Global Fixed Income Benchmarks						
Barclays Global Aggregate	Global Core Bonds	8.10%	5.71%	-5.51%	-0.32%	0.38%
FTSE WGBI	World Gov. Bonds	8.08%	5.19%	-7.18%	-1.39%	-0.31%
BC Global Credit	Global Bonds	8.69%	9.24%	-4.24%	1.36%	1.51%
JPM GBI-EM Glob. Diversified	Em. Mkt. Bonds (Local Currency)	8.07%	12.70%	-3.16%	1.14%	0.09%
JPM EMBI+	Em. Mkt. Bonds	10.54%	10.30%	-7.43%	-0.89%	1.51%
Alternative Benchmarks						
Bloomberg Commodity Index	Commodities	-4.63%	-7.91%	10.76%	7.23%	-1.11%
HFRI Fund of Funds Composite Index	Fund of Hedge Funds	3.65%	6.59%	2.33%	5.19%	3.28%
Cambridge PE Lagged*	Private Equity	0.77%	7.22%	17.59%	14.63%	14.02%
NCREIF ODCE Net Lagged*	Real Estate	-2.10%	-12.88%	6.19%	4.72%	7.19%
FTSE NAREIT All Equity REITs	REIT	17.98%	11.36%	5.70%	7.59%	7.95%
CPI + 2%	Inflation/Real Assets	0.94%	5.36%	7.74%	6.17%	4.84%



* As of 9/30/2023

CAPITAL MARKETS OVERVIEW

The U.S. economy experienced a “no landing” in 2023 as inflation pressures declined, while consumption and growth defied expectations

The Federal Reserve raised interest rates more than expected this year; **the “long and variable” lag may be longer and more variable today**

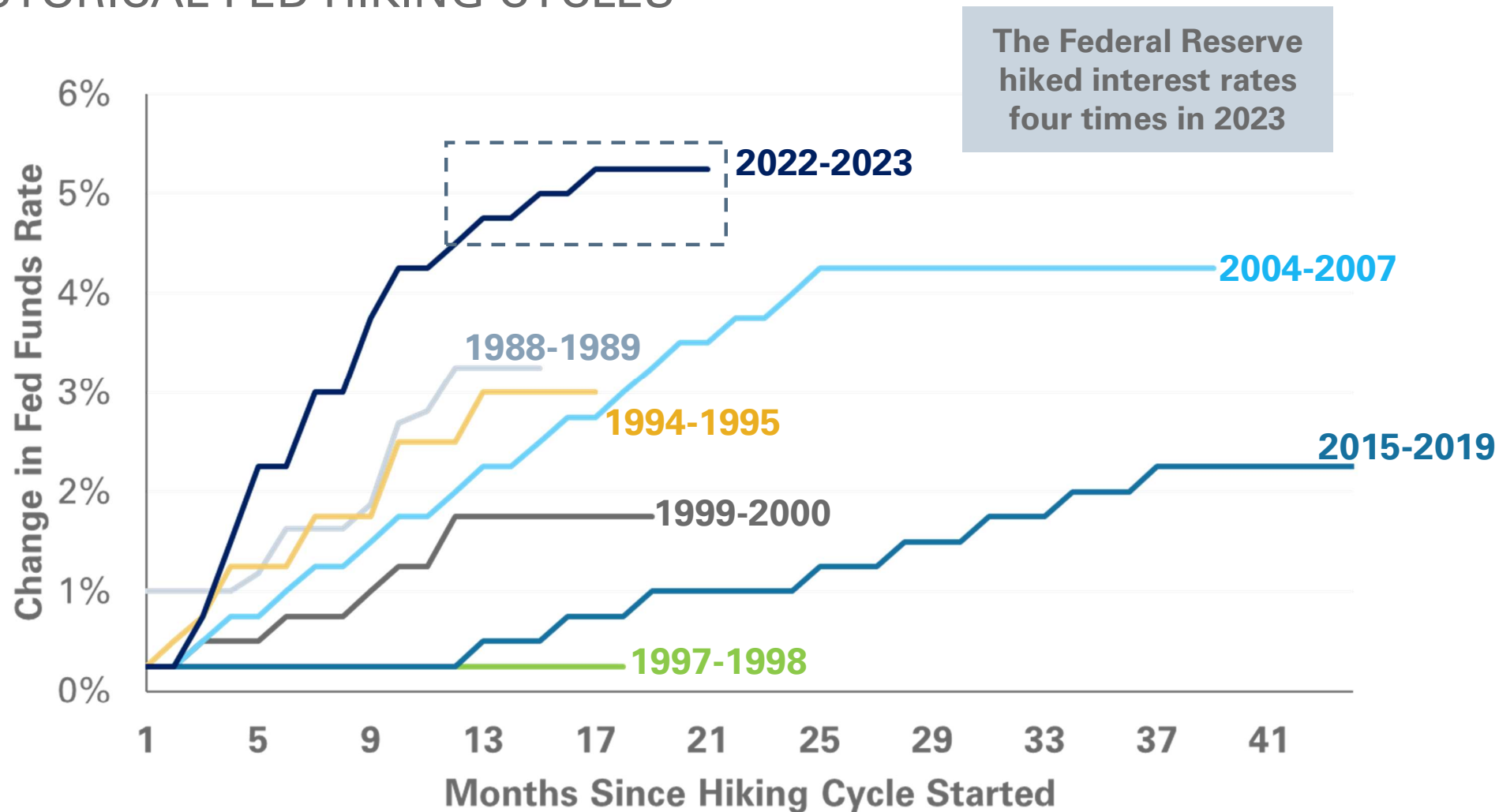
Markets remain anchored to a lower interest rate and inflation environment, pricing in an aggressive cutting path for the Fed in 2024

The Magnificent 7 drove U.S. equity market outperformance in 2023 – surpassing lofty market expectations for revenue and earnings growth

A backdrop of elevated global geopolitical tensions **heightens economic tail risks and introduces uncertainty** for capital markets in 2024

THE FED TIGHTENED MORE THAN EXPECTED IN 2023

HISTORICAL FED HIKING CYCLES

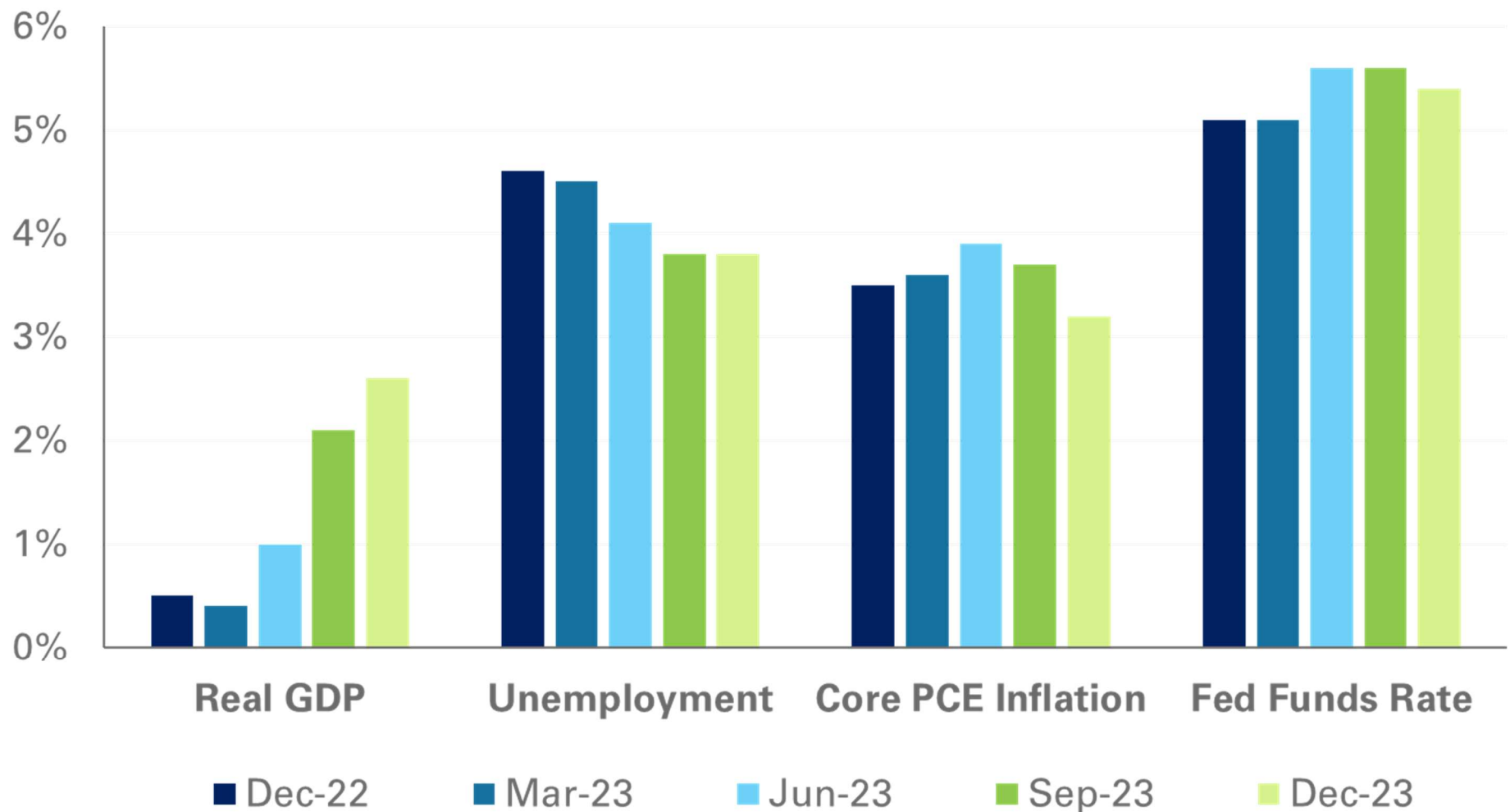


Notes: Reflects Fed rate hiking cycles since 1988

Sources: Federal Reserve, FactSet

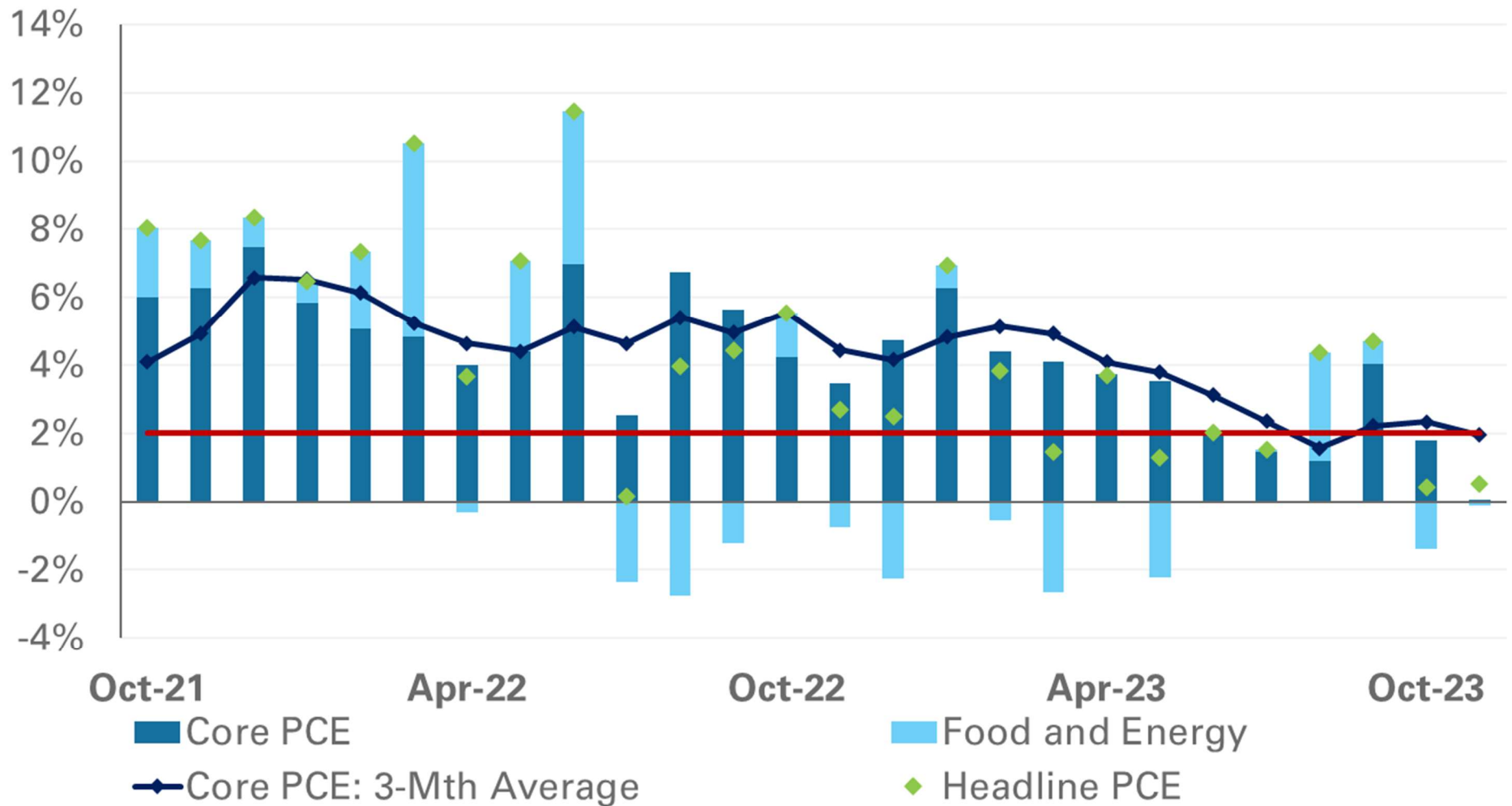
THE U.S. ECONOMY FAR OUTPACED EXPECTATIONS

2023 FED PROJECTIONS



CORE INFLATION TRENDED TO THE FED'S TARGET

ANNUALIZED MONTHLY U.S. PCE PRICE INDEX CHANGES



GOODS AND SERVICES CATEGORIES DIVERGE

ANNUAL CHANGE IN INFLATION SUB-COMPONENTS

 Goods
 Services



+19.1%

Motor Vehicle
Insurance



+10.3%

Transportation
Services



+7.1%

Delivery
Services



+6.5%

Shelter



+6.1%

Medical
Services



+5.3%

Food Away
from Home



+3.0%

Food



+1.3%

New Vehicles



-3.2%

Used Cars
and Trucks



-9.6%

Televisions



-9.7%

Car and
Truck Rental



-10.8%

Airline
Fares



-22.3%

Eggs



-24.8%

Fuel Oil

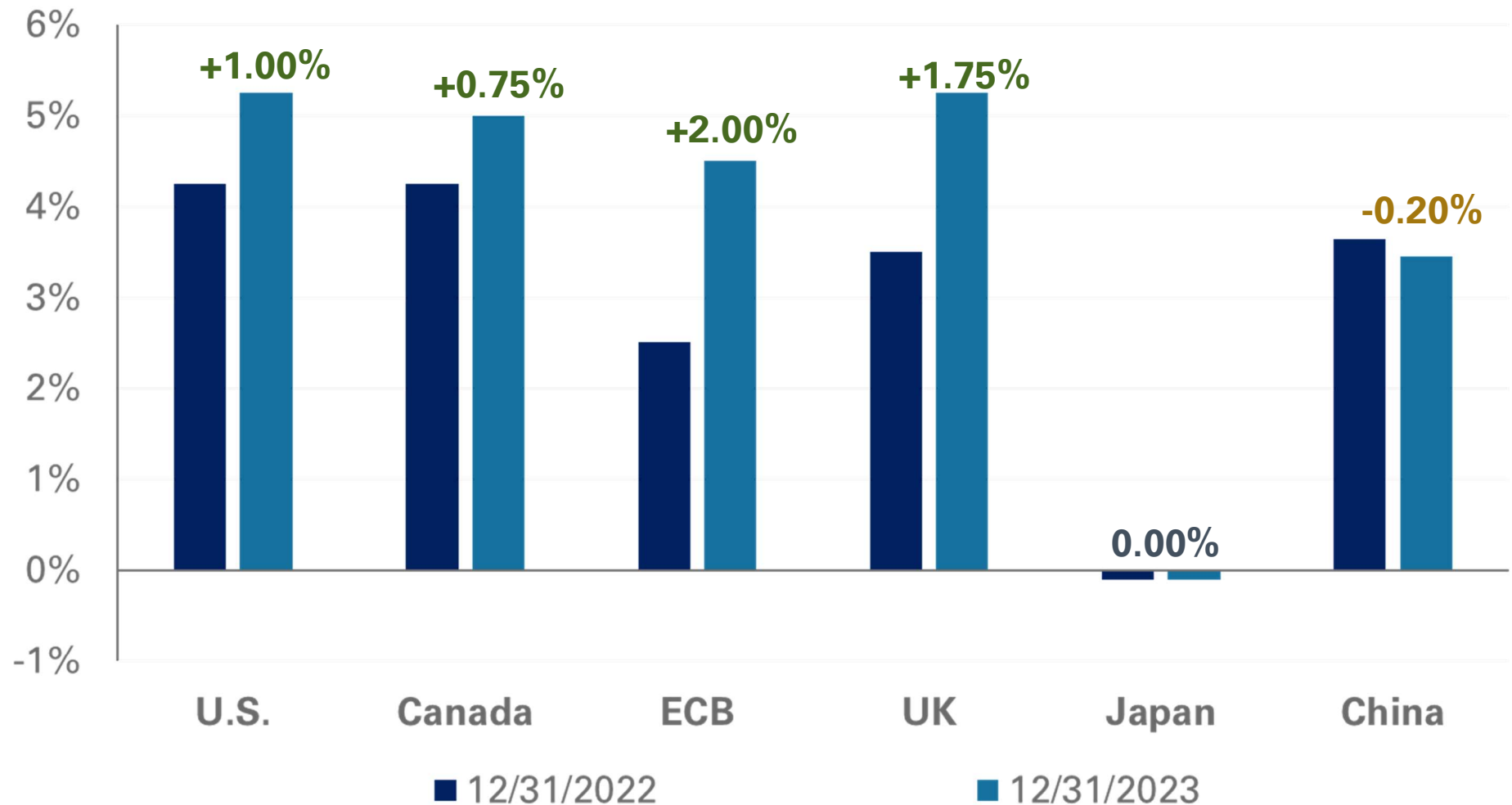


-30.3%

Health
insurance

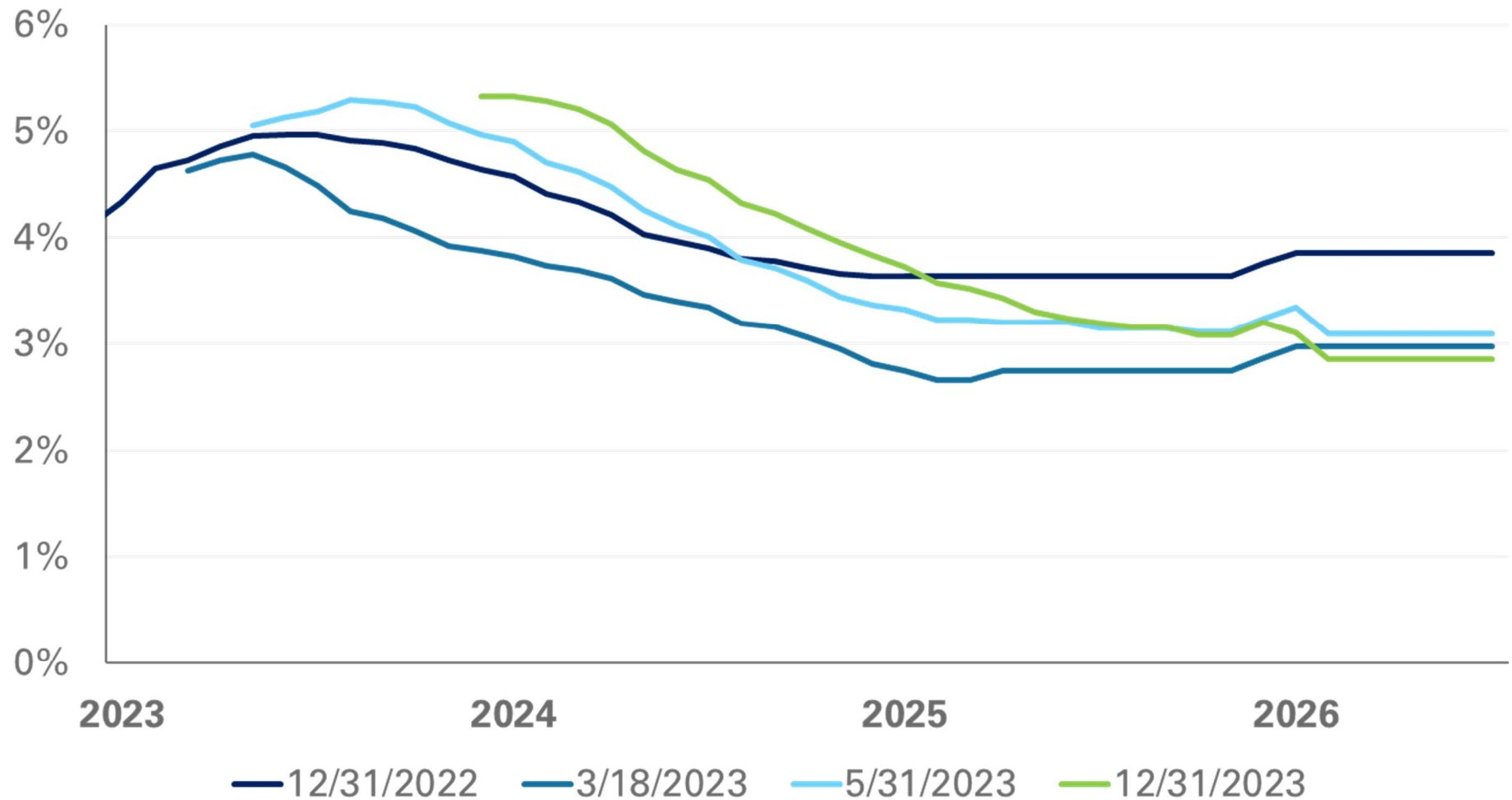
POLICY TIGHTENED AMID ELEVATED INFLATION

POLICY RATE CHANGES BY GLOBAL CENTRAL BANKS



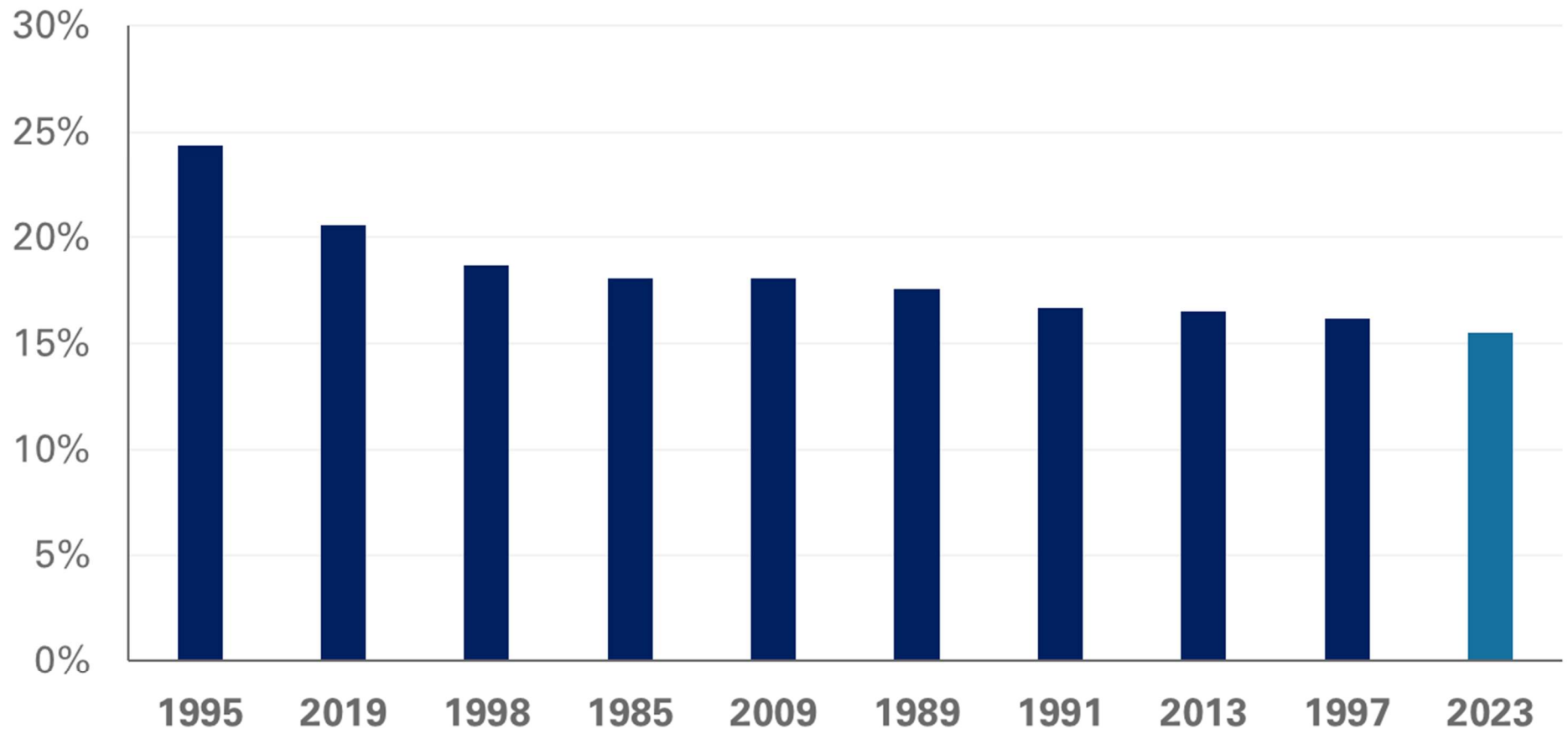
LONG-TERM RATE EXPECTATIONS FELL

FED FUNDS FUTURES



2023 WAS A STRONG YEAR FOR 60/40 ALLOCATIONS

60/40 ANNUAL PORTFOLIO RETURNS



Notes: Chart calculated using annual data 1976 to present. 60% reflects S&P 500 price return, 40% reflects Bloomberg U.S. Aggregate Bond Index returns
Sources: S&P, Bloomberg, FactSet



THE S&P 500 EXITED THE BEAR MARKET

CUMULATIVE TOTAL RETURN



Calculated from 1/4/21 to 12/31/2023

Source: S&P, FactSet



GROWTH WAS SUPPORTED BY THE MAG 7

RUSSELL 1000 EX MAGNIFICENT 7 STOCKS CUMULATIVE RETURN



Magnificent 7 represents Apple, Amazon, Alphabet, Meta, Microsoft, Nvidia, and Tesla
Source: Russell, FactSet

HIGHEST U.S. EQUITY WEIGHT SINCE 1972

U.S. EQUITIES AS A PERCENTAGE OF MSCI ACWI INDEX



YIELDS COMPLETED A FEW ROUND TRIPS

U.S. TREASURY 10-YEAR YIELD

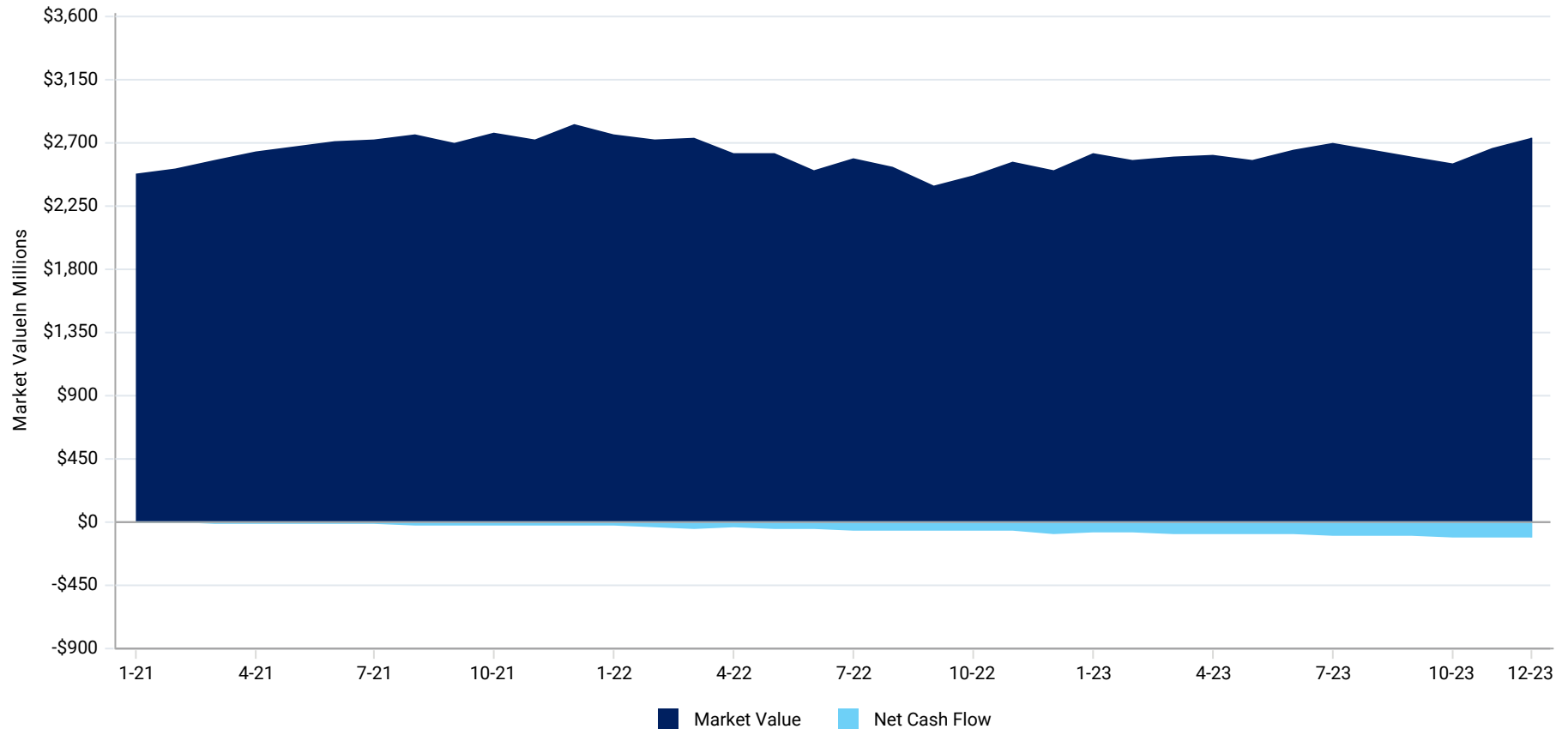




TOTAL FUND PERFORMANCE

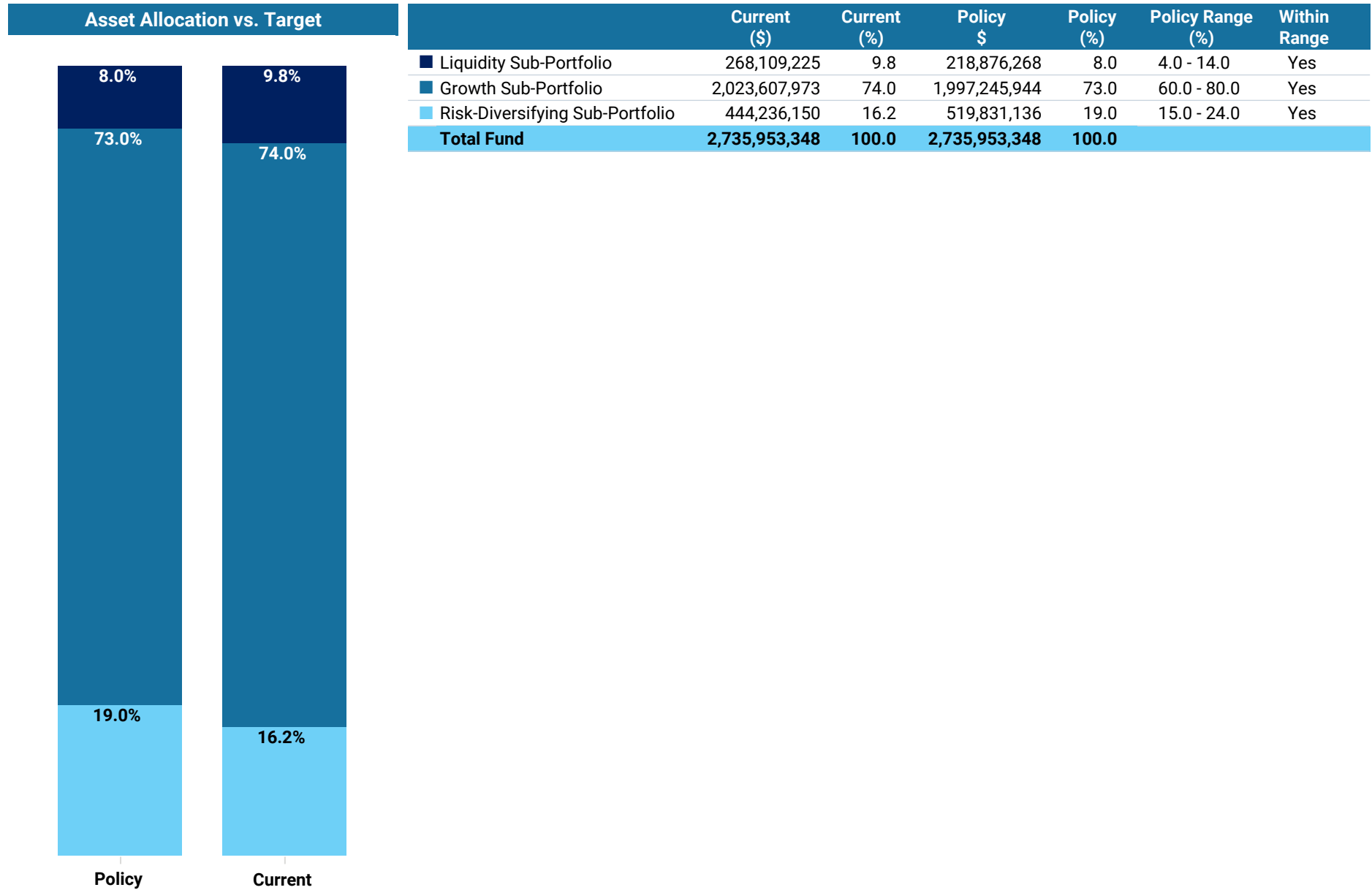
ASSET GROWTH SUMMARY

3 Years Ending December 31, 2023



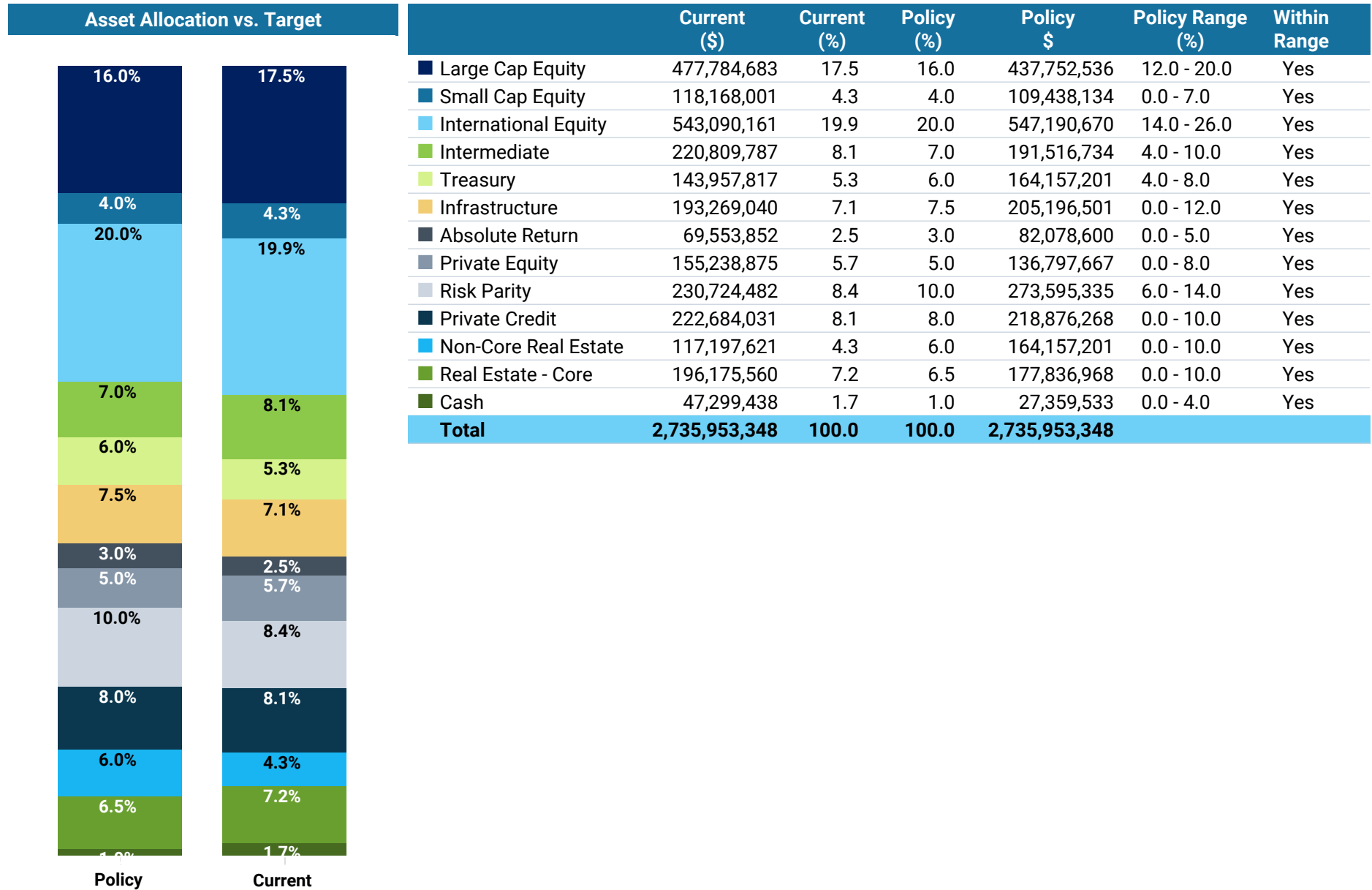
	Last Three Months	FYTD	1 Year
Beginning Market Value	2,602,636,600	2,645,802,859	2,506,524,410
Net Cash Flow	-8,134,854	-22,722,523	-26,280,328
Net Investment Change	141,451,602	112,873,012	255,709,266
Ending Market Value	2,735,953,348	2,735,953,348	2,735,953,348
Net Change	133,316,748	90,150,489	229,428,938

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 (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	2,735,953,348	100.0	5.4	4.2	10.2	4.4	7.9	7.1	6.3	8.6	Jan-95
Policy Index			<u>7.0</u>	<u>5.1</u>	<u>13.1</u>	<u>4.9</u>	<u>8.5</u>	<u>7.5</u>	<u>6.8</u>	<u>7.9</u>	
Allocation Index			<u>6.8</u>	<u>4.8</u>	<u>11.9</u>	<u>3.7</u>					
InvMetrics Public DB > \$1 Billion Rank			82	69	83	55	62	61	53	10	
Liquidity Sub-Portfolio	268,109,225	9.8	3.5	3.9	6.0	0.7	3.2	2.5		2.1	Aug-14
StanCERA Liquidity Blended BM			<u>4.2</u>	<u>3.6</u>	<u>5.2</u>	<u>-1.0</u>	<u>2.2</u>	<u>1.9</u>		<u>1.6</u>	
Cash	47,299,438	1.7	1.5	3.0	5.9	3.7	2.8	2.4		2.0	Aug-14
FTSE 1 Month T-Bill			<u>1.4</u>	<u>2.8</u>	<u>5.1</u>	<u>2.2</u>	<u>1.8</u>	<u>1.7</u>		<u>1.3</u>	
Cashflow-Matched Bonds	220,809,787	8.1	4.0	4.2	6.0	0.0	3.0			2.5	Jul-17
Blmbg. Intermed. U.S. Government/Credit			<u>4.6</u>	<u>3.7</u>	<u>5.2</u>	<u>-1.6</u>	<u>1.6</u>			<u>1.4</u>	
eV US Government Fixed Inc Rank			85	1	4	4	1			1	
Insight	220,809,787	8.1	4.0	4.2	6.0	0.0	3.0			2.5	Jul-17
Blmbg. Intermed. U.S. Government/Credit			<u>4.6</u>	<u>3.7</u>	<u>5.2</u>	<u>-1.6</u>	<u>1.6</u>			<u>1.4</u>	
eV US Government Fixed Inc Rank			85	1	4	4	1			1	
Growth Sub-Portfolio	2,023,607,973	74.0	5.9	4.8	12.3	6.7	10.2	8.9	7.7	8.1	Jan-04
StanCERA Growth Blended BM			<u>7.0</u>	<u>5.2</u>	<u>14.4</u>	<u>7.0</u>	<u>11.1</u>	<u>9.8</u>			

PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
US Equities	595,952,684	21.8	12.1	9.6	25.9	10.3	15.4	12.4	10.8	10.0	Jan-04
Russell 3000 Index			<u>12.1</u>	<u>8.4</u>	<u>26.0</u>	<u>8.5</u>	<u>15.2</u>	<u>12.8</u>	<u>11.5</u>	<u>9.7</u>	
US Large Equity	477,784,683	17.5	11.8	9.2	27.2	9.8	15.9	13.5	11.8	12.6	Jan-95
Russell 1000 Index			<u>12.0</u>	<u>8.4</u>	<u>26.5</u>	<u>9.0</u>	<u>15.5</u>	<u>13.2</u>	<u>11.8</u>	<u>10.5</u>	
eV US Large Cap Equity Rank			42	34	31	38	26	31	29	7	
BlackRock Russell 1000 Growth	229,305,642	8.4	14.2	10.6	42.6	8.8	19.5	17.7	14.9	16.2	Aug-10
Russell 1000 Growth Index			<u>14.2</u>	<u>10.6</u>	<u>42.7</u>	<u>8.9</u>	<u>19.5</u>	<u>17.7</u>	<u>14.9</u>	<u>16.1</u>	
eV US Large Cap Growth Equity Rank			37	31	29	21	9	13	6	6	
BlackRock Russell 1000 Value	121,832,633	4.5	9.5	6.0	11.5	8.8	10.9	8.4	8.5	11.3	Aug-09
Russell 1000 Value Index			<u>9.5</u>	<u>6.0</u>	<u>11.5</u>	<u>8.9</u>	<u>10.9</u>	<u>8.3</u>	<u>8.4</u>	<u>11.2</u>	
eV US Large Cap Value Equity Rank			58	71	56	71	69	76	63	55	
Dodge & Cox-Equity	126,646,407	4.6	9.9	9.9	17.7	12.9	13.5	10.9	10.2	11.9	Jan-95
Russell 1000 Value Index			<u>9.5</u>	<u>6.0</u>	<u>11.5</u>	<u>8.9</u>	<u>10.9</u>	<u>8.3</u>	<u>8.4</u>	<u>9.7</u>	
eV US Large Cap Value Equity Rank			49	15	22	12	27	23	19	5	
US Small Equity	118,168,002	4.3	13.1	11.4	20.4	12.5	13.2	8.6	7.4	12.1	Jan-09
Russell 2000 Index			<u>14.0</u>	<u>8.2</u>	<u>16.9</u>	<u>2.2</u>	<u>10.0</u>	<u>7.3</u>	<u>7.2</u>	<u>11.3</u>	
eV US Small Cap Value Equity Rank			42	32	21	24	26	27	47	42	
Attucks Small Cap	118,168,002	4.3	13.1	11.4	20.4	12.5	13.2	8.6	8.2	12.3	Jan-09
Russell 2000 Value Index			<u>15.3</u>	<u>11.8</u>	<u>14.6</u>	<u>7.9</u>	<u>10.0</u>	<u>6.1</u>	<u>6.8</u>	<u>10.3</u>	
eV US Small Cap Value Equity Rank			42	32	21	24	26	27	29	36	
International Equity	543,090,161	19.9	9.2	7.4	18.2	4.3	8.6	7.1	4.6	6.4	Oct-04
MSCI AC World ex USA (Net)			<u>9.8</u>	<u>5.6</u>	<u>15.6</u>	<u>1.5</u>	<u>7.1</u>	<u>6.3</u>	<u>3.8</u>	<u>5.7</u>	
eV ACWI ex-US Large Cap Equity Rank			70	18	39	22	48	53	43	50	
LSV Int'l Large Cap Value	294,114,934	10.7	8.8	9.7	21.0	7.8	8.8	7.1	4.7	6.3	Oct-04
MSCI AC World ex USA Value (Net)			<u>8.4</u>	<u>8.3</u>	<u>17.3</u>	<u>5.8</u>	<u>6.3</u>	<u>5.3</u>	<u>2.9</u>	<u>5.1</u>	
eV ACWI ex-US Large Cap Equity Rank			80	4	13	4	41	53	42	54	
Fidelity Int'l Growth	248,975,227	9.1	9.6	4.7	15.0	0.8	8.2	7.0	4.2	4.2	May-06
MSCI AC World ex USA Growth (Net)			<u>11.1</u>	<u>3.0</u>	<u>14.0</u>	<u>-2.7</u>	<u>7.5</u>	<u>7.1</u>	<u>4.5</u>	<u>4.1</u>	
eV ACWI ex-US Large Cap Equity Rank			64	51	70	59	55	58	61	45	

PERFORMANCE DETAIL

	Allocation		Performance (%)								Inception Date
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	
Core Real Estate	196,175,560	7.2	-0.5	-0.1	-0.1	6.5	5.7	5.0	6.9	3.0	Apr-08
NCREIF Property Index			<u>-3.0</u>	<u>-4.3</u>	<u>-7.9</u>	<u>4.6</u>	<u>4.3</u>	<u>5.0</u>	<u>6.8</u>	<u>5.6</u>	
Prime Property Fund	95,874,930	3.5	<u>-2.2</u>	<u>-2.4</u>	<u>-5.8</u>	6.7	5.5	6.3		6.8	Oct-15
NCREIF ODCE			<u>-4.8</u>	<u>-6.6</u>	<u>-12.0</u>	<u>4.9</u>	<u>4.2</u>	<u>5.3</u>		<u>6.0</u>	
PGIM Real Estate US Debt Fund	100,300,630	3.7	1.3	2.6	6.2	5.6	5.5			5.4	Sep-18
Blmbg. U.S. Investment Grade: CMBS Index			<u>5.2</u>	<u>4.2</u>	<u>5.3</u>	<u>-2.4</u>	<u>1.6</u>			<u>1.7</u>	
Value-Add Real Estate	117,197,621	4.3	-2.9	-4.2	-10.1	5.6	7.6	8.8		9.0	Aug-14
NCREIF Property Index +2%			<u>-2.5</u>	<u>-3.4</u>	<u>-6.1</u>	<u>6.7</u>	<u>6.4</u>	<u>7.1</u>		<u>8.7</u>	
American Strategic Value Realty	79,600,547	2.9	<u>-4.2</u>	<u>-6.0</u>	<u>-10.3</u>	4.7	5.0	6.3		8.2	Jan-15
NCREIF Property Index			<u>-3.0</u>	<u>-4.3</u>	<u>-7.9</u>	<u>4.6</u>	<u>4.3</u>	<u>5.0</u>		<u>6.3</u>	
Greenfield Acquisition Partners VII	1,053,770	0.0	0.0	2.5	10.5	2.4	7.4	9.2		9.1	Aug-14
NCREIF-ODCE +1%			<u>-4.6</u>	<u>-6.2</u>	<u>-11.1</u>	<u>6.0</u>	<u>5.3</u>	<u>6.4</u>		<u>8.2</u>	
Grandview Property Partners I	15,220,489	0.6	0.0	-0.4	-12.1	9.9	15.1			16.5	Apr-18
NCREIF-ODCE +1%			<u>-4.6</u>	<u>-6.2</u>	<u>-11.1</u>	<u>6.0</u>	<u>5.3</u>			<u>5.8</u>	
Grandview Property Partners II	16,322,815	0.6	0.0	0.1	-7.7					-1.1	Dec-21
NCREIF-ODCE +1%			<u>-4.6</u>	<u>-6.2</u>	<u>-11.1</u>					<u>2.0</u>	

*Greenfield and Grandview funds are stated as of 9/30/2023 and cash adjusted to date.

PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Infrastructure	193,269,040	7.1	-1.7	-1.7	2.2	0.8	3.7	6.6		4.6	Jun-15
<i>CPI + 5% 1 Qtr Lag (Unadjusted)</i>			<u>2.1</u>	<u>4.5</u>	<u>8.9</u>	<u>11.0</u>	<u>9.2</u>	<u>8.7</u>		<u>8.4</u>	
eV Infrastructure Rank			100	92	88	91	98	62		73	
MS Infrastructure Partners II	13,096,525	0.5	-1.6	-1.6	-4.5	6.9	7.4	9.4		6.8	Jun-15
<i>CPI + 5% 1 Qtr Lag (Unadjusted)</i>			<u>2.1</u>	<u>4.5</u>	<u>8.9</u>	<u>11.0</u>	<u>9.2</u>	<u>8.7</u>		<u>8.4</u>	
eV Infrastructure Rank			100	91	99	22	68	4		15	
Northern Trust Infrastructure Fund	75,280,256	2.8	-5.9	-5.9	-2.0					-4.4	Jul-21
<i>67% STOXX Global Broad Infra/33% Blmbg. US TIPS 1 Qtr Lag</i>			<u>-5.4</u>	<u>-5.4</u>	<u>-1.6</u>					<u>-4.0</u>	
Palistar Communications Infrastructure Fund II	15,060,862	0.6	1.4	1.4	4.7					8.2	Feb-22
<i>CPI + 5% 1 Qtr Lag (Unadjusted)</i>			<u>2.1</u>	<u>4.5</u>	<u>8.9</u>					<u>11.0</u>	
JP Morgan IIF Hedged LP	34,538,655	1.3	2.6	2.6	7.6					9.4	Apr-22
<i>CPI + 5% 1 Qtr Lag (Unadjusted)</i>			<u>2.1</u>	<u>4.5</u>	<u>8.9</u>					<u>11.1</u>	
IFM Global Infrastructure Fund	55,292,742	2.0	0.8	0.8	6.0					7.4	Aug-22
<i>CPI + 5% 1 Qtr Lag (Unadjusted)</i>			<u>2.1</u>	<u>4.5</u>	<u>8.9</u>					<u>9.7</u>	

PERFORMANCE DETAIL

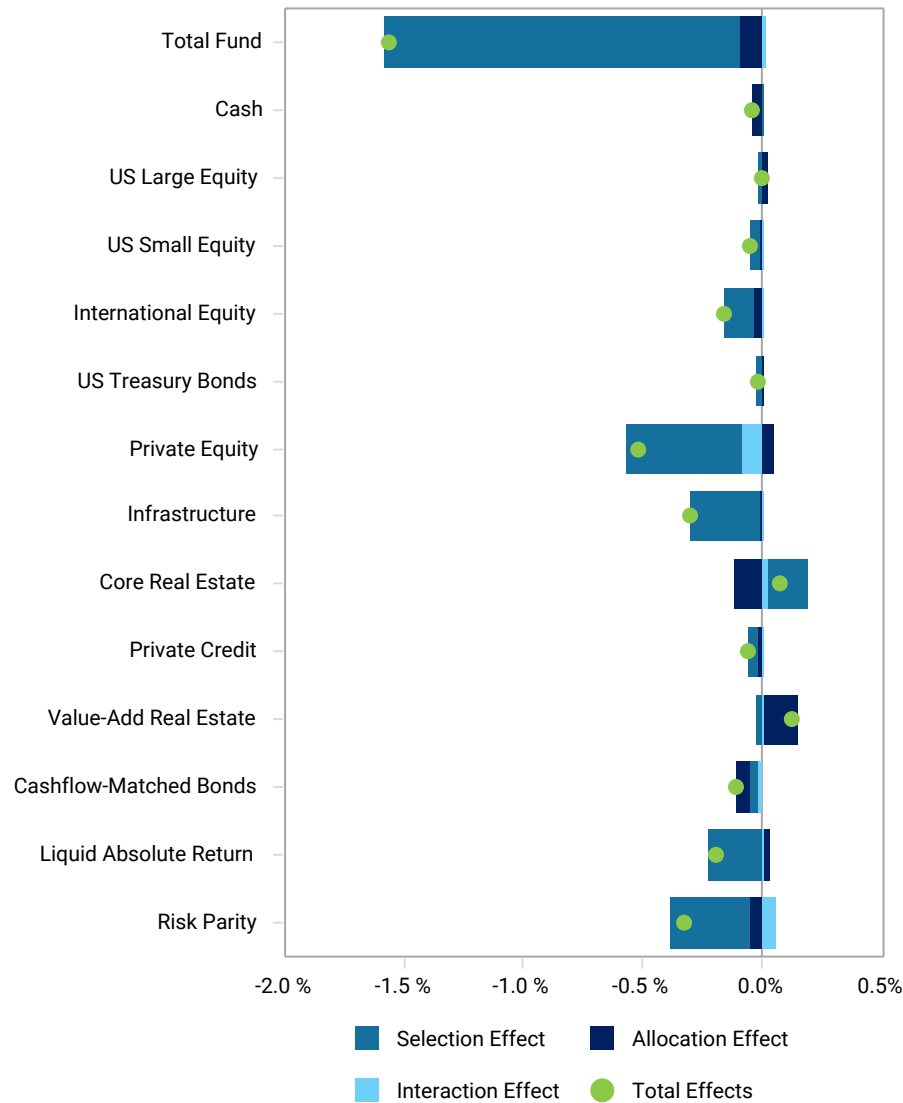
	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Equity	155,238,875	5.7	3.0	3.6	7.8	7.0	14.1			12.7	Dec-18
Russell 3000 + 3%			12.9	10.0	29.7	11.8	18.6			16.1	
Private Equity	115,970,895	4.2	0.1	2.3	-0.1	13.1				13.9	Apr-20
Russell 3000 + 3%			12.9	10.0	29.7	11.8				23.2	
Private Equity Proxy	39,267,979	1.4	12.1	8.4	26.0	8.6	15.2	13.6	12.2	10.0	Dec-03
Russell 3000 Index			12.1	8.4	26.0	8.5	15.2	12.8	11.5	9.9	
eV US Large Cap Equity Rank			38	46	34	54	36	30	23	38	
Private Credit	222,684,031	8.1	2.9	3.5	5.8	4.4	0.6	1.0	2.3	2.4	Jun-13
S&P/LSTA Leveraged Loan Index +2%			3.4	7.5	15.6	7.9	7.9	6.9	6.5	6.5	
Private Credit	123,562,372	4.5	0.1	-0.5	-0.7	6.4	1.8	1.8	2.9	3.0	Jun-13
S&P/LSTA Leveraged Loan Index +2%			3.4	7.5	15.6	7.9	7.9	6.9	6.5	6.5	
Private Credit Proxy	99,121,659	3.6	6.5	8.6	13.6					2.1	Jun-21
ICE BofA US High Yield Master II Constrained			7.1	7.6	13.5					1.4	
Risk-Diversifying Sub-Portfolio	444,236,150	16.2	4.5	2.1	4.0	-1.8	1.0	1.4	2.1	3.8	Dec-03
StanCERA Risk-Diversifying Blended BM			7.7	4.6	10.7	0.1	2.5	2.2	2.0		
Risk Parity	230,724,482	8.4	6.5	2.1	4.4	-3.8	3.5			1.9	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			9.9	6.1	15.4	1.2	7.0			4.8	
AQR Global Risk Premium - EL	125,113,546	4.6	6.5	3.7	6.4	-0.8	4.7			3.3	Apr-18
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			9.9	6.1	15.4	1.2	7.0			4.9	
PanAgora Risk Parity Multi Asset	105,610,936	3.9	6.5	0.2	2.0	-6.8	2.3			0.8	Dec-17
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg			9.9	6.1	15.4	1.2	7.0			4.8	

PERFORMANCE DETAIL

	Allocation		Performance (%)								
	Market Value (\$)	% of Portfolio	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
US Treasury Bonds	143,957,817	5.3	6.3	2.0	3.8	-4.7	0.3	1.0	1.8	3.7	Dec-03
Blmbg. U.S. Treasury: 7-10 Year			<u>6.6</u>	<u>1.9</u>	<u>3.6</u>	<u>-5.1</u>	<u>0.4</u>	<u>0.8</u>	<u>1.7</u>	<u>3.5</u>	
eV US Government Fixed Inc Rank			29	90	72	95	82	35	12	1	
Northern Trust Intermediate Gov't Bond	103,238,188	3.8	3.9	3.1	4.2	-1.9	1.0			0.9	Aug-17
Blmbg. U.S. Government: Intermediate			<u>4.0</u>	<u>3.2</u>	<u>4.3</u>	<u>-1.8</u>	<u>1.0</u>			<u>1.0</u>	
eV US Government Fixed Inc Rank			85	11	63	10	20			24	
Northern Trust Long Term Gov't Bond	40,719,629	1.5	12.7	-0.6	2.9	-10.6	-0.7			-0.3	Aug-17
Blmbg. U.S. Government: Long Term Bond Index			<u>12.7</u>	<u>-0.6</u>	<u>3.1</u>	<u>-11.3</u>	<u>-1.2</u>			<u>-0.7</u>	
eV US Long Duration Fixed Inc Rank			83	96	97	94	93			94	
Liquid Absolute Return	69,553,852	2.5	-5.0	0.2	1.2					8.5	Oct-21
30 Day T-Bill + 4%			<u>2.4</u>	<u>4.8</u>	<u>9.3</u>					<u>7.0</u>	
Graham Proprietary Matrix	69,553,852	2.5	-4.5	3.4	3.0					13.1	Nov-21
HFRI Macro (Total) Index			<u>-0.8</u>	<u>0.5</u>	<u>-0.3</u>					<u>3.2</u>	

ATTRIBUTION ANALYSIS

Attribution Effects 1 Quarter Ending December 31, 2023



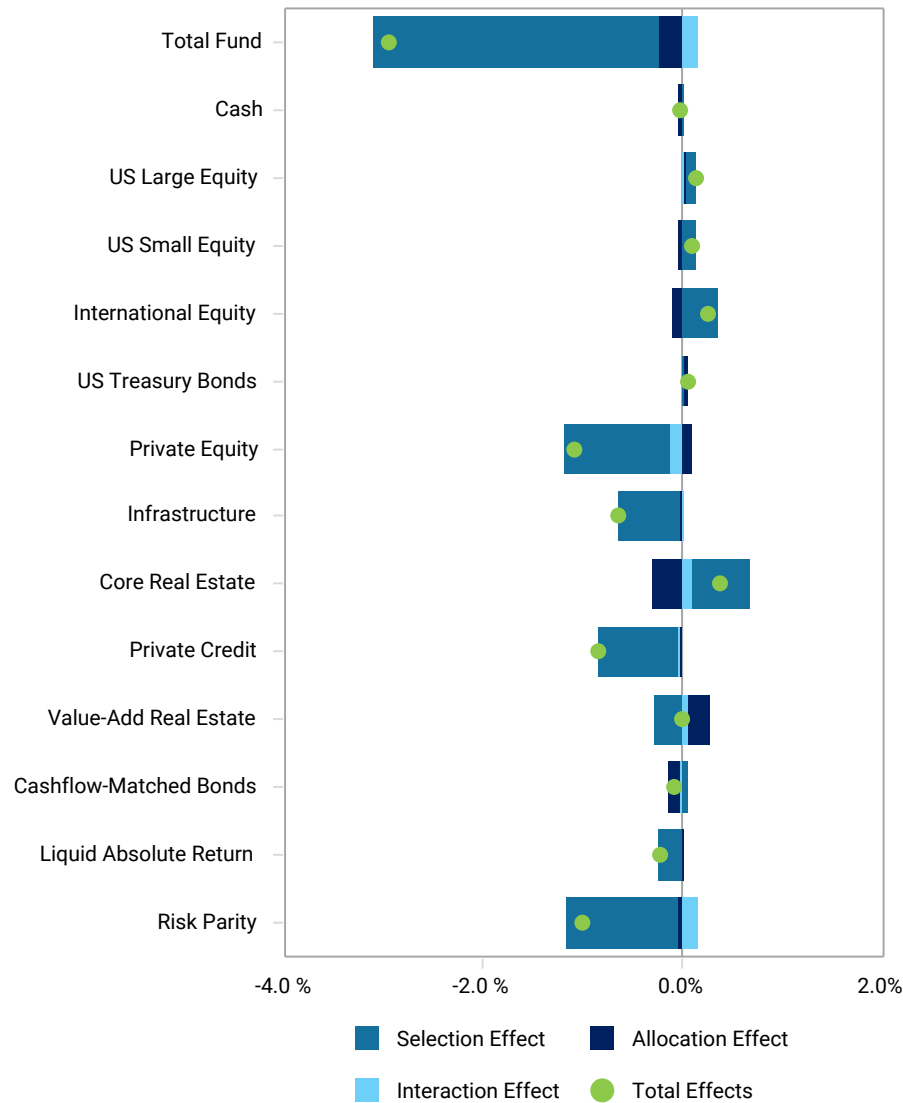
Attribution Summary 1 Quarter Ending December 31, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	1.5	1.4	0.1	0.0	0.0	0.0	0.0
US Large Equity	11.8	12.0	-0.1	0.0	0.0	0.0	0.0
US Small Equity	13.1	14.0	-1.0	0.0	0.0	0.0	0.0
International Equity	9.2	9.8	-0.7	-0.1	0.0	0.0	-0.2
US Treasury Bonds	6.3	6.6	-0.4	0.0	0.0	0.0	0.0
Private Equity	3.0	12.9	-9.9	-0.5	0.0	-0.1	-0.5
Infrastructure	-1.7	2.1	-3.9	-0.3	0.0	0.0	-0.3
Core Real Estate	-0.5	-3.0	2.5	0.2	-0.1	0.0	0.1
Private Credit	2.9	3.4	-0.5	0.0	0.0	0.0	-0.1
Value-Add Real Estate	-2.9	-2.5	-0.4	0.0	0.1	0.0	0.1
Cashflow-Matched Bonds	4.0	4.6	-0.6	0.0	-0.1	0.0	-0.1
Liquid Absolute Return	-5.0	2.4	-7.3	-0.2	0.0	0.0	-0.2
Risk Parity	6.5	9.9	-3.4	-0.3	0.0	0.1	-0.3
Total Fund	5.4	7.0	-1.6	-1.5	-0.1	0.0	-1.6

*Total Actual and Index returns are weighted average calculations.

