

**MercedCERA RETIREMENT BOARD AGENDA  
THURSDAY, JANUARY 27, 2022 – 8:15 A.M.  
MERCED COUNTY EMPLOYEES’ RETIREMENT ASSOCIATION**

**\*VIRTUAL MEETING ONLY\*  
ZOOM CONFERENCE**

<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

**CALL TO ORDER** - 8:15 A.M.

**Important Notice Regarding SARS-COV-2**

**In order to minimize the spread of COVID-19, the Board of Retirement is meeting virtually. Members of the public may attend the meeting virtually or listen to the meeting and offer public comment telephonically by calling into the telephone number provided above and entering the stated conference code. If you have any issues participating in the meeting telephonically or require reasonable accommodation for your participation, please contact MercedCERA staff at 209-726-2724. Please turn your cell phone or other electronic device to non-audible mode.**

**ROLL CALL**

**APPROVAL OF MINUTES** – January 13, 2022

**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.

**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.

**(1) PUBLIC EMPLOYEE INTERVIEW, TITLE: INVESTMENT OFFICER.**

(Govt. Code § 54957)

1. It is the intention of the Board to interview candidates for the position of Chief Investment Officer.

**(2) DISCUSSION AND POSSIBLE ACTION REGARDING INVESTMENTS IN RECOMMENDED FUNDS, ROLL CALL VOTE REQUIRED.**

(Govt. Code § 54956.81)

1. Discussion and possible action to adopt the recommendations from Cliffwater LLC on managers/funds – Cliffwater.

## **RETURN TO OPEN SESSION**

Report on any action taken in closed session.

## **BOARD ACTION/DISCUSSION**

1. Discussion and possible action to adopt the annual audit and MercedCERA's annual report – Brown Armstrong and Staff.
2. Discussion on investment performance with discussion of current market conditions and possible action on any funds or managers – Meketa Group.
3. Review calendar of any training sessions and authorize expenditures for Trustees and Plan Administrator. Pursuant to Govt. Code § 31522.8 and MercedCERA's Trustees Education and Training Policy requirements. Examples of upcoming training and educational sessions:
  - CALAPRS General Assembly, March 5-8, 2022, San Diego, CA (virtual option TBD).
  - SACRS Spring Conference, May 10-13, 2022, Rancho Las Palmas, CA (not open for registration).

## **INFORMATION ONLY**

### **MercedCERA UPCOMING BOARD MEETINGS**

Please note: The MercedCERA Board Meeting and/or Education Day times and dates may be changed in accordance with the Ralph M. Brown Act by the MercedCERA Board as required.

- February 10, 2022
- February 24, 2022

## **ADJOURNMENT**

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.co.merced.ca.us/retirement](http://www.co.merced.ca.us/retirement).

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.

**MercedCERA RETIREMENT BOARD MINUTES  
THURSDAY, JANUARY 13, 2022 – 8:15 A.M.  
MERCED COUNTY EMPLOYEES’ RETIREMENT ASSOCIATION**

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**TELEPHONE NUMBER: 1-310-372-7549, CONFERENCE CODE: 975839**

**CALL TO ORDER - 8:15 A.M.**

**ROLL CALL**

**Board members present:** Ryan Paskin, Scott Johnston, Alfonse Peterson (arrived at 8:22 A.M. and left at 9:05 A.M.), David Ness (arrived at 8:17 A.M.), Janey Cabral, Karen Adams, Scott Silveira (arrived at 8:18 A.M.) and Mike Harris. **Absent:** Wendy Alvarez and Aaron Rosenberg. **Counsel:** Jeff Grant. **Staff:** Kristen Santos, Martha Sanchez, Mark Harman, Kenter Ludlow, Sheri Villagrana, Brenda Mojica, and Wendy Calderon.

**APPROVAL OF MINUTES – December 9, 2021**

**The MercedCERA Board voted unanimously via roll call vote to approve the December 9, 2021 meeting minutes.**

**Johnston/Cabral U/A (6/0)**

**PUBLIC COMMENT**

**No Comment.**

**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 Board Action/Discussion as appropriate.

**RETIREMENTS:** Pursuant to Govt. Code § 31663.25 or § 31672

All items of earnable compensation for service or disability retirements listed below are in compliance with the pay code schedule approved by the Board of Retirement. The retirement is authorized; however, administrative adjustments may be necessary to alter the amount due to: audit, late arrival of data, court order, etc.

a. Pierce, T. Stephen	Beh. Health	11 Yrs. Svc.	Eff: 12/18/2021
b. Saunders, Laura	District Attorney	22 Yrs. Svc.	Eff: 12/18/2021
c. Meyers, Lisa	Child Support	20 Yrs. Svc.	Eff: 12/18/2021
d. Overstreet, Karen	Ag. Commissioner	20 Yrs. Svc.	Eff: 12/18/2021
e. Avila, Elvia	H.S.A.	24 Yrs. Svc.	Eff: 01/01/2022
f. Glenn, Lydia	H.S.A.	26 Yrs. Svc.	Eff: 12/18/2021
g. Manzanedo, Elena	Beh. Health	21 Yrs. Svc.	Eff: 12/18/2021
h. Weatherly, Lana*	District Attorney	13 Yrs. Svc.	Eff: 03/10/2021
i. Dalia, Bernard	Sheriff Department	3 Yrs. Svc.	Eff: 12/31/2021
j. Bower, Gaylin	DPW	28 Yrs. Svc.	Eff: 12/18/2021
k. Liebelt, Brian	Admin. Services	27 Yrs. Svc.	Eff: 01/01/2022



l. Rutledge-Navares, Pamela	Community Dev.	12 Yrs. Svc.	Eff: 01/01/2022
m. Garza, Gloria	Auditor Controller	7 Yrs. Svc.	Eff: 12/22/2021
n. Flores, Maricella	Public Health Dept.	8 Yrs. Svc.	Eff: 12/31/2021

YTD fiscal year 2021/2022 retirees: 50  
 YTD fiscal year 2020/2021 retirees: 88  
 YTD fiscal year 2019/2020 retirees: 105  
 \*Non-Service Connected Disability

- (1) **MONTHLY BUDGET REPORT:** Will be submitted at February 10, 2022 meeting.
- (2) **VIRTUAL MEETINGS:** Reaffirm the adoption of Merced County Employees' Retirement Association Resolution No. 2021-02, and its findings that the Governor's proclaimed state of emergency related to the COVID-19 pandemic remains active, that the state of emergency impacts the ability of the Trustees and public to safely meet in person, and state or local officials continue to impose or recommend measures to promote social distancing.

**The MercedCERA Board voted unanimously via roll call vote to approve the consent calendar as presented.**

**Adams/ Silveira U/A (7/0)**

**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.

- (1) **DISCUSSION AND POSSIBLE ACTION REGARDING INVESTMENTS IN RECOMMENDED FUNDS, ROLL CALL VOTE REQUIRED.**  
 (Govt. Code § 54956.81)
  1. Discussion and possible action to adopt the recommendations from Cliffwater LLC on managers/funds – Cliffwater.
- (2) **DISABILITY RETIREMENT APPLICATIONS: PERSONNEL EXCEPTION**  
 (Govt. Code § § 54957, 31532; Cal Const. art. I, § 1)
  1. Informal Hearing
    - a. Herrera, Yvonne
  2. Formal Hearing
    - a. None

**RETURN TO OPEN SESSION**

Report on any action taken in closed session.

- (1) Discussion and possible action to adopt the recommendations from Cliffwater LLC on managers/funds – Cliffwater.

**The MercedCERA Board voted unanimously via roll call vote to approve the following investments pending legal negotiations - Johnston/Peterson U/A (8/0);**

- a. A commitment of up to \$5 million to *Threshold Ventures IV, L.P.*, a private equity partnership focused on early-stage venture capital investments in enterprise, healthcare IT and deep tech, subject to satisfactory legal negotiations.
- b. A commitment of up to \$8 million to *Thoma Bravo Discover Fund IV, L.P.*, a midmarket software and tech enabled services buyout fund, subject to satisfactory legal negotiations.

(2) Informal Hearing

**The MercedCERA Board voted unanimously via roll call vote to approve a service connected disability and deny a non-service connected disability for member Yvonne Herrera.**

**Cabral/Johnston U/A (8/0)**

**BOARD ACTION/DISCUSSION**

1. Discussion and possible action to approve the recommendation by the Building Subcommittee to approve the bid by Golden Valley Engineering and Surveying not to exceed \$570,000.00 to prepare the vacant lot, refine current plans and create new plans needed for appropriate construction bid to determine feasibility of proposed new headquarter building located at 690 W 19<sup>th</sup> Street, Merced, CA – Staff.

**Action Item Pulled.**

2. Discussion and possible action to adopt annual valuation results as of June 30, 2021 – Graham Schmidt, Cheiron.

**The MercedCERA Board voted unanimously via roll call vote to adopt the annual valuation results.**

**Adams/Silveira U/A (7/0)**

3. Review calendar of any training sessions and authorize expenditures for Trustees and Plan Administrator. Pursuant to Govt. Code § 31522.8 and MercedCERA’s Trustees Education and Training Policy requirements. Examples of upcoming training and educational sessions:
  - CALAPRS General Assembly, March 5-8, 2022, San Diego, CA (virtual option tbd).
  - SACRS Spring Conference, May 10-13, 2022, Rancho Las Palmas, CA (not open for registration).

**No action taken.**

**INFORMATION ONLY**

**Adams-** Wished everyone a good day.

**Silveira-** Notified MercedCERA Board that he has been reappointed to MercedCERA Board for another term along with Alfonse Peterson.

**MercedCERA UPCOMING BOARD MEETINGS**

Please note: The MercedCERA Board Meeting and/or Education Day times and dates may be changed in accordance with the Ralph M. Brown Act by the MercedCERA Board as required.

- January 27, 2022
- February 10, 2022

**ADJOURNMENT**

The meeting adjourned at 9:08 A.M.

Accepted By,

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

# Merced County Employees' Retirement Association




## Board of Retirement Presentation of the Results of the June 30, 2021 Year-End Financial Statement Audit

### **Brown Armstrong Accountancy Corporation**

4200 Truxtun Avenue, Suite 300 | Bakersfield, CA 93309 | 661.324.4971 | Fax 661.324.4997

Presented By: Andrew J. Paulden, CPA  
Partner

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—  
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ACCOUNTANTS



January 27, 2022

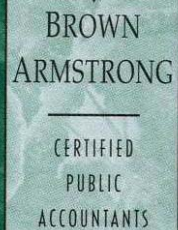
The Board of Retirement of the  
Merced County Employees' Retirement Association  
3199 M Street  
Merced, California 95348

We are pleased to present to you the results of our audit of the Merced County Employees' Retirement Association (MercedCERA) financial statements for the year ended June 30, 2021.

We look forward to presenting the results of the audit and addressing your questions.

Sincerely,

Andrew J. Paulden, CPA/Partner  
Brown Armstrong Accountancy Corporation



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—  
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# Agenda

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# Scope of Services Recap

- ❖ Audit of MercedCERA's financial statements in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards (GAS)*, issued by the Comptroller General of the United States
- ❖ Other communications and reports required by professional standards including:
  - Required Communication at the Conclusion of an Audit in Accordance with Professional Standards (SAS 114)
  - Report on Internal Control Over Financial Reporting and on Compliance and Other Matters in Accordance with GAS

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# Audit Timeline/Critical Dates List

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- **First Week of Fieldwork – July 12, 2021**
  - Remote Testing of Internal Controls
  - Walkthroughs and Understanding of Key Accounting Areas
  - Update Minutes and Agreements
- **Second Week of Fieldwork – October 18, 2021**
  - Substantiate all Accounts and Balances
  - Review Confirmation Responses
- **ACFR Review and Draft Reports – November/December 2021**
- **Audit Opinions Issued – December 20, 2021 Issued Timely**



# Audit Areas of Focus

Significant Risk Areas	Brown Armstrong's Response
Revenue recognition	<ul style="list-style-type: none"><li>• Test of controls was performed over contribution amounts as part of participant data.</li><li>• Confirmations from third parties.</li><li>• Other substantive analytics were also performed.</li></ul>
Management override of controls	<ul style="list-style-type: none"><li>• An understanding of controls over journal entries was obtained and a sample of individual journal entries was performed.</li><li>• Inquiries performed with individual(s) involved in the financial reporting process, and ensured no inappropriate or unusual activity was noted relating to journal entry processing.</li><li>• Performed walkthroughs of significant audit areas to review adequate segregation of duties.</li></ul>

# Audit Areas of Focus

Significant Audit Areas	Brown Armstrong's Response
Investments and related earnings	<ul style="list-style-type: none"> <li>• Walkthrough of controls performed</li> <li>• High level analytics performed on investment income</li> <li>• Confirmation with custodian, managers, and consultants</li> <li>• Reviewed GASB Statement No. 72 valuation inputs and testing of Level determinations</li> <li>• Obtained audited financial statements and SOC reports</li> </ul>
Participant data and actuary	<ul style="list-style-type: none"> <li>• Walkthrough and test of controls</li> <li>• Testing of participant data, including active and terminated members, and employer payroll               <ul style="list-style-type: none"> <li>• Confirmed with actuary</li> <li>• Confirmed with employers</li> </ul> </li> <li>• GASB Statement No. 67/68               <ul style="list-style-type: none"> <li>• Money-weighted return</li> <li>• RSI schedules</li> </ul> </li> </ul>
Benefit payments	<ul style="list-style-type: none"> <li>• Walkthrough and test of controls</li> <li>• Testing of benefit payments</li> <li>• High level analytics</li> </ul>
Employer and employee contributions	<ul style="list-style-type: none"> <li>• Walkthrough and test of controls</li> <li>• Confirmed with employers</li> <li>• High level analytics</li> </ul>

# Results of the Audit

Required Audit Reports Issued	Summary
Report on Financial Statements (Opinion)	Unmodified
Required Communication to the Board of Retirement in Accordance with Professional Standards (SAS 114)	Significant Estimates Reviewed <ul style="list-style-type: none"><li>• Fair Value of Investments</li><li>• Net Pension Liability Estimates<ul style="list-style-type: none"><li>✓ Based on Actuary Assumptions</li></ul></li></ul> Corrected and Uncorrected Misstatements - None Disagreements with Management - None
Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With <i>Government Auditing Standards</i>	No Noncompliance Noted No Material Weaknesses, Significant Deficiencies, or Control Deficiencies Identified

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# Financial Statement Review

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- Review Process
- GFOA Award
- Questions on the ACFR

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# Thank Staff/Questions?

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**Andrew J. Paulden, CPA | Partner**  
Brown Armstrong Accountancy Corporation  
4200 Truxtun Avenue, Suite 300  
Bakersfield, California 93309  
Tel: 661-324-4971 | Email: [apaulden@bacpas.com](mailto:apaulden@bacpas.com)

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Merced County Employees' Retirement Association

A Pension Trust Fund of the County of Merced and Participating Employers  
Merced, California

2021

Annual Comprehensive Financial Report

For the fiscal years ended June 30, 2021 and 2020





## **Annual Comprehensive Financial Report**

For the Fiscal Years Ended June 30, 2021 and 2020

Issued by:

**Kristen Santos**  
Plan Administrator

**Mark A. Harman, MBA**  
Fiscal Manager

**Merced County Employees' Retirement Association**  
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](http://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.*



# Merced County Employees' Retirement Association

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# Introductory Section

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# Merced County Employees' Retirement Association Letter of Transmittal

December 20, 2021

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, 2021 and 2020. 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 71st 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 independent auditor, Brown Armstrong Accountancy Corporation, 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, and the Merced Cemetery District 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, 2021 and 2020 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, Brown Armstrong Accountancy Corporation, 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, 2021, MercedCERA's fiduciary net position restricted for pension benefits totaled approximately \$1.16 billion reflecting an increase of approximately \$243.4 million or 26.5% in fiduciary net position from the end of the previous fiscal year. This was primarily attributable to 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. The higher the level of plan funding, the larger the ratio of assets accumulated to actuarial accrued liability and the higher the level of investment return potential.

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 2019. As a result of the study, several economic and demographic assumptions were changed. The most recent actuarial valuation as of June 30, 2020, reported the Association's actuarial funding status (the ratio of assets to actuarial liabilities) is 65.1%. This increase in funding ratio (65.1% from 63.2% as of June 30, 2019) was primarily due to a combination of MercedCERA's fair value of assets increasing at a rate faster than the increase of the actuarial liabilities, which was 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 78 and 77, respectively.

For the fiscal year ended June 30, 2021, MercedCERA's investment return, net of fees, as reported by Meketa Investment Group, was a positive 26.6% and the annualized rates of return, net of fees, over the last three and five years were a positive 12.3% and 11.7%, respectively.

## **Service Efforts and Accomplishments**

- Adopted and implemented a cost-of-living adjustment (COLA) of 2.0% effective April 1, 2021 for Tier 1 retired members.
- For the seventeenth consecutive year, MercedCERA was awarded the GFOA Certificate of Achievement for Excellence in Financial Reporting for MercedCERA's 2019-2020 Annual Comprehensive Financial Report.
- Approved subscriptions in the following hedge funds:
  - Caxton Global Investments — \$10,000,000
- Approved commitments for each of the following private investments (regardless of funding progress at June 30, 2021):
  - Taconic Market Dislocation Fund III — \$8,000,000

- Starwood Distressed Opportunity Fund XII — \$8,000,000
  - TCV XI — \$8,000,000
  - I Squared Global Infrastructure Fund III — \$5,000,000
  - GTCR XII — \$8,000,000
  - Khosla Ventures VII — \$6,000,000
  - Khosla Ventures Seed E — \$2,000,000
  - Genstar Capital Partners X — \$8,000,000
  - Carlyle Realty Partners IX — \$8,000,000
  - Taconic Commercial Real Estate Dislocation Fund III — \$8,000,000
  - Nautic X — \$8,000,000
- Adopted the 2020 actuarial valuation report 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, 2020. 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 seventeenth 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. 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 Comprehensive Annual  
Financial Report  
For the Fiscal Year Ended

June 30, 2020

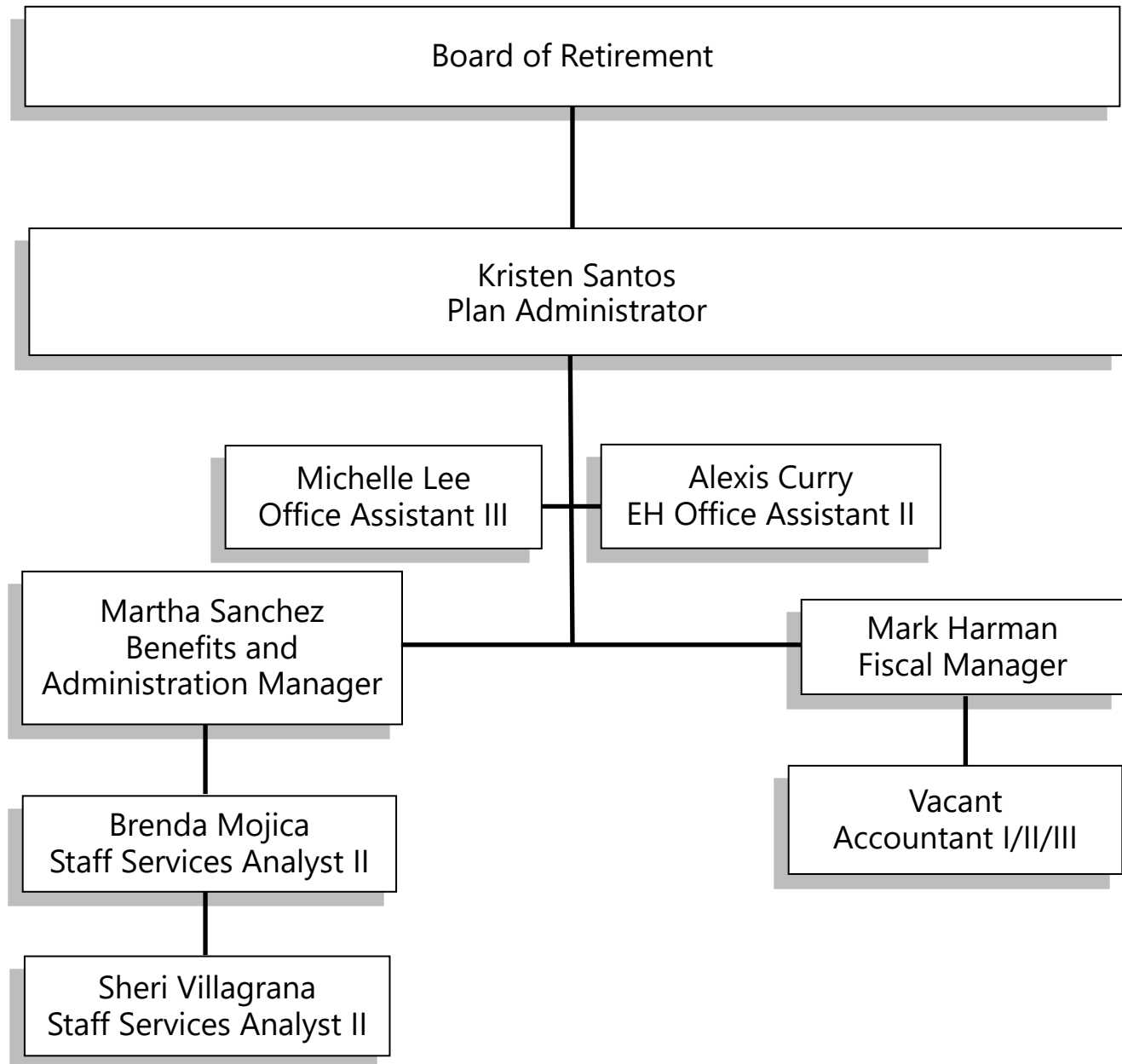
*Christopher P. Morill*

Executive Director/CEO

Merced County Employees' Retirement Association  
 Members of the Board of Retirement  
 As of June 30, 2021

<b><u>Trustees</u></b>	<b><u>Term Expiration</u></b>	<b><u>Appointed/Elected by</u></b>
Ryan Paskin, Chair	December 31, 2022	Board of Supervisors
Scott Johnston, Vice Chair	December 31, 2023	Retired Members
Alfonse Peterson, Secretary	December 31, 2021	Board of Supervisors
Karen Adams, County Treasurer	Permanent by office	Ex-officio Member
Janey Cabral	December 31, 2023	General Members
David Ness	December 31, 2022	Board of Supervisors
Scott Silveira	December 31, 2021	Board of Supervisors
Wendy Alvares	December 31, 2022	General Members
Aaron Rosenberg	December 31, 2022	Safety Members
Vacant, Alternate	December 31, 2022	Safety Members
Michael Harris	December 31, 2023	Retired Members

Merced County Employees' Retirement Association  
Administrative Organization Chart  
As of June 30, 2021



## **Consulting Services**

### **Investment Consultant**

Meketa Investment Group, Inc.  
Cliffwater, LLC

### **Actuary**

Cheiron, Inc.  
Segal Consulting

### **Auditor**

Brown Armstrong Accountancy Corporation

### **Fiscal Consultant**

Macias Gini & O'Connell LLP

### **Master Custodian**

Northern Trust Corporation

### **Electronic Systems Services**

Merced County Information Systems

### **Legal Counsel**

Merced County Counsel  
Ted Cabral  
Nossaman LLP  
Hanson Bridgett LLP

### **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 78 and 79 and the Schedules of Investment Fees located on page 77.*

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

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www.ba.cpa  
661-324-4971

## INDEPENDENT AUDITOR'S REPORT

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

### Report on the Basic Financial Statements and Other Information

We have audited the accompanying Statements of Fiduciary Net Position of the Merced County Employees' Retirement Association (MercedCERA), a component unit of the County of Merced, as of June 30, 2021 and 2020, the related Statements of Changes in Fiduciary Net Position for the fiscal years then ended, and the related notes to the basic financial statements, which collectively comprise MercedCERA's basic financial statements as listed in the table of contents. We have also audited the Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan 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 (specified column totals) (other information) as of and for the fiscal year ended June 30, 2021, listed as other information in the table of contents.

### Management's Responsibility for the Basic Financial Statements and Other Information

MercedCERA's management is responsible for the preparation and fair presentation of these basic financial statements and other information in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of basic financial statements and other information that are free from material misstatement, whether due to fraud or error.

### Auditor's Responsibility

Our responsibility is to express opinions on these basic financial statements and other information based on our audit. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the basic financial statements and other information are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the basic financial statements and other information. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the basic financial statements and other information, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to MercedCERA's preparation and fair presentation of the basic financial statements and other information 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, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the basic financial statements and other information.

**BAKERSFIELD**  
4200 Truxtun Avenue, Suite 300  
Bakersfield, CA 93309  
661-324-4971

**FRESNO**  
10 River Park Place East, Suite 208  
Fresno, CA 93720  
559-476-3592

**STOCKTON**  
2423 West March Lane, Suite 202  
Stockton, CA 95219  
209-451-4833

REGISTERED with the Public Company Accounting Oversight Board and MEMBER of the American Institute of Certified Public Accountants

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

#### **Opinions**

In our opinion, the basic financial statements and other information referred to above present fairly, in all material respects, the fiduciary net position of MercedCERA as of June 30, 2021 and 2020; its changes in fiduciary net position for the fiscal years then ended; and the Schedule of Cost Sharing Employer Allocations and the Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan 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 (specified column totals) as of and for the fiscal year ended June 30, 2021, in accordance with accounting principles generally accepted in the United States of America.

#### **Other Matters**

##### *Required Supplementary Information*

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis and required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board (GASB), 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 management's discussion and analysis and 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 and other information. 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.

##### *Additional Information*

Our audit was conducted for the purpose of forming opinions on the basic financial statements that collectively comprise MercedCERA's basic financial statements and other information. The other supplemental schedules and the introductory, investment, actuarial, and statistical sections, as listed in the table of contents, are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The other supplemental schedules are the responsibility of management and were derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. Such information has been subjected to the auditing procedures applied in the audit of the basic financial statements and other information and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the other supplemental schedules are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

The introductory, investment, actuarial, and statistical sections have not been subjected to the auditing procedures applied in the audit of the basic financial statements and other information and, accordingly, we do not express an opinion or provide any assurance on them.



**Other Reporting Required by *Government Auditing Standards***

In accordance with *Government Auditing Standards*, we have also issued our report dated December 20, 2021, on our consideration of MercedCERA's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and 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 results of that testing, and not to provide an opinion on the effectiveness of 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.

