

**MCERA INVESTMENT RETIREMENT BOARD AGENDA
THURSDAY, JULY 25, 2019
MERCED COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
3199 M STREET, MERCED, CA 95348**

Please turn your cell phone or other electronic device to non-audible mode.

CALL TO ORDER: 8:15 A.M.

- ROLL CALL.
- APPROVAL OF MINUTES – July 11, 2019.

PUBLIC COMMENT

Members of the public may comment on any item under the Board's jurisdiction. Matters presented under this item will not be discussed or acted upon by the Board at this time. For agenda items, the public may make comments at the time the item comes up for Board consideration. 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) CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

Significant exposure to litigation. (Govt. Code § 54956.9)

Number of Potential Cases: 1

(2) CONFERENCE WITH REAL PROPERTY NEGOTIATORS

(Gov. Code section 54956.8.)

Property: 690 West 19th St. Merced, CA

Agency negotiator: Kristen Santos

Negotiating parties: City of Merced/RDA

Under negotiation: Property Purchase

RETURN TO OPEN SESSION

Report on any action taken in closed session.

BOARD ACTION¹/DISCUSSION

Pursuant to Govt. Code § 31594 and MCERA's Investment Objectives & Policy Statement due diligence analysis requirement:

¹ "Action" means that the Board may dispose of any item by any action, including but not limited to the following acts: approve, disapprove, authorize, modify, defer, table, take no action, or receive and file.

1. Presentation and discussion of the 2019 Monthly Investment Performance Report with possible board action on any funds – Meketa Investment Group.
2. Review calendar of any training sessions and authorize expenditures for Trustees and Plan Administrator. Pursuant to Govt. Code § 31522.8 and MCERA’s Trustees Education and Training Policy requirements. Examples of upcoming training and educational sessions:
 - a. Principles of Pension Management for Trustees, August 26-29, 2019 Malibu, CA.
 - b. Nossaman Fiduciary Forum, September 4-5, 2019, Berkeley, CA.
 - c. CALAPRS Administrators Institute (Plan Administrator only), September 25-27, 2019, Carmel, CA.
 - d. Trustee Roundtable, October 25, 2019, Oakland, CA.
 - e. SACRS Fall Conference, November 12-15, 2019, Monterey, CA.
 - f. CALAPRS General Assembly, March 7 -10, 2020, Rancho Mirage, CA.
 - g. SACRS Spring Conference, May 12-15, 2020, San Diego, CA.

INFORMATION ONLY

MCERA Upcoming Board Meetings:

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

- August 8, 2019
- August 22, 2019
- September 12, 2019

ADJOURNMENT

All supporting documentation is available for public review in the office of the Merced County Employees’ Retirement Association, 3199 M Street, Merced, California, 95348 during regular business hours, 8:00 a.m. – 5:00 p.m., Monday through Friday.

The agenda is available online at www.co.merced.ca.us/retirement

Any material related to an item on this Agenda submitted to the Merced County Employees’ Retirement Association, after distribution of the Agenda packet is available for public inspection in the office of the Merced County Employees’ Retirement Association.

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.

**MCERA RETIREMENT BOARD MEETING MINUTES
THURSDAY, JULY 11, 2019
MERCED COUNTY EMPLOYEES' RETIREMENT ASSOCIATION
3199 M STREET, MERCED, CA 95348**

ROLL CALL: 8:15 A.M.

Board Members Present: Karen Adams, Scott Silveira, Janey Cabral (left at 9:47 am), Ryan Paskin, Michael Rhodes, Alfonse Peterson, David Ness (arrived at 8:17 am), and Jason Goins (left at 9:47 am).
Counsel: Forrest Hansen. **Staff:** Kristie Santos, Mark Harman, Michelle Lee, and Brenda Mojica.

Absent: Darlene Ingersoll, Scott Johnston.

APPROVAL OF MINUTES: June 27, 2019.

Motion to approve the June 27, 2019 meeting minutes.

Silveira/Peterson U/A (7-0).

PUBLIC COMMENT

No public comment.

CLOSED SESSION

Reorder of Items: Closed Session Item 3 was moved to Closed Session Item 1.

The meeting went into Closed Session.

RETURN TO OPEN SESSION

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

(Govt. Code § 54956.81)

a) Discussion and possible action regarding purchase terms of two funds - Staff.

Motion to approve the change of purchase terms for the Taurus Master and Annex funds.

Adams/Cabral U/A (8-0).

Roll Call Vote:

Yes –Peterson, Adams, Cabral, Goins, Rhodes, Silveira, Ness, Paskin.

(2) CONFERENCE WITH LEGAL COUNSEL – ANTICIPATED LITIGATION

Significant exposure to litigation. (Govt. Code § 54956.9)

Direction given to staff.

(3) DISABILITY RETIREMENT APPLICATIONS: PERSONNEL EXCEPTION

(Govt. Code § § 54957, 31532; Cal Const. art. I, § 1)

No action taken.

CONSENT CALENDAR

RETIREMENTS:

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. Neally, Lisa	HSA	7 Yrs. Svc.	Eff. 07/01/2019
b. Leach, Laura	Library	1 Yrs. Svc.	Eff. 06/01/2019
c. Urbina, Jorge	BHRS	5 Yrs. Svc.	Eff. 06/01/2019
d. Valizan, Mathew	DPW	15 Yrs. Svc.	Eff. 01/26/2018*
e. Reyna, Lisa	Beh Hlth	20 Yrs. Svc.	Eff. 07/08/2019
f. Clark, Cathleen	HSA	19 Yrs. Svc.	Eff. 06/29/2019

YTD fiscal year 2019/2020 retirees: 006
 YTD fiscal year 2018/2019 retirees: 098
 YTD fiscal year 2017/2018 retirees: 082
 *SCD granted 6/13/2019.