ATTRIBUTION ANALYSIS

Attribution Effects 1 Year Ending December 31, 2023



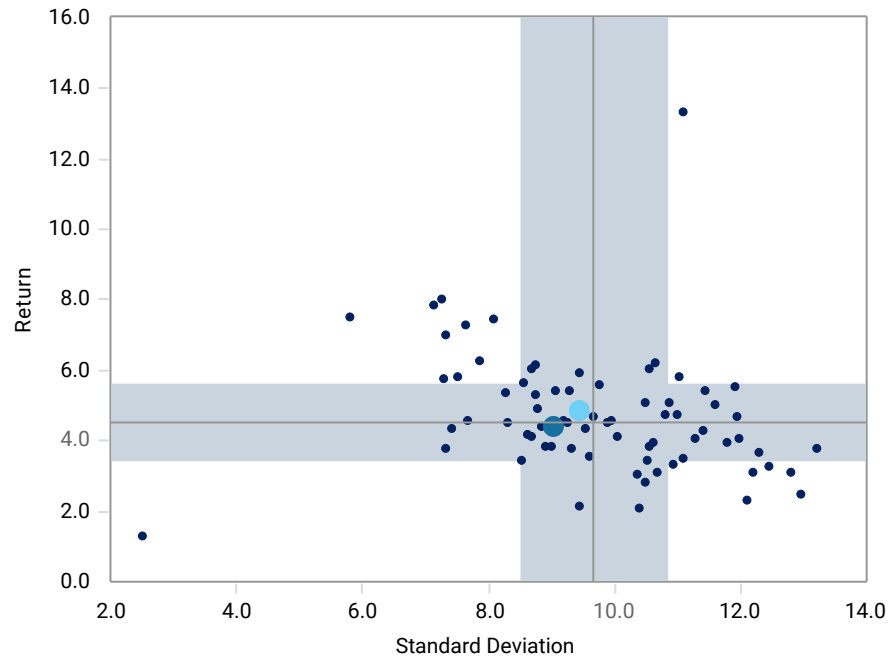
Attribution Summary 1 Year Ending December 31, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Interaction Effects (%)	Total Effects (%)
Cash	5.9	5.1	0.8	0.0	0.0	0.0	0.0
US Large Equity	27.2	26.5	0.7	0.1	0.0	0.0	0.1
US Small Equity	20.4	16.9	3.5	0.1	0.0	0.0	0.1
International Equity	18.2	16.2	2.0	0.4	-0.1	0.0	0.3
US Treasury Bonds	3.8	3.6	0.3	0.0	0.1	0.0	0.1
Private Equity	7.8	29.7	-22.0	-1.0	0.1	-0.1	-1.1
Infrastructure	2.2	10.1	-7.9	-0.6	0.0	0.0	-0.6
Core Real Estate	-0.1	-7.9	7.9	0.6	-0.3	0.1	0.4
Private Credit	5.8	15.6	-9.8	-0.8	0.0	0.0	-0.8
Value-Add Real Estate	-10.1	-6.1	-4.0	-0.3	0.2	0.1	0.0
Cashflow-Matched Bonds	6.0	5.2	0.8	0.1	-0.1	0.0	-0.1
Liquid Absolute Return	1.2	9.3	-8.2	-0.2	0.0	0.0	-0.2
Risk Parity	4.4	15.4	-11.0	-1.1	0.0	0.2	-1.0
Total Fund	10.2	13.1	-2.9	-2.9	-0.3	0.2	-2.9

*Total Actual and Index returns are weighted average calculations.

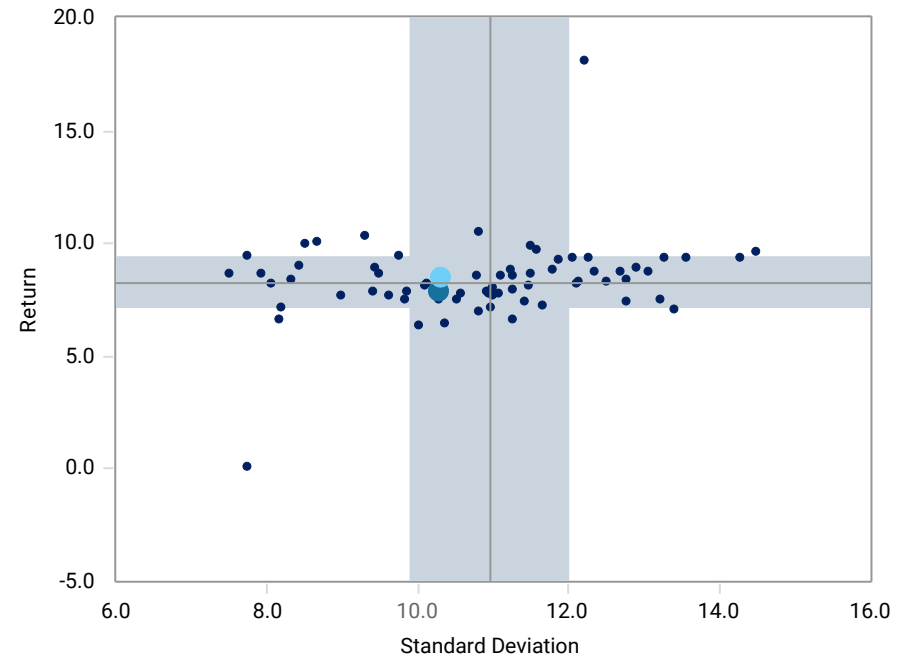
RISK VS. RETURN

3 Years Ending December 31, 2023



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

5 Years Ending December 31, 2023



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

3 Years Ending December 31, 2023

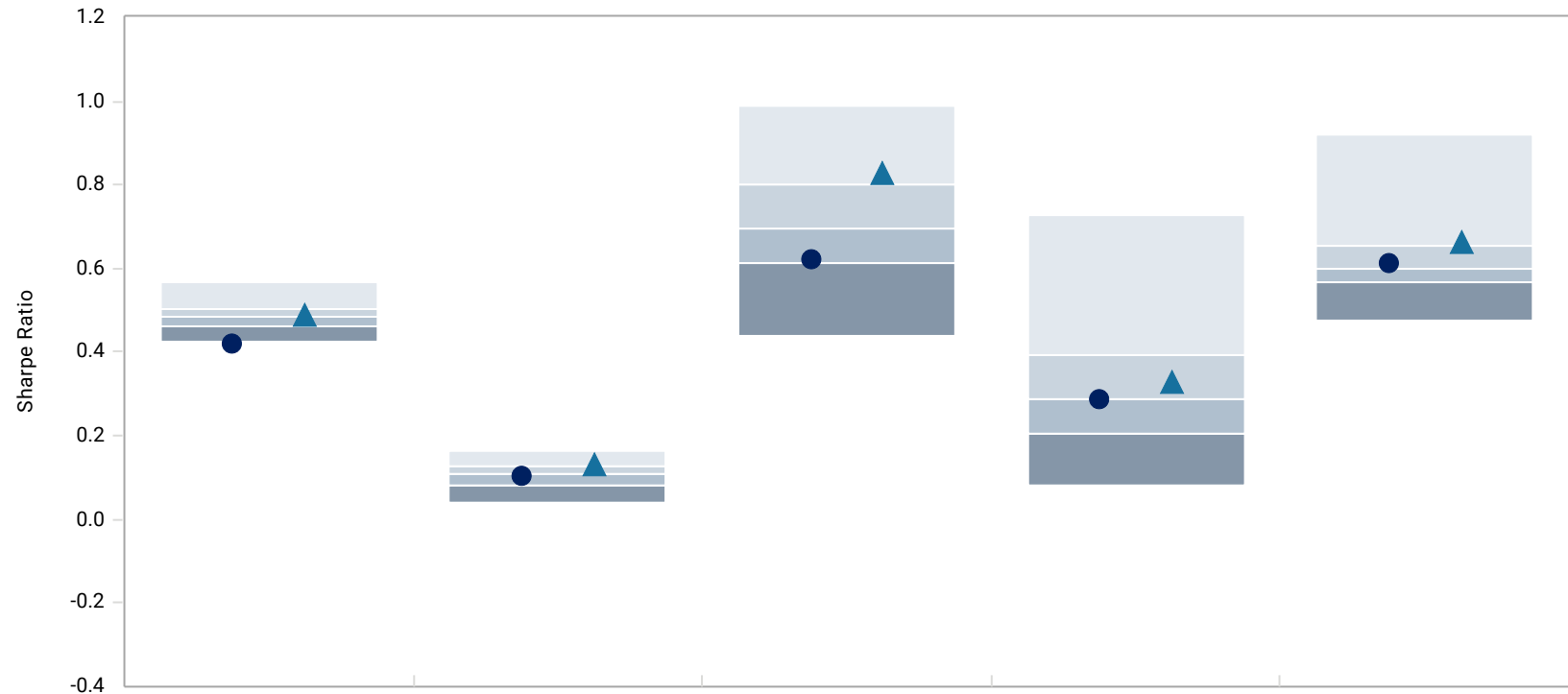
	Return	Standard Deviation	Sharpe Ratio
Total Fund	4.4 (55)	9.0 (35)	0.3 (51)
Policy Index	4.9 (38)	9.4 (44)	0.3 (36)
Population	73	73	73

5 Years Ending December 31, 2023

	Return	Standard Deviation	Sharpe Ratio
Total Fund	7.9 (62)	10.3 (34)	0.6 (47)
Policy Index	8.5 (44)	10.3 (36)	0.7 (24)
Population	70	70	70

TOTAL FUND SHARPE RATIO RANKINGS

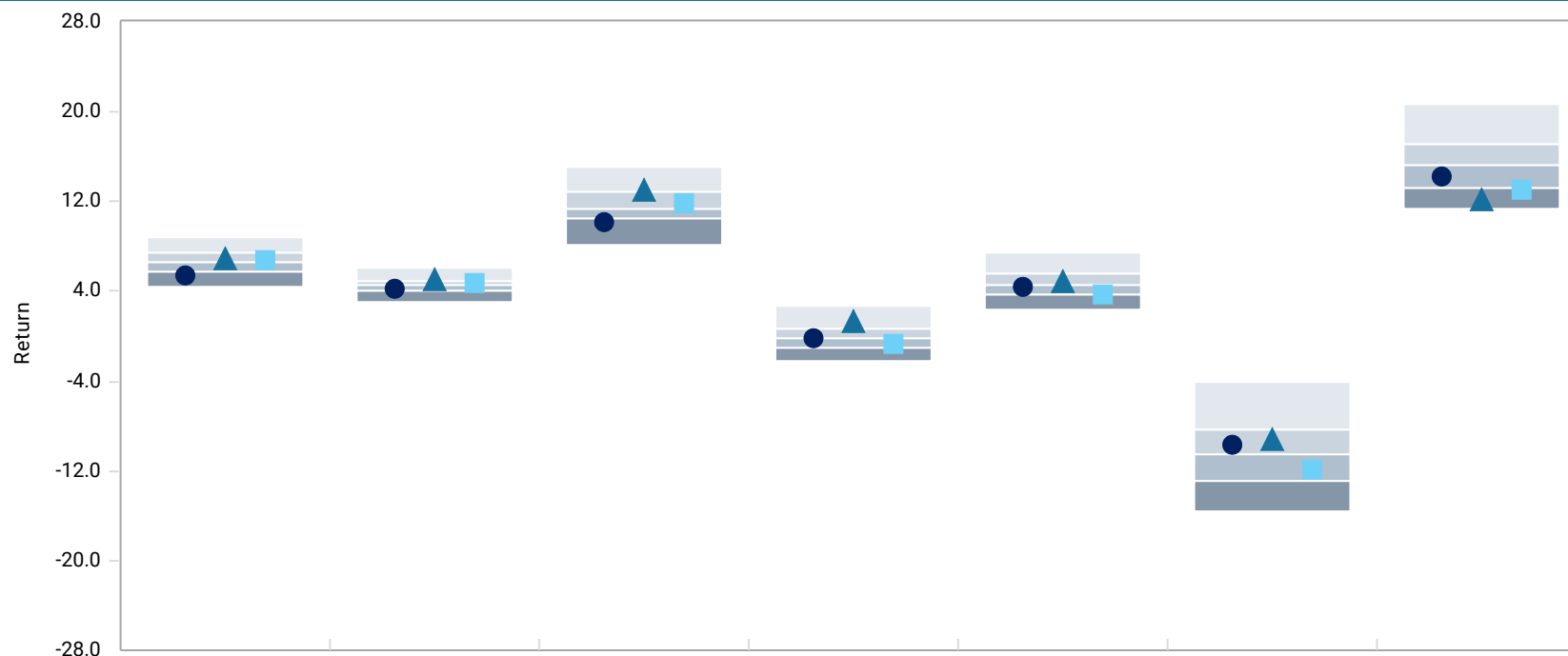
Total Fund vs. InvMetrics Public DB > \$1 Billion



	3 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
● Total Fund	0.4 (97)	0.1 (58)	0.6 (71)	0.3 (51)	0.6 (47)
▲ Policy Index	0.5 (46)	0.1 (25)	0.8 (20)	0.3 (36)	0.7 (24)
5th Percentile	0.6	0.2	1.0	0.7	0.9
1st Quartile	0.5	0.1	0.8	0.4	0.7
Median	0.5	0.1	0.7	0.3	0.6
3rd Quartile	0.5	0.1	0.6	0.2	0.6
95th Percentile	0.4	0.0	0.4	0.1	0.5
Population	94	91	85	73	70

RETURN SUMMARY VS. PEER UNIVERSE

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



	3 Mo (%)	FYTD (%)	1 Yr (%)	2 Yrs (%)	3 Yrs (%)	2022	2021
● Total Fund	5.4 (82)	4.2 (69)	10.2 (83)	-0.2 (51)	4.4 (55)	-9.6 (39)	14.3 (61)
▲ Policy Index	7.0 (39)	5.1 (18)	13.1 (19)	1.4 (15)	4.9 (38)	-9.1 (35)	12.2 (90)
■ Allocation Index	6.8 (45)	4.8 (30)	11.9 (40)	-0.7 (63)	3.7 (78)	-11.9 (66)	13.0 (78)
5th Percentile	8.8	6.1	15.1	2.7	7.5	-4.1	20.7
1st Quartile	7.5	4.9	12.9	0.6	5.5	-8.3	17.2
Median	6.6	4.5	11.4	-0.2	4.5	-10.6	15.3
3rd Quartile	5.8	4.0	10.6	-1.0	3.8	-12.8	13.2
95th Percentile	4.4	3.1	8.1	-2.2	2.4	-15.6	11.3
Population	94	91	85	75	73	100	135

FEE SCHEDULE

Account Name	Fee Schedule	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Cash Account	0.10 % of Assets	46,983,383	46,983	0.10
Transition Account		316,055		
Insight	0.12 % of Assets	220,809,787	264,972	0.12
BlackRock Russell 1000 Growth	0.02 % of Assets	229,305,642	45,861	0.02
BlackRock Russell 1000 Value	0.02 % of Assets	121,832,633	24,367	0.02
Dodge & Cox-Equity	0.40 % of First \$10 M 0.20 % of Next \$90 M 0.15 % Thereafter	126,646,407	259,970	0.21
Callodine Loan Fund II LP		12,157,354		
Channing	0.50 % of Assets	31,702,602	158,513	0.50
Pacific Ridge	0.60 % of Assets	19,886,361	119,318	0.60
Seizert		38,554,081		
Phocas'		28,024,957		
LSV Int'l Large Cap Value	0.25 % of Assets	294,114,934	735,287	0.25
Fidelity Int'l Growth	0.25 % of Assets	248,975,227	622,438	0.25
Prime Property Fund	0.84 % of Assets	95,874,930	805,349	0.84
PGIM Real Estate US Debt Fund		100,300,630		
American Strategic Value Realty	0.75 % of First \$25 M 0.65 % of Next \$25 M 0.55 % of Next \$50 M 0.45 % Thereafter	79,600,547	512,803	0.64
Greenfield Acquisition Partners VII		1,053,770		
Grandview Property Partners I		15,220,489		
Grandview Property Partners II		16,322,815		
MS Infrastructure Partners II		13,096,525		
Palistar Communications Infrastructure Fund II		15,060,862		
JP Morgan IIF Hedged LP		34,538,655		
Northern Trust Infrastructure Fund		75,280,256		
IFM Global Infrastructure Fund		55,292,742		
Vista Foundation Fund IV		15,012,791		
Insight Partners XI		21,206,565		

FEE SCHEDULE

Account Name	Fee Schedule	Market Value (\$)	Estimated Annual Fee (\$)	Estimated Annual Fee (%)
Gryphon Partners VI LP	0.02 % of Assets	18,357,340	3,671	0.02
Clayton, Dublier, & Rice		17,092,369		
Genstar Capital Partners X		14,375,724		
Sole Source Capital Partners II		13,978,274		
Great Hill EP VIII		3,280,224		
Blue Wolf Capital Fund V-A, L.P.		5,564,435		
Northern Trust Russell 3000	0.02 % of Assets	39,267,979	7,854	0.02
Medley Capital		364,100		
Owl Rock First Lien Fund	0.70 % of Assets	9,279,965	64,960	0.70
Raven Opportunity III		51,649,570		
White Oak Pinnacle		27,845,639		
Abry Senior Equity VI, L.P.		9,157,899		
Strategic Values Special Situations Fund V, L.P.		6,299,038		
Blackrock High Yield Fund		82,453,464		
Monroe Private Credit IV		16,668,195		
AQR Global Risk Premium - EL	0.38 % of Assets	125,113,546	475,431	0.38
PanAgora Risk Parity Multi Asset	0.35 % of Assets	105,610,936	369,638	0.35
Northern Trust Intermediate Gov't Bond	0.05 % of First \$25 M 0.04 % Thereafter	103,238,188	43,795	0.04
Northern Trust Long Term Gov't Bond	0.05 % of First \$25 M 0.04 % Thereafter	40,719,629	18,788	0.05
Graham Proprietary Matrix		69,553,852		
Crestline Opportunity Fund IV		6,808,808		
Audax Private Equity VII		2,742,762		
Gridiron Capital Fund V		4,360,412		
TA Realty Value Fund XIII		5,000,000		
Investment Management Fees		2,735,953,348	4,579,999	0.17

RISK STATISTICS

3 Years Ending December 31, 2023											
	Return	Excess Return	Standard Deviation	Alpha	Beta	Tracking Error	R-Squared	Sharpe Ratio	Information Ratio	Up Capture	Down Capture
American Strategic Value Realty	4.7	2.8	7.8	-0.3	1.1	1.6	1.0	0.3	0.1	111.7	121.4
NCREIF Property Index	4.6	2.6	7.1	0.0	1.0	0.0	1.0	0.3		100.0	100.0
AQR Global Risk Premium - EL	-0.8	-2.4	10.6	-1.8	0.8	4.9	0.9	-0.2	-0.5	73.0	83.4
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	1.2	-0.1	12.8	0.0	1.0	0.0	1.0	0.0		100.0	100.0
BlackRock Russell 1000 Growth	8.8	8.5	20.8	0.0	1.0	0.0	1.0	0.4	-1.1	99.9	100.0
Russell 1000 Growth Index	8.9	8.5	20.8	0.0	1.0	0.0	1.0	0.4		100.0	100.0
BlackRock Russell 1000 Value	8.8	7.7	16.7	0.0	1.0	0.0	1.0	0.5	-0.9	99.9	100.0
Russell 1000 Value Index	8.9	7.7	16.7	0.0	1.0	0.0	1.0	0.5		100.0	100.0
Capital Prospects Transition	0.0	-2.1	0.0	0.0	0.0	22.1		-3.2	-0.5	0.0	0.0
Russell 2000 Value Index	7.9	7.9	22.1	0.0	1.0	0.0	1.0	0.4		100.0	100.0
Channing	6.2	6.2	22.2	-1.0	0.9	8.0	0.9	0.3	-0.2	91.6	94.5
Russell 2000 Value Index	7.9	7.9	22.1	0.0	1.0	0.0	1.0	0.4		100.0	100.0
Dodge & Cox-Equity	12.9	11.6	17.9	3.5	1.0	4.3	0.9	0.6	0.9	108.8	94.1
Russell 1000 Value Index	8.9	7.7	16.7	0.0	1.0	0.0	1.0	0.5		100.0	100.0
LSV Int'l Large Cap Value	7.8	6.6	15.5	2.0	1.0	2.1	1.0	0.4	0.9	102.6	93.4
MSCI AC World ex USA Value (Net)	5.8	4.7	15.8	0.0	1.0	0.0	1.0	0.3		100.0	100.0
Fidelity Int'l Growth	0.8	0.1	17.2	3.3	0.9	5.3	0.9	0.0	0.6	96.3	83.1
MSCI AC World ex USA Growth (Net)	-2.7	-3.3	17.9	0.0	1.0	0.0	1.0	-0.2		100.0	100.0
Greenfield Acquisition Partners VII	2.4	0.9	11.8	1.9	0.2	14.0	0.0	0.1	-0.2	25.4	0.0
NCREIF-ODCE +1%	6.0	4.1	9.6	0.0	1.0	0.0	1.0	0.4		100.0	100.0
Grandview Property Partners I	9.9	9.3	21.4	5.9	0.9	19.6	0.2	0.4	0.3	102.5	14.3
NCREIF-ODCE +1%	6.0	4.1	9.6	0.0	1.0	0.0	1.0	0.4		100.0	100.0
Insight Partners XI	15.7	15.0	23.3	14.8	0.3	26.4	0.0	0.6	0.2	56.5	6.0
Russell 3000 + 3%	11.8	10.6	17.8	0.0	1.0	0.0	1.0	0.6		100.0	100.0
Medley Capital	3.3	2.2	14.6	2.7	0.2	14.9	0.0	0.1	-0.2	44.1	4.0
S&P/LSTA Leveraged Loan Index +2%	7.9	5.5	3.9	0.0	1.0	0.0	1.0	1.5		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
MS Infrastructure Partners II	6.9	4.9	8.5	-18.5	2.6	8.0	0.2	0.6	-0.4	66.5	
<i>CPI + 5% 1 Qtr Lag (Unadjusted)</i>	11.0	8.4	1.4	0.0	1.0	0.0	1.0	4.9		100.0	
Northern Trust Intermediate Gov't Bond	-1.9	-4.0	4.2	-0.1	1.0	0.2	1.0	-1.0	-0.4	98.9	100.2
<i>Blmbg. U.S. Government: Intermediate</i>	-1.8	-3.9	4.2	0.0	1.0	0.0	1.0	-1.0		100.0	100.0
Northern Trust Long Term Gov't Bond	-10.6	-12.0	15.8	0.7	1.0	1.9	1.0	-0.8	0.5	100.6	97.3
<i>Blmbg. U.S. Government: Long Term Bond Index</i>	-11.3	-12.9	15.9	0.0	1.0	0.0	1.0	-0.8		100.0	100.0
Northern Trust Russell 3000	8.6	7.6	17.7	0.0	1.0	0.1	1.0	0.4	0.1	100.1	100.0
<i>Russell 3000 Index</i>	8.5	7.6	17.7	0.0	1.0	0.0	1.0	0.4		100.0	100.0
Owl Rock First Lien Fund	13.5	10.9	8.2	14.0	0.0	9.1	0.0	1.3	0.6	115.1	-67.9
<i>S&P/LSTA Leveraged Loan Index +2%</i>	7.9	5.5	3.9	0.0	1.0	0.0	1.0	1.5		100.0	100.0
Pacific Ridge	11.1	10.4	20.4	5.3	0.8	9.7	0.8	0.5	0.3	89.5	75.3
<i>Russell Microcap Value Index</i>	6.9	7.3	23.8	0.0	1.0	0.0	1.0	0.3		100.0	100.0
PanAgora Risk Parity Multi Asset	-6.8	-8.1	14.9	-7.8	1.1	6.2	0.8	-0.5	-1.3	84.2	129.6
<i>60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg</i>	1.2	-0.1	12.8	0.0	1.0	0.0	1.0	0.0		100.0	100.0
PGIM Real Estate US Debt Fund	5.6	3.3	2.3	5.5	-0.1	6.1	0.0	1.5	1.3	32.7	-41.6
<i>Blmbg. U.S. Investment Grade: CMBS Index</i>	-2.4	-4.4	5.4	0.0	1.0	0.0	1.0	-0.8		100.0	100.0
Prime Property Fund	6.7	4.7	8.5	2.4	0.8	2.8	0.9	0.5	0.6	90.3	54.7
<i>NCREIF ODCE</i>	4.9	3.1	9.6	0.0	1.0	0.0	1.0	0.3		100.0	100.0
Raven Opportunity III	5.3	3.4	8.3	16.1	-1.2	11.0	0.3	0.4	-0.2	1.3	-235.7
<i>S&P/LSTA Leveraged Loan Index +2%</i>	7.9	5.5	3.9	0.0	1.0	0.0	1.0	1.5		100.0	100.0
Vista Foundation Fund IV	-1.4	-3.4	4.7	-1.1	0.0	18.5	0.0	-0.7	-0.8	-4.6	-1.1
<i>Russell 3000 + 3%</i>	11.8	10.6	17.8	0.0	1.0	0.0	1.0	0.6		100.0	100.0
White Oak Pinnacle	6.7	4.6	7.8	3.4	0.4	7.9	0.0	0.6	-0.1	87.4	84.2
<i>S&P/LSTA Leveraged Loan Index +2%</i>	7.9	5.5	3.9	0.0	1.0	0.0	1.0	1.5		100.0	100.0

MANAGER PROFILES



PROPRIETARY & CONFIDENTIAL



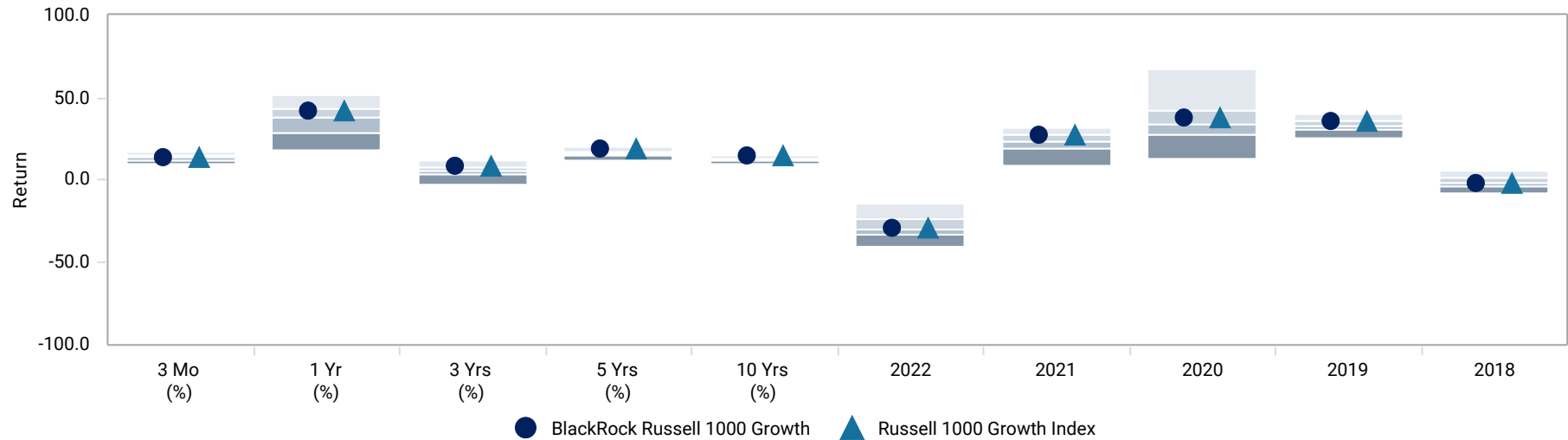
DOMESTIC EQUITY



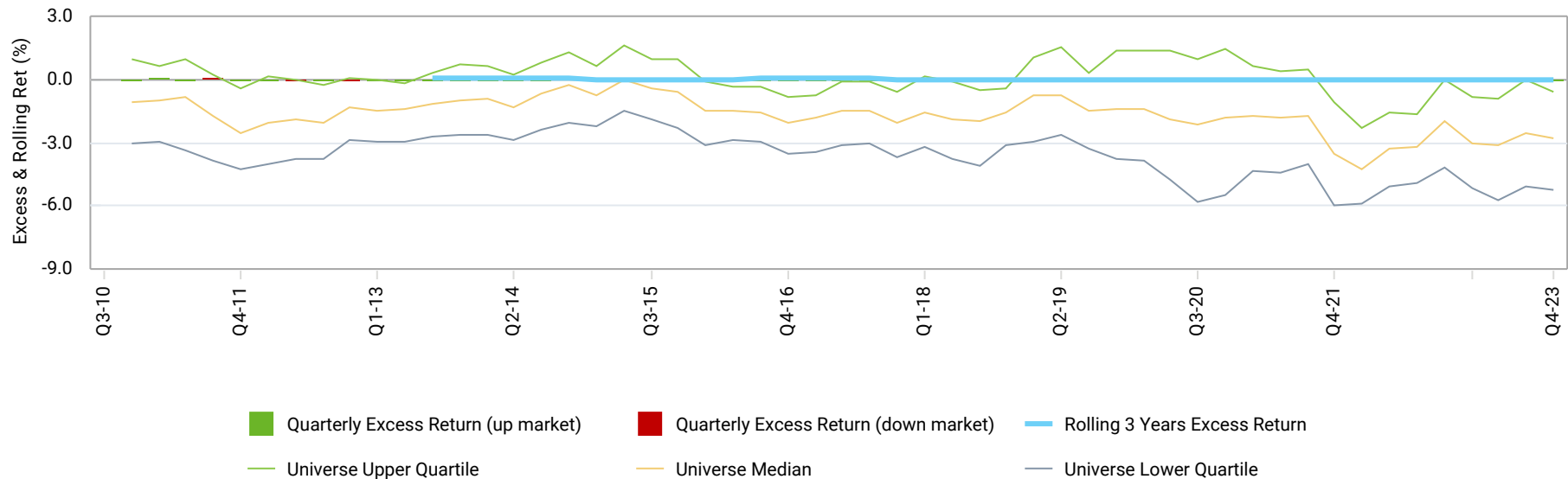
PROPRIETARY & CONFIDENTIAL

BLACKROCK RUSSELL 1000 GROWTH

eV US Large Cap Growth Equity (net of fees)

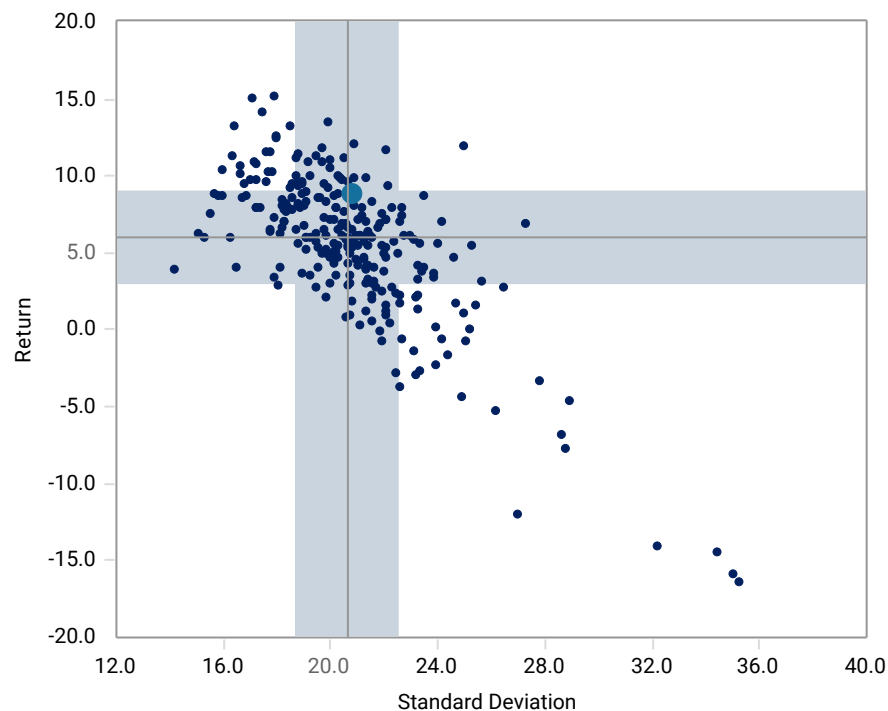


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



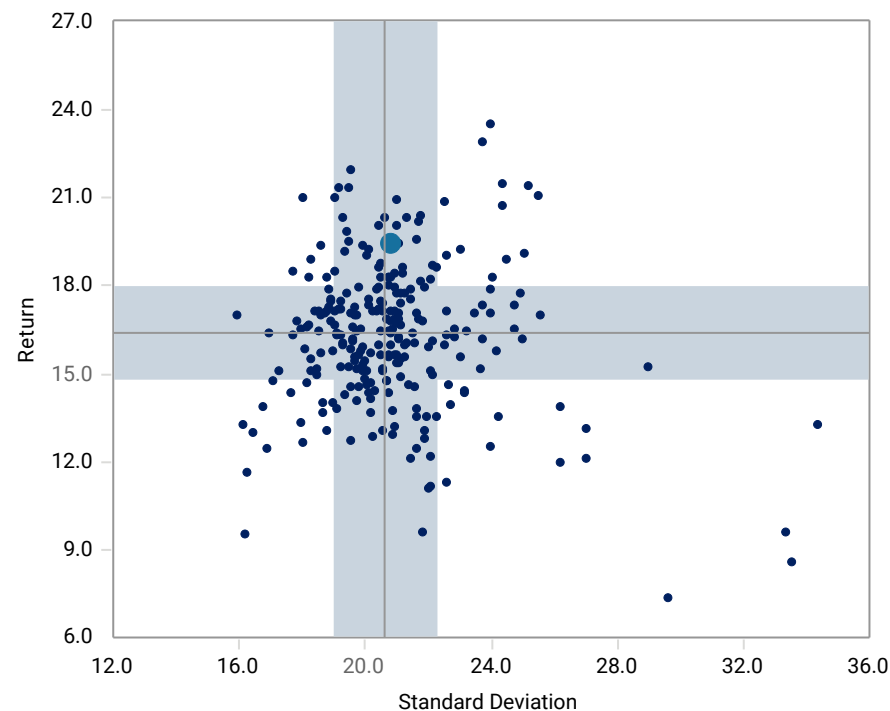
RISK VS. RETURN

3 Years Ending December 31, 2023



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

5 Years Ending December 31, 2023



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

3 Years Ending December 31, 2023

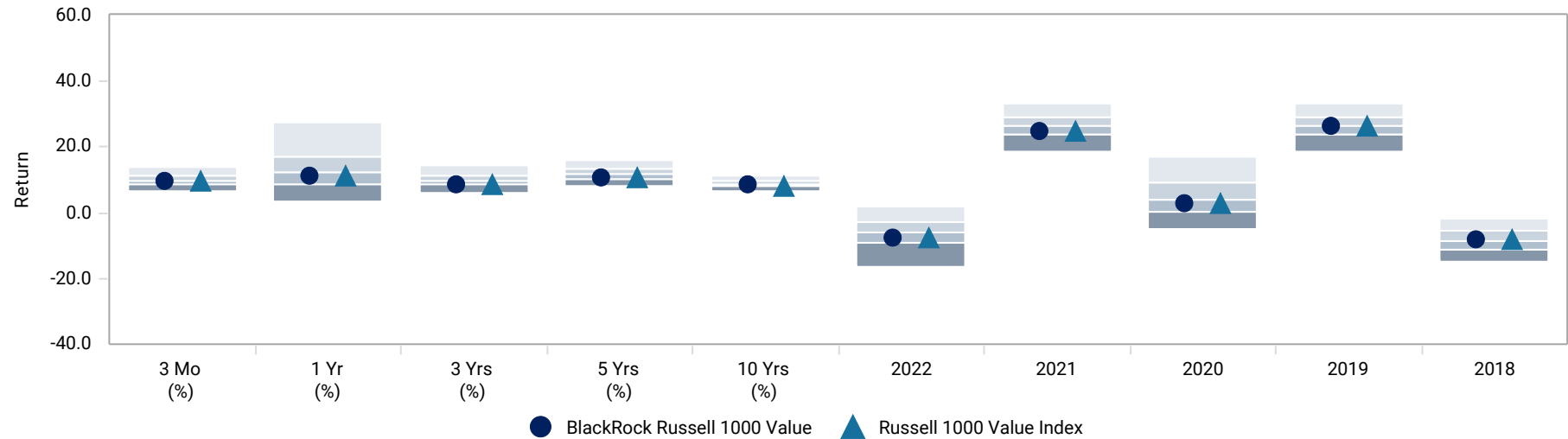
	Return	Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Growth	8.8 (21)	20.8 (55)	0.4 (24)
Russell 1000 Growth Index	8.9 (21)	20.8 (55)	0.4 (24)
eV US Large Cap Growth Equity Median	6.1	20.6	0.3
Population	267	267	267

5 Years Ending December 31, 2023

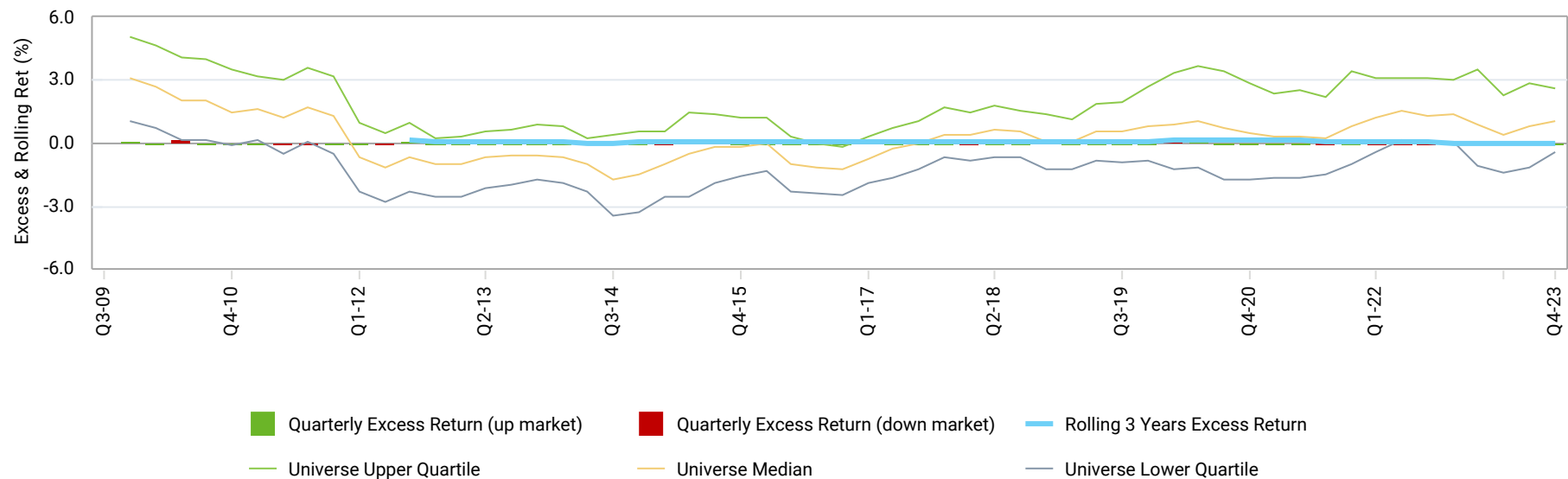
	Return	Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Growth	19.5 (9)	20.8 (54)	0.9 (12)
Russell 1000 Growth Index	19.5 (9)	20.8 (55)	0.9 (12)
eV US Large Cap Growth Equity Median	16.4	20.6	0.8
Population	257	257	257

BLACKROCK RUSSELL 1000 VALUE

eV US Large Cap Value Equity (net of fees)

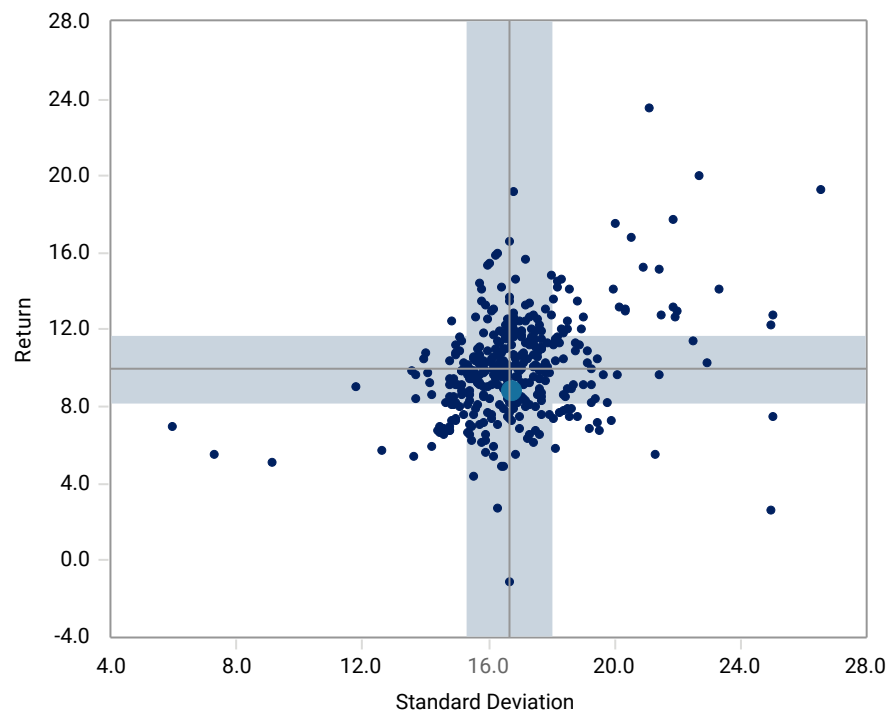


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



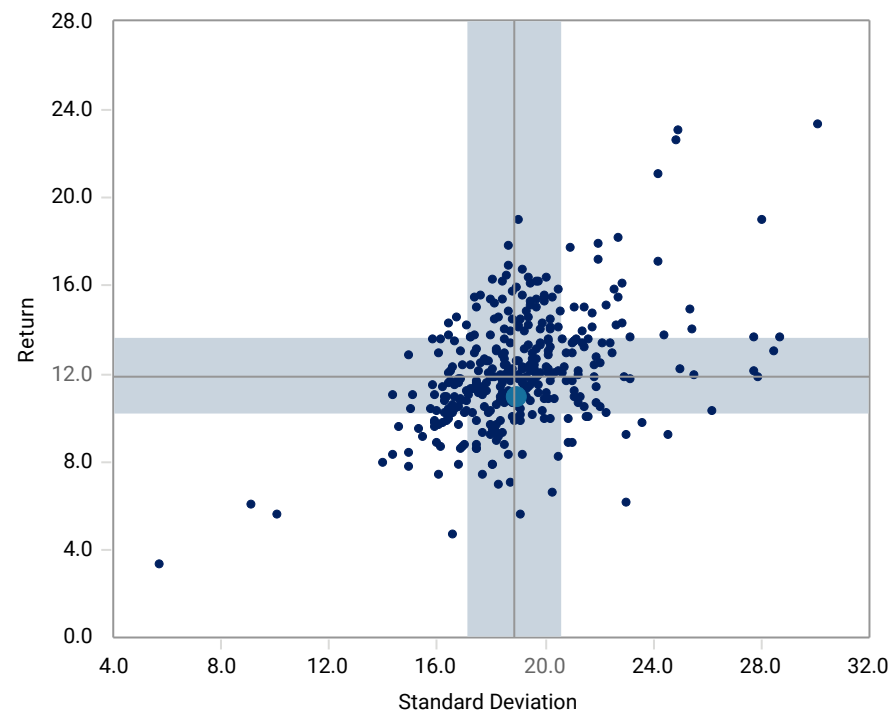
RISK VS. RETURN

3 Years Ending December 31, 2023



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

5 Years Ending December 31, 2023



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

3 Years Ending December 31, 2023

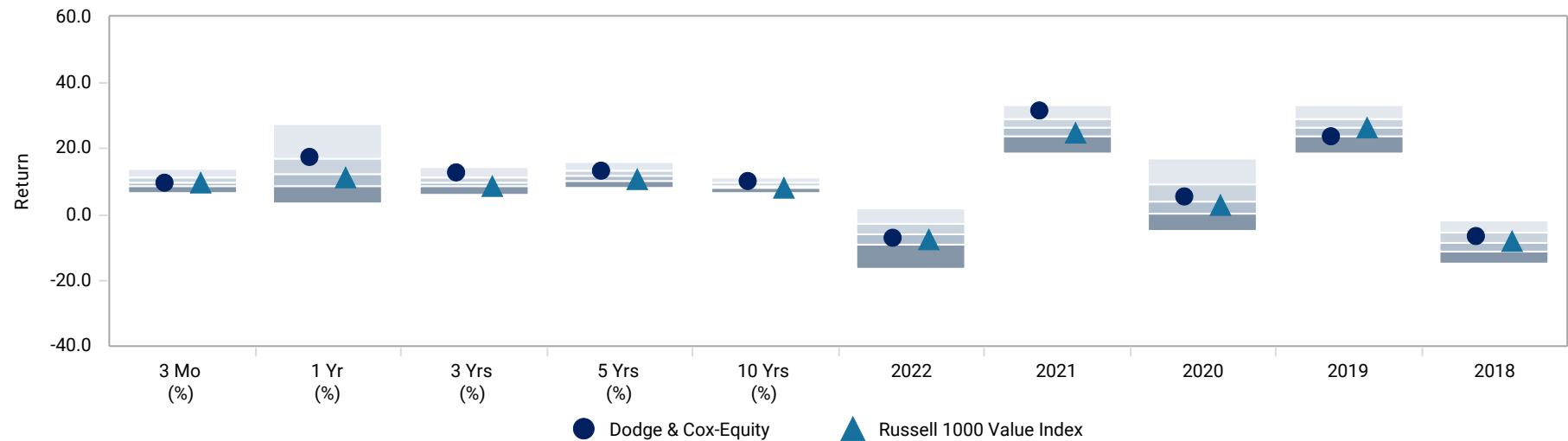
	Return	Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Value	8.8 (71)	16.7 (52)	0.5 (71)
Russell 1000 Value Index	8.9 (71)	16.7 (52)	0.5 (71)
eV US Large Cap Value Equity Median	9.9	16.7	0.5
Population	376	376	376

5 Years Ending December 31, 2023

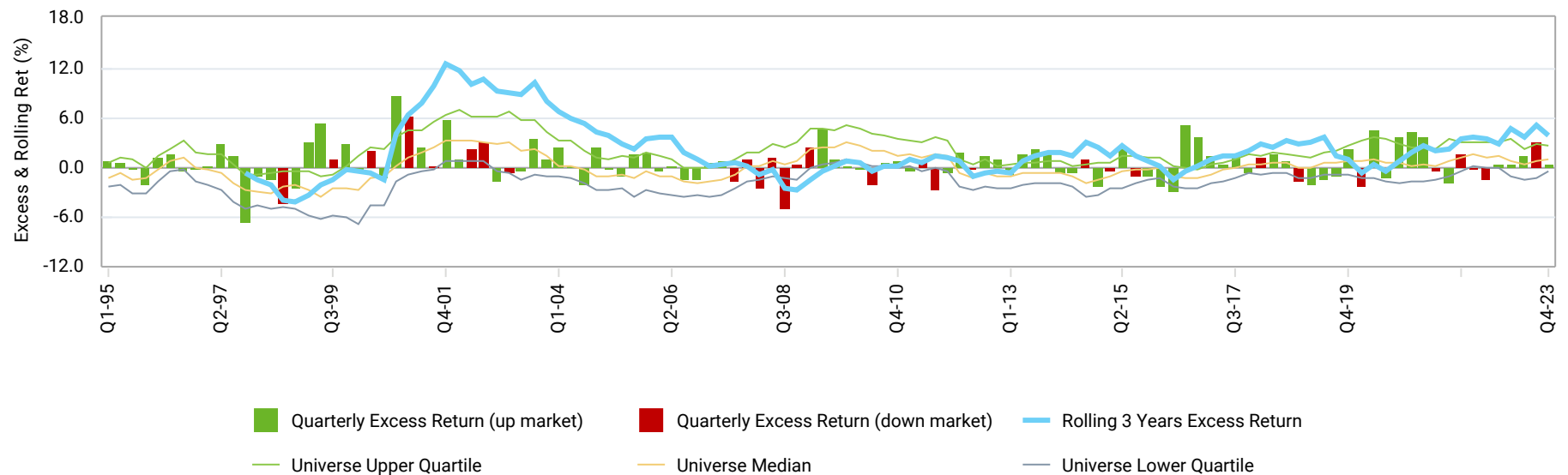
	Return	Standard Deviation	Sharpe Ratio
BlackRock Russell 1000 Value	10.9 (69)	18.9 (51)	0.5 (71)
Russell 1000 Value Index	10.9 (69)	18.9 (51)	0.5 (72)
eV US Large Cap Value Equity Median	11.9	18.8	0.6
Population	360	360	360

DODGE & COX-EQUITY

eV US Large Cap Value Equity (net of fees)

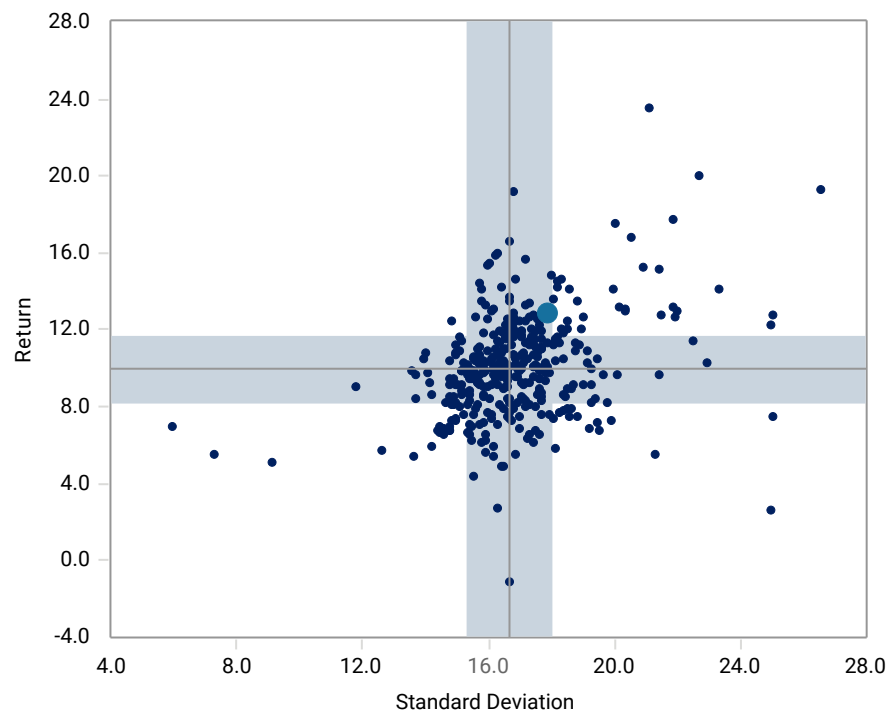


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



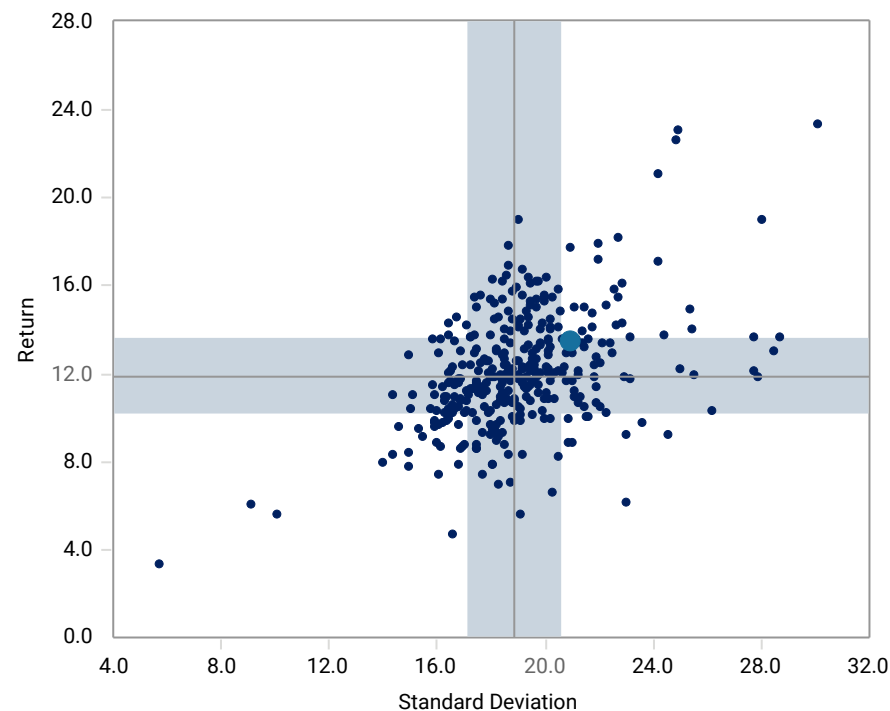
RISK VS. RETURN

3 Years Ending December 31, 2023



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

5 Years Ending December 31, 2023



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

3 Years Ending December 31, 2023

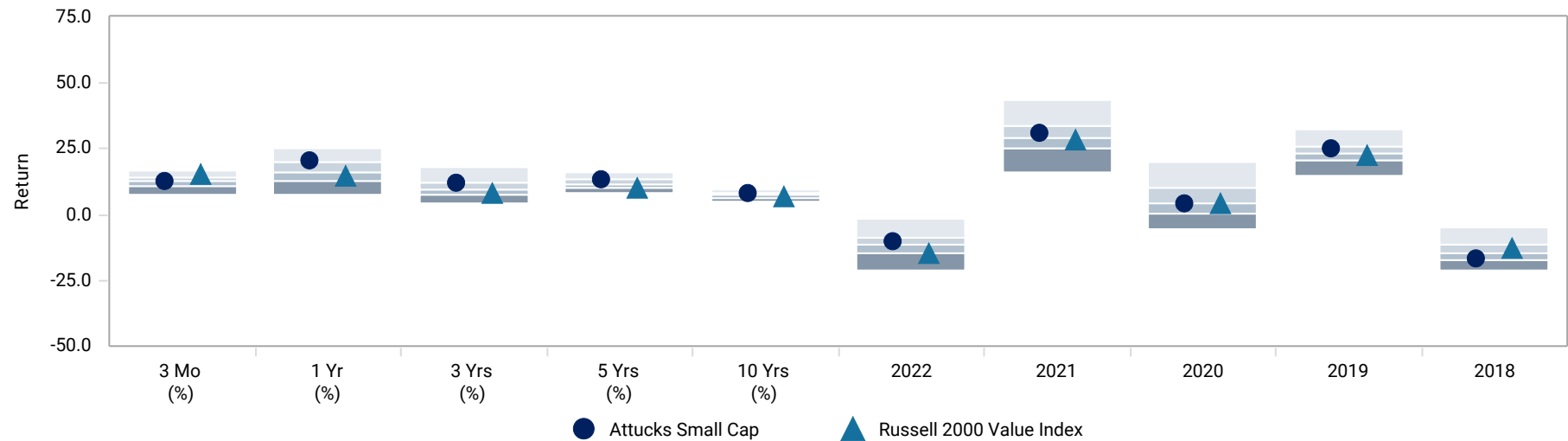
	Return	Standard Deviation	Sharpe Ratio
Dodge & Cox-Equity	12.9 (12)	17.9 (78)	0.6 (15)
Russell 1000 Value Index	8.9 (71)	16.7 (52)	0.5 (71)
eV US Large Cap Value Equity Median	9.9	16.7	0.5
Population	376	376	376

5 Years Ending December 31, 2023

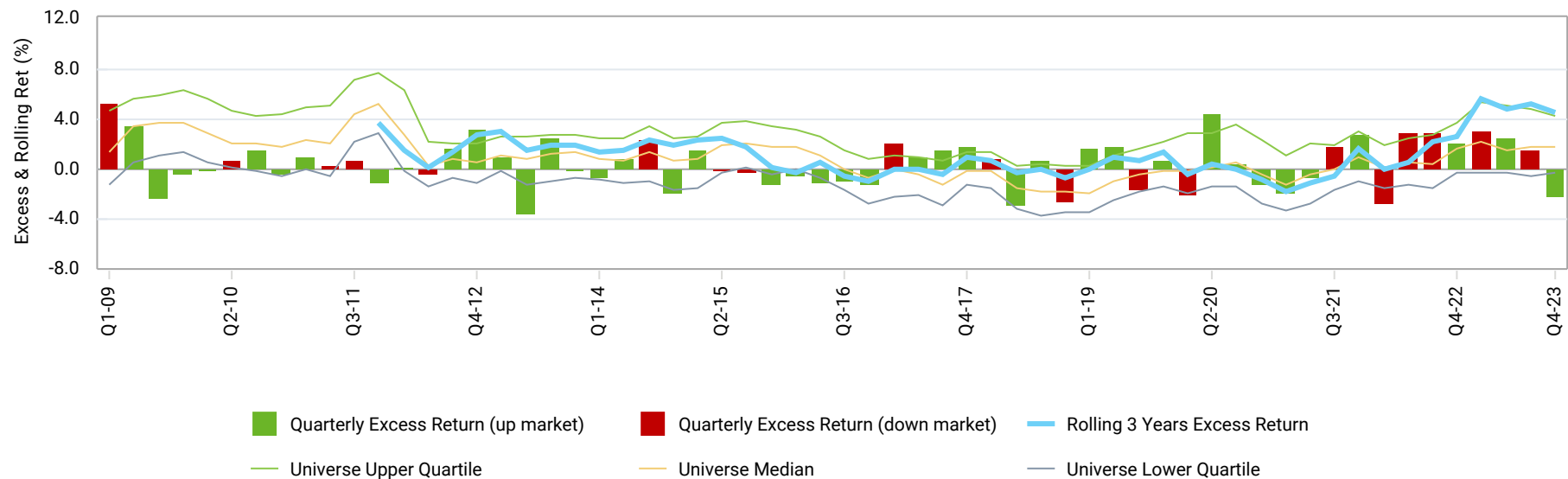
	Return	Standard Deviation	Sharpe Ratio
Dodge & Cox-Equity	13.5 (27)	20.9 (81)	0.6 (36)
Russell 1000 Value Index	10.9 (69)	18.9 (51)	0.5 (72)
eV US Large Cap Value Equity Median	11.9	18.8	0.6
Population	360	360	360

ATTUCKS SMALL CAP

eV US Small Cap Value Equity (net of fees)

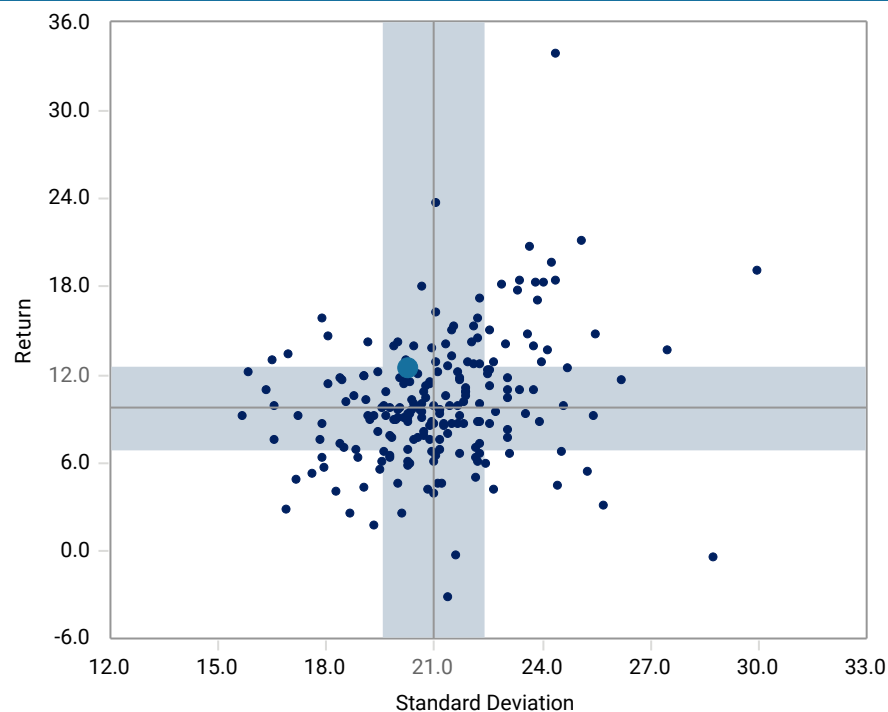


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



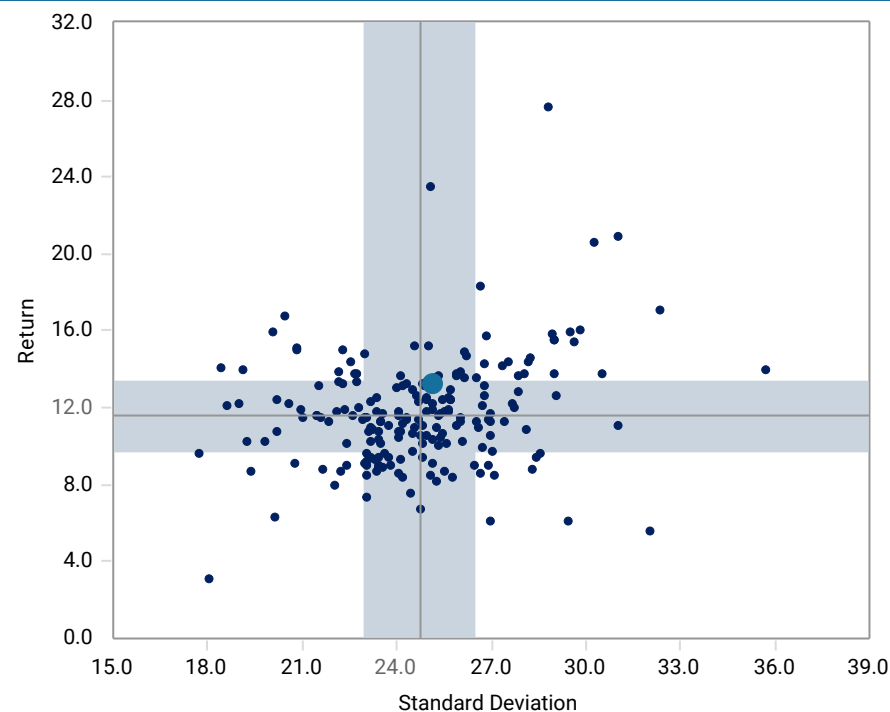
RISK VS. RETURN

3 Years Ending December 31, 2023



● eV US Small Cap Value Equity ● Attucks Small Cap

5 Years Ending December 31, 2023



● eV US Small Cap Value Equity ● Attucks Small Cap

3 Years Ending December 31, 2023

	Return	Standard Deviation	Sharpe Ratio
Attucks Small Cap	12.5 (24)	20.2 (32)	0.6 (22)
Russell 2000 Value Index	7.9 (72)	22.1 (69)	0.4 (75)
eV US Small Cap Value Equity Median	9.7	21.0	0.4
Population	207	207	207

5 Years Ending December 31, 2023

	Return	Standard Deviation	Sharpe Ratio
Attucks Small Cap	13.2 (26)	25.1 (57)	0.5 (27)
Russell 2000 Value Index	10.0 (76)	25.2 (59)	0.4 (78)
eV US Small Cap Value Equity Median	11.6	24.7	0.5
Population	201	201	201