BROWN ARMSTRONG  
ACCOUNTANCY CORPORATION

*Brown Armstrong*  
*Accountancy Corporation*

Bakersfield, California  
December 20, 2021

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, 2021 and 2020. 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, 2021, MercedCERA's fiduciary net position restricted for pensions totaled \$1.163 billion. All of the fiduciary net position is available to meet MercedCERA's ongoing obligations to plan participants and their beneficiaries.
- During fiscal year 2021, MercedCERA's fiduciary net position restricted for pensions increased by \$243.4 million. This change mostly reflects the increase in fair value of investments.
- MercedCERA's funding objective is to meet long-term benefit obligations through contributions and investment income. As of June 30, 2020, the date of MercedCERA's last actuarial funding valuation, MercedCERA's funded ratio was 65.1%. In general, this indicates that for every one dollar of benefits due, MercedCERA has approximately \$0.65 of assets available for payment.
- Additions, as reflected in the Statements of Changes in Fiduciary Net Position, were \$329.9 million in the fiscal year ended June 30, 2021. These additions include employer and employee contributions of \$76.4 million, investment income of \$8.3 million, other income of \$9.3 thousand, a net appreciation in the fair value of investments of \$247.9 million, and investment expenses of \$2.8 million.
- Deductions, as reflected in the Statements of Changes in Fiduciary Net Position, increased from \$82.1 million to \$86.4 million in the current fiscal year (an increase of approximately 5.24%). 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, and 98. These pronouncements require certain disclosures, and also require that defined pension plans of state and local governments report use 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, 2021, MercedCERA's assets exceeded its liabilities by \$1.163 billion. All of the Net Position is available to meet MercedCERA's ongoing obligations to plan participants and their beneficiaries. As of June 30, 2021, the Net Position totaled \$1.163 billion, which is \$243.4 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.

# Merced County Employees' Retirement Association Management's Discussion and Analysis (continued)

## MercedCERA's Fiduciary Net Position

For Fiscal Years Ended June 30, 2021 and 2020:

	2021	2020	Increase/ (Decrease) Amount	% Change
Current and Other Assets	\$10,593,765	\$17,533,476	(\$6,939,711)	-39.6%
Investments at Fair Value	1,151,767,257	901,161,517	250,605,741	27.8%
Capital Assets/Prepaid Expenses	1,607,293	1,837,838	(230,546)	-12.5%
Total Assets	1,163,968,315	920,532,831	243,435,484	26.4%
Total Liabilities	714,471	717,759	(3,288)	-0.5%
Fiduciary Net Position Restricted for Pensions	\$1,163,253,844	\$919,815,072	243,438,772	26.5%

For Fiscal Years Ended June 30, 2020 and 2019:

	2020	2019	Increase/ (Decrease) Amount	% Change
Current and Other Assets	\$17,533,476	\$22,944,456	\$(5,410,980)	-23.6%
Investments at Fair Value	901,161,517	845,415,437	55,746,080	6.6%
Capital Assets/Prepaid Expenses	1,837,838	1,653,115	184,723	11.2%
Total Assets	920,532,831	870,013,008	50,519,823	5.8%
Total Liabilities	717,759	3,509,724	(2,791,965)	-79.5%
Fiduciary Net Position Restricted for Pensions	\$919,815,072	\$866,503,284	\$53,311,788	6.2%

The decrease in current and other assets during the 2020-2021 fiscal year is mostly attributable to a large reduction in cash year-over-year. The increase in total assets during the 2020-2021 fiscal year was due primarily to the increase in the fair value of investments. The modest decrease in total liabilities during the June 30, 2021 fiscal year is mostly due to having a decrease in securities purchased and no pending capital calls 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 (formerly the Market Value Fluctuation Reserve). The Fair Value Fluctuation Reserve increased by \$185.1 million in the current fiscal year mostly as a result of an increase in the fair value of investments.

# Merced County Employees' Retirement Association Management's Discussion and Analysis (continued)

## MercedCERA's Reserves

For Fiscal Years Ended June 30, 2021, 2020, and 2019:

	2021	2020	2019
Active Members' Reserve	\$114,579,642	\$110,614,910	\$107,794,921
Employer Advance Reserve	291,069,692	246,441,171	213,114,049
Retired Members' Reserve	275,755,873	290,820,111	288,219,524
Interest Fluctuation Reserve	141,008,117	116,239,196	81,842,477
Fair Value Fluctuation Reserve	340,840,520	155,699,684	175,532,313
Total Reserves at Fair Value	\$1,163,253,844	\$919,815,072	\$866,503,284

## MercedCERA's Activities

A continuation of growth in financial markets resulted in the June 30, 2021 fiscal year increase of \$243.4 million in MercedCERA's Net Position (an increase of 26.5% from the previous year). The key element of this increase was a materially large rise 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, 2021 totaled \$329.9 million. Overall, additions for the fiscal year increased \$194.4 million from the fiscal year ended June 30, 2020 primarily due to increased growth in the appreciation in fair value of investments year-over-year. In fiscal year 2019-2020, additions totaled \$135.4 million, which was a increase of \$18.4 million from fiscal year 2018-2019. The employer contribution rate has decreased due to changes in the actuarial valuation dated June 30, 2019 despite impacts from the phase in of the actuarial experience study from 2019. Merced County discontinued the additional 1% in contributions for fiscal year ended June 30, 2021. The combination of the decreased employer contribution rate, removal of the additional 1% employer contribution, and a increase in active membership led to a net decrease on contributions of \$1.8 million, or 2.3%, in fiscal year 2019-2020. The impact of this decrease is considered immaterial. 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, 2021 and 2020:

	2021	2020	Increase/ (Decrease) Amount	% Change
Member Contributions	\$11,895,243	\$10,796,855	\$1,098,388	10.2%
Employer Contributions	64,512,161	67,413,475	(2,901,314)	-4.3%
Net Investment Income	253,466,527	57,232,017	196,234,510	342.9%
Total Additions	\$329,873,931	\$135,442,347	194,431,585	143.6%

# Merced County Employees' Retirement Association Management's Discussion and Analysis (continued)

For Fiscal Years Ended June 30, 2020 and 2019:

	2020	2019	Increase/ (Decrease) Amount	% Change
Member Contributions	\$10,796,855	\$10,695,680	\$101,175	0.9%
Employer Contributions	67,413,475	66,586,464	827,011	1.2%
Net Investment Income	57,232,017	39,728,950	17,503,067	44.1%
Total Additions	\$135,442,347	\$117,011,094	\$18,431,253	15.8%

## 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 investment, actuarial, custodial banking, legal, and technology expenses. Deductions for the current fiscal year totaled \$86.4 million while in fiscal year 2019-2020 deductions totaled \$82.1 million, an increase of 5.2% from the previous year. The increase in deductions can be primarily attributed to the retiree payroll increase of 5.2%.

For Fiscal Years Ended June 30, 2021 and 2020:

	2021	2020	Increase/ (Decrease) Amount	% Change
Benefits Paid	\$82,836,595	\$78,755,515	\$4,081,080	5.2%
Refunds of Contributions	977,485	910,147	67,338	7.4%
Administrative Expense	2,494,246	2,253,113	241,133	10.7%
Actuarial Expense	126,833	211,784	(84,951)	-40.1%
Total Deductions	\$86,435,159	\$82,130,559	\$4,304,600	5.2%

For Fiscal Years Ended June 30, 2020 and 2019:

	2020	2019	Increase/ (Decrease) Amount	% Change
Benefits Paid	\$78,755,515	\$74,238,692	\$4,516,823	6.1%
Refunds of Contributions	910,147	571,983	338,164	59.1%
Administrative Expense	2,253,113	2,271,779	(18,666)	-0.8%
Actuarial Expense	211,784	79,326	132,458	167.0%
Total Deductions	\$82,130,559	\$77,161,780	\$4,971,779	6.4%

### **Change in Fiduciary Net Position**

As of June 30, 2021, Fiduciary Net Position increased \$243.4 million, resulting in a 26.5% increase in Fiduciary Net Position over the previous fiscal year. This increase is due primarily to the increase in the fair value of investments. As of June 30, 2020, Fiduciary Net Position increased \$53.3 million, resulting in a 6.2% increase in the Fiduciary Net Position from the previous fiscal year. This increase is due primarily to the increase 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, our 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, MBA  
Fiscal Manager  
December 20, 2021



Merced County Employees' Retirement Association  
 Statements of Fiduciary Net Position  
 As of June 30, 2021 and 2020

	2021	2020
<b>Assets</b>		
Cash and short-term investments		
Cash invested with Merced County Treasurer	\$815,284	\$907,845
Cash invested with Northern Trust	5,578,046	11,231,143
Other cash and cash equivalents with Northern Trust	1,137,164	2,308,322
Total cash and short-term investments	7,530,494	14,447,310
Receivables		
Bond interest	598,599	529,862
Dividends	9,947	34,419
Contributions	2,388,837	2,168,291
Distributions	2,736	353,594
Other	63,152	-
Total receivables	3,063,271	3,086,166
Investments		
U.S. government and agency obligations	49,045,240	28,695,023
Domestic fixed income	192,544,624	175,144,685
Common stock (domestic)	31,836,007	40,961,881
Common stock (index funds)	243,030,022	210,531,937
Common stock (international)	251,148,371	198,737,367
Real estate	89,400,417	58,809,046
Alternative investments	294,762,576	188,281,578
Total investments	1,151,767,257	901,161,517
Prepaid expenses	114,216	112,554
Capital assets: Net of accumulated depreciation of \$1,890,499 and \$1,625,947	1,493,077	1,725,284
<b>Total Assets</b>	<b>1,163,968,315</b>	<b>920,532,831</b>
<b>Liabilities</b>		
Accounts payable	626,229	610,263
Securities purchased	2,839	22,093
Unclaimed contributions	85,403	85,403
<b>Total Liabilities</b>	<b>714,471</b>	<b>717,759</b>
<b>Fiduciary Net Position Restricted for Pensions</b>	<b>\$1,163,253,844</b>	<b>\$919,815,072</b>

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



Merced County Employees' Retirement Association  
 Statements of Changes in Fiduciary Net Position  
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	2021	2020
<b>Additions</b>		
Contributions		
Plan members	\$11,895,243	\$10,796,855
Employer	64,512,161	67,413,475
Total contributions	<u>76,407,404</u>	<u>78,210,330</u>
Investment income from investment activities		
Net appreciation in fair value of investments	247,870,174	50,658,752
Investment income	8,346,163	9,412,121
Other income	9,312	85,459
Less investment expenses	(2,759,122)	(2,924,315)
Total net investment income	<u>253,466,527</u>	<u>57,232,017</u>
Total Additions	329,873,931	135,442,347
<b>Deductions</b>		
Benefits paid	82,836,595	78,755,515
Refunds of contributions	977,485	910,147
Administrative expenses	2,494,246	2,253,113
Actuarial expenses	126,833	211,784
Total Deductions	<u>86,435,159</u>	<u>82,130,559</u>
<b>Net Increase</b>	<u>243,438,772</u>	<u>53,311,788</u>
<b>Fiduciary Net Position Restricted for Pensions</b>		
Beginning of year	919,815,072	866,503,284
End of year	<u>\$1,163,253,844</u>	<u>\$919,815,072</u>

*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, and Merced Cemetery District. 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, and the Merced Cemetery District. 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.

Merced County Employees' Retirement Association  
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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.

Previously, two tiers, II-R and III-R, were created in 2018 as a result of MercedCERA Board Resolutions 2018-01 and 2018-03. On July 30, 2020 the California Supreme Court filed its decision, *Alameda County Deputy Sheriff's Assoc. et al., v. Alameda County Employees' Retirement Assn., et al.* 2020 ("Alameda" or the "Alameda Decision"). This decision effectively nullified the MercedCERA Board Resolutions 2018-01 and 2018-03. Consequently, on August 13, 2021 the MercedCERA Board of Retirement passed Resolution No. 2021-01 to implement the Supreme Court's Decision. Resultant of this, Tier II-R and III-R are closed and any existing members in these tiers are now members of Tier II and Tier III. All remaining references to these tiers have been removed from this report for this fiscal year. Additionally, the Membership Structure tables below have been updated accordingly for both fiscal years reported.

Membership Structure on June 30, 2021 was as follows:

	General Tiers				Safety Tiers				
<b>Active Members</b>	I	II	III	IV	I	II	III	IV	<b>Total</b>
Vested	50	680	65	374	5	145	5	57	1,381
Non-vested	-	6	-	657	1	-	-	105	769
<b>Inactive Members</b>									
Deferred vested	39	227	18	29	2	44	3	2	364
Deferred non-vested	2	64	9	325	-	7	1	50	458
Reciprocity	20	122	-	5	5	31	-	1	184
Unclaimed members	3	14	-	-	-	-	-	-	17
<b>Total active and inactive members</b>	<b>114</b>	<b>1,113</b>	<b>92</b>	<b>1,390</b>	<b>13</b>	<b>227</b>	<b>9</b>	<b>215</b>	<b>3,173</b>
<b>Retired Members</b>									
Service retirements	1,213	498	7	4	187	33	-	1	1,943
Beneficiaries	187	25	-	-	48	1	-	-	261
Service connected disability	31	18	-	-	61	30	-	-	140
Non-service connected disability	29	14	-	-	2	1	-	-	46
Survivors	13	6	-	-	4	2	-	-	25
<b>Total retired members</b>	<b>1,473</b>	<b>561</b>	<b>7</b>	<b>4</b>	<b>302</b>	<b>67</b>	<b>-</b>	<b>1</b>	<b>2,415</b>

Merced County Employees' Retirement Association  
Notes to Basic Financial Statements (continued)  
June 30, 2021 and 2020

Membership Structure on June 30, 2020 was as follows:

	General Tiers				Safety Tiers				Total
	I	II	III	IV	I	II	III	IV	
<b>Active Members</b>									
Vested	59	731	62	249	10	153	6	35	1,305
Non-vested	-	9	1	712	-	-	-	117	839
<b>Inactive Members</b>									
Deferred vested	42	225	19	17	1	43	2	1	350
Deferred non-vested	3	71	9	294	1	7	1	42	428
Reciprocity	26	126	-	3	5	32	-	1	193
Unclaimed members	3	14	-	1	-	-	-	-	18
<b>Total active and inactive members</b>	<b>133</b>	<b>1,176</b>	<b>91</b>	<b>1,276</b>	<b>17</b>	<b>235</b>	<b>9</b>	<b>196</b>	<b>3,133</b>
<b>Retired Members</b>									
Service retirements	1,239	449	5	4	188	26	-	-	1,933
Beneficiaries	185	21	-	-	48	1	-	-	255
Service connected disability	33	18	-	-	64	28	-	-	143
Non-service connected disability	31	14	-	-	2	1	-	-	48
Survivors	14	6	-	-	4	2	-	-	26
<b>Total retired members</b>	<b>1,502</b>	<b>508</b>	<b>5</b>	<b>4</b>	<b>306</b>	<b>58</b>	<b>-</b>	<b>-</b>	<b>2,383</b>

C. Benefit Provisions

- Safety members and General Tier I members with ten 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

Merced County Employees' Retirement Association  
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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 the spouse or 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, if the member is a reciprocal system member, this benefit is payable only to active members of the County 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 after 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; 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 3.56% and 19.90% for the fiscal year ended June 30, 2021 and 2.94% and 19.21% for the fiscal year ended June 30, 2020. 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, and the Merced Cemetery District 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, 2021 and 2020 were 51.25% and 49.15%, 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, 2021 and 2020 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 cost-of-living adjustment 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 \$2.877 million (\$1,370.2 million x .21%) of administrative costs for the fiscal year ended June 30, 2021. For the fiscal years ended June 30, 2021 and 2020, total administrative costs were \$2,494,246 and \$2,253,113, respectively. Included in these figures are computer technology related activities, inclusive of associated depreciation expense, of \$672,688 and \$587,693, respectively. The costs of administering the Plan are financed by the earnings of the retirement fund.

Merced County Employees' Retirement Association  
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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 51 through 53.

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 \$1,493,077 and \$1,725,284 in capital assets as of June 30, 2021 and 2020, net of accumulated depreciation of \$1,890,499 and \$1,625,947, respectively. Of these amounts, \$499,098 is for land held by the Association as of June 30, 2021 and 2020, which is not subject to depreciation.

**Schedule of Capital Assets**  
**For the fiscal year ended June 30, 2021**

	Historical Cost	Net Balance at June 30, 2020	Reclassifications & Additions	Reclassifications & Deletions	Less Depreciation	Net Balance at June 30, 2021
<b>Capital Assets, non-depreciable</b>						
Land	\$499,098	\$499,098	\$ -	\$ -	\$ -	\$499,098
<b>Capital Assets, depreciable</b>						
CPAS Software	2,408,181	1,063,613	-	-	240,818	822,795
Building	313,159	109,605	-	-	10,440	99,165
Office Furniture and Technology	96,295	14,341	12,585	-	9,657	17,269
Building Improvements	66,883	38,627	19,760	-	3,637	54,750
Totals	\$3,383,576	\$1,725,284	\$32,345	\$ -	\$264,552	1,493,077

Merced County Employees' Retirement Association  
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**Schedule of Capital Assets**  
**For the fiscal year ended June 30, 2020**

	Historical Cost	Net Balance at June 30, 2019	Reclassifications & Additions	Reclassifications & Deletions	Less Depreciation	Net Balance at June 30, 2020
<b>Capital Assets, non-depreciable</b>						
Land	\$499,098	\$146,513	\$352,585	\$ -	\$ -	\$499,098
<b>Capital Assets, depreciable</b>						
CPAS Software	2,408,181	1,304,431	-	-	240,818	1,063,613
Building	313,159	120,045	-	-	10,440	109,605
Office Furniture and Technology	83,710	17,881	-	-	3,540	14,341
Building Improvements	47,083	41,647	-	-	3,020	38,627
Totals	\$3,351,231	\$1,630,517	\$352,585	\$ -	\$257,818	\$1,725,284

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, the net appreciation 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.

K. Implementation of New GASB Pronouncements

GASB Statement No. 98, *The Annual Comprehensive Financial Report* was issued October 2021. This Statement replaces the term "Comprehensive Annual Financial Report" and its associated acronym but does not otherwise establish new accounting and financial reporting requirements. The requirements of this Statement apply to all state and local governments. This change has been implemented throughout this report through the use of "Annual Comprehensive Financial Report" and the associated acronym, "ACFR."

**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, 2021 and 2020.

Target Allocation	
Asset Class	June 30, 2021 and 2020
Domestic Equity	21%
Developed Markets Equity	10%
Emerging Markets Equity	8%
Private Equity	15%
Real Estate	8%
Domestic Fixed Income	18%
Opportunistic Credit	5%
Hedge Funds	10%
Real Assets	5%
	100%

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(2) Rate of Return

For the fiscal years ended June 30, 2021 and June 30, 2020, the annual money-weighted rate of return on MercedCERA's investments was 26.9% and 6.6%, 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 \$815,284 and \$907,845 at June 30, 2021 and 2020, 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, 2021 and 2020, short-term investments totaled \$6,715,210 and \$13,539,465, 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, 2021 and 2020 are as follows:

Cash and Short-term Investments	Fair Value	
	2021	2020
Cash invested with Merced County Treasury	\$815,284	\$907,845
Cash invested with Northern Trust	5,578,046	11,231,143
Other cash and cash equivalents with Northern Trust	1,137,164	2,308,322
Total cash and short-term investments	\$7,530,494	\$14,447,310

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 prices (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, 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, commingled fund, and nine 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 twelve 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 than 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.



Infrastructure includes five 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 seven 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 thirty-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.

Merced County Employees' Retirement Association  
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June 30, 2021 and 2020

The Plan has the following recurring fair value measurements as of June 30, 2021:

Investments by Fair Value Level	June 30, 2021	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Common Stock</b>				
Domestic	\$31,836,007	\$ -	\$ -	\$31,836,007
Domestic Index Funds	243,030,022	-	-	243,030,022
International	251,148,371	-	-	251,148,371
<b>US Government and Agency Obligations</b>				
US Treasury and TIPS	23,143,122	-	23,143,122	-
US Government Agency Obligations	25,902,118	-	25,902,118	-
<b>Domestic Fixed Income</b>				
Asset Backed Securities	3,641,643	-	3,641,643	-
Collateralized Mortgage Obligations	194,638	-	194,638	-
Commercial Mortgage Backed Securities	376,108	-	376,108	-
Corporate and Other Credit	36,091,229	-	36,091,229	-
Mutual Funds	128,514,848	128,514,848	-	-
Limited Partnerships	23,726,158	-	-	23,726,158
Real Estate	24,249,539	24,249,539	-	-
<b>Total Investments by Fair Value Level</b>	<b>\$791,853,803</b>	<b>\$152,764,387</b>	<b>\$89,348,858</b>	<b>\$549,740,558</b>
<b>Investments Measured at the Net Asset Value (NAV)</b>				
Real Estate	\$65,150,878			
<b>Alternative Investments</b>				
Hedge Funds	124,617,701			
Infrastructure	22,781,362			
Natural Resources	13,264,768			
Private Equity	101,672,915			
Proxy Fund	32,425,830			
<b>Total Alternative Investments</b>	<b>294,762,576</b>			
<b>Total Investments Measured at NAV</b>	<b>359,913,454</b>			
<b>Total Investments Measured at Fair Value and NAV</b>	<b>\$1,151,767,257</b>			
Investments Measured at the NAV	June 30, 2021	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Real Estate*	\$65,150,878	\$31,055,884	See footnote	See footnote
<b>Alternative Investments</b>				
Hedge Funds**	124,617,701	-	Varies	Varies
Infrastructure	22,781,362	14,537,077	N/A	N/A
Natural Resources	13,264,768	20,467,555	N/A	N/A
Private Equity	101,672,915	77,170,826	N/A	N/A
Proxy Fund	32,425,830	-	Daily	T-2
<b>Total Investments Measured at the NAV</b>	<b>\$359,913,454</b>	<b>\$143,231,342</b>		

\*UBS Trumbull Fund redemption is given by a pro rata share of funds available for disbursement, with a 60-day notice period. Vanguard REIT 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, 2021, have varying lockup periods and redemption notice requirements.



Merced County Employees' Retirement Association  
Notes to Basic Financial Statements (continued)  
June 30, 2021 and 2020

The Plan has the following recurring fair value measurements as of June 30, 2020:

Investments by Fair Value Level	June 30, 2020	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Common Stock</b>				
Domestic	\$40,961,881	\$ -	\$ -	\$40,961,881
Domestic Index Funds	210,531,937	-	-	210,531,937
International	198,737,367	-	-	198,737,367
<b>US Government and Agency Obligations</b>				
US Treasury and TIPS	11,337,463	-	11,337,463	-
US Government Agency Obligations	17,357,560	-	17,357,560	-
<b>Domestic Fixed Income</b>				
Asset Backed Securities	3,910,338	-	3,910,338	-
Collateralized Mortgage Obligations	229,024	-	229,024	-
Commercial Mortgage Backed Securities	728,361	-	728,361	-
Corporate and Other Credit	33,241,894	-	33,241,894	-
Mutual Funds	116,646,551	116,646,551	-	-
Limited Partnerships	20,388,517	-	-	20,388,517
<b>Total Investments by Fair Value Level</b>	<b>\$654,070,893</b>	<b>\$116,646,551</b>	<b>\$66,804,640</b>	<b>\$470,619,702</b>

**Investments Measured at the Net Asset Value (NAV)**

Real Estate	\$58,809,046
<b>Alternative Investments</b>	
Hedge Funds	91,200,267
Infrastructure	20,629,552
Natural Resources	12,145,858
Private Equity	48,912,023
Proxy Fund	15,393,878
<b>Total Alternative Investments</b>	<b>188,281,578</b>
<b>Total Investments Measured at NAV</b>	<b>247,090,624</b>
<b>Total Investments Measured at Fair Value and NAV</b>	<b>\$901,161,517</b>

Investments Measured at the NAV	June 30, 2020	Unfunded Commitments	Redemption Frequency	Redemption Notice Period
Real Estate*	\$58,809,046	\$25,550,926	See footnote	See footnote
<b>Alternative Investments</b>				
Hedge Funds**	91,200,267	-	Varies	Varies
Infrastructure	20,629,552	14,807,741	N/A	N/A
Natural Resources	12,145,858	21,237,945	N/A	N/A
Private Equity	48,912,023	52,564,892	N/A	N/A
Proxy Fund	15,393,878	-	Daily	T-2
<b>Total Investments Measured at the NAV</b>	<b>\$247,090,624</b>	<b>\$114,161,504</b>		

\*UBS Trumbull Fund redemption is given by a pro rata share of funds available for disbursement, with a 60-day notice period. All other real estate funds are closed-ended private LP funds.

\*\*The ten hedge funds that were funded as of June 30, 2020, 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, 2021 was \$143,231,342 and as of June 30, 2020 was \$114,161,504. 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, 2021 and 2020, 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, 2021 and 2020, 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. This is the case of MercedCERA's workout portfolio that is managed by MercedCERA's core fixed income manager, Barrow Hanley. The fair values of MercedCERA's workout portfolio for the fiscal years ended June 30, 2021 and 2020, as reported by Barrow Hanley, were \$422,179 and \$497,725, respectively. These securities are being liquidated or held for longer time frames by comparing their individual fundamental values against executable market prices.

The table below presents the Moody's credit quality ratings of fixed income securities at June 30, 2021 and 2020:

Quality	Aaa	Aa	A	Baa	Ba	B	Caa	Ca	NR*	NA**
Percent of Fixed Income as of June 30, 2021	1.12%	0.83%	6.01%	7.16%	0.36%	0.01%	0.04%	0.08%	10.07%	74.32%
Percent of Fixed Income as of June 30, 2020	2.14%	1.27%	7.45%	7.42%	0.13%	0.01%	0.05%	0.10%	7.08%	74.35%

\*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.

Merced County Employees' Retirement Association  
Notes to Basic Financial Statements (continued)  
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As of June 30, 2021 and 2020, the County's pool has a fair value of \$1,364,564,235 and \$1,051,346,942, respectively, and a weighted average maturity of 658 and 432 days, respectively.

As of June 30, 2021 and 2020, the weighted average maturity of the short-term investment pooled funds with Northern Trust was 49 and 46 days, respectively.

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, 2021:

Investment Type	Fair Value 2021	Weight of Fixed Income 2021	Modified Duration (years) 2021
U.S. Government agency obligations	\$25,902,118	10.72%	4.02
Commercial mortgage backed securities	376,108	0.16%	0.28
Asset backed securities	3,641,643	1.50%	1.74
U.S. Treasury and TIPS	23,143,122	9.58%	9.87
Corporate and other credit	36,091,229	14.94%	8.45
Collateralized mortgage obligations	194,638	0.08%	1.38
Mutual funds	128,514,848	53.20%	3.56
Limited partnerships	23,726,158	9.82%	4.64
Total Fair Value	\$241,589,864	100.00%	
Portfolio Effective Duration			6.48

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, 2020:

Investment Type	Fair Value 2020	Weight of Fixed Income 2020	Modified Duration (years) 2020
U.S. Government agency obligations	\$17,357,560	8.52%	3.24
Commercial mortgage backed securities	728,361	0.36%	0.76
Asset backed securities	3,910,338	1.92%	1.53
U.S. Treasury and TIPS	11,337,463	5.56%	12.73
Corporate and other credit	33,241,894	16.31%	7.65
Collateralized mortgage obligations	229,024	0.11%	0.35
Mutual funds	116,646,551	57.22%	3.35
Limited partnerships	20,388,517	10.00%	4.42
Total Fair Value	\$203,839,708	100.00%	
Portfolio Effective Duration			6.12

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 Depository 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, 2021 and 2020:

Currency	Fair Value (U.S. Dollars)	
	2021	2020
Euro	\$12,949,333	\$8,098,514
Japanese yen	-	10,802
Norwegian krone	5,116	8,277
Total foreign currency	\$12,954,449	\$8,117,593

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, 2021 and 2020.

**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, 2021 and 2020.

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 (formerly the Market 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. This account and associated references to this account throughout the 2021 Annual Comprehensive Financial Report have been renamed to be consistent with GASB Statement No. 31, *Accounting and Financial Reporting for Certain Investments and for External Investment Pools*.

