Merced County Employees' Retirement Association

AGENDA
RETIREMENT BOARD MEETING

Thursday, January 25, 2024, 8:30 A.M.

Location: Merced County Department of Public Health
260 E. 15th Street, Merced, CA 95341
Auditorium
Zoom Conference Information:
https://us06web.zoom.us/j/93030195748?pwd=NGhFeGltSVhaSTlsK2JGWE83TVFydz09
Dial In Number: 669-900-6833, MEETING ID: 930 3019 5748, PASSCODE: 095484
(For use only if Zoom Connection Malfunctions)
Telephone Number: 1-310-372-7549, Conference Code: 975839

1. **Call to Order- 8:30 A.M.**

The Retirement Board may discuss and take action on the following:

2. **Roll Call**

3. **Teleconference Request**
Trustee Teleconference Request (Govt. Code §54953(f)(2)(A)(i)).

4. **Approval of Minutes** – December 14, 2023.

5. **Public Comment**
Members of the public may comment on any item under the Board's jurisdiction including items on the Board's agenda. Matters presented under this item will not be discussed or acted upon by the Board at this time. Persons addressing the Board will be limited to a maximum of five (5) minutes in total. Please state your name for the record.

6. **Consent Calendar**
Consent matters are expected to be routine and may be acted upon, without discussion, as one unit. If an item is taken off the Consent Calendar for discussion, it will be heard as the last item(s) of the Open Session as appropriate:
    a. Retirements: Pursuant to Govt. Code § 31663.25 or § 31672.

Name	Effective Date
Anaya, Yanira	12/29/2023
Battle, Regina	12/20/2023
Beeler, Shari	12/29/2023
Clark, Tracey	01/14/2024
Copus, Deborah	01/10/2024
Cortez, John	12/29/2023
De Los Reyes, Charina	01/11/2024
Gray, Elwyn	12/30/2023
Haley, Teresa	12/30/2023
Hertfelder, Dana	01/03/2024
Holder, Denise	12/30/2023
Jennings, Janet	12/14/2023
Libby, Denise	01/03/2024
Pang Her, Jean	12/30/2023
Peguero, Annette	12/30/2023

Phanith, Tim	01/13/2024
Solis, Karrie	01/08/2024
Stout, David	01/10/2024
Sullivan, Desri	12/31/2023
Storer, Bruce	12/31/2023
Swafford, Frederick (Service Connected Disability)	09/11/2023

b. Monthly and Quarterly Budget Reports Submitted.
c. SACRS Board nomination timelines (information only).

7. Closed Session

As provided in the Ralph M. Brown Act, Government Code sections 54950 et seq., the Board may meet in closed session with members of its staff, county employees and its attorneys. These sessions are not open to the public and may not be attended by members of the public. The matters the Board will meet on in closed session are identified below. Any public reports of action taken in the closed session will be made in accordance with Government Code sections 54957.1:

a. Public Employment: Chief Investment Officer (Govt. Code 54957).

8. Report Out of Closed Session

9. Open Session

a. Discussion and possible action to adopt the proposed employer and employee contribution rates as of June 30, 2024 by MercedCERA's Actuarial Firm https://presentation.cheiron.us/presentation/view/Merced2023AVR?token=5ioc – Graham Schmidt, Cheiron.
b. Discussion and possible action to adopt the Cost of Living Adjustment (COLA) as recommended by Cheiron for Tier 1 members to get a COLA of at least 2.50%, with Tier 1 retirees who retired prior to April 2, 2023 receive an increase of 3.00%, due to their carry-over balances as of April 1, 2023, with the remaining carry-over balances reduced by 0.5% (the amount of the COLA increase in excess of 2.50%) – Graham Schmidt, Cheiron.
c. Discussion and possible action to adopt the audit report for MercedCERA and adopt the Annual Comprehensive Financial Report (ACFR) – UHY.
d. Discussion and possible action or direction on Meketa's monthly performance report, education timeline and investment survey discussion – Meketa Group.
e. Chair to appoint budget ad hoc subcommittee to work with staff on FY 2024/2025 budget – Chair.
f. Discussion on update of new headquarters building – Staff.

10. Information Sharing & Agenda Item Requests

- MercedCERA Board Meeting space through May.

11. Adjournment

Merced County Employees' Retirement Association

The Agenda and supporting documentation, including any material that was submitted to the Merced County Employees' Retirement Association Board after the distribution of the Agenda, are available online at www.mercedcera.com.

All supporting documentation for Agenda items, including any material that was submitted to the retirement board after the distribution of the Agenda, is also available for public inspection Monday through Friday from 8:00 a.m. to 5:00 p.m. at the administrative office for the Merced County Employees' Retirement Association located at 3199 M Street, Merced, California 95348.

Persons who require accommodation for a disability in order to review an agenda, or to participate in a meeting of the Merced County Employees' Retirement Association per the American Disabilities Act (ADA), may obtain assistance by requesting such accommodation in writing addressed to Merced County Employees' Association, 3199 M Street, Merced, CA 95348 or telephonically by calling (209) 726-2724. Any such request for accommodation should be made at least 48 hours prior to the scheduled meeting for which assistance is requested.

Persons who require accommodation for any audio, visual or other disability or Spanish or Hmong interpretation in order to review an agenda, or to participate in a meeting of the Merced County Employees' Retirement Association per the American Disabilities Act (ADA), may obtain assistance by requesting such accommodation. Please address your written request to Merced County Employees' Association, 3199 M Street, Merced, CA 95348 or telephonically by calling (209) 726-2724. Any such request for accommodation should be made at least 48 hours prior to the scheduled meeting for which assistance is requested.

Spanish and Hmong interpreters are available.

Interpretes de espanol y hmong estan disponibles.
Peb muaj tug paab txhais lug Mev hab Hmoob.

MERCED CERA

Merced County Employees' Retirement Association

MINUTES
RETIREMENT BOARD MEETING

Thursday, December 14, 2023, 8:30 A.M.

Location: Merced County Administration Building
2222 M Street, Merced, CA
Los Banos and Livingston Conference Rooms, Basement
Zoom Conference Information:
https://us06web.zoom.us/j/93030195748?pwd=NGhFeGltSVhaSTlsK2JGWE83TVFydz09
Dial In Number: 669-900-6833, MEETING ID: 930 3019 5748, PASSCODE: 095484
(For use only if Zoom Connection Malfunctions)
Telephone Number: 1-310-372-7549, Conference Code: 975839

1. **Call to Order- 8:34 A.M.**

2. **Roll Call**
Board Members Present: **Scott Johnston, Corrina Brown, Scott Silveira, Karen Adams, Alfonse Peterson, Ryan Paskin, Janey Cabral,** ***Absent:*** **Dave Ness, Michael Harris, and Aaron Rosenberg.** ***Counsel:*** **Tom Ebersole.** ***Staff:*** **Kristen Santos, Martha Sanchez Barboa, Mark Harman, Khue Xiong, Patrick Armendarez, Brenda Mojica, Monica Gallegos, Sheri Villagrana, Nikki Barraza, Kristy Barajas, Jennifer Figueroa and Marissa Coelho.**

3. **Teleconference Request**
Trustee Teleconference Request (Govt. Code §54953(f)(2)(A)(i)).
No Requests.

4. **Approval of Minutes** – November 9, 2023.
Change to Open Session Item 9c from "no discussion" to "no action".
Call for a 1st – Adams
Call for a 2nd – Peterson
Motion Passes 7/0

5. **Public Comment**
Members of the public may comment on any item under the Board's jurisdiction including items on the Board's agenda. Matters presented under this item will not be discussed or acted upon by the Board at this time. Persons addressing the Board will be limited to a maximum of five (5) minutes in total. Please state your name for the record.
Elizabeth Arroyo requested to speak regarding her disability case. She spoke during closed session.

6. **Consent Calendar**
Consent matters are expected to be routine and may be acted upon, without discussion, as one unit. If an item is taken off the Consent Calendar for discussion, it will be heard as the last item(s) of the Open Session as appropriate:
   a. Retirements: Pursuant to Govt. Code § 31663.25 or § 31672.

Name	Effective Date
Brooks, Roland – Non-Service Disability	06/18/2020
Cacho, Irene	11/11/2023
Campbell-Bohn, Danielle	12/03/2023
Cuaresma, Phillip	12/06/2023
Frontella, Joseph Jr.	11/25/2023

Hanson, JaLaunda	12/09/2023
Helfgott, Susan	12/02/2023
Nattrass, Socorro	12/02/2023
Sterrett, Valerie	12/04/2023
Votta, Maureen	12/02/2023
Whittemore, Jill	12/02/2023

b. Approve the interest crediting rate of 5.04477% annual rate, compounded semi-annually for December 31st for the active reserves and a 6.75% interest crediting rate for retired and employer reserves – Staff.

c. Monthly Budget Report Submitted.

Motion to approve the consent calendar as presented.
Call for a 1st – Johnston
Call for a 2nd – Cabral
Motion Passes 7/0

7. Closed Session

As provided in the Ralph M. Brown Act, Government Code sections 54950 et seq., the Board may meet in closed session with members of its staff, county employees and its attorneys. These sessions are not open to the public and may not be attended by members of the public. The matters the Board will meet on in closed session are identified below. Any public reports of action taken in the closed session will be made in accordance with Government Code sections 54957.1:

a. Discussion and possible action regarding investments (Govt. Code § 54956.81) in recommended funds by Cliffwater LLC.
b. Public Employment: Chief Investment Officer (Govt. Code 54957).
c. Disability Retirement Applications: Personnel exceptions (Govt. Code § 54957, 31532; Cal Const. art I § 1).
   1. Initial Disability Application Recommendation – Frederick Swafford
   2. Consideration of Hearing Officer Recommendation – Elizabeth Arroyo

8. Report Out of Closed Session-

a. The Board voted unanimously to approve the following:
   - **A commitment of up to $8 million to Carnelian Energy Fund V, LP, a private equity partnership focused on investing in small to mid-sized upstream oil and natural gas investments, subject to satisfactory legal negotiations and**
   - **A commitment of up to $9 million combined to Spark Capital VIII and Spark Capital Growth Fund V, L.P., private equity partnerships focused on venture capital investments in the internet, digital media and enterprise technology sectors, subject to satisfactory legal negotiations. The allocation is expected to be ($3 million) to Spark Capital VIII and ($6 million) to Spark Capital Growth Fund V, and commitments need to be made simultaneously to both funds.**

   Call for a 1st – Cabral
   Call for a 2nd – Peterson
   Motion Passes 7/0

b. Staff were given direction regarding the Chief Investment Officer position.
   Staff were given direction.

c. 1. In the disability case of Frederick Swafford, the Board voted unanimously to

approve a service-connected disability and to deny a non-service-connected disability to Mr. Swafford.
Call for a 1st – Brown
Call for a 2nd – Adams
Motion Passes 7/0

2. In the disability case of Elizabeth Arroyo, the Board voted unanimously to adopt the recommendation of the Administrative Hearing Officer's Recommendation and deny a service-connected disability and a non-service connected disability for Ms. Arroyo.
Call for a 1st – Adams
Call for a 2nd – Johnston
Trustee Brown recused herself from discussion and vote.
Motion Passes 6/0

Supervisor Silveira left at 9:56 A.M.

9. <u>Open Session</u>

a. Discussion and possible action to approve the recommended accounting method for new headquarter building located at 690 W 19th Street, Merced, CA - Staff.
Motion to approve the staff's recommended accounting methodology for the new headquarter building.
Call for a 1st – Adams
Call for a 2nd – Brown
Motion Passes 6/0

b. Discussion and possible action to approve granting Meketa Group the contract for General Investment Consultant services per RFP #7529 as recommended by the Investment Subcommittee – Staff.
Motion to approve the subcommittee's recommendation to grant Meketa Group the contract for General Investment Consultant services per RFP #7529.
Call for a 1st – Peterson
Call for a 2nd – Johnston
Motion Passes 6/0

c. Discussion on MercedCERA's quarterly alternative portfolio update with possible action on any and all funds and general partners – Cliffwater.
No action taken.

d. Discussion of Meketa's quarterly update on the MercedCERA portfolio with possible action on any managers or funds with discussions of market update and exposure to China among all funds – Meketa.
No action taken.

e. Discussion and possible action to approve pensionable pay code 459 - Homicide 5% Differential for Merced County – Staff.
Motion to approve the pensionable pay code 459-Homicide 5% Differential for Merced County.
Call for a 1st – Johnston
Call for a 2nd – Silveira

Motion Passes 7/0

f. Discussion of update on the new MercedCERA headquarters building – Staff. **Building site is experiencing theft and vandalism issues. Staff will look into getting quotes for security guard.**

10. Information Sharing & Agenda Item Requests

a. Board meeting rooms (Livingston and Los Banos Conference Rooms) will be unavailable January through April of 2024. Staff will be finding other rooms to accommodate the MercedCERA Board Meetings.
Staff in process of looking at BHRS and Public Health meeting rooms.

11. Adjournment at 11:18 A.M.

Accepted By,

Trustee Name/Position	Signature	Date
Ryan Paskin/Chair		
Al Peterson/Secretary		

Merced County Employees' Retirement Association
Non-Administrative Expenditures Report (Preliminary)
For the Month Ended December 31, 2023

Non-Administrative Expenses	Original Projection	Current Projection	Expended 12/2023	Expended YTD	Bal Remaining	% Exp YTD
21800 · Investment Expenses	**3,740,500.00**	**3,740,500.00**	**297,101.69**	**1,092,702.50**	**2,647,797.50**	**29%**
12/01/2023 UBS TPF - 2023-Q3 Mgt Fee			53,023.36			
12/05/2023 Cliffwater - 2023-11 Consulting Svcs			33,333.33			
12/06/2023 Mellon Dynamic - 2023-Q3 Mgt Fee			39,734.20			
12/07/2023 KKR GII II - Q3 Mgt Fees			12,222.00			
12/07/2023 GSO EOF - Operating Expense			811.00			
12/07/2023 GSO EOF - Credit Facility Paydown			52,505.00			
12/07/2023 GSO EOF - 2023-Q3 Mgt Fees			3,559.00			
12/07/2023 GSO EOF - Int Expense			2,686.00			
12/08/2023 Office Payroll 2023 PP 25 - Staff Investment Allocation			26,765.90			
12/18/2023 Nossaman - 2023-11 Ardian VI			1,957.50			
12/22/2023 Office Payroll 2023 PP 25 - Staff Investment Allocation			17,147.51			
12/27/2023 Cliffwater - 2023-12 Consulting Svcs			33,333.33			
12/28/2023 Nossaman - 2023-12 Wynnchurch CP VI			10,000.00			
12/31/2023 SSgA - 2023-Q3 Mgt Fee			10,023.56			
Total 21800 · Investment Expenses			**297,101.69**			
21802 · Actuarial Services	**175,000.00**	**175,000.00**	**30,620.00**	**30,620.00**	**144,380.00**	**17%**
Total 21802 · Actuarial Services			**-**			
21812 · Data Processing	**102,000.00**	**102,000.00**	**5,967.73**	**36,019.20**	**65,980.80**	**35%**
12/18/2023 2023-11 Cradlepoint Chgs			703.00			
12/18/2023 2023-11 IS Billing			4,961.62			
12/21/2023 Comcast - Jan 2024 Svcs			303.11			
Total 21812 · Data Processing			**5,967.73**			
21834 · Legal Services	**430,000.00**	**430,000.00**	**21,377.45**	**148,197.53**	**281,802.47**	**34%**
12/07/2023 2023-12 Cost Alloc - Co Couns			5,632.50			
12/14/2023 Nossaman - 2023-11 Gen Adv & Counsel			255.20			
12/18/2023 Ted Cabral - 2023-11 Legal Svcs			127.35			
12/18/2023 Ted Cabral - 2023-11 Legal Svcs			160.00			
12/18/2023 Ted Cabral - 2023-11 Legal Svcs			2,127.50			
12/18/2023 Ted Cabral - 2023-11 Legal Svcs			2,183.50			
12/18/2023 Ted Cabral - 2023-11 Legal Svcs			55.50			
12/18/2023 Ted Cabral - 2023-11 Legal Svcs			55.50			
12/18/2023 Ted Cabral - 2023-11 Legal Svcs			2,880.00			
12/18/2023 Ted Cabral - 2023-11 Legal Svcs			3,677.50			
12/18/2023 Ted Cabral - 2023-11 Legal Svcs			353.50			
12/21/2023 Hanson Bridgett - 2023-11 Legal Svcs			3,869.40			
Total 21834 · Legal Services			**21,377.45**			

Merced County Employees' Retirement Association
Non-Administrative Expenditures Report (Preliminary)
For the Month Ended December 31, 2023

Non-Administrative Expenses	Original Projection	Current Projection	Expended 12/2023	Expended YTD	Bal Remaining	% Exp YTD
21840 · Custodial Banking Services	**150,000.00**	**150,000.00**	**1,214.95**	**40,200.67**	**109,799.33**	**27%**
12/05/2023 2023-11 NT STIF Income - Cust Fee			1,214.95			
Total 21840 · Custodial Banking Services			**1,214.95**			
22350 · Software and Technology	**505,000.00**	**505,000.00**	**122,107.62**	**305,759.58**	**199,240.42**	**61%**
12/05/2023 Roger J Wyan Photography - Head Shots of Trustees & Staff for Website			1,125.00			
12/05/2023 CPAS - 2023-12 Hosting			6,107.00			
12/05/2023 PensionX - 2023-12 Svc Program & SLA			900.00			
12/18/2023 ODP Business Solutions - Wireless Keyboard			82.43			
12/18/2023 ODP Business Solutions - Wireless Mouse			56.31			
12/18/2023 FRSecure - 2023-Q4 FACT Engagement			11,193.00			
12/28/2023 CPAS - 2024-01 Hosting			6,107.00			
12/28/2023 CPAS - Annual Support - Current FY Portion			81,000.00			
12/28/2023 CPAS - Annual Maint Fee - Current FY Portion			14,536.88			
Total 22350 · Software and Technology			**121,107.62**			
Depreciation Expense	**250,000.00**	**250,000.00**	**-**	**-**	**250,000.00**	
Total Non-Administrative Items	**5,352,500.00**	**5,352,500.00**	**446,769.44**	**1,653,499.48**	**3,699,000.52**	**31%**

Merced County Employees' Retirement Association
Non-Administrative Expenses Prev Year Comparison (Preliminary)
12/31/2023

	December 2023	December 2022	$ Change	% Change
Expense				
62025 · Non-Administrative Expenses				
21800 · Investment Expenses	$ 297,101.69	$ 181,965.26	$ 115,136.43	63.27%
21812 · Data Processing	5,967.73	5,799.70	168.03	2.90%
21834 · Legal Services	21,377.45	37,324.98	(15,947.53)	-42.73%
21840 · Custodial Banking Services	1,214.95	1,827.64	(612.69)	-33.52%
22350 · Software and Technology	121,107.62	114,232.87	6,874.75	6.02%
Depreciation Expense	-	-	-	
Total 62025 · Non-Administrative Expenses	$ 446,769.44	$ 341,150.45	$ 105,618.99	30.96%

Merced County Employees' Retirement Association
Administrative Expenditures Report (Preliminary)
For the Month Ended December 31, 2023

	Administrative Budget	Adopted	Current Budget	Expended 12/2023	Expended YTD	Bal Remaining	% Exp YTD
10110 · Salaries & Wages		**1,975,000.00**	**1,975,000.00**	**105,106.42**	**575,779.30**	**1,399,220.70**	**29%**
12/08/2023	Office Payroll 2023 PP 25 - Administrative Allocation			69,981.26			
12/22/2023	Office Payroll 2023 PP 26 - Administrative Allocation			53,108.40			
Total 10110 · Salaries & Wages				**123,089.67**			
20600 · Communications		**9,800.00**	**9,800.00**	**749.36**	**3,765.92**	**6,034.08**	**38%**
12/05/2023	AT&T - 2023-11 CALNET			175.68			
12/18/2023	2023-11 Comm Chgs			326.82			
12/18/2023	2023-11 Cell Chgs			263.00			
Total 20600 · Communications				**765.50**			
20900 · Household Expense		**15,750.00**	**15,750.00**	**940.00**	**6,480.68**	**9,269.32**	**41%**
12/14/2023	Bob's Pest Control - 2023-11 Pest Control			40.00			
12/21/2023	Geil Enterprises - 2023-12 Janitorial Svcs			900.00			
Total 20900 · Household Expense				**940.00**			
21000 · Insurance - Other		**105,000.00**	**105,000.00**	**-**	**101,995.00**	**3,005.00**	**97%**
Total 21000 · Insurance - Other				**-**			
21301 · Maintenance Structure Improvement		**16,000.00**	**16,000.00**	**360.00**	**5,003.91**	**10,996.09**	**31%**
12/21/2023	Yard Masters - 2023-12 Landscape Svcs			360.00			
Total 21301 · Maintenance Structure Improvement				**360.00**			
21500 · Membership		**8,000.00**	**8,000.00**	**1,500.00**	**5,805.00**	**2,195.00**	**73%**
12/29/2023	CALAPRS - 2024 Membership Dues			1,500.00			
Total 21500 · Membership				**1,500.00**			
21700 · Office Expense - General		**19,275.00**	**19,275.00**	**2,262.08**	**11,233.43**	**8,041.57**	**58%**
12/06/2023	Emp Reimb for Mkt Items & Bus Cards			918.25			
12/07/2023	First Choice - 2023-10 Water Svcs			91.83			
12/08/2023	First Choice - 2023-12 Water Svcs			51.31			
12/18/2023	ODP Business Solutions - 2-Tier Rolling File Cab			552.04			
12/18/2023	2023-12 Stores Billing			648.65			
Total 21700 · Office Expense - General				**2,262.08**			
21710 · Office Expense - Postage		**20,000.00**	**20,000.00**	**3,065.23**	**9,426.56**	**10,573.44**	**47%**
12/18/2023	2023-11 Mailroom Chgs			3,065.23			
Total 21710 · Office Expense - Postage				**3,065.23**			
21805 · Audits		**65,000.00**	**65,000.00**	**-**	**-**	**65,000.00**	**0%**
Total 21805 · Audits				**-**			

Merced County Employees' Retirement Association
Administrative Expenditures Report (Preliminary)
For the Month Ended December 31, 2023

Administrative Budget		Adopted	Current Budget	Expended 12/2023	Expended YTD	Bal Remaining	% Exp YTD
21808 · Board Membership		**10,000.00**	**10,000.00**	**500.00**	**3,300.00**	**6,700.00**	**33%**
12/18/2023	2023-11 Board Mtg			100.00			
12/18/2023	2023-11 Board Mtg			100.00			
12/21/2023	2023-12 Board Mtg			100.00			
12/21/2023	2023-12 Board Mtg			100.00			
12/21/2023	2023-12 Board Mtg			100.00			
Total 21808 · Board Membership				**500.00**			
21900 · Publications & Legal Notices		**5,000.00**	**5,000.00**	**-**	**3,759.57**	**1,240.43**	**75%**
Total 21900 · Publications & Legal Notices				**-**			
22300 · Spec Dept Exp - Other		**750.00**	**750.00**	**-**	**38.99**	**711.01**	**5%**
Total 22300 · Spec Dept Exp - Other				**-**			
22310 · Election Expense		**30,000.00**	**30,000.00**	**5,541.41**	**5,541.41**	**24,458.59**	**18%**
12/08/2023	2023 MercedCERA Board Election			5,541.41			
Total 22310 · Election Expense				**5,541.41**			
22327 · Spec Dept Exp - Cost Allocation		**40,000.00**	**40,000.00**	**3,298.50**	**19,791.00**	**20,209.00**	**49%**
12/07/2023	2023-12 Cost Alloc			3,298.50			
Total 22327 · Spec Dept Exp - Cost Allocation				**3,298.50**			
22500 · Transportation & Travel		**250.00**	**250.00**	**-**	**52.86**	**197.14**	**21%**
Total 22500 · Transportation & Travel				**-**			
22505 · Trans & Travel - Staff Development		**4,000.00**	**4,000.00**		**149.00**	**3,851.00**	**4%**
Total 22505 · Trans & Travel - Staff Development				**-**			
22515 · Trans & Travel - In State		**40,000.00**	**40,000.00**	**6,075.71**	**14,898.15**	**25,101.85**	**37%**
12/05/2023	Benefits RT - Reg Fee			300.00			
12/05/2023	Travel Reimb - SACRS Fall Conf			1,722.08			
12/05/2023	Travel Reimb - Nossaman SF Forum			984.15			
12/08/2023	Travel Reimb - Nossaman LA Forum			516.97			
12/12/2023	Travel Reimb - CALAPRS Administrator's Institute			183.99			
12/15/2023	Travel Reimb - CALAPRS Principles of Pension Governance			536.66			
12/27/2023	CALAPRS - Benefits RT Reg Fee			100.00			
12/27/2023	CALAPRS - Retirement Plan Admin Course			100.00			
12/27/2023	CALAPRS - Retirement Plan Admin Course			100.00			
12/27/2023	CALAPRS - Communications RT Reg Fee			100.00			
12/27/2023	CALAPRS - Benefits RT Reg Fee			150.00			
12/27/2023	CALAPRS - Advanced Retirement Plan Admin Course Reg Fee			200.00			
12/28/2023	Travel Reimb - SACRS Fall Conf			1,081.86			
Total 22515 · Trans & Travel - In State				**6,075.71**			

Merced County Employees' Retirement Association
Administrative Expenditures Report (Preliminary)
For the Month Ended December 31, 2023

Administrative Budget		Adopted	Current Budget	Expended 12/2023	Expended YTD	Bal Remaining	% Exp YTD
22516 · Trans & Travel - Out of State		**7,500.00**	**7,500.00**	**1,440.77**	**3,481.31**	**4,018.69**	**46%**
Total 22516 · Trans & Travel - Out of State				**-**			
22600 · Utilities		**20,000.00**	**20,000.00**	**1,118.27**	**8,800.86**	**11,199.14**	**44%**
12/08/2023	PG&E - Nov 2023 Svcs			864.24			
12/14/2023	City of Merced - Nov 2023 WS&G			254.03			
Total 22600 · Utilities				**1,118.27**			
Depreciation Expense		**27,000.00**	**27,000.00**	**-**	**-**	**27,000.00**	
Total Administrative Budget		**2,418,325.00**	**2,418,325.00**	**148,516.37**	**779,302.95**	**1,639,022.05**	**32%**

Merced County Employees' Retirement Association
Quarterly Expense Report (Preliminary)
For the Fiscal Quarter Ended December 31, 2023

Non-Administrative Projection

		Current Projection	Q1 Expended	Q1 %	Q2 Expended	Q2 %	Total Expended	Remaining Projected	% Exp
21800	Investment Expenses	$ 3,740,500.00	$ 211,914.69	6%	$ 880,787.81	24%	$ 1,092,702.50	$ 2,647,797.50	29%
21802	Actuarial Services	175,000.00	-	0%	30,620.00	17%	30,620.00	144,380.00	17%
21812	Data Processing	102,000.00	17,892.45	18%	18,126.75	18%	36,019.20	65,980.80	35%
21834	Legal Services	430,000.00	58,271.39	14%	89,926.14	21%	148,197.53	281,802.47	34%
21840	Custodial Banking Services	150,000.00	5,624.75	4%	34,575.92	23%	40,200.67	109,799.33	27%
22350	Software & Technology	505,000.00	149,237.34	30%	156,522.24	31%	305,759.58	199,240.42	61%
	Depreciation Expense	250,000.00	-	0%	-	0%	-	250,000.00	0%
Total Non-Administrative Items		$ 5,352,500.00	$ 442,940.62	8%	$ 1,210,558.86	23%	$ 1,653,499.48	$ 3,699,000.52	31%

Administrative Budget

		Current Appropriation	Q1 Expended	Q1 %	Q2 Expended	Q2 %	Total Expended	Remaining Appropriation	% Exp
10110	Salaries & Wages	$ 1,975,000.00	$ 260,387.87	13%	$ 315,391.43	16%	$ 575,779.30	$ 1,399,220.70	29%
20600	Communications	9,800.00	1,502.26	15%	2,263.66	23%	3,765.92	6,034.08	38%
20900	Household Expense	15,750.00	3,547.12	23%	2,933.56	19%	6,480.68	9,269.32	41%
21000	Insurance-Other	105,000.00	101,995.00	97%	-	0%	101,995.00	3,005.00	97%
21301	Maintenance Structure Improvement	16,000.00	1,804.00	11%	3,199.91	20%	5,003.91	10,996.09	31%
21500	Membership	8,000.00	4,000.00	50%	1,805.00	23%	5,805.00	2,195.00	73%
21700	Office Expense-General	19,275.00	7,000.66	36%	4,232.77	22%	11,233.43	8,041.57	58%
21710	Office Expense-Postage	20,000.00	3,208.60	16%	6,217.96	31%	9,426.56	10,573.44	47%
21805	Audits	65,000.00	-	0%	-	0%	-	65,000.00	0%
21808	Board Membership	10,000.00	1,400.00	14%	1,900.00	19%	3,300.00	6,700.00	33%
21900	Publications & Legal Notices	5,000.00	3,759.57	75%	-	0%	3,759.57	1,240.43	75%
22300	Spec Dept Expense-Other	750.00	38.99	5%	-	0%	38.99	711.01	5%
22310	Election Expense	30,000.00	-	0%	5,541.41	18%	5,541.41	24,458.59	18%
22327	Spec Dept Exp-Cost Allocation	40,000.00	9,895.50	25%	9,895.50	25%	19,791.00	20,209.00	49%
22500	Transportation & Travel	250.00	-	0%	52.86	21%	52.86	197.14	21%
22505	Trans & Travel-Staff Development	4,000.00	149.00	4%	-	0%	149.00	3,851.00	4%
22515	Trans & Travel-In State	40,000.00	150.00	0%	14,748.15	37%	14,898.15	25,101.85	37%
22516	Trans & Travel-Out Of State	7,500.00	2,040.54	27%	1,440.77	19%	3,481.31	4,018.69	46%
22600	Utilities	20,000.00	4,046.94	20%	4,753.92	24%	8,800.86	11,199.14	44%
	Depreciation Expense	27,000.00	-	0%	-	0%	-	27,000.00	0%
Total Administrative Budget		$ 2,418,325.00	$ 404,926.05	17%	$ 374,376.90	15%	$ 779,302.95	$ 1,639,022.05	32%
Total MercedCERA		$ 7,770,825.00	$ 847,866.67	11%	$ 1,584,935.76	20%	$ 2,432,802.43	$ 5,338,022.57	31%

Merced County Employees' Retirement Association
Non-Admin Expenses Prev Year Comparison (Preliminary)
For the Fiscal Quarter Ended December 31, 2023

	Oct - Dec 23	Oct - Dec 22	$ Change	% Change
Expense				
62025 · Non-Administrative Expenses				
21800 · Investment Expenses				
IED0003 Mellon LC SIF	13,929.40	11,602.67	2,326.73	20.05%
IED0004 Mellon Dynamic	39,734.20	53,544.95	(13,810.75)	-25.79%
IEE0006 Acadian Ex US SCF	31,004.00	28,263.00	2,741.00	9.70%
IEE0007 Driehaus ISCG	28,611.00	25,477.00	3,134.00	12.30%
IEF0001 Barrow Hanley	-	13,319.00	(13,319.00)	-100.00%
IEF0008 Wellington CBF	14,784.79	-	14,784.79	100.00%
IEP0001 SSgA RAS	10,023.56	10,018.92	4.64	0.05%
IER0001 UBS Realty Investors	53,023.36	66,340.93	(13,317.57)	-20.07%
IER0006 Taconic CRE II	-	(808.22)	808.22	100.00%
IEX0015 KKR Global Infrastructure II	12,222.00	12,444.00	(222.00)	-1.78%
IEX0018 GSO EOF	65,111.00	14,787.00	50,324.00	340.33%
IEX0026 KKR GII III	10,971.00	10,926.00	45.00	0.41%
IEX0054 KKR GII IV	70,420.00	-	70,420.00	100.00%
ISC001 Meketa Investment Group	54,133.50	56,500.00	(2,366.50)	-4.19%
ISC002 Cliffwater LLC	199,999.98	99,999.99	99,999.99	100.00%
ISL001 Nossaman - Investments	35,025.40	148,168.35	(113,142.95)	-76.36%
21800 Investment Expenses	241,794.62	155,317.21	86,477.41	55.68%
Total 21800 · Investment Expenses	880,787.81	705,900.80	174,887.01	24.78%
21802 · Actuarial Services	30,620.00	36,086.25	(5,466.25)	-15.15%
21812 · Data Processing	18,126.75	15,901.54	2,225.21	13.99%
21834 · Legal Services	89,926.14	46,726.47	43,199.67	92.45%
21840 · Custodial Banking Services	34,575.92	29,680.69	4,895.23	16.49%
22350 · Software and Technology	156,522.24	131,162.18	25,360.06	19.34%
Total 62025 · Non-Administrative Expenses	$ 1,210,558.86	$ 965,457.93	$ 245,100.93	25.39%

October 1, 2023

To: SACRS Trustees & SACRS Administrators/CEO's
From: Vivian Gray, SACRS Immediate Past President, Nominating Committee Chair
SACRS Nominating Committee
Re: SACRS Board of Director Elections 2024-2025 - Elections Notice

SACRS BOD 2024-2025 election process will begin January 1, 2024. Please provide this election notice to your Board of Trustees and Voting Delegates.

DEADLINE	DESCRIPTION
March 1, 2024	Any regular member may submit nominations for the election of a Director to the Nominating Committee, provided the Nominating Committee receives those nominations no later than noon on March 1 of each calendar year regardless of whether March 1 is a Business Day. Each candidate may run for only one office. Write-in candidates for the final ballot, and nominations from the floor on the day of the election, shall not be accepted.
March 25, 2024	The Nominating Committee will report a final ballot to each regular member County Retirement System prior to March 25
May 10, 2024	Nomination Committee to conduct elections during the SACRS Business Meeting at the Spring Conference
May 10, 2024	Board of Directors take office for 1 year

Per SACRS Bylaws, Article VIII, Section 1. Board of Director and Section 2. Elections of Directors:

Section 1. Board of Directors. The Board shall consist of the officers of SACRS as described in Article VI, Section 1, the immediate Past President, and two (2) regular members

> ***A. Immediate Past President.*** *The immediate Past President, while he or she is a regular member of SACRS, shall also be a member of the Board. In the event the immediate Past President is unable to serve on the Board, the most recent Past President who qualifies shall serve as a member of the Board.*
> ***B. Two (2) Regular Members****. Two (2) regular members shall also be members of the Board with full voting rights.*

Section 2. Elections of Directors*. Any regular member may submit nominations for the election of a Director to the Nominating Committee, provided the Nominating Committee receives those nominations no later than noon on March 1 of each calendar year regardless of whether March 1 is a Business Day. Each candidate may run for only one office. Write-in candidates for the final ballot, and nominations from the floor on the day of the election, shall not be accepted.*

The Nominating Committee will report its suggested slate, along with a list of the names of all members who had been nominated, to each regular member County Retirement System prior to March 25.
The Administrator of each regular member County Retirement System shall be responsible for communicating the Nominating Committee's suggested slate to each trustee and placing the election of

SACRS Directors on his or her board agenda. The Administrator shall acknowledge the completion of these responsibilities with the Nominating Committee.

Director elections shall take place during the first regular meeting of each calendar year. The election shall be conducted by an open roll call vote, and shall conform to Article V, Sections 6 and 7 of these Bylaws.

Newly elected Directors shall assume their duties at the conclusion of the meeting at which they are elected, with the exception of the office of Treasurer. The incumbent Treasurer shall co-serve with the newly elected Treasurer through the completion of the current fiscal year.

The elections will be held at the SACRS Spring Conference May 7-10, 2024. Elections will be held during the Annual Business meeting on Friday, May 10, 2024, in Santa Barabara at the Hilton Santa Barbara Beachfront Resort.

If you have any questions, please contact Vivian Gray at vgray@lacera.com.

Thank you for your prompt attention to this timely matter.

Sincerely,

Vivian Gray

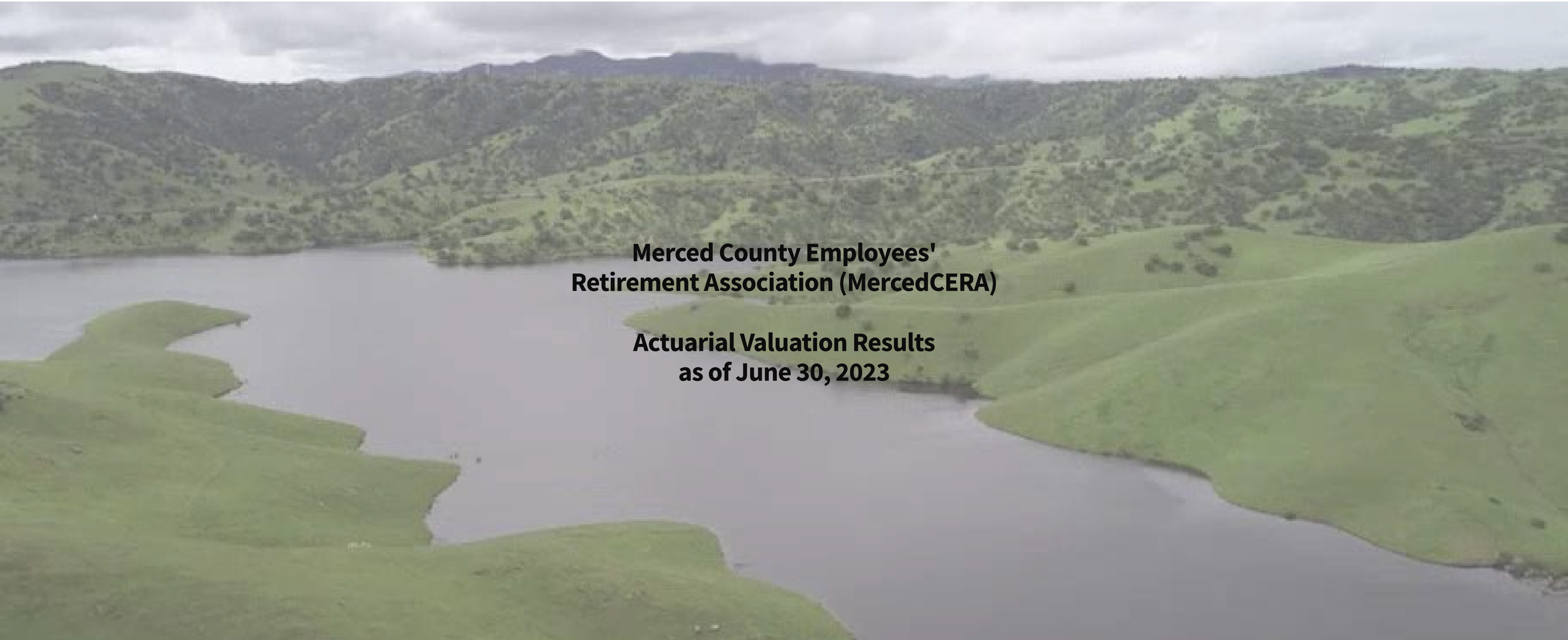
Vivian Gray, Trustee, Los Angeles CERA and SACRS Nominating Committee Chair

CC: SACRS Board of Directors
SACRS Nominating Committee Members
Sulema H. Peterson, SACRS Executive Director

SACRS Nomination Submission Form
SACRS Board of Directors Elections 2024-2025

All interested candidates must complete this form and submit along with a letter of intent. **Both the form and the letter of intent must be submitted no later than March 1, 2024.** Please submit to the Nominating Committee Chair at vgray@lacera.com **AND** to SACRS at sulema@sacrs.org. If you have any questions, please feel free to contact Sulema Peterson at SACRS at (916) 701-5158.

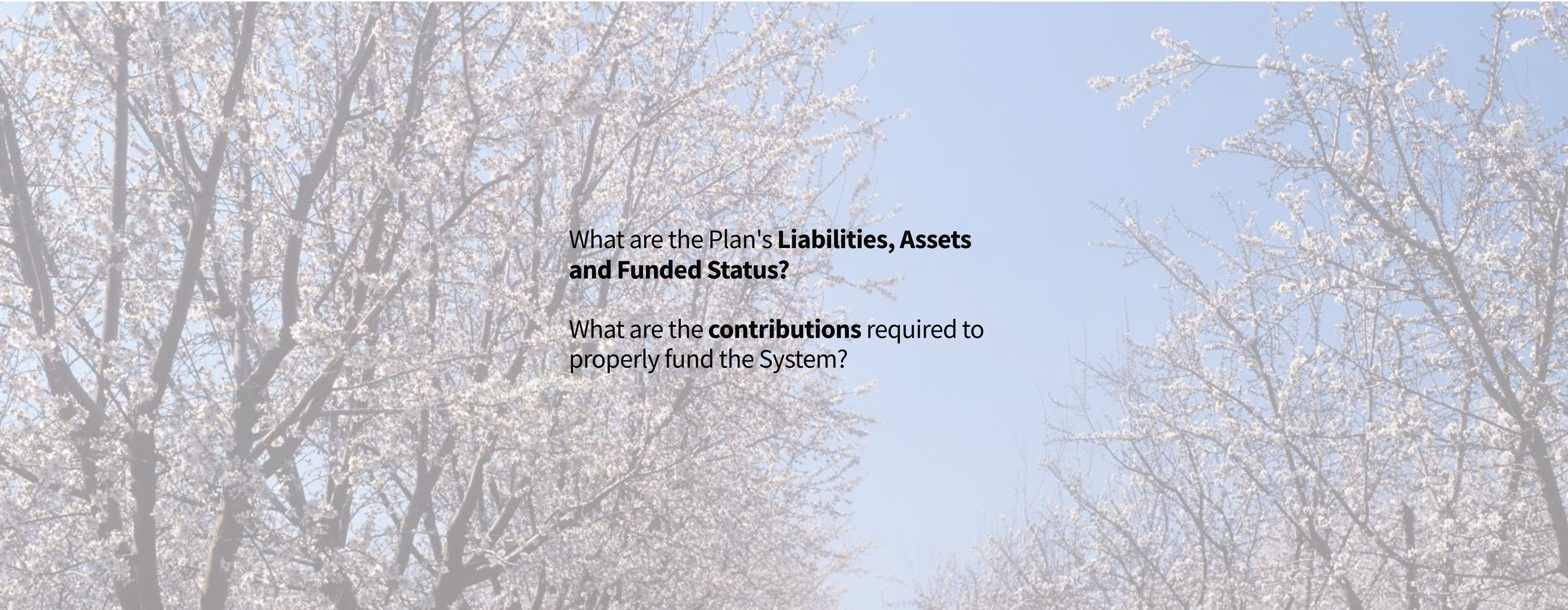
Name of Candidate	Name:
Candidate Contact Information (Please include – Phone Number, Email Address and Mailing Address)	Mailing Address: Email Address: Phone:
Name of Retirement System Candidate Currently Serves On	System Name:
List Your Current Position on Retirement Board (Chair, Alternate, Retiree, General Elected, Etc)	○ Chair ○ Alternate ○ **General Elected** ○ Retiree ○ Other ___________
Applying for SACRS Board of Directors Position (select only one)	○ President ○ **Vice President** ○ Treasurer ○ Secretary ○ Regular Member
Brief Bio in Paragraph Format (*CV format and screen*shot *photos will not be accepted*)	



Merced County Employees' Retirement Association (MercedCERA)

Actuarial Valuation Results as of June 30, 2023

We start by reviewing the current condition of the Plan, based on the same actuarial assumptions as were used in the prior valuation. We are not recommending any changes to the assumptions for this valuation; the next Experience Study will cover the period from 7/1/2022-6/30/2025.



What are the Plan's **Liabilities, Assets and Funded Status?**

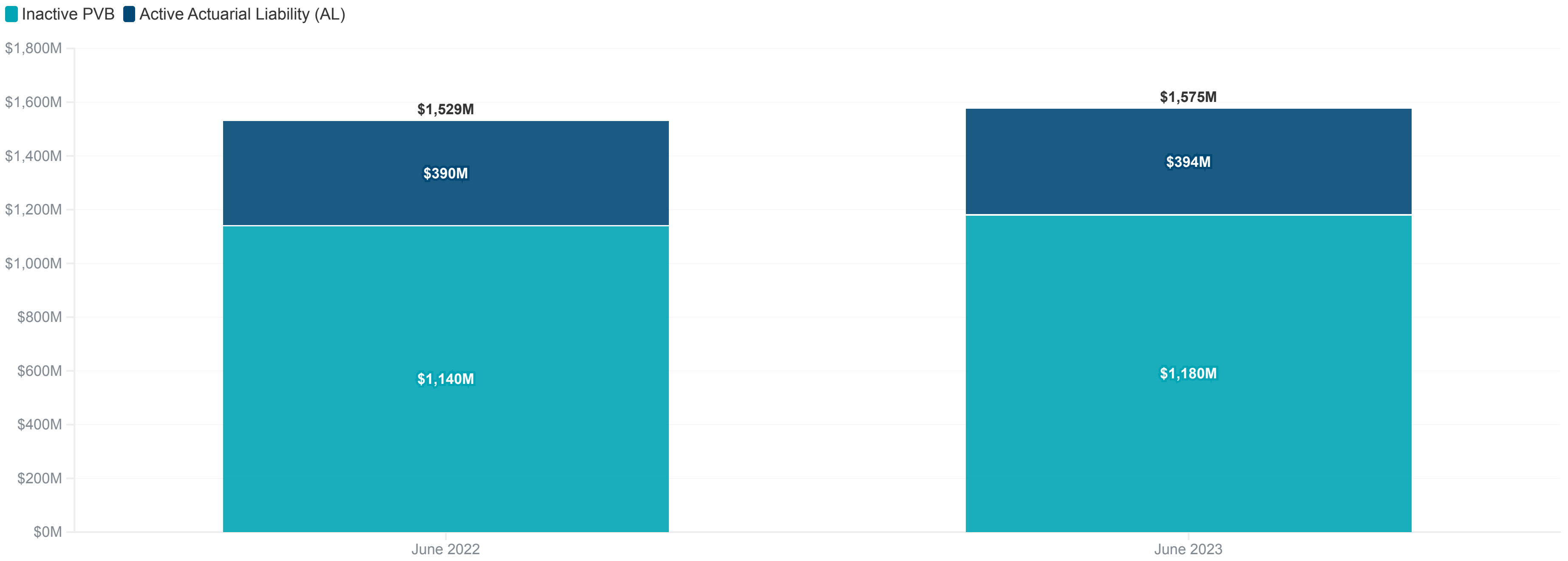
What are the **contributions** required to properly fund the System?

We first review the value of the benefits already earned, known as the **Actuarial Liability**, or the current funding target for the assets. The Actuarial Liability is shown divided between the Active Liability (for members still working) and the Inactive Liability (for members in pay status or eligible for a deferred benefit).

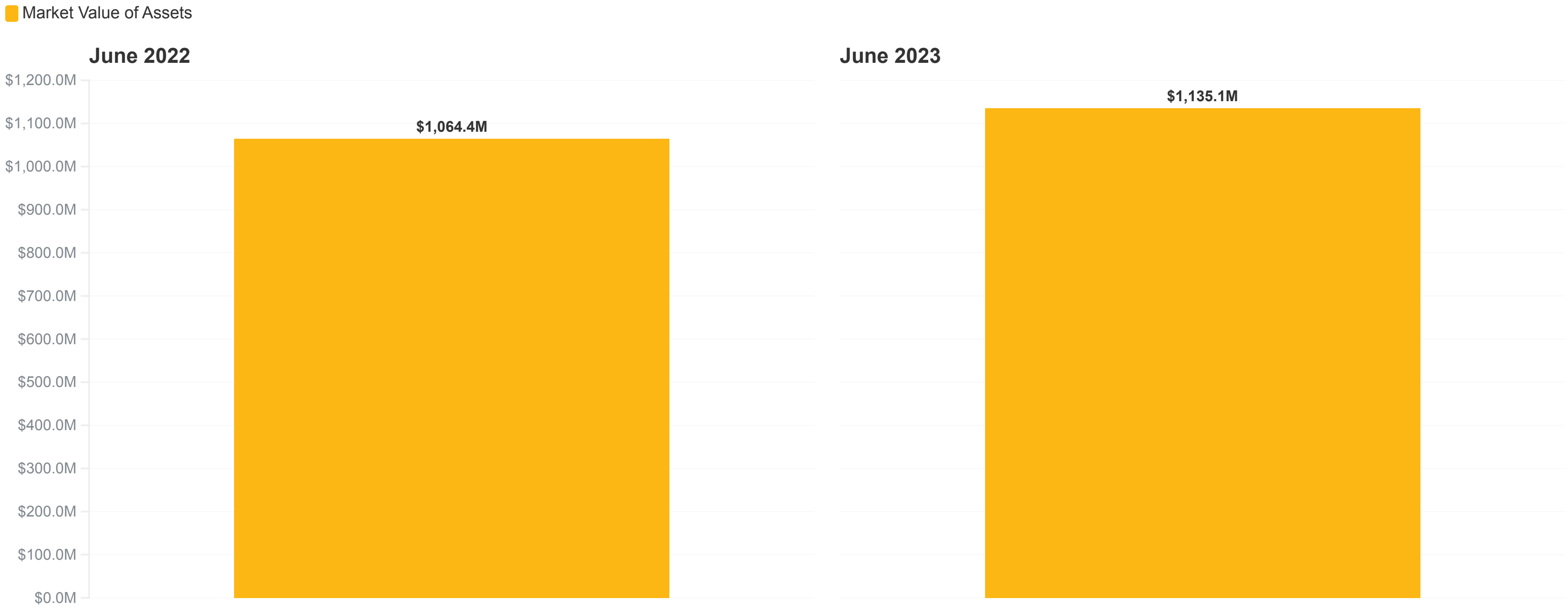
All | June 2022 | June 2023

The Actuarial Liability has increased by about $46M since the prior year.

All | June 2022 | June 2023

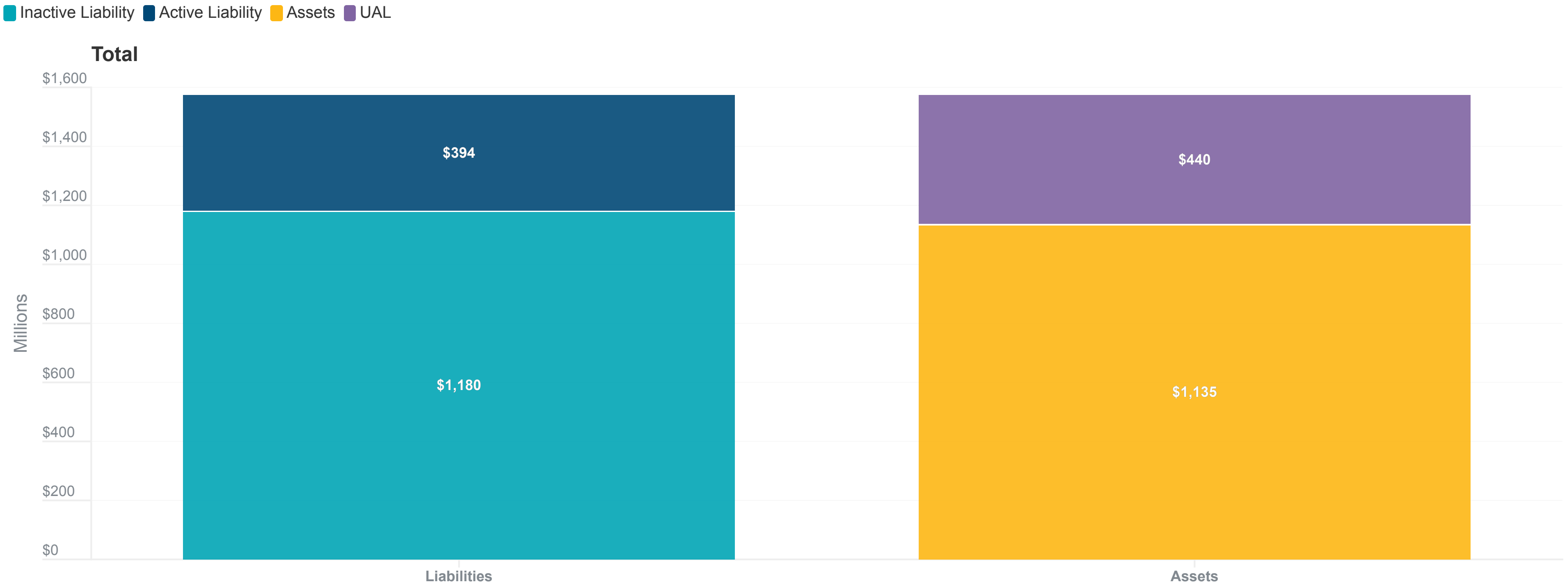


Next, we turn to the Plan's assets. The **Market Value of Assets** is the **Fair Value** as of the **Measurement Date,** June 30, 2023. The rate of return was 7.9%, slightly higher than the assumed rate of 6.75%.

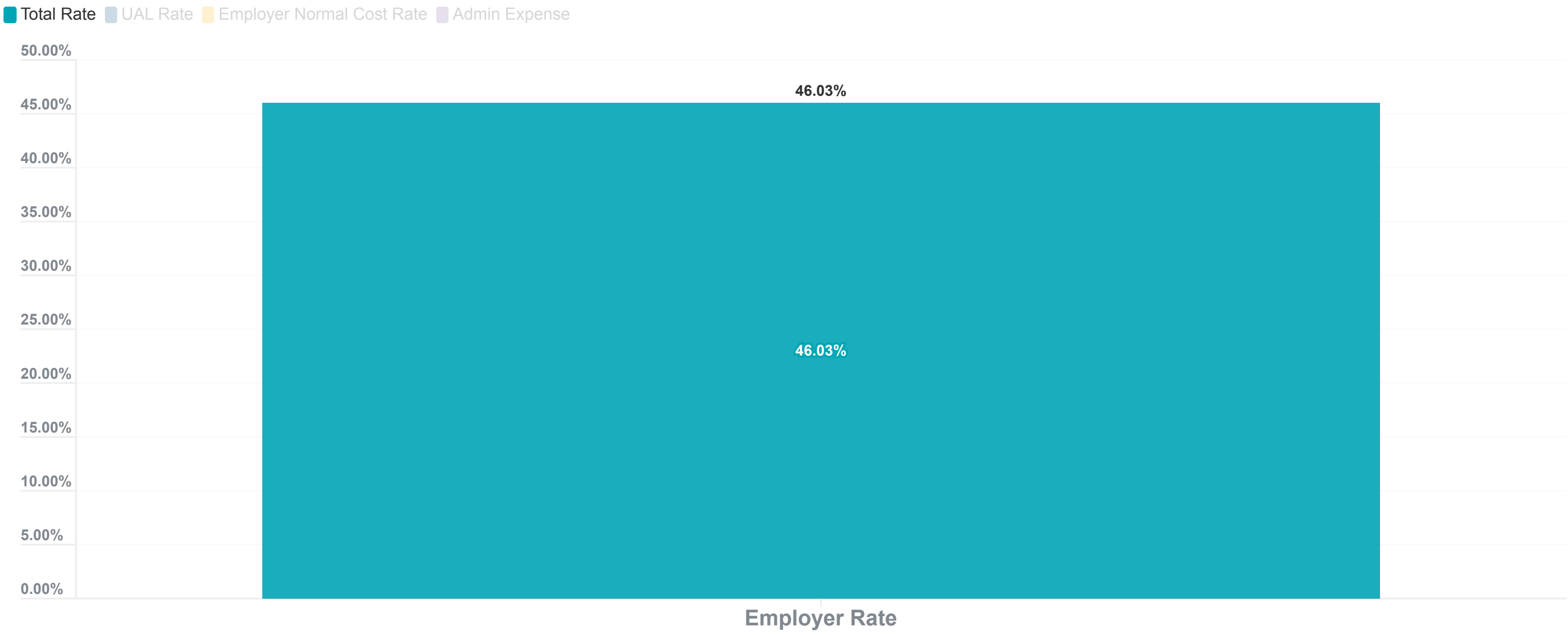


CHEIRON

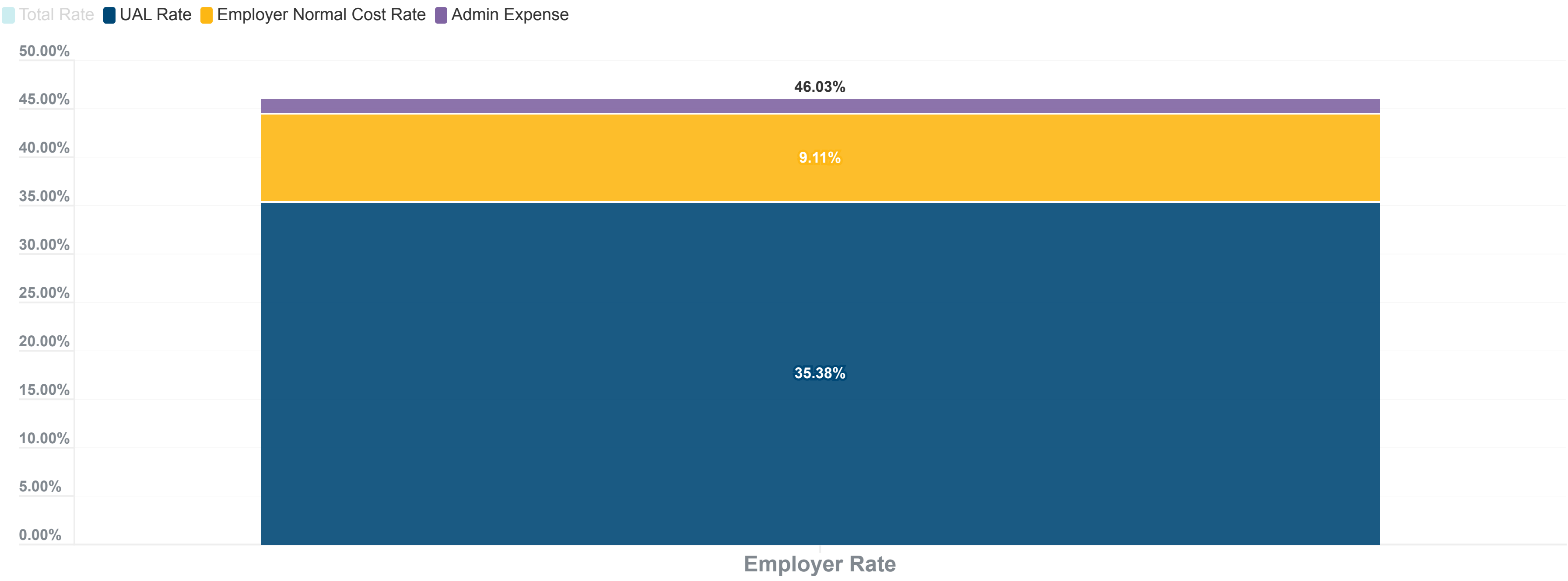
Next, we review the **Funded Status** of the Plan. The **Unfunded Actuarial Liability (UAL)** decreased from **$465M** (2022) to **$440M** (2023). The **Funded Ratio** is calculated by dividing the assets by the liabilities: **72.1% as of June 30, 2023**, up from 69.6% the prior year.



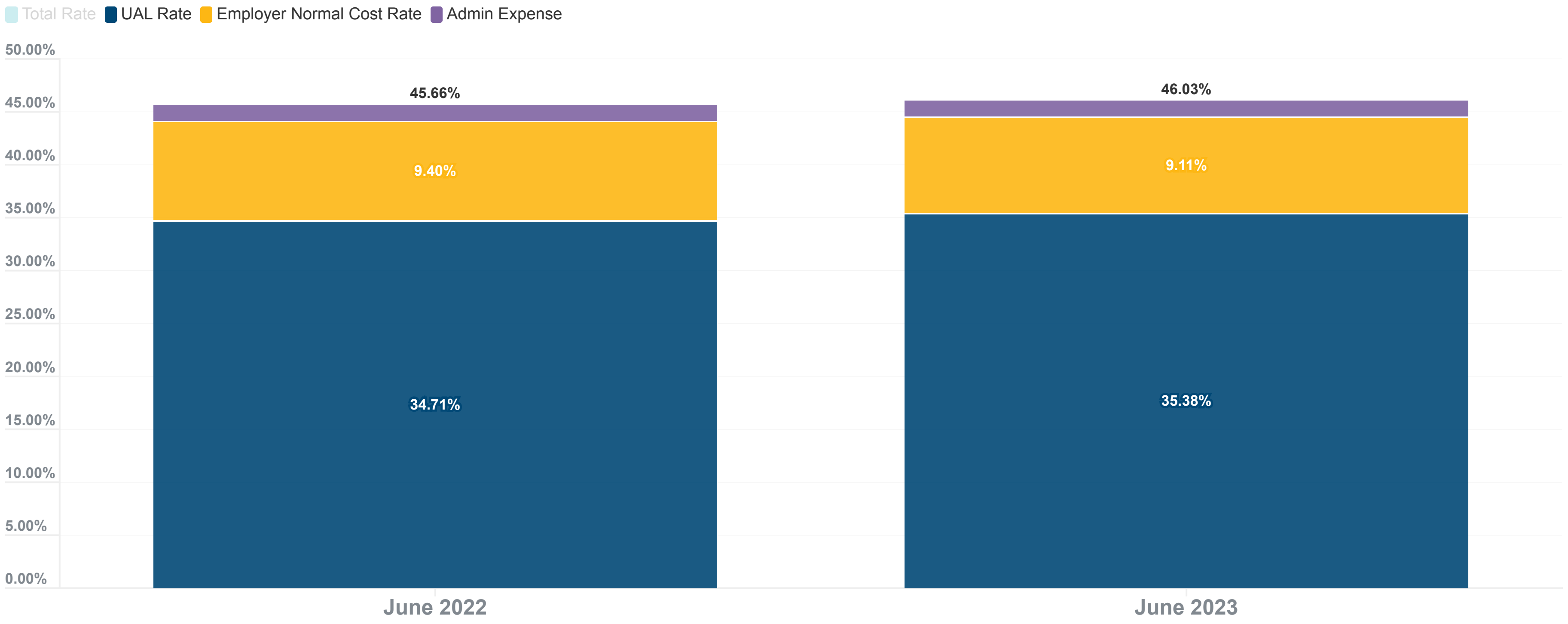
Next, we review the **Actuarially Determined Contributions (ADC)** for the Plan, shown as a *percentage of projected pay*.



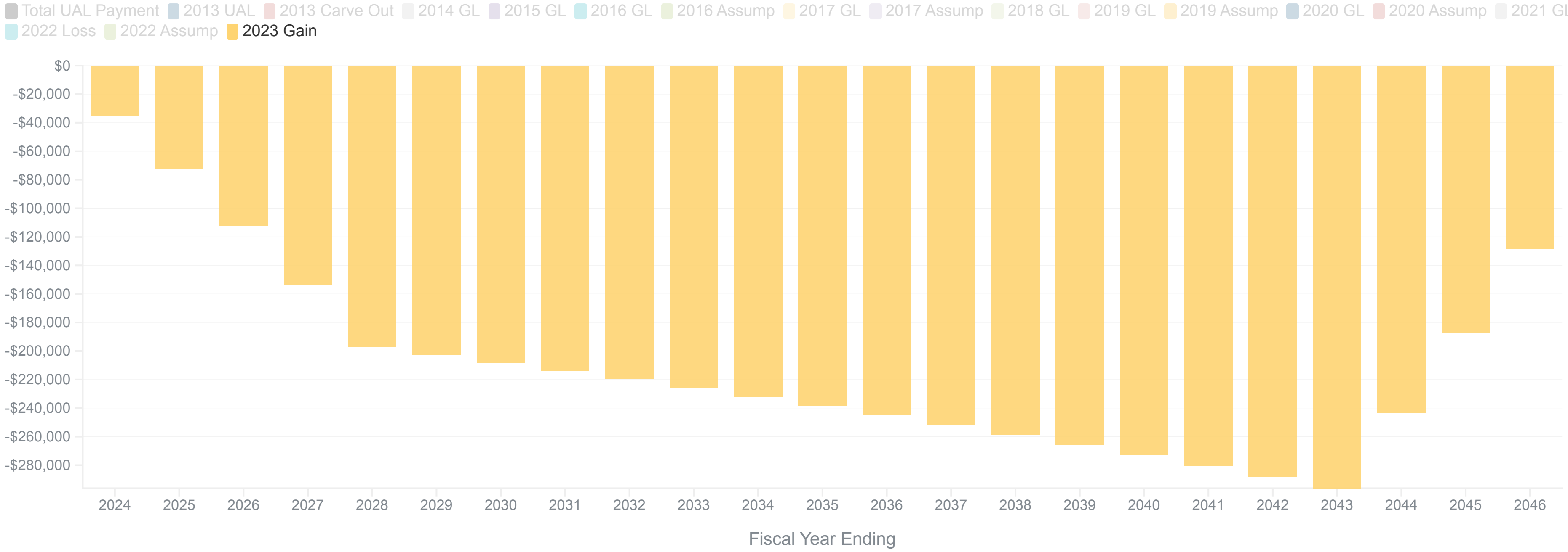
The contributions are made up of the **Unfunded Actuarial Liability Amortization** payment (the amount needed to pay off the unfunded liability over the period of time designated in the Plan's funding policy), plus the **Normal Cost (**the cost assigned to this year's active member benefits net of member contributions) and a small payment to cover the employers' share of administrative expenses.



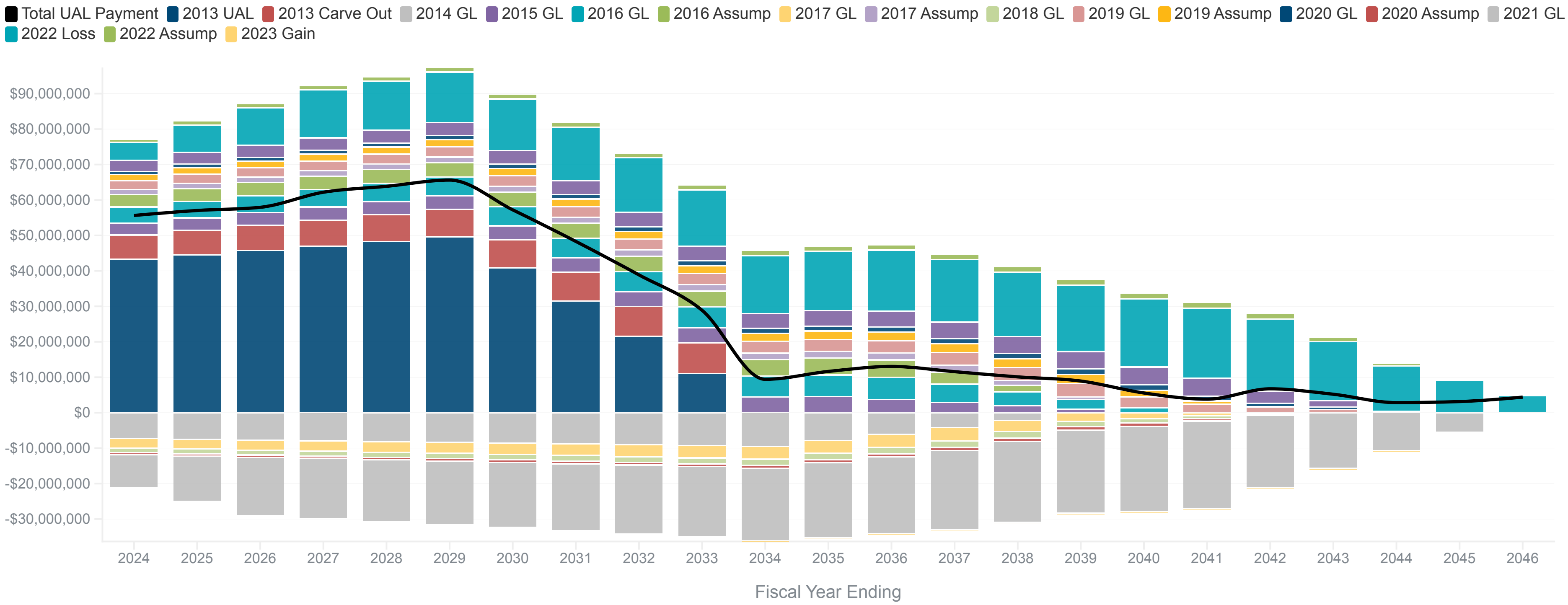
The average employer contribution rate is about 0.4% of pay higher than the rate from the prior year.



Beginning in 2014, new changes in the UAL are amortized over 22-24 year periods. Using an approach known as **direct rate smoothing**, the new payment schedules are phased-in over 3-5 year periods, and then similarly phased-out at the end, with the middle payments continuing to increase at the payroll growth rates. For 2023, there is a small net gain layer due to investments, which is phased in over five years.



To get the total payments, we add the layers together.



CHEIRON

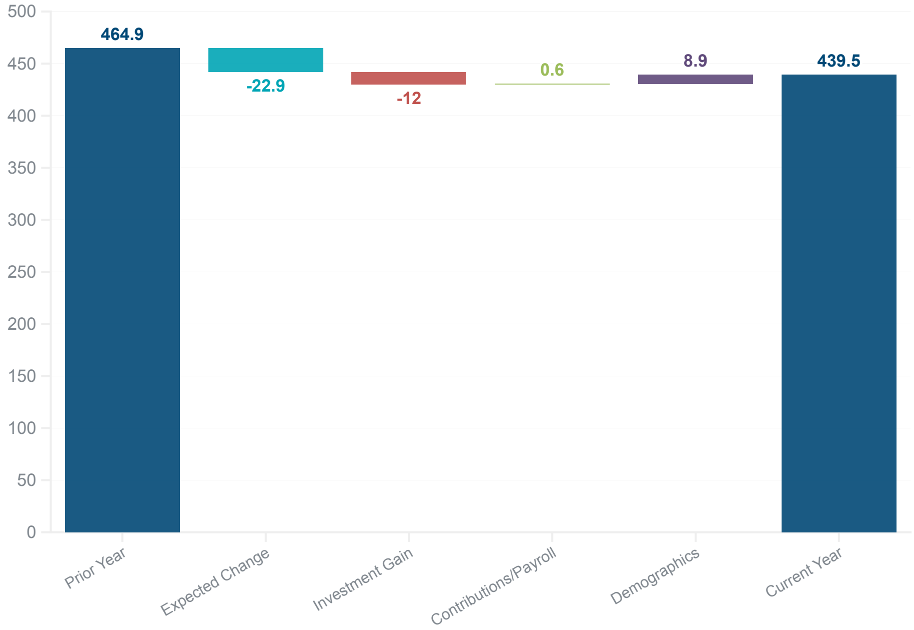
What happened to the **UAL** in the past year?

What caused the **ADC** to change from the prior year?

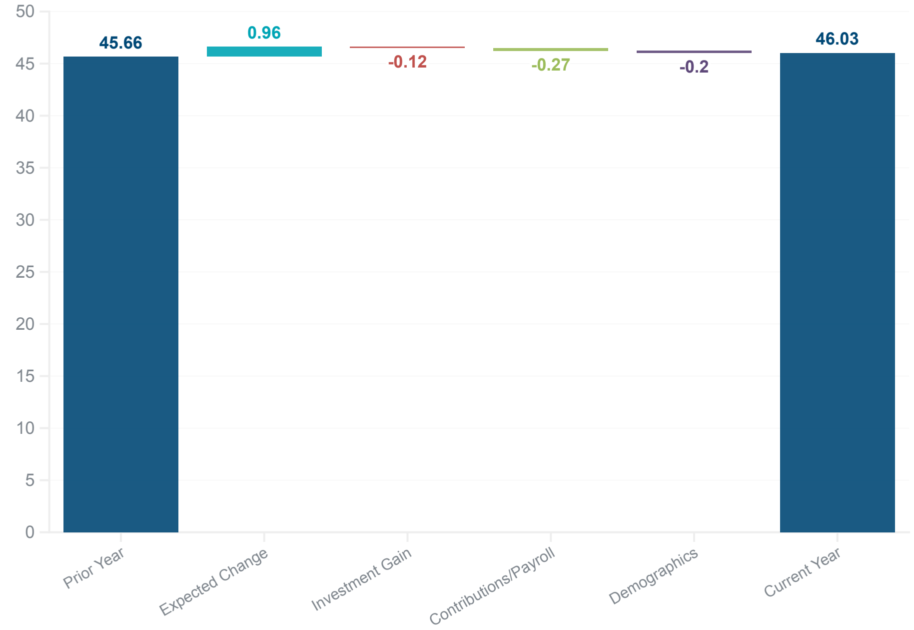
We review the change in UAL and employer rate over the past year. As of the prior valuation, the UAL was $464.9M and the employer rate was 45.66% of pay.