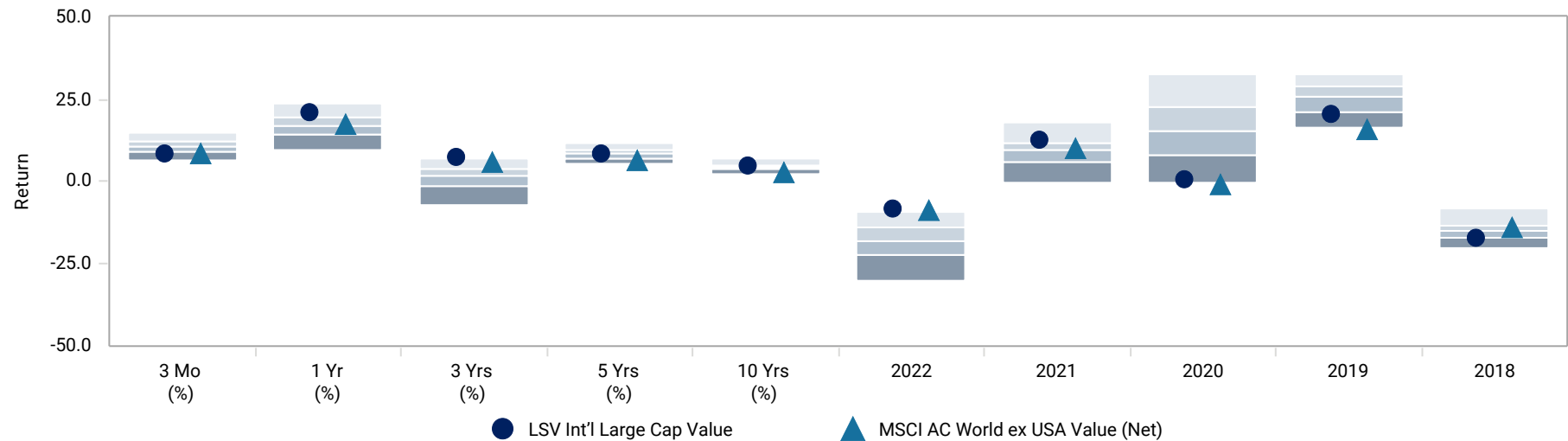
INTERNATIONAL EQUITY



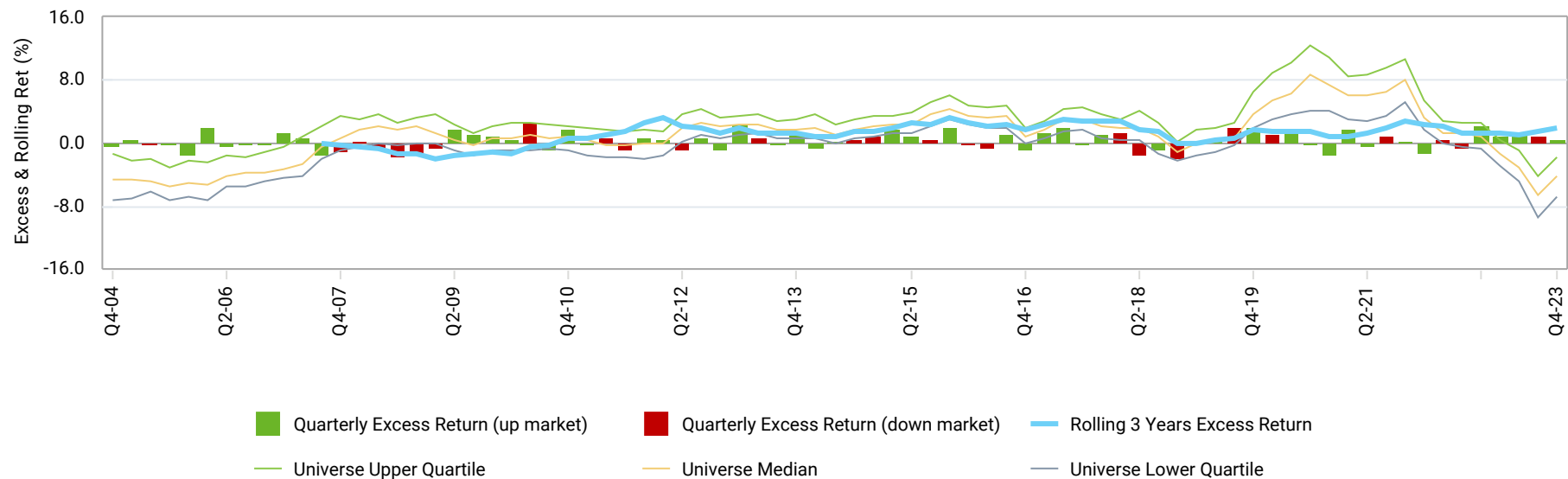
PROPRIETARY & CONFIDENTIAL

LSV INT'L LARGE CAP VALUE

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

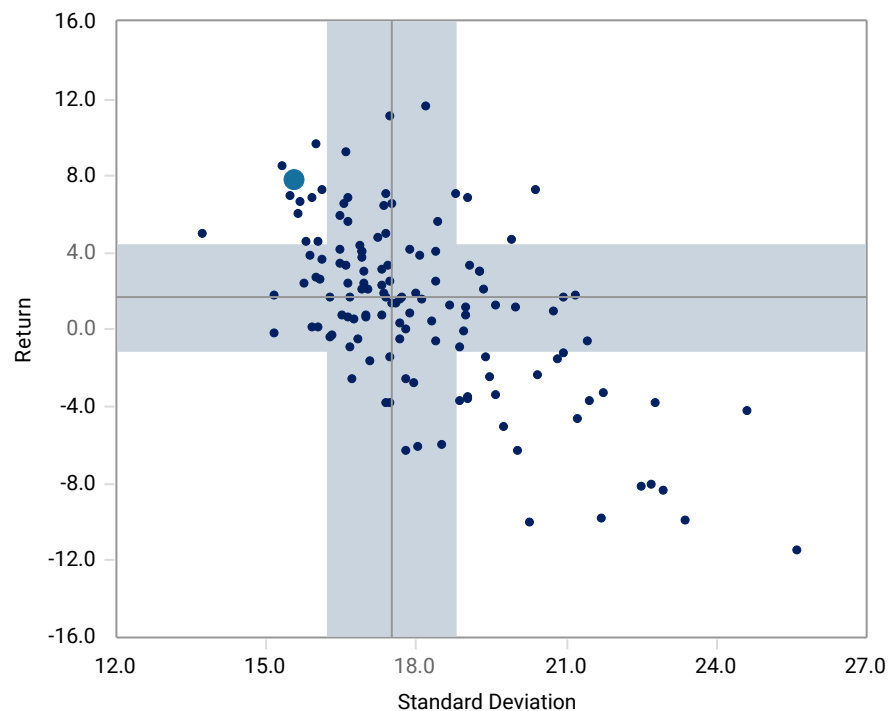


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



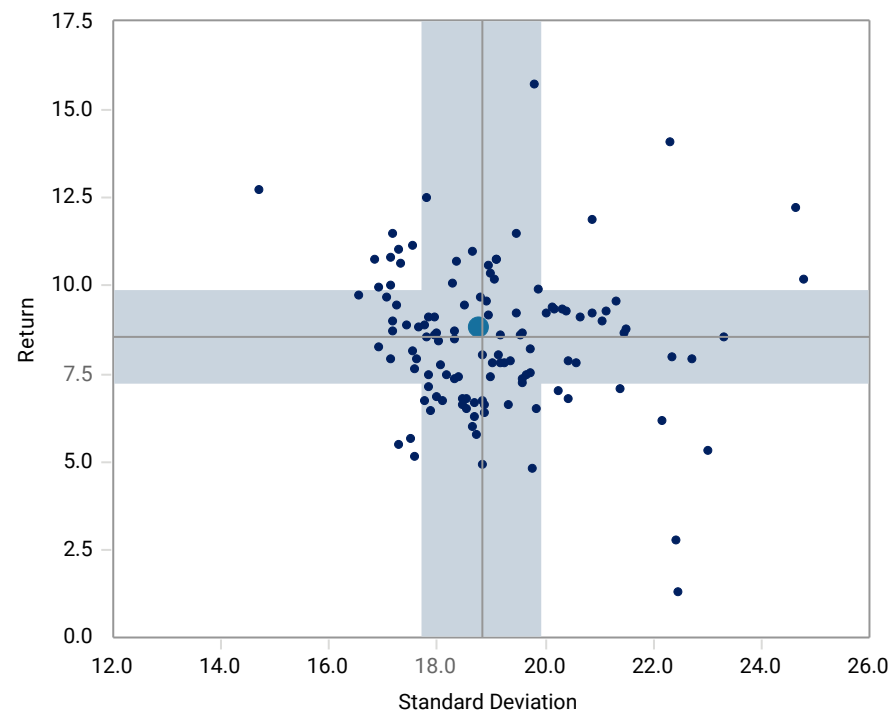
RISK VS. RETURN

3 Years Ending December 31, 2023



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

5 Years Ending December 31, 2023



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

3 Years Ending December 31, 2023

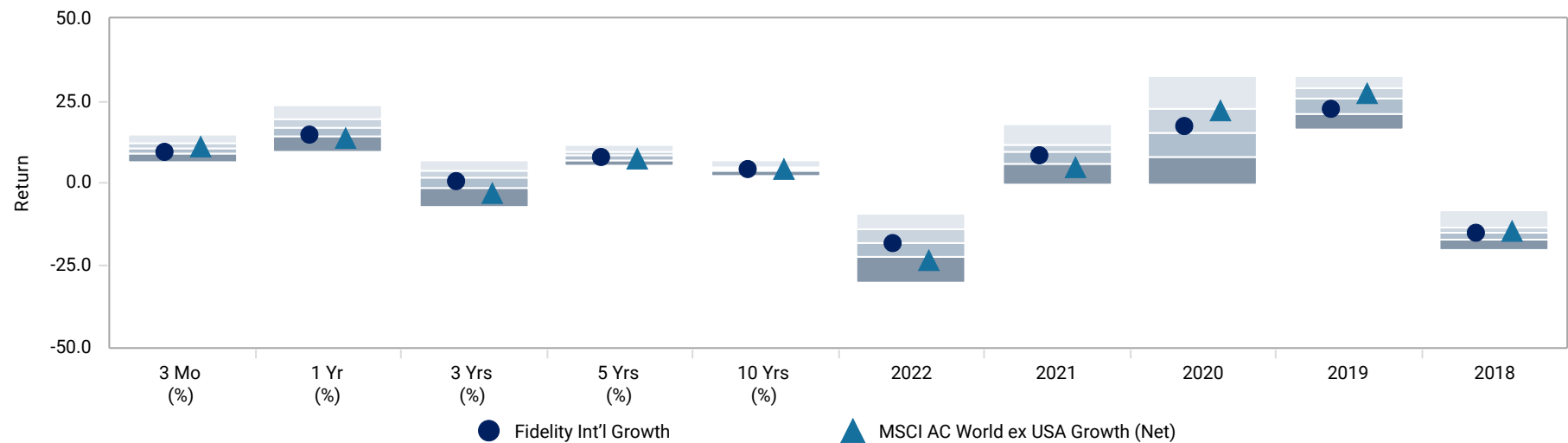
	Return	Standard Deviation	Sharpe Ratio
LSV Int'l Large Cap Value	7.8 (4)	15.5 (3)	0.4 (4)
MSCI AC World ex USA Value (Net)	5.8 (15)	15.8 (6)	0.3 (15)
eV ACWI ex-US Large Cap Equity Median	1.7	17.5	0.1
Population	130	130	130

5 Years Ending December 31, 2023

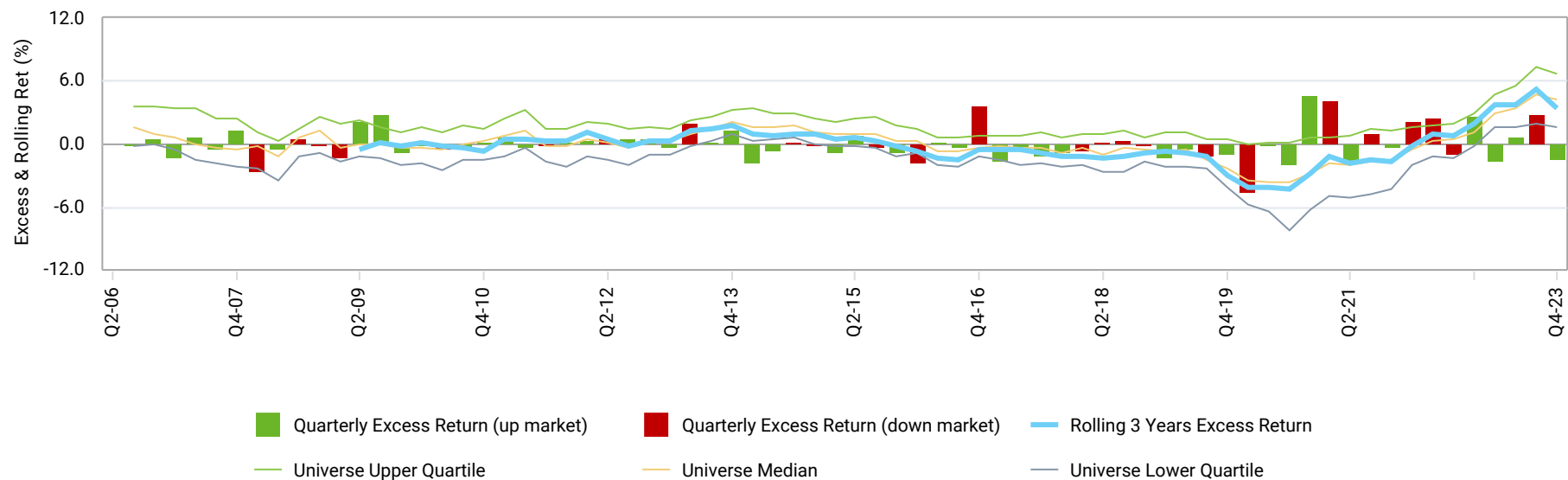
	Return	Standard Deviation	Sharpe Ratio
LSV Int'l Large Cap Value	8.8 (41)	18.8 (47)	0.4 (39)
MSCI AC World ex USA Value (Net)	6.3 (91)	19.0 (55)	0.3 (91)
eV ACWI ex-US Large Cap Equity Median	8.6	18.8	0.4
Population	118	118	118

FIDELITY INT'L GROWTH

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

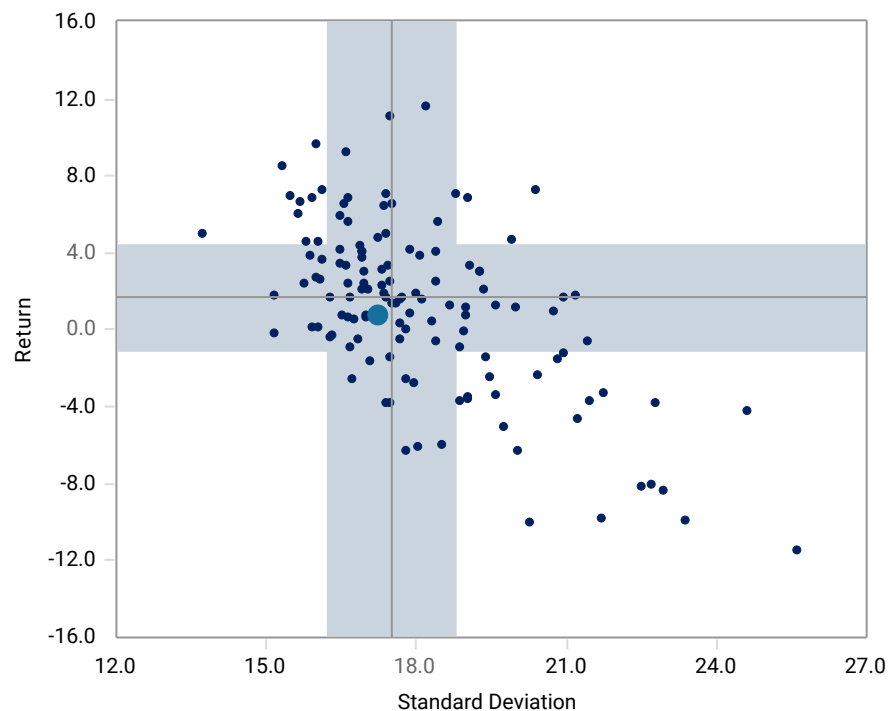


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



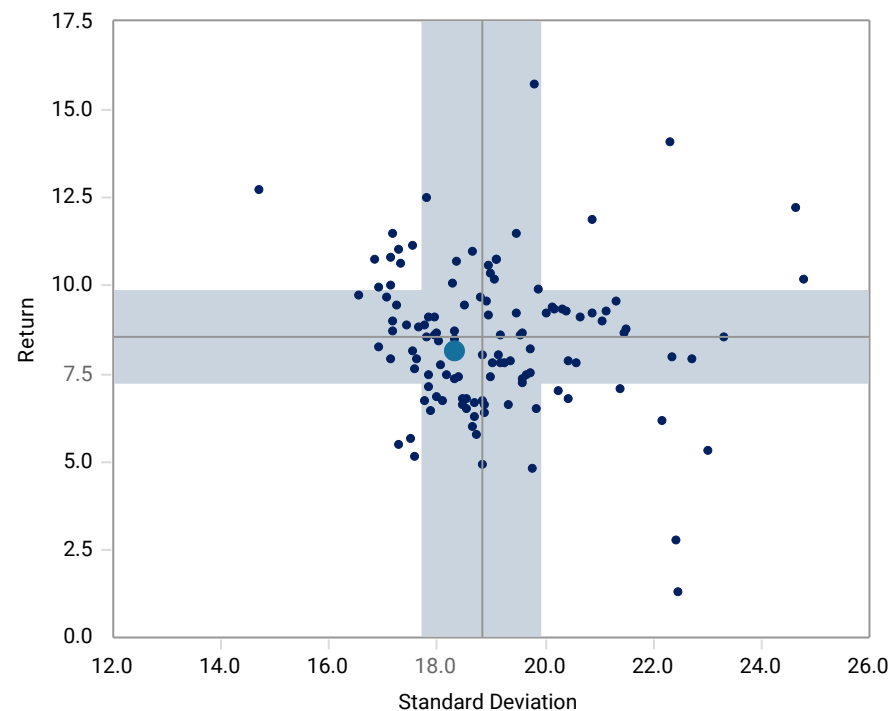
RISK VS. RETURN

3 Years Ending December 31, 2023



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

5 Years Ending December 31, 2023



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

3 Years Ending December 31, 2023

	Return	Standard Deviation	Sharpe Ratio
Fidelity Int'l Growth	0.8 (60)	17.2 (37)	0.0 (60)
MSCI AC World ex USA Growth (Net)	-2.7 (82)	17.9 (58)	-0.2 (85)
eV ACWI ex-US Large Cap Equity Median	1.7	17.5	0.1
Population	130	130	130

5 Years Ending December 31, 2023

	Return	Standard Deviation	Sharpe Ratio
Fidelity Int'l Growth	8.2 (55)	18.3 (37)	0.4 (53)
MSCI AC World ex USA Growth (Net)	7.5 (69)	17.9 (27)	0.4 (64)
eV ACWI ex-US Large Cap Equity Median	8.6	18.8	0.4
Population	118	118	118

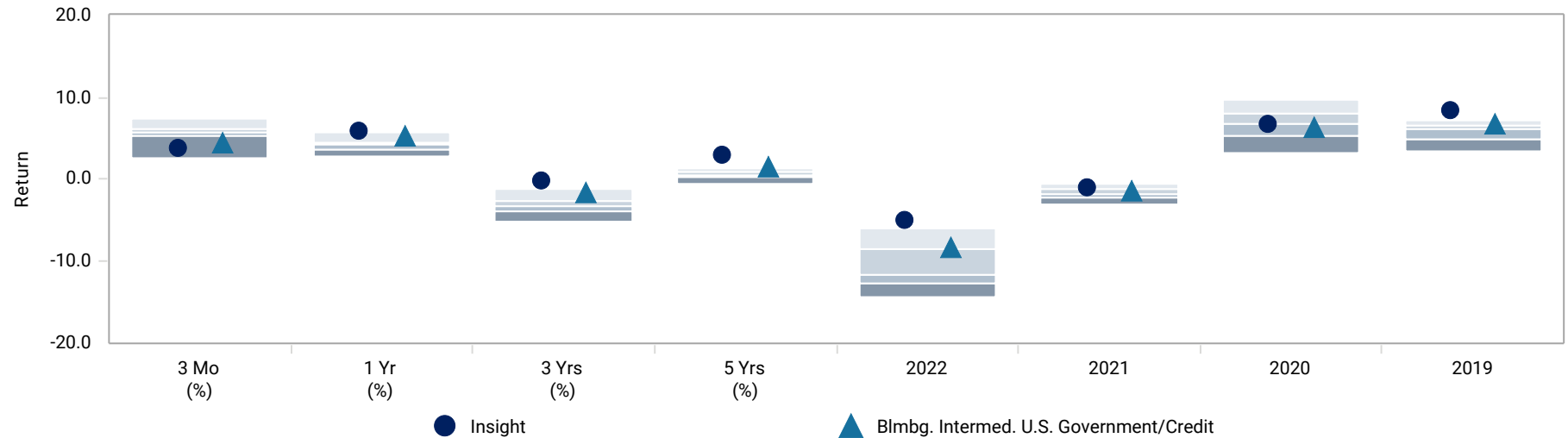


DOMESTIC FIXED INCOME

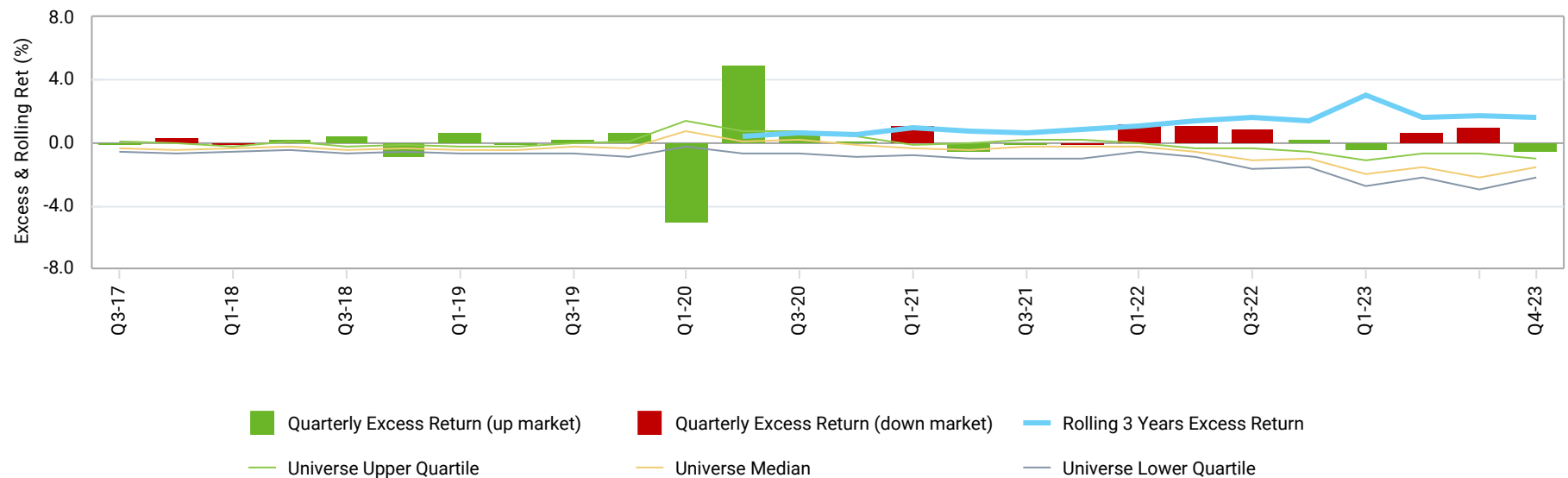


PROPRIETARY & CONFIDENTIAL

eV US Government Fixed Inc (net of fees)

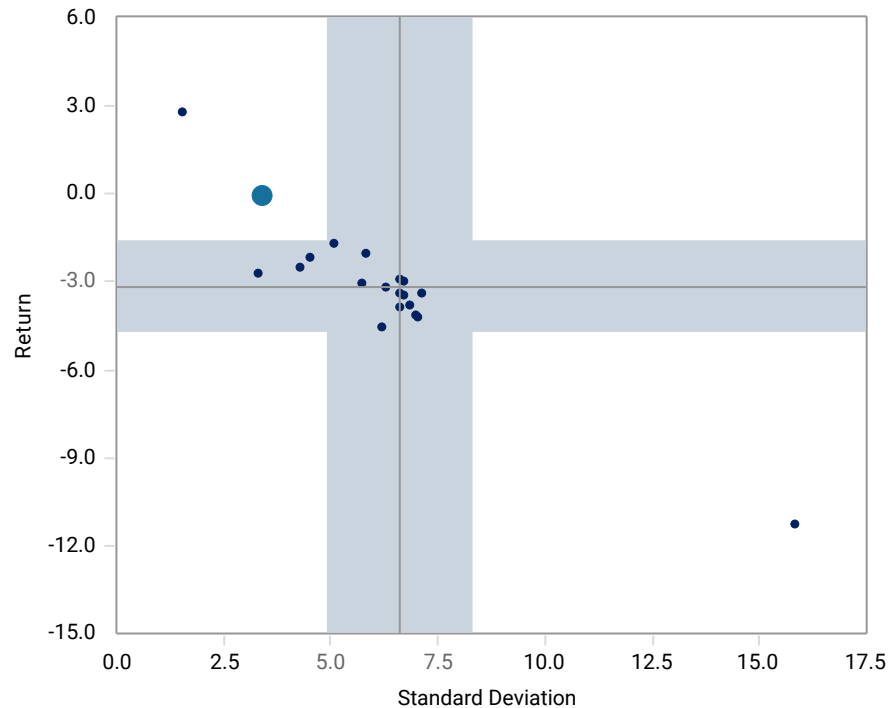


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



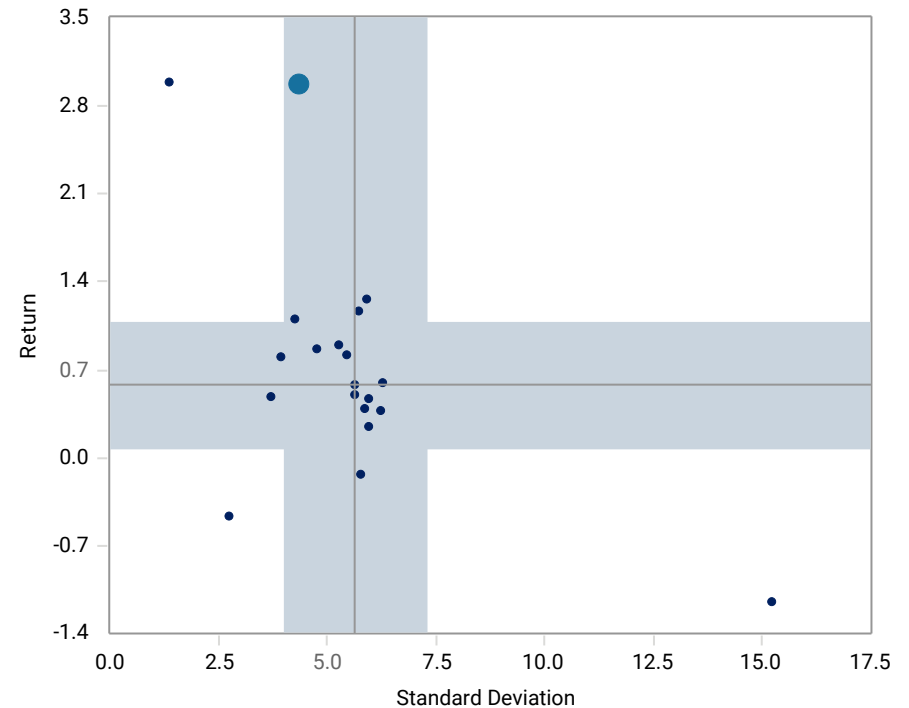
RISK VS. RETURN

3 Years Ending December 31, 2023



● eV US Government Fixed Inc ● Insight

5 Years Ending December 31, 2023



● eV US Government Fixed Inc ● Insight

3 Years Ending December 31, 2023

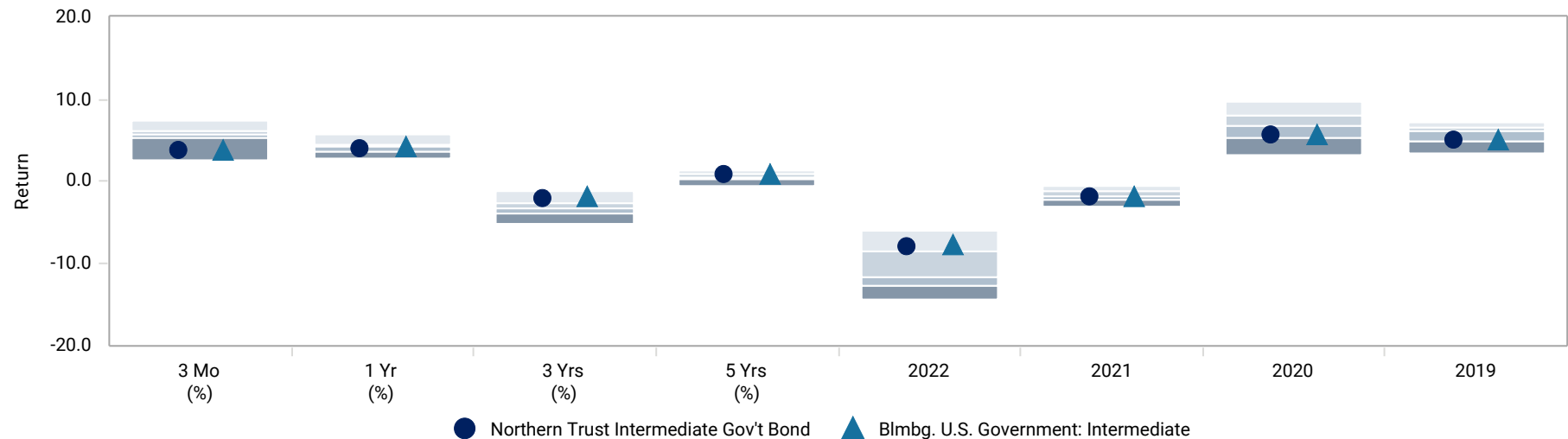
	Return	Standard Deviation	Sharpe Ratio
Insight	0.0 (4)	3.4 (6)	-0.7 (6)
Blmbg. Intermed. U.S. Government/Credit	-1.6 (6)	4.6 (17)	-0.8 (37)
eV US Government Fixed Inc Median	-3.2	6.6	-0.8
Population	19	19	19

5 Years Ending December 31, 2023

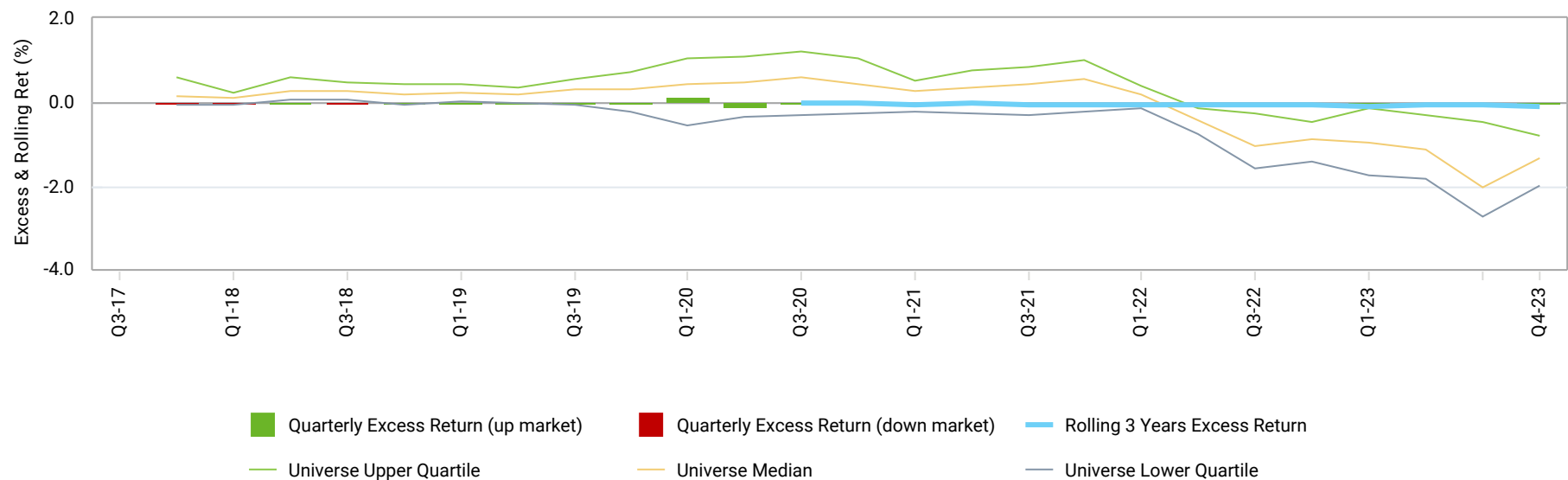
	Return	Standard Deviation	Sharpe Ratio
Insight	3.0 (1)	4.3 (23)	0.3 (4)
Blmbg. Intermed. U.S. Government/Credit	1.6 (5)	4.0 (17)	-0.1 (6)
eV US Government Fixed Inc Median	0.6	5.6	-0.2
Population	19	19	19

NORTHERN TRUST INTERMEDIATE GOV'T BOND

eV US Government Fixed Inc (net of fees)

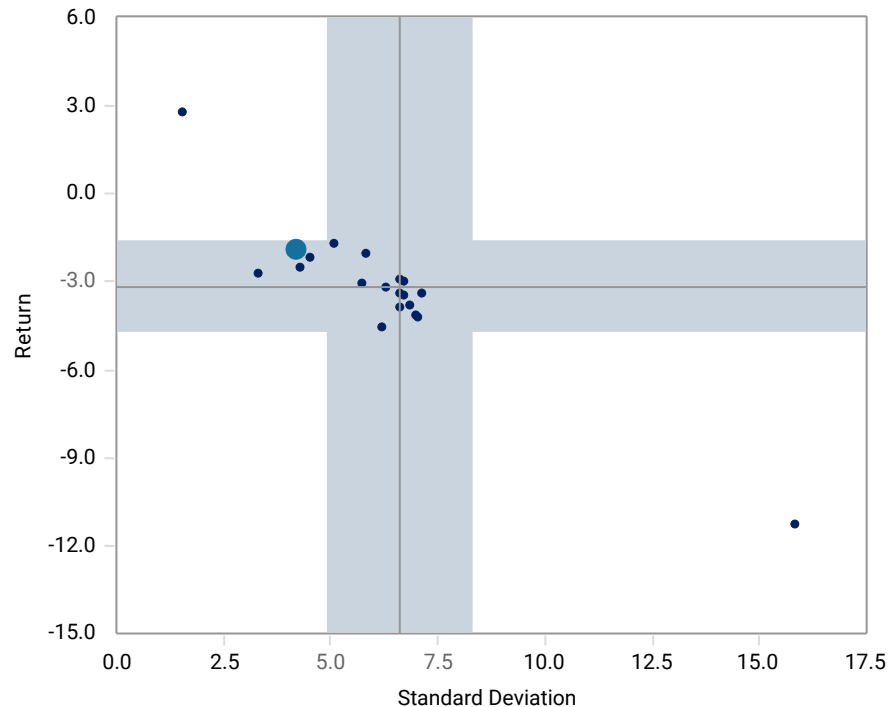


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



RISK VS. RETURN

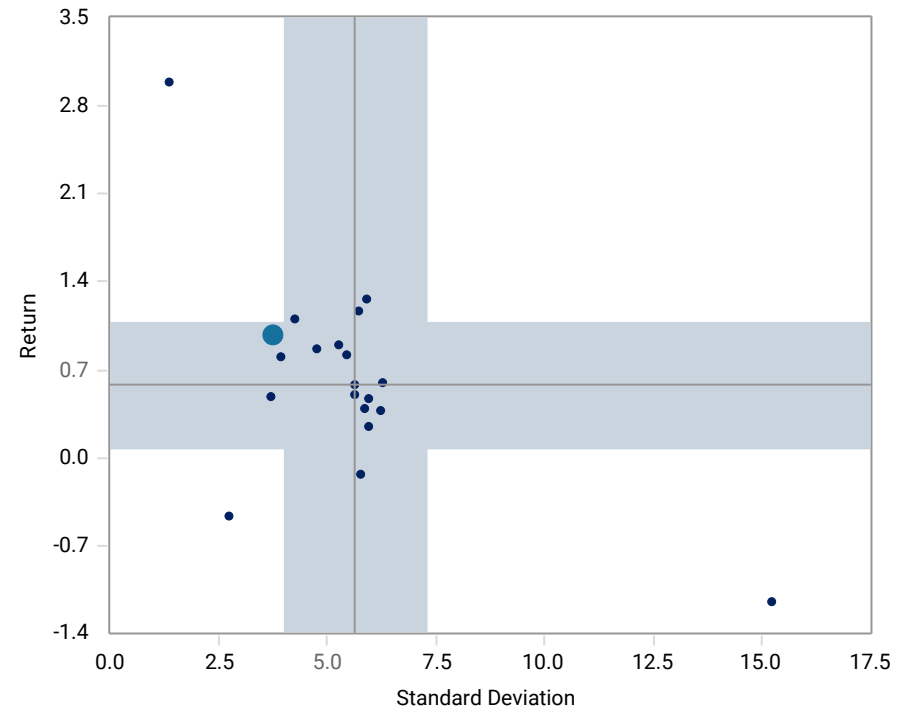
3 Years Ending December 31, 2023



● eV US Government Fixed Inc

● Northern Trust Intermediate Gov't Bond

5 Years Ending December 31, 2023



● eV US Government Fixed Inc

● Northern Trust Intermediate Gov't Bond

3 Years Ending December 31, 2023

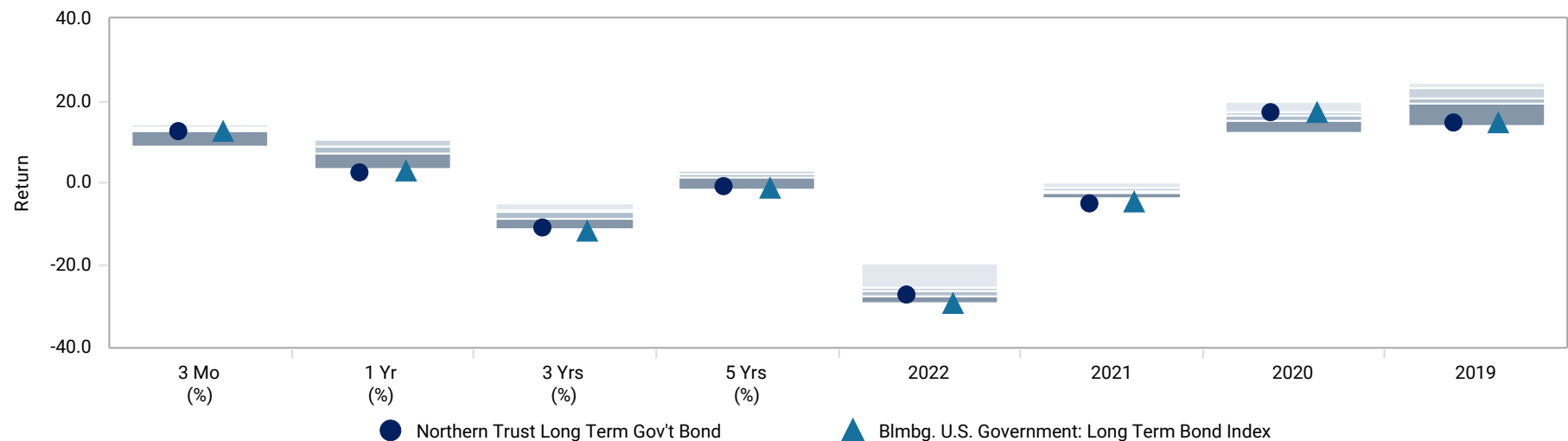
	Return	Standard Deviation	Sharpe Ratio
Northern Trust Intermediate Gov't Bond	-1.9 (10)	4.2 (10)	-1.0 (84)
Blmbg. U.S. Government: Intermediate	-1.8 (9)	4.2 (10)	-1.0 (83)
eV US Government Fixed Inc Median	-3.2	6.6	-0.8
Population	19	19	19

5 Years Ending December 31, 2023

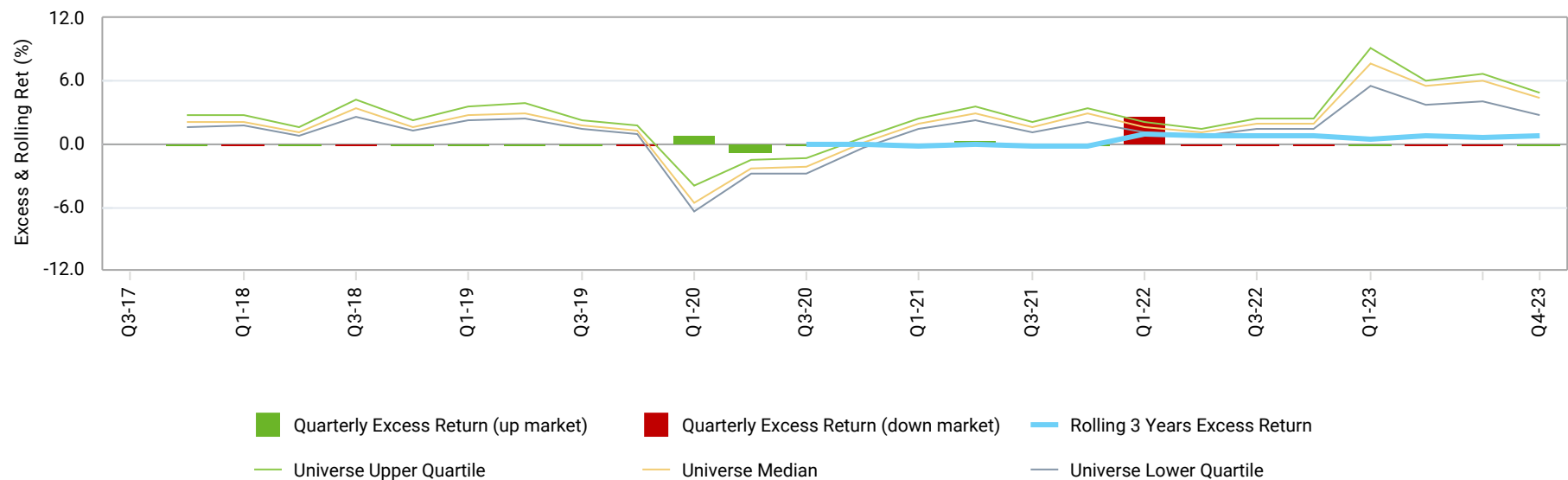
	Return	Standard Deviation	Sharpe Ratio
Northern Trust Intermediate Gov't Bond	1.0 (20)	3.8 (12)	-0.2 (72)
Blmbg. U.S. Government: Intermediate	1.0 (19)	3.8 (12)	-0.2 (64)
eV US Government Fixed Inc Median	0.6	5.6	-0.2
Population	19	19	19

NORTHERN TRUST LONG TERM GOV'T BOND

eV US Long Duration Fixed Inc (net of fees)

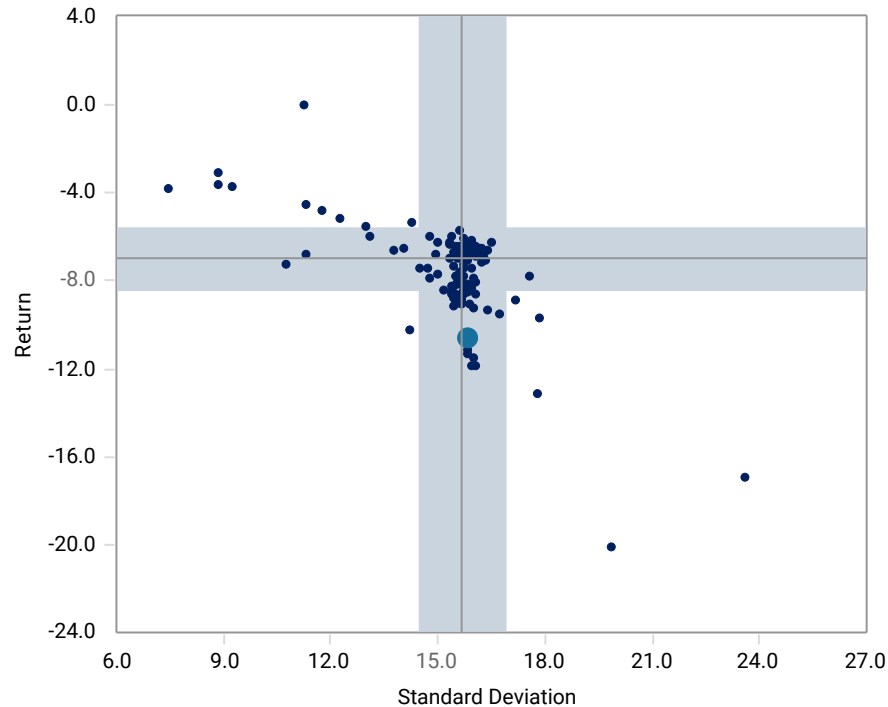


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



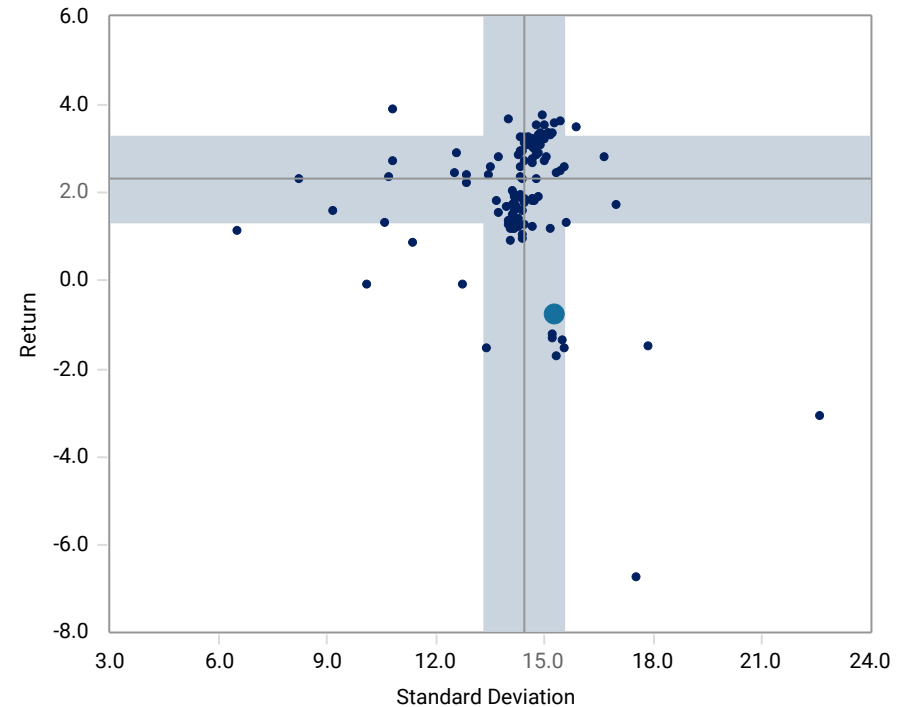
RISK VS. RETURN

3 Years Ending December 31, 2023



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

5 Years Ending December 31, 2023



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

3 Years Ending December 31, 2023

	Return	Standard Deviation	Sharpe Ratio
Northern Trust Long Term Gov't Bond	-10.6 (94)	15.8 (61)	-0.8 (93)
Blmbg. U.S. Government: Long Term Bond Index	-11.3 (96)	15.9 (69)	-0.8 (95)
eV US Long Duration Fixed Inc Median	-7.0	15.7	-0.6
Population	123	123	123

5 Years Ending December 31, 2023

	Return	Standard Deviation	Sharpe Ratio
Northern Trust Long Term Gov't Bond	-0.7 (93)	15.2 (87)	-0.1 (93)
Blmbg. U.S. Government: Long Term Bond Index	-1.2 (94)	15.2 (87)	-0.1 (95)
eV US Long Duration Fixed Inc Median	2.3	14.4	0.1
Population	119	119	119

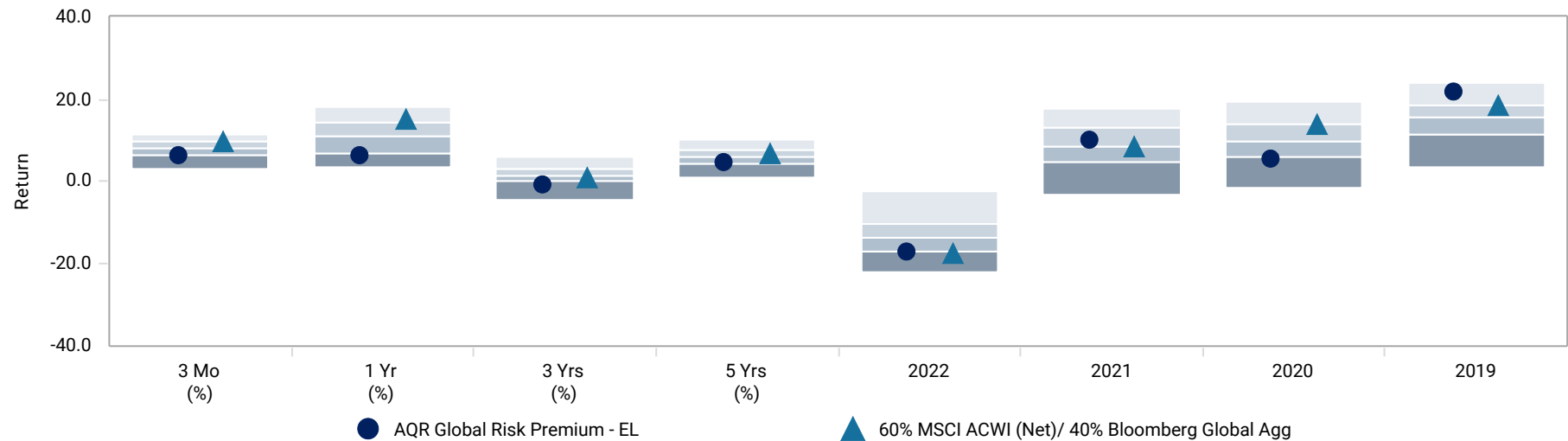
RISK PARITY



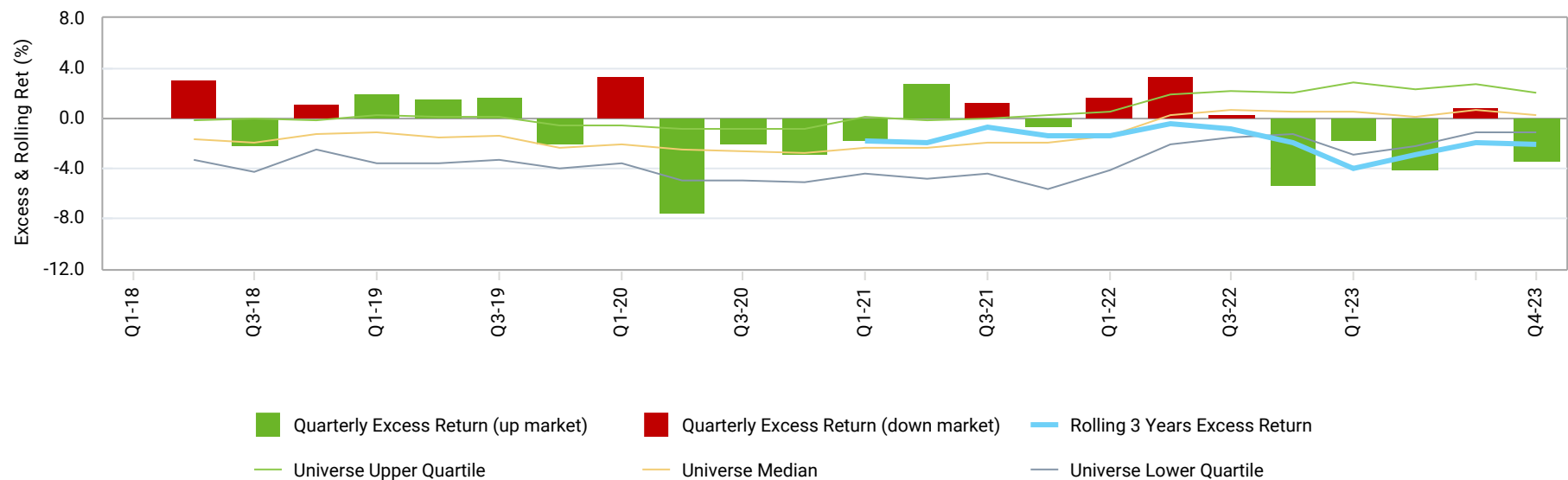
PROPRIETARY & CONFIDENTIAL

AQR GLOBAL RISK PREMIUM - EL

eV Global TAA (net of fees)

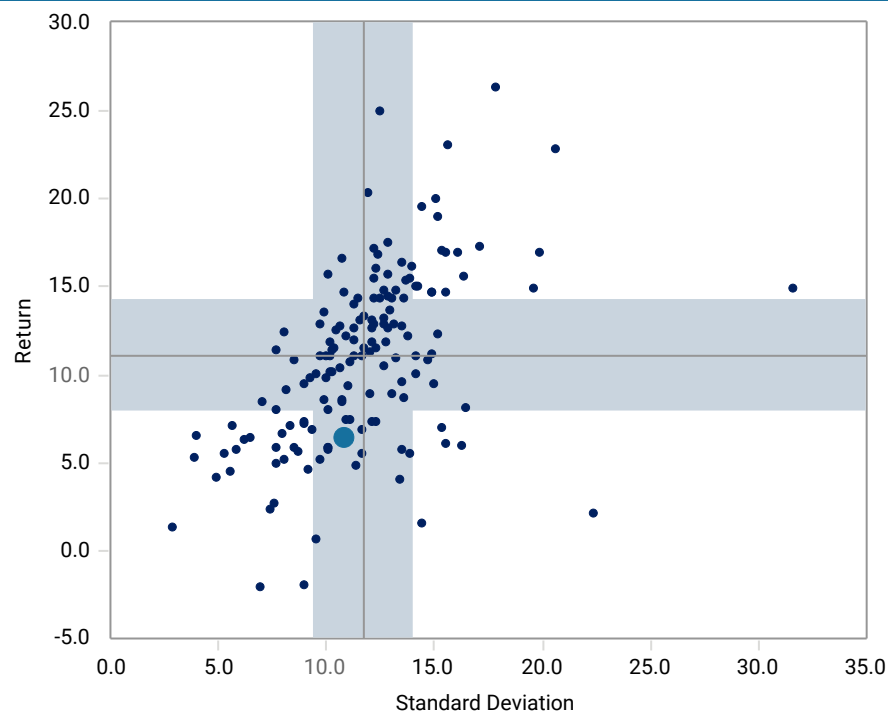


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



RISK VS. RETURN

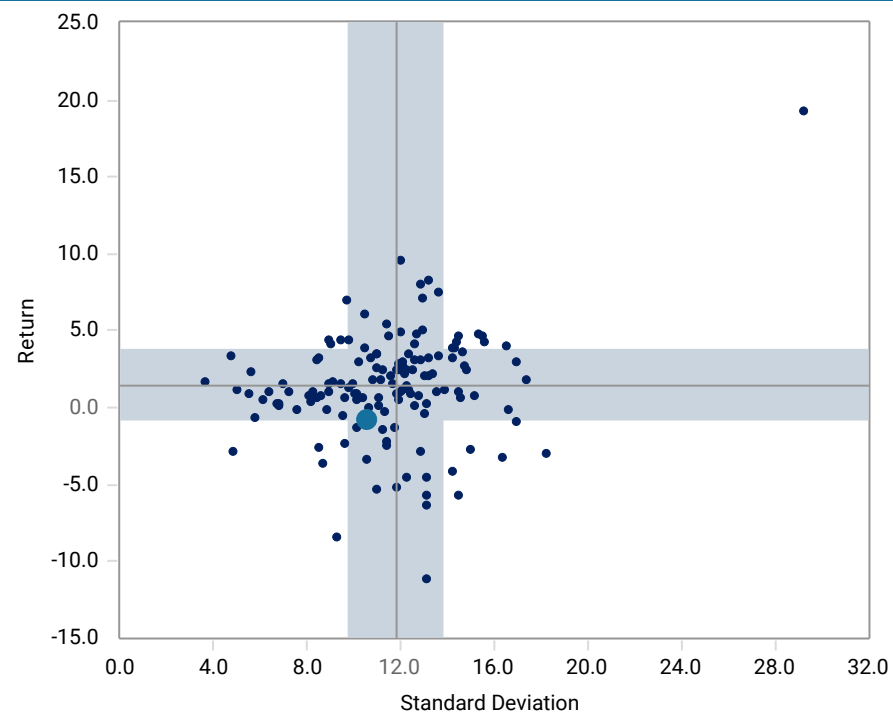
1 Year Ending December 31, 2023



● eV Global TAA

● AQR Global Risk Premium - EL

3 Years Ending December 31, 2023



● eV Global TAA

● AQR Global Risk Premium - EL

1 Year Ending December 31, 2023

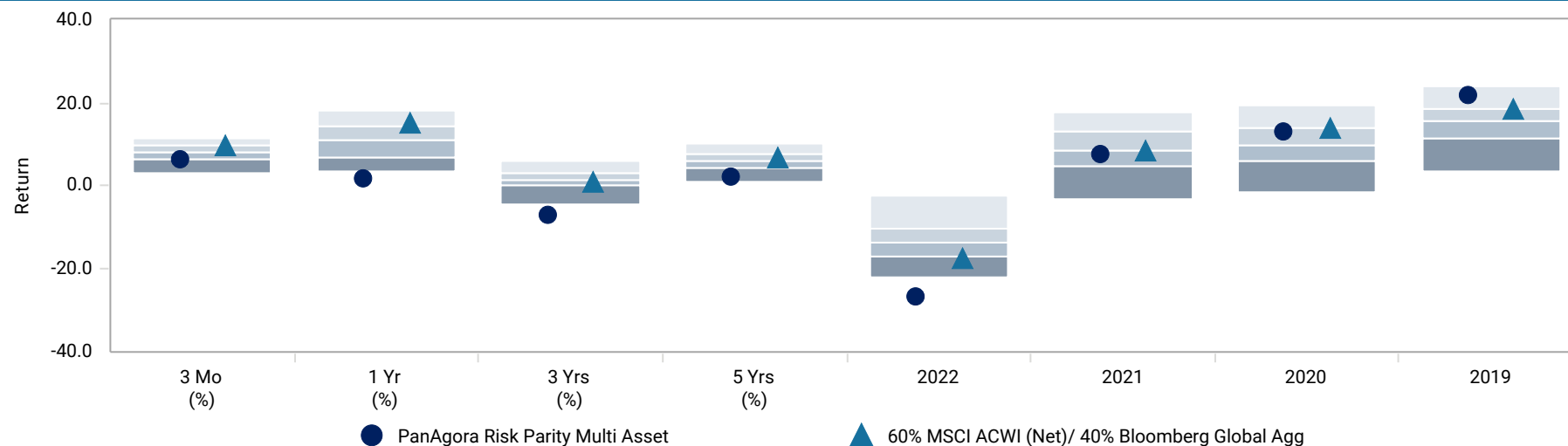
	Return	Standard Deviation	Sharpe Ratio
AQR Global Risk Premium - EL	6.4 (80)	10.8 (39)	0.2 (81)
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	15.4 (17)	13.0 (68)	0.8 (15)
eV Global TAA Median	11.1	11.7	0.5
Population	152	152	152

3 Years Ending December 31, 2023

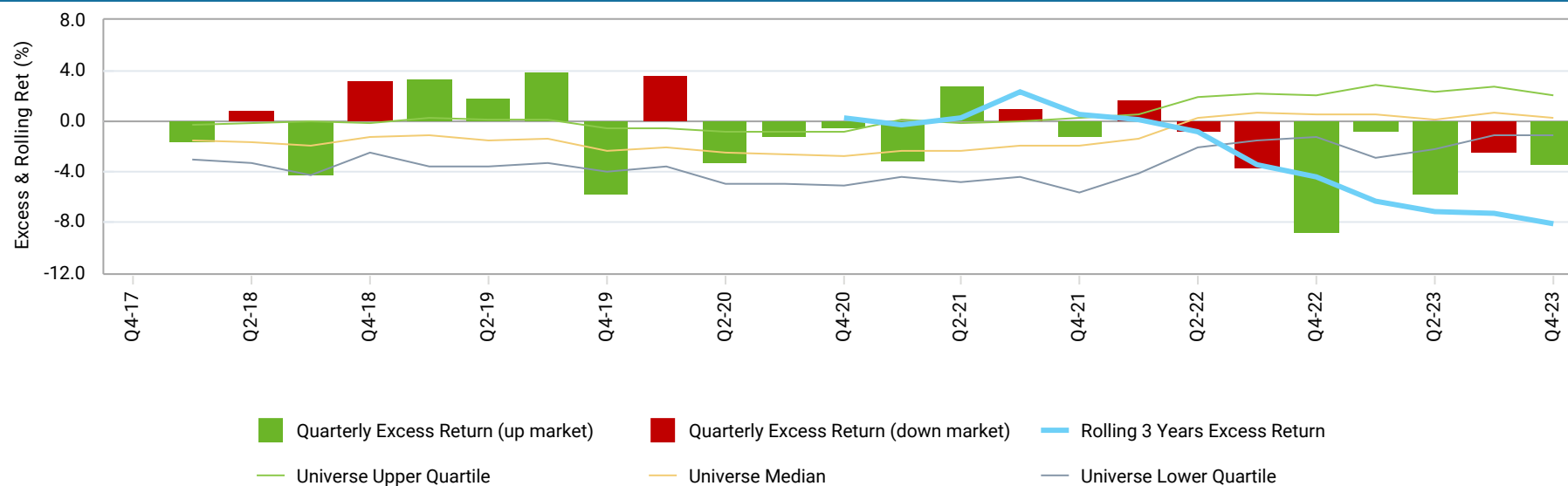
	Return	Standard Deviation	Sharpe Ratio
AQR Global Risk Premium - EL	-0.8 (83)	10.6 (34)	-0.2 (80)
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	1.2 (52)	12.8 (69)	0.0 (49)
eV Global TAA Median	1.5	11.8	0.0
Population	141	141	141

PANAGORA RISK PARITY MULTI ASSET

eV Global TAA (net of fees)

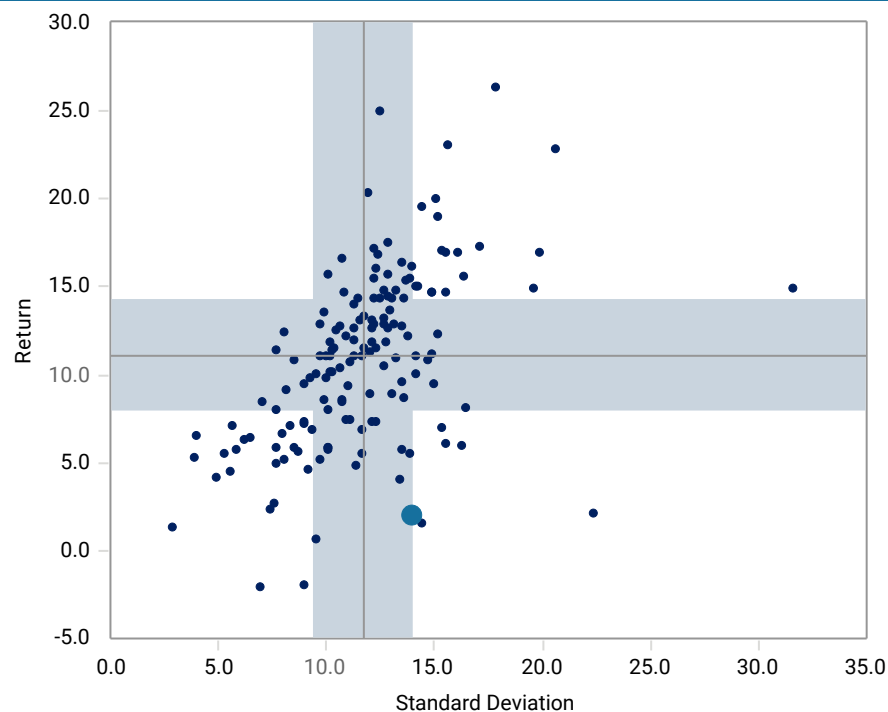


Quarter Excess Return with a Rolling 3 Years Excess Return over Since Inception Ending December 31, 2023



RISK VS. RETURN

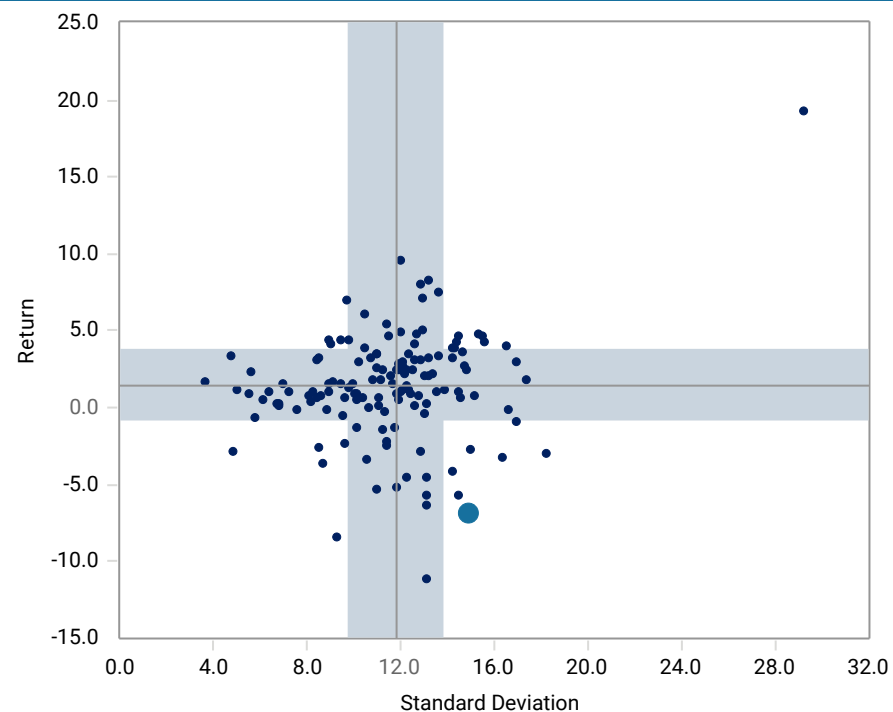
1 Year Ending December 31, 2023



● eV Global TAA

● PanAgora Risk Parity Multi Asset

3 Years Ending December 31, 2023



● eV Global TAA

● PanAgora Risk Parity Multi Asset

1 Year Ending December 31, 2023

	Return	Standard Deviation	Sharpe Ratio
PanAgora Risk Parity Multi Asset	2.0 (97)	14.0 (79)	-0.1 (96)
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	15.4 (17)	13.0 (68)	0.8 (15)
eV Global TAA Median	11.1	11.7	0.5
Population	152	152	152