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, 2021 and 2020, is as follows:

<b>Reserve</b>	<b>2021</b>	<b>2020</b>
Active Members'	\$114,579,642	\$110,614,910
Employer Advance	291,069,692	246,441,171
Retired Members'	275,755,873	290,820,111
Interest Fluctuation	141,008,117	116,239,196
Fair Value Fluctuation	340,840,520	155,699,684
Total Reserves	<u>\$1,163,253,844</u>	<u>\$919,815,072</u>

**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, 2020 valuation were based on the results of an actuarial experience study for the period July 1, 2016 through June 30, 2019. Measurements as of the reporting date are based on the fair value of assets as of June 30, 2021 and the Total Pension Liability as of the valuation date June 30, 2020, using update procedures to roll forward to MercedCERA's fiscal year end of June 30, 2021. 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:

	<b>FYE June 30, 2021</b>	<b>FYE June 30, 2020</b>
Total Pension Liability	\$1,492,788,116	\$1,410,873,578
Plan Fiduciary Net Position	(1,163,253,844)	(919,815,072)
Net Pension Liability	\$329,534,272	\$491,058,506
Fiduciary Net Position as a Percentage of the Total Pension Liability	77.92%	65.20%

The Total Pension Liabilities as of June 30, 2021 and June 30, 2020 were determined based on the June 30, 2020 and June 30, 2019 actuarial valuations, rolled forward to June 30, 2021 and June 30, 2020, respectively, using the following actuarial assumptions applied to all periods included in the measurement:

<b>ACTUARIAL VALUATION ASSUMPTIONS</b>		
Valuation Date	June 30, 2020	June 30, 2019
Investment Rate of Return	7.00%	7.00%
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, 2020 and June 30, 2019 valuation dates were 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



Merced County Employees' Retirement Association  
Notes to Basic Financial Statements (continued)  
June 30, 2021 and 2020

-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, 2021 and June 30, 2020 are summarized in the table below.

Long-Term Expected Real Rate of Return		
	FYE June 30, 2021	FYE June 30, 2020
US Equity	4.7%	5.0%
International Equity	5.0%	5.6%
Emerging Markets Equity	6.0%	6.6%
Private Equity	6.8%	6.6%
Real Estate	4.8%	4.8%
Domestic Fixed Income	(0.3%)	(0.1%)
Opportunistic Credit	2.1%	2.6%
Hedge Funds	2.2%	2.1%
Infrastructure	4.9%	4.2%
Natural Resources	6.2%	5.5%
Cash	(1.0%)	0.2%

C. Discount Rate

The discount rate used to measure the Total Pension Liability was 6.75% for June 30, 2021 and 7.00% for June 30, 2020. 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 2021 and 7.00% for 2020, 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%)
<b>2021 Net Pension Liability</b>	\$515,533,257	\$329,534,272	\$175,111,872
	1% Decrease (6.00%)	Current Rate (7.00%)	1% Increase (8.00%)
<b>2020 Net Pension Liability</b>	\$665,180,217	\$491,058,506	\$346,218,153



**Note 6 – LITIGATION**

Prior to the passing of the California Public Employees' Pension Reform Act (PEPRA) in 2013, MercedCERA members were allowed to include up to 160 hours of additional vacation payout hours when terminating employment ("terminal pay") in their retirement allowance calculations under a Settlement Agreement that MercedCERA entered into in 2001.

After almost 9 years of litigation, in September of 2020, the Supreme Court of California ruled terminal pay could not be applied by MercedCERA to legacy members. That case, *Alameda County Deputy Sheriff's Assn. et al v. Alameda County Employees' Retirement Assn., et al. (2018) 19 Cal.App.5th 61* ("Alameda") is now considered resolved and has been implemented in the Association and all impacted retirees have been notified and benefits recalculated to remove terminal pay from the member's FAC.

**Note 7 – SUBSEQUENT EVENTS**

MercedCERA has evaluated subsequent events through December 20, 2021, 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.

Merced County Employees' Retirement Association  
Required Supplementary Information

**Schedules of Changes in Net Pension Liability and Related Ratios  
For the Years Ended June 30\* (continued on next page)**

<b>Total Pension Liability</b>	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>
Service cost (MOY)	\$25,786,520	\$26,267,588	\$22,794,246	\$22,172,594
Interest (includes interest on service cost)	96,764,536	93,583,425	92,452,056	89,402,353
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	10,336,744	7,534,677	1,249,075	2,914,187
Changes of assumptions	32,840,818	20,714,915	-	15,960,129
Benefit payments, including refunds of member contributions	(83,814,080)	(79,665,662)	(74,810,675)	(70,720,210)
Net changes in total pension liability	81,914,538	68,434,943	41,684,702	59,729,053
Total pension liability—beginning	1,410,873,578	1,342,438,635	1,300,753,933	1,241,024,880
Total pension liability—ending	\$1,492,788,116	\$1,410,873,578	\$1,342,438,635	\$1,300,753,933
<b>Fiduciary net position</b>				
Contributions—members	\$64,512,161	\$10,796,855	\$10,695,680	\$10,441,876
Contributions—employers	11,895,243	67,413,475	66,586,464	64,757,288
Net investment income (loss)	253,466,527	57,232,016	39,728,950	70,689,084
Benefit payments, including refunds of member contributions	(83,814,080)	(79,665,662)	(74,810,675)	(70,720,210)
Administrative expense	(2,621,079)	(2,464,896)	(2,351,105)	(2,283,396)
Net change in fiduciary net position	243,438,772	53,311,788	39,849,314	72,884,642
Fiduciary net position—beginning	919,815,072	866,503,284	826,653,970	753,769,328
Fiduciary net position—ending	\$1,163,253,844	\$919,815,072	\$866,503,284	\$826,653,970
Net pension liability—ending	\$329,534,272	\$491,058,506	\$475,935,351	\$474,099,963
Fiduciary net position as a percentage of the total pension liability	77.92%	65.19%	64.55%	63.55%
Covered payroll	\$137,234,030	\$135,618,404	\$131,365,778	\$126,705,902
Net pension liability as a percentage of covered payroll	240.13%	362.09%	362.30%	374.17%

\*Schedules are intended to show information for 10 years. Additional years will be displayed as they become available. Information for this table was provided by Cheiron, Inc.

Merced County Employees' Retirement Association  
Required Supplementary Information

<b>Schedules of Changes in Net Pension Liability and Related Ratios For the Years Ended June 30* (Continued)</b>				
<b>Total Pension Liability</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Service cost (MOY)	\$19,512,609	\$19,384,855	\$19,672,490	\$19,384,434
Interest (includes interest on service cost)	88,982,290	86,323,551	84,203,356	81,090,569
Changes of benefit terms	-	-	-	-
Differences between expected and actual experience	(8,886,191)	(5,488,413)	(12,380,077)	-
Changes of assumptions	36,908,183	-	-	-
Benefit payments, including refunds of member contributions	(66,904,315)	(65,082,403)	(62,951,924)	(58,042,021)
Net changes in total pension liability	69,612,576	35,137,590	28,543,845	42,432,982
Total pension liability—beginning	1,171,412,304	1,136,274,714	1,107,730,869	1,065,298,068
Total pension liability—ending	\$1,241,024,880	\$1,171,412,304	\$1,136,274,714	\$1,107,731,050
<b>Fiduciary net position</b>				
Contributions—members	\$9,384,621	\$9,042,663	\$8,945,316	\$9,642,819
Contributions—employers	60,349,189	56,617,088	52,005,656	48,032,338
Net investment income (loss)	83,097,416	(388,209)	19,318,849	96,219,056
Benefit payments, including refunds of member contributions	(66,904,315)	(65,082,403)	(62,951,924)	(58,042,021)
Administrative expense	(2,173,407)	(2,492,684)	(2,323,446)	(1,547,347)
Net change in fiduciary net position	\$83,753,504	\$(2,303,545)	\$14,994,451	\$94,304,845
Fiduciary net position—beginning	670,015,824	672,319,369	657,324,918	563,020,073
Fiduciary net position—ending	\$753,769,328	\$670,015,824	\$672,319,369	\$657,324,918
Net pension liability—ending	\$487,255,552	\$501,396,480	\$463,955,345	\$450,406,132
Fiduciary net position as a percentage of the total pension liability	60.74%	57.19%	59.17%	59.34%
Covered payroll	\$119,621,964	\$114,397,644	\$110,111,994	\$110,259,316
Net pension liability as a percentage of covered payroll	407.33%	438.29%	421.35%	408.50%
*Schedules are intended to show information for 10 years. Additional years will be displayed as they become available. Information for this table was provided by Cheiron, Inc.				

# Merced County Employees' Retirement Association

## 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.

<b>Schedules of Employer Contributions</b>					
<b>Last 10 Fiscal Years Ended June 30</b>					
<b>Dollar Amounts in Thousands</b>					
	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>
Actuarially Determined Contribution	\$64,512	\$67,413	\$66,586	\$64,757	\$60,349
Contributions in Relation to the Actuarially Determined Contribution	64,512	\$67,413	66,586	64,757	60,349
Contribution Deficiency/(Excess)	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	137,234	\$135,618	\$131,366	\$126,706	\$119,622
Contributions as a Percentage of Covered Payroll	47.01%	49.71%	50.69%	51.11%	50.45%
	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
Actuarially Determined Contribution	\$56,617	\$52,006	\$48,032	\$43,784	\$40,263
Contributions in Relation to the Actuarially Determined Contribution	56,617	52,006	48,032	43,784	40,263
Contribution Deficiency/(Excess)	\$ -	\$ -	\$ -	\$ -	\$ -
Covered Payroll	\$114,398	\$110,112	\$110,259	\$109,401	\$111,567
Contributions as a Percentage of Covered Payroll	49.49%	47.23%	43.56%	40.02%	36.09%

## 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.

<b>Schedules of Investment Returns</b>									
<b>Fiscal Years ended June 30*</b>									
	<b>2021</b>	<b>2020</b>	<b>2019</b>	<b>2018</b>	<b>2017</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>
Annual money-weighted rate of return, net of investment expense	26.9%	6.6%	5.5%	10.1%	9.5%	-0.3%	1.1%	17.0%	11.8%
*Schedules are intended to show information for 10 years. Additional years will be displayed as they become available.									

# Merced County Employees' Retirement Association Notes to Required Supplementary Information

## Note 1 – CHANGES OF BENEFIT TERMS

There were no changes in benefit terms for the fiscal year ended June 30, 2021.

## Note 2 – CHANGES OF ASSUMPTIONS AND METHODS

Changes to assumptions were adopted by the Board at their December 12, 2019 meeting. Rate of return was updated to 7.0% and the mortality to CalPERS 2009 with future improvements applying SOA MP-2019 projection scale using a full generational approach.

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

### Actuarial Valuation Methods and Assumptions

	2021	2020	2019	2018	2017
Valuation Date	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016	June 30, 2015
Effective Date	June 30, 2020	June 30, 2019	June 30, 2018	June 30, 2017	June 30, 2016
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal
Asset Valuation Method	Market Value	Market Value	Market Value	Market Value	Market Value
Amortization Years Remaining*	24	24	24	24	24
Discount Rate	7.00%	7.25%	7.25%	7.25%	7.75%
Price Inflation	2.50%	2.50%	2.50%	2.50%	3.00%
Salary Increases**	2.75%	2.75%	2.75%	2.75%	3.00%
Cost-of-Living Adjustments	2.50%	2.50%	2.50%	2.50%	2.60%
Mortality***	See Notes	See Notes	See Notes	See Notes	See Notes
	2016	2015	2014	2013	2012
Valuation Date	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011	June 30, 2010
Effective Date	June 30, 2015	June 30, 2014	June 30, 2013	June 30, 2012	June 30, 2011
Actuarial Cost Method	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal	Entry Age Normal
Asset Valuation Method	Market Value	Market Value	Actuarial Value	Actuarial Value	Actuarial Value
Amortization Years Remaining*	24	16	17	18	18
Discount Rate	7.75%	7.75%	7.75%	7.75%	8.16%
Price Inflation	3.00%	3.75%	3.75%	3.75%	3.75%
Salary Increases**	3.00%	3.75%	3.75%	3.75%	3.75%
Cost-of-Living Adjustments	2.60%	2.70%	2.70%	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.					

Merced County Employees' Retirement Association  
Other Supplemental Schedules

<b>Schedules of Administrative Expenses</b>		
<b>For the Fiscal Years Ended June 30, 2021 and 2020</b>		
	<b>2021</b>	<b>2020</b>
<b>Personnel Services:</b>		
Salaries, wages and benefits	\$1,159,346	\$1,032,719
<b>Office Expenses:</b>		
Communications	5,308	4,411
Requested maintenance / utilities / cost allocation	76,811	68,637
Office supplies	27,604	9,744
Postage	16,498	17,010
Total Office Expenses	126,221	99,802
<b>Professional Services:</b>		
Audit fees	62,837	49,300
Attorney fees	326,368	310,181
Publications / legal notices / other	3,327	2,898
Disability medical reviews / services	15	22,589
Software, technology, and information services	430,086	344,915
Total Professional Services	822,633	729,883
<b>Miscellaneous Expenses:</b>		
Memberships	5,870	5,570
Board election expenses	20,938	6,922
Fiduciary meeting	11,100	11,400
Fiduciary and staff travel / training	3,246	29,311
Insurance	80,339	79,688
Depreciation expense	264,553	257,818
Total Miscellaneous Expenses	386,046	390,709
<b>Total Administrative Expenses</b>	<b>\$2,494,246</b>	<b>\$2,253,113</b>

Merced County Employees' Retirement Association  
Other Supplemental Schedules (continued)

**Schedules of Investment Expenses  
For the Fiscal Years Ended June 30, 2021 and 2020**

<b>Investment managers' fees</b>	<b>2021</b>	<b>2020</b>
<b>Domestic equities</b>		
Dimensional Fund Advisors	\$29,758	\$62,140
Mellon Capital Management	439,053	335,236
PanAgora Asset Management	42,584	130,769
Total domestic equities	511,395	528,145
<b>International equities</b>		
Acadian Asset Management	124,820	59,386
Driehaus Asset Management	116,972	84,386
Mellon Capital Management	-	17,232
Wells Capital Management	-	303,391
Total international equities	241,792	464,395
<b>Alternative investments</b>		
Graham Capital	-	26,314
GSO	147,681	72,191
KKR	131,544	177,070
SSgA	58,433	48,121
Taconic Capital	17,234	-
Total alternative investments	354,892	323,696
<b>Real estate</b>		
UBS Global –Trumbull Property Management	300,881	334,162
Taconic Capital	131,276	15,401
Total Real Estate	432,157	349,563
<b>Fixed income</b>		
Barrow Hanley	208,365	173,526
Total investment managers' fees	1,748,601	1,839,325
<b>Other investment expenses</b>		
Custodian	114,705	122,711
Investment counsel	256,976	300,384
Investment consultant	619,000	615,000
Miscellaneous investment expense	19,840	46,895
Total other investment expenses	1,010,521	1,084,990
Total fees and other investment expenses	\$2,759,122	\$2,924,315

**Schedules of Payments to Consultants  
For the Fiscal Years Ended June 30, 2021 and 2020**

	2021	2020
Investment professional service fees		
Custodial services - Northern Trust, BNY Mellon*	\$114,705	\$122,711
Investment counsel - Nossaman, LLP	259,976	300,384
Actuarial services - Cheiron, Inc. and Segal Consulting	126,833	211,784
Total investment professional service fees	\$501,514	\$634,879
Administrative professional service fees		
Audit services - Brown Armstrong Accountancy Corporation, MGO	\$62,837	\$49,300
Legal services	326,368	310,181
Other specialized services	3,327	2,898
Disability medical reviews/services	15	22,589
Software and information systems	430,086	344,915
Total administrative professional service fees	\$822,633	\$729,883

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



**Schedule of Cost Sharing Employer Allocations  
For the Fiscal Year Ended June 30, 2021**

<b>Employer</b>	<b>2020-2021 Amortization Share of Pensionable Payroll</b>	<b>Employer Proportionate Share Percentage</b>
County of Merced	\$46,287,997	94.8095%
Merced Superior Court	2,514,877	5.1511%
Merced Cemetery District	19,255	0.0394%
<b>Total</b>	<b>\$48,822,129</b>	<b>100.0000%</b>
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, 2021 (continued on next page)

Employer	Net Pension Liability	Deferred Outflows of Resources				Total Deferred Outflows of Resources
		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	
<b>County of Merced</b>	\$312,429,665	\$11,218,012	\$ -	\$33,172,000	\$495,884	\$44,885,896
<b>Merced Superior Court</b>	16,974,642	609,487	-	1,802,271	854,785	3,266,543
<b>Merced Cemetery District</b>	129,965	4,666	-	13,799	25,378	43,843
<b>Total</b>	\$329,534,272	\$11,832,165	\$ -	\$34,988,070	\$1,376,047	\$48,196,282

Note: Information compiled form GASB 67/68 Report Prepared by Cheiron, Inc. dated June 30, 2021.  
The accompanying notes are an integral part of this schedule.

Merced County Employees' Retirement Association  
Other Information (continued)

Schedule of Employer Pension Amounts Allocated by Cost Sharing Plan  
As of and for the Fiscal Year Ended June 30, 2021 (Continued)

Employer	Deferred Inflows of Resources				Pension Expense Excluding that Attributable to Employer-Paid Member Contributions			
	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	\$ -	\$ 137,166,565	\$ -	\$ 827,415	\$ 137,993,980	\$ 27,983,062	\$ (67,529)	\$ 27,915,533
Merced Superior Court	-	7,452,408	-	519,061	7,971,469	1,520,350	86,238	1,606,588
Merced Cemetery District	-	57,059	-	29,571	86,630	11,640	(18,709)	(7,069)
<b>Total</b>	<b>\$ -</b>	<b>\$ 144,676,032</b>	<b>\$ -</b>	<b>1,376,047</b>	<b>\$ 146,052,079</b>	<b>\$ 29,515,052</b>	<b>-</b>	<b>\$ 29,515,052</b>

Note: Information compiled from GASB 67/68 Report Prepared by Cheiron, Inc. dated June 30, 2021.

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, 2021 measurement date for Employer Reporting as of June 30, 2022, 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, 2021 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)							
2021	2020	2019	2018	2017	2016	2015	2014
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.

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# Investment Section

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INVESTMENT GROUP

2175 NW Raleigh Street  
Suite 300A  
Portland, OR 97210

503.226.1050  
Meketa.com

## MEMORANDUM

**TO:** Board Members, Merced County Employees' Retirement Association  
**FROM:** Paola Nealon, Mika Malone, Meketa Investment Group  
**DATE:** November 15, 2021  
**RE:** Investment Consultant's Statement for ACFR

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This letter reviews the investment performance of the Merced County Employees' Retirement Association (MercedCERA) for the fiscal year ending June 30, 2021.

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 Year 2021 - Year in Review

We entered the June fiscal year 2021 with equity markets continuing to appreciate from their March 2020 market lows, aided by extremely accommodative monetary and fiscal policies enacted across the global and aimed at supporting teetering economies in the face of a pandemic. By fiscal year end, global risk assets produced historically strong returns. Robust stimulus across global developed and emerging economies, news of successful vaccine developments, economies reopening, and a focus on successful vaccine roll-out all contributed to the strong performance of risk assets in the 2021 fiscal year. The notable pickup in economic activity, evident in the latter half of the year, drove inflation higher.

While fiscal year 2021 proved to be a strong market year it should be noted there is still a considerable amount of uncertainty. Among those are: 1) the path of the pandemic, particularly given the rise of the Delta variant – a highly contagious strain of COVID-19, 2) the health and recovery of the labor market, 3) the related implication for inflation and economic growth and 4) the overall impact of fiscal and monetary measures as they begin to subside.

US equities, as represented by the Russell 3000 Index, finished the fiscal year with a 44.2% return. Emerging markets (MSCI Emerging Markets) delivered 40.9% for the year and the MSCI EAFE Index, representing foreign developed markets, returned 32.4% for the same time horizon.

With fiscal and monetary support and corresponding improvement in investor risk sentiment, expectations of short-term volatility, as measured by the VIX index, declined relatively quickly throughout the course of the year. At the recent height of the pandemic, the VIX index reached 82.7, declining to 30.4 at the start of the fiscal year. By year-end June 30, the VIX index had settled at a level

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BOSTON CHICAGO LONDON MIAMI NEW YORK PORTLAND SAN DIEGO



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of 15.8 as continued vaccine distribution and waning inflationary fears led volatility expectations to continue to decline. For much of the fiscal year, most markets embraced a "risk on" appetite. Going forward, the rise of the Delta variant and its potential impact could disrupt market calm.

In the wake of positive vaccine news, we saw a rotation away from growth stocks and into value stocks at calendar year-end that, for the most part, continued for the remainder of the year. By fiscal year-end, the Russell 3000 Value Index (+45.4%) had outpaced the prior leadership of the Russell 3000 Growth Index (+43.0%). Just a year prior - leadership performance of the Russell 1000 Growth Index (+21.9%) versus the Russell 1000 Value Index (-9.4%) held a significant wider spread, that by FY 2021 had all but diminished. Cyclical sectors like energy and financials saw strong results, as investors rotated out of the stay-at-home focused companies in the technology sector that were so previously favored in 2020.

Similarly, but with a drastically more pronounced divergence, we saw a rotation away from large cap stocks and into small cap stocks. The performance dispersion between the Russell 1000 Index (+43.1%) and the Russell 2000 Index (+62.0%) reached nearly 20% by fiscal year end as smaller companies benefitted from the re-opening of economies and its pro-cyclical tailwind.

Within international developed markets, the MSCI EAFE opportunity set, of which Japan, the UK, and the Eurozone are featured most heavily, underperformed relative to the US and emerging markets in part due to weak footing on which they entered the crisis, the robust spread of COVID-19 and prolonged lockdowns in many of these economies. Within emerging markets, we witnessed a widespread divergence between countries that were able to manage the virus' spread by deploying aggressive countermeasures early on (e.g., China) relative to countries facing already challenging economic circumstances (e.g., Brazil, Mexico, and South Africa). More recently, concerns over the spread of the Delta variant and the ability of emerging countries to manage this has weighed on emerging markets results. Specific to China, fears of tighter monetary policies impacting growth in addition to the more recent Chinese regulatory crackdown on ADR-listed companies have been a headwind to the region's performance.

The US Treasury yield curve had declined materially at the onset of COVID-19 (March of 2020) as investors flocked to this safe-haven asset and aggressive Federal Reserve policies were enacted through policy rate cuts and the quantitative easing program. For context, at the end of June 30, 2020 the 10-year yield was at 0.66% with yields remaining below 1.0% through December; by March 2021, the yield nearly doubled to 1.7% on prospects of stronger than expected growth driving negative bond index returns. By the end of the fiscal year, the 10-year yield retreated to 1.4% as concerns about the economic impact of the Delta variant trimmed investor risk appetite.

Within fixed income markets, the Bloomberg Barclays US Aggregate produced essentially flat returns delivering -0.33% for the year ending June 30, 2021; the Bloomberg Barclays TIPS returned 6.5% as inflationary concerns proved to be a tailwind, and the Barclays High Yield Index posted the strongest returns at 15.4% as investors searched for yield given the current historically low levels being offered elsewhere. Lastly, long maturity Treasuries was the worst performer, with the Barclays Long





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US Government returning -10.4% to end the fiscal year 2021. Rising inflation and US economic growth conditions in the second half of the year negatively impacted longer dated fixed income instruments; though we witnessed some recovery as inflation concerns somewhat abated by the end of the fiscal year.

Outside of equity and fixed income markets, we saw strong results from many other asset classes, as they benefitted from the recovery and economic expansion. Energy prices saw a dramatic increase, with WTI crude oil trading at \$75.23 by June 30, 2021 and returning to pre-COVID levels -versus \$39.88 just one year ago. At their trough in 2020, the Bloomberg Commodity Index and the S&P Global Natural Resources Index were down -23.1% and -44.6%, respectively. At the end of the fiscal year, the Bloomberg Commodities Index and the S&P Global Natural Resources Index recovered with healthy returns and printed 45.6% and 49.4% one year returns respectively. Particularly in the second half of the fiscal year, as economies re-opened, an imbalance in supply (low) and demand (high), caused many raw materials to rise sharply (steel, copper, corn, lumber). The increased demand, made worse by port-container shipping congestion drove transportation costs to rise, inciting inflationary fears.

One of the hardest hit asset classes in markets in 2020 had been real estate, where fears regarding utilization rates in commercial real estate prevented the asset class from participating in the recovery in the early months. Since then, REITS have handsomely recovered from their 2020 steep losses such that one-year returns ending June 30, 2021 were 38.1% as proxied by the MSCI U.S. REIT Index. US market volatility as measured by the VIX index was approximately 30% at the beginning of the fiscal year and has nearly halved to just below 16% by the end of the fiscal year.

In April 2021, the advent of vaccines and the rise in economic activity led the IMF to materially upgrade its World Economic Outlook for 2021 with advanced economies projected to rise by 5.1%. In June, the Federal Reserve upgraded US 2021 growth forecast to 7%. Growth projections have also been revised higher for emerging markets, with 2021 at 6.7%. China is expected to see significant growth of 8.4% in 2021 and then resume its potential growth level of 5.7% in 2022. Near term, inflation expectations for advanced economies have been revised upwards and projected to be higher than its 10-year average.

### 2021 Outlook

Looking ahead beyond 2021 we see a variety of issues of primary concern impacting the path and speed of a recovering global economy:

- 1) Economies may not achieve herd (vaccination) immunity, resulting in weaker growth and potentially a need to re-deploy lockdown policies or booster shot programs. Even as public health officials continue to advocate more vaccinations to achieve herd immunity, there are concerns that COVID breakthrough cases may require additional booster shots. Meanwhile, developing countries continue to struggle to gain access to vaccines to help mitigate COVID infections. While authorities indicate that vaccination can prevent hospitalization for Delta variant infections, the Delta variant may pose significant public health problems due to its more virulent characteristics. Additionally, supply dynamics and logistical challenges with the vaccine



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are driving a slower pace of inoculation than expected in addition to vaccine hesitancy, particularly here in the US. This confluence of challenges could move governments to re-impose distancing measures which would likely depress employment and economic growth. Given some considerable uncertainty on the trajectory of COVID preventative measures; several economic themes flow from this larger global health uncertainty.

- a) Consumers may change economic behavior for an extended period. And changing consumer spending and work-environment preferences could limit demand for participating in large events including concerts and sporting events, dining out, travel, and leisure activities. Added concerns here in the US, are the eviction moratoriums and the student loan repayment freeze set to expire with Federal unemployment benefits ending.
  - b) Persistently high unemployment due to a significant number of companies not surviving the economic downturn. Here, in the US, unemployment levels stand at 5.9% and have certainly come down from its peak rates reached at the height of the pandemic, but these remain well above pre-pandemic levels
  - c) Virus-related fears and outbreaks could continue to exacerbate supply chain disruptions as port, transport, and intermodal workers observe lockdown measures. Global bottlenecks may continue to persist resulting in shortages and higher prices.
- 2) The potential of a short-term overheating of the US economy. In May and June, the US CPI exceeded 4% y-o-y and stoked investor concerns that the US economy may overheat as strong consumer demand and the economic recovery could potentially create an inflationary spiral. The Biden administration announced its intentions to expand government spending while the US economy is in a robust recovery and this may exacerbate inflationary pressures.
- 3) As of June 2021, the Federal Reserve was still engaged in its quantitative easing program, purchasing \$120 billion in US Treasuries and mortgage-backed securities a month. As the US economy recovers the Federal Reserve may begin to taper their asset purchases resulting in policy tightening.
- 4) China's recent political interventions in the technology and education sectors could have further repercussions for Chinese US listed ADRs as well as Chinese listed H and A shares. Regulatory tensions between the US and China could force further divestment from listed Chinese companies in the US and in mainland China.