UAL and Employer Rate Change by Source

UAL ($ in Millions)



Employer Rate (% of Pay)

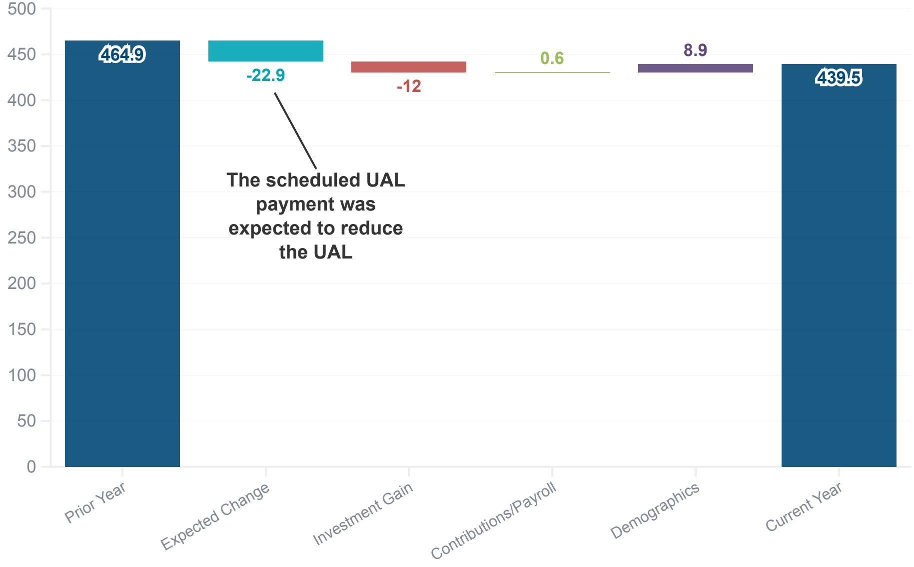


CHEIRON

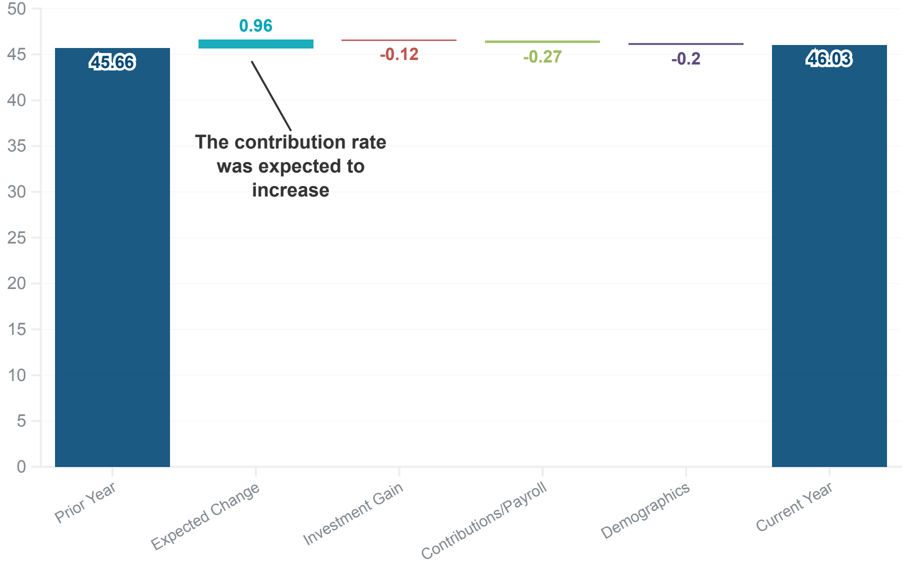
Regular contributions were expected to reduce the UAL. The phase-in of past UAL layers (mainly the FYE 2022 investment and liability losses, offset by the FYE 2021 investment gain) was expected to increase the employer rate.

UAL and Employer Rate Change by Source

UAL ($ in Millions)



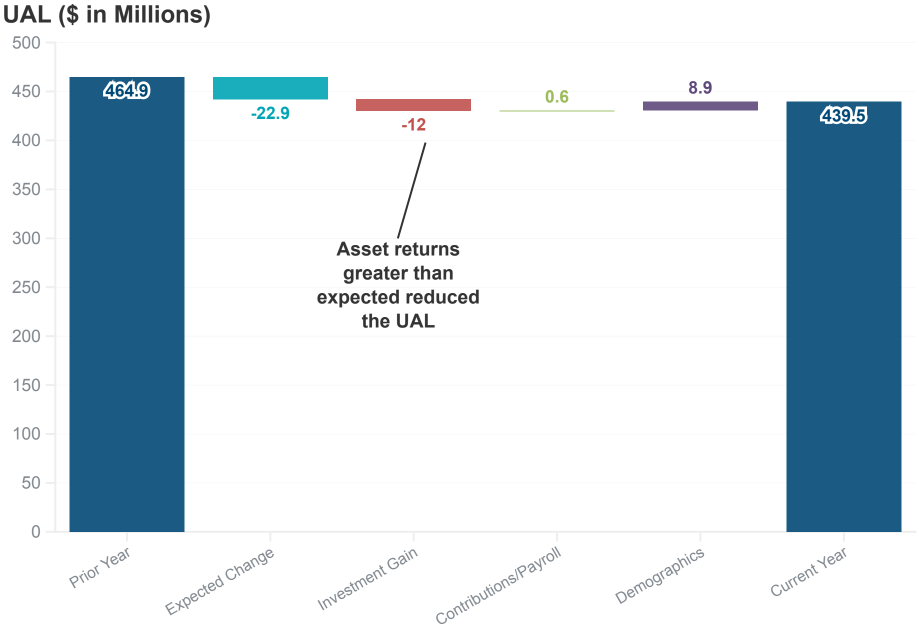
Employer Rate (% of Pay)

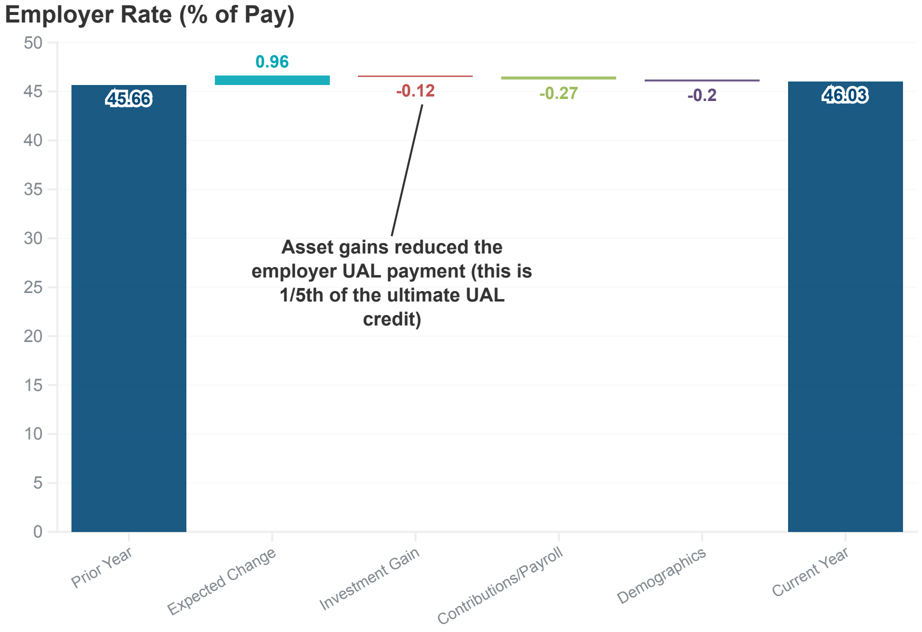


CHEIRON

Asset returns were 7.88% for June 30, 2022 compared to the assumed rate of return of 6.75%, decreasing the UAL and employer rate.

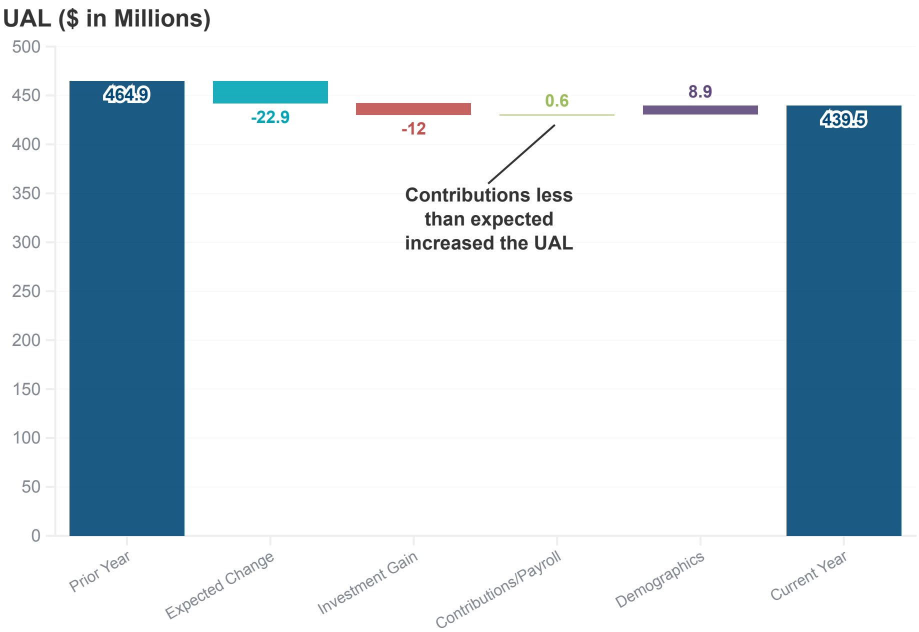
UAL and Employer Rate Change by Source

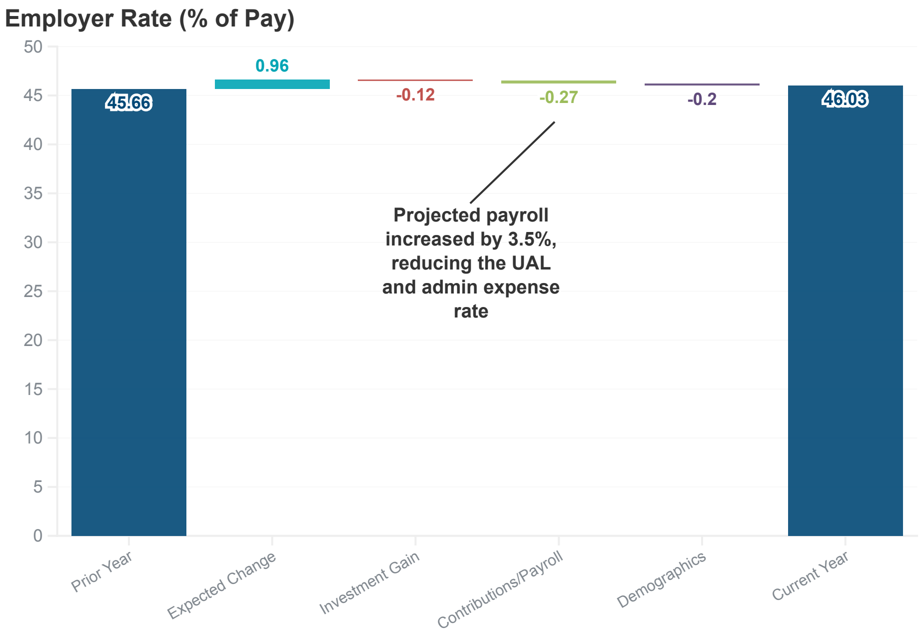




Contributions were slightly lower than expected. However, the projected payroll for FY2023-2024 has increased from the prior year by more than the assumed salary growth rate (2.75%), which reduces the amortization payment as a percentage of payroll.

UAL and Employer Rate Change by Source

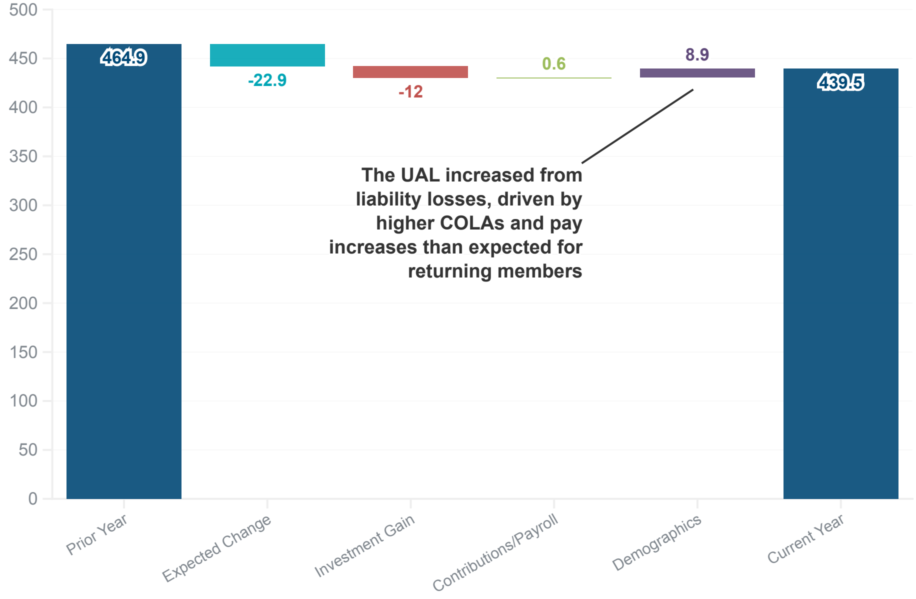




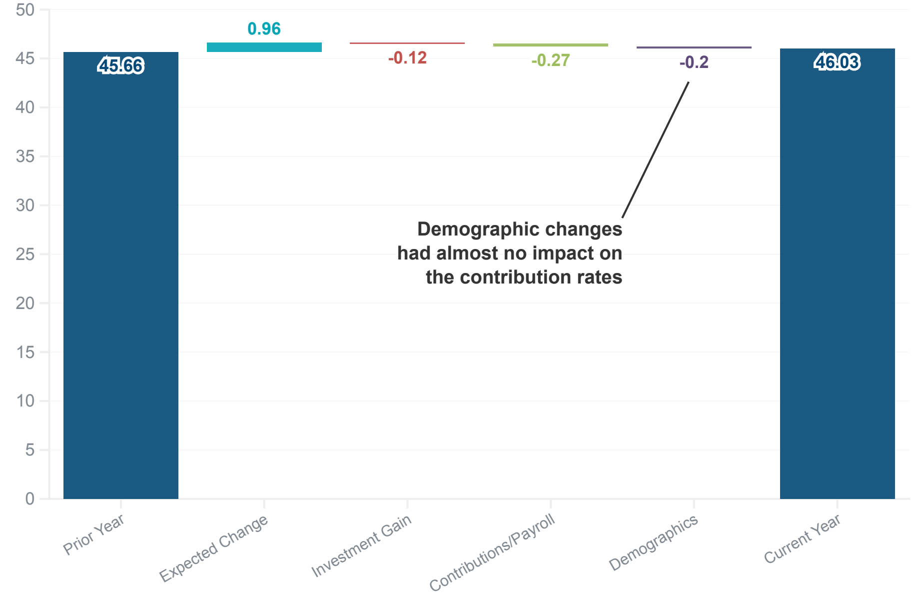
Lastly, the impact of the demographic experience has a most impact on results; increasing the UAL and decreasing the employer rate - with the continued transition to PEPRA, reducing the aggregate Normal Cost rate (0.21%).

UAL and Employer Rate Change by Source

UAL ($ in Millions)

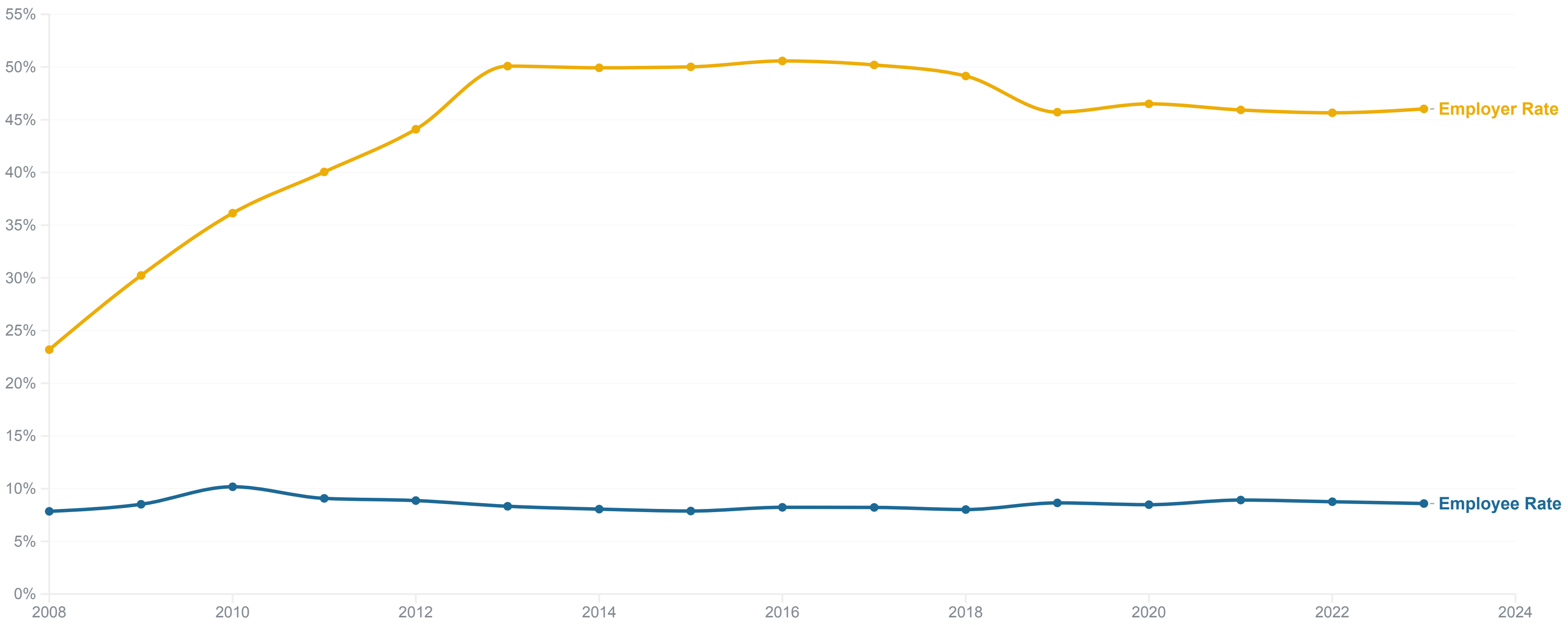


Employer Rate (% of Pay)



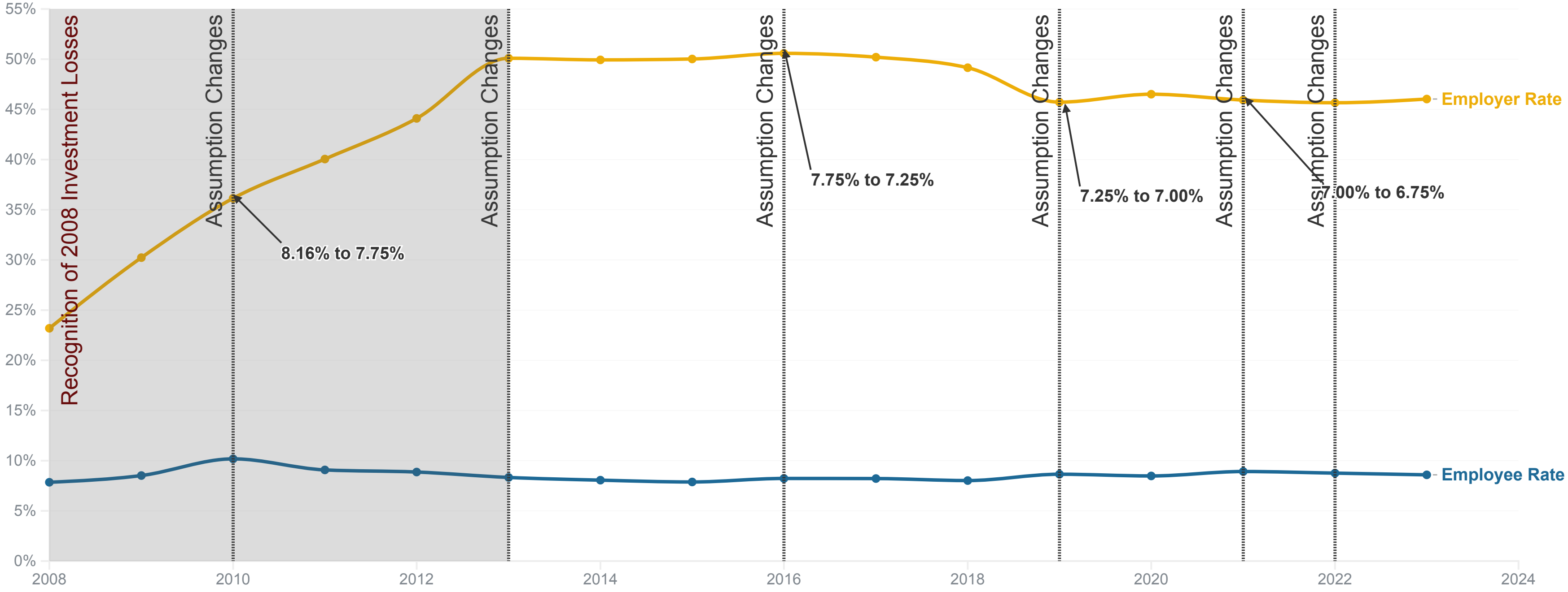
CHEIRON

We next review the **history and trends** in the employer and employee rates over the past 15 years.



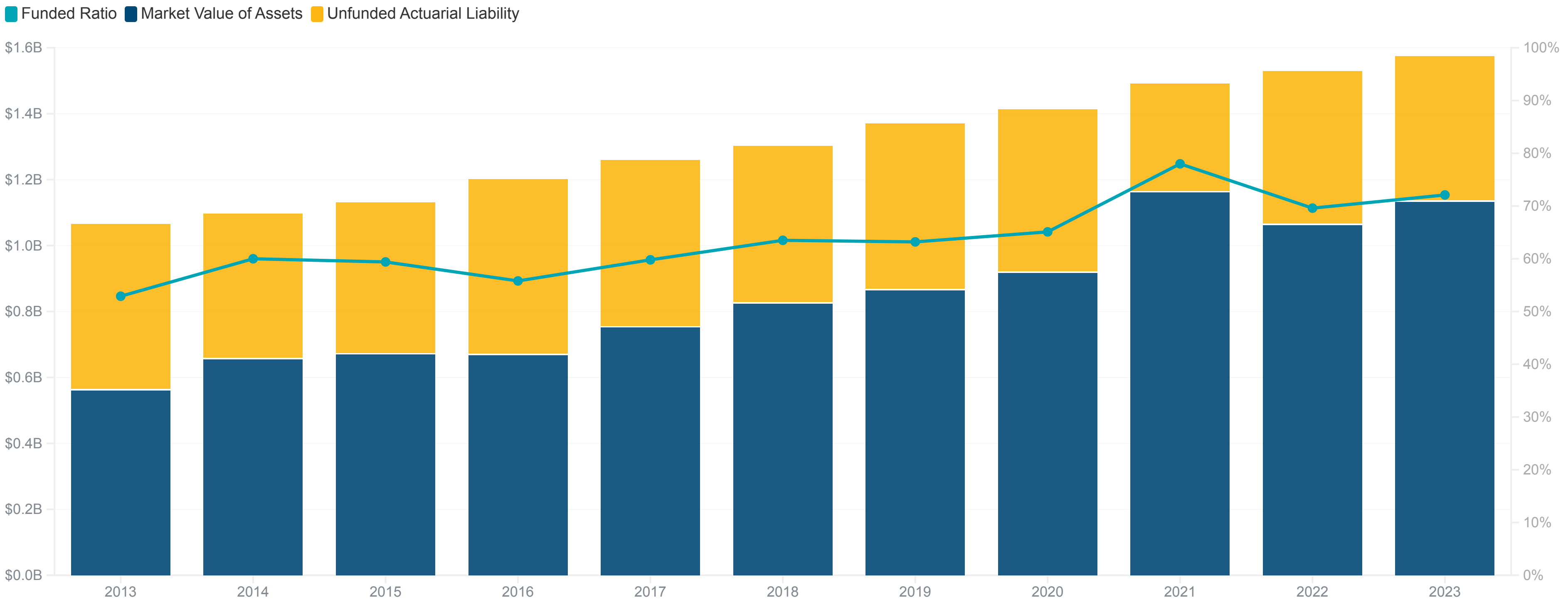
CHEIRON

The large increase in employer rates from 2008-2013 was driven by the recognition of the 2008 investment losses. Experience studies that resulted in assumption changes, including changes in the discount rate, are shown below.

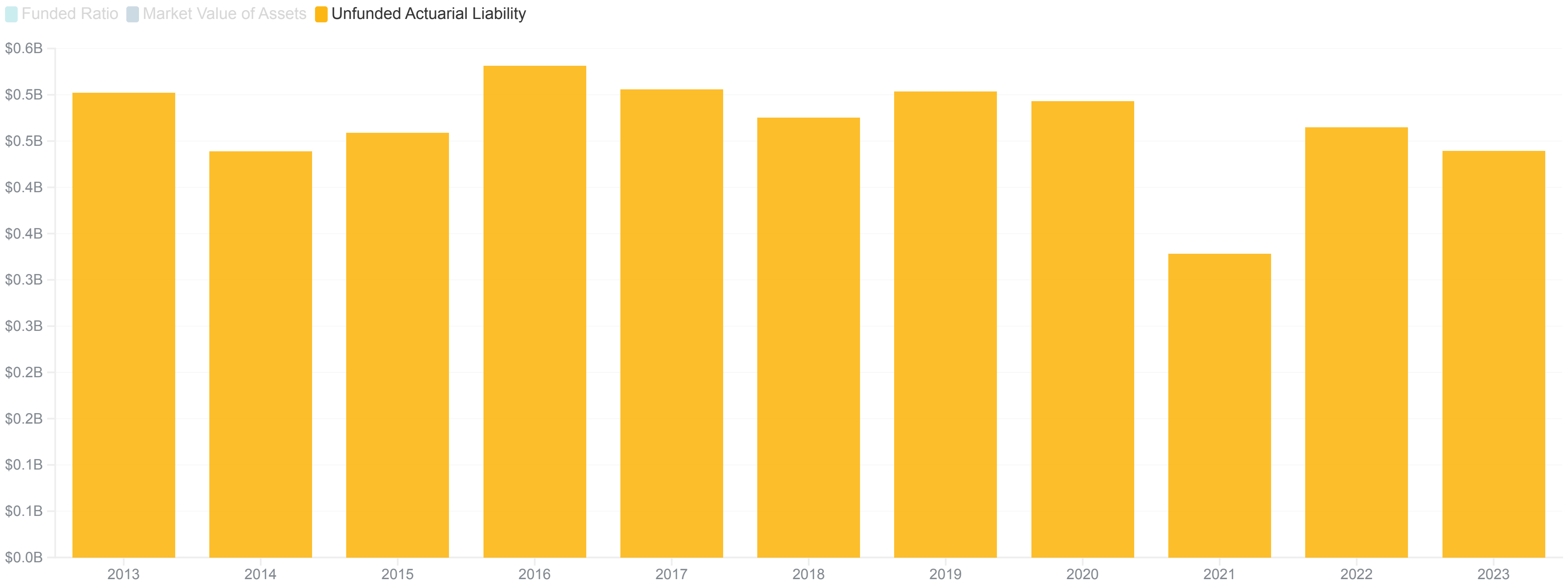


CHEIRON

Next we review the history of the funded status over the past decade. The line shows the funded ratio, with the scale shown along the right-hand axis.



The UAL increased in 2016 and 2019 from assumption changes. It declined significantly in 2021 due to asset gains, but then rebounded following offsetting asset losses in 2022.



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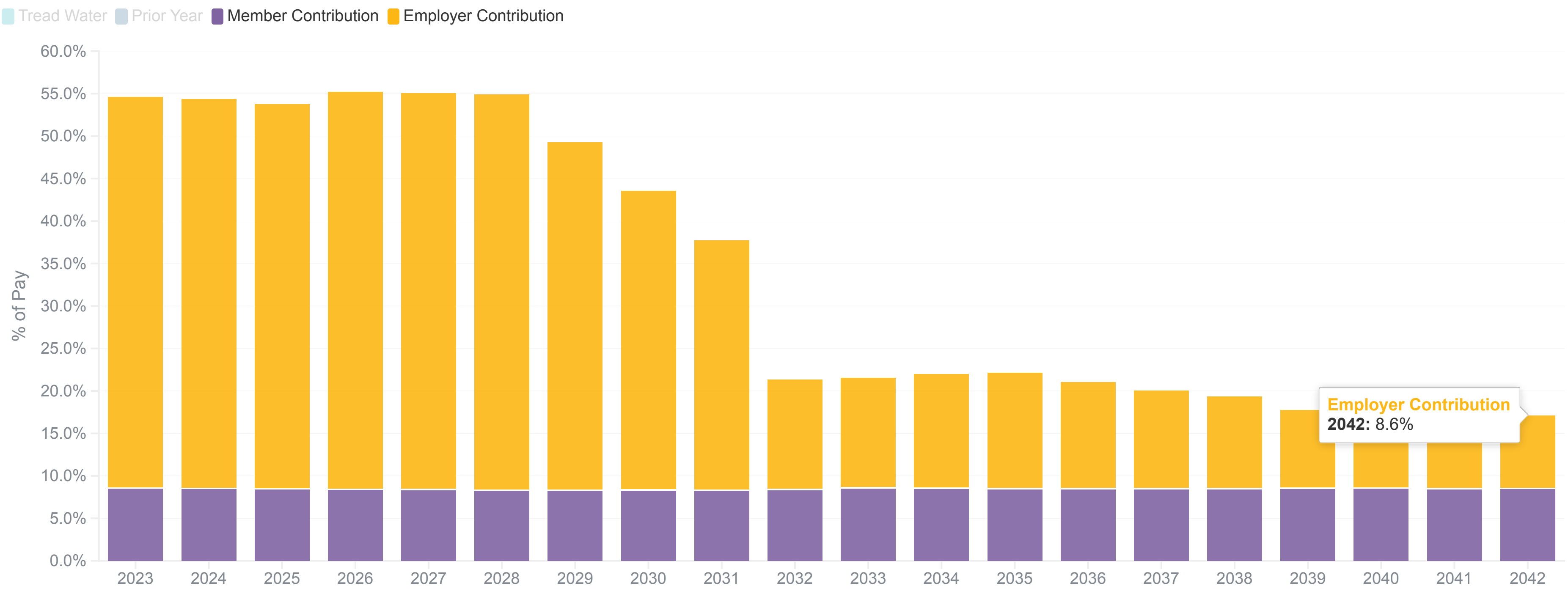
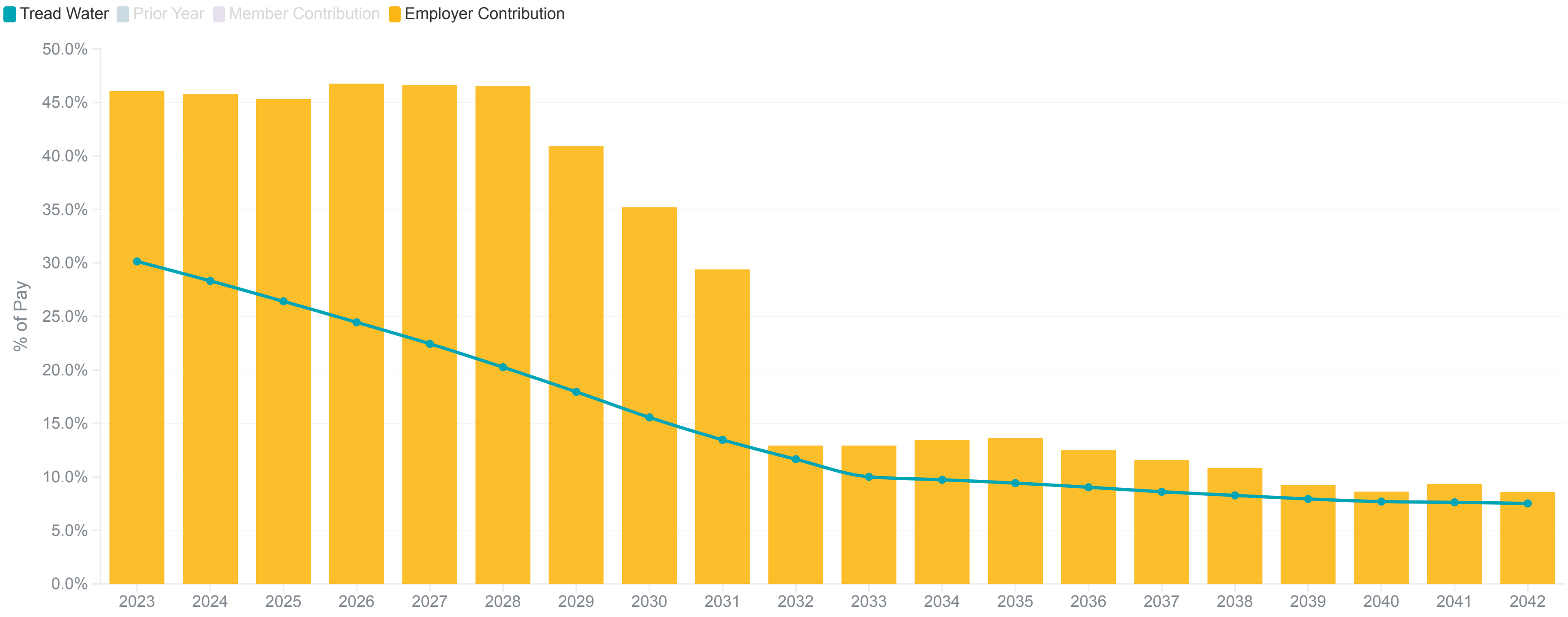
How are contributions expected to change?
What is expected to happen to the Plan's funded status?

The employer contributions are expected to remain relatively stable for the next six years as the recent offsetting gains and losses are phased-in, and then drop significantly beginning in 2029, when the initial 2013 UAL layer is expected to be phased out.



The employer rate is significantly above the amount necessary to keep the UAL stable in dollar terms, known as the "tread water" rate.



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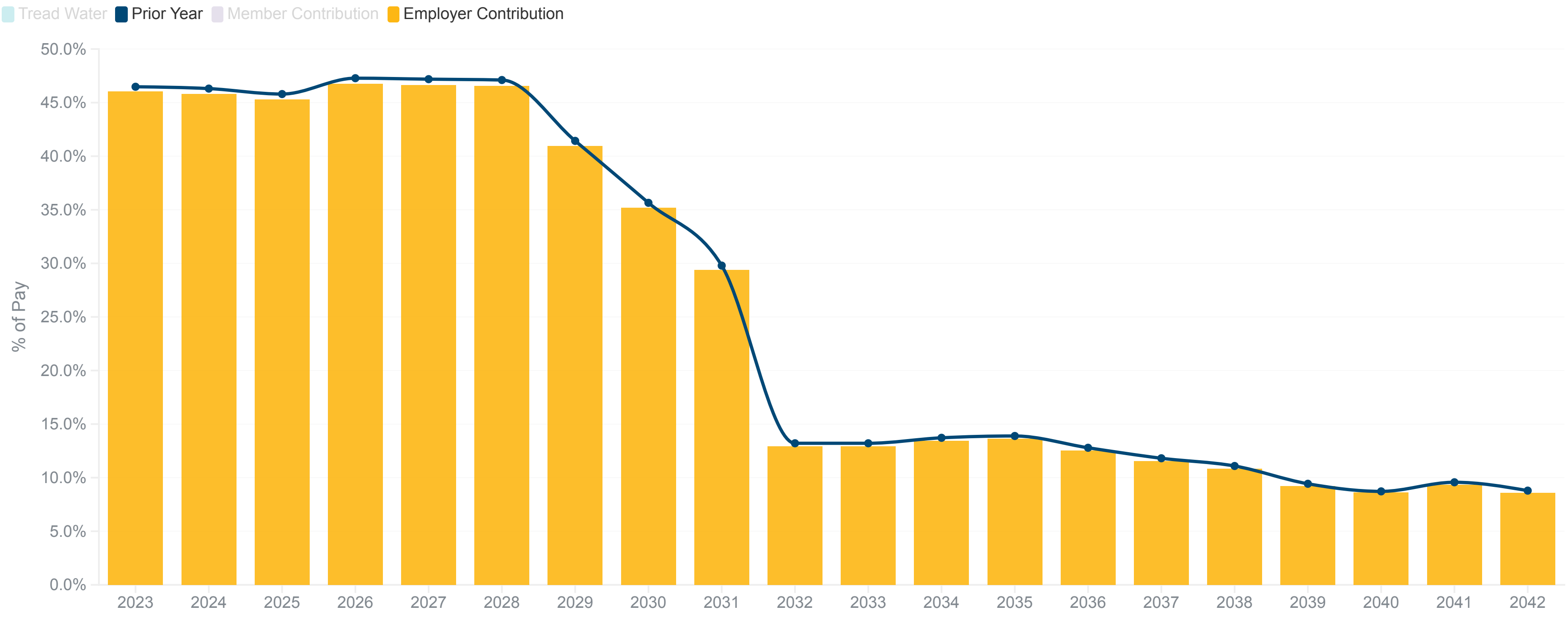
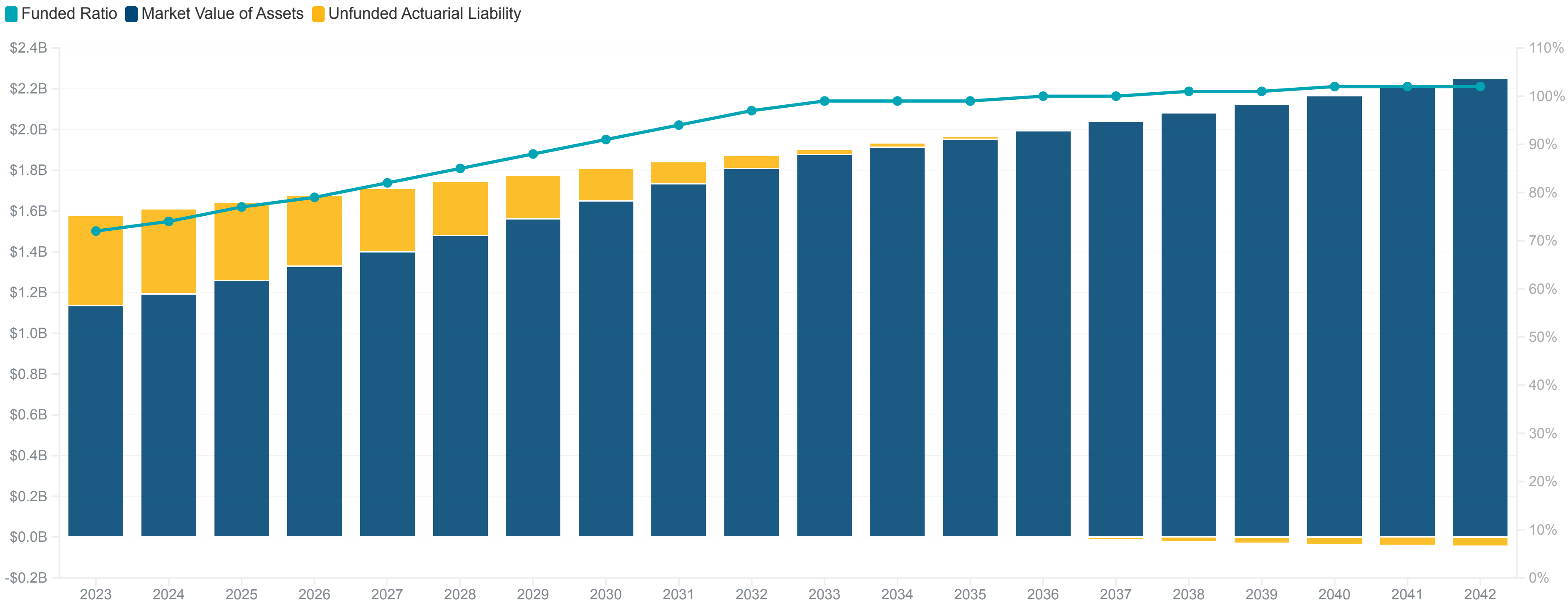
The dark blue line shows the projected contributions from last year's valuation, which are very similar to the current projections.



The funded status projection shows that the funded ratio (right axis) is expected to continue improving until the Plan reaches full funding in 2036.



CHEIRON

MercedCERA Consulting Team

Click card for bio or to contact

Graham Schmidt
Principal Consulting Actuary
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Anne Harper
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San Diego, CA

Tim Hall
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San Diego, CA

Certification

The purpose of this report is to present the results of the MercedCERA actuarial valuation as of June 30, 2023

In preparing our presentation, we relied on information (some oral and some written) supplied by MercedCERA. This information includes, but is not limited to, the 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.

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

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

Projections in this presentation were developed using R-scan, a proprietary 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. We relied on Cheiron colleagues for the development of the model. 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.

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

This presentation was prepared for the MercedCERA Retirement Board for the purposes described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Merced County Employees' Retirement Association

Actuarial Valuation Report as of June 30, 2023

Produced by Cheiron

January 2024

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January 19, 2024

Retirement Board of
Merced County Employees' Retirement Association
3199 M Street
Merced, CA 95348

Dear Board Members:

At your request, we have conducted an actuarial valuation of the Merced County Employees' Retirement Association (MercedCERA, the Fund, the Plan) as of June 30, 2023. This report contains information on the Plan's assets, liabilities, and discloses employer and employee contribution levels. We call your attention 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 MercedCERA. This report is for the use of the Retirement Board of MercedCERA 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.

This report was prepared for the Retirement Board of MercedCERA for the purposes described herein and for the use by the Plan auditor in completing an audit related to the matters herein. Other users of this valuation report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users.

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

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

Anne D. Harper, FSA, EA, MAAA
Principal Consulting Actuary

FOREWORD

Cheiron has performed the actuarial valuation of the Merced 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 – Identification and Assessment of Risks
  - Section III – Assets
  - Section IV – Liabilities
  - Section V – Contributions
  - Section VI – Annual Comprehensive Financial Reporting Information

- 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), tables containing member contribution rates (Appendix D), and a glossary of key actuarial terms (Appendix E).

Future results may differ significantly from the current results presented in this valuation 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 written) supplied by the MercedCERA 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.

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 a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

The deterministic and stochastic projections in this valuation report were developed using R-scan, a proprietary 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. The stochastic projections of investment returns assume that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. We relied on Cheiron colleagues for the development of the model.

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 financial condition of the Plan,
- Past and expected trends in the financial progress of the Plan,
- Employer and employee contribution rates for Fiscal Year 2025,
- An assessment and disclosure of key risks, and
- Information required by the GFOA for the Annual Comprehensive Financial Report.

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 financial results, (C) an examination of the historical trends, and (D) the projected financial outlook for the Plan.

A. Valuation Basis

This valuation determines the employer contributions for the fiscal year ending June 30, 2025. 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, and
- The Plan's expected administrative expenses.

The Unfunded Actuarial Liability payment is determined as the amount needed to fund the outstanding Unfunded Actuarial Liability (UAL), using the amortization method as described in Section V of the report. The amortization method is similar to a traditional five- or three-year asset smoothing and a 20-year amortization period with level payments as a percentage of payroll. The Plan also uses the Market Value of Assets to calculate the UAL, rather than a smoothed value. These amortization and funding policies in conjunction are a type of policy known as direct rate smoothing.

Experience studies are performed every three years. This valuation was performed on the basis of the economic and demographic assumptions and methods that were adopted by the Board of Administration with our input at the December 8, 2022 Board meeting, based on Cheiron's Actuarial Experience Study covering plan experience during the period from July 1, 2019 through June 30, 2022. A summary of the assumptions and methods used in the current valuation is shown in Appendix B.

This valuation was prepared based on the Plan provisions shown in Appendix C. Employee contribution rates are shown in Appendix D. The rates for PEPRA members will be recomputed each year to be one-half of the total normal cost rate for their benefits.

B. Key Findings of this Valuation

The following discussion summarizes the key results of the June 30, 2023 valuation and how they compare to the results from the June 30, 2022 valuation.

Summary of Key Valuation Results

Table I-1 summarizes the key results of the valuation with respect to assets, liabilities, and contributions.

Table I-1
Merced County Employees' Retirement Association
Summary of Key Valuation Results
(in millions)

Valuation Date Fiscal Year End	June 30, 2023 2025	June 30, 2022 2024
Actuarial Liability	$ 1,574.6	$ 1,529.3
Market Value of Assets	1,135.1	1,064.4
Unfunded Actuarial Liability	$ 439.5	$ 464.9
Funded Ratio	72.1%	69.6%
Net Employer Contribution Rate	46.03%	45.66%
Projected Payroll	$ 161.6	$ 156.1
Projected Employer Contribution	$ 74.4	$ 71.3

More discussion of the factors that affected these results can be found in the remainder of this section. Some key points are as follows:

- The employer contribution rate increased from 45.66% to 46.03%.

- The Unfunded Actuarial Liability (UAL) is the excess of the Plan's Actuarial Liability over the Market Value of Assets. The Plan's UAL decreased by $25.4 million from $464.9 million to $439.5 million. This decrease in UAL was primarily due to the recent investment gains and the level of contributions made to the Plan.

- The Plan's funded ratio, the ratio of market assets over Actuarial Liability, increased from 69.6% last year to 72.1% as of June 30, 2023.

SECTION I – EXECUTIVE SUMMARY

Plan Membership

Table I-2 summarizes Plan membership as of June 30, 2023 and June 30, 2022. More detailed membership statistics are in Appendix A.

Table I-2
Membership Total

Item	June 30, 2023	June 30, 2022	% Change
Actives	2,165	2,167	-0.1%
Deferred Members	1,375	1,202	14.4%
Retired Members	2,584	2,523	2.4%
Total Members	6,124	5,892	3.9%
Active Member Payroll	$ 157,252,395	$ 151,900,251	3.5%
Average Pay per Active	72,634	70,097	3.6%

Total Plan membership increased by 3.9%, mostly driven by the increase in deferred members, in particular non-vested members who have left their contributions on account.

The pay figures reflect the annualized rate as of June 30, plus expected increases for the upcoming year. Total payroll increased by 3.5% compared to the assumed wage inflation of 2.75%, while the average pay per active member increased by 3.6%.

Components of UAL Change between June 30, 2022 and June 30, 2023

Table I-3 is a detailed reconciliation of the components that affected the UAL between June 30, 2022 and June 30, 2023.

Table I-3
Change in Unfunded Actuarial Liability

Experience	in millions
Unfunded actuarial liability, 6/30/2022	$ 464.9
Expected change in unfunded actuarial liability	$ (22.9)
Unfunded decrease due to investment gain	(12.0)
Unfunded increase due to contributions less than expected	0.6
Unfunded increase due to liability loss	8.9
Total change in unfunded actuarial liability	$ (25.4)
Unfunded actuarial liability, 6/30/2023	$ 439.5

SECTION I – EXECUTIVE SUMMARY

The Plan's UAL decreased from $464.9 million as of June 30, 2022 to $439.5 million as of June 30, 2023. As shown on the previous page, the largest contributing factors were investment gains of $12.0 million and expected UAL contributions, which were scheduled to pay off $22.9 million of principal on the UAL. Contributions were less than expected by $0.6 million, due differences between actual and expected payroll, which increased the UAL. There were losses on the Actuarial Liabilities of $8.9 million, most of which were from higher than expected salary increases and cost-of-living adjustments for continuing actives and retirees, respectively.

Employer Contribution Reconciliation

Table I-4 is a detailed reconciliation between the Fiscal Year 2024 and Fiscal Year 2025 employer contribution rates, in total and by component.

Table I-4
Employer Contribution Reconciliation

Item	Total	Normal Cost	Amortization	Expenses
FYE 2024 Net Employer Contribution Rate	45.66%	9.40%	34.71%	1.55%
Expected Change due to phase-in	0.96%	0.00%	0.96%	0.00%
Change due to investment gain	-0.12%	0.00%	-0.12%	0.00%
Change due to contributions less than expected	0.01%	0.00%	0.01%	0.00%
Change due to PEPRA new hires	-0.21%	-0.21%	0.00%	0.00%
Change due to liability changes	0.01%	-0.08%	0.09%	0.00%
Change due to effect of payroll on amort / expense	-0.28%	0.00%	-0.27%	-0.01%
Total Change	0.37%	-0.29%	0.67%	-0.01%
FYE 2025 Net Employer Contribution Rate	46.03%	9.11%	35.38%	1.54%

The employer contribution rate increased from 45.66% for Fiscal Year 2024 to 46.03% for Fiscal Year 2025:

- The phase-in of the net UAL experience from the last four years due to the direct rate smoothing method (based on net gains in FYE 2021 and net losses, including assumption changes, in FYE 2022, FYE 2020, and FYE 2019) increased the contribution rate by 0.96% this year. The expected phase-in for the next valuation (2024) from previous years' changes is a contribution rate decrease of 0.08%.

- The investment gain for the current fiscal year decreased the current year contribution rate by 0.12% of pay. The assets of the Plan returned 7.88% (net of investment expenses) on a market basis, which is higher than the assumed rate of 6.75%. The amortization payment for the current year investment gain will continue to be phased-in over the next four years.

- Contributions were slightly less than expected and increased the employer contribution rate by 0.01% of pay, due to differences between actual and expected payroll.

SECTION I – EXECUTIVE SUMMARY

- The employer normal cost rate is expected to decrease as more PEPRA members enter the Plan. For the current valuation, the replacement of legacy members by PEPRA members decreased the employer normal cost rate by about 0.21% of pay.

- Demographic experience resulted in a net increase in cost of about 0.01% of pay, based on a 0.09% increase in the UAL amortization payment rate and an 0.08% decrease in employer normal cost rates within tiers. As with the investment gain, the changes in the UAL payment for demographic experience will continue to be phased-in over the next four years.

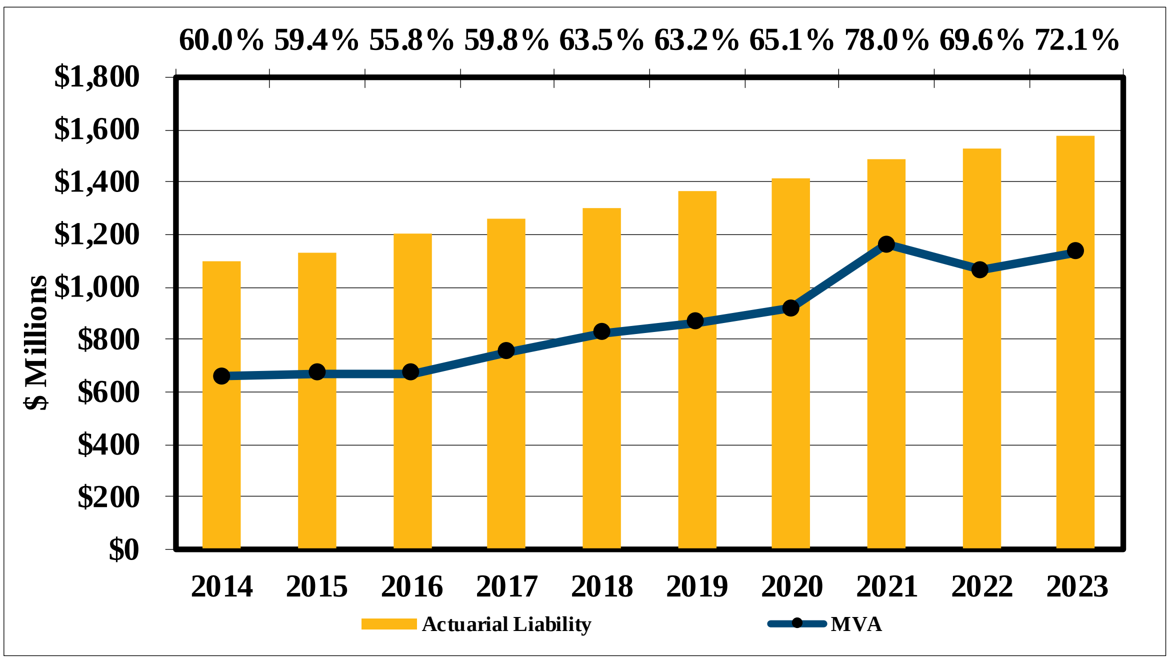
- A larger than expected increase in the projected payroll decreased the employer contribution rate by 0.28% of pay, since it results in the Plan's UAL and administrative expenses being spread over a larger-than-anticipated payroll base.

C. Historical Trends

For most retirement plans the greatest attention is given to the current valuation results and in particular, the size of the current Unfunded Actuarial Liability and the employer contribution. However, it is important to remember that each valuation is only a snapshot in the long-term progress of a pension fund, and the results should be analyzed relative to historical trends.

<u>Assets and Liabilities</u>

The following chart compares the Market Value of Assets (MVA) to the Actuarial Liabilities. The percentage shown at the top of each bar is the ratio of the Market Value of Assets to the Actuarial Liability (the funded ratio). The funded ratio has increased from 60.0% in 2014 to 72.1% as of June 30, 2023.

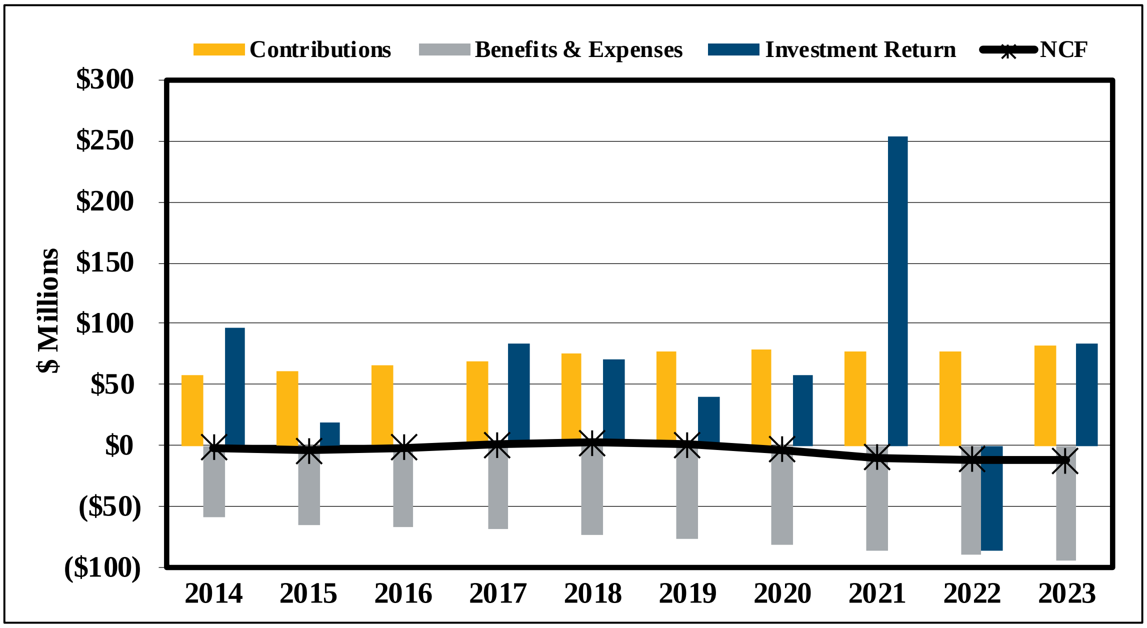


The funded ratio decreased in 2016 as a result of investment losses and assumption changes including lowering the discount rate to 7.25% from 7.75%. The 2017 and 2018 funded ratios increased primarily due to investment gains. The 2019 funded ratio remained flat, even with a reduction to the discount rate from 7.25% to 7.00%, because contributions were greater than the interest on the UAL plus normal cost and administrative expenses. The 2020 funded ratio increased primarily due to the high level of contributions. The 2021 funded ratio increased because of significant investment gains slightly offset by a reduction in the discount rate from 7.00% to 6.75%. The 2022 funded ratio decreased due to investment losses. The increase in the 2023 funded ratio is primarily a result of the contribution level.

SECTION I – EXECUTIVE SUMMARY

Cash Flows

The chart below shows the Plan's cash flows. The contributions, outflows (benefit payments and expenses), and investment returns are shown as bars and the Plan's net cash flow (NCF) is shown as a black line. This is an important measure, as it reflects the ability to have funds available to meet benefit payments without having to make difficult investment decisions, especially during volatile markets.

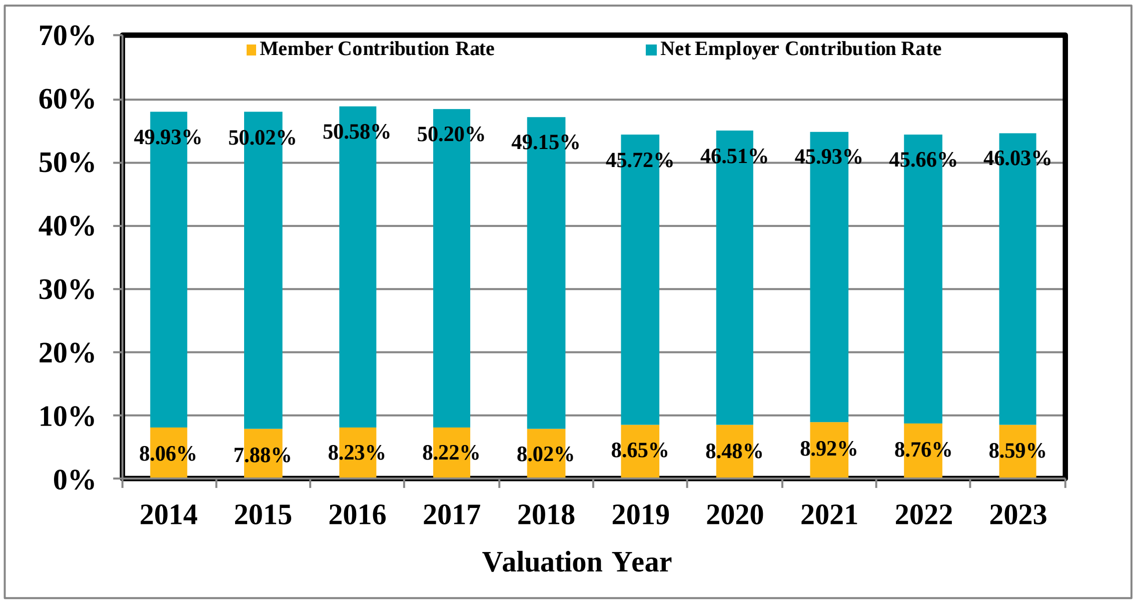


The NCF has remained approximately neutral over the past decade, though since 2021 there has been a small uptick in negative NCF, primarily due to reduced contributions following adjustments in the amortization of the 2013 UAL base. While a significant negative NCF can exacerbate losses in a market downturn, MercedCERA's current negative cash flow, representing only about 1% of Plan assets, does not pose a substantial risk to its market fluctuation absorption capacity.

SECTION I – EXECUTIVE SUMMARY

Contributions

The chart below shows the historical member and employer contribution rates calculated as of the valuation date over the past decade. The employer contribution rates have remained relatively stable – other than a substantial decrease in 2019 mostly due to an adjustment to the amortization of the 2013 UAL base – as positive investment experience and the shift towards the lower-cost PEPRA membership have offset the use of more conservative assumptions. The weighted-average member contribution rate increased with discount rate reductions in 2016, 2019, and 2021, and has also fluctuated based in shifts in the population.



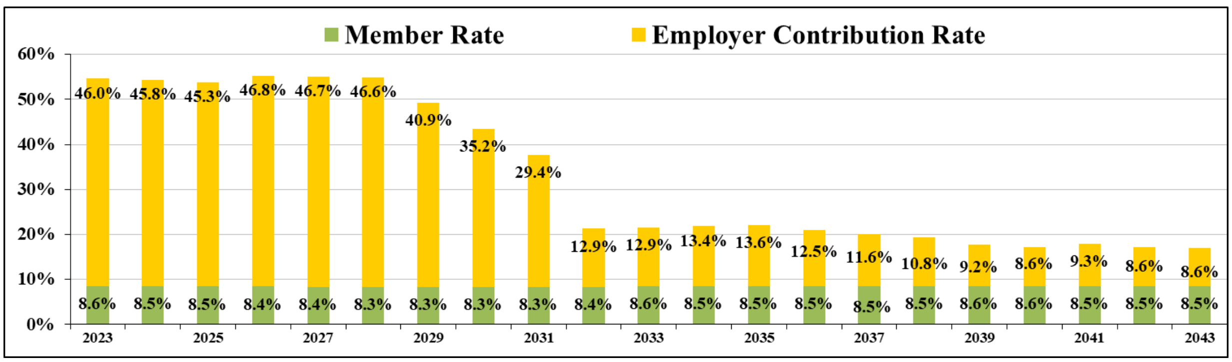
D. Future Expected Financial Trends

The analysis of projected financial trends is perhaps the most 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 contributions and benefit security (assets compared to liabilities). All the projections in this section are based on the current interest rate assumption of 6.75%. We have assumed increases in future pensionable payroll of 2.75% per year.

Contribution Projections:

The following graph shows the expected employer and member contribution rates based on actually 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.

Projection of Employer and Member Contributions, 6.75% return each year



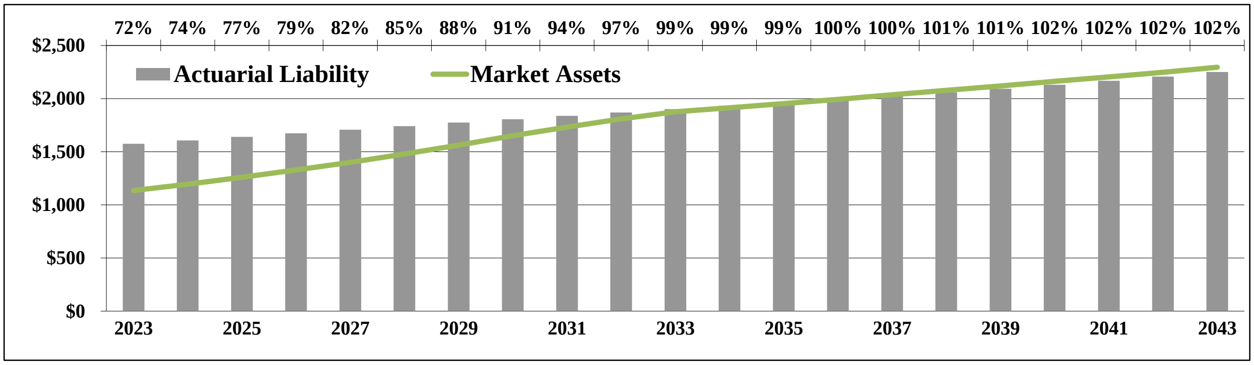
The graph above shows employer contributions remaining relatively stable, with slight increases after 2025, and then dropping off significantly from 2029 to 2032 as the amortization of the 2013 UAL is phased out. After that point, employer contribution rates are expected to stabilize and eventually approach the normal cost rates. The employee rates are expected to remain stable, shifting slightly as the Tier 1 and Tier 2 Legacy members retire and are replaced by PEPRA members.

SECTION I – EXECUTIVE SUMMARY

Asset and Liability Projections:

The graph below shows the projection of assets and liabilities assuming that assets will earn the 6.75% assumption each year during the projection period. The percentages along the top of the graph represent the funded ratio or status of the Plan.

Projection of Assets and Liabilities, 6.75% return each year



The graph shows that the projected funded status increases over the next 20 years to 102%, assuming the actuarial assumptions are achieved. The projections show the funded status increasing above 100% because PEPRA mandates that employers must continue to contribute at least the normal cost rate unless the plan is 120% funded and has met certain legal requirements as well. However, it is the actual return on plan assets that will determine the future funded status and contribution rates.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

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. Actuarial Standard of Practice #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. While MercedCERA cannot determine on its own what contribution level is unaffordable, we can project expected contribution rates and illustrate the potential impact of key sources of risk on those contribution rates so the employers can assess affordability. While there are a number of factors that could lead to contribution amounts becoming unaffordable, 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.

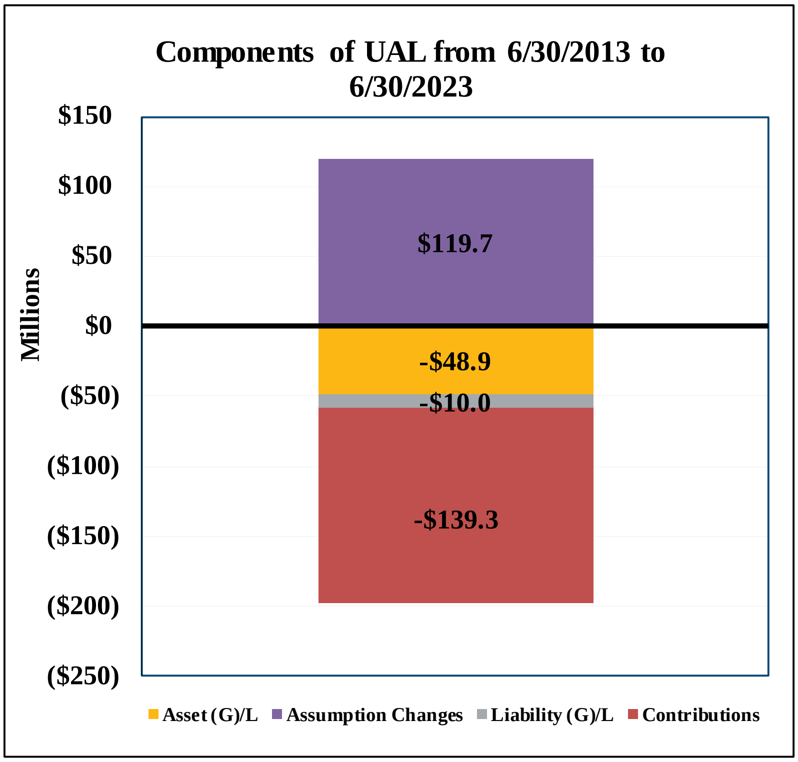
Assumption change risk is the potential for the environment to change such that future appropriate valuation assumptions are different than the current assumptions. For example, declines in interest rates over the last three decades (which have recently reversed) resulted in higher investment returns 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 affects the amount of contributions the Plan can collect.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

The chart below shows the components contributing to the Unfunded Actuarial Liability (UAL) from June 30, 2013 through June 30, 2023. Over the last 10 years, the UAL has decreased by approximately $78.5 million. Liability gains (gray bar) of $10.0 million, asset gains (gold bar) of $48.9 million, and contributions in excess of the "tread water" level (red bar) of $139.3 million are the primary sources in the UAL decrease. Assumptions changes (purple bar) of $119.7 million have increased the UAL since June 30, 2013.

Chart II-1



SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

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

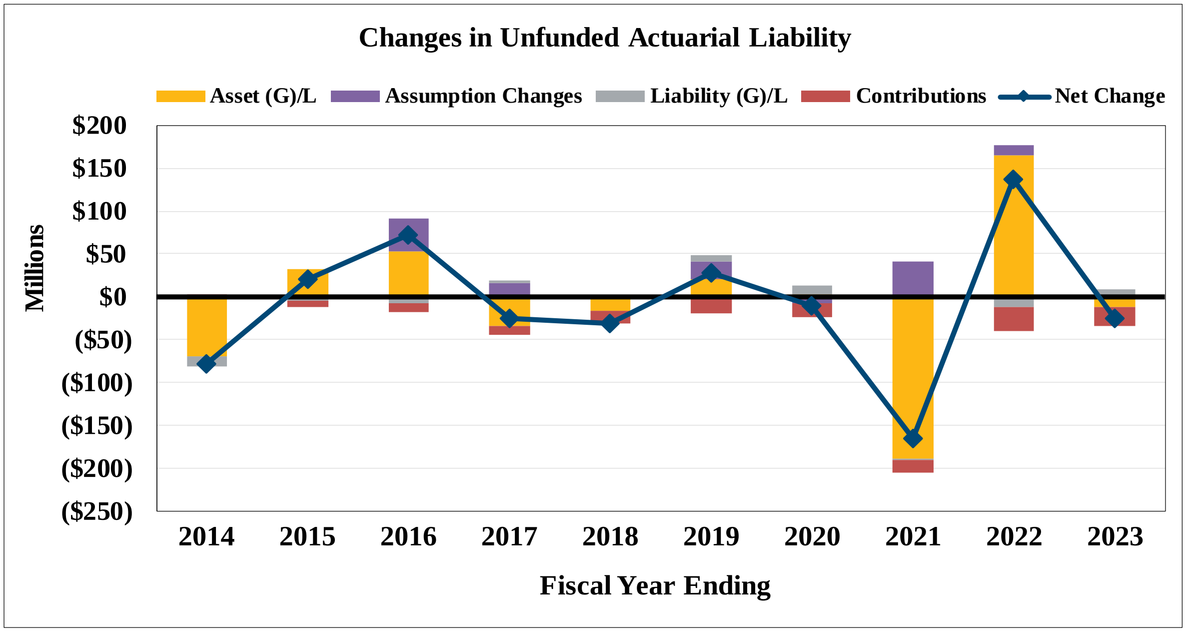


Table II-1 below summarizes the changes in the UAL for each year by source over the last 10 years.

Table II-1

Unfunded Actuarial Liability (UAL) Change by Source
(in millions)

FYE	Asset Experience	Liability Experience	Assumption Changes	Contributions	Total UAL Change
2014	($69.6)	($12.5)	$0.0	$3.0	($79.1)
2015	31.5	(5.1)	0.0	(6.5)	19.9
2016	52.4	(8.3)	38.1	(9.9)	72.3
2017	(34.5)	2.7	16.0	(9.4)	(25.2)
2018	(16.0)	1.2	0.0	(15.9)	(30.7)
2019	20.2	7.0	20.7	(19.5)	28.4
2020	3.3	9.7	(7.7)	(15.9)	(10.6)
2021	(189.4)	(1.0)	40.7	(15.4)	(165.1)
2022	165.2	(12.6)	11.9	(27.6)	136.9
2023	(12.0)	8.9	0.0	(22.3)	(25.4)
Total	**($48.9)**	**($10.0)**	**$119.7**	**($139.3)**	**($78.5)**

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

The average annual geometric investment return over the 10-year period is 7.7% and has resulted in investment gains in five of the last 10 years, and decreased the UAL in total over the period. The significant gain in 2021 was largely offset by a large loss in 2022. The gains and losses from 2020 to 2023 are still being phased-in to the contribution rate calculation under the direct rate smoothing amortization method but are fully recognized immediately in the UAL calculation.

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 in the earlier charts and also includes changes in mortality rates projected in the future which had an impact on the measurement of the UAL.