3 Years Ending December 31, 2023

	Return	Standard Deviation	Sharpe Ratio
PanAgora Risk Parity Multi Asset	-6.8 (99)	14.9 (91)	-0.5 (95)
60% MSCI ACWI (Net)/ 40% Bloomberg Global Agg	1.2 (52)	12.8 (69)	0.0 (49)
eV Global TAA Median	1.5	11.8	0.0
Population	141	141	141



APPENDIX

PROPRIETARY & CONFIDENTIAL

NOTES

- All performance is shown net of investment management fees. Greenfield and Grandview funds are stated as of 9/30/2023 and cash adjusted to date.
- 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 - 06/30/2023:** 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.
 - **07/01/2023 - 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% 1 Qtr Lag (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.
- As of 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.
- As of July 1, 2023, Infrastructure funds (MS Infrastructure Partners II, Northern Infrastructure Fund, Palistar Communications Infrastructure Fund II, JP Morgan IF Hedged LP, and IFM Global Infrastructure Fund) are valued one quarter lagged and adjusted for capital calls and distributions between quarter-end months. Northern Trust Infrastructure Fund's benchmark of 67% STOXX Global Broad Infra/33% Bloomberg US TIPS is valued one quarter lagged.
- 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





QUARTERLY PERFORMANCE REPORT

STANISLAUS COUNTY EMPLOYEES'
RETIREMENT ASSOCIATION

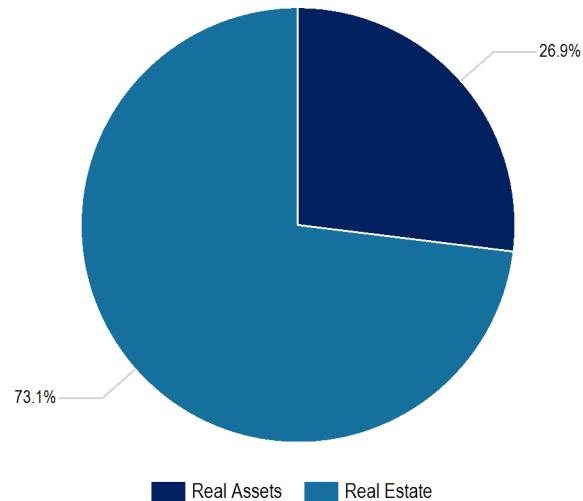
SEPTEMBER 30, 2023

Dan Hennessy, CFA, CAIA, Senior Consultant
Sam Austin, Partner
John Tolar, Consulting Analyst

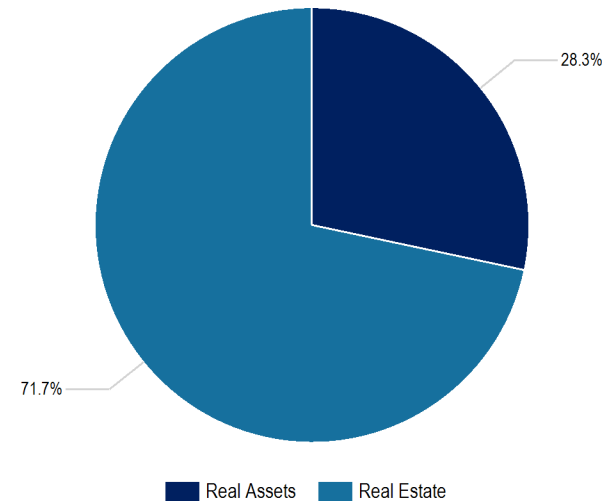


Stanislaus County ERA EXECUTIVE SUMMARY

Valuation by Asset Class



Fund Exposure by Asset Class



Investments \$					Trailing Period Performance (IRR)							Multiples	
Asset Class	Commitment	Cumulative Contributions	Unfunded Commitment	Valuation	(QTR)	(YTD)	(1 YR)	(3 YRS)	(5 YRS)	(10 YRS)	SI IRR	DPI	TVPI
Total Real Assets	\$150,000,000	\$136,014,100	\$13,985,900	\$117,018,359	1.06%	3.43%	9.44%	9.30%	8.98%		9.37%	0.37	1.23
Total Real Estate	\$289,000,000	\$274,646,107	\$14,353,893	\$317,198,043	-0.14%	-2.31%	-4.02%	7.00%	6.96%		7.68%	0.20	1.36
Total	\$439,000,000	\$410,660,207	\$28,339,793	\$434,216,402	0.18%	-0.84%	-0.69%	7.46%	7.35%		8.02%	0.26	1.32



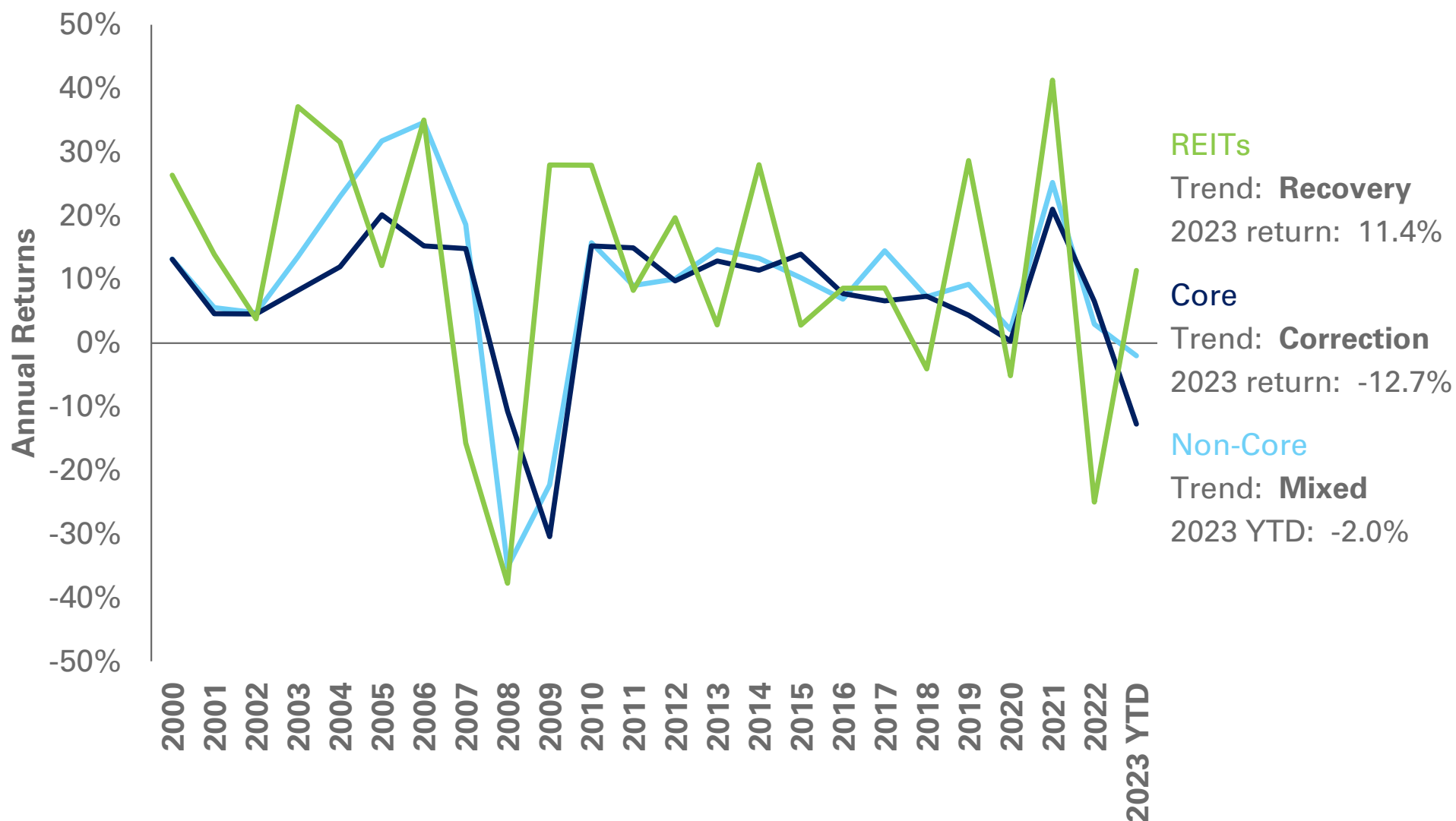


REAL ESTATE MARKET OVERVIEW



PROPRIETARY & CONFIDENTIAL

2023 RETURNS DECLINE WHILE REITS RECOVER

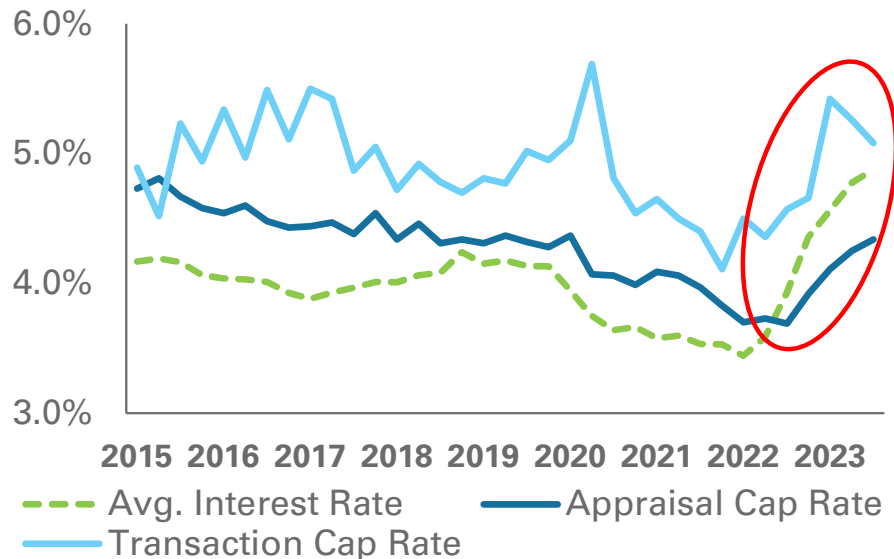


Source: NCREIF, NAREIT, Factset. Data shown is most recent available quarter-end for each index; non-core performance is preliminary as of September 30, 2023, core performance is preliminary as of December 31, 2023, REIT performance as of December 31, 2023.



REAL ESTATE VALUES ARE STILL ADJUSTING

Interest Rate Increases Lead to Cap Rate Expansion with Valuation Lag



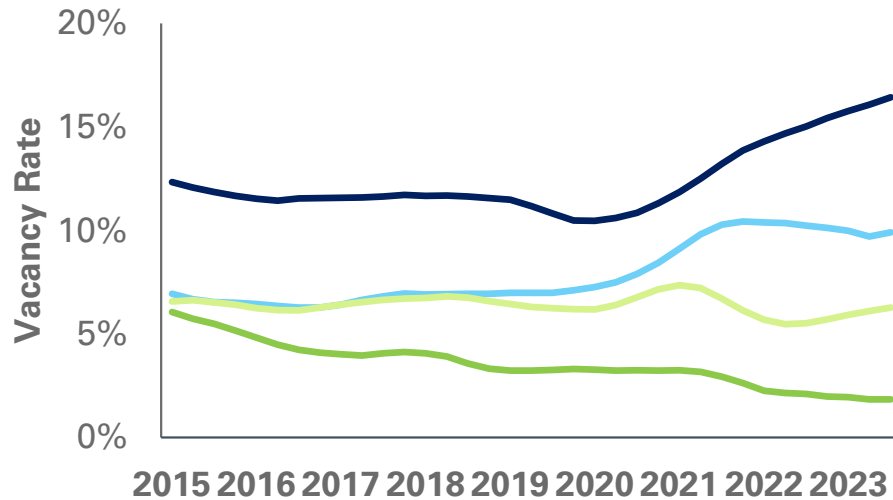
Transaction Volumes Decline Across Property Sectors



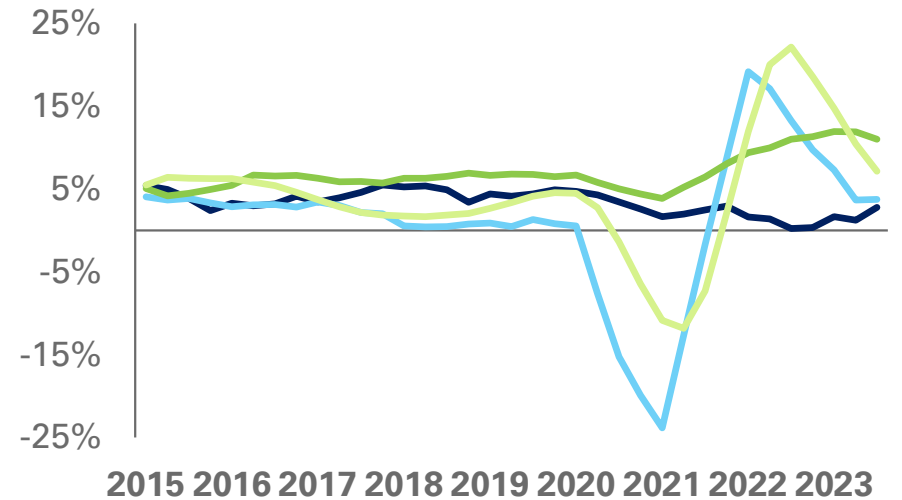
- Interest rate increases driven by the Fed's desire to tame inflation shocked real estate capital markets in 2022 with continued rate increases into 2023
- Cap rate inversion occurred mid-year 2022 and widened as interest rates continued to increase into 2023
- Transaction volumes declined abruptly in late 2022 and a bid-ask spread persists but is narrowing
- Liquidity exists for willing or forced sellers, except for office
- Market acceptance of higher for longer interest rates, continued recognition of value declines, and debt maturities should prompt transaction volumes to increase in 2024 over 2023 levels

PROPERTY SECTOR ALLOCATION MATTERS

Vacancy Disparity Among Property Sectors Widen as Fundamentals Vary



NOI Growth Is Moderating to Historical Norms but Industrial Remains Strong



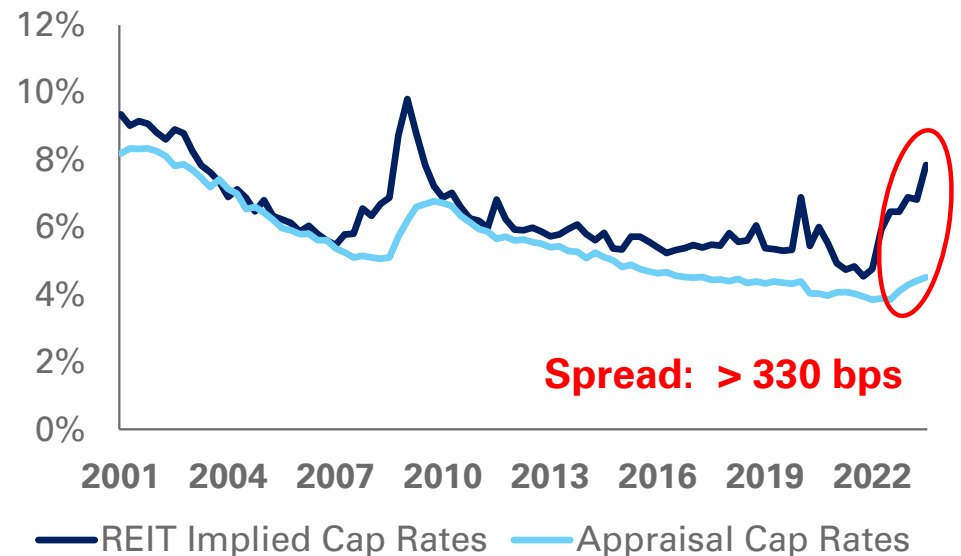
- Strong industrial demand continue to drive low vacancy and healthy relative NOI growth, which has been partially offsetting cap rate expansion
- Apartments continue to benefit from a shortage of affordable housing and strong long-term demand, while new supply is negatively impacting certain markets and greater dispersion among markets
- Retail has largely recovered from pandemic-related stress and finds solid footing, in general
- Office remains challenged due to structural changes in technology, working preferences and tenant requirements

CORE EQUITY CONTINUES TO FACE CHALLENGES

Redemption Queues Are Significant



More Valuation Declines Are Expected



- Redemptions have increased well beyond pandemic levels and represent 16% of NAV for ODCE funds
- Redemption payouts are generally less than 10% per quarter implying two to three more years before redemption queues clear
- Investor commitments remain historically low given declining values and alternative strategies
- Appraisers have been slow to mark down values with declines managed on a quarterly basis
- Appraisal cap rates are still well below the cost of debt and REIT implied cap rates and transaction cap rates indicate future valuation declines are necessary

2024 SHOULD BE A GOOD VINTAGE YEAR

Current Conditions	2024 Strategy Considerations
<ul style="list-style-type: none">● High but moderating inflation● Cautionary recession indicators● Higher for longer interest rate expectations● Traditional lenders cautious and constrained● Public market values have adjusted but volatility persists● Private market values still adjusting downward with more expected● Maturing loans will be difficult to refinance without equity infusions● Property fundamentals continue to be strong but moderating for most sectors● Office will continue to be challenged and leasing presents a difficult re-investment decision● Alternative property sectors show promise with expanding institutional universe● Fundamentals vary by market and region	<ul style="list-style-type: none">● Focus primarily on closed-end funds without pre-2023 legacy assets● Most open-end core funds are still overvalued but variance persists● Newer open-end core plus funds have less legacy risk and more value enhancement potential● Higher interest rates and greater market opportunity bode well for real estate debt● Market dislocations will create discounted pricing opportunities and the ability to supply rescue capital at attractive risk adjusted returns● Greater performance dispersion will make it easier to distinguish stronger managers and strategies● Investment selection and execution will become more important in driving performance and will favor vertically-integrated managers● Diversification by sector, market, global region, and structure should reduce risk and optimize performance



INFRASTRUCTURE MARKET OVERVIEW



PROPRIETARY & CONFIDENTIAL

INFRASTRUCTURE'S IDENTITY CRISIS

- **Infrastructure has changed**

- Traditionally, infrastructure was only associated with core assets such as roads, bridges, or cell towers
- The industry has since expanded into “future proofing” assets such as fiber networks and renewable power
- Infrastructure deals may overlap with private equity, private debt or private real estate
- Operationally intensive assets and strategies that own and operate those assets remain the most defining feature of infrastructure

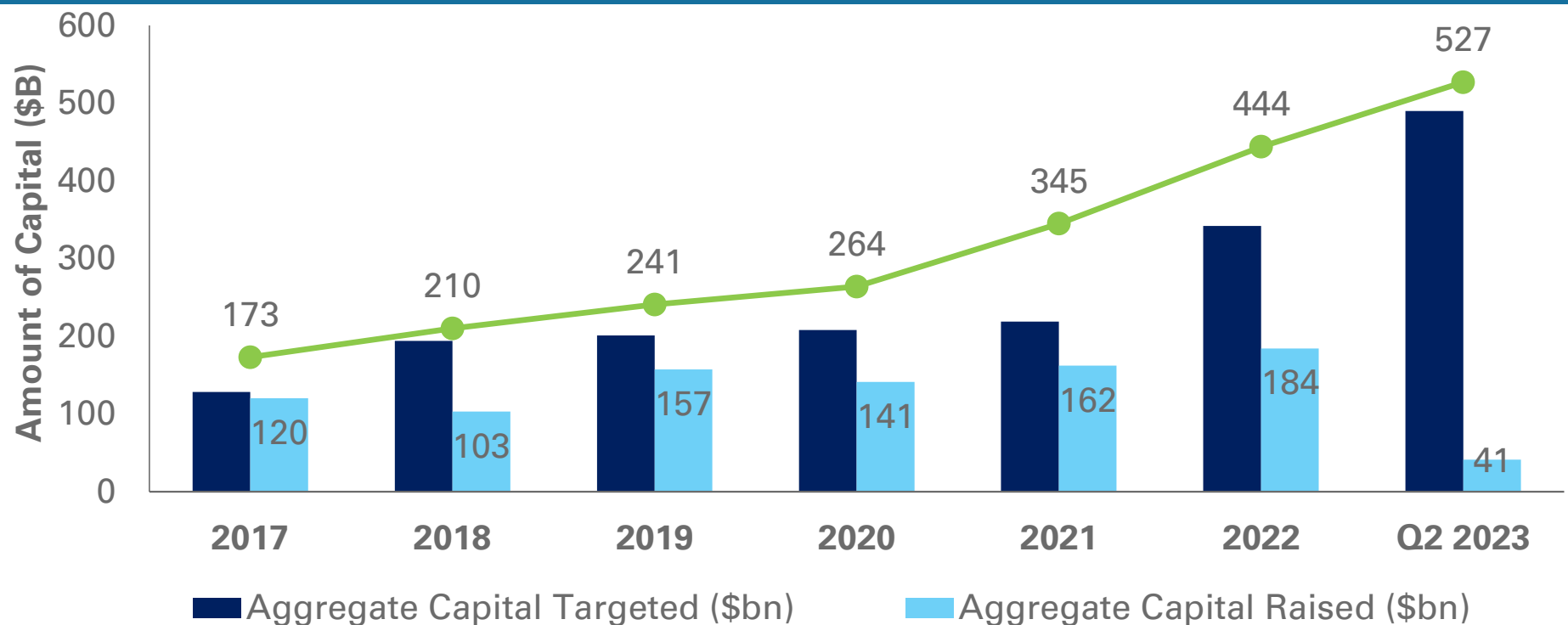
- **Infrastructure Assets may present varying risk/return profiles in today's environment**

- Cashflows continue to have an inverse relationship with risk – high risk equals low distributions
- Not all infrastructure funds have the same defensive components such as inflation protection that are traditional associated with the asset class

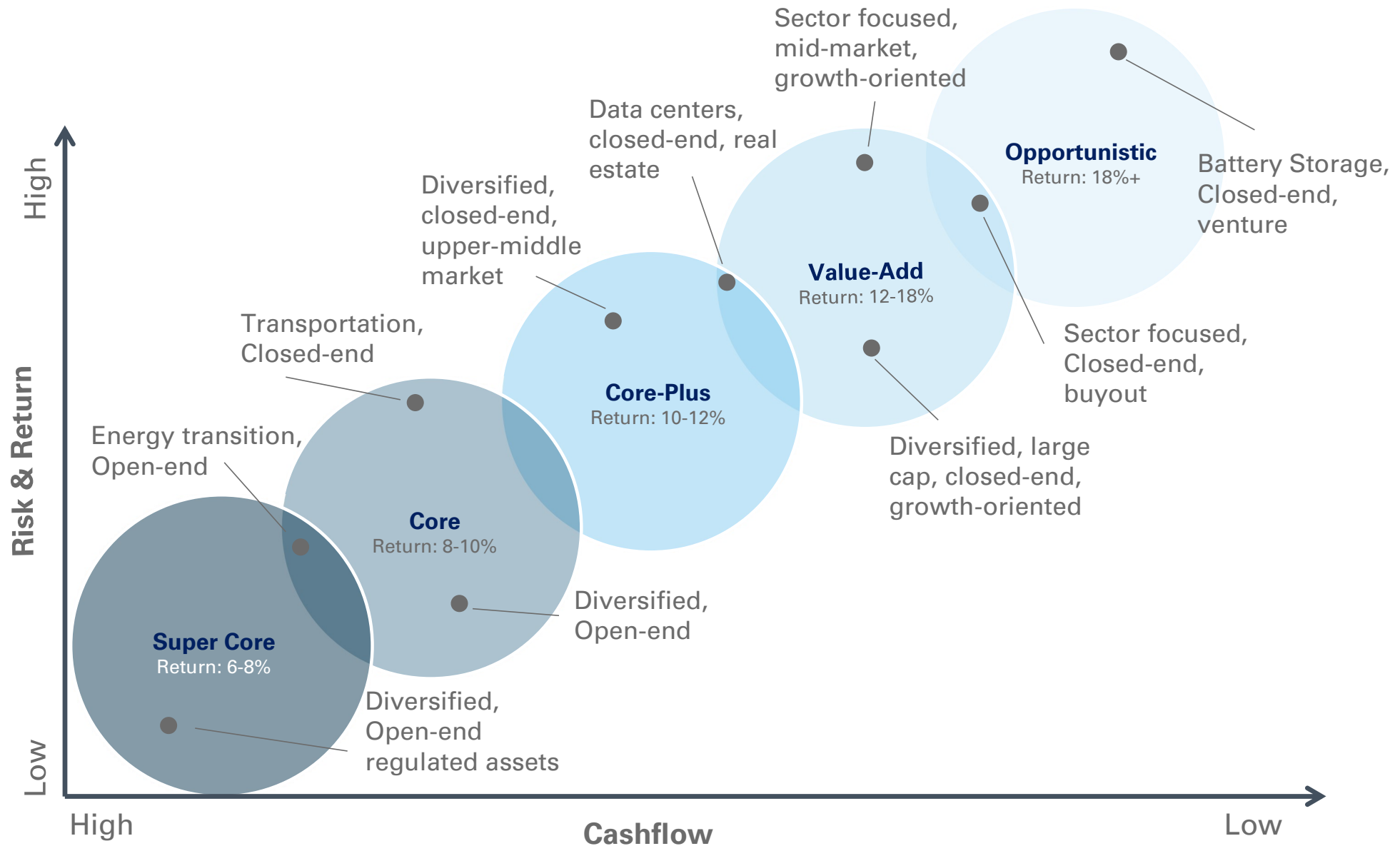
CURRENT INFRASTRUCTURE MARKET

- The three largest infrastructure funds represent 30% of total capital raised
- A global overhaul of essential assets is encouraged by fiscal stimulus
- Middle-market and secondaries may benefit in this environment

Deal Pipelines are Outpacing Supply of Capital



STRATEGY SELECTION

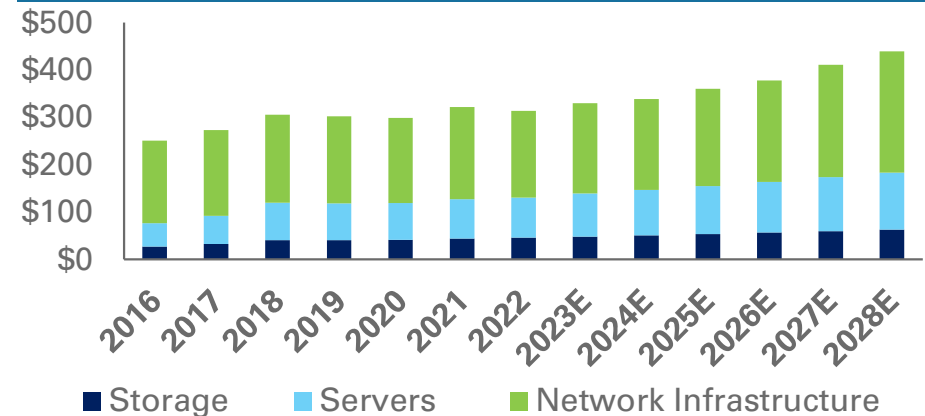


SIGNIFICANT GROWTH IN DIGITAL

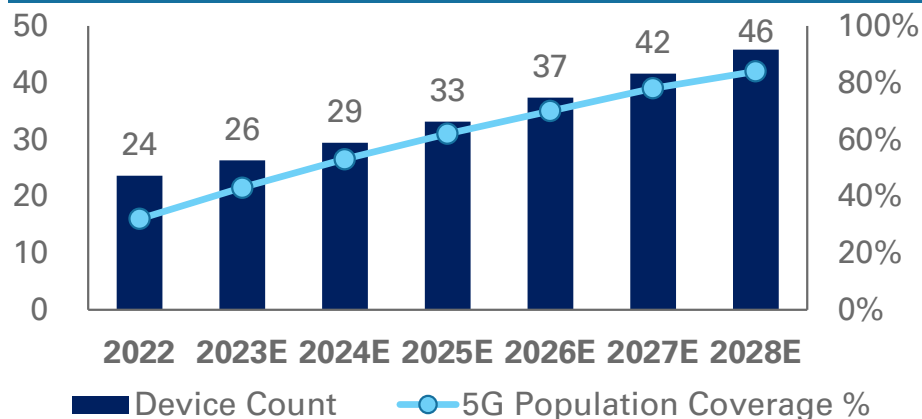
Continued Momentum

- **Macro tailwinds continue**
 - Overall data traffic growth
 - Transition to the cloud and 5G rollout
- **Carriers and network operators drive demand**
- **Regional, customer-centric fiber platforms have room for further expansion**
 - Tier II / III Markets
- **AI may increase data capacity demand**

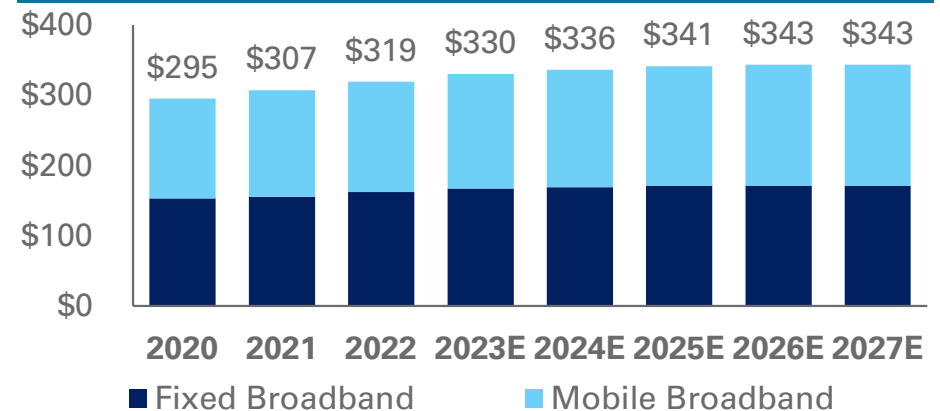
Data Center Revenue Growth (\$B)



5G Adoption Forecast



Broadband Capex (\$B)

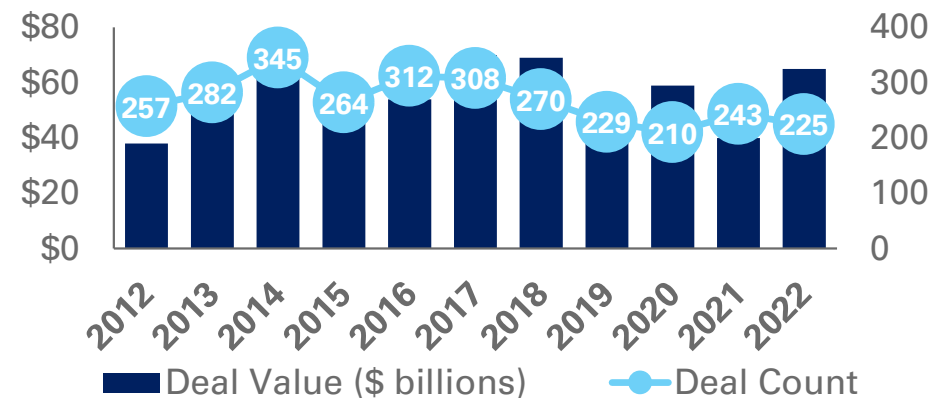


STAY DIVERSIFIED IN THE ENERGY TRANSITION

A Need for Organized Financing

- **Transactions seen across public and private sectors in varying strategy types**
- **Wind and Solar continue to dominate**
 - Other resources such as biofuels may have a bigger impact
- **The “nuts and bolts” are somewhat overlooked**
 - Investors should consider diversifying into storage and transmission where possible
- **The transition should include waste and water**

Private Deal Flow Remains Strong



Annual Financial Commitments in Renewable Energy (\$B)

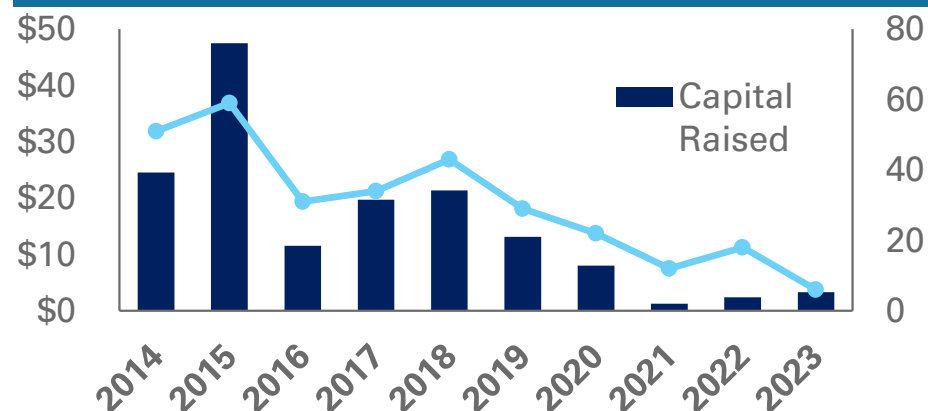


THE UNDER-RESOURCED ESSENTIAL RESOURCE

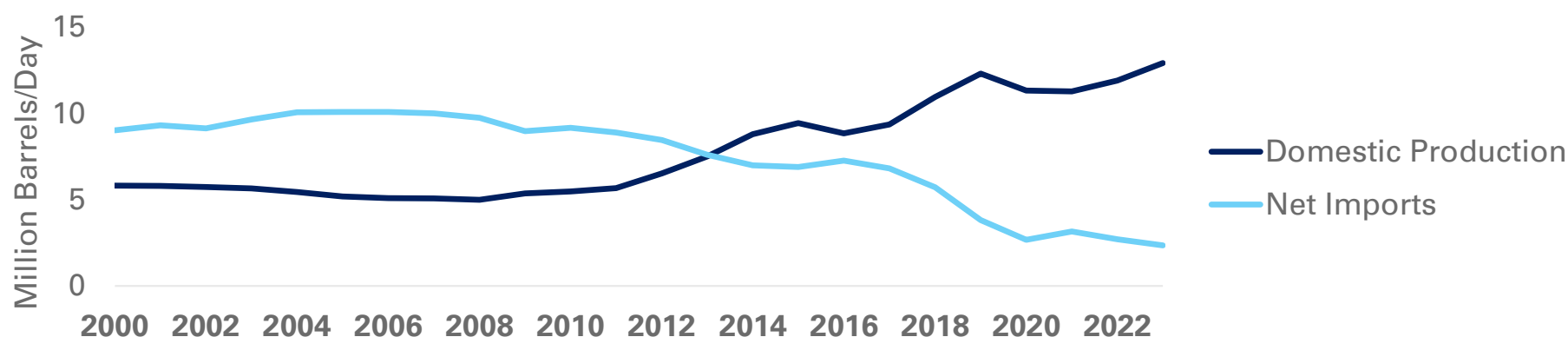
Why Oil Remains Attractive

- **Capital for traditional energy continues to stagnate and consolidate**
 - The remaining investors in oil strategies benefit from better access and unlimited fund capacity
 - Fewer funds year-over-year creates a competitive advantage for GPs
- **The US continues to prioritize domesticated oil supply, providing further tail winds**

Private Capital Remains Scarce



Growth in US Domestic Oil Production

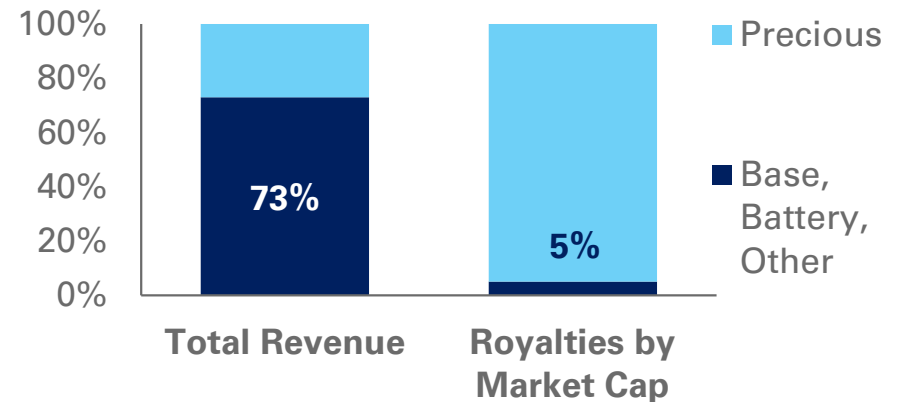


MINING FOR YIELD AND TRANSITION

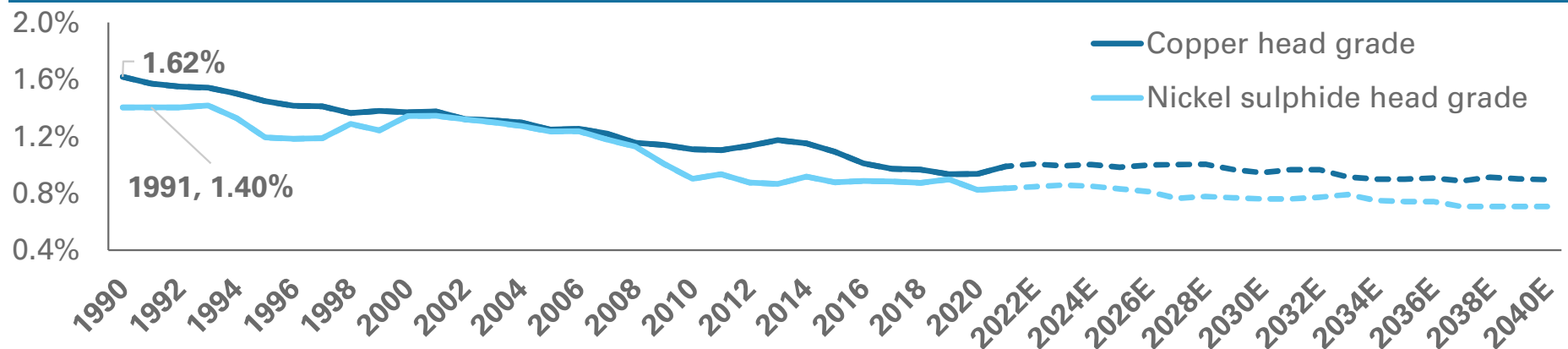
Why Mining Remains an Opportunity

- Demand for metals and minerals to support the energy transition continues
- Speculation grows on whether supply can meet the demand over the long-term
- The mining royalty market is largely untapped for energy transition metals and minerals
 - Royalties offer a lower risk way to access the mining sector

Private Capital Remains Scarce

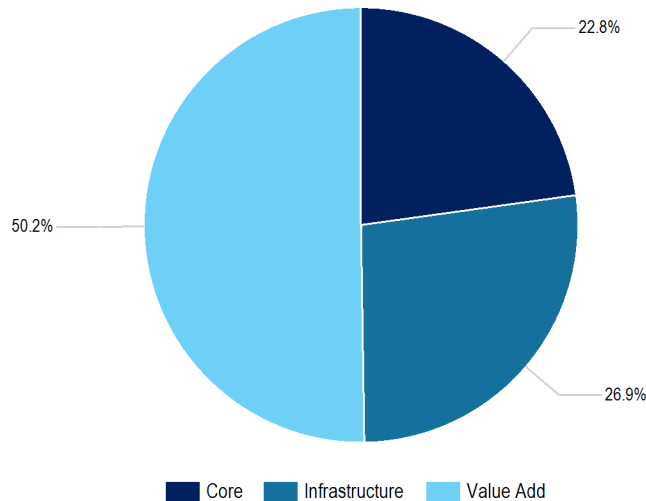


Aging Mines Without Capex Produce Less

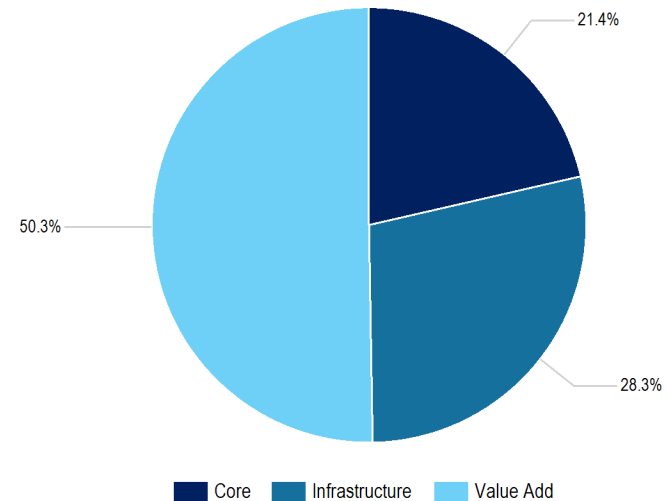


Stanislaus County ERA ANALYSIS BY STRATEGY

Private Markets Valuation by Strategy



Private Markets Fund Exposure by Strategy

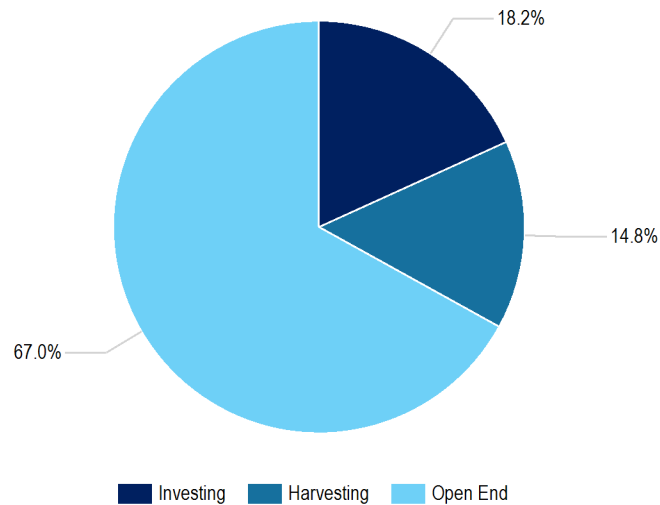


Investments				Contributions & Distributions			Valuations				Performance		
Commitments													
Investment Strategy	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	Fund Exposure	DPI	TVPI	IRR
Total Core Real Estate	\$76,000,000	\$0	1.00	\$76,000,000	\$0	\$0	\$99,034,302	\$99,034,302	\$23,034,302	\$99,034,302	0.00	1.30	5.92%
Total Infrastructure	\$150,000,000	\$13,985,900	0.91	\$136,014,100	\$577,720	\$50,434,261	\$117,018,359	\$167,452,620	\$30,860,800	\$131,004,259	0.37	1.23	9.37%
Total Value Add Real Estate	\$213,000,000	\$14,353,893	0.93	\$198,646,107	-\$138,657	\$56,083,554	\$218,163,741	\$274,247,295	\$75,739,845	\$232,517,634	0.28	1.38	8.44%
Total	\$439,000,000	\$28,339,793	0.94	\$410,660,207	\$439,063	\$106,517,815	\$434,216,402	\$540,734,217	\$129,634,947	\$462,556,195	0.26	1.32	8.02%

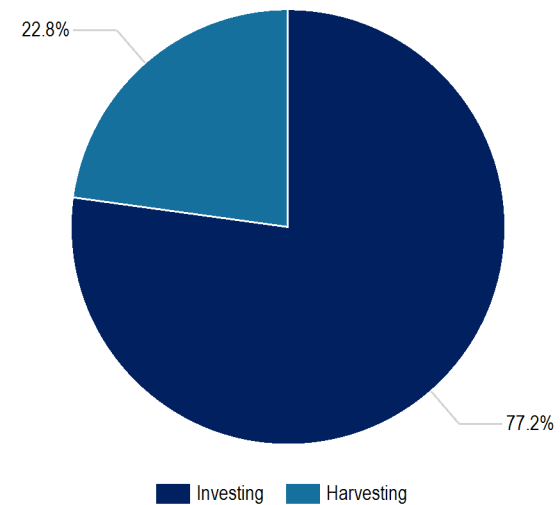


Stanislaus County ERA ANALYSIS BY LIFECYCLE

Commitment by Lifecycle



Unfunded Commitment by Lifecycle

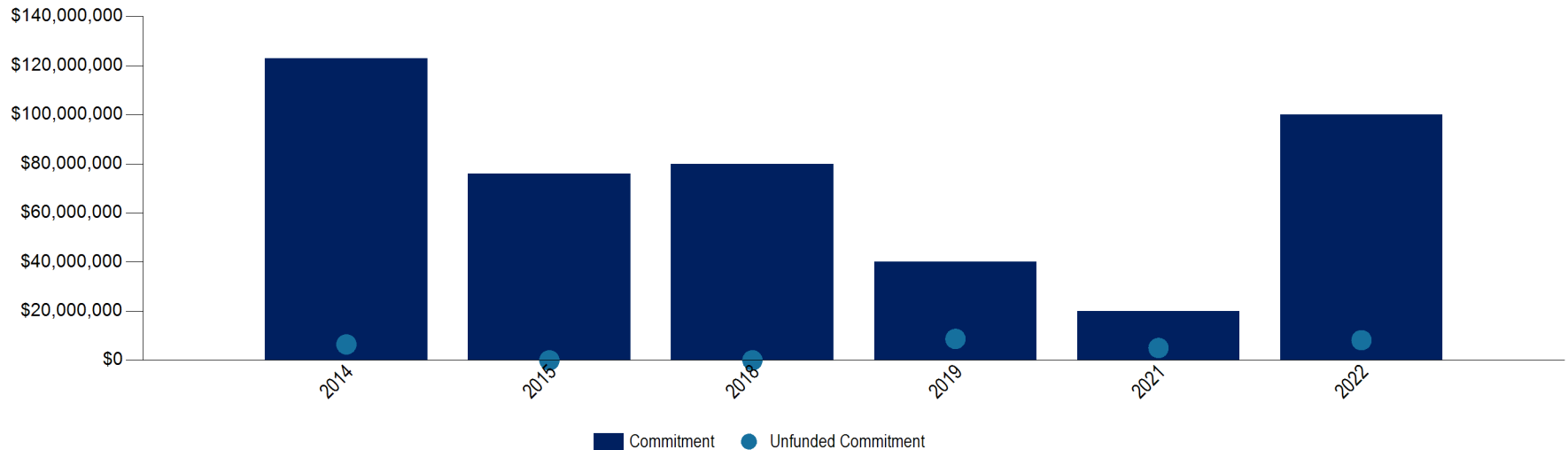


Investments	Commitments			Contributions & Distributions			Valuations			Performance		
Lifecycle	Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total Investing	\$80,000,000	\$21,871,585	0.73	\$58,128,415	\$574,491	\$30,021,438	\$48,953,979	\$78,975,417	\$20,272,511	0.51	1.35	15.47%
Total Harvesting	\$65,000,000	\$6,468,208	0.90	\$58,531,792	-\$135,428	\$74,466,649	\$14,460,955	\$88,927,604	\$30,531,240	1.28	1.52	10.65%
Total Open End	\$294,000,000	\$0	1.00	\$294,000,000	\$0	\$2,029,728	\$370,801,468	\$372,831,196	\$78,831,196	0.01	1.27	6.53%
Total	\$439,000,000	\$28,339,793	0.94	\$410,660,207	\$439,063	\$106,517,815	\$434,216,402	\$540,734,217	\$129,634,947	0.26	1.32	8.02%



Stanislaus County ERA ANALYSIS BY VINTAGE YEAR

Commitments By Vintage Year

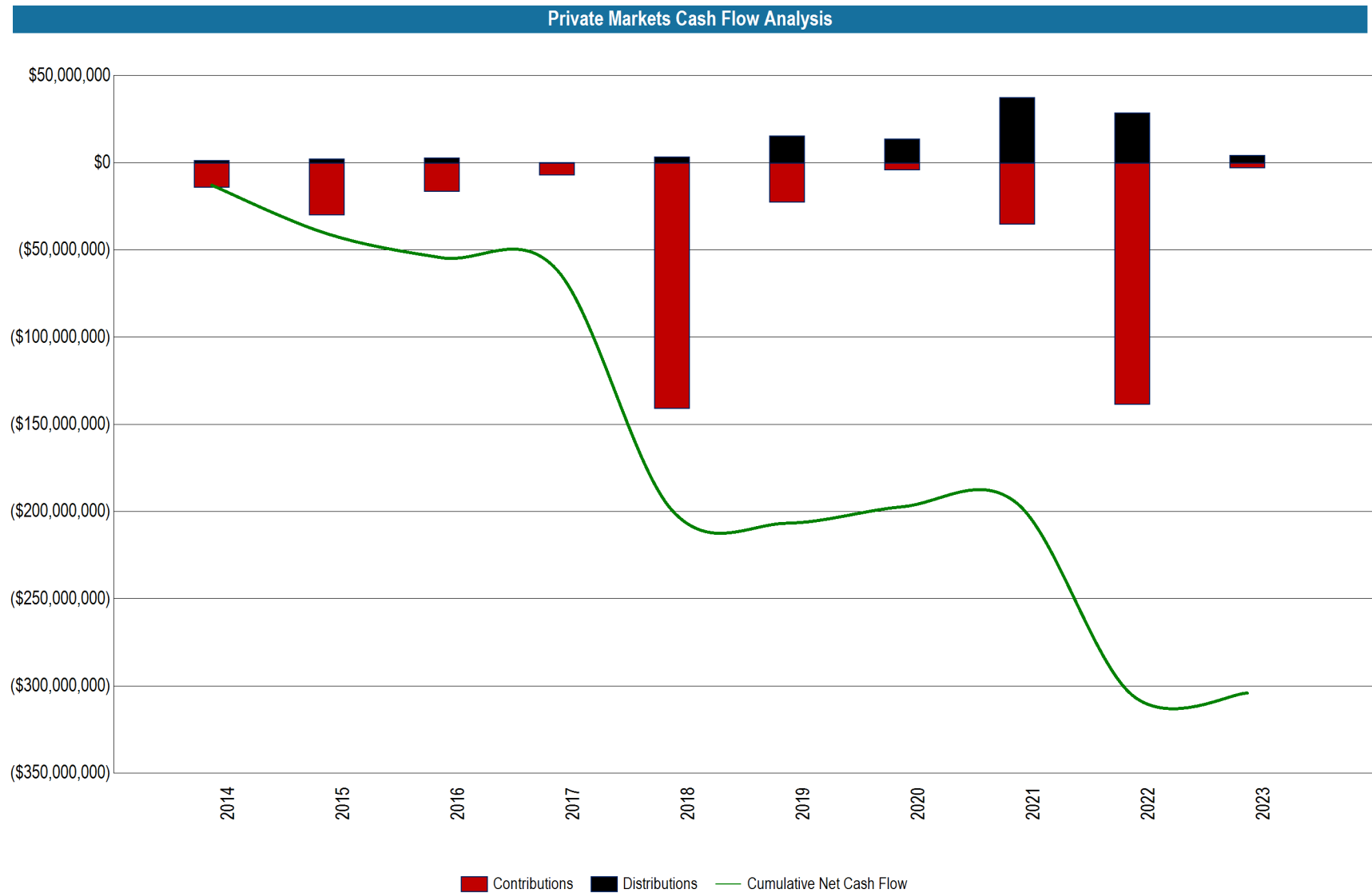


Investments		Commitments			Contributions & Distributions			Valuations			Performance		
Vintage Year		Commitment	Unfunded Commitment	Call Ratio	Cumulative Contributions	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Total 2014		\$123,000,000	\$6,468,208	0.95	\$116,531,792	-\$135,428	\$76,496,377	\$97,556,727	\$174,053,103	\$57,656,739	0.66	1.50	8.79%
Total 2015		\$76,000,000	\$0	1.00	\$76,000,000	\$0	\$0	\$99,034,302	\$99,034,302	\$23,034,302	0.00	1.30	5.92%
Total 2018		\$80,000,000	\$0	1.00	\$80,000,000	\$0	\$0	\$99,019,998	\$99,019,998	\$19,019,998	0.00	1.24	5.70%
Total 2019		\$40,000,000	\$8,694,154	0.78	\$31,305,846	\$70,472	\$30,021,438	\$19,317,039	\$49,338,477	\$17,962,159	0.96	1.57	18.78%
Total 2021		\$20,000,000	\$4,995,723	0.75	\$15,004,277	-\$73,701	\$0	\$15,677,163	\$15,677,163	\$746,587	0.00	1.05	3.16%
Total 2022		\$100,000,000	\$8,181,708	0.92	\$91,818,292	\$577,720	\$0	\$103,611,174	\$103,611,174	\$11,215,162	0.00	1.12	9.15%
Total		\$439,000,000	\$28,339,793	0.94	\$410,660,207	\$439,063	\$106,517,815	\$434,216,402	\$540,734,217	\$129,634,947	0.26	1.32	8.02%



Stanislaus County ERA

CASH FLOW ANALYSIS



Stanislaus County ERA

RETURN SUMMARY

Investments			Trailing Period Returns (IRR) %							Performance		
Investment Name	Vintage Year	Commitment	(Qtr)	(YTD)	(1 Yr)	(3 Yrs)	(5 Yrs)	(10 Yrs)	SI IRR	Prim PME (Direct Alpha)	PME (Kaplan Schoar)	PME Benchmark
Real Assets												
IFM Global Infrastructure (US), L.P.	2022	\$50,000,000	0.84%	6.05%	10.59%				9.03%	16.49%	1.19	S&P Global Infrastructure TR USD
JP Morgan IIF Hedged, L.P.	2022	\$30,000,000	2.03%	1.68%	14.68%				9.47%	18.17%	1.28	S&P Global Infrastructure TR USD
North Haven Infrastructure Partners II, L.P.	2014	\$50,000,000	-1.62%	-4.48%	-2.00%	9.51%	8.87%		9.47%	4.97%	1.16	S&P Global Infrastructure TR USD
Palistar Communications Infrastructure Fund II, L.P.	2022	\$20,000,000	2.14%	6.04%	8.22%				8.71%	11.31%	1.15	S&P Global Infrastructure TR USD
Total Real Assets		\$150,000,000	1.06%	3.43%	9.44%	9.30%	8.98%		9.37%	8.01%	1.19	
Real Estate												
American Strategic Value Realty Fund, L.P.	2014	\$58,000,000	-1.84%	-6.34%	-9.61%	6.56%	6.18%		7.20%	-13.09%	0.48	FTSE NAREIT Equity REIT
Grandview I-A, L.P.	2019	\$40,000,000	4.71%	-8.04%	-11.15%	13.56%			18.78%	-12.27%	0.66	FTSE NAREIT Equity REIT
Grandview II, L.P.	2021	\$20,000,000	0.59%	-0.27%	5.54%				3.16%	15.17%	1.17	FTSE NAREIT Equity REIT
Greenfield Acquisition Partners VII, L.P.	2014	\$15,000,000	2.46%	7.28%	-8.54%	22.90%	13.71%		13.21%	33.93%	1.72	FTSE NAREIT Equity REIT
PGIM Real Estate U.S. Debt Fund, L.P.	2018	\$80,000,000	1.33%	4.89%	6.64%	5.89%	5.70%		5.70%	-36.90%	0.11	FTSE NAREIT Equity REIT
Prime Property Fund, LLC	2015	\$76,000,000	-1.21%	-4.62%	-8.14%	6.15%	5.36%		5.92%	-38.88%	0.09	FTSE NAREIT Equity REIT
Total Real Estate		\$289,000,000	-0.14%	-2.31%	-4.02%	7.00%	6.96%		7.68%	-32.33%	0.19	
Total		\$439,000,000	0.18%	-0.84%	-0.69%	7.46%	7.35%		8.02%	-29.12%	0.26	



Stanislaus County ERA ANALYSIS BY FUND

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Real Assets												
IFM Global Infrastructure (US), L.P.	2022	\$50,000,000	\$0	\$50,000,000	\$0	\$0	\$55,292,742	\$55,292,742	\$5,292,742	0.00	1.11	9.03%
JP Morgan IIF Hedged, L.P.	2022	\$30,000,000	\$0	\$30,000,000	\$0	\$0	\$34,358,655	\$34,358,655	\$4,358,655	0.00	1.15	9.47%
North Haven Infrastructure Partners II, L.P.	2014	\$50,000,000	\$5,804,192	\$44,195,808	\$0	\$50,434,261	\$13,407,185	\$63,841,446	\$19,645,638	1.14	1.44	9.47%
Palistar Communications Infrastructure Fund II, L.P.	2022	\$20,000,000	\$8,181,708	\$11,818,292	\$577,720	\$0	\$13,959,777	\$13,959,777	\$1,563,765	0.00	1.13	8.71%
Total Real Assets		\$150,000,000	\$13,985,900	\$136,014,100	\$577,720	\$50,434,261	\$117,018,359	\$167,452,620	\$30,860,800	0.37	1.23	9.37%
Real Estate												
American Strategic Value Realty Fund, L.P.	2014	\$58,000,000	\$0	\$58,000,000	\$0	\$2,029,728	\$83,095,772	\$85,125,499	\$27,125,499	0.03	1.47	7.20%
Grandview I-A, L.P.	2019	\$40,000,000	\$8,694,154	\$31,305,846	\$70,472	\$30,021,438	\$19,317,039	\$49,338,477	\$17,962,159	0.96	1.57	18.78%
Grandview II, L.P.	2021	\$20,000,000	\$4,995,723	\$15,004,277	-\$73,701	\$0	\$15,677,163	\$15,677,163	\$746,587	0.00	1.05	3.16%
Greenfield Acquisition Partners VII, L.P.	2014	\$15,000,000	\$664,016	\$14,335,984	-\$135,428	\$24,032,388	\$1,053,770	\$25,086,158	\$10,885,602	1.69	1.77	13.21%
PGIM Real Estate U.S. Debt Fund, L.P.	2018	\$80,000,000	\$0	\$80,000,000	\$0	\$0	\$99,019,998	\$99,019,998	\$19,019,998	0.00	1.24	5.70%
Prime Property Fund, LLC	2015	\$76,000,000	\$0	\$76,000,000	\$0	\$0	\$99,034,302	\$99,034,302	\$23,034,302	0.00	1.30	5.92%
Total Real Estate		\$289,000,000	\$14,353,893	\$274,646,107	-\$138,657	\$56,083,554	\$317,198,043	\$373,281,597	\$98,774,147	0.20	1.36	7.68%
Total		\$439,000,000	\$28,339,793	\$410,660,207	\$439,063	\$106,517,815	\$434,216,402	\$540,734,217	\$129,634,947	0.26	1.32	8.02%



Stanislaus County ERA

ANALYSIS BY LIFECYCLE

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Investing												
Grandview I-A, L.P.	2019	\$40,000,000	\$8,694,154	\$31,305,846	\$70,472	\$30,021,438	\$19,317,039	\$49,338,477	\$17,962,159	0.96	1.57	18.78%
Grandview II, L.P.	2021	\$20,000,000	\$4,995,723	\$15,004,277	-\$73,701	\$0	\$15,677,163	\$15,677,163	\$746,587	0.00	1.05	3.16%
Palistar Communications Infrastructure Fund II, L.P.	2022	\$20,000,000	\$8,181,708	\$11,818,292	\$577,720	\$0	\$13,959,777	\$13,959,777	\$1,563,765	0.00	1.13	8.71%
Total Investing		\$80,000,000	\$21,871,585	\$58,128,415	\$574,491	\$30,021,438	\$48,953,979	\$78,975,417	\$20,272,511	0.51	1.35	15.47%
Harvesting												
Greenfield Acquisition Partners VII, L.P.	2014	\$15,000,000	\$664,016	\$14,335,984	-\$135,428	\$24,032,388	\$1,053,770	\$25,086,158	\$10,885,602	1.69	1.77	13.21%
North Haven Infrastructure Partners II, L.P.	2014	\$50,000,000	\$5,804,192	\$44,195,808	\$0	\$50,434,261	\$13,407,185	\$63,841,446	\$19,645,638	1.14	1.44	9.47%
Total Harvesting		\$65,000,000	\$6,468,208	\$58,531,792	-\$135,428	\$74,466,649	\$14,460,955	\$88,927,604	\$30,531,240	1.28	1.52	10.65%
Open End												
American Strategic Value Realty Fund, L.P.	2014	\$58,000,000	\$0	\$58,000,000	\$0	\$2,029,728	\$83,095,772	\$85,125,499	\$27,125,499	0.03	1.47	7.20%
IFM Global Infrastructure (US), L.P.	2022	\$50,000,000	\$0	\$50,000,000	\$0	\$0	\$55,292,742	\$55,292,742	\$5,292,742	0.00	1.11	9.03%
JP Morgan IIF Hedged, L.P.	2022	\$30,000,000	\$0	\$30,000,000	\$0	\$0	\$34,358,655	\$34,358,655	\$4,358,655	0.00	1.15	9.47%
PGIM Real Estate U.S. Debt Fund, L.P.	2018	\$80,000,000	\$0	\$80,000,000	\$0	\$0	\$99,019,998	\$99,019,998	\$19,019,998	0.00	1.24	5.70%
Prime Property Fund, LLC	2015	\$76,000,000	\$0	\$76,000,000	\$0	\$0	\$99,034,302	\$99,034,302	\$23,034,302	0.00	1.30	5.92%
Total Open End		\$294,000,000	\$0	\$294,000,000	\$0	\$2,029,728	\$370,801,468	\$372,831,196	\$78,831,196	0.01	1.27	6.53%
Total		\$439,000,000	\$28,339,793	\$410,660,207	\$439,063	\$106,517,815	\$434,216,402	\$540,734,217	\$129,634,947	0.26	1.32	8.02%



Stanislaus County ERA

ANALYSIS BY VINTAGE YEAR

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
2014												
American Strategic Value Realty Fund, L.P.	2014	\$58,000,000	\$0	\$58,000,000	\$0	\$2,029,728	\$83,095,772	\$85,125,499	\$27,125,499	0.03	1.47	7.20%
Greenfield Acquisition Partners VII, L.P.	2014	\$15,000,000	\$664,016	\$14,335,984	-\$135,428	\$24,032,388	\$1,053,770	\$25,086,158	\$10,885,602	1.69	1.77	13.21%
North Haven Infrastructure Partners II, L.P.	2014	\$50,000,000	\$5,804,192	\$44,195,808	\$0	\$50,434,261	\$13,407,185	\$63,841,446	\$19,645,638	1.14	1.44	9.47%
Total 2014		\$123,000,000	\$6,468,208	\$116,531,792	-\$135,428	\$76,496,377	\$97,556,727	\$174,053,103	\$57,656,739	0.66	1.50	8.79%
2015												
Prime Property Fund, LLC	2015	\$76,000,000	\$0	\$76,000,000	\$0	\$0	\$99,034,302	\$99,034,302	\$23,034,302	0.00	1.30	5.92%
Total 2015		\$76,000,000	\$0	\$76,000,000	\$0	\$0	\$99,034,302	\$99,034,302	\$23,034,302	0.00	1.30	5.92%
2018												
PGIM Real Estate U.S. Debt Fund, L.P.	2018	\$80,000,000	\$0	\$80,000,000	\$0	\$0	\$99,019,998	\$99,019,998	\$19,019,998	0.00	1.24	5.70%
Total 2018		\$80,000,000	\$0	\$80,000,000	\$0	\$0	\$99,019,998	\$99,019,998	\$19,019,998	0.00	1.24	5.70%
2019												
Grandview I-A, L.P.	2019	\$40,000,000	\$8,694,154	\$31,305,846	\$70,472	\$30,021,438	\$19,317,039	\$49,338,477	\$17,962,159	0.96	1.57	18.78%
Total 2019		\$40,000,000	\$8,694,154	\$31,305,846	\$70,472	\$30,021,438	\$19,317,039	\$49,338,477	\$17,962,159	0.96	1.57	18.78%
2021												
Grandview II, L.P.	2021	\$20,000,000	\$4,995,723	\$15,004,277	-\$73,701	\$0	\$15,677,163	\$15,677,163	\$746,587	0.00	1.05	3.16%
Total 2021		\$20,000,000	\$4,995,723	\$15,004,277	-\$73,701	\$0	\$15,677,163	\$15,677,163	\$746,587	0.00	1.05	3.16%
2022												
IFM Global Infrastructure (US), L.P.	2022	\$50,000,000	\$0	\$50,000,000	\$0	\$0	\$55,292,742	\$55,292,742	\$5,292,742	0.00	1.11	9.03%
JP Morgan IIF Hedged, L.P.	2022	\$30,000,000	\$0	\$30,000,000	\$0	\$0	\$34,358,655	\$34,358,655	\$4,358,655	0.00	1.15	9.47%
Palistar Communications Infrastructure Fund II, L.P.	2022	\$20,000,000	\$8,181,708	\$11,818,292	\$577,720	\$0	\$13,959,777	\$13,959,777	\$1,563,765	0.00	1.13	8.71%
Total 2022		\$100,000,000	\$8,181,708	\$91,818,292	\$577,720	\$0	\$103,611,174	\$103,611,174	\$11,215,162	0.00	1.12	9.15%
Total		\$439,000,000	\$28,339,793	\$410,660,207	\$439,063	\$106,517,815	\$434,216,402	\$540,734,217	\$129,634,947	0.26	1.32	8.02%



Stanislaus County ERA

ANALYSIS BY INVESTMENT STRATEGY

Investments		Commitments		Contributions & Distributions			Valuations			Performance		
Investment Name	Vintage Year	Commitment	Unfunded Commitment	Paid In Capital	Additional Fees	Cumulative Distributions	Valuation	Total Value	Net Benefit	DPI	TVPI	IRR
Core Real Estate												
Prime Property Fund, LLC	2015	\$76,000,000	\$0	\$76,000,000	\$0	\$0	\$99,034,302	\$99,034,302	\$23,034,302	0.00	1.30	5.92%
Total Core Real Estate		\$76,000,000	\$0	\$76,000,000	\$0	\$0	\$99,034,302	\$99,034,302	\$23,034,302	0.00	1.30	5.92%
Infrastructure												
IFM Global Infrastructure (US), L.P.	2022	\$50,000,000	\$0	\$50,000,000	\$0	\$0	\$55,292,742	\$55,292,742	\$5,292,742	0.00	1.11	9.03%
JP Morgan IIF Hedged, L.P.	2022	\$30,000,000	\$0	\$30,000,000	\$0	\$0	\$34,358,655	\$34,358,655	\$4,358,655	0.00	1.15	9.47%
North Haven Infrastructure Partners II, L.P.	2014	\$50,000,000	\$5,804,192	\$44,195,808	\$0	\$50,434,261	\$13,407,185	\$63,841,446	\$19,645,638	1.14	1.44	9.47%
Palistar Communications Infrastructure Fund II, L.P.	2022	\$20,000,000	\$8,181,708	\$11,818,292	\$577,720	\$0	\$13,959,777	\$13,959,777	\$1,563,765	0.00	1.13	8.71%
Total Infrastructure		\$150,000,000	\$13,985,900	\$136,014,100	\$577,720	\$50,434,261	\$117,018,359	\$167,452,620	\$30,860,800	0.37	1.23	9.37%
Value Add Real Estate												
American Strategic Value Realty Fund, L.P.	2014	\$58,000,000	\$0	\$58,000,000	\$0	\$2,029,728	\$83,095,772	\$85,125,499	\$27,125,499	0.03	1.47	7.20%
Grandview I-A, L.P.	2019	\$40,000,000	\$8,694,154	\$31,305,846	\$70,472	\$30,021,438	\$19,317,039	\$49,338,477	\$17,962,159	0.96	1.57	18.78%
Grandview II, L.P.	2021	\$20,000,000	\$4,995,723	\$15,004,277	-\$73,701	\$0	\$15,677,163	\$15,677,163	\$746,587	0.00	1.05	3.16%
Greenfield Acquisition Partners VII, L.P.	2014	\$15,000,000	\$664,016	\$14,335,984	-\$135,428	\$24,032,388	\$1,053,770	\$25,086,158	\$10,885,602	1.69	1.77	13.21%
PGIM Real Estate U.S. Debt Fund, L.P.	2018	\$80,000,000	\$0	\$80,000,000	\$0	\$0	\$99,019,998	\$99,019,998	\$19,019,998	0.00	1.24	5.70%
Total Value Add Real Estate		\$213,000,000	\$14,353,893	\$198,646,107	-\$138,657	\$56,083,554	\$218,163,741	\$274,247,295	\$75,739,845	0.28	1.38	8.44%
Total		\$439,000,000	\$28,339,793	\$410,660,207	\$439,063	\$106,517,815	\$434,216,402	\$540,734,217	\$129,634,947	0.26	1.32	8.02%



Stanislaus County ERA

QUARTERLY TRANSACTION SUMMARY

Fund Name	Month Ended	Capital Call	Additional Fee	Temp Return of Capital	Distribution	Net Cash Flow
Grandview I-A, L.P.	9/30/2023				-273,102	-273,102
Total: Grandview I-A, L.P.					-273,102	-273,102
Grandview II, L.P.	9/30/2023			-1,463,478		-1,463,478
Total: Grandview II, L.P.				-1,463,478		-1,463,478
Greenfield Acquisition Partners VII, L.P.	9/30/2023				-84,718	-84,718
Total: Greenfield Acquisition Partners VII, L.P.					-84,718	-84,718
Palistar Communications Infrastructure Fund II, L.P.	9/30/2023			-715,281		-715,281
Total: Palistar Communications Infrastructure Fund II, L.P.				-715,281		-715,281
Grand Total				-2,178,759	-357,820	-2,536,579





APPENDIX

GLOSSARY OF TERMS

- **Commitment Amount** – The amount an investor has committed to invest with the General Partner
- **Paid In Capital** – The amount an investor has contributed for investments and management fees
- **Capital to be Funded** – The remaining amount an investor contractually has left to fund its commitments
- **Additional Fees** – Fees that are outside the capital commitment, also includes interest paid/received due from subsequent closings of the fund
- **Cumulative Distributions** – The amount an investor has received from realized and partially realized investments
- **Valuation** – Sum of the fair market value of all investments plus cash
- **Call Ratio** – Calculated by dividing Amount Funded by Capital Committed
- **DPI Ratio** - Calculated by dividing Amount Distributed by Amount Funded
- **Market Exposure** – Calculated by adding Reported Value plus Unfunded Commitments
- **Total Value** – Calculated by adding Amount Distributed and Reported Value. Represents the total amount an investor should expect to receive from their investments
- **Net Benefit** – Calculated by subtracting Total Value by Capital to be Funded plus Additional Fees
- **Total Value to Paid In Capital Ratio** – Calculated by dividing Total Value by Amount Funded. Represents the multiple of the overall cash invested that an investor is expected to receive
- **IRR** - The calculation of the IRR (Internal Rate of Return) takes into consideration the timing of cash contributions and distributions to and from the partnerships, the length of time the investments have been held and the sum of the Reported Value
- **Index Comparison Method (ICM)** – represents the hypothetical IRR of a private investment program that is computed by assuming the fund flows were invested in and out of a publicly traded index. The resulting hypothetical market value of the program is then used with the program's actual cash flows to compute a hypothetical IRR. This hypothetical IRR can be compared with the actual IRR to determine whether the private investment program outperformed the publicly traded index
- **Valuation ICM** – The valuation equivalent that ICM calculates for the public market is called valuation ICM
- **KS PME** – The Kaplan Schoar Public Markets Equivalent is a ratio of the future value of all distributions divided by the future value of all contributions using the index return as the discount rate. The ending valuation is treated as a distribution in this method
- **IRR ICM** – The IRR equivalent that ICM calculates for the public market is called IRR ICM



Information Disclaimer

- Past performance is no guarantee of future results.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- NEPC's source for portfolio pricing, calculation of accruals, and transaction information is the plan's custodian bank. Information on market indices and security characteristics is received from other 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.
- Some index returns displayed in this report or used in calculation of a policy, allocation or custom benchmark may be preliminary and subject to change.
- This report is provided as a management aid for the client's internal use only. Information contained in this report does not constitute 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.