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### Performance

The MCERA portfolio posted a 26.6% return on a net of fees basis for the fiscal year ended June 30, 2021, which trailed the policy index by 40 basis points. From an absolute contribution standpoint, the US Equity segment of the portfolio was the key driver in the underperformance through a combination of lagging performance over the period (-2.6% vs benchmark) along with the large exposure. Private Equity also trailed its benchmark by 9.0%.

When evaluating the trailing year, the International Equity sleeve was a strong positive contributor to performance, outperforming its benchmark by 4.8%. This was largely driven by the emerging markets equity which posted strong absolute results at 53.9%, outperforming its benchmark by 13.0%. Developed international equity also produced strong absolute returns at 30.6%, though it trailed its benchmark return of 35.2%. The US Fixed Income sleeve produced -0.3% absolute returns over the period, in line with the benchmark. Hedge Funds had lukewarm relative results, returning 18.1% which trailed its benchmark by 20 basis points.

From a longer-term perspective, the portfolio posted a return of 12.3% for the trailing three years and 11.7% over the five-year period. Over both periods, the portfolio exceeded the policy benchmark, by 0.8% for three years and 0.3% for five years. In terms of rank versus a comparable peer group, the MCERA portfolio ranked in the second quintile across three- and five- year periods, and in the third quintile across the ten-year trailing period.



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Investment Results

Periods Ended June 30, 2021	Annualized Returns (%)		
	One Year	Three Years	Five Years
<b>US Equity (net)</b>	<b>41.6</b>	<b>17.7</b>	<b>17.7</b>
Russell 3000	44.2	18.0	17.7
<i>Rank</i>	<i>87</i>	<i>41</i>	<i>31</i>
<b>International Equity (net)</b>	<b>41.6</b>	<b>17.7</b>	<b>16.2</b>
International Equity Custom	36.8	10.0	11.9
<i>Rank</i>	<i>16</i>	<i>1</i>	<i>2</i>
<b>US Fixed Income (net)</b>	<b>-0.3</b>	<b>4.8</b>	<b>3.4</b>
BBgBarc US Aggregate TR	-0.3	5.0	3.6
<i>Rank</i>	<i>86</i>	<i>76</i>	<i>64</i>
<b>Opportunistic Credit (net)</b>	<b>15.1</b>	<b>N/A</b>	<b>N/A</b>
50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans	6.4	N/A	N/A
<i>Rank</i>	<i>N/A</i>	<i>N/A</i>	<i>N/A</i>
<b>Private Real Estate (net &amp; 1-quarter lagged)</b>	<b>2.3</b>	<b>2.1</b>	<b>4.2</b>
Custom Blended Real Estate Benchmark	4.1	4.8	5.8
<i>Rank</i>	<i>91</i>	<i>92</i>	<i>88</i>
<b>Private Equity (net &amp; 1-quarter lagged)</b>	<b>48.1</b>	<b>17.6</b>	<b>16.1</b>
Custom Blended Private Equity Benchmark	57.1	23.2	21.9
<i>Rank</i>	<i>29</i>	<i>43</i>	<i>39</i>
<b>Hedge Funds (net)</b>	<b>18.1</b>	<b>5.6</b>	<b>7.4</b>
Custom Blended Hedge Fund Benchmark	18.3	6.3	6.3
<i>Rank</i>	<i>68</i>	<i>60</i>	<i>35</i>
<b>Real Assets (net &amp; certain managers 1-quarter lagged)</b>	<b>19.3</b>	<b>9.5</b>	<b>8.3</b>
Custom Blended Real Assets Benchmark	18.0	6.2	7.7
<i>Rank</i>	<i>29</i>	<i>12</i>	<i>21</i>
<b>Total Fund (net)</b>	<b>26.6</b>	<b>12.3</b>	<b>11.7</b>
Policy Index	27.0	11.5	11.4
<i>Rank</i>	<i>62</i>	<i>28</i>	<i>27</i>

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<b>Total Fund Returns (Gross of Fees) vs. Universe Period Ended June 30, 2021</b>								
	<b>3 mo</b>	<b>Fiscal YTD</b>	<b>3 yrs</b>	<b>5 yrs</b>	<b>7 yrs</b>	<b>10 yrs</b>	<b>Inception Return</b>	<b>Since</b>
Total Fund	6.0%	26.6%	12.3%	11.7%	8.7%	8.8%	8.6%	12/31/1994
Fund Benchmark	5.5%	27.0%	11.5%	11.4%	8.6%	9.2%	6.6%	12/31/1994
IF Public Defined Benefit Gross Rank	10	62	28	27	34	51	57	12/31/1994
IF Public Defined Benefit Gross Median	5.2%	27.2%	11.5%	11.5%	8.1%	9.2%	8.8%	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 has adopted an Investment Policy, adopted February 23, 2017 and amended November 8, 2018, which provides the framework for the management of MercedCERA's investments. The Investment Policy establishes the investment program goals, asset allocation policies, performance objectives, investment management policies and risk controls. The Investment Policy also 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 Investment Policy, 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.

<b>Asset Allocation Information</b> For the Fiscal Year Ended June 30, 2021				
<b>Investment Class</b>	<b>Allocation June 30, 2021</b>	<b>Target</b>	<b>Allocation Minimum</b>	<b>Allocation Maximum</b>
Domestic Equity	24.0%	21.0%	15.0%	26.0%
Developed Markets Equity	12.4%	10.0%	5.0%	15.0%
Emerging Markets Equity	9.5%	8.0%	4.0%	12.0%
Private Equity	8.1%	15.0%	5.0%	20.0%
Real Estate	7.5%	8.0%	6.0%	10.0%
Domestic Fixed Income	16.9%	18.0%	13.0%	23.0%
Opportunistic Credit	5.9%	5.0%	3.0%	7.0%
Hedge Fund	9.3%	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%		

<b>Asset Allocation Information</b> For the Fiscal Year Ended June 30, 2020				
<b>Investment Class</b>	<b>Allocation June 30, 2020</b>	<b>Target</b>	<b>Allocation Minimum</b>	<b>Allocation Maximum</b>
Domestic Equity	27.6%	21.0%	15.0%	26.0%
Developed Markets Equity	11.9%	10.0%	5.0%	15.0%
Emerging Markets Equity	9.9%	8.0%	4.0%	12.0%
Private Equity	6.5%	15.0%	5.0%	20.0%
Real Estate	5.1%	8.0%	6.0%	10.0%
Domestic Fixed Income	17.7%	18.0%	13.0%	23.0%
Opportunistic Credit	4.9%	5.0%	3.0%	7.0%
Hedge Fund	10.0%	10.0%	5.0%	15.0%
Real Assets	5.1%	5.0%	3.0%	7.0%
Cash	1.3%	0.0%	0.0%	5.0%
	100.0%	100.0%		

<b>Investment Summary For the Fiscal Year Ended June 30, 2021</b>		
	<b>Value</b>	<b>Percent of Total</b>
<b>Domestic Equity</b>		
Large Cap	\$117,285,032	10.2%
Large Cap Active	125,744,990	10.8%
Small Cap	31,836,007	2.7%
Total	274,866,029	23.7%
<b>International Equity</b>		
Large Cap	109,127,439	9.4%
Small Cap	32,977,287	2.9%
Emerging Market	109,043,645	9.4%
Total	251,148,371	21.7%
<b>Fixed Income</b>		
Domestic Core	89,348,858	7.7%
Mutual Fund	102,929,715	8.9%
Opportunistic Credit	49,311,291	4.3%
Total	241,589,864	20.9%
<b>Alternative Investments</b>		
Private Equity	137,719,045	11.9%
Hedge Funds	124,617,701	10.7%
Real Asset Proxy	32,425,830	2.8%
Total	294,762,576	25.4%
<b>Real Estate</b>		
Domestic Property Fund	58,480,679	5.0%
Domestic Private Real Estate	21,914,827	1.9%
International Private Real Estate	9,004,911	0.8%
Total	89,400,417	7.7%
<b>Cash and Short-Term Investments</b>		
	7,530,494	0.6%
Total Investments, Cash and Short-Term Investments	\$1,159,297,751	100.0%

Merced County Employees' Retirement Association  
 Schedule of Investment Results (Gross of Fees)  
 For the Fiscal Year Ended June 30, 2021

Domestic Equity	Current Year	Annualized				
		3Yrs	5Yrs	7Yrs	10Yrs	Inception
Large Cap:						
Mellon Dynamic	40.4	20.8	19.7	16.7	--	19.3
Mellon Large Cap Index	43.4	19.3	18.1	--	--	17.7
Small Cap:						
Champlain Small Cap*	--	--	--	--	--	37.3
<b>Total Domestic Equity</b>	<b>41.9</b>	<b>17.9</b>	<b>17.9</b>	<b>14.5</b>	<b>14.7</b>	<b>11.0</b>
<b>Index: Russell 3000</b>	<b>44.2</b>	<b>18</b>	<b>17.7</b>	<b>13.6</b>	<b>14.5</b>	<b>10.9</b>
<b>International Equity</b>						
Developed Markets:						
Acadian ACWI ex U.S. Small Cap Equity	57.0	--	--	--	--	23.6
Driehaus International Small Cap Growth	54.4	--	--	--	--	27.5
GQG International Equity	28.3	--	--	--	--	18.0
First Eagle International Value Fund	22.8	--	--	--	--	9.0
Emerging Markets:						
Artisan Developing World Trust	54.3	--	--	--	--	53.4
RWC Global Emerging Equity Fund	60.2	--	--	--	--	27.0
<b>Total International Equity</b>	<b>42.8</b>	<b>18.4</b>	<b>16.8</b>	<b>9.3</b>	<b>8.6</b>	<b>7.3</b>
<b>Index: International Equity Custom</b>	<b>36.8</b>	<b>10.0</b>	<b>11.9</b>	<b>6.0</b>	<b>6.3</b>	<b>5.2</b>
<b>US Fixed Income</b>						
Barrow Hanley	0.2	6.1	3.5	3.7	3.8	4.5
Vanguard Short-Term Treasury Index Fund	0.0	2.7	--	--	--	2.5
Vanguard Total Bond Market Index Fund	-0.4	--	--	--	--	5.3
<b>Total Fixed Income</b>	<b>-0.2</b>	<b>4.9</b>	<b>3.6</b>	<b>3.4</b>	<b>4</b>	<b>5.4</b>
<b>Index: BBgBarc US Aggregate TR</b>	<b>-0.3</b>	<b>5</b>	<b>3.6</b>	<b>3.4</b>	<b>3.6</b>	<b>5.5</b>
<b>Opportunistic Credit</b>						
PIMCO Income Fund	9.6	--	--	--	--	5.4
GoldenTree Multi-Sector Credit	17.2	--	--	--	--	7.8
Sculptor Credit Opportunities Domestic Partners, LP	23.3	--	--	--	--	23.3
<b>Total Opportunistic Credit</b>	<b>15.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>7.6</b>
<b>Index: 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans</b>	<b>6.4</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>5.6</b>



Merced County Employees' Retirement Association  
 Schedule of Investment Results (Gross of Fees) (Continued)  
 For the Fiscal Year Ended June 30, 2021

Real Estate	Current Year	Annualized				
		3Yrs	5Yrs	7Yrs	10Yrs	Inception
Vanguard REIT Index	--	--	--	--	--	29.1
UBS Trumbull	-3.0	2.1	4.4	6.4	8.2	7.8
Greenfield GAP VII	18.4	13.7	13.7	--	--	14.4
Patron V	14	-1.4	7.7	--	--	7.1
Carlyle Realty VIII	3.1	-1.8	--	--	--	-10.0
Taconic CRE Dislocation Fund II	7.1	--	--	--	--	8.2
Carmel Partners Investment Fund VII	-23.6	--	--	--	--	-38.6
AG Realty Value Fund X, L.P.	15.7	--	--	--	--	-2.3
Rockpoint Real Estate Fund VI, L.P.	7.3	--	--	--	--	8.0
Cerberus Real Estate Debt Fund, L.P	24.8	--	--	--	--	24.8
<b>Total Real Estate**</b>	<b>6.6</b>	<b>3.6</b>	<b>5.1</b>	<b>6.4</b>	<b>7.5</b>	<b>8.0</b>
<b>Index: Custom Blended Real Estate Benchmark</b>	<b>4.1</b>	<b>4.8</b>	<b>5.8</b>	<b>7.5</b>	<b>8.7</b>	<b>7.1</b>
<b>Real Assets</b>						
Proxy Fund						
SSgA	30.1	6.8	--	--	--	6.8
Private Infrastructure:						
KKR Global Infrastructure Investors II	48.4	29.4	21.6	--	--	18.7
North Haven Infrastructure II	-1.7	6.6	8.6	--	--	6.3
ISQ Global Infrastructure Fund II	16.8	-1.0	--	--	--	-1.0
KKR Global Infrastructure Investors III	9.7	--	--	--	--	-4.6
Ardian Infrastructure Fund V	-39.1	--	--	--	--	-29.8
Private Natural Resources:						
GSO Energy Opportunities	58.4	3.7	10.8	--	--	11.2
Taurus Mining	-7.0	1.8	6.0	--	--	9.0
Taurus Mining Annex	6.1	18.8	--	--	--	22.5
EnCap XI	0.8	-18.1	--	--	--	-25.7
EnCap IV	9.2	4.1	--	--	--	1.0
BlackRock GEPIF III	37.5	--	--	--	--	19.7
Tailwater Energy Fund IV	13.7	--	--	--	--	-17.9
<b>Total Real Assets</b>	<b>19.5</b>	<b>9.6</b>	<b>8.5</b>	<b>8.7</b>	<b>9.1</b>	<b>--</b>
<b>Index: Custom Blended Real Assets Benchmark</b>	<b>18.0</b>	<b>6.2</b>	<b>7.7</b>	<b>6.6</b>	<b>--</b>	<b>--</b>

Merced County Employees' Retirement Association  
 Schedule of Investment Results (Gross of Fees) (Continued)  
 For the Fiscal Year Ended June 30, 2021

Private Equity	Current Year	Annualized				
		3Yrs	5Yrs	7Yrs	10Yrs	Inception
Adams St	74.3	22.3	19.2	16.5	15.7	12.8
Invesco VI	138.4	38.1	28.6	30.1	--	21.6
Ocean Ave II	96.2	36.2	32	21.4	--	21.4
Pantheon I	13.1	-8.8	-2.1	-1.2	1.8	2
Pantheon II	69.4	24.4	20.6	16.7	--	15.8
Pantheon Secondary	9.6	1.1	1.4	0.6	1.2	3.4
Raven Asset Fund II	-16.8	-5	-4.1	--	--	-4
Davidson Kempner Long-Term Distressed Opportunities Fund IV	21	9.5	--	--	--	9
GTCR Fund XII	55.9	13.7	--	--	--	13.3
Carrick Capital Partners III	28.5	--	--	--	--	8.9
Cressey & Company Fund VI	43.1	--	--	--	--	13.7
TCV X	103.7	--	--	--	--	30.5
Accel-KKR Growth Capital Partners III	20.6	--	--	--	--	0.3
Genstar Capital Partners IX	48.6	--	--	--	--	22.5
Cortec Group Fund VII	52.2	--	--	--	--	26.9
Spark Capital Growth Fund III	12.8	--	--	--	--	9.5
Spark Capital VI	-15.2	--	--	--	--	-11.7
Summit Partners Growth Equity Fund X-A	-4.8	--	--	--	--	9.1
Taconic Market Dislocation Fund III L.P.	24.5	--	--	--	--	24.5
Silver Point Specialty Credit Fund II, L.P.	22.1	--	--	--	--	22.1
Marlin Heritage Europe II, L.P.*	--	--	--	--	--	-2.0
Khosla Ventures VII*	--	--	--	--	--	-4.8
TCV XI*	--	--	--	--	--	-5.2
Thoma Bravo Discover Fund III*	--	--	--	--	--	4.5
Summit Partners Venture Capital Fund V-A*	--	--	--	--	--	-1.9
<b>Total Private Equity**</b>	<b>48.1</b>	<b>17.6</b>	<b>16.1</b>	<b>13.2</b>	<b>11.6</b>	<b>9.9</b>
<b>Index: Custom Blended Private Equity Benchmark</b>	<b>57.1</b>	<b>23.2</b>	<b>21.9</b>	<b>18</b>	<b>19.6</b>	<b>--</b>

Merced County Employees' Retirement Association  
 Schedule of Investment Results (Gross of Fees) (Continued)  
 For the Fiscal Year Ended June 30, 2021

Hedge Funds	Current Year	Annualized				
		3Yrs	5Yrs	7Yrs	10Yrs	Inception
Sculptor (OZ) Domestic II	19.5	11.7	11.8	8.6	--	8.6
Graham Absolute Return	17.1	3.4	--	--	--	3.8
Wellington-Archipelago	13.1	6.4	--	--	--	6.6
KLS Diversified	13.4	-1.6	--	--	--	0.1
Marshall Wace Eureka	19.7	8.2	--	--	--	8.7
Silver Point Capital	35.7	10.0	--	--	--	9.7
Laurion Capital	39.5	--	--	--	--	23.8
Taconic Opportunity Fund	15.1	--	--	--	--	5.7
Marshall Wace Global Opportunities	5.5	--	--	--	--	5.7
Caxton Global Investments*	--	--	--	--	--	-3.2
<b>Total Hedge Funds</b>	<b>19.2</b>	<b>6.2</b>	<b>7.9</b>	<b>5.3</b>	<b>--</b>	<b>5.3</b>
<b>Index: Hedge Fund Custom</b>	<b>18.3</b>	<b>6.3</b>	<b>6.2</b>	<b>4.6</b>	<b>--</b>	<b>4.6</b>
<b>Total Fund***</b>	<b>27.1</b>	<b>12.6</b>	<b>12.0</b>	<b>9.0</b>	<b>9.2</b>	<b>8.7</b>
<b>Total Fund Custom Index***</b>	<b>27.0</b>	<b>11.5</b>	<b>11.4</b>	<b>8.6</b>	<b>9.2</b>	<b>6.6</b>

\*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.

<b>Top 10 Largest Holdings by Fair Value June 30, 2021</b>				
<b>PAR</b>		<b>Bonds</b>		<b>Fair Value</b>
6,210,000	US TREASURY NOTE	1.125% DI 02/29/2020 DD 02/28/2025		\$6,323,527
4,750,000	US TREASURY NOTE	1.500% DI 01/31/2020 DD 01/31/2027		4,883,037
4,510,000	US TREASURY BOND	1.500% DI 02/15/2020 DD 02/15/2030		4,554,571
3,845,000	US TREASURY NOTE	1.250% DI 08/31/2019 DD 08/31/2024		3,935,718
3,545,000	US TREASURY BOND	1.375% DI 08/15/2020 DD 08/15/2050		2,988,463
1,031,870	FNMA POOL #FM4638	2.500% DI 10/01/2020 DD 10/01/2050		1,068,841
1,016,358	FNMA POOL #FM6557	2.000% DI 03/01/2021 DD 03/01/2051		1,029,413
947,810	FNMA POOL #FM4828	3.000% DI 11/01/2020 DD 11/01/2050		997,457
841,486	FNMA POOL #FM6101	2.500% DI 02/01/2021 DD 02/01/2051		872,450
822,571	FNMA POOL #MA4316	2.500% DI 03/01/2021 DD 04/01/2036		861,637
				<u>\$27,515,114</u>

A complete list of portfolio holdings is available upon request.

<b>Schedules of Investment Management Fees*</b> <b>June 30, 2021 and 2020</b>				
<b>Investment Managers' Fees</b>	<b>2021 Assets Managed</b>	<b>2021 Fees</b>	<b>2020 Assets Managed</b>	<b>2020 Fees</b>
Equity Managers				
Domestic	\$243,030,022	\$511,395	\$251,493,818	\$528,145
International	37,977,287	241,792	21,291,358	464,395
Fixed Income Managers	89,348,858	208,365	66,804,640	173,526
Alternative Investment Managers	49,743,172	354,892	34,837,446	339,097
Real Estate Managers	38,682,726	432,157	39,532,118	334,162
Total Investment Manager Fees and Assets Managed	\$453,782,065	\$1,748,601	\$413,959,380	\$1,839,325

\*MercedCERA did not have any investment transactions or trades that resulted in commissions or fees during the fiscal years ended June 30, 2021 and 2020. Therefore, a Schedule of Commissions is not applicable to these fiscal years and will not be presented here.

Merced County Employees' Retirement Association  
 List of Investment Service Providers  
 As of June 30, 2021

<b>Investment Service Providers</b>	
<b>Fixed Income</b>	<b>Private Equity</b>
Barrow, Hanley, Mewhinney & Strauss, Inc.	Adams Street Partners, LLC
Vanguard	Pantheon Ventures, Inc.
PIMCO Investment Management	Invesco Private Capital
GoldenTree Asset Management LP	Ocean Avenue Capital Partners
	Raven Capital Management
<b>Domestic Equity</b>	Davidson Kempner Capital Management LP
Mellon Capital Management	GTCR LLC
Champlain Investment Partners	Carrick Capital Management Company
	Cressey & Company LP
<b>International Equity</b>	Technology Crossover Ventures (TCV)
Acadian Asset Management	Accel-KKR
Driehaus Capital Management	Genstar Capital
GQG	Cortec Group
First Eagle	Spark Capital
Artisan	Summit Partners
RWC	Silver Point
	Marlin Equity Partners
<b>Real Estate</b>	Khosla Ventures
UBS Global Asset Management	Thoma Bravo, LP
Greenfield Partners	
Patron Capital	<b>Hedge Fund</b>
The Carlyle Group	Och-Ziff Capital Management
Taconic Capital Advisors LP	Wellington Alternative Investments
Carmel Partners, Inc	Graham Capital Management
Angelo Gordon	KLS Diversified Asset Management
Rockpoint Group	Marshall Wace, LLP
Cerberus Capital Management	Silver Point Capital, L.P.
Vanguard	Taconic Capital Advisors LP
	Laurion Capital Management, LLP
<b>Real Asset Proxy</b>	Caxton Associates LP
SSgA	

*Continued on next page.*

**Investment Service Providers (Continued)**

**Natural Resources**

GSO Energy Select Opportunities Associates, LLC

Taurus Funds Management

EnCap Investments L.P.

BlackRock , Inc

Tailwater

**Infrastructure**

KKR & Co. L.P.

Morgan Stanley

I Squared Capital

Ardian

**Commission Recapture Brokers**

ConvergEx Group

Capital Institutional Services, Inc.

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# Actuarial Section

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*Via Electronic Mail*

November 15, 2021

**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, 2021. This letter includes references to two documents produced by Cheiron for the Plan: the Actuarial Valuation Report as of June 30, 2020 (transmitted January 22, 2021) and the GASB 67/68 Report as of June 30, 2021 (transmitted November 15, 2021).

**Actuarial Valuation Report as of June 30, 2020**

The purpose of the annual Actuarial Valuation Report as of June 30, 2020 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 2021-2022. The prior review of Plan member and employer rates was conducted as of June 30, 2019 and included recommended contribution rates for the Fiscal Year 2020-2021. The employer rates for Fiscal Year 2020-2021 were updated effective September 10, 2020 to reflect a revised amortization schedule. The member rates were updated effective August 13, 2020 to reflect the removal of the final average compensation load.

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.

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, 2020 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 2019 Experience Gain/(Loss) (Analysis of Financial Experience)
- Schedule of Funded Liabilities by Type
- Summary of Plan Provisions

The assumptions used in this report reflect the results of an Experience Study performed by Cheiron covering the period from July 1, 2016 through June 30, 2019 and approved by the Board at their February 27, 2020 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 2022.

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, 2021**

The purpose of the GASB 67/68 Report as of June 30, 2021, 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, 2020, actuarial valuation updated to the measurement date of June 30, 2021. The beginning of year Total Pension Liability was based on the actuarial valuation as of June 30, 2019, updated to June 30, 2020. The Total Pension Liability measurements as of June 30, 2021 and June 30, 2020 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, 2020 and June 30, 2019, respectively, with the exception that the discount rate was lowered to 6.75% for the Total Pension Liability measurement as of June 30, 2021.

Please refer to our GASB 67 report as of June 30, 2021, 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, 2021, 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



Graham A. Schmidt, ASA, EA, FCA, MAAA  
Consulting Actuary  
703-893-1456, x1137  
[gschmidt@cheiron.us](mailto:gschmidt@cheiron.us)



Anne D. Harper, FSA, EA, MAAA  
Principal Consulting Actuary  
703-893-1456, x1107  
[aharper@cheiron.us](mailto:aharper@cheiron.us)



# Merced County Employees' Retirement Association

## Statement of Current Actuarial Assumptions and Methods

### 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, 2020):

<b>Investment Rate of Return</b>	7.00%, net investment and administrative expenses
<b>Inflation</b>	2.50% per annum
<b>Cost-of-Living Adjustments</b>	For Tier 1, 100% of Consumer Price Index (CPI) up to 3% annually with banking, assumed to be 2.40% annually
<b>Asset Valuation Method</b>	Fair Market value of assets
<b>Interest Credited to Active Members' Reserves</b>	Pursuant to MercedCERA Interest Crediting Policy, adopted September 14, 2017, interest will fall within a range from 0% to the actuarial interest rate
<b>Projected Annual Salary Increases</b>	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, 2019. 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 2009 Non-Industrial Employees Mortality Table; projected generationally using MP-2019 mortality improvement scale.
Safety Members	2010 Public Safety Below Median Employee Mortality Table; projected generationally using MP-2019 mortality improvement scale.
Safety Members (Line of Duty)	CalPERS 2009 Industrial Employee Mortality; projected generationally using MP-2019 mortality improvement scale.

#### 2. Service Retirements

General Members	CalPERS 2009 Healthy Annuitant Mortality Table; projected using MP-2019
Safety Members	105% times the 2010 Public Safety Below Median Healthy Retiree Mortality Table; projected generationally using MP-2019 mortality improvement scale.

#### 3. Disability

Service Connected	CalPERS 2009 Industrial Disability Mortality Table; projected generationally using MP-2019 mortality improvement scale.
Non-Service Connected	CalPERS 2009 Non-Industrial Disability Mortality Table; projected generationally using MP-2019 mortality improvement scale.

#### 4. For employee contribution rate purposes

Same as for active members, except projected using Scale MP-2019 to 2041.