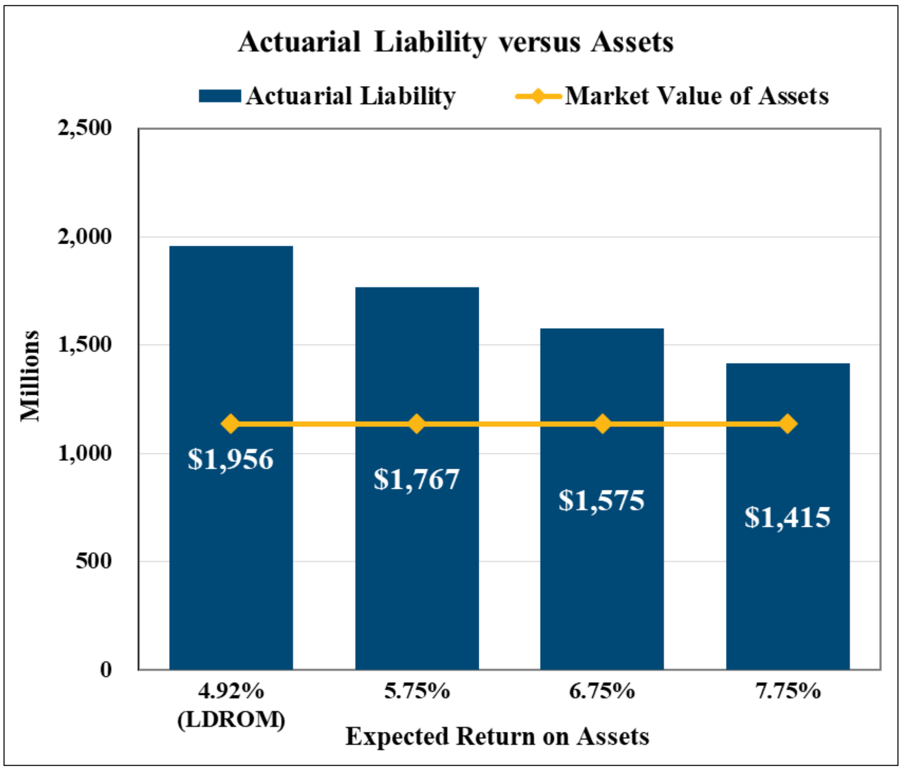
Each year, the UAL is expected to increase for benefits earned in the current year (the normal cost), administrative expenses, and interest on the UAL. This expected increase is referred to as the tread water level. The difference between actual contributions and the tread water level are shown by the red bars in the prior charts. 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. Contributions have been above the tread water level since 2015.

Effective with the June 30, 2019 valuation, changes were made to the amortization policy that reduced the current contribution level by extending the amortization schedule for the remaining 2013 UAL. However, even with these changes, contributions are still significantly above the tread water level. The single period 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 10 years.

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 (7.00%) 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 $1.6 billion in assets today to pay the benefits associated with service earned to date, compared to current assets of $1.1 billion. If investment returns are only 5.75%, the Plan would need approximately $1.8 billion in assets today, and if investment returns are 7.75%, the Plan would need approximately $1.4 billion in assets.

MercedCERA invests in a diversified portfolio to achieve the best possible returns at an acceptable level of risk. MercedCERA's average return over the last 20 years is 6.6%. Please refer to Table III-4 (page 26) for the asset returns by year since 2000.

The lowest 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. However, such a portfolio would have a lower expected rate of return (4.92% as of June 30,

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

2023) than the diversified portfolio (6.75%). The Low-Default-Risk Obligation Measure (LDROM) represents what the Actuarial Liability would be if MercedCERA's assets were invested in such a portfolio. As of June 30, 2023, the LDROM is $1.96 billion[1] compared to the Actuarial Liability of $1.57 billion for MercedCERA. The $0.39 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 MercedCERA were to invest in the LDROM portfolio and not a diversified portfolio, the funded status would be lower, and expected contribution requirements would increase. The security of MercedCERA's pension benefits relies on the current assets, future investment earnings, and the ability and willingness of employers to make future contributions. If MercedCERA 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.

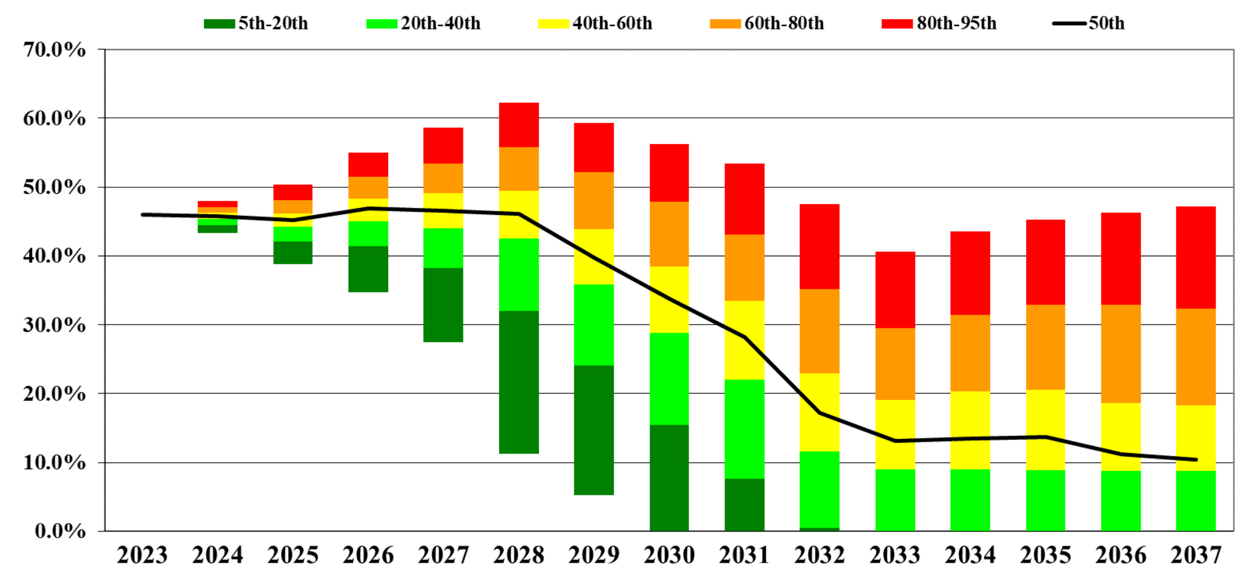
SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

Sensitivity to Investment Returns - Stochastic Projections

Stochastic projections serve to show the range of probable outcomes of various measurements. The following graphs show the projected range of the employer contribution rate and the funded ratio on a Market Value of Assets basis. The range in both scenarios is driven by the volatility of investment returns, which reflect a 13.7% standard deviation of annual returns, as indicated by Meketa's capital market assumptions at the end of 2022.

Stochastic Projection of Employer Contributions as a Percent of Pay

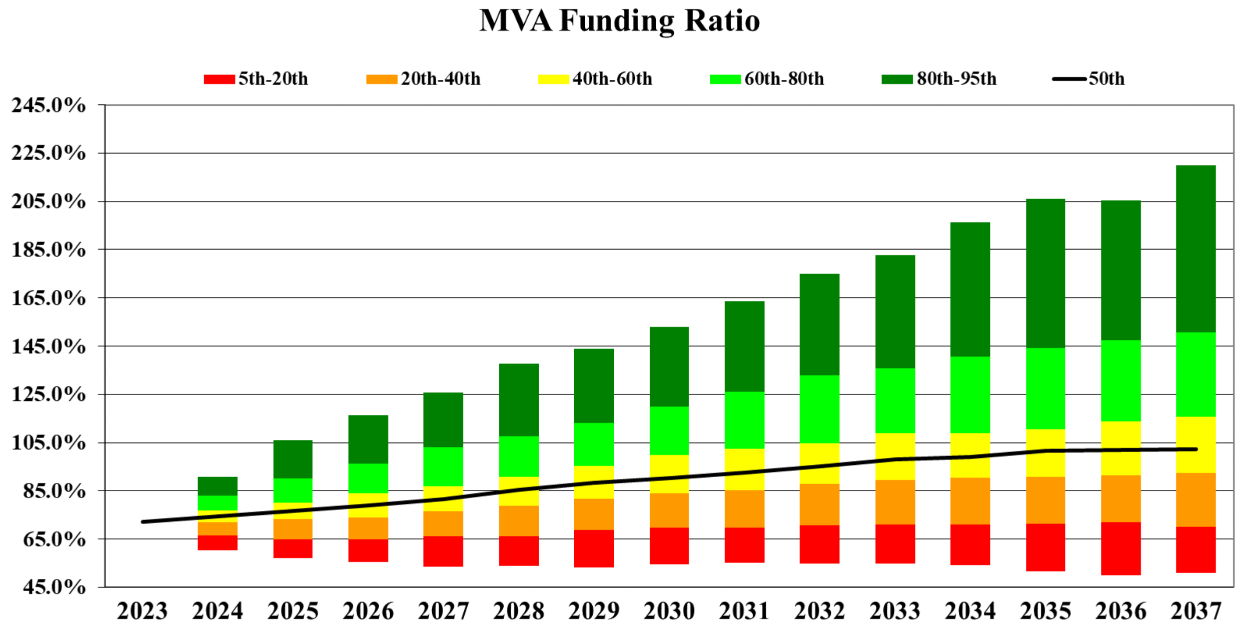
Plan Sponsor Contribution Rate



The stochastic projection of employer contributions as a percent 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 is above 60% of pay in 2028. Conversely, the most optimistic scenario shown, the 5th percentile, the projected employer contribution rate declines to 0% in 2030. We note that 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 PEPRA.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

Stochastic Projection of Funded Ratio on a Market Value of Assets Basis



The graph above shows the projection of the funded ratio based on the market value of assets. While the baseline-funded ratio (black line) is projected to be approximately 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 50% funded as long as the actuarially determined contributions continue to be made.

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 stagnate or decline because contributions are based on payroll levels, though this will generally only present a funding issue if there is an extended pattern of payroll reductions.

There is also a risk of the contribution rate increasing even higher when payroll decreases because 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 a sponsor with a declining payroll and/or revenue base.

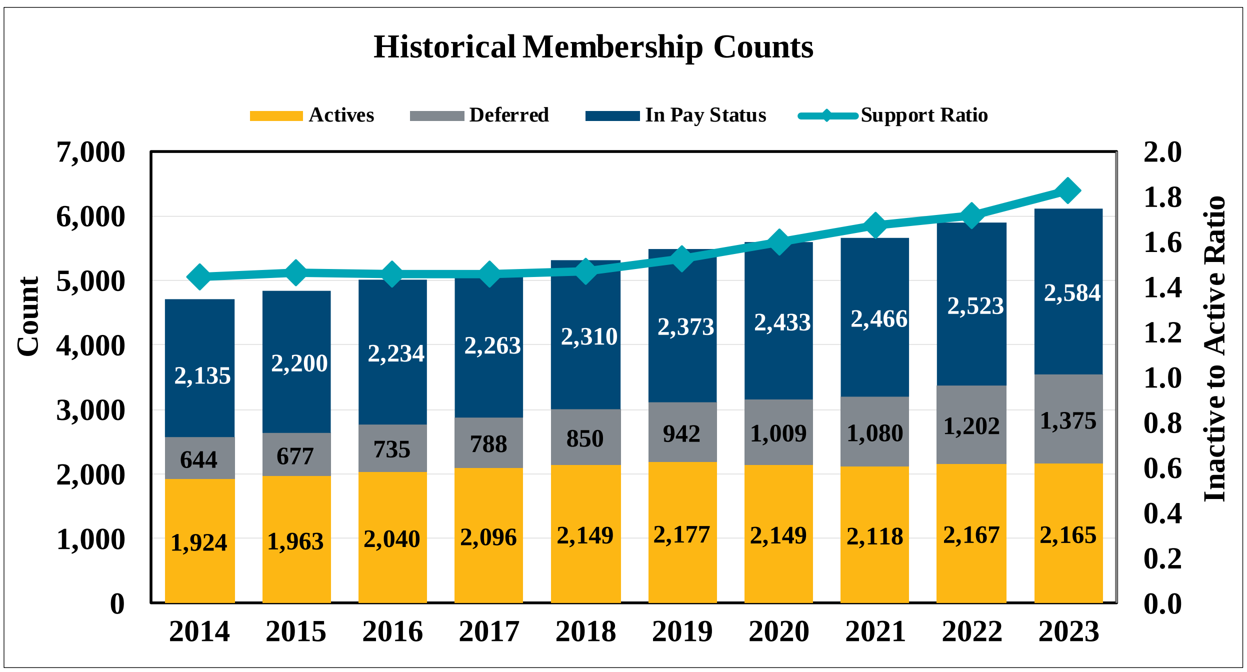
Plan Maturity Measures

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 the maturity of the Plan and 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 assets and/or liabilities are 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.

Inactives per Active (Support Ratio)

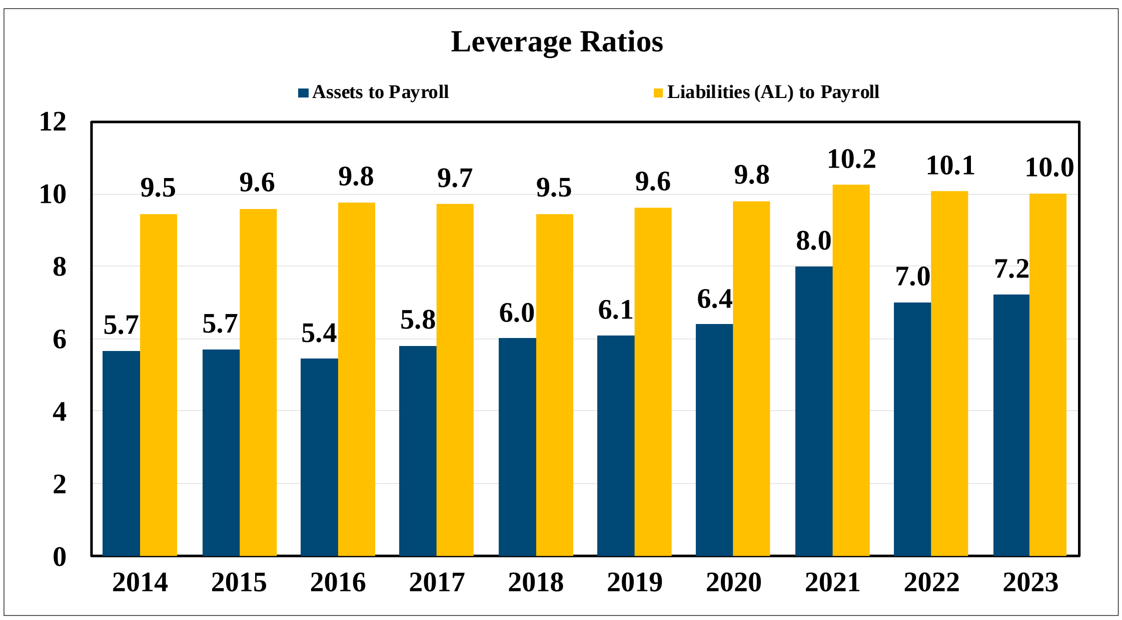
One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits or those entitled to a deferred benefit) to the number of active members. The Support Ratio is expected to increase gradually as a plan matures. The chart below shows the growth in the Support Ratio from 2014 to 2023 as the number of inactives increased relative to the number of actives.



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 demographic experience.

The following charts show the historical leverage ratios of the Plan. Both leverage ratios have gradually increased since 2014, but the asset to payroll ratio still lags behind the liability to payroll ratio, due to the funded status of the Plan. We note that the asset leverage ratio increased significantly in 2021, from 6.4 to 8.0, due to investment returns, and conversely decreased in 2022 to 7.0 due to investment losses. We expect these ratios to converge over time as the Plan becomes better funded if assumptions are met. Therefore, the Plan is expected to become more sensitive to market variation in the future than it is today.



To appreciate the impact of the ratio of assets to payroll on contributions rates, 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 contribution rate is nil, because the assets are so small.

Suppose MercedCERA's assets lose 10% of their value in a year. Because they were assumed to earn 6.75%, there is an actuarial loss of 16.75% of plan assets. Based on the current ratio of assets to payroll (720%), that means the loss in assets is about 120.6% of active payroll (720% of the 16.75% loss). There is only one source of funding to make up for this loss: contributions. Consequently, barring future offsetting investment gains, the employers must make up the asset loss in future contributions. In this example of a one-year loss of 10%, this shortfall will eventually require an additional amortization payment of approximately 9.5% of payroll once fully phased-in, if amortized over the Plan's 24-year schedule for gains and losses.

SECTION II – IDENTIFICATION AND ASSESSMENT OF RISKS

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,
- Comparison of the actual and expected investment performance during the year, and
- Historical **investment performance.**

As of June 30, 2014, an Actuarial Value of Assets distinct from the Market Value of Assets is no longer used in the calculations of the Unfunded Actuarial Liability or funded status due to the implementation of the funding policy adopted by the Board on January 22, 2015. This policy change was made in conjunction with 24-year (22-year for assumption changes) layered amortization of any unexpected changes in the Unfunded Actuarial Liability starting with the June 30, 2014 valuation. A calculation of the Actuarial Value of Assets is no longer shown in the valuation report, except to show the history of returns on the actuarial assets in Table III-4.

Also in prior valuations, a distinction was made between actuarial assets and valuation assets, with the latter reduced for non-valuation reserves, such as the Contingency Reserve. Because there are no such reserves as of June 30, 2022 and June 30, 2023, the two asset values are equal, and throughout this report we have used the term Market Value of Assets exclusively, except to show the history of returns on the valuation assets in Table III-4.

Disclosure

The market value represents "snapshot" or "cash out" values that provide the principal basis for measuring financial performance from one year to the next.

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

SECTION III – ASSETS

Table III-1
Statement of Assets at Market Value

Assets	June 30, 2023	June 30, 2022
Cash and Short-Term Investments:		
Cash invested with Merced County Treasurer	$ 542,775	$ 962,632
Cash invested with Northern Trust	6,734,512	5,405,400
Other cash and cash equivalents with Northern Trust	358,464	1,606,020
Total Cash and Short-Term Investments	$ 7,635,751	$ 7,974,052
Receivables:		
Bond interest	$ 275,529	$ 594,819
Dividends	0	0
Contributions	3,148,475	2,748,334
Distributions	78,443	66,780
Securities sold	0	0
Other	6,621	16,543
Total Receivables	$ 3,509,068	$ 3,426,476
Investments at Market Value:		
U.S. government and agency obligations	$ 2,507	$ 39,370,729
Domestic fixed income	152,015,158	163,748,458
Common stocks (domestic)	28,608,415	24,197,364
Common stocks (index funds)	237,131,866	211,862,277
Common stocks (international)	210,796,922	184,743,517
Common stocks (international index funds)	0	0
Real estate	83,852,232	91,666,608
Alternative investments	411,138,098	336,826,066
Total Investments at Market Value	$ 1,123,545,198	$ 1,052,415,019
Other Assets:		
Prepaid expense	$ 111,612	$ 119,533
Capital assets, net of accumulated depreciation of $2,413,926 and $2,149,188 respectively	1,038,580	1,281,753
Total Assets	1,135,840,209	1,065,216,833
Liabilities		
Accounts payable	$ 655,575	$ 682,234
Securities purchased	17,846	8,451
Unclaimed contributions	85,403	85,403
Capital Calls	0	0
Total Liabilities	758,824	776,088
Market Value of Assets	**$ 1,135,081,385**	**$ 1,064,440,745**

SECTION III – ASSETS

Changes in Market Value

The components of asset change are:

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

Table III-2 shows the components of change in the Market Value of Assets during 2022 and 2023.

Table III-2
Changes in Market Values

Additions		**Fiscal Year ending June 30, 2023**		**Fiscal Year ending June 30, 2022**
Contributions:				
Employer	$	68,648,166	$	65,629,994
Plan members		13,445,557		12,124,583
Total Contributions	$	82,093,723	$	77,754,577
Investment Income/(Loss) from Investment Activities:				
Net appreciation/(depreciation) in fair value of investments	$	73,272,953	$	(94,850,878)
Investment income		13,243,231		10,671,989
Other revenue		503		57,231
Less investment expenses		(3,099,245)		(2,994,233)
Total Investment Income/(Loss) from Investment Activities	$	83,417,442	$	(87,115,891)
Total Additions		165,511,165		(9,361,314)
Deductions				
Benefits paid	$	90,585,672	$	85,912,580
Refunds of contributions		1,262,876		896,116
Administrative expense		2,789,967		2,522,797
Actuarial expense		232,010		120,292
Total Deductions		94,870,525		89,451,785
Net Increase/(Decrease)	$	70,640,640	$	(98,813,099)
Market Value of Assets, Beginning of Year		1,064,440,745		1,163,253,844
Market Value of Assets, End of Year	**$**	**1,135,081,385**	**$**	**1,064,440,745**

SECTION III – ASSETS

Investment Performance

The following table shows the development of the asset gain/(loss) and investment return.

Table III-3
Development of Asset Return

Market Value of Assets, Beginning of Year	$	1,064,440,745
Contributions		82,093,723
Benefit Paid and Refunds of Contributions		(91,848,548)
Administrative Expense		(3,021,977)
Expected Investment Earnings (6.75%)		71,425,574
Expected Market Value of Assets, End of Year	$	1,123,089,517
Investment Gain / (Loss)		11,991,868
Market Value of Assets, End of Year		$1,135,081,385
Actual Investment Earnings	$	83,417,442
Return		7.88%

SECTION III – ASSETS

The table below shows the historical annual asset returns on a market value and actuarial value basis, as well as the increase in the Consumer Price Index (CPI) since 2000. Beginning June 30, 2014, the Actuarial Value of Assets is equal to the Market Value of Assets, so the net returns are the same for FY 2015 onwards.

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	Increase in Consumer Price Index[1]
2000	9.1%	11.5%	3.7%
2001	-3.6%	8.6%	3.2%
2002	-5.6%	4.9%	1.1%
2003	4.6%	3.3%	2.1%
2004	12.6%	3.3%	3.3%
2005	8.7%	2.5%	2.5%
2006	7.6%	4.7%	4.3%
2007	16.3%	8.9%	2.7%
2008	-6.7%	1.2%	5.0%
2009	-22.1%	-4.9%	-1.4%
2010	12.7%	7.0%	1.1%
2011	22.6%	2.6%	3.6%
2012	-1.6%	0.6%	1.7%
2013	11.8%	3.8%	1.8%
2014	17.1%	11.8%	2.1%
2015	2.9%	2.9%	0.1%
2016	-0.1%	-0.1%	1.0%
2017	12.4%	12.4%	1.6%
2018	9.4%	9.4%	2.9%
2019	4.8%	4.8%	1.6%
2020	6.6%	6.6%	0.6%
2021	27.7%	27.7%	5.4%
2022	-7.5%	-7.5%	9.1%
2023	7.9%	7.9%	3.0%
20-Year Compound Average	**6.6%**	**5.1%**	**2.6%**
15-Year Compound Average	**6.3%**	**5.4%**	**2.3%**
10-Year Compound Average	**7.7%**	**7.2%**	**2.7%**
5-Year Compound Average	**7.3%**	**7.3%**	**3.9%**

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

SECTION IV – LIABILITIES

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

- **Disclosure** of Plan liabilities at June 30, 2022 and June 30, 2023, and
- Plan liabilities by **tier** as of June 30, 2023.

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 Market Value of Assets.

Table IV-1 on the following page discloses each of these liabilities for the current and prior valuations.

SECTION IV – LIABILITIES

Table IV-1
Present Value of Future Benefits and Actuarial Liability
(in thousands)

Item	June 30, 2023	June 30, 2022
Present Value of Future Benefits		
Actives	$ 599,529	$ 591,954
Deferred Members	78,002	68,625
Retirees	958,429	927,596
Disabled	71,743	72,211
Beneficiaries	72,131	71,322
Total MercedCERA	$ 1,779,834	$ 1,731,708
Actuarial Liability		
Total Present Value of Future Benefits	$ 1,779,834	$ 1,731,708
Present Value of Future Normal Costs		
Employer Portion	100,386	100,282
Employee Portion	104,838	102,092
Actuarial Liability	$ 1,574,609	$ 1,529,334
Market Value of Assets	$ 1,135,081	$ 1,064,441
Unfunded Actuarial Liability/(Surplus)	$ 439,528	$ 464,893

SECTION IV – LIABILITIES

Table IV-2 discloses the liabilities of the Plan as of June 30, 2023, split by tier.

Table IV-2
Liabilities by Group as of June 30, 2023
(in thousands)

Present Value of Future Benefits	General Tier 1	General Tier 2	General Tier 3	General Tier 4	General Total	Safety Tier 1	Safety Tier 2	Safety Tier 3	Safety Tier 4	Safety Total	All Total
Actives	$ 30,574	$ 276,394	$ 12,764	$ 147,039	$ 466,771	$ 8,809	$ 83,217	$ 1,386	$ 39,346	$ 132,757	$ 599,529
Deferred Members	8,319	48,455	1,615	5,726	64,115	300	12,317	211	1,058	13,887	78,002
Retirees	618,817	172,707	278	1,978	793,780	143,412	20,796	0	441	164,649	958,429
Disabled	15,651	8,358	225	236	24,471	34,614	12,658	0	0	47,272	71,743
Beneficiaries	45,215	5,393	0	38	50,646	20,712	773	0	0	21,485	72,131
Total	**$ 718,576**	**$ 511,307**	**$ 14,883**	**$ 155,018**	**$ 1,399,784**	**$ 207,847**	**$ 129,761**	**$ 1,597**	**$ 40,845**	**$ 380,050**	**$ 1,779,834**
Actuarial Liability											
Actives	$ 28,052	$ 221,509	$ 5,896	$ 50,805	$ 306,262	$ 8,275	$ 66,246	$ 658	$ 12,863	$ 88,042	$ 394,304
Deferred Members	8,319	48,455	1,615	5,726	64,115	300	12,317	211	1,058	13,887	78,002
Retirees	618,817	172,707	278	1,978	793,780	143,412	20,796	0	441	164,649	958,429
Disabled	15,651	8,358	225	236	24,471	34,614	12,658	0	0	47,272	71,743
Beneficiaries	45,215	5,393	0	38	50,646	20,712	773	0	0	21,485	72,131
Total	**$ 716,055**	**$ 456,422**	**$ 8,015**	**$ 58,783**	**$ 1,239,275**	**$ 207,313**	**$ 112,790**	**$ 869**	**$ 14,362**	**$ 335,335**	**$ 1,574,609**

SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, we analyze the assets and liabilities to determine what level (if any) 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) C**ost Method. There are three primary components to the total contribution: the **normal cost rate** (employee and employer), the **Unfunded Actuarial Liability rate** (UAL rate), and the **administrative expense rate**.

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, calculated by dividing the total normal cost by expected payroll of the closed group, is reduced by the member contribution rate to produce the employer normal cost rate.

Starting with the June 30, 2014 valuation, the Unfunded Actuarial Liability (UAL) is the difference between the EAN Actuarial Liability and the Market Value of Assets. The Unfunded Actuarial Liability payment was determined as the amount needed to fund the outstanding Unfunded Actuarial Liability as of June 30, 2013 over a closed period of 16 years, as a level percentage of pay. Effective with the June 30, 2019 valuation, 15% of the outstanding balance as of June 30, 2019 of the June 30, 2013 UAL amortization base is carved out as a separate base and amortized over a closed 14-year period (with 10 years remaining with this valuation) as a level percentage of payroll. The remaining 85% is amortized over a closed 14-year period (with 10 years remaining with this valuation), with 10 years of level payments as a percentage of payroll, and a four-year ramp down at the end of the period. Any subsequent unexpected change in the Unfunded Actuarial Liability after June 30, 2013 is amortized over 24 years (22 years for assumption changes) that includes a five-year phase-in/four-year phase-out (three-year phase-in/two-year phase-out for assumption changes) of the payments/credits for each annual layer.

The administrative expenses are assumed to be $2.9 million for the current Plan year, and are expected to increase by the inflation rate in future years. The administrative expenses are split between the employees and employers based on each group's share of the normal cost and UAL rates.

SECTION V – CONTRIBUTIONS

The table below and on the next page present the employer contribution rates for the Plan for this valuation.

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

	June 30, 2023	June 30, 2022
1. Total Normal Cost Rate	17.40%	17.86%
2. Member Contribution Rate[1]	8.29%	8.46%
3. Employer Normal Cost Rate (1-2)	9.11%	9.40%
4. UAL Amortization Rate	35.38%	34.71%
5. Administrative Expense Rate	1.54%	1.55%
6. Net Employer Contribution Rate (3+4+5)	46.03%	45.66%

[1] *Not including member's share of administrative expenses.*

SECTION V – CONTRIBUTIONS

Table V-2
FYE 2025 Net Employer Contribution Rate by Group

	General					Safety					All
	Tier 1	Tier 2	Tier 3	Tier 4	Total	Tier 1	Tier 2	Tier 3	Tier 4	Total	Total
County											
1. Total Normal Cost Rate	27.33%	19.35%	16.84%	13.95%	16.20%	37.62%	24.81%	25.11%	21.95%	23.56%	17.40%
2. Member Contribution Rate[1]	12.60%	9.41%	6.71%	6.97%	7.91%	14.98%	9.35%	9.17%	10.97%	10.26%	8.29%
3. Employer Normal Cost Rate (1-2)	14.73%	9.94%	10.13%	6.98%	8.29%	22.64%	15.46%	15.94%	10.98%	13.30%	9.11%
4. UAL Amortization Rate	32.97%	32.97%	32.97%	32.97%	32.97%	47.57%	47.57%	47.57%	47.57%	47.57%	35.38%
5. Administrative Expense Rate	1.65%	1.48%	1.49%	1.38%	1.43%	2.43%	2.18%	2.20%	2.03%	2.11%	1.54%
6. Net Employer Contribution Rate (3+4+5)	**49.35%**	**44.39%**	**44.59%**	**41.33%**	**42.69%**	**72.64%**	**65.21%**	**65.71%**	**60.58%**	**62.98%**	**46.03%**

[1] *Not including member's share of administrative expenses.*

SECTION V – CONTRIBUTIONS

The assets of the Plan are allocated between the General and Safety groups based on their share of the liability for non-active members. If the assets of the Plan exceed the liabilities of the non-active members, the remaining assets are allocated between the General and Safety groups based on their share of the liabilities for active members.

Table V-3
Allocation of the June 30, 2023 UAL and Development of UAL Amortization Rates for FYE 2025

			General		Safety		Total
1.	Market Value of Assets					$	1,135,081,385
2.	Inactive Actuarial Liability		933,012,308		247,292,677		1,180,304,985
3.	Allocation of Assets for Inactives		79.05%		20.95%		100.00%
4.	Total Assets for Inactives		897,263,772		237,817,613		1,135,081,385
5.	Net Assets for Distribution (1 - 4 not less than zero)					$	0
6.	Active Actuarial Liability	$	306,262,301	$	88,042,151	$	394,304,452
7.	Allocation of Remaining Assets		77.67%		22.33%		100.00%
8.	Total Assets for Actives (7 x 5)		0		0		0
9.	Market Value of Assets (4 + 8)	$	897,263,772	$	237,817,613	$	1,135,081,385
10.	Total Actuarial Liability		1,239,274,609		335,334,828		1,574,609,437
11.	**Unfunded Actuarial Liability (UAL) (10 - 9)**	**$**	**342,010,837**	**$**	**97,517,215**	**$**	**439,528,052**
12.	UAL Amortization (see table V-4)		43,292,070		12,343,826		55,635,896
13.	Total Payroll		131,306,182		25,946,213		157,252,395
14.	**UAL Amortization Rate (12 divided by 13)**		**32.97%**		**47.57%**		**35.38%**

SECTION V – CONTRIBUTIONS

Table V-4 presents the calculation of the UAL payments for the Plan.

Table V-4
Development of Amortization Payment
For the June 30, 2023 Actuarial Valuation

Type of Base	Date Established	Initial Amount	Initial Amortization Years	June 30, 2023 Outstanding Balance	Remaining Amortization Years	Current Phase In/Out Percentage	Amortization Amount	% of Pay	% of Pay After Phase-In
1. Initial UAL - extended	6/30/2019	$ 367,575,087	14	$ 293,505,618	10	100%	$ 43,338,823	27.56%	27.56%
2. Initial UAL - carve out	6/30/2019	64,866,192	14	55,527,645	10	100%	6,772,059	4.31%	4.31%
3. (Gain)/Loss Base	6/30/2014	(71,384,203)	24	(73,559,509)	15	100%	(7,293,863)	-4.64%	-4.64%
4. (Gain)/Loss Base	6/30/2015	34,000,650	24	35,884,861	16	100%	3,361,550	2.14%	2.14%
5. (Gain)/Loss Base	6/30/2016	47,466,429	24	51,024,889	17	100%	4,538,386	2.89%	2.89%
6. (Gain)/Loss Assumption	6/30/2016	38,112,827	22	37,445,477	15	100%	3,502,911	2.23%	2.23%
7. (Gain)/Loss Base	6/30/2017	(29,098,191)	24	(31,849,389)	18	100%	(2,701,494)	-1.72%	-1.72%
8. (Gain)/Loss Assumption	6/30/2017	15,960,129	22	16,042,189	16	100%	1,425,069	0.91%	0.91%
9. (Gain)/Loss Base	6/30/2018	(14,219,151)	24	(15,778,459)	19	100%	(1,281,171)	-0.81%	-0.81%
10. (Gain)/Loss Base	6/30/2019	28,753,231	24	32,220,548	20	100%	2,512,903	1.60%	1.60%
11. (Gain)/Loss Assumption	6/30/2019	20,714,918	22	21,493,631	18	100%	1,743,371	1.11%	1.11%
12. (Gain)/Loss Base	6/30/2020	12,189,143	24	13,575,400	21	80%	828,028	0.53%	0.66%
13. (Gain)/Loss Assumption	6/30/2020	(7,652,716)	22	(8,034,220)	19	100%	(625,978)	-0.40%	-0.40%
14. (Gain)/Loss Base	6/30/2021	(187,358,380)	24	(204,061,112)	22	60%	(9,271,892)	-5.90%	-9.83%
15. (Gain)/Loss Assumption	6/30/2021	40,723,349	22	43,110,260	20	100%	3,236,112	2.06%	2.06%
16. (Gain)/Loss Base	6/30/2022	154,923,054	24	162,879,380	23	40%	4,974,371	3.16%	7.91%
17. (Gain)/Loss Assumption	6/30/2022	11,871,588	22	12,365,177	21	67%	612,091	0.39%	0.58%
18. (Gain)/Loss Base	6/30/2023	(2,264,333)	24	(2,264,333)	24	20%	(35,379)	-0.02%	-0.11%
Total				$ 439,528,052			$ 55,635,896	35.38%	36.43%

The single period 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 10 years.

SECTION VI – ANNUAL COMPREHENSIVE FINANCIAL REPORTING INFORMATION

The Governmental Accounting Standards Board (GASB) adopted Statement Nos. 67 and 68, replacing GASB Statement Nos. 25 and 27. GASB 67 is effective for periods beginning after June 15, 2013 (first effective for the fiscal year ending June 30, 2014 for the Plan) and GASB 68 is effective for fiscal years beginning after June 15, 2014 (first effective for the fiscal year ending June 30, 2015 for the Employer). The disclosures needed to satisfy the GASB requirements can be found in the MercedCERA GASB 67/68 Report as of June 30, 2023.

In accordance with Governmental Finance Officers Association (GFOA) and their recommended checklist for Annual Comprehensive Financial Reports (ACFRs), we continue to prepare the following disclosures:

Analysis of Financial Experience

This schedule shows the history of gains or losses arising from investment and liability sources, as well as non-recurring items.

Schedule of Funded Liabilities by Type

The schedule of funded liabilities by type (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 that are covered by the Actuarial Value of Assets.

Actuarial Balance Sheet

The actuarial balance sheet shows the components of the Actuarial Liabilities of the Plan and the actuarial assets that are intended to satisfy those liabilities.

SECTION VI – ANNUAL COMPREHENSIVE FINANCIAL REPORTING INFORMATION

Table VI-1
Analysis of Financial Experience
Gain (or Loss) in Actuarial Liability During Years Ended June 30
Resulting from Differences Between Assumed Experience
and Actual Experience
(in thousands)

	Gain (or Loss) for Year Ending June 30									
Type of Activity	**2023**	**2022**	**2021**	**2020**	**2019**	**2018**	**2017**	**2016**	**2015**	**2014**
Investment Income and Expenses	$ 11,992	$ (165,247)	$ 189,425	$ (3,288)	$ (20,208)	$ 15,963	$ 34,498	$ (52,420)	$ (31,459)	$ 22,058
Combined Liability Experience	(8,913)	12,615	999	(9,654)	(7,038)	(1,158)	(2,720)	8,327	5,096	12,533
Gain (or Loss) During Year from Financial Experience	$ 3,079	$ (152,632)	$ 190,424	$ (12,942)	$ (27,246)	$ 14,805	$ 31,778	$ (44,093)	$ (26,363)	$ 34,591
Non-Recurring Gain (or Loss) Items	(819)	(14,169)	(43,792)	8,408	(22,230)	(576)	(18,639)	(41,488)	(7,636)	36,803
Composite Gain (or Loss) During Year	$ 2,260	$ (166,801)	$ 146,632	$ (4,534)	$ (49,476)	$ 14,229	$ 13,139	$ (85,581)	$ (33,999)	$ 71,394

SECTION VI – ANNUAL COMPREHENSIVE FINANCIAL REPORTING INFORMATION

Table VI-2
Schedule of Funded Liabilities by Type
(dollars in thousands)

Valuation Date June 30,	(A) Active Member Contributions	(B) Retirees And Beneficiaries	(C) Remaining Active Members' Liabilities[1]	Reported Assets	Portion of Actuarial Liabilities Covered by Reported Assets (A)	(B)	(C)
2023	$ 91,021	$ 1,102,303	$ 381,285	$ 1,135,081	100%	95%	0%
2022 [2]	89,217	1,071,129	368,988	1,064,441	100%	91%	0%
2021 [4]	88,147	1,038,307	364,778	1,163,254	100%	100%	10%
2020 [3]	84,767	986,071	342,043	919,815	100%	85%	0%
2019 [2]	86,356	932,909	350,930	866,503	100%	84%	0%
2018	86,585	871,095	344,239	826,654	100%	85%	0%
2017	85,150	834,643	339,909	753,769	100%	80%	0%
2016 [2]	81,880	804,658	314,657	670,016	100%	73%	0%
2015	78,078	765,738	287,365	672,319	100%	78%	0%
2014	75,582	739,428	281,231	657,325	100%	79%	0%

[1] *Includes deferred members.*

[2] *Reflects revised economic and demographic assumptions.*

[3] *Reflects revised demographic assumptions.*

[4] *Reflects revised economic assumptions.*

Table VI-3
Actuarial Balance Sheet as of June 30, 2023

	Assets	
1.	Market value of assets	$ 1,135,081,385
2.	Present value of future contributions by members	104,838,029
3.	Present value of future employer contributions for normal cost	100,386,139
4.	Present value of other future employer contributions (UAL)	439,528,052
5.	**Total actuarial assets**	**$ 1,779,833,605**
	Liabilities	
6.	Present value of retirement allowances payable to retired/disabled members and their survivors	$ 1,102,302,904
7.	Present value of service retirement allowances payable to presently active members and their survivors	497,155,067
8.	Present value of allowances payable to current and future vested terminated and their survivors	138,877,087
9.	Present value of disability retirement allowances payable to presently active members and their survivors	26,707,855
10.	Present value of death benefits payable on behalf of presently active members	3,974,512
11.	Present value of members' contributions to be returned upon withdrawal	10,816,180
12.	Special Reserves	-
13.	**Total present value of benefits**	**$ 1,779,833,605**

APPENDIX A – MEMBERSHIP INFORMATION

Summary of Participant Data (By Group) As of June 30, 2023	General	Safety	Total
Active Participants			
Number	1,857	308	2,165
Average Age	42.75	38.80	42.19
Average Benefit Service	8.55	9.65	8.71
Average Pay	$67,989	$80,816	$69,814
Service Retired			
Number	1,810	242	2,052
Average Age	71.79	66.01	71.11
Average Annual Total Benefit	$36,979	$50,718	$38,599
Beneficiaries & QDROs			
Number	277	75	352
Average Age	75.58	72.73	74.97
Average Annual Total Benefit	$20,079	$29,644	$22,117
Duty Disabled			
Number	51	88	139
Average Age	69.83	63.92	66.09
Average Annual Total Benefit	$29,486	$38,418	$35,141
Non-Duty Disabled			
Number	39	2	41
Average Age	68.56	64.66	68.37
Average Annual Total Benefit	$18,762	$26,774	$19,152
Total Receiving Benefits			
Number	2,177	407	2,584
Average Age	72.17	66.79	71.32
Average Annual Total Benefit	$34,327	$44,057	$35,859
Terminated Vested			
Number	410	53	463
Average Age	47.61	42.92	47.07
Average Benefit Service	9.13	9.27	9.15
Transfers			
Number	173	53	226
Average Age	50.18	45.24	49.02
Average Benefit Service	4.40	4.27	4.37
Funds on Account			
Number	614	72	686
Average Age	39.31	34.33	38.79
Average Benefit Service	1.34	1.38	1.34
Total Deferred			
Number	1,197	178	1,375
Average Age	43.72	40.14	43.26
Average Benefit Service	4.45	4.59	4.47

APPENDIX A – MEMBERSHIP INFORMATION

Summary of Participant Data (General) As of June 30, 2023	General Tier 1	General Tier 2	General Tier 3	General Tier 4	General Total
Active Participants					
Number	28	552	52	1,225	1,857
Average Age	58.31	50.21	46.70	38.86	42.75
Average Benefit Service	26.50	18.19	6.44	3.89	8.55
Average Pay	$103,983	$78,732	$102,277	$60,870	$67,989
Service Retired					
Number	1,188	598	7	17	1,810
Average Age	73.85	67.92	65.20	66.31	71.79
Average Annual Total Benefit	$43,307	$25,569	3,249	10,047	$36,979
Beneficiaries & QDROs					
Number	231	45	0	1	277
Average Age	77.52	65.79	N/A	67.40	75.58
Average Annual Total Benefit	$21,810	$11,559	N/A	$3,573	$20,079
Duty Disabled					
Number	30	21	0	0	51
Average Age	75.71	61.42	N/A	N/A	69.83
Average Annual Total Benefit	$32,132	$25,706	N/A	N/A	$29,486
Non-Duty Disabled					
Number	24	13	1	1	39
Average Age	74.87	59.65	51.33	50.41	68.56
Average Annual Total Benefit	$21,585	$13,438	$17,236	$21,737	$18,762
Total Receiving Benefits					
Number	1,473	677	8	19	2,177
Average Age	74.48	67.42	63.47	65.53	72.17
Average Annual Total Benefit	$39,354	$24,409	$4,997	$10,321	$34,327
Terminated Vested					
Number	30	251	41	88	410
Average Age	62.30	48.91	44.82	40.20	47.61
Average Benefit Service	9.96	11.05	4.07	5.75	9.13
Transfers					
Number	13	130	1	29	173
Average Age	59.52	51.83	55.60	38.43	50.18
Average Benefit Service	6.49	4.57	3.03	2.74	4.40
Funds on Account					
Number	3	62	9	540	614
Average Age	63.79	48.57	41.21	38.08	39.31
Average Benefit Service	2.68	2.06	1.58	1.24	1.34
Total Deferred					
Number	46	443	51	657	1,197
Average Age	61.61	49.72	44.40	38.38	43.72
Average Benefit Service	8.50	7.89	3.61	1.91	4.45

APPENDIX A – MEMBERSHIP INFORMATION

Summary of Participant Data (Safety) As of June 30, 2023	Safety Tier 1	Safety Tier 2	Safety Tier 3	Safety Tier 4	Safety Total
Active Participants					
Number	5	123	5	175	308
Average Age	57.86	45.49	41.74	33.46	38.80
Average Benefit Service	21.14	17.18	6.48	4.12	9.65
Average Pay	$164,893	$93,055	$84,726	$69,699	$80,816
Service Retired					
Number	189	51	0	2	242
Average Age	68.29	57.73	N/A	61.00	66.01
Average Annual Total Benefit	$56,111	$32,068	N/A	$16,654	$50,718
Beneficiaries & QDROs					
Number	72	3	0	0	75
Average Age	73.58	52.52	N/A	N/A	72.73
Average Annual Total Benefit	$30,063	$19,589	N/A	N/A	$29,644
Duty Disabled					
Number	56	32	0	0	88
Average Age	70.20	52.93	N/A	N/A	63.92
Average Annual Total Benefit	$43,921	$28,788	N/A	N/A	$38,418
Non-Duty Disabled					
Number	1	1	0	0	2
Average Age	53.54	75.78	N/A	N/A	64.66
Average Annual Total Benefit	$34,391	$19,156	N/A	N/A	$26,774
Total Receiving Benefits					
Number	318	87	0	2	407
Average Age	69.78	55.99	N/A	61.00	66.79
Average Annual Total Benefit	$47,998	$30,283	N/A	$16,654	$44,057
Terminated Vested					
Number	1	43	3	6	53
Average Age	57.07	43.67	40.65	36.29	42.92
Average Benefit Service	7.83	9.81	5.99	7.30	9.27
Transfers					
Number	2	42	0	9	53
Average Age	56.49	46.74	N/A	35.74	45.24
Average Benefit Service	3.04	4.65	N/A	2.76	4.27
Funds on Account					
Number	1	7	1	63	72
Average Age	68.14	45.33	34.73	32.57	34.33
Average Benefit Service	2.01	1.05	0.09	1.43	1.38
Total Deferred					
Number	4	92	4	78	178
Average Age	59.55	45.20	39.17	33.22	40.14
Average Benefit Service	3.98	6.79	4.51	2.03	4.59

APPENDIX A – MEMBERSHIP INFORMATION

Change in Plan Membership: Total

	Actives	Transfers	Non-Vested Terminations	Vested Terminations	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries & QDROs	Total
June 30, 2022	**2,167**	**209**	**581**	**412**	**46**	**141**	**1,989**	**347**	**5,892**
New Entrants	335	1	56	1	0	0	0	0	393
Rehires	18	0	(11)	(7)	0	0	0	0	0
Duty Disabilities	(1)	0	0	0	0	2	(1)	0	0
Non-Duty Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(64)	(10)	(1)	(20)	0	0	95	0	0
Dual Service Retirements	0	0	0	0	0	0	0	0	0
Vested Terminations	(84)	0	(2)	86	0	0	0	0	0
Transfers	(17)	27	(6)	(4)	0	0	0	0	0
Non-Vested Terminations with Funds on Account	(109)	0	109	0	0	0	0	0	0
Withdrawals Paid	(75)	(1)	(40)	(5)	0	0	0	0	(121)
Died, With Beneficiary	(1)	0	0	0	(3)	(1)	(18)	23	0
Died, Without Beneficiary	(1)	0	0	0	(2)	(3)	(25)	0	(31)
Beneficiary Deaths	0	0	0	0	0	0	0	(22)	(22)
Domestic Relations Orders	0	0	0	0	0	0	0	3	3
Data Corrections	(3)	0	0	0	0	0	12	1	10
June 30, 2023	**2,165**	**226**	**686**	**463**	**41**	**139**	**2,052**	**352**	**6,124**

APPENDIX A – MEMBERSHIP INFORMATION

Change in Plan Membership: General									
	Actives	Transfers	Non-Vested Terminations	Vested Terminations	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries & QDROs	Total
June 30, 2022	**1,842**	**162**	**513**	**357**	**43**	**51**	**1,758**	**276**	**5,002**
New Entrants	307	1	51	1	0	0	0	0	360
Rehires	15	0	(10)	(5)	0	0	0	0	0
Duty Disabilities	0	0	0	0	0	0	0	0	0
Non-Duty Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(53)	(10)	(1)	(17)	0	0	81	0	0
Dual Service Retirements	0	0	0	0	0	0	0	0	0
Vested Terminations	(79)	0	(2)	81	0	0	0	0	0
Transfers	(14)	20	(4)	(2)	0	0	0	0	0
Non-Vested Terminations with Funds on Account	(100)	0	100	0	0	0	0	0	0
Withdrawals Paid	(60)	0	(33)	(5)	0	0	0	0	(98)
Died, With Beneficiary	(1)	0	0	0	(3)	0	(14)	18	0
Died, Without Beneficiary	0	0	0	0	(1)	0	(24)	0	(25)
Beneficiary Deaths	0	0	0	0	0	0	0	(20)	(20)
Domestic Relations Orders	0	0	0	0	0	0	0	3	3
Data Corrections	0	0	0	0	0	0	9	0	9
June 30, 2023	**1,857**	**173**	**614**	**410**	**39**	**51**	**1,810**	**277**	**5,231**

APPENDIX A – MEMBERSHIP INFORMATION

Change in Plan Membership: Safety

	Actives	Transfers	Non-Vested Terminations	Vested Terminations	Non-Duty Disabled	Duty Disabled	Retired	Beneficiaries & QDROs	Total
June 30, 2022	**325**	**47**	**68**	**55**	**3**	**90**	**231**	**71**	**890**
New Entrants	28	0	5	0	0	0	0	0	33
Rehires	3	0	(1)	(2)	0	0	0	0	0
Duty Disabilities	(1)	0	0	0	0	2	(1)	0	0
Non-Duty Disabilities	0	0	0	0	0	0	0	0	0
Retirements	(11)	0	0	(3)	0	0	14	0	0
Dual Service Retirements	0	0	0	0	0	0	0	0	0
Vested Terminations	(5)	0	0	5	0	0	0	0	0
Transfers	(3)	7	(2)	(2)	0	0	0	0	0
Non-Vested Terminations with Funds on Account	(9)	0	9	0	0	0	0	0	0
Withdrawals Paid	(15)	(1)	(7)	0	0	0	0	0	(23)
Died, With Beneficiary	0	0	0	0	0	(1)	(4)	5	0
Died, Without Beneficiary	(1)	0	0	0	(1)	(3)	(1)	0	(6)
Beneficiary Deaths	0	0	0	0	0	0	0	(2)	(2)
Domestic Relations Orders	0	0	0	0	0	0	0	0	0
Data Corrections	(3)	0	0	0	0	0	3	1	1
June 30, 2023	**308**	**53**	**72**	**53**	**2**	**88**	**242**	**75**	**893**

APPENDIX A – MEMBERSHIP INFORMATION

Active Member Data by Plan					
Valuation at Year End	Plan Type	Member Count	Annual Payroll	Average Annual Salary	Average Salary Increase
2014	General	1,624	$91,704,083	$56,468	-1.27%
	Safety	300	$18,620,870	$62,070	-2.08%
	Total	**1,924**	**$110,324,953**	**$57,341**	**-1.40%**
2015	General	1,664	$93,938,857	$56,454	-0.03%
	Safety	298	$18,397,233	$61,736	-0.54%
	Total	**1,962**	**$112,336,090**	**$57,256**	**-0.15%**
2016	General	1,729	$97,337,917	$56,297	-0.28%
	Safety	311	$19,394,922	$62,363	1.02%
	Total	**2,040**	**$116,732,839**	**$57,222**	**-0.06%**
2017	General	1,783	$102,498,328	$57,486	2.11%
	Safety	313	$20,136,322	$64,333	3.16%
	Total	**2,096**	**$122,634,651**	**$58,509**	**2.25%**
2018	General	1,827	$108,067,248	$59,150	2.89%
	Safety	322	$22,018,174	$68,379	6.29%
	Total	**2,149**	**$130,085,423**	**$60,533**	**3.46%**
2019	General	1,861	$111,267,187	$59,789	1.08%
	Safety	316	$22,498,224	$71,197	4.12%
	Total	**2,177**	**$133,765,412**	**$61,445**	**1.51%**
2020	General	1,828	$112,315,867	$61,442	2.76%
	Safety	321	$22,982,055	$71,595	0.56%
	Total	**2,149**	**$135,297,921**	**$62,959**	**2.46%**
2021	General	1,799	$116,284,193	$64,638	5.20%
	Safety	319	$23,871,550	$74,832	4.52%
	Total	**2,118**	**$140,155,743**	**$66,174**	**5.11%**
2022	General	1,842	$120,774,476	$65,567	1.44%
	Safety	325	$25,176,047	$77,465	3.52%
	Total	**2,167**	**$145,950,524**	**$67,351**	**1.78%**
2023	General	1,857	$126,256,107	$67,989	3.69%
	Safety	308	$24,891,179	$80,816	4.33%
	Total	**2,165**	**$151,147,286**	**$69,814**	**3.66%**

Payroll figures represent active members' annualized pay rates on June 30.

APPENDIX A – MEMBERSHIP INFORMATION

Retirees and Beneficiaries Added to and Removed from Retiree Payroll

Fiscal Year	Beginning of Year	Added During Year	Allowances Added	Removed During Year	Allowances Removed	End of Year	Annual Retirement Payroll (in 000s)	Total Allowance Percentage Increase	Average Annual Allowance	Average Allowance Percentage Increase
2005	1,441	109	2,445,000	49	450,000	1,501	24,867,000	9.16%	16,567	4.80%
2006	1,477	98	2,007,000	53	785,000	1,522	27,297,000	9.77%	16,836	1.62%
2007	1,521	136	4,419,000	38	560,000	1,619	31,823,000	16.58%	17,947	6.60%
2008	1,620	105	2,757,000	67	902,000	1,658	34,603,000	8.74%	19,644	9.46%
2009	1,658	105	3,402,523	52	812,828	1,711	37,747,525	9.09%	22,062	12.31%
2010	1,711	171	6,097,956	56	981,465	1,826	43,653,374	15.65%	23,907	8.36%
2011	1,826	103	2,627,234	44	781,283	1,885	46,116,686	5.64%	24,465	2.34%
2012	1,885	175	6,484,652	64	960,185	1,996	52,887,845	14.68%	26,497	8.31%
2013	1,996	103	3,028,612	49	855,980	2,050	56,048,022	5.98%	27,340	3.18%
2014	2,050	116	3,950,045	31	590,636	2,135	60,297,112	7.58%	28,242	3.30%
2015	2,135	100	2,508,828	35	720,242	2,200	63,254,229	4.90%	28,752	1.80%
2016	2,200	68	1,716,361	34	946,189	2,234	65,505,679	3.56%	29,322	1.98%
2017	2,234	85	2,282,779	56	1,022,708	2,263	68,476,111	4.53%	30,259	3.20%
2018	2,263	120	3,617,034	73	1,671,956	2,310	72,002,829	5.15%	31,170	3.01%
2019	2,310	141	4,908,365	78	1,805,138	2,373	76,948,959	6.87%	32,427	4.03%
2020	2,373	126	4,589,556	66	1,555,353	2,433	81,827,236	6.34%	33,632	3.72%
2021	2,433	117	3,953,617	84	2,671,254	2,466	84,975,315	3.85%	34,459	2.46%
2022	2,466	144	4,842,484	87	2,714,427	2,523	88,406,770	4.04%	35,040	1.69%
2023	2,523	135	4,160,108	74	1,793,800	2,584	92,660,543	4.81%	35,859	2.34%

APPENDIX A – MEMBERSHIP INFORMATION

GENERAL

Count

	Benefit Service										
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 20	1	0	0	0	0	0	0	0	0	0	1
20 to 25	35	16	0	0	0	0	0	0	0	0	51
25 to 29	85	89	8	0	0	0	0	0	0	0	182
30 to 34	59	126	76	7	1	0	0	0	0	0	269
35 to 39	48	96	102	40	10	2	0	0	0	0	298
40 to 44	30	78	102	30	64	24	1	0	0	0	329
45 to 49	18	45	62	23	49	44	13	0	0	0	254
50 to 54	12	27	41	24	37	31	23	4	0	0	199
55 to 59	5	16	25	9	24	33	14	3	0	0	129
60 to 64	8	15	16	14	15	24	5	2	2	0	101
65 to 69	3	6	8	3	9	5	2	1	0	0	37
70 & up	2	1	2	1	0	0	0	1	0	0	7
Total	306	515	442	151	209	163	58	11	2	0	1,857

Average Compensation

	Benefit Service										
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 20	45,614	0	0	0	0	0	0	0	0	0	45,614
20 to 25	44,837	47,394	0	0	0	0	0	0	0	0	45,639
25 to 29	47,254	51,283	57,380	0	0	0	0	0	0	0	49,669
30 to 34	46,784	57,770	67,594	85,748	84,198	0	0	0	0	0	58,962
35 to 39	49,192	60,115	67,078	79,494	66,109	83,290	0	0	0	0	63,697
40 to 44	58,419	65,360	68,046	81,868	84,061	83,297	57,182	0	0	0	71,986
45 to 49	75,016	69,572	73,337	77,853	81,844	84,997	77,543	0	0	0	77,074
50 to 54	53,716	76,664	83,256	86,645	78,740	79,384	77,119	88,017	0	0	78,933
55 to 59	91,782	74,646	76,803	73,138	64,375	72,542	99,752	87,224	0	0	76,191
60 to 64	69,407	60,586	80,916	104,493	71,541	68,854	62,518	54,023	60,186	0	74,141
65 to 69	73,611	72,471	73,760	59,129	78,699	65,660	60,110	202,497	0	0	75,201
70 & up	156,853	156,021	60,729	281,135	0	0	0	60,975	0	0	133,328
Total	52,448	60,904	70,736	84,012	78,351	78,167	80,488	89,569	60,186	0	67,989

APPENDIX A – MEMBERSHIP INFORMATION

SAFETY

Count

	Benefit Service										
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 20	1	0	0	0	0	0	0	0	0	0	1
20 to 25	12	8	0	0	0	0	0	0	0	0	20
25 to 29	10	33	3	0	0	0	0	0	0	0	46
30 to 34	2	24	30	0	0	0	0	0	0	0	56
35 to 39	1	6	17	7	10	0	0	0	0	0	41
40 to 44	1	5	12	11	30	3	0	0	0	0	62
45 to 49	0	2	3	4	22	11	0	0	0	0	42
50 to 54	1	2	4	4	4	5	2	0	0	0	22
55 to 59	0	3	2	1	2	3	2	0	0	0	13
60 to 64	0	0	1	2	0	1	1	0	0	0	5
65 to 69	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0
Total	28	83	72	29	68	23	5	0	0	0	308

Average Compensation

	Benefit Service										
Age	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 & up	Total
Under 20	48,152	0	0	0	0	0	0	0	0	0	48,152
20 to 25	51,556	53,875	0	0	0	0	0	0	0	0	52,484
25 to 29	47,963	63,685	61,229	0	0	0	0	0	0	0	60,107
30 to 34	48,152	66,672	85,174	0	0	0	0	0	0	0	75,923
35 to 39	0	66,337	85,407	102,441	103,485	0	0	0	0	0	87,851
40 to 44	56,888	66,974	78,706	90,442	90,133	97,408	0	0	0	0	85,924
45 to 49	0	91,821	93,195	88,077	89,830	117,088	0	0	0	0	97,137
50 to 54	82,160	79,095	92,487	88,077	76,814	87,707	130,076	0	0	0	89,480
55 to 59	0	94,156	95,589	68,326	83,989	77,334	110,492	0	0	0	89,457
60 to 64	0	0	91,228	112,717	0	63,186	256,500	0	0	0	127,270
65 to 69	0	0	0	0	0	0	0	0	0	0	0
70 & up	0	0	0	0	0	0	0	0	0	0	0
Total	49,350	66,143	84,267	93,460	91,034	100,605	147,528	0	0	0	80,816

APPENDIX A – MEMBERSHIP INFORMATION

Service Retired Benefits						
	General		Safety		Total	
Current Age	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit
0-24	0	$0	0	$0	0	$0
25-29	0	$0	0	$0	0	$0
30-34	0	$0	0	$0	0	$0
35-39	0	$0	0	$0	0	$0
40-44	0	$0	0	$0	0	$0
45-49	0	$0	5	$36,665	5	$36,665
50-54	12	$44,828	33	$41,767	45	$42,583
55-59	125	$35,070	38	$64,165	163	$41,853
60-64	283	$36,302	42	$44,634	325	$37,379
65-69	371	$37,829	35	$54,848	406	$39,296
70-74	397	$42,255	40	$53,730	437	$43,305
75-79	319	$36,926	31	$51,732	350	$38,237
80-84	177	$31,935	13	$39,222	190	$32,433
85-89	84	$29,076	2	$38,350	86	$29,292
90-94	31	$26,394	2	$35,272	33	$26,932
95+	11	$21,313	1	$69,509	12	$25,329
All Ages	1,810	$36,979	242	$50,718	2,052	$38,599

Duty Disabled Benefits						
	General		Safety		Total	
Current Age	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit
0-24	0	$0	0	$0	0	$0
25-29	0	$0	0	$0	0	$0
30-34	0	$0	0	$0	0	$0
35-39	1	$26,458	0	$0	1	$26,458
40-44	0	$0	10	$25,281	10	$25,281
45-49	3	$25,738	7	$28,930	10	$27,972
50-54	3	$34,756	8	$47,234	11	$43,831
55-59	2	$54,779	8	$35,733	10	$39,542
60-64	9	$25,416	8	$54,820	17	$39,253
65-69	4	$24,522	15	$35,454	19	$33,153
70-74	13	$31,058	13	$32,012	26	$31,535
75-79	8	$27,636	12	$51,446	20	$41,922
80-84	4	$34,409	7	$36,832	11	$35,951
85-89	0	$0	0	$0	0	$0
90-94	3	$19,659	0	$0	3	$19,659
95+	1	$38,023	0	$0	1	$38,023
All Ages	51	$29,486	88	$38,418	139	$35,141

APPENDIX A – MEMBERSHIP INFORMATION

Non-Duty Disabled Benefits						
	General		Safety		Total	
Current Age	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit
0-24	0	$0	0	$0	0	$0
25-20	0	$0	0	$0	0	$0
30-34	0	$0	0	$0	0	$0
35-39	0	$0	0	$0	0	$0
40-44	1	$14,883	0	$0	1	$14,883
45-49	1	$20,403	0	$0	1	$20,403
50-54	5	$15,486	1	$34,391	6	$18,637
55-59	3	$16,934	0	$0	3	$16,934
60-64	5	$21,163	0	$0	5	$21,163
65-69	6	$17,496	0	$0	6	$17,496
70-74	6	$17,602	0	$0	6	$17,602
75-79	4	$17,152	1	$19,156	5	$17,553
80-84	4	$20,629	0	$0	4	$20,629
85-89	3	$25,122	0	$0	3	$25,122
90-94	1	$25,285	0	$0	1	$25,285
95+	0	$0	0	$0	0	$0
All Ages	39	$18,762	2	$26,774	41	$19,152

Surviving Beneficiary & QDRO Benefits						
	General		Safety		Total	
Current Age	Number	Annual Average Benefit	Number	Annual Average Benefit	Number	Annual Average Benefit
0-24	0	$0	0	$0	0	$0
25-29	1	$14,577	0	$0	1	$14,577
30-34	1	$1,610	0	$0	1	$1,610
35-39	0	$0	0	$0	0	$0
40-44	3	$21,864	2	$20,552	5	$21,339
45-49	4	$9,659	2	$39,116	6	$19,478
50-54	8	$5,418	3	$7,442	11	$5,970
55-59	18	$16,612	2	$0	20	$14,951
60-64	23	$15,055	9	$17,202	32	$15,659
65-69	22	$18,562	6	$33,200	28	$21,699
70-74	40	$26,511	11	$33,635	51	$28,047
75-79	47	$27,584	20	$36,558	67	$30,263
80-84	44	$16,286	12	$35,480	56	$20,399
85-89	41	$18,068	7	$24,507	48	$19,007
90-94	14	$16,761	1	$29,158	15	$17,587
95+	11	$26,873	0	$0	11	$26,873
All Ages	277	$20,079	75	$29,644	352	$22,117

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

The assumptions and methods used in the actuarial valuation reflect the results of an experience study performed by Cheiron covering the period from July 1, 2019 through June 30, 2022 and adopted by the Board at their December 8, 2022 meeting. More details on the rationale for the demographic and economic assumptions can be found in the experience study presentation from that meeting. The combined effect of the assumptions is expected to have no significant bias for the purpose of this measurement.

A. Actuarial Assumptions

1. Rate of Return

Assets are assumed to earn 6.75% net of investment expenses.

2. Low-Default-Risk Obligation Measure Discount Rate (effective June 30, 2023)

The discount rate used to calculate the Low-Default-Risk Obligation Measure (LDROM) is the FTSE Pension Liability Index as of the valuation date. This index was selected because it reflects the types of fixed-income securities the Plan would likely invest in if the Trustees wanted to match cash flows. The rate for this valuation is 4.92%.

3. Administrative Expenses

Administrative expenses are assumed to be $2.870 million for the next year to be allocated between the employer and employees based on each group's share of the non-expense related contributions. Administrative expenses in future years are expected to increase with the Consumer Price Index (CPI).

4. 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.

5. Post Retirement COLA

Benefits are assumed to increase after retirement at the rate of 2.40% per year for current Tier 1 Active and Deferred Vested members and are assumed to increase at a rate of 2.65% for Tier 1 members that are currently in pay status.

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

6. Increases in Pay

Wage inflation component: 2.75%

Additional longevity and promotion component:

Years of Service	General	Safety	Years of Service	General	Safety
0	8.00%	8.50%	11	2.50%	1.25%
1	6.50%	7.50%	12	2.25%	1.25%
2	6.00%	5.25%	13	2.00%	1.25%
3	5.50%	4.50%	14	1.85%	1.25%
4	5.00%	3.75%	15	1.70%	1.25%
5	4.00%	3.25%	16	1.55%	1.25%
6	3.25%	2.75%	17	1.40%	1.25%
7	2.75%	2.25%	18	1.25%	1.25%
8	2.50%	2.00%	19	1.10%	1.25%
9	2.50%	1.50%	20+	1.00%	1.25%
10	2.50%	1.50%			

7. Final Average Compensation Load

None.

8. Family Composition

55% of female General members, 75% of male General members and 80% of Safety members are assumed to be married at retirement. Male members are assumed to be three years older than their spouses and female members are assumed to be two years younger than their spouses.

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

9. Rates of Mortality

Mortality rates for actives, retirees, disabled members, beneficiaries, terminated vesteds, and reciprocal transfers are based on the sex-distinct employee and annuitant mortality tables as described below. Future mortality improvements are reflected by applying 80% of the SOA MP-2020 projection scale on a generational basis from the base year of 2017 for the CalPERS tables and the base year of 2010 for the Below Median Safety Member Pub-2010 tables.

Category	Base Mortality Table	
	General	Safety
Healthy Annuitant	1.05 times the CalPERS 2021 Healthy Annuitant Mortality Table	1.05 times the Pub-2010 Safety Below Median Mortality Table for Healthy Retirees
Duty Disabled Annuitants	CalPERS 2021 Industrial Disability Mortality Table	CalPERS 2021 Industrial Disability Mortality Table
Non-Duty Disabled Annuitant	CalPERS 2021 Non-Industrial Disability Mortality Table	CalPERS 2021 Non-Industrial Disability Mortality Table
Active Employees	CalPERS 2021 Non-Industrial Employees Mortality Table (Miscellaneous Plans Only)	Pub-2010 Safety Below Median Mortality Table for Healthy Employees
Actives, Line of Duty (Safety only)	N/A	CalPERS 2021 Industrial Employees Mortality Table

For determining mortality rates for future disabled members, 50% of future General disabilities are assumed to be duty-related and 50% are assumed to be non-duty related. 100% of future Safety disabilities are assumed to be duty related.

10. Rates of Termination

Sample rates of termination[1] are shown in the following table.

Years of Service	General	Safety
0	22.50%	21.00%
5	9.00%	6.50%
10	5.50%	4.75%
15	4.00%	3.50%
20	4.00%	0.00%
25	4.00%	0.00%
30	0.00%	0.00%

[1] *Termination rates do not apply once a member is eligible for retirement.*

There are three types of terminations: withdrawals, reciprocal transfers, and vested terminations. Rates of withdrawal apply to active Members who terminate their employment and withdraw their member contributions, forfeiting entitlement to future Plan benefits. Rates of reciprocal transfer are for members who leave their member contributions on deposit and engage in employment covered by a pension plan with a reciprocal relationship with MercedCERA. Finally, rates of vested termination apply to active Members who terminate their employment and leave their member contributions on deposit with the Plan.

The table below shows the percentages of total terminations falling into these categories.

	Years of Service						
	General				Safety		
	0 – 4	5 – 9	10-14	15+	0 – 4	5-9	10+
Withdrawals	92.5%	30.0%	20.0%	5.0%	95.0%	30.0%	15.0%
Transfers	7.5%	35.0%	40.0%	47.5%	5.0%	52.5%	63.75%
Vested Terminations	0.0%	35.0%	40.0%	47.5%	0.0%	17.5%	21.25%

Vested terminated General Members are assumed to begin receiving benefits at age 60; Vested terminated Safety Members are assumed to begin receiving benefits at age 50. Future reciprocal transfer General members are assumed to begin receiving benefits at age 61; future reciprocal transfer Safety members are assumed to begin receiving benefits at age 55. Current reciprocal transfer members are assumed to begin receiving benefits based on the probabilities of retirement applied to the active members.

Future reciprocal transfers' annual pay growth is assumed to be 3.75% for General Members and 4.00% for Safety Members while employed by a reciprocal employer. Current reciprocal transfers' pay growth is assumed to increase according to the assumptions applied to the active members until the assumed retirement age.

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

11. Rates of Retirement

Rates of retirement are based on age and service according to the following table.

General						Safety[1]		
	Non-PEPRA			PEPRA				
	Years of Service						Years of Service	
Age	<0	20-29	30+	5-19	20+	Age	<20	20+
<50	0.0%	0.0%	15.0%	0.0%	0.0%	<40	0.0%	0.0%
50	10.0%	12.5%	15.0%	0.0%	0.0%	40	0.0%	1.5%
51	10.0%	12.5%	15.0%	0.0%	0.0%	41	0.0%	1.5%
52	10.0%	12.5%	15.0%	10.0%	10.0%	42	0.0%	1.5%
53	10.0%	12.5%	15.0%	10.0%	10.0%	43	0.0%	1.5%
54	10.0%	12.5%	25.0%	10.0%	10.0%	44	0.0%	1.5%
55	10.0%	12.5%	30.0%	10.0%	10.0%	45	0.0%	1.5%
56	10.0%	12.5%	30.0%	10.0%	10.0%	46	0.0%	5.0%
57	10.0%	15.0%	30.0%	10.0%	10.0%	47	0.0%	10.0%
58	15.0%	15.0%	30.0%	10.0%	10.0%	48	0.0%	15.0%
59	15.0%	25.0%	30.0%	10.0%	15.0%	49	0.0%	25.0%
60	20.0%	25.0%	30.0%	10.0%	15.0%	50	15.0%	25.0%
61	20.0%	25.0%	30.0%	10.0%	15.0%	51	5.0%	25.0%
62	20.0%	25.0%	30.0%	10.0%	15.0%	52	5.0%	15.0%
63	15.0%	25.0%	30.0%	10.0%	15.0%	53	5.0%	15.0%
64	15.0%	25.0%	30.0%	10.0%	15.0%	54	15.0%	20.0%
65	35.0%	35.0%	35.0%	10.0%	15.0%	55	25.0%	25.0%
66	35.0%	35.0%	35.0%	10.0%	15.0%	56	25.0%	25.0%
67	35.0%	35.0%	35.0%	35.0%	35.0%	57	25.0%	25.0%
68	35.0%	35.0%	35.0%	35.0%	35.0%	58	25.0%	25.0%
69	35.0%	35.0%	35.0%	35.0%	35.0%	59	25.0%	25.0%

[1] *PEPRA rates are 0% below Age 50*

100% of General and Safety members are assumed to retire when they reach ages 70 and 60, respectively.

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

12. Rates of Disability

Sample disability rates of active participants are provided in the table.

	General		Safety	
Age	Service-Connected	Non-Service Connected[1]	Service-Connected	Non-Service Connected[1]
20	0.0135%	0.0135%	0.0420%	0.0090%
25	0.0136%	0.0136%	0.1310%	0.0090%
30	0.0182%	0.0182%	0.2490%	0.0110%
35	0.0331%	0.0331%	0.3700%	0.0340%
40	0.0678%	0.0678%	0.5130%	0.0590%
45	0.1325%	0.1325%	0.6720%	0.1120%
50	0.1822%	0.1822%	0.9190%	0.1600%
55	0.1380%	0.1380%	1.5050%	0.0850%
60	0.1134%	0.1134%	1.7400%	0.0510%
65	0.1390%	0.1390%	2.0930%	0.0510%

[1] *Rates are applied once members have at least five years of service.*

13. Member Contribution Balance Crediting Rate

4.75% (2.00% less than the assumed rate of return of 6.75%).

14. Changes Since Last Valuation

The LDROM discount rate assumption was added.

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

B. 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

The Entry Age Normal actuarial funding method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each Member's date of hire and assumed retirement. The Actuarial Liability is the difference between the Present Value of Future Benefits and the Present Value of Future Normal Cost. The Unfunded Actuarial Liability is the difference between the Actuarial Liability and the Actuarial Value of Assets.

2. Amortization Method

The UAL (or Surplus Funding) is amortized as a percentage of the projected salaries of present and future members of MercedCERA.

- Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013 is amortized over a closed 16-year period. Effective with the June 30, 2019 valuation, 15% of the outstanding balance as of June 30, 2019 of the June 30, 2013 UAL amortization base is carved out as a separate base and amortized over a closed 14-year period as a level percentage of payroll. The remaining 85% is amortized over a closed 14-year period, with 10 years of level payments as a percentage of payroll, and a four-year ramp down at the end of the period.
- Effective with the June 30, 2014 valuation, any new sources of UAL due to actuarial gains and losses or method changes is amortized over a closed 24-year period, with five-year ramp up period at the beginning of the period, a four-year ramp down at the end of the period, and 15 years of level payments as a percentage of payroll.
- Assumption changes will be amortized over a closed 22-year period, with a three-year ramp up period, two-year ramp down period, and 17 years of level payments as a percentage of payroll. This method is a type of direct rate smoothing method.

3. Asset Valuation Method

As of June 30, 2014, the Market Value of Assets is used to determine the Plan's UAL.

APPENDIX B – STATEMENT OF CURRENT ACTUARIAL ASSUMPTIONS AND METHODS

4. Changes Since Last Valuation

None.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.

PEPRA: For members joining the Plan on and after January 1, 2013 (Tier 4 Members), only pensionable compensation up to the PEPRA Compensation Limit (for 2024, $151,446 for those participating in Social Security, $181,734 for those not participating in Social Security) will count for computing Plan benefits and employee contributions and employer contributions. In future years, the cap on pensionable compensation will increase with the increase in the CPI-U. In addition, some sources of compensation, such as any payments deemed to be terminal or special pays, are excluded from benefit and contribution computations for Tier 4 Members.

Credited Service: In general, Credited Service is earned for the period during which Member Contributions are paid. One year of service credit is earned for each 2,080 hours worked (not including overtime), not to exceed one year of service per year.

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 for which credit may be purchased 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.

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 up to one year.

Public Service: Members may purchase service credit for prior service in the following public agencies: Federal Civil Service, Military Service, and

APPENDIX C – SUMMARY OF PLAN PROVISIONS

some public employers in California. This service is only eligible for purchase when the Board of Supervisors opens the window for purchase.

Military Time: Members who resign or obtain a leave of absence to enter the military may purchase service credit for the period of military service. Members must re-enter employment within one year of terminating military service to be eligible to purchase service.

At retirement, Members have the option to convert 100% of sick leave time into retirement years of service credit. Unrepresented Management and Unit 7 will instead have some or all of their sick leave contributed to the Post Employment Health Plan.

Final Compensation: For Tier 1 Members, Final Compensation means the highest average Compensation earned during any 26 consecutive pay periods of the Member's employment. For Tier 2 and Tier 3 Members, Final Compensation means the highest average Compensation earned during any 78 consecutive pay periods of the Member's employment.

The following compensation elements are no longer included in Final Compensation computation:

- Loyalty Bonus
- Up to 160 hours of vacation payoff

For Tier 4 Members, highest average Compensation will be based on the highest 36 consecutive months of the Member's employment.

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

Public Service: During designated periods of time authorized by the County Board of Supervisors, Members may elect to purchase Public Service for time spent while employed in another recognized public agency. The public agency must have a reciprocal agreement with the Plan or be one of several specified municipalities, counties, special districts, or State and Federal agencies. Public Service cannot be purchased if it is used for eligibility for another pension.

The cost to purchase Public Service is twice the Member Contributions and interest applicable for the period of time purchased. Public Service is used to compute benefits but does not count toward eligibility for benefits or vesting.

Safety Member: Any sworn Member engaged in law enforcement or as a probation officer is a Safety Member.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

B. Membership

Eligibility: All full-time and variable-shift permanent employees of Merced County and other participating employers become Members on their first date of service. Membership is mandatory; only elected officials and those entering employment at age 60 or older who are not reciprocal members of another system may choose not to participate.

PEPRA: A New Member is any Member joining the Plan for the first time on or after January 1, 2013. Employees who transfer from and are eligible for reciprocity with another public employer will not be Tier 4 Members if their service in the reciprocal system was under a pre-PEPRA tier. Employees who were Members of MercedCERA prior to January 1, 2013, experienced a break in service of more than six months, and then were re-employed by a *different* MercedCERA-participating employer on or after January 1, 2013 will be considered Tier 4 Members for all subsequent service.

Member Contributions: Each Member contributes a percentage of Compensation to the Plan through a pre-tax payroll deduction. The percentage contributed depends on the Member's age upon joining the Plan. Complete Rates are shown in Appendix D.

Members covered by Social Security have their contributions reduced by one-third on the first $161.54 of biweekly Compensation. General Members who joined the Plan prior to March 7, 1973, and who have earned 30 years of Credited Service do not contribute; Safety Members do not contribute after earning 30 years of Credited Service.

PEPRA: Tier 4 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; General and Safety members will pay different Rates.

Tier 4 Members will pay a single contribution rate, not a rate based on entry age. All Tier 4 Members are expected to continue contributing after earning 30 years of service.

Interest is credited semi-annually to each Member's accumulated contributions. The crediting rate is set by the Board, and will fluctuate between zero and two percent less than the assumed rate of return (currently 6.75% – 2.00% = 4.75%), based in part on the investment earnings during that period.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

C. Service Retirement

Eligibility:	Tier 1 General Members are eligible to retire at age 50 if they have earned 10 years of Credited Service. Tier 1 General Members hired prior to December 31, 1978, may retire upon reaching age 65 with no service requirement. Tier 2 and Tier 3 General Members are eligible to retire at age 55 if they have earned 10 years of Credited Service or upon reaching age 70 with no service requirement. Alternatively, all Tier 1, 2, and 3 General 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 10 years of Credited Service. 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. All Tier 1, 2, and 3 Safety Members hired prior to December 31, 1978, may retire upon reaching age 65 with no service requirement. PEPRA: Tier 4 General Members are eligible to retire upon attaining age 52 and completing five or more years of service. Tier 4 Safety Members are eligible to retire upon attaining age 50 and completing five or more years of service. Tier 4 Members are eligible to retire, regardless of service, after attaining age 70.
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 General Members in the Merced County Cemetery District and those in Deferred Inactive Reciprocity status prior to March 15, 2005, benefits are calculated using the formula in Government Code Section 31676.11 or 31676.1. For Tiers 1, 2, and 3, the percentage of Final Compensation may not exceed 100%. For those members integrated with Social Security, Retirement Benefits based on the first $350 of monthly Final Average Compensation are reduced by one-third.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table 1:

Group	Open or Closed	FAP	Max COLA	Code Section	Description	Top Retirement Factor Age	Benefit Factor
General Tier 1	Closed	1	3	31676.17	3% at 60	60	2.00%
General Tier 2	Closed[1]	3	0	31676.17	3% at 60	60	2.00%
General Tier 2 (Cemetery)	Closed[1]	3	0	31676.11	2% at 58 1/2	65	1.67%
General Tier 3	Closed[1]	3	0	31676.1	2.43% at 65	65	1.67%
General Tier 4	Open	3	0	7522.20(a)	PEPRA	67	1.00%
Safety Tier 1	Closed	1	3	31664.1	3% at 50	50	3.00%
Safety Tier 2	Closed	3	0	31664.1	3% at 50	50	3.00%
Safety Tier 3	Closed[1]	3	0	31664	2% at 50	55	2.00%
Safety Tier 4	Open	3	0	7522.25(d)	PEPRA	57	1.00%

[1] *Open for reciprocal members.*

Table 2:

Age	General 3% @ 60 CERL: 31676.17	General 2% @ 58 1/2 CERL: 31676.11	General 2.43% @ 65 CERL: 31676.1	General PEPRA GC: 7522.20(a)	Safety 3% @ 50 CERL: 31664.1	Safety 2% @ 50 CERL: 31664	Safety PEPRA GC: 7522.25(d)
41	N/A	N/A	N/A	N/A	0.6258	0.6258	N/A
42	N/A	N/A	N/A	N/A	0.6625	0.6625	N/A
43	N/A	N/A	N/A	N/A	0.7004	0.7004	N/A
44	N/A	N/A	N/A	N/A	0.7397	0.7397	N/A
45	N/A	N/A	N/A	N/A	0.7805	0.7805	N/A
46	N/A	N/A	N/A	N/A	0.8226	0.8226	N/A
47	N/A	N/A	N/A	N/A	0.8678	0.8678	N/A
48	N/A	N/A	N/A	N/A	0.9085	0.9085	N/A
49	N/A	N/A	N/A	N/A	0.9522	0.9522	N/A
50	1.0000	0.7454	0.7091	N/A	1.0000	1.0000	2.0000
51	1.0500	0.7882	0.7457	N/A	1.0000	1.0516	2.1000
52	1.1000	0.8346	0.7816	1.0000	1.0000	1.1078	2.2000
53	1.1500	0.8850	0.8181	1.1000	1.0000	1.1692	2.3000
54	1.2000	0.9399	0.8556	1.2000	1.0000	1.2366	2.4000
55	1.2500	1.0000	0.8954	1.3000	1.0000	1.3099	2.5000
56	1.3000	1.0447	0.9382	1.4000	1.0000	1.3099	2.6000
57	1.3500	1.1048	0.9846	1.5000	1.0000	1.3099	2.7000
58	1.4000	1.1686	1.0350	1.6000	1.0000	1.3099	2.7000
59	1.4500	1.2365	1.0899	1.7000	1.0000	1.3099	2.7000
60	1.5000	1.3093	1.1500	1.8000	1.0000	1.3099	2.7000
61	1.5000	1.3608	1.1947	1.9000	1.0000	1.3099	2.7000
62	1.5000	1.4123	1.2548	2.0000	1.0000	1.3099	2.7000
63	1.5000	1.4638	1.3186	2.1000	1.0000	1.3099	2.7000
64	1.5000	1.5153	1.3865	2.2000	1.0000	1.3099	2.7000
65	1.5000	1.5668	1.4593	2.3000	1.0000	1.3099	2.7000
66	1.5000	1.5668	1.4593	2.4000	1.0000	1.3099	2.7000
67	1.5000	1.5668	1.4593	2.5000	1.0000	1.3099	2.7000

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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 eligible spouse, domestic partner, or to the age of majority of dependent minor children if there is no eligible spouse or domestic partner. To be eligible to receive this benefit, a surviving spouse or domestic partner must be married or state-registered at least one year prior to retirement. In the event there is no eligible surviving spouse, domestic partner, 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, Tier 1 benefits are increased to reflect increases in the CPI for the San Francisco Bay Area. Annual increases may not exceed 3%, but CPI increases in excess of 3% are "banked" and used for future increases when the CPI increases by less than 3%.

A lump sum benefit of $3,000 will be payable upon the death of a retired member.

D. Service-Connected Disability

Eligibility: 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.

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.

Members who return to work at a different position with lower pay may receive a Supplemental Disability Allowance that, when added to their new pay, may bring the Member's total income up to the current pay for his or her position at the time of disability. The Supplemental Disability Allowance may not exceed the Service-Connected Disability Retirement benefit.

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 eligible spouse, domestic partner, or to the age of majority of dependent minor children if there is no eligible spouse or domestic partner. In the event there is no eligible surviving spouse, domestic partner, 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, Tier 1 benefits are increased to reflect increases in the CPI for the San Francisco Bay Area. Annual increases may not exceed 3%, but CPI increases in excess of 3% are "banked" and used for future increases when the CPI increases by less than 3%.

A lump sum benefit of $3,000 will be payable upon the death of a retired member.

E. Non Service-Connected Disability

Eligibility: Members are eligible for Non Service-Connected Disability Retirement benefits if they are permanently disabled at any age after earning five years of Credited Service or after becoming eligible for a deferred vested benefit.

Benefit Amount: The Non Service-Connected Disability Retirement Benefit payable to 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 Non Service-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

Members who return to work at a different position with lower pay may receive a Supplemental Disability Allowance that, when added to their new pay, may bring the Member's total income up to the current pay for his or her position at the time of disability. The Supplemental Disability Allowance may not exceed the Non Service-Connected Disability Retirement benefit.

Form of Benefit: The Non 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, 60% of the benefit will continue for the life of the Member's eligible spouse, domestic partner, or to the age of majority of dependent minor children if there is no spouse. In the event there is no eligible surviving spouse, domestic partner, 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, Tier 1 benefits are increased to reflect increases in the CPI for the San Francisco Bay Area. Annual increases may not exceed 3%, but CPI increases in excess of 3% are "banked" and used for future increases when the CPI increases by less than 3%.

A lump sum benefit of $3,000 will be payable upon the death of a retired member.

F. Service-Connected Death

Eligibility: A Member's survivors are eligible to receive Service-Connected Death benefits if the Member's death resulted from injury or illness sustained in connection with the Member's duties.

Benefit Amount: The Service-Connected Death benefit payable to an eligible surviving spouse, domestic partner, or minor children will be 50% of the Member's Final Compensation.

Furthermore, for Safety Members only, there will be an additional lump sum benefit of 12 months of pay at the time of death. An additional benefit of 25% of the above basic benefit will be paid for the first minor child, 15% for the second, and 10% for the third.

Form of Benefit: The Service-Connected Death Benefit will be paid monthly beginning at the Member's death and for the life of the eligible surviving spouse, domestic partner, or to the age of majority of dependent minor children if there is no eligible surviving spouse or domestic partner.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Annually on April 1, Tier 1 benefits are increased to reflect increases in the CPI for the San Francisco Bay Area. Annual increases may not exceed 3%, but CPI increases in excess of 3% are "banked" and used for future increases when the CPI increases by less than 3%.

G. Non Service-Connected Death

Eligibility: A Member's survivors are eligible to receive Non Service-Connected Death benefits if the Member's death arose from causes unrelated to the Member's duties.

Benefit Amount: In the event the Member had earned fewer than five years of Credited Service and has no or insufficient reciprocity service from another system, the Non Service-Connected Death benefit will be a refund of the Member's accumulated contributions with interest plus a payment of one month of Final Compensation for each year of Credited Service, not to exceed six months.

In the event the Member had earned five or more years of Credited Service, the Non Service-Connected Death benefit payable to an eligible surviving spouse, domestic partner, or minor children will be 60% of the amount the Member would have received as a Non Service-Connected Disability Retirement Benefit on the date of death.

Form of Benefit: For Members who had earned fewer than five years of Credited Service at death, the benefit will be paid as a lump sum.

For Members with five or more years of Credited Service, the Non Service-Connected Death Benefit will be paid monthly beginning at the Member's death and for the life of the eligible surviving spouse, domestic partner, or to the age of majority of dependent minor children if there is no eligible spouse or domestic partner.

Annually on April 1, Tier 1 benefits are increased to reflect increases in the CPI for the San Francisco Bay Area. Annual increases may not exceed 3%, but CPI increases in excess of 3% are "banked" and used for future increases when the CPI increases by less than 3%.

H. Withdrawal Benefit

Eligibility: A Member is eligible for a Withdrawal Benefit upon termination of employment.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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.

I. 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. The Member must leave his or her Member Contributions with interest on deposit with the 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 eligible surviving spouse, domestic partner, or to the age of majority of dependent minor children if there is no eligible surviving spouse or domestic partner. In the event there is no eligible surviving spouse, domestic partner, 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, Tier 1 benefits are increased to reflect increases in the CPI for the San Francisco Bay Area. Annual increases may not exceed 3%, but CPI increases in excess of 3% are "banked" and used for future increases when the CPI increases by less than 3%.

A lump sum benefit of $3,000 will be payable upon the death of a retired member.

J. Reciprocal Benefit

Eligibility: A Member is eligible for a Reciprocal Benefit upon termination of employment and entry, within a specified period of time, into another retirement system recognized as a reciprocal system by the Plan. In addition, the Member must leave his or her Member Contributions with interest on deposit with the Plan.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

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 eligible surviving spouse, domestic partner, or to the age of majority of dependent minor children if there is no eligible surviving spouse or domestic partner. In the event there is no eligible surviving spouse, domestic partner, 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, Tier 1 benefits are increased to reflect increases in the CPI for the San Francisco Bay Area. Annual increases may not exceed 3%, but CPI increases in excess of 3% are "banked" and used for future increases when the CPI increases by less than 3%.

A lump sum benefit may be payable upon the death of a retired Member by the last system under which the Member's service was covered.

K. Changes Since Last Valuation

None.

APPENDIX D – MEMBER CONTRIBUTION RATES

Contribution Rates

Employee contribution rates vary by member Group and Tier. For non-PEPRA members, the rates are the same as those from the prior year, which were updated following an experience study covering the period July 1, 2019 – June 30, 2023. For PEPRA members, the Rates were re-computed this year, in accordance with the requirement that employees pay half of the total normal cost rate from the most recent actuarial valuation.

Non-PEPRA Members

- The basic rates are determined based on Government Code Section 31621.8 for General Tier 1 and Tier 2 members (31621.1 for Tier 2 members under benefit section 31676.11), 31621 for General Tier 3 members, and Section 31639.25 for Safety members. The COLA Rates for members in Tier 1 are determined based on 50% of the normal cost associated with the expected COLA benefits, including joint and survivor benefits, determined for each individual entry age.
- The rates are determined based on an interest rate of 6.75% per annum, an average salary increase of 2.75% per year (plus service-based increases for merit/longevity) and the healthy annuitant mortality tables used in the most recent valuation, projected using 80% of Projection Scale MP-2020 to 2043. The rates are blended based on a male/female weighting of 30% male / 70% female for General members, and 70% male / 30% female for Safety members.
- Effective with the June 30, 2013 valuation, an administrative expense load was added to the rates. The expense load added is currently 3.6%. This load was determined to account for the employees' share of the assumed administrative expense assumption, assuming the employer and employees would share administrative expenses in proportion to their overall share of the contributions. The load produces an average increase in the employee rates of approximately 0.29% of payroll.

PEPRA Members

- Employee contribution rates are equal to half of the total normal cost rate from the actuarial valuation, determined separately for General and Safety. Due to the passage of SB13, contribution rates for PEPRA members are not rounded, and will be recomputed each year.
- An administrative expenses load of 3.6% was applied to the PEPRA rates.

APPENDIX D – MEMBER CONTRIBUTION RATES

Current Year Contribution Rates (General Non-PEPRA):

	Tier 1						Tier 2		Tier 3	
	Basic		COLA		Total		Basic		Basic	
Entry Age	First $350	Over $350	First $350	Over $350	First $350	Over $350	First $350	Over $350	First $350	Over $350
16	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
17	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
18	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
19	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
20	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
21	5.67%	8.51%	1.50%	2.26%	7.17%	10.77%	5.47%	8.21%	3.93%	5.89%
22	5.77%	8.66%	1.55%	2.33%	7.32%	10.99%	5.56%	8.35%	4.00%	6.00%
23	5.88%	8.83%	1.61%	2.41%	7.49%	11.24%	5.67%	8.51%	4.07%	6.11%
24	5.99%	8.98%	1.66%	2.49%	7.65%	11.47%	5.77%	8.66%	4.14%	6.22%
25	6.10%	9.16%	1.71%	2.56%	7.81%	11.72%	5.88%	8.83%	4.22%	6.33%
26	6.22%	9.32%	1.75%	2.62%	7.97%	11.94%	6.00%	8.99%	4.30%	6.44%
27	6.33%	9.50%	1.79%	2.69%	8.12%	12.19%	6.10%	9.16%	4.38%	6.57%
28	6.45%	9.68%	1.84%	2.77%	8.29%	12.45%	6.23%	9.33%	4.45%	6.68%
29	6.58%	9.86%	1.90%	2.84%	8.48%	12.70%	6.34%	9.51%	4.54%	6.81%
30	6.70%	10.05%	1.94%	2.91%	8.64%	12.96%	6.45%	9.69%	4.62%	6.93%
31	6.83%	10.25%	2.00%	2.99%	8.83%	13.24%	6.59%	9.88%	4.71%	7.07%
32	6.97%	10.45%	2.04%	3.07%	9.01%	13.52%	6.71%	10.07%	4.80%	7.20%
33	7.11%	10.66%	2.10%	3.15%	9.21%	13.81%	6.85%	10.28%	4.89%	7.33%
34	7.25%	10.88%	2.14%	3.22%	9.39%	14.10%	6.98%	10.47%	4.98%	7.47%
35	7.40%	11.10%	2.21%	3.30%	9.61%	14.40%	7.11%	10.66%	5.08%	7.61%
36	7.53%	11.30%	2.26%	3.39%	9.79%	14.69%	7.23%	10.85%	5.17%	7.76%
37	7.68%	11.51%	2.31%	3.47%	9.99%	14.98%	7.36%	11.03%	5.27%	7.92%
38	7.80%	11.70%	2.37%	3.55%	10.17%	15.25%	7.47%	11.20%	5.38%	8.07%
39	7.93%	11.89%	2.43%	3.65%	10.36%	15.54%	7.57%	11.36%	5.48%	8.23%
40	8.05%	12.07%	2.49%	3.73%	10.54%	15.80%	7.68%	11.51%	5.58%	8.38%
41	8.16%	12.25%	2.50%	3.75%	10.66%	16.00%	7.77%	11.66%	5.69%	8.53%
42	8.26%	12.39%	2.52%	3.78%	10.78%	16.17%	7.85%	11.78%	5.78%	8.67%
43	8.35%	12.53%	2.54%	3.80%	10.89%	16.33%	7.94%	11.90%	5.87%	8.81%
44	8.44%	12.67%	2.54%	3.80%	10.98%	16.47%	8.03%	12.05%	5.96%	8.93%
45	8.56%	12.84%	2.54%	3.80%	11.10%	16.64%	8.12%	12.18%	6.03%	9.04%
46	8.67%	13.00%	2.54%	3.80%	11.21%	16.80%	8.22%	12.32%	6.10%	9.16%
47	8.79%	13.18%	2.54%	3.80%	11.33%	16.98%	8.27%	12.40%	6.17%	9.26%
48	8.88%	13.31%	2.53%	3.79%	11.41%	17.10%	8.30%	12.44%	6.24%	9.36%
49	8.92%	13.39%	2.50%	3.75%	11.42%	17.14%	8.28%	12.41%	6.31%	9.47%
50	8.91%	13.36%	2.47%	3.70%	11.38%	17.06%	8.22%	12.33%	6.38%	9.57%
51	8.86%	13.29%	2.41%	3.63%	11.27%	16.92%	8.15%	12.22%	6.45%	9.68%
52	8.80%	13.20%	2.37%	3.55%	11.17%	16.75%	8.03%	12.04%	6.50%	9.75%
53	8.71%	13.06%	2.31%	3.47%	11.02%	16.53%	8.28%	12.42%	6.52%	9.77%
54	8.55%	12.82%	2.27%	3.41%	10.82%	16.23%	8.55%	12.82%	6.50%	9.75%
55	8.46%	12.69%	2.23%	3.34%	10.69%	16.03%	8.46%	12.69%	6.46%	9.70%
56	8.37%	12.56%	2.14%	3.21%	10.51%	15.77%	8.37%	12.56%	6.40%	9.60%
57	8.28%	12.41%	2.06%	3.09%	10.34%	15.50%	8.28%	12.41%	6.31%	9.46%
58	8.17%	12.26%	1.99%	2.98%	10.16%	15.24%	8.17%	12.26%	6.51%	9.76%
59+	8.06%	12.09%	1.94%	2.90%	10.00%	14.99%	8.06%	12.09%	6.71%	10.07%

APPENDIX D – MEMBER CONTRIBUTION RATES

Current Year Contribution Rates (Safety Non-PEPRA):

	Tier 1						Tier 2 & 3	
	Basic		COLA		Total		Basic	
Entry Age	First $350	Over $350	First $350	Over $350	First $350	Over $350	First $350	Over $350
20	6.07%	9.11%	2.50%	3.75%	8.57%	12.86%	5.84%	8.76%
21	6.16%	9.25%	2.56%	3.84%	8.72%	13.09%	5.94%	8.90%
22	6.27%	9.40%	2.62%	3.93%	8.89%	13.33%	6.02%	9.03%
23	6.36%	9.54%	2.67%	4.01%	9.03%	13.55%	6.12%	9.18%
24	6.46%	9.70%	2.74%	4.10%	9.20%	13.80%	6.22%	9.32%
25	6.56%	9.84%	2.79%	4.19%	9.35%	14.03%	6.31%	9.47%
26	6.66%	10.00%	2.84%	4.26%	9.50%	14.26%	6.41%	9.61%
27	6.78%	10.16%	2.89%	4.34%	9.67%	14.50%	6.52%	9.77%
28	6.88%	10.32%	2.93%	4.40%	9.81%	14.72%	6.62%	9.92%
29	6.99%	10.48%	2.96%	4.44%	9.95%	14.92%	6.72%	10.09%
30	7.11%	10.66%	2.95%	4.43%	10.06%	15.09%	6.83%	10.25%
31	7.22%	10.83%	2.98%	4.48%	10.20%	15.31%	6.94%	10.41%
32	7.35%	11.01%	2.98%	4.48%	10.33%	15.49%	7.06%	10.59%
33	7.47%	11.20%	3.03%	4.54%	10.50%	15.74%	7.18%	10.76%
34	7.59%	11.39%	3.07%	4.60%	10.66%	15.99%	7.30%	10.95%
35	7.73%	11.59%	3.12%	4.67%	10.85%	16.26%	7.43%	11.15%
36	7.86%	11.80%	3.18%	4.78%	11.04%	16.58%	7.56%	11.34%
37	8.01%	12.02%	3.24%	4.87%	11.25%	16.89%	7.70%	11.55%
38	8.17%	12.26%	3.30%	4.96%	11.47%	17.22%	7.84%	11.76%
39	8.32%	12.47%	3.37%	5.06%	11.69%	17.53%	7.97%	11.95%
40	8.47%	12.71%	3.44%	5.16%	11.91%	17.87%	8.09%	12.13%
41	8.61%	12.92%	3.42%	5.13%	12.03%	18.05%	8.19%	12.29%
42	8.73%	13.11%	3.45%	5.18%	12.18%	18.29%	8.28%	12.41%
43	8.84%	13.26%	3.49%	5.23%	12.33%	18.49%	8.34%	12.50%
44	8.92%	13.39%	3.52%	5.28%	12.44%	18.67%	8.36%	12.55%
45	8.98%	13.48%	3.53%	5.30%	12.51%	18.78%	8.36%	12.55%
46	9.01%	13.52%	3.51%	5.27%	12.52%	18.79%	8.30%	12.44%
47	9.01%	13.52%	3.51%	5.26%	12.52%	18.78%	8.16%	12.25%
48	8.88%	13.31%	3.51%	5.27%	12.39%	18.58%	8.42%	12.63%
49+	8.69%	13.03%	3.53%	5.29%	12.22%	18.32%	8.69%	13.03%

APPENDIX D – MEMBER CONTRIBUTION RATES

Prior Year Contribution Rates (General Non-PEPRA):

	Tier 1						Tier 2		Tier 3	
	Basic		COLA		Total		Basic		Basic	
Entry Age	First $350	Over $350	First $350	Over $350	First $350	Over $350	First $350	Over $350	First $350	Over $350
16	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
17	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
18	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
19	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
20	5.57%	8.36%	1.46%	2.19%	7.03%	10.55%	5.38%	8.06%	3.86%	5.79%
21	5.67%	8.51%	1.50%	2.26%	7.17%	10.77%	5.47%	8.21%	3.93%	5.89%
22	5.77%	8.66%	1.55%	2.33%	7.32%	10.99%	5.56%	8.35%	4.00%	6.00%
23	5.88%	8.83%	1.61%	2.41%	7.49%	11.24%	5.67%	8.51%	4.07%	6.11%
24	5.99%	8.98%	1.66%	2.49%	7.65%	11.47%	5.77%	8.66%	4.14%	6.22%
25	6.10%	9.16%	1.71%	2.56%	7.81%	11.72%	5.88%	8.83%	4.22%	6.33%
26	6.22%	9.32%	1.75%	2.62%	7.97%	11.94%	6.00%	8.99%	4.30%	6.44%
27	6.33%	9.50%	1.79%	2.69%	8.12%	12.19%	6.10%	9.16%	4.38%	6.57%
28	6.45%	9.68%	1.84%	2.77%	8.29%	12.45%	6.23%	9.33%	4.45%	6.68%
29	6.58%	9.86%	1.90%	2.84%	8.48%	12.70%	6.34%	9.51%	4.54%	6.81%
30	6.70%	10.05%	1.94%	2.91%	8.64%	12.96%	6.45%	9.69%	4.62%	6.93%
31	6.83%	10.25%	2.00%	2.99%	8.83%	13.24%	6.59%	9.88%	4.71%	7.07%
32	6.97%	10.45%	2.04%	3.07%	9.01%	13.52%	6.71%	10.07%	4.80%	7.20%
33	7.11%	10.66%	2.10%	3.15%	9.21%	13.81%	6.85%	10.28%	4.89%	7.33%
34	7.25%	10.88%	2.14%	3.22%	9.39%	14.10%	6.98%	10.47%	4.98%	7.47%
35	7.40%	11.10%	2.21%	3.30%	9.61%	14.40%	7.11%	10.66%	5.08%	7.61%
36	7.53%	11.30%	2.26%	3.39%	9.79%	14.69%	7.23%	10.85%	5.17%	7.76%
37	7.68%	11.51%	2.31%	3.47%	9.99%	14.98%	7.36%	11.03%	5.27%	7.92%
38	7.80%	11.70%	2.37%	3.55%	10.17%	15.25%	7.47%	11.20%	5.38%	8.07%
39	7.93%	11.89%	2.43%	3.65%	10.36%	15.54%	7.57%	11.36%	5.48%	8.23%
40	8.05%	12.07%	2.49%	3.73%	10.54%	15.80%	7.68%	11.51%	5.58%	8.38%
41	8.16%	12.25%	2.50%	3.75%	10.66%	16.00%	7.77%	11.66%	5.69%	8.53%
42	8.26%	12.39%	2.52%	3.78%	10.78%	16.17%	7.85%	11.78%	5.78%	8.67%
43	8.35%	12.53%	2.54%	3.80%	10.89%	16.33%	7.94%	11.90%	5.87%	8.81%
44	8.44%	12.67%	2.54%	3.80%	10.98%	16.47%	8.03%	12.05%	5.96%	8.93%
45	8.56%	12.84%	2.54%	3.80%	11.10%	16.64%	8.12%	12.18%	6.03%	9.04%
46	8.67%	13.00%	2.54%	3.80%	11.21%	16.80%	8.22%	12.32%	6.10%	9.16%
47	8.79%	13.18%	2.54%	3.80%	11.33%	16.98%	8.27%	12.40%	6.17%	9.26%
48	8.88%	13.31%	2.53%	3.79%	11.41%	17.10%	8.30%	12.44%	6.24%	9.36%
49	8.92%	13.39%	2.50%	3.75%	11.42%	17.14%	8.28%	12.41%	6.31%	9.47%
50	8.91%	13.36%	2.47%	3.70%	11.38%	17.06%	8.22%	12.33%	6.38%	9.57%
51	8.86%	13.29%	2.41%	3.63%	11.27%	16.92%	8.15%	12.22%	6.45%	9.68%
52	8.80%	13.20%	2.37%	3.55%	11.17%	16.75%	8.03%	12.04%	6.50%	9.75%
53	8.71%	13.06%	2.31%	3.47%	11.02%	16.53%	8.28%	12.42%	6.52%	9.77%
54	8.55%	12.82%	2.27%	3.41%	10.82%	16.23%	8.55%	12.82%	6.50%	9.75%
55	8.46%	12.69%	2.23%	3.34%	10.69%	16.03%	8.46%	12.69%	6.46%	9.70%
56	8.37%	12.56%	2.14%	3.21%	10.51%	15.77%	8.37%	12.56%	6.40%	9.60%
57	8.28%	12.41%	2.06%	3.09%	10.34%	15.50%	8.28%	12.41%	6.31%	9.46%
58	8.17%	12.26%	1.99%	2.98%	10.16%	15.24%	8.17%	12.26%	6.51%	9.76%
59+	8.06%	12.09%	1.94%	2.90%	10.00%	14.99%	8.06%	12.09%	6.71%	10.07%

APPENDIX D – MEMBER CONTRIBUTION RATES

Prior Year Contribution Rates (Safety Non-PEPRA):

	Tier 1						Tier 2 & 3	
	Basic		COLA		Total		Basic	
Entry Age	First $350	Over $350	First $350	Over $350	First $350	Over $350	First $350	Over $350
20	6.07%	9.11%	2.50%	3.75%	8.57%	12.86%	5.84%	8.76%
21	6.16%	9.25%	2.56%	3.84%	8.72%	13.09%	5.94%	8.90%
22	6.27%	9.40%	2.62%	3.93%	8.89%	13.33%	6.02%	9.03%
23	6.36%	9.54%	2.67%	4.01%	9.03%	13.55%	6.12%	9.18%
24	6.46%	9.70%	2.74%	4.10%	9.20%	13.80%	6.22%	9.32%
25	6.56%	9.84%	2.79%	4.19%	9.35%	14.03%	6.31%	9.47%
26	6.66%	10.00%	2.84%	4.26%	9.50%	14.26%	6.41%	9.61%
27	6.78%	10.16%	2.89%	4.34%	9.67%	14.50%	6.52%	9.77%
28	6.88%	10.32%	2.93%	4.40%	9.81%	14.72%	6.62%	9.92%
29	6.99%	10.48%	2.96%	4.44%	9.95%	14.92%	6.72%	10.09%
30	7.11%	10.66%	2.95%	4.43%	10.06%	15.09%	6.83%	10.25%
31	7.22%	10.83%	2.98%	4.48%	10.20%	15.31%	6.94%	10.41%
32	7.35%	11.01%	2.98%	4.48%	10.33%	15.49%	7.06%	10.59%
33	7.47%	11.20%	3.03%	4.54%	10.50%	15.74%	7.18%	10.76%
34	7.59%	11.39%	3.07%	4.60%	10.66%	15.99%	7.30%	10.95%
35	7.73%	11.59%	3.12%	4.67%	10.85%	16.26%	7.43%	11.15%
36	7.86%	11.80%	3.18%	4.78%	11.04%	16.58%	7.56%	11.34%
37	8.01%	12.02%	3.24%	4.87%	11.25%	16.89%	7.70%	11.55%
38	8.17%	12.26%	3.30%	4.96%	11.47%	17.22%	7.84%	11.76%
39	8.32%	12.47%	3.37%	5.06%	11.69%	17.53%	7.97%	11.95%
40	8.47%	12.71%	3.44%	5.16%	11.91%	17.87%	8.09%	12.13%
41	8.61%	12.92%	3.42%	5.13%	12.03%	18.05%	8.19%	12.29%
42	8.73%	13.11%	3.45%	5.18%	12.18%	18.29%	8.28%	12.41%
43	8.84%	13.26%	3.49%	5.23%	12.33%	18.49%	8.34%	12.50%
44	8.92%	13.39%	3.52%	5.28%	12.44%	18.67%	8.36%	12.55%
45	8.98%	13.48%	3.53%	5.30%	12.51%	18.78%	8.36%	12.55%
46	9.01%	13.52%	3.51%	5.27%	12.52%	18.79%	8.30%	12.44%
47	9.01%	13.52%	3.51%	5.26%	12.52%	18.78%	8.16%	12.25%
48	8.88%	13.31%	3.51%	5.27%	12.39%	18.58%	8.42%	12.63%
49+	8.69%	13.03%	3.53%	5.29%	12.22%	18.32%	8.69%	13.03%

APPENDIX D – MEMBER CONTRIBUTION RATES

Current Year Contribution Rates (PEPRA):

	PEPRA Rates	
	General	**Safety**
	7.22%	11.36%
Assumptions:		
Interest	6.75%	
Salary	2022 Valuation Scale (service-based, includes inflation at 2.5%)	
Mortality	CalPERS 2021 / PubS(B) 2010 tables, projected with 80% of MP-2020	
Other	Same as June 30, 2023 valuation (see Appendix B)	

Prior Year Contribution Rates (PEPRA):

	PEPRA Rates	
	General	**Safety**
	7.26%	11.46%
Assumptions:		
Interest	6.75%	
Salary	2022 Valuation Scale (service-based, includes inflation at 2.5%)	
Mortality	CalPERS 2021 / PubS(B) 2010 tables, projected with 80% of MP-2020	
Other	Same as June 30, 2022 valuation (see Appendix B)	

APPENDIX E – 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 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 which 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. No longer applicable as of the June 30, 2014 actuarial valuation.

APPENDIX E – 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 that 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 Market Value of Assets to the Actuarial Liabilities.

12. Normal Cost

That portion of the actuarial present value of pension plan benefits and expenses, which 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 Market Value of Assets.

CHEIRON

Classic Values, Innovative Advice

Via Electronic Mail

January 19, 2024

Ms. Kristie Santos
Plan Administrator
Merced County Employees' Retirement Association
3199 M Street
Merced, CA 95348

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

Dear Kristie:

Pursuant to the scope of retainer services under Cheiron's agreement to provide actuarial services to Merced CERA, we have computed the Cost-of-Living Adjustment (COLA) percentages to be used by the Association 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 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 2023 and 2022, respectively. This represents an increase of 2.625%, which is subsequently rounded to 2.50%. As a point of comparison, the U.S. City CPI increased by 3.352% over the same time period.

Tier 1 members are subject to the provisions of Section 31870.1, which limits annual COLA increases to 3.00% annually. Therefore, these members should receive an increase in benefits of at least 2.50%, based on the current year's change in the CPI. However, Tier 1 retirees who retired prior to April 2, 2023 should receive an increase of 3.00%, due to their carry-over balances as of April 1, 2023. The remaining carry-over balances will then be reduced by 0.5% (the amount of the COLA increase in excess of 2.50%). The enclosed exhibit summarizes the COLA calculations and carry-over balances for the Tier 1 members. Non-Tier 1 members do not receive an automatic COLA from the Association.

Sincerely,
Cheiron

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

Exhibit

EXHIBIT

MERCED COUNTY EMPLOYEES' RETIREMENT ASSOCIATION					
COST OF LIVING ADJUSTMENTS (COLA) - Section 31870.1 As of April 1, 2024					
Maximum Annual COLA: 3.0%					
	April 1, 2023	Increase in the Annual Average CPI [1]		**April 1, 2024**	
Initial Retirement Date	Accumulated Carry-Over (A)	Actual (B)	Rounded (C)	**COLA** **(D)**	Accumulated Carry-Over (E)
On or Before 7/1/1967	79.0%	2.62%	2.5%	**3.0%**	78.5%
07/02/1967 to 07/01/1968	78.5%	2.62%	2.5%	**3.0%**	78.0%
07/02/1968 to 04/01/1969	77.5%	2.62%	2.5%	**3.0%**	77.0%
04/02/1969 to 04/01/1970	75.0%	2.62%	2.5%	**3.0%**	74.5%
04/02/1970 to 04/01/1971	71.5%	2.62%	2.5%	**3.0%**	71.0%
04/02/1971 to 04/01/1972	68.5%	2.62%	2.5%	**3.0%**	68.0%
04/02/1972 to 04/01/1973	66.5%	2.62%	2.5%	**3.0%**	66.0%
04/02/1973 to 04/01/1974	65.0%	2.62%	2.5%	**3.0%**	64.5%
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)

Merced County Employees' Retirement Association

Audit Results Presentation

January 25, 2024

2023 Audit Results

- Independent Auditors' Report - Unmodified "clean" opinion that the financial statements are presented fairly, in all material respects, in conformity with U.S. Generally Accepted Accounting Principles (GAAP).
- Limited procedures were performed, and no opinion rendered, on management's discussion and analysis, required supplemental information, and the Introductory, Investment, Actuarial, and Statistical sections.
- Limited procedures were performed, and an "in-relation to" opinion was rendered on the supplemental schedules.
- Report on Internal Control over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance with Government Auditing Standards.
  - No material weaknesses were identified.
- Letter to the Board providing required communications with those charged with governance.

Required Governing Body Communications

- Auditor’s responsibility under U.S. Generally Accepted Auditing Standards
- Significant accounting policies
  - No new accounting standards in fiscal year 2023
- Management judgments and accounting estimates
  - Valuation of alternative investments
  - Actuarial assumptions and methods used

Required Governing Body Communications

- Management was very cooperative and professional during the audit process
- No corrected or uncorrected misstatements
- No disagreements with management
- Management did not consult with other accountants on the application of GAAP or GAAS
- No major issues were discussed with management prior to retention
- Management Representations

Thank you!

Jason Ostroski, CPA
Engagement Principal
jostroski@uhy-us.com| 410-423-4839

About UHY

UHY is one of the nation's largest professional services firms providing audit, tax, consulting and advisory services to clients primarily in the dynamic middle market. We are trailblazers who bring our experience from working within numerous industries to our clients so that we can provide them a 360-degree view of their businesses. Together with our clients, UHY works collaboratively to develop flexible, innovative solutions that meet our clients' business challenges. As an independent member of UHY International, we are proud to be a part of a top 20 international network of independent accounting and consulting firms.

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GLOBAL

As an independent member of UHY International, we are proud to be a part of a top 20 international network of independent accounting and consulting firms. For a complete listing of our member firms, please visit: www.uhy.com/locations

MERCED CERA

Merced County Employees' Retirement Association

A Component Unit of the County of Merced and a Pension Trust Fund of the County of Merced and Participating Employers.
Merced, California

2023

Annual Comprehensive Financial Report

For the fiscal years ended June 30, 2023 and 2022

Inside Front Cover — Page Intentionally Left Blank

Annual Comprehensive Financial Report

For the Fiscal Years Ended June 30, 2023 and 2022

Issued by:

Kristen Santos
Plan Administrator

Mark A. Harman, MBA
Fiscal Manager

Merced County Employees' Retirement Association
A Component Unit of the County of Merced and a Pension Trust Fund of the County of Merced and Participating Employers.
Merced, California

3199 M Street
Merced, California 95348
(209) 726-2724

www.mercedcera.com

MercedCERA's mission is to provide benefits to its members, to manage assets prudently in accordance with plan provisions, and to provide competent and efficient services to our members.

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Introductory Section

December 15, 2023

Board of Retirement
Merced County Employees' Retirement Association
3199 M Street
Merced, CA 95326

Dear Board Members:

As the Plan Administrator of the Merced County Employees' Retirement Association (MercedCERA or the Association), I am pleased to present this Annual Comprehensive Financial Report (ACFR) for the fiscal years ended June 30, 2023 and 2022. This report is intended to provide readers with complete and reliable information about MercedCERA's financial status, compliance with the law and MercedCERA policies. This is MercedCERA's 73rd year of operation.

MercedCERA's Mission Statement and Core Values

MercedCERA's mission is to provide benefits to its members, manage assets prudently in accordance with plan provisions, and provide competent and efficient services to our members.

The Annual Comprehensive Financial Report (ACFR)

MercedCERA management is responsible for both the accuracy of the data and the completeness and fairness of the financial information contained in this ACFR. The ACFR is presented in five sections:

- The **Introductory Section** describes MercedCERA's management and organizational structure, identifies the members of the MercedCERA Board of Retirement (Board), provides a listing of professional consultants utilized by MercedCERA, and presents this Letter of Transmittal.
- The **Financial Section** presents the report of the MercedCERA's independent auditor, UHY, LLP, along with MercedCERA management's discussion and analysis, basic financial statements, required supplementary schedules, other supplemental schedules, and other information.
- The **Investment Section** contains a report on MercedCERA's investment performance from MercedCERA's general investment consultant, Meketa Investment Group, along with information regarding MercedCERA's investment policies, asset allocation, investment holdings, and investment management fees.
- The **Actuarial Section** contains the independent actuary's certification letter from MercedCERA's actuary, Cheiron, Inc., along with a summary of actuarial assumptions and funding methods, and actuarial statistics.
- The **Statistical Section** presents information pertaining to MercedCERA's operations on a multi-year basis. The financial and operating information provides contextual data for MercedCERA's fiduciary net position, contributions, refunds, and different types of retirement benefits.

MercedCERA and its Services

MercedCERA is a public employee retirement system established by the County of Merced on July 1, 1950. MercedCERA is administered by the MercedCERA Board of Retirement to provide retirement, disability, death, and survivor benefits for eligible employees of the County of Merced, Superior Court of California for the County of Merced, Merced Cemetery District, and the Merced County Law Library pursuant to the California

Constitution, the County Employees' Retirement Law of 1937, Government Code Section 31450 et. seq. (the 1937 Act), and the by-laws, policies, and procedures adopted by the MercedCERA Board. The County of Merced Board of Supervisors may also adopt resolutions, as permitted by the 1937 Act, which may affect benefits of MercedCERA members.

The MercedCERA Board is responsible for the overview of the Association, including managing the investment of the Association's assets. The day-to-day management of MercedCERA is vested in the Plan Administrator appointed by the Board.

The Board is comprised of nine members and two alternates: two elected by the active general membership, one regular and one alternate elected by the active safety membership, one regular and one alternate elected by the retired membership, four appointed by the County of Merced Board of Supervisors, and the County of Merced Treasurer, who serves as an ex-officio member. With the exception of the County Treasurer, Board members serve three-year terms, with no term limits.

Financial Information

A review of MercedCERA's fiscal affairs for the years fiscal years ended June 30, 2023 and 2022 is presented in Management's Discussion and Analysis (MD&A), which is located in the Financial Section of this ACFR. Together, the MD&A and this Letter of Transmittal provide an expanded overview of MercedCERA's financial activities for the fiscal years reported.

The audit of MercedCERA's financial statements has been performed by an independent auditor, UHY, LLP, who has determined that the financial statements are presented in conformity with Generally Accepted Accounting Principles (GAAP) and are free of material misstatement and that sufficient internal controls exist to provide reasonable assurance regarding the safekeeping of assets and fair presentation of the financial statements and supporting schedules. This document has been prepared in compliance with the Governmental Accounting Standards Board (GASB) Statement No. 98 and all applicable prior and relevant standards.

Management is responsible for establishing and maintaining appropriate internal controls to ensure that MercedCERA's assets are protected from loss, theft, or misuse. We believe that internal controls are designed to provide reasonable assurance that these objectives are met. The concept of reasonable assurance recognizes that the cost of control should not exceed the benefits to be derived and the assessment of control should not exceed the benefits to be derived and the assessment of costs and benefits requires estimates and judgments by management.

As of June 30, 2023, MercedCERA's fiduciary net position restricted for pension benefits totaled approximately $1.135 billion reflecting an increase of approximately $70.6 million or 6.6% in fiduciary net position from the end of the previous fiscal year. This was primarily attributable to an increase in fair value of investments.

Actuarial Funding Status

MercedCERA's funding objective is to meet long-term benefit obligations by maintaining a well-funded plan and obtaining optimum investment returns consistent with a prudent level of risk.

Pursuant to provisions in the 1937 Act, MercedCERA engages an independent actuarial firm to perform annual actuarial valuations of the Association. As part of the valuation, economic assumptions are reviewed and, in addition, every three years a triennial experience study of MercedCERA membership is conducted and demographic and economic assumptions are reviewed and modified as necessary. The most recent experience study was conducted in 2022. As a result of the study, several economic and demographic assumptions were changed. The most recent actuarial valuation as of June 30, 2022, reported the Association's actuarial funding status (the ratio of assets to actuarial liabilities) is 69.6%. This decrease in funding ratio (69.6% from 78.0% as of June 30, 2021) was primarily due to a combination of MercedCERA's fair value of assets decreasing at a rate faster than the increase of the actuarial liabilities, which were both driven by the changes in the assumptions and performance of MercedCERA's investments.

Investments

The Board has fiduciary control of all investments of MercedCERA and is responsible for establishing investment objectives, strategies, and policies. Pursuant to the California Constitution and the 1937 Act, the Board is authorized to invest in any form or type of investment to create a portfolio deemed prudent in the informed judgement of the Board. In making decisions regarding the MercedCERA investment portfolio, the Board acts in a fiduciary capacity and must discharge its duties in accordance with fiduciary principles. In carrying out its investment responsibilities, the Board receives guidance from professional investment consultants, Meketa Investment Group, Inc. and Cliffwater, LLC.

The Board has adopted Investment Policies, which provide the framework for the management of MercedCERA's investments. The Investment Policies establish the investment program goals, asset allocation policies, performance objectives, investment management policies, and risk controls.

The Investment Policy Statement also delineates the principal fiscal duties of the Board, MercedCERA's custodial bank, MercedCERA staff, and investment managers.

The asset allocation plan adopted by the Board is an integral part of MercedCERA's investment program. It is designed to provide an optimum mix of asset classes with return expectations to satisfy the expected growth of liabilities while finding a tolerable level of risk exposure. A summary of the asset allocation plan is located in the Investment Section of this ACFR.

The assets of MercedCERA are exclusively managed by external professional investment management firms. A listing of the investment service providers and investment fees is located on pages 79 and 78, respectively.

For the fiscal year ended June 30, 2023, MercedCERA's investment return, gross of fees, as reported by Meketa Investment Group, was a positive 7.9% and the annualized rates of return, gross of fees, over the last three and five years were a positive 8.5% and 7.5%, respectively.

Service Efforts and Accomplishments

- Adopted and implemented a cost-of-living adjustment (COLA) of 3.0% effective April 1, 2023 for Tier 1 retired members.
- For the nineteenth consecutive year, MercedCERA was awarded the GFOA Certificate of Achievement for Excellence in Financial Reporting for MercedCERA's 2022-2021 Annual Comprehensive Financial Report.
- Approved commitments for each of the following private investments (regardless of funding progress at June 30, 2023):
    - Silver Point Specialty Credit Fund III — $20M
    - BlackRock Global Infrastructure Fund IV — $20M
    - GTCR Fund XIV — $8M
    - Accel KKR Capital Partners Fund VII — $8M
    - EnCap Flatrock Midstream Fund V — $8M

- Summit Partners Europe Growth Equity IV — €8M
- Khosla Ventures VIII — $6M
- Khosla Ventures Seed F — $2M
- Ares Capital Europe VI — $20M
- Cortec Group VIII — $10M
- Genstar Capital XI — $8M
- EnCap Energy Capital Fund XII — $8M
- Ares Senior Direct Lending III — $20M
- Taconic Credit Dislocation IV — $8M

· Approved commitments for each of the following hedge funds (regardless of funding progress at June 30, 2023):

- Hudson Bay Capital — $15M
- One William Street Credit Opportunity Fund — $20M

· Adopted the 2022 actuarial valuation report and 2022 actuarial experience study as presented by Cheiron, Inc.

Certificate of Achievement

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to MercedCERA for its Annual Comprehensive Financial Report for the Fiscal Year Ended June 30, 2022. The Certificate of Achievement is a prestigious national award that recognizes conformance with the highest standards for preparation of state and local government financial reports.

In order to be awarded a Certificate of Achievement, a government unit must publish an easily readable and efficiently organized Annual Comprehensive Financial Report, whose contents conform to program standards. The Annual Comprehensive Financial Report must satisfy both generally accepted accounting principles and applicable legal requirements. A Certificate of Achievement is valid for a period of one year only. This is MercedCERA's eighteenth Certificate of Achievement for excellence in Financial Reporting. We believe our current report continues to conform to the Certificate of Achievement program requirements.

Acknowledgements

The compilation of this report reflects the dedicated efforts of MercedCERA's Fiscal Manager, Mark Harman, and Accountants, Jennifer Figueroa and Kristy Barajas. I would also like to thank MercedCERA's professional consultants: our actuary, our investment consultants, and our auditor for their assistance.

Sincerely,

Kristen Santos
Plan Administrator

Government Finance Officers Association

Certificate of Achievement for Excellence in Financial Reporting

Presented to

Merced County Employees' Retirement Association
California

For its Annual Comprehensive
Financial Report
For the Fiscal Year Ended

June 30, 2022

Christopher P. Morrill

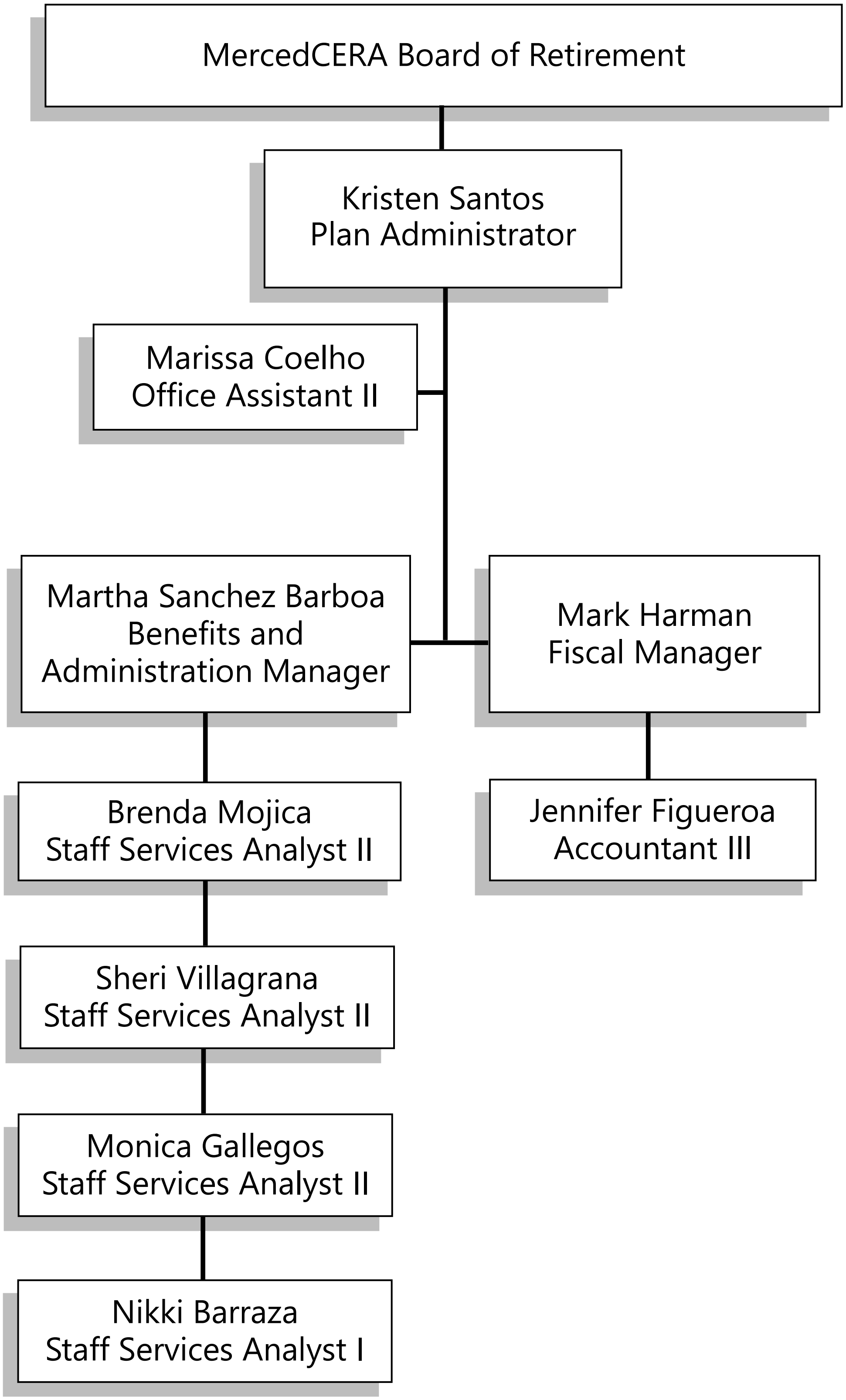
Executive Director/CEO

Members of the Board of Retirement
As of June 30, 2023

Trustees	Term Expiration	Appointed/Elected by
Ryan Paskin, Chair	December 31, 2025	Board of Supervisors
Scott Johnston, Vice Chair	December 31, 2023	Retired Members
Alfonse Peterson, Secretary	December 31, 2023	Board of Supervisors
Karen Adams, County Treasurer	Permanent by office	Ex-officio Member
Janey Cabral	December 31, 2023	General Members
David Ness	December 31, 2025	Board of Supervisors
Scott Silveira	December 31, 2024	Board of Supervisors
Corrina Brown	December 31, 2025	General Members
Aaron Rosenberg	December 31, 2025	Safety Members
Vacant, Alternate	December 31, 2023	Safety Members
Michael Harris, Alternate	December 31, 2023	Retired Members

Administrative Organization Chart

As of June 30, 2023



Since June 30th, MercedCERA added the following staff members: Kristy Barajas, Accountant I; Khue Xiong, Support Services Analyst II; and Patrick Armendarez, Support Services Analyst I. Additionally, Martha Sanchez Barboa was promoted to Assistant Plan Administrator in November 2023.

Consulting Services
Investment Consultant
Meketa Investment Group, Inc.
Cliffwater, LLC
Actuary
Cheiron, Inc.
Segal Consulting
Auditor
UHY LLP
Master Custodian
Northern Trust Corporation
Electronic Systems Services
Merced County Information Systems
Legal Counsel
Hanson Bridgett LLP
Merced County Counsel
Nossaman LLP
Ted Cabral
Medical Advisor
National Disability Evaluations, Inc.
Commission Recapture Brokers
ConvergEx Group
Capital Institutional Services, Inc.

Please refer to the Investment Section of this report for a List of Investment Services Providers located on pages 79 and 80 and the Schedules of Investment Fees located on page 78.

Additionally, please refer to Other Supplementary Information in this report for a Schedule of Payments to Consultants on page 57.

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Financial Section

UHY LLP
Certified Public Accountants

INDEPENDENT AUDITOR'S REPORT

Board of Retirement
Merced County Employees' Retirement Association
Merced, California

Opinion

We have audited the accompanying financial statements of the Merced County Employees' Retirement Association (MercedCERA), a component unit of the County of Merced, which comprise the statement of fiduciary net position and statement of changes in fiduciary net position, as of and for the year ended June 30, 2023, and the related notes to the financial statements, which collectively comprise MercedCERA's basic financial statements as listed in the table of contents.

In our opinion, the financial statements referred to above present fairly, in all material respects, the fiduciary net position of MercedCERA, as of June 30, 2023, and the respective changes in its fiduciary net position for the year then ended in accordance with accounting principles generally accepted in the United States of America.

We have also audited the Schedule of Cost Sharing Employer Allocations and the total for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense excluding that attributable to employer-paid member contributions (specified column totals) included in the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan, as of and for the fiscal year ended June 30, 2023, and the related notes. These schedules are listed as other information in the table of contents.

In our opinion, the schedules referred to above present fairly, in all material respects, the employer allocations and the totals for all entities of the columns titled net pension liability, total deferred outflows of resources, total deferred inflows of resources, and total pension expense excluding that attributable to employer-paid member contributions as of and for fiscal year ended June 30, 2023, in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements and the Schedules section of our report. We are required to be independent of MercedCERA and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Report on Prior Year Financial Statements

The financial statements of MercedCERA as of June 30, 2022 were audited by other auditors whose report dated December 16, 2022 expressed an unmodified opinion on those statements. In our opinion, the comparative information presented herein as of and for the year ended June 30, 2022, is consistent, in all material respects, with the audited financial statements from which it has been derived.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements and the schedules in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of the financial statements and the schedules that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements and the schedules, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about MercedCERA's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditor's Responsibilities for the Audit of the Financial Statements and the Schedules

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole, the Schedule of Cost Sharing Employer Allocations and the specified column totals in the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and *Government Auditing Standards*, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of MercedCERA's internal control. Accordingly, no such opinion is expressed.

- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the MercedCERA's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and the schedules of changes in net pension liability and related ratios, employer contributions and investment returns and related notes, as listed in the table of contents, be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board, who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Supplemental Information

Our audit was conducted for the purpose of forming an opinion on the financial statements as a whole. The schedules of administrative expenses, investment expenses and payments to consultants are presented for purposes of additional analysis and are not a required part of the financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with GAAS. In our opinion, the information is fairly stated in all material respects in relation to the financial statements as a whole.

Other Information included in the Annual Comprehensive Financial Report

Management is responsible for the other information included in the Annual Comprehensive Financial Report. The other information comprises of the introductory, investment, actuarial and statistical sections, but does not include the basic financial statements and our auditor's report thereon. Our opinion on the basic financial statements does not cover the other information, and we do not express an opinion or any form of assurance thereon.

In connection with our audit of the basic financial statements, our responsibility is to read the other information and consider whether a material inconsistency exists between the other information and the basic financial statements, or the other information otherwise appears to be materially misstated. If, based on the work performed, we conclude that an uncorrected material misstatement of the other information exists, we are required to describe it in our report.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated December 15, 2023, on our consideration of the MercedCERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the result of that testing and not to provide an opinion on the effectiveness of the MercedCERA's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering MercedCERA's internal control over financial reporting and compliance.

UHY LLP

Columbia, Maryland
December 15, 2023

We are pleased to provide this overview and analysis of the financial activities of the Merced County Employees' Retirement Association (MercedCERA or the Association) for fiscal years ended June 30, 2023 and 2022. We encourage readers to consider the information presented here in conjunction with the additional information furnished in the Letter of Transmittal and the financial statements following this section.

Financial Highlights

- At the close of the fiscal year June 30, 2023, MercedCERA's fiduciary net position restricted for pensions totaled $1.135 billion. All of the fiduciary net position is available to meet MercedCERA's ongoing obligations to plan participants and their beneficiaries.
- During fiscal year 2023, MercedCERA's fiduciary net position restricted for pensions increased by $70.6 million. This change mostly reflects an increase in the fair value of investments.
- MercedCERA's funding objective is to meet long-term benefit obligations through contributions and investment income. As of June 30, 2022, the date of MercedCERA's last actuarial funding valuation, MercedCERA's funded ratio was 69.6%. In general, this indicates that for every one dollar of benefits due, MercedCERA has approximately $0.696 of assets available for payment.
- Additions, as reflected in the Statements of Changes in Fiduciary Net Position, were $165.5 million in the fiscal year ended June 30, 2023. These additions include employer and employee contributions of $82.1 million, investment income of $13.2 million, other income of $503, a net appreciation in the fair value of investments of $73.3 million, and investment expenses of $3.1 million.
- Deductions, as reflected in the Statements of Changes in Fiduciary Net Position, increased from $89.5 million to $94.9 million in the current fiscal year (an increase of approximately 6.1%). This increase was primarily due to benefits paid.

Overview of the Financial Statements

The following discussion and analysis are intended to help the reader understand the purpose and meaning of the key components within the financial section. The financial statements are comprised of the ***Statements of Fiduciary Net Position*** and the ***Statements of Changes in Fiduciary Net Position.***

The ***Statements of Fiduciary Net Position*** are a snapshot of account balances as of the fiscal year ends. They indicate the assets available for future payment to retirees and any current liabilities. The difference between assets and liabilities represents the fiduciary net position restricted for pensions. The statements also present prior year-end balances for comparative purposes.

The ***Statements of Changes in Fiduciary Net Position*** provide a view of the current year additions to and deductions from the Association that caused the change in the net position during the fiscal years.

MercedCERA's financial statements are in compliance with the generally accepted accounting principles in the United States of America (GAAP) and reporting guidelines set forth in Governmental Accounting Standards Board (GASB) Statement Nos. 28, 34, 40, 44, 51, 53, 63, 67, 72, 82, 84, and 98. These pronouncements require certain disclosures, and also require that defined benefit pension plans of state and local governments report using the full accrual method of accounting. MercedCERA complies with all material requirements of these pronouncements.

These financial statements report information about MercedCERA's financial activities. As previously noted, the statements include all assets and liabilities using the full accrual basis of accounting. The current year's additions are recognized when earned and deductions are recognized when incurred regardless of when cash is received or paid. Investment gains or losses are shown at the trade date, not the settlement date. In addition, both realized and unrealized gains and losses are reported. All capital assets are depreciated over their useful lives.

The information reported regarding MercedCERA's fiduciary net position restricted for pensions is generally considered to be a good measure of MercedCERA's financial position. Over time, increases or decreases in the Association's net position is one indicator of whether the Association's financial health is improving or deteriorating. Other factors, however, such as investment market conditions and the employers' net pension liability, should also be considered in measuring the Association's overall health.

The ***Notes to Basic Financial Statements*** are an integral part of the financial report and provide additional information that is essential to a full understanding of the data provided in the financial statements.

In addition to the financial statements and accompanying notes, this report presents certain required supplementary information. The ***Required Supplementary Information*** includes the Schedules of Changes in Net Pension Liability and Related Ratios, Schedules of Employer Contributions, and the Schedules of Investment Returns. The Schedules of Changes in Net Pension Liability and Related Ratios present the changes in the employers' net pension liability. The Schedules of Employer Contributions provide historical information about actuarial determined contributions of the employer and the actual contributions made. The Schedules of Investment Returns represent the investment returns weighted by the cash inflows and outflows from the investment funds. Together, these schedules and the supporting ***Notes to Required Supplementary Information*** provide information to help promote understanding of the Association's fiduciary net position in relation to the total pension liability, employers' actual contributions and investment returns over time. ***Other Supplemental Schedules*** represent information concerning MercedCERA's operations on a multi-year basis. Finally, ***Other Information*** consists of two schedules pertaining to GASB Statement No. 68*, Accounting and Financial Reporting for Pensions—an Amendment of GASB Statement No. 27.* The two schedules include the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan and the Schedule of Cost Sharing Employer Allocations. Under GASB Statement No. 68, plan sponsors are required to report Net Pension Liability on their balance sheets and changes in Net Pension Liability on their operating statements as pension expenses, deferred inflows of resources, and deferred outflows of resources.

Financial Analysis

As previously noted, the Net Position may serve over time as a useful indication of MercedCERA's financial position. At the close of the fiscal year June 30, 2023, MercedCERA's assets exceeded its liabilities by $1.135 billion. All of the Net Position is available to meet MercedCERA's ongoing obligations to plan participants and their beneficiaries. As of June 30, 2023, the Net Position totaled $1.135 billion, which is $70.6 million more than the prior year. This result essentially reflects the increase in net investment income at fair value, regardless of the increase in benefits and administrative expenses.

MercedCERA's Management believes that the Association remains in a financial position that will enable MercedCERA to meet its future obligations to participants and beneficiaries. MercedCERA remains focused on the long-term performance of the fund, dependent on a strong and successful investment program, risk management, and strategic planning.

MercedCERA's Fiduciary Net Position

For Fiscal Years Ended June 30, 2023 and 2022:

	2023	2022	Increase/ (Decrease) Amount	% Change
Current and Other Assets	$11,144,819	$11,400,528	($255,709)	-2.2%
Investments at Fair Value	1,123,545,198	1,052,415,019	$71,130,179	6.8%
Capital Assets/Prepaid Expenses	1,150,192	1,401,286	($251,094)	-17.9%
Total Assets	1,135,840,209	1,065,216,833	$70,623,376	6.6%
Total Liabilities	758,824	776,088	($17,264)	-2.2%
Fiduciary Net Position Restricted for Pensions	$1,135,081,385	$1,064,440,745	$70,640,640	6.6%

For Fiscal Years Ended June 30, 2022 and 2021:

	2022	2021	Increase/ (Decrease) Amount	% Change
Current and Other Assets	$11,400,528	$10,593,765	$806,763	7.6%
Investments at Fair Value	1,052,415,019	1,151,767,257	($99,352,238)	-8.6%
Capital Assets/Prepaid Expenses	1,401,286	1,607,293	($206,007)	-12.8%
Total Assets	1,065,216,833	1,163,968,315	($98,751,482)	-8.5%
Total Liabilities	776,088	714,471	$61,617	8.6%
Fiduciary Net Position Restricted for Pensions	$1,064,440,745	$1,163,253,844	($98,813,099)	-8.5%

The decrease in current and other assets during the 2022-2023 fiscal year is mostly attributable to a modest decrease in cash year-over-year. The increase in total assets during the 2022-2023 fiscal year was due primarily to the increase in the fair value of investments. The modest decrease in total liabilities during the June 30, 2023 fiscal year is mostly due to having a smaller amount of accounts payable at year-end.

Reserves

Reserves are not required, nor recognized, under GAAP. These are not shown separately on the Statements of Fiduciary Net Position, but they equate to, and are accounts within, the Fiduciary Net Position Restricted for Pensions and are vital to MercedCERA's operations. MercedCERA's reserves are established from contributions and accumulation of investment income after satisfying investment and administrative expenses. Under GAAP, including Governmental Accounting Standards Board (GASB) Statement No. 67, *Financial Reporting for Pension Plans,* investments are stated at fair value rather than at cost, and fair value includes the recognition of unrealized gains and losses in the current period. These unrealized gains and losses are tracked in a reserve account called the Fair Value Fluctuation Reserve. The Fair Value Fluctuation Reserve increased by $28.0 million in the current fiscal year mostly as a result of an increase in the fair value of investments.

MercedCERA's Reserves

For Fiscal Years Ended June 30, 2023, 2022, and 2021:

	2023	2022	2021
Active Members' Reserve	$122,623,667	$117,153,891	$114,579,642
Employer Advance Reserve	395,462,355	336,057,437	291,069,692
Retired Members' Reserve	230,542,149	259,831,255	275,755,873
Interest Fluctuation Reserve	141,012,587	133,988,380	141,008,117
Fair Value Fluctuation Reserve	245,440,627	217,409,782	340,840,520
Total Reserves at Fair Value	$1,135,081,385	$1,064,440,745	$1,163,253,844

MercedCERA's Activities

Financial markets performed better compared to the prior fiscal year, which resulted in the June 30, 2023 fiscal year increase of $70.6 million in MercedCERA's Net Position (an increase of 6.6% from the previous year). The key element of this increase was an increase in the fair value of investments.

Additions to Fiduciary Net Position

The reserves needed to finance retirement benefits are normally accumulated through the collection of employer and employee contributions and through earnings on investment income (net of investment expenses). Additions to the fiduciary net position for the fiscal year ended June 30, 2023 totaled $165.5 million. Overall, additions for the fiscal year increased $174.9 million from the fiscal year ended June 30, 2022 primarily due to appreciation in the fair value of investments year-over-year. In fiscal year 2021-2022, additions totaled $(9.4) million, which was a decrease of $339.2 million from fiscal year 2020-2021. Increases in employer and member contributions year-over-year nominally contributed to the total additions. The Investment Section of this report provides a more detailed review of the investment markets and investment performance for the current fiscal year.

For Fiscal Years Ended June 30, 2023 and 2022:

	2023	2022	Increase/ (Decrease) Amount	% Change
Member Contributions	$13,445,557	$12,124,583	$1,320,974	10.9%
Employer Contributions	68,648,116	65,629,994	3,018,122	4.6%
Net Investment Income	83,417,442	(87,115,891)	170,533,333	195.8%
Total Additions	$165,511,115	$(9,361,314)	$174,872,429	1,868.0%

For Fiscal Years Ended June 30, 2022 and 2021:

	2022	2021	Increase/ (Decrease) Amount	% Change
Member Contributions	$12,124,583	$11,895,243	$229,340	1.93%
Employer Contributions	65,629,994	64,512,161	1,117,833	1.73%
Net Investment Income	(87,115,891)	253,466,527	(340,582,418)	-134.37%
Total Additions	$(9,361,314)	$329,873,931	$(339,235,245)	-102.84%

Deductions from Fiduciary Net Position

MercedCERA was created to provide lifetime retirement annuities, survivor benefits, and permanent disability benefits to qualified members and their beneficiaries. The cost of such programs includes recurring benefit payments, as designated by the plan; refunds of contributions to terminated employees; and the cost of administering the Association. Effective for the 2011 fiscal year, the County Employees Retirement Law of 1937 (1937 Act) limits administration costs to the greater of 21/100ths of 1 percent of the Association's accrued actuarial liability or $2 million, as adjusted annually by the amount of an annual cost of living adjustment (COLA). The 1937 Act also allows for some expenses to be excluded from the calculation. These exclusions are for investment, actuarial, custodial banking, legal, and technology expenses. Deductions for the current fiscal year totaled $94.9 million while in fiscal year 2021-2022 deductions totaled $89.5 million, an increase of 6.1% from the previous year. The increase in deductions can be primarily attributed to the retiree payroll increase of 5.4%.

For Fiscal Years Ended June 30, 2023 and 2022

	2023	2022	Increase/ (Decrease) Amount	% Change
Benefits Paid	$90,585,672	$85,912,580	$ 4,673,092	5.4%
Refunds of Contributions	1,262,876	896,116	366,760	40.9%
Administrative Expense	2,789,967	2,522,797	267,170	10.6%
Actuarial Expense	232,010	120,292	111,718	92.9%
Total Deductions	$94,870,525	$89,451,785	$ 5,418,740	6.1%

For Fiscal Years Ended June 30, 2022 and 2021:

	2022	2021	Increase/ (Decrease) Amount	% Change
Benefits Paid	$85,912,580	$82,836,595	$3,075,985	3.71%
Refunds of Contributions	896,116	977,485	(81,369)	-8.32%
Administrative Expense	2,522,797	2,494,246	28,551	1.14%
Actuarial Expense	120,292	126,833	(6,541)	-5.16%
Total Deductions	$89,451,785	$86,435,159	$3,016,626	3.49%

Change in Fiduciary Net Position

As of June 30, 2023, Fiduciary Net Position increased $70.6 million, resulting in a 6.6% increase in Fiduciary Net Position over the previous fiscal year. This increase was due primarily to the increase in the fair value of investments. As of June 30, 2022, Fiduciary Net Position decreased $98.8 million, resulting in an 8.5% decrease in Fiduciary Net Position over the previous fiscal year. This decrease was due primarily to the decrease in the fair value of investments.