Reporting Methodology

- The client's custodian bank is NEPC's preferred data source unless otherwise directed. NEPC generally reconciles custodian data to manager data. If the custodian cannot provide accurate data, manager data may be used.
- Trailing time period returns are determined by geometrically linking the holding period returns, from the first full month after inception to the report date. Rates of return are annualized when the time period is longer than a year. Performance is presented gross and/or net of manager fees as indicated on each page.
- For managers funded in the middle of a month, the "since inception" return will start with the first full month, although actual inception dates and cash flows are taken into account in all Composite calculations.
- This report may contain forward-looking statements that are based on NEPC's estimates, opinions and beliefs, but NEPC cannot guarantee that any plan will achieve its targeted return or meet other goals.



February 27, 2024

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

- I. SUBJECT: Alternative Investment Fee and Expense Report (AB 2833) Fiscal Year 2023
- II. ITEM NUMBER: 8.d
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: N/A

V. ANALYSIS:

Background

Attachment 1 contains information regarding StanCERA's alternative investments. This information is required to be published at least annually and is a result of Assembly Bill 2833 that went into effect January 1, 2017. The purpose of the bill is to bring transparency to alternative investments especially in the area of fees and expenses. The report is divided into two parts based on the two sections of the government code that outline the required disclosures. Section 6251.26 deals with basic fund information and performance data. Section 7514.7 focuses on fee and expense data.

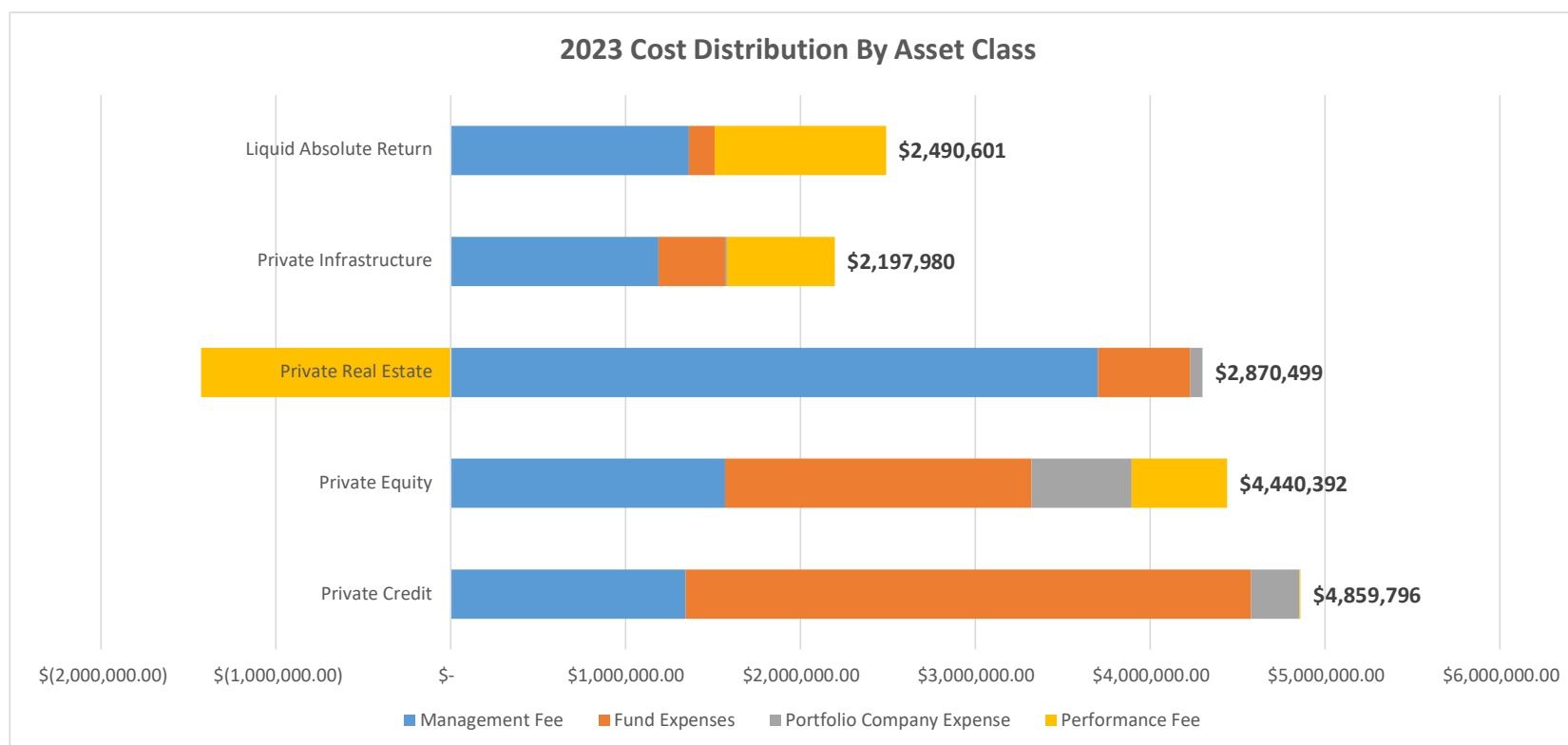
Report Analysis

StanCERA staff collected fee and expense data on 32 alternative investment funds. Staff conducted additional analysis to summarize and contextualize the collected data. For the fiscal year ending June 30th, 2023, StanCERA's total alternative investment fund costs totaled \$16,859,268 or 1.78% as a percentage of alternative investment commitments. Of note this year was a positive performance fee adjustment by a real estate manager due to weak returns within that asset class over the last year. Data for this report were sourced from capital account statements, fund financial statements, ILPA fee template statements, and direct manager data requests. Fund expenses in this report include interest expense, professional fees, transaction costs, and other general administrative expenses. Performance fees include carried interest.

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

Summary of Alternative Investment Fees and Expenses for the Fiscal Year Ended June 30, 2023

Asset Class	Management Fee ¹	Fund Expenses ²	Portfolio Company Expenses ³	Performance Fee	Total Cost	Total Cost as a Percentage of Commitments ⁴
Private Credit	\$ 1,343,764	\$ 3,233,533	\$ 277,403	\$ 5,096	\$ 4,859,796	2.07%
Private Equity	\$ 1,568,076	\$ 1,754,073	\$ 572,890	\$ 545,353	\$ 4,440,392	2.61%
Private Real Estate	\$ 3,700,148	\$ 530,454	\$ 68,306	\$ (1,428,409)	\$ 2,870,499	0.93%
Private Infrastructure	\$ 1,187,711	\$ 380,192	\$ 10,446	\$ 619,631	\$ 2,197,980	1.47%
Liquid Absolute Return	\$ 1,361,628	\$ 148,597	\$ -	\$ 980,376	\$ 2,490,601	2.95%
Total	\$ 9,161,327	\$ 6,046,849	\$ 929,045	\$ 722,048	\$ 16,859,268	1.78%



¹ Management fees are reported net of fee offsets and/or givebacks.

² Fund Expenses include interest expense, professional fees, transaction costs, and general administration expenses.

³ Portfolio company expenses are payments made by portfolio companies to the general partner or affiliated entities.

⁴ Liquid Absolute Return total cost ratio is calculated as a percentage of market value as of June 30, 2023.

Stanislaus County Employees' Retirement System (6254.26)

Fiscal Year-Ended June 30, 2023

Since Inception data except where noted

Private Credit

Investment	Address	Vintage	Commitment	Contributions	Fiscal Year Distributions ¹	Remaining Value	Net IRR ²	Gross IRR ²	Net Investment Multiple	Cash Profit on a fiscal year basis ³
ABRY Senior Equity VI, LP	888 Boylston Street, Suite 1600 Boston, MA 02199	2021	15,000,000	6,922,554	-	7,312,933	7.5%	12.7%	1.07	-135,251
Callodine ABL II	545 Boylston Street, 10th Floor Boston, MA 02116	2021	20,000,000	13,979,623	2,206,510	12,783,984	8.3%	9.6%	1.07	1,762,968
Upwelling Capital (Formerly Medley Opportunity Fund II L.P.)	2820 Fifth Street Davis, CA 95618	2012	30,000,000	31,086,716	1,042,989	1,803,783	-0.4%	1.8%	1.07	919,233
Monroe Capital Private Credit Fund IV, LP	311 S Wacker Dr 64th floor, Chicago, IL 60606	2020	20,000,000	17,000,000	1,357,692	17,268,795	10.7%	13.0%	1.12	23,891
Blue Owl First Lien Fund (Formerly Owl Rock)	399 Park Avenue, Floor 37 New York, NY 10022	2018	10,000,000	9,391,193	910,199	9,520,832	8.6%	10.7%	1.24	-366,663
Raven Asset-Based Opportunity Fund I L.P.	75 Spring St 6th Floor, New York, NY 10012	2012	40,000,000	34,505,763	-	-	-4.3%	-1.2%	0.87	-
Raven Asset-Based Opportunity Fund III L.P.	75 Spring St 6th Floor, New York, NY 10012	2015	50,000,000	55,477,654	-	54,043,609	5.6%	7.3%	1.27	-858,229
Strategic Value Special Situations Fund V	100 West Putnam Avenue Greenwich, CT 06830	2021	10,000,000	5,000,000	5,542	5,802,621	12.4%	15.9%	1.16	-182,798
White Oak Pinnacle Fund L.P.	3 Embarcadero Ctr #550, San Francisco, CA 94111	2013	40,000,000	55,047,161	-	26,485,366	5.5%	6.6%	1.29	-408,195

Private Equity

Investment	Address	Vintage	Commitment	Contributions	Fiscal Year Distributions	Remaining Value	Net IRR	Gross IRR	Net Investment Multiple	Cash Profit on a fiscal year basis
Audax Private Equity Fund VII	101 Huntington Avenue, 25th Floor, Boston, MA 02199	2022	20,000,000	-	-	14,955	NM	NM	NM	-349,324
Blue Wolf Capital Fund V	175 Greenwich Street, 65th FL New York, NY 10007	2022	20,000,000	3,714,974	-	3,097,505	NM	NM	0.83	-590,736
Clayton, Dubilier, Rice Fund XI (CD&R XI)	375 Park Avenue, 18th Floor New York, NY 10152 USA	2020	20,000,000	14,279,286	-	15,027,093	6.1%	8.5%	1.07	-459,319
Eclipse Fund V	514 High Street, Palo Alto, CA 94301	2023	5,000,000	-	-	-	-	-	-	-
Genstar Capital Partners X	Four Embarcadero Center, Suite 1900, San Francisco, CA 94111	2021	15,000,000	9,560,745	29,012	9,879,881	4.2%	4.7%	1.04	-179,604
Great Hill Equity Partners VIII	200 Clarendon St, 29th Floor, Boston, MA 02116	2021	20,000,000	4,165,791	-	3,274,371	NM	NM	0.79	-363,254
Gryphon Partners VI	One Maritime Plaza, Suite 2300, San Francisco, CA 94111	2021	20,000,000	16,962,028	-	17,269,161	5.8%	6.6%	1.08	-319,613
Insight Partners XI	1114 Avenue of the Americas, 36th Floor, New York 10036	2020	15,000,000	14,595,000	28,633	21,452,168	17.2%	19.6%	1.47	-458,170
Sole Source Capital Partners II	4143 Maple Avenue, Suite 240, Dallas, TX 75219	2021	15,000,000	5,909,512	2,208,980	14,022,002	253.9%	267.8%	2.99	1,754,795
Vista Foundation Fund IV	401 Congress Avenue, Suite 3100, Austin, TX 78701	2020	20,000,000	14,979,453	-	14,748,386	-1.0%	4.9%	0.98	-594,328

Real Estate

Investment	Address	Vintage	Commitment	Contributions	Fiscal Year Distributions	Remaining Value	Net IRR	Gross IRR	Net Investment Multiple	Cash Profit on a fiscal year basis
American Realty Advisors Value Fund	515 S. Flower St. 49th Floor, Los Angeles, CA 90071	2014	58,000,000	58,000,000	-	84,650,892	8.0%	9.2%	1.49	641,680
Grandview Partners Fund I	1 East Putnam Avenue, 3rd Floor, Greenwich, CT 06830	2017	40,000,000	35,306,811	8,246,631	18,712,031	18.7%	24.0%	1.49	7,606,543
Grandview Partners Fund II	1 East Putnam Avenue, 3rd Floor, Greenwich, CT 06830	2021	20,000,000	20,384,449	517,910	17,041,269	4.0%	6.9%	1.03	122,163
Greenfield VII	Two Post Road, West Westport, CT 06880	2011	15,000,000	18,013,692	2,215,207	1,111,511	13.2%	15.4%	1.60	2,019,433
PGIM Real Estate US Debt Fund	1540 Broadway, 36th Floor, New York, NY 10036-4039	2017	80,000,000	80,000,000	-	97,721,495	5.7%	6.5%	1.22	-762,712
Morgan Stanley Prime Property Fund	1585 Broadway, New York, NY 10036	2015	76,000,000	76,000,000	-	100,243,157	6.5%	7.5%	1.32	-1,079,833
TA Realty Value-Add Fund XIII	One Federal Street, 17th Floor, Boston, MA 02110	2022	20,000,000	-	-	(501,422)	NM	NM	NM	-

Infrastructure

Investment	Address	Vintage	Commitment	Contributions	Fiscal Year Distributions	Remaining Value	Net IRR	Gross IRR	Net Investment Multiple	Cash Profit on a fiscal year basis
IFM Global Infrastructure Fund	114 West 47th Street, 19th Floor, New York NY 10036	2022	50,000,000	50,000,000	-	54,830,314	9.7%	11.7%	1.10	-980,727
J.P. Morgan IIF Fund	277 Park Avenue, New York, NY 10012	2022	30,000,000	30,000,000	842,040	33,096,868	8.2%	9.3%	1.15	318,562
North Haven Infrastructure II	1585 Broadway, 33rd Floor, New York, NY 10019	2014	50,000,000	62,391,820	17,062,938	13,627,748	9.7%	11.3%	1.32	16,741,288
Palistar Communications Infrastructure Fund II	600 5th Ave, 27th Floor, New York, NY 10020	2022	20,000,000	12,533,574	-	14,369,743	8.7%	16.0%	1.19	-372,125

Liquid Absolute Return

Investment	Address	Inception	Commitment	Contributions	Fiscal Year Distributions	Remaining Value	Net IRR	Gross IRR	Net Investment Multiple	Cash Profit on a fiscal year basis
Graham Capital Proprietary Matrix Fund	40 Highland Avenue, Rowayton, CT 06853	2021	N/A	55,000,000	14,000,000	55,847,648	17.0%	24.0%	1.27	11,700,116
Invesco Global Targeted Returns	1331 Spring St NW, Atlanta, GA 30309	2021	N/A	27,000,000	-	28,460,703	3.2%	3.9%	1.05	-190,716

¹ Fiscal Year Distributions are required to be reported by the government code.

² Since Inception Internal Rate of Return are either provided by the investment manager or calculated independently using cashflow data captured from capital statements and other fund documents. Gross IRR calculations are estimated based on fund fee data. "NM" indicates calculations are not meaningful due to recency of data.

³ Annual fiscal year-end dollar amount cash profits is calculated as fiscal year distributions less fiscal year fund fees and expenses. Due to the lumpy nature of private market cash flows, negative cash profit is expected followed by large positive cash profits as investments exit the fund.

This report relies upon data provided by investment managers and/or their professional staff. The accuracy of the source information cannot be guaranteed. This report contains plan level information and has not been prepared or reviewed by any investment manager.

Stanislaus County Employees' Retirement System (7514.7)

Fiscal Year Ended June 30, 2023

Fiscal Year End data except where noted

Private Credit

Investment	Vintage	Commitment	Remaining Value	Management Fees ¹	Fund Expenses ²	Portfolio Company Expenses ³	Performance Fee	Total Fees and Expenses	Since Inception Net IRR
ABRY Senior Equity VI, LP	2021	15,000,000	7,312,933	-188,068	-22,253	-16,750	-	-227,071	7.5%
Callodine ABL II	2021	20,000,000	12,783,984	-95,462	-169,677	-	-178,403	-443,542	8.3%
Upwelling Capital (Formerly Medley Opportunity Fund II L.P.)	2012	30,000,000	1,803,783	-21,770	-101,986	-	-	-123,756	-0.4%
Monroe Capital Private Credit Fund IV, LP	2020	20,000,000	17,268,795	-	-1,052,925	-	-280,876	-1,333,801	10.7%
Blue Owl First Lien Fund (Formerly Owl Rock)	2018	10,000,000	9,520,832	-170,801	-1,106,061	-	-	-1,276,862	8.6%
Raven Asset-Based Opportunity Fund I L.P.	2012	40,000,000	-	-	-	-	-	-	-4.3%
Raven Asset-Based Opportunity Fund III L.P.	2015	50,000,000	54,043,609	-409,735	-642,024	-260,653	454,183	-858,229	5.6%
Strategic Value Special Situations Fund V	2021	10,000,000	5,802,621	-112,064	-76,276	-	-	-188,340	12.4%
White Oak Pinnacle Fund L.P.	2013	40,000,000	26,485,366	-345,864	-62,331	-	-	-408,195	5.5%

Private Equity

Investment	Vintage	Commitment	Remaining Value	Management Fees	Fund Expenses	Portfolio Company Expenses	Performance Fee	Total Fees and Expenses	Since Inception Net IRR
Audax Private Equity Fund VII	2022	20,000,000	14,955	-141,927	-207,397	-	-	-349,324	NM
Blue Wolf Capital Fund V	2022	20,000,000	3,097,505	-200,287	-390,449	-	-	-590,736	NM
Clayton, Dubilier, Rice Fund XI (CD&R XI)	2020	20,000,000	15,027,093	-105,665	-206,774	-146,880	-	-459,319	6.1%
Eclipse Fund V	2023	5,000,000	-	0	0	-	-	-	0.0%
Genstar Capital Partners X	2021	15,000,000	9,879,881	0	-212,599	-	3,983	-208,616	4.2%
Great Hill Equity Partners VIII	2021	20,000,000	3,274,371	-92,355	-270,899	-	-	-363,254	NM
Gryphon Partners VI	2021	20,000,000	17,269,161	-152,838	-117,951	-113,702	-	-384,491	5.8%
Insight Partners XI	2020	15,000,000	21,452,168	-240,688	-72,780	-173,335	-	-486,803	17.2%
Sole Source Capital Partners II	2021	15,000,000	14,022,002	-234,316	-80,896	-138,973	-549,336	-1,003,521	253.9%
Vista Foundation Fund IV	2020	20,000,000	14,748,386	-400,000	-194,328	-	-	-594,328	-1.0%

Real Estate

Investment	Vintage	Commitment	Remaining Value	Management Fees	Fund Expenses	Portfolio Company Expenses	Performance Fee	Total Fees and Expenses	Since Inception Net IRR
American Realty Advisors Value Fund	2014	58,000,000	84,650,892	-962,093	-265,122	-	1,603,773	376,558	8.0%
Grandview Partners Fund I	2017	40,000,000	18,712,031	-428,909	-144,311	-66,868	-	-640,088	18.7%
Grandview Partners Fund II	2021	20,000,000	17,041,269	-300,001	-94,308	-1,438	-	-395,747	4.0%
Greenfield VII	2011	15,000,000	1,111,511	-128,973	-26,713	-	-40,088	-195,774	13.2%
PGIM Real Estate US Debt Fund	2017	80,000,000	97,721,495	-762,712	-	-	-	-762,712	5.7%
Morgan Stanley Prime Property Fund	2015	76,000,000	100,243,157	-944,556	-	-	-135,276	-1,079,833	6.5%
TA Realty Value-Add Fund XIII	2022	20,000,000	-501,422	-172,903	-	-	-	-172,903	NM

Infrastructure

Investment	Vintage	Commitment	Remaining Value	Management Fees	Fund Expenses	Portfolio Company Expenses	Performance Fee	Total Fees and Expenses	Since Inception Net IRR
IFM Global Infrastructure Fund	2022	50,000,000	54,830,314	-368,148	-75,878	-	-536,701	-980,727	9.7%
J.P. Morgan IIF Fund	2022	30,000,000	33,096,868	-283,360	-157,188	-	-82,930	-523,478	8.2%
North Haven Infrastructure II	2014	50,000,000	13,627,748	-259,078	-62,572	-	-	-321,650	9.7%
Palistar Communications Infrastructure Fund II	2022	20,000,000	14,369,743	-277,125	-84,554	-10,446	-	-372,125	8.7%

Liquid Absolute Return

Investment	Inception	Commitment	Remaining Value	Management Fees	Fund Expenses	Portfolio Company Expenses	Performance Fee	Total Fees and Expenses	Since Inception Net IRR
Graham Capital Proprietary Matrix Fund	2021	N/A	55,847,648	-1,170,911	-148,597	-	-980,376	-2,299,885	17.0%
Invesco Global Targeted Returns	2021	N/A	28,460,703	-190,716	-	-	-	-190,716	3.2%

¹ Management fees are reported net of fee offsets and/or givebacks.

² Fund Expenses include interest expense, professional fees, transaction costs, and general administration expenses.

³ Portfolio company expense are costs paid by portfolio companies to the general partner or affiliated entities.

This report relies upon data provided by investment managers and/or their professional staff. The accuracy of the source information cannot be guaranteed. This report contains plan level information and has not been prepared or reviewed by any investment manager.

February 27, 2024

Retirement Board Agenda Item

TO: Retirement Board

FROM: Stan Conwell, Retirement Investment Officer

- I. SUBJECT: US TIPS Manager Selection
- II. ITEM NUMBER: 8.e
- III. ITEM TYPE: Discussion and Action
- IV. STAFF RECOMMENDATION: Allocate 4% of the portfolio to a 0-5 Year TIPS Index fund managed by either Northern Trust Asset Management or BlackRock and authorize staff to negotiate and execute the final contract.
- V. ANALYSIS:

In January NEPC solicited bids for a 0-5 year US Treasury Inflation Protection Securities (TIPS) Index strategy on behalf of StanCERA. NEPC assessed many proposals and provided staff with a list of suitable managers. From that initial list, staff and NEPC evaluated the responses further and conducted interviews to refine the list down to two potential candidates. BlackRock and Northern Trust Asset Management (NTAM) emerged as very capable passive fixed income managers given their extensive experience, deep resources and overall track record in managing passive investments for institutional clients.

While there is little differentiation between BlackRock and NTAM in their ability to sufficiently fulfill a passive mandate for StanCERA, there are still a few distinctions to highlight for this US TIPS manager search. BlackRock is offering the strategy as a commingled fund and NTAM as a separately managed account (SMA). Generally speaking, commingled funds offer lower fees and SMAs offer the ability to customize holdings. The BlackRock fund participates in securities lending while the NTAM SMA, as proposed, does not. While securities lending does add a small amount of risk to the fund, it also provides additional income and BlackRock has developed extensive internal capabilities dedicated to minimizing any additional risk associated with the lending program. The table provided in NEPC's recommendation memo, (Attachment 1) summarizes the finalist proposals and provides additional details.

- VI. STRATEGIC PLAN: N/A
- VII. ADMINISTRATIVE BUDGET IMPACT: NONE



To: Stanislaus County Employees' Retirement Association

From: NEPC Consulting Team

Date: February 27, 2024

Subject: Treasury Inflation Protected Securities Search

Recommendation

NEPC recommends that the Stanislaus County Employees' Retirement Association ("StanCERA" or the "Plan") invest approximately 4% of its investment portfolio in either of the following strategies:

- BlackRock 0-5 Year Treasury Inflation Protected Securities Fund
- Northern Trust 0-5 Year Bloomberg TIPS Index Separately Managed Account

Background

On December 12th, 2023 the Board approved new asset allocation targets for the Plan that added Treasury Inflation Protected Securities (TIPS) to the risk-diversifying sub-portfolio. NEPC contacted managers on its Focus Preferred List of index fund providers and received 11 separate bids for the proposed mandate. After reviewing the bids and interviewing managers we recommend either BlackRock or Northern Trust to fulfill the mandate.

NEPC has assigned top 1-ratings to both firms for their suites of fixed income index strategies including TIPS. While BlackRock is the world's largest investment manager with \$10.0 trillion in assets under management as of year-end 2023, Northern Trust is also very large with \$1.4 trillion in total assets under management. Furthermore Northern Trust has \$11.9 trillion in assets under custody and is StanCERA's custodian.

Index Fund Finalist Proposals

0-5 Year TIPS Index Fund Finalists		
Manager	BlackRock	Northern Trust
Proposed Vehicle	CIT Commingled Fund	Separate Account
Current Assets	\$1.5 billion	N/A*
Fee Structure	2.25bps on 1st \$100mm, 1.5 bps on next \$400mm, etc. Also an admin fee currently 0.49bps.	4bps, minimum annual fee of \$40k
Annual Fee for \$100m	\$27,400	\$40,000
Annual Fee for \$150m	\$37,350	\$60,000
Securities Lending?	Yes	No
*Northern Trust currently manages two similarly-sized separate accounts for the same TIPS benchmark		



BlackRock manages an institutional commingled fund following our preferred short-term TIPS index, the Bloomberg U.S. Treasury TIPS 0-5 Year Index. Northern Trust manages two separate accounts for other institutional investors (one of whom is a California county pension fund), and has proposed doing the same for StanCERA. Both firms have tracked the index extremely closely, although over a five-year period the BlackRock fund has been able to outperform very slightly (approximately 7bps or 0.07%/year) due to its practice of securities lending.

The BlackRock strategy earns a slightly higher return by temporarily lending a portion of its fund's TIPS securities to another bank or broker-dealer in exchange for collateral worth slightly more than the borrowed securities plus a fee. The borrowers usually represent hedge funds or a bank's proprietary trading desk who borrow the TIPS so that they can sell them with the intention of buying them back later for a profit and then returning them to the BlackRock fund. Many investors soured on securities lending in 2008 during that financial crisis, because of issues involving counterparty risk and lending collateral losing value unexpectedly. The main risks a lender of securities face are the borrower becoming insolvent and the value of the collateral falling below the cost of replacing the securities that have been lent. Since BlackRock began its formal securities lending program in 1981 only three borrowers with active loans have defaulted, and in each case BlackRock was able to repurchase every security out on loan with the collateral on hand.

A second key different between the two finalist proposals is that BlackRock operates a commingled fund with many institutional investors while Northern Trust operates institutional separate accounts for this particular index. In certain circumstances fund investors might face costs due to the trading of other investors in the fund, but we are satisfied that BlackRock's policies regarding fund contributions and withdrawals limit that risk effectively. Investors entering or exiting the fund are typically charged a small fee to cover the transfer cost, thereby protecting the other investors.

February 27, 2024

Retirement Board Agenda Item

TO: Retirement Board

FROM: Tom Stadelmaier, Executive Director

- I. SUBJECT: June 30, 2023 Actuarial Valuation Report
- II. ITEM NUMBER: 9.a
- III. ITEM TYPE: Discussion and Action
- IV. STAFF RECOMMENDATION: Accept the June 30, 2023 actuarial valuation report.
- V. EXECUTIVE SUMMARY: This is the final June 30, 2023 actuarial valuation which will be presented by the Plan actuary, Cheiron. The actuarial funding ratio went down slightly from 77.0% to 76.6%. The market value funding ratio went up slightly from 74% to 74.6%. And the net employer contribution ratio is up slightly from 32.91% to 33.24%. The unfunded liability in the plan increased from \$775.8M to \$825.8M due to recognized investment losses and a liability loss based on updated information.

Results of the report have been reviewed in detail with staff and are in-line with expectations.

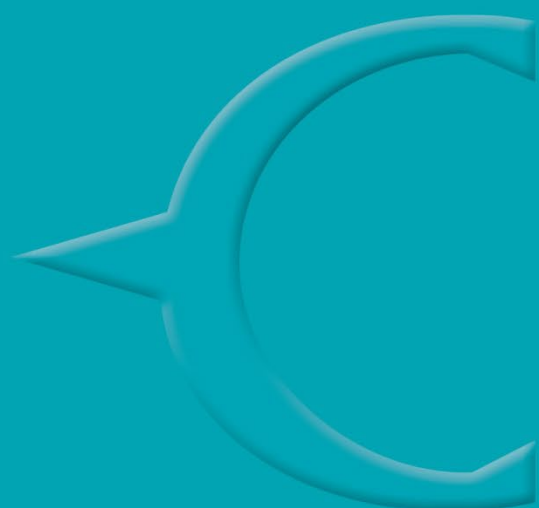
VI. RISK: None

VII. STRATEGIC PLAN: N/A

ADMINISTRATIVE BUDGET IMPACT: None



Classic Values, Innovative Advice



Stanislaus County Employees' Retirement Association

Actuarial Valuation as of June 30, 2023

Produced by Cheiron

February 2024

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
Letter of Transmittal	i
Foreword	ii
Section I Executive Summary	1
Section II Disclosures Related to Risk	10
Section III Assets	24
Section IV Liabilities	32
Section V Contributions.....	36
Section VI Required ACFR Exhibits	47
 <u>Appendices</u>	
Appendix A Membership Information	50
Appendix B Statement of Current Actuarial Assumptions and Methods	70
Appendix C Summary of Plan Provisions.....	85
Appendix D Glossary	95
Appendix E Member Contribution Rates.....	97

February 21, 2024

Board of Retirement
Stanislaus County Employees' Retirement Association
832 12th Street, Suite 600
Modesto, California 95353

Dear Members of the Board,

At your request, we have conducted an actuarial valuation of the Stanislaus County Employees' Retirement Association (StanCERA, the Fund, the Plan) as of June 30, 2023. This report contains information on the Plan's assets and liabilities. This report also discloses employer contribution levels and required disclosures for the Plan's Annual Comprehensive Financial Report (ACFR). Your attention is called to the Foreword in which we refer to the general approach employed in the preparation of this report.

The purpose of this report is to present the results of the annual actuarial valuation of StanCERA. This report is for the use of StanCERA and its auditors in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of this report is not an intended user and is considered a third party.

Cheiron's report was prepared solely for StanCERA for the purposes described herein, except that the Plan auditor may rely on this report solely for completing an audit related to the matters herein. It is not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable laws and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Sincerely,
Cheiron

A handwritten signature in blue ink, reading "Graham Schmidt".

Graham A. Schmidt, FSA, EA, FCA, MAAA
Principal Consulting Actuary

A handwritten signature in blue ink, reading "Jonathan B. Chipko".

Jonathan B. Chipko, FSA, EA, MAAA
Consulting Actuary

FOREWORD

Cheiron has performed the actuarial valuation of the Stanislaus County Employees' Retirement Association as of June 30, 2023. The valuation is organized as follows:

- In Section I, the **Executive Summary**, we describe the purpose of an actuarial valuation, summarize the key results found in this valuation, and disclose important trends;
- The **Main Body** of the report presents details on the Plan's
 - Section II – Disclosures Related to Risk
 - Section III – Assets
 - Section IV – Liabilities
 - Section V – Contributions
 - Section VI – Required ACFR Exhibits
- In the **Appendices** we conclude our report with detailed information describing Plan membership (Appendix A), actuarial assumptions and methods employed in the valuation (Appendix B), a summary of pertinent Plan provisions (Appendix C), a glossary of key actuarial terms (Appendix D), and tables containing member contribution rates (Appendix E).

Future results may differ significantly from the current projections presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and, changes in plan provisions or applicable law.

In preparing our report, we relied on information (some oral and some written) supplied by the StanCERA staff. This information includes, but is not limited to, Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23, Data Quality.

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech), to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal, have a basic understanding of it, and have used it in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this report.

The deterministic and stochastic projections shown in this report were developed using R-Scan, our proprietary stochastic projection tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. R-Scan uses standard roll-forward techniques that implicitly assume a stable active population. Because R-Scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent. We have relied on Cheiron colleagues who developed the tool, and we have used the tool in accordance with its purpose.

SECTION I – EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The funded status of the Plan,
- Past and expected trends in the funding progress of the Plan,
- Employer and employee contribution rates for Plan Year 2024-2025, and
- An assessment and disclosure of key risks.

In the balance of this Executive Summary, we present (A) the basis upon which this year's valuation was completed, (B) the key findings of this valuation including a summary of all key results, (C) an examination of the historical trends, and (D) the projected outlook for the Plan.

A. Valuation Basis

This valuation determines the employer contributions required for the employers' fiscal years beginning July 1, 2024. The employers include the County of Stanislaus and related employers, the City of Ceres, and other participating Special Districts¹.

The Plan's funding policy is to collect contributions from the employers and employees equal to the sum of:

- The Normal Cost under the Entry Age Normal Cost Method,
- Amortization of the Unfunded Actuarial Liability (UAL), and
- The Fund's expected administrative expenses.

This valuation was prepared based on the data summarized in Appendix A, the assumptions and methods described in Appendix B, and the Plan provisions shown in Appendix C.

Actuarial experience studies are performed every three years. This valuation was performed based on the economic and demographic assumptions that were determined in the Actuarial Experience Study performed by Cheiron as of June 30, 2021 and reviewed by the Board on December 14, 2021. This valuation is the third and final to use the assumptions determined in the above experience study. An experience study will be performed next year for the June 30, 2024 valuation.

¹ Adjusted contribution rates for new employers – specifically for this valuation, the Stanislaus Regional Transit Authority – will be provided in a separate document.

SECTION I – EXECUTIVE SUMMARY

B. Key Findings of this Valuation

The key results of the June 30, 2023 actuarial valuation are as follows:

- The actuarially determined employer contribution rate increased from 32.91% of payroll to 33.24% of payroll for the current valuation.
- The Plan's funded ratio, the ratio of Actuarial Assets over Actuarial Liability, decreased from 77.0% to 76.6%. However, the Plan's funded ratio on a market value basis increased from 74.0% to 74.6%.
- The Unfunded Actuarial Liability (UAL) is the excess of the Plan's Actuarial Liability over the Actuarial Value of Assets. The Plan experienced an increase in the UAL from \$775.8 million to \$825.8 million as of June 30, 2023. This increase in UAL was largely due to investment and demographic experience losses.
- During the year ending June 30, 2023, the return on Plan assets was 6.92% on a market value basis net of investment (but not administrative) expenses, as compared to the 6.75% assumption. The Actuarial Value of Assets recognizes 20% of the difference between the expected and actual return on the Market Value of Assets (MVA). This method of smoothing the asset gains and losses returned 5.49% on the smoothed value of assets, an actuarial asset loss of \$30.7 million. The loss in the Actuarial Value of Assets reflects the continued recognition of past investment gains and losses, with past investment losses offsetting the impact of the gain for the current year and leading to a higher market value return than actuarial value return.
- During the 2022-23 Plan Year, the actuarial liabilities of the Plan increased more than expected, with key factors being losses associated with new retirements, larger Cost of Living Adjustments (COLAs) than expected for members in pay status, and higher pay increases than expected for continuing actives. These and other unexpected changes resulted in a liability loss of \$33.5 million.
- Overall participant membership increased from 10,116 to 10,293 total members compared to last year. There were 635 new hires and rehires during 2022-2023 and the total active population increased from 4,323 to 4,475. Total projected pensionable payroll increased from \$333,773,583 to \$357,235,307, or 7.0%.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION I – EXECUTIVE SUMMARY

In Tables I-1 and I-2 below, we summarize the key results of the valuation with respect to assets and liabilities, contributions, and membership. The results are presented and compared for both the current and prior Plan year.

Table I-1 Stanislaus County Employees' Retirement Association Summary of Key Valuation Results (in millions)			
Valuation Date Fiscal Year End	June 30, 2022 2024	June 30, 2023 2025	Absolute Change
Actuarial Liability	\$ 3,379.6	\$ 3,535.3	\$ 155.7
Actuarial Value of Assets ¹	<u>2,603.8</u>	<u>2,709.5</u>	<u>105.7</u>
Unfunded Actuarial Liability (Actuarial Value)	\$ 775.8	\$ 825.8	\$ 50.0
Funding Ratio (Actuarial Value)	77.0%	76.6%	-0.4%
Market Value of Assets ¹	<u>2,499.8</u>	<u>2,635.6</u>	<u>135.8</u>
Unfunded Actuarial Liability (Market Value)	\$ 879.8	\$ 899.7	\$ 19.9
Funding Ratio (Market Value)	74.0%	74.6%	0.6%
Net Employer Contribution Rate	32.91%	33.24%	0.33%

¹ Net of non-valuation reserves.

Table I-2 Membership Total²			
Item	June 30, 2022	June 30, 2023	% Change
Actives	4,323	4,475	3.5%
Deferred Members	1,317	1,225	-7.0%
Retired Members	<u>4,476</u>	<u>4,593</u>	<u>2.6%</u>
Total Members	10,116	10,293	1.7%
Ratio of Inactive Members to Active Members	134.0%	130.0%	
Active Member Payroll (FYE 2023/2024)	\$ 333,773,583	\$ 357,235,307	7.0%
Average Pay per Active	\$ 77,209	\$ 79,829	3.4%

² Excludes non-vested terminated members due refunds.

The ratio of inactive members (i.e., those receiving benefits or those entitled to a deferred benefit) to active members is a measure of the maturity of the plan. It shows how many inactive members are supported by each active member. A higher ratio indicates a more mature plan and potentially higher risk since the retiree benefits are larger relative to the contribution base, i.e., the active member payroll. Table I-2 shows that the ratio of inactive members to active members

SECTION I – EXECUTIVE SUMMARY

decreased this year due to a larger increase in active members than inactive members, but the ratio remains well above 1.0, indicating the Plan is still relatively mature.

Changes in UAL

The Unfunded Actuarial Liability (UAL) for StanCERA increased by \$50.0 million, from \$775.8 million to \$825.8 million. Table I-3 below presents the specific components of the change in the UAL.

Table I-3 Change in Unfunded Actuarial Liability	
Experience	in millions
1. Unfunded actuarial liability, 6/30/2022	\$ 775.8
2. Expected change in unfunded actuarial liability	\$ (19.9)
3. Unfunded increase due to investment loss	30.7
4. Unfunded increase due to contribution deficit	5.6
5. Unfunded increase due to liability loss	33.5
6. Total change in unfunded actuarial liability	<u>\$ 50.0</u>
7. Unfunded actuarial liability, 6/30/2023	\$ 825.8

As noted earlier, the return on the actuarial assets used to compute the UAL and the employer contribution rate was 5.49% during the 2022-23 Plan Year. Investment returns lower than the assumed rate of 6.75% increased the UAL by \$30.7 million.

Liability losses increased the UAL by \$33.5 million, driven by losses associated with new retirements, larger Cost of Living Adjustments (COLAs) than expected for members in pay status, and higher pay increases than expected for continuing actives.

The UAL also increased by \$5.6 million due to contributions lower than the actuarially determined cost. This is primarily a result of the 12-month lag in the implementation of contribution rates.

The expected change in the UAL due to the yearly amortization of the UAL balance – a decrease of \$19.9 million, as a result of the amortization schedule for the current year – combined with the above UAL changes to produce an overall increase of \$50.0 million.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION I – EXECUTIVE SUMMARY

Changes in Employer Contributions

Thus far, the experience of the 2022-23 Plan year has been presented in terms of the UAL and funded ratio. Table I-4 below summarizes the impact of actuarial experience and changes in assumptions on the employer contribution rate.

Table I-4 Employer Contribution Reconciliation				
Item	Total	Normal Cost	Amortization	Admin Expense
<i>FYE 2024 Net Employer Contribution Rate</i>	<i>32.91%</i>	<i>11.00%</i>	<i>20.96%</i>	<i>0.95%</i>
Change Due to Asset Loss	0.65%	0.00%	0.65%	0.00%
Change Due to Contribution Deficit	0.12%	0.00%	0.12%	0.00%
Change Due to Liability Changes	0.50%	-0.21%	0.71%	0.00%
Change Due to Effect of Payroll on Amortization	<u>-0.94%</u>	<u>0.00%</u>	<u>-0.90%</u>	<u>-0.04%</u>
Total Change	0.33%	-0.21%	0.58%	-0.04%
<i>FYE 2025 Net Employer Contribution Rate</i>	<i>33.24%</i>	<i>10.79%</i>	<i>21.54%</i>	<i>0.91%</i>

- Asset experience produced an investment loss on a smoothed basis, as described earlier. The smoothed loss increased the contribution rate by 0.65% of pay. The ratio of Actuarial to Market Value of Assets is 102.8%. There are \$74.0 million in net deferred losses as of June 30, 2023. There is also \$25.0 million in a non-valuation Contingency Reserve.
- The Plan received a smaller contribution than the actuarially determined cost for the prior plan year. The net impact of the deficit was an increase in the employer contribution rate by 0.12% of pay.
- The liability experience of the Plan – rates of retirement, death, disability, and termination, as well as salary and COLA changes – caused an increase in employer contribution rate of 0.50% of pay. Losses associated with new retirees, COLA increases, and higher than expected pay increases for continuing active members were the largest factors contributing to an increase in the UAL and the associated amortization payment. The increase in the amortization payment was offset by a reduction in the employer-paid normal cost as a result of the continued transition of the active workforce to membership in the new PEPPRA tiers, which reflect lower benefit levels for new hires.
- Overall projected payroll is higher than expected by about \$14.3 million, increasing 7.0% compared to the 2.75% assumption. As a result, the unfunded liability amortization payment and administrative expenses are spread over a larger payroll base than expected, and the employer contribution rate decreased by 0.94% of pay.

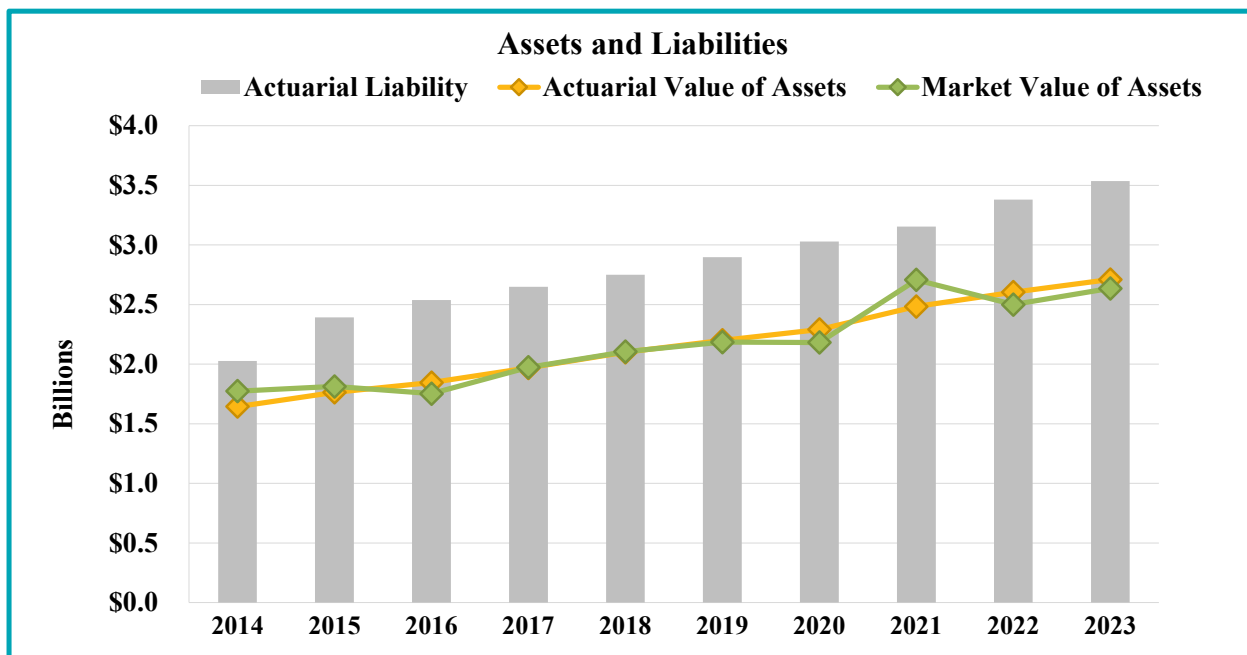
SECTION I – EXECUTIVE SUMMARY

C. Historical Trends

Despite the fact that for most retirement plans the greatest attention is given to the current valuation results and in particular, the size of the current UAL and the employer contribution, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is more important to judge a current year's valuation result relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart below compares the Market Value of Assets (MVA) and Actuarial Value of Assets (AVA) to the Actuarial Liabilities. The percentage shown in the table below the graph is the ratio of the Actuarial Value of Assets to the Actuarial Liability (the funded ratio). The funded ratio has decreased from 81.1% in 2014 to 76.6% as of June 30, 2023. The large drop in the funded ratio in 2015 was primarily due to changes in assumptions. The decrease in the funded ratio from last year to this year was primarily a result of investment losses and higher than expected COLAs and pay increases.

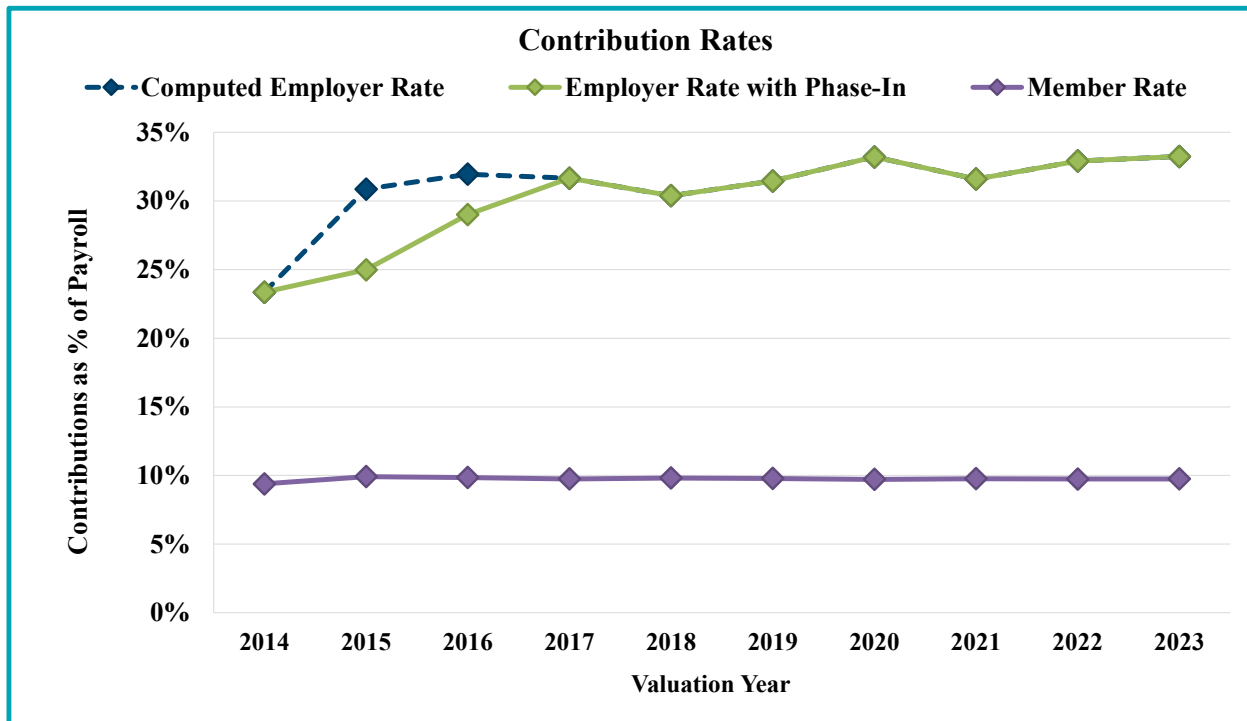


Valuation Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Funded Ratio	81.1%	73.7%	72.8%	74.3%	76.4%	75.9%	75.6%	78.8%	77.0%	76.6%
UAL (Billions)	\$ 0.38	\$ 0.63	\$ 0.69	\$ 0.68	\$ 0.65	\$ 0.70	\$ 0.74	\$ 0.67	\$ 0.78	\$ 0.83

SECTION I – EXECUTIVE SUMMARY

Contribution Trends

In the chart below, we present the historical trends for the StanCERA contribution rates. The employer contribution rates have risen since 2014, primarily as a result of changes to the actuarial assumptions and methods. The average employee contribution rates have also increased as the Plan's economic and demographic assumptions have changed. The phase-ins shown from 2014-2016 recognized significant changes in the computed employer rate over a set period to help manage the financial impact for the Plan sponsors. The employer contribution rate increased this year due to investment and liability experience losses.



SECTION I – EXECUTIVE SUMMARY

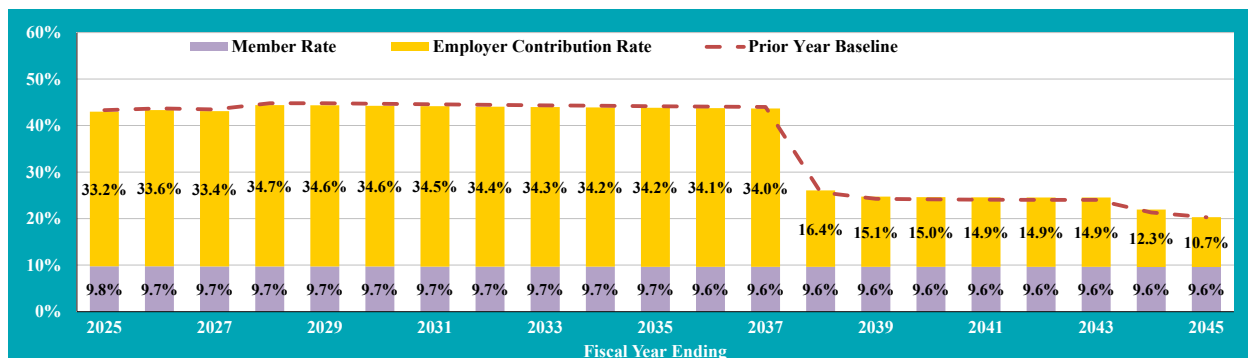
D. Future Expected Financial Trends

The analysis of projected financial trends is an important component of this valuation. In this Section, we present our assessment of the implications of the June 30, 2023 valuation results in terms of benefit security (assets compared to liabilities). All the projections in this section are based on the current actuarial assumptions, including the investment return assumption of 6.75%. We assume future total payroll increases of 2.75% per year. While the assumptions individually are reasonable for the underlying valuation that supports the projections, specifically for projection purposes, they are also considered reasonable in aggregate. Future outcomes become increasingly uncertain over time, and therefore the general trends and not the absolute values should be considered in the review of these projections.

The graph below shows the expected employer and employee contribution rates based on achieving the 6.75% assumption **each year** for the next 20 years. This scenario is highly unlikely: even if the Plan does achieve an **average** return of 6.75% over this period, the returns in each given year will certainly vary. The expected total contribution rates based on the prior year valuation as of June 30, 2022 are shown (in the dashed line) for comparison. The prior year's expected rates are very similar to those from the current projection.

The contribution rate graph shows that employer contribution rates are expected to increase gradually over the next three years as deferred investment losses are recognized in the actuarially smoothed assets and then stay relatively stable until the initial amortization base established in 2021, covering the bulk of the unfunded liability, has been paid down.

Projection of Contributions, 6.75% Return Each Year



The total contribution rate (employer plus employee) is approximately 43% of member payroll for the June 30, 2023 valuation. It is expected to gradually increase to approximately 44% through FYE 2028 if all actuarial assumptions are met, as market value asset losses from prior years are recognized in the actuarially smoothed assets. The total contribution rate is expected to gradually decline after FYE 2028 as PEPRA members replace legacy members, lowering the average normal cost of the Plan.

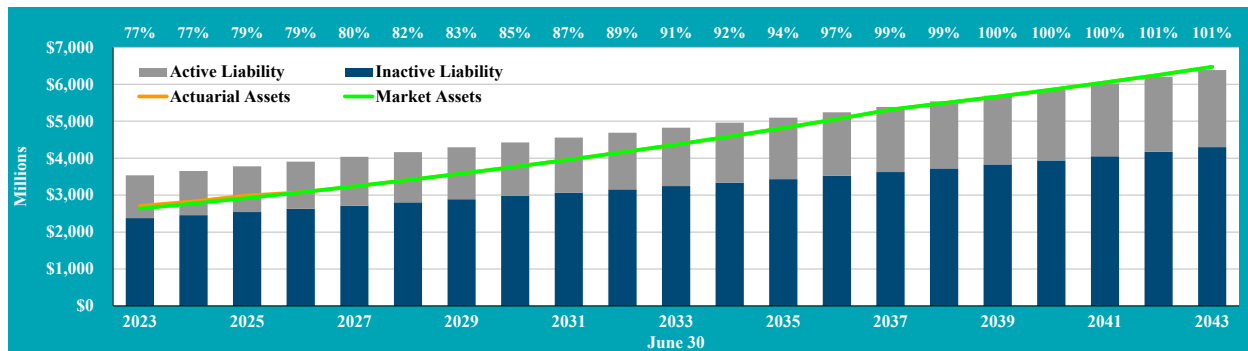
SECTION I – EXECUTIVE SUMMARY

After 13 years, the total contribution rate is expected to drop due to the end of the amortization period for the initial 2021 amortization base. Thereafter, the total contribution rate mostly represents expected normal cost plus administrative expenses, along with UAL amortization payments for any gains and losses that occurred after July 1, 2021. The ends of the amortization periods only affect the employer contribution rate; they have no impact on the employee contribution rate.

Asset and Liability Projections:

The following graph shows the projection of assets and liabilities assuming that assets will earn the 6.75% assumption each year during the projection period. The funded ratio shown is based on the Actuarial Value of Assets. The Actuarial Value of Assets is more than the Market Value of Assets as of June 30, 2023; under the five-year smoothing policy, the two are assumed to be equal past 2026 if there are no additional asset gains/losses.

Projection of Assets and Liabilities, 6.75% Return Each Year (\$ millions)



The graph above shows that the projected funded status remains relatively level for several years before increasing more steadily. The funded ratio approaches 100% after 14 years, as can be expected based on the amortization policy and the one-year contribution lag, assuming the actuarial assumptions are achieved.

However, it is the **actual** return on Plan assets that will determine the future funded status and contribution rate to the Fund.

We note that the funded ratio is expected to gradually climb above 100%; this is because under the PEPRA legislation, the employer contribution is not allowed to fall below the level of the Normal Cost unless the Plan reaches at least 120% funded (and other conditions are met).

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may vary significantly.

SECTION II – DISCLOSURES RELATED TO RISK

Actuarial Standard of Practice (ASOP 51) requires actuaries to identify and assess risks that “may reasonably be anticipated to significantly affect the plan’s future financial condition.” This section of the report is intended to identify the primary risks to the Plan, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

A fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. Even in the case that the Plan remains affordable, the contributions needed to support the Plan may differ significantly from expectations. While there are a number of factors that could lead to contribution amounts deviating from expectations, we believe the primary risks are:

- Investment risk,
- Assumption change risk, and
- Contribution risk.

Other risks that we have not identified may also turn out to be important.

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the unfunded actuarial liability necessitating higher contributions in the future unless there are other gains that offset these investment losses. The potential volatility of future investment returns is determined by the Plan’s asset allocation and the affordability of the investment risk is determined by the amount of assets invested relative to the size of the plan sponsors or other contribution base.

