# MercedCERA RETIREMENT BOARD AGENDA THURSDAY, OCTOBER 28, 2021 – 8:15 A.M. MERCED COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

# MERCED COUNTY ADMINISTRATION BUILDING 2222 M STREET, MERCED LOS BANOS AND LIVINGSTON CONFERENCE ROOMS, BASEMENT ZOOM CONFERENCE

 $\underline{https://us06web.zoom.us/j/93030195748?pwd=NGhFeGltSVhaSTlsK2JGWE83TVFydz09}$ 

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 at the County of Merced Administration Building conference center to provide for sufficient social distancing for the Board and members of the public. Additionally, members of the MercedCERA Board as well as members of the public may elect to participate in this meeting offsite via conference call. Members of the public may attend the meeting in person 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 – October 14, 2021

#### 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.

#### 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.

- (1) MONTHLY BUDGET REPORT: Submitted.
- (2) **VIRTUAL MEETING:** Reaffirm the adoption of Merced County Employee's 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.

#### **BOARD ACTION/DISCUSSION**

- 1. Discussion on monthly and quarterly performance, including market conditions and possible action on any funds or managers Meketa.
- 2. Discussion on presentation regarding Direct Lending Overview Cliffwater.
- 3. Discussion and possible action on MercedCERA capital budget for alternative investments Cliffwater.
- 4. Discussion and possible action to approve the final asset allocation portfolio for MercedCERA Meketa and Cliffwater.
- 5. 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:
  - SACRS Fall Conference, November 9-12, 2021, Hollywood, CA (in person only).

#### **INFORMATION ONLY**

• Venue for <u>November's</u> Board Meeting will be at the Child Support Training Room located at 3368 N. State Hwy 59, Suite I, Merced, CA 95348.

#### 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.

- November 18, 2021 note venue change.
- December 9, 2021

#### **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.

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, OCTOBER 14, 2021 – 8:15 A.M. MERCED COUNTY EMPLOYEES' RETIREMENT ASSOCIATION

# MERCED COUNTY ADMINISTRATION BUILDING 2222 M STREET, MERCED LOS BANOS AND LIVINGSTON CONFERENCE ROOMS, BASEMENT 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.

#### ROLL CALL

**Board members present:** Ryan Paskin, Scott Johnston, David Ness, Al Peterson, Wendy Alvares, Aaron Rosenberg and Scott Silveira. **Absent:** Janey Cabral, Karen Adams and Michael Harris. **Counsel:** Jeff Grant. **Staff:** Kristen Santos, Martha Sanchez, Mark Harman, Sheri Villagrana, Brenda Mojica, Wendy Calderon and Alexis Curry.

#### **APPROVAL OF MINUTES** – September 23, 2021

The MercedCERA board voted unanimously via roll call vote to approve the minutes from the September 23, 2021 meeting.

Johnston/Peterson U/A (7-0)

#### PUBLIC COMMENT

No comments.

#### **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 recommendation regarding Funds/Managers – Cliffwater

#### RETURN TO OPEN SESSION

Report on any action taken in closed session.

1. Discussion and possible action to adopt the recommendation regarding Funds/Managers – Cliffwater

The MercedCERA Board voted unanimously via roll call vote to commit up to \$9 million combined to Spark Capital VII and Spark Capital Growth Fund IV. The allocation is expected to be one third (\$3 Million) to Spark Capital VII and

# two thirds (\$6 million) to Spark Capital Growth Fund IV. Silveira/Ness U/A (7-0)

#### **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.	Kwiatkowski, Susan	Castle Development Center	20 Yrs. Svc.	Eff: 10/02/2021
b.	Ashlock, Tammy	Trial Court Operations	20 Yrs. Svc.	Eff: 09/20/2021
c.	La Rocque, Margaret	H.S.A.	3 Yrs. Svc.	Eff: 10/01/2021
d.	Ratley, Josephine	Child Welfare Services	22 Yrs. Svc.	Eff: 09/25/2021
e.	Fulcher, Pam	Hospital	10 Yrs. Svc.	Eff: 10/12/2021
f.	Velasquez, Cesar	Beh. Health	12 Yrs. Svc.	Eff: 10/02/2021
g.	Simmons, Donna	Dept. of Admin Services	20 Yrs. Svc.	Eff: 10/02/2021

**MONTHLY BUDGET REPORT:** Will be submitted on October 28<sup>th</sup> agenda.

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

Silveira/Johnston U/A (7-0)

#### **BOARD ACTION/DISCUSSION**

- 1. Discussion and possible action to approve Resolution 2021-02 in response to AB361 which will allow MercedCERA to continue virtual meetings Staff.
  - The MercedCERA board voted unanimously via roll call vote to approve Resolution 2021-02 in response to AB361 which will allow MercedCERA to continue virtual meetings due to the pandemic.
  - Peterson/Johnston U/A (7-0)
- 2. Discussion and possible action on selecting a floor plan for MercedCERA potential building and directing the Plan Administrator to continue the feasibility study Staff.
  - The MercedCERA Board voted unanimously via roll call vote to approve the Plan Administrator to continue feasibility study on the 12,300 square foot 2 story building. Silveira/Peterson U/A (7-0)
- 3. Discussion and possible action to approve MercedCERA to fill an existing extra help position (Office Assistant II classification) Staff.
  - The MercedCERA board voted unanimously via roll call vote to approve MercedCERA fill an existing Extra Help position (Office Assistant II classification). Johnston/Alvares U/A (7-0)
- 4. Discussion and possible action to approve replacement of two HVAC systems Staff. The MercedCERA board voted unanimously via roll call vote to approve the replacement of two HVAC systems for MercedCERA.

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

5. Discussion and possible action to approve the Plan Administrator hire a recruiting firm to recruit and work with the Plan Administrator and County for the Investment Officer position and ask the Chair to appoint an ad hoc subcommittee to assist the Plan Administrator with recruitment and hiring of the Investment Officer – Staff.

The MercedCERA board voted unanimously via roll call vote to approve the Plan Administrator hire a recruiting firm to recruit for the Investment Officer. The MercedCERA board also approved staff's recommendations to pay for travel and moving expenses. The chair appointed trustees Paskin, Alvares and Ness as the adhoc subcommittee to assist the Plan Administrator with recruitment and hiring of the **Investment Officer.** 

Silveira/Peterson U/A (7-0)

6. Discussion and possible action to designate Trustee Dave Ness as the SACRS voting delegate for the SACRS Fall Conference, adopt the proposed legislation packet by SACRS for approval, and approve the SACRS Business Packet – Staff.

The MercedCERA Board voted unanimously via roll call vote to appoint Dave Ness as MercedCERA's voting delegate and support the SACRS legislative changes and business packet.

Peterson/Silveira U/A (7-0)

- 7. 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:

  • SACRS Fall Conference, November 9-12, 2021, Hollywood, CA (in person only).
  - No action taken.

## **INFORMATION ONLY**

• Venue for **November's** Board Meeting will be at the Child Support Training Room located at 3368 N. State Hwy 59, Suite I, Merced, CA 95348.