REFUND OF SERVICE PURCHASE: None
DEATH BENEFIT: None
MONTHLY BUDGET REPORT: None

Motion to approve Consent Calendar.
Rhodes/Peterson U/A (8-0).

REGULAR CALENDAR

BOARD ACTION¹/DISCUSSION

1. Discussion and possible action to nominate and appoint MCERA Board of Retirement Officer positions (Chair, Vice Chair and Secretary) – Vice Chair.
Motion to nominate and appoint Ryan Paskin as Chair.
Adams/Goins U/A (8-0).
Motion to nominate and appoint Scott Johnston as Vice Chair.
Peterson/Adams U/A (8-0).
Motion to nominate and appoint Al Peterson as Secretary.
Adams/Ness U/A (8-0).
2. Discussion on MCERA Board Seat Elections timeline for Seat 2, 7 and 7A – Staff.
No action taken.
3. Discussion and possible action on the Legislation Review as of June 26, 2019 – Staff.
No action taken.
4. Review calendar of any training sessions and authorize expenditures for Trustees and Plan Administrator. Pursuant to Govt. Code § 31522.8 and MCERA’s Trustees Education and Training Policy requirements. Examples of upcoming training and educational sessions:
 - a. Principles of Pension Management for Trustees, August 26-29, 2019 Malibu, CA.
 - b. Nossaman Fiduciary Forum, September 4-5, 2019, Berkeley, CA.
 - c. CALAPRS Administrators Institute (Plan Administrator only), September 25-27, 2019, Carmel, CA.

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- d. Trustee Roundtable, October 25, 2019, Oakland, CA.
- e. SACRS Fall Conference, November 12-15, 2019, Monterey, CA.
- f. CALAPRS General Assembly, March 7 -10, 2020, Rancho Mirage, CA.
- g. SACRS Spring Conference, May 12-15, 2020, San Diego, CA.

No action taken.

INFORMATION ONLY

Reminder to the the Board to submit checks for the Waiver of Recourse from Alliant Insurance Services for fiduciary insurance.

ADJOURNMENT

The meeting adjourned at 9:50 a.m.

Respectfully submitted,

Ryan Paskin, Chair

Al Peterson, Secretary

Date

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FUND EVALUATION REPORT

Merced County Employees' Retirement Association
Preliminary Performance Review
As of June 30, 2019



M E K E T A I N V E S T M E N T G R O U P

BOSTON
MASSACHUSETTS

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NEW YORK

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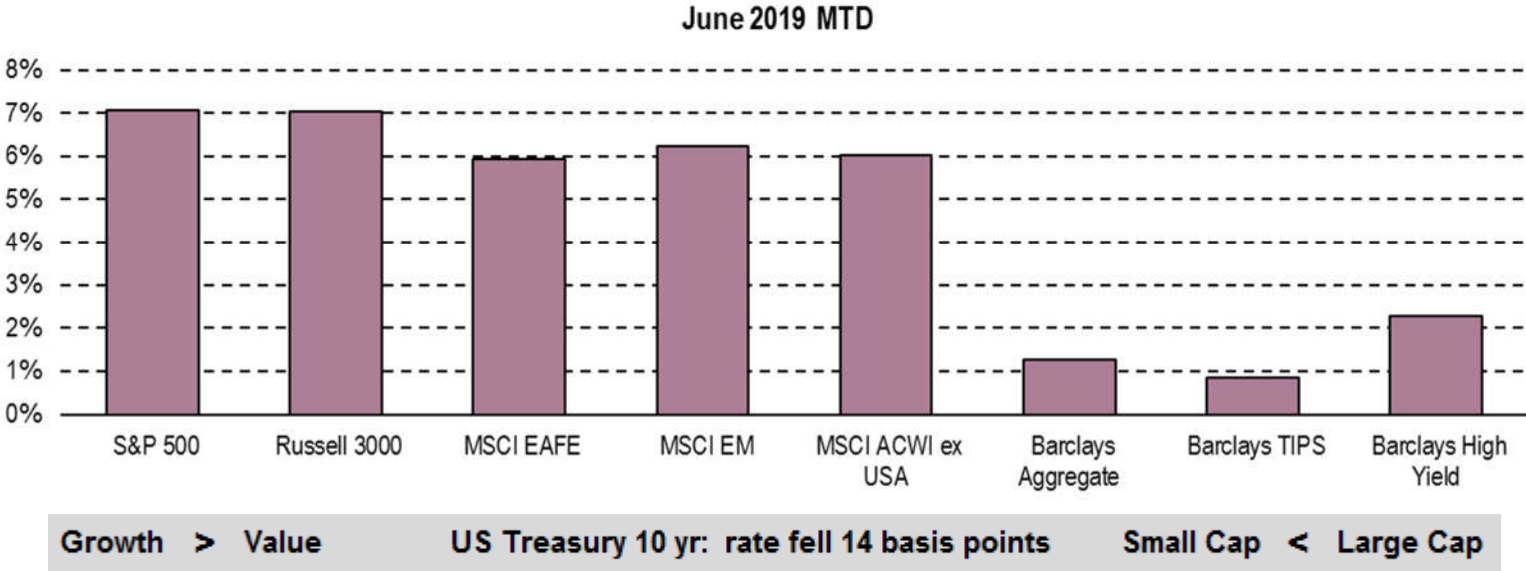
LONDON
UNITED KINGDOM

www.meketagroup.com

- 1. Performance Highlights As of June 30, 2019**
- 2. Preliminary Performance Report As of June 30, 2019**
- 3. Disclaimer, Glossary, and Notes**

Performance Highlights
As of June 30, 2019

Market Review and Preliminary Performance Summary for June 2019:



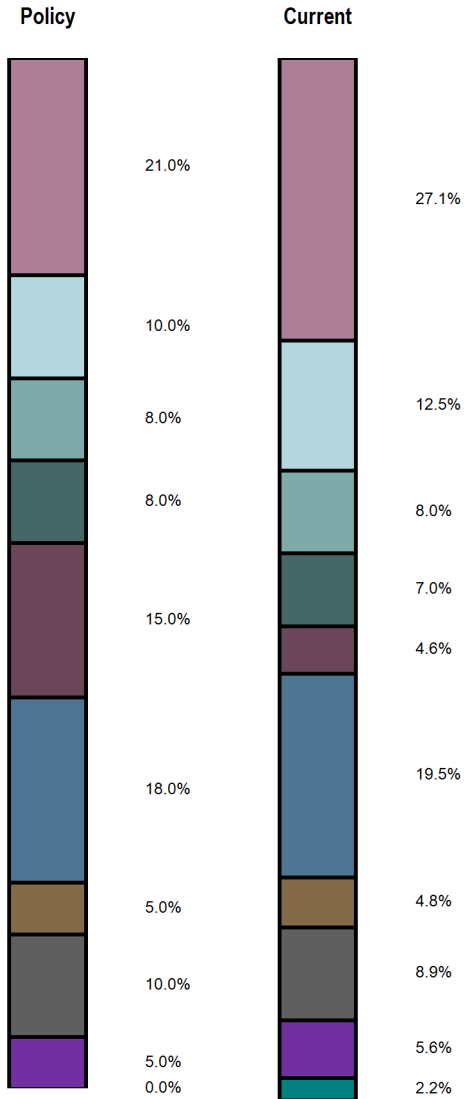
- Global Equities reported strong gains, as central banks signaled more accommodative sentiments.
- US Treasury rates rallied (10 yr tenor fell 14 basis points), with the yield curve bull steepening.
- Credit spreads tightened, while currencies broadly strengthened vs the U.S. Dollar.

As of June 30, 2019, total assets stood at \$859.9 million with a one-month return of +3.6%.

- Every public-markets manager in the MCERA Fund posted positive results in June.
- U.S. Equity posted the highest return for the month at +7.4%.
- U.S. Fixed Income was up for the month at +1.0%.