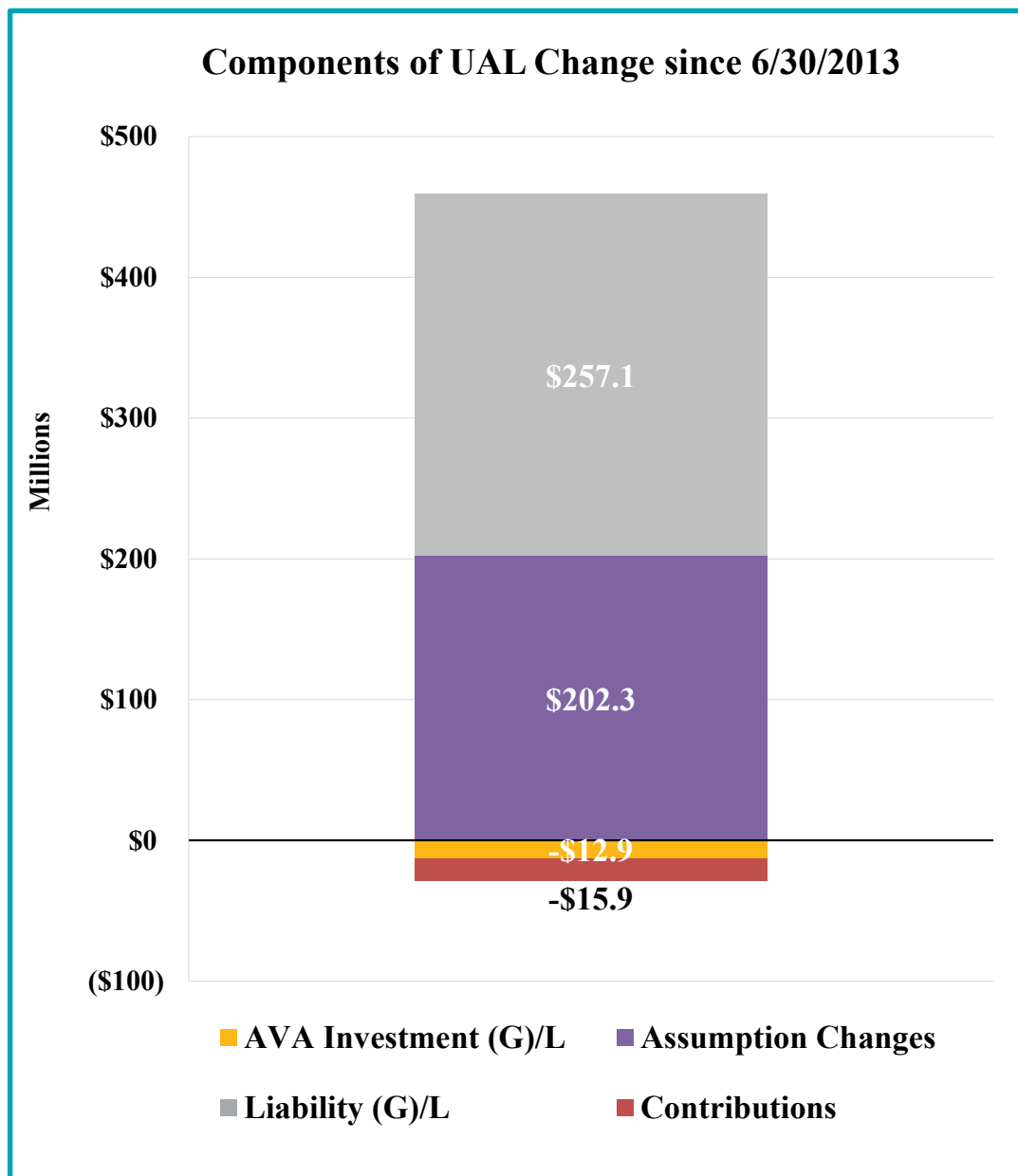
Assumption change risk is the potential for the environment to change such that future valuation assumptions are different than the current assumptions. For example, declines in interest rates over the last three decades (which have recently reversed) resulted in higher investment returns for fixed income investments but lower expected future returns, necessitating either a change in investment policy, a reduction in discount rate, or some combination of the two. Assumption change risk is an extension of the other risks identified, but rather than capturing the risk as it is experienced, it captures the cost of recognizing a change in environment when the current assumption is no longer reasonable.

Contribution risk is the potential for actual future contributions to deviate from expected future contributions. There are different sources of contribution risk such as the sponsor failing to make contributions in accordance with the funding policy or the contribution requirement becoming such a financial strain on the sponsor as a result of material changes in the contribution base (e.g., covered employees, covered payroll) that it affects the amount of contributions the Plan can collect.

SECTION II – DISCLOSURES RELATED TO RISK

The chart below shows the aggregated components contributing to the change in Unfunded Actuarial Liability (UAL) from June 30, 2013 through June 30, 2023. Over the last 10 years, the UAL has increased by approximately \$430.6 million. The net liability losses (gray bar) of \$257.1 million and assumption changes (purple bar) of \$202.3 million are the primary sources of the UAL growth, resulting in a total UAL increase of \$459.4 million. The contributions have been slightly above the “tread water” level (described later in this section, shown in the red bar), resulting in a decrease of \$15.9 million in the UAL. Investment gains (gold bar) of \$12.9 million have also decreased the UAL since June 30, 2013.

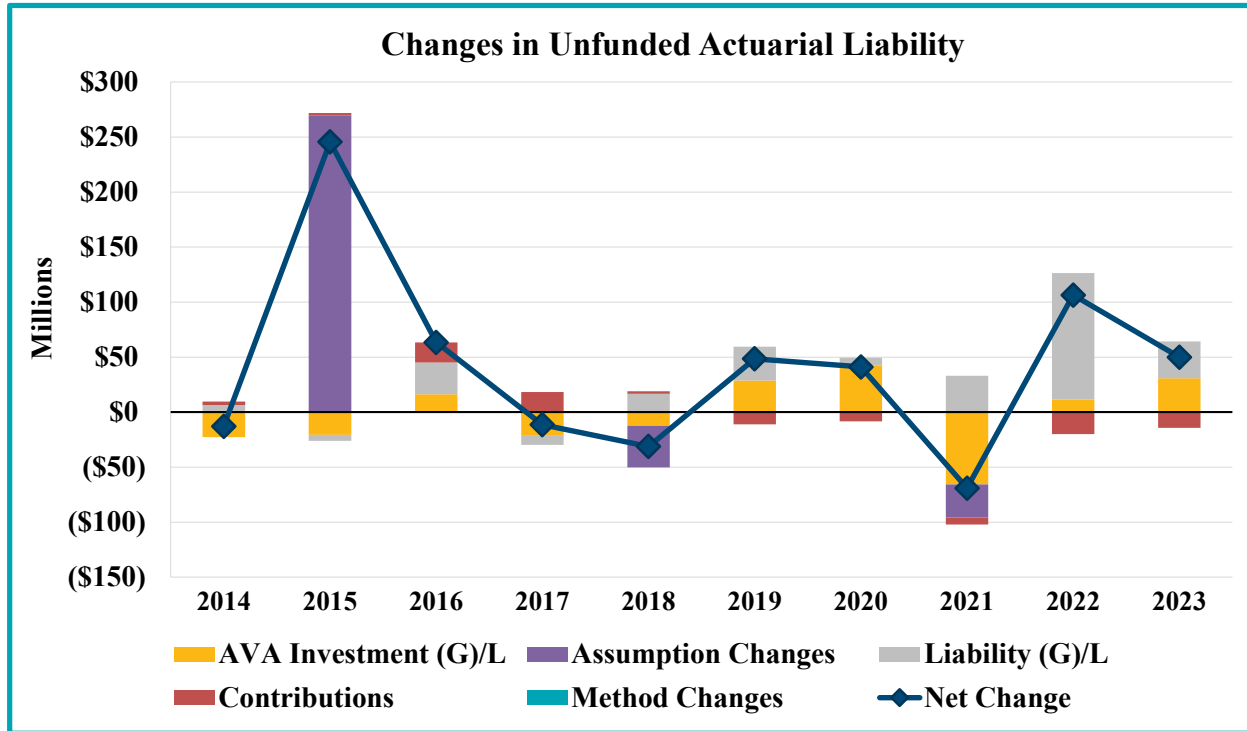
Chart II-1



SECTION II – DISCLOSURES RELATED TO RISK

Chart II-2 below details the annual sources of the UAL change (colored bars) for the plan years ending June 30. The net UAL change for each year is represented by the blue diamonds.

Chart II-2



Liability losses are the largest contributor to the increase in the UAL over the 10-year period, with a large portion of those losses occurring in the past three years when inflation was high. Triennial experience studies are performed in an effort to identify emerging trends and avoid consistent liability gains or losses.

On a market value basis, the average annual geometric return over the 10-year period has been 7.0% with investment gains on the AVA in five of those years decreasing the UAL, but investment losses in the other five years of the last decade. As of June 30, 2023, there are approximately \$74.0 million of deferred losses that will be recognized over the next four years, with the large loss from 2021-2022 contributing most of the deferred losses.

Over the same time period, the assumed rate of return decreased from 7.75% to 6.75%. It is important to note that these changes simply reflect a downward revision of the estimate of future investment earnings and ultimately costs will be determined by actual investment earnings.

The impact of all assumption changes is represented by the purple bars and also includes decreases in mortality rates projected in the future. The assumption changes effective with the June 30, 2021 valuation included a change in the expected rate of return from 7.00% to 6.75%, but also contained demographic assumption changes, which reduced the UAL.

SECTION II – DISCLOSURES RELATED TO RISK

Each year the UAL is expected to increase for benefits earned in the current year (the normal cost), administrative expenses, and interest on the UAL. This expected increase is referred to as the tread water level. If contributions are greater than the tread water level, the UAL is expected to decrease. Conversely, if contributions are less than the tread water level, the UAL is expected to increase. The amortization policy (as well as the contribution-timing lag) can impact whether or not the contributions exceed the tread water level. For example, a long amortization period can result in contributions below the tread water cost. The contribution shortfalls in 2016 and 2017 were due to the phase-in of the 2015 assumption change impact.

Contributions did not meet the tread water level in the first five of the last 10 years, resulting in \$44.0 million of increases to the UAL over that period. However, the amortization period has declined such that positive contributions to reduce the UAL principal have been made in each of the last five years, bringing the overall impact from contributions to a net \$15.9 million decrease. The current funding policy amortizes unexpected changes in the UAL over closed periods of 20 years or less, which will likely continue the trend of contributions that reduce the UAL.

Table II-1 below numerically summarizes the changes in the UAL for each year by source over the last 10 years.

Table II-1

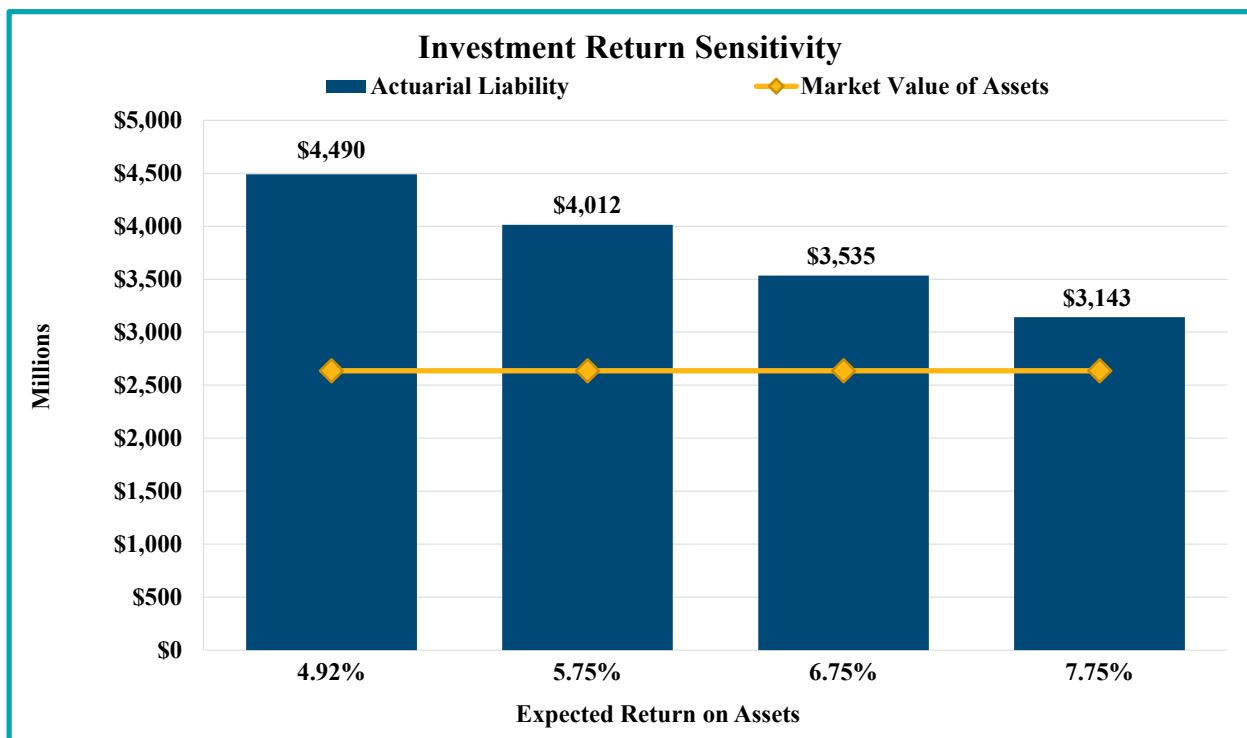
Table II-1 Unfunded Actuarial Liability (UAL) Change by Source						
June 30,	Investment Experience	Liability Experience	Assumption Changes	Method Changes	Contributions	Total UAL Change
2014	(\$22,600,000)	\$6,100,000	\$400,000	\$0	\$3,243,000	(\$12,857,000)
2015	(20,600,000)	(5,600,000)	269,800,000	0	1,999,000	245,599,000
2016	16,300,000	28,900,000	0	0	18,210,000	63,410,000
2017	(20,800,000)	(8,900,000)	0	0	18,328,000	(11,372,000)
2018	(12,400,000)	16,800,000	(37,800,000)	0	2,260,000	(31,140,000)
2019	28,700,000	30,800,000	0	0	(11,023,000)	48,477,000
2020	42,100,000	7,400,000	0	0	(8,407,000)	41,093,000
2021	(65,700,000)	33,000,000	(30,100,000)	0	(6,240,000)	(69,040,000)
2022	11,400,000	115,100,000	0	0	(20,029,000)	106,471,000
2023	30,700,000	33,500,000	0	0	(14,238,000)	49,962,000
Total	(\$12,900,000)	\$257,100,000	\$202,300,000	\$0	(\$15,897,000)	\$430,603,000

SECTION II – DISCLOSURES RELATED TO RISK

Assessing Costs and Risks

Sensitivity to Investment Returns

The chart below compares the Market Value of Assets (line) to the Actuarial Liabilities (bars) discounted at the current expected rate of return and at discount rates 100 basis points above and below the expected rate of return. In addition, we have added an additional measurement, the Low-Default-Risk Obligation Measure (LDROM), which is the Actuarial Liability using a discount rate derived from low-default-risk fixed income securities that approximately match the benefit payments of the plan.



If investments return 6.75% annually, the Plan will need approximately \$3.5 billion in assets today to pay the benefits associated with service earned to date, compared to current assets of \$2.6 billion. If investment returns are only 5.75%, the Plan would need approximately \$4.0 billion in assets today, and if investment returns are 7.75%, the Plan would need approximately \$3.1 billion in assets today.

StanCERA invests in a diversified portfolio to achieve the best possible returns at an acceptable level of risk. StanCERA's average return over the last 25 years is 6.1%. Please refer to Table III-4 for the asset returns by year since 1997.

The low-risk portfolio for a pension plan would be composed entirely of low-default-risk fixed income securities whose cash flows approximately match the benefit cash flows of the plan.

SECTION II – DISCLOSURES RELATED TO RISK

However, such a portfolio would have a lower expected rate of return (4.92% as of June 30, 2023) than the diversified portfolio (6.75%). The LDROM represents what the Actuarial Liability would be if StanCERA's assets were invested in such a portfolio. As of June 30, 2023, the LDROM is \$4.49 billion¹ compared to the Actuarial Liability of \$3.54 billion for StanCERA. The \$0.95 billion difference can be viewed as the expected savings from taking on the investment risk of the diversified portfolio. Alternatively, it can be viewed as the potential cost of minimizing the investment risk.

If StanCERA were to invest in the LDROM portfolio and not a diversified portfolio, the funded status would be lower, and the expected contribution requirements would increase. The security of StanCERA's pension benefits relies on current assets, future investment earnings, and the ability and willingness of employers to make future contributions. If StanCERA were to invest in the LDROM portfolio, it would not change current assets, but it could potentially reduce future investment earnings, potentially changing the level of reliance on future employer contributions. However, investing in an LDROM portfolio would generate more predictable future investment earnings and future contributions.

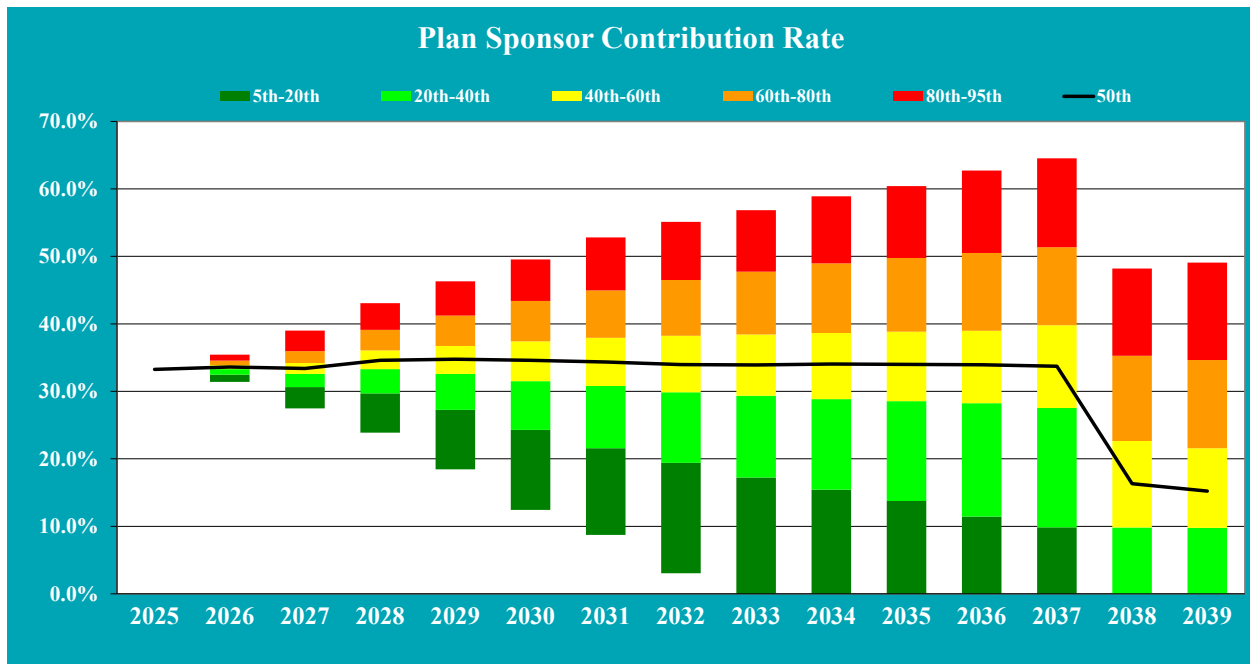
¹ Based on a discount rate equal to the June 30, 2023 FTSE Pension Liability Index of 4.92%, and all other assumptions and methods as used to calculate the Actuarial Liability.

SECTION II – DISCLOSURES RELATED TO RISK

Sensitivity to Investment Returns - Stochastic Projections

Stochastic projections serve to show the range of probable outcomes of various measurements. The graphs below and on the following page show the projected range of the employer contribution rate and of the funded ratio on an Actuarial Value of Assets basis. The range in both scenarios is driven by the volatility of investment returns (assumed to be based on a 12% standard deviation of annual returns, as indicated in NEPC's June 30, 2023 capital market assumptions). The stochastic projections of investment returns are based on an assumption that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. This assumption may result in an unrealistically wide range of compound investment returns over longer periods.

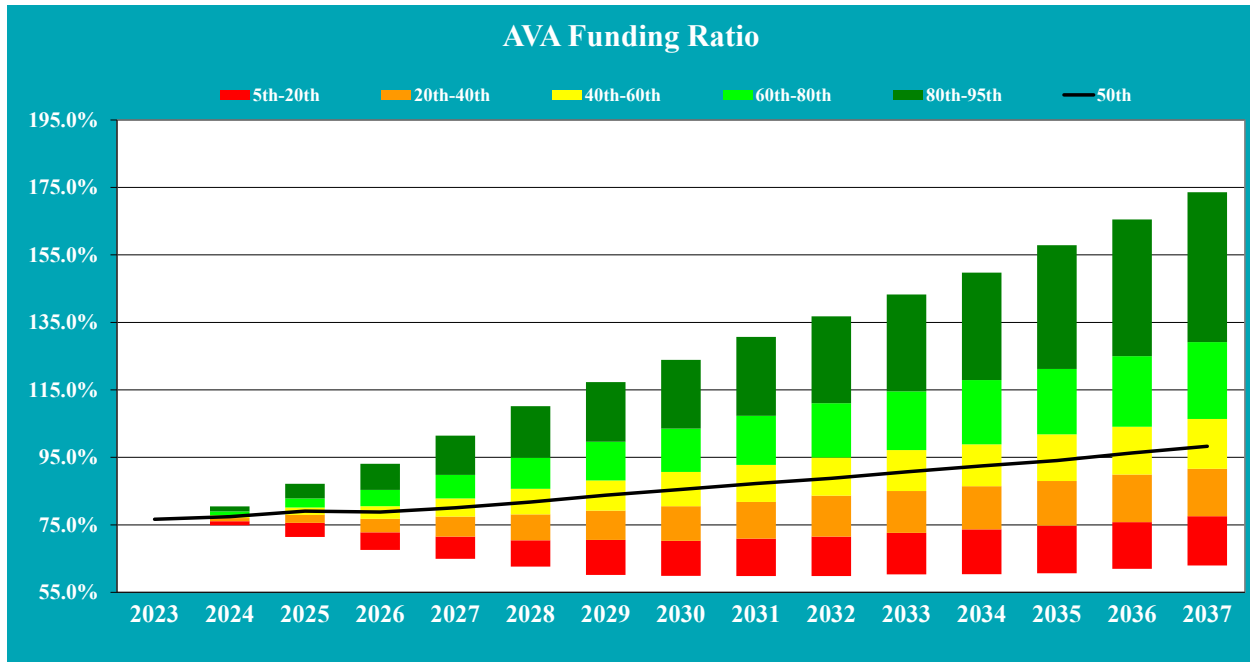
Stochastic Projection of Employer Contributions as a Percent of Pay



The stochastic projection of employer contributions as a percentage of pay shows the probable range of future contribution rates. The baseline contribution rate (black line), which is based on the median of the simulations using an average return of 6.75%, aligns closely with the projections discussed in subsection D. of the Executive Summary of this report. In the most pessimistic scenario shown, the 95th percentile, the projected employer contribution rate approaches 65% of pay by 2037. Conversely, the most optimistic scenario shown, the 5th percentile, the projected employer contribution rate declines to 0% by 2033. These projections allow the employer contribution to drop below the normal cost only if the Plan becomes extremely over-funded (above 120%), as required under PEPR.

SECTION II – DISCLOSURES RELATED TO RISK

Stochastic Projection of Funded Ratio on an Actuarial Value of Assets Basis



The graph above shows the projection of the funded ratio based on the Actuarial Value of Assets, under the current layered amortization policy. While the baseline-funded ratio (black line) is projected to approach 100% at the end of the 15-year period shown here, there is a wide range of potential outcomes. Good investment returns have the likelihood of bringing the funded ratio well over 100%.

Due to the current funding policy of the Plan, even in scenarios with unfavorable investment returns, the Plan is projected to remain over 60% funded on an Actuarial Value of Assets basis, as long as the actuarially determined contributions continue to be made.

Sensitivity to Investment Returns – Projected FYE 2026 Employer Contribution Rate

The following graph focuses on the short-term, showing the impact that different FYE 2024 investment returns will have on the FYE 2026 Employer Contribution Rate.

The x-axis covers a range of potential FYE 2024 investment returns. The actual FYE 2024 investment return may fall outside of this range. The y-axis is the employer contribution rate.

The blue line shows the FYE 2025 employer contribution rate of 33.2%. The line is flat because the FYE 2025 rate is based on the June 30, 2023 valuation. It will not be impacted by the FYE 2024 investment return.

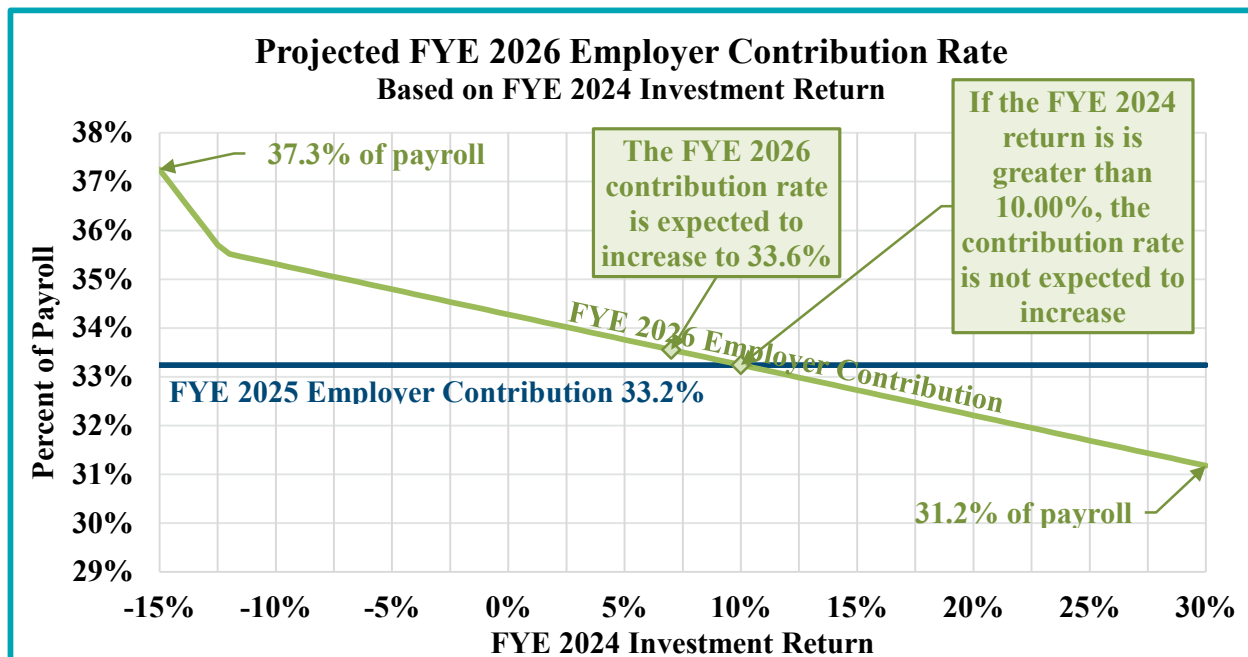
The FYE 2024 investment return will first impact the FYE 2026 contribution rate. The green line shows how that rate will vary for different investment returns. For example, a FYE 2024 return

SECTION II – DISCLOSURES RELATED TO RISK

of 30% results in an employer contribution rate of 31.2% of payroll. The FYE 2026 contribution rate is expected to be 33.6%, based on the investment return assumption of 6.75%.

The range of the projected FYE 2026 employer contribution rate is relatively narrow due to asset “smoothing”. The rate is calculated using the Actuarial Value of Assets, which recognizes market value investment gains and losses over five years. In other words, only 20% of the FYE 2024 investment gain or loss will be reflected when calculating the FYE 2026 contribution rate.

The slope of the green line increases when returns drop below about -12%. This is caused by the 20% corridor included in the Actuarial Value of Assets calculation. The 20% corridor limits the Actuarial Value to no less than 80% and no more than 120% of the market value. Thus, investment losses beyond a certain level (-12%, in this case) are reflected in the Actuarial Value immediately, instead of gradually over five years. The Actuarial Value does not reach the bottom end of the corridor for this range of returns because the Market Value of Assets is currently less than Actuarial Value of Assets (i.e., the Actuarial Value starts closer to the top end of the corridor).



SECTION II – DISCLOSURES RELATED TO RISK

Contribution Risk

While investment returns are typically the dominant factor in volatility, contribution rates can also be sensitive to future salary increases and the hiring of new members. When member payroll growth stagnates or even declines, the dollar level of contributions made to the Plan also stagnates or declines since contributions are based on payroll levels, though this will generally only present a funding issue if there is an extended period of payroll reductions.

There is also a risk of the contribution rate increasing even higher when payroll decreases since the Plan's funding policy amortizes the UAL as a level percentage of pay. This means that the UAL payments increase at the assumed payroll growth rate of 2.75%, so that the payment is expected to remain constant as a percentage of payroll. If payroll growth is less than the expected 2.75% or there is a decline in payroll, the UAL payments are spread over a smaller payroll base and the contribution rate as a percentage of pay increases, potentially making the Plan less affordable for those sponsors with declining payroll and/or revenue bases.

For example, the UAL Amortization rate as of June 30, 2023 for the FYE 2024 is 21.54%. If the projected payroll for FYE 2024 were 2.75% lower, all else being equal, the UAL Amortization rate would increase to 22.15%.

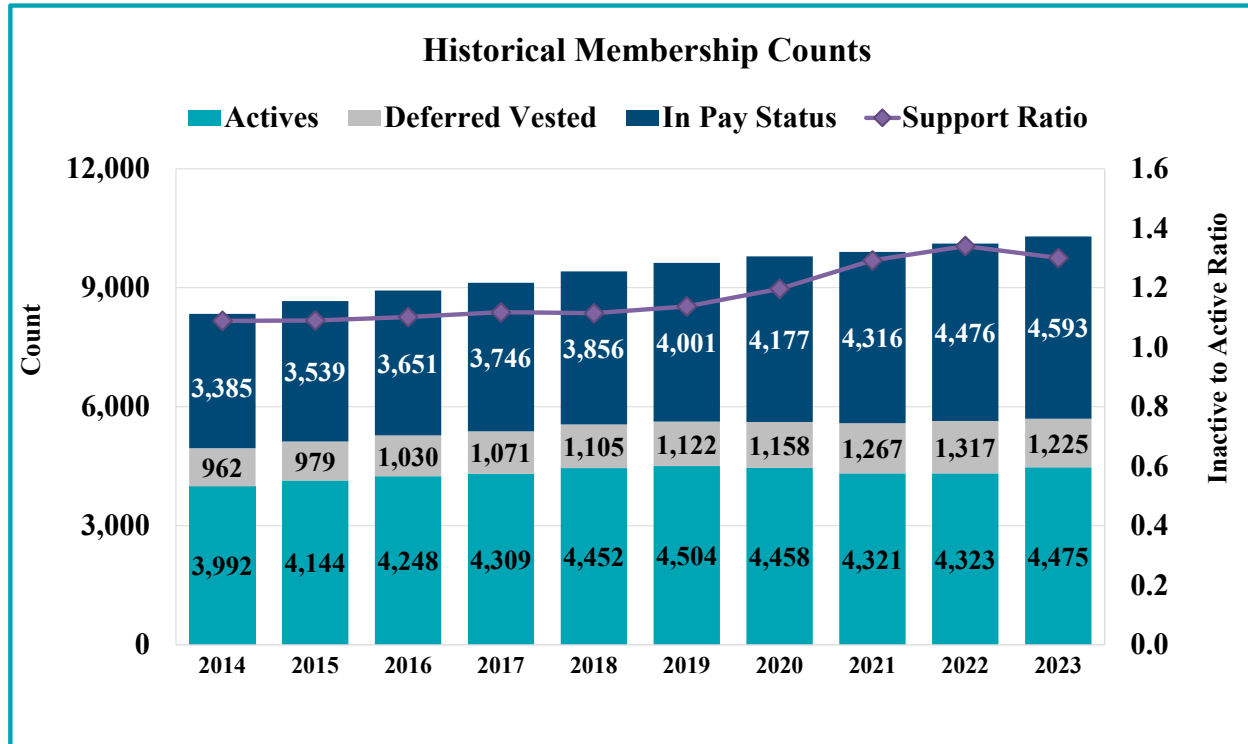
Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. It is important to understand how the maturity has changed over time. Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it, the more sensitive the plan will be to risk. The measures below have been selected as the most important in understanding the primary risks identified for the Plan.

SECTION II – DISCLOSURES RELATED TO RISK

Inactives per Active (Support Ratio)

One simple measure of plan maturity is the ratio of the number of inactive members to the number of active members. The Support Ratio is expected to increase gradually as a plan matures. The chart below shows the growth in the Support Ratio from 2014 to 2023 as the number of active members generally increased more slowly than the number of retirees and deferred members. Most of the increase occurred between 2019 and 2022.

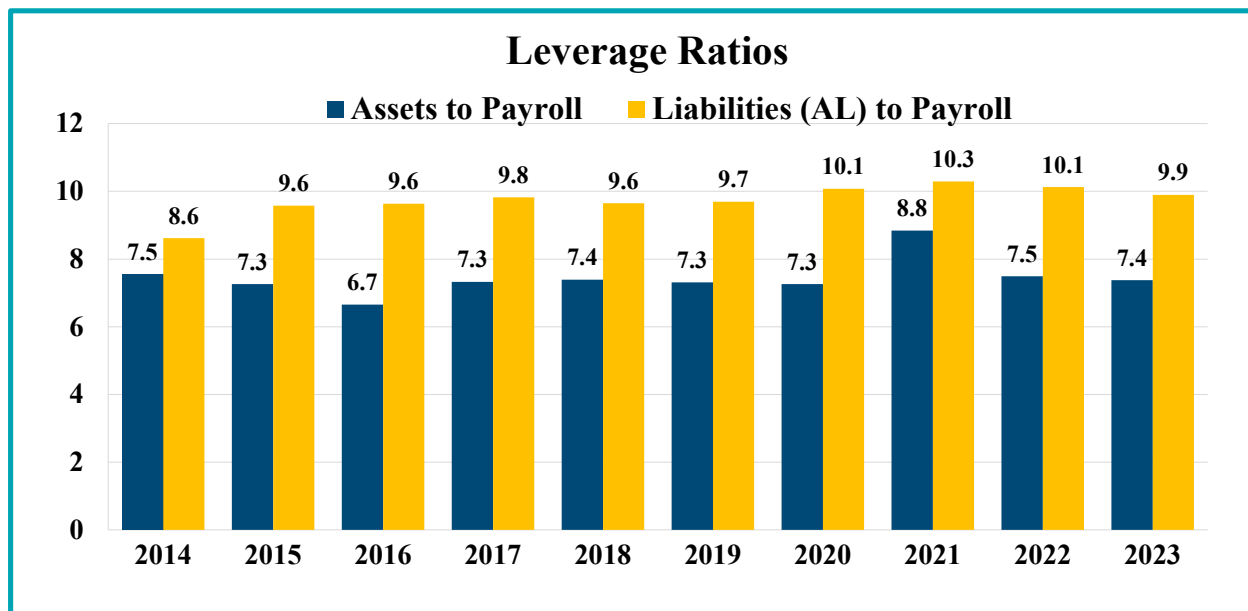


SECTION II – DISCLOSURES RELATED TO RISK

Leverage Ratios

Leverage or volatility ratios measure the size of the plan compared to its revenue base more directly. The asset leverage ratio is simply the market value of assets to active member payroll and indicates the sensitivity of the Plan to investment returns. The liability leverage ratio is the plan's actuarial liability to active member payroll and indicates the sensitivity of the Plan to assumption changes or liability experience.

The chart below shows the historical leverage ratios of the Plan. The liabilities to payroll ratio has remained at approximately 10.0 for the last nine years, and the asset to payroll ratio has remained at or above 7.0 – assets are seven times member payroll – for all but one of the last ten years.

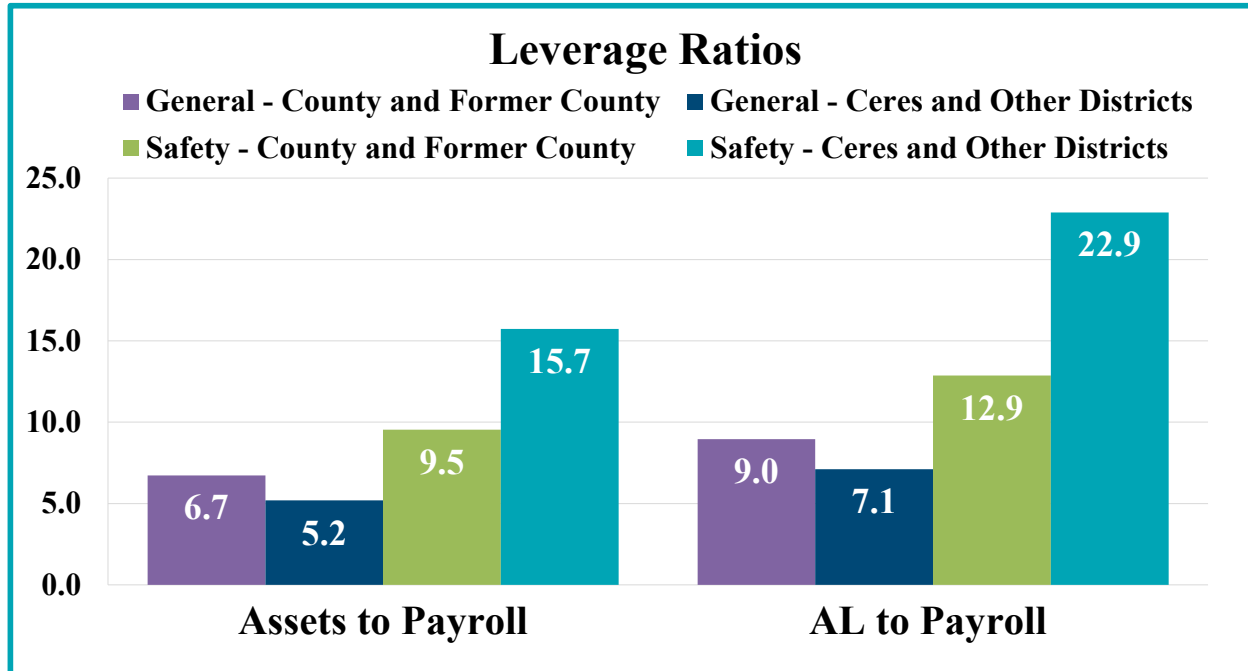


To appreciate the impact of the ratio of assets to payroll on plan cost, consider the situation for a new plan with almost no assets. Even if the assets suffer a bad year of investment returns, the impact on the plan cost is nil, because the asset level is so small.

As the Plan becomes better funded, the asset leverage ratio will increase, and if it were 100% funded, the asset leverage ratio would be about 10 times payroll, or the Actuarial Liability (AL) leverage ratio.

We note that the ratio of both assets and liabilities to payroll, and therefore the sensitivity to investment returns, is higher for the Safety members compared to the General members, because of the higher benefit amounts and the earlier average retirement ages for Safety. The ratios can also differ significantly for employer subgroups.

SECTION II – DISCLOSURES RELATED TO RISK



We first discuss the County and Former County employer subgroup. The General asset leverage ratio of 6.7 means that if the Plan's assets lose 10% of their value, which is a 16.75% actuarial loss compared to the expected return of 6.75%, the loss would be equivalent to 112% of payroll (16.75% times 6.7). The same investment loss for the Safety group with an asset ratio of 9.5 would be equivalent to approximately 159% of payroll. There is only one source of funding to make up for these investment losses: contributions. Consequently, barring future offsetting investment gains, the employer has to make up the asset loss in additional future contributions. In this example of a one-year loss of 10%, the shortfall will eventually require an additional annual amortization payment of approximately 8% and 12% of payroll for General and Safety, respectively, if amortized over 20 years. Contribution rates for the Safety members will generally be more volatile compared to General members.

If the Plan were fully funded, the 10% loss discussed above would translate to a loss of 150% of payroll for General and 216% of payroll for Safety. When amortized over 20 years, employer contributions would increase approximately 11% and 16% of payroll, respectively. Therefore, the Plan may become more sensitive to market variations in the future than it is today.

The disparity between the leverage ratios for Ceres and Other Districts is even greater. For this employer subgroup, the 10% asset loss would be the equivalent of 87% of payroll for General and 263% of payroll for Safety. When amortized over 20 years, employer contributions would increase approximately 6% and 19% of payroll, respectively.

SECTION II – DISCLOSURES RELATED TO RISK

More Detailed Assessment

While a more detailed assessment is always valuable to enhance the understanding of the risks identified above, we believe the scenarios illustrated above cover the primary risks facing the Plan at this time. We would be happy to provide the Board with a more in-depth analysis at their request.

SECTION III – ASSETS

Pension Plan assets play a key role in the financial operation of the Plan and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, employer contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets as of June 30, 2022 and June 30, 2023,
- Statement of the **changes** in market values during the year,
- Development of the **Actuarial Value of Assets**,
- An assessment of historical **investment performance versus inflation**, and
- An allocation of the Actuarial Value of Assets between the **cost-sharing groups**.

Disclosure

There are two types of asset values disclosed in the valuation, the Market Value of Assets and the Actuarial Value of Assets. The market value represents “snap-shot” or “cash-out” values, which provide the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for long-range planning as are the Actuarial Value of Assets, which reflects smoothing of annual investment returns.

Table III-1 on the next page discloses and compares each asset class as of June 30, 2022 and June 30, 2023.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION III – ASSETS

Table III-1 Statement of Assets at Market Value		
	Fiscal Year ending June 30, 2022	Fiscal Year ending June 30, 2023
Cash and Cash Equivalents		
Total Cash and Cash Equivalents	\$ 68,001,805	\$ 67,646,035
Receivables		
Interest and Dividends	\$ 5,126,501	\$ 6,477,394
Contributions	4,757,769	5,595,454
Securities Transactions	432,933	1,197,146
Total Receivables	\$ 10,317,203	\$ 13,269,994
Fixed Assets		
Capitalized Software	\$ 0	\$ 0
Real Estate Occupied	1,573,614	1,554,638
Real Estate Leased	1,049,794	1,037,141
Other	7,238,023	7,604,700
Total Fixed Assets	\$ 9,861,431	\$ 10,196,479
Investments at Market Value		
Fixed Income	\$ 268,798,688	\$ 333,115,283
Equities	968,222,097	1,063,686,197
Collateral on Loaned Securities	81,116,101	83,174,371
Other	1,217,916,435	1,190,614,647
Total Investments	\$ 2,536,053,321	\$ 2,670,590,498
Liabilities		
Accounts Payable	\$ (15,309,238)	\$ (15,253,090)
Security Transactions Payable	(988,077)	(1,038,000)
Collateral Held for Loaned Securities	(81,116,101)	(83,174,371)
Other	(395,000)	(395,000)
Total Liabilities	\$ (97,808,416)	\$ (99,860,461)
Market Value of Assets	\$ 2,526,425,344	\$ 2,661,842,545

SECTION III – ASSETS

Changes in Market Value

The components of asset change are:

- Contributions (employers and employee)
- Benefit payments
- Expenses (investment and administrative)
- Investment income (realized and unrealized)

Table III-2 on the next page shows the components of change in the Market Value of Assets during the fiscal years ending June 30, 2022 and June 30, 2023.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION III – ASSETS

Table III-2 Changes in Market Values		
<u>Additions</u>	Fiscal Year ending <u>June 30, 2022</u>	Fiscal Year ending <u>June 30, 2023</u>
Contributions		
Employer's Contribution	\$ 100,768,249	\$ 105,089,934
Members' Contributions	29,998,079	33,052,850
Total Contributions	<u>\$ 130,766,328</u>	<u>\$ 138,142,784</u>
Net Investment Income		
Net Appreciation/(Depreciation) in		
Fair Value of Investments	\$ (191,378,355)	\$ 134,076,331
Interest and Dividends	49,088,179	55,969,574
Commission Recapture	32,929	14,491
Other Investment Income	699,924	2,741,855
Total Investment Income	<u>\$ (141,557,323)</u>	<u>\$ 192,802,251</u>
Investment Expense	(27,898,500)	(19,763,497)
Net Investment Income	<u>\$ (169,455,823)</u>	<u>\$ 173,038,754</u>
Securities Lending Activities		
Securities Lending Income	\$ 432,050	\$ 540,693
Expenses from Securities Lending Activities	(130,119)	(160,790)
Net Securities Lending Income	<u>301,931</u>	<u>379,903</u>
Total Net Investment Income	<u>\$ (169,153,892)</u>	<u>\$ 173,418,657</u>
Total Additions	\$ (38,387,564)	\$ 311,561,441
<u>Deductions</u>		
Benefits	\$ 158,258,447	\$ 168,768,709
Refunds	4,050,751	3,013,593
Administrative Costs	3,475,764	4,361,938
Total Deductions	<u>\$ 165,784,962</u>	<u>\$ 176,144,240</u>
Net Increase/(Decrease)	\$ (204,172,526)	\$ 135,417,201
Net Assets Beginning of Year	\$ 2,730,597,870	\$ 2,526,425,344
Net Assets End of Year	\$ 2,526,425,344	\$ 2,661,842,545
Approximate Return	-6.23%	6.92%

SECTION III – ASSETS

Actuarial Value of Assets (AVA)

The Actuarial Value of Assets represents a “smoothed” value developed by the actuary to reduce the volatile results that could develop due to short-term fluctuations in the Market Value of Assets. For this Plan, the Actuarial Value of Assets is calculated on a modified market-related value. The Market Value of Assets is adjusted to recognize, over a five-year period, investment earnings which are greater than (or less than) the assumed investment return. However, in no event will the Actuarial Value of Assets be less than 80% or more than 120% of market value on the valuation date.

The Valuation Assets are the portion of the Actuarial Assets dedicated to funding the basic pension benefits. The Valuation Assets exclude the value of any non-valuation reserves, such as reserves established for legal contingencies. The Valuation Assets also exclude the value of any non-valuation contingency reserves, which have been established according to the Board's funding policy. In valuations prior to the June 30, 2014 valuation, a reserve associated with the Burial Allowance was excluded from the Valuation Assets; both the assets and liabilities associated with this benefit are included in this valuation.

The table on the following page shows the development of the actuarial asset and valuation assets values.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION III – ASSETS

Table III-3 Development of Actuarial Value of Assets for 6/30/2023	
Item	Total
1. Market Value as of 6/30/2022	\$ 2,526,425,344
2. Non-Investment Cash Flow for 2022-2023	(38,001,456)
3. Expected Return in 2022-2023	169,272,104
4. Expected Market Value as of 6/30/2023: (1 + 2 + 3)	\$ 2,657,695,992
5. Actual Return in 2022-2023	173,418,657
6. Actual Return Above Expected in 2022-2023: (5 - 3)	4,146,553
7. Market Value as of 6/30/2023	\$ 2,661,842,545
8. Deferred Recognition of Returns Above Expected	
A. 2022-2023 (80% of \$4,146,553)	3,317,242
B. 2021-2022 (60% of -\$352,306,668)	(211,384,001)
C. 2020-2021 (40% of \$402,867,628)	161,147,051
D. 2019-2020 (20% of -\$135,361,964)	(27,072,393)
E. Total	\$ (73,992,101)
9. Preliminary Actuarial Value of Assets: (7 - 8E)	\$ 2,735,834,646
10. Corridor Limit	
A. 80% of Net Market Value	2,129,474,036
B. 120% of Net Market Value	3,194,211,054
11. Actuarial Value after Corridor as of 6/30/2023	\$ 2,735,834,646
12. Rate of Return on Actuarial Value of Assets	5.49%
13. Ratio of Actuarial Value to Market Value: (11 ÷ 7)	102.8%
14. Special (Non Valuation) Reserves:	
A. Health Insurance Reserves	0
B. Special COL Reserve	0
C. Legal Contingency Reserve	1,253,788
D. Tier 3 Disability Reserve	1,837
E. Contingency Reserve	25,007,665
F. Total Special Reserves (Market Value)	\$ 26,263,290
15. Adjusted Total Special Reserves (102.8% of Market, Except Contingency)	\$ 26,298,193
16. Pension Reserves at Actuarial Value (Valuation Assets): (11 - 15)	\$ 2,709,536,453

SECTION III – ASSETS

Historical Investment Performance

The table shows the historical annual asset returns on a market value, actuarial value, and valuation asset basis, as well as the increase in the Consumer Price Index (CPI) since 1997. Note that the returns prior to 2013 are expressed net of investment and administrative expenses; the returns for 2013 and all following years are expressed net of investment expenses only.

Table III-4 Net Return on Assets vs. Increase in Consumer Price Index				
Year Ended June 30	Net Return at Market Value	Net Return at Actuarial Value	Net Return at Valuation Assets	Increase in Consumer Price Index ¹
1997	20.4%			2.3%
1998	13.4%			1.7%
1999	10.6%			2.0%
2000	6.3%			3.7%
2001	7.0%			3.2%
2002	-4.5%			1.1%
2003	5.2%		4.9%	2.1%
2004	6.1%		6.3%	3.3%
2005	8.2%		5.5%	2.5%
2006	9.9%		10.8%	4.3%
2007	16.0%	10.8%	0.6%	2.7%
2008	-8.5%	8.0%	16.7%	5.0%
2009	-17.2%	-9.6%	-9.4%	-1.4%
2010	15.6%	13.0%	14.7%	1.1%
2011	22.1%	3.5%	4.2%	3.6%
2012	0.1%	6.4%	6.5%	1.7%
2013	13.9%	7.0%	7.2%	1.8%
2014	18.0%	9.4%	9.5%	2.1%
2015	3.9%	9.1%	9.0%	0.1%
2016	-1.7%	6.3%	6.3%	1.0%
2017	14.4%	8.3%	8.4%	1.6%
2018	7.8%	7.9%	7.9%	2.9%
2019	4.7%	5.6%	5.6%	1.6%
2020	0.8%	5.0%	5.1%	0.6%
2021	25.4%	9.8%	9.9%	5.4%
2022	-6.2%	6.4%	6.3%	9.1%
2023	6.9%	5.5%	5.6%	3.0%
25-Year Compound Average				
	6.1%	N/A	N/A	2.5%
20-Year Compound Average				
	6.5%	N/A	6.7%	2.6%
15-Year Compound Average				
	6.6%	6.1%	6.3%	2.3%
10-Year Compound Average				
	7.0%	7.3%	7.3%	2.7%
5-Year Compound Average				
	5.8%	6.4%	6.5%	3.9%

¹ Based on All Urban Consumers - U.S. City Average, June indices.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION III – ASSETS

Allocation of Actuarial Value of Assets by Cost-Sharing Group

The following table shows the allocation of the Actuarial Value of Assets between the four cost-sharing groups, which covers the employer subgroups (County / Former County Members and City of Ceres / Special District Members) as well as the valuation subgroups (General and Safety). First, the actuarial asset value from the prior year for each cost-sharing group is increased by employee and employer contributions and decreased by benefit payments and expenses. Expected returns are added to get an expected asset value. A final adjustment is applied for the actual (smoothed) investment returns, proportionate to each groups' share of the expected assets, such that the sum of the valuation assets allocated to each group equals the total of the valuation assets for StanCERA. These AVA values are used to calculate each group's UAL and the associated amortization payment.

For the year ending in 2023, the non-investment cash flow includes transfers related to data corrections. Retirees previously reported under the County/Former County subgroup were correctly reported under the City of Ceres/Special District subgroup for the first time. The associated transfers between cost-sharing groups are consistent with the previous valuation asset allocation methodology, which fully funded the liability associated with the retired members

Table III-5 Allocation of June 30, 2023 Actuarial Value of Assets (in thousands)						
	General		Safety		Total	
	County and Former County	Ceres and Other Districts	County and Former County	Ceres and Other Districts		
1. Actuarial Value of Assets					\$	2,709,536
2. Allocated Actuarial Value of Assets as of 6/30/2022	\$ 1,797,334	\$ 57,307	\$ 672,542	\$ 76,579	\$	2,603,763
3. Contributions for 2022-2023	89,806	3,348	40,089	4,900		138,143
4. Benefit Payments for 2022-2023	(124,431)	(3,753)	(39,622)	(3,976)		(171,782)
5. Allocated Administrative Expenses for 2022-2023	(2,850)	(110)	(1,250)	(151)		(4,362)
6. Transfers related to Data Corrections for 2022-2023	0	0	(3,582)	3,582		0
7. Non-Investment Cash Flow for 2022-2023 [3 + 4 + 5 + 6]	\$ (37,476)	\$ (514)	\$ (4,365)	\$ 4,354	\$	(38,001)
8. Expected Return in 2022-2023	120,076	3,851	45,371	5,195		174,492
9. Expected Assets as of 6/30/2023 [2 + 7 + 8]	\$ 1,879,934	\$ 60,644	\$ 713,548	\$ 86,128	\$	2,740,254
10. Net Assets for Distribution [1 - 9]					\$	(30,717)
11. Allocation of Net Assets	68.60%	2.21%	26.04%	3.14%		100.00%
12. Remaining Assets	(21,073)	(680)	(7,999)	(965)		(30,717)
13. Actuarial Value of Assets [9 + 12]	\$ 1,858,861	\$ 59,964	\$ 705,549	\$ 85,162	\$	2,709,536

SECTION IV – LIABILITIES

In this section, we present detailed information on Plan liabilities including:

- **Disclosure** of Plan liabilities on June 30, 2022 and June 30, 2023,
- Statement of **changes** in these liabilities during the year.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them. Note that these liabilities are not applicable for settlement purposes, including the purchase of annuities and the payment of lump sums.

- **Present Value of Future Benefits:** Used for measuring all future Plan obligations, represents the amount of money needed today to fully fund all benefits of the Plan both earned as of the valuation date and those to be earned in the future by current Plan participants, under the current Plan provisions.
- **Actuarial Liability:** Used for funding calculations, this liability is calculated taking the Present Value of Future Benefits and subtracting the present value of future Member Contributions and future Employer Normal Costs under an acceptable actuarial funding method. The method used for this Plan is called the **Entry Age Normal** (EAN) funding method.
- **Unfunded Actuarial Liability:** The excess of the Actuarial Liability over the Actuarial Value of Assets.

Table IV-1 on the following page discloses each of these liabilities for the current and prior valuations. With respect to each disclosure, a subtraction of the appropriate value of Plan assets yields, for each respective type, a **net surplus**, or an **Unfunded Actuarial Liability**.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION IV – LIABILITIES

Table IV-1 Present Value of Future Benefits and Actuarial Liability (in thousands)						
	General		Safety		June 30, 2023	June 30, 2022
	County and Former County	Ceres and Other Districts	County and Former County	Ceres and Other Districts	Total	Total
Present Value of Future Benefits						
Actives	\$ 1,183,381	\$ 41,600	\$ 487,866	\$ 39,683	\$ 1,752,530	\$ 1,661,005
Terminated Vested	133,305	7,307	45,872	21,699	208,184	217,084
Retirees	1,351,500	43,285	449,693	53,522	1,898,000	1,792,823
Disabled	47,028	2,842	85,264	15,332	150,465	145,770
Beneficiaries	80,227	2,379	35,650	4,247	122,502	119,493
Total StanCERA	\$ 2,795,441	\$ 97,413	\$ 1,104,344	\$ 134,482	\$ 4,131,681	\$ 3,936,175
Actuarial Liability						
Total Present Value of Benefits	\$ 2,795,441	\$ 97,413	\$ 1,104,344	\$ 134,482	\$ 4,131,681	\$ 3,936,175
Present Value of Future Normal Costs						
Employer Portion	206,605	9,783	93,992	7,897	318,277	299,117
Employee Portion	180,158	7,712	84,236	6,008	278,115	257,504
Actuarial Liability	\$ 2,408,678	\$ 79,918	\$ 926,116	\$ 120,577	\$ 3,535,289	\$ 3,379,554
Actuarial Value of Assets	\$ 1,858,861	\$ 59,964	\$ 705,549	\$ 85,162	\$ 2,709,536	\$ 2,603,763
AVA Funded Ratio	77.2%	75.0%	76.2%	70.6%	76.6%	77.0%
Unfunded Actuarial Liability/(Surplus)	\$ 549,817	\$ 19,954	\$ 220,567	\$ 35,415	\$ 825,753	\$ 775,791

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION IV – LIABILITIES

The table shows the Actuarial Liabilities for each of the valuation cost-sharing groups, split by members' status.

Table IV-2 Liabilities by Group as of June 30, 2023 (in thousands)					
	General		Safety		Total
	County and Former County	Ceres and Other Districts	County and Former County	Ceres and Other Districts	
Actuarial Liability					
Actives	\$ 796,618	\$ 24,106	\$ 309,637	\$ 25,778	\$ 1,156,138
Terminated Vested	133,305	7,307	45,872	21,699	208,184
Retirees	1,351,500	43,285	449,693	53,522	1,898,000
Disabled	47,028	2,842	85,264	15,332	150,465
Beneficiaries	80,227	2,379	35,650	4,247	122,502
Total	\$ 2,408,678	\$ 79,918	\$ 926,116	\$ 120,577	\$ 3,535,289

SECTION IV – LIABILITIES

Changes in Liabilities

Each of the Liabilities disclosed in the prior tables are expected to change at each valuation. The components of that change, depending upon which liability is analyzed, can include:

- New hires since the last valuation
- Benefits accrued since the last valuation
- Plan amendments increasing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Participants retiring, terminating, or dying at rates different than expected
- A change in actuarial or investment assumptions
- A change in the actuarial funding method

Unfunded liabilities will change because of all of the above, and also due to changes in Plan assets resulting from:

- Employer contributions different than expected
- Investment earnings different than expected
- A change in the method used to measure Plan assets

Table IV-3 Development of 2023 Experience Gain/(Loss) (in millions)	
Item	Cost
1. Unfunded Actuarial Liability at June 30, 2022	\$ 775.8
2. Middle of year actuarial liability payment	(69.9)
3. Interest to end of year on 1 and 2	<u>50.0</u>
4. Expected Unfunded Actuarial Liability at June 30, 2023 (1+2+3)	\$ 755.9
5. Actual Unfunded Liability at June 30, 2023	<u>825.8</u>
6. Experience Loss: (4 - 5)	\$ (69.9)
7. Portion of experience loss due to:	
A. Investment experience	\$ (30.7)
B. Contribution (shortfall)/excess	(5.6)
C. Other experience	<u>(33.5)</u>
D. Total	(69.9)

SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level of contributions is needed to properly maintain the funding status of the Plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

For this Plan, the actuarial funding method used to determine the Normal Cost and the Unfunded Actuarial Liability is the **Entry Age Normal (EAN)** cost method. There are three components to the total contribution: the **Normal Cost rate** (employee and employer), the **Unfunded Actuarial Liability rate** (UAL rate), and the **Administrative Expense** contribution.

The Normal Cost rate is determined in the following steps. First, an individual Normal Cost rate is determined by taking the value, as of entry age into the Plan, of each member's projected future benefits. This value is then divided by the value, also at entry age, of the member's expected future salary producing a Normal Cost rate that should remain relatively constant over a member's career.

The total normal cost is computed by adding the expected dollar amount of each active member's normal cost for the current year – known as the Individual Entry Age Method. The total normal cost is adjusted with interest to the middle of the year, to reflect the fact that the normal cost contributions are paid throughout the year as member payroll payments are made. Finally, the total Normal Cost rate is reduced by the member contribution rate to produce the employer Normal Cost rate. The member contribution rate for each subgroup is determined by adding the expected contributions for each member and dividing by the projected pay for each subgroup.

The EAN Actuarial Liability is calculated by subtracting the present value of future total normal cost from the Present Value of Future Benefits (as described at the beginning of Section IV).

The Unfunded Actuarial Liability (UAL) is the difference between the EAN Actuarial Liability and the Actuarial Value of Assets. The UAL payment is determined using the following pieces, and then divided by the projected payroll to calculate a UAL rate:

- The initial UAL as of June 30, 2021 is amortized over a period of 15 years (13 years remaining as of June 30, 2023) as level percentage of payroll, and
- Any subsequent unexpected changes in the UAL from actuarial gains or losses or assumptions changes are amortized over a period of 20 years as a level percentage of payroll, with new amortization layers established each year, and
- Any subsequent changes in the UAL due to plan amendments or other plan provision changes are amortized over a shorter period, based on the lesser of 15 years or the average future working lifetime for changes affecting active members, or the lesser of 10 years or the average remaining life expectancy for changes affecting inactive members.

Administrative expenses are assumed to be \$3.3 million per year as of June 30, 2023, increasing 2.50% per annum. All administrative expenses are included with the employer's required contribution.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

The table below presents the calculation of the contribution rates for the Plan for this valuation and compares the total contribution rate with the prior year rate. The tables on the following pages contain more details on the calculation of the UAL amortization payments, as well as details on the calculation of the contribution rates for each group and tier.

Table V-1
Development of the Net Employer Contribution Rate as of June 30, 2023 for FYE 2025

	General		June 30, 2023 Safety		COMPOSITE	June 30, 2022 COMPOSITE
	County and Former County	Ceres and Other Districts	County and Former County	Ceres and Other Districts		
1. Total Normal Cost Rate	17.91%	20.45%	29.43%	33.02%	20.54%	20.74%
2. Member Contribution Rate	<u>8.64%</u>	<u>9.28%</u>	<u>13.63%</u>	<u>14.36%</u>	9.75%	9.74%
3. Employer Normal Cost Rate (1-2)	9.27%	11.17%	15.80%	18.66%	10.79%	11.00%
4. UAL Amortization	19.01%	16.46%	28.84%	61.33%	21.54%	20.96%
5. Administrative Expense Rate	<u>0.80%</u>	<u>0.78%</u>	<u>1.26%</u>	<u>2.26%</u>	0.91%	0.95%
6. Net Employer Contribution Rate (3+4+5)	29.08%	28.41%	45.90%	82.25%	33.24%	32.91%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

Table V-2 summarizes the UAL rates for the Plan and its cost-sharing groups. The single equivalent amortization period (i.e., the length of time required to amortize the overall UAL as a level percentage of payroll based on the total current amortization payment) is approximately 14 years for StanCERA.

Table V-2 Development of UAL Amortization Rates					
	General		Safety		TOTAL
	County and Former County	Ceres and Other Districts	County and Former County	Ceres and Other Districts	
Projected Payroll	\$ 268,753,157	\$ 11,240,921	\$ 71,974,096	\$ 5,267,133	\$ 357,235,307
Unfunded Actuarial Liability (AVA)	\$ 549,817,116	\$ 19,954,185	\$ 220,566,844	\$ 35,414,515	\$ 825,752,660
UAL Amortization Payment	\$ 51,095,908	\$ 1,850,337	\$ 20,757,799	\$ 3,230,309	\$ 76,934,353
UAL Amortization Rate	19.01%	16.46%	28.84%	61.33%	21.54%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

Tables V-3 through V-6 show the calculation of the UAL amortization payments for each cost-sharing group.

TABLE V-3 Development of UAL Amortization Payment General - County and Former County						
Type of Base	Date Established	Initial Amount	Initial Amortization Years	6/30/2023 Outstanding Balance	Remaining Amortization Years	Amortization Amount
Charges/(Credits)						
1. 6/30/2021 Initial UAL	6/30/2021	\$ 440,505,361	15	\$ 417,332,321	13	\$ 41,287,065
2. 6/30/2022 Loss	6/30/2022	81,388,465	20	80,786,982	19	6,061,584
3. 6/30/2023 Loss	6/30/2023	51,697,812	20	<u>51,697,812</u>	20	<u>3,747,258</u>
				\$ 549,817,116	14 ¹	\$ 51,095,908

¹ Single equivalent amortization period (i.e., the length of time required to amortize the overall UAL as a level percentage of payroll based on the total current amortization period).

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

TABLE V-4
Development of UAL Amortization Payment
General - Ceres and Other Districts

Type of Base	Date Established	Initial Amount	Initial Amortization Years	6/30/2023 Outstanding Balance	Remaining Amortization Years	Amortization Amount
Charges/(Credits)						
1. 6/30/2021 Initial UAL	6/30/2021	\$ 15,981,192	15	\$ 15,140,492	13	\$ 1,497,863
2. 6/30/2022 Loss	6/30/2022	1,407,528	20	1,397,126	19	104,829
3. 6/30/2023 Loss	6/30/2023	3,416,567	20	<u>3,416,567</u>	20	<u>247,646</u>
				\$ 19,954,185	14 ¹	\$ 1,850,337

¹ Single equivalent amortization period (i.e., the length of time required to amortize the overall UAL as a level percentage of payroll based on the total current amortization period).

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

TABLE V-5
Development of UAL Amortization Payment
Safety - County and Former County

Type of Base	Date Established	Initial Amount	Initial Amortization Years	6/30/2023 Outstanding Balance	Remaining Amortization Years	Amortization Amount
Charges/(Credits)						
1. 6/30/2021 Initial UAL	6/30/2021	\$ 186,775,197	15	\$ 176,949,780	13	\$ 17,505,802
2. 6/30/2022 Loss	6/30/2022	35,770,373	20	35,506,020	19	2,664,077
3. 6/30/2023 Loss	6/30/2023	8,111,044	20	<u>8,111,044</u>	20	<u>587,920</u>
				\$ 220,566,844	14 ¹	\$ 20,757,799

¹ Single equivalent amortization period (i.e., the length of time required to amortize the overall UAL as a level percentage of payroll based on the total current amortization period).