MercedCERA's Fiduciary Responsibilities

MercedCERA's Board of Retirement and management are fiduciaries of the pension trust fund. Under the California Constitution, the Association's assets must be used exclusively for the benefit of the plan participants and their beneficiaries.

Requests for Information

This financial report is designed to provide MercedCERA's Board of Retirement, its membership, taxpayers, investment managers, creditors, and others with a general overview of MercedCERA's financial condition and to demonstrate accountability for the funds MercedCERA receives and manages. Questions concerning any of the information provided in this report, or requests for additional information should be addressed to:

Merced County Employees' Retirement Association
Attn: Fiscal Operations
3199 M Street
Merced, CA 95348
T: 209.726.2724
F: 209.726.3637

Respectfully Submitted,

Mark A Harman

Mark A. Harman, MBA
Fiscal Manager
December 15, 2023

Merced County Employees' Retirement Association
Statements of Fiduciary Net Position
As of June 30, 2023 and 2022

	2023	2022
Assets		
Cash and short-term investments		
Cash invested with Merced County Treasurer	$542,775	$962,632
Cash invested with Northern Trust	6,734,512	5,405,400
Other cash and cash equivalents with Northern Trust	358,464	1,606,020
Total cash and short-term investments	7,635,751	7,974,052
Receivables		
Bond interest	275,529	594,819
Contributions	3,148,475	2,748,334
Distributions	78,443	66,780
Other	6,621	16,543
Total receivables	3,509,068	3,426,476
Investments		
U.S. government and agency obligations	2,507	39,370,729
Domestic fixed income	152,015,158	163,748,458
Common stock (domestic)	28,608,415	24,197,364
Common stock (index funds)	237,131,866	211,862,277
Common stock (international)	210,796,922	184,743,517
Real estate	83,852,232	91,666,608
Alternative investments	411,138,098	336,826,066
Total investments	1,123,545,198	1,052,415,019
Prepaid expenses	111,612	119,533
Capital assets: Net of accumulated depreciation of $2,413,926 and $2,149,188	1,038,580	1,281,753
Total Assets	1,135,840,209	1,065,216,833
Liabilities		
Accounts payable	655,575	682,234
Securities purchased	17,846	8,451
Unclaimed contributions	85,403	85,403
Total Liabilities	758,824	776,088
Fiduciary Net Position Restricted for Pensions	$1,135,081,385	$1,064,440,745

The accompanying notes are an integral part of these basic financial statements.

Merced County Employees' Retirement Association
Statements of Changes in Fiduciary Net Position
For the fiscal years ended June 30, 2023 and 2022

	2023	2022
Additions		
Contributions		
Plan members	$13,445,557	$12,124,583
Employer	68,648,166	65,629,994
Total contributions	82,093,723	77,754,577
Investment income from investment activities		
Net appreciation / (depreciation) in fair value of investments	73,272,953	(94,850,878)
Investment income	13,243,231	10,671,989
Other income	503	57,231
Less investment expenses	(3,099,245)	(2,994,233)
Total net investment income/(loss)	83,417,442	(87,115,891)
Total Additions	165,511,165	(9,361,314)
Deductions		
Benefits paid	90,585,672	85,912,580
Refunds of contributions	1,262,876	896,116
Administrative expenses	2,789,967	2,522,797
Actuarial expenses	232,010	120,292
Total Deductions	94,870,525	89,451,785
Net Increase/(Decrease)	70,640,640	(98,813,099)
Fiduciary Net Position Restricted for Pensions		
Beginning of year	1,064,440,745	1,163,253,844
End of year	$1,135,081,385	$1,064,440,745

The accompanying notes are an integral part of these basic financial statements.

Note 1 - PLAN DESCRIPTION

A. General Information

The Merced County Employees' Retirement Association (MercedCERA or the Association) was established July 1, 1950, under and subject to the legislative authority of the State of California as enacted and amended in the County Employees Retirement Act of 1937 (the "1937 Act"). The Association was voter approved by a greater than 2/3 majority of the electorate of Merced County (the County). The Association was integrated with Social Security on January 1, 1956. Members of the Association at that time had a one–time option to convert to the new Association or remain in the previous system. MercedCERA administers a cost sharing, multiple-employer defined benefit pension plan (the Plan). MercedCERA's active employers are the County, the Merced Superior Courts, Merced Cemetery District, and the Merced County Law Library. MercedCERA's annual financial statements are included in the County's financial reports as a pension trust fund.

The management of the Association is vested in a Board of Retirement (Board) that consists of nine members and two alternates:

1. County Treasurer
2. Two elected general members
3. Four members appointed by the County Board of Supervisors
4. One elected retired member and one alternate
5. One elected safety member and one alternate

Day-to-day management of MercedCERA is vested in a Plan Administrator who is appointed by, and serves at the direction, of the Board.

MercedCERA, with its own governing board, is an independent governmental entity separate and distinct from the County and derives its authority from California Government Code Section 31450 et seq., and the California Constitution.

B. Membership

Plan members are classified as either General or Safety members. Membership becomes effective on the first day of service. Members include all permanent employees appointed to permanent positions or permanent part-time positions within Merced County, Merced Superior Courts, Merced Cemetery District, and Merced County Law Library. Newly hired persons age 60 and over and elected officials may waive membership in the Association.

All employees hired prior to June 13, 1994 are members of Tier I. Executive "A" Level management appointed prior to December 31, 2012 per Amendment to County Board of Supervisors Resolution 94-89, effective July 1, 2000 are Tier I. The Tier I retirement benefit is based on the highest one year compensation. The minimum age to retire is 50 or any age with 30 years of service credit (20 years for Safety). General and Safety Tier I members are eligible for post-retirement cost-of-living adjustments (COLA).

The County Board of Supervisors adopted a new retirement tier (Tier II) for both General and Probation Safety members hired after June 13, 1994 and all other Safety members hired after July 1, 1998. Benefits for members under Tier II are based on 3 years final average salary and are not eligible for post-retirement COLAs. The minimum age to retire is 55 for General members or any age with 30 years of service credit and 50 for Safety members or any age with 20 years of service credit.

The County Board of Supervisors adopted two more tiers in 2012 for both General and Safety members.

Members hired between October 1, 2012 and December 31, 2012 are Tier III. Tier IV was adopted after the State of California approved Assembly Bill (AB) 340, the Public Employee Pension Reform Act of 2013 (PEPRA). New members defined by the new legislation and hired after January 1, 2013 are Tier IV. Both Tier III and Tier IV benefits are based on 3 years final average salary and are not eligible for post-retirement COLAs. For Tier III, the minimum age to retire is 55 for General members or any age with 30 years of service credit and 50 for Safety members or any age with 20 years of service credit. For Tier IV, the minimum age to retire is 52 for General members with 5 years of service credit and 50 for Safety members with 5 years of service credit.

Membership Structure on June 30, 2023 was as follows:

	General Tiers				Safety Tiers				
Active Members	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**Total**
Vested	28	543	49	443	5	120	5	72	1,265
Non-vested	-	1	1	745	-	-	-	96	843
Inactive Members									
Deferred vested	30	246	40	92	2	45	3	7	465
Deferred non-vested	3	61	9	548	-	7	1	64	693
Reciprocity	3	72	1	18	2	18	-	3	117
Unclaimed members	2	11	-	-	-	-	-	-	13
Total active and inactive members	66	934	100	1,846	9	190	9	242	3,396
Retired Members									
Service retirements	1,169	599	7	17	186	49	-	2	2,029
Beneficiaries	194	31	-	-	52	1	-	-	278
Service connected disability	30	22	-	-	56	32	-	-	140
Non-service connected disability	25	13	1	1	1	1	-	-	42
Survivors	11	6	-	-	4	2	-	-	23
Total retired members	1,429	671	8	18	299	85	-	2	2,512

Membership Structure on June 30, 2022 was as follows:

	General Tiers				Safety Tiers				
Active Members	**I**	**II**	**III**	**IV**	**I**	**II**	**III**	**IV**	**Total**
Vested	37	616	58	400	4	141	5	65	1,326
Non-vested	-	5	1	712	1	-	-	110	829
Inactive Members									
Deferred vested	37	234	30	61	1	43	3	3	412
Deferred non-vested	2	64	9	445	-	7	1	57	585
Reciprocity	13	117	-	10	3	30	-	2	175
Unclaimed members	3	14	-	-	-	-	-	-	17
Total active and inactive members	92	1,050	98	1,628	9	221	9	237	3,344
Retired Members									
Service retirements	1185	546	7	10	189	36	-	2	1,975
Beneficiaries	198	27	-	-	49	1	-	-	275
Service connected disability	30	20	-	-	59	32	-	-	141
Non-service connected disability	27	14	1	1	2	1	-	-	46
Survivors	14	7	-	-	5	2	-	-	28
Total retired members	1,454	614	8	11	304	72	-	2	2,465

C. Benefit Provisions

- Safety members and General Tier I members with 10 years of service and who have attained the minimum age of 50 are eligible to receive a lifetime monthly retirement benefit.
- General members with 10 years of service who have attained the minimum age of 55 in Tiers II and III are eligible to receive a lifetime benefit.
- Safety members with 20 years of service, regardless of age, are eligible for lifetime monthly retirement benefits for Tiers I, II, and III.
- General members with 30 years of service, regardless of age, are eligible for lifetime monthly retirement benefits for Tiers I, II, and III.
- Members who are at least 70 years of age are eligible to retire, regardless of years of service, for all tiers.
- Tier IV Safety members are eligible for retirement with 5 years of service and a minimum age of 50.
- Tier IV General members are eligible for retirement with 5 years of service and a minimum age of 52.
- The service retirement benefit is a percentage of monthly final average salary per year of service, depending on age at retirement and tier.
- For members integrated with Social Security, the benefit is reduced by 1/3 of the percentage multiplied by the first $350 of the monthly final average salary, per year of service credited after January 1, 1956 (not applicable to Tier 4 members).
- The actual benefit paid will also be affected by the benefit payment option selected by the member.

The County Board of Supervisors adopted Government Code Section 31676.17 of the 1937 Act for all County General members, Tier I and Tier II, except Merced Cemetery District members and any member who was deferred or in inactive reciprocity status prior to the dates of adoption, on March 15, 2005; Government Code Section 31664.1 for all Safety members, Tier I and Tier II, on July 1, 2005; Government Code Section 31676.17 for Superior Court of California and County members on November 4, 2005; Government Code Section 31676.1 for General members, Tier III, on October 1, 2012; and Government Code Section 31664 for all Safety members, Tier III, on October 1, 2012. The County adopted PEPRA Tier IV for all General and Safety members on January 1, 2013.

The following chart demonstrates the percentage of Final Average Salary a member of each tier would receive per year of service at different ages.

Percentage of Final Average Salary for Each Year of Service (Rounded) Current Employees				
	Tier I		Tier II	
Retirement Age	**General**	**Safety**	**General**	**Safety**
50	2.00%	3.00%	-	3.00%
55	2.50%	3.00%	2.50%	3.00%
60+	3.00%	3.00%	3.00%	3.00%
	Tier III		Tier IV	
Retirement Age	**General**	**Safety**	**General**	**Safety**
50	-	2.00%	-	2.00%
55	1.49%	2.62%	1.30%	2.50%
57	1.64%	2.62%	1.50%	2.70%
65	2.43%	2.62%	2.30%	2.70%
67+	2.43%	2.62%	2.50%	2.70%

Percentage of Final Average Salary for Each Year of Service (Rounded) for Merced Cemetery District, Deferred, and Inactive Reciprocal Members Prior to Enhanced Benefit Adoption Dates				
	Tier I		Tier II	
Retirement Age	**General**	**Safety**	**General**	**Safety**
50	1.24%	2.00%	-	2.00%
55	1.67%	2.62%	1.49%	2.62%
60	2.18%	2.62%	1.92%	2.62%
65+	2.61%	2.62%	2.43%	2.62%

(1) Retirement Options

Under the current "Fixed Formula" retirement, a member may elect the "**Unmodified**" allowance, which provides the maximum allowance to the member for life, with a continuance of 60% of the allowance to an eligible spouse or eligible registered domestic partner if the spouse or registered domestic partner is designated as beneficiary. No allowance, however, shall be paid to a surviving spouse or domestic partner unless he or she is married to the member or has been registered as a domestic partner at least one year prior to the date of retirement. In the event of the death of the retiree, spouse or domestic partner, any balance of the retiree's contributions, less retirement allowances received, is payable to an alternate beneficiary.

Option 1 - The member may elect to receive a slightly reduced monthly retirement allowance, payable throughout their life, with the provision that upon death, their accumulated contributions less the actual annuity payments received by the retiree will be paid to a designated beneficiary. Under this option, beneficiaries may be changed after retirement.

Option 2 - The member receives a considerably reduced monthly retirement allowance, with the provision that 100% of the retiree's benefit will continue to be paid after the member's death to a beneficiary named at the time of retirement. All payments stop at the death of both annuitants.

Option 3 - The member receives a reduced monthly retirement allowance, with the provision that 50% of the retiree's benefit will continue to be paid after the member's death to a beneficiary named at the time of retirement. As in Option 2, all payments stop at the death of both annuitants.

Option 4 - The member receives a reduced monthly retirement allowance for life. The reduction depends on the member's age and the age of the member's beneficiary(ies). This is the only option that allows for multiple beneficiaries. A beneficiary does not have to be a spouse or domestic partner, but must have an insurable interest in the member's life. This option also allows the member to assign the percent of continuance to each beneficiary. This option and any estimates for this option are calculated by MercedCERA's actuary and the cost is paid by the member.

(2) Cost-of-Living Adjustment

Annual COLAs to retirement allowances may be granted by the Retirement Board in accordance with governing law. The current maximum increase in a retirement allowance is 3% per year. Any increase is based on the change in the Bureau of Labor Statistics' Consumer Price Index (CPI) for All Urban Consumers for the calendar year prior to the April 1 effective date of the COLA. The amount of any actual CPI above the 3% maximum is accumulated. Accumulated COLAs may be used in future years, at the Board's discretion, when the cost-of-living change is less than the maximum 3%. Tiers II, III, and IV members are not eligible for any cost-of-living increases in their monthly retirement allowances.

(3) Disability Benefits

Members with five years of service, regardless of age, are eligible for non-service connected disability benefits. Member benefits are 1.5% (1.8% for Safety members) of final average salary for each year of service. If this benefit does not equal 1/3 of final average salary, the benefit is increased by the above percentage of final average salary for the years that would have been credited had the member worked to age 65 (age 55 for Safety members). The total benefit cannot exceed 1/3 of the final average salary.

If the disability is service connected, the member may retire regardless of length of service, and the benefit is 50% of final average salary, unless the member is also eligible for a service retirement, in which case the member receives the greater of the two amounts.

(4) Death Benefit Before Retirement

In addition to the return of the member's contributions plus interest, MercedCERA provides a basic death benefit payable to the member's beneficiary or estate equal to one month's salary for each completed year of service under the Association, based on the final year's average salary, but not to exceed six months' salary. Depending on length of service, a monthly allowance could be selected by the surviving spouse to be paid for the rest of his or her life as an alternate benefit.

If a member dies while eligible for service retirement or non-service connected disability, the spouse may receive 60% of the allowance that the member would have received for retirement on the day of his or her death in lieu of the basic death benefit. If the member was below the qualifying retirement age at the time of death, the surviving spouse may elect to leave the member's accumulated contributions on deposit until such time as the member would have attained the qualifying age had he or she lived, at which time the spouse may exercise the option above. Unmarried minor children of the deceased member may continue to receive this allowance until marriage or attaining age 18 (21 if full-time student in an accredited school), upon the death of the surviving spouse or in place of the spouse if he or she does not survive the death of the member.

If a member dies as a result of service-connected injury or disease arising out of the course of his or her employment, his or her surviving spouse may elect, in lieu of the basic death benefit, to receive a monthly allowance of 1/2 of the member's final compensation.

Unmarried minor children of the member may receive the same monthly allowance prior to their marriage or attaining age 18 (21 if a full-time student in an accredited school) if there is no surviving spouse or upon the death of the spouse.

(5) Death Benefit After Retirement

Once a member dies after retirement, a lump sum amount of $3,000 (Government Code Section 31789.3 adopted May 2, 2006) is paid to the beneficiary or estate. However, outgoing reciprocal system members are not eligible for this benefit; this benefit is payable only to active members who were employed with a MercedCERA employer at the time of retirement.

If the retirement was for service-connected disability, 100% of the amount the member was receiving at the time of death is continued to the surviving spouse for life. If the retirement was for other than a service-connected disability, there are several options available to the member.

(6) Terminated Members

A member leaving covered employment after completing five years of credited service becomes eligible for a deferred retirement allowance, provided the member lives to the minimum service retirement age and does not withdraw his or her accumulated contributions. A member must elect deferred status within 180 days after termination. Members leaving employment with less than five years of service are not eligible to receive a retirement benefit. Non-vested members (less than five years of service credit) may leave their contributions on deposit and continue to be credited interest or they can choose to withdraw their contributions at any time. A non-vested member that enters a reciprocal retirement system within 6 months of terminating employment with a MercedCERA agency may wish to arrange for reciprocal benefits. Under a reciprocal arrangement, the member funds are kept on deposit with MercedCERA.

(7) Vesting

Active members of the Association receive a 100% vested interest in the Plan after five years of service, but cannot receive a service retirement benefit until they have been a member of the Association for ten years and obtained age fifty for Tier I General members; Tier I, Tier II, and Tier III Safety members; and age fifty-five for Tier II and Tier III General members. Members may receive a service retirement benefit after being a member of the Association for 30 years for General members and 20 years for Safety members regardless of age. Tier IV members can receive a service retirement benefit with five years of service credit and attaining age fifty-two for General members and age fifty for Safety members.

(8) Contribution Rates

The 1937 Act establishes the basic obligations for employer and member contributions to the Association. The actual employer and member contribution rates in effect each year are based on recommendations made by an independent actuary and adopted by the Board.

Benefits payable by the Association are financed through member contributions; employer contributions from Merced County, Merced Cemetery District, Merced Superior Courts, Merced County Law Library; and earnings from investments.

a. Member

MercedCERA members are required to contribute a percentage of their annual covered salary. The rates are set to provide a retirement amount that is equal to a fractional part of the highest one year's or three years' salary, based on membership and tier. Government Code Section 31621.8 sets forth the basis for the determination of the normal rates of contribution for General Tier I and Tier II members. Government Code Section 31639.5 sets forth the basis for the normal rates of contribution for Safety Tier I and Tier II members. The law further provides that the contribution rates of members will be based on the age nearest birthday at the time of entrance into the Association. Section 31453 states that no adjustment will be included in the rates of contribution for time prior to the effective date of any revisions. Member basic contribution rates are based on entry age into the Association, except for Tier IV, which are 50% of the normal cost, and range between 3.86% and 18.79% for the fiscal year ended June 30, 2023 and 3.87% and 19.46% for the fiscal year ended June 30, 2022. For members integrated with Social Security, the contributions are reduced by 1/3 of such contribution payable with respect to the first $350 of monthly salary.

b. Plan Sponsors

The County of Merced, Merced Superior Court, Merced Cemetery District, and the Merced County Law Library are required by statute to contribute the amounts necessary to finance the estimated benefits accruing to MercedCERA members not otherwise funded by employee contributions or investment earnings. Pursuant to provisions of the 1937 Act, the Board recommends annual contribution rates for adoption by the County Board of Supervisors each year based upon the rates recommended by the Association's actuary.

The employers' actuarially determined contribution (ADC) is an actuarially determined amount that is required on a sustained, ongoing basis to systematically fund the normal cost and to amortize the unfunded actuarial accrued liability (UAAL) attributed to past service cost over a period not to exceed thirty years. MercedCERA's actuarially determined contribution rates for the fiscal years ended June 30, 2023 and 2022 were 45.93% and 46.51%, respectively, of annual payroll.

In order to determine the ADC, the actuary must first adopt assumptions with respect to certain factors such as the following:

Non-economic assumptions

- The probabilities of members separating from active service on account of:
    1. Non-vested and vested withdrawal
    2. Retirement for service
    3. Mortality
    4. Service and non-service connected disability
- The mortality rates to be experienced among retired persons

Economic assumptions

- Rate of future investment earnings
    1. Inflation rate
    2. Real rate of return
- The relative increases in a member's salary from the date of the valuation to the date of separation from active service
    1. Merit increases
    2. Longevity increases
    3. COLA

Employer contribution rates vary from year to year and depend on the level of benefits established, the rate of return on investments, and the cost of administering benefits. MercedCERA's Schedules of Employer Contributions for the pension benefit plan are presented on page 53 in the Required Supplementary Information following the notes to the basic financial statements.

Note 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Reporting Entity

While the Association is governed by the Board and is considered an independent entity, it is a component unit of the County in accordance with Governmental Accounting Standards Board (GASB) Statement No. 39, *Determining Whether Certain Organizations Are Component Units – an Amendment of GASB Statement No. 14* and GASB Statement No. 84, *Fiduciary Activities*.

B. Basis of Accounting

MercedCERA's financial statements are prepared on an accrual basis of accounting, which recognizes income when earned and expenses when the obligation is incurred. Employer and employee contributions are recognized when due, pursuant to statutory or legal requirements per GASB Statement 67, *Financial Reporting for Pension Plans – An Amendment of GASB Statement No. 25*. Investment income is recognized as revenue when earned. Retirement benefits and refunds are recognized when currently due and payable in accordance with the benefit terms. The net appreciation (depreciation) in fair value of investments consists of realized and unrealized gains and losses on those investments.

C. Investment Expenses

Investment expenses include fees paid for investment consulting services, fund due diligence services, securities custodian services, and rebate and bank fees incurred during the reporting period. Fees paid are charged against the Association's investment earnings pursuant to Section 31596.1 of the 1937 Act.

D. General Administrative Expense

MercedCERA's administrative costs for the fiscal years ended June 30, 2023 and 2022 are calculated pursuant to Government Code Section 31580.2 (a) which provides that the administrative expenses incurred in any year may not exceed the greater of either (1) twenty-one hundredths of 1 percent (.21%) of the actuarial accrued liability of the Association or (2) two million dollars ($2,000,000), as adjusted annually by the amount of the annual COLA computed in accordance with Article 16.5. Government Code Section 31580.2 (b) provides that expenditures for computer software, hardware, and computer technology consulting services in support of the computer products shall not be considered a cost of administration of the Association. The administrative limit per this Government Code Section allowed MercedCERA $3.134 million ($1,492.79 million x .21%) of administrative costs for the fiscal year ended June 30, 2023. For the fiscal years ended June 30, 2023 and 2022, total administrative costs were $2,789,967 and $2,522,797, respectively. Included in these figures are computer technology related activities, inclusive of associated depreciation expense, of $725,699 and $648,419, respectively. The costs of administering the Plan are financed by the earnings of the retirement fund.

E. Required Supplementary Information

The Schedules of the Changes in Net Pension Liability and Related Ratios and Schedules of Employer Contributions that provide information about the employer's annual contribution to the Plan as well as the annual investment returns are presented on pages 52 through 54.

F. Administrative Budget and Non-Administrative Projection

MercedCERA prepares an administrative budget, governed by Government Code Section 31580.2, which is subjected by the same section to a budgetary cap. Additionally, MercedCERA provides a non-administrative projection, which expenses are governed by Government Code Sections 31580.2(b), 31596.1, and 31529.9. MercedCERA's budgets and projections are on a fiscal year basis starting July 1 and ending June 30. Non-administrative expenditures are not subject to the budgetary cap in Government Code Section 31580.2. Projections are subject to change periodically. All expenditures are reported at MercedCERA's Administrative Board Meetings on a monthly and quarterly basis.

G. Capital Assets

Capital assets are carried at cost, net of accumulated depreciation. Capital assets with an initial cost of more than $5,000 and an estimated useful life in excess of one year are depreciated. Depreciation is calculated using the straight-line method over the estimated useful lives of the depreciable assets. Partial year depreciation is recognized based upon placed-in-service date of the asset. Equipment and furniture are depreciated over eight years. MercedCERA's pension administration system (an intangible asset) is amortized over ten years. Long-lived building improvements are depreciated over twenty years. Buildings are depreciated over thirty years.

MercedCERA reported $1,038,580 and $1,281,753 in capital assets as of June 30, 2023 and 2022, which includes accumulated depreciation of $2,413,926 and $2,149,188, respectively. Of these amounts, $499,098 is for land held by the Association as of June 30, 2023 and 2022, which is not subject to depreciation.

Schedule of Capital Assets
For the fiscal year ended June 30, 2023

	Historical Cost	Net Balance at June 30, 2022	Reclassifications & Additions	Reclassifications & Deletions	Less Depreciation	Net Balance at June 30, 2023
Capital Assets, non-depreciable						
Land	$499,098	$499,098	$ -	$ -	$ -	$499,098
Capital Assets, depreciable						
CPAS Software	2,408,181	581,977	-	-	240,818	341,159
Building	313,159	88,726	-	-	10,439	78,287
Office Furniture and Technology	134,696	27,956	27,304	-	9,914	45,346
Building Improvements	97,372	83,996	-	-	9,306	74,690
Totals	$3,452,506	$1,281,753	$27,304	$ -	$270,477	$1,038,580

Schedule of Capital Assets For the fiscal year ended June 30, 2022						
	Historical Cost	Net Balance at June 30, 2021	Reclassifications & Additions	Reclassifications & Deletions	Less Depreciation	Net Balance at June 30, 2022
Capital Assets, non-depreciable						
Land	$499,098	$499,098	$ -	$ -	$ -	$499,098
Capital Assets, depreciable						
CPAS Software	2,408,181	822,795	-	-	240,818	581,977
Building	313,159	99,165	-	-	10,439	88,726
Office Furniture and Technology	113,132	17,269	16,837	-	6,150	27,956
Building Improvements	97,372	54,750	39,409	2,499	7,664	83,996
Totals	$3,430,942	$1,493,077	$56,246	$2,499	$265,071	$1,281,753

H. Methods Used to Value Investments

Investments are reported at fair value in the accompanying Statements of Fiduciary Net Position. Cash deposited in the Merced County Treasurer's pool is stated at fair value. The value of the Association's pool shares is determined on an amortized cost basis, which is not materially different from fair value.

The fair value of fixed income and equity investments are based upon the closing sale prices reported on recognized securities exchanges on the last business day of the period. For listed securities having no reported sales and for unlisted securities, fair value is based upon the last reported sales price.

GASB Statement No. 72, *Fair Value Measurements*, became effective for financial statements for fiscal years beginning after June 15, 2015. This statement enhances comparability of financial statements among governments by requiring measurement of certain assets and liabilities at fair value using a consistent and more detailed definition of fair value and accepted valuation techniques. This statement also enhances fair value application guidance and related disclosures in order to provide information to financial statement users about the impact of fair value measurements on a government's financial position.

The real estate investment holdings are determined by the partners using industry standard appraisal techniques and assumptions, which are updated annually, to determine the fair value of these holdings. The appraisals incorporate subjective judgments and consider assumptions including capitalization rates, discount rates, cash flows, and other factors that are not observable in the market.

The fair value of alternative investments (private equity, hedge funds, infrastructure, and natural resources) is based on the partners' most recent financial statements for the quarter ended June 30. The majority of MercedCERA's alternative investments are determined by the partnerships using unobservable inputs, which reflect the partnerships' own estimates about the assumptions that market participants would use in pricing the investments. The assumptions are based on the best information available in the circumstances, which might include the partnership's own data. The remaining of MercedCERA's alternative investments are determined by the partnerships based on quoted market prices in active markets.

Management, in consultation with the investment advisor, has determined the reasonableness of the procedures used to calculate fair value for real estate and alternative investments.

I. Securities Transactions and Related Investment Income

Securities transactions are accounted for on a trade date basis. Interest income is recognized when earned and dividend income is recognized on the ex-dividend date. Stock dividends or stock splits are recorded as memo items and do not affect the total value of the securities. The Association presents, in the Statements of Changes in Fiduciary Net Position, either the net appreciation or depreciation in fair value of investments, which consists of realized and unrealized gains and losses on those investments.

J. Management's Estimates

The preparation of basic financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Note 3 – CASH AND INVESTMENTS

A. Investment Stewardship

The Board has exclusive control over all investments of the Association and is responsible for establishing investment objectives, strategies and policies. Pursuant to the California Constitution and California Government Code Sections 31594 and 31595, the Board is authorized to invest in any investment the Board deems prudent.

(1) Investment Policy

The Board has adopted an Investment Policy, which provides the framework for the management of MercedCERA's investments. The Investment Policy establishes MercedCERA's investment objectives and defines the principal duties of the Board, the custodian bank, and the investment managers. The asset allocation plan is an integral part of the Investment Policy and is designed to provide an optimum and diversified mix of asset classes with return expectations to satisfy expected liabilities, while minimizing risk exposure. MercedCERA currently employs external investment managers to manage its assets subject to the provisions of the Investment Policy. To the right is MercedCERA's adopted asset allocation policy as of June 30, 2023 and 2022.

Target Allocation

Asset Class	**June 30, 2023 and 2022**
Domestic Equity	22%
Developed Markets Equity	11%
Emerging Markets Equity	8%
Private Equity	15%
Direct Lending	5%
Real Estate	8%
Domestic Fixed Income	11%
Opportunistic Credit	5%
Hedge Funds	10%
Real Assets	5%
	100%

(2) Rate of Return

For the fiscal years ended June 30, 2023 and June 30, 2022, the annual money-weighted rate of return on MercedCERA's investments was 7.8% and –6.9%, respectively. The money-weighted rate of return expresses investment performance, net of investment expense, adjusted for the changing amounts actually invested.

B. Cash and Short-Term Investments

Cash and cash equivalents consist of short-term investments held by the Merced County Treasurer and MercedCERA's custodian bank, Northern Trust. Cash and cash equivalents are highly liquid investments with a short maturity. Cash and cash equivalents are recorded at cost, which approximates fair value.

(1) Merced County Treasury

Cash from deposits and the cash needed for daily operational purposes is held in a pooled account with other County funds. The Merced County Treasury Oversight Committee is responsible for regulatory oversight of the pool.

Interest on funds in the Merced County investment pool is computed quarterly based on the average daily balance. A deposit in the pooled account approximates fair value. The fair value of the Association's cash invested with the Merced County Treasurer totaled $542,775 and $962,632 at June 30, 2023 and 2022, respectively. Cash and investments included within the County Treasurer's pool are described in Merced County's Annual Comprehensive Financial Report.

(2) Short-Term Investment Funds and Funds Pooled with Northern Trust

The short-term investment funds that are in the custody of Northern Trust are liquidity funds. The cash is invested in short-term obligations and deposits, including U.S. treasury and agency obligations, corporate bonds, commercial paper, repurchase agreements, certificates of deposit, bankers acceptances, time deposits, and floating rate notes.

All participants in the Northern Trust pool proportionately share earnings and losses. Balances in the pooled accounts approximate fair value. At June 30, 2023 and 2022, short-term investments totaled $7,092,976 and $7,011,420, respectively, which is the total of cash invested with Northern Trust and other cash and cash equivalents with Northern Trust.

MercedCERA's cash and short-term investments stated at fair value as of June 30, 2023 and 2022 are as follows:

Cash and Short-term Investments	Fair Value	
	2023	2022
Cash invested with Merced County Treasury	$542,775	$962,632
Cash invested with Northern Trust	6,734,512	5,405,400
Other cash and cash equivalents with Northern Trust	358,464	1,606,020
Total cash and short-term investments	$7,635,751	$7,974,052

C. Fair Value Measurements

Fair Value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. MercedCERA holds significant amounts of investments that are measured at fair value on a recurring basis. Because investing is a key part of MercedCERA's activities, GASB Statement No. 72 establishes a hierarchy of inputs to measure fair value. That hierarchy has three levels. Level 1 inputs are quoted process (unadjusted) in active markets for identical assets or liabilities. Level 2 inputs are inputs, other than quoted prices, included within Level 1 that are observable for the asset or liability, either directly or indirectly. Finally, Level 3 inputs are unobservable inputs.

Inputs used to measure fair value might fall in different levels of the fair value hierarchy. Categorization within the hierarchy is based on the lowest level input that is significant to the fair value measurement.

Equity securities are generally valued based on quoted prices from an active market and are therefore categorized in Level 1. In the absence of quoted market prices, such as equity securities that trade infrequently or not at all, valuations are based on the last traded price or a price provided by the investment managers and generally categorized in Level 3.

Fixed income securities classified in Level 2 are valued using the latest bid prices or evaluated quotes from independent pricing vendors. The third-party vendors use a variety of methods when pricing these securities that incorporate relevant observable market data to arrive at an estimate of what a buyer in the marketplace would pay for a security under current market conditions. Fixed income securities held in mutual funds are based on quoted prices in an active market and are therefore categorized in Level 1. When independent price sources are not available, debt securities are priced based on the last traded price or a valuation provided by the investment manager and are categorized in Level 3. In addition, debt securities held in commingled, limited partnerships, and similar vehicles are categorized in Level 3.

Funds priced using a net asset value (NAV) that is published daily and validated with a sufficient level of observable activity are categorized in Level 1. If observable activity is limited, yet supports that the NAV represents an exit value of the security at the measurement date, the securities are categorized in Level 2. Investments in nongovernmental entities that are measured at NAV as a practical expedient, such as alternative investments and real estate investments, are excluded from the fair value hierarchy if the NAV per share (or its equivalent) was calculated in a manner consistent with the Financial Accounting Standards Board's measurement principles for investment companies. Funds not meeting these criteria are categorized in Level 3.

Investments in real estate, other than in mutual funds (real estate investment trusts, or REITs), which are publicly traded and categorized in Level 1, have been valued based on the NAV per share (or its equivalent), as provided by the general partner. This type includes one mutual fund, one commingled fund, and thirteen funds structured as private limited partnerships. These investments can never be redeemed with the funds. Distributions from each fund will be received as the underlying investments of the funds are liquidated. It is expected that the underlying assets of the funds will be liquidated over the next 10 to 15 years.

MercedCERA is contracted with Cliffwater, LLC to assist with the Association's hedge fund portfolio that has the appropriate risk and return characteristics. Specifically, MercedCERA has eleven hedge funds with low market risk (low beta), equity market downside protection and diversification with unique investment strategies such as shorting, arbitrage, currencies and commodities. Return characteristics include reasonable expected returns that outperform bonds, reasonable expected returns that will be less that the expected returns on stocks and generate alpha of 4% net of fees. MercedCERA is dedicated to building a diversified portfolio of the following strategies: market neutral, credit event, equity long short, global macro, and multi-strategy. The fair values of the investments in these types has been determined using the NAV per share (or its equivalent) of the investments, as provided by the general partner. Funds may be subject to redemption restrictions, including lock-up periods and/or gate provisions, which prohibit redemptions for a specific time after capital is initially invested, or subject to limitations on the amount that can be withdrawn on any single redemption date.

Direct Lending includes seven funds structured as limited partnerships that provide credit primarily to middle market companies. The fair values of the investments in these types have been determined using the NAV per share (or its equivalents) of the investment as provided by the general partner.

Infrastructure includes eight funds structured as limited partnerships that invest primarily in global infrastructure investments. The fair values of the investments in these types have been determined using the NAV per share (or its equivalents) of the investment as provided by the general partner.

Natural resources include nine funds structured as limited partnerships that invest primarily in debt, equity, partnership interests, direct asset investments, working interests, and royalty interests of public and private mining and metals companies and companies within the energy markets including but limited to, companies engaged in the exploration and production of oil and natural gas, coal, midstream, energy services, refining and marketing, power generation, renewable energy, and other commodity driven sectors. The fair values of the investments in these types has been determined using the NAV per share (or its equivalents) of the investment as provided by the general partner.

The private equity portfolio includes forty-four funds structured as limited partnerships participating in diverse strategies including buyouts, venture capital/growth equity, and opportunistic funds which includes such categories as distressed debt (debt instruments of companies which may be publicly traded or privately held that are financially distressed and are either in bankruptcy or likely candidates for bankruptcy), mezzanine, secondary, royalties, etc. The fair values of the investments in these types has been determined using the NAV per share (or its equivalent) of the investment as provided by the general partner. These funds have a finite term. Distributions will be received as the underlying investments are sold, which is expected to occur over a rolling 15-year period.

The Plan has the following recurring fair value measurements as of June 30, 2023:

Investments by Fair Value Level	June 30, 2023	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Common Stock				
Domestic	$28,608,415	$ -	$ -	$28,608,415
Domestic Index Funds	237,131,866	-	-	237,131,866
International	210,796,922	-	-	210,796,922
Domestic Fixed Income				
Asset Backed Securities	134,380	-	134,380	-
Collateralized Mortgage Obligations	126,874	-	126,874	-
US Government and Agency Obligations	2,507	-	2,507	-
Commingled Funds	91,685,391	-	-	91,685,391
Mutual Funds	36,010,239	36,010,239	-	
Limited Partnerships	24,058,274	-	-	24,058,274
Real Estate	16,502,635	16,502,635	-	-
Total Investments by Fair Value Level	$645,057,503	$52,512,874	$263,761	$592,280,868
Investments Measured at the Net Asset Value (NAV)				
Real Estate	$67,349,597			
Alternative Investments				
Direct Lending	45,967,393			
Hedge Funds	145,206,337			
Infrastructure	29,595,676			
Natural Resources	22,013,442			
Private Equity	155,163,700			
Proxy Fund	13,191,550			
Total Alternative Investments	$411,135,098			
Total Investments Measured at NAV	$478,484,695			
Total Investments Measured at Fair Value and NAV	1,123,545,198			

Investments Measured at the NAV	June 30, 2023	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Real Estate*	$67,349,597	39,456,620	See footnote	See footnote
Alternative Investments				
Direct Lending	45,967,393	55,655,636	N/A	N/A
Hedge Funds**	145,206,337	-	Varies	Varies
Infrastructure	29,595,676	8,378,594	N/A	N/A
Natural Resources	22,013,442	24,825,266	N/A	N/A
Private Equity	155,163,700	106,055,864	N/A	N/A
Proxy Fund	13,191,550	-	Daily	T-2
Total Investments Measured at the NAV	$478,484,695	234,371,980		

*UBS Trumbull Fund redemption is given by a pro rata share of funds available for disbursement, with a 60-day notice period. Vanguard REIT, which is a Level 1 asset, has daily liquidity with notice due before 1PM Eastern Time on Date of trade (T) with a settlement date of T+1. The remaining real estate funds are closed-ended private LP funds.

**The eleven hedge funds that were funded as of June 30, 2023, have varying lockup periods and redemption notice requirements.

The Plan has the following recurring fair value measurements as of June 30, 2022:

Investments by Fair Value Level	**June 30, 2022**	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Common Stock				
Domestic	$24,197,364	$ -	$ -	$24,197,364
Domestic Index Funds	211,862,277	-	-	211,862,277
International	184,743,517	-	-	184,743,517
US Government and Agency Obligations				
US Treasury and TIPS	15,935,254	-	15,935,254	-
US Government Agency Obligations	23,435,475	-	23,435,475	-
Domestic Fixed Income				
Asset Backed Securities	6,372,064	-	6,372,064	-
Collateralized Mortgage Obligations	148,419	-	148,419	-
Commercial Mortgage Backed Securities	558,007	-	558,007	-
Corporate and Other Credit	30,703,066	-	30,703,066	-
Mutual Funds	104,084,694	104,084,694	-	-
Limited Partnerships	21,882,208	-	-	21,882,208
Real Estate	22,302,394	22,302,394	-	-
Total Investments by Fair Value Level	$646,224,739	$126,387,088	$77,152,285	$442,685,366
Investments Measured at the Net Asset Value (NAV)				
Real Estate	$ 69,364,214			
Alternative Investments				
Direct Lending	14,268,299			
Hedge Funds	123,801,528			
Infrastructure	24,931,353			
Natural Resources	14,119,389			
Private Equity	139,888,048			
Proxy Fund	19,817,449			
Total Alternative Investments	$336,826,066			
Total Investments Measured at NAV	$406,190,280			
Total Investments Measured at Fair Value and NAV	$1,052,415,019			

Investments Measured at the NAV	**June 30, 2022**	**Unfunded Commitments**	**Redemption Frequency**	**Redemption Notice Period**
Real Estate*	$69,364,214	$33,672,864	See footnote	See footnote
Alternative Investments				
Direct Lending	14,268,299	36,093,670	N/A	N/A
Hedge Funds**	123,801,528	-	Varies	Varies
Infrastructure	24,931,353	13,768,830	N/A	N/A
Natural Resources	14,119,389	25,184,787	N/A	N/A
Private Equity	139,888,048	83,463,122	N/A	N/A
Proxy Fund	19,817,449	-	Daily	T-2
Total Investments Measured at the NAV	$406,190,280	$192,183,273		

*UBS Trumbull Fund redemption is given by a pro rata share of funds available for disbursement, with a 60-day notice period. Vanguard REIT, which is a Level 1 asset, has daily liquidity with notice due before 1PM Eastern Time on Date of trade (T) with a settlement date of T+1. The remaining real estate funds are closed-ended private LP funds.

**The ten hedge funds that were funded as of June 30, 2022, have varying lockup periods and redemption notice requirements.

D. Commission Recapture Policy

In order to minimize the net cost of trading, MercedCERA encourages its investment managers, on a "best efforts" basis, to execute 25% to 35% of total trades annually through brokers who have a commission recapture program. MercedCERA's policies require investment managers to seek the best price and execution on all trades. This means that commission recapture trades should only be executed when such trades meet this standard. If an investment manager can execute the trade through MercedCERA's commission recapture brokerage firms, while not incurring any incremental commission or market impact costs, then MercedCERA would like the manager to do so. This program should not interfere with or reduce an investment manager's incentive to reduce trading costs.

E. Real Estate and Alternative Investments

The balance of the unfunded capital to MercedCERA's real estate and alternative investments as of June 30, 2023 was $234,371,980 and as of June 30, 2022 was $192,183,273. Capital invested in private equity partnerships is subject to a relatively high degree of risk as compared to other potential investments, with the assumption that the investor will be rewarded with higher returns for that assumption of risk (i.e., the "risk/ return trade-off"). Controlling risk in the private equity portfolio is equally as important as seeking higher returns. MercedCERA controls risk by diversifying the portfolio based on geographic and economic region, liquidity, vintage year, firm, and time.

Geographic and economic region, referring to the selection of private equity investments, the portfolio does not favor particular economic or geographic regions. Most likely, the focus is globally oriented.

Liquidity risk is managed by minimizing the possibility of forced sales that may arise from exceeding the maximum exposure limits or lowering asset allocation exposure limits. Exposure through a fund of funds minimizes this risk.

Vintage year risk refers to the variability of private equity commitments over time. A secondary investment that is a vehicle in the special situation subclass allows the portfolio to gain prior year vintage exposure, further minimizing vintage risk.

Firm risk is the amount of exposure to a private equity general partner. The maximum commitment to private equity is 5% to 20% of the total fund. There are no limits on commitments to individual partners or funds.

Time risk refers to the long duration of the investment, which makes it difficult to predict business, economic and managerial developments that may have a significant impact on the value of the investments.

F. Custodial Credit Risk

The custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, a government will not be able to recover deposits or will not be able to recover collateral securities that are in the possession of an outside party. The custodial credit risk for investments is the risk that, in the event of the failure of the counterparty to a transaction, a government will not be able to recover the value of investment or collateral securities that are in the possession of an outside party. MercedCERA does not have a formal policy for custodial credit risk. At June 30, 2023 and 2022, MercedCERA had no investments that were exposed to custodial credit risk.

G. Credit Risk Concentration

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. As of June 30, 2023 and 2022, the Association had no single issuer that exceeded 5% of total investments or fiduciary net position. Investments issued or explicitly guaranteed by the U.S government and investments in mutual funds, external investment pools, and other pooled investments are excluded. MercedCERA's investment policy does not allow for an investment in any one issuer that is in excess of 5% of the value of a portfolio and no single industry (based on North American Industry Classification System (NAICS) codes) can represent more than 15% of the fair value of the investment portfolio. These single security and single industry restrictions do not apply to U.S. government issued or guaranteed investments, investments in mutual funds, external investment pools, and other pooled investments.

H. Credit Risk

Credit risk is the risk that an issuer or other counterparty to a debt instrument will not fulfill its obligation as described by nationally recognized statistical rating organizations, rating agencies, as of the date of the financial statements. An investment grade security is defined as a security which has been rated investment grade (BBB or higher) by at least one (but preferably two) of the three nationally recognized rating agencies: Fitch Ratings, Moody's, and Standard & Poor's. MercedCERA's core fixed income portfolio requires that no more than 5% of an investment manager's fixed income portfolio be invested in below investment grade rated securities (BB or B rated bonds). No security rated below single B may be purchased at any time. Securities that have at least a single B, but subsequently fall below single B ratings, shall be sold in an orderly manner. The majority of investments that made up this portfolio, which was managed by Barrow Hanley, were liquidated in November of 2022 and subsequently invested in fixed income funds managed by Wellington, Brandywine, and Payden & Rygel. The remaining balance of the portfolio is illiquid and these investments are being held to maturity by MercedCERA at its custodial bank, Northern Trust. As a result, no workout portfolio existed at June 30, 2023. The fair value of MercedCERA's workout portfolio for the fiscal year ended June 30, 2022 as reported by Barrow Hanley, was $337,979.

The table below presents the Moody's credit quality ratings of fixed income securities at June 30, 2023 and 2022:

Quality	Aaa	Aa	A	Baa	Ba	B	Caa	Ca	NR*	NA**
Percent of Fixed Income as of June 30, 2023	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.05%	0.08%	0.03%	99.84%
Percent of Fixed Income as of June 30, 2022	2.27%	0.65%	6.30%	7.47%	0.26%	0.00%	0.04%	0.07%	9.97%	72.97%

*NR represents those securities that are not rated and includes FNMA and FHLMC mortgage backed securities that are not rated by credit rating agencies, but are perceived to have an implicit guarantee by the U.S. Government.

**NA represents those securities that are not applicable to the rating disclosure requirements.

I. Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. MercedCERA's Investment Policy Statement does not have a formal policy that limits investment maturities as a means of managing its exposure to fair value losses arising from increasing interest rates. However, MercedCERA's bond portfolios are managed duration neutral to their benchmarks, the Barclays U.S. Aggregate Bond Index and the Barclays US Government 1-3 and 1-5 year Indices.

As of June 30, 2023 and 2022, the Merced County's pool has a fair value of $2,032,365,704 and $1,657,209,862, respectively, and a weighted average maturity of 552 and 586 days, respectively. MercedCERA's cash balance at the county is part of this pool and is invested by the Merced County Treasurer in fixed income assets.

As of June 30, 2023 and 2022, the weighted average maturity of the short-term investment pooled funds with Northern Trust was 22 days.

The following table presents the fair value, weighted percentage of each sector, and the effective duration of MercedCERA's fixed income investments as of June 30, 2023:

Investment Type	Fair Value 2023	Weight of Fixed Income 2023	Modified Duration (years) 2023
U.S. Government agency obligations	$2,507	0.00%	0.02
Commercial mortgage backed securities	126,874	0.08%	1.27
Asset backed securities	134,380	0.09%	0.05
Commingled Funds	91,685,391	60.31%	6.36
Mutual funds	36,010,239	23.69%	4.25
Limited partnerships	24,058,274	15.83%	4.31
Total Fair Value	$152,017,665	100.00%	
Portfolio Effective Duration			2.05

The following table presents the fair value, weighted percentage of each sector, and the effective duration of MercedCERA's fixed income investments as of June 30, 2022:

Investment Type	Fair Value 2022	Weight of Fixed Income 2022	Modified Duration (years) 2022
U.S. Government agency obligations	$23,435,475	11.54%	6.15
Commercial mortgage backed securities	558,007	0.27%	0.08
Asset backed securities	6,372,064	3.14%	1.87
U.S. Treasury and TIPS	15,935,254	7.85%	8.61
Corporate and other credit	30,703,066	15.12%	8.14
Collateralized mortgage obligations	148,419	0.07%	1.35
Mutual funds	104,084,694	51.24%	3.85
Limited partnerships	21,882,208	10.77%	3.90
Total Fair Value	$203,119,187	100.00%	
Portfolio Effective Duration			6.56

J. Foreign Currency

Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or a deposit. Assets in international equity portfolios will be primarily composed of foreign ordinary shares and American Depositary Receipts (ADR) (including ADR's that are 144A securities). Short-term, high-grade fixed income securities may be purchased as previously stated, similar types of securities denominated in foreign currencies may be purchased, or the fund's custodial sweep account may be employed. International equity portfolios will invest in stocks with market capitalizations consistent with their underlying benchmarks. Emerging market equity portfolios can invest in stock with large, mid, and small market capitalizations. Firms will continually monitor the country, currency, sector, and security selection risks associated with their international and emerging market portfolios. All the risks will be included in the manager's quarterly reports and performance attribution based on these factors. Currency hedging, consistent with the stated derivative policy, is an acceptable investment activity. However, prior to initiating such hedging activities, the firms must adequately demonstrate their capability and expertise in this area to the Board.

The following table represents securities and dividends receivable held in a foreign currency as of June 30, 2023 and 2022:

Currency	Fair Value (U.S. Dollars)	
	2023	2022
Euro	$18,302,498	$15,586,882

K. Derivatives

MercedCERA's investment policy permits the use of derivative instruments to minimize the exposure of certain investments to adverse fluctuations in financial and currency markets and enhance yields. The Association does not use derivatives for speculative use or to create leverage. Exposure to risk by use of derivative instruments must be consistent with MercedCERA's overall investment policy as well as an individual manager's specific investment guidelines. Any other derivative investment purpose may be allowed by the explicit authorization of the Board. MercedCERA does not have any derivative instruments as defined by GASB Statement No. 53 as of June 30, 2023 and 2022.

Note 4 – RESERVES

As required by the 1937 Act and the Board's policy, the following reserves for Net Position Restricted for Pensions have been established to account for the members', employers', and retirees' contributions. MercedCERA maintains the following reserves at June 30, 2023 and 2022.

A. Active Members' Reserves

These reserves represent the cumulative contributions made by active employees. Additions include member contributions and related earnings. Deductions include refunds of member contributions and, upon retirement, the member contributions plus interest credited to their account are transferred from this reserve to the Retired Members' Reserves.

B. Employer Advance Reserves

These reserves represent the cumulative contributions made by the employers for future retirement payments to current active members. Additions include contributions from the employer and related earnings.

Deductions include transfers to the Retired Members' Reserve and lump sum death benefits.

C. Retired Members' Reserves

These reserves are established upon the retirement of an employee. Employee contributions plus interest earnings credited to the employee account are transferred from the Active Members' Reserves to the Retired Members' Reserves. In addition, the present value of the actuarially determined pension benefits is also transferred from the Employer Advance Reserves to the Retired Members' Reserves. From these reserves, the Association pays the retiree pension benefits in an amount computed in accordance with the 1937 Act.

D. Interest Fluctuation Reserve

This reserve is used for interest crediting purposes and for holding any funds allocated by the Retirement Board as a reserve for future interest earnings deficiencies. To the extent that net earnings are available, interest is credited to specified reserves. Interest is credited semi-annually according to MercedCERA's interest crediting policy.

E. Fair Value Fluctuation Reserve

The Board established this designation account on June 30, 1997 to track the increase (or decrease) in the fair value of the MercedCERA assets.

F. Contingency Reserve

This reserve is comprised of surplus/excess earnings, up to 1% of the fair value of assets, that are held as a reserve against deficiencies in investment earnings in other years, losses on investments, and other contingencies. As of June 30, 2012, the Contingency Reserve was not funded and all balances were transferred to the Interest Fluctuation Reserve. The Contingency Reserve will be funded and excluded from the fair value of assets only in years when the fair market value of assets exceeds the actuarial accrued liability.

A summary of the various reserve accounts, which comprise fiduciary net position restricted for pensions at June 30, 2023 and 2022, is as follows:

Reserve	2023	2022
Active Members'	$122,623,667	$117,153,891
Employer Advance	395,462,355	336,057,437
Retired Members'	230,542,149	259,831,255
Interest Fluctuation	141,012,587	133,988,380
Fair Value Fluctuation	245,440,627	217,409,782
Total Reserves	$1,135,081,385	$1,064,440,745

Note 5 – NET PENSION LIABILITY OF PARTICIPATING EMPLOYERS

MercedCERA engages on an annual basis, an independent actuarial consulting firm, Cheiron, Inc., to conduct its annual actuarial valuation.

A. Actuarial Assumptions

The actuarial assumptions used in the June 30, 2022 valuation were based on the results of an actuarial experience study for the period July 1, 2019 through June 30, 2022. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2023 and the Total Pension Liability as of the valuation date June 30, 2022, using update procedures to roll forward to MercedCERA's fiscal year end of June 30, 2023. There were no significant events between the valuation date and the measurement date, so the roll forward procedures only included the addition of service cost and interest cost offset by actual benefit payments.

The components of the employers' Net Pension Liability were as follows:

	FYE June 30, 2023	FYE June 30, 2022
Total Pension Liability	$1,565,692,094	$1,530,082,398
Less: Plan Fiduciary Net Position	1,135,081,385	1,064,440,745
Net Pension Liability	430,610,709	$465,641,653
Fiduciary Net Position as a Percentage of the Total Pension Liability	72.50%	69.57%

The Total Pension Liabilities as of June 30, 2023 and June 30, 2022 were determined based on the June 30, 2022 and June 30, 2021 actuarial valuations, rolled forward to June 30, 2023 and June 30, 2022, respectively, using the following actuarial assumptions applied to all periods included in the measurement:

ACTUARIAL VALUATION ASSUMPTIONS		
Valuation Date	June 30, 2022	June 30, 2021
Investment Rate of Return	6.75%	6.75%
Projected Salary Increases	2.75%, plus service-based rates	2.75%, plus service-based rates
Attributed to Inflation	2.75%	2.75%
Cost-of-Living Adjustments	For Tier I, 100% of CPI up to 2.5% annually with banking, assumed to be 2.40% annually	For Tier I, 100% of CPI up to 2.5% annually with banking, assumed to be 2.40% annually

Post-retirement mortality rates for the June 30, 2022 valuation date for Healthy General Annuitants was based on the 1.05 times the CalPERS 2021 Healthy Annuitant Mortality Table and, for Healthy Safety Annuitants, 1.05 times the 2010 Public Safety Below Median Mortality Table for Healthy Retirees, both projected on a generational basis for mortality improvements from a base year of 2017 using the Society of Actuaries MP-2020 projection scale.

Post-retirement mortality rates for the June 30, 2021 valuation date for Healthy General Annuitants was based on the CalPERS RP2009 tables and, for Healthy Safety Annuitants, 1.05 times the 2010 Public Safety Below Median Mortality Table for Healthy Retirees, both projected on a generational basis for mortality improvements from a base year of 2009 using the Society of Actuaries MP-2019 projection scale.

B. Long-Term Expected Rate of Return

Long-term capital market expectations are derived through a process that relies on both quantitative and qualitative methodologies. The first step in the process is to build out ten-year forecasts for each asset class identified using proprietary, valuation-based fundamental models that consider those critical factors driving asset class returns. The ten-year expectations serve as the primary foundation for longer-term, twenty-year expectations. Twenty-year return expectations are formed by combining our ten-year expectations for each asset class with the observed historical returns for each asset class to then infer a forecast of the following ten -year returns (i.e., years 11-20). The final step is a review by the Investment Committee to determine if any qualitative adjustments are necessary. Return assumption at the total Plan level is derived according to the underlying asset class weightings, using nominal rates of return.

Best estimates of geometric real rates of return for each major asset class included in the target asset allocation as of June 30, 2023 and June 30, 2022 are summarized in the table below.

Long-Term Expected Real Rate of Return		
	FYE June 30, 2023	**FYE June 30, 2022**
US Equity	6.1%	4.6%
International Equity	7.2%	5.3%
Emerging Markets Equity	7.4%	6.2%
Private Equity	8.1%	7.4%
Real Estate	5.2%	5.2%
Domestic Fixed Income	2.1%	0.2%
Opportunistic Credit	4.6%	2.0%
Direct Lending	5.7%	4.9%
Hedge Funds	3.5%	2.2%
Infrastructure	5.2%	5.1%
Natural Resources	7.2%	6.3%
Cash	0.3%	-1.1%

C. Discount Rate

The discount rate used to measure the Total Pension Liability was 6.75% for June 30, 2023 and June 30, 2022. The projection of cash flows used to determine the discount rate assumed that contributions from Plan members will be made at the current contribution rate and that contributions from the employers will be made at contractually required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

D. Sensitivity of the Net Pension Liability to Changes in the Discount Rate

The following table presents the net pension liability of MercedCERA calculated using the discount rate of 6.75% for 2023 and 2022, as well as what the Plan's net pension liability would be if it were calculated using a discount rate that is one percentage point lower and higher.

	1% Decrease (5.75%)	Current Rate (6.75%)	1% Increase (7.75%)
2023 Net Pension Liability	$621,519,643	$430,610,709	$271,587,674
	1% Decrease (5.75%)	**Current Rate (6.75%)**	**1% Increase (7.75%)**
2022 Net Pension Liability	$654,832,923	$465,641,653	$308,446,353

Note 6 – LITIGATION

MercedCERA has no existing litigation through the fiscal year ended June 30, 2023.

Note 7 – SUBSEQUENT EVENTS

MercedCERA has evaluated subsequent events through December 15, 2023, the date on which the financial statements were available to be issued. There were no subsequent events identified by management which would require disclosure in the financial statements.

Schedules of Changes in Net Pension Liability and Related Ratios For the Years Ended June 30 (continued on next page)					
Total Pension Liability	**2023**	**2022**	**2021**	**2020**	**2019**
Service cost (MOY)	$27,810,741	$26,986,609	$25,786,520	$26,267,588	$22,794,246
Interest (includes interest on service cost)	101,154,576	98,777,169	96,764,536	93,583,425	92,452,056
Changes of benefit terms	-	-	-	-	-
Differences between expected and actual experience	(13,472,111)	(1,660,800)	10,336,744	7,534,677	1,249,075
Changes of assumptions	11,965,038	-	32,840,818	20,714,915	-
Benefit payments, including refunds of member contributions	(91,848,548)	(86,808,696)	(83,814,080)	(79,665,662)	(74,810,675)
Net changes in total pension liability	$35,609,696	$37,294,282	$81,914,538	$68,434,943	$41,684,702
Total pension liability—beginning	1,530,082,398	1,492,788,116	1,410,873,578	1,342,438,635	1,300,753,933
Total pension liability—ending	$1,565,692,094	$1,530,082,398	$1,492,788,116	$1,410,873,578	$1,342,438,635
Fiduciary net position					
Contributions—members	$13,445,557	$12,124,583	$11,895,243	$10,796,855	$10,695,680
Contributions—employers	68,648,166	65,629,994	64,512,161	67,413,475	66,586,464
Net investment income (loss)	83,417,442	(87,115,891)	253,466,527	57,232,016	39,728,950
Benefit payments, including refunds of member contributions	(91,848,548)	(86,808,696)	(83,814,080)	(79,665,662)	(74,810,675)
Administrative expense	(3,021,977)	(2,643,089)	(2,621,079)	(2,464,896)	(2,351,105)
Net change in fiduciary net position	$70,640,640	$(98,813,099)	$243,438,772	$53,311,788	$39,849,314
Fiduciary net position—beginning	1,064,440,745	1,163,253,844	919,815,072	866,503,284	826,653,970
Fiduciary net position—ending	$1,135,081,385	$1,064,440,745	$1,163,253,844	$919,815,072	$866,503,284
Net pension liability—ending	$430,610,709	$465,641,653	$329,534,272	$491,058,506	$475,935,351
Fiduciary net position as a percentage of the total pension liability	72.50%	69.57%	77.92%	65.19%	64.55%
Covered payroll	$150,390,441	$142,704,679	$137,234,030	$135,618,404	$131,365,778
Net pension liability as a percentage of covered payroll	286.33%	326.30%	240.13%	362.09%	362.30%
Information for this table was provided by Cheiron, Inc.					

Schedules of Changes in Net Pension Liability and Related Ratios For the Years Ended June 30 (continued)					
Total Pension Liability	**2018**	**2017**	**2016**	**2015**	**2014**
Service cost (MOY)	$22,172,594	$19,512,609	$19,384,855	$19,672,490	$19,384,434
Interest (includes interest on service cost)	89,402,353	88,982,290	86,323,551	84,203,356	81,090,569
Changes of benefit terms	-	-	-	-	-
Differences between expected and actual experience	2,914,187	(8,886,191)	(5,488,413)	(12,380,077)	-
Changes of assumptions	15,960,129	36,908,183	-	-	-
Benefit payments, including refunds of member contributions	(70,720,210)	(66,904,315)	(65,082,403)	(62,951,924)	(58,042,021)
Net changes in total pension liability	$59,729,053	$69,612,576	$35,137,590	$28,543,845	$42,432,982
Total pension liability—beginning	1,241,024,880	1,171,412,304	1,136,274,714	1,107,730,869	1,065,298,068
Total pension liability—ending	$1,300,753,933	$1,241,024,880	$1,171,412,304	$1,136,274,714	$1,107,731,050
Fiduciary net position					
Contributions—members	$10,441,876	$9,384,621	$9,042,663	$8,945,316	$9,642,819
Contributions—employers	64,757,288	60,349,189	56,617,088	52,005,656	48,032,338
Net investment income (loss)	70,689,084	83,097,416	(388,209)	19,318,849	96,219,056
Benefit payments, including refunds of member contributions	(70,720,210)	(66,904,315)	(65,082,403)	(62,951,924)	(58,042,021)
Administrative expense	(2,283,396)	(2,173,407)	(2,492,684)	(2,323,446)	(1,547,347)
Net change in fiduciary net position	$72,884,642	$83,753,504	$(2,303,545)	$14,994,451	$94,304,845
Fiduciary net position—beginning	753,769,328	670,015,824	672,319,369	657,324,918	563,020,073
Fiduciary net position—ending	$826,653,970	$753,769,328	$670,015,824	$672,319,369	$657,324,918
Net pension liability—ending	$474,099,963	$487,255,552	$501,396,480	$463,955,345	$450,406,132
Fiduciary net position as a percentage of the total pension liability	63.55%	60.74%	57.19%	59.17%	59.34%
Covered payroll	$126,705,902	$119,621,964	$114,397,644	$110,111,994	$110,259,316
Net pension liability as a percentage of covered payroll	374.17%	407.33%	438.29%	421.35%	408.50%

Information for this table was provided by Cheiron, Inc.

Schedules of Employer Contributions

The schedules of employer contributions show whether the employer has made contributions that are consistent with an actuarial method of funding the benefits to be provided consistent with the parameters established by GASB Statement No. 67.

Schedules of Employer Contributions
Last 10 Fiscal Years Ended June 30
Dollar Amounts in Thousands

	2023	2022	2021	2020	2019
Actuarially Determined Contribution	$68,648	$65,630	$64,512	$67,413	$66,586
Contributions in Relation to the Actuarially Determined Contribution	68,648	65,630	64,512	$67,413	66,586
Contribution Deficiency/(Excess)	$ -	$ -	$ -	$ -	$ -
Covered Payroll	$150,390	$142,705	137,234	$135,618	$131,366
Contributions as a Percentage of Covered Payroll	45.65%	45.99%	47.01%	49.71%	50.69%
	2018	**2017**	**2016**	**2015**	**2014**
Actuarially Determined Contribution	$64,757	$60,349	$56,617	$52,006	$48,032
Contributions in Relation to the Actuarially Determined Contribution	64,757	60,349	56,617	52,006	48,032
Contribution Deficiency/(Excess)	$ -	$ -	$ -	$ -	$ -
Covered Payroll	$126,706	$119,622	$114,398	$110,112	$110,259
Contributions as a Percentage of Covered Payroll	51.11%	50.45%	49.49%	47.23%	43.56%

Schedules of Investment Returns

The money-weighted rate of return is equivalent to the internal rate of return (IRR). Money-weighted rate of return incorporates the size and timing of cash flows.

Schedules of Investment Returns
Fiscal Years ended June 30

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Annual money-weighted rate of return, net of investment expense	7.8%	-6.9%	26.9%	6.6%	5.5%	10.1%	9.5%	-0.3%	1.1%	17.0%

Note 1 – CHANGES OF BENEFIT TERMS

There were no changes in benefit terms for the fiscal year ended June 30, 2023.

Note 2 – CHANGES OF ASSUMPTIONS AND METHODS

Changes to assumptions were adopted by the Board at their September 23, 2021 meeting. The actuarial assumed rate of return was updated to 6.75%.

Note 3 – METHODS AND ASSUMPTIONS USED IN CALCULATIONS OF ACTUARIALLY DETERMINED CONTRIBUTIONS

Actuarial Valuation Methods and Assumptions

	2023	2022	2021	2020	2019
Valuation Date	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017
Effective Date	June 30, 2022	June 30, 2021	June 30, 2020	June 30, 2019	June 30, 2018
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value	Fair Value
Amortization Years Remaining*	24	24	24	24	24
Discount Rate	6.75%	7.00%	7.00%	7.25%	7.25%
Price Inflation	2.50%	2.50%	2.50%	2.50%	2.50%
Salary Increases**	2.75%	2.75%	2.75%	2.75%	2.75%
Cost-of-Living Adjustments	2.50%	2.50%	2.50%	2.50%	2.50%
Mortality***	See Notes	See Notes	See Notes	See Notes	See Notes
	2018	**2017**	**2016**	**2015**	**2014**
Valuation Date	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012
Effective Date	June 30, 2017	June 30, 2016	June 30, 2015	June 30, 2014	June 30, 2013
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal
Asset Valuation Method	Fair Value	Fair Value	Fair Value	Fair Value	Actuarial Value
Amortization Years Remaining*	24	24	24	16	17
Discount Rate	7.25%	7.75%	7.75%	7.75%	7.75%
Price Inflation	2.50%	3.00%	3.00%	3.75%	3.75%
Salary Increases**	2.75%	3.00%	3.00%	3.75%	3.75%
Cost-of-Living Adjustments	2.50%	2.60%	2.60%	2.70%	2.70%
Mortality***	See Notes	See Notes	See Notes	See Notes	See Notes

* Closed Period as a level percentage of payroll method used for all years shown .

** Includes merit component based on years of service.

*** As of 2019 valuation, CalPERS 2009 with future improvements applying SOA MP-2019 projection from base year of 2019.
Basis Gender distinct RP-2000 Combined Mortality used for all valuation years shown prior to 2016.

Schedules of Administrative Expenses
For the Fiscal Years Ended June 30, 2023 and 2022

	2023	2022
Personnel Services:		
Salaries, wages and benefits	$1,453,083	$1,217,531
Office Expenses:		
Communications	7,004	6,177
Requested maintenance / utilities / cost allocation	85,967	70,464
Office supplies	16,440	17,548
Postage	18,902	18,139
Total Office Expenses	128,313	112,328
Professional Services:		
Audit fees	47,108	68,799
Attorney fees	248,816	334,033
Publications / legal notices / other	4,089	3,510
Software, technology, and information services	482,065	404,786
Total Professional Services	782,078	811,128
Miscellaneous Expenses:		
Memberships	6,210	5,435
Board election expenses	8,512	-
Fiduciary meeting	8,000	9,500
Fiduciary and staff travel / training	34,117	6,008
Insurance	99,177	95,796
Depreciation expense	270,477	265,071
Total Miscellaneous Expenses	426,493	381,810
Total Administrative Expenses	$2,789,967	$2,522,797

Schedules of Investment Expenses
For the Fiscal Years Ended June 30, 2023 and 2022

Investment managers' fees	**2023**	**2022**
Domestic equities		
Mellon Capital Management	220,104	427,769
International equities		
Acadian Asset Management	112,741	128,234
Driehaus Asset Management	105,639	127,706
Total international equities	218,380	255,940
Alternative investments		
GSO	321,140	213,321
GTCR	-	92,455
KKR	181,723	63,092
SSgA	40,179	80,480
Taconic Capital	77,486	51,650
Total alternative investments	620,528	500,998
Real estate		
UBS Global –Trumbull Property Management	241,530	277,539
Taconic Capital	169,406	127,875
Total Real Estate	410,936	405,414
Fixed income		
Barrow Hanley	65,260	226,669
Brandywine	57,603	-
Wellington	31,422	-
Total Fixed Income	154,285	226,669
Total investment managers' fees	1,624,233	1,816,790
Other investment expenses		
Custodian	139,512	112,319
Investment counsel	420,528	378,864
Investment consultant	623,344	623,000
Miscellaneous investment expense	291,628	63,260
Total other investment expenses	1,475,012	1,177,443
Total fees and other investment expenses	$3,099,245	$2,994,233

Schedules of Payments to Consultants
For the Fiscal Years Ended June 30, 2023 and 2022

	2023	2022
Investment professional service fees		
Custodial services - Northern Trust, BNY Mellon*	$139,512	$112,319
Investment counsel - Nossaman, LLP	420,528	378,864
Actuarial services - Cheiron, Inc. and Segal Consulting	232,010	120,292
Total investment professional service fees	$792,050	$611,475
Administrative professional service fees		
Audit services - Brown Armstrong Accountancy Corporation, MGO	$47,108	$68,799
Legal services	248,816	334,033
Other specialized services	4,089	3,510
Software and information systems	482,065	404,786
Total administrative professional service fees	$782,078	$811,128

*MercedCERA continues to receive investment class action services from BNY Mellon.

Schedule of Cost Sharing Employer Allocations
For the Fiscal Year Ended June 30, 2023

Employer	2023-2023 Amortization Share of Pensionable Payroll	Employer Proportionate Share Percentage
County of Merced	$49,201,159	94.4481%
Merced Superior Court	2,854,720	5.4800%
Merced Cemetery District	19,996	0.0384%
Merced County Law Library	17,426	0.0335%
Total	$52,093,301	100.0000%

The accompanying notes are an integral part of this schedule.

Note: Information compiled from GASB 67/68 Report prepared by Cheiron, Inc. dated June 30, 2023

Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan
As of and for the Fiscal Year Ended June 30, 2023 **(continued on next page)**

		Deferred Outflows of Resources				
Employer	**Net Pension Liability**	**Differences Between Expected and Actual Experience**	**Net Differences Between Projected and Actual Investment Earnings**	**Changes of Assumptions**	**Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions**	**Total Deferred Outflows of Resources**
County of Merced	$406,703,848	$2,440,716	$13,640,848	$16,229,952	$153,662	$32,465,178
Merced Superior Court	23,597,526	141,614	791,461	941,685	913,116	2,787,876
Merced Cemetery District	165,290	992	5,544	6,596	11,872	25,004
Merced County Law Library	144,045	864	4,831	5,748	107,367	118,810
Total	$430,610,709	$2,584,186	$14,442,684	$17,183,981	$1,186,017	$35,396,868

Note: Information compiled from GASB 67/68 Report prepared by Cheiron, Inc. dated June 30, 2023

The accompanying notes are an integral part of this schedule.

Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan
As of and for the Fiscal Year Ended June 30, 2022 (Continued)

	Deferred Inflows of Resources					Pension Expense Excluding that Attributable to Employer-Paid Member Contributions		
Employer	Differences Between Expected and Actual Experience	Net Differences Between Projected and Actual Investment Earnings	Changes of Assumptions	Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Deferred Inflows of Resources	Proportionate Share of Allocable Pension Expense	Net Amortization of Deferred Amounts from Changes in Proportion and Differences Between Employer Contributions and Proportionate Share of Contributions	Total Pension Expense Excluding That Attributable to Employer –Paid Member Contributions
County of Merced	$10,327,417	$ -	$ -	$1,014,947	$11,342,364	$58,223,848	$(561,009)	$57,662,839
Merced Superior Court	599,211	-	-	161,029	760,240	3,378,229	524,103	3,902,332
Merced Cemetery District	4,197	-	-	10,041	14,238	23,663	1,117	24,780
Merced County Law Library	3,658	-	-	-	3,658	20,622	35,789	56,411
Total	$10,934,483	$ -	$ -	$1,186,017	$12,120,500	$61,646,362	$ -	$61,646,362

Note: Information compiled from GASB 67/68 Report prepared by Cheiron, Inc. dated June 30, 2023

The accompanying notes are an integral part of this schedule.