Performance Review
As of June 30, 2019

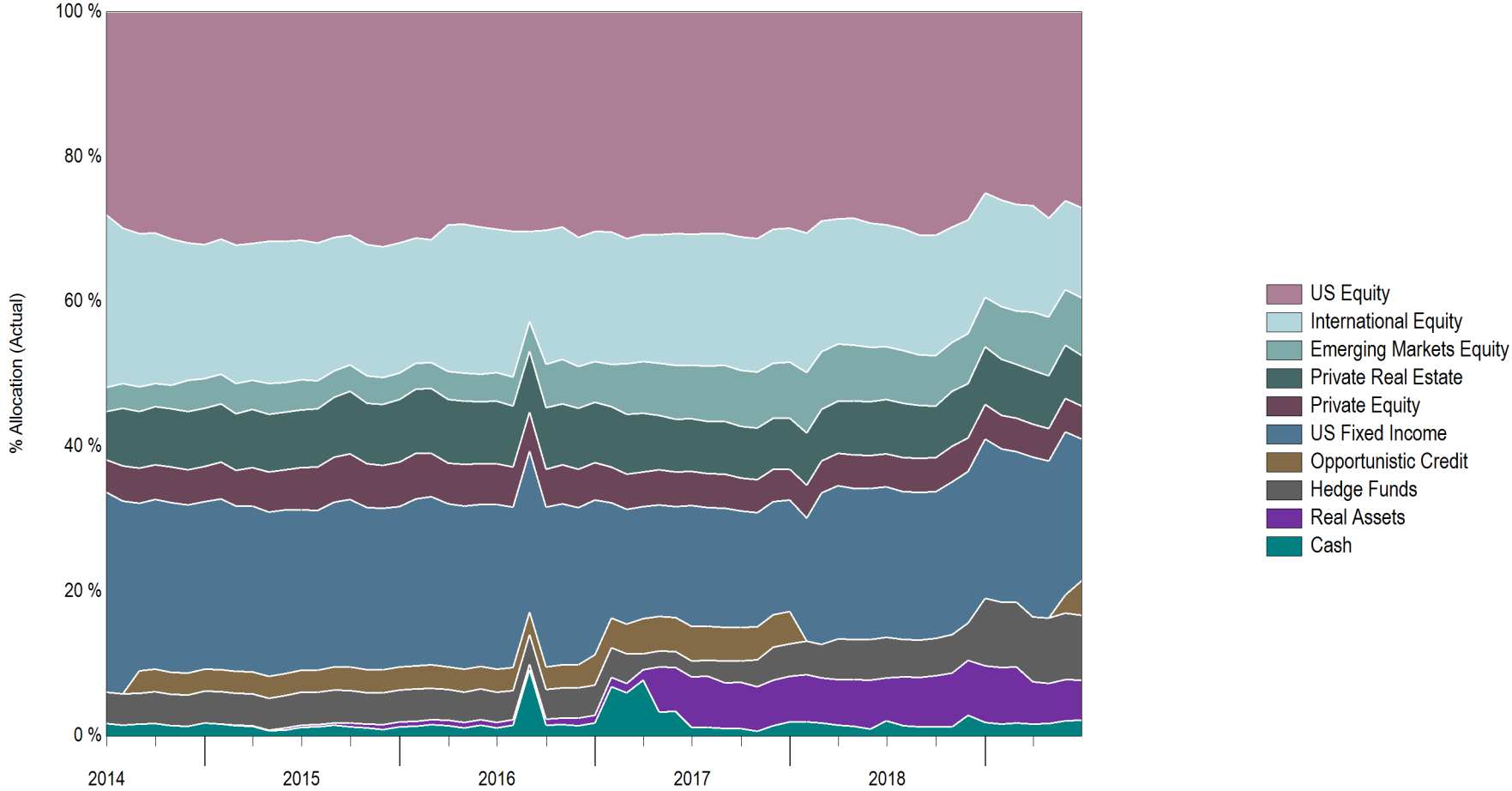


Allocation vs. Targets and Policy							
	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?	
US Equity	\$232,624,452	27.1%	21.0%	6.1%	15.0% - 26.0%	No	
International Equity	\$107,110,987	12.5%	10.0%	2.5%	5.0% - 15.0%	Yes	
Emerging Markets Equity	\$68,361,487	8.0%	8.0%	0.0%	4.0% - 12.0%	Yes	
Private Real Estate	\$60,029,944	7.0%	8.0%	-1.0%	6.0% - 10.0%	Yes	
Private Equity	\$39,322,190	4.6%	15.0%	-10.4%	5.0% - 20.0%	No	
US Fixed Income	\$167,981,969	19.5%	18.0%	1.5%	13.0% - 23.0%	Yes	
Opportunistic Credit	\$41,230,710	4.8%	5.0%	-0.2%	3.0% - 7.0%	Yes	
Hedge Funds	\$76,689,639	8.9%	10.0%	-1.1%	5.0% - 15.0%	Yes	
Real Assets	\$47,827,732	5.6%	5.0%	0.6%	3.0% - 7.0%	Yes	
Cash	\$18,674,884	2.2%	0.0%	2.2%	0.0% - 5.0%	Yes	
Total	\$859,853,994	100.0%	100.0%				

Cash range displayed for illustrative purposes only.



Asset Allocation History
5 Years Ending June 30, 2019



As of June 30, 2019

Asset Class Performance Summary

	Market Value (\$)	% of Portfolio	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund (Net)*	859,853,994	100.0	3.6	4.8	10.6	4.8	8.8	5.8	9.2	8.0	Dec-94
Total Fund (Gross)*			3.6	5.1	10.7	5.1	9.0	6.2	9.5	8.1	
<i>Policy Index</i>			3.5	4.7	10.0	4.7	9.1	6.2	9.7	6.0	Dec-94
Total Fund w/o Alternatives (Net)	617,309,605	71.8	4.9	5.5	13.8	5.5	9.5	5.9	--	--	Dec-94
Total Fund w/o Alternatives (Gross)			4.9	5.7	13.9	5.7	9.8	6.2	--	--	
<i>Policy Index w/o AI</i>			4.9	5.8	12.8	5.8	9.4	5.7	--	--	Dec-94
US Equity (Net)	232,624,452	27.1	7.4	8.2	19.8	8.2	14.4	11.0	14.9	10.0	Dec-94
US Equity (Gross)			7.5	8.4	20.0	8.4	14.6	11.2	15.1	10.1	
<i>80% R1000 / 20% R2000</i>			7.0	7.3	18.5	7.3	13.8	9.8	14.5	9.9	Dec-94
International Equity (Net)	175,472,474	20.4	6.2	0.6	14.6	0.6	9.3	2.0	7.2	5.2	Dec-98
International Equity (Gross)			6.2	1.0	14.8	1.0	9.7	2.5	7.7	5.4	
<i>International Equity Custom</i>			6.1	1.2	12.9	1.2	10.1	2.7	6.9	4.3	Dec-98
Developed International Equity (Net)	107,110,987	12.5	5.5	-0.3	14.4	-0.3	9.0	1.8	7.5	3.2	Jan-08
Developed International Equity (Gross)			5.5	-0.1	14.4	-0.1	9.2	2.2	8.0	3.7	
<i>MSCI EAFE</i>			5.9	1.1	14.0	1.1	9.1	2.2	6.9	2.4	Jan-08
Emerging Markets Equity (Net)	68,361,487	8.0	7.1	2.8	15.4	2.8	10.6	3.6	--	3.5	Apr-12
Emerging Markets Equity (Gross)			7.2	3.8	15.9	3.8	11.7	4.6	--	4.4	
<i>MSCI Emerging Markets</i>			6.2	1.2	10.6	1.2	10.7	2.5	5.8	2.9	Apr-12
US Fixed Income (Net)	167,981,969	19.5	1.0	6.8	5.2	6.8	3.2	3.1	4.6	5.3	Dec-94
US Fixed Income (Gross)			1.0	7.0	5.3	7.0	3.4	3.2	5.0	5.5	
<i>US Fixed Custom</i>			1.1	7.2	5.4	7.2	3.3	3.2	4.1	5.7	Dec-94
Opportunistic Credit (Net)	41,230,710	4.8	1.0	--	--	--	--	--	--	1.5	May-19
Opportunistic Credit (Gross)			1.0	--	--	--	--	--	--	1.5	
<i>50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans</i>			1.3	--	--	--	--	--	--	1.8	May-19