## **ADJOURNMENT**

The meeting adjourned at 9:31 A.M.

Accepted By,

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

Non-Administrative Expenses	Original Projection	Current Projection	Expended 09/2021	Expended YTD	Bal Remaining	% Exp YTD
21800 · Investment Expenses	3,250,000.00	3,250,000.00	41,621.70	301,021.03	2,948,978.97	9%
9/3/2021 Cliffwater - 2021-07 PE & HF Consulting			33,333.33			
9/17/2021 Nossaman - 2021-07 - Gen PE & Inv Adv			64.80			
9/17/2021 Nossaman - 2021-07 - Carlyle Realty Partners IX			2,184.30			
9/17/2021 Nossaman - 2021-07 - Nautic Partners			90.00			
9/17/2021 Nossaman - 2021-07 - Marlin Heritage III			5,458.77			
9/17/2021 Nossaman - 2021-08 - GQG Partners			434.70			
9/17/2021 Nossaman - 2021-08 - Carlyle Realty Partners IX			55.80			
Total 21800 · Investment Expenses		•	41,621.70			
21802 · Actuarial Services	150,000.00	150,000.00	9,067.50	9,067.50	140,932.50	6%
9/7/2021 Segal - 2021-07 Actuarial Svcs			9,067.50			
Total 21802 · Actuarial Services		•	9,067.50			
21812 · Data Processing	90,000.00	90,000.00	6,114.28	11,011.39	78,988.61	12%
9/21/2021 Comcast - 2021-10 WiFi Chgs			266.44			
9/21/2021 2021-08 IS Billing			5,583.84			
9/21/2021 2021-08 Cradlepoint Data Chgs			264.00			
Total 21812 · Data Processing		•	6,114.28			
21834 · Legal Services	365,000.00	365,000.00	14,765.08	56,673.47	308,326.53	16%
9/17/2021 2021-09 Cost Allocation - County Counsel			5,267.08			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			2,442.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			296.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			20.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			646.50			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			480.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			283.50			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			460.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			1,129.17			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			990.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			2,577.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			110.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			204.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			240.00			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			3,052.50			
9/17/2021 Ted Cabral - 2021-08 Disab Legal Svcs			82.17			
9/24/2021 RLI - Abatement for Nossaman 2021-07 AB 197			(8,147.00)			
9/28/2021 Nossaman - 2021-08 AB 197 Legal			3,637.66			
9/28/2021 Nossaman - 2021-08 Gen Adv & Couns			994.50			
Total 21834 · Legal Services		•	14,765.08			

Merced County Employees' Retirement Association Non-Administrative Expenditures Report (Preliminary) For the Month Ended September 30, 2021

Non-Administrative Expenses	Original Projection	Current Projection	Expended 09/2021	Expended YTD	Bal Remaining	% Exp YTD
21840 · Custodial Banking Services	135,000.00	135,000.00	1,145.42	2,228.11	132,771.89	2%
9/3/2021 2021-08 Northern Trust STIF Custodial Fee			980.42			
9/17/2021 2021-08 Wire Fees			165.00			
Total 21840 · Custodial Banking Services		•	1,145.42			
22350 · Software and Technology	425,000.00	425,000.00	7,532.20	174,776.79	250,223.21	41%
9/7/2021 Digital Deployment - Sept 2021 SLA			900.00			
9/16/2021 CPAS - 2021-09 Hosting			6,107.00			
9/28/2021 LexisNexis - 2021-08 Chgs			525.20			
Total 22350 · Software and Technology		•	7,532.20			
Depreciation Expense	250,000.00	250,000.00	-	-	250,000.00	
Total Non-Administrative Items	4,665,000.00	4,665,000.00	80,246.18	554,778.29	4,110,221.71	12%
		·		·		=

# Merced County Employees' Retirement Association Non-Administrative Expenses Prev Year Comparison (Preliminary) 09/30/2021

	Se	ptember 21	Se	ptember 20	 \$ Change	% Change
Expense						
62025 · Non-Administrative Expenses						
21800 · Investment Expenses	\$	41,621.70	\$	37,508.88	\$ 4,112.82	10.97%
21802 · Actuarial Services		9,067.50		-	9,067.50	100.00%
21812 · Data Processing		6,114.28		4,316.09	1,798.19	41.66%
21834 · Legal Services		14,765.08		35,846.12	(21,081.04)	-58.81%
21840 · Custodial Banking Services		1,145.42		1,034.50	110.92	10.72%
22350 · Software and Technology		7,532.20		29,876.70	 (22,344.50)	-74.79%
Total 62025 · Non-Administrative Expenses	\$	80,246.18	\$	108,582.29	\$ (28,336.11)	-26.10%

Merced County Employees' Retirement Association Capital Asset Expenditures Report (Preliminary) For the Month Ended September 30, 2021

Capital Assets Expenditures	Adopted	Current Budget	Expended 09/2021	Expended YTD	Bal Remaining	% Exp YTD
81386 - Cubicle Expansion 18,500.00		18,500.00		6,537.11	11,962.89	35%
Total 81386 - Cubicle Expansion		-	-			
Total Capital Assets Expenditures	18,500.00	18,500.00	-	6,537.11	11,962.89	35%
		.,		-,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	=

Administrative Budget	Adopted	Current Budget	Expended 09/2021	Expended YTD	Bal Remaining	% Exp YTD
10110 · Salaries & Wages	1,650,000.00	1,650,000.00	85,505.29	141,447.69	1,508,552.31	9%
9/3/2021 Office Payroll - 2021 PP 18			43,925.52			
9/17/2021 Office Payroll - 2021 PP 19			41,579.77			
Total 10110 · Salaries & Wages			85,505.29			
20600 · Communications	7,100.00	7,100.00	511.93	1,032.36	6,067.64	15%
9/16/2021 AT&T - 2021-08 Chgs			145.16			
9/21/2021 2021-08 Comm Chgs			234.77			
9/21/2021 2021-08 Cell Chgs			132.00			
Total 20600 · Communications			511.93			
20900 · Household Expense	13,500.00	13,500.00	814.00	2,660.14	10,839.86	20%
9/22/2021 Bob's Pest Control - 2021-08 Svcs	·	·	40.00	·	· · · · · · · · · · · · · · · · · · ·	
9/29/2021 Geil Enterprises - 2021-09 Janitorial Svcs			774.00			
Total 20900 · Household Expense			814.00			
21000 · Insurance - Other	90,000.00	96,000.00	-	95,796.00	204.00	100%
Total 21000 · Insurance - Other			-			
21301 · Maintenance Structure Improvement	19,000.00	19,000.00	685.00	2,419.65	16,580.35	13%
9/22/2021 Modern Air - HVAC PM - Filter			345.00			
9/29/2021 Yard Masters - 2021-09 Landscape Maint			340.00			
Total 21301 · Maintenance Structure Improvement			685.00			
21500 · Membership	7,500.00	7,500.00		4,000.00	3,500.00	53%
·	·	•		·	•	
Total 21500 · Membership			-			
21700 · Office Expense - General	18,000.00	18,000.00	1,632.21	1,888.70	16,111.30	10%
9/1/2021 Vast Conference - 1yr Subscription		,	680.64	.,		1070
9/16/2021 First Choice - 2021-08 Water Cooler Rental			7.00			
9/21/2021 2021-08 Stores Billing			944.57			
Total 21700 · Office Expense - General			1,632.21			
Total 2 17 00 Office Expense - General			1,002.21			