A. Basis of Presentation and Basis of Accounting

Employers participating in MercedCERA are required to report pension information in their financial statements for fiscal periods beginning on or after June 15, 2014, in accordance with GASB Statement No. 68, *Accounting and Financial Reporting for Pensions—an Amendment of GASB Statement No. 27.*

MercedCERA's actuary prepares the GASB Statement No. 67 and No. 68 Actuarial Valuation based on the June 30, 2023 measurement date for Employer Reporting as of June 30, 2024, in accordance with accounting principles generally accepted in the United States of America as applicable to governmental organizations based on information provided by MercedCERA. This document provides the required information for financial reporting related to MercedCERA that employers may use in their financial statements.

B. Use of Estimates in the Preparation of These Schedules

The preparation of these schedules in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect certain amounts and disclosures. However, actual results could differ from those estimates.

C. Amortization of Deferred Outflows and Deferred Inflows of Resources

The net difference between projected and actual investment earnings on pension plan investments is amortized over 5 years on a straight-line basis. One-fifth was recognized in pension expense/(credit) during the measurement period and the remaining net difference between projected and actual investment earnings on pension plan investments at June 30, 2023 is to be amortized over the remaining amortization periods.

The difference between expected and actual experience, changes in proportion, and the difference between employer contributions and proportionate share of contributions are amortized over the average of the expected remaining service lives of all employees that are provided with pensions through the plan determined as of the beginning of the related measurement period. Employers are required to recognize pension expense based on the balance of the closed period "layers" attributable to each measurement period. The average expected remaining service lives determined as of the beginning of each measurement period are described below:

Average Expected Remaining Service Lives, Year Ended June 30 (In years)									
2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
4	4	4	4	4	4	4	4	4	4

The Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan do not include contributions to the plan subsequent to the measurement date as defined in GASB Statement No. 68 Paragraphs 54, 55, and 57. Appropriate treatment of such amounts is the responsibility of the employers.

Investment Section

MEKETA 45 CELEBRATING A MILESTONE YEARS

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MEMORANDUM

TO: MercedCERA Board and Staff
FROM: Paola Nealon, Mika Malone, Inwoo Hwang (Meketa Investment Group)
DATE: October 26, 2023
RE: Letter from Investment Consultant

This letter reviews the investment performance of the Merced County Employees' Retirement Association (MercedCERA) for the fiscal year ending June 30, 2023.

MercedCERA's stated mission is to provide benefits to its members, to manage assets prudently in accordance with plan provisions and to provide competent and efficient services to our members. Meketa Investment Group, MercedCERA's general consultant, works in concert with Cliffwater, MercedCERA's alternative investments consultant, to provide guidance to the Board (the Association's fiduciary), and assist the Board with performance evaluation, asset allocation, manager selection, and other industry best practices.

Rates of return are represented using a time weighted rate of return methodology based upon market values.

Fiscal 2023 Year in Review

We began fiscal year 2023 with positive performance across global markets, especially in the US. Investor optimism at the time was driven by a decline in inflation measures, as the CPI ticked down from 9.1% to 8.5% and came in below expectations.[1] This led to longer-dated yields falling as investors reconsidered economic growth prospects and the possibility that yields had reached their peak for this economic cycle. Shorter dated yields rose on near-term monetary policy actions and messaging that policy officials intended to remain aggressive in fighting inflation pressures into early 2023.

It was also at the start of July 2022, when we first saw an inversion in the US yield curve. The yield spread between two-year and ten-year Treasuries, finished July at -0.23%.[1] Inversions in the yield curve have historically signaled building recessionary pressures.

The Federal Reserve raised interest rates by an additional 75 basis points[1] in July 2022, and again by the same amount in September. The European Central Bank also notably started increasing rates, moving off 0%. They increased rates by 50 basis points in July 2022, followed by a surprise 75 basis point increase in September.

Federal Reserve messaging about policy going forward, combined with outsized interest rate hikes due to the slow rate of decline in inflation and a strong labor market resulted in significant equity market declines in both August and September 2022. The September CPI release showed prices that increased 8.2% over the trailing twelve months, which was lower than the peak of 9.1%[2] but still above the pace of market expectations at the time. The US bond market (Bloomberg Aggregate) declined in the first

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fiscal quarter (-4.5%[1]) as did the US Equity Market (Russell 3000), which returned -3.2% fiscal year-to-date through September.

The second quarter of fiscal year 2023 started very strong for developed market equities, on returned signs that inflation may be peaking, monetary policy tightening may relatedly slow, and hopes for a soft-landing of major economies. However, as the quarter progressed, results were mixed by month and region as the world received differing signals on inflation. Overall, US equities finished the second fiscal quarter of 2023 up (Russell 3000: +7.2%[1]). Equities outside the US (MSCI ACWI ex. US: +14.3%) increased even more versus domestic stocks due in part to the weakening US dollar. The US bond market also finished the calendar quarter in positive territory (Bloomberg Aggregate: +1.9%).[1]

Inflation, as measured by CPI, declined to 6.5% by December of 2022. While progress had been made since the 2022 peak of 9.1%, there was still much work to be done to bring the pace of price increases down to the Federal Reserve's preferred range. Except for Japan, inflation impacted the rest of the developed world as well. Inflation in the Eurozone came in at 9.2% in December, down from a peak of 10.6%.[1] Similarly, inflation in the UK was at 9.2% in December 2022, down from a peak of 9.6%.[2]

The US labor market remained extraordinarily strong throughout the first two quarters of fiscal year 2023, with the unemployment rate declining to 3.5% by December from a starting point of 3.6%.[1] The labor force participation rate remained slightly above 62% as of December. This was an increase from the lows of the pandemic but still below the 63.4%[4] level from before the pandemic. Average hourly earnings declined in December, finishing the calendar year at 4.8%. The strength of the labor market in the US contributed to the Federal Reserve's continued hawkish stance. In Europe and Japan, increases in unemployment were less during the pandemic compared to the US but also improved.

Economic growth in the US rebounded in the first half of fiscal year 2023. The GDP release for the first fiscal quarter of 2022 came in at an annualized rate of 3.2%[2], and the second quarter growth rate was 2.6%.[2] Outside the US, Eurozone growth was positive but below levels in the US, coming in at 2.5% and 1.6%[3], respectively, over the same two quarters. UK growth was nearly flat at -0.2% and 0.0%[4], and Japan grew by -0.3% and 0.2%, respectively, over those same two quarters.

Financial markets were volatile in the third quarter of the fiscal year, driven by investors continuing to adjust their interest rate and inflation expectations and the failure of Silicon Valley Bank and a few other regional banks. Ultimately, however, the swift emergency actions taken by the Federal Reserve, the Treasury, and other government agencies, helped alleviate some of the concerns connected to the banking sector. This, and a focus on slowing inflation and potentially peaking rates, led to most asset classes experiencing positive results for the quarter with riskier assets leading the way.

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In the third fiscal quarter, the US equity market (Russell 3000) returned 7.2%[1], and international developed market equities (MSCI EAFE) returned 8.5%. Emerging market equities (MSCI Emerging Markets) were also positive for the quarter, returning 4.0%. Chinese equities (MSCI China) rose 4.7% but generally lagged developed markets as reopening optimism was balanced by increased tensions with the US.

Fixed income markets also posted gains for the quarter, but it was a volatile period for interest rates, particularly for shorter maturities. Overall, the change in monetary policy expectations and anecdotal reports of flight-to-quality flows during the height of the concerns surrounding the banking sector drove most interest rates lower. The broad US investment grade bond market (Bloomberg US Aggregate) and high yield bonds (Bloomberg High Yield) respectively rose 3.0% and 3.6% for the quarter. High yield bonds particularly benefitted from the positive risk sentiment.

Financial markets were mixed in the final quarter of fiscal year 2023 as investors continued to contend with the track of inflation, the path of monetary policy, lingering fears from the regional banking crisis, and an uncertain economic outlook. Most equity markets posted positive returns for the quarter while fixed income markets fell slightly, as rates rose, reflecting expectations for the Federal Reserve to continue tightening policy rates.

Of the major asset classes, the US equity market (Russell 3000) led the way, returning 8.4%[1] for the quarter with most of the gains (6.8%) coming just in the month of June 2023. Notably, relatively few stocks (mainly large technology companies) accounted for most of the gains in the third and fourth quarter of fiscal year 2023 driven by optimism over artificial intelligence ("AI") technology. Looking at the S&P 500, the index was up 16.9% in the final two quarters of fiscal 2023. Without the top performing 44 stocks, the index would have been negative over the same period.[5]

Developed international equities (MSCI EAFE) returned 3.0% for the final quarter of fiscal year 2023 while emerging market equities (MSCI Emerging Markets) lagged, returning just 0.9%. Continued signaling from the central banks in Europe and the UK along with an overall stronger US dollar weighed on relative results in developed markets. Chinese equities weighed on overall results in emerging markets with the MSCI China index falling 9.7% for the quarter. Chinese equities suffered due to a lackluster economic reopening, weak economic data, and heightened tensions with the US.

The broad US investment grade bond market (Bloomberg US Aggregate) fell 0.8%[2] as the Federal Reserve indicated additional rate hikes were needed to combat persistent inflation. High yield bonds (Bloomberg High Yield) benefited from the "risk-on" sentiment, returning 1.7%[2] in the quarter ending June 30th[2]. Commodities (Bloomberg Commodity Index) continued to soften on weakening global growth expectations and developments with China, declining 2.6% for the quarter. [2]

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Over the full fiscal year developed market equities posted strong returns with US stocks slightly outperforming developed markets outside the US. Emerging market equities significantly trailed develop market equities over the period. The Russell 3000 (US equities) returned 19.0%[1] for the fiscal year, compared to the MSCI EAFE at 18.8%[1] (developed market equities), and a return of 1.8%[1] for the MSCI Emerging Markets index. The MSCI Emerging Markets index was greatly influenced by returns from China, as the MSCI China index declined by 16.8% over the 12 months ending on June 30th. Within fixed income, declining inflation, and a slightly longer relative duration for the index hurt TIPS' full year relative results. The Bloomberg TIPS index decreased 1.4%[1] over the full year, while the Bloomberg Aggregate index declined by 0.9%[1] Riskier bonds held up well in the fiscal year, as the Bloomberg High Yield index increased 9.1% over the period.

Remarkably, despite a fiscal year where a recession was forecasted by many economists, GDP growth and unemployment remained unexpectedly robust, and inflation continued to decline. GDP growth in the US was 3.2%, 2.6%, 2.0% and 2.4%[1] for the first, second, third, and fourth quarter, respectively, for fiscal year 2023. Unemployment ticked up to 3.7% during the fiscal year but ultimately settled where it started at 3.6%.[2] All of this occurred while the headline inflation number decreased from 9.1% in June 2022 to 3.0%[2] in June 2023. Finally, the yield curve remained inverted for almost the entire fiscal year, eventually deepening the inversion as the year went on. The yield spread between two-year and ten-year Treasuries finished June 2023, at -1.06%.[1]

Outside the US, unemployment and inflation painted a more mixed picture. The Eurozone ended fiscal year 2023 with unemployment numbers at 6.5%, down from 6.6% at the beginning of the fiscal year.[3] Japan ended with an unemployment figure where it started at 2.6%. Inflation in the Eurozone ended the fiscal year at 6.1%, down from 8.6%[2] a year earlier. Inflation increased in Japan for the first time in many years, ending at 3.2% versus 2.5%[2] at the beginning of the fiscal year. China notably had inflation levels at the end of the fiscal year close to 0% given the weak economic reopening.

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Fiscal Year 2024 Outlook

Overall, the US economy has been much more resilient than expected given inflation that remains above the Fed's target and one of the most aggressive policy tightening campaigns in history. As we move forward, investors will be looking for clues on the track of inflation and related monetary policy, monitoring if economies hit recessions or manage "soft landings," and keeping an eye on geopolitical issues. There are several areas that could guide markets, both positively and negatively, in fiscal year 2024. These include:

→ The Federal Reserve and other Central Banks have made solid progress on the inflation fight. However, the possibility remains that the final declines of inflation to central banks' preferred range may be harder to achieve versus the progress made so far.

- While CPI in the US finished the fiscal year at 3.0% over the trailing 12 months (it recently increased slightly to 3.2% in July 2023), the path to 2.0% may be more difficult due to changes in trade, deglobalization, as well as a stronger consumer.[2]
- The Core CPI measure that strips out the more volatile energy and food categories is still far above range, finishing the fiscal year at 4.8%[2] and more recently falling to at 4.7%[2] in July. Because the Federal Reserve focuses on Core measures, and the rate remains above their 2%[2] target, they may continue to fight inflation by keeping rates higher for longer, with the risk of pushing the economy into recession.
- The labor market has remained relatively strong, but questions linger about whether this will persist as the impact of increased interest rates continue to flow through the economy. As consumption makes up most of the growth in the US the strength of the consumer is key. Higher credit balances and rates and the end of the reprieve on student loan payments could also influence spending going forward.

→ China has seen a disappointing reopening, ongoing deleveraging, restrictions from the US, and declining trade.

- China, the second largest economy in the world, waited longer than any other country to reduce or remove COVID-related restrictions on mobility. Many market participants expected above-trend growth which has not occurred.
- The old methods of stimulating growth in China, such as building and infrastructure projects, may have lesser utility as China continues to mature.
- The move toward diversifying supply chains is not only happening in the US, but around the world. This has led to less trade with China, both for imports and exports, a trend that could continue to pressure economic growth. Recent legislation, such as the CHIPS Act in the US, is encouraging semiconductor manufacturers to build production plants outside of Asia.
- Deleveraging, resulting from an overleveraged property sector, will continue to reduce economic growth as well as price increases. China will almost certainly look for ways to contain deflationary pressures to avoid a situation like Japan.

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→ Ongoing geopolitical issues, including the war in Ukraine and US-China relations, remain a factor and could always worsen, leading to adverse effects on global economic growth and inflation.

- The war in Ukraine continues with no immediate end in sight. Despite international condemnation and sanctions, Russia's economy has held up, allowing the country to continue to fund its war effort despite little progress.
- The war in Ukraine also enlightened the world to a situation where China attempts a takeover of Taiwan. This has resulted in many countries and corporations beginning the process of reducing dependence on Chinese-made goods, while diversifying their supply chains.
- Relations between the world's two largest economies, US and China, have suffered in recent years. This relationship could continue to worsen, with declining trade and increased tensions.

MercedCERA Fiscal Year 2023 Performance

The MCERA portfolio posted a 7.6% return on a net of fees basis for the fiscal year ended June 30, 2023, which outpaced the policy index by 40 basis points. Emerging Markets was the strongest performers on both absolute (12.8%) and relative to benchmark (11.1%) basis. The Developed International Equity segment of the portfolio was a key detractor from performance due to the poor relative performance over the period (-6.8%) as well as the overall size of the allocation (11% of overall portfolio).

US Equities returned 18.6%, trailing its benchmark by 40 bps. The US Fixed Income sleeve posted a -2.4% return in the trailing year, trailing its benchmark by 1.5%. Opportunistic credit returned 8.2% outperforming its benchmark return by 3.9%. The Real Estate sleeve returned -3.0%, compared to its benchmark return of -3.1%. Private Equity returned 1.5%, outperforming its benchmark by 6.1%. Direct Lending returned 6.4%, compared to the benchmark return of 12.9%. Hedge funds returned 3.7%, in line with the benchmark over the period. Real Assets returned 11.7% compared to the benchmark return of 6.4%.

From a longer-term perspective, the fund returned 8.1% for the trailing three years and 7.2% over the trailing five years. The portfolio trailed the benchmarks by 70 basis points over the three-year period and outperformed versus the benchmark by 30 basis points over the five-year period.

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Investment Results

Periods Ended June 30, 2023	Annualized Returns (%) One Year	Three Years	Five Years
US Equity (net)	**18.6**	**12.9**	**10.6**
Russell 3000	19.0	13.9	11.0
International Equity (net)	**11.2**	**5.0**	**5.9**
International Equity Custom	11.8	6.6	3.4
US Fixed Income (net)	**-2.4**	**-4.4**	**0.2**
US Fixed Income Custom Benchmark	-0.8	-3.7	0.6
Opportunistic Credit (net)	**8.1**	**5.5**	**N/A**
50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans	4.3	0.3	N/A
Real Estate (net & Private Real Estate 1-quarter lagged)	**-3.0**	**4.6**	**3.6**
Custom Blended Real Estate Benchmark	-3.1	8.4	7.1
Private Equity (net & 1-quarter lagged)	**1.5**	**25.7**	**16.9**
Custom Blended Private Equity Benchmark	-4.6	20.0	14.5
Direct Lending (net & 1-quarter lagged)	**6.4**	**9.8**	**N/A**
S&P LTSA Leverage Loan Index + 2%	12.9	8.4	N/A
Hedge Funds (net)	**3.7**	**6.8**	**3.9**
Custom Blended Hedge Fund Benchmark	3.7	5.0	3.3
Real Assets (net & certain managers 1-quarter lagged)	**11.7**	**15.4**	**11.1**
Custom Blended Real Assets Benchmark	6.4	9.9	6.1
Total Fund (net)	**7.6**	**8.1**	**7.2**
Policy Index	7.2	8.8	6.9
Rank	*58*	*59*	*21*

MM/PN/IH/mn

[1] Source: OECD.
[2] Source: Bloomberg.
[3] Source: Eurostat.
[4] Source: Bureau of Economic Analysis.
[5] Source: S&P Down Jones Indices.

Total Fund Returns (Gross of Fees) vs. Universe Period Ended June 30, 2023								
	3 mo	Fiscal YTD	3 yrs	5 yrs	7 yrs	10 yrs	Inception Return	Since
Total Fund	2.7%	7.9%	8.5%	7.5%	8.5%	8.1%	8.1%	12/31/1994
Fund Benchmark	3.4%	7.2%	8.8%	6.9%	8.2%	7.7%	6.2%	12/31/1994
IF Public Defined Benefit Gross Rank	79	66	33	10	20	21	48	12/31/1994
IF Public Defined Benefit Gross Median	3.2%	8.9%	7.8%	6.6%	7.8%	7.5%	8.0%	12/31/1994

Outline of Investment Policies

The Board of Retirement (Board) has exclusive control of all investments of the Merced County Employees' Retirement Association (MercedCERA or the Association) and is responsible for establishing investment objectives, strategies, and policies.

Pursuant to the California Constitution and the County Employees Retirement Law of 1937 (the 1937 Act), the Board is authorized to invest in any form or type of investment deemed prudent in the informed judgment of the Board. In making decisions regarding the MercedCERA investment portfolio, the Board acts in a fiduciary capacity and must discharge its duties in accordance with fiduciary principles. In this regard, investment decisions are to be made in the sole interest and for the exclusive purpose of providing benefits, minimizing employer contributions, and defraying the reasonable expenses of the Association.

The Board adopted an Investment Policy Statement (IPS) on February 23, 2017 and most recently amended April 22, 2022, which provides the framework for the management of MercedCERA's investments. The IPS establishes the investment program goals, asset allocation policies, performance objectives, investment management policies and risk controls. The IPS defines the principal duties of the Board, MercedCERA's custodian bank, consultant, and MercedCERA's investment managers. The Board makes revisions to the Investment Policy as necessary.

Pursuant to the IPS, the basic goal of MercedCERA's investment program is to obtain a fully funded plan status, while assuming a risk posture consistent with the Board's risk tolerance. In pursuing this goal, the Board has adopted a long-term investment horizon in which the chances and duration of investment losses are carefully weighed against the long-term potential for appreciation of assets. The primary investment objective is to exceed the actuarial assumption for return on assets. The risk assumed in the pursuit of this investment objective must be appropriate for the return anticipated and consistent with the total diversification of the fund. The asset allocation plan, adopted by the Board, is an integral part of MercedCERA's investment program. It is designed to provide an optimum, diversified mix of asset classes with return expectations to satisfy expected liabilities, while minimizing risk exposure.

Summary of Proxy Voting Guidelines and Procedures

Voting of MercedCERA's proxy voting ballots shall be in accordance with MercedCERA's proxy voting guidelines as set forth in the Investment Policy. The basic directive of the proxy voting guidelines is that, when voting proxy ballots on behalf of MercedCERA, investment managers shall vote according to the best interests of the MercedCERA membership. On a quarterly basis, the investment managers are required to provide a report to MercedCERA detailing their proxy votes.

Asset Allocation Information For the Fiscal Year Ended June 30, 2023				
Investment Class	**Allocation June 30, 2023**	**Target**	**Allocation Minimum**	**Allocation Maximum**
Domestic Equity	24.1%	22.0%	16.0%	27.0%
Developed Markets Equity	11.6%	11.0%	6.0%	16.0%
Emerging Markets Equity	7.5%	8.0%	4.0%	12.0%
Private Equity	13.6%	15.0%	5.0%	20.0%
Direct Lending	4.0%	5.0%	0.0%	10.0%
Real Estate	7.7%	8.0%	6.0%	10.0%
Domestic Fixed Income	10.5%	11.0%	6.0%	16.0%
Opportunistic Credit	3.3%	5.0%	3.0%	7.0%
Hedge Fund	11.3%	10.0%	5.0%	15.0%
Real Assets	5.8%	5.0%	3.0%	7.0%
Cash	0.6%	0.0%	0.0%	5.0%
	100.0%	100.0%		

Asset Allocation Information For the Fiscal Year Ended June 30, 2022				
Investment Class	**Allocation June 30, 2022**	**Target**	**Allocation Minimum**	**Allocation Maximum**
Domestic Equity	22.4%	22.0%	16.0%	27.0%
Developed Markets Equity	11.6%	11.0%	6.0%	16.0%
Emerging Markets Equity	5.9%	8.0%	4.0%	12.0%
Private Equity	12.6%	15.0%	5.0%	20.0%
Direct Lending	1.9%	5.0%	0.0%	10.0%
Real Estate	8.5%	8.0%	6.0%	10.0%
Domestic Fixed Income	15.7%	11.0%	6.0%	16.0%
Opportunistic Credit	5.5%	5.0%	3.0%	7.0%
Hedge Fund	9.9%	10.0%	5.0%	15.0%
Real Assets	5.4%	5.0%	3.0%	7.0%
Cash	0.6%	0.0%	0.0%	5.0%
	100.0%	100.0%		

Investment Summary For the Fiscal Year Ended June 30, 2023		
	Value	**Percent of Total**
Domestic Equity		
Large Cap	$182,482,143	16.2%
Large Cap Active	54,649,723	4.8%
Small Cap	28,608,415	2.5%
Total	265,740,281	23.5%
International Equity		
Large Cap	99,485,136	8.8%
Small Cap	28,405,536	2.5%
Emerging Market	82,906,250	7.3%
Total	210,796,922	18.6%
Fixed Income		
Domestic Core	91,949,152	8.1%
Mutual Fund	24,242,744	2.1%
Opportunistic Credit	35,825,769	3.2%
Total	152,017,665	13.4%
Alternative Investments		
Private Equity	206,772,819	18.3%
Direct Lending	45,967,393	4.1%
Hedge Funds	145,206,337	12.8%
Real Asset Proxy	13,191,550	1.2%
Total	410,925,566	36.4%
Real Estate		
Domestic Property Fund	41,009,830	3.6%
Domestic Private Real Estate	37,186,067	3.3%
International Private Real Estate	5,656,335	0.5%
Total	83,852,232	7.4%
Cash and Short-Term Investments	7,635,751	0.7%
Total Investments, Cash, and Short-Term Investments	$1,131,180,949	100.0%

Merced County Employees' Retirement Association
Schedule of Investment Results (Gross of Fees)
For the Fiscal Year Ended June 30, 2023

	Current Year	Annualized				
Domestic Equity		3Yrs	5Yrs	7Yrs	10Yrs	Inception
Large Cap:						
BNY Mellon Newton Dynamic	17.5	13.0	12.6	14.1	14.7	15.6
Mellon Large Cap Index	19.2	14.1	12.0	13.2	--	13.1
Small Cap:						
Champlain Small Cap*	19.4	--	--	--	--	9.0
Total Domestic Equity	**18.9**	**13.2**	**10.9**	**12.8**	**12.8**	**10.3**
Index: Russell 3000	***19.0***	***13.9***	***11.0***	***12.7***	***12.1***	***10.2***
International Equity						
Developed Markets:						
Acadian ACWI ex U.S. Small Cap Equity	10.7	12.9	--	--	--	9.4
Driehaus International Small Cap Growth	12.3	8.1	--	--	--	8.1
GQG International Equity	11.4	8.3	--	--	--	7.3
First Eagle International Value Fund	10.5	7.1	--	--	--	3.9
Emerging Markets:						
Artisan Developing World Trust	21.5	-0.8	--	--	--	6.3
RWC Global Emerging Equity Fund	0.3	4.3	--	--	--	0.9
Total International Equity	**12.1**	**5.8**	**6.6**	**8.8**	**6.6**	**5.9**
Index: International Equity Custom	***11.8***	***6.6***	***3.4***	***6.5***	***5.0***	***--***
US Fixed Income						
Vanguard Short-Term Treasury Index Fund	0.1	-1.2	0.9	--	--	0.9
Vanguard Total Bond Market Index Fund	-0.9	-4.0	--	--	--	-0.2
Payden & Rygel Low Duration Fund	--	--	--	--	--	4.4
Brandywine US Fixed Income	--	--	--	--	--	0.2
Wellington Core Bond	--	--	--	--	--	3.1
Total Fixed Income	**-2.3**	**-4.3**	**0.3**	**0.6**	**1.7**	**4.5**
Index: US Fixed Income Custom Benchmark	***-0.8***	***-3.7***	***0.6***	***0.8***	***1.6***	***4.5***
Opportunistic Credit						
PIMCO Income Fund	5.4	1.9	--	--	--	1.9
GoldenTree Multi-Sector Credit	10.7	6.4	--	--	--	4.6
Sculptor Credit Opportunities Domestic Partners, LP	10.8	12.2	--	--	--	12.2
Total Opportunistic Credit	**8.8**	**6.1**	**--**	**--**	**--**	**4.7**
Index: 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans	***4.3***	***0.3***	***--***	***--***	***--***	***1.6***

Real Estate	Current Year	Annualized 3Yrs	5Yrs	7Yrs	10Yrs	Inception
Vanguard REIT Index	-3.9	--	--	--	--	4.8
UBS Trumbull	-8.3	3.2	2.4	3.1	5.5	7.2
Greenfield GAP VII	0.2	22.6	18.0	16.8	--	16.8
Patron V	-8.0	-4.5	-6.0	1.4	--	1.4
Carlyle Realty VIII	1.3	38.0	19.2	--	--	10.8
Taconic CRE Dislocation Fund II	19.1	10.5	--	--	--	9.9
Carmel Partners Investment Fund VII	6.0	-6.5	--	--	--	-21.5
AG Realty Value Fund X, L.P.	6.0	16.3	--	--	--	6.5
Rockpoint Real Estate Fund VI, L.P.	-2.3	13.8	--	--	--	13.7
Cerberus Real Estate Debt Fund, L.P	4.0	10.2	--	--	--	10.2
Taconic CRE Dislocation Onshore Fund III*	7.6	--	--	--	--	6.9
Starwood Distressed Opportunity Fund XII Global*	0.4	--	--	--	--	136.0
Carlyle Realty Partners IX*	-90.2	--	--	--	--	-144.2
Carmel Partners Investment Fund VIII*	-7.5	--	--	--	--	-12.7
Rockpoint Real Estate Fund VII L.P.	--	--	--	--	--	13.6
Total Real Estate**	**-3.0**	**4.6**	**3.6**	**4.7**	**6.3**	**7.7**
Index: Custom Blended Real Estate Benchmark	***-10.4***	***6.5***	***6.0***	***6.3***	***8.0***	***7.2***
Real Assets						
SSgA (Proxy Fund)	-0.7	11.9	5.6	--	--	5.8
Private Infrastructure:						
KKR Global Infrastructure Investors II	18.6	24.1	22.8	19.2	--	17.5
North Haven Infrastructure II	12.2	9.3	10.0	10.5	--	8.4
ISQ Global Infrastructure Fund II	9.9	13.8	4.1	--	--	4.1
KKR Global Infrastructure Investors III	12.9	4.2	--	--	--	-1.9
Ardian Infrastructure Fund V	16.6	-8.3	--	--	--	-9.2
ISQ Global Infrastructure Fund III*	13.2	--	--	--	--	-639.2
KKR Global Infrastructure Investors IV*	0.3	--	--	--	--	-221.8
BlackRock Global Infrastructure Fund IV	--	--	--	--	--	-12.3
Private Natural Resources:						
GSO Energy Opportunities	61.2	49.2	18.5	19.6	--	19.2
Taurus Mining	36.9	51.8	31.7	26.0	--	26.4
Taurus Mining Annex	19.1	23.5	24.3	--	--	25.7
EnCap XI	33.4	26.3	1.9	--	--	-7.7
EnCap IV	5.7	51.0	28.9	--	--	24.8
BlackRock GEPIF III	12.9	18.3	--	--	--	14.5
Tailwater Energy Fund IV	30.2	27.3	--	--	--	6.9
Carnelian Energy Capital IV	-8.0	--	--	--	--	-6.9
EnCap Flatrock Midstream Fund V	--	--	--	--	--	0.0
Total Real Assets	***11.8***	***15.6***	***11.2***	***10.0***	***9.9***	***10.2***
Index: Custom Blended Real Assets Benchmark	***6.4***	***9.9***	***6.4***	***7.4***	***7.7***	***--***

Private Equity	Current Year	Annualized				
		3Yrs	5Yrs	7Yrs	10Yrs	Inception
Adams St	-14.0	19.1	12.2	12.9	12.8	11.1
Invesco VI	-48.0	31.1	20.0	18.7	16.3	16.3
Ocean Ave II	3.9	46.0	32.0	30.2	--	22.4
Pantheon I	-13.8	-9.7	-13.1	-7.4	-3.4	-0.7
Pantheon II	-8.7	19.2	14.0	14.3	14.0	12.9
Pantheon Secondary	-2.5	-5.2	-4.3	-2.5	-1.2	1.4
Davidson Kempner Long-Term Distressed Opportunities Fund IV	36.9	31.9	20.0	--	--	19.2
GTCR Fund XII	-4.2	30.5	15.9	--	--	15.7
Carrick Capital Partners III	-2.6	19.3	--	--	--	11.3
Cressey & Company Fund VI	-3.7	27.8	--	--	--	16.8
TCV X	-25.8	30.5	--	--	--	17.5
Accel-KKR Growth Capital Partners III	1.3	21.2	--	--	--	10.4
Genstar Capital Partners IX	30.5	37.4	--	--	--	27.3
Cortec Group Fund VII	24.9	36.0	--	--	--	27.8
Spark Capital Growth Fund III	-2.2	19.4	--	--	--	17.3
Spark Capital VI	1.2	-3.0	--	--	--	-2.7
Summit Partners Growth Equity Fund X-A	11.9	8.0	--	--	--	12.6
Taconic Market Dislocation Fund III L.P.	-2.5	14.2	--	--	--	14.2
Marlin Heritage Europe II, L.P.	11.6	--	--	--	--	-0.2
Khosla Ventures VII	6.0	--	--	--	--	5.6
Accel-KKR Capital Partners VI	0.0	--	--	--	--	-5.7
Khosla Ventures Seed E	9.9	--	--	--	--	143.1
TCV XI	-16.8	--	--	--	--	-5.1
Thoma Bravo Discover Fund III	-0.3	--	--	--	--	6.4
Summit Partners Venture Capital Fund V-A	-5.0	--	--	--	--	-6.3
GTCR Fund XIII/A & B	-3.6	--	--	--	--	104.2
Genstar Capital Partners X	3.0	--	--	--	--	6.8
Nautic Partners X	6.0	--	--	--	--	0.6
Spark Capital Growth Fund IV	36.5	--	--	--	--	20.2
Spark Capital VII	-8.9	--	--	--	--	-7.7
TCV Velocity Fund I	-19.8	--	--	--	--	-28.4
Accel-KKR Growth Capital Partners IV	-6.7	--	--	--	--	-21.8
Summit Partners Growth Equity Fund XI-A*	1.2	--	--	--	--	-53.2
GTCR Strategic Growth Fund I/A&B LP*	-50.4	--	--	--	--	-50.4
Threshold Ventures IV LP*	--	--	--	--	--	-24.2
Thoma Bravo Discover Fund IV*	--	--	--	--	--	8.9
Marlin Heritage III*	--	--	--	--	--	-83.2
Cortec Group Fund VIII, L.P.*	--	--	--	--	--	-1.1
Total Private Equity**	**1.5**	**25.7**	**16.9**	**16.0**	**14.1**	**10.5**
Index: Custom Blended Private Equity Benchmark	***-4.6***	***20.0***	***14.5***	***16.1***	***15.5***	***--***

	Current Year	Annualized				
Direct Lending		3Yrs	5Yrs	7Yrs	10Yrs	Inception
Silver Point Specialty Credit Fund II, L.P.	7.2	10.2	--	--	--	10.2
Ares Senior Direct Lending Fund II	7.4	--	--	--	--	8.7
Varagon Capital Direct Lending Fund	0.2	--	--	--	--	-0.1
AG Direct Lending Fund IV Annex	9.5	--	--	--	--	8.1
AG Direct Lending Fund V*	--	--	--	--	--	7.5
Accel-KKR Credit Partners II LP*	--	--	--	--	--	30.2
Silver Point Specialty Credit Fund III*	--	--	--	--	--	-1.7
Total Direct Lending**	**6.4**	**9.8**	**--**	**--**	**--**	**9.8**
Index: S&P LSTA Leverage Loan Index + 2%	***12.9***	***8.4***	***6.2***	***6.7***	***6.1***	***8.4***
Hedge Funds						
Sculptor (OZ) Domestic II	9.1	4.7	6.0	7.6	--	6.1
Graham Absolute Return	3.0	11.5	5.5	--	--	5.5
Wellington-Archipelago	9.9	8.3	6.2	--	--	6.4
Marshall Wace Eureka	3.5	9.8	7.0	--	--	7.4
Silver Point Capital	6.9	15.0	8.3	--	--	8.3
Laurion Capital	2.4	7.0	--	--	--	10.5
Taconic Opportunity Fund	0.3	4.5	--	--	--	2.9
Marshall Wace Global Opportunities	8.3	5.3	--	--	--	5.4
Caxton Global Investments	-4.3	--	--	--	--	3.5
Hudson Bay Fund*	--	--	--	--	--	--
Total Hedge Funds	**4.6**	**7.8**	**4.7**	**6.3**	**--**	**4.7**
Index: Hedge Fund Custom	***3.7***	***5.0***	***3.3***	***4.1***	***--***	***--***
Total Fund***	**7.9**	**8.5**	**7.5**	**8.5**	**8.1**	**8.1**
Total Fund Custom Index***	**7.2**	**8.8**	**6.9**	**8.3**	**--**	**--**

*There is no fiscal year data available; MercedCERA has been in the fund for less than a year.

**Performance results lag by a up to a quarter due to financial reporting constraints.

***Using time-weighted rate of return based on market rate return and are presented gross of fees.

Top 10 Largest Holdings by Fair Value
June 30, 2023

PAR	Bonds		Fair Value
65,080	GSAMP 2006-HE6 CL A-3	DI 09/14/2006 DD 08-25-2036	$51,183
47,324	CARRINGTON MTG LN	DI 08/10/2006 DD 08-25-2036	44,485
80,886	OWNIT MTG LN	DI 09/28/2006 DD 09-25-2037	38,713
61,803	CMO BEAR STEARNS	DI 06/01/2006 DD 07-25-2036	28,005
34,835	CMO MERRILL LYNCH	DI 03/01/2006 DD 03-25-2036	21,500
20,334	CMO NOMURA AST ACCEP CORP	DI 06/29/2007 DD 06-25-2037	17,112
16,794	PVTPL CMO GS MTG SECS CORP	DI 10/25/2004 DD 06-25-2034	14,704
10,620	PVTPL CMO INDYMAC ABS INC	DI 06/14/2005 DD 06-25-2038	7,503
8,503	CMO WAMU MTG	DI 08/01/2006 DD 09-25-2036	7,252
7,170	CMO CITIGROUP MTG	DI 02/01/2006 DD 03-25-2036	6,582
			$237,039

A complete list of portfolio holdings is available upon request.

Schedules of Investment Management Fees
For the Fiscal Years Ended June 30, 2023 and 2022

Investment Managers' Fees	2023 Assets Managed	2023 Fees	2022 Assets Managed	2022 Fees
Equity Managers				
Domestic	$237,131,866	$220,104	$211,862,277	$427,769
International	28,405,536	218,380	24,488,174	354,375
Fixed Income Managers	83,907,002	154,285	77,152,285	226,669
Alternative Investment Managers	35,712,890	620,528	41,982,717	500,998
Real Estate Managers	32,997,738	410,936	37,983,455	405,414
Total Investment Manager Fees and Assets Managed	$418,155,032	$1,624,233	$393,468,908	$1,915,225

Investment Service Providers	
Fixed Income	**Private Equity**
Brandywine	Accel-KKR
GoldenTree Asset Management LP	Adams Street Partners, LLC
Payden & Rygel	Carrick Capital Management Company
PIMCO Investment Management	Cortec Group
Vanguard	Cressey & Company LP
Wellington	Davidson Kempner Capital Management LP
	Genstar Capital
Domestic Equity	GTCR LLC
Champlain Investment Partners	Invesco Private Capital
Mellon Capital Management	Khosla Ventures
	Marlin Equity Partners
International Equity	Nautic Partners
Acadian Asset Management	Ocean Avenue Capital Partners
Artisan	Pantheon Ventures, Inc.
Driehaus Capital Management	Raven Capital Management
First Eagle	Spark Capital
GQG	Summit Partners
RWC	Technology Crossover Ventures (TCV)
	Thoma Bravo, LP
Real Estate	Threshold Ventures
Angelo Gordon	
The Carlyle Group	**Hedge Fund**
Carmel Partners, Inc	Caxton Associates LP
Cerberus Capital Management	Graham Capital Management
Greenfield Partners	Hudson Bay
Patron Capital	Laurion Capital Management, LLP
Rockpoint Group	Marshall Wace, LLP
Starwood Capital Group	Sculptor Capital
Taconic Capital Advisors LP	Silver Point Capital, L.P.
UBS Global Asset Management	Taconic Capital Advisors LP
Vanguard	Wellington Alternative Investments

Continued on next page.

Investment Service Providers (Continued)	
Natural Resources	**Infrastructure**
BlackRock , Inc	Ardian
Carnelian Energy Capital	I Squared Capital
EnCap Investments L.P.	KKR & Co. L.P.
GSO Energy Select Opportunities Associates, LLC	Morgan Stanley
Tailwater	
Taurus Funds Management	**Proxy Fund**
	SSgA
Direct Lending	
Accel KKR	**Commission Recapture Brokers**
Angelo Gordon	ConvergEx Group
Ares	Capital Institutional Services, Inc.
Silver Point Capital	
Taconic Capital Advisors, LP	
Varagon Capital	

Actuarial Section

Classic Values, Innovative Advice

Via Electronic Mail

November 20, 2023

Actuarial Certification

This is the Actuary's Certification Letter for the Actuarial Section of the Annual Comprehensive Financial Report (ACFR) for the Merced County Employees' Retirement Association (the Plan) as of June 30, 2023. This letter includes references to two documents produced by Cheiron for the Plan: the Actuarial Valuation Report as of June 30, 2022 (transmitted February 16, 2023) and the GASB 67/68 Report as of June 30, 2023 (transmitted November 17, 2023).

Actuarial Valuation Report as of June 30, 2022

The purpose of the annual Actuarial Valuation Report as of June 30, 2022 is to determine the actuarial funding status of the Plan on that date and to calculate recommended contribution rates for the participating employers and Plan members for the Fiscal Year 2023-2024. The prior review of Plan member and employer rates was conducted as of June 30, 2021 and included recommended contribution rates for the Fiscal Year 2022-2023.

The funding objective of the Plan is to accumulate sufficient assets over each Member's working life to provide for Plan benefits after termination of employment or retirement. The Board of Retirement is responsible for establishing and maintaining the funding policy of the Plan.

Actuarial funding is based on the Entry Age Normal Cost Method. Under this method, the employer contribution rate provides for current cost (normal cost and expected administrative expenses) plus a level percentage of payroll to amortize the Unfunded Actuarial Liability (UAL). Based on an action taken by the Board at their September 10, 2020 meeting, effective with the June 30, 2019 valuation, 15% of the outstanding balance as of June 30, 2019 of the June 30, 2013 UAL amortization base is carved out as a separate base and amortized over a closed 14-year period as a level percentage of payroll. The remaining 85% is amortized over a closed 14-year period, with 10 years of level payments as a percentage of payroll, and a four-year ramp down at the end of the period.

For the June 30, 2014 valuation, the Board of Retirement adopted a new funding policy for any subsequent unexpected change in the UAL after June 30, 2013. Any new sources of UAL due to actuarial gains and losses or method changes are amortized over a closed 24-year period, with a five-year ramp up period at the beginning of the period, a four-year ramp down at the end of the period, and 15 years of level payments as a percentage of payroll between the ramping periods. Assumption changes will be amortized over a closed 22-year period, with a three-year ramp up period, two-year ramp down period, and 17 years of level payments as a percentage of payroll.

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The Board also adopted a policy to replace the smoothed Actuarial Value of Assets with the Market Value of Assets for valuation purposes. These new amortization and funding policies in conjunction are a type of policy known as direct rate smoothing.

We prepared the following schedules, which we understand will be included in the Actuarial Section of the ACFR, based on the June 30, 2022 actuarial valuation. All historical information prior to the June 30, 2013 actuarial valuation shown in these schedules is based on information reported by EFI Actuaries, which was acquired by Cheiron in January 2013.

- Statement of Current Actuarial Assumptions and Methods
- Schedule of Active Member Valuation Data
- Schedule of Retirees and Beneficiaries Added to and Removed from Rolls
- Development of 2022 Experience Gain/(Loss) (Analysis of Financial Experience)
- Schedule of Funded Liabilities by Type
- Summary of Plan Provisions

The assumptions and methods used in this report reflect the results of an experience study performed by Cheiron covering the period from July 1, 2019 through June 30, 2022 and adopted by the Board at their December 8, 2022 meeting. The assumptions used in the most recent valuation are intended to produce results that, in the aggregate, reasonably approximate the anticipated future experience of the Plan. The next experience analysis will cover the years through 2025.

We certify that the valuation was performed in accordance with generally accepted actuarial principles and practices. In particular, the assumptions and methods used for funding purposes meet the requirements of the Actuarial Standards of Practice, in particular Standards No. 4, 27, 35, and 44.

GASB 67/68 Report as of June 30, 2023

The purpose of the GASB 67/68 Report as of June 30, 2023 is to provide accounting and financial reporting information under GASB 67 for the Plan and under GASB 68 for the County of Merced and the other participating employers. This report is not appropriate for other purposes, including the measurement of funding requirements for the Plan.

For financial reporting purposes, the Total Pension Liability is based on the June 30, 2022 actuarial valuation updated to the measurement date of June 30, 2023. The beginning of year Total Pension Liability was based on the actuarial valuation as of June 30, 2021, updated to June 30, 2022. The Total Pension Liability measurements as of June 30, 2023 and June 30, 2022 presented in the GASB 67/68 Report were based upon the same data, plan provisions, actuarial methods, and assumptions as were used in the actuarial valuation reports as of June 30, 2022 and June 30, 2021, respectively, with the exception being adoption of the assumption changes recommended in the Actuarial Experience Study for the period ending June 30, 2022 for the Total Pension Liability measurement as of June 30, 2023.

Please refer to our GASB 67 report as of June 30, 2023, for additional information related to the financial reporting of the System.

We prepared the following schedules for inclusion in the Financial Section of the ACFR based on the June 30, 2023 GASB 67/68 report:

- Change in Net Pension Liability
- Sensitivity of Net Pension Liability to Changes in Discount Rate
- Schedule of Changes in Net Pension Liability and Related Ratios
- Schedule of Employer Contributions
- Notes to the Schedule of Employer Contributions

We certify that the report was performed in accordance with generally 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. In particular, the assumptions and methods used for disclosure purposes have been prepared in accordance with our understanding of generally accepted accounting principles as promulgated by the GASB.

Disclaimers

In preparing our reports, we relied on information (some oral and some written) supplied by the Merced County Employees' Retirement Association. This information includes, but is not limited to, the 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.

Future actuarial measurements may differ significantly from the current measurements due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions; changes in economic or demographic assumptions; and, changes in plan provisions or applicable law.

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 and have a basic understanding of it and have used ProVal 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.

These reports are for the use of the Plan and their auditor in preparing financial reports in accordance with applicable law and accounting requirements. Any other user of these reports is not an intended user and is considered a third party.

Cheiron's reports were prepared solely for the Plan for the purposes described herein, except that the Plan auditor may rely on these reports solely for the purpose of completing an audit related to the matters herein. They are not intended to benefit any third party, and Cheiron assumes no duty or liability to any such party.

We are members of the American Academy of Actuaries and meet the Qualification Standards to render the actuarial opinion contained herein.

These reports do not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

Respectfully Submitted,
Cheiron

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A. Economic Assumptions

The following economic assumptions and non-economic assumptions were recommended by the actuary and adopted by the Board of Retirement as of the most recent actuarial valuation (dated June 30, 2022):

Investment Rate of Return	6.75%, net investment and administrative expenses
Inflation	2.75% per annum
Cost-of-Living Adjustments	For Tier 1, 100% of Consumer Price Index (CPI) up to 3% annually with banking, assumed to be 2.40% annually
Asset Valuation Method	Market Value of Assets
Interest Credited to Active Members' Reserves	Pursuant to MercedCERA Interest Crediting Policy, adopted September 14, 2017, interest will fall within a range from 0% to the actuarial interest rate
Projected Annual Salary Increases	2.75%, plus service-based rates

B. Non-Economic Assumptions

The date of the last study of the Plan's actual experience was June 30, 2022. The actuary compared the expected number of terminations from active service to the number actually experienced during a 3-year period and based on this comparison and the trends observed; the probabilities of separation were adjusted.

Mortality Tables Used:

1. ***Active Members***

General Members	CalPERS 2021 Non-Industrial Employees Mortality Table; projected generationally using SOA MP-2020 mortality improvement scale.
Safety Members	2010 Public Safety Below Median Employee Mortality Table; projected generationally using SOA MP-2020 mortality improvement scale.
Safety Members (Line of Duty)	CalPERS 2021 Industrial Employees Mortality Table; projected generationally using SOA MP-2020 mortality improvement scale.

2. ***Service Retirements***

General Members	1.05 times the CalPERS 2021 Healthy Annuitant Mortality Table; projected generationally using MP-2020 mortality improvement scale.
Safety Members	1.05% times the 2010 Public Safety Below Median Healthy Retiree Mortality Table; projected generationally using MP-2020 mortality improvement scale.

3. ***Disability***

Service Connected	CalPERS 2021 Industrial Disability Mortality Table; projected generationally using MP-2020 mortality improvement scale.
Non-Service Connected	CalPERS 2021 Non-Industrial Disability Mortality Table; projected generationally using MP-2020 mortality improvement scale.

4. ***For employee contribution rate purposes***

Same as for active members, except projected using Scale MP-2020 to 2043.

Withdrawal Rates	Based upon the Experience Analysis as of 6/30/2022 (See Appendix B of 6/30/2022 Actuarial Valuation Report — Statement of Current Actuarial Assumptions.)
Disability Rates	Based upon the Experience Analysis as of 6/30/2022 (See Appendix B of 6/30/2022 Actuarial Valuation Report — Statement of Current Actuarial Assumptions.)
Service Retirement Rates	Based upon the Experience Analysis as of 6/30/2022 (See Appendix B of 6/30/2022 Actuarial Valuation Report — Statement of Current Actuarial Assumptions.)
Vested Termination	Rates of vested termination apply to active members who terminate their employment after five years of service and leave their contribution with the plan. Vested terminated General members are assumed to begin receiving benefits at 60; terminated Safety members are assumed to begin receiving benefits at age 50. Future reciprocal transfer General members are assumed to begin receiving benefits at age 61; future reciprocal transfer Safety members are assumed to begin receiving benefits at age 55. Current reciprocal transfer members are assumed to begin receiving benefits based on the probabilities of retirement applied to the active members. Future reciprocal transfers' pay growth is assumed to be 3.75% for General members and 4.00% for Safety members while employed by a reciprocal employer. Current reciprocal transfers' pay growth is assumed to increase according to the assumptions applied to the active members until the assumed retirement age.
Family Composition	55% of female General members, 75% of male General members and 80% of Safety members are assumed to be married at retirement. Male members are assumed to be three years older than their spouses and female members are assumed to be two years younger than their spouses.

C. Funding Method

The Entry Age Normal actuarial funding method was used for active employees, whereby the normal cost is computed as the level annual percentage of pay required to fund the retirement benefits between each member's date of hire and assumed retirement. The Actuarial Liability is the difference between the Present Value of Future Benefits and the Present Value of Future Normal Cost. The Unfunded Actuarial Liability (UAL) is the difference between the Actuarial Liability and the Actuarial Value of Assets.

The UAL (or Surplus Funding) is amortized as a percentage of the projected salaries of present and future members of MercedCERA.

- Effective with the June 30, 2013 valuation, the UAL as of June 30, 2013 is amortized over a closed 16-year period. Effective with the June 30, 2019 valuation, 15% of the outstanding balance as of June 30, 2019 of the June 30, 2013 UAL amortization base is carved out as a separate base and amortized over a closed 14-year period as a level percentage of payroll. The remaining 85% is amortized over a closed 14-year period, with 10 years of level payments as a percentage of payroll, and a four-year ramp down at the end of the period.
- Effective with the June 30, 2014 valuation, any new sources of UAL due to actuarial gains and losses or method changes is amortized over a closed 24-year period, with five-year ramp up period at the beginning of the period, a four-year ramp down at the end of the period, and 15 years of level payments as a percentage of payroll.
- Assumption changes will be amortized over a closed 22-year period, with a three-year ramp up period, two-year ramp down period, and 17 years of level payments as a percentage of payroll. This method is a type of direct rate smoothing method.

D. Plan Description

A summary of plan provisions is located in Note 1 of the **NOTES TO BASIC FINANCIAL STATEMENTS.**

GENERAL MEMBERS

Age	Service-Connected Disability	Non-Service-Connected Disability
20	0.0135%	0.0135%
25	0.0136%	0.0136%
30	0.0182%	0.0182%
35	0.0331%	0.0331%
40	0.0678%	0.0678%
45	0.1325%	0.1325%
50	0.1822%	0.1822%
55	0.1380%	0.1380%
60	0.1134%	0.1134%
65	0.1390%	0.1390%

Service (Yrs)	Withdrawals	Transfers	Vested Terminations
0-4	92.50%	7.50%	0.00%
5-9	30.00%	35.00%	35.00%
10-14	20.00%	40.00%	40.00%
15+	5.00%	47.50%	47.50%

Service Retirement (by Service)					
	Non-PEPRA			PEPRA	
Age	<20 Yrs	20-29 Yrs	30+ Yrs	5-19 Yrs	20+ Yrs
50	10.00%	12.50%	15.00%	0.00%	0.00%
55	10.00%	12.50%	30.00%	10.00%	10.00%
60	20.00%	25.00%	30.00%	10.00%	15.00%
65	35.00%	35.00%	35.00%	10.00%	15.00%

SAFETY MEMBERS

Age	Service-Connected Disability	Non-Service-Connected Disability
20	0.0420%	0.0090%
25	0.1310%	0.0090%
30	0.2490%	0.0110%
35	0.3700%	0.0340%
40	0.5130%	0.0590%
45	0.6720%	0.1120%
50	0.9190%	0.1600%
55	1.5050%	0.0850%
60	1.7400%	0.0510%
65	2.0930%	0.0510%

Service (Yrs)	Withdrawals	Transfers	Vested Terminations
0-4	95.00%	5.00%	0.0%
5-9	30.00%	52.50%	17.50%
10+	15.00%	63.75%	21.25%

Active Member Mortality		
Age	Female	Male
20	0.0213%	0.0513%
30	0.0505%	0.0790%
40	0.0812%	0.1614%
50	0.1246%	0.1614%
60	0.2538%	0.3859%

Service Retirement (by Service)		
Age	<20 Yrs	20+ Yrs
40	0.00%	1.50%
45	0.00%	1.50%
50	15.00%	25.00%
55	25.00%	25.00%
60	25.00%	25.00%

RATES OF TERMINATION

Years of Service	General	Safety	Years of Service	General	Safety
0	22.50%	21.00%	20	4.00%	0.00%
5	9.00%	6.50%	25	4.00%	0.00%
10	5.50%	4.75%	30	0.00%	0.00%
15	4.00%	3.50%			

Note: Information compiled from Actuarial Report Prepared by Cheiron, Inc. dated June 30, 2022

Valuation Date	Plan Type	Number	Annual Salary	Average Annual Salary	% Increase in Average Annual Salary
6/30/2013	General	1,604	$91,737,348	$57,193	0.63%
	Safety	295	$18,699,145	$63,387	0.98%
	Total	1,899	$110,436,493	$58,155	0.64%
6/30/2014	General	1,624	$91,704,083	$56,468	-1.27%
	Safety	300	$18,620,870	$62,070	-2.08%
	Total	1,924	$110,324,953	$57,341	-1.40%
6/30/2015	General	1,664	$93,938,857	$56,454	-0.03%
	Safety	298	$18,397,233	$61,736	-0.54%
	Total	1,962	$112,336,090	$57,256	-0.15%
6/30/2016	General	1,729	$97,337,917	$56,297	-0.28%
	Safety	311	$19,394,922	$62,363	1.02%
	Total	2,040	$116,732,839	$57,222	-0.06%
6/30/2017	General	1,783	$102,498,328	$57,486	2.11%
	Safety	313	$20,136,323	$64,333	3.16%
	Total	2,096	$122,634,651	$58,509	2.25%
6/30/2018	General	1,827	$108,067,248	$59,150	2.89%
	Safety	322	$22,018,174	$68,379	6.29%
	Total	2,149	$130,085,422	$60,533	3.46%
6/30/2019	General	1,861	$111,267,187	$59,789	1.08%
	Safety	316	$22,498,224	$71,197	4.12%
	Total	2,177	$133,765,411	$61,445	1.51%
6/30/2020	General	1,828	$112,315,867	$61,442	2.76%
	Safety	321	$22,982,055	$71,595	0.56%
	Total	2,149	$135,297,922	$62,959	2.46%
6/30/2021	General	1,799	$116,284,193	$64,638	5.20%
	Safety	319	$23,871,550	$74,832	4.52%
	Total	2,118	$140,155,743	$66,174	5.11%
6/30/2022	General	1,842	$120,774,476	$65,567	1.44%
	Safety	325	$25,176,047	$77,465	3.52%
	Total	2,167	$145,950,523	$67,351	1.78%

Note: Information compiled from Actuarial Report prepared by Cheiron, Inc. dated June 30, 2022. The data differs from the membership data in the notes to the financial statements due to timing differences and actuary changes in rounding of data.

Schedule of Retirements and Beneficiaries Added to and Removed from Retiree Payroll For Fiscal Years Ended June 30									
Year	Beginning of Year	Added During Year	Allowances Added ($000)	Removed During Year	Allowances Removed ($000)	End of Year	Retiree Payroll ($000)	% Increase in Retiree Payroll	Average Annual Allowances
2013	1,996	103	$3,029	49	$856	2,050	$56,048	5.98%	$27,340
2014	2,050	116	$3,950	31	$591	2,135	$60,297	7.58%	$28,242
2015	2,135	100	$2,509	35	$720	2,200	$63,254	4.90%	$28,752
2016	2,200	68	$1,716	34	$946	2,234	$65,506	3.56%	$29,322
2017	2,234	85	$2,283	56	$1,023	2,263	$68,476	4.53%	$30,259
2018	2,263	120	$3,617	73	$1,672	2,310	$72,003	5.15%	$31,170
2019	2,310	141	$4,908	78	$1,805	2,373	$76,949	6.87%	$32,427
2020	2,373	126	$4,590	66	$1,555	2,433	$81,827	6.34%	$33,632
2021	2,433	117	$3,954	84	$2,671	2,466	$84,975	3.85%	$34,459
2022	2,466	144	$4,842	87	$2,714	2,523	$88,407	4.04%	$35,040

Note: The data differs from the membership data in the notes to the basic financial statements due to timing differences and rounding of data.

Schedule of Funded Liabilities by Type For Fiscal Years Ended June 30 (Dollar Amounts in Thousands)								
	Actuarial Accrued Liabilities (AAL) For					Portion of Accrued Liabilities Covered by Reported Assets		
	1	2	3					
Valuation Date	Active Member Contributions	Retirees and Beneficiaries	Active Members Employer Portion	Total Actuarial Accrued Liabilities	Valuation Assets	1	2	3
2013	$73,311	$694,137	$297,850	$1,065,298	$547,264	100%	68%	0%
2014	$75,582	$739,428	$281,231	$1,096,241	$657,325	100%	79%	0%
2015	$78,078	$765,738	$287,365	$1,131,181	$672,319	100%	78%	0%
2016	$81,880	$804,658	$314,657	$1,201,195	$670,016	100%	73%	0%
2017	$85,150	$834,643	$339,909	$1,259,702	$753,769	100%	80%	0%
2018	$86,585	$871,095	$344,239	$1,301,919	$826,654	100%	85%	0%
2019	$86,356	$932,909	$350,930	$1,370,195	$866,503	100%	84%	0%
2020	$84,767	$986,071	$342,043	$1,412,881	$919,815	100%	85%	0%
2021	$88,147	$1,038,307	$364,778	$1,491,232	$1,163,254	100%	100%	10%
2022	$89,217	$1,071,129	$368,988	$1,529,334	$1,064,441	100%	91%	0%

Note: Information compiled from Actuarial Report prepared by Cheiron, Inc. dated June 30, 2022.

Actuarial Analysis of Financial Experience
For Fiscal Years Ended June 30
(Dollar Amounts in Thousands)

Actuarial (Gains)/Losses				Changes in Plan Provisions	Changes in Assumptions/ Methods	Total (Gains)/Loss
Plan Year Ended	Asset Sources	Liability Sources	Total			
2013	$20,749	$4,199	$24,948	N/A	$49,294	$74,242
2014	$(22,058)	$(12,533)	$(34,591)	N/A	$(36,803)	$(71,394)
2015	$31,459	$(5,096)	$26,363	N/A	$7,636	$33,999
2016	$52,420	$(8,327)	$44,093	N/A	$41,488	$85,581
2017	$(34,498)	$2,720	$(31,778)	N/A	$18,639	$(13,139)
2018	$(15,963)	$1,158	$(14,805)	N/A	$576	$(14,229)
2019	$20,208	$7,038	$27,246	N/A	$22,230	$49,476
2020	$3,288	$9,654	$12,942	N/A	$(8,408)	$(4,534)
2021	$189,425	$999	$190,424	N/A	$(43,792)	$146,632
2022	$(165,247)	$12,615	$(152,632)	N/A	$(14,169)	$(166,801)

Schedule of Funding Progress
For Fiscal Years Ended June 30
(Dollar Amounts in Thousands)

Actuarial Valuation Date	Valuation Assets	Actuarial Accrued Liability (AAL)	Unfunded AAL (UAAL)	Funded Ratio	Active Member Projected Payroll	Unfunded AAL as a % of Covered Payroll
2013	$547,264	$1,065,298	$518,034	51.4%	$115,983	446.6%
2014	$657,325*	$1,096,241	$438,916	60.0%	$115,939	378.6%
2015	$672,319*	$1,131,181	$458,862	59.4%	$117,822	389.5%
2016	$670,016*	$1,201,195	$531,179	55.8%	$123,018	431.8%
2017	$753,769*	$1,259,702	$505,933	59.8%	$129,624	390.3%
2018	$826,654*	$1,301,919	$475,265	63.5%	$137,668	345.2%
2019	$866,503*	$1,370,195	$503,692	63.2%	$142,328	353.9%
2020	$919,815*	$1,412,881	$493,066	65.1%	$143,992	342.4%
2021	$1,163,254*	$1,491,232	$327,978	78.0%	$145,531	225.4%
2022	$1,064,441*	$1,529,334	$464,893	69.6%	$151,900	306.1%

*Reflects change in asset valuation methodology from valuation value of assets to market value of assets effective for the 2014 actuarial valuation.

Note: Information compiled from Actuarial Report prepared by Cheiron, Inc. dated June 30, 2022.

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Statistical Section

Summary of Statistical Data

The Statistical Section presents information pertaining to MercedCERA's operations on a multi-year basis. The financial and operating information provides contextual data for MercedCERA's fiduciary net position, benefits, refunds, and different types of retirement benefits. The data presented in this section was produced and compiled by the Association.

Additions by Source

Fiscal Year Ended	Plan Member Contributions	Employer Contributions	Employer % of Covered Payroll	Net Investment Income and Other Income (Loss)	Total
6/30/2014	$ 9,642,819	$48,032,338	43.40%	$ 96,219,056	$153,894,213
6/30/2015	$ 8,945,316	$52,005,656	47.22%	$ 19,318,849	$ 80,269,821
6/30/2016	$ 9,042,663	$56,617,088	49.50%	$ (388,209)	$ 65,271,542
6/30/2017	$ 9,384,621	$60,349,189	50.45%	$ 83,097,416	$152,831,226
6/30/2018	$10,441,876	$64,757,288	51.11%	$ 70,689,084	$145,888,248
6/30/2019	$10,695,680	$66,586,464	50.69%	$ 39,728,950	$117,011,094
6/30/2020	$10,796,855	$67,413,475	49.71%	$ 57,232,017	$135,442,347
6/30/2021	$11,895,243	$64,512,161	46.90%	$253,466,527	$329,873,931
6/30/2022	$12,124,583	$65,629,994	46.37%	$(87,115,891)	$ (9,361,314)
6/30/2023	$13,445,557	$68,648,166	45.77%	$ 83,417,442	$165,511,165

Deductions by Type

Fiscal Year Ended	Benefits Paid	Administrative Expenses	Actuarial Expense	Refunds of Contributions	Total
6/30/2014	$57,338,930	$1,434,671	$ 112,676	$ 703,091	$59,589,368
6/30/2015	$61,780,089	$2,197,281	$ 126,165	$ 1,171,835	$65,275,370
6/30/2016	$63,928,672	$2,416,563	$ 76,121	$ 1,153,731	$67,575,087
6/30/2017	$66,116,108	$1,966,898	$ 206,509	$ 788,207	$69,077,722
6/30/2018	$69,836,223	$2,177,186	$ 106,210	$ 883,987	$73,003,606
6/30/2019	$74,238,692	$2,271,779	$ 79,326	$ 571,983	$77,161,780
6/30/2020	$78,755,515	$2,253,113	$ 211,784	$ 910,147	$82,130,559
6/30/2021	$82,836,595	$2,494,246	$ 126,833	$ 977,485	$86,435,159
6/30/2022	$85,912,580	$2,522,797	$ 120,292	$ 896,116	$89,451,785
6/30/2023	$90,585,672	$2,789,967	$ 232,010	$ 1,262,876	$94,870,525

(Dollars in Thousands)

	6/30/2023	6/30/2022	6/30/2021	6/30/2020	6/30/2019
Additions					
Plan members contributions	$13,446	$12,124	$11,895	$10,797	$10,696
Employer contributions	68,648	65,630	64,512	67,413	66,586
Net investment income/(loss)	83,417	(87,115)	253,467	57,232	39,729
Total additions	165,511	(9,361)	329,874	135,442	117,011
Deductions					
Benefits paid	90,586	85,913	82,837	78,755	74,239
Administrative expenses	1,263	2,523	2,494	2,253	2,272
Actuarial expenses	2,790	120	127	212	79
Refunds	232	896	977	910	572
Total deductions	94,871	89,452	86,435	82,130	77,162
Change in fiduciary net position	70,640	(98,813)	243,439	53,312	39,849
Net position restricted for pensions at beginning of the year	1,064,441	1,163,254	919,815	866,503	826,654
Net position restricted for pensions at end of the year	$1,135,081	$1,064,441	$1,163,254	$919,815	$866,503

	6/30/2018	6/30/2017	6/30/2016	6/30/2015	6/30/2014
Additions					
Plan members contributions	$10,442	$9,385	$9,043	$8,945	$9,643
Employer contributions	64,757	60,349	56,617	52,005	48,032
Net investment income/(loss)	70,689	83,097	(388)	19,319	96,219
Total additions	145,888	152,831	65,272	80,269	153,894
Deductions					
Benefits paid	69,836	66,116	63,929	61,780	57,339
Administrative expenses	2,177	1,966	2,417	2,197	1,435
Actuarial expenses	106	207	76	126	112
Refunds	884	788	1,154	1,172	703
Total deductions	73,003	69,077	67,576	65,275	59,589
Change in fiduciary net position	72,885	83,754	(2,304)	14,994	94,305
Net position restricted for pensions at beginning of the year	753,769	670,015	672,319	657,325	563,020
Net position restricted for pensions at end of the year	$826,654	$753,769	$670,015	$672,319	$657,325

Schedules of Benefit Expenses by Type
(Amount in Thousands of Dollars)

	2023*	2022*	2021*	2020*	2019*	2018*	2017*	2016*	2015*	2014
Service Retirement										
General	$65,945	$62,724	$60,682	$57,652	$54,136	$50,551	$47,522	$46,126	$44,722	$41,442
Safety	12,880	11,837	10,993	10,006	9,336	8,652	8,059	7,761	7,854	7,196
Total	$78,825	$74,561	$71,675	$67,658	$63,472	$59,203	$55,581	$53,887	$52,576	$48,638
Disability Retirement										
General	$2,136	$2,234	$2,071	$2,141	$2,139	$2,032	$2,117	$1,953	$1,842	$2,600
Safety	3,148	3,133	3,210	3,182	3,100	2,976	2,759	2,604	2,623	3,005
Total	$5,284	$5,367	$5,281	$5,323	$5,239	$5,008	$4,876	$4,557	$4,465	$5,605
Beneficiary/Survivor										
General	$4,645	$4,577	$4,210	$3,915	$3,786	$3,808	$3,767	$3,667	$3,327	$2,346
Safety	1,271	1,147	1,506	1,575	1,608	1,627	1,729	1,650	1,258	610
Total	$5,916	$5,724	$5,716	$5,490	$5,394	$5,435	$5,496	$5,317	$4,585	$2,956
Total Payroll Expense										
General	$72,726	$69,535	$66,963	$63,708	$60,061	$56,391	$53,406	$51,746	$49,891	$46,387
Safety	17,299	16,117	15,709	14,763	14,044	13,255	12,547	12,015	11,735	10,811
Total	$90,025	$85,652	$82,672	$78,471	$74,105	$69,646	$65,953	$63,761	$61,626	$57,198
Death Benefits										
General	$257	$213	$149	$128	$99	$102	$111	$129	$84	$96
Safety	9	15	15	3	24	18	12	15	18	18
Total	$266	$228	$164	$131	$123	$120	$123	$144	$102	$114
Separation Refund Expense										
General	$921	$689	$868	$680	$446	$643	$674	$978	$1,033	$582
Safety	342	207	109	230	126	241	114	176	139	121
Total	$1,263	$896	$977	$910	$572	$884	$788	$1,154	$1,172	$703
Active Death Expense										
General	$234	$32	$ -	$154	$11	$70	$40	$24	$51	$29
Safety	60	-	-	-	-	-	-	-	-	-
Total	$294	$32	$ -	$154	$11	$70	$40	$24	$51	$29

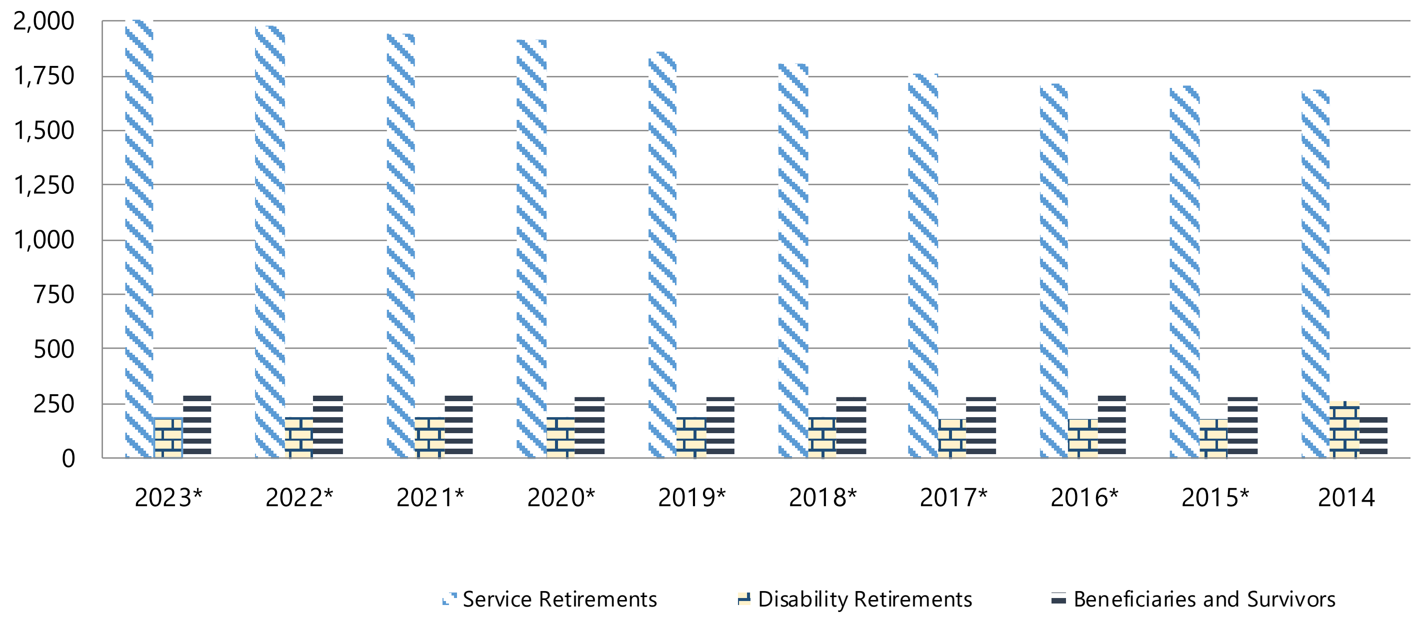
*During the 2015 fiscal year, MercedCERA converted to the CPAS System. Because of differences in handling data, beneficiaries of disability retiree decedents are now grouped with Beneficiary/Survivors.

Schedule of Retired Members by Type of Benefit
(Summary of Monthly Allowances Being Paid - As of June 30, 2023)

Type of Benefit	General Members		Safety Members		Total	
	Number	Average Monthly Allowance	Number	Average Monthly Allowance	Number	Average Monthly Allowance
Service Retirement	1,792	$3,109	237	$6,551	2,029	$3,511
Disability	92	$2,051	90	$3,121	182	$2,580
Beneficiary/Survivor	242	$1,795	59	$2,710	301	$1,975
Total Retired Members	2,126	$2,914	386	$5,164	2,512	$3,259

This schedule excludes separation refunds and death refunds.

Ten Year Structure of Retiree Membership History



	2023*	2022*	2021*	2020*	2019*	2018*	2017*	2016*	2015*	2014
Service Retirements	2,029	1,975	1,943	1,911	1,859	1,806	1,757	1,713	1,706	1,685
Disability Retirements	182	186	186	191	188	185	183	184	180	260
Beneficiaries and Survivors	301	286	286	281	284	283	285	286	276	187
Total	2,512	2,447	2,415	2,383	2,331	2,274	2,225	2,183	2,162	2,132

*During the 2014-2015 fiscal year, MercedCERA converted to the CPAS system. Beneficiaries of disability retirees are no longer classified as disability retirements for statistical purposes. This has resulted in a re-proportioning of these numbers.