Data prior to March 2018 provided by prior consultant



As of June 30, 2019

	Market Value (\$)	% of Portfolio	1 Mo (%)	Fiscal YTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Real Estate (Net)	60,029,944	7.0	0.0	5.8	2.4	5.8	6.8	7.3	--	--	Mar-99
Private Real Estate (Gross)			0.0	5.8	2.4	5.8	6.9	8.0	9.3	8.6	
<i>NCREIF ODCE (net)</i>			<i>0.8</i>	<i>5.5</i>	<i>2.0</i>	<i>5.5</i>	<i>6.6</i>	<i>8.8</i>	<i>8.9</i>	<i>7.4</i>	<i>Mar-99</i>
Private Equity (Net)	39,322,190	4.6	0.0	6.1	0.7	6.1	11.2	9.2	9.4	7.8	Jun-05
Private Equity (Gross)			0.0	6.1	0.7	6.1	11.2	9.2	9.7	8.0	
<i>Thomson Reuters Cambridge Private Equity Index</i>			<i>0.0</i>	<i>9.2</i>	<i>5.6</i>	<i>9.2</i>	<i>16.0</i>	<i>13.1</i>	<i>--</i>	<i>--</i>	<i>Jun-05</i>
Hedge Fund (Net)	76,689,639	8.9	0.9	1.8	6.1	1.8	7.3	4.0	--	4.0	Jun-14
Hedge Fund (Gross)			1.0	2.0	6.3	2.0	7.5	4.1	--	4.1	
<i>Hedge Fund Custom</i>			<i>1.7</i>	<i>1.4</i>	<i>6.4</i>	<i>1.4</i>	<i>4.5</i>	<i>2.9</i>	<i>--</i>	<i>2.9</i>	<i>Jun-14</i>
Real Assets (Net)	47,827,732	5.6	1.3	5.8	5.1	5.8	6.4	6.9	--	--	Mar-99
Real Assets (Gross)			1.3	5.9	5.1	5.9	6.5	7.6	--	--	
<i>Real Asset Custom</i>			<i>7.6</i>	<i>13.5</i>	<i>17.1</i>	<i>13.5</i>	<i>11.1</i>	<i>8.2</i>	<i>--</i>	<i>--</i>	<i>Mar-99</i>
Private Infrastructure (Net)	20,321,743	2.4	0.0	4.5	0.3	4.5	8.9	--	--	6.1	Dec-14
Private Infrastructure (Gross)			0.0	4.5	0.3	4.5	8.9	--	--	6.1	
<i>S&P Global Infrastructure Net TR USD</i>			<i>5.3</i>	<i>11.0</i>	<i>19.5</i>	<i>11.0</i>	<i>7.8</i>	<i>3.9</i>	<i>--</i>	<i>5.0</i>	<i>Dec-14</i>
Private Natural Resources (Net)	10,723,278	1.2	0.0	7.9	1.2	7.9	14.7	--	--	16.1	Sep-15
Private Natural Resources (Gross)			0.0	7.9	1.2	7.9	14.7	--	--	16.1	
<i>S&P Global Natural Resources Index TR USD</i>			<i>9.7</i>	<i>-4.0</i>	<i>13.8</i>	<i>-4.0</i>	<i>11.4</i>	<i>0.7</i>	<i>3.5</i>	<i>13.8</i>	<i>Sep-15</i>
Cash (Net)	18,674,884	2.2	0.1	1.1	0.6	1.1	--	--	--	--	
Cash (Gross)			0.1	1.1	0.6	1.1	--	--	--	--	

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

Real Assets includes State Street Real Asset NL Fund



As of June 30, 2019

Trailing Net Performance

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund(Net)*	859,853,994	100.0	--	3.6	10.6	4.8	8.8	5.8	9.2	8.0	Dec-94
<i>Policy Index</i>				3.5	10.0	4.7	9.1	6.2	9.7	6.0	Dec-94
Total Fund w/o Alternatives(Net)	617,309,605	71.8	71.8	4.9	13.8	5.5	9.5	5.9	--	--	Dec-94
<i>Policy Index w/o AI</i>				4.9	12.8	5.8	9.4	5.7	--	--	Dec-94
US Equity(Net)	232,624,452	27.1	37.7	7.4	19.8	8.2	14.4	11.0	14.9	10.0	Dec-94
<i>80% R1000 / 20% R2000</i>				7.0	18.5	7.3	13.8	9.8	14.5	9.9	Dec-94
Mellon Dynamic US Equity(Net)	91,534,687	10.6	39.3	7.9	22.6	12.2	16.0	13.2	--	17.3	Dec-12
<i>S&P 500</i>				7.0	18.5	10.4	14.2	10.7	14.7	14.1	Dec-12
Mellon Large Cap(Net)	105,071,828	12.2	45.2	7.0	18.9	10.1	14.2	--	--	13.9	Mar-16
<i>Russell 1000</i>				7.0	18.8	10.0	14.1	10.5	14.8	13.9	Mar-16
DFA Small Cap(Net)	17,900,894	2.1	7.7	7.6	14.4	-4.8	10.6	6.9	--	6.9	Jun-14
<i>Russell 2000</i>				7.1	17.0	-3.3	12.3	7.1	13.4	7.1	Jun-14
PanAgora(Net)	18,117,043	2.1	7.8	7.4	17.1	-6.2	11.4	7.2	--	8.9	Sep-13
<i>Russell 2000</i>				7.1	17.0	-3.3	12.3	7.1	13.4	8.3	Sep-13
International Equity(Net)	175,472,474	20.4	28.4	6.2	14.6	0.6	9.3	2.0	7.2	5.2	Dec-98
<i>International Equity Custom</i>				6.1	12.9	1.2	10.1	2.7	6.9	4.3	Dec-98
Developed International Equity(Net)	107,110,987	12.5	61.0	5.5	14.4	-0.3	9.0	1.8	7.5	3.2	Jan-08
<i>MSCI EAFE</i>				5.9	14.0	1.1	9.1	2.2	6.9	2.4	Jan-08
Mellon International(Net)	86,579,295	10.1	80.8	6.0	14.4	1.5	9.5	--	--	8.4	Mar-16
<i>MSCI EAFE</i>				5.9	14.0	1.1	9.1	2.2	6.9	7.9	Mar-16
Acadian ACWI ex U.S. Small Cap Equity(Net)	10,144,239	1.2	9.5	5.3	--	--	--	--	--	-0.1	May-19
<i>MSCI ACWI ex US Small Cap</i>				4.4	11.6	-5.9	7.8	2.8	8.5	-1.0	May-19

Developed International Equity and Emerging Markets Equity composites were only reported as one composite prior to March 2018.