Administrative Budget	Adopted	Current Budget	Expended 09/2021	Expended YTD	Bal Remaining	% Exp YTD
21710 · Office Expense - Postage	16,500.00	16,500.00	1,200.14	2,511.50	13,988.50	15%
9/21/2021 2021-08 Mailroom Chgs			175.24			
9/21/2021 2021-08 IS Postage			1,024.90			
Total 21710 · Office Expense - Postage		-	1,200.14			
21805 · Audits	90,000.00	90,000.00	11,304.50	11,304.50	78,695.50	13%
9/7/2021 Brown Armstrong - FY 2021 Audit Progress throu	ıgh 2021-07		7,155.50			
9/16/2021 Brown Armstrong - FY 2021 Audit Progress throu	igh 2021-08		4,149.00			
Total 21805 · Audits		-	11,304.50			
21808 · Board Membership	18,000.00	18,000.00	2,000.00	2,000.00	16,000.00	11%
9/30/2021 2021-07 Bd Mtgs	10,00000	10,000	200.00	_,,,,,,,,	,	
9/30/2021 2021-07 Bd Mtgs			200.00			
9/30/2021 2021-07 Bd Mtgs			200.00			
9/30/2021 2021-07 Bd Mtgs			200.00			
9/30/2021 2021-07 Bd Mtgs			200.00			
9/30/2021 2021-08 Bd Mtgs			200.00			
9/30/2021 2021-06 Bd Mtgs 9/30/2021 2021-08 Bd Mtgs			200.00			
9/30/2021 2021-08 Bd Mtgs			200.00			
9/30/2021 2021-08 Bd Mtgs 9/30/2021 2021-08 Bd Mtgs			200.00			
9/30/2021 2021-08 Bd Mtgs			200.00			
Total 21808 · Board Membership		•	2,000.00			
21811 · Court Reporters	2,000.00	2,000.00	-	-	2,000.00	0%
Total 21811 · Court Reporters		-	-			
21816 · Medical Services	25,000.00	19,000.00	-	-	19,000.00	0%
Total 21816 · Medical Services		-				
21872 · Investigations	1,000.00	1,000.00			1,000.00	0%
Total 21872 · Investigations	·				·	
21900 · Publications & Legal Notices	4,500.00	4,500.00	-	3,504.29	995.71	78%
Total 21900 · Publications & Legal Notices		-	-			
22300 · Spec Dept Exp - Other	500.00	500.00	-	-	500.00	0%

Administrative Budget	Adopted	Current Budget	Expended 09/2021	Expended YTD	Bal Remaining	% Exp YTD
22310 · Election Expense	20,000.00	20,000.00	-	-	20,000.00	0%
Tatal 20040. Flactice Function						
Total 22310 · Election Expense			-			
22327 · Spec Dept Exp - Cost Allocation	27,000.00	27,000.00	2,233.50	6,700.50	20,299.50	25%
9/17/2021 2021-09 Cost Allocation			2,233.50			
		•				
Total 22327 · Spec Dept Exp - Cost Allocation			2,233.50			
22500 · Transportation & Travel	400.00	400.00	-	-	400.00	0%
			_			
Total 22500 · Transportation & Travel			-			
22505 · Trans & Travel - Staff Development	4,000.00	4,000.00			4,000.00	0%
22000 Trans a Travel Stan Development	4,000.00	4,000.00			4,000.00	070
Total 22505 · Trans & Travel - Staff Development			-			
22515 · Trans & Travel - In State	35,000.00	35,000.00	500.00	2,550.00	32,450.00	7%
9/16/2021 CALAPRS - Virtual Administrators Institute	33,000.00	33,000.00	500.00	2,330.00	32,430.00	1 70
Total 22515 · Trans & Travel - In State		•	500.00			
00540 7 07 1 0 4 504 4	7.500.00	7.500.00			7.500.00	0%
22516 · Trans & Travel - Out of State	7,500.00	7,500.00	-	-	7,500.00	0%
Total 22516 · Trans & Travel - Out of State		•				
22600 · Utilities	17,000.00	17,000.00	2,355.59	4,480.83	12,519.17	26%
9/16/2021 PG&E - 2021-08 Svcs			1,880.15			
9/16/2021 City of Merced - 2021-07 WS&G			475.44			
Total 22600 · Utilities			2,355.59			
Total E2000 Gallidoo			2,000.00			
Depreciation Expense	23,000.00	23,000.00	-	-	23,000.00	
Total Administrative Budget	2,096,500.00	2,096,500.00	108,742.16	282,296.16	1,814,203.84	13%