Merced County Employees' Retirement Association  
Statement of Current Actuarial Assumptions and Methods (Continued)

<b>Withdrawal Rates</b>	Based upon the Experience Analysis as of 6/30/2019 (See Appendix B of 6/30/2019 Actuarial Valuation Report — Statement of Current Actuarial Assumptions.)
<b>Disability Rates</b>	Based upon the Experience Analysis as of 6/30/2019 (See Appendix B of 6/30/2019 Actuarial Valuation Report — Statement of Current Actuarial Assumptions.)
<b>Service Retirement Rates</b>	Based upon the Experience Analysis as of 6/30/2019 (See Appendix B of 6/30/2019 Actuarial Valuation Report — Statement of Current Actuarial Assumptions.)
<b>Vested Termination</b>	<p>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 51. 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 57. Current reciprocal transfer members are assumed to begin receiving benefits based on the probabilities of retirement applied to the active members.</p> <p>Future reciprocal transfers' pay growth is assumed to be 3.75% 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.</p>
<b>Family Composition</b>	55% of female General members, 75% of male General members and 85% of Safety members are assumed to be married at retirement. Male members are assumed to be three years older than their spouses are and female members are assumed to be two years younger than their spouses are.

**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 MCERA. 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, 2014 valuation, any new sources of UAL due to actuarial gains and losses or method changes are 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**.

# Merced County Employees' Retirement Association Probabilities of Separation from Active Service

## GENERAL MEMBERS

Age	Service-Connected Disability	Non-Service-Connected Disability
20	0.0165%	0.0165%
30	0.0190%	0.0190%
40	0.0806%	0.0806%
50	0.1829%	0.1829%
60	0.1196%	0.1196%
65	0.1196%	0.1196%

Service (Yrs)	Withdrawals	Transfers	Vested Terminations
0-4	92.5%	7.5%	0.0%
5-9	30.0%	35.0%	35.0%
10-14	20.0%	40.0%	40.0%
15+	5.0%	47.5%	47.5%

Service Retirement (by Service)		
Age	10-29 Yrs	30+
50	10.00%	20.00%
55	10.00%	25.00%
60	20.00%	35.00%
65	35.00%	35.00%
70+	100.00%	100.00%

## SAFETY MEMBERS

Age	Service-Connected Disability	Non-Service-Connected Disability
20	0.0000%	0.0050%
30	0.2380%	0.0100%
40	0.5500%	0.0200%
50	0.9230%	0.0400%
60	3.0120%	0.1000%
65	3.6385%	0.1000%

Service (Yrs)	Withdrawals	Transfers	Vested Terminations
0-4	92.5%	7.5%	0.0
5-9	25.0%	50.0%	25.0%
10+	15.0%	56.7%	28.3%

Service Retirement (by Service)		
Age	10-19 Yrs	20+
40	0.00%	1.50%
45	0.00%	1.50%
50	15.00%	20.00%
55	30.00%	30.00%
60	100.00%	100.00%

Active Member Mortality		
Age	Female	Male
20	0.0230%	0.0503%
30	0.0619%	0.0897%
40	0.0913%	0.1129%
50	0.1326%	0.1624%
60	0.2599%	0.3836%

## RATES OF TERMINATION

Years of Service	General Male	General Female	Safety	Years of Service	General Male	General Female	Safety
0	20.0%	20.0%	21.0%	20	4.5%	3.0%	0.0%
5	8.2%	8.2%	6.5%	25	4.5%	3.0%	0.0%
10	4.5%	4.5%	4.75%	30	0.0%	0.0%	0.0%
15	4.5%	3.0%	3.5%				

Note: Information compiled from Actuarial Report Prepared by Cheiron, Inc. dated June 30, 2020.



# Merced County Employees' Retirement Association

## Schedule of Active Member Valuation Data

Valuation Date	Plan Type	Number	Annual Salary	Average Annual Salary	% Increase in Average Annual Salary
6/30/2011	General	1,659	\$94,976,978	\$57,250	3.02%
	Safety	321	\$19,768,859	\$61,585	3.20%
	<b>Total</b>	<b>1,980</b>	<b>\$114,745,837</b>	<b>\$57,952</b>	<b>3.05%</b>
6/30/2012	General	1,596	\$90,706,280	\$56,834	-0.73%
	Safety	305	\$19,145,091	\$62,771	1.93%
	<b>Total</b>	<b>1,901</b>	<b>\$109,851,371</b>	<b>\$57,786</b>	<b>-0.29%</b>
6/30/2013	General	1,604	\$91,737,348	\$57,193	0.63%
	Safety	295	\$18,699,145	\$63,387	0.98%
	<b>Total</b>	<b>1,899</b>	<b>\$110,436,493</b>	<b>\$58,155</b>	<b>0.64%</b>
6/30/2014	General	1,624	\$91,704,083	\$56,468	-1.27%
	Safety	300	\$18,620,870	\$62,070	-2.08%
	<b>Total</b>	<b>1,924</b>	<b>\$110,324,953</b>	<b>\$57,341</b>	<b>-1.40%</b>
6/30/2015	General	1,664	\$93,938,857	\$56,454	-0.03%
	Safety	298	\$18,397,233	\$61,736	-0.54%
	<b>Total</b>	<b>1,962</b>	<b>\$112,336,090</b>	<b>\$57,256</b>	<b>-0.15%</b>
6/30/2016	General	1,729	\$97,337,917	\$56,297	-0.28%
	Safety	311	\$19,394,922	\$62,363	1.02%
	<b>Total</b>	<b>2,040</b>	<b>\$116,732,839</b>	<b>\$57,222</b>	<b>-0.06%</b>
6/30/2017	General	1,783	\$102,498,328	\$57,486	2.11%
	Safety	313	\$20,136,323	\$64,333	3.16%
	<b>Total</b>	<b>2,096</b>	<b>\$122,634,651</b>	<b>\$58,509</b>	<b>2.25%</b>
6/30/2018	General	1,827	\$108,067,248	\$59,150	2.89%
	Safety	322	\$22,018,174	\$68,379	6.29%
	<b>Total</b>	<b>2,149</b>	<b>\$130,085,422</b>	<b>\$60,533</b>	<b>3.46%</b>
6/30/2019	General	1,861	\$111,267,187	\$59,789	1.08%
	Safety	316	\$22,498,224	\$71,197	4.12%
	<b>Total</b>	<b>2,177</b>	<b>\$133,765,412</b>	<b>\$61,445</b>	<b>1.51%</b>
6/30/2020	General	1,828	\$112,315,867	\$61,442	2.76%
	Safety	321	\$22,982,055	\$71,595	0.56%
	<b>Total</b>	<b>2,149</b>	<b>\$135,297,922</b>	<b>\$62,959</b>	<b>2.46%</b>

Note: Information compiled from Actuarial Report prepared by Cheiron, Inc. dated June 30, 2020. 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
2011	1,826	103	\$2,627	44	\$781	1,885	\$46,177	5.78%	\$24,465
2012	1,885	175	\$6,485	64	\$960	1,996	\$52,888	14.53%	\$26,497
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

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		
Valuation Date	Active Member Contributions	Retirees and Beneficiaries	Active Members Employer Portion	Total Actuarial Accrued Liabilities	Valuation Assets	1	2	3
2011	\$65,723	\$558,483	\$309,711	\$933,917	\$523,980	100%	82%	0%
2012	\$66,407	\$632,319	\$276,882	\$975,608	\$528,728	100%	73%	0%
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%

Note: Information compiled from Actuarial Report prepared by Cheiron, Inc. dated June 30, 2020.

<b>Actuarial Analysis of Financial Experience For Fiscal Years Ended June 30 (Dollar Amounts in Thousands)</b>						
<b>Plan Year Ended</b>	<b>Actuarial (Gains)/Losses</b>			<b>Changes in Plan Provisions</b>	<b>Changes in Assumptions/Methods</b>	<b>Total (Gains)/Loss</b>
	<b>Asset Sources</b>	<b>Liability Sources</b>	<b>Total</b>			
2011	\$30,955	\$(13,824)	\$17,131	N/A	\$(12,918)	\$4,213
2012	\$40,054	\$11,401	\$51,455	N/A	\$(16,069)	\$35,386
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)

<b>Schedule of Funding Progress For Fiscal Years Ended June 30 (Dollar Amounts in Thousands)</b>						
<b>Actuarial Valuation Date</b>	<b>Valuation Assets</b>	<b>Actuarial Accrued Liability (AAL)</b>	<b>Unfunded AAL (UAAL)</b>	<b>Funded Ratio</b>	<b>Active Member Projected Payroll</b>	<b>Unfunded AAL as a % of Covered Payroll</b>
2011	\$523,980	\$933,917	\$409,937	56.1%	\$111,342	368.2%
2012	\$528,728	\$975,608	\$446,880	54.2%	\$106,581	419.3%
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%

\*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, 2020.

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# Statistical Section

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## 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
6/30/2012	\$10,416,301	\$40,262,881	36.09%	\$ (7,039,276)	\$ 43,639,906
6/30/2013	\$ 9,927,749	\$43,783,663	40.03%	\$ 61,083,399	\$114,794,811
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

Deductions by Type						
Fiscal Year Ended	Benefits	Administrative Expenses	Actuarial Expense	Separation Refunds	401(h) Distribution to County	Total
6/30/2012	\$49,839,653	\$1,180,083	\$ 63,312	\$ 1,051,526	\$ 733,590	\$52,868,164
6/30/2013	\$54,257,547	\$1,496,338	\$ 71,402	\$ 1,082,050	\$ -	\$56,907,337
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

Merced County Employees' Retirement Association  
Schedules of Changes in Fiduciary Net Position  
(Dollars in Thousands)

	6/30/2021	6/30/2020	6/30/2019	6/30/2018	6/30/2017
<b>Additions</b>					
Plan members contributions	\$11,895	\$10,797	\$10,696	\$10,442	\$9,385
Employer contributions	64,512	67,413	66,586	64,757	60,349
Net investment income/(loss)	253,467	57,232	39,729	70,689	83,097
Total additions	329,874	135,442	117,011	145,888	152,831
<b>Deductions</b>					
Benefits paid	82,837	78,755	74,239	69,836	66,116
Administrative expenses	2,494	2,253	2,272	2,177	1,966
Actuarial expenses	127	212	79	106	207
Refunds	977	910	572	884	788
401(h) distribution	-	-	-	-	-
Total deductions	86,435	82,130	77,162	73,003	69,077
Change in fiduciary net position	243,439	53,312	39,849	72,885	83,754
Net position restricted for pensions at beginning of the year	919,815	866,503	826,654	753,769	670,015
Net position restricted for pensions at end of the year	\$1,163,254	\$919,815	\$866,503	\$826,654	\$753,769

	6/30/2016	6/30/2015	6/30/2014	6/30/2013	6/30/2012
<b>Additions</b>					
Plan members contributions	\$9,043	\$8,945	\$9,643	\$9,928	\$10,416
Employer contributions	56,617	52,005	48,032	43,784	40,263
Net investment income/(loss)	(388)	19,319	96,219	61,083	(7,039)
Total additions	65,272	80,269	153,894	114,795	43,640
<b>Deductions</b>					
Benefits paid	63,929	61,780	57,339	54,258	49,839
Administrative expenses	2,417	2,197	1,435	1,496	1,180
Actuarial expenses	76	126	112	71	63
Refunds	1,154	1,172	703	1,082	1,052
401(h) distribution	-	-	-	-	734
Total deductions	67,576	65,275	59,589	56,907	52,868
Change in fiduciary net position	(2,304)	14,994	94,305	57,888	(9,228)
Net position restricted for pensions at beginning of the year	672,319	657,325	563,020	505,132	514,360
Net position restricted for pensions at end of the year	\$670,015	\$672,319	\$657,325	\$563,020	\$505,132

Merced County Employees' Retirement Association  
Schedules of Benefit Expenses by Type  
(Amount in Thousands)

	2021*	2020*	2019*	2018*	2017*	2016*	2015*	2014	2013	2012
<b>Service Retirement</b>										
General	\$60,682	\$57,652	\$54,136	\$50,551	\$47,522	\$46,126	\$44,722	\$41,442	\$39,447	\$35,897
Safety	10,993	10,006	9,336	8,652	8,059	7,761	7,854	7,196	6,679	6,209
Total	\$71,675	\$67,658	\$63,472	\$59,203	\$55,581	\$53,887	\$52,576	\$48,638	\$46,126	\$42,106
<b>Disability Retirement</b>										
General	\$2,071	\$2,141	\$2,139	\$2,032	\$2,117	\$1,953	\$1,842	\$2,600	\$2,489	\$2,230
Safety	3,210	3,182	3,100	2,976	2,759	2,604	2,623	3,005	2,898	2,738
Total	\$5,281	\$5,323	\$5,239	\$5,008	\$4,876	\$4,557	\$4,465	\$5,605	\$5,387	\$4,968
<b>Beneficiary/Survivor</b>										
General	\$4,210	\$3,915	\$3,786	\$3,808	\$3,767	\$3,667	\$3,327	\$2,346	\$2,030	\$2,035
Safety	1,506	1,575	1,608	1,627	1,729	1,650	1,258	610	562	579
Total	\$5,716	\$5,490	\$5,394	\$5,435	\$5,496	\$5,317	\$4,585	\$2,956	\$2,592	\$2,614
<b>Total Payroll Expense</b>										
General	\$66,963	\$63,708	\$60,061	\$56,391	\$53,406	\$51,746	\$49,891	\$46,387	\$43,966	\$40,162
Safety	15,709	14,763	14,044	13,255	12,547	12,015	11,735	10,811	10,139	9,526
Total	\$82,672	\$78,471	\$74,105	\$69,646	\$65,953	\$63,761	\$61,626	\$57,198	\$54,105	\$49,688
<b>Death Benefits</b>										
General	\$149	\$128	\$99	\$102	\$111	\$129	\$84	\$96	\$96	\$117
Safety	15	3	24	18	12	15	18	18	12	9
Total	\$164	\$131	\$123	\$120	\$123	\$144	\$102	\$114	\$108	\$126
<b>Separation Refund Expense</b>										
General	\$868	\$680	\$446	\$643	\$674	\$978	\$1,033	\$582	\$985	\$861
Safety	109	230	126	241	114	176	139	121	97	190
Total	\$977	\$910	\$572	\$884	\$788	\$1,154	\$1,172	\$703	\$1,082	\$1,051
<b>Active Death Expense</b>										
General	\$ -	\$154	\$11	\$70	\$40	\$24	\$51	\$29	\$44	\$26
Safety	-	-	-	-	-	-	-	-	-	-
Total	\$ -	\$154	\$11	\$70	\$40	\$24	\$51	\$29	\$44	\$26

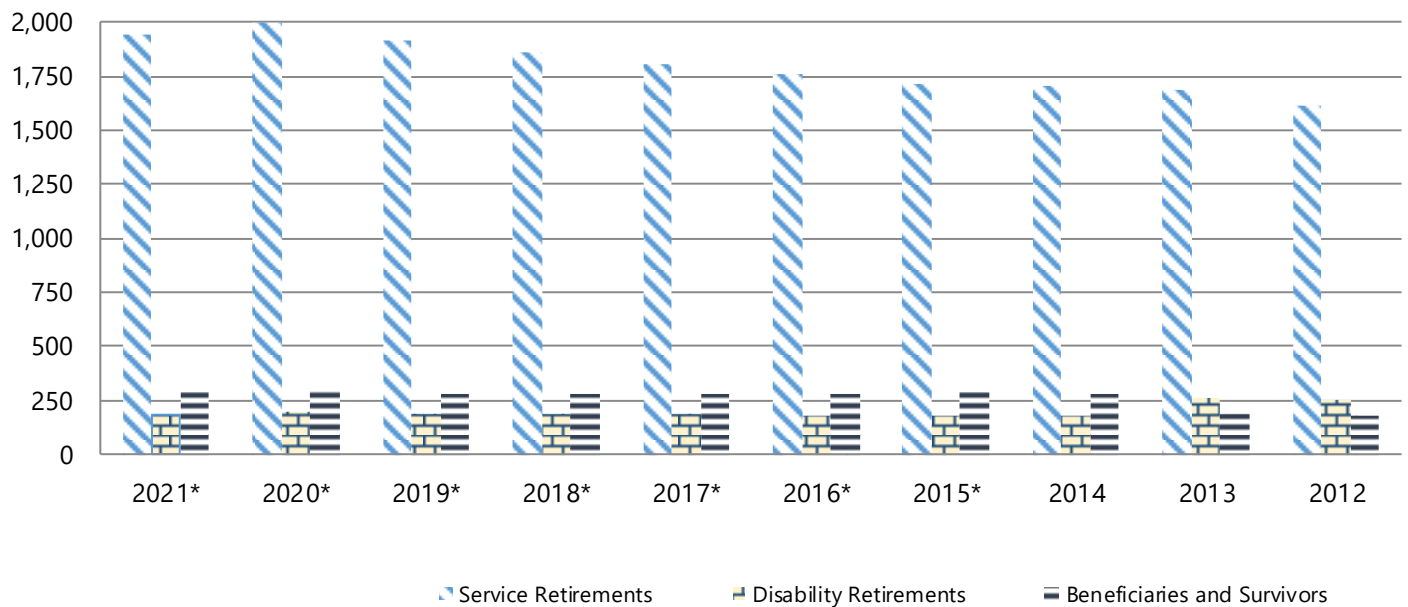
\*During the 2015 fiscal year, MercedCERA converted to the CPAS System. Because of differences in handling data, beneficiaries of disability retiree decedents are now grouped with Beneficiary/Survivors.

Merced County Employees' Retirement Association  
 Schedule of Retired Members by Type of Benefit  
 (Summary of Monthly Allowances Being Paid - As of June 30, 2021)

Type of Benefit	General Members		Safety Members		Total	
	Number	Average Monthly Allowance	Number	Average Monthly Allowance	Number	Average Monthly Allowance
<b>Service Retirement</b>	1,722	\$2,976	221	\$4,226	1,943	\$3,118
<b>Disability</b>	92	\$1,936	94	\$2,940	186	\$2,443
<b>Beneficiary/Survivor</b>	231	\$1,665	55	\$2,555	286	\$1,836
<b>Total Retired Members</b>	2,045	\$2,781	370	\$3,651	2,415	\$2,915

This schedule excludes separation refunds and death refunds.

### Ten Year Structure of Retiree Membership History



	2021*	2020*	2019*	2018*	2017*	2016*	2015*	2014	2013	2012
<b>Service Retirements</b>	1,943	1,999	1,911	1,859	1,806	1,757	1,713	1,706	1,685	1,613
<b>Disability Retirements</b>	186	200	191	188	185	183	184	180	260	257
<b>Beneficiaries and Survivors</b>	286	295	281	284	283	285	286	276	187	176
<b>Total</b>	2,415	2,494	2,383	2,331	2,274	2,225	2,183	2,162	2,132	2,046

\*During the 2014-2015 fiscal year, MercedCERA migrated to a new pension administration system. Beneficiaries of disability retirees are no longer classified as disability retirements. This has resulted in a re-proportioning of these numbers.



Merced County Employees' Retirement Association  
 Summary of Retired Membership  
 For Fiscal Years Ended June 30 (Basic Annual and Total Annual Allowance Dollars in Thousands)

	2021*	2020*	2019*	2018*	2017*	2016*	2015*	2014	2013	2012
<b>General</b>										
Number	2,045	2,029	1,987	1,937	1,895	1,860	1,848	1,810	1,730	1,693
Basic annual allowance	\$51,416	\$49,178	\$46,562	\$43,874	\$41,930	\$41,265	\$40,316	\$37,646	\$35,885	\$32,933
Average basic monthly allowance	\$2,095	\$2,020	\$1,953	\$1,888	\$1,844	\$1,849	\$1,818	\$1,733	\$1,729	\$1,621
Total annual allowance**	\$66,963	\$63,708	\$60,061	\$56,391	\$53,406	\$51,746	\$49,891	\$46,387	\$43,966	\$40,161
Average total monthly allowance	\$2,729	\$2,617	\$2,519	\$2,426	\$2,349	\$2,318	\$2,250	\$2,136	\$2,118	\$1,976
<b>Safety</b>										
Number	370	354	344	337	330	323	314	322	316	305
Basic annual allowance	\$11,313	\$10,724	\$10,302	\$9,783	\$9,347	\$9,086	\$8,996	\$8,279	\$7,791	\$7,379
Average basic monthly allowance	\$2,548	\$2,524	\$2,496	\$2,419	\$2,360	\$2,344	\$2,387	\$2,143	\$2,054	\$2,016
Total annual allowance**	\$15,709	\$14,763	\$14,044	\$13,255	\$12,547	\$12,015	\$11,735	\$10,811	\$10,139	\$9,527
Average total monthly allowance	\$3,538	\$3,475	\$3,402	\$3,278	\$3,168	\$3,100	\$3,114	\$2,798	\$2,674	\$2,603
<b>Total</b>										
Number	2,415	2,383	2,331	2,274	2,225	2,183	2,162	2,132	2,046	1,998
Basic annual allowance	\$62,728	\$59,902	\$56,864	\$53,657	\$51,277	\$50,351	\$49,312	\$45,925	\$43,676	\$40,312
Average basic monthly allowance	\$2,165	\$2,095	\$2,033	\$1,966	\$1,920	\$1,922	\$1,901	\$1,795	\$1,779	\$1,681
Total annual allowance**	\$82,672	\$78,471	\$74,105	\$69,646	\$65,953	\$63,761	\$61,626	\$57,198	\$54,105	\$49,688
Average total monthly allowance	\$2,853	\$2,744	\$2,649	\$2,552	\$2,470	\$2,434	\$2,375	\$2,236	\$2,204	\$2,072

\*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. Excludes death refunds, lump sum death benefits and separation refunds.

Merced County Employees' Retirement Association  
 Retired Members by Type of Retirement  
 As of June 30, 2021

Amount of Monthly Benefit	Number of Members	Type of Retirement*							Option Selected**					
		1	2	3	4	5	6	7	U	1	2	3	4	SD
\$1 - \$250	83	24	33	17	0	8	1	0	51	8	16	8	0	0
\$251 - \$500	115	36	59	13	3	0	2	2	85	4	20	3	0	3
\$501 - \$750	178	60	76	25	5	6	0	6	132	7	30	4	0	5
\$751 - \$1,000	185	57	88	24	5	0	5	6	141	12	24	3	0	5
\$1,001 - \$1,250	170	63	70	26	3	1	5	2	137	2	24	4	0	3
\$1,251 - \$1,500	157	51	73	13	1	5	14	0	121	2	26	6	1	1
\$1,501 - \$1,750	147	56	56	15	0	7	10	3	126	4	12	5	0	0
\$1,751 - \$2,000	131	48	49	15	0	9	5	5	107	1	16	6	1	0
Over \$2,000	1,249	564	480	64	8	104	4	25	1,074	31	104	24	8	8
Totals:	2,415	959	984	212	25	140	46	49	1,974	71	272	63	10	25

\*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

# Merced County Employees' Retirement Association

## Retired Members Average Benefit Payments

### Last Ten Fiscal Years

Retirement Effective Dates	Years of Credited Service						
	0-4	5-9	10-14	15-19	20-24	25-29	30+
<b>Period 7/1/2020 to 6/30/2021</b>							
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
<b>Period 7/1/2019 to 6/30/2020</b>							
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
<b>Period 7/1/2018 to 6/30/2019</b>							
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
<b>Period 7/1/2017 to 6/30/2018</b>							
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
<b>Period 7/1/2016 to 6/30/2017</b>							
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
<b>Period 7/1/2015 to 6/30/2016</b>							
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
<b>Period 7/1/2014 to 6/30/2015</b>							
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
<b>Period 7/1/2013 to 6/30/2014</b>							
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
<b>Period 7/1/2012 to 6/30/2013</b>							
Average monthly benefit	\$467	\$1,240	\$1,750	\$2,183	\$3,895	\$4,201	\$6,431
Average final average salary	\$8,663	\$6,466	\$5,215	\$4,591	\$7,293	\$5,695	\$7,463
Number of retired members	4	11	24	15	9	8	6
<b>Period 7/1/2011 to 6/30/2012</b>							
Average monthly benefit	\$612	\$899	\$1,359	\$2,476	\$3,958	\$4,683	\$6,166
Average final average salary	\$9,507	\$4,097	\$3,953	\$5,148	\$6,270	\$6,257	\$7,060
Number of retired members	5	9	26	27	36	15	24

Merced County Employees' Retirement Association  
 Participating Employers and Active Members  
 Last Ten Fiscal Years Ended June 30

Participating employers	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012
<b>County of Merced</b>										
General members	1,703	1,683	1,736	1,690	1,665	1,596	1,542	1,490	1,478	1,453
Safety members	318	321	318	320	320	311	300	298	294	306
Total County of Merced	2,021	2,004	2,054	2,010	1,985	1,907	1,842	1,788	1,772	1,759
Percentage of membership	94.00%	93.47%	93.96%	93.88%	93.68%	93.39%	93.65%	93.56%	93.21%	92.53%
<b>Merced Cemetery District</b>										
	1	1	-	1	1	1	1	1	1	2
Percentage of membership	0.05%	0.05%	-	0.05%	0.05%	0.05%	0.05%	0.05%	0.05%	0.11%
<b>Merced Superior Court</b>										
	128	139	132	130	133	129	118	112	115	126
Percentage of membership	5.95%	6.48%	6.04%	6.07%	6.28%	6.32%	6.00%	5.86%	6.05%	6.63%
<b>Regional Waste Management Authority</b>										
	-	-	-	-	-	5	6	10	13	13
Percentage of membership	-	-	-	-	-	0.24%	0.31%	0.52%	0.68%	0.68%
<b>Transit Joint Powers Authority</b>										
	-	-	-	-	-	-	-	-	-	1
Percentage of membership	-	-	-	-	-	-	-	-	-	0.05%
<b>Total Active Membership</b>										
General	1,832	1,823	1,868	1,821	1,799	1,731	1,667	1,613	1,607	1,595
Safety	318	321	318	320	320	311	300	298	294	306
Total	2,150	2,144	2,186	2,141	2,119	2,042	1,967	1,911	1,901	1,901

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Merced County Employees' Retirement Association

3199 M Street

Merced, California 95326

209.726.2724

[www.countyofmerced.com/2145/retirement](http://www.countyofmerced.com/2145/retirement)

# Merced County Employees' Retirement Association

January 27, 2022

Performance Update



1. Economic and Market Update as of November 30, 2021
2. Performance Highlights as of November 30, 2021
3. Performance Update as of November 30, 2021
4. 2021 Activity Report
5. Disclaimer, Glossary, and Notes