Historical returns for the US Equity Composite prior to January 2012 and for the International Equity Composite prior to December 2010 are gross only.



As of June 30, 2019

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Driehaus International Small Cap Growth(Net)	10,387,453	1.2	9.7	2.3	--	--	--	--	--	2.3	May-19
<i>MSCI ACWI ex US Small Cap Growth NR USD</i>				4.3	13.6	-6.4	7.6	3.5	8.8	-0.9	May-19
Emerging Markets Equity(Net)	68,361,487	8.0	39.0	7.1	15.4	2.8	10.6	3.6	--	3.5	Apr-12
<i>MSCI Emerging Markets</i>				6.2	10.6	1.2	10.7	2.5	5.8	2.9	Apr-12
Wells Capital(Net)	68,361,487	8.0	100.0	7.1	15.4	2.8	10.6	3.6	--	3.2	Mar-12
<i>MSCI Emerging Markets</i>				6.2	10.6	1.2	10.7	2.5	5.8	2.7	Mar-12
US Fixed Income(Net)	167,981,969	19.5	27.2	1.0	5.2	6.8	3.2	3.1	4.6	5.3	Dec-94
<i>US Fixed Custom</i>				1.1	5.4	7.2	3.3	3.2	4.1	5.7	Dec-94
Barrow Hanley(Net)	60,275,334	7.0	35.9	1.3	6.2	7.9	2.3	3.0	--	3.6	Mar-10
<i>BBgBarc US Aggregate TR</i>				1.3	6.1	7.9	2.3	2.9	3.9	3.6	Mar-10
Vanguard Short-Term Treasury Index Fund(Net)	48,261,982	5.6	28.7	0.5	2.4	3.9	--	--	--	3.2	Feb-18
<i>BBgBarc US Govt 1-3 Yr TR</i>				0.5	2.5	4.0	1.3	1.2	1.2	3.3	Feb-18
Vanguard Total Bond Market Index Fund(Net)	59,444,652	6.9	35.4	1.2	--	--	--	--	--	3.0	May-19
<i>BBgBarc US Aggregate TR</i>				1.3	6.1	7.9	2.3	2.9	3.9	3.1	May-19
Opportunistic Credit(Net)	41,230,710	4.8	6.7	1.0	--	--	--	--	--	1.5	May-19
<i>50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans</i>				1.3	--	--	--	--	--	1.8	May-19
PIMCO Income Fund(Net)	20,730,710	2.4	50.3	1.0	--	--	--	--	--	1.4	May-19
<i>BBgBarc US Aggregate TR</i>				1.3	6.1	7.9	2.3	2.9	3.9	3.1	May-19
GoldenTree Multi-Sector Credit(Net)	20,500,000	2.4	49.7								

Estimated value used for Golden Tree Multi Sector.

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

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.



As of June 30, 2019

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Real Estate(Net)	60,029,944	7.0	7.0	0.0	2.4	5.8	6.8	7.3	--	--	Mar-99
<i>NCREIF ODCE (net)</i>				0.8	2.0	5.5	6.6	8.8	8.9	7.4	Mar-99
Greenfield Gap VII(Net)	9,131,483	1.1	15.2	0.0	4.0	9.4	12.2	--	--	12.4	Dec-14
Patron Capital V(Net)	5,703,497	0.7	9.5	0.0	5.6	6.5	17.2	--	--	14.9	Jan-16
UBS Trumbull Property(Net)	42,587,692	5.0	70.9	0.0	1.7	5.0	4.6	6.9	7.6	7.2	Mar-99
Carlyle Realty VIII(Net)	414,355	0.0	0.7	0.0	-6.4	-28.7	--	--	--	-35.4	Dec-17
Taconic CRE Dislocation Fund II(Net)	1,691,598	0.2	2.8	0.0	-0.7	--	--	--	--	-0.7	Nov-18
Carmel Partners Investment Fund VII(Net)	126,319	0.0	0.2	0.0	--	--	--	--	--	0.0	Apr-19
AG Realty Value Fund X, L.P.(Net)	375,000	0.0	0.6	0.0	--	--	--	--	--	0.0	Jun-19
Private Equity(Net)	39,322,190	4.6	4.6	0.0	0.7	6.1	11.2	9.2	9.4	7.8	Jun-05
<i>Thomson Reuters Cambridge Private Equity Index</i>				0.0	5.6	9.2	16.0	13.1	--	--	Jun-05
Adams Street(Net)	7,304,194	0.8	18.6	0.0	-1.5	7.1	12.1	11.2	12.0	6.8	Sep-05
Invesco IV(Net)	474,703	0.1	1.2	0.0	0.0	-19.1	6.2	6.5	9.3	8.1	Jun-05
Invesco VI(Net)	6,171,856	0.7	15.7	0.0	0.0	5.3	12.0	20.4	--	11.4	Jun-13
Ocean Avenue II(Net)	9,730,272	1.1	24.7	0.0	8.0	13.8	21.7	11.8	--	11.8	Jun-14
Pantheon I(Net)	938,476	0.1	2.4	0.0	-3.0	1.9	6.4	4.3	6.8	3.5	Dec-05

All private markets performance and market values reflect a 12/31/2018 or 3/31/2019 capital account balance.

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

Historical returns for Invesco IV prior to April 2012 are gross only.

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.