Non-Adm	ninistrative Projection								
			Current					Remaining	
			Projection	Q	1 Expended	Q1 %		Projected	% Ехр
21800	Investment Expenses	\$	3,250,000.00	\$	301,021.03	9%	\$	2,948,978.97	9%
21802	Actuarial Services		150,000.00		9,067.50	6%		140,932.50	6%
21812	Data Processing		90,000.00		11,011.39	12%		78,988.61	12%
21834	Legal Services		365,000.00		56,673.47	16%		308,326.53	16%
21840	Custodial Banking Services		135,000.00		2,228.11	2%		132,771.89	2%
22350	Software & Technology		425,000.00		174,776.79	41%		250,223.21	41%
	Depreciation Expense		250,000.00		-	0%		250,000.00	0%
Total Nor	n-Administrative Items	\$	4,665,000.00	\$	554,778.29	12%	\$	4,110,221.71	12%
			<u> </u>						
Capital A	ssets Budget								
			Current					Remaining	
		A	ppropriation		1 Expended	Q1 %		Appropriation	% Ехр
81386	Cubicle Expansion	\$	18,500.00	\$	-	0%	\$	18,500.00	0%
T - ( - 1 O	Stal Assats B. Jant	Φ.	40.500.00					40.500.00	00/
l otal Cap	oital Assets Budget	\$	18,500.00	\$	-	0%	\$	18,500.00	0%
Administ	rative Budget								
Aummst	Talive Budget		Current					Remaining	
		Δ	ppropriation	O.	1 Expended	Q1 %	A	Appropriation	% Ехр
10110	Salaries & Wages	\$	1,650,000.00	\$	141,447.69	9%	\$	1,508,552.31	9%
20600	Communications	Ψ.	7,100.00	*	1,032.36	15%	•	6,067.64	15%
20900	Household Expense		13,500.00		2,660.14	20%		10,839.86	20%
21000	Insurance-Other		96,000.00		95,796.00	100%		204.00	100%
21301	Maintenance Structure Improvement		19,000.00		2,419.65	13%		16,580.35	13%
21500	Membership		7,500.00		4,000.00	53%		3,500.00	53%
21700	Office Expense-General		18,000.00		1,888.70	10%		16,111.30	10%
21710	Office Expense-Postage		16,500.00		2,511.50	15%		13,988.50	15%
21805	Audits		90,000.00		11,304.50	13%		78,695.50	13%
21808	Board Membership		18,000.00		2,000.00	11%		16,000.00	11%
21811	Court Reporters		2,000.00		-	0%		2,000.00	0%
21816	Medical Services		19,000.00		_	0%		19,000.00	0%
21872	Investigations		1,000.00		_	0%		1,000.00	0%
21900	Publications & Legal Notices		4,500.00		3,504.29	78%		995.71	78%
22300	Spec Dept Expense-Other		500.00		-	0%		500.00	0%
22310	Election Expense		20,000.00		_	0%		20,000.00	0%
22327	Spec Dept Exp-Cost Allocation		27,000.00		6,700.50	25%		20,299.50	25%
22500	Transportation & Travel		400.00		-,	0%		400.00	0%
22505	Trans & Travel-Staff Development		4,000.00		_	0%		4,000.00	0%
22515	Trans & Travel-In State		35,000.00		2,550.00	7%		32,450.00	7%
22516	Trans & Travel-Out Of State		7,500.00		-	0%		7,500.00	0%
22600	Utilities		17,000.00		4,480.83	26%		12,519.17	26%
	Depreciation Expense		23,000.00		-	0%		23,000.00	0%
Total Adr	ninistrative Budget	\$	2,096,500.00	\$	282,296.16	13%	\$	1,814,203.84	13%
	rcedCERA	\$	6,780,000.00	\$	837,074.45	12%	\$	5,942,925.55	12%
	•	•	, , ,	<u> </u>	· · · · ·	•		, , , , , , , , , , , ,	

# Merced County Employees' Retirement Association Non-Admin Expenses Prev Year Comparison (Preliminary) For the Quarter Ended September 30, 2021

	Jul - Sept 21	Jul - Sept 20	\$ Change	% Change
Expense				
62025 · Non-Administrative Expenses				
21800 · Investment Expenses				
IEE0006 · Acadian Ex US SCF	-	19,239.00	(19,239.00)	-100.00%
IEF0001 · Barrow Hanley	57,773.00	46,998.00	10,775.00	22.93%
IER0006 · Taconic CRE II	-	56,379.97	(56,379.97)	-100.00%
IEX0015 · KKR Global Infrastructure II	18,882.00	-	18,882.00	100.00%
IEX0018 · GSO EOF	149,411.00	15,503.00	133,908.00	863.76%
IEX0026 · KKR GII III	-	3,571.00	(3,571.00)	-100.00%
ISC002 · Cliffwater LLC	66,666.66	66,666.66	-	0.00%
ISL001 · Nossaman - Investments	8,288.37	60,222.15	(51,933.78)	-86.24%
21800 · Investment Expenses - Other		174.37	(174.37)	-100.00%
Total 21800 · Investment Expenses	301,021.03	268,754.15	32,266.88	12.01%
21802 · Actuarial Services	9,067.50	(367.50)	9,435.00	2567.35%
21812 · Data Processing	11,011.39	10,893.72	117.67	1.08%
21834 · Legal Services	56,673.47	63,290.53	(6,617.06)	-10.46%
21840 · Custodial Banking Services	2,228.11	2,433.40	(205.29)	-8.44%
22350 · Software and Technology	174,776.79	211,459.35	(36,682.56)	-17.35%
Total 62025 · Non-Administrative Expenses	\$ 554,778.29	\$ 556,463.65	\$ (1,685.36)	-0.30%



October 28, 2021

Performance Update





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- 1. Economic and Market Update as of September 30, 2021
- 2. Performance Highlights as of September 30, 2021
- 3. Preliminary Performance Update as of September 30, 2021
- 4. Disclaimer, Glossary, and Notes

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# **Economic and Market Update**

Data as of September 30, 2021



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

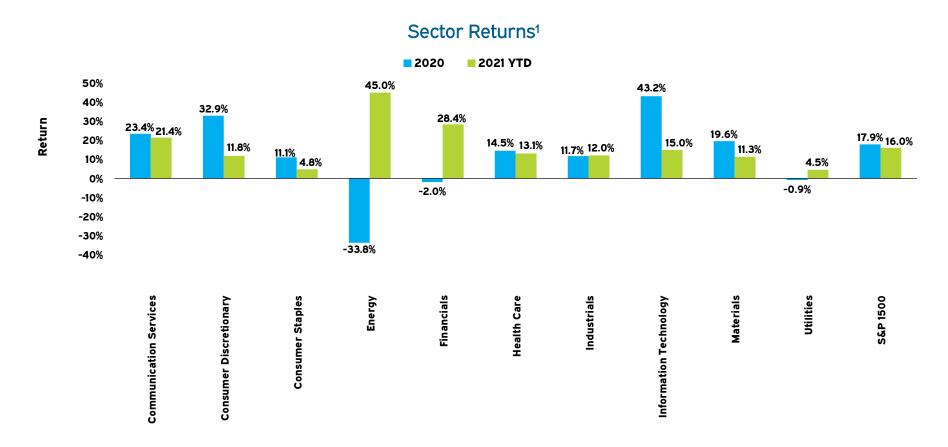
Indices	September	QTD	YTD	1 Year	3 Year	5 Year	10 Year
S&P 500	-4.7%	0.6%	15.9%	30.0%	16.0%	16.9%	16.6%
MSCI EAFE	-2.9%	-0.5%	8.4%	25.7%	7.6%	8.8%	8.1%
MSCI Emerging Markets	-4.0%	-8.1%	-1.3%	18.2%	8.6%	9.2%	6.1%
MSCI China	-5.0%	-18.2%	-16.7%	-7.3%	6.0%	9.1%	8.7%
Bloomberg Barclays Aggregate	-0.9%	0.1%	-1.6%	-0.9%	5.4%	2.9%	3.0%
Bloomberg Barclays TIPS	-0.7%	1.8%	3.5%	5.2%	7.5%	4.3%	3.1%
Bloomberg Barclays High Yield	0.0%	0.9%	4.5%	11.3%	6.9%	6.5%	7.4%
10-year US Treasury	-1.8%	-0.1%	-4.2%	-6.1%	6.3%	1.9%	2.5%
30-year US Treasury	-3.3%	0.4%	-8.9%	-12.7%	9.8%	2.9%	4.1%

- Equity markets broadly declined in September posting one of their worst months since early 2020. Gridlock in Washington and continued supply chain issues weighed on US equities, while government intervention and growing concerns around the stability of real estate giant Evergrande, weighed on markets in China.
- In September, Treasuries also pulled back given persistent inflation and expectations for the Federal Reserve to start unwinding their quantitative easing program.