# **Economic and Market Update**

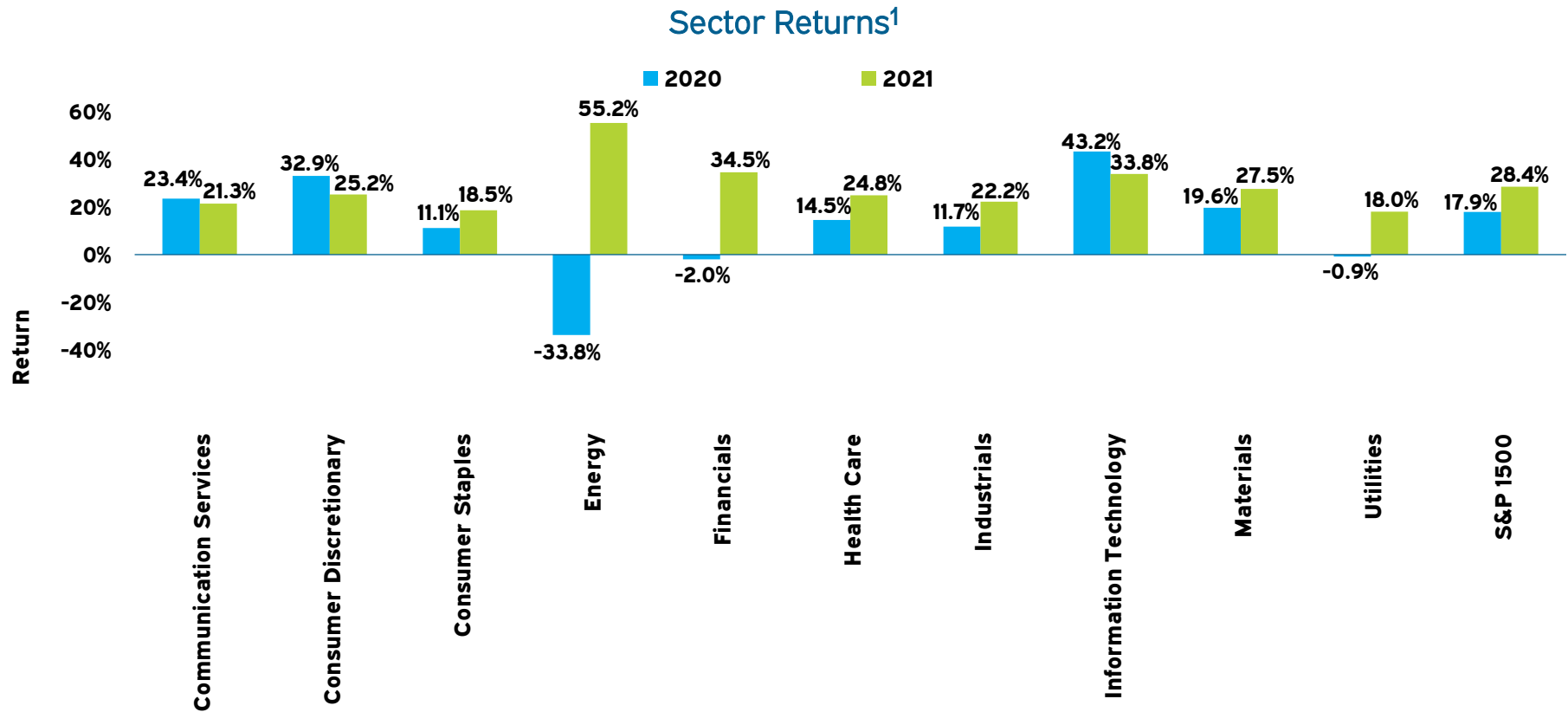
Data as of December 31, 2021

### Market Returns<sup>1</sup>

Indices	December	1 Year	3 Year	5 Year	10 Year
S&P 500	4.5%	28.7%	26.1%	18.5%	16.6%
MSCI EAFE	5.1%	11.3%	13.5%	9.6%	8.0%
MSCI Emerging Markets	1.9%	-2.5%	10.9%	9.9%	5.5%
MSCI China	-3.2%	-21.7%	7.8%	9.4%	7.2%
Bloomberg Barclays Aggregate	-0.3%	-1.5%	4.8%	3.6%	2.9%
Bloomberg Barclays TIPS	0.3%	6.0%	8.4%	5.3%	3.1%
Bloomberg Barclays High Yield	1.9%	5.3%	8.8%	6.3%	6.8%
10-year US Treasury	-0.4%	-3.6%	5.1%	3.5%	2.4%
30-year US Treasury	-2.1%	-4.6%	9.7%	7.0%	4.4%

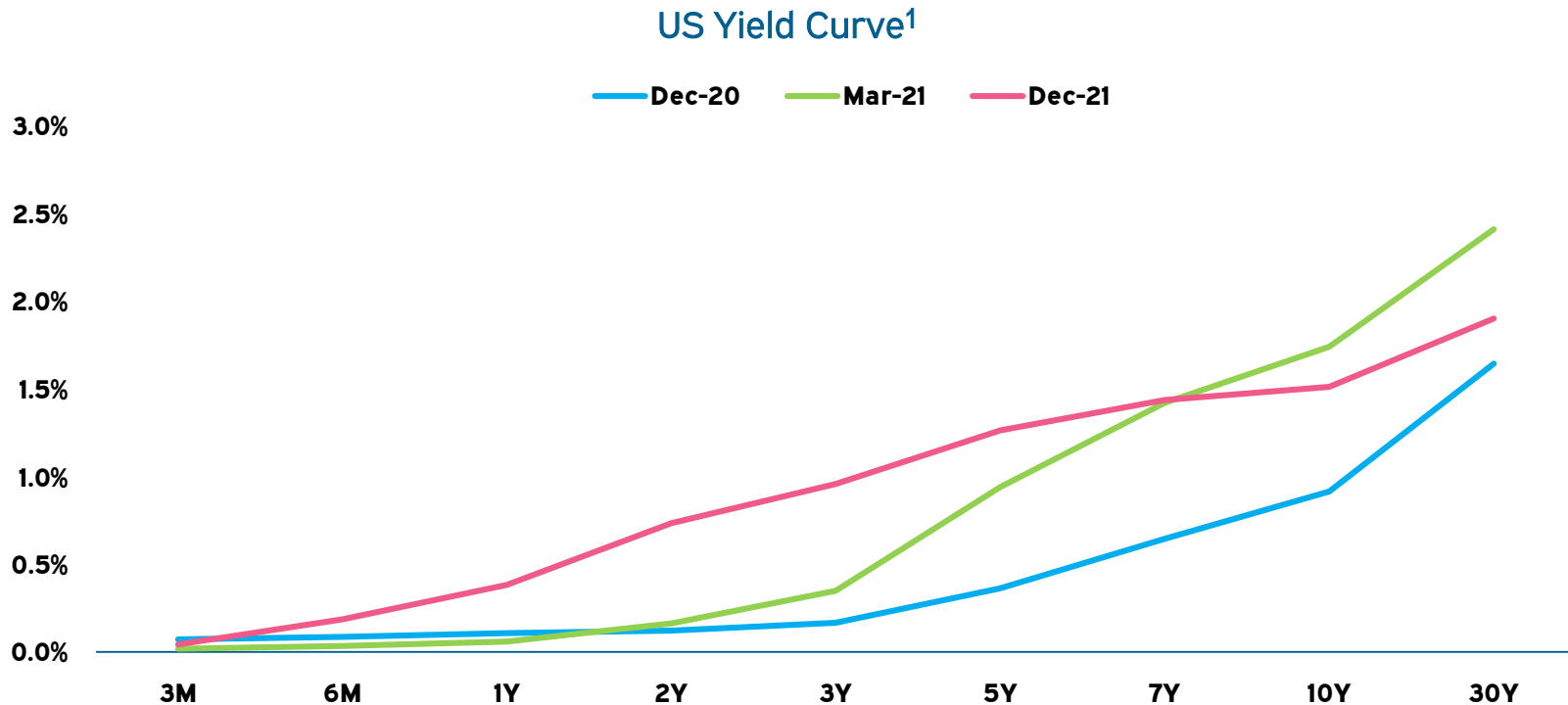
- Declining fears over the Omicron variant and expectations for continued corporate strength contributed to global equity markets posting positive returns for December. Developed markets led the way with international equities (MSCI EAFE) outpacing US equities (S&P 500). Emerging markets lagged mainly due to continued concerns related to China. Overall in 2021, US equities had the best results given continued policy support, relative success in reopening the economy, and strong corporate fundamentals.
- In December, rising inflation and expectations for less accommodative policy led to the US bond market (Bloomberg Barclays Aggregate) declining slightly, while high yield bonds increased in the risk-on environment. For the year, TIPS led the way in bonds, up 6%, followed by high yield with the broad bond market index declining by 1.5%.

<sup>1</sup> Source: Investment Metrics and Bloomberg. Data is as of December 31, 2021.



- All sectors advanced in 2021 with energy leading the way followed by financials, a reversal of the 2020 trend.
- The technology sector also produced strong results last year building on the 40%+ returns in the prior year.

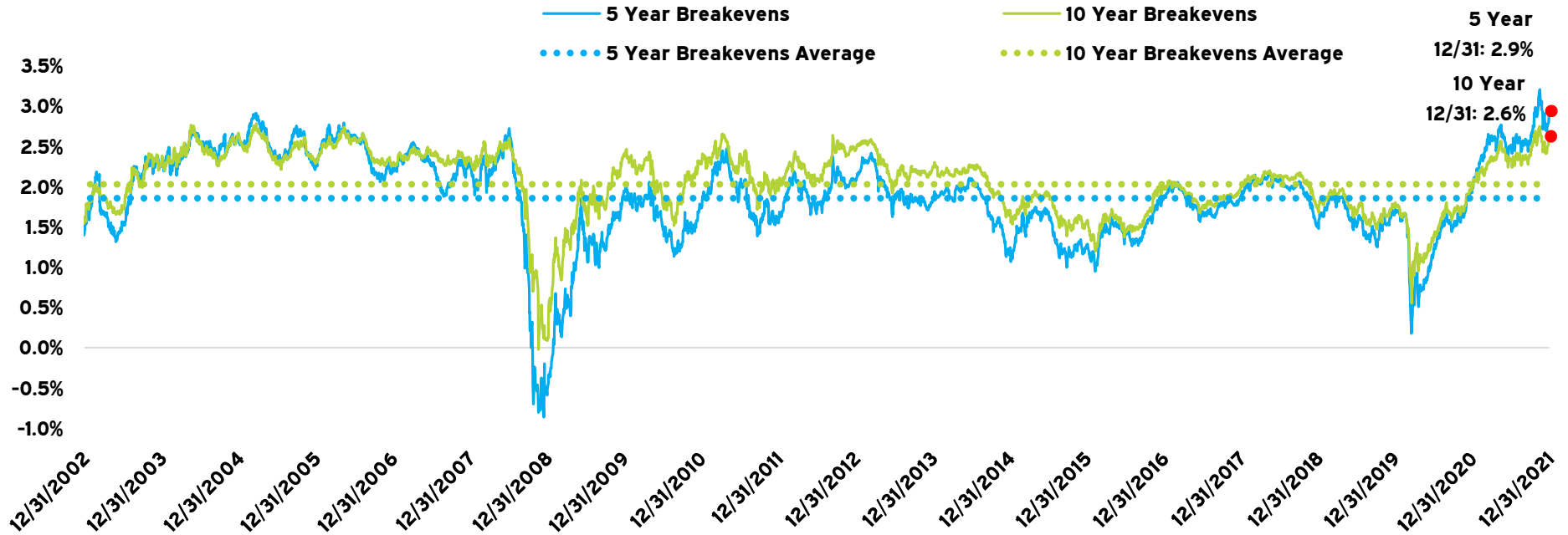
<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2021.



- During the first half of 2021, the Treasury yield curve steepened on both higher growth and inflation expectations as vaccines were deployed and economic growth prospects improved on the opening of the economy, while monetary policy anchored short-dated rates near 0%.
- Over the latter-half of the year, however, shorter-dated yields from 1- to 5-years rose sharply as the FOMC signaled that policy rates may be tightened more aggressively than previously anticipated.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2021.

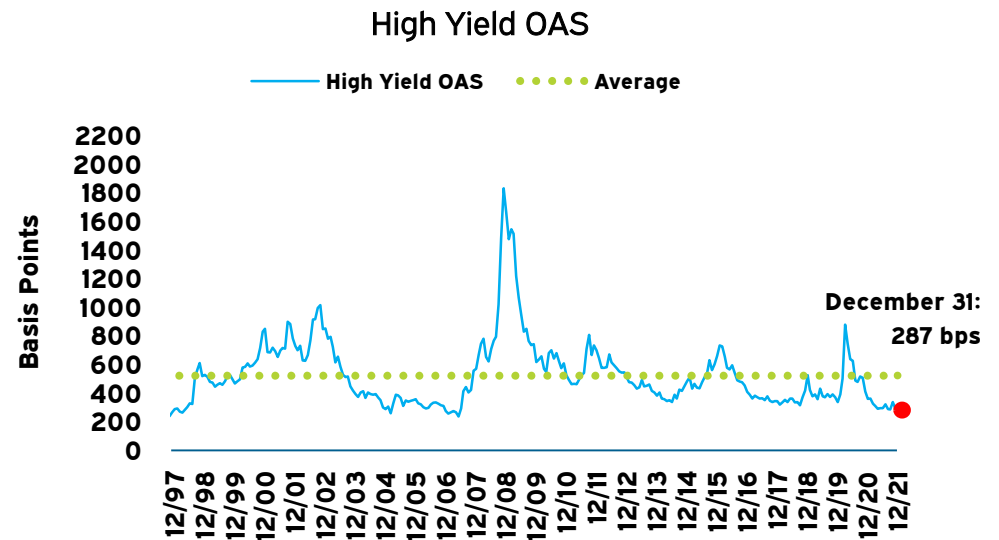
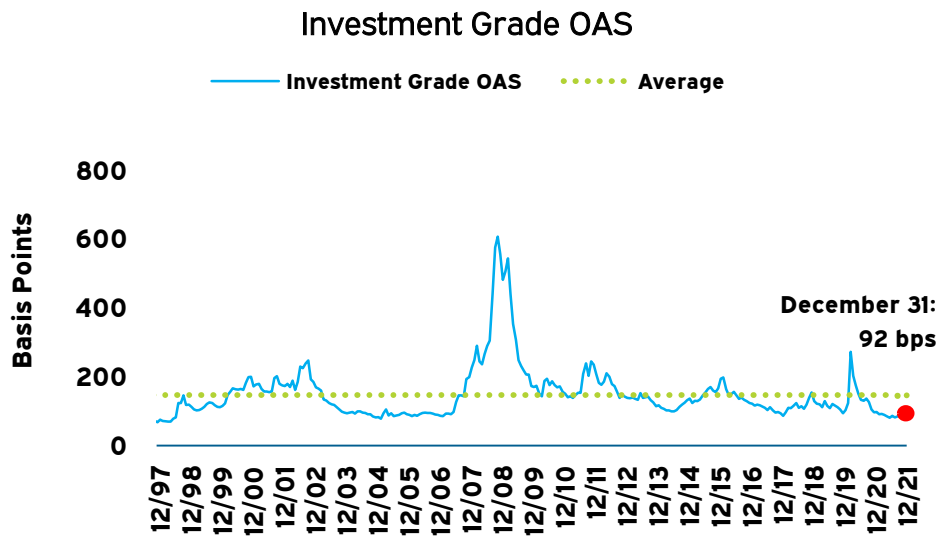
### Breakeven Inflation<sup>1</sup>



- Inflation expectations finished the year higher than they started, ending at a level well above the Fed’s 2% target.
- Supply chain issues potentially persisting as new variants of the virus increase the risk of re-shuttering sectors of the global economy and wage pressures remain key drivers of inflation expectations.
- Additionally, changes to Fed policy focused on an average inflation target may play a role in inflation market dynamics and, specifically, the risk that consumer inflation expectations get entrenched at higher inflation growth rates.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2021.

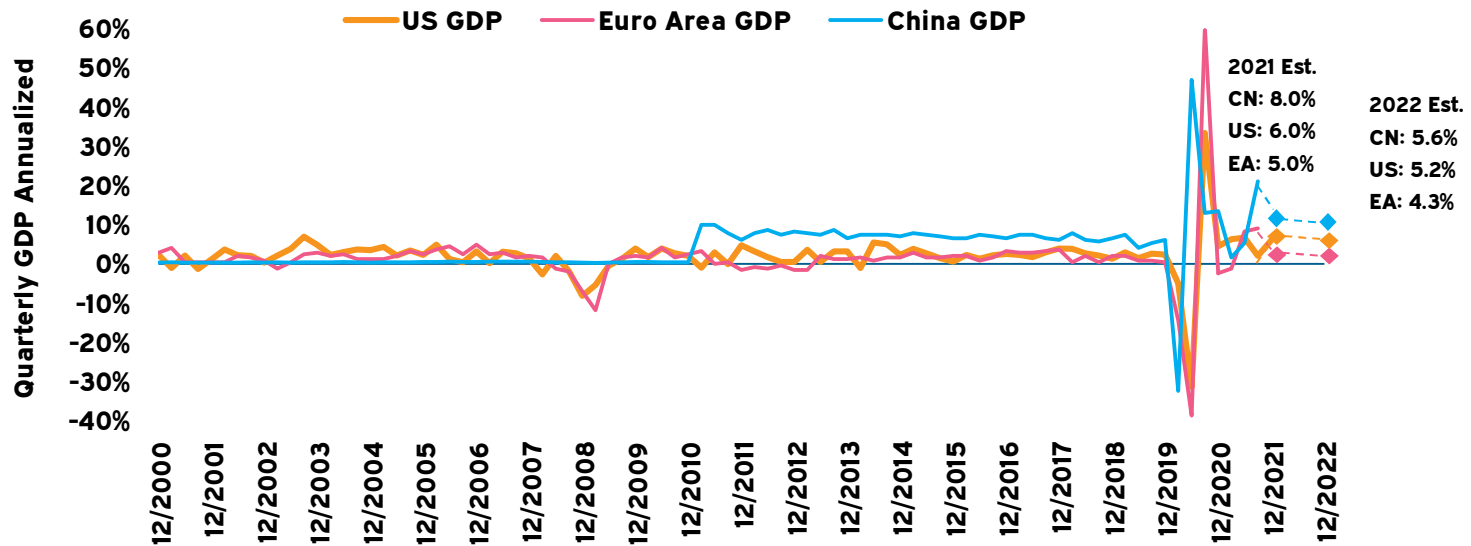
### Credit Spreads (High Yield & Investment Grade)<sup>1</sup>



- Credit spreads (the yield spread above a comparable maturity Treasury) narrowed in December after the modest widening in November on the discovery of the new virus variant (Omicron).
- Policy support, strong corporate fundamentals, and the search for yield in a low-rate environment have been key drivers in the decline in US credit spreads to well below long-term averages, particularly for high yield issuers.

<sup>1</sup> Source: Barclays Live. Data represents OAS and is as of December 31, 2021.

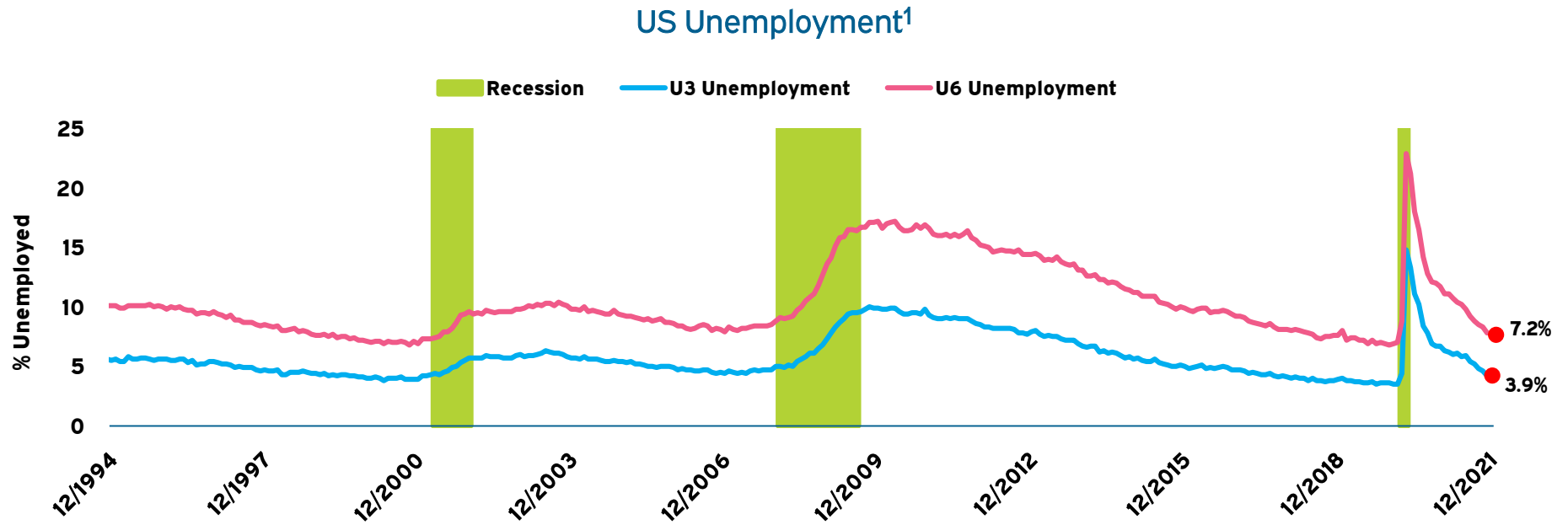
**GDP Data Shows Slowing Growth in 2022<sup>1</sup>**



- In late 2020 and early 2021, major economies grew at rates far above potential. These high rates of growth are expected to decline slightly, with projections continuing to decline due to supply disruptions, reopening trends moderating, and some countries continuing to struggle with the virus.
- The US is expected to grow faster than the euro area again in 2022, with some growth pulled forward due to the relative success in distributing the vaccine and a substantially larger fiscal stimulus response to the pandemic.
- China is projected to grow at 8.0% in 2021 and 5.6% in 2022, both above the expected US growth rate. Questions remain, though, about the highly levered property market and increased government regulations.

<sup>1</sup> Source: Bloomberg, and IMF; Euro Area and China figures annualized by Meketa. Projections via October 2021 IMF World Economic Outlook and represent annual numbers.





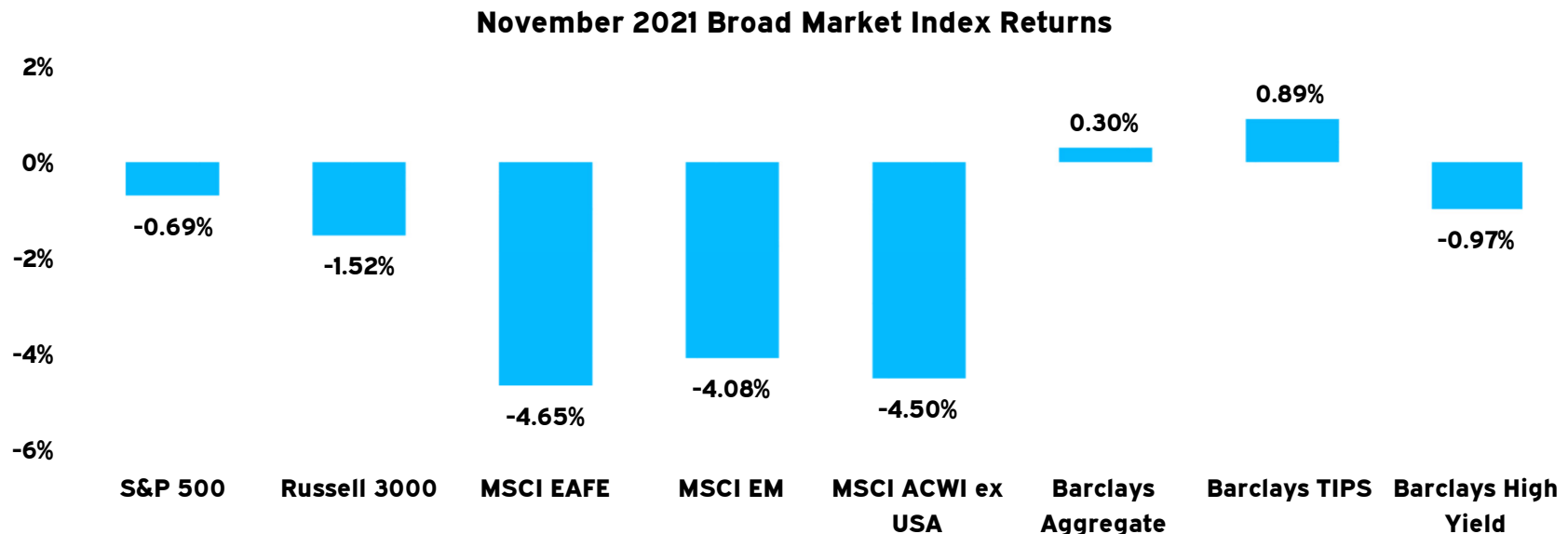
- The US labor market continues to recover, and the unemployment rate (U3) fell from 4.2% to 3.9% in December. It still remains slightly above pre-pandemic levels though, but far below the pandemic peak.
- The broader measure of unemployment (U6) that includes discouraged and underemployed workers also continued to decline but is much higher at 7.2%. Also, the labor force participation rate remains quite low at 61.9% and is below the 63.4% level of January 2020.
- Continued improvements in the labor market have contributed to recent expectations that the Federal Reserve will increase its pace of policy removal in 2022.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2021. Bars represent recessions as observed by the National Bureau of Economic Research.