As of June 30, 2019

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Pantheon II(Net)	3,788,984	0.4	9.6	0.0	0.9	11.0	13.6	11.2	--	11.4	Dec-11
Pantheon Secondary(Net)	997,621	0.1	2.5	0.0	-4.2	13.3	5.6	2.7	2.7	3.7	Jun-07
Raven Asset Fund II(Net)	3,355,851	0.4	8.5	0.0	2.9	6.9	0.3	--	--	-1.2	Aug-14
Davidson Kempner Long-Term Distressed Opportunities Fund IV(Net)	3,345,578	0.4	8.5	0.0	2.8	15.1	--	--	--	12.6	Apr-18
GTCR Fund XII(Net)	863,998	0.1	2.2	0.0	-32.5	-32.5	--	--	--	-30.4	Jun-18
Carrick Capital Partners III(Net)	1,056,429	0.1	2.7	0.0	-7.0	--	--	--	--	-11.4	Aug-18
Cressey & Company Fund VI(Net)	1,044,228	0.1	2.7	0.0	-11.2	--	--	--	--	-11.2	Jan-19
TCV X(Net)	250,000	0.0	0.6	0.0	--	--	--	--	--	0.0	Apr-19
Hedge Fund(Net)	76,689,639	8.9	8.9	0.9	6.1	1.8	7.3	4.0	--	4.0	Jun-14
<i>Hedge Fund Custom</i>				1.7	6.4	1.4	4.5	2.9	--	2.9	Jun-14
OZ Domestic II(Net)	10,546,778	1.2	13.8	2.5	13.6	6.3	10.0	6.3	--	6.3	Jun-14
Graham Absolute Return(Net)	7,551,218	0.9	9.8	1.9	7.8	3.2	--	--	--	4.1	Aug-17
Wellington-Archipelago(Net)	11,936,605	1.4	15.6	2.3	10.6	3.3	--	--	--	5.0	Aug-17
KLS Diversified(Net)	9,221,327	1.1	12.0	0.6	1.6	-1.5	--	--	--	2.0	Oct-17
Winton(Net)	6,064,513	0.7	7.9	-0.7	0.0	-1.8	--	--	--	1.2	Oct-17
Marshall Wace Eureka(Net)	3,235,014	0.4	4.2	-0.3	5.9	0.0	--	--	--	3.8	Nov-17
Silver Point Capital(Net)	12,385,155	1.4	16.1	0.2	4.2	-0.7	--	--	--	2.3	Nov-17
Laurion Capital(Net)	5,413,951	0.6	7.1	-1.4	5.9	--	--	--	--	9.3	Aug-18
Taconic Opportunity Fund(Net)	10,335,080	1.2	13.5	0.4	3.7	--	--	--	--	--	Dec-18

As of June 30, 2019

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Real Assets(Net)	47,827,732	5.6	5.6	1.3	5.1	5.8	6.4	6.9	--	--	Mar-99
<i>Real Asset Custom</i>				7.6	17.1	13.5	11.1	8.2	--	--	Mar-99
SSgA(Net)	16,782,711	2.0	35.1	3.8	10.3	1.7	--	--	--	4.4	Apr-17
<i>Real Asset NL Custom Blended Index</i>				4.0	10.6	2.1	--	--	--	4.7	Apr-17
Private Infrastructure(Net)	20,321,743	2.4	42.5	0.0	0.3	4.5	8.9	--	--	6.1	Dec-14
<i>S&P Global Infrastructure Net TR USD</i>				5.3	19.5	11.0	7.8	3.9	--	5.0	Dec-14
KKR Global II(Net)	10,741,293	1.2	52.9	0.0	0.3	6.3	9.3	--	--	9.4	Dec-14
North Haven Infrastructure II(Net)	7,704,309	0.9	37.9	0.0	0.0	4.6	9.3	--	--	5.7	May-15
ISQ Global Infrastructure Fund II(Net)	1,283,681	0.1	6.3	0.0	5.7	-28.0	--	--	--	-28.0	Jul-18
KKR Global Infrastructure Investors III(Net)	592,460	0.1	2.9	0.0	-10.9	--	--	--	--	-10.9	Jan-19
Private Natural Resources(Net)	10,723,278	1.2	22.4	0.0	1.2	7.9	14.7	--	--	16.1	Sep-15
<i>S&P Global Natural Resources Index TR USD</i>				9.7	13.8	-4.0	11.4	0.7	3.5	13.8	Sep-15
EnCap XI(Net)	782,936	0.1	7.3	0.0	-4.6	-14.0	--	--	--	-31.2	Jul-17
EnCap IV(Net)	843,475	0.1	7.9	0.0	0.6	-9.1	--	--	--	-12.7	Feb-18
GSO Energy Opportunities(Net)	4,207,498	0.5	39.2	0.0	-1.8	3.1	15.6	--	--	15.5	Nov-15
Taurus Mining(Net)	2,729,061	0.3	25.4	0.0	4.9	15.0	13.5	--	--	16.8	Sep-15
Taurus Mining Annex(Net)	2,160,307	0.3	20.1	0.0	7.3	23.7	--	--	--	27.7	Jan-17
Cash(Net)	18,674,884	2.2	2.2	0.1	0.6	1.1	--	--	--	--	
Cash(Net)	13,019,255	1.5	69.7	0.2	0.9	1.7	1.2	0.9	--	--	Sep-03
Treasury Cash(Net)	5,655,629	0.7	30.3								