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<sup>&</sup>lt;sup>1</sup> Source: Investment Metrics and Bloomberg. Data is as of September 30, 2021.



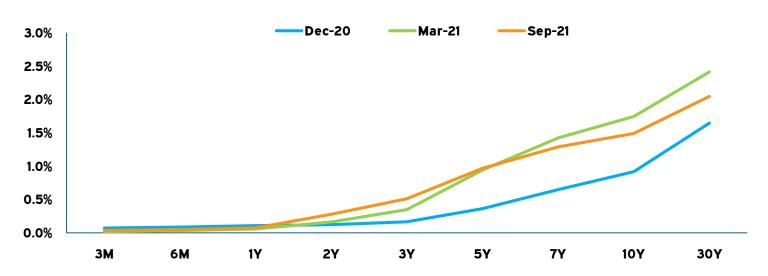


- In a reversal of the trend from last year, cyclical sectors like energy and financials continue to lead the way on a year-to-date basis, followed by communication services.
- The energy sector recently extended its gains, helped by rising demand and supply constraints.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2021.





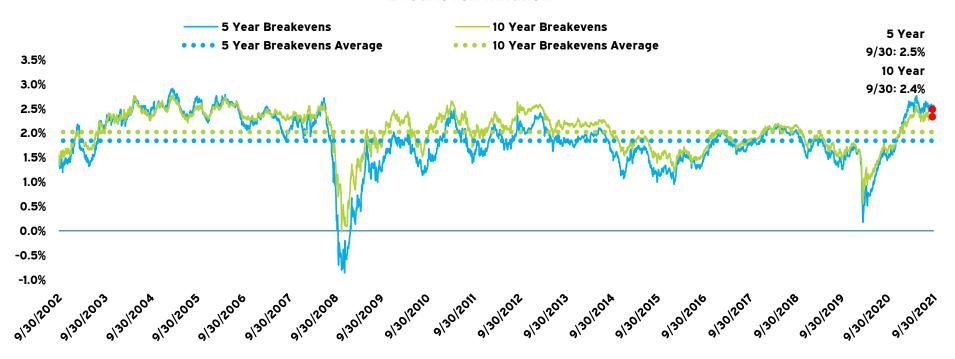


- During the first half of 2021, the yield curve steepened, on higher growth and inflation expectations.
- While shorter-dated Treasury yields remained largely unchanged, rates in the 2-year to 5-year sector increased on the September FOMC signal that policy rates may need to be tightened more aggressively than previously anticipated. Longer-term rates rose slightly in September but remain below their recent peak in March 2021.
- The yield curve could continue its steepening if growth and inflation pressures build beyond current expectations. Alternatively, if the economy weakens, or if projected economic growth simply happens faster than expected, a flattening trend could continue.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2021.



# Breakeven Inflation<sup>1</sup>

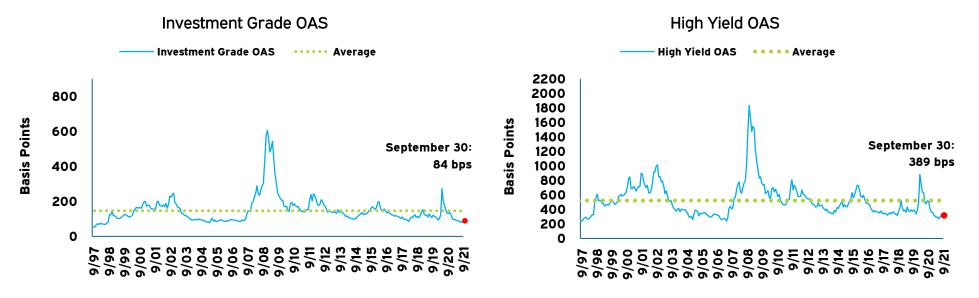


- Inflation expectations remain well above long-term averages, particularly in the short-term, with the economy reopening, supply chain issues persisting, and expected additional fiscal stimulus as key drivers.
- Looking ahead, the track of economic growth, the persistence of supply chain issues, and the unprecedented US fiscal response will be key issues. Additionally, changes to Fed policy focused on an average inflation target may play a role in the inflation market dynamics.

<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2021.



# Credit Spreads (High Yield & Investment Grade)1



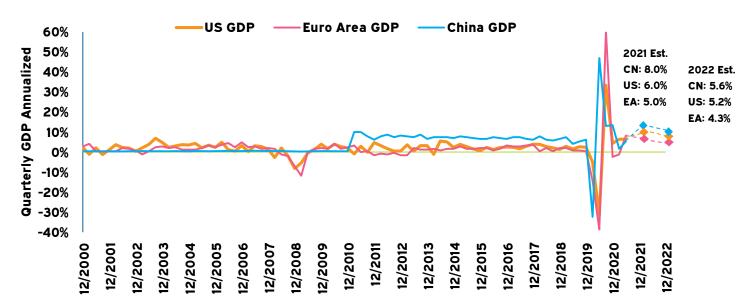
- Credit spreads (the spread above a comparable maturity Treasury) for investment-grade and high yield corporate debt remain historically narrow despite continued economic uncertainty.
- Policy support and the search for yield in a low-rate environment have been key drivers in the decline in US credit spreads to below long-term averages, particularly for high yield issuers.

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<sup>&</sup>lt;sup>1</sup> Source: Barclays Live. Data represents OAS and is as of September 30, 2021.







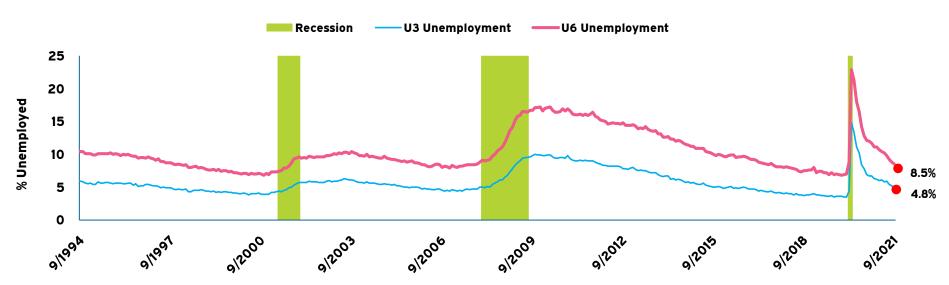
- In late 2020 and early 2021, major economies grew at rates far above potential. These very high rates of growth are not expected to continue, with projections continuing to decline given supply disruptions, reopening trends moderating, and some countries continuing to struggle with the virus.
- The US is expected to grow faster than the euro area this year and next, 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 government regulations.

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<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 unemployment rate (U3) continued its decline in September falling from 5.2% to 4.8%. It still remains 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 remains much higher at 8.5%. Also, the labor force participation rate remains quite low and is 1.7% below the 61.6% level of February 2020.
- Pandemic related concerns, childcare issues, and a mismatch of skills and available jobs have contributed to the continued labor market issues. The track of the unemployment rate from here will be a key consideration in the Federal Reserve's pace of reducing its policy support.