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

TABLE V-6
Development of UAL Amortization Payment
Safety - Ceres and Other Districts

Type of Base	Date Established	Initial Amount	Initial Amortization Years	6/30/2023 Outstanding Balance	Remaining Amortization Years	Amortization Amount
Charges/(Credits)						
1. 6/30/2021 Initial UAL	6/30/2021	\$ 26,058,366	15	\$ 24,687,551	13	\$ 2,442,362
2. 6/30/2022 Loss	6/30/2022	4,118,217	20	4,087,783	19	306,713
3. 6/30/2023 Loss	6/30/2023	6,639,182	20	<u>6,639,182</u>	20	<u>481,234</u>
				\$ 35,414,515	14 ¹	\$ 3,230,309

¹ Single equivalent amortization period (i.e., the length of time required to amortize the overall UAL as a level percentage of payroll based on the total current amortization period).

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

Tables V-7 and V-8 contain the calculations of the employer contribution rates for each group and tier.

Table V-7 Development of the General Member Contribution Rate as of June 30, 2023 for FYE 2025						
	Tier 2	Tier 3	Tier 4	Tier 5	PEPRA	TOTAL
<u>County and Former County</u>						
A. Total Normal Cost Rate	19.09%	2.93%	22.87%	19.18%	17.07%	17.91%
B. Member Contribution Rate	<u>8.19%</u>	<u>0.00%</u>	<u>7.90%</u>	<u>8.95%</u>	<u>8.53%</u>	<u>8.64%</u>
C. Employer Normal Cost Rate (A-B)	10.90%	2.93%	14.97%	10.23%	8.54%	9.27%
D. UAL Amortization Rate	19.01%	19.01%	19.01%	19.01%	19.01%	19.01%
E. Administrative Expense Rate	<u>0.84%</u>	<u>0.62%</u>	<u>0.96%</u>	<u>0.82%</u>	<u>0.78%</u>	<u>0.80%</u>
F. Net June 30, 2023 Contribution Rate (C+D+E)	30.75%	22.56%	34.94%	30.06%	28.33%	29.08%
<u>Ceres and Other Districts</u>						
A. Total Normal Cost Rate	17.13%			23.40%	18.63%	20.45%
B. Member Contribution Rate	<u>8.26%</u>			<u>9.28%</u>	<u>9.31%</u>	<u>9.28%</u>
C. Employer Normal Cost Rate (A-B)	8.87%			14.12%	9.32%	11.17%
D. UAL Amortization Rate	16.46%			16.46%	16.46%	16.46%
E. Administrative Expense Rate	<u>0.71%</u>			<u>0.86%</u>	<u>0.73%</u>	<u>0.78%</u>
F. Net June 30, 2023 Contribution Rate (C+D+E)	26.04%			31.44%	26.51%	28.41%

Administrative expenses allocated based on projected Employer Normal Cost and UAL Amortization contributions. See Table V-9.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

Table V-8 Development of the Safety Member Contribution Rate as of June 30, 2023 for FYE 2025				
	Tier 2	Tier 5	PEPRA	TOTAL
<u>County and Former County</u>				
A. Total Normal Cost Rate	28.11%	34.45%	26.60%	29.43%
B. Member Contribution Rate	<u>12.81%</u>	<u>14.32%</u>	<u>13.30%</u>	<u>13.63%</u>
C. Employer Normal Cost Rate (A-B)	15.30%	20.13%	13.30%	15.80%
D. UAL Amortization Rate	28.84%	28.84%	28.84%	28.84%
E. Administrative Expense Rate	<u>1.24%</u>	<u>1.38%</u>	<u>1.19%</u>	<u>1.26%</u>
F. Net June 30, 2023 Contribution Rate (C+D+E)	45.38%	50.35%	43.33%	45.90%
<u>Ceres and Other Districts</u>				
A. Total Normal Cost Rate		35.54%	29.47%	33.02%
B. Member Contribution Rate		<u>14.10%</u>	<u>14.73%</u>	<u>14.36%</u>
C. Employer Normal Cost Rate (A-B)		21.44%	14.74%	18.66%
D. UAL Amortization Rate		61.33%	61.33%	61.33%
E. Administrative Expense Rate		<u>2.33%</u>	<u>2.15%</u>	<u>2.26%</u>
F. Net June 30, 2023 Contribution Rate (C+D+E)		85.10%	78.22%	82.25%

Administrative expenses allocated based on projected Employer Normal Cost and UAL Amortization contributions. See Table V-10.

Tables V-9 and V-10 show the allocation of the administrative expense for each group and tier. The administrative expense is allocated to each group and tier based on its share of the projected employer contributions prior to inclusion of the administrative expense.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

Table V-9 Development of the General Member Administrative Expense Rate as of June 30, 2023 for FYE 2025						
	Tier 2	Tier 3	Tier 4	Tier 5	PEPRA	TOTAL
County and Former County						
A. Projected Payroll for FYE 2024	\$ 17,470,565	\$ 492,122	\$ 70,255	\$ 93,538,916	\$ 157,181,299	\$ 268,753,157
B. Employer Normal Cost Rate	10.90%	2.93%	14.97%	10.23%	8.54%	
C. UAL Amortization Rate	<u>19.01%</u>	<u>19.01%</u>	<u>19.01%</u>	<u>19.01%</u>	<u>19.01%</u>	
D. Employer Contribution Rate Prior to Administrative Expense (B+C)	29.91%	21.94%	33.98%	29.24%	27.55%	
E. Projected Employer Contribution for FYE 2024 Prior to Administrative Expense						
1. Normal Cost (A*B)	\$ 1,904,292	\$ 14,420	\$ 10,518	\$ 9,569,031	\$ 13,423,283	\$ 24,921,544
2. UAL Amortization (A*C)	<u>3,321,154</u>	<u>93,552</u>	<u>13,355</u>	<u>17,781,748</u>	<u>29,880,165</u>	<u>51,089,974</u>
3. Total Prior to Administrative Expense (A*D)	\$ 5,225,446	\$ 107,972	\$ 23,873	\$ 27,350,779	\$ 43,303,448	\$ 76,011,518
F. Allocated Administrative Expense	\$ 147,356	\$ 3,045	\$ 673	\$ 771,284	\$ 1,221,145	\$ 2,143,504
G. Administrative Expense Rate (F÷A)	0.84%	0.62%	0.96%	0.82%	0.78%	
H. Projected Employer Contribution for FYE 2024 Due to Administrative Expense (A*G)	\$ 146,753	\$ 3,051	\$ 674	\$ 767,019	\$ 1,226,014	\$ 2,143,511
Ceres and Other Districts						
A. Projected Payroll for FYE 2024	\$ 224,776			\$ 4,336,696	\$ 6,679,449	\$ 11,240,921
B. Employer Normal Cost Rate	8.87%			14.12%	9.32%	
C. UAL Amortization Rate	<u>16.46%</u>			<u>16.46%</u>	<u>16.46%</u>	
D. Employer Contribution Rate Prior to Administrative Expense (B+C)	25.33%			30.58%	25.78%	
E. Projected Employer Contribution for FYE 2024 Prior to Administrative Expense						
1. Normal Cost (A*B)	\$ 19,938			\$ 612,342	\$ 622,525	\$ 1,254,805
2. UAL Amortization (A*C)	<u>36,998</u>			<u>713,820</u>	<u>1,099,437</u>	<u>1,850,255</u>
3. Total Prior to Administrative Expense (A*D)	\$ 56,936			\$ 1,326,162	\$ 1,721,962	\$ 3,105,060
F. Allocated Administrative Expense	\$ 1,606			\$ 37,397	\$ 48,559	\$ 87,562
G. Administrative Expense Rate (F÷A)	0.71%			0.86%	0.73%	
H. Projected Employer Contribution for FYE 2024 Due to Administrative Expense (A*G)	\$ 1,596			\$ 37,296	\$ 48,760	\$ 87,652

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION V – CONTRIBUTIONS

Table V-10 Development of the Safety Member Administrative Expense Rate as of June 30, 2023 for FYE 2025				
	Tier 2	Tier 5	PEPRA	TOTAL
<u>County and Former County</u>				
A. Projected Payroll for FYE 2024	\$ 3,676,482	\$ 25,798,227	\$ 42,499,387	\$ 71,974,096
B. Employer Normal Cost Rate	15.30%	20.13%	13.30%	
C. UAL Amortization Rate	<u>28.84%</u>	<u>28.84%</u>	<u>28.84%</u>	
D. Employer Contribution Rate Prior to Administrative Expense (B+C)	44.14%	48.97%	42.14%	
E. Projected Employer Contribution for FYE 2024 Prior to Administrative Expense				
1. Normal Cost (A*B)	\$ 562,502	\$ 5,193,183	\$ 5,652,419	\$ 11,408,104
2. UAL Amortization (A*C)	<u>1,060,297</u>	<u>7,440,209</u>	<u>12,256,823</u>	<u>20,757,329</u>
3. Total Prior to Administrative Expense (A*D)	\$ 1,622,799	\$ 12,633,392	\$ 17,909,242	\$ 32,165,433
F. Allocated Administrative Expense	\$ 45,762	\$ 356,258	\$ 505,036	\$ 907,056
G. Administrative Expense Rate (F÷A)	1.24%	1.38%	1.19%	
H. Projected Employer Contribution for FYE 2024 Due to Administrative Expense (A*G)	\$ 45,588	\$ 356,016	\$ 505,743	\$ 907,347
<u>Ceres and Other Districts</u>				
A. Projected Payroll for FYE 2024		\$ 3,084,283	\$ 2,182,850	\$ 5,267,133
B. Employer Normal Cost Rate		21.44%	14.74%	
C. UAL Amortization Rate		<u>61.33%</u>	<u>61.33%</u>	
D. Employer Contribution Rate Prior to Administrative Expense (B+C)		82.77%	76.07%	
E. Projected Employer Contribution for FYE 2024 Prior to Administrative Expense				
1. Normal Cost (A*B)		\$ 661,270	\$ 321,752	\$ 983,022
2. UAL Amortization (A*C)		<u>1,891,591</u>	<u>1,338,742</u>	<u>3,230,333</u>
3. Total Prior to Administrative Expense (A*D)		\$ 2,552,861	\$ 1,660,494	\$ 4,213,355
F. Allocated Administrative Expense		\$ 71,990	\$ 46,825	\$ 118,815
G. Administrative Expense Rate (F÷A)		2.33%	2.15%	
H. Projected Employer Contribution for FYE 2024 Due to Administrative Expense (A*G)		\$ 71,864	\$ 46,931	\$ 118,795

SECTION VI – REQUIRED ACFR EXHIBITS

The GASB adopted Statement Nos. 67 and 68, which replaced GASB Statement Nos. 25 and 27. The disclosures needed to satisfy GASB requirements can be found in the StanCERA GASB 67/68 Report as of June 30, 2023.

In accordance with Government Finance Officers Association (GFOA) and their recommended checklist for Annual Comprehensive Financial Reports (ACFRs), we continue to prepare several schedules for the Plan that are not included in the GASB report.

The Schedule of Funded Liabilities by Type (Table VI-1, formerly referred to as the Solvency Test) shows the portion of actuarial liabilities for active member contributions, inactive members, and the employer-financed portion of the active members covered by the Actuarial Value of Assets. The Actuarial Liability is determined assuming that the Plan is ongoing and participants continue to terminate employment, retire, etc., in accordance with the actuarial assumptions, including a 6.75% discount rate for the most recent valuation.

The information needed to prepare the Actuarial Gain/Loss exhibit can now be found in Table II-1 (Unfunded Actuarial Liability Change by Source) in the Disclosures Related to Risk section. Each year there will be a gain or loss due to both assets and liabilities. In addition, there can be gains or losses due to changes in plan provisions or due to the adoption of new assumptions or methods. Finally, the unfunded liability will change based on whether the contributions exceed the interest on the unfunded liability plus the normal cost. A negative number in this column (“Contributions”) indicates that the contributions in the given year are greater than the interest on the unfunded liability plus the normal cost, and thus reduce the unfunded liability.

We have also included a Schedule of Funding Progress (Table VI-2), showing the historical assets, liabilities, and funded ratios for the Plan, along with the covered payroll and the Unfunded Actuarial Liability as a percentage of payroll.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION VI – REQUIRED ACFR EXHIBITS

<p style="text-align: center;">Table VI-1 SCHEDULE OF FUNDED LIABILITIES BY TYPE (dollars in thousands)</p>									
Valuation Date	(1)	(2)	(3)				Portion of Actuarial Liabilities Covered by Reported Assets		
June 30,	Active Member Contributions	Retirees And Beneficiaries	Active And Terminated Members	Actuarial Accrued Liabilities ⁴	Valuation Assets		(1)	(2)	(3)
2003	\$ 176,622	\$ 455,784	\$ 325,689	\$ 958,095	\$ 928,022		100%	100%	91%
2004	166,806	518,922	349,617	1,035,345	993,180		100%	100%	88%
2005	205,556	551,810	358,994	1,116,310	1,049,691		100%	100%	81%
2006 ¹	219,907	619,109	355,888	1,194,904	1,154,048		100%	100%	89%
2008 ²	272,657	739,838	536,329	1,548,824	1,317,167		100%	100%	57%
2009	298,342	781,082	574,292	1,653,716	1,171,767		100%	100%	16%
2010	323,940	829,323	584,561	1,737,824	1,325,801		100%	100%	30%
2011	337,201	897,384	523,133	1,757,718	1,372,046		100%	100%	26%
2012	351,569	987,546	549,598	1,888,713	1,451,764		100%	100%	20%
2013 ³	191,968	1,065,792	661,466	1,919,227	1,524,076		100%	100%	40%
2014	193,301	1,144,734	688,335	2,026,371	1,644,077		100%	100%	44%
2015	196,074	1,337,781	857,667	2,391,522	1,763,629		100%	100%	27%
2016	200,960	1,427,166	908,941	2,537,067	1,845,764		100%	100%	24%
2017	206,386	1,510,151	931,625	2,648,162	1,968,231		100%	100%	27%
2018	213,223	1,590,078	945,767	2,749,068	2,100,278		100%	100%	31%
2019	219,369	1,695,484	982,369	2,897,223	2,199,956		100%	100%	29%
2020	222,390	1,833,388	972,868	3,028,647	2,290,287		100%	100%	24%
2021	224,594	1,903,558	1,024,880	3,153,032	2,483,712		100%	100%	35%
2022	224,213	2,058,086	1,097,255	3,379,554	2,603,763		100%	100%	29%
2023	236,225	2,170,967	1,128,097	3,535,289	2,709,536		100%	100%	27%

¹ Results recalculated, reflecting Level 1 assumption changes (new retirement, termination and withdrawal decrements) & new EFI EAN methodology.

² Reflects transfer as of June 30, 2008 of \$50 million from Non-Valuation to Valuation Reserves.

³ Reflects change to include only refundable contribution balance.

⁴ The GFOA checklist uses the term Actuarial Accrued Liability, which is the same as the Actuarial Liability used elsewhere in this report.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

SECTION VI – REQUIRED ACFR EXHIBITS

Table VI-2 Schedule of Funding Progress							
Actuarial Valuation Date ¹	Valuation Assets	Actuarial Accrued Liability (AAL) ³	Unfunded AAL	Funded Ratio	Covered Payroll	Unfunded AAL as a % of Covered Payroll	
2008 ²	\$ 1,317,167,000	\$ 1,548,824,000	\$ 231,657,000	85.0%	\$ 275,580,000	84.1%	
2009	1,171,767,000	1,653,716,000	481,949,000	70.9%	248,316,000	194.1%	
2010	1,325,801,000	1,737,824,000	412,023,000	76.3%	248,830,473	165.6%	
2011	1,372,046,000	1,757,718,000	385,672,000	78.1%	226,706,796	170.1%	
2012	1,451,764,000	1,888,713,000	436,949,000	76.9%	220,918,009	197.8%	
2013	1,524,076,000	1,919,227,000	395,151,000	79.4%	219,028,318	180.4%	
2014	1,644,077,000	2,026,371,000	382,294,000	81.1%	223,028,288	171.4%	
2015	1,763,629,000	2,391,522,000	627,893,000	73.7%	237,717,727	264.1%	
2016	1,845,764,000	2,537,067,000	691,303,000	72.8%	250,447,580	276.0%	
2017	1,968,231,000	2,648,162,000	679,931,000	74.3%	256,143,684	265.4%	
2018	2,100,278,000	2,749,068,000	648,790,000	76.4%	270,755,220	239.6%	
2019	2,199,956,000	2,897,223,000	697,267,000	75.9%	284,008,303	245.5%	
2020	2,290,287,000	3,028,647,000	738,360,000	75.6%	285,326,282	258.8%	
2021	2,483,712,000	3,153,032,000	669,320,000	78.8%	291,650,438	229.5%	
2022	2,603,763,000	3,379,554,000	775,791,000	77.0%	303,594,687	255.5%	
2023	2,709,536,000	3,535,289,000	825,753,000	76.6%	340,333,581	242.6%	

¹ Excludes value of Non-Valuation Reserves.

² Includes \$50 million transferred from Non-Valuation Reserves as of June 30, 2008.

³ The GFOA checklist uses the term Actuarial Accrued Liability, which is the same as the Actuarial Liability used elsewhere in this report.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

The data for this valuation was provided by StanCERA as of June 30, 2023. Cheiron did not audit any of the data. However, we performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23, Data Quality.

Effective with the June 30, 2023 valuation, the multiple records for individual members within an employer group (County/Former County or Ceres/Special Districts) were combined into a single record for valuation purposes. This mainly impacted records with a status of Transfer.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

Active, Vested, and In Payment Member Data as of June 30, 2023

	<u>General Members</u>		<u>Safety Members</u>		<u>Total</u>	
	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023
Active Participants						
Number	3,566	3,692	757	783	4,323	4,475
Average Age	44.50	44.50	37.31	37.22	43.24	43.23
Average Service	10.13	10.01	10.16	9.96	10.14	10.00
Average Pay	\$ 66,539	\$ 72,264	\$ 87,603	\$ 93,913	\$ 70,228	\$ 76,052
Service Retired						
Number	3,094	3,168	526	552	3,620	3,720
Average Age	70.78	71.05	64.14	64.21	69.82	70.03
Average Annual Total Benefit	\$ 35,084	\$ 36,205	\$ 61,891	\$ 63,950	\$ 38,979	\$ 40,322
Beneficiaries						
Number	422	434	126	129	548	563
Average Age	73.03	73.11	67.79	66.72	71.82	71.64
Average Annual Total Benefit	\$ 21,792	\$ 22,006	\$ 32,252	\$ 32,680	\$ 24,197	\$ 24,452
Duty Disabled						
Number	86	87	141	146	227	233
Average Age	69.55	69.83	60.30	60.97	63.80	64.27
Average Annual Total Benefit	\$ 27,948	\$ 28,680	\$ 42,171	\$ 42,984	\$ 36,782	\$ 37,643
Ordinary Disabled						
Number	74	70	7	7	81	77
Average Age	66.32	66.44	64.00	65.00	66.12	66.31
Average Annual Total Benefit	\$ 20,365	\$ 21,368	\$ 27,478	\$ 28,303	\$ 20,980	\$ 21,999
Total In Pay						
Number	3,676	3,759	800	834	4,476	4,593
Average Age	70.92	71.17	64.04	64.04	69.69	69.88
Average Annual Total Benefit	\$ 33,095	\$ 34,116	\$ 53,446	\$ 55,144	\$ 36,733	\$ 37,934
Terminated Vested						
Number	521	546	84	87	605	633
Average Age	48.00	47.85	42.36	41.84	47.21	47.02
Average Service	10.75	10.64	9.87	9.64	10.63	10.50
Transfers						
Number	508	422	204	170	712	592
Average Age	47.17	48.07	41.93	43.01	45.67	46.61
Average Service	8.19	6.88	8.40	7.79	8.25	7.14
Total Deferred						
Number	1,029	968	288	257	1,317	1,225
Average Age	47.59	47.94	42.05	42.61	46.38	46.82
Average Service	9.49	9.00	8.83	8.42	9.35	8.88

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

Schedule of Retirees & Beneficiaries Added to and Removed from Retirement Payroll

Plan Year Ending	Added During Year	Allowance Added	Removed During Year	Allowance Removed	At End of Year	Annual Allowance	% Increase in Retiree Allowance	Average Annual Allowance
2008	369	\$ 9,084,777	(148)	\$ (1,731,738)	2,666	\$ 63,296,000	19.18%	\$ 23,742
2009	156	\$ 2,168,425	(71)	\$ (647,870)	2,751	\$ 66,720,003	5.41%	\$ 24,253
2010	159	\$ 3,349,900	(80)	\$ (751,427)	2,830	\$ 71,464,735	7.11%	\$ 25,334
2011	263	\$ 4,724,416	(78)	\$ (1,194,042)	3,015	\$ 74,826,404	4.70%	\$ 25,732
2012	226	\$ 3,565,634	(99)	\$ (978,729)	3,142	\$ 80,157,222	7.12%	\$ 26,737
2013	198	\$ 6,036,138	(91)	\$ (1,144,584)	3,249	\$ 89,975,736	12.25%	\$ 27,694
2014	222	\$ 6,703,273	(86)	\$ (1,725,066)	3,385	\$ 96,405,454	7.15%	\$ 28,480
2015	237	\$ 7,778,716	(83)	\$ (2,043,313)	3,539	\$ 104,052,097	7.93%	\$ 29,402
2016	211	\$ 7,066,750	(99)	\$ (2,160,689)	3,651	\$ 111,260,240	6.93%	\$ 30,474
2017	202	\$ 6,749,973	(107)	\$ (2,471,229)	3,746	\$ 117,901,627	5.97%	\$ 31,474
2018	233	\$ 7,555,825	(123)	\$ (3,109,178)	3,856	\$ 124,995,337	6.02%	\$ 32,416
2019	242	\$ 8,421,538	(97)	\$ (2,580,158)	4,001	\$ 133,601,799	6.89%	\$ 33,392
2020	283	\$ 11,277,136	(107)	\$ (3,164,436)	4,177	\$ 144,745,530	8.34%	\$ 34,653
2021	273	\$ 9,937,557	(134)	\$ (3,802,836)	4,316	\$ 153,764,029	6.23%	\$ 35,627
2022	279	\$ 9,936,459	(119)	\$ (3,132,862)	4,476	\$ 164,415,041	6.93%	\$ 36,733
2023	239	\$ 9,170,427	(122)	\$ (3,311,874)	4,593	\$ 174,230,373	5.97%	\$ 37,934

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

Active and Vested Participant Data as of June 30, 2023

	County and Former County						Ceres and Other Districts						Total County and Former County, Ceres and Other Districts	
	General Members		Safety Members		Total		General Members		Safety Members		Total			
	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023
Active Participants														
Number	3,419	3,540	707	736	4,126	4,276	147	152	50	47	197	199	4,323	4,475
Average Age	44.49	44.47	37.08	37.09	43.22	43.20	44.77	45.34	40.64	39.21	43.72	43.89	43.24	43.23
Average Service	10.18	10.06	9.96	9.83	10.14	10.02	9.01	8.89	12.92	11.96	10.01	9.61	10.14	10.00
Average Pay ¹	\$ 66,567	\$ 72,340	\$ 86,643	\$ 93,072	\$ 70,007	\$ 75,909	\$ 65,900	\$ 70,498	\$ 101,174	\$ 107,085	\$ 74,853	\$ 79,139	\$ 70,228	\$ 76,052
Terminated Vested														
Number	499	521	81	84	580	605	22	25	3	3	25	28	605	633
Average Age	47.97	47.85	42.40	41.82	47.19	47.01	48.59	47.84	41.33	42.33	47.72	47.25	47.21	47.02
Average Service	10.60	10.53	9.85	9.61	10.49	10.40	14.33	12.85	10.57	10.57	13.88	12.60	10.63	10.50
Transfers														
Number	464	382	139	109	603	491	44	40	65	61	109	101	712	592
Average Age	47.32	48.40	42.47	43.78	46.20	47.37	45.59	44.93	40.75	41.62	42.71	42.93	45.67	46.61
Average Service	8.16	6.87	7.96	7.08	8.12	6.92	8.48	7.00	9.34	9.07	9.00	8.25	8.25	7.14
Total Deferred														
Number	963	903	220	193	1,183	1,096	66	65	68	64	134	129	1,317	1,225
Average Age	47.66	48.08	42.45	42.93	46.69	47.17	46.59	46.05	40.78	41.66	43.64	43.87	46.38	46.82
Average Service	9.42	8.98	8.66	8.18	9.28	8.84	10.43	9.25	9.40	9.14	9.91	9.19	9.35	8.88

¹ All payroll figures shown are annual.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

Active and Vested Participant Data as of June 30, 2023

County and Former County Members

	General Members												Safety Members					
	Tier 1		Tier 2		Tier 3		Tier 4		Tier 5		PEPRA		Tier 2		Tier 5		PEPRA	
	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023
Active Participants																		
Number	0	0	192	191	8	7	2	1	1,160	1,068	2,057	2,273	36	35	239	219	432	482
Average Age	0.00	0.00	46.13	47.06	54.25	53.43	65.00	65.00	52.31	52.79	39.86	40.30	40.08	40.71	45.73	46.19	32.04	32.69
Average Service	0.00	0.00	12.03	13.02	22.42	23.38	33.41	25.70	20.48	21.31	4.11	4.46	11.52	13.06	19.13	19.78	4.80	5.10
Average Pay ¹	\$ 0	\$ 0	\$ 80,618	\$ 88,292	\$ 61,270	\$ 68,081	\$ 57,910	\$ 68,035	\$ 77,611	\$ 84,811	\$ 59,056	\$ 65,155	\$ 93,059	\$ 101,205	\$ 103,495	\$ 113,509	\$ 76,785	\$ 83,195
Terminated Vested																		
Number	2	2	69	80	17	15	0	0	309	283	102	141	10	9	51	48	20	27
Average Age	68.00	72.00	48.61	48.13	62.12	63.87	0.00	0.00	49.52	50.24	40.11	40.84	48.30	47.33	45.08	45.52	32.60	33.41
Average Service	9.29	7.63	8.39	9.24	13.63	13.79	0.00	0.00	12.20	12.48	6.75	7.05	7.18	7.93	11.83	11.62	6.14	6.59
Transfers																		
Number	0	0	109	102	13	1	0	0	227	180	115	99	18	16	90	71	31	22
Average Age	0.00	0.00	48.81	49.90	54.85	49.00	0.00	0.00	49.98	51.76	39.80	40.72	45.00	45.56	45.06	46.11	33.52	34.95
Average Service	0.00	0.00	4.55	4.30	25.92	5.84	0.00	0.00	11.50	10.78	3.00	2.41	4.36	4.14	10.23	9.09	3.47	2.72
Total Deferred																		
Number	2	2	178	182	30	16	0	0	536	463	217	240	28	25	141	119	51	49
Average Age	68.00	72.00	48.73	49.12	58.97	62.94	0.00	0.00	49.71	50.83	39.94	40.79	46.18	46.20	45.06	45.87	33.16	34.10
Average Service	9.29	7.63	6.04	6.47	18.95	13.29	0.00	0.00	11.90	11.82	4.76	5.13	5.37	5.51	10.81	10.11	4.52	4.86

¹ All payroll figures shown are annual.

CERES and Other District Members

	General Members												Safety Members					
	Tier 1		Tier 2		Tier 3		Tier 4		Tier 5		PEPRA		Tier 2		Tier 5		PEPRA	
	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023	7/1/2022	7/1/2023
Active Participants																		
Number	0	0	4	3	0	0	0	0	52	49	91	100	0	0	30	24	20	23
Average Age	0.00	0.00	51.00	53.33	0.00	0.00	0.00	0.00	51.52	52.00	40.64	41.84	0.00	0.00	43.03	41.83	37.05	36.48
Average Service	0.00	0.00	16.54	17.81	0.00	0.00	0.00	0.00	18.36	19.32	3.40	3.53	0.00	0.00	17.44	17.46	6.14	6.28
Average Pay ¹	\$ 0	\$ 0	\$ 65,076	\$ 72,557	\$ 0	\$ 0	\$ 0	\$ 0	\$ 79,756	\$ 85,680	\$ 58,020	\$ 62,997	\$ 0	\$ 0	\$ 114,002	\$ 123,812	\$ 81,932	\$ 89,630
Terminated Vested																		
Number	0	0	4	4	0	0	0	0	15	15	3	6	0	0	2	2	1	1
Average Age	0.00	0.00	55.75	52.50	0.00	0.00	0.00	0.00	48.40	49.60	40.00	40.33	0.00	0.00	45.00	46.00	34.00	35.00
Average Service	0.00	0.00	12.97	12.67	0.00	0.00	0.00	0.00	15.99	15.31	7.84	6.80	0.00	0.00	12.93	12.93	5.83	5.83
Transfers																		
Number	0	0	6	6	0	0	0	0	30	24	8	10	7	7	40	38	18	16
Average Age	0.00	0.00	58.17	59.17	0.00	0.00	0.00	0.00	44.10	43.42	41.75	40.00	50.14	51.14	42.58	43.11	33.06	33.94
Average Service	0.00	0.00	1.80	1.80	0.00	0.00	0.00	0.00	11.11	9.81	3.64	3.37	4.66	4.66	12.79	12.32	3.50	3.26
Total Deferred																		
Number	0	0	10	10	0	0	0	0	45	39	11	16	7	7	42	40	19	17
Average Age	0.00	0.00	57.20	56.50	0.00	0.00	0.00	0.00	45.53	45.79	41.27	40.13	50.14	51.14	42.69	43.25	33.11	34.00
Average Service	0.00	0.00	6.27	6.15	0.00	0.00	0.00	0.00	12.74	11.93	4.78	4.65	4.66	4.66	12.80	12.35	3.62	3.41

¹ All payroll figures shown are annual.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

Schedule of Active Member Valuation Data

Valuation Date	Plan Type	Number	Annual Payroll	Average Annual Salary	Increase in Average Pay
June 30, 2003	General	3,626	\$163,505,000	\$45,092	6.76%
	Safety	637	\$34,159,000	\$53,625	3.98%
	Total	4,263	\$197,664,000	\$46,367	5.23%
June 30, 2004	General	3,618	\$164,462,000	\$45,457	0.81%
	Safety	630	\$35,501,000	\$56,351	5.08%
	Total	4,248	\$199,963,000	\$47,072	1.52%
June 30, 2005	General	3,651	\$173,399,000	\$47,494	4.48%
	Safety	687	\$38,282,000	\$55,723	-1.11%
	Total	4,338	\$211,681,000	\$48,797	3.66%
June 30, 2006	General	3,702	\$179,767,000	\$48,559	2.24%
	Safety	689	\$40,001,000	\$58,057	4.19%
	Total	4,391	\$219,768,000	\$50,050	2.57%
June 30, 2008	General	3,719	\$230,942,000	\$62,098	27.88%
	Safety	731	\$44,638,000	\$61,064	5.18%
	Total	4,450	\$275,580,000	\$61,928	23.73%
June 30, 2009	General	3,627	\$201,144,000	\$55,457	-10.69%
	Safety	739	\$47,172,000	\$63,832	4.53%
	Total	4,366	\$248,316,000	\$56,875	-8.16%
June 30, 2010	General	3,464	\$202,200,198	\$58,372	5.26%
	Safety	685	\$46,630,275	\$68,073	6.64%
	Total	4,149	\$248,830,473	\$59,974	5.45%
June 30, 2011	General	3,232	\$184,906,498	\$57,211	-1.99%
	Safety	637	\$41,800,298	\$65,621	-3.60%
	Total	3,869	\$226,706,796	\$58,596	-2.30%
June 30, 2012	General	3,233	\$179,260,736	\$55,447	-3.08%
	Safety	661	\$41,657,273	\$63,022	-3.96%
	Total	3,894	\$220,918,009	\$56,733	-3.18%
June 30, 2013	General	3,230	\$176,437,755	\$54,625	-1.48%
	Safety	694	\$42,590,563	\$61,370	-2.62%
	Total	3,924	\$219,028,318	\$55,818	-1.61%
June 30, 2014	General	3,303	\$179,606,090	\$54,377	-0.45%
	Safety	689	\$43,422,198	\$63,022	2.69%
	Total	3,992	\$223,028,288	\$55,869	0.09%
June 30, 2015	General	3,421	\$188,550,804	\$55,116	1.36%
	Safety	723	\$49,166,923	\$68,004	7.91%
	Total	4,144	\$237,717,727	\$57,364	2.68%
June 30, 2016	General	3,521	\$198,457,059	\$56,364	2.26%
	Safety	727	\$52,020,521	\$71,555	5.22%
	Total	4,248	\$250,477,580	\$58,964	2.79%
June 30, 2017	General	3,552	\$201,758,423	\$56,801	0.78%
	Safety	757	\$54,385,261	\$71,843	0.40%
	Total	4,309	\$256,143,684	\$59,444	0.81%
June 30, 2018	General	3,658	\$211,919,963	\$57,933	1.99%
	Safety	794	\$58,835,257	\$74,100	3.14%
	Total	4,452	\$270,755,220	\$60,817	2.31%
June 30, 2019	General	3,690	\$220,393,008	\$59,727	3.10%
	Safety	814	\$63,615,295	\$78,151	5.47%
	Total	4,504	\$284,008,303	\$63,057	3.68%
June 30, 2020	General	3,652	\$221,652,587	\$60,693	1.62%
	Safety	806	\$63,673,695	\$79,000	1.09%
	Total	4,458	\$285,326,282	\$64,003	1.50%
June 30, 2021	General	3,555	\$228,145,063	\$64,176	5.74%
	Safety	766	\$63,505,375	\$82,905	4.94%
	Total	4,321	\$291,650,438	\$67,496	5.46%
June 30, 2022	General	3,566	\$237,279,320	\$66,539	3.68%
	Safety	757	\$66,315,366	\$87,603	5.67%
	Total	4,323	\$303,594,687	\$70,228	4.05%
June 30, 2023	General	3,692	\$266,799,859	\$72,264	8.60%
	Safety	783	\$73,533,722	\$93,913	7.20%
	Total	4,475	\$340,333,581	\$76,052	8.29%

Actuarial valuation was not performed for fiscal year ending June 30, 2007.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

StanCERA Membership – Retired Members as of June 30, 2023

Age	County and Former County				Ceres and Other Districts				Total	
	<u>General Members</u>		<u>Safety Members</u>		<u>General Members</u>		<u>Safety Members</u>		Number	Annual Average Benefit
	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit		
35-39	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
40-44	0	\$ 0	2	\$ 39,272	0	\$ 0	0	\$ 0	2	\$ 39,272
45-49	0	\$ 0	10	\$ 53,128	0	\$ 0	1	\$ 87,654	11	\$ 56,267
50-54	58	\$ 24,146	70	\$ 63,327	4	\$ 10,763	15	\$ 78,713	147	\$ 48,008
55-59	175	\$ 31,467	115	\$ 69,856	9	\$ 39,866	13	\$ 51,847	312	\$ 46,708
60-64	435	\$ 35,961	69	\$ 60,309	10	\$ 37,074	6	\$ 82,417	520	\$ 39,749
65-69	646	\$ 37,694	76	\$ 53,370	31	\$ 34,975	6	\$ 124,468	759	\$ 39,839
70-74	725	\$ 37,916	76	\$ 60,029	21	\$ 26,067	2	\$ 83,149	824	\$ 39,764
75-79	566	\$ 40,324	48	\$ 70,071	14	\$ 36,424	0	\$ 0	628	\$ 42,511
80-84	282	\$ 32,525	30	\$ 59,164	10	\$ 34,384	0	\$ 0	322	\$ 35,065
85-89	107	\$ 28,166	9	\$ 88,634	2	\$ 99,394	0	\$ 0	118	\$ 33,985
90-94	57	\$ 25,003	3	\$ 42,843	0	\$ 0	0	\$ 0	60	\$ 25,895
95+	16	\$ 26,103	1	\$ 29,883	0	\$ 0	0	\$ 0	17	\$ 26,325
All Ages	3,067	\$ 36,271	509	\$ 62,771	101	\$ 34,226	43	\$ 77,906	3,720	\$ 40,322

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

StanCERA Membership – Service-Connected Disabled Members as of June 30, 2023

Age	County and Former County				Ceres and Other Districts				Total	
	<u>General Members</u>		<u>Safety Members</u>		<u>General Members</u>		<u>Safety Members</u>		Number	Annual Average Benefit
	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit		
25-29	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
30-34	0	\$ 0	0	\$ 0	0	\$ 0	1	\$ 34,921	1	\$ 34,921
35-39	0	\$ 0	1	\$ 37,305	0	\$ 0	0	\$ 0	1	\$ 37,305
40-44	1	\$ 22,175	10	\$ 28,791	0	\$ 0	3	\$ 26,929	14	\$ 27,920
45-49	2	\$ 21,251	10	\$ 27,268	1	\$ 34,704	2	\$ 31,967	15	\$ 27,588
50-54	4	\$ 22,439	18	\$ 36,964	0	\$ 0	1	\$ 36,548	23	\$ 34,420
55-59	5	\$ 27,077	16	\$ 43,503	0	\$ 0	1	\$ 39,398	22	\$ 39,583
60-64	5	\$ 28,242	17	\$ 36,764	1	\$ 36,143	5	\$ 70,905	28	\$ 41,317
65-69	15	\$ 27,285	22	\$ 45,270	1	\$ 19,835	2	\$ 53,705	40	\$ 38,312
70-74	25	\$ 28,056	15	\$ 56,941	0	\$ 0	3	\$ 48,468	43	\$ 39,556
75-79	13	\$ 31,840	15	\$ 53,252	2	\$ 25,439	0	\$ 0	30	\$ 42,119
80-84	9	\$ 33,275	3	\$ 40,454	1	\$ 30,654	0	\$ 0	13	\$ 34,730
85-89	2	\$ 33,924	1	\$ 58,235	0	\$ 0	0	\$ 0	3	\$ 42,028
90-94	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
95+	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
All Ages	81	\$ 28,679	128	\$ 42,287	6	\$ 28,703	18	\$ 47,940	233	\$ 37,643

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

StanCERA Membership – Nonservice-Connected Disabled Members as of June 30, 2023

Age	County and Former County				Ceres and Other Districts				Total	
	<u>General Members</u>		<u>Safety Members</u>		<u>General Members</u>		<u>Safety Members</u>		Number	Annual Average Benefit
	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit		
35-39	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
40-44	1	\$ 28,784	0	\$ 0	1	\$ 26,573	0	\$ 0	2	\$ 27,679
45-49	3	\$ 18,891	0	\$ 0	0	\$ 0	0	\$ 0	3	\$ 18,891
50-54	5	\$ 22,318	1	\$ 27,372	0	\$ 0	1	\$ 43,013	7	\$ 25,996
55-59	14	\$ 18,897	0	\$ 0	0	\$ 0	0	\$ 0	14	\$ 18,897
60-64	6	\$ 26,629	1	\$ 31,224	0	\$ 0	0	\$ 0	7	\$ 27,285
65-69	9	\$ 22,914	2	\$ 27,155	0	\$ 0	0	\$ 0	11	\$ 23,685
70-74	11	\$ 17,322	1	\$ 17,480	0	\$ 0	0	\$ 0	12	\$ 17,335
75-79	13	\$ 26,635	0	\$ 0	0	\$ 0	0	\$ 0	13	\$ 26,635
80-84	5	\$ 15,746	1	\$ 24,720	0	\$ 0	0	\$ 0	6	\$ 17,241
85-89	2	\$ 13,045	0	\$ 0	0	\$ 0	0	\$ 0	2	\$ 13,045
90-94	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
95+	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
All Ages	69	\$ 21,293	6	\$ 25,851	1	\$ 26,573	1	\$ 43,013	77	\$ 21,999

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

StanCERA Membership – Beneficiaries as of June 30, 2023

Age	County and Former County				Ceres and Other Districts				Total	
	<u>General Members</u>		<u>Safety Members</u>		<u>General Members</u>		<u>Safety Members</u>		Number	Annual Average Benefit
	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit		
0-24	0	\$ 0	3	\$ 28,398	0	\$ 0	0	\$ 0	3	\$ 28,398
25-29	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
30-34	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0	0	\$ 0
35-39	2	\$ 25,382	0	\$ 0	0	\$ 0	0	\$ 0	2	\$ 25,382
40-44	2	\$ 7,500	3	\$ 28,086	0	\$ 0	0	\$ 0	5	\$ 19,852
45-49	8	\$ 14,762	5	\$ 21,541	1	\$ 5,894	0	\$ 0	14	\$ 16,550
50-54	16	\$ 11,416	19	\$ 17,935	0	\$ 0	0	\$ 0	35	\$ 14,955
55-59	33	\$ 18,166	7	\$ 26,142	1	\$ 26,744	2	\$ 62,954	43	\$ 21,747
60-64	35	\$ 16,426	13	\$ 31,585	0	\$ 0	2	\$ 37,920	50	\$ 21,227
65-69	42	\$ 18,040	11	\$ 30,509	2	\$ 34,783	2	\$ 33,170	57	\$ 21,565
70-74	71	\$ 26,464	20	\$ 32,624	3	\$ 18,918	0	\$ 0	94	\$ 27,534
75-79	97	\$ 22,445	16	\$ 49,981	0	\$ 0	1	\$ 97,866	114	\$ 26,972
80-84	55	\$ 24,822	14	\$ 41,080	2	\$ 30,504	0	\$ 0	71	\$ 28,188
85-89	33	\$ 22,362	6	\$ 29,215	0	\$ 0	0	\$ 0	39	\$ 23,416
90-94	23	\$ 28,124	5	\$ 20,024	0	\$ 0	0	\$ 0	28	\$ 26,677
95+	8	\$ 28,234	0	\$ 0	0	\$ 0	0	\$ 0	8	\$ 28,234
All Ages	425	\$ 21,954	122	\$ 31,556	9	\$ 24,440	7	\$ 52,279	563	\$ 24,452

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

StanCERA Membership – Benefit Form Elections as of June 30, 2023

	County and Former County General	Safety	Ceres and Other Districts General	Safety	Total
Service Retired					
Option #0 (Unmodified 60% to Spouse)	2,531	448	73	37	3,089
Option #1 (Cash Refund)	240	15	8	2	265
Option #2 (100% Continuance)	254	39	20	3	316
Option #3 (50% Continuance)	40	5	0	1	46
Option #4 (Other)	2	2	0	0	4
Total Service Retired	3,067	509	101	43	3,720
Ordinary Disability					
Option #0 (Unmodified 60% to Spouse)	62	4	1	1	68
Option #1 (Cash Refund)	5	2	0	0	7
Option #2 (100% Continuance)	2	0	0	0	2
Option #3 (50% Continuance)	0	0	0	0	0
Total Ordinary Disability	69	6	1	1	77
Duty Disability					
Option #0 (Unmodified 100% to Spouse)	70	118	6	15	209
Option #1 (Cash Refund)	2	1	0	0	3
Option #2 (100% Continuance)	6	8	0	2	16
Option #3 (50% Continuance)	3	1	0	1	5
Total Duty Disability	81	128	6	18	233
Total	3,217	643	108	62	4,030

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2023
General Members (County and Former County)**

Count

Age	Years of Service												Total Count
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	29	16	4	0	0	0	0	0	0	0	0	0	49
25-29	102	79	30	29	25	17	0	0	0	0	0	0	282
30-34	91	83	40	36	48	191	2	0	0	0	0	0	491
35-39	82	57	24	30	41	175	46	20	0	0	0	0	475
40-44	40	47	20	36	33	188	60	88	20	0	0	0	532
45-49	29	36	12	12	23	112	39	107	96	8	0	0	474
50-54	34	20	9	15	15	88	32	92	95	45	9	0	454
55-59	17	18	14	7	17	86	29	63	74	57	22	4	408
60-64	13	10	3	12	16	50	24	40	44	37	24	10	283
65-69	2	3	1	2	4	21	5	10	18	6	4	1	77
70 & Over	2	1	0	1	0	3	0	4	2	2	0	0	15
Total Count	441	370	157	180	222	931	237	424	349	155	59	15	3,540

Compensation (\$)

Age	Years of Service												Avg. Comp.
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	42,538	45,733	49,852	0	0	0	0	0	0	0	0	0	44,178
25-29	51,541	49,913	61,017	61,419	56,614	60,038	0	0	0	0	0	0	54,071
30-34	53,551	60,876	60,965	63,023	67,264	70,353	63,311	0	0	0	0	0	64,004
35-39	61,152	56,277	65,598	68,706	63,574	71,778	86,402	80,109	0	0	0	0	68,636
40-44	61,763	67,233	70,694	58,715	70,667	73,488	81,404	83,555	75,643	0	0	0	73,413
45-49	64,633	64,292	68,481	72,267	75,272	73,835	78,038	82,228	85,225	75,073	0	0	77,010
50-54	74,900	66,138	72,980	75,908	59,971	72,353	85,663	81,213	89,290	95,461	109,896	0	81,303
55-59	63,813	66,282	82,253	55,298	75,386	73,655	82,674	90,858	81,817	97,374	85,700	127,144	82,237
60-64	106,001	60,933	68,943	65,301	63,822	72,798	77,300	80,257	75,011	72,555	77,912	90,672	75,851
65-69	100,197	43,020	40,998	74,345	78,715	68,717	60,576	64,861	67,078	89,238	115,345	205,585	73,225
70 & Over	93,857	36,514	0	144,788	0	97,627	0	147,522	55,274	76,821	0	0	101,078
Average	59,231	58,650	65,826	64,972	66,806	72,161	81,543	83,486	82,665	89,163	88,233	108,058	72,340

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2023
General Members (Ceres and Other Districts)**

Count

Age	Years of Service												Total Count
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	3	0	0	0	0	0	0	0	0	0	0	0	3
25-29	5	3	2	2	1	1	0	0	0	0	0	0	14
30-34	3	4	1	3	1	6	0	0	0	0	0	0	18
35-39	5	6	0	0	0	1	2	0	0	0	0	0	14
40-44	6	8	1	0	3	4	3	3	0	0	0	0	28
45-49	2	1	1	0	0	4	1	0	4	0	0	0	13
50-54	3	3	0	2	1	2	0	5	3	1	0	0	20
55-59	2	4	1	0	2	1	0	4	3	1	1	0	19
60-64	4	3	0	0	2	2	2	2	1	1	1	0	18
65-69	0	0	0	0	0	1	1	0	1	0	0	0	3
70 & Over	0	1	0	0	0	0	1	0	0	0	0	0	2
Total Count	33	33	6	7	10	22	10	14	12	3	2	0	152

Compensation (\$)

Age	Years of Service												Avg. Comp.
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	37,752	0	0	0	0	0	0	0	0	0	0	0	37,752
25-29	47,672	55,344	37,970	63,593	54,451	61,575	0	0	0	0	0	0	51,682
30-34	55,248	63,185	42,900	61,079	55,769	64,028	0	0	0	0	0	0	60,253
35-39	55,392	69,932	0	0	0	90,334	101,821	0	0	0	0	0	70,752
40-44	78,508	66,304	47,178	0	67,095	55,689	78,938	78,744	0	0	0	0	69,491
45-49	58,164	145,338	72,512	0	0	55,015	64,668	0	87,305	0	0	0	74,471
50-54	90,031	100,960	0	56,863	158,763	80,256	0	70,120	60,945	163,722	0	0	85,156
55-59	82,610	81,162	46,532	0	66,692	52,054	0	65,449	66,483	108,170	64,086	0	71,334
60-64	44,749	91,057	0	0	108,498	105,728	74,839	64,290	84,787	90,537	85,726	0	78,885
65-69	0	0	0	0	0	56,388	48,177	0	88,780	0	0	0	64,448
70 & Over	0	155,814	0	0	0	0	62,358	0	0	0	0	0	109,086
Average	60,485	77,898	47,510	60,593	82,065	66,332	76,534	69,800	75,422	120,810	74,906	0	70,498

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2023
Safety Members (County and Former County)**

Count

Age	Years of Service												Total Count
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	15	9	2	1	0	0	0	0	0	0	0	0	27
25-29	31	15	17	14	20	34	0	0	0	0	0	0	131
30-34	10	15	8	13	19	107	11	0	0	0	0	0	183
35-39	10	4	1	6	7	56	24	15	0	0	0	0	123
40-44	3	1	2	2	3	20	17	51	13	0	0	0	112
45-49	1	1	1	0	0	9	4	30	38	6	0	0	90
50-54	3	0	3	1	0	2	1	10	13	11	1	0	45
55-59	1	0	1	1	2	3	1	2	4	2	0	0	17
60-64	0	0	0	0	0	1	1	2	3	0	0	0	7
65-69	0	0	0	0	0	0	0	0	1	0	0	0	1
70 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	74	45	35	38	51	232	59	110	72	19	1	0	736

Compensation (\$)

Age	Years of Service												Avg. Comp.
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	65,407	67,636	74,846	89,604	0	0	0	0	0	0	0	0	67,745
25-29	66,890	68,996	73,577	75,275	85,291	88,665	0	0	0	0	0	0	77,356
30-34	72,186	79,483	78,690	79,784	85,041	86,642	97,113	0	0	0	0	0	84,894
35-39	75,242	89,689	81,159	79,953	88,444	89,641	95,760	116,796	0	0	0	0	92,368
40-44	70,283	79,070	105,571	105,588	93,501	94,006	100,329	110,560	110,229	0	0	0	104,018
45-49	104,399	39,615	108,425	0	0	92,486	93,284	108,258	126,704	106,677	0	0	112,894
50-54	114,487	0	101,715	106,549	0	83,577	53,294	120,246	109,067	130,145	125,452	0	114,511
55-59	104,686	0	103,726	140,777	103,726	116,586	82,023	123,219	108,019	114,125	0	0	111,481
60-64	0	0	0	0	0	83,062	114,099	94,562	98,912	0	0	0	97,575
65-69	0	0	0	0	0	0	0	0	99,537	0	0	0	99,537
70 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0
Average	71,519	73,630	81,132	82,076	86,837	88,869	96,519	111,602	117,971	121,048	125,452	0	93,072

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

**Age & Service Distribution of Active Members by Count and Average Compensation as of June 30, 2023
Safety Members (Ceres and Other Districts)**

Count

Age	Years of Service												Total Count
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	3	0	0	0	0	0	0	0	0	0	0	0	3
30-34	2	1	0	1	2	3	0	0	0	0	0	0	9
35-39	0	1	3	0	2	4	4	1	0	0	0	0	15
40-44	0	1	0	1	0	1	0	2	1	0	0	0	6
45-49	1	0	1	1	0	1	0	3	3	1	0	0	11
50-54	0	0	0	0	0	1	0	0	1	1	0	0	3
55-59	0	0	0	0	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Count	6	3	4	3	4	10	4	6	5	2	0	0	47

Compensation (\$)

Age	Years of Service												Avg. Comp.
	0	1	2	3	4	5-9	10-14	15-19	20-24	25-29	30-34	35 & Over	
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	0
20-24	0	0	0	0	0	0	0	0	0	0	0	0	0
25-29	75,421	0	0	0	0	0	0	0	0	0	0	0	75,421
30-34	78,905	94,677	0	94,272	91,319	94,475	0	0	0	0	0	0	90,314
35-39	0	107,881	98,696	0	89,769	106,089	116,051	112,402	0	0	0	0	105,631
40-44	0	103,398	0	69,888	0	115,076	0	115,765	109,047	0	0	0	104,823
45-49	82,131	0	95,161	84,502	0	117,776	0	127,177	130,806	178,177	0	0	121,063
50-54	0	0	0	0	0	94,677	0	0	143,976	210,128	0	0	149,593
55-59	0	0	0	0	0	0	0	0	0	0	0	0	0
60-64	0	0	0	0	0	0	0	0	0	0	0	0	0
65-69	0	0	0	0	0	0	0	0	0	0	0	0	0
70 & Over	0	0	0	0	0	0	0	0	0	0	0	0	0
Average	77,701	101,986	97,813	82,887	90,544	103,531	116,051	120,910	129,088	194,152	0	0	107,085

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

**Reconciliation of Plan Membership Since Prior Valuation
All Members**

All Members

	Actives	Transfers	Non Vested Terminations due Refunds	Vested Terminations	Ordinary Disabled	Duty Disabled	Retired	Beneficiaries	Total
July 1, 2022	4,323	712	741	605	81	227	3,620	548	10,857
New Entrants	600	0	0	0	0	0	0	0	600
Rehires	35	1	(21)	(15)	0	0	0	0	0
Duty Disabilities	(4)	(1)	0	(2)	0	7	0	0	0
Ordinary Disabilities	(1)	0	0	0	1	0	0	0	0
Retirements	(121)	(21)	0	(33)	0	0	176	0	1
Retirements from General with Safety Service	0	0	0	0	0	0	6	0	6
Vested Terminations	(89)	(4)	0	93	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(2)	0	(1)	0	(2)	(2)	(30)	37	0
Died, Without Beneficiary, and Other Terminations	(171)	(1)	168	0	(3)	(1)	(53)	0	(61)
Transfers	(2)	4	(1)	(1)	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	(29)	(29)
Domestic Relations Orders	0	0	0	0	0	0	0	9	9
Withdrawals Paid	(93)	(1)	(71)	(17)	0	0	0	0	(182)
Member Reclassifications	0	(97)	(23)	3	0	2	1	(2)	(116)
July 1, 2023	4,475	592	792	633	77	233	3,720	563	11,085

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

**Reconciliation of Plan Membership Since Prior Valuation
General Members (County and Former County)**

	Actives	Transfers	Non Vested Terminations due Refunds	Vested Terminations	Ordinary Disabled	Duty Disabled	Retired	Beneficiaries	Total
July 1, 2022	3,419	464	642	499	73	81	3,002	415	8,595
New Entrants	479	0	0	0	0	0	0	0	479
Rehires	31	2	(21)	(12)	0	0	0	0	0
Duty Disabilities	(1)	0	0	(1)	0	2	0	0	0
Ordinary Disabilities	(1)	0	0	0	1	0	0	0	0
Retirements	(95)	(14)	0	(24)	0	0	134	0	1
Retirements from General with Safety Service	0	0	0	0	0	0	3	0	3
Vested Terminations	(71)	(2)	0	73	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	(2)	0	(1)	0	(2)	0	(25)	30	0
Died, Without Beneficiary, and Other Terminations	(144)	(1)	142	0	(3)	(1)	(48)	0	(55)
Transfers	1	0	(2)	(1)	0	0	0	0	(2)
Beneficiary Deaths	0	0	0	0	0	0	0	(22)	(22)
Domestic Relations Orders	0	0	0	0	0	0	0	5	5
Withdrawals Paid	(76)	0	(61)	(15)	0	0	0	0	(152)
Member Reclassifications	0	(67)	(20)	2	0	(1)	1	(3)	(88)
July 1, 2023	3,540	382	679	521	69	81	3,067	425	8,764

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

**Reconciliation of Plan Membership Since Prior Valuation
Safety Members (County and Former County)**

	Actives	Transfers	Non Vested Terminations due Refunds	Vested Terminations	Ordinary Disabled	Duty Disabled	Retired	Beneficiaries	Total
July 1, 2022	707	139	66	81	6	127	491	122	1,739
New Entrants	79	0	0	0	0	0	0	0	79
Rehires	4	(1)	0	(3)	0	0	0	0	0
Duty Disabilities	(1)	(1)	0	0	0	2	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(18)	(2)	0	(7)	0	0	27	0	0
Retirements from General with Safety Service	0	0	0	0	0	0	2	0	2
Vested Terminations	(11)	(1)	0	12	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	(5)	6	0
Died, Without Beneficiary, and Other Terminations	(14)	0	13	0	0	0	(5)	0	(6)
Transfers	(1)	1	1	0	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	0	0	(7)	(7)
Domestic Relations Orders	0	0	0	0	0	0	0	4	4
Withdrawals Paid	(9)	0	(7)	0	0	0	0	0	(16)
Member Reclassifications	0	(26)	(3)	1	0	0	(1)	(3)	(32)
July 1, 2023	736	109	70	84	6	128	509	122	1,764

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

**Reconciliation of Plan Membership Since Prior Valuation
General Members (Ceres and Other Districts)**

	Actives	Transfers	Non Vested Terminations due Refunds	Vested Terminations	Ordinary Disabled	Duty Disabled	Retired	Beneficiaries	Total
July 1, 2022	147	44	27	22	1	5	92	7	345
New Entrants	35	0	0	0	0	0	0	0	35
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	0	0	0	(1)	0	1	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(2)	(3)	0	(2)	0	0	7	0	0
Retirements from General with Safety Service	0	0	0	0	0	0	1	0	1
Vested Terminations	(7)	(1)	0	8	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	(1)	0	1	0
Died, Without Beneficiary, and Other Terminations	(11)	0	11	0	0	0	0	0	0
Transfers	(2)	3	0	0	0	0	0	0	1
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	(8)	0	(2)	(2)	0	0	0	0	(12)
Member Reclassifications	0	(3)	0	0	0	1	1	1	0
July 1, 2023	152	40	36	25	1	6	101	9	370

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX A – MEMBERSHIP INFORMATION

**Reconciliation of Plan Membership Since Prior Valuation
Safety Members (Ceres and Other Districts)**

	Actives	Transfers	Non Vested Terminations due Refunds	Vested Terminations	Ordinary Disabled	Duty Disabled	Retired	Beneficiaries	Total
July 1, 2022	50	65	6	3	1	14	35	4	178
New Entrants	7	0	0	0	0	0	0	0	7
Rehires	0	0	0	0	0	0	0	0	0
Duty Disabilities	(2)	0	0	0	0	2	0	0	0
Ordinary Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(6)	(2)	0	0	0	0	8	0	0
Retirements from General with Safety Service	0	0	0	0	0	0	0	0	0
Vested Terminations	0	0	0	0	0	0	0	0	0
Died, With Beneficiaries' Benefit Payable	0	0	0	0	0	0	0	0	0
Died, Without Beneficiary, and Other Terminations	(2)	0	2	0	0	0	0	0	0
Transfers	0	0	0	0	0	0	0	0	0
Beneficiary Deaths	0	0	0	0	0	0	0	0	0
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Withdrawals Paid	0	(1)	(1)	0	0	0	0	0	(2)
Member Reclassifications	0	(1)	0	0	0	2	0	3	4
July 1, 2023	47	61	7	3	1	18	43	7	187

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the actuarial valuation as of June 30, 2023 are:

Contribution Allocation Procedure

The contribution allocation procedure primarily consists of an actuarial cost method, an asset valuation method, and an amortization method as described below. This contribution allocation procedure, combined with reasonable assumptions, produces a Reasonable Actuarially Determined Contribution as defined in Actuarial Standard of Practice No. 4. The contribution allocation procedure was selected to balance benefit security, intergenerational equity, and the stability of actuarially determined contributions. The selection also considered the demographics of plan members, the funding goals and objectives of the Board, and the need to accumulate assets to make benefit payments when due. There were no changes to the contribution allocation procedures from the prior valuation.

1. Actuarial Cost Method

Annual contributions to the Stanislaus County Employees' Retirement Association (the Plan) are computed under the Entry Age Normal Actuarial Cost Method, computed to the final decrement.

Under this cost method, the normal cost is calculated as the amount necessary to fund Members' benefits as a level percentage of total payroll over their projected working lives. At each valuation date, the Actuarial Liability is equal to the difference between the liability for the Members' total projected benefit and the present value of future normal cost contributions.

The excess of the Actuarial Liability over Plan assets is the Unfunded Actuarial Liability (UAL).

The total Plan cost is the sum of the normal cost (computed on an Individual basis), the amortization of the Unfunded Actuarial Liability, and the expected administrative expenses.

2. Amortization Method

The UAL for each cost-sharing group is amortized as a level percentage of payroll. The initial UAL as of June 30, 2021 is amortized over a closed 15-year period (13 years remaining as of June 30, 2023). Any subsequent unexpected changes in the UAL after June 30, 2021 from actuarial gains or losses or assumptions changes are amortized over fixed closed periods of 20 years as a level percentage of payroll, with new amortization layers established each year. Any subsequent changes in the UAL after June 30, 2021 due to plan amendments or other plan provision changes are amortized over a shorter period, based on the lesser of 15 years or the average future working lifetime for changes affecting active members, or the lesser of 10 years or the average remaining life expectancy for changes affecting inactive members.

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

3. Actuarial Value of Plan Assets

The Actuarial Value of Plan assets is a modified market-related value. The Market Value of Assets is adjusted to recognize, over a five-year period, differences between actual investment earnings and the assumed investment return. The Actuarial Value of Assets is limited to no less than 80% and no more than 120% of the market value.

The detailed calculations of the Actuarial Value of Plan assets are shown in Section III.

4. Changes in Actuarial Methods

None.

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

Actuarial Assumptions

All actuarial assumptions are based on the Actuarial Experience Study Report for the period covering July 1, 2018 through June 30, 2021 report. The proposed assumptions were summarized and reviewed with the Board at the December 14, 2021 Board meeting, at which the Board provided direction to proceed with the valuation based on those assumptions. Final adoption of the assumptions was effective with the adoption of the June 30, 2021 Report. More details on the rationale for the demographic and economic assumptions can be found in the experience study report. The combined effect of the assumptions is expected to have no significant bias for the purpose of this measurement.

1. Rate of Return

The annual rate of return on all Plan assets is assumed to be 6.75%, net of investment expenses.

2. Cost of Living

The cost of living as measured by the Consumer Price Index (CPI) will increase at the rate of 2.50% per year.

3. Administrative Expenses

An allowance of \$3,256,938 for Plan administrative expenses for the current year has been included in the annual cost calculated. The administrative expense amount has been assumed to increase in future years at the rate of the Cost-of-Living assumption (2.50%).

4. Interest Credited to Employee Accounts

The employee accounts are credited with 4.25% interest annually.

5. Increases in Pay

Base salary increase: 2.75%

Assumed pay increases for active Members consist of increases due to base salary adjustments (as noted above), plus service-based increases due to longevity and promotion, as shown on the next page.

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

Longevity & Promotion Increases		
Service	General	Safety
0	5.00%	5.00%
1	5.00%	5.00%
2	5.00%	5.00%
3	5.00%	4.50%
4	5.00%	4.50%
5	3.50%	2.00%
6	2.50%	1.75%
7	1.50%	1.50%
8	1.25%	1.50%
9	1.00%	1.25%
10	0.75%	1.00%
11+	0.50%	1.00%

6. PEPRA Compensation Limit

The assumption used for increasing the compensation limit that applies to PEPRA members is 2.50%

7. Post Retirement COLA

For those with the 3% COLA benefit (i.e., 100% of CPI up to 3% annually with banking), 2.40% annual increases are assumed. Increases are assumed to occur on April 1.

Higher COLA annual increases of 2.60% are assumed for members in pay status. This is used as a proxy to estimate the value of the increases in COLA banks which have occurred since the adoption of the 2.40% assumption based on recent experience.

8. Social Security Wage Base

General Plan 3 members have their benefits offset by an assumed Social Security Benefit. For projecting the Social Security Benefit, the annual Social Security Wage Base increase is assumed to be 2.75% per year.

9. Internal Revenue Code Section 415 Limit

The Internal Revenue Code (IRC) Section 415 maximum benefit limitations have been applied to the benefits for members currently in pay status, as the limited benefits have been provided by StanCERA for valuation purposes. Future projected benefits for members in active and deferred statuses have not been reduced for potential Section 415 limits in the current valuation, though any actual limitations for these members will result in actuarial gains upon their actual retirement, which will reduce future contributions.

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

10. Internal Revenue Code Section 401(a)(17)

The IRC Section 401(a)(17) maximum compensation limitation for active members is not reflected in the valuation for funding purposes; limitations are reflected after retirement.

11. Family Composition

Percentage married for all active members who retire, become disabled, or die during active service is shown in the following table.

Percentage Married	
Gender	Percentage
Males	80%
Females	60%

Spouses of male members are assumed to be two years younger than the member and spouses of female members are assumed to be two years older than the member.

12. Accumulated Vacation Time Load

Active members' service retirement and related benefits are loaded by 3.00% for Safety Members and 3.00% for General Members for cashouts of vacation time. 1/3 of this load applies for members with a 36-month final average service period. No other adjustment is made to the liabilities for anticipated future service purchases.

13. Rates of Separation

Rates of termination apply to all active Members who terminate their employment.

Separate rates of termination are assumed among Safety and General Members.

Termination Rates		
Years of Service	General All	Safety All
0	18.0%	16.0%
1	14.0%	8.0%
2	9.0%	7.0%
3	8.0%	6.0%
4	7.0%	6.0%
5	7.0%	6.0%
10	5.0%	5.0%
15	3.0%	2.0%
20	3.0%	0.0%
25	3.0%	0.0%
30+	0.0%	0.0%

Termination rates do not apply once a member is eligible for retirement.