Summary of Retired Membership

For Fiscal Years Ended June 30 (Basic Annual and Total Annual Allowance Dollars in Thousands)

	2023*	2022*	2021*	2020*	2019*	2018*	2017*	2016*	2015*	2014
General										
Number	2,126	2,087	2,045	2,029	1,987	1,937	1,895	1,860	1,848	1,810
Basic annual allowance	$55,158	$53,103	$51,416	$49,178	$46,562	$43,874	$41,930	$41,265	$40,316	$37,646
Average basic monthly allowance	$2,162	$2,120	$2,095	$2,020	$1,953	$1,888	$1,844	$1,849	$1,818	$1,733
Total annual allowance**	$72,726	$69,535	$66,963	$63,708	$60,061	$56,391	$53,406	$51,746	$49,891	$46,387
Average total monthly allowance	$2,851	$2,777	$2,729	$2,617	$2,519	$2,426	$2,349	$2,318	$2,250	$2,136
Safety										
Number	386	378	370	354	344	337	330	323	314	322
Basic annual allowance	$12,215	$11,496	$11,313	$10,724	$10,302	$9,783	$9,347	$9,086	$8,996	$8,279
Average basic monthly allowance	$2,637	$2,534	$2,548	$2,524	$2,496	$2,419	$2,360	$2,344	$2,387	$2,143
Total annual allowance**	$17,299	$16,117	$15,709	$14,763	$14,044	$13,255	$12,547	$12,015	$11,735	$10,811
Average total monthly allowance	$3,735	$3,553	$3,538	$3,475	$3,402	$3,278	$3,168	$3,100	$3,114	$2,798
Total										
Number	2,526	2,467	2,415	2,383	2,331	2,274	2,225	2,183	2,162	2,132
Basic annual allowance	$67,373	$64,599	$62,728	$59,902	$56,864	$53,657	$51,277	$50,351	$49,312	$45,925
Average basic monthly allowance	$2,235	$2,184	$2,165	$2,095	$2,033	$1,966	$1,920	$1,922	$1,901	$1,795
Total annual allowance**	$90,025	$85,652	$82,672	$78,471	$74,105	$69,646	$65,953	$63,761	$61,626	$57,198
Average total monthly allowance	$2,987	$2,896	$2,853	$2,744	$2,649	$2,552	$2,470	$2,434	$2,375	$2,236

*As of 2015, divorcees will be excluded from membership data as they are technically not members and only represent a party to a single split benefit.

**Total Annual Allowance includes COLA, and partial monthly payment/one-time catch up payment. This excludes death refunds, lump sum death benefits and separation refunds.

Schedule of Retired Members by Type of Retirement
As of June 30, 2023

		Type of Retirement*							Option Selected**					
Amount of Monthly Benefit	**Number of Members**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**U**	**1**	**2**	**3**	**4**	**SD**
General Members														
$1 - $999	518	167	241	78	9	1	5	17	382	28	81	16	-	9
$1,000 - $1,999	544	176	257	56	5	14	29	7	446	9	65	17	2	5
$2,000 - $2,999	354	155	130	24	2	27	6	10	300	5	37	9	1	2
$3,000 - $3,999	224	88	117	14	1	4	-	-	193	7	17	5	1	1
$4,000 - $4,999	141	70	61	4	-	6	-	-	125	4	10	2	-	-
$5,000 - $5,999	109	48	59	2	-	-	-	-	92	4	9	3	1	-
$6,000 - $6,999	69	24	44	1	-	-	-	-	60	3	5	1	-	-
$7,000 - $7,999	53	21	25	7	-	-	-	-	43	1	7	2	-	-
$8,000 - $8,999	23	9	13	1	-	-	-	-	20	1	1	-	1	-
$9,000 - $9,999	18	10	7	1	-	-	-	-	14	1	2	-	1	-
$10,000 & over	73	34	36	3	-	-	-	-	59	3	11	-	-	-
Totals	2,126	802	990	191	17	52	40	34	1,734	66	245	55	7	17
Safety Members														
$1 - $999	39	21	1	2	2	12	-	1	23	4	9	1	-	2
$1,000 - $1,999	56	29	3	14	1	8	1	-	42	1	11	1	-	1
$2,000 - $2,999	80	42	6	6	1	20	1	4	65	1	11	2	-	1
$3,000 - $3,999	83	27	4	9	2	33	-	8	72	-	7	-	1	2
$4,000 - $4,999	44	27	4	5	-	6	-	2	37	-	5	-	2	-
$5,000 - $5,999	27	17	5	-	-	4	-	1	21	2	3	1	-	-
$6,000 - $6,999	18	15	1	-	-	1	-	1	14	-	2	1	1	-
$7,000 - $7,999	11	9	1	-	-	1	-	-	11	-	-	-	-	-
$8,000 - $8,999	7	6	-	-	-	1	-	-	6	-	-	1	-	-
$9,000 - $9,999	7	6	-	-	-	1	-	-	6	-	-	1	-	-
$10,000 & over	14	11	2	-	-	1	-	-	12	-	2	-	-	-
Totals	386	210	27	36	6	88	2	17	309	8	50	8	4	6
Grand Totals	**2,512**	**1,012**	**1,017**	**227**	**23**	**140**	**42**	**51**	**2,043**	**74**	**295**	**63**	**11**	**23**

*Type of Retirement:
1-Normal retirement for age and service
2-Early retirement
3-Beneficiary payment, normal or early retirement
4-Beneficiary payment, death in service
5-Service-connected disability retirement
6-Non-service-connected disability retirement
7-Beneficiary payment, disability retirement

**Option Selected:
Unmodified Plan-Beneficiary receives 60% continuance

The following options reduce the retired member's monthly benefit:
Option 1 - Beneficiary receives lump sum or member's reduced allowance
Option 2 - Beneficiary receives 100% of member's reduced allowance
Option 3 - Beneficiary receives 50% of member's reduced allowance
Option 4 - Multiple beneficiaries receive a designated percentage of a reduced allowance

The monthly benefit for the following option varies dependent upon multiple factors:
Option SD - Pre-retirement death in service

Retired Members Average Benefit Payments
Last Ten Fiscal Years

	Years of Credited Service						
Retirement Effective Dates	**0-4**	**5-9**	**10-14**	**15-19**	**20-24**	**25-29**	**30+**
Period 7/1/2022 to 6/30/2023							
Average monthly benefit	$474	$922	$2,066	$2,996	$3,735	$5,636	$4,858
Average final average salary	$9,495	$6,863	$5,983	$6,364	$5,885	$7,229	$5,200
Number of retired members	9	9	17	22	20	13	5
Period 7/1/2021 to 6/30/2022							
Average monthly benefit	$479	$1,304	$2,080	$2,598	$3,428	$4,496	$9,137
Average final average salary	$9,304	$7,231	$6,755	$5,850	$5,760	$5,778	$10,067
Number of retired members	9	12	16	12	24	14	8
Period 7/1/2020 to 6/30/2021							
Average monthly benefit	$911	$1,036	$2,001	$2,717	$3,855	$4,922	$6,069
Average final average salary	$12,131	$6,480	$5,879	$5,617	$6,175	$6,552	$6,934
Number of retired members	8	15	13	17	20	6	10
Period 7/1/2019 to 6/30/2020							
Average monthly benefit	$440	$1,195	$1,844	$3,575	$4,400	$5,481	$5,373
Average final average salary	$9,061	$6,086	$5,193	$7,592	$7,376	$7,319	$6,166
Number of retired members	6	7	24	15	25	13	9
Period 7/1/2018 to 6/30/2019							
Average monthly benefit	$473	$1,026	$1,930	$3,352	$4,144	$6,511	$6,540
Average final average salary	$7,581	$6,545	$5,392	$6,982	$6,792	$8,710	$7,142
Number of retired members	12	9	18	22	14	12	12
Period 7/1/2017 to 6/30/2018							
Average monthly benefit	$309	$1,421	$1,432	$2,240	$4,202	$4,691	$4,969
Average final average salary	$6,936	$5,742	$4,324	$4,786	$6,713	$5,943	$5,639
Number of retired members	6	19	16	21	17	11	11
Period 7/1/2016 to 6/30/2017							
Average monthly benefit	$574	$1,044	$1,852	$1,657	$3,490	$4,866	$7,294
Average final average salary	$9,068	$6,544	$5,327	$4,073	$5,618	$6,112	$8,780
Number of retired members	11	15	19	18	13	6	3
Period 7/1/2015 to 6/30/2016							
Average monthly benefit	$212	$1,273	$2,067	$3,227	$2,997	$3,724	$4,669
Average final average salary	$7,449	$5,585	$6,322	$6,299	$4,703	$4,750	$4,875
Number of retired members	8	15	19	11	4	4	2
Period 7/1/2014 to 6/30/2015							
Average monthly benefit	$448	$1,083	$1,650	$2,434	$2,981	$3,438	$8,150
Average final average salary	$7,700	$5,994	$5,007	$5,401	$5,303	$4,903	$8,849
Number of retired members	10	11	28	17	14	5	3
Period 7/1/2013 to 6/30/2014							
Average monthly benefit	$426	$1,121	$1,634	$2,714	$4,018	$5,013	$5,992
Average final average salary	$8,946	$4,750	$4,587	$5,441	$6,527	$6,566	$7,088
Number of retired members	7	17	22	16	15	13	13

Participating Employers and Active Members
Last Ten Fiscal Years Ended June 30

Participating employers	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
County of Merced										
General members	1,672	1,690	1,703	1,683	1,736	1,690	1,665	1,596	1,542	1,490
Safety members	298	326	318	321	318	320	320	311	300	298
Total County of Merced	1,970	2,016	2,021	2,004	2,054	2,010	1,985	1,907	1,842	1,788
Percentage of membership	93.45%	93.55%	94.00%	93.47%	93.96%	93.88%	93.68%	93.39%	93.65%	93.56%
Merced Cemetery District	1	1	1	1	-	1	1	1	1	1
Percentage of membership	0.05%	0.05%	0.05%	0.05%	-	0.05%	0.05%	0.05%	0.05%	0.05%
Merced County Law Library	-	1	-	-	-	-	-	-	-	-
Percentage of membership	0.00%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Merced Superior Court	137	137	128	139	132	130	133	129	118	112
Percentage of membership	6.50%	6.35%	5.95%	6.48%	6.04%	6.07%	6.28%	6.32%	6.00%	5.86%
Regional Waste Management Authority	-	-	-	-	-	-	-	5	6	10
Percentage of membership	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.24%	0.31%	0.52%
Total Active Membership										
General	1,810	1,829	1,832	1,823	1,868	1,821	1,799	1,731	1,667	1,613
Safety	298	326	318	321	318	320	320	311	300	298
Total	2,108	2,155	2,150	2,144	2,186	2,141	2,119	2,042	1,967	1,911

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MERCED CERA
Merced County Employees' Retirement Association

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MEKETA
INVESTMENT GROUP

Merced County Employees' Retirement Association

January 25, 2024

2024 Strategic Plan and November Performance

Table of Contents

2024 Strategic Investment Plan

MEKETA
INVESTMENT GROUP

2175 NW Raleigh Street
Suite 300A
Portland, OR 97210

503.226.1050
Meketa.com

MEMORANDUM

TO: MCERA Board and Staff
FROM: Meketa Investment Group
DATE: January 25, 2024
RE: 2024 Strategic Investment Plan

Approximately once a year, Meketa outlines the projects on which we expect to work closely with MCERA to complete over the next 12+ months. The Proposed 2024 Investment Program Plan, presented as Table 1 on the following page, identifies the major strategic projects and expected completion dates planned for 2024. The biggest project(s) is the strategic asset allocation review, scheduled for the first quarter of 2024. In addition, Meketa will be educating the MCERA Board on investment topics throughout the year. Meketa will also work with the Staff and Board to complete more routine tasks and projects inherent in the management of an institutional investment portfolio. Meketa welcomes any suggestions and/or modifications to the proposed projects and/or timeline.

The investment projects completed in 2023 are presented in Table 2 on page 3. Most of the work that Meketa and MCERA staff conducted directly with the Board in 2023 was reviews and education of some the underlying classes within the portfolio. Additionally, Meketa will continue to conduct on-site reviews and manager due diligence with the MCERA Board.

Table 1: Proposed 2024 Investment Program Plan

Task	Expected Completion	Comments	Status Update
Priority Projects			
2024 Capital Market Assumptions (CMAs)	1Q2024	Overview of Meketa's 2024 Capital Market Assumptions & changes made from prior year	
Strategic Asset Allocation Review	1Q2024	Assess Alternate Portfolios' risk/return profiles using the 2024 CMAs vs. current allocation	
Policy Benchmark Review	1Q2024	Review of the policy and asset class benchmarks	
Investment Beliefs	1Q 2024	Discussion with MCERA Board to outline Investment Beliefs	
Other Projects			
Educational Topics (Market outlook, OCIO overview, etc.)	2024	Various educational topics for the MCERA Board	
Active vs. Passive Education	2Q2024	Review of active management in public equities.	
Review of MCERA Fees	2Q2024	Manager rankings	
Review of OCIO Option	1Q2024	Evaluate pros/cons of OCIO structure vs. in-house CIO structure	
MCERA Manager Due Diligence Review	2024	Ongoing manager due diligence with Board presentations and Meketa on-sites; status report quarterly.	

Table 2: Investment Projects Completed in 2023

Task	Expected Completion	Comments	Status Update
Priority Projects			
2023 Capital Market Assumptions	1Q2023	Return and risk expectations given the 2023 capital market outlook	Completed
Capital Markets - Portfolio Risk Review	2Q 2023	Discussion and review of MCERA portfolio with 2023 Meketa capital market assumptions	Completed
Other Projects			
Educational Topics (Inflation, China, Fixed Income)	2023	Various educational topics for the MCERA Board (DB plan outlook, peer review, etc.)	
GQG Watch Memo	1Q2023	Review of GQG International Equity following an abrupt departure from their investment team	Completed
Silicon Valley Bank Memo	1Q2023	Summary of the Silicon Valley Bank crisis, review of potential exposure for MCERA	Completed
US Fixed Income Manager Update	2Q2023	Update on new US FI managers as result of 2022 FI manager search	Completed
GQG Update	3Q2023	6 month update of GQG International Equity	Completed
Understanding China	3Q2023	Overview of China's economic history and outlook, MCERA portfolio's exposure to the region	Completed
Macroeconomic Update	4Q2023	Summary of significant economic factors of 2023 and outlook into 2024 and beyond	Completed
Liquidity Review	Monthly	Continuous conversation with MCERA staff in regards to forward looking commitments and options within MCERA portfolio to provide liquidity	On-going

Economic and Market Update

Data as of November 30, 2023

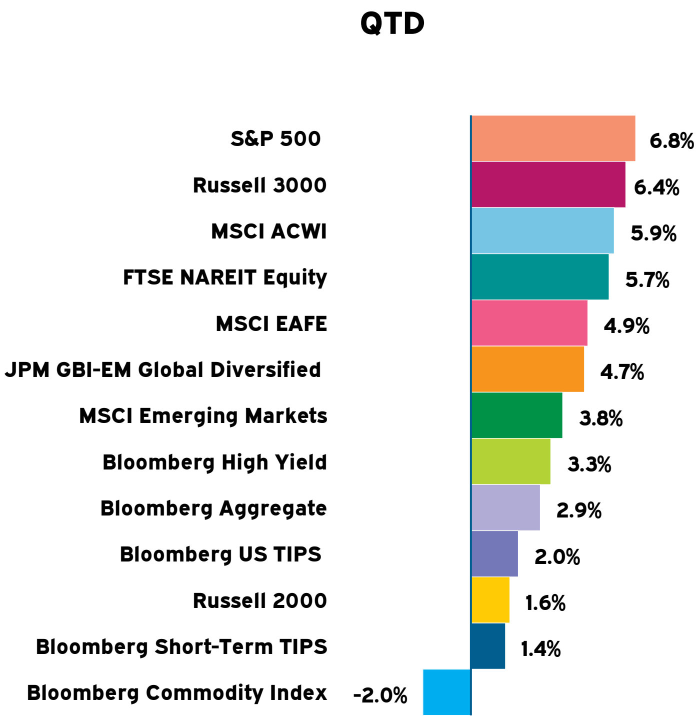
Commentary

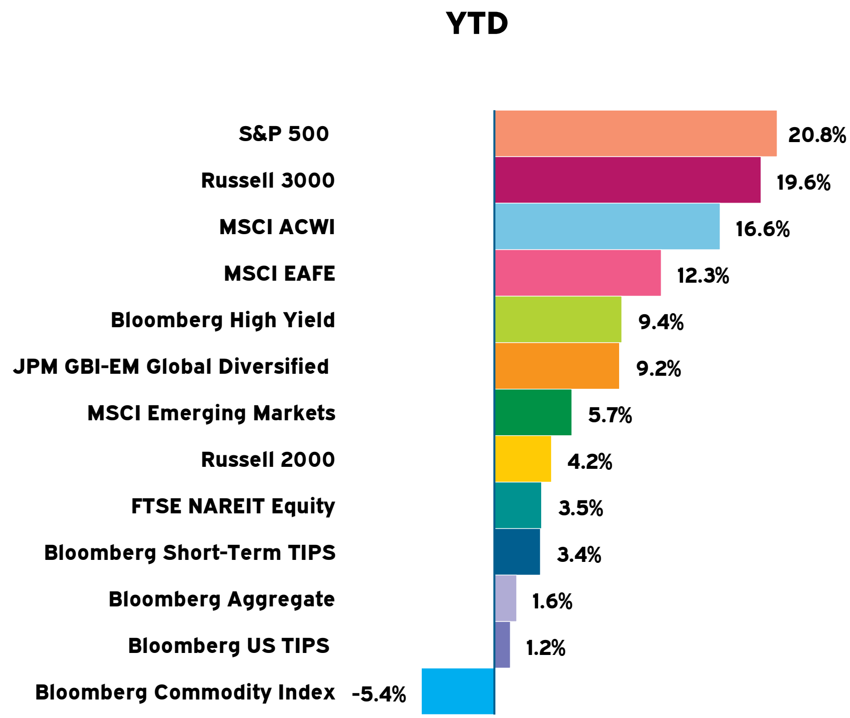
→ After a few difficult months, global markets rallied in November on improving inflation data and optimism that central banks will not take rates higher.

- Major central banks have largely paused interest rates hikes. Markets are now largely expecting the FOMC to maintain interest rates at the current levels through most of the first half of next year, with cuts to follow.
- Inflation continued to fall in November in the US and Europe while China slipped further into disinflationary territory.
- US equity markets (Russell 3000 index) posted strong gains in November (9.3%) raising year-to-date gains to 19.6%. Most sectors rallied, with more defensive sectors lagging.
- Non-US developed equity markets matched the US in November (MSCI EAFE 9.3%), with the weakening of the US dollar boosting returns. This gap between US and international developed equities for the year remains wide (19.6% versus 12.3%).
- Emerging market equities were up 8.0% in November, also helped by a weaker dollar, but they trailed developed markets due to lagging returns in China (2.5%). Emerging markets continue to significantly trail developed market equities year-to-date, returning 5.7%, again driven by China (-9.0%).
- Interest rates generally fell in November, particularly for longer-dated maturities. The broad US bond market rallied (4.5%) in November, lifting year-to-date returns into positive territory (1.6%).

→ Looking to 2024, the paths of inflation and monetary policy, slowing global growth, and the wars in Ukraine and Israel will all be key.

Index Returns[1]





→ After a weak stretch that started in July, both stocks and bonds rose in November, as declining inflation and a cooling job market sparked expectations that the Federal Reserve might really be done raising interest rates.

→ Strong results for the month led to all asset classes being in positive territory year-to-date, except commodities.

[1]Source: Bloomberg. Data is as of November 30, 2023.

Domestic Equity Returns[1]

Domestic Equity	November (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	9.1	6.8	20.8	13.8	9.8	12.5	11.8
Russell 3000	9.3	6.4	19.6	12.6	8.3	11.8	11.2
Russell 1000	9.3	6.7	20.6	13.6	8.7	12.2	11.6
Russell 1000 Growth	10.9	9.3	36.6	26.2	8.9	16.3	14.7
Russell 1000 Value	7.5	3.8	5.6	1.4	8.3	7.5	8.1
Russell MidCap	10.2	4.7	8.8	2.9	4.9	8.7	8.9
Russell MidCap Growth	12.2	6.5	17.0	10.0	0.4	10.0	10.1
Russell MidCap Value	9.4	4.0	4.6	-0.7	7.3	7.1	7.7
Russell 2000	9.1	1.6	4.2	-2.6	1.1	4.8	6.1
Russell 2000 Growth	9.1	0.7	6.0	-0.8	-4.3	4.2	6.2
Russell 2000 Value	9.0	2.5	2.0	-4.7	6.5	4.7	5.7

US Equities: The Russell 3000 rallied 9.3% in November and is up 19.6% year to date.

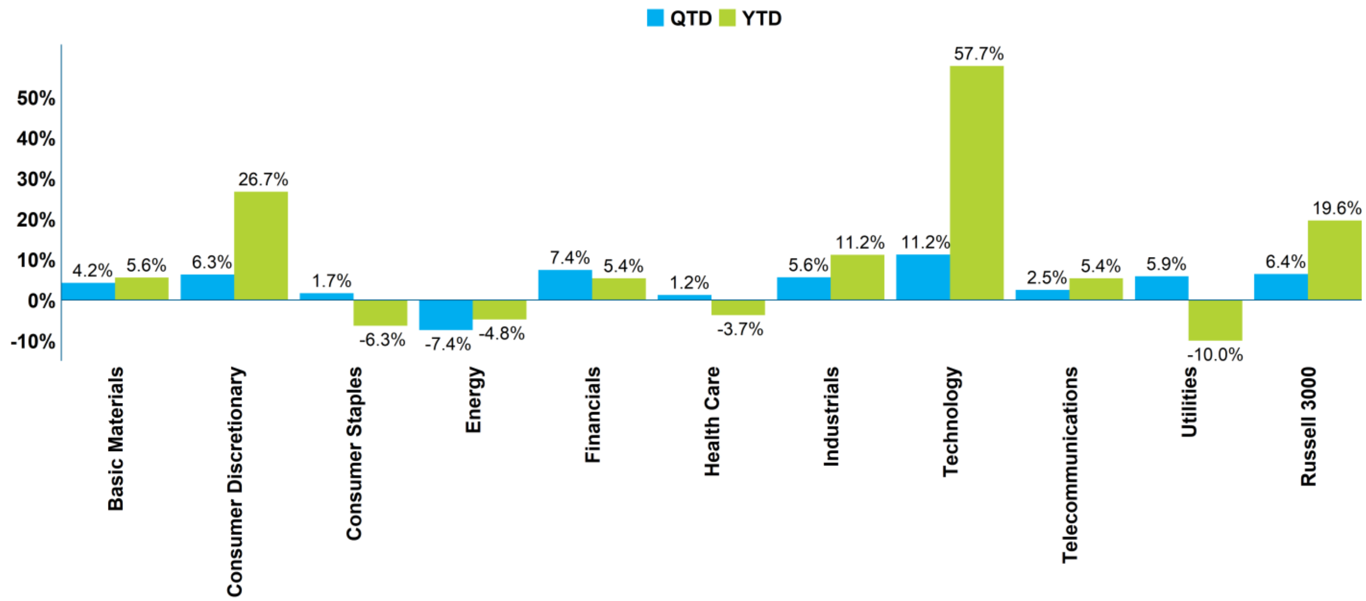
→ A weaker than expected October jobs report and fewer job openings jolted US stocks higher as markets repriced policy rate cuts for 2024.

→ Large and midcap growth stocks significantly outperformed value stocks with slight outperformance by growth in the small cap marketplace.

→ The rate sensitive technology sector particularly benefited from slowing inflation with the "Magnificent 7" stocks, continuing to drive the equity markets higher. As of the end of November, these seven stocks accounted for most of the gains in the Russell 3000 index year-to-date.

[1]Source: Bloomberg. Data is as of November 30, 2023.

Russell 3000 Sector Returns[1]



→ All sectors have posted gains for the fourth quarter, except for energy given oil's recent declines.

→ So far in 2023, the technology (+57.7%) and consumer discretionary (+26.7%) sectors had the best results, helped by artificial intelligence optimism in the case of technology. More traditionally defensive sectors utilities (-10.0%), consumer staples (-6.3%), and health care (-3.7%) have trailed.

[1]Source: Bloomberg. Data is as of November 30, 2023.

Foreign Equity Returns[1]

Foreign Equity	November (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	9.0	4.5	10.1	9.3	1.7	5.1	3.4
MSCI EAFE	9.3	4.9	12.3	12.4	3.8	6.0	3.9
MSCI EAFE (Local Currency)	5.6	2.1	12.9	9.5	8.5	7.6	6.5
MSCI EAFE Small Cap	10.1	3.6	5.5	6.6	-0.8	3.7	4.3
MSCI Emerging Markets	8.0	3.8	5.7	4.2	-4.0	2.3	2.1
MSCI Emerging Markets (Local Currency)	6.2	2.4	6.5	4.4	-1.6	4.2	4.8
MSCI China	2.5	-1.8	-9.0	-4.3	-17.0	-3.5	0.7

Foreign Equity: Developed international equities (MSCI EAFE) rallied 9.3% in November bringing the year-to-date gain to 12.3%. Emerging market equities (MSCI EM) rose 8.0% in the period and were up 5.7% year-to-date.

→ In November, non-US equities also reversed course from their three-month lull, with markets seeing their strongest monthly gains since November 2020.

→ Optimism around lower inflation and potentially peaking policy rates contributed to gains in the UK and Europe. Japan continued to see strong performance and remains the top performer year-to-date, although disappointing Q3 GDP data dampened November performance. Weakness in the US dollar also contributed to November results across developed markets.

→ Emerging markets also experienced strong performance in November but trailed developed markets. China weighed on relative results, up only 2.5% for the month on mixed economic data.

[1] Source: Bloomberg. Data is as of November 30, 2023.

Fixed Income Returns[1]

Fixed Income	November (%)	QTD (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	4.5	2.9	2.3	1.9	-4.1	1.0	1.7	5.4	6.0
Bloomberg Aggregate	4.5	2.9	1.6	1.2	-4.5	0.7	1.4	5.1	6.2
Bloomberg US TIPS	2.7	2.0	1.2	0.1	-1.5	2.7	2.0	4.7	6.7
Bloomberg Short-term TIPS	1.0	1.4	3.4	3.2	2.3	3.2	1.8	5.0	2.4
Bloomberg High Yield	4.5	3.3	9.4	8.7	1.4	4.1	4.3	8.4	3.9
JPM GBI-EM Global Diversified (USD)	5.3	4.7	9.2	11.6	-3.1	0.8	-0.3	6.8	5.0

Fixed Income: The Bloomberg Universal index rose 4.5% in November and 2.3% YTD.

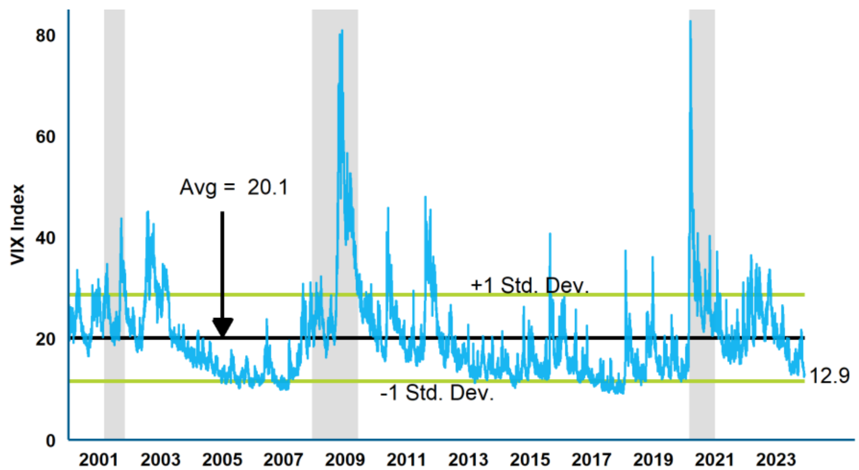
→ Policy rate expectations swung from pessimism to optimism in November. Signs of the labor market cooling and improving inflation led investors to bring forward expectations for interest rate cuts to early 2024.

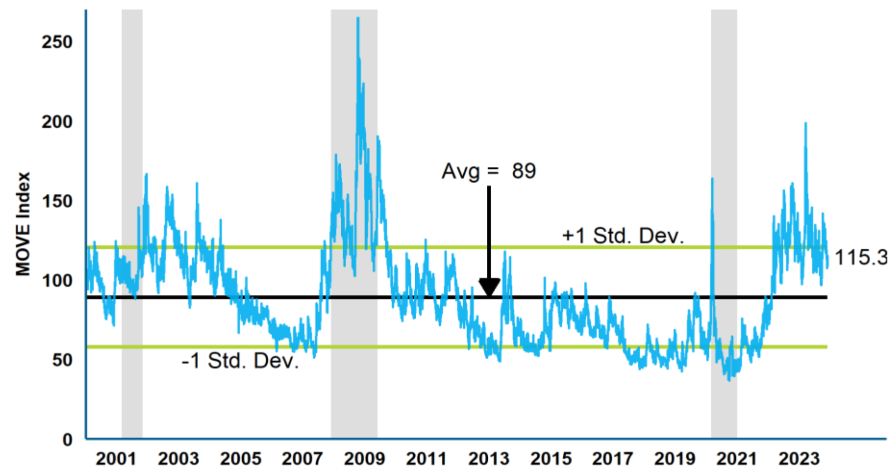
→ The broad US bond market (Bloomberg Aggregate) rallied 4.5% in the month, lifting year-to-date performance into positive territory (+1.6%). The broader TIPS index rose 2.7%, while the less interest-rate-sensitive short-term TIPS index rose 1.0%.

→ High yield bonds rallied on better risk sentiment (+4.5%), with emerging market bonds leading the way (+5.3%).

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

Equity and Fixed Income Volatility[1]



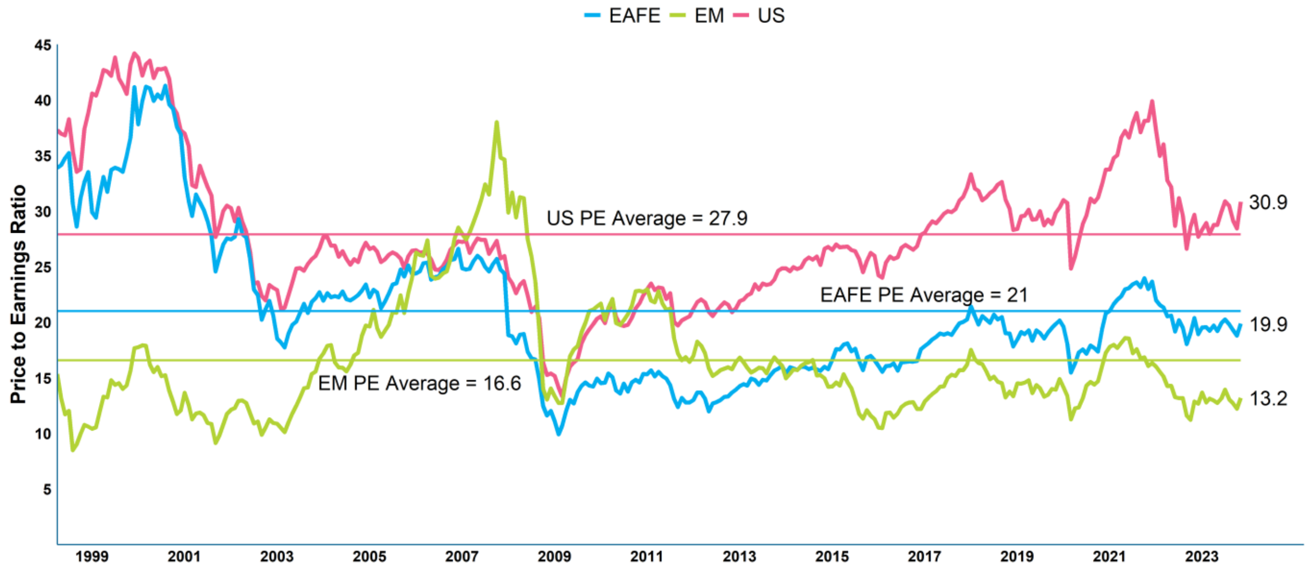


→ Volatility in equities (VIX) declined in November, well-below the long-term average as the focus shifted to peaking policy rates and the potential for a soft landing.

→ Volatility in the bond market (MOVE) also declined for the month but is still well above its long-run average (89). The bond market remains on edge after last year's historic losses and ultimate uncertainty on the path of interest rates going forward.

[1] Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of November 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and November 2023.

Equity Cyclically Adjusted P/E Ratios[1]

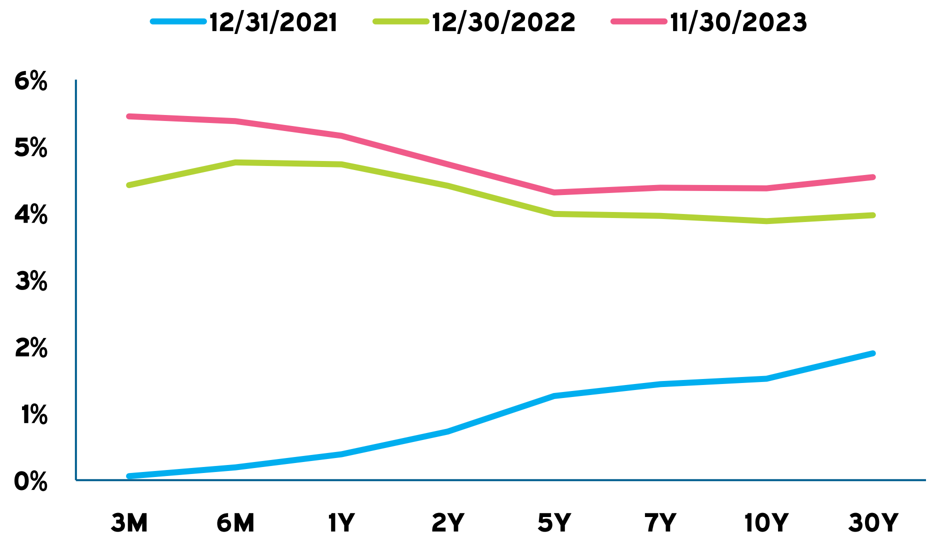


→ Given the strong technology-driven rally this year, the US equity price-to-earnings ratio increased above its long-run (21st century) average. The November gains brought valuation to their highest level for the year.

→ International developed market valuations also increased in November but remain well below the US and their respective long-term averages.

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

US Yield Curve[1]



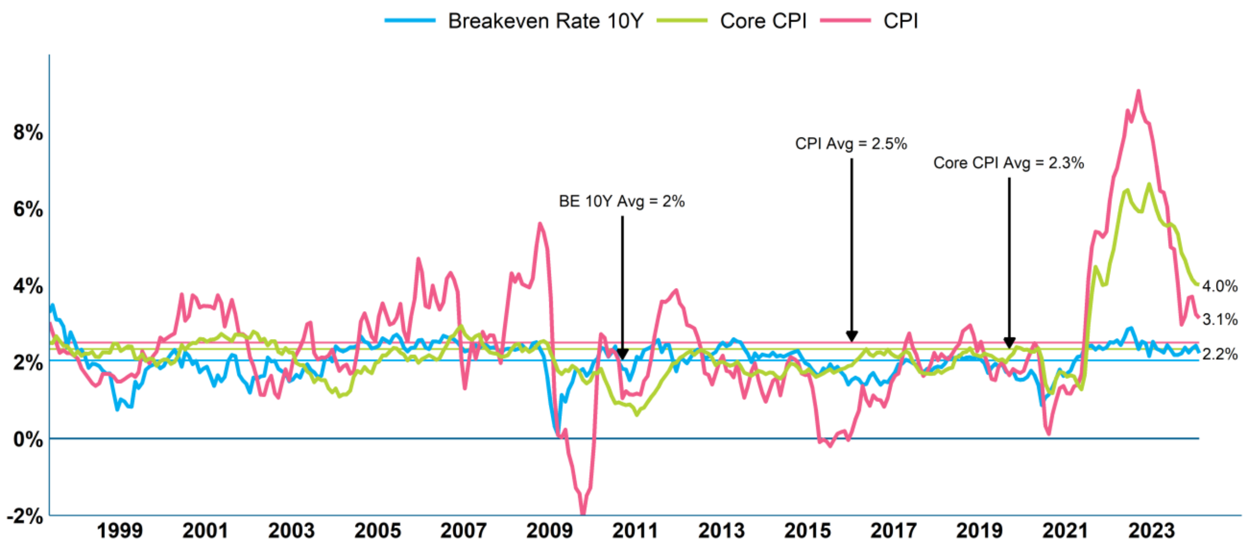
→ Overall US interest rates are higher this year. In November, rates dramatically fell, particularly at the longer-end of the yield curve, on declining inflation and speculation that the Federal Reserve is done with their rate increases.

→ In November, policy sensitive two-year Treasury yields fell from 5.1% to 4.7% while ten-year Treasury yields declined from 4.9% to 4.3%.

→ As longer-term rates fell the most over the month, the yield curve inverted further (from 0.15% to 0.35%) after a trend of flattening through October.

[1]Source: Bloomberg. Data is as of November 30, 2023.

Ten-Year Breakeven Inflation and CPI[1]



→ Year-over-year headline inflation fell slightly (3.2% to 3.1%) in November matching expectations. A decline in energy prices (-5.4%) was balanced by an increase in shelter (+5.5%) and transportation (+6.5%) costs. Month-over-month inflation ticked up (+0.1%) compared to expectations for a flat reading.

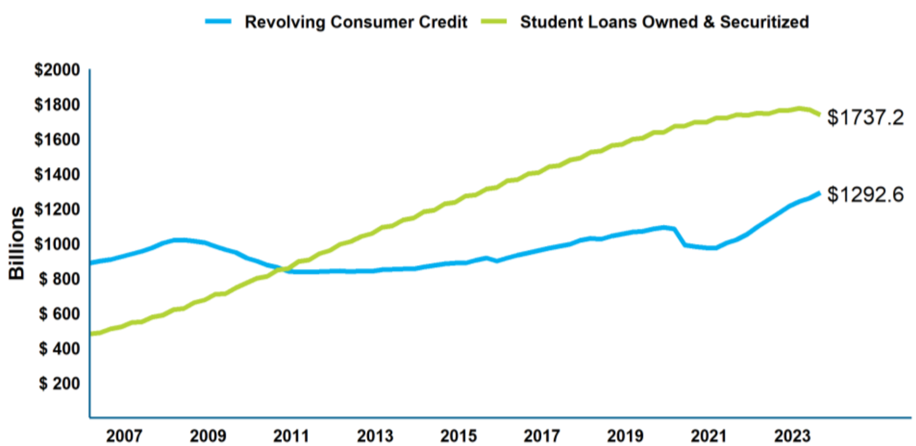
→ Core inflation - excluding food and energy – was unchanged in November at 4.0% year-over-year, where shelter costs accounted for 70% of the total core index increase.

→ Inflation expectations (breakevens) remain below current inflation as investors continue to expect inflation to track back toward the Fed's 2% average target.

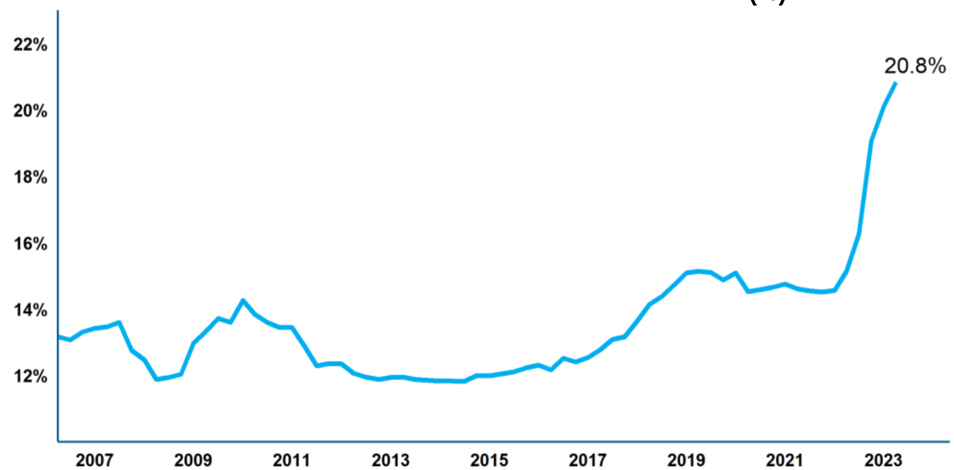
[1]Source: FRED. Data is as November 30, 2023. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

US Consumer Under Stress?[1]

Revolving Consumer Credit & Student Loans ($B)



Consumer Credit Card Interest Rates (%)



→ Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.

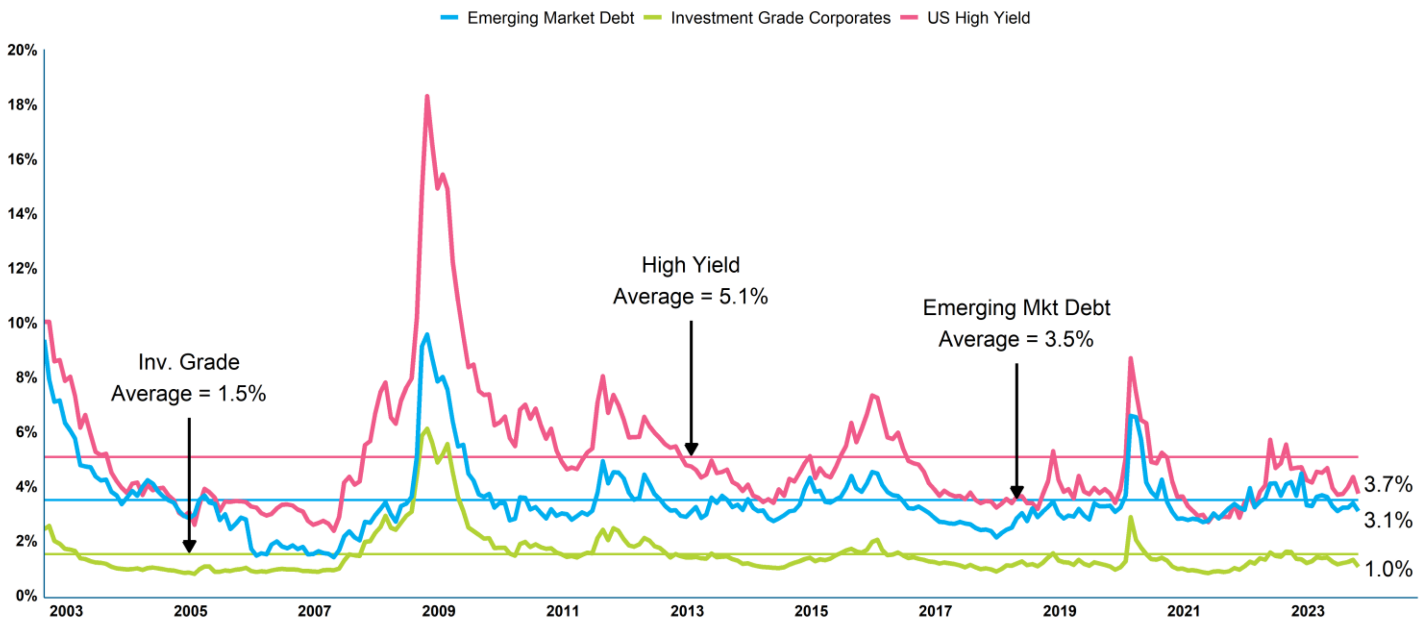
→ Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s).

→ The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially balanced by recently initiated repayment and forgiveness programs.

→ As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

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

Credit Spreads vs. US Treasury Bonds[1]



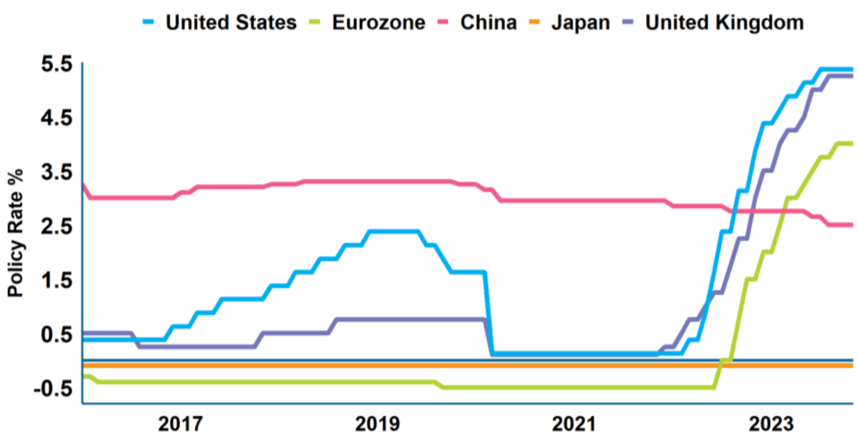
→ Expectations of peaking policy rates and the corresponding increase in risk appetite benefited credit in November with spreads (the added yield above a comparable maturity Treasury) narrowing. All spreads remain below their respective long run averages.

→ High yield spreads continue to be the furthest below their long-term average given the overall risk appetite this year and lower duration. Investment-grade corporate and emerging market spreads are also below their respective long-term averages, but by smaller margins.

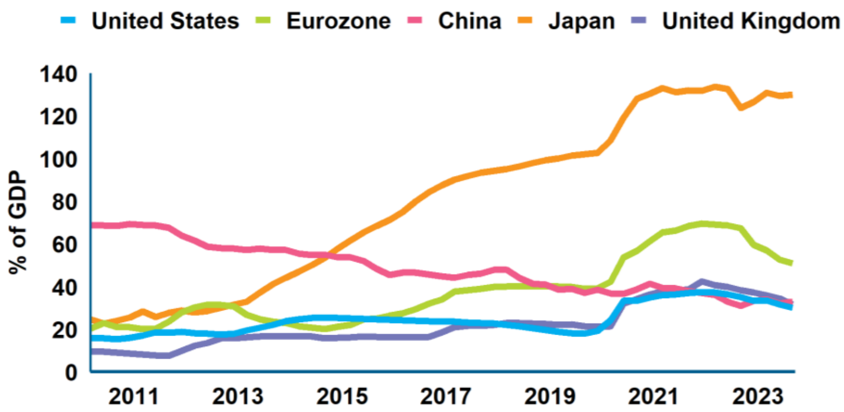
[1]Sources: Bloomberg. Data is as of November 30, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

Central Bank Response[1]

Policy Rates



Balance Sheet as % of GDP



→ Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.

→ In July, the Fed raised rates another 25 basis points to a range of 5.25% to 5.50% and have kept them at this level since. Markets are not expecting any additional rate hikes. The key remains when will the Fed starting lower rates and at what pace.

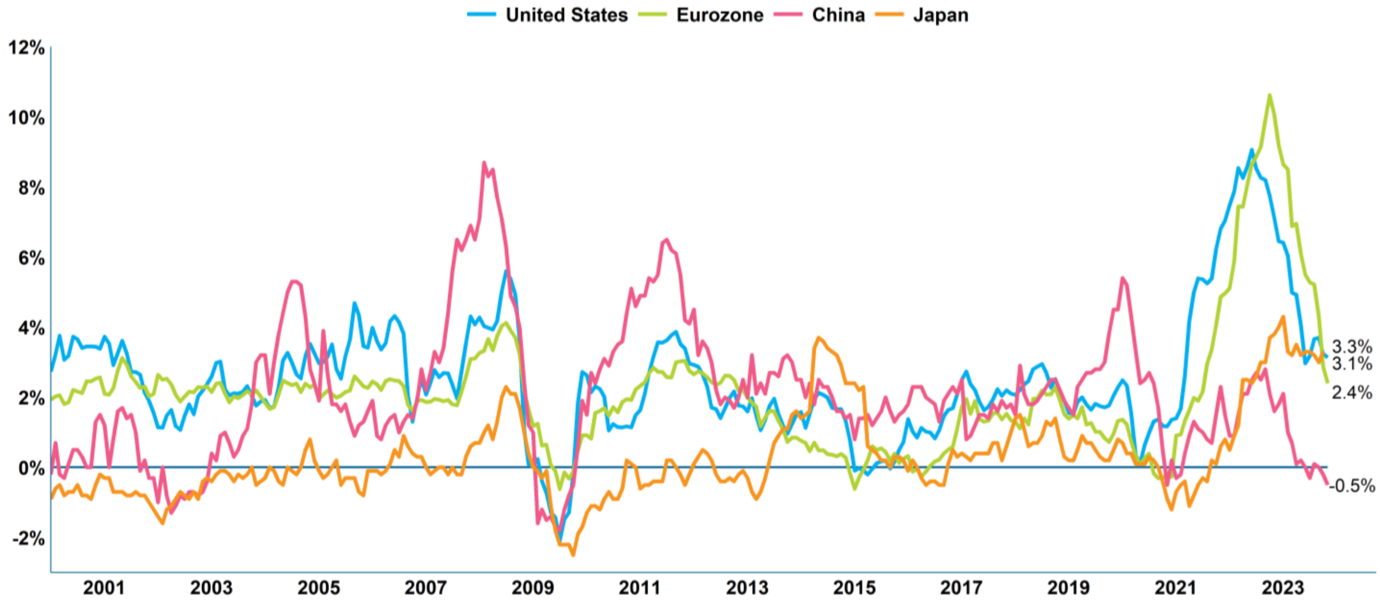
→ The European and UK central banks also recently paused their rate increases on slowing inflation. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.

→ The central bank in China has continued to cut interest rates and inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

→ Risks remain for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and supporting growth.

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

Inflation (CPI Trailing Twelve Months)[1]



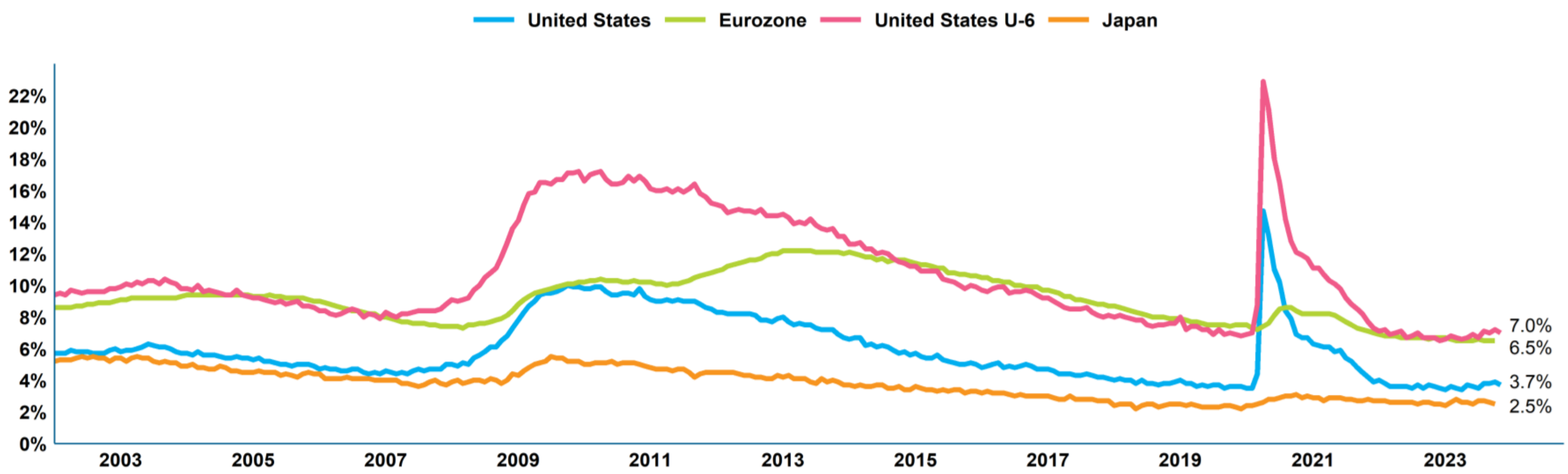
→ Inflation is falling across major economies with China slipping into deflationary territory.

→ In the US, inflation fell from 3.2% to 3.1%, driven by falling energy prices. In the eurozone inflation experienced a dramatic decline in October (2.9% to 2.4%), to a level below the US, also driven by a decline in energy prices. Despite 2023's significant declines in the US and Europe, inflation levels remain elevated compared to central bank targets.

→ Inflation in Japan, has increased to levels not seen in almost a decade, driven by food and home related items. In China, deflationary pressures returned in November, driven by declines in food prices.

[1] United States CPI and Eurozone CPI – Source: FRED. Japan CPI and China CPI - Source: Bloomberg. Data is as November 30, 2023. The most recent data for Japanese inflation is as of October 31, 2023.

Unemployment[1]



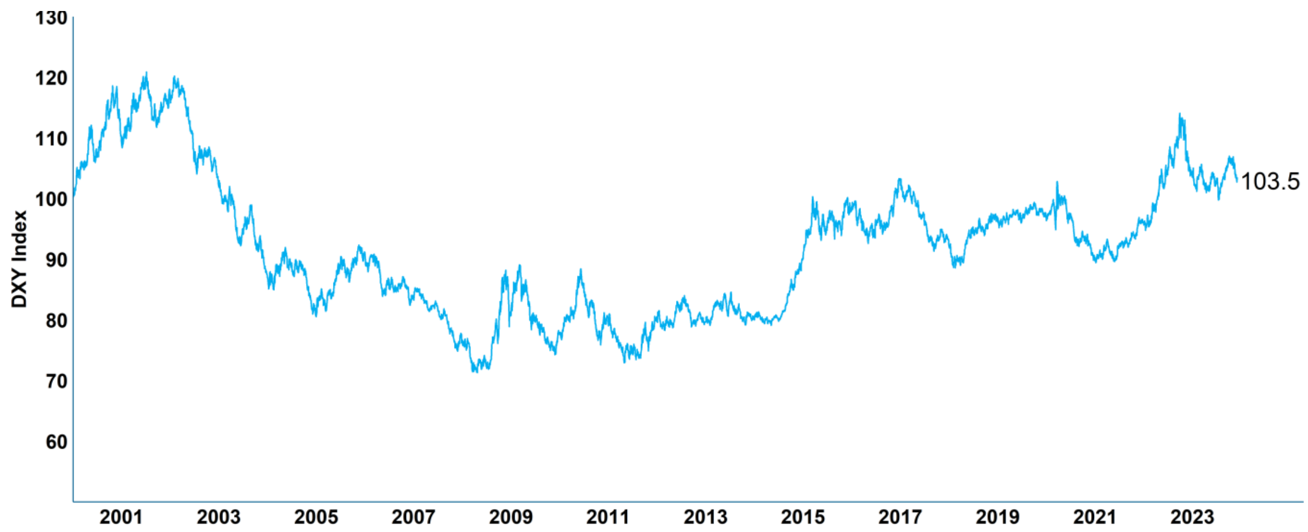
→ Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued. The pace of wage growth has slowed though, and despite remaining elevated, the number of job openings has declined from recent highs.

→ In November, US unemployment came in stronger than expected with the overall rate declining (3.9% to 3.7%), with job gains of 199,000 (compared to a forecast of 185,000). The labor force participation remained relatively stable at 62.8%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%). Broader measures of unemployment (U-6) fell slightly from 7.2% to 7.0%.

→ Unemployment in Europe (6.5%) remains higher than the US, while levels in Japan (2.5%) remained low through the pandemic given less layoffs.

[1] Eurozone Unemployment - Source: Bloomberg. Japan, United States, United States U-6 Unemployment – Source: FRED. Data is as November 30, 2023, for the US. The most recent data for Japanese and Eurozone unemployment is as of October 31, 2023.

US Dollar vs. Broad Currencies[1]



- → After a strong 2022, the US dollar declined late last year and into early this year as weaker economic data and lower inflation led to investors anticipating the end of FOMC tightening.
- → Recently though, the dollar reversed course and appreciated against major currencies as relative growth remains strong and investors anticipated the FOMC keeping interest rates higher for longer.
- → More recently, the dollar has declined on expectations the Fed is done increasing interest rates for this cycle.

[1] Source: Bloomberg. Data as of November 30, 2023.

Summary

Key Trends:

→ The impact of inflation still above policy targets will remain key, with bond market volatility likely to stay high.

→ Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.

→ Growth is expected to slow globally next year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will all be key.

→ In the US, consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.

→ The key for US equities going forward, will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.

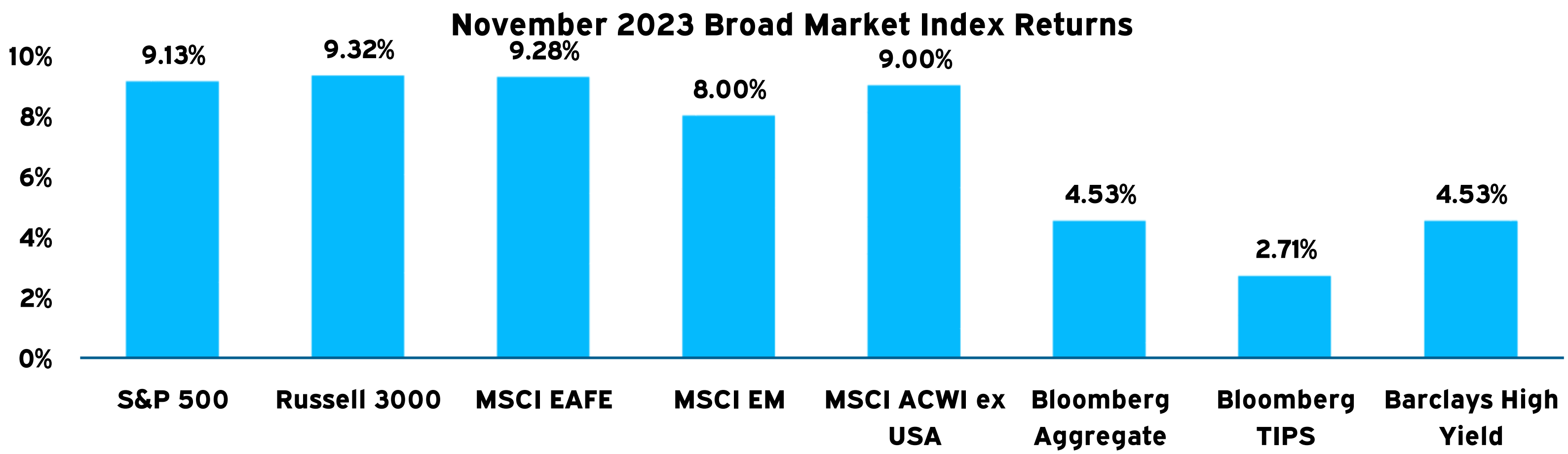
→ Equity valuations remain lower in emerging and developed markets, but risks remain, including the potential for the US dollar to remain strong, higher inflation weighing particularly on Europe, and China’s sluggish economic reopening and on-going weakness in the real estate sector. Japan’s recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.

→ Recent, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

Performance Highlights

As of November 30, 2023

Market Review and Performance Summary for November 2023



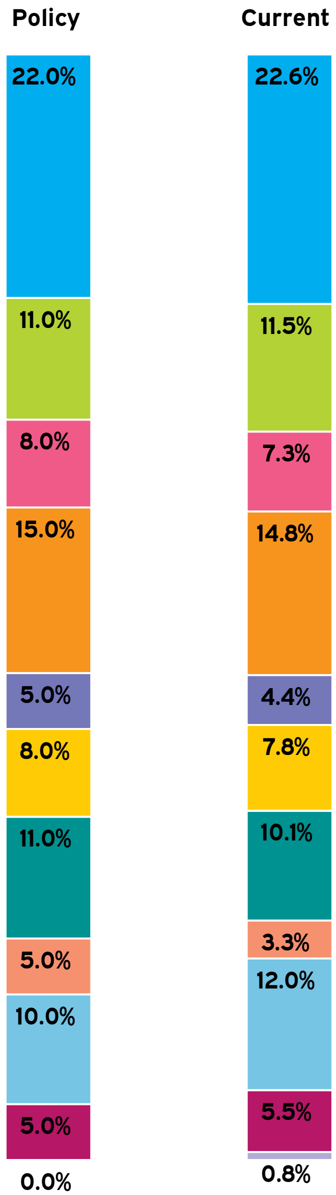
→ November saw strong rally across the markets as improving inflation data fed into growing optimism that central banks would not raise rates further. Domestically, growth outpaced value stocks, attributable to the rally in technology sector. Both Developed International Equities and Emerging Markets saw strong returns given optimism around potentially peaking policy rates, though China continued to be a headwind for Emerging Markets. Broad US Fixed Income saw positive returns as expectations peaking policy rate optimism weighed favorably.

→ Merced CERA reported a monthly return of 4.3% net of fees. US Equities saw strong returns for the month, returning 9.0%. International Equities also saw strong returns, led by Emerging Markets returning 10.7%, attributable to strong returns from both managers in the sleeve. US Fixed Income returned 4.7%, outpacing its benchmark by 0.5%. Opportunistic Credit posted 3.3% for the month, primarily due to strong performance from both managers in the sleeve (PIMCO Income Fund & GoldenTree Multi-Sector).

→ **As of November 30, 2023, total assets for the Merced CERA Portfolio are estimated at $1.1 billion.**

Performance Update

As of November 30, 2023



Allocation vs. Targets and Policy

	Current Balance ($)	Current Allocation (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
US Equity	256,584,322	22.6	22.0	0.6	16.0 - 27.0	Yes
International Equity	130,056,273	11.5	11.0	0.5	6.0 - 16.0	Yes
Emerging Markets Equity	82,465,408	7.3	8.0	-0.7	4.0 - 12.0	Yes
Private Equity	167,391,295	14.8	15.0	-0.2	5.0 - 20.0	Yes
Direct Lending	50,356,768	4.4	5.0	-0.6	0.0 - 10.0	Yes
Real Estate	88,113,986	7.8	8.0	-0.2	6.0 - 10.0	Yes
US Fixed Income	114,220,207	10.1	11.0	-0.9	6.0 - 16.0	Yes
Opportunistic Credit	37,211,786	3.3	5.0	-1.7	3.0 - 7.0	Yes
Hedge Funds	135,973,962	12.0	10.0	2.0	5.0 - 15.0	Yes
Real Assets	62,598,782	5.5	5.0	0.5	3.0 - 7.0	Yes
Cash	9,087,303	0.8	0.0	0.8	0.0 - 5.0	Yes
Total	**1,134,060,092**	**100.0**	**100.0**	**0.0**		

Asset Allocation & Performance | As of November 30, 2023

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund (Net)	1,134,060,092	100.0	4.3	2.7	8.2	1.4	6.4	4.8	7.8	6.9	7.9	Jan-95
Total Fund (Gross)			4.3	2.8	8.6	1.6	6.7	5.2	8.2	7.2	8.0	Jan-95
Policy Index			*4.7*	*3.3*	*11.2*	*2.7*	*8.0*	*6.2*	*7.8*	*7.1*	*6.2*	
Total Fund w/o Alternatives (Net)	620,537,996	54.7	7.6	4.7	11.8	1.2	8.6	1.9	7.4	6.5	--	Jan-08
Total Fund w/o Alternatives (Gross)			7.7	4.8	12.2	1.4	9.0	2.3	7.8	6.9	--	Jan-08
Policy Index w/o Al			*7.4*	*4.4*	*10.3*	*1.1*	*7.5*	*2.1*	*6.2*	*5.9*	*--*	
US Equity (Net)	256,584,322	22.6	9.0	5.9	17.9	1.9	11.2	7.6	11.0	11.2	10.1	Jan-95
US Equity (Gross)			9.0	6.0	18.1	2.0	11.5	7.8	11.3	11.4	10.2	Jan-95
Russell 3000			*9.3*	*6.4*	*19.6*	*3.0*	*12.6*	*8.3*	*11.6*	*10.9*	*10.1*	
International Equity (Net)	212,521,681	18.7	8.5	4.5	11.9	0.8	9.7	-1.6	7.8	4.6	5.4	Jan-99
International Equity (Gross)			8.6	4.6	12.7	1.1	10.6	-0.8	8.6	5.3	5.8	Jan-99
International Equity Custom			*8.7*	*4.4*	*9.9*	*0.8*	*9.3*	*0.9*	*4.9*	*3.7*	*4.2*	
Developed International Equity (Net)	130,056,273	11.5	7.1	4.2	9.2	1.6	8.4	3.6	7.3	4.4	4.1	Feb-08
Developed International Equity (Gross)			7.2	4.3	9.9	1.9	9.2	4.3	7.9	4.9	4.6	Feb-08
Custom Blended Developed International Equity BM			*9.4*	*4.6*	*11.6*	*0.8*	*11.7*	*3.4*	*5.9*	*3.9*	*3.1*	
Emerging Markets Equity (Net)	82,465,408	7.3	10.7	5.0	16.5	-0.5	11.7	-9.6	7.4	4.7	4.4	May-12
Emerging Markets Equity (Gross)			10.8	5.2	17.5	-0.1	12.8	-8.7	8.4	5.6	5.3	May-12
MSCI EM			*8.0*	*3.8*	*5.7*	*0.8*	*4.2*	*-4.0*	*2.4*	*2.4*	*2.4*	
US Fixed Income (Net)	114,220,207	10.1	4.7	3.0	1.1	-0.4	0.4	-4.9	0.1	1.2	4.3	Jan-95
US Fixed Income (Gross)			4.7	3.0	1.1	-0.4	0.5	-4.8	0.2	1.4	4.4	Jan-95
US Fixed Income Custom Benchmark			*4.2*	*2.7*	*1.8*	*-0.2*	*1.4*	*-4.1*	*0.6*	*1.5*	*4.5*	

Data Prior to March 2018 provided by prior consultant.

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Opportunistic Credit (Net)	37,211,786	3.3	3.3	2.4	10.1	3.6	10.4	4.3	--	--	4.7	May-19
Opportunistic Credit (Gross)			3.4	2.5	10.7	3.9	11.1	4.9	--	--	5.1	May-19
50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever			*3.7*	*2.6*	*5.9*	*1.9*	*5.6*	*-0.5*	*--*	*--*	*1.9*	
Real Estate (Net)	88,113,986	7.8	2.0	1.4	-4.0	-1.4	-5.7	4.4	2.6	5.4	6.5	Dec-10
Real Estate (Gross)			2.0	1.4	-4.0	-1.4	-5.7	4.4	2.6	5.9	7.5	Apr-99
Custom Blended Real Estate Benchmark			*0.0*	*0.0*	*-10.4*	*-2.7*	*-10.0*	*8.0*	*6.1*	*7.9*	*7.2*	
CPI +5% (Seasonally Adjusted)			*0.5*	*1.0*	*7.7*	*3.4*	*8.3*	*11.0*	*9.2*	*7.9*	*7.7*	
Private Real Estate (Net)	71,804,600	6.3	0.0	0.0	-5.3	-1.3	-6.2	5.8	3.4	5.8	6.8	Dec-10
Private Real Estate (Gross)			0.0	0.0	-5.3	-1.3	-6.2	5.8	3.4	6.3	7.6	Apr-99
Custom Blended Real Estate Benchmark			*0.0*	*0.0*	*-10.4*	*-2.7*	*-10.0*	*8.0*	*6.1*	*7.9*	*7.2*	
Private Equity (Net)	167,391,295	14.8	0.0	0.0	4.1	2.7	4.4	24.6	16.3	13.8	10.3	Jul-05
Private Equity (Gross)			0.0	0.0	4.1	2.7	4.4	24.6	16.3	13.8	10.4	Jul-05
Custom Private Equity Benchmark			*-2.5*	*1.4*	*29.4*	*8.9*	*17.4*	*19.5*	*15.6*	*15.8*	*--*	
Direct Lending (Net)	50,356,768	4.4	0.0	0.0	7.4	2.7	9.1	10.8	--	--	9.4	Jul-20
Direct Lending (Gross)			0.0	0.0	7.4	2.7	9.1	10.8	--	--	9.4	Jul-20
S&P LSTA Leveraged Loan +2%			*1.4*	*1.5*	*13.5*	*5.6*	*14.2*	*7.8*	*7.0*	*6.4*	*9.1*	
Hedge Fund (Net)	135,973,962	12.0	0.5	0.6	4.7	2.6	4.9	5.3	4.9	--	4.3	Jul-14
Hedge Fund (Gross)			0.6	0.8	5.7	3.1	6.0	6.3	5.8	--	4.8	Jul-14
Custom Blended Hedge Fund Benchmark			*2.2*	*1.1*	*3.9*	*1.6*	*4.3*	*2.7*	*4.3*	*--*	*3.3*	
Real Assets (Net)	62,598,782	5.5	0.6	0.1	7.9	1.6	9.4	13.8	11.1	9.3	9.5	Dec-10
Real Assets (Gross)			0.6	0.2	7.9	1.6	9.5	14.0	11.2	9.8	10.0	Dec-10
Custom Blended Real Assets Benchmark			*7.3*	*3.1*	*1.5*	*1.1*	*-1.2*	*9.0*	*6.8*	*7.0*	*--*	
CPI +5% (Seasonally Adjusted)			*0.5*	*1.0*	*7.7*	*3.4*	*8.3*	*11.0*	*9.2*	*7.9*	*7.8*	

Real Assets includes State Street Real Assets NL Fund.

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Infrastructure (Net)	29,888,147	2.6	0.0	0.0	10.7	1.9	12.2	12.4	12.2	--	9.9	Jan-15
Private Infrastructure (Gross)			0.0	0.0	10.7	1.9	12.2	12.6	12.4	--	10.0	Jan-15
S&P Global Infrastructure			*9.7*	*6.4*	*2.4*	*-1.3*	*0.2*	*5.6*	*5.8*	*5.4*	*4.5*	
Private Natural Resources (Net)	24,500,170	2.2	0.0	0.0	11.0	2.0	16.9	23.2	13.2	--	15.4	Oct-15
Private Natural Resources (Gross)			0.0	0.0	11.0	2.0	16.9	23.2	13.2	--	15.4	Oct-15
S&P Global Natural Resources Sector Index (TR)			*5.0*	*-0.3*	*0.2*	*3.4*	*-2.8*	*14.1*	*9.2*	*5.0*	*10.9*	
Cash (Net)	9,087,303	0.8	0.4	0.7	5.5	1.6	2.6	1.2	1.1	--	--	Dec-10
Cash (Gross)			0.4	0.7	5.5	1.6	2.6	1.2	1.1	--	--	Dec-10

Asset Allocation & Performance | As of November 30, 2023

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund	**1,134,060,092**	**100.0**	**4.3**	**2.7**	**8.2**	**1.4**	**6.4**	**4.8**	**7.8**	**6.9**	**7.9**	**Jan-95**
Policy Index			*4.7*	*3.3*	*11.2*	*2.7*	*8.0*	*6.2*	*7.8*	*7.1*	*6.2*	
Total Fund w/o Alternatives	**620,537,996**	**54.7**	**7.6**	**4.7**	**11.8**	**1.2**	**8.6**	**1.9**	**7.4**	**6.5**	**--**	**Jan-08**
Policy Index w/o Al			*7.4*	*4.4*	*10.3*	*1.1*	*7.5*	*2.1*	*6.2*	*5.9*	*--*	
US Equity	**256,584,322**	**22.6**	**9.0**	**5.9**	**17.9**	**1.9**	**11.2**	**7.6**	**11.0**	**11.2**	**10.1**	**Jan-95**
Russell 3000			*9.3*	*6.4*	*19.6*	*3.0*	*12.6*	*8.3*	*11.6*	*10.9*	*10.1*	
BNY Mellon Newton Dynamic US Equity	56,107,890	4.9	9.3	6.7	18.6	2.5	12.3	8.0	12.5	13.0	15.0	Jan-13
S&P 500 Index			*9.1*	*6.8*	*20.8*	*3.3*	*13.8*	*9.8*	*12.5*	*11.8*	*13.4*	
BNY Mellon Large Cap	173,676,300	15.3	9.2	6.5	20.2	3.0	13.0	8.6	12.2	--	12.7	Apr-16
Russell 1000 Index			*9.3*	*6.7*	*20.6*	*3.3*	*13.6*	*8.7*	*12.2*	*11.6*	*12.8*	
Champlain Small Cap	26,800,132	2.4	6.8	0.5	3.0	-6.3	-1.5	0.3	--	--	4.6	Nov-20
Russell 2000 Index			*9.1*	*1.6*	*4.2*	*-3.6*	*-2.6*	*1.1*	*4.8*	*6.1*	*6.8*	
International Equity	**212,521,681**	**18.7**	**8.5**	**4.5**	**11.9**	**0.8**	**9.7**	**-1.6**	**7.8**	**4.6**	**5.4**	**Jan-99**
International Equity Custom			*8.7*	*4.4*	*9.9*	*0.8*	*9.3*	*0.9*	*4.9*	*3.7*	*4.2*	
Developed International Equity	**130,056,273**	**11.5**	**7.1**	**4.2**	**9.2**	**1.6**	**8.4**	**3.6**	**7.3**	**4.4**	**4.1**	**Feb-08**
Custom Blended Developed International Equity BM			*9.4*	*4.6*	*11.6*	*0.8*	*11.7*	*3.4*	*5.9*	*3.9*	*3.1*	
Acadian ACWI ex U.S. Small Cap Equity	14,586,150	1.3	8.9	3.2	7.2	1.5	6.6	5.8	--	--	7.9	May-19
MSCI AC World ex USA Small Cap (Net)			*9.7*	*3.5*	*8.8*	*1.8*	*8.9*	*1.7*	*5.4*	*4.4*	*4.4*	
Driehaus International Small Cap Growth	14,365,627	1.3	10.3	4.4	7.2	1.7	6.5	-0.3	--	--	7.1	May-19
MSCI AC World ex USA Small Growth Index (Net)			*10.9*	*3.7*	*7.4*	*-0.1*	*6.7*	*-1.7*	*5.1*	*4.5*	*3.9*	
GQG International Equity	51,074,415	4.5	7.5	4.9	13.1	3.9	11.4	5.4	--	--	7.1	Dec-19
MSCI AC World ex USA (Net)			*9.0*	*4.5*	*10.1*	*0.6*	*9.3*	*1.7*	*5.1*	*3.4*	*3.6*	

Historical returns for the US Equity Composite prior to January 2012 and for the International Equity Composite prior to December 2010 are gross only.