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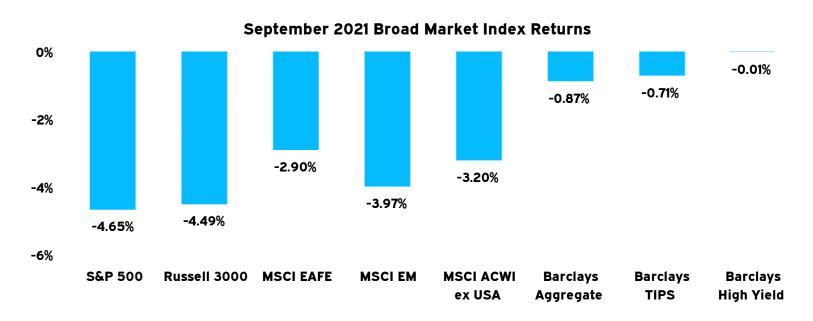
<sup>&</sup>lt;sup>1</sup> Source: Bloomberg. Data is as of September 30, 2021. Bars represent recessions as observed by the National Bureau of Economic Research.

Performance Highlights
As of September 30, 2021



# **Performance Highlights**

# Market Review and Performance Summary for September 2021

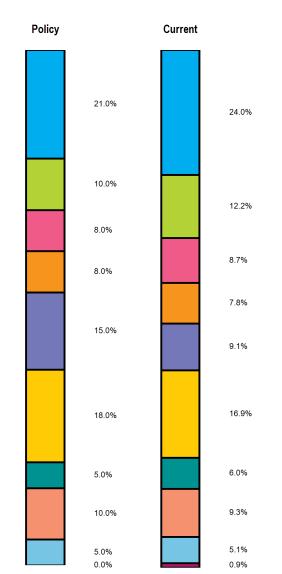


- Equity markets broadly declined in one of the worst months since early 2020. Fears of a government shutdown and supply chain issues weighed on US equities, while instability of real estate giant Evergrande and continued government intervention weighed on China.
- Merced CERA reported a monthly return of -1.3% net of fees. Private Equity led all asset classes, up +7.6%. Private Infrastructure had the largest drawdown with a -10.2% return, driven by North Haven's underperformance at -48.4%.
- As of September 30, 2021, total assets for the Merced CERA Portfolio are estimated at \$1.14 billion.





# Total Fund | As of September 30, 2021

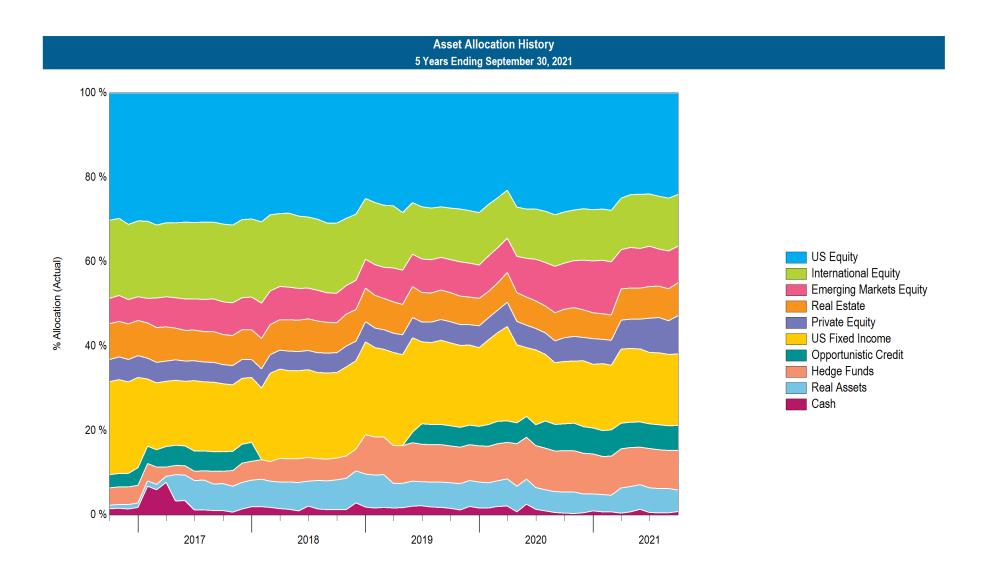


Allocation vs. Targets and Policy												
	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?						
US Equity	\$274,910,087	24.0%	21.0%	3.0%	15.0% - 26.0%	Yes						
International Equity	\$139,909,469	12.2%	10.0%	2.2%	5.0% - 15.0%	Yes						
Emerging Markets Equity	\$99,092,325	8.7%	8.0%	0.7%	4.0% - 12.0%	Yes						
Real Estate	\$89,515,160	7.8%	8.0%	-0.2%	6.0% - 10.0%	Yes						
Private Equity	\$103,778,115	9.1%	15.0%	-5.9%	5.0% - 20.0%	Yes						
US Fixed Income	\$193,086,173	16.9%	18.0%	-1.1%	13.0% - 23.0%	Yes						
Opportunistic Credit	\$68,256,927	6.0%	5.0%	1.0%	3.0% - 7.0%	Yes						
Hedge Funds	\$106,822,982	9.3%	10.0%	-0.7%	5.0% - 15.0%	Yes						
Real Assets	\$58,009,211	5.1%	5.0%	0.1%	3.0% - 7.0%	Yes						
Cash	\$9,728,169	0.9%	0.0%	0.9%	0.0% - 5.0%	Yes						
Total	\$1,143,108,617	100.0%	100.0%									

Cash range displayed for illustrative purposes only.