# **Performance Highlights**

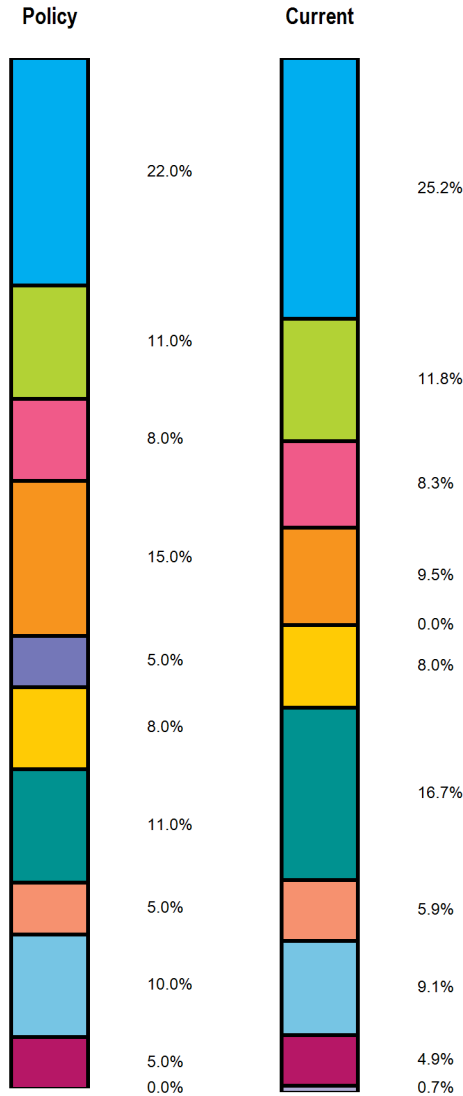
## As of December 31, 2021

### Market Review and Performance Summary for November 2021



- Equity markets pulled back broadly in November. International equities experienced larger losses due to COVID-19 cases surging, as well as rising natural gas prices in Europe. US fixed income and TIPS posted modest gains, while High Yield bonds declined in the risk-off environment.
- Merced CERA reported a monthly return of -1.7% net of fees. US Fixed Income led all asset classes, posting the only positive absolute return for the month at 0.2%. EM Equity was the largest detractor in performance, posting -5.9% return as well as underperforming its benchmark by 1.8%.
- **As of November 30, 2021, total assets for the Merced CERA Portfolio are estimated at \$1.16 billion.**

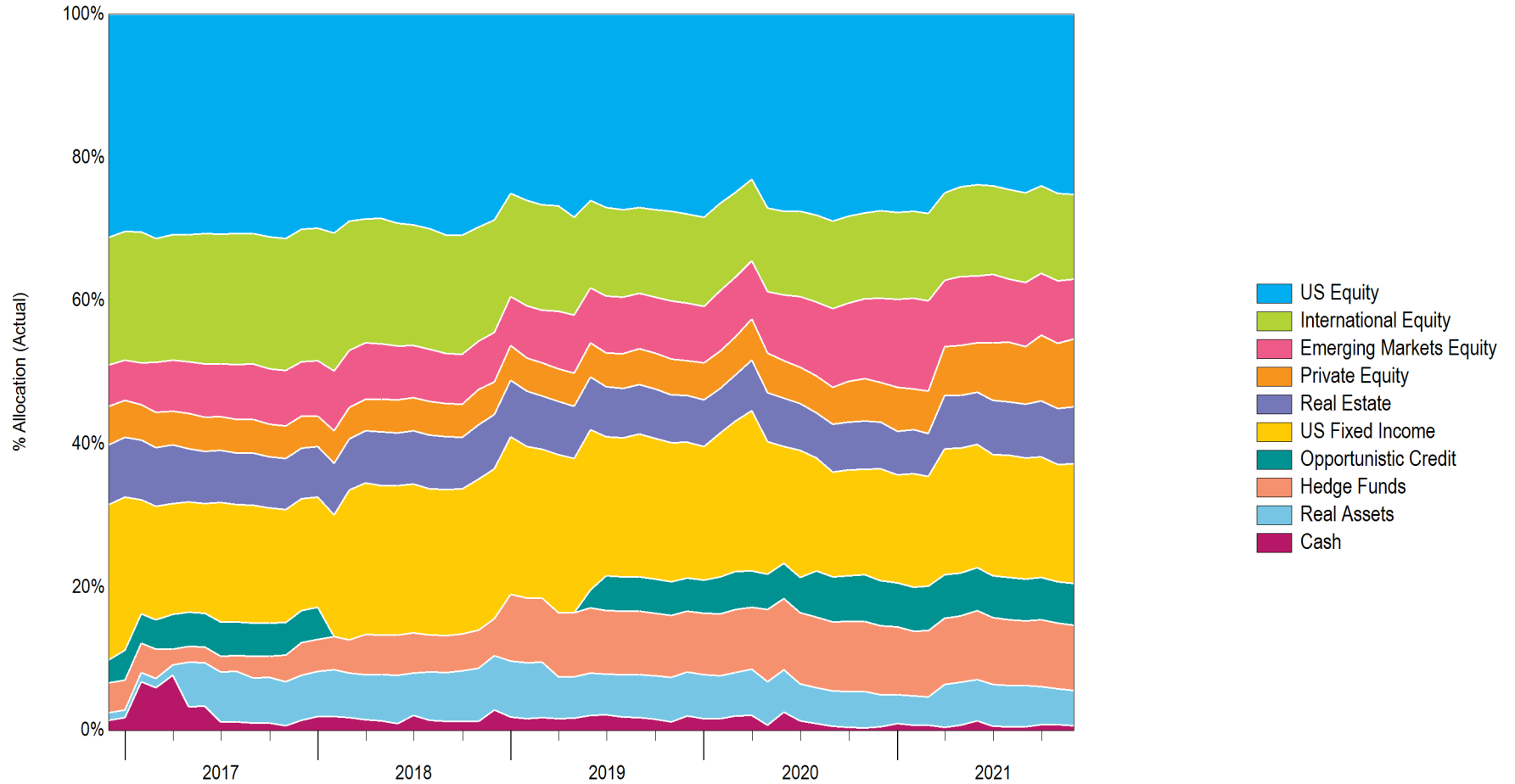
**Performance Update**  
As of December 31, 2021



Allocation vs. Targets and Policy							
	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?	
US Equity	\$291,208,107	25.2%	22.0%	3.2%	16.0% - 27.0%	Yes	
International Equity	\$136,619,313	11.8%	11.0%	0.8%	6.0% - 16.0%	Yes	
Emerging Markets Equity	\$96,597,505	8.3%	8.0%	0.3%	4.0% - 12.0%	Yes	
Private Equity	\$109,630,982	9.5%	15.0%	-5.5%	5.0% - 20.0%	Yes	
Direct Lending	--	--	5.0%	-5.0%	0.0% - 10.0%	Yes	
Real Estate	\$92,334,155	8.0%	8.0%	0.0%	6.0% - 10.0%	Yes	
US Fixed Income	\$192,840,544	16.7%	11.0%	5.7%	6.0% - 16.0%	No	
Opportunistic Credit	\$68,129,320	5.9%	5.0%	0.9%	3.0% - 7.0%	Yes	
Hedge Funds	\$105,401,218	9.1%	10.0%	-0.9%	5.0% - 15.0%	Yes	
Real Assets	\$56,379,210	4.9%	5.0%	-0.1%	3.0% - 7.0%	Yes	
Cash	\$7,969,626	0.7%	0.0%	0.7%	0.0% - 5.0%	Yes	
<b>Total</b>	<b>\$1,157,109,980</b>	<b>100.0%</b>	<b>100.0%</b>				

Cash range displayed for illustrative purposes only.

Asset Allocation History  
5 Years Ending November 30, 2021



Asset Class Performance Summary												
	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund (Net)*</b>	<b>1,157,109,980</b>	<b>100.0</b>	-1.7	1.0	1.2	10.6	14.8	13.3	11.3	9.6	8.5	Dec-94
<b>Total Fund (Gross)*</b>			-1.7	1.1	1.4	11.0	15.3	13.7	11.6	9.9	8.6	
<i>Policy Index</i>			-1.2	0.6	2.8	13.1	18.0	13.0	11.2	9.9	6.6	Dec-94
<b>Total Fund w/o Alternatives (Net)</b>	<b>785,394,791</b>	<b>67.9</b>	-2.1	1.4	-0.1	8.1	12.3	15.0	12.3	10.0	--	Dec-94
<b>Total Fund w/o Alternatives (Gross)</b>			-2.1	1.5	0.1	8.5	12.8	15.4	12.7	10.4	--	
<i>Policy Index w/o AI</i>			-2.0	0.9	-0.5	7.4	11.5	12.4	10.8	--	--	Dec-94
<b>US Equity (Net)</b>	<b>291,208,107</b>	<b>25.2</b>	-1.3	5.9	5.9	21.6	27.1	19.9	17.5	16.1	11.0	Dec-94
<b>US Equity (Gross)</b>			-1.3	5.9	6.0	21.9	27.4	20.2	17.7	16.4	11.1	
<i>Russell 3000</i>			-1.5	5.1	5.0	20.9	26.3	19.8	17.0	15.7	10.9	Dec-94
<b>International Equity (Net)</b>	<b>233,216,818</b>	<b>20.2</b>	-5.5	-2.4	-7.2	1.3	7.5	18.1	14.0	9.0	6.5	Dec-98
<b>International Equity (Gross)</b>			-5.4	-2.3	-6.8	2.1	8.4	18.8	14.6	9.7	6.8	
<i>International Equity Custom</i>			-4.4	-2.6	-6.2	1.7	7.7	10.1	9.8	7.4	4.8	Dec-98
<b>Developed International Equity (Net)</b>	<b>136,619,313</b>	<b>11.8</b>	-5.2	-2.4	-3.9	6.2	10.4	12.3	10.6	7.7	4.6	Jan-08
<b>Developed International Equity (Gross)</b>			-5.1	-2.3	-3.6	6.9	11.2	12.8	11.0	8.3	5.1	
<i>Custom Blended Developed International Equity BM</i>			-4.7	-2.5	-2.9	6.3	11.8	10.5	9.6	7.6	3.6	Jan-08
<b>Emerging Markets Equity (Net)</b>	<b>96,597,505</b>	<b>8.3</b>	-5.9	-2.5	-11.4	-5.2	2.8	25.7	18.3	--	9.0	Apr-12
<b>Emerging Markets Equity (Gross)</b>			-5.9	-2.4	-11.0	-4.3	3.8	26.8	19.4	--	10.0	
<i>Custom Blended Emerging Markets Benchmark</i>			-4.1	-3.1	-11.0	-4.3	2.7	9.4	9.8	5.5	4.5	Apr-12
<b>US Fixed Income (Net)</b>	<b>192,840,544</b>	<b>16.7</b>	0.2	0.2	0.2	-1.4	-1.3	4.9	3.5	3.6	5.1	Dec-94
<b>US Fixed Income (Gross)</b>			0.2	0.2	0.2	-1.3	-1.1	5.0	3.7	3.8	5.3	
<i>BBgBarc US Aggregate TR</i>			0.3	0.3	0.3	-1.3	-1.2	5.1	3.7	3.2	5.5	Dec-94
<b>Opportunistic Credit (Net)</b>	<b>68,129,320</b>	<b>5.9</b>	0.0	0.1	1.4	6.7	8.7	--	--	--	6.7	May-19
<b>Opportunistic Credit (Gross)</b>			0.0	0.2	1.6	7.2	9.2	--	--	--	7.0	
<i>50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans</i>			-0.1	-0.1	0.4	1.4	2.2	--	--	--	4.9	May-19

The current US Fixed Income benchmark is the Barclays US Agg. Please refer to the benchmark history for the composition of the US Fixed Income benchmark in earlier periods. Data prior to March 2018 provided by prior consultant.

### Total Fund | As of November 30, 2021

	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Real Estate (Net)</b>	<b>92,334,155</b>	<b>8.0</b>	<b>-0.6</b>	<b>1.3</b>	<b>5.5</b>	<b>12.0</b>	<b>13.2</b>	<b>4.3</b>	<b>5.9</b>	<b>7.4</b>	--	<b>Mar-99</b>
<b>Real Estate (Gross)</b>			<b>-0.6</b>	<b>1.3</b>	<b>5.6</b>	<b>12.1</b>	<b>13.3</b>	<b>4.3</b>	<b>5.9</b>	<b>8.0</b>	<b>8.1</b>	
<i>Custom Blended Real Estate Benchmark</i>			0.0	0.0	6.6	12.2	12.8	6.4	6.7	9.0	7.3	Mar-99
<i>CPI + 5% (Seasonally Adjusted)</i>			1.2	2.6	5.0	11.5	12.3	8.5	8.0	7.2	--	Mar-99
<b>Private Real Estate (Net)</b>	<b>66,763,236</b>	<b>5.8</b>	<b>0.0</b>	<b>0.0</b>	<b>5.5</b>	<b>8.1</b>	<b>9.1</b>	<b>2.9</b>	<b>5.0</b>	<b>6.9</b>	--	<b>Mar-99</b>
<b>Private Real Estate (Gross)</b>			<b>0.0</b>	<b>0.0</b>	<b>5.6</b>	<b>8.2</b>	<b>9.3</b>	<b>2.9</b>	<b>5.1</b>	<b>7.6</b>	<b>7.9</b>	
<i>Custom Blended Real Estate Benchmark</i>			0.0	0.0	6.6	12.2	12.8	6.4	6.7	9.0	7.3	Mar-99
<b>Private Equity (Net)</b>	<b>109,630,982</b>	<b>9.5</b>	<b>0.0</b>	<b>0.0</b>	<b>8.6</b>	<b>38.0</b>	<b>52.7</b>	<b>18.7</b>	<b>17.1</b>	<b>11.6</b>	<b>10.0</b>	<b>Jun-05</b>
<b>Private Equity (Gross)</b>			<b>0.0</b>	<b>0.0</b>	<b>8.6</b>	<b>38.0</b>	<b>52.7</b>	<b>18.8</b>	<b>17.1</b>	<b>11.8</b>	<b>10.2</b>	
<i>Custom Private Equity Benchmark</i>			0.0	0.0	12.1	43.6	59.9	26.4	22.8	21.3	--	Jun-05
<i>Russell 3000 +3% 1-Quarter Lag</i>			3.1	5.1	14.6	41.8	36.9	21.3	21.5	19.6	14.2	Jun-05
<b>Hedge Fund (Net)</b>	<b>105,401,218</b>	<b>9.1</b>	<b>-1.6</b>	<b>-0.5</b>	<b>0.2</b>	<b>8.0</b>	<b>10.5</b>	<b>6.4</b>	<b>6.6</b>	--	<b>4.7</b>	<b>Jun-14</b>
<b>Hedge Fund (Gross)</b>			<b>-1.6</b>	<b>-0.4</b>	<b>0.6</b>	<b>9.0</b>	<b>11.6</b>	<b>7.2</b>	<b>7.2</b>	--	<b>5.1</b>	
<i>Custom Blended Hedge Fund Benchmark</i>			-1.6	0.0	0.7	5.7	9.7	7.7	5.8	--	4.4	Jun-14
<b>Real Assets (Net)</b>	<b>56,379,210</b>	<b>4.9</b>	<b>-1.6</b>	<b>-0.1</b>	<b>1.9</b>	<b>12.2</b>	<b>14.8</b>	<b>9.6</b>	<b>8.4</b>	<b>8.7</b>	--	<b>Mar-99</b>
<b>Real Assets (Gross)</b>			<b>-1.6</b>	<b>-0.1</b>	<b>2.1</b>	<b>12.6</b>	<b>15.2</b>	<b>9.8</b>	<b>8.6</b>	<b>9.3</b>	--	
<i>Custom Blended Real Assets Benchmark</i>			0.0	0.0	6.7	18.0	21.2	9.3	8.6	--	--	Mar-99
<i>CPI + 5% (Seasonally Adjusted)</i>			1.2	2.6	5.0	11.5	12.3	8.5	8.0	7.2	--	Mar-99
<b>Private Infrastructure (Net)</b>	<b>20,738,456</b>	<b>1.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>12.0</b>	<b>13.9</b>	<b>12.6</b>	<b>13.0</b>	--	<b>9.4</b>	<b>Dec-14</b>
<b>Private Infrastructure (Gross)</b>			<b>0.0</b>	<b>0.0</b>	<b>0.3</b>	<b>12.5</b>	<b>14.5</b>	<b>12.9</b>	<b>13.2</b>	--	<b>9.5</b>	
<i>Cambridge Infrastructure (1 Quarter Lagged)</i>			0.0	0.0	3.8	10.6	15.2	10.1	11.0	9.0	10.3	Dec-14
<b>Private Natural Resources (Net)</b>	<b>10,610,050</b>	<b>0.9</b>	<b>0.0</b>	<b>0.0</b>	<b>5.7</b>	<b>13.9</b>	<b>15.9</b>	<b>4.8</b>	<b>8.0</b>	--	<b>11.8</b>	<b>Sep-15</b>
<b>Private Natural Resources (Gross)</b>			<b>0.0</b>	<b>0.0</b>	<b>5.7</b>	<b>13.9</b>	<b>15.9</b>	<b>4.8</b>	<b>8.0</b>	--	<b>11.8</b>	
<i>Cambridge Energy Upstream &amp; Royalties &amp; Private Energy (1 Quarter Lagged)</i>			0.0	0.0	9.6	25.8	27.3	--	--	--	--	Sep-15
<b>Cash (Net)</b>	<b>7,969,626</b>	<b>0.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	--	--	--	
<b>Cash (Gross)</b>			<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	--	--	--	

\*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.

Private Markets values are cash flow adjusted from 6/30/2021 NAVs unless otherwise noted.

Real Assets includes State Street Real Asset NL Fund.



Trailing Net Performance													
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Total Fund(Net)*</b>	<b>1,157,109,980</b>	<b>100.0</b>	<b>--</b>	<b>-1.7</b>	<b>1.0</b>	<b>1.2</b>	<b>10.6</b>	<b>14.8</b>	<b>13.3</b>	<b>11.3</b>	<b>9.6</b>	<b>8.5</b>	<b>Dec-94</b>
<i>Policy Index</i>				-1.2	0.6	2.8	13.1	18.0	13.0	11.2	9.9	6.6	Dec-94
<b>Total Fund w/o Alternatives(Net)</b>	<b>785,394,791</b>	<b>67.9</b>	<b>67.9</b>	<b>-2.1</b>	<b>1.4</b>	<b>-0.1</b>	<b>8.1</b>	<b>12.3</b>	<b>15.0</b>	<b>12.3</b>	<b>10.0</b>	<b>--</b>	<b>Dec-94</b>
<i>Policy Index w/o AI</i>				-2.0	0.9	-0.5	7.4	11.5	12.4	10.8	--	--	Dec-94
<b>US Equity(Net)</b>	<b>291,208,107</b>	<b>25.2</b>	<b>37.1</b>	<b>-1.3</b>	<b>5.9</b>	<b>5.9</b>	<b>21.6</b>	<b>27.1</b>	<b>19.9</b>	<b>17.5</b>	<b>16.1</b>	<b>11.0</b>	<b>Dec-94</b>
<i>Russell 3000</i>				-1.5	5.1	5.0	20.9	26.3	19.8	17.0	15.7	10.9	Dec-94
Mellon Dynamic US Equity(Net)	135,734,714	11.7	46.6	-0.7	7.5	7.8	25.1	29.7	22.8	20.6	--	19.0	Dec-12
<i>S&amp;P 500</i>				-0.7	6.3	6.9	23.2	27.9	20.4	17.9	16.2	16.2	Dec-12
Mellon Large Cap(Net)	124,042,378	10.7	42.6	-1.3	5.5	5.7	21.8	26.9	20.7	18.0	--	17.4	Mar-16
<i>Russell 1000</i>				-1.3	5.5	5.7	21.5	26.7	20.6	17.9	16.2	17.4	Mar-16
Champlain Small Cap(Net)	31,431,016	2.7	10.8	-4.0	1.0	-1.3	8.6	18.3	--	--	--	31.8	Nov-20
<i>Russell 2000</i>				-4.2	-0.1	-4.4	12.3	22.0	14.2	12.1	13.1	40.5	Nov-20
<b>International Equity(Net)</b>	<b>233,216,818</b>	<b>20.2</b>	<b>29.7</b>	<b>-5.5</b>	<b>-2.4</b>	<b>-7.2</b>	<b>1.3</b>	<b>7.5</b>	<b>18.1</b>	<b>14.0</b>	<b>9.0</b>	<b>6.5</b>	<b>Dec-98</b>
<i>International Equity Custom</i>				-4.4	-2.6	-6.2	1.7	7.7	10.1	9.8	7.4	4.8	Dec-98
<b>Developed International Equity(Net)</b>	<b>136,619,313</b>	<b>11.8</b>	<b>58.6</b>	<b>-5.2</b>	<b>-2.4</b>	<b>-3.9</b>	<b>6.2</b>	<b>10.4</b>	<b>12.3</b>	<b>10.6</b>	<b>7.7</b>	<b>4.6</b>	<b>Jan-08</b>
<i>Custom Blended Developed International Equity BM</i>				-4.7	-2.5	-2.9	6.3	11.8	10.5	9.6	7.6	3.6	Jan-08
GQG International Equity(Net)	56,102,956	4.8	41.1	-7.2	-3.0	-3.4	7.6	11.0	--	--	--	11.6	Dec-19
<i>MSCI ACWI ex USA</i>				-4.5	-2.2	-5.1	3.5	9.1	9.9	9.3	6.7	9.3	Dec-19
First Eagle International Value Fund(Net)	49,059,405	4.2	35.9	-3.0	-1.3	-3.9	1.6	4.8	--	--	--	4.4	Dec-19
<i>MSCI EAFE</i>				-4.7	-2.3	-2.7	5.8	10.8	9.8	9.2	7.4	8.5	Dec-19
<i>MSCI World ex USA</i>				-4.7	-1.8	-2.5	7.2	12.1	10.2	9.3	7.2	9.1	Dec-19

Historical returns for the US Equity Composite prior to January 2012 and for the International Equity Composite prior to December 2010 are gross only. Developed International Equity and Emerging Markets Equity composites were only reported as one composite prior to March 2018.

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Driehaus International Small Cap Growth(Net)	16,630,976	1.4	12.2	-4.7	-2.7	-3.6	8.6	17.0	--	--	--	20.3	May-19
<i>MSCI ACWI ex US Small Cap Growth NR USD</i>				-4.5	-2.6	-2.2	7.9	15.5	16.1	13.0	9.7	15.5	May-19
Acadian ACWI ex U.S. Small Cap Equity(Net)	14,825,977	1.3	10.9	-4.9	-3.1	-6.1	14.9	22.0	--	--	--	15.7	May-19
<i>MSCI ACWI ex US Small Cap</i>				-5.0	-3.5	-3.5	8.3	15.9	12.7	10.8	8.8	12.1	May-19
<b>Emerging Markets Equity(Net)</b>	<b>96,597,505</b>	<b>8.3</b>	<b>41.4</b>	<b>-5.9</b>	<b>-2.5</b>	<b>-11.4</b>	<b>-5.2</b>	<b>2.8</b>	<b>25.7</b>	<b>18.3</b>	<b>--</b>	<b>9.0</b>	<b>Apr-12</b>
<i>Custom Blended Emerging Markets Benchmark</i>				-4.1	-3.1	-11.0	-4.3	2.7	9.4	9.8	5.5	4.5	Apr-12
Artisan Developing World TR(Net)	68,595,028	5.9	71.0	-6.5	-3.0	-11.9	-5.7	1.1	--	--	--	30.8	Dec-19
<i>MSCI Emerging Markets</i>				-4.1	-3.1	-11.0	-4.3	2.7	9.3	9.5	5.2	10.3	Dec-19
RWC(Net)	28,002,477	2.4	29.0	-4.5	-1.2	-10.2	-3.5	8.8	--	--	--	13.9	Dec-19
<i>MSCI Emerging Markets</i>				-4.1	-3.1	-11.0	-4.3	2.7	9.3	9.5	5.2	10.3	Dec-19
<b>US Fixed Income(Net)</b>	<b>192,840,544</b>	<b>16.7</b>	<b>24.6</b>	<b>0.2</b>	<b>0.2</b>	<b>0.2</b>	<b>-1.4</b>	<b>-1.3</b>	<b>4.9</b>	<b>3.5</b>	<b>3.6</b>	<b>5.1</b>	<b>Dec-94</b>
<i>BBgBarc US Aggregate TR</i>				0.3	0.3	0.3	-1.3	-1.2	5.1	3.7	3.2	5.5	Dec-94
Vanguard Total Bond Market Index Fund(Net)	92,154,969	8.0	47.8	0.3	0.3	0.4	-1.3	-1.1	--	--	--	4.6	May-19
<i>Bloomberg US Aggregate TR</i>				0.3	0.3	0.3	-1.3	-1.2	5.5	3.7	3.0	4.5	May-19
Barrow Hanley(Net)	90,129,209	7.8	46.7	0.1	0.1	0.0	-1.8	-1.6	5.9	3.8	3.2	3.7	Mar-10
<i>Bloomberg US Aggregate TR</i>				0.3	0.3	0.3	-1.3	-1.2	5.5	3.7	3.0	3.6	Mar-10
Vanguard Short-Term Treasury Index Fund(Net)	10,556,366	0.9	5.5	-0.1	-0.4	-0.3	-0.5	-0.4	2.3	--	--	2.1	Feb-18
<i>Bloomberg US Govt 1-3 Yr TR</i>				0.0	-0.4	-0.3	-0.4	-0.3	2.4	1.7	1.1	2.2	Feb-18
<i>Bloomberg US Govt 1-5 Yr TR</i>				0.0	-0.5	-0.5	-0.9	-0.9	2.9	2.0	1.4	2.6	Feb-18

The current US Fixed Income benchmark is the Barclays US Agg. Please refer to the benchmark history for the composition of the US Fixed Income benchmark in earlier periods.

Historical returns for the US Fixed Income Composite prior to December 2010 and for Barrow Hanley prior to June 2010 are gross only.

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Opportunistic Credit(Net)</b>	<b>68,129,320</b>	<b>5.9</b>	<b>8.7</b>	<b>0.0</b>	<b>0.1</b>	<b>1.4</b>	<b>6.7</b>	<b>8.7</b>	--	--	--	<b>6.7</b>	<b>May-19</b>
<i>50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans</i>				-0.1	-0.1	0.4	1.4	2.2	--	--	--	4.9	May-19
PIMCO Income Fund(Net)	25,077,239	2.2	36.8	-0.5	-0.9	-0.3	1.5	3.0	--	--	--	4.3	Apr-19
<i>Bloomberg US Aggregate TR</i>				0.3	0.3	0.3	-1.3	-1.2	5.5	3.7	3.0	4.5	Apr-19
GoldenTree Multi-Sector Credit(Net)	23,916,565	2.1	35.1	-0.6	-0.3	0.8	5.5	7.5	--	--	--	6.4	Jun-19
<i>50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans</i>				-0.6	-0.5	0.5	4.0	5.7	5.9	5.4	5.9	5.5	Jun-19
Sculptor Credit Opportunities Domestic Partners, LP(Net)	19,135,516	1.7	28.1	1.5	2.0	4.4	16.4	18.9	--	--	--	18.8	Jul-20
<i>50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans</i>				-0.6	-0.5	0.5	4.0	5.7	5.9	5.4	5.9	9.7	Jul-20
<b>Real Estate(Net)</b>	<b>92,334,155</b>	<b>8.0</b>	<b>8.0</b>	<b>-0.6</b>	<b>1.3</b>	<b>5.5</b>	<b>12.0</b>	<b>13.2</b>	<b>4.3</b>	<b>5.9</b>	<b>7.4</b>	--	<b>Mar-99</b>
<i>Custom Blended Real Estate Benchmark</i>				0.0	0.0	6.6	12.2	12.8	6.4	6.7	9.0	7.3	Mar-99
<i>CPI + 5% (Seasonally Adjusted)</i>				1.2	2.6	5.0	11.5	12.3	8.5	8.0	7.2	--	Mar-99
Vanguard REIT Index(Net)	25,570,919	2.2	27.7	-2.2	4.7	5.4	28.0	31.5	--	--	--	28.0	Aug-20
<i>Spliced Vanguard REIT Benchmark</i>				-2.2	4.8	5.5	28.1	31.7	13.2	10.3	11.1	28.1	Aug-20
<b>Private Real Estate(Net)</b>	<b>66,763,236</b>	<b>5.8</b>	<b>72.3</b>	<b>0.0</b>	<b>0.0</b>	<b>5.5</b>	<b>8.1</b>	<b>9.1</b>	<b>2.9</b>	<b>5.0</b>	<b>6.9</b>	--	<b>Mar-99</b>
<i>Custom Blended Real Estate Benchmark</i>				0.0	0.0	6.6	12.2	12.8	6.4	6.7	9.0	7.3	Mar-99
UBS Trumbull Property(Net)	30,231,587	2.6	45.3	0.0	0.0	2.5	1.8	1.2	-0.7	1.7	5.6	6.2	Mar-99
Patron Capital V(Net)	9,422,196	0.8	14.1	0.0	0.0	12.8	15.7	23.4	2.4	12.1	--	8.8	Jan-16

Private Markets values are cash flow adjusted from 6/30/2021 NAVs.

Data prior to March 2018 provided by prior consultant.

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.