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
First Eagle International Value Fund	50,030,081	4.4	5.4	3.7	6.3	-0.6	6.3	2.2	--	--	2.7	Dec-19
MSCI EAFE (Net)			*9.3*	*4.9*	*12.3*	*0.5*	*12.4*	*3.8*	*6.0*	*3.9*	*4.4*	
Emerging Markets Equity	**82,465,408**	**7.3**	**10.7**	**5.0**	**16.5**	**-0.5**	**11.7**	**-9.6**	**7.4**	**4.7**	**4.4**	**May-12**
MSCI EM			*8.0*	*3.8*	*5.7*	*0.8*	*4.2*	*-4.0*	*2.4*	*2.4*	*2.4*	
Artisan Developing World TR	56,785,642	5.0	10.5	6.4	23.1	-1.2	17.3	-11.1	--	--	4.4	Dec-19
MSCI Emerging Markets (Net)			*8.0*	*3.8*	*5.7*	*0.8*	*4.2*	*-4.0*	*2.3*	*2.1*	*1.1*	
RWC	25,679,766	2.3	11.1	2.1	4.2	1.1	1.0	-5.2	--	--	0.4	Dec-19
MSCI Emerging Markets (Net)			*8.0*	*3.8*	*5.7*	*0.8*	*4.2*	*-4.0*	*2.3*	*2.1*	*1.1*	
US Fixed Income	**114,220,207**	**10.1**	**4.7**	**3.0**	**1.1**	**-0.4**	**0.4**	**-4.9**	**0.1**	**1.2**	**4.3**	**Jan-95**
US Fixed Income Custom Benchmark			*4.2*	*2.7*	*1.8*	*-0.2*	*1.4*	*-4.1*	*0.6*	*1.5*	*4.5*	
Vanguard Short-Term Treasury Index Fund	6,642,189	0.6	1.0	1.4	3.1	2.1	3.2	-0.5	1.2	--	1.2	Mar-18
Blmbg. 1-3 Govt			*1.0*	*1.4*	*3.1*	*2.1*	*3.3*	*-0.4*	*1.2*	*0.9*	*1.2*	
Vanguard Total Bond Market Index Fund	17,487,363	1.5	4.5	2.9	1.9	-0.3	1.3	-4.5	--	--	-0.2	May-19
Blmbg. U.S. Aggregate Index			*4.5*	*2.9*	*1.6*	*-0.4*	*1.2*	*-4.5*	*0.7*	*1.4*	*-0.3*	
Payden & Rygel Low Duration Fund	8,136,681	0.7	0.9	1.2	2.8	2.1	3.3	--	--	--	6.1	Nov-22
Blmbg. U.S. Treasury: 1-3 Year			*1.0*	*1.4*	*3.1*	*2.1*	*3.3*	*-0.5*	*1.2*	*0.9*	*3.6*	
Brandywine US Fixed Income	32,686,822	2.9	6.6	3.6	1.0	-2.1	-0.6	--	--	--	-1.7	Nov-22
Blmbg. U.S. Aggregate Index			*4.5*	*2.9*	*1.6*	*-0.4*	*1.2*	*-4.5*	*0.7*	*1.4*	*4.5*	
Wellington Core Bond	49,267,153	4.3	4.6	3.1	0.8	-0.1	-0.1	--	--	--	2.8	Nov-22
Blmbg. U.S. Aggregate Index			*4.5*	*2.9*	*1.6*	*-0.4*	*1.2*	*-4.5*	*0.7*	*1.4*	*4.5*	

Developed International Equity and Emerging Markets Equity composites were only reported as one composite prior to March 2018.

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Opportunistic Credit	**37,211,786**	**3.3**	**3.3**	**2.4**	**10.1**	**3.6**	**10.4**	**4.3**	**--**	**--**	**4.7**	**May-19**
50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever			*3.7*	*2.6*	*5.9*	*1.9*	*5.6*	*-0.5*	*--*	*--*	*1.9*	
PIMCO Income Fund	11,699,671	1.0	3.9	2.7	6.0	2.1	5.8	0.6	--	--	2.2	May-19
Blmbg. U.S. Aggregate Index			*4.5*	*2.9*	*1.6*	*-0.4*	*1.2*	*-4.5*	*0.7*	*1.4*	*-0.3*	
GoldenTree Multi-Sector Credit	25,119,550	2.2	3.1	2.4	9.8	4.4	10.1	4.1	--	--	4.7	Jun-19
50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans			*2.9*	*2.3*	*10.3*	*4.2*	*10.2*	*3.5*	*4.5*	*4.3*	*4.1*	
Sculptor Credit Opportunities Domestic Partners, LP	392,565	0.0	0.0	0.0	11.0	0.0	11.9	8.6	--	--	9.7	Jul-20
50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans			*2.9*	*2.3*	*10.3*	*4.2*	*10.2*	*3.5*	*4.5*	*4.3*	*5.4*	
Real Estate	**88,113,986**	**7.8**	**2.0**	**1.4**	**-4.0**	**-1.4**	**-5.7**	**4.4**	**2.6**	**5.4**	**6.5**	**Dec-10**
Custom Blended Real Estate Benchmark			*0.0*	*0.0*	*-10.4*	*-2.7*	*-10.0*	*8.0*	*6.1*	*7.9*	*9.1*	
CPI +5% (Seasonally Adjusted)			*0.5*	*1.0*	*7.7*	*3.4*	*8.3*	*11.0*	*9.2*	*7.9*	*7.8*	
Vanguard REIT Index	16,309,386	1.4	12.0	8.0	2.2	-1.2	-3.0	2.9	--	--	3.8	Sep-20
Spliced Vanguard REIT Benchmark			*12.0*	*8.0*	*2.3*	*-1.2*	*-2.9*	*3.0*	*3.8*	*6.5*	*3.9*	
Private Real Estate	**71,804,600**	**6.3**	**0.0**	**0.0**	**-5.3**	**-1.3**	**-6.2**	**5.8**	**3.4**	**5.8**	**6.8**	**Dec-10**
Custom Blended Real Estate Benchmark			*0.0*	*0.0*	*-10.4*	*-2.7*	*-10.0*	*8.0*	*6.1*	*7.9*	*9.1*	
Greenfield Gap VII	889,884	0.1	0.0	0.0	-9.3	2.8	-1.7	23.3	17.5	--	15.6	Jan-15
Patron Capital V	5,335,264	0.5	0.0	0.0	4.9	-6.2	-10.6	-7.8	-7.4	--	0.5	Feb-16
UBS Trumbull Property	23,513,387	2.1	0.0	0.0	-15.2	-3.7	-15.2	2.8	1.0	4.4	6.0	Apr-99
Carlyle Realty VIII	2,643,733	0.2	0.0	0.0	-5.6	2.3	1.1	43.6	26.5	--	10.4	Jan-18
Taconic CRE Dislocation Fund II	3,213,226	0.3	0.0	0.0	15.0	0.0	15.3	9.8	9.1	--	8.9	Nov-18
Carmel Partners Investment Fund VII	4,174,128	0.4	0.0	0.0	1.5	2.8	6.4	-3.0	--	--	-19.3	Apr-19

Sculptor market value reflects holdback from June liquidation.
All private markets performance and market values reflect a 6/30/2023 capital account balance unless otherwise noted.
Private Real Estate results prior to 1/1/2019 were included in the Real Assets composite. All results for the Private Real Estate composite that include the period prior to 1/1/2019 will reflect only the latest lineup of managers that Meketa received information for, therefore it may not reflect the entire Private Real Estate composite at that given time.

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
AG Realty Value Fund X, L.P.	3,591,243	0.3	0.0	0.0	-2.5	-1.6	-2.8	14.5	--	--	5.5	Jun-19
Rockpoint Real Estate Fund VI, L.P.	4,622,269	0.4	0.0	0.0	-3.5	-1.5	-5.9	12.7	--	--	9.8	May-20
Cerberus Real Estate Debt Fund, L.P.	4,674,311	0.4	0.0	0.0	5.6	3.6	7.5	11.5	--	--	10.0	Jul-20
Taconic CRE Dislocation Onshore Fund III	5,897,317	0.5	0.0	0.0	2.3	0.5	3.6	--	--	--	5.9	Jun-21
Starwood Distressed Opportunity Fund XII Global	4,227,383	0.4	0.0	0.0	-2.5	1.6	-3.4	--	--	--	105.8	Jun-21
Carlyle Realty Partners IX	1,354,917	0.1	0.0	0.0	-31.3	1.8	-45.1	--	--	--	-152.8	Dec-21
Carmel Partners Investment Fund VIII	4,106,135	0.4	0.0	0.0	-3.2	-0.6	-4.8	--	--	--	-10.0	Apr-22
Rockpoint Real Estate Fund VII L.P.	3,561,404	0.3	0.0	0.0	11.9	2.1	12.6	--	--	--	11.8	Aug-22
Private Equity	**167,391,295**	**14.8**	**0.0**	**0.0**	**4.1**	**2.7**	**4.4**	**24.6**	**16.3**	**13.8**	**10.3**	**Jul-05**
Custom Private Equity Benchmark			*-2.5*	*1.4*	*29.4*	*8.9*	*17.4*	*19.5*	*15.6*	*15.8*	*--*	
Taconic Credit Dislocation Fund IV L.P.	1,600,000	0.1	0.0	0.0	--	0.0	--	--	--	--	0.0	Jul-23
Khosla Ventures Seed F, L.P.	466,557	0.0	0.0	0.0	--	-0.9	--	--	--	--	-0.9	Jul-23
Adams Street	3,934,865	0.3	0.0	0.0	-2.3	0.2	-6.9	14.0	10.3	12.2	8.0	Oct-05
Invesco VI	548,079	0.0	0.0	0.0	-28.8	-9.2	-44.2	21.7	16.5	15.8	14.5	Jul-13
Ocean Avenue II	8,857,322	0.8	0.0	0.0	-6.6	2.2	0.9	53.3	31.2	--	21.6	Jul-14
Pantheon I	62,508	0.0	0.0	0.0	1.5	-0.2	-2.4	-9.9	-14.0	-4.2	-1.5	Jan-06
Pantheon II	2,822,488	0.2	0.0	0.0	1.2	1.0	-0.9	16.4	12.1	13.6	12.2	Jan-12
Pantheon Secondary	109,717	0.0	0.0	0.0	-0.9	-0.8	-2.6	-9.1	-7.6	-1.6	0.5	Jul-07
Davidson Kempner Long-Term Distressed Opportunities Fund IV	2,509,577	0.2	0.0	0.0	26.4	3.2	39.8	29.6	18.1	--	18.3	Apr-18

Pantheon I includes Pantheon US Fund VI and Pantheon Europe Fund IV. Pantheon Europe Fund IV is adjusting from the 12/31/2022 NAV.
Pantheon II includes Panthron US Fund IX, Pantheon Asia Fund VI, and Pantheon Europe Fund VII.
Pantheon Secondary includes Pantheon GLO SEC III B.
Adams Street includes Adams street 2005, Adams Street 2007, and Adams Street 2011.

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GTCR Fund XII	5,463,630	0.5	0.0	0.0	-0.2	0.5	-0.5	25.1	16.1	--	14.5	Jun-18
Carrick Capital Partners III	6,614,638	0.6	0.0	0.0	4.7	2.9	4.5	17.9	12.8	--	11.0	Aug-18
Cressey & Company Fund VI	5,353,718	0.5	0.0	0.0	4.2	0.6	0.0	25.6	--	--	15.4	Jan-19
TCV X	6,781,347	0.6	0.0	0.0	11.0	9.0	10.6	25.1	--	--	18.0	Apr-19
Accel-KKR Growth Capital Partners III	4,653,584	0.4	0.0	0.0	-8.6	-12.7	-9.6	15.4	--	--	6.1	Jul-19
Genstar Capital Partners IX	9,000,776	0.8	0.0	0.0	8.5	3.6	15.1	34.7	--	--	25.4	Aug-19
Cortec Group Fund VII	8,757,099	0.8	0.0	0.0	22.9	4.2	20.9	28.4	--	--	25.9	Dec-19
Spark Capital Growth Fund III	8,788,037	0.8	0.0	0.0	-25.2	0.1	-26.2	22.2	--	--	15.3	Mar-20
Spark Capital VI	3,532,852	0.3	0.0	0.0	34.5	38.7	33.5	11.3	--	--	6.5	Mar-20
Summit Partners Growth Equity Fund X-A	8,518,005	0.8	0.0	0.0	12.8	1.7	16.1	7.4	--	--	6.4	Mar-20
Taconic Market Dislocation Fund III L.P.	7,102,988	0.6	0.0	0.0	6.7	5.0	8.8	16.1	--	--	14.0	Jul-20
Marlin Heritage Europe II, L.P.	7,580,097	0.7	0.0	0.0	15.1	0.5	14.3	0.0	--	--	0.0	Oct-20
Khosla Ventures VII	4,957,075	0.4	0.0	0.0	7.7	2.0	8.4	--	--	--	5.5	Jan-21
Accel-KKR Capital Partners VI	3,845,386	0.3	0.0	0.0	0.0	0.0	0.0	--	--	--	-4.9	Feb-21
Khosla Ventures Seed E	2,199,506	0.2	0.0	0.0	15.1	7.4	16.2	--	--	--	118.8	Feb-21
TCV XI	5,280,653	0.5	0.0	0.0	-5.6	-1.4	-12.0	--	--	--	-4.8	Feb-21
Thoma Bravo Discover Fund III	8,710,275	0.8	0.0	0.0	5.7	1.8	4.5	--	--	--	6.1	Jun-21
Summit Partners Venture Capital Fund V-A	3,224,080	0.3	0.0	0.0	6.1	5.0	4.4	--	--	--	-3.5	May-21

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GTCR Fund XIII/A & B	4,101,946	0.4	0.0	0.0	-1.6	2.7	-3.1	--	--	--	83.3	Jun-21
Genstar Capital Partners X	7,234,883	0.6	0.0	0.0	1.4	-1.3	3.5	--	--	--	4.8	Oct-21
Nautic Partners X	3,349,272	0.3	0.0	0.0	11.9	5.1	16.6	--	--	--	3.1	Jan-22
Spark Capital Growth Fund IV	1,799,822	0.2	0.0	0.0	47.9	-2.3	41.8	--	--	--	14.1	Jan-22
Spark Capital VII	1,242,587	0.1	0.0	0.0	-6.1	-1.9	-8.2	--	--	--	-7.0	Feb-22
TCV Velocity Fund I	3,737,974	0.3	0.0	0.0	43.0	57.7	33.6	--	--	--	-1.0	Feb-22
Accel-KKR Growth Capital Partners IV	1,644,428	0.1	0.0	0.0	2.0	0.8	-1.0	--	--	--	-16.4	Apr-22
Summit Partners Growth Equity Fund XI-A	2,140,413	0.2	0.0	0.0	12.6	1.1	9.5	--	--	--	-43.0	Apr-22
GTCR Strategic Growth Fund I/A&B LP	1,571,993	0.1	0.0	0.0	-14.7	0.5	-28.5	--	--	--	-38.8	Jul-22
Threshold Ventures IV LP	821,312	0.1	0.0	0.0	-16.3	-4.1	-27.3	--	--	--	-21.3	Aug-22
Thoma Bravo Discovery Fund IV	3,467,051	0.3	0.0	0.0	10.0	1.0	--	--	--	--	10.0	Jan-23
Marlin Heritage III	1,068,667	0.1	0.0	0.0	-83.1	0.7	--	--	--	--	-83.1	Jan-23
Cortec Group Fund VIII, L.P.	1,262,543	0.1	0.0	0.0	--	-5.2	--	--	--	--	-6.3	Apr-23
Khosla Ventures VIII	414,883	0.0	0.0	0.0	--	--	--	--	--	--	0.0	Sep-23
Ares Capital Europe VI (D) Levered, L.P.	2,226,853	0.2	0.0	--	--	--	--	--	--	--	0.0	Nov-23
Genstar Capital Partners XI	31,809	0.0	0.0	--	--	--	--	--	--	--	0.0	Nov-23
Direct Lending	**50,356,768**	**4.4**	**0.0**	**0.0**	**7.4**	**2.7**	**9.1**	**10.8**	**--**	**--**	**9.4**	**Jul-20**
S&P LSTA Leveraged Loan +2%			*1.4*	*1.5*	*13.5*	*5.6*	*14.2*	*7.8*	*7.0*	*6.4*	*9.1*	
Silver Point Specialty Credit Fund II, L.P.	6,529,741	0.6	0.0	0.0	9.3	2.7	13.1	11.2	--	--	9.8	Jul-20

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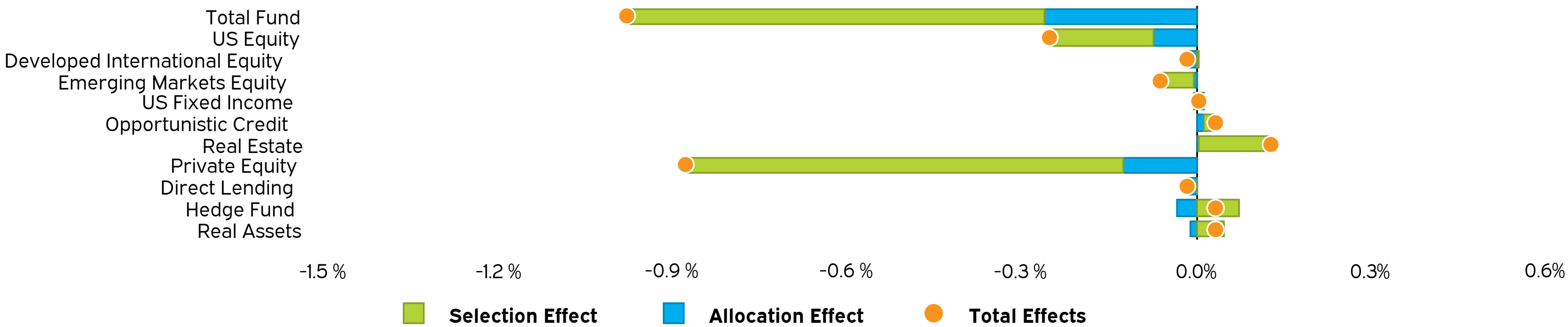
	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Ares Senior Direct Lending Fund II	11,216,977	1.0	0.0	0.0	9.1	4.2	10.2	--	--	--	9.1	Jan-22
Varagon Capital Direct Lending Fund	11,474,239	1.0	0.0	0.0	2.9	2.2	2.2	--	--	--	1.0	Jan-22
AG Direct Lending Fund IV Annex	9,392,242	0.8	0.0	0.0	8.1	2.5	10.6	--	--	--	7.6	May-22
AG Direct Lending Fund V	4,634,443	0.4	0.0	0.0	7.4	1.5	9.0	--	--	--	6.7	Aug-22
Accel-KKR Credit Partners II LP	1,454,541	0.1	0.0	0.0	--	4.0	--	--	--	--	35.5	Mar-23
Silver Point Specialty Credit Fund III	5,654,585	0.5	0.0	0.0	--	1.5	--	--	--	--	-0.2	Mar-23
Hedge Fund	**135,973,962**	**12.0**	**0.5**	**0.6**	**4.7**	**2.6**	**4.9**	**5.3**	**4.9**	**--**	**4.3**	**Jul-14**
Custom Blended Hedge Fund Benchmark			*2.2*	*1.1*	*3.9*	*1.6*	*4.3*	*2.7*	*4.3*	*--*	*3.3*	
OWS Credit Opportunity Fund LP	20,610,034	1.8	1.0	1.5	--	--	--	--	--	--	3.1	Aug-23
Hudson Bay Fund	15,440,260	1.4	0.3	0.2	--	2.6	--	--	--	--	2.9	Jun-23
Sculptor (OZ) Domestic II	264,914	0.0	-0.1	-0.2	6.8	-0.5	7.3	-0.3	5.4	--	5.1	Jul-14
Graham Absolute Return	10,326,247	0.9	-0.5	0.7	5.4	7.4	4.6	9.7	5.8	--	5.0	Sep-17
Wellington-Archipelago	16,080,276	1.4	1.4	1.9	9.1	2.7	9.0	5.7	6.5	--	5.6	Sep-17
Marshall Wace Eureka	4,541,569	0.4	-0.3	0.0	1.2	0.7	2.8	4.8	6.4	--	5.4	Dec-17
Silver Point Capital	18,585,175	1.6	0.6	-0.4	3.2	-0.7	3.8	10.7	8.8	--	7.5	Dec-17
Laurion Capital	13,510,269	1.2	0.8	-1.4	2.3	0.6	1.6	3.3	8.6	--	8.7	Aug-18
Taconic Opportunity Fund	13,989,754	1.2	1.1	-0.6	2.1	1.6	1.8	3.2	--	--	3.0	Jan-19
Marshall Wace Global Opportunities	11,239,624	1.0	-0.6	3.0	8.9	4.8	9.7	3.1	--	--	6.1	May-20
Caxton Global Investments	11,385,841	1.0	-0.9	1.3	-3.6	4.7	-2.0	--	--	--	4.8	May-21

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Assets	**62,598,782**	**5.5**	**0.6**	**0.1**	**7.9**	**1.6**	**9.4**	**13.8**	**11.1**	**9.3**	**9.5**	**Dec-10**
Custom Blended Real Assets Benchmark			*7.3*	*3.1*	*1.5*	*1.1*	*-1.2*	*9.0*	*6.8*	*7.0*	*--*	
SSgA	8,210,464	0.7	3.3	0.8	-1.9	0.1	-4.8	7.7	6.2	--	5.2	May-17
Real Asset NL Custom Blended Index			*3.5*	*1.0*	*-1.4*	*0.2*	*-4.3*	*7.9*	*6.3*	*--*	*5.3*	
Private Infrastructure	**29,888,147**	**2.6**	**0.0**	**0.0**	**10.7**	**1.9**	**12.2**	**12.4**	**12.2**	**--**	**9.9**	**Jan-15**
S&P Global Infrastructure			*9.7*	*6.4*	*2.4*	*-1.3*	*0.2*	*5.6*	*5.8*	*5.4*	*4.5*	
KKR Global II	3,391,870	0.3	0.0	0.0	19.4	1.9	23.9	20.3	21.6	--	16.7	Jan-15
North Haven Infrastructure II	2,725,546	0.2	0.0	0.0	-0.9	-0.4	0.5	9.8	8.9	--	8.0	Jun-15
ISQ Global Infrastructure Fund II	5,594,259	0.5	0.0	0.0	7.1	1.6	10.0	14.1	12.8	--	4.1	Jul-18
KKR Global Infrastructure Investors III	4,376,724	0.4	0.0	0.0	12.9	2.2	15.2	4.4	--	--	-1.6	Jan-19
Ardian Infrastructure Fund V	4,167,912	0.4	0.0	0.0	19.9	2.6	20.0	8.4	--	--	-7.7	Nov-19
ISQ Global Infrastructure Fund III	2,019,012	0.2	0.0	0.0	10.4	1.4	13.7	--	--	--	-509.4	Jun-21
KKR Global Infrastructure Investors IV	4,810,384	0.4	0.0	0.0	9.2	4.1	3.8	--	--	--	-219.5	Sep-21
BlackRock Global Infrastructure Fund IV	2,802,440	0.2	0.0	0.0	-12.0	0.4	-12.0	--	--	--	-12.0	Dec-22
Private Natural Resources	**24,500,170**	**2.2**	**0.0**	**0.0**	**11.0**	**2.0**	**16.9**	**23.2**	**13.2**	**--**	**15.4**	**Oct-15**
S&P Global Natural Resources Sector Index (TR)			*5.0*	*-0.3*	*0.2*	*3.4*	*-2.8*	*14.1*	*9.2*	*5.0*	*10.9*	
EnCap Flatrock Midstream Fund V	2,521,195	0.2	0.0	0.0	--	-3.8	--	--	--	--	-3.8	Jun-23
EnCap XI	4,768,880	0.4	0.0	0.0	14.6	4.1	19.2	28.6	4.9	--	-6.6	Aug-17
EnCap IV	1,723,435	0.2	0.0	0.0	4.5	2.0	6.1	49.6	32.0	--	23.3	Mar-18
GSO Energy Opportunities	429,895	0.0	0.0	0.0	14.2	0.1	34.4	40.4	17.4	--	18.2	Dec-15

	Market Value $	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	Fiscal YTD	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Taurus Mining	381,913	0.0	0.0	0.0	9.7	1.4	18.6	51.6	29.6	--	25.1	Oct-15
Taurus Mining Annex	197,455	0.0	0.0	0.0	8.8	1.4	14.9	22.9	21.2	--	24.2	Feb-17
BlackRock Global Energy and Power Infrastructure Fund III LP	4,683,923	0.4	0.0	0.0	11.3	3.4	16.5	8.5	--	--	13.9	Aug-19
Tailwater Energy Fund IV, LP	3,642,065	0.3	0.0	0.0	17.0	0.8	32.1	29.8	--	--	6.4	Oct-19
Carnelian Energy Capital IV	3,452,262	0.3	0.0	0.0	6.8	4.2	4.2	--	--	--	-2.6	May-22
EnCap Energy Capital Fund XII	2,699,148	0.2	0.0	0.0	--	--	--	--	--	--	0.0	Aug-23
Cash	**9,087,303**	**0.8**	**0.4**	**0.7**	**5.5**	**1.6**	**2.6**	**1.2**	**1.1**	**--**	**--**	**Dec-10**
Cash	7,717,783	0.7	0.5	0.8	6.0	1.8	2.7	1.2	1.4	1.0	-1.3	Dec-10
Treasury Cash	1,369,521	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	--	0.1	Sep-17

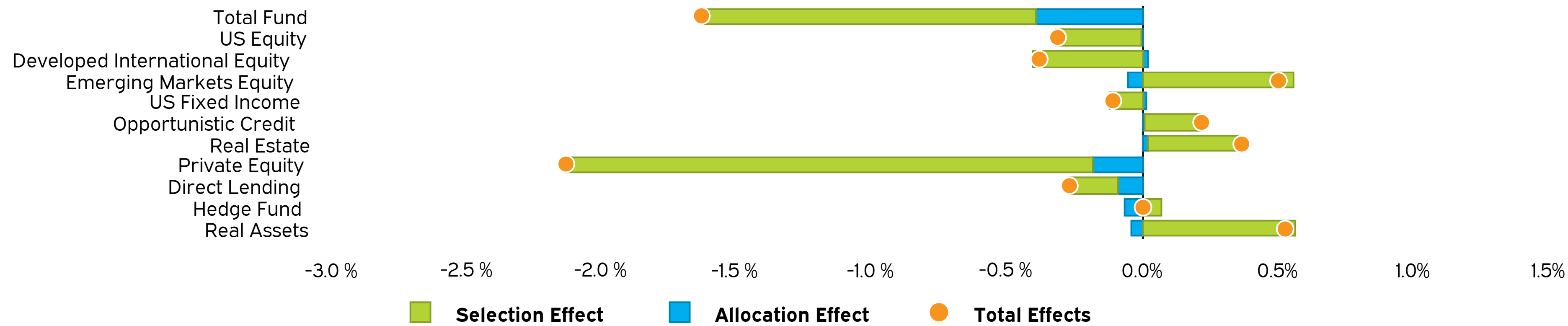
Attribution Effects
3 Months Ending November 30, 2023



Attribution Summary
3 Months Ending November 30, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Total Effect (%)
US Equity	0.6	1.4	-0.8	-0.2	-0.1	-0.3
Developed International Equity	1.0	0.9	0.1	0.0	0.0	0.0
Emerging Markets Equity	0.3	1.1	-0.8	-0.1	0.0	-0.1
US Fixed Income	0.3	0.4	-0.1	0.0	0.0	0.0
Opportunistic Credit	1.8	1.2	0.6	0.0	0.0	0.0
Real Estate	-1.1	-2.7	1.6	0.1	0.0	0.1
Private Equity	2.7	7.9	-5.1	-0.7	-0.1	-0.9
Direct Lending	2.7	2.7	0.0	0.0	0.0	0.0
Hedge Fund	1.2	0.7	0.5	0.1	0.0	0.0
Real Assets	1.3	0.5	0.9	0.0	0.0	0.0
Total Fund	**1.0**	**1.9**	**-1.0**	**-0.7**	**-0.3**	**-1.0**

Attribution Effects
1 Year Ending November 30, 2023



Attribution Summary
1 Year Ending November 30, 2023

	Wtd. Actual Return (%)	Wtd. Index Return (%)	Excess Return (%)	Selection Effect (%)	Allocation Effect (%)	Total Effect (%)
US Equity	11.2	12.6	-1.4	-0.3	0.0	-0.3
Developed International Equity	8.4	11.7	-3.3	-0.4	0.0	-0.4
Emerging Markets Equity	11.7	4.2	7.5	0.6	-0.1	0.5
US Fixed Income	0.4	1.4	-1.0	-0.1	0.0	-0.1
Opportunistic Credit	10.4	5.6	4.7	0.2	0.0	0.2
Real Estate	-5.7	-10.0	4.2	0.3	0.0	0.4
Private Equity	4.4	17.4	-13.0	-2.0	-0.2	-2.1
Direct Lending	9.1	14.2	-5.1	-0.2	-0.1	-0.3
Hedge Fund	4.9	4.3	0.6	0.1	-0.1	0.0
Real Assets	9.4	-1.2	10.6	0.6	0.0	0.5
Total Fund	**6.4**	**8.0**	**-1.6**	**-1.2**	**-0.4**	**-1.6**

Benchmark History

From Date	To Date	Benchmark
Total Fund		
01/01/2022	Present	22.0% Russell 3000, 11.0% Custom Blended Developed International Equity BM, 8.0% MSCI EM, 11.0% US Fixed Income Custom Benchmark, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Custom Private Equity Benchmark, 5.0% S&P LSTA Leveraged Loan +2%, 5.0% Custom Blended Real Assets Benchmark, 8.0% Custom Blended Real Estate Benchmark, 5.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever
01/01/2020	01/01/2022	21.0% Russell 3000, 10.0% Custom Blended Developed International Equity BM, 8.0% MSCI EM, 18.0% BBgBarc US Aggregate TR, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Custom Private Equity Benchmark, 5.0% Custom Blended Real Assets Benchmark, 8.0% Custom Blended Real Estate Benchmark, 5.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever
07/01/2019	01/01/2020	21.0% US Equity Custom, 18.0% International Equity Custom, 18.0% US Fixed Custom, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Thomson Reuters Cambridge Private Equity Index, 5.0% Real Asset Custom, 8.0% NCREIF ODCE (Net), 5.0% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Lever
01/01/2019	07/01/2019	21.0% US Equity Custom, 23.0% US Fixed Custom, 18.0% International Equity Custom, 10.0% Custom Blended Hedge Fund Benchmark, 15.0% Thomson Reuters Cambridge Private Equity Index, 5.0% Real Asset Custom, 8.0% NCREIF ODCE (Net)
01/01/2017	01/01/2019	27.0% US Equity Custom, 22.0% US Fixed Custom, 23.0% International Equity Custom, 5.0% Custom Blended Hedge Fund Benchmark, 9.0% Thomson Reuters Cambridge Private Equity Index, 14.0% Real Asset Custom
07/01/2014	01/01/2017	22.7% Russell 1000 Index, 5.7% Russell 2000 Index, 23.6% International Equity Custom, 28.5% US Fixed Custom, 4.5% Custom Blended Hedge Fund Benchmark, 8.0% NCREIF ODCE (Net), 7.0% Thomson Reuters Cambridge Private Equity Index
US Equity		
01/01/2020	Present	100.0% Russell 3000 Index
12/31/1994	01/01/2020	100.0% Russell 3000
International Equity		
01/01/2019	Present	56.0% MSCI EAFE Index, 44.0% MSCI Emerging Markets Index
01/01/2017	01/01/2019	69.6% MSCI EAFE Index, 30.4% MSCI Emerging Markets Index
07/01/2013	01/01/2017	100.0% MSCI AC World ex USA index
US Fixed Income		
12/01/1994	Present	10.0% Blmbg. U.S. Treasury: 1-3 Year, 90.0% BBgBarc US Aggregate TR

From Date	To Date	Benchmark
Hedge Fund		
07/01/2017	Present	100.0% HFRI Fund of Funds Composite Index
01/01/2015	07/01/2017	50.0% HFRI Fund of Funds Composite Index, 50.0% HFRI RV: Multi-Strategy Index
Real Assets		
01/01/2022	Present	50.0% S&P Global Infrastructure, 50.0% S&P Global Natural Resources Sector Index (TR)
01/01/2020	01/01/2022	50.0% Cambridge Energy Upstream & Royalties & Private Energy (1 Quarter Lagged), 50.0% Cambridge Infrastructure (1 Quarter Lagged)
03/01/1999	01/01/2020	100.0% Real Asset Custom
SSgA		
04/01/2017	Present	10.0% S&P Global Infrastructure, 15.0% Dow Jones U.S. Select RESI, 25.0% Bloomberg Roll Select Commodity TR Index, 25.0% S&P Global LargeMidcap Resources & Commodities Ind, 25.0% Blmbg. U.S. TIPS
Private Real Estate		
01/01/2020	Present	100.0% NCREIF ODCE 1Q Lagged
03/01/1999	01/01/2020	100.0% NCREIF Fund Index-Open End Diversified Core Equity (VW) (Net)
Private Equity		
01/01/2022	Present	100.0% Custom PE BM (Jan 2022 -) 1Q Lag
01/01/2020	01/01/2022	100.0% Cambridge Global Private Equity & VC (1 Quarter Lagged)
12/31/1994	01/01/2020	100.0% Thomson Reuters Cambridge Private Equity Index

Annual Investment Expense Analysis

	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
Total Fund		**1,134,060,092**		
Total Fund w/o Alternatives		**620,537,996**		
US Equity		**256,584,322**		
BNY Mellon Newton Dynamic US Equity	0.30 % of Assets	56,107,890	0.30	168,324
BNY Mellon Large Cap	0.04 % of First $100 M 0.02 % Thereafter	173,676,300	0.03	54,735
Champlain Small Cap	1.00 % of Assets	26,800,132	1.00	268,001
International Equity		**212,521,681**		
Developed International Equity		**130,056,273**		
Acadian ACWI ex U.S. Small Cap Equity	0.99 % of Assets	14,586,150	0.99	144,403
Driehaus International Small Cap Growth	0.90 % of Assets	14,365,627	0.90	129,291
GQG International Equity	0.50 % of Assets	51,074,415	0.50	255,372
First Eagle International Value Fund	0.79 % of Assets	50,030,081	0.79	395,238
Emerging Markets Equity		**82,465,408**		
Artisan Developing World TR	1.05 % of Assets	56,785,642	1.05	596,249
RWC	0.87 % of Assets	25,679,766	0.87	223,414
MCERA US FIXED+OPP CREDIT		**151,431,993**		
US Fixed Income		**114,220,207**		
Vanguard Short-Term Treasury Index Fund	0.05 % of Assets	6,642,189	0.05	3,321
Vanguard Total Bond Market Index Fund	0.04 % of Assets	17,487,363	0.04	6,121
Payden & Rygel Low Duration Fund	0.43 % of Assets	8,136,681	0.43	34,988
Brandywine US Fixed Income	0.29 % of Assets	32,686,822	0.29	94,792
Wellington Core Bond	0.12 % of Assets	49,267,153	0.12	59,121
Opportunistic Credit		**37,211,786**		
PIMCO Income Fund	0.51 % of Assets	11,699,671	0.51	59,668
GoldenTree Multi-Sector Credit	0.70 % of Assets	25,119,550	0.70	175,837
Sculptor Credit Opportunities Domestic Partners, LP	Performance Based 1.00 and 20.00	392,565	1.00	3,926

	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
Real Estate		**88,113,986**		
Vanguard REIT Index	0.10 % of Assets	16,309,386	0.10	16,309
Private Real Estate		**71,804,600**		
Greenfield Gap VII		889,884	-	-
Patron Capital V		5,335,264	-	-
UBS Trumbull Property		23,513,387	-	-
Carlyle Realty VIII		2,643,733	-	-
Taconic CRE Dislocation Fund II		3,213,226	-	-
Carmel Partners Investment Fund VII		4,174,128	-	-
AG Realty Value Fund X, L.P.		3,591,243	-	-
Rockpoint Real Estate Fund VI, L.P.		4,622,269	-	-
Cerberus Real Estate Debt Fund, L.P.		4,674,311	-	-
Taconic CRE Dislocation Onshore Fund III		5,897,317	-	-
Starwood Distressed Opportunity Fund XII Global		4,227,383	-	-
Carlyle Realty Partners IX		1,354,917	-	-
Carmel Partners Investment Fund VIII		4,106,135	-	-
Rockpoint Real Estate Fund VII L.P.		3,561,404	-	-
Private Equity		**167,391,295**		
Adams Street		3,934,865	-	-
Invesco VI		548,079	-	-
Ocean Avenue II		8,857,322	-	-
Pantheon I		62,508	-	-
Pantheon II		2,822,488	-	-
Pantheon Secondary		109,717	-	-
Davidson Kempner Long-Term Distressed Opportunities Fund IV		2,509,577	-	-
GTCR Fund XII		5,463,630	-	-
Carrick Capital Partners III		6,614,638	-	-
Cressey & Company Fund VI		5,353,718	-	-
TCV X		6,781,347	-	-

	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
Accel-KKR Growth Capital Partners III		4,653,584	-	-
Genstar Capital Partners IX		9,000,776	-	-
Cortec Group Fund VII		8,757,099	-	-
Spark Capital Growth Fund III		8,788,037	-	-
Spark Capital VI		3,532,852	-	-
Summit Partners Growth Equity Fund X-A		8,518,005	-	-
Taconic Market Dislocation Fund III L.P.		7,102,988	-	-
Marlin Heritage Europe II, L.P.		7,580,097	-	-
Khosla Ventures VII		4,957,075	-	-
Accel-KKR Capital Partners VI		3,845,386	-	-
Khosla Ventures Seed E		2,199,506	-	-
TCV XI		5,280,653	-	-
Thoma Bravo Discover Fund III		8,710,275	-	-
Summit Partners Venture Capital Fund V-A		3,224,080	-	-
GTCR Fund XIII/A & B		4,101,946	-	-
Genstar Capital Partners X		7,234,883	-	-
Nautic Partners X		3,349,272	-	-
Spark Capital Growth Fund IV		1,799,822	-	-
Spark Capital VII		1,242,587	-	-
TCV Velocity Fund I		3,737,974	-	-
Accel-KKR Growth Capital Partners IV		1,644,428	-	-
Summit Partners Growth Equity Fund XI-A		2,140,413	-	-
GTCR Strategic Growth Fund I/A&B LP		1,571,993	-	-
Threshold Ventures IV LP		821,312	-	-
Thoma Bravo Discovery Fund IV		3,467,051	-	-
Marlin Heritage III		1,068,667	-	-
Cortec Group Fund VIII, L.P.		1,262,543	-	-
Khosla Ventures VIII		414,883	-	-
Direct Lending		**50,356,768**		

	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
Silver Point Specialty Credit Fund II, L.P.		6,529,741	-	-
Ares Senior Direct Lending Fund II		11,216,977	-	-
Varagon Capital Direct Lending Fund		11,474,239	-	-
AG Direct Lending Fund IV Annex		9,392,242	-	-
AG Direct Lending Fund V		4,634,443	-	-
Accel-KKR Credit Partners II LP		1,454,541	-	-
Silver Point Specialty Credit Fund III		5,654,585	-	-
Hedge Fund		**135,973,962**		
Sculptor (OZ) Domestic II	Performance Based 1.50 and 20.00	264,914	1.50	3,974
Graham Absolute Return	Performance Based 1.75 and 20.00	10,326,247	1.75	180,709
Wellington-Archipelago	Performance Based 1.00 and 20.00	16,080,276	1.00	160,803
Marshall Wace Eureka	Performance Based 2.00 and 20.00	4,541,569	2.00	90,831
Silver Point Capital	Performance Based 1.50 and 20.00	18,585,175	1.50	278,778
Laurion Capital	Performance Based 2.00 and 20.00	13,510,269	2.00	270,205
Taconic Opportunity Fund	Performance Based 1.40 and 20.00	13,989,754	1.40	195,857
Marshall Wace Global Opportunities	Performance Based 2.00 and 20.00	11,239,624	2.00	224,792
Caxton Global Investments	Performance Based 1.95 and 22.50	11,385,841	1.95	222,024
Real Assets		**62,598,782**		
SSgA	0.30 % of First $50 M 0.27 % of Next $50 M 0.25 % Thereafter Minimum Fee: $20,000	8,210,464	0.30	24,631
Private Infrastructure		**29,888,147**		
KKR Global II		3,391,870	-	-
North Haven Infrastructure II		2,725,546	-	-
ISQ Global Infrastructure Fund II		5,594,259	-	-
KKR Global Infrastructure Investors III		4,376,724	-	-
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	Fee Schedule	Market Value	Estimated Annual Fee (%)	Estimated Expense
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BlackRock Global Infrastructure Fund IV		2,802,440	-	-
Private Natural Resources		**24,500,170**		
EnCap XI		4,768,880	-	-
EnCap IV		1,723,435	-	-
GSO Energy Opportunities		429,895	-	-
Taurus Mining		381,913	-	-
Taurus Mining Annex		197,455	-	-
BlackRock Global Energy and Power Infrastructure Fund III LP		4,683,923	-	-
Tailwater Energy Fund IV, LP		3,642,065	-	-
Carnelian Energy Capital IV		3,452,262	-	-
EnCap Energy Capital Fund XII		2,699,148	-	-
Cash		**9,087,303**		
Cash		7,717,783	-	-
Treasury Cash		1,369,521	-	-

Disclaimer, Glossary, and Notes

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

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

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

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Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security).

Duration: Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

Information Ratio: This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta*(market return-Risk Free Rate)].

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

Market Weighted: Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

Prepayment Risk: The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

Price-Book Value (P/B) Ratio: The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about is future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

Standard Deviation: A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

Style: The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

Yield to Maturity: The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a "basis book." For example, a 5% bond pays $5 a year interest on each $100 par value. To figure its current yield, divide $5 by $95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay $100 for the bond that can be bought now for $95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

$$\frac{5\%\ \text{(discount)}}{5\ \text{(yrs. to maturity)}} = \begin{array}{l}1\%\ \text{pro rata, plus}\\ 5.26\%\ \text{(current yield)}\end{array} = 6.26\%\ \text{(yield to maturity)}$$

Yield to Worst: The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

NCREIF Property Index (NPI): Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE): Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.
The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.

MEKETA

INVESTMENT GROUP

Merced County Employees' Retirement Association

January 25, 2024

Investment Risk/Beliefs Survey Responses

Background

→ As discussed at the December meeting, the objective of the Risk Survey is to kick off the 2024 asset allocation process, as well as to help pave a foundation for potential Investment Belief development.

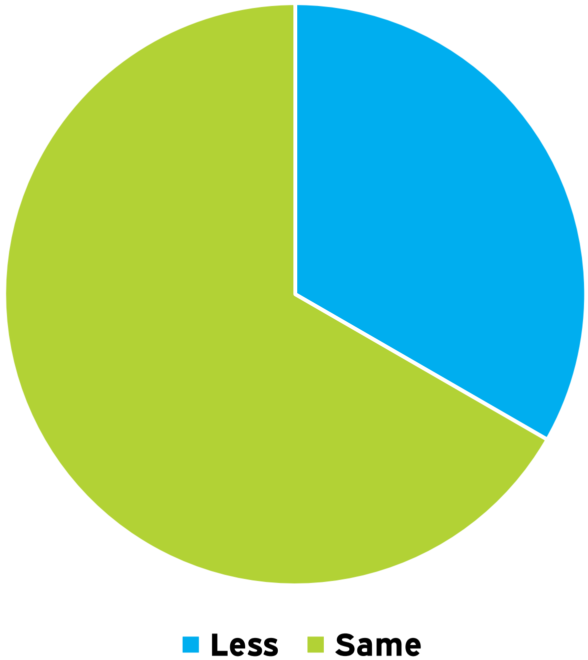
→ The survey helps identify areas of strong consensus, as well as areas where there is variance among Board members' views.

→ All responses are kept anonymous, and presented in the aggregate for the benefit of the group.

→ The goal today is to discuss these responses, and use this feedback to delve into the asset allocation process over the next several meetings.

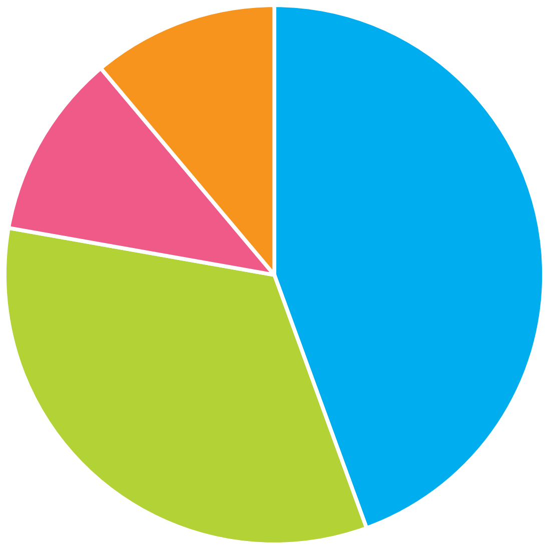
→ At the next meeting, we will review our 2024 Capital Market Assumptions, and begin modeling the current MercedCERA portfolio, along with a variety of alternatives, based on Trustee feedback.

To achieve long-term goals, should MercedCERA be taking more, less, or the same amount of investment risk in the portfolio?

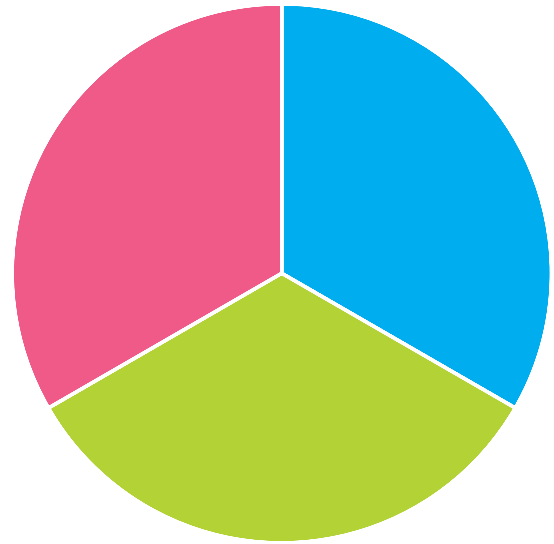


→ 2/3 of trustees believe MercedCERA portfolio is currently taking the appropriate amount of investment risk to achieve long-term goals.

What is considered to be a bad but not necessarily a catastrophic investment year to the respondent?



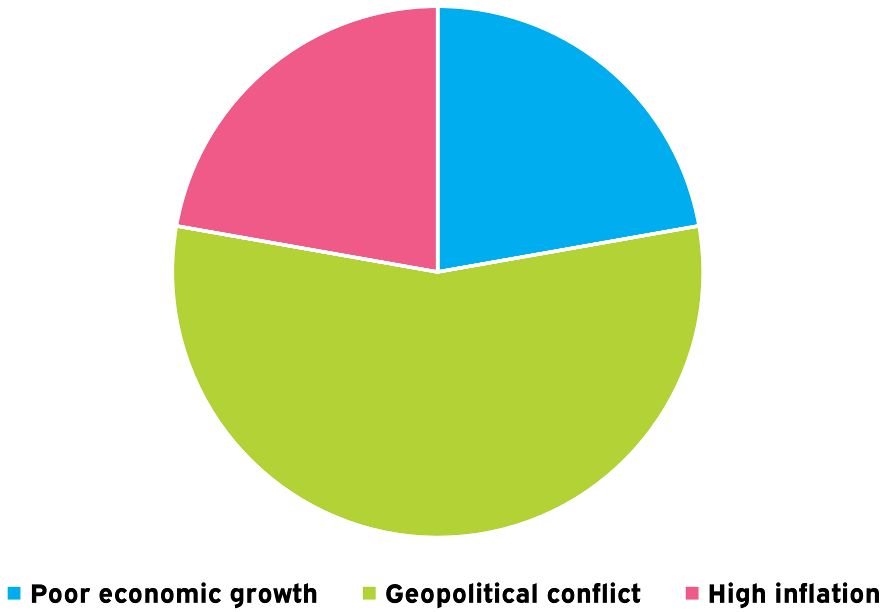
What is considered a good but not necessarily great year for the respondent.



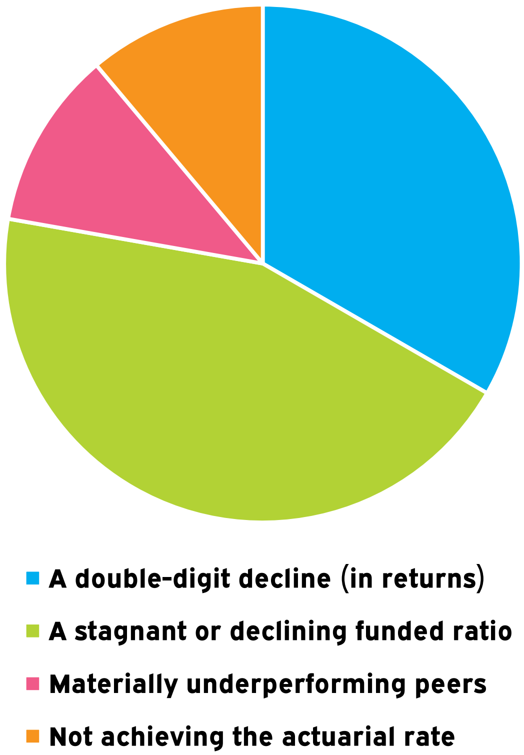
→ A significant majority trustees consider a return between 0 to -12% to be bad but not catastrophic.

→ The trustees were split regarding what is considered to be a good but not great year. Notable is the actuarial assumed rate. Some are comfortable below, and some want a margin above

I am most concerned with which of the following macroeconomic issues (and its impact on MercedCERA) over the next 2-5 years?

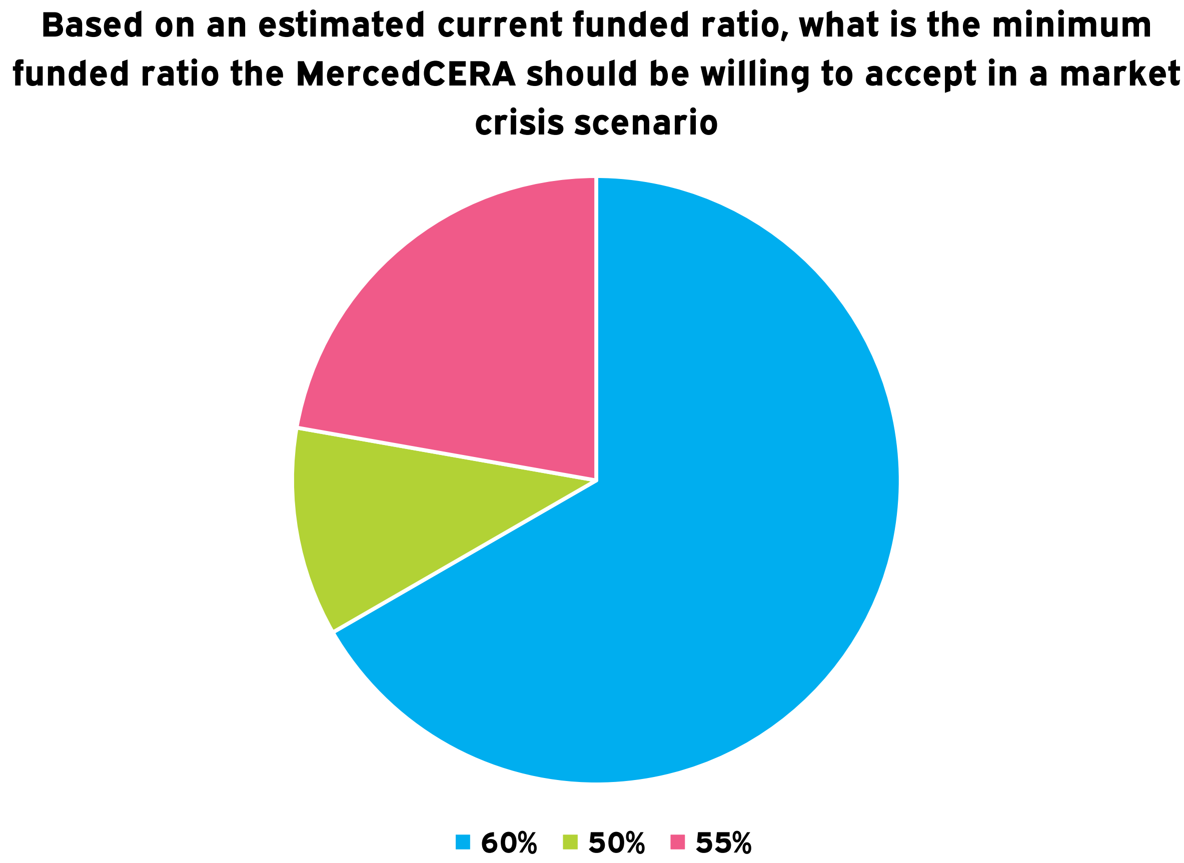


Which of the following outcomes is of the greatest concern over the next 10 years?



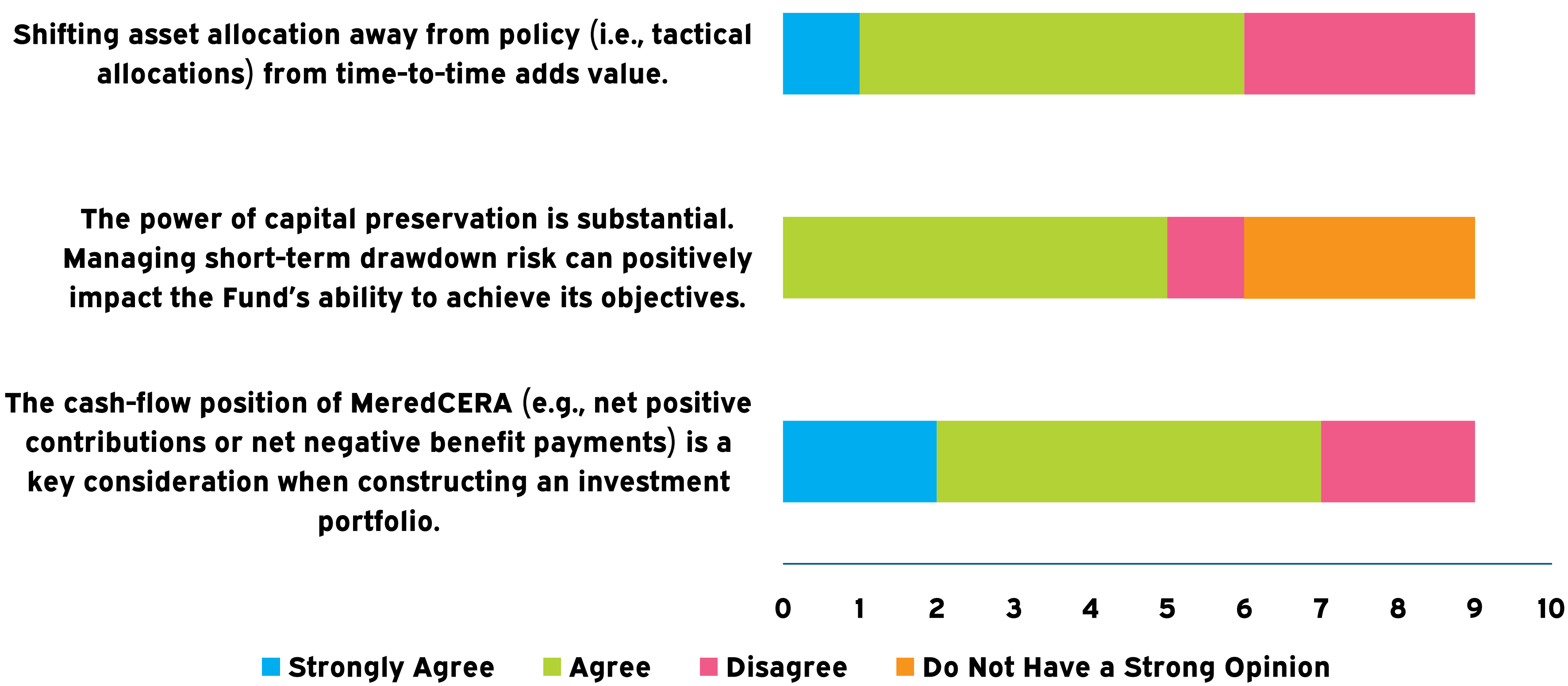
→ A majority of trustees were most concerned by geopolitical conflicts in the intermediate term

→ A stagnant or declining funded ratio, along with meaningful declines, keep Trustees awake at night.



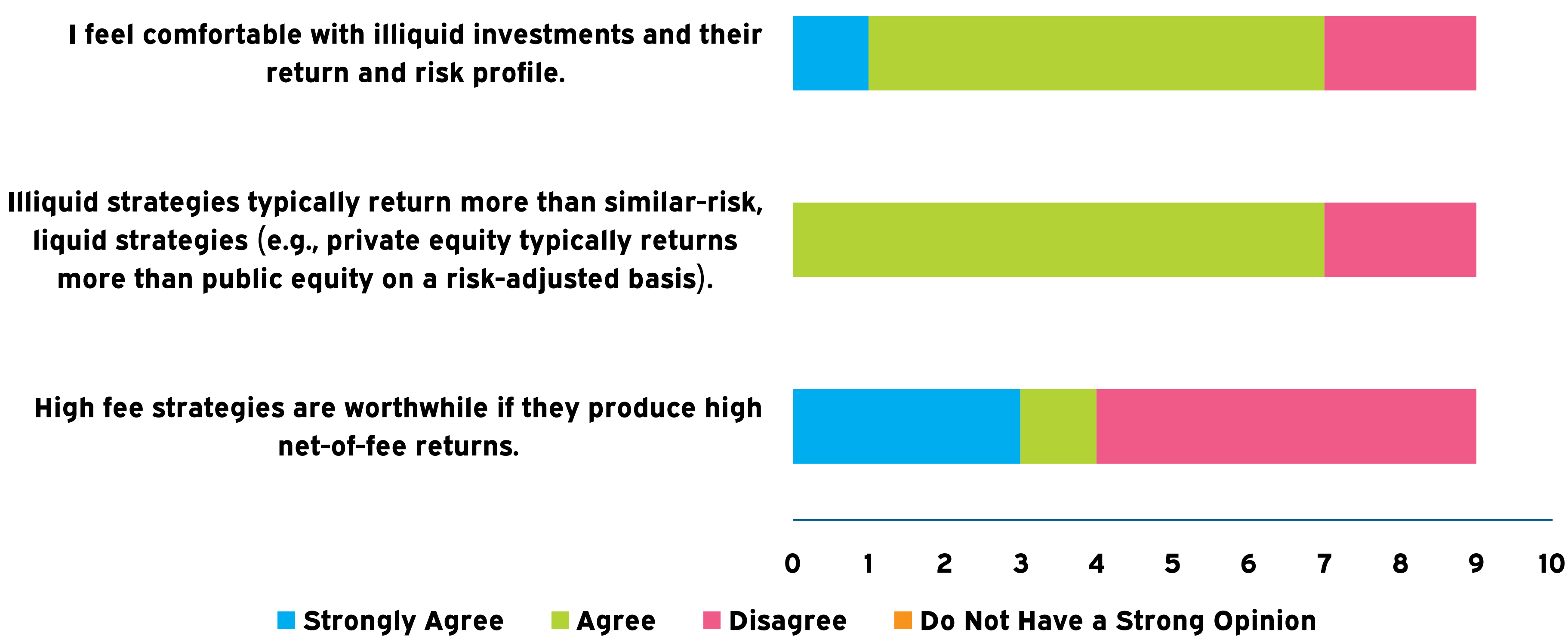
→ Based on current funded ratio (69.6% (June 30, 2022)), 2/3 of trustees determined that a roughly 10% decrease in the funded ratio is the most they would be willing to accept in a market crisis scenario

Portfolio Construction



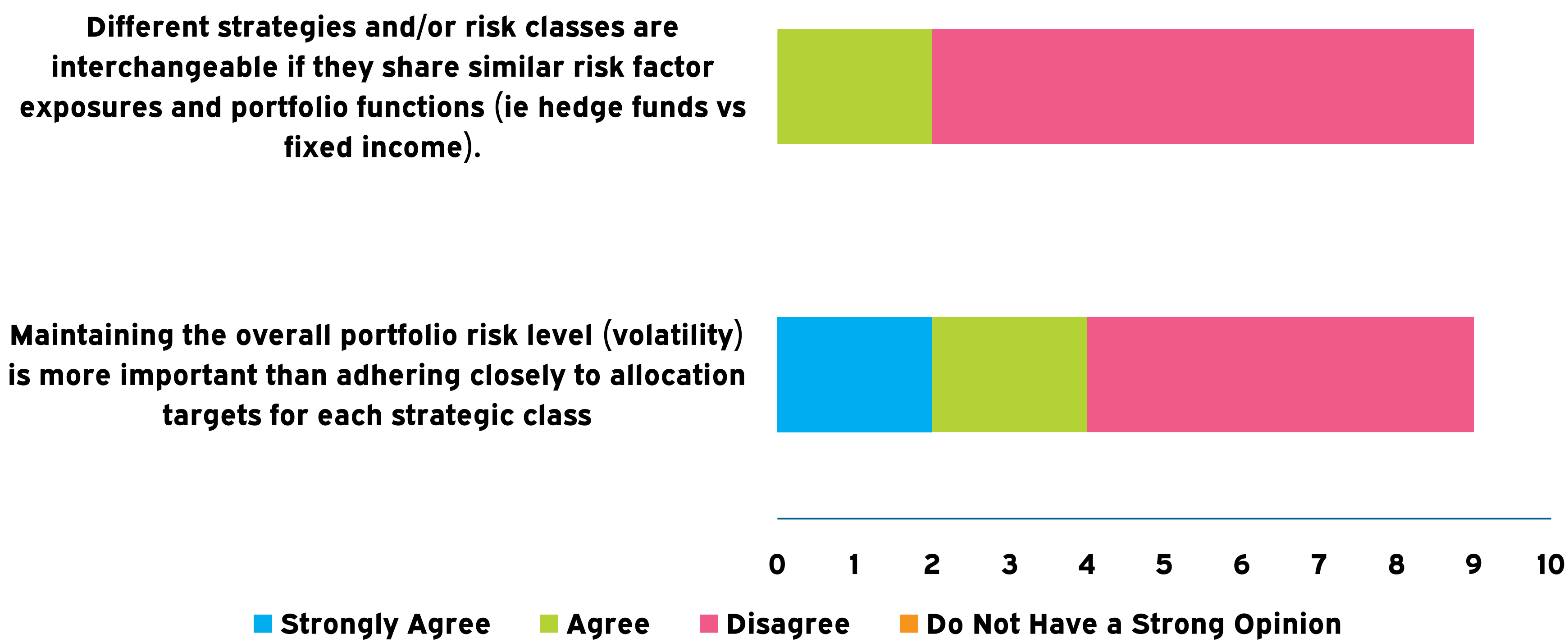
→ The responses to these questions shows differences among Board members' beliefs, and are worth further conversation.

Illiquid/High Fee Strategies



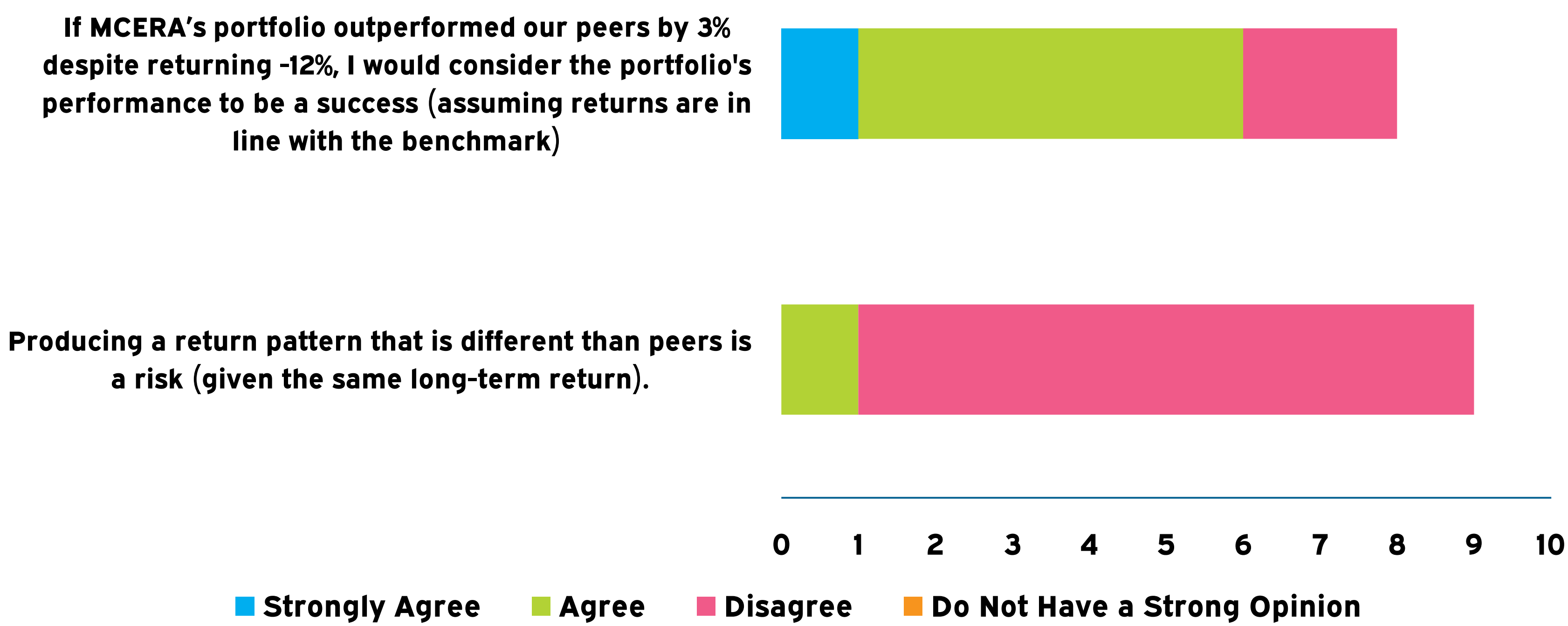
→ There is much to discuss here, with broad support for illiquid strategies, but with concerns around paying high fees, even if returns are strong.

Roles of Asset Classes



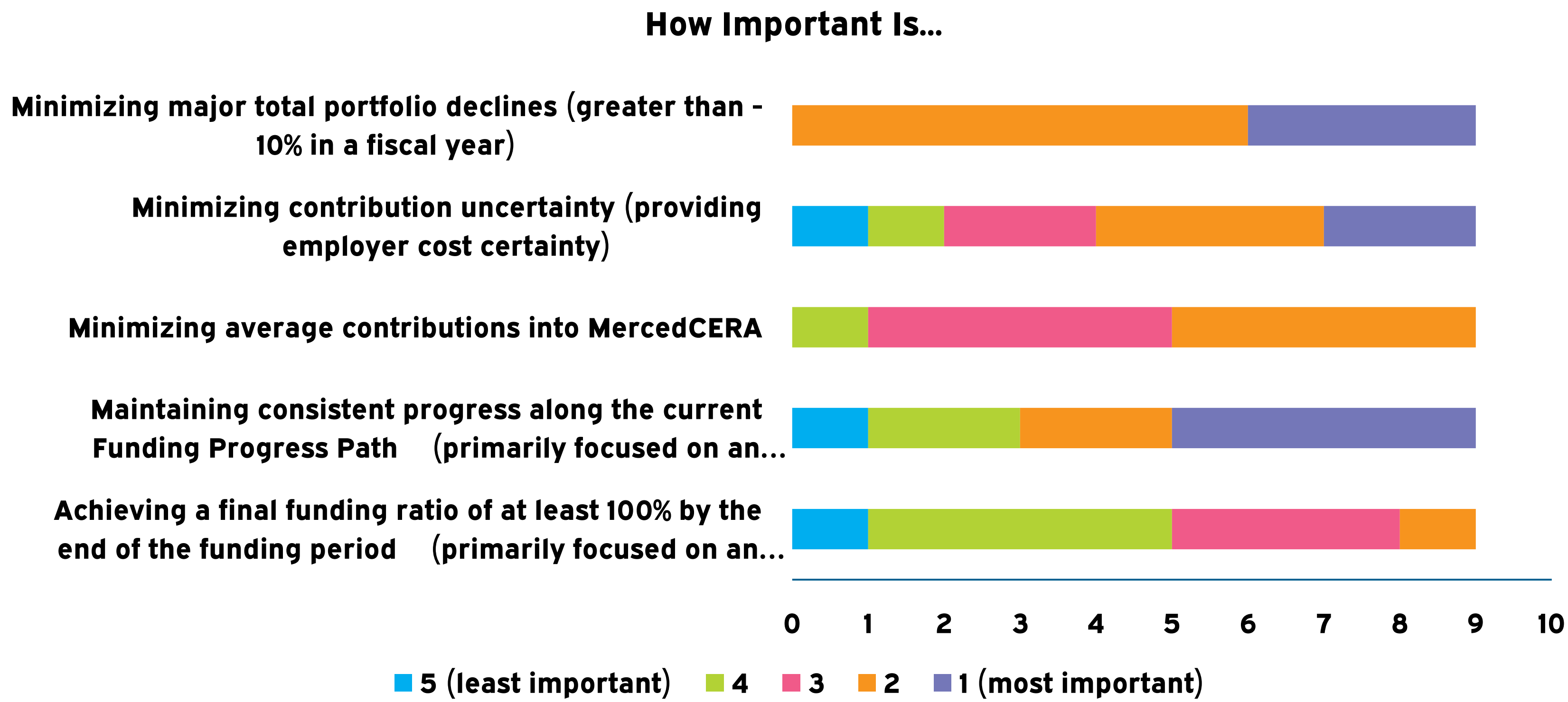
→ Trustees were in consensus that different risk classes are not interchangeable, even if they share similar risk exposures and portfolio functions, and most felt more emphasis on maintaining allocation targets was important.

Performance relative to peers



→ Majority of trustees agreed that outperforming peers relatively (despite negative absolute returns) would be considered a success. Trustees overwhelmingly were in consensus that given the same long-term return, producing a different return pattern vs. peers is not a risk which they want to mitigate

Appendix



→ Because the survey tool allowed Trustees to respond with the same "ranking" for multiple questions, the results here are not as clean as would be desired. However, it IS clear than minimizing portfolio declines is at the top of most Trustees' lists, while funding progress path is very important to about half of the Trustees.

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