Total Fund | As of September 30, 2021





Total Fund | As of September 30, 2021

								•	•		•
	Asset Class	Performa	nce Sur	nmary							
	Market Value (\$)	% of Portfolio	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund (Net)*	1,143,108,617	100.0	-1.3	-0.1	9.2	19.6	11.4	10.8	10.0	8.5	Dec-94
Total Fund (Gross)*			-1.3	0.0	9.5	20.0	11.7	11.1	10.4	8.6	
Policy Index			0.9	2.0	12.3	22.7	11.3	11.0	10.5	6.6	Dec-94
Total Fund w/o Alternatives (Net)	775,254,981	67.8	-3.2	-1.4	6.6	18.3	12.5	11.7	10.5		Dec-94
Total Fund w/o Alternatives (Gross)			-3.1	-1.3	6.9	18.8	12.9	12.1	10.9		
Policy Index w/o Al			-2.9	-1.4	6.5	19.3	10.3	10.4			Dec-94
US Equity (Net)	274,910,087	24.0	-5.1	0.0	14.9	31.2	15.0	16.6	16.8	10.8	Dec-94
US Equity (Gross)			-5.0	0.0	15.1	31.5	15.3	16.9	17.1	10.9	
Russell 3000			-4.5	-0.1	15.0	31.9	15.4	16.5	16.4	10.8	Dec-94
International Equity (Net)	239,001,795	20.9	-3.8	-4.9	3.8	20.4	16.0	13.4	9.9	6.7	Dec-98
International Equity (Gross)			-3.7	-4.7	4.5	21.4	16.7	14.0	10.6	7.0	
International Equity Custom			-3.3	<i>-3.7</i>	4.5	23.1	8.4	9.5	8.2	5.0	Dec-98
Developed International Equity (Net)	139,909,469	12.2	-3.5	-1.6	8.8	19.2	9.8	10.0	8.6	4.9	Jan-08
Developed International Equity (Gross)			-3.4	-1.4	9.3	20.1	10.2	10.4	9.2	5.4	
Custom Blended Developed International Equity BM			-2.9	-0.4	9.1	27.2	8.3	9.2	8.3	3.8	Jan-08
Emerging Markets Equity (Net)	99,092,325	8.7	-4.1	-9.1	-2.7	19.8	24.8	17.7		9.4	Apr-12
Emerging Markets Equity (Gross)			-4.0	-8.9	-2.0	21.0	25.9	18.8		10.4	
Custom Blended Emerging Markets Benchmark			-4.0	-8.1	-1.2	18.2	8.8	9.5	6.4	5.0	Apr-12
US Fixed Income (Net)	193,086,173	16.9	-0.9	0.0	-1.6	-0.9	4.8	3.1	3.6	5.2	Dec-94
US Fixed Income (Gross)			-0.9	0.0	-1.5	-0.7	4.9	3.3	3.8	5.3	
BBgBarc US Aggregate TR			-0.9	0.1	-1.6	-0.9	5.0	3.2	3.2	5.5	Dec-94
Opportunistic Credit (Net)	68,256,927	6.0	0.6	1.3	6.7	12.4				7.1	May-19
Opportunistic Credit (Gross)			0.6	1.4	7.1	13.0				7.4	
50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans			-0.3	0.5	1.5	4.4				5.3	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.

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# Total Fund | As of September 30, 2021

								1 - 10 -	о о р о		-,
	Market Value	% of	1 Mo	QTD	YTD	1 Yr	3 Yrs	5 Yrs	10 Yrs	Inception	
	(\$)	Portfolio	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	Date
Real Estate (Net)	89,515,160	7.8	NA	4.3	10.7	12.4	4.3	5.5	7.4		Mar-99
Real Estate (Gross)			NA	4.3	10.7	12.5	4.3	5.5	8.1	8.1	
Custom Blended Real Estate Benchmark			NA	6.6	12.2	12.8	6.4	6.7	9.0	7.4	Mar-99
CPI + 5% (Seasonally Adjusted)			0.8	2.4	8.7	10.7	8.0	7.8	7.0		Mar-99
Private Real Estate (Net)	65,103,077	5.7	NA	5.7	8.3	9.3	3.3	4.9	7.1		Mar-99
Private Real Estate (Gross)			NA	5.7	8.3	9.4	3.4	5.0	7.8	8.0	
Custom Blended Real Estate Benchmark			NA	6.6	12.2	12.8	6.4	6.7	9.0	7.4	Mar-99
Private Equity (Net)	103,778,115	9.1	NA	7.6	36.7	51.3	19.1	17.4	11.5	10.1	Jun-05
Private Equity (Gross)			NA	7.6	36.7	51.3	19.1	17.4	11.7	10.2	
Custom Private Equity Benchmark			NA	12.1	43.6	59.9	26.4	24.0	22.7		Jun-05
Russell 3000 +3% 1-Quarter Lag			2.7	9.0	34.9	48.4	22.2	21.4	18.1	14.0	Jun-05
Hedge Fund (Net)	106,822,982	9.3	1.7	0.7	8.6	15.7	5.6	7.0		4.9	Jun-14
Hedge Fund (Gross)			1.7	0.9	9.4	16.8	6.3	7.5	-	5.3	
Custom Blended Hedge Fund Benchmark			0.2	0.8	5.8	14.4	6.5	5.9		4.5	Jun-14
Real Assets (Net)	58,009,211	5.1	NA	-1.5	8.4	13.1	8.4	7.5	8.4		Mar-99
Real Assets (Gross)			NA	-1.4	8.7	13.4	8.6	7.7	9.1		
Custom Blended Real Assets Benchmark			NA	4.8	15.9	19.1	7.5	8.1			Mar-99
CPI + 5% (Seasonally Adjusted)			0.8	2.4	8.7	10.7	8.0	7.8	7.0		Mar-99
Private Infrastructure (Net)	19,625,342	1.7	NA	-10.5	0.2	2.0	9.7	10.5	-	7.8	Dec-14
Private Infrastructure (Gross)			NA	-10.2	8.0	2.5	10.0	10.7		7.9	
Cambridge Infrastructure (1 Quarter Lagged)			NA	0.0	6.6	11.0	8.7	10.2	8.6	10.0	Dec-14
Private Natural Resources (Net)	13,316,485	1.2	NA	5.7	13.9	15.9	5.2	8.7		12.2	Sep-15
Private Natural Resources (Gross)			NA	5.7	13.9	15.9	5.2	8.7		12.2	
Cambridge Energy Upstream & Royalties & Private Energy (1 Quarter Lagged)			NA	9.6	25.8	27.3					Sep-15
Cash (Net)	9,728,169	0.9	0.0	0.0	0.0	0.1	0.8				
Cash (Gross)			0.0	0.0	0.0	0.1	0.8				

<sup>\*</sup>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.

Cambridge Infrastructure (1 Quarter Lagged) third quarter return unavailable at the time of this report.

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Total Fund | As of September 30, 2021