Benchmark History

As of June 30, 2019

Total Fund		
1/1/2019	Present	21% US Equity Custom / 18% International Equity Custom / 23% US Fixed Custom / 10% Hedge Fund Custom / 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% Hedge Fund Custom / 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% Hedge Fund Custom / 8% NCREIF ODCE (net) / 7% Cambridge Assoc. U.S. Private Equity Index
US Equity		
12/31/1994	Present	80% Russell 1000 / 20% Russell 2000
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
US Fixed Income		
3/1/2018	Present	77.27% BBgBarc US Aggregate TR / 22.73% BBgBarc US Govt 1-5 Yr TR
1/1/2017	2/28/2018	77.27% BBgBarc US Aggregate TR / 22.73% Credit Suisse Leveraged Loans
8/1/2014	12/31/2016	71.93% BBgBarc US Aggregate TR / 17.54% ICE BofAML US High Yield TR / 10.53% Credit Suisse Leveraged Loans
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		
1/1/2019	Present	50% S&P Global Natural Resources Index TR USD / 50% S&P Global Infrastructure TR USD
6/1/2013	12/31/2018	57.14% NCREIF ODCE (net) / 21.43% S&P Global Natural Resources Index TR USD / 21.43% S&P Global Infrastructure TR USD
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% BBgBarc US TIPS TR

As of June 30, 2019

Annual Investment Expense Analysis

As Of June 30, 2019

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Total Fund w/o Alternatives		\$617,309,605		
US Equity		\$232,624,452		
Mellon Dynamic US Equity	0.30% of Assets	\$91,534,687	\$274,604	0.30%
Mellon Large Cap	0.04% of First 100.0 Mil, 0.02% Thereafter	\$105,071,828	\$41,014	0.04%
DFA Small Cap	0.35% of Assets	\$17,900,894	\$62,653	0.35%
PanAgora	0.80% of Assets	\$18,117,043	\$144,936	0.80%
International Equity		\$175,472,474		
Developed International Equity		\$107,110,987		
Mellon International	0.04% of Assets	\$86,579,295	\$34,632	0.04%
Acadian ACWI ex U.S. Small Cap Equity	0.99% of Assets	\$10,144,239	\$100,428	0.99%
Driehaus International Small Cap Growth	0.90% of Assets	\$10,387,453	\$93,487	0.90%
Emerging Markets Equity		\$68,361,487		
Wells Capital	0.90% of First 100.0 Mil, 0.85% Thereafter	\$68,361,487	\$615,253	0.90%
US Fixed Income		\$167,981,969		
Barrow Hanley	0.30% of First 50.0 Mil, 0.20% of Next 100.0 Mil, 0.15% Thereafter	\$60,275,334	\$170,551	0.28%
Vanguard Short-Term Treasury Index Fund	0.05% of Assets	\$48,261,982	\$24,131	0.05%
Vanguard Total Bond Market Index Fund	0.04% of Assets	\$59,444,652	\$20,806	0.04%
Opportunistic Credit		\$41,230,710		
PIMCO Income Fund	0.70% of Assets	\$20,730,710	\$145,115	0.70%
GoldenTree Multi-Sector Credit	0.45% of Assets	\$20,500,000	\$92,250	0.45%
Private Real Estate		\$60,029,944		
Greenfield Gap VII		\$9,131,483		
Patron Capital V		\$5,703,497		

As of June 30, 2019

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
UBS Trumbull Property		\$42,587,692		
Carlyle Realty VIII		\$414,355		
Taconic CRE Dislocation Fund II		\$1,691,598		
Carmel Partners Investment Fund VII		\$126,319		
AG Realty Value Fund X, L.P.		\$375,000		
Invesco IV		\$474,703		
Invesco VI		\$6,171,856		
Ocean Avenue II		\$9,730,272		
Pantheon I		\$938,476		
Pantheon II		\$3,788,984		
Pantheon Secondary		\$997,621		
Raven Asset Fund II		\$3,355,851		
Davidson Kempner Long-Term Distressed Opportunities Fund IV		\$3,345,578		
GTCR Fund XII		\$863,998		
Carrick Capital Partners III		\$1,056,429		
Cressey & Company Fund VI		\$1,044,228		
TCV X		\$250,000		
Hedge Fund		\$76,689,639		
OZ Domestic II	Performance-based 1.50 and 20.00	\$10,546,778	\$207,727	1.97%
Graham Absolute Return	Performance-based 1.75 and 20.00	\$7,551,218	\$160,274	2.12%
Wellington-Archipelago	Performance-based 1.00 and 20.00	\$11,936,605	\$177,758	1.49%
KLS Diversified	Performance-based 2.00 and 20.00	\$9,221,327	\$196,126	2.13%
Winton	Performance-based 0.90 and 20.00	\$6,064,513	\$54,581	0.90%
Marshall Wace Eureka	Performance-based 2.00 and 20.00	\$3,235,014	\$71,405	2.21%
Silver Point Capital	Performance-based 2.00 and 20.00	\$12,385,155	\$253,120	2.04%

As of June 30, 2019

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Laurion Capital		\$5,413,951		
Taconic Opportunity Fund		\$10,335,080		
Real Assets		\$47,827,732		
SSgA	0.30% of First 50.0 Mil, 0.27% of Next 50.0 Mil, 0.25% Thereafter	\$16,782,711	\$50,348	0.30%
Private Infrastructure		\$20,321,743		
KKR Global II		\$10,741,293		
North Haven Infrastructure II		\$7,704,309		
ISQ Global Infrastructure Fund II		\$1,283,681		
KKR Global Infrastructure Investors III		\$592,460		
Private Natural Resources		\$10,723,278		
EnCap XI		\$782,936		
EnCap IV		\$843,475		
GSO Energy Opportunities		\$4,207,498		
Taurus Mining		\$2,729,061		
Taurus Mining Annex		\$2,160,307		
Cash		\$18,674,884		
Cash		\$13,019,255		
Treasury Cash		\$5,655,629		

Disclaimer, Glossary, and Notes

WE HAVE PREPARED THIS QUARTERLY REPORT FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT MERCED COUNTY EMPLOYEES' RETIREMENT ASSOCIATION.

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.

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.

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.

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.

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%.

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

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.