### Total Fund | As of November 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Greenfield Gap VII(Net)	5,367,993	0.5	8.0	0.0	0.0	13.5	31.0	32.9	16.6	15.5	--	14.7	Dec-14
Taconic CRE Dislocation Fund II(Net)	4,233,579	0.4	6.3	0.0	0.0	4.4	8.6	9.5	8.5	--	--	8.3	Nov-18
Cerberus Real Estate Debt Fund, L.P.(Net)	4,024,588	0.3	6.0	0.0	0.0	-1.5	5.2	22.8	--	--	--	15.6	Jul-20
Taconic CRE Dislocation Onshore Fund III(Net)	4,000,000	0.3	6.0										
Rockpoint Real Estate Fund VI, L.P.(Net)	3,728,534	0.3	5.6	0.0	0.0	18.0	30.2	25.6	--	--	--	13.7	May-20
AG Realty Value Fund X, L.P.(Net)	2,850,986	0.2	4.3	0.0	0.0	5.6	15.2	18.6	--	--	--	0.2	Jun-19
Carlyle Realty VIII(Net)	1,720,541	0.1	2.6	0.0	0.0	21.3	30.8	37.8	14.7	--	--	-4.4	Dec-17
Carmel Partners Investment Fund VII(Net)	1,180,949	0.1	1.8	0.0	0.0	-0.7	-10.5	-17.7	--	--	--	-33.9	Apr-19
Starwood Distressed Opportunity Fund XII Global(Net)	2,282	0.0	0.0										
<b>Private Equity(Net)</b>	<b>109,630,982</b>	<b>9.5</b>	<b>9.5</b>	<b>0.0</b>	<b>0.0</b>	<b>8.6</b>	<b>38.0</b>	<b>52.7</b>	<b>18.7</b>	<b>17.1</b>	<b>11.6</b>	<b>10.0</b>	<b>Jun-05</b>
<i>Custom Private Equity Benchmark</i>				<i>0.0</i>	<i>0.0</i>	<i>12.1</i>	<i>43.6</i>	<i>59.9</i>	<i>26.4</i>	<i>22.8</i>	<i>21.3</i>	<i>--</i>	<i>Jun-05</i>
<i>Russell 3000 +3% 1-Quarter Lag</i>				<i>3.1</i>	<i>5.1</i>	<i>14.6</i>	<i>41.8</i>	<i>36.9</i>	<i>21.3</i>	<i>21.5</i>	<i>19.6</i>	<i>14.2</i>	<i>Jun-05</i>
Cortec Group Fund VII(Net)	8,871,967	0.8	8.1	0.0	0.0	27.8	61.1	57.1	--	--	--	36.5	Dec-19
Ocean Avenue II(Net)	8,551,045	0.7	7.8	0.0	0.0	11.2	101.1	147.4	38.7	35.1	--	21.8	Jun-14
TCV X(Net)	8,450,431	0.7	7.7	0.0	0.0	32.4	94.6	117.8	--	--	--	39.1	Apr-19
Genstar Capital Partners IX(Net)	7,717,332	0.7	7.0	0.0	0.0	14.3	34.9	54.3	--	--	--	25.1	Jul-19
Adams Street(Net)	6,580,728	0.6	6.0	0.0	0.0	11.2	48.3	69.5	23.2	20.0	16.0	10.0	Sep-05
Thoma Bravo Discover Fund III(Net)	5,980,889	0.5	5.5	0.0	0.0	-0.8	--	--	--	--	--	3.6	Jun-21

Adams Street includes Adams Street 2005, Adams Street 2007, and Adams Street 2011.

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
GTCR Fund XII(Net)	5,683,154	0.5	5.2	0.0	0.0	16.7	33.3	59.6	19.7	--	--	16.7	Jun-18
Spark Capital Growth Fund III(Net)	5,586,410	0.5	5.1	0.0	0.0	-1.9	22.2	18.6	--	--	--	6.0	Mar-20
Summit Partners Growth Equity Fund X-A(Net)	5,485,145	0.5	5.0	0.0	0.0	11.1	-4.3	2.4	--	--	--	2.4	Mar-20
Davidson Kempner Long-Term Distressed Opportunities Fund IV(Net)	4,933,710	0.4	4.5	0.0	0.0	-3.6	2.1	7.1	4.2	--	--	6.9	Apr-18
Carrick Capital Partners III(Net)	4,847,928	0.4	4.4	0.0	0.0	4.1	22.3	25.4	11.9	--	--	9.0	Aug-18
Silver Point Specialty Credit Fund II, L.P.(Net)	4,715,500	0.4	4.3	0.0	0.0	-1.2	12.0	20.6	--	--	--	14.1	Jul-20
Taconic Market Dislocation Fund III L.P.(Net)	4,522,198	0.4	4.1	0.0	0.0	11.3	38.6	38.6	--	--	--	25.9	Jul-20
Pantheon II(Net)	4,359,981	0.4	4.0	0.0	0.0	9.7	45.7	71.2	24.3	21.7	--	15.8	Dec-11
Marlin Heritage Europe II, L.P.(Net)	4,189,565	0.4	3.8	0.0	0.0	-10.1	-11.9	-11.9	--	--	--	-10.3	Oct-20
Accel-KKR Growth Capital Partners III(Net)	3,618,882	0.3	3.3	0.0	0.0	14.1	31.8	36.0	--	--	--	5.9	Jul-19
Cressey & Company Fund VI(Net)	3,547,773	0.3	3.2	0.0	0.0	6.5	24.0	43.7	--	--	--	14.1	Jan-19
TCV XI(Net)	2,325,282	0.2	2.1	0.0	0.0	-0.5	--	--	--	--	--	-5.6	Feb-21
Khosla Ventures VII(Net)	2,046,649	0.2	1.9	0.0	0.0	4.2	-0.8	--	--	--	--	-0.8	Jan-21
Spark Capital VI(Net)	2,023,107	0.2	1.8	0.0	0.0	-1.4	-4.8	-8.8	--	--	--	-9.7	Mar-20
Summit Partners Venture Capital Fund V-A(Net)	1,717,408	0.1	1.6	0.0	0.0	-1.0	--	--	--	--	--	-3.0	May-21
GTCR Fund XIII/A & B(Net)	1,026,960	0.1	0.9										
Invesco VI(Net)	1,006,238	0.1	0.9	0.0	0.0	9.9	100.6	131.4	40.1	30.0	--	21.8	Jun-13

Pantheon I includes Pantheon US Fund VI and Pantheon Europe Fund IV.  
 Pantheon II includes Pantheon US Fund IX, Pantheon Asia Fund VI, and Pantheon Europe Fund VII.  
 Pantheon Secondary includes Pantheon GLO SEC III B.

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Accel-KKR Capital Partners VI(Net)	725,459	0.1	0.7										
Khosla Ventures Seed E(Net)	438,596	0.0	0.4										
Pantheon Secondary(Net)	265,219	0.0	0.2	0.0	0.0	-0.5	-5.4	-3.2	-4.5	1.2	0.4	2.4	Jun-07
Pantheon I(Net)	197,149	0.0	0.2	0.0	0.0	-1.6	11.1	10.9	-10.7	-3.0	0.8	0.9	Dec-05
Raven Asset Fund II(Net)	177,430	0.0	0.2	0.0	0.0	-21.6	-20.9	-24.1	-13.5	-9.2	--	-6.9	Aug-14
Genstar Capital Partners X(Net)	38,847	0.0	0.0										
<b>Hedge Fund(Net)</b>	<b>105,401,218</b>	<b>9.1</b>	<b>9.1</b>	<b>-1.6</b>	<b>-0.5</b>	<b>0.2</b>	<b>8.0</b>	<b>10.5</b>	<b>6.4</b>	<b>6.6</b>	<b>--</b>	<b>4.7</b>	<b>Jun-14</b>
<i>Custom Blended Hedge Fund Benchmark</i>				<i>-1.6</i>	<i>0.0</i>	<i>0.7</i>	<i>5.7</i>	<i>9.7</i>	<i>7.7</i>	<i>5.8</i>	<i>--</i>	<i>4.4</i>	<i>Jun-14</i>
Silver Point Capital(Net)	17,326,350	1.5	16.4	-1.1	0.5	4.4	23.1	27.3	12.6	--	--	9.7	Nov-17
Wellington-Archipelago(Net)	14,153,538	1.2	13.4	-1.5	-0.1	1.6	4.8	6.3	7.3	--	--	5.6	Aug-17
Laurion Capital(Net)	14,045,150	1.2	13.3	-0.7	-3.3	-8.4	17.9	19.4	17.9	--	--	17.0	Aug-18
Taconic Opportunity Fund(Net)	14,000,087	1.2	13.3	0.3	1.3	1.3	8.3	10.6	--	--	--	5.3	Dec-18
Sculptor (OZ) Domestic II(Net)	13,708,007	1.2	13.0	-3.9	-2.4	-1.4	3.8	5.9	11.6	9.6	--	7.4	Jun-14
Caxton Global Investments(Net)	9,992,403	0.9	9.5	-0.4	2.3	3.2	--	--	--	--	--	-0.1	May-21
Marshall Wace Global Opportunities(Net)	9,859,250	0.9	9.4	-4.2	-1.3	2.7	-5.1	-3.0	--	--	--	5.9	May-20
Graham Absolute Return(Net)	7,949,940	0.7	7.5	-2.5	-1.1	-2.1	2.3	5.7	1.9	--	--	2.0	Aug-17
Marshall Wace Eureka(Net)	4,223,739	0.4	4.0	-1.8	0.8	3.9	7.7	11.5	9.6	--	--	7.3	Nov-17
KLS Diversified(Net)	142,755	0.0	0.1	-0.7	-0.6	-1.6	1.0	2.8	-3.2	--	--	-1.4	Oct-17

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Real Assets(Net)</b>	<b>56,379,210</b>	<b>4.9</b>	<b>4.9</b>	<b>-1.6</b>	<b>-0.1</b>	<b>1.9</b>	<b>12.2</b>	<b>14.8</b>	<b>9.6</b>	<b>8.4</b>	<b>8.7</b>	--	<b>Mar-99</b>
<i>Custom Blended Real Assets Benchmark CPI + 5% (Seasonally Adjusted)</i>				0.0	0.0	6.7	18.0	21.2	9.3	8.6	--	--	Mar-99
				1.2	2.6	5.0	11.5	12.3	8.5	8.0	7.2	--	Mar-99
SSgA(Net)	25,030,704	2.2	44.4	-3.7	-0.2	1.7	14.4	18.6	8.6	--	--	6.3	Apr-17
<i>Real Asset NL Custom Blended Index</i>				-2.9	0.8	3.0	17.6	22.0	9.6	--	--	7.0	Apr-17
<b>Private Infrastructure(Net)</b>	<b>20,738,456</b>	<b>1.8</b>	<b>36.8</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>12.0</b>	<b>13.9</b>	<b>12.6</b>	<b>13.0</b>	--	<b>9.4</b>	<b>Dec-14</b>
<i>Cambridge Infrastructure (1 Quarter Lagged)</i>				0.0	0.0	3.8	10.6	15.2	10.1	11.0	9.0	10.3	Dec-14
KKR Global II(Net)	6,885,800	0.6	33.2	0.0	0.0	1.4	35.4	35.0	27.1	21.8	--	17.6	Dec-14
North Haven Infrastructure II(Net)	5,626,022	0.5	27.1	0.0	0.0	6.1	5.8	6.1	7.1	10.0	--	6.9	May-15
ISQ Global Infrastructure Fund II(Net)	4,373,291	0.4	21.1	0.0	0.0	2.9	13.0	19.3	13.6	--	--	0.0	Jul-18
KKR Global Infrastructure Investors III(Net)	3,157,333	0.3	15.2	0.0	0.0	-1.3	0.7	8.4	-4.3	--	--	-4.4	Jan-19
Ardian Infrastructure Fund V(Net)	1,365,487	0.1	6.6	0.0	0.0	11.8	4.2	9.7	--	--	--	-20.5	Oct-19
KKR Global Infrastructure Investors IV(Net)	-6,861	0.0	0.0										
ISQ Global Infrastructure Fund III(Net)	-662,616	-0.1	-3.2										
<b>Private Natural Resources(Net)</b>	<b>10,610,050</b>	<b>0.9</b>	<b>18.8</b>	<b>0.0</b>	<b>0.0</b>	<b>5.7</b>	<b>13.9</b>	<b>15.9</b>	<b>4.8</b>	<b>8.0</b>	--	<b>11.8</b>	<b>Sep-15</b>
<i>Cambridge Energy Upstream &amp; Royalties &amp; Private Energy (1 Quarter Lagged)</i>				0.0	0.0	9.6	25.8	27.3	--	--	--	--	Sep-15
Tailwater Energy Fund IV, LP(Net)	2,798,393	0.2	26.4	0.0	0.0	6.9	15.5	27.9	--	--	--	-12.1	Oct-19
GSO Energy Opportunities(Net)	2,757,592	0.2	26.0	0.0	0.0	6.9	33.4	40.9	4.3	7.4	--	11.6	Nov-15
EnCap XI(Net)	2,266,345	0.2	21.4	0.0	0.0	14.4	23.3	16.8	-11.3	--	--	-21.2	Jul-17
BlackRock Global Energy and Power Infrastructure Fund III LP(Net)	2,245,412	0.2	21.2	0.0	0.0	1.4	4.0	4.1	--	--	--	16.6	Jul-19

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Taurus Mining(Net)	298,781	0.0	2.8	0.0	0.0	1.9	-4.7	-6.9	-0.7	4.2	--	8.7	Sep-15
EnCap IV(Net)	212,065	0.0	2.0	0.0	0.0	1.6	6.9	5.7	8.2	--	--	1.3	Feb-18
Taurus Mining Annex(Net)	31,463	0.0	0.3	0.0	0.0	2.7	1.3	6.0	14.3	--	--	21.0	Jan-17
<b>Cash(Net)</b>	<b>7,969,626</b>	<b>0.7</b>	<b>0.7</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	--	--	--	
Cash(Net)	7,326,470	0.6	91.9	0.0	0.0	0.0	0.0	0.0	1.0	1.0	0.8	--	Sep-03
Treasury Cash(Net)	643,156	0.1	8.1										

\*One or more accounts have been excluded from the composite for the purposes of performance calculations and market value.



**Benchmark History**  
As of November 30, 2021

Total Fund		
1/1/2020	Present	21% Russell 3000 / 10% Custom Blended Developed International Equity BM / 8% Custom Blended Emerging Markets Benchmark / 18% BBgBarc US Aggregate TR / 10% Custom Blended Hedge Fund Benchmark / 15% Custom Private Equity Benchmark / 5% Custom Blended Real Assets Benchmark / 8% Custom Blended Real Estate Benchmark / 5% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans
7/1/2019	12/31/2019	21% US Equity Custom / 18% International Equity Custom / 18% US Fixed Custom / 10% Custom Blended Hedge Fund Benchmark / 15% Thomson Reuters Cambridge Private Equity Index / 5% Real Asset Custom / 8% NCREIF ODCE (net) / 5% 50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans
1/1/2019	6/30/2019	21% US Equity Custom / 18% International Equity Custom / 23% US Fixed Custom / 10% Custom Blended Hedge Fund Benchmark / 15% Thomson Reuters Cambridge Private Equity Index / 5% Real Asset Custom / 8% NCREIF ODCE (net)
1/1/2017	12/31/2018	27% US Equity Custom / 23% International Equity Custom / 22% US Fixed Custom / 5% Custom Blended Hedge Fund Benchmark / 9% Thomson Reuters Cambridge Private Equity Index / 14% Real Asset Custom
7/1/2014	12/31/2016	22.7% Russell 1000 / 5.7% Russell 2000 / 23.6% International Equity Custom / 28.5% US Fixed Custom / 4.5% Custom Blended Hedge Fund Benchmark / 8% NCREIF ODCE (net) / 7% Cambridge Assoc. U.S. Private Equity Legacy Index
Total Fund w/o Alternatives		
1/1/2017	Present	37.5% US Equity Custom / 31.94% International Equity Custom / 30.56% US Fixed Custom
7/1/2014	12/31/2016	28.2% Russell 1000 / 7.1% Russell 2000 / 29.3% International Equity Custom / 35.4% US Fixed Custom
US Equity		
1/1/2020	Present	Russell 3000
12/31/1994	12/31/2019	80% R1000 / 20% R2000
International Equity		
1/1/2019	Present	56% MSCI EAFE Gross / 44% MSCI Emerging Markets Gross
1/1/2017	12/31/2018	69.56% MSCI EAFE Gross / 30.44% MSCI Emerging Markets Gross
7/1/2013	12/31/2016	MSCI ACWI ex USA Gross
Developed International Equity		
1/1/2020	Present	80% MSCI EAFE / 20% MSCI ACWI ex US Small Cap
1/31/2008	12/31/2019	MSCI EAFE
Emerging Markets Equity		
1/1/2020	Present	MSCI Emerging Markets
4/30/2012	12/31/2019	MSCI Emerging Markets Gross
US Fixed Income		
1/1/2020	Present	Bloomberg US Aggregate TR
3/1/2018	12/31/2019	77.27% Bloomberg US Aggregate TR / 22.73% Bloomberg US Govt 1-5 Yr TR
1/1/2017	2/28/2018	77.27% Bloomberg US Aggregate TR / 22.73% Credit Suisse Leveraged Loans
8/1/2014	12/31/2016	71.93% Bloomberg US Aggregate TR / 17.54% ICE BofA US High Yield TR / 10.53% Credit Suisse Leveraged Loans
12/31/1994	7/31/2014	US Fixed Custom

Opportunistic Credit		
5/1/2019	Present	50% Bloomberg US Aggregate TR / 25% Bloomberg US High Yield TR / 25% Credit Suisse Leveraged Loans
Real Estate		
1/1/2020	Present	NCREIF ODCE (lagged one quarter)
3/31/1999	12/31/2019	NCREIF ODCE (net)
Vanguard REIT Index		
8/31/2020	Present	MSCI US IMI Real Estate 25-50 GR USD
Private Real Estate		
1/1/2020	Present	NCREIF ODCE (lagged one quarter)
3/31/1999	12/31/2019	NCREIF ODCE (net)
Private Equity		
1/1/2020	Present	Cambridge Global Private Equity & VC (1 Quarter Lagged)
6/30/2005	12/31/2019	Thomson Reuters Cambridge Private Equity Index
Hedge Fund		
7/1/2017	Present	100% HFRI Fund of Funds Composite Index
1/1/2015	6/30/2017	50% HFRI Fund of Funds Composite Index / 50% HFRI RV: Multi-Strategy Index
Real Assets		
1/1/2020	Present	50% Cambridge Infrastructure (1 Quarter Lagged) / 50% Cambridge Energy Upstream & Royalties & Private Energy (1 Quarter Lagged)
3/31/1999	12/31/2019	Real Asset Custom
Private Infrastructure		
12/31/2014	Present	Cambridge Infrastructure (1 Quarter Lagged)
Private Natural Resources		
9/30/2015	Present	Cambridge Energy Upstream & Royalties & Private Energy (1 Quarter Lagged)
SSgA		
4/30/2017	Present	25% Bloomberg Roll Select Commodities Index TR USD / 25% S&P Global LargeMidCap Commodity and Resources NR USD / 10% S&P Global Infrastructure TR USD / 15% DJ US Select REIT TR USD / 25% Bloomberg US TIPS TR

Annual Investment Expense Analysis				
As Of November 30, 2021				
Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Total Fund w/o Alternatives</b>		<b>\$785,394,791</b>		
<b>US Equity</b>		<b>\$291,208,107</b>		
Mellon Dynamic US Equity	0.30% of Assets	\$135,734,714	\$407,204	0.30%
Mellon Large Cap	0.04% of First 100.0 Mil, 0.02% Thereafter	\$124,042,378	\$44,808	0.04%
Champlain Small Cap	1.00% of Assets	\$31,431,016	\$314,310	1.00%
<b>International Equity</b>		<b>\$233,216,818</b>		
<b>Developed International Equity</b>		<b>\$136,619,313</b>		
Acadian ACWI ex U.S. Small Cap Equity	0.99% of Assets	\$14,825,977	\$146,777	0.99%
Driehaus International Small Cap Growth	0.90% of Assets	\$16,630,976	\$149,679	0.90%
GQG International Equity	0.50% of Assets	\$56,102,956	\$280,515	0.50%
First Eagle International Value Fund	0.79% of Assets	\$49,059,405	\$387,569	0.79%
<b>Emerging Markets Equity</b>		<b>\$96,597,505</b>		
Artisan Developing World TR	1.05% of Assets	\$68,595,028	\$720,248	1.05%
RWC	0.87% of Assets	\$28,002,477	\$243,622	0.87%
<b>US Fixed Income</b>		<b>\$192,840,544</b>		
Barrow Hanley	0.30% of First 50.0 Mil, 0.20% of Next 100.0 Mil, 0.15% Thereafter	\$90,129,209	\$230,258	0.26%
Vanguard Short-Term Treasury Index Fund	0.05% of Assets	\$10,556,366	\$5,278	0.05%
Vanguard Total Bond Market Index Fund	0.04% of Assets	\$92,154,969	\$32,254	0.04%
<b>Opportunistic Credit</b>		<b>\$68,129,320</b>		
PIMCO Income Fund	0.50% of Assets	\$25,077,239	\$125,386	0.50%
GoldenTree Multi-Sector Credit	0.70% of Assets	\$23,916,565	\$167,416	0.70%
Sculptor Credit Opportunities Domestic Partners, LP	Performance-based 1.00 and 20.00	\$19,135,516	\$191,355	1.00%

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Real Estate</b>		<b>\$92,334,155</b>		
Vanguard REIT Index	0.10% of Assets	\$25,570,919	\$25,571	0.10%
<b>Private Real Estate</b>		<b>\$66,763,236</b>		
Greenfield Gap VII		\$5,367,993		
Patron Capital V		\$9,422,196		
UBS Trumbull Property		\$30,231,587		
Carlyle Realty VIII		\$1,720,541		
Taconic CRE Dislocation Fund II		\$4,233,579		
Carmel Partners Investment Fund VII		\$1,180,949		
AG Realty Value Fund X, L.P.		\$2,850,986		
Rockpoint Real Estate Fund VI, L.P.		\$3,728,534		
Cerberus Real Estate Debt Fund, L.P.		\$4,024,588		
Taconic CRE Dislocation Onshore Fund III		\$4,000,000		
Starwood Distressed Opportunity Fund XII Global		\$2,282		
Invesco VI		\$1,006,238		
Ocean Avenue II		\$8,551,045		
Pantheon I		\$197,149		
Pantheon II		\$4,359,981		
Pantheon Secondary		\$265,219		
Raven Asset Fund II		\$177,430		
Davidson Kempner Long-Term Distressed Opportunities Fund IV		\$4,933,710		
GTCR Fund XII		\$5,683,154		
Carrick Capital Partners III		\$4,847,928		
Cressey & Company Fund VI		\$3,547,773		
TCV X		\$8,450,431		
Accel-KKR Growth Capital Partners III		\$3,618,882		

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Genstar Capital Partners IX		\$7,717,332		
Cortec Group Fund VII		\$8,871,967		
Spark Capital Growth Fund III		\$5,586,410		
Spark Capital VI		\$2,023,107		
Summit Partners Growth Equity Fund X-A		\$5,485,145		
Taconic Market Dislocation Fund III L.P.		\$4,522,198		
Silver Point Specialty Credit Fund II, L.P.		\$4,715,500		
Marlin Heritage Europe II, L.P.		\$4,189,565		
Khosla Ventures VII		\$2,046,649		
Accel-KKR Capital Partners VI		\$725,459		
Khosla Ventures Seed E		\$438,596		
TCV XI		\$2,325,282		
Thoma Bravo Discover Fund III		\$5,980,889		
Summit Partners Venture Capital Fund V-A		\$1,717,408		
GTCR Fund XIII/A & B		\$1,026,960		
Genstar Capital Partners X		\$38,847		
<b>Hedge Fund</b>		<b>\$105,401,218</b>		
Sculptor (OZ) Domestic II	Performance-based 1.50 and 20.00	\$13,708,007	\$205,620	1.50%
Graham Absolute Return	Performance-based 1.75 and 20.00	\$7,949,940	\$139,124	1.75%
Wellington-Archipelago	Performance-based 1.00 and 20.00	\$14,153,538	\$141,535	1.00%
KLS Diversified	Performance-based 2.00 and 20.00	\$142,755	\$2,855	2.00%
Marshall Wace Eureka	Performance-based 2.00 and 20.00	\$4,223,739	\$84,475	2.00%
Silver Point Capital	Performance-based 1.50 and 20.00	\$17,326,350	\$259,895	1.50%
Laurion Capital	Performance-based 2.00 and 20.00	\$14,045,150	\$280,903	2.00%
Taconic Opportunity Fund	Performance-based 1.40 and 20.00	\$14,000,087	\$205,642	1.47%
Marshall Wace Global Opportunities	Performance-based 2.00 and 20.00	\$9,859,250	\$197,185	2.00%
Caxton Global Investments	Performance-based 1.95 and 22.50	\$9,992,403	\$194,852	1.95%

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
<b>Real Assets</b>		<b>\$56,379,210</b>		
SSgA	0.30% of First 50.0 Mil, 0.27% of Next 50.0 Mil, 0.25% Thereafter	\$25,030,704	\$75,092	0.30%
<b>Private Infrastructure</b>		<b>\$20,738,456</b>		
KKR Global II		\$6,885,800		
North Haven Infrastructure II		\$5,626,022		
ISQ Global Infrastructure Fund II		\$4,373,291		
KKR Global Infrastructure Investors III		\$3,157,333		
Ardian Infrastructure Fund V		\$1,365,487		
ISQ Global Infrastructure Fund III		-\$662,616		
KKR Global Infrastructure Investors IV		-\$6,861		
<b>Private Natural Resources</b>		<b>\$10,610,050</b>		
EnCap XI		\$2,266,345		
EnCap IV		\$212,065		
GSO Energy Opportunities		\$2,757,592		
Taurus Mining		\$298,781		
Taurus Mining Annex		\$31,463		
BlackRock Global Energy and Power Infrastructure Fund III LP		\$2,245,412		
Tailwater Energy Fund IV, LP		\$2,798,393		
<b>Cash</b>		<b>\$7,969,626</b>		
Cash		\$7,326,470		
Treasury Cash		\$643,156		

## 2021 Activity Report

Portfolio Activity Review 2021

Significant Transactions

Asset Class	Additional Investments/ Partial Liquidations	Initial Investments/ Full Liquidations
Domestic Equity	(\$55M)	
EM Equity	(\$28M)	
Domestic FI	\$39M* *Monthly liquidations	
Opportunistic Credit	(\$85K)/month	
Real Estate	\$15M (\$6M) \$2M \$720K	\$4M
Hedge Fund	(\$7M)	\$10M (\$5M)
Real Assets	\$12M (\$1.6M)	
Private Equity	(\$5.2M)	\$5.1M

Topics Covered

- Inflation
  - Investing in a Low Rate Environment
  - Modeling Scenarios
- Cryptocurrency
- 2021 Capital Market Expectation
- Asset Class Roles within Portfolio
- Role of Hedge Funds
- Asset Allocation Discussion
  - Phase I
  - Phase II

Looking Ahead: 2022

- Asset Class Reviews:
  - Fixed Income
  - Public Equity
- Review of Meketa's 2022 Capital Market Expectations



## **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.

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

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

**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.  $\text{Portfolio Return} - [\text{Risk Free Rate} + \text{Beta} * (\text{market return} - \text{Risk Free Rate})]$ .

**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 its 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%.

$$\frac{5\% \text{ (discount)}}{5 \text{ (yrs. to maturity)}} = 1\% \text{ pro rata, plus } 5.26\% \text{ (current yield)} = 6.26\% \text{ (yield to maturity)}$$

**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

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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.