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

14. Withdrawal

Rates of withdrawal apply to active Members who terminate their employment and withdraw their member contributions, forfeiting entitlement to future Plan benefits. Separate rates of withdrawal are assumed among Safety and General Members and are based on service. The rates do not overlap with the service retirement rates.

45% of all General Member terminations with less than 10 years of service are assumed to take a refund of contributions, as well as 15% of those with 10 or more years of service.

35% of all Safety Member terminations with less than 10 years of service are assumed to take a refund of contributions, and 10% of those with 10 or more years of service.

15. Vested Termination and Reciprocal Transfers

Rates of vested termination apply to active Members who terminate their employment after five years of service and leave their member contributions on deposit with the Plan. Alternatively, those who terminate their employment with less than five years of service can leave their member contributions with the Plan and transfer to a reciprocal employer, therefore retaining entitlement to future Plan benefits.

Vested terminated Tier 3 General Members are assumed to begin receiving benefits at age 65 while all other General Members are assumed to begin at age 58, unless they have reciprocity, in which case they are assumed to begin at age 61; terminated Safety Members are assumed to begin receiving benefits at age 51 for Tiers 4 and 5 and at age 54 for the Tiers 1, 2, 3, and 6.

60% of vested terminated General Members with less than 10 years of service are assumed to be reciprocal, as well as 40% of those with 10 or more years of service.

75% of vested terminated Safety Members with less than 10 years of service are assumed to be reciprocal, as well as 70% of those with 10 or more years of service.

Reciprocal members are assumed to receive annual pay increases of 3.25% for General and 3.75% for Safety from the date of transfer to the assumed retirement date.

16. Form of Benefit

Upon retirement, 90% of male married members and 95% of female married members are assumed to elect the normal payment form (joint & 50% survivor annuity for Tier 3 and joint & 60% survivor annuity for all other tiers). Non-married members are assumed to elect a single life annuity.

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

17. Rates of Service-Connected Disability

Separate rates of duty disability are assumed among Safety and General Members; rates for both sexes for Safety Members are combined. Safety members are assumed to follow the 2021 CalPERS State Safety rates. Sample rates are shown below:

Rates of Service-Connected Disability			
Age	General		Safety
	Male	Female	All
20	0.0043%	0.0002%	0.0020%
25	0.0102%	0.0004%	0.0760%
30	0.0211%	0.0008%	0.1700%
35	0.0284%	0.0024%	0.2640%
40	0.0401%	0.0056%	0.3600%
45	0.0613%	0.0101%	0.4570%
50	0.0897%	0.0162%	0.5570%
55	0.1227%	0.0249%	0.6580%
60	0.1637%	0.0349%	0.7620%
65	0.0000%	0.0000%	0.8690%

18. Rates of Nonservice-Connected Disability

Separate rates of ordinary disability are assumed among Safety and General Members. Rates of ordinary disability for Safety Members are assumed to follow the 2021 CalPERS Public Agency Police Non-Industrial Disability table; rates of ordinary disability for General Members are assumed to follow the 2021 CalPERS Public Agency Miscellaneous Non-Industrial Disability table. The rates shown are applied after five Years of Service. Sample rates are on the next page.

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

Rates of Non Service-Connected Disability General			Rates of Non Service-Connected Disability Safety	
Age	Male	Female	Age	All
20	0.0170%	0.0100%	20	0.0100%
25	0.0170%	0.0100%	25	0.0100%
30	0.0190%	0.0240%	30	0.0200%
35	0.0390%	0.0710%	35	0.0300%
40	0.1020%	0.1350%	40	0.0400%
45	0.1510%	0.1880%	45	0.0500%
50	0.1580%	0.1990%	50	0.0800%
55	0.1580%	0.1490%	55	0.1300%
60	0.1530%	0.1050%	60	0.2000%
65	0.1280%	0.0880%	65+	0.2000%
70	0.1020%	0.0840%		
75+	0.1020%	0.0880%		

19. Rates of Mortality for Non-Annuitants

Rates of ordinary death for active General members are specified by the 2021 CalPERS Preretirement Non-Industrial Mortality table, adjusted by 102.2% for males and 110.2% for females. Rates of ordinary death for active Safety members are specified by the 2021 CalPERS Preretirement Non-Industrial Mortality table, adjusted by 102.6% for males and 100.9% for females. Duty related mortality rates are only applicable for Safety Active Members and are based on the 2021 CalPERS Preretirement Industrial Death table, adjusted by 102.6% for males and 100.9% for females. These mortality base tables are all projected generationally from 2017 using 80% of SOA Scale MP-2020.

The table on the following page provides a sample of the base mortality rates including adjustments but prior to any projections for mortality improvements.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

Non-Annuitant Mortality Rates						
Age	Ordinary Death - General Male	Ordinary Death - General Female	Ordinary Death - Safety Male	Ordinary Death - Safety Female	Duty Death - Safety Male	Duty Death - Safety Female
20	0.0399%	0.0154%	0.0390%	0.0141%	0.0041%	0.0020%
25	0.0337%	0.0143%	0.0349%	0.0182%	0.0041%	0.0020%
30	0.0450%	0.0209%	0.0431%	0.0252%	0.0051%	0.0030%
35	0.0593%	0.0320%	0.0492%	0.0343%	0.0051%	0.0040%
40	0.0767%	0.0430%	0.0564%	0.0424%	0.0062%	0.0050%
45	0.0950%	0.0595%	0.0677%	0.0535%	0.0072%	0.0061%
50	0.1369%	0.0893%	0.0944%	0.0737%	0.0103%	0.0081%
55	0.2024%	0.1355%	0.1416%	0.1070%	0.0154%	0.0121%
60	0.2933%	0.1973%	0.2267%	0.1524%	0.0257%	0.0172%
65	0.4119%	0.2755%	0.3550%	0.1957%	0.0390%	0.0222%
70	0.6071%	0.4452%	0.6218%	0.3612%	0.0687%	0.0404%

20. Rates of Mortality for Nonservice-Connected Disabled Retirees

Rates of mortality for current nonservice-connected disabled Members are specified by the 2021 CalPERS Non-Industrially Disabled Annuitant Mortality table, no adjustment for males or females, with generational mortality improvements projected from 2017 using 80% of SOA Scale MP-2020.

The table provides a sample of the base mortality rates including adjustments but prior to any projections for mortality improvements.

Nonservice-Connected Disabled Mortality Rates		
Age	Male	Female
45	1.120%	1.019%
50	1.727%	1.439%
55	2.217%	1.734%
60	2.681%	1.962%
65	3.332%	2.276%
70	4.056%	2.910%
75	5.465%	4.160%
80	8.044%	6.112%
85	11.695%	9.385%
90	16.770%	14.3956%

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

21. Rates of Mortality for Service-Connected Disabled Retirees

Rates of mortality for current service-connected disabled Members are specified by the 2021 CalPERS Industrially Disabled Annuitant Mortality table, no adjustment for males and adjusted by 105% for females, with generational mortality improvements projected from 2017 using 80% of SOA Scale MP-2020.

The table provides a sample of the base mortality rates including adjustments but prior to any projections for mortality improvements.

Service-Connected Disabled Mortality Rates		
Age	Male	Female
45	0.314%	0.238%
50	0.437%	0.326%
55	0.623%	0.577%
60	0.935%	0.911%
65	1.393%	1.250%
70	2.189%	1.951%
75	3.498%	3.291%
80	5.932%	5.442%
85	10.244%	8.447%
90	16.739%	13.0557%

22. Rates of Mortality for Emerging Disabled Retirees

Rates of mortality for future General disabled retirees, both nonservice- and service-connected, are specified by mortality tables consisting of blends of the mortality assumptions for current nonservice- and service-connected disabled retirees. The blend for future disabled General retirees is 50% and 50%, respectively. The proportions reflect the expected splits in future disabled retirees between nonservice- and service-connected disablements.

Future disabled Safety retirees are assumed to follow the same rates of mortality as the service-connected disabled retirees indicated in the prior bullet.

23. Rates of Mortality for Healthy Annuitants

Rates of mortality for retired Members and their beneficiaries are specified by the 2021 CalPERS Healthy Annuitant table, adjusted by 107.6% for males and 115.3% for females, with generational mortality improvements projected from 2017 using 80% of SOA Scale MP-2020.

The table on the next page provides a sample of the base mortality rates including adjustments but prior to any projections for mortality improvements.

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

Healthy Annuitant Mortality Rates		
Age	Male	Female
45	0.101%	0.063%
50	0.291%	0.229%
55	0.421%	0.375%
60	0.618%	0.525%
65	0.922%	0.705%
70	1.442%	1.149%
75	2.582%	2.056%
80	4.713%	3.923%
85	8.902%	7.110%
90	15.644%	12.7820%

24. Mortality Improvement

As mentioned above, the mortality assumptions employ a fully generational mortality improvement projection from base year 2017 using 80% of the Society of Actuaries Scale MP-2020.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

25. Rates of Retirement

Retirement for members in non-PEPRA Tiers (Tier 6) are assumed to occur among eligible members in accordance with the table below and on the following page:

Rates of Retirement General (Non-PEPRA)			
Age	Years of Service		
	0-9	10-29	30+
40-44	0.00%	0.00%	0.00%
45-49	0.00%	0.00%	10.00%
50-54	0.00%	4.00%	10.00%
55	0.00%	7.00%	10.00%
56	0.00%	7.00%	15.00%
57	0.00%	7.00%	15.00%
58	0.00%	7.00%	15.00%
59	0.00%	12.50%	15.00%
60	0.00%	12.50%	22.50%
61	0.00%	12.50%	30.00%
62	0.00%	20.00%	30.00%
63	0.00%	20.00%	30.00%
64	0.00%	20.00%	30.00%
65	0.00%	40.00%	30.00%
66	0.00%	40.00%	30.00%
67	0.00%	40.00%	30.00%
68	0.00%	25.00%	30.00%
69	0.00%	25.00%	30.00%
70	25.00%	25.00%	30.00%
71	25.00%	25.00%	30.00%
72	25.00%	25.00%	30.00%
73	25.00%	25.00%	30.00%
74	25.00%	25.00%	30.00%
75+	100.00%	100.00%	100.00%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

Rates of Retirement Safety (Non-PEPRA) Years of Service				
Age	0-9	10-14	15-19	20+
40-48	0.00%	0.00%	0.00%	5.00%
49	0.00%	0.00%	0.00%	20.00%
50	0.00%	5.00%	25.00%	40.00%
51	0.00%	5.00%	5.00%	25.00%
52	0.00%	5.00%	5.00%	25.00%
53	0.00%	5.00%	5.00%	25.00%
54	0.00%	5.00%	5.00%	25.00%
55	0.00%	5.00%	5.00%	40.00%
56	0.00%	5.00%	5.00%	40.00%
57	0.00%	5.00%	5.00%	40.00%
58	0.00%	5.00%	5.00%	40.00%
59	0.00%	5.00%	5.00%	40.00%
60	0.00%	25.00%	25.00%	100.00%
61	0.00%	25.00%	25.00%	100.00%
62	0.00%	25.00%	25.00%	100.00%
63	0.00%	25.00%	25.00%	100.00%
64	0.00%	25.00%	25.00%	100.00%
65	0.00%	100.00%	100.00%	100.00%
66	0.00%	100.00%	100.00%	100.00%
67	0.00%	100.00%	100.00%	100.00%
68	0.00%	100.00%	100.00%	100.00%
69	0.00%	100.00%	100.00%	100.00%
70+	100.00%	100.00%	100.00%	100.00%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

Retirement for members in PEPRA, Tier 6, are assumed to occur among eligible members in accordance with the sample rates below, from the full tables 2021 CalPERS Public Agency Miscellaneous 2% @ 62 table for General and the 2021 CalPERS Public Agency Safety Police 2.7% @ 57 table for Safety:

Rates of Retirement General (PEPRA) Years of Service				
Age	5	10	25	35
50-51	0.00%	0.00%	0.00%	0.00%
52	0.50%	0.80%	1.90%	3.80%
53	0.70%	1.10%	2.10%	4.80%
54	0.70%	1.10%	2.30%	5.40%
55	1.00%	1.90%	6.10%	15.20%
56	1.40%	2.60%	7.50%	16.70%
57	1.80%	2.90%	7.40%	14.30%
58	2.30%	3.50%	7.30%	13.50%
59	2.50%	3.80%	9.20%	17.50%
60	3.10%	5.10%	11.10%	18.30%
61	3.80%	5.80%	12.10%	23.20%
62	4.40%	7.40%	16.40%	27.10%
63	7.70%	10.50%	19.20%	26.60%
64	7.20%	10.10%	18.70%	27.60%
65	10.80%	14.10%	23.90%	34.80%
66	13.20%	17.20%	29.20%	42.60%
67	13.20%	17.20%	29.20%	40.50%
68	12.00%	15.60%	26.50%	38.70%
69	12.00%	15.60%	26.50%	36.80%
70	12.00%	15.60%	26.50%	38.70%
71	12.00%	15.60%	26.50%	38.70%
72	12.00%	15.60%	26.50%	38.70%
73	12.00%	15.60%	26.50%	38.70%
74	12.00%	15.60%	26.50%	38.70%
75+	100.00%	100.00%	100.00%	100.00%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

**APPENDIX B – STATEMENT OF CURRENT ACTUARIAL
ASSUMPTIONS AND METHODS**

Rates of Retirement Safety (PEPRA) Years of Service				
Age	5	10	25	35
50	5.00%	5.00%	5.00%	11.00%
51	4.00%	4.00%	5.75%	13.92%
52	3.80%	3.80%	5.80%	13.21%
53	3.80%	3.80%	7.74%	28.98%
54	3.80%	3.80%	9.31%	33.25%
55	6.84%	6.84%	13.40%	38.76%
56	6.27%	6.27%	12.28%	34.49%
57	6.00%	6.00%	11.75%	32.00%
58	8.00%	8.00%	13.75%	35.00%
59	8.00%	8.00%	14.00%	40.00%
60	15.00%	15.00%	15.00%	35.00%
61	14.40%	14.40%	14.40%	26.40%
62	15.00%	15.00%	15.00%	33.00%
63	15.00%	15.00%	15.00%	40.00%
64	15.00%	15.00%	15.00%	52.50%
65+	100.00%	100.00%	100.00%	100.00%

26. Changes in Actuarial Assumptions

There have been no changes in the assumptions since the prior valuation. We have updated the annual interest crediting rate for employee accounts, from 0.25% to 4.25%, based on the Association's Excess Earnings & Interest Posting Policy. However, this assumption is only used to reflect the expected impact of the existing policy and thus does not represent a change in forward-looking assumptions.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

All actuarial calculations are based on our understanding of the statutes governing the StanCERA as contained in the County Employees Retirement Law (CERL) of 1937, with provisions adopted by the County Board of Supervisors, a district Board of Directors, or the StanCERA Board, effective through June 30, 2023. The benefit and contribution provisions of this law are summarized briefly below, along with corresponding references to the State Code. This summary does not attempt to cover all the detailed provisions of the law.

A. Definitions

Compensation: Compensation means the cash remuneration for services paid by the employer. It includes base pay and certain differential, incentive, and special pay allowances defined by the Board of Retirement. Overtime is excluded, with the exception of overtime paid under the Fair Labor Standards Act that is regular and recurring.

For Tier 6 (PEPRA) members, only pensionable compensation up to the PEPRA Compensation Limit will count for computing Plan benefits and employee contributions and employer contributions. For those participating in Social Security, the compensation cap is \$146,042 for calendar year 2023. For those not participating in Social Security, the compensation cap is \$175,250 for calendar year 2023. In addition, it is possible that some sources of compensation, such as any payments deemed to be terminal or special pays, may be excluded from the benefit and contribution computations for PEPRA members.

Credited Service: In general, Credited Service is earned for the period during which Member Contributions are paid. Since Tier 3 Members participate in a non-contributory Plan, their Credited Service is calculated based on their date of Membership only.

Temporary service for which the Member was not credited, or service for which the Member withdrew his or her Member Contributions, may be purchased by paying or repaying the Member Contributions with interest. The categories of services that credit may be purchased for are listed below:

- **Prior Part-time Service:** If a Member worked for an employer within the Association on a part-time or 'extra help' basis before his membership in the Retirement Association, the Member may buyback this service.
- **Intermittent Part-time Service**
- **Prior full time Service:** Member may buyback full time service that may have been cashed out upon termination.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

- **Leave of Absence (Including absence with State Disability or Worker's Compensation):** No unpaid leave of absence can be bought back except for absence due to medical reasons of up to one year.
- **Public Service:** Only Tier 1 and 4 Members may buy back this service.
- **Military Time:** Only Tier 1 and 4 Members may buy back this service.
- **Enhance Prior Tier Service:** Applies to certain active and deferred Members with Tier 1, 2, or 3 service.
- **Military "call up"**
- **AB 2766:** Only Safety Employees can buy back this service.

A percentage of credited sick leave may be credited according to the Member's applicable bargaining unit.

Final

Compensation: For Members belonging to Tier 2, Tier 3, and Tier 6, Final Compensation means the highest Compensation earned during any 36 consecutive months of the Member's employment. For all others, it is the highest Compensation earned during any twelve months of employment.

General Member: Any Member who is not a Safety Member is a General Member.

Safety Member: Any sworn Member engaged in law enforcement, probation, or fire suppression is a Safety Member.

B. Membership

Eligibility: All full-time, permanent employees of Stanislaus County, City of Ceres, Stanislaus County Superior Court, Salida Sanitary District, East Side Mosquito Abatement, Keyes Community Services, Hills Ferry Cemetery, Stanislaus Council of Governments, and Stanislaus Regional Transit Authority hired on or after October 1, 1988 become Members on their date of appointment. All others hired before October 1, 1988 became Members on the first day of the calendar month following their date of appointment.

Detailed membership eligibility according to Tier and membership date is shown in Table 1 on page 80.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

C. Service Retirement

Eligibility: New members who meet the requirements to enter a legacy tier under PEPRA will enter Tier 2; all other new members will enter Tier 6.

Tier 3 General Members are eligible to retire at age 55 if they have earned 10 years of Credited Service. Tier 6 (PEPRA) General Members are eligible to retire at age 52 if they have earned five years of Credited Service. All other General Members are eligible to retire at age 50 if they have earned five years of Credited Service and have been an Association member for at least 10 years. Alternatively, General non-PEPRA Members are eligible to retire at any age after having earned 30 years of Credited Service, or upon reaching age 70 with no service requirement.

Safety Members are eligible to retire at age 50 if they have earned five years of Credited Service and have been an Association member for at least 10 years. Alternatively, Safety Members are eligible to retire at any age after having earned 20 years of Credited Service, or upon reaching age 70 with no service requirement. The 20-year Credited Service retirement eligibility is not applicable to Tier 6 (PEPRA) Safety Members, nor is the 10-year Association membership requirement.

Benefit Amount: The Service Retirement Benefit payable to the Member is equal to the Member's Final Compensation multiplied by credited service, the benefit factor from Table 1 and the age factor from Table 2 corresponding to the Member's code section. The appropriate code sections for each group are listed in Table 1. For Tier 3 members, the age factors are applied *after* the benefit amount as determined under Table 1 has been offset by the designated fraction of the member's projected age 65 Social Security benefit.

For Tier 3 Members with Credited Service up to 35 years, the percentage of Final Compensation may not exceed 70% and for those with more than 35 years, it may not exceed 80%. For all other non-PEPRA Members, the percentage of Final Compensation may not exceed 100%. For those members integrated with Social Security (other than Tiers 3 and 6), Retirement Benefits based on the first \$350 of monthly Final Average Compensation are reduced by one-third.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table 1: Member Group Descriptions

Group	Open or Closed	FAP	Max Cola	Code Section	Description	Top Retirement Factor Age	Benefit Factor
General Tier I	Closed	1	3	31676.12	2% at 57	62	2.00%
General Tier II	Open	3	3	31676.1	2% at 62	65	1.67%
General Tier III	Closed	3	0	31499.14	Non-Contributory	65	First 35 Years: 2.0% of FAS less 1/35 th of Social Security benefit at age 65. Next 10 Years: 1% of FAS
General Tier IV	Closed	1	3	31676.14	2% at 55	65	1.67%
General Tier V	Closed	1	3	31676.14	2% at 55	65	1.67%
General Tier VI	Open	3	3	7522.2	PEPRA	67	1.00%
Safety Tier II	Open	3	3	31664	2% at 50	50	2.00%
Safety Tier IV	Closed	1	3	31664.1	3% at 50	50	3.00%
Safety Tier V	Closed	1	3	31664.1	3% at 50	50	3.00%
Safety Tier VI	Open	3	3	7522.25 (2)	PEPRA	57	1.00%

Table 2: Age Factors

Age	Safety 2% at Age 50 CERL §: 31664	Safety 3% at Age 50 CERL §: 31664.1	Safety PEPRA GC §: 7522.25 Opt2	General 2% at Age 62 CERL §: 31676.1	General 2% at Age 57 CERL §: 31676.12	General 2% at Age 55 CERL §: 31676.14	General 2% at Age 65 CERL §: 31499.14	General PEPRA GC §: 7522.20
41	0.6258	0.6258	N/A	N/A	N/A	N/A	N/A	N/A
42	0.6625	0.6625	N/A	N/A	N/A	N/A	N/A	N/A
43	0.7004	0.7004	N/A	N/A	N/A	N/A	N/A	N/A
44	0.7397	0.7397	N/A	N/A	N/A	N/A	N/A	N/A
45	0.7805	0.7805	N/A	N/A	N/A	N/A	N/A	N/A
46	0.8226	0.8226	N/A	N/A	N/A	N/A	N/A	N/A
47	0.8678	0.8678	N/A	N/A	N/A	N/A	N/A	N/A
48	0.9085	0.9085	N/A	N/A	N/A	N/A	N/A	N/A
49	0.9522	0.9522	N/A	N/A	N/A	N/A	N/A	N/A
50	1.0000	1.0000	2.0000	0.7091	0.6681	0.8850	N/A	N/A
51	1.0516	1.0000	2.1000	0.7457	0.7056	0.9399	N/A	N/A
52	1.1078	1.0000	2.2000	0.7816	0.7454	1.0000	N/A	1.0000
53	1.1692	1.0000	2.3000	0.8181	0.7882	1.0447	N/A	1.1000
54	1.2366	1.0000	2.4000	0.8556	0.8346	1.1048	N/A	1.2000
55	1.3099	1.0000	2.5000	0.8954	0.8850	1.1686	0.3900	1.3000
56	1.3099	1.0000	2.6000	0.9382	0.9399	1.2365	0.4300	1.4000
57	1.3099	1.0000	2.7000	0.9846	1.0000	1.3093	0.4700	1.5000
58	1.3099	1.0000	2.7000	1.0350	1.0447	1.3608	0.5100	1.6000
59	1.3099	1.0000	2.7000	1.0899	1.1048	1.4123	0.5600	1.7000
60	1.3099	1.0000	2.7000	1.1500	1.1686	1.4638	0.6100	1.8000
61	1.3099	1.0000	2.7000	1.1947	1.2365	1.5153	0.6700	1.9000
62	1.3099	1.0000	2.7000	1.2548	1.3093	1.5668	0.7400	2.0000
63	1.3099	1.0000	2.7000	1.3186	1.3093	1.5668	0.8200	2.1000
64	1.3099	1.0000	2.7000	1.3865	1.3093	1.5668	0.9000	2.2000
65	1.3099	1.0000	2.7000	1.4593	1.3093	1.5668	1.0000	2.3000
66	1.3099	1.0000	2.7000	1.4593	1.3093	1.5668	1.0000	2.4000
67	1.3099	1.0000	2.7000	1.4593	1.3093	1.5668	1.0000	2.5000

Form of Benefit: The Service Retirement Benefit will be paid monthly beginning at retirement and for the life of the Member. If the member selects the unmodified benefit form, in the event of the Member's death 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. For Tier 3 Members, the benefit payable to beneficiary is limited to 50%. In the event

APPENDIX C – SUMMARY OF PLAN PROVISIONS

there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms are also available.

Annually on April 1, benefits for all retired members other than those in Tier 3 are adjusted to reflect changes in the CPI for the San Francisco Bay Area since the prior year. Benefits may be increased or decreased, but the cumulative changes shall never reduce the benefit below the original monthly allowance. Annual increases may not exceed the COLA figures shown in Table 1, but CPI increases above this figure are "banked" and used for future increases when the CPI increases by less than the figures shown.

In addition, ad hoc cost-of-living adjustments have been granted in the past and may be granted in the future.

A lump sum benefit of \$5,000 will be payable upon the death of a retired member. No death benefit is payable for Tier 3 retired members.

D. Service-Connected Disability

Eligibility: All non-Tier 3 Members are eligible for Service-Connected Disability Retirement benefits at any age if they are permanently disabled as a result of injuries or illness sustained in the line of duty. Tier 3 Members are not eligible to receive disability benefits.

Benefit Amount: The Service-Connected Disability Retirement Benefit payable to Members is equal to the greater of 50% of their Final Compensation or – if the Member is eligible at disability for a Service Retirement Benefit – the Service Retirement Benefit accrued on the date of disability.

Form of Benefit: The Service-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement and for the life of the Member; in the event of the Member's death, 100% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available. A lump sum benefit of \$5,000 will be payable upon the death of the member.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

E. Nonservice-Connected Disability

Eligibility: Tier 3 Members are not eligible to receive disability benefits. All other Members are eligible for Nonservice-Connected Disability Retirement benefits if they are permanently disabled at any age after earning five years of Credited Service.

Benefit Amount: The Nonservice-Connected Disability Retirement Benefit payable to Tier 1 General Members is equal to the greatest of:

- 1.8% of Final Compensation at disability multiplied by years of Credited Service at disability;
- 1.8% of Final Compensation at disability multiplied by years of Credited Service projected to age 62, but not to exceed one-third of Final Compensation; or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

The Nonservice-Connected Disability Retirement Benefit payable to Tiers 2, 4, 5, and 6 General Members is equal to the greatest of:

- 1.5% of Final Compensation at disability multiplied by years of Credited Service at disability;
- 1.5% of Final Compensation at disability multiplied by years of Credited Service projected to age 65, but not to exceed one-third of Final Compensation; or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

The Nonservice-Connected Disability Retirement Benefit payable to Safety Members is equal to the greatest of:

- 1.8% of Final Compensation at disability multiplied by years of Credited Service at disability;
- 1.8% of Final Compensation at disability multiplied by years of Credited Service projected to age 55, but not to exceed one-third of Final Compensation; or
- If the Member is eligible at disability for a Service Retirement Benefit, the Service Retirement Benefit accrued on the date of disability.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Form of Benefit: The Nonservice-Connected Disability Retirement Benefit will be paid monthly beginning at the effective date of disability retirement, and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available. A lump sum benefit of \$5,000 will be payable upon the death of the member.

F. Death Benefit

Eligibility: A Tier 3 Member's survivors are not eligible to receive death benefits. All other Members' survivors are eligible to receive different Death benefits dependent on the Member's cause of death and retirement eligibility.

Benefit Amount: In the event the Member's death resulted from injury or illness sustained in connection with the Member's duties, the Death Benefit payable to a surviving spouse, domestic partner, or eligible dependent children will be the greater of 50% of the Member's Final Compensation at the time of death or the Service Retirement Benefit.

In the event the Member's death did not result from injury or illness sustained in connection with the Member's duties and at the time of death and the Member was eligible for Service Retirement or Non-Service Connected Disability (i.e., the employee was employed at least five years), the Death Benefit payable to the spouse, partner or children will be 60% of the survivor benefit based on benefit due on Member's date of death.

In all other cases, the designated beneficiary (not necessarily a spouse/partner/child) will receive a refund of the Member's contributions with interest plus one month of Final Compensation for each year of service to a maximum of six years.

Form of Benefit: Annuity death benefits will be paid monthly beginning at the Member's death and for the life of the surviving spouse/partner or to the age of majority of dependent minor children if there is no spouse/partner. Lump sum benefits will be paid as described above.

COLA adjustments (as described for the annuity benefits) are also available.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

G. Withdrawal Benefits

- Eligibility:** Tier 3 Members are not eligible to receive withdrawal benefits. All other Members are eligible for a Withdrawal Benefit upon termination of employment, if not eligible to receive or electing to waive a monthly benefit.
- Benefit Amount:** The Withdrawal Benefit is a refund of the Member's accumulated Contributions with interest. Upon receipt of the Withdrawal Benefit, the Member forfeits all Credited Service.
- Form of Benefit:** The Withdrawal Benefit is paid in a lump sum upon election by the Member.

H. Deferred Vested Benefit

- Eligibility:** A Member is eligible for a Deferred Vested Benefit upon termination of employment after earning five years of Credited Service, including reciprocity service from another system. For Tier 3 Members, the vesting requirement is 10 years of Credited Service.
- The Member must leave his or her Member Contributions with interest on deposit with the Plan. This requirement does not apply to Tier 3 Members since they participate in a non-contributory Plan.
- Benefit Amount:** The Deferred Vested Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service and Final Compensation on the date of termination.
- Form of Benefit:** The Deferred Vested Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. For Tier 3 Members, the benefit payable to beneficiary is limited to 50%. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.
- Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available. A lump sum benefit of \$5,000 will be payable upon the death of the member. No death benefit is payable for Tier 3 retired members.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

I. Reciprocal Benefit

Eligibility: A Member is eligible for a Reciprocal Benefit upon termination of employment after earning five years of Credited Service and entry, within a specified period of time, into another retirement system recognized as a reciprocal system by the Plan. For Tier 3 Members, the vesting requirement is 10 years of Credited Service.

The Member must leave his or her Member Contributions with interest on deposit with the Plan. This requirement does not apply to Tier 3 Members since they participate in a non-contributory Plan.

Benefit Amount: The Reciprocal Benefit is computed in the same manner as the Service Retirement Benefit, but it is based on Credited Service on the date of termination and Final Compensation on the date of retirement; Final Compensation is based on the highest of the Compensation earned under this Plan or the reciprocal plan.

Form of Benefit: The Reciprocal Benefit will be paid monthly beginning at retirement and for the life of the Member; in the event of the Member's death, 60% of the benefit will continue for the life of the Member's spouse or to the age of majority of dependent minor children if there is no spouse. For Tier 3 Members, the benefit payable to beneficiary is limited to 50%. In the event there is no surviving spouse or minor children, any unpaid remainder of the Member's accumulated contributions will be paid to the Member's designated beneficiary.

Actuarially equivalent optional benefit forms and COLA adjustments (as described for the Service Retirement benefit) are also available.

A lump sum benefit of \$5,000 will be payable upon the death of the member. No death benefit is payable for Tier 3 retired members.

J. Optional Benefit Forms

Prior to retirement, a member may elect to convert his retirement allowance into a benefit of equivalent Actuarial Value in accordance with one of the optional forms described below.

1. A reduced retirement allowance payable during his life with the provision that on his death the excess, if any, of his accumulated deductions at the time of retirement over the annuity payments made to him will be paid to his designated beneficiary or estate; or
2. A reduced retirement allowance payable during his life with the provision that after his death the reduced allowance will be continued for life to the beneficiary designated by him at the time of his retirement; or

APPENDIX C – SUMMARY OF PLAN PROVISIONS

3. A reduced retirement allowance payable during his life with the provision that after his death an allowance of one-half of his reduced allowance will be continued for life to the beneficiary designated by him at the time of his retirement.

In addition, a member participating in Social Security may elect to receive an increased monthly allowance before age 62 (earliest possible receipt of Social Security benefits) and then take a reduced monthly allowance at age 62 and after. This option will not affect any monthly payments payable to a beneficiary. This option is not available to those receiving a disability benefit.

K. Member Contributions

Other than Tiers 3 and 6, all Members contribute a percentage of Compensation to the Plan through payroll deduction. The percentage contributed depends on the Member's nearest age upon joining the Plan. Members do not contribute after earning 30 years of Credited Service.

Tier 6 (PEPRA) Members must contribute half of the Normal Cost of the Plan. Contributions for these members will be based on the Normal Cost associated with their benefits, including COLA; General and Safety members will pay different rates. Members will continue to contribute after earnings 30 years of service.

City of Ceres members in Tiers 1 and 4 pay the Tier 2 and 5 rates ("Full" rates), rather than the rates for their respective Tiers ("Half" rates).

Interest is credited semiannually to each Member's accumulated contributions. The crediting rate is set by the Board; the current annual rate is 4.25%.

The employee contribution rates are shown in the Appendix E.

L. Changes in Plan Provisions

No change.

APPENDIX D – GLOSSARY

1. Actuarial Assumptions

Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. Actuarial Cost Method

A procedure for determining the actuarial present value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a normal cost and an Actuarial Liability.

3. Actuarial Gain (Loss)

The difference between actual experience and that expected is based upon a set of actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

4. Actuarial Liability

The portion of the actuarial present value of projected benefits that will not be paid by future normal costs. It represents the value of the past normal costs with interest to the valuation date.

5. Actuarial Present Value (Present Value)

The value as of a given date of a future amount or series of payments. The actuarial present value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. Actuarial Valuation

The determination, as of a specified date, of the normal cost, Actuarial Liability, Actuarial Value of Assets, and related actuarial present values for a pension plan.

7. Actuarial Value of Assets

The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

APPENDIX D – GLOSSARY

8. Actuarially Equivalent

Of equal actuarial present value, determined as of a given date, with each value based on the same set of actuarial assumptions.

9. Amortization Payment

The portion of the pension plan contribution, which is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. Entry Age Normal Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

11. Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Liability.

12. Normal Cost

That portion of the actuarial present value of pension plan benefits and expenses that is allocated to a valuation year by the actuarial cost method.

13. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of actuarial assumptions, taking into account such items as increases in future compensation and service credits.

14. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets. The Unfunded Actuarial Liability is not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling StanCERA's benefit obligation in the event of a plan termination or other similar action. However, it is an appropriate measure for assessing the need for or the amount of future contributions.

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX E – MEMBER CONTRIBUTION RATES

Employee Normal contribution rates vary by benefit formula as defined in the CERL and described in the table below, with the exception that City of Ceres members in Tiers 1 and 4 pay the Tier 2 and 5 rates (“Full” rates), rather than the rates for their respective Tiers (“Half” rates).

Plan/Tier	Code Section	Member Contribution Provides Average Annuity
General Tier 1	31621.5	1/200th of Final Average Salary (FAS) at age 60
General Tier 2	31621	1/120th of Final Average Salary (FAS) at age 60
General Tier 3	NA	NA
General Tier 4	31621.3	1/240th of Final Average Salary (FAS) at age 55
General Tier 5	31621.9	1/120th of Final Average Salary (FAS) at age 55
Safety Tier 2	31639.25	1/100th of Final Average Salary (FAS) at age 50
Safety Tier 4	31639.5	1/200th of Final Average Salary (FAS) at age 50
Safety Tier 5	31639.25	1/100th of Final Average Salary (FAS) at age 50

Employee COLA contribution rates are determined based on 50% of the normal cost associated with the expected COLA benefits, including all forms of decrement and the value of any assumed joint and survivor benefits, determined for each individual entry age. Similar to the benefit formulas, for those members integrated with Social Security (other than Tiers 3 and 6), contributions based on the first \$350 of monthly compensation are reduced by one-third.

The rates were changed following the Experience Study covering the period June 30, 2018 through June 30, 2021. The current employee contribution rates are shown in the following tables and were determined based on the assumptions used in the current actuarial valuation. These assumptions include an interest rate of 6.75% per annum, an average salary increase of 2.75% per year (plus longevity and promotion increases), and the CalPERS mortality tables with adjustment as specified in the Appendix B and projected using 80% of Scale MP-2020 from 2017 to 2042 for General members and to 2043 for Safety members. The projection periods are based upon the duration of liabilities for the respective groups as of June 30, 2021. The rates are blended using a male/female weighting of 25% male / 75% female for General members, and 80% male / 20% female for Safety members.

Basic and COLA rates were determined based on an assumption that members would cease making contributions after 30 years of service. Basic and COLA rates include the value of the accumulated vacation time load, except that the load is not applied when calculating the Basic rates for members with less than three years of service.

Employee contribution rates for Tier 6 (PEPRA) members are determined based on half the Normal Cost (including COLA) for the PEPRA members, computed separately for General and Safety members, and for County and Ceres / Other District members. Due to the passage of SB13, contribution rates for PEPRA members are not rounded, and are recomputed each year.

The member contribution rates shown in this appendix apply only to pensionable compensation (up to the PEPRA Compensation Limits for PEPRA members).

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	General Tier 1							
	Basic First \$350	Basic Over \$350	COL First \$350	COL Over \$350	Total First \$350	Total Over \$350	Prior Total First \$350	Prior Total Over \$350
16	2.39%	3.59%	1.00%	1.50%	3.39%	5.09%	3.46%	5.19%
17	2.39%	3.59%	1.00%	1.50%	3.39%	5.09%	3.46%	5.19%
18	2.39%	3.59%	1.00%	1.50%	3.39%	5.09%	3.46%	5.19%
19	2.39%	3.59%	1.00%	1.50%	3.39%	5.09%	3.46%	5.19%
20	2.39%	3.59%	1.00%	1.50%	3.39%	5.09%	3.46%	5.19%
21	2.41%	3.62%	1.03%	1.54%	3.44%	5.16%	3.51%	5.26%
22	2.43%	3.65%	1.05%	1.58%	3.48%	5.23%	3.55%	5.33%
23	2.45%	3.67%	1.09%	1.63%	3.53%	5.30%	3.59%	5.39%
24	2.46%	3.69%	1.11%	1.67%	3.57%	5.36%	3.64%	5.46%
25	2.47%	3.71%	1.15%	1.72%	3.62%	5.43%	3.68%	5.52%
26	2.48%	3.73%	1.18%	1.77%	3.66%	5.50%	3.71%	5.57%
27	2.49%	3.74%	1.21%	1.82%	3.71%	5.56%	3.76%	5.63%
28	2.50%	3.75%	1.24%	1.86%	3.74%	5.61%	3.79%	5.68%
29	2.50%	3.75%	1.27%	1.91%	3.78%	5.66%	3.82%	5.73%
30	2.50%	3.76%	1.31%	1.96%	3.81%	5.72%	3.85%	5.77%
31	2.56%	3.83%	1.33%	2.00%	3.89%	5.83%	3.92%	5.88%
32	2.61%	3.91%	1.36%	2.04%	3.97%	5.95%	4.01%	6.01%
33	2.66%	3.99%	1.39%	2.08%	4.05%	6.07%	4.08%	6.13%
34	2.72%	4.07%	1.41%	2.12%	4.13%	6.19%	4.17%	6.25%
35	2.77%	4.16%	1.45%	2.17%	4.22%	6.33%	4.26%	6.39%
36	2.83%	4.24%	1.49%	2.24%	4.32%	6.48%	4.36%	6.54%
37	2.89%	4.33%	1.54%	2.31%	4.43%	6.64%	4.46%	6.69%
38	2.95%	4.42%	1.58%	2.37%	4.53%	6.79%	4.56%	6.84%
39	3.01%	4.52%	1.63%	2.44%	4.64%	6.96%	4.66%	7.00%
40	3.07%	4.61%	1.67%	2.51%	4.75%	7.12%	4.77%	7.15%
41	3.14%	4.71%	1.70%	2.55%	4.84%	7.26%	4.86%	7.29%
42	3.21%	4.81%	1.73%	2.60%	4.94%	7.41%	4.96%	7.44%
43	3.28%	4.92%	1.76%	2.64%	5.04%	7.56%	5.06%	7.59%
44	3.35%	5.03%	1.79%	2.68%	5.14%	7.71%	5.16%	7.73%
45	3.43%	5.14%	1.81%	2.72%	5.24%	7.86%	5.26%	7.88%
46	3.51%	5.26%	1.83%	2.75%	5.34%	8.01%	5.37%	8.05%
47	3.59%	5.38%	1.85%	2.78%	5.44%	8.16%	5.47%	8.20%
48	3.68%	5.52%	1.88%	2.82%	5.56%	8.34%	5.58%	8.37%
49	3.77%	5.65%	1.90%	2.85%	5.67%	8.50%	5.68%	8.51%
50	3.85%	5.78%	1.91%	2.86%	5.76%	8.64%	5.77%	8.66%
51	3.94%	5.90%	1.91%	2.86%	5.84%	8.76%	5.85%	8.78%
52	4.02%	6.03%	1.90%	2.85%	5.92%	8.88%	5.91%	8.86%
53	4.08%	6.12%	1.87%	2.80%	5.95%	8.92%	5.91%	8.86%
54	4.11%	6.16%	1.84%	2.76%	5.95%	8.92%	5.90%	8.85%
55	4.09%	6.13%	1.81%	2.71%	5.89%	8.84%	5.84%	8.76%
56	4.06%	6.10%	1.71%	2.57%	5.78%	8.67%	5.74%	8.61%
57	4.04%	6.07%	1.61%	2.42%	5.66%	8.49%	5.59%	8.39%
58	3.91%	5.86%	1.50%	2.25%	5.41%	8.11%	5.49%	8.24%
59+	3.88%	5.83%	1.44%	2.16%	5.32%	7.99%	5.45%	8.17%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	General Tier 2							
	Basic First \$350	Basic Over \$350	COL First \$350	COL Over \$350	Total First \$350	Total Over \$350	Prior Total First \$350	Prior Total Over \$350
16	3.79%	5.69%	0.81%	1.22%	4.60%	6.91%	4.63%	6.95%
17	3.79%	5.69%	0.81%	1.22%	4.60%	6.91%	4.63%	6.95%
18	3.79%	5.69%	0.81%	1.22%	4.60%	6.91%	4.63%	6.95%
19	3.79%	5.69%	0.81%	1.22%	4.60%	6.91%	4.63%	6.95%
20	3.79%	5.69%	0.81%	1.22%	4.60%	6.91%	4.63%	6.95%
21	3.82%	5.73%	0.83%	1.25%	4.65%	6.98%	4.68%	7.02%
22	3.85%	5.77%	0.85%	1.28%	4.70%	7.05%	4.73%	7.09%
23	3.87%	5.81%	0.87%	1.31%	4.75%	7.12%	4.77%	7.16%
24	3.90%	5.85%	0.89%	1.34%	4.79%	7.19%	4.81%	7.22%
25	3.92%	5.88%	0.92%	1.38%	4.84%	7.26%	4.85%	7.28%
26	3.93%	5.90%	0.95%	1.42%	4.88%	7.32%	4.89%	7.34%
27	3.95%	5.92%	0.97%	1.46%	4.92%	7.38%	4.93%	7.39%
28	3.96%	5.93%	0.99%	1.49%	4.95%	7.42%	4.96%	7.44%
29	3.96%	5.94%	1.02%	1.53%	4.98%	7.47%	4.99%	7.48%
30	3.96%	5.95%	1.05%	1.57%	5.01%	7.52%	5.02%	7.52%
31	4.05%	6.07%	1.07%	1.61%	5.12%	7.68%	5.12%	7.68%
32	4.13%	6.19%	1.10%	1.65%	5.23%	7.84%	5.23%	7.84%
33	4.21%	6.32%	1.12%	1.68%	5.33%	8.00%	5.34%	8.01%
34	4.30%	6.45%	1.15%	1.72%	5.45%	8.17%	5.45%	8.18%
35	4.39%	6.58%	1.17%	1.76%	5.56%	8.34%	5.57%	8.35%
36	4.48%	6.72%	1.21%	1.82%	5.69%	8.54%	5.69%	8.53%
37	4.57%	6.86%	1.25%	1.87%	5.82%	8.73%	5.82%	8.73%
38	4.67%	7.00%	1.29%	1.93%	5.96%	8.93%	5.94%	8.92%
39	4.77%	7.15%	1.33%	1.99%	6.09%	9.14%	6.07%	9.11%
40	4.87%	7.30%	1.36%	2.04%	6.23%	9.34%	6.21%	9.32%
41	4.97%	7.46%	1.39%	2.08%	6.36%	9.54%	6.33%	9.50%
42	5.08%	7.62%	1.41%	2.11%	6.48%	9.73%	6.46%	9.69%
43	5.19%	7.78%	1.43%	2.14%	6.62%	9.92%	6.59%	9.89%
44	5.30%	7.96%	1.45%	2.17%	6.75%	10.13%	6.73%	10.09%
45	5.42%	8.14%	1.47%	2.20%	6.89%	10.34%	6.87%	10.30%
46	5.55%	8.33%	1.49%	2.24%	7.04%	10.57%	7.01%	10.52%
47	5.68%	8.52%	1.51%	2.27%	7.19%	10.79%	7.16%	10.73%
48	5.81%	8.71%	1.53%	2.30%	7.34%	11.01%	7.31%	10.96%
49	5.93%	8.90%	1.55%	2.33%	7.48%	11.23%	7.45%	11.17%
50	6.05%	9.08%	1.57%	2.35%	7.62%	11.43%	7.58%	11.36%
51	6.15%	9.23%	1.58%	2.37%	7.73%	11.60%	7.69%	11.53%
52	6.23%	9.34%	1.59%	2.38%	7.81%	11.72%	7.77%	11.65%
53	6.25%	9.37%	1.59%	2.38%	7.83%	11.75%	7.78%	11.67%
54	6.23%	9.35%	1.57%	2.36%	7.81%	11.71%	7.75%	11.63%
55	6.20%	9.30%	1.55%	2.33%	7.76%	11.63%	7.69%	11.53%
56	6.17%	9.25%	1.48%	2.22%	7.65%	11.47%	7.60%	11.39%
57	6.14%	9.21%	1.40%	2.10%	7.54%	11.31%	7.46%	11.19%
58	6.27%	9.41%	1.31%	1.96%	7.58%	11.37%	7.60%	11.40%
59+	6.47%	9.71%	1.25%	1.88%	7.73%	11.59%	7.78%	11.67%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	General Tier 4							
	Basic First \$350	Basic Over \$350	COL First \$350	COL Over \$350	Total First \$350	Total Over \$350	Prior Total First \$350	Prior Total Over \$350
16	2.19%	3.28%	1.06%	1.59%	3.25%	4.87%	3.32%	4.98%
17	2.19%	3.28%	1.06%	1.59%	3.25%	4.87%	3.32%	4.98%
18	2.19%	3.28%	1.06%	1.59%	3.25%	4.87%	3.32%	4.98%
19	2.19%	3.28%	1.06%	1.59%	3.25%	4.87%	3.32%	4.98%
20	2.19%	3.28%	1.06%	1.59%	3.25%	4.87%	3.32%	4.98%
21	2.20%	3.30%	1.09%	1.63%	3.28%	4.93%	3.36%	5.05%
22	2.21%	3.31%	1.11%	1.67%	3.32%	4.98%	3.40%	5.10%
23	2.21%	3.32%	1.15%	1.72%	3.36%	5.04%	3.43%	5.14%
24	2.21%	3.32%	1.17%	1.76%	3.39%	5.08%	3.46%	5.19%
25	2.21%	3.32%	1.21%	1.81%	3.42%	5.13%	3.49%	5.24%
26	2.26%	3.39%	1.24%	1.86%	3.50%	5.25%	3.56%	5.34%
27	2.31%	3.46%	1.27%	1.91%	3.58%	5.37%	3.63%	5.44%
28	2.35%	3.53%	1.30%	1.95%	3.65%	5.48%	3.70%	5.55%
29	2.40%	3.60%	1.33%	1.99%	3.73%	5.59%	3.77%	5.66%
30	2.45%	3.68%	1.36%	2.04%	3.81%	5.72%	3.85%	5.77%
31	2.50%	3.75%	1.39%	2.09%	3.90%	5.84%	3.92%	5.88%
32	2.56%	3.83%	1.41%	2.12%	3.97%	5.95%	4.00%	6.00%
33	2.61%	3.91%	1.44%	2.16%	4.05%	6.07%	4.08%	6.12%
34	2.66%	3.99%	1.47%	2.21%	4.14%	6.20%	4.17%	6.26%
35	2.72%	4.08%	1.50%	2.25%	4.22%	6.33%	4.27%	6.40%
36	2.78%	4.17%	1.55%	2.33%	4.33%	6.50%	4.36%	6.54%
37	2.84%	4.26%	1.60%	2.40%	4.44%	6.66%	4.46%	6.70%
38	2.90%	4.35%	1.65%	2.47%	4.55%	6.82%	4.56%	6.84%
39	2.96%	4.45%	1.69%	2.54%	4.66%	6.99%	4.67%	7.01%
40	3.03%	4.55%	1.73%	2.60%	4.76%	7.15%	4.78%	7.17%
41	3.10%	4.65%	1.76%	2.64%	4.86%	7.29%	4.88%	7.31%
42	3.18%	4.76%	1.79%	2.68%	4.96%	7.44%	4.97%	7.46%
43	3.25%	4.88%	1.81%	2.72%	5.07%	7.60%	5.08%	7.62%
44	3.33%	5.00%	1.83%	2.75%	5.17%	7.75%	5.17%	7.76%
45	3.41%	5.11%	1.86%	2.79%	5.27%	7.90%	5.27%	7.91%
46	3.48%	5.22%	1.87%	2.81%	5.36%	8.03%	5.36%	8.05%
47	3.56%	5.34%	1.89%	2.84%	5.45%	8.18%	5.46%	8.18%
48	3.61%	5.41%	1.91%	2.86%	5.51%	8.27%	5.52%	8.28%
49	3.63%	5.45%	1.92%	2.88%	5.55%	8.33%	5.55%	8.32%
50	3.61%	5.42%	1.92%	2.88%	5.53%	8.30%	5.53%	8.29%
51	3.60%	5.39%	1.91%	2.87%	5.51%	8.26%	5.51%	8.27%
52	3.58%	5.37%	1.91%	2.86%	5.48%	8.23%	5.46%	8.19%
53	3.45%	5.18%	1.87%	2.81%	5.33%	7.99%	5.36%	8.03%
54+	3.44%	5.15%	1.84%	2.76%	5.28%	7.91%	5.30%	7.96%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX E – MEMBER CONTRIBUTION RATES

General Tier 5								
Entry	Basic	Basic	COL	COL	Total	Total	Prior Total	Prior Total
Age	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350	First \$350	Over \$350
16	4.38%	6.57%	1.06%	1.59%	5.44%	8.16%	5.41%	8.11%
17	4.38%	6.57%	1.06%	1.59%	5.44%	8.16%	5.41%	8.11%
18	4.38%	6.57%	1.06%	1.59%	5.44%	8.16%	5.41%	8.11%
19	4.38%	6.57%	1.06%	1.59%	5.44%	8.16%	5.41%	8.11%
20	4.38%	6.57%	1.06%	1.59%	5.44%	8.16%	5.41%	8.11%
21	4.40%	6.59%	1.09%	1.63%	5.48%	8.22%	5.46%	8.19%
22	4.41%	6.62%	1.11%	1.67%	5.52%	8.29%	5.50%	8.25%
23	4.42%	6.63%	1.15%	1.72%	5.57%	8.35%	5.54%	8.31%
24	4.43%	6.64%	1.17%	1.76%	5.60%	8.40%	5.57%	8.35%
25	4.43%	6.64%	1.21%	1.81%	5.64%	8.45%	5.60%	8.41%
26	4.52%	6.78%	1.24%	1.86%	5.76%	8.64%	5.72%	8.58%
27	4.61%	6.92%	1.27%	1.91%	5.89%	8.83%	5.83%	8.74%
28	4.71%	7.06%	1.30%	1.95%	6.01%	9.01%	5.94%	8.92%
29	4.81%	7.21%	1.33%	1.99%	6.13%	9.20%	6.06%	9.09%
30	4.90%	7.36%	1.36%	2.04%	6.26%	9.40%	6.18%	9.28%
31	5.01%	7.51%	1.39%	2.09%	6.40%	9.60%	6.31%	9.46%
32	5.11%	7.67%	1.41%	2.12%	6.52%	9.79%	6.44%	9.66%
33	5.22%	7.83%	1.44%	2.16%	6.66%	9.99%	6.57%	9.85%
34	5.33%	7.99%	1.47%	2.21%	6.80%	10.20%	6.71%	10.07%
35	5.44%	8.16%	1.50%	2.25%	6.94%	10.41%	6.86%	10.29%
36	5.55%	8.33%	1.55%	2.33%	7.11%	10.66%	7.01%	10.51%
37	5.67%	8.51%	1.60%	2.40%	7.27%	10.91%	7.17%	10.75%
38	5.80%	8.70%	1.65%	2.47%	7.44%	11.17%	7.33%	10.99%
39	5.93%	8.89%	1.69%	2.54%	7.62%	11.43%	7.50%	11.24%
40	6.06%	9.09%	1.73%	2.60%	7.79%	11.69%	7.67%	11.50%
41	6.20%	9.30%	1.76%	2.64%	7.96%	11.94%	7.83%	11.75%
42	6.35%	9.53%	1.79%	2.68%	8.14%	12.21%	8.00%	12.00%
43	6.51%	9.76%	1.81%	2.72%	8.32%	12.48%	8.18%	12.27%
44	6.66%	10.00%	1.83%	2.75%	8.50%	12.75%	8.35%	12.52%
45	6.82%	10.22%	1.86%	2.79%	8.68%	13.01%	8.52%	12.78%
46	6.96%	10.45%	1.87%	2.81%	8.84%	13.26%	8.68%	13.02%
47	7.11%	10.67%	1.89%	2.84%	9.01%	13.51%	8.84%	13.27%
48	7.22%	10.82%	1.91%	2.86%	9.12%	13.68%	8.95%	13.43%
49	7.27%	10.90%	1.92%	2.88%	9.19%	13.78%	9.01%	13.51%
50	7.23%	10.84%	1.92%	2.88%	9.15%	13.72%	8.97%	13.46%
51	7.19%	10.79%	1.91%	2.87%	9.10%	13.66%	8.94%	13.40%
52	7.15%	10.73%	1.91%	2.86%	9.06%	13.59%	8.87%	13.30%
53	6.91%	10.36%	1.87%	2.81%	8.78%	13.17%	8.71%	13.07%
54+	6.87%	10.31%	1.84%	2.76%	8.71%	13.07%	8.64%	12.96%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	Safety Tier 2							
	Basic First \$350	Basic Over \$350	COL First \$350	COL Over \$350	Total First \$350	Total Over \$350	Prior Total First \$350	Prior Total Over \$350
18	5.55%	8.32%	2.05%	3.08%	7.60%	11.40%	6.65%	9.98%
19	5.55%	8.32%	2.05%	3.08%	7.60%	11.40%	6.65%	9.98%
20	5.55%	8.32%	2.05%	3.08%	7.60%	11.40%	6.65%	9.98%
21	5.64%	8.46%	2.12%	3.18%	7.76%	11.64%	6.83%	10.24%
22	5.74%	8.61%	2.15%	3.23%	7.89%	11.84%	6.98%	10.47%
23	5.83%	8.75%	2.19%	3.29%	8.03%	12.04%	7.14%	10.70%
24	5.93%	8.90%	2.23%	3.34%	8.16%	12.24%	7.30%	10.94%
25	6.03%	9.05%	2.25%	3.38%	8.29%	12.43%	7.46%	11.19%
26	6.14%	9.21%	2.28%	3.42%	8.42%	12.63%	7.62%	11.42%
27	6.24%	9.36%	2.30%	3.45%	8.54%	12.81%	7.78%	11.67%
28	6.35%	9.52%	2.32%	3.48%	8.67%	13.00%	7.96%	11.94%
29	6.46%	9.68%	2.33%	3.50%	8.79%	13.18%	8.13%	12.20%
30	6.57%	9.85%	2.37%	3.56%	8.94%	13.41%	8.31%	12.46%
31	6.68%	10.02%	2.41%	3.62%	9.09%	13.64%	8.50%	12.75%
32	6.80%	10.20%	2.46%	3.69%	9.26%	13.89%	8.69%	13.03%
33	6.92%	10.38%	2.50%	3.75%	9.42%	14.13%	8.88%	13.32%
34	7.04%	10.56%	2.53%	3.80%	9.58%	14.36%	9.07%	13.61%
35	7.17%	10.75%	2.55%	3.82%	9.72%	14.57%	9.27%	13.91%
36	7.30%	10.95%	2.56%	3.84%	9.86%	14.79%	9.46%	14.19%
37	7.44%	11.16%	2.56%	3.84%	10.00%	15.00%	9.64%	14.47%
38	7.58%	11.37%	2.55%	3.83%	10.13%	15.20%	9.84%	14.76%
39	7.72%	11.58%	2.55%	3.83%	10.27%	15.41%	10.03%	15.04%
40	7.85%	11.78%	2.55%	3.83%	10.40%	15.61%	10.21%	15.32%
41	7.98%	11.98%	2.53%	3.79%	10.51%	15.77%	10.34%	15.52%
42	8.12%	12.17%	2.51%	3.77%	10.63%	15.94%	10.46%	15.69%
43	8.19%	12.29%	2.50%	3.75%	10.69%	16.04%	10.55%	15.83%
44	8.21%	12.32%	2.49%	3.74%	10.71%	16.06%	10.61%	15.91%
45	8.19%	12.28%	2.49%	3.74%	10.68%	16.02%	10.61%	15.91%
46	8.15%	12.22%	2.51%	3.77%	10.66%	15.99%	10.58%	15.86%
47	8.11%	12.16%	2.53%	3.79%	10.63%	15.95%	10.49%	15.73%
48	8.28%	12.42%	2.55%	3.82%	10.83%	16.24%	10.70%	16.06%
49+	8.55%	12.83%	2.56%	3.84%	11.11%	16.67%	10.97%	16.45%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX E – MEMBER CONTRIBUTION RATES

Entry Age	Safety Tier 5							
	Basic First \$350	Basic Over \$350	COL First \$350	COL Over \$350	Total First \$350	Total Over \$350	Prior Total First \$350	Prior Total Over \$350
18	5.87%	8.80%	2.97%	4.46%	8.84%	13.26%	7.54%	11.31%
19	5.87%	8.80%	2.97%	4.46%	8.84%	13.26%	7.54%	11.31%
20	5.87%	8.80%	2.97%	4.46%	8.84%	13.26%	7.54%	11.31%
21	5.97%	8.95%	3.07%	4.60%	9.04%	13.55%	7.74%	11.61%
22	6.07%	9.10%	3.11%	4.67%	9.18%	13.77%	7.91%	11.87%
23	6.17%	9.26%	3.16%	4.74%	9.33%	14.00%	8.08%	12.12%
24	6.28%	9.42%	3.20%	4.80%	9.48%	14.22%	8.25%	12.38%
25	6.38%	9.58%	3.23%	4.84%	9.61%	14.42%	8.43%	12.64%
26	6.49%	9.74%	3.25%	4.88%	9.75%	14.62%	8.60%	12.91%
27	6.60%	9.90%	3.27%	4.91%	9.88%	14.81%	8.78%	13.17%
28	6.71%	10.07%	3.29%	4.93%	10.00%	15.00%	8.97%	13.45%
29	6.83%	10.24%	3.29%	4.93%	10.12%	15.17%	9.14%	13.71%
30	6.95%	10.42%	3.29%	4.93%	10.23%	15.35%	9.29%	13.94%
31	7.07%	10.60%	3.29%	4.94%	10.36%	15.54%	9.44%	14.15%
32	7.19%	10.79%	3.31%	4.96%	10.50%	15.75%	9.62%	14.44%
33	7.32%	10.98%	3.31%	4.97%	10.63%	15.95%	9.82%	14.73%
34	7.45%	11.17%	3.33%	4.99%	10.78%	16.16%	10.02%	15.02%
35	7.58%	11.38%	3.34%	5.01%	10.92%	16.39%	10.22%	15.34%
36	7.73%	11.59%	3.25%	4.87%	10.97%	16.46%	10.42%	15.63%
37	7.87%	11.81%	3.24%	4.86%	11.11%	16.67%	10.63%	15.95%
38	8.03%	12.04%	3.23%	4.84%	11.25%	16.88%	10.86%	16.29%
39	8.19%	12.29%	3.21%	4.81%	11.40%	17.10%	11.08%	16.62%
40	8.35%	12.52%	3.19%	4.78%	11.53%	17.30%	11.30%	16.95%
41	8.49%	12.74%	3.14%	4.71%	11.63%	17.45%	11.41%	17.11%
42	8.65%	12.98%	3.10%	4.65%	11.75%	17.63%	11.51%	17.27%
43	8.81%	13.22%	3.07%	4.61%	11.89%	17.83%	11.62%	17.43%
44	8.98%	13.47%	3.05%	4.57%	12.03%	18.04%	11.74%	17.61%
45	8.96%	13.44%	3.03%	4.54%	11.99%	17.98%	11.80%	17.71%
46	8.95%	13.42%	3.03%	4.55%	11.98%	17.97%	11.83%	17.75%
47	8.90%	13.35%	3.04%	4.56%	11.94%	17.91%	11.81%	17.72%
48	8.60%	12.90%	3.05%	4.57%	11.64%	17.47%	11.60%	17.40%
49+	8.55%	12.83%	3.05%	4.58%	11.60%	17.41%	11.48%	17.21%

STANISLAUS COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
ACTUARIAL VALUATION REPORT AS OF JUNE 30, 2023

APPENDIX E – MEMBER CONTRIBUTION RATES

	PEPRA Rates			
	General		Safety	
	County and Former County	Ceres and Other Districts	County and Former County	Ceres and Other Districts
Current	8.53%	9.31%	13.30%	14.73%
Prior	8.45%	9.14%	13.15%	14.77%
Assumptions:				
Interest:	6.75%			
Salary:	2021 Valuation Scale (Service based, includes wage inflation at 2.75%)			
Mortality:	Because the PEPRA contributions rates are based on 50% of the actual Normal Cost, the mortality rates are the same as those used in the Actuarial Valuation (CalPERS mortality tables with adjustments based on StanCERA experience projected generationally from 2017 using 80% of Scale MP-2020)			



Classic Values, Innovative Advice

February 27, 2024

Retirement Board Agenda Item

TO: Retirement Board

FROM: Alaine Taa, Clerk of the Board

- I. SUBJECT: Due Diligence Meeting
- II. ITEM NUMBER: 10.a
- III. ITEM TYPE: Information Only
- IV. STAFF RECOMMENDATION: N/A
- V. ANALYSIS:

The Due Diligence Committee met on February 21, 2024. Items discussed during the meeting:

- a. Discussion and planning for the coming year. Tom Stadelmaier reviewed Due Diligence Committee Bylaws and Committee responsibilities.
- b. Staff update on 2024 Due Diligence activities. Due Diligence Activities discussed.
- c. Set up of tentative dates for 2024 Due Diligence Committee meetings. Future meeting dates will be scheduled in April and July 2024.

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

StanCERA**Due Diligence Activities 2024****Activities**

#	Activity	Tentative Timeframe	Notes
1	US TIPS Manager and Implementation	Feb (Board Update/Decision) May-June (implement)	Staff preparing recommendation
2	Liquid Absolute Return Manager and Implementation	May (Board Update/Decision) July-August (implement)	Staff and NEPC completing research and discovery
3	Public Credit Manager and Implementation	Aug (Board Update/Decision) Oct-Nov (implement)	Staff and NEPC research and discovery to start in 2Q
4	Private Market Performance and Fee Reporting Review	May-Aug (Board Update) Oct (implement)	Staff working with NEPC, Verus, Northern Trust and Workiva/accounting to identify existing and potential new replacement reports with goal to improve reports and make them more efficient to produce and maintain
5	Investment Manager Monitoring, Manager Review and Potential Site Visits (IPS Directive #4)	TBD	Potential targets include Dodge and Cox, Verus, Genstar and other Bay Area providers. Other potential reviews include Graham, Fidelity and BlackRock. Staff to prepare due diligence questionnaires.
6	Other Vendor Review, IT Data Security Review	TBD	Staff to review. Likely a target activity for 2025.
7	Private Markets Consultant Services Review	3Q-4Q	Staff recommends a separate committee for this to review ALL private markets consulting. Committee and Board should consider option to hire a consultant to assist with the search.

StanCERA**Due Diligence Activities 2024**

Planned Meetings

Due Diligence Meeting Purpose	Timeframe	Actual Tentative Date
Planning and TIPS Update	Feb	2/21/2024
Liquid Absolute Return Manager Update, Reporting Review Update, Site Visit Planning	Apr	TBD
Public Credit Manager Update	July	TBD
Due Diligence Site Visits	Summer-Fall	TBD