								i i diid	,			-,
		Trailing	Net Per	formand	:e							
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund(Net)*	1,143,108,617	100.0		-1.3	-0.1	9.2	19.6	11.4	10.8	10.0	8.5	Dec-94
Policy Index				0.9	2.0	12.3	22.7	11.3	11.0	10.5	6.6	Dec-94
Total Fund w/o Alternatives(Net)	775,254,981	67.8	67.8	-3.2	-1.4	6.6	18.3	12.5	11.7	10.5		Dec-94
Policy Index w/o Al				-2.9	-1.4	6.5	19.3	10.3	10.4			Dec-94
US Equity(Net)	274,910,087	24.0	35.5	-5.1	0.0	14.9	31.2	15.0	16.6	16.8	10.8	Dec-94
Russell 3000				-4.5	-0.1	15.0	31.9	15.4	16.5	16.4	10.8	Dec-94
Mellon Dynamic US Equity(Net)	126,232,238	11.0	45.9	-5.7	0.3	16.4	30.0	17.3	18.7		18.5	Dec-12
S&P 500				-4.7	0.6	15.9	30.0	16.0	16.9	16.6	15.7	Dec-12
Mellon Large Cap(Net)	117,567,852	10.3	42.8	-4.6	0.2	15.5	31.2	16.5	17.2		16.8	Mar-16
Russell 1000				-4.6	0.2	15.2	31.0	16.4	17.1	16.8	16.8	Mar-16
Champlain Small Cap(Net)	31,109,997	2.7	11.3	-4.0	-2.3	7.5					33.4	Nov-20
Russell 2000				-2.9	-4.4	12.4	47.7	10.5	13.4	14.6	44.6	Nov-20
International Equity(Net)	239,001,795	20.9	30.8	-3.8	-4.9	3.8	20.4	16.0	13.4	9.9	6.7	Dec-98
International Equity Custom				-3.3	-3.7	4.5	23.1	8.4	9.5	8.2	5.0	Dec-98
Developed International Equity(Net)	139,909,469	12.2	58.5	-3.5	-1.6	8.8	19.2	9.8	10.0	8.6	4.9	Jan-08
Custom Blended Developed International Equity BM				-2.9	-0.4	9.1	27.2	8.3	9.2	8.3	3.8	Jan-08
GQG International Equity(Net)	57,819,059	5.1	41.3	-4.4	-0.5	10.9	16.6				14.6	Dec-19
MSCI ACWI ex USA				-3.2	-3.0	5.9	23.9	8.0	8.9	7.5	11.6	Dec-19
First Eagle International Value Fund(Net)	49,728,148	4.4	35.5	-2.4	-2.6	3.0	13.6				5.6	Dec-19
MSCI EAFE				-2.9	-0.4	8.3	25.7	7.6	8.8	8.1	10.8	Dec-19
MSCI World ex USA				-2.9	-0.7	9.2	26.5	7.9	8.9	7.9	11.1	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.

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# Total Fund | As of September 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Driehaus International Small Cap Growth(Net)	17,061,944	1.5	12.2	-4.2	-1.0	11.6	33.9				23.2	May-19
MSCI ACWI ex US Small Cap Growth NR USD				-3.3	0.4	10.7	28.6	12.9	11.8	10.3	17.9	May-19
Acadian ACWI ex U.S. Small Cap Equity(Net)	15,300,318	1.3	10.9	-2.8	-3.1	18.6	35.8				18.4	May-19
MSCI ACWI ex US Small Cap				-3.0	0.0	12.2	33.1	10.3	10.3	9.4	14.7	May-19
Emerging Markets Equity(Net)	99,092,325	8.7	41.5	-4.1	-9.1	-2.7	19.8	24.8	17.7		9.4	Apr-12
Custom Blended Emerging Markets Benchmark				-4.0	-8.1	-1.2	18.2	8.8	9.5	6.4	5.0	Apr-12
Artisan Developing World TR(Net)	70,747,029	6.2	71.4	-3.3	-9.1	-2.7	16.8				36.3	Dec-19
MSCI Emerging Markets				-4.0	-8.1	-1.2	18.2	8.6	9.2	6.1	13.2	Dec-19
RWC(Net)	28,345,296	2.5	28.6	-6.0	-9.1	-2.3	31.8				16.0	Dec-19
MSCI Emerging Markets				-4.0	-8.1	-1.2	18.2	8.6	9.2	6.1	13.2	Dec-19
US Fixed Income(Net)	193,086,173	16.9	24.9	-0.9	0.0	-1.6	-0.9	4.8	3.1	3.6	5.2	Dec-94
BBgBarc US Aggregate TR				-0.9	0.1	-1.6	-0.9	5.0	3.2	3.2	5.5	Dec-94
Vanguard Total Bond Market Index Fund(Net)	92,150,148	8.1	47.7	-0.9	0.1	-1.6	-0.9				4.8	May-19
Bloomberg US Aggregate TR				-0.9	0.1	-1.6	-0.9	5.4	2.9	3.0	4.7	May-19
Barrow Hanley(Net)	90,339,297	7.9	46.8	-0.9	-0.1	-1.8	-1.0	5.7	3.1	3.3	3.7	Mar-10
Bloomberg US Aggregate TR				-0.9	0.1	-1.6	-0.9	5.4	<i>2</i> .9	3.0	3.6	Mar-10
Vanguard Short-Term Treasury Index Fund(Net)	10,596,728	0.9	5.5	-0.1	0.0	-0.1	0.0	2.6			2.4	Feb-18
Bloomberg US Govt 1-3 Yr TR				-0.1	0.1	0.0	0.0	2.7	1.6	1.2	2.4	Feb-18
Bloomberg US Govt 1-5 Yr TR				-0.3	0.0	-0.4	-0.4	3.3	1.8	1.5	2.9	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.

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# Total Fund | As of September 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Opportunistic Credit(Net)	68,256,927	6.0	8.8	0.6	1.3	6.7	12.4				7.1	May-19
50% Barclays US Aggregate / 25% Barclays US High Yield / 25% Credit Suisse Leveraged Loans				-0.3	0.5	1.5	4.4				5.3	May-19
PIMCO Income Fund(Net)	25,479,322	2.2	37.3	0.0	0.6	2.4	7.0				5.1	Apr-19
Bloomberg US Aggregate TR				-0.9	0.1	-1.6	-0.9	5.4	<i>2.9</i>	3.0	4.7	Apr-19
GoldenTree Multi-Sector Credit(Net)	23,982,633	2.1	35.1	0.3	1.1	5.8	12.5				7.0	Jun-19
50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans				0.3	1.0	4.6	9.9	5.5	5.6	6.2	6.1	Jun-19
Sculptor Credit Opportunities Domestic Partners, $\operatorname{LP}(\operatorname{Net})$	18,794,972	1.6	27.5	1.7	2.5	14.4	20.7				19.8	Jul-20
50% BBg US High Yield TR/50% Credit Suisse Leveraged Loans				0.3	1.0	4.6	9.9	5.5	5.6	6.2	11.6	Jul-20
Real Estate(Net)	89,515,160	7.8	7.8	NA	4.3	10.7	12.4	4.3	5.5	7.4		Mar-99
Custom Blended Real Estate Benchmark				NA	6.6	12.2	12.8	6.4	6.7	9.0	7.4	Mar-99
CPI + 5% (Seasonally Adjusted)				0.8	2.4	8.7	10.7	8.0	7.8	7.0		Mar-99
Vanguard REIT Index(Net)	24,412,083	2.1	27.3	-5.7	0.7	22.2	33.5				27.4	Aug-20
Spliced Vanguard REIT Benchmark				-5.6	0.7	22.3	33.6	12.1	7.6	11.6	27.5	Aug-20
Private Real Estate(Net)	65,103,077	5.7	72.7	NA	5.7	8.3	9.3	3.3	4.9	7.1	-	Mar-99
Custom Blended Real Estate Benchmark				NA	6.6	12.2	12.8	6.4	6.7	9.0	7.4	Mar-99
UBS Trumbull Property(Net)	31,905,838	2.8	49.0	NA	2.9	2.2	1.6	-0.1	1.7	5.6	6.3	Mar-99
Patron Capital V(Net)	9,103,671	0.8	14.0	NA	12.8	15.7	23.4	3.7	12.1		9.1	Jan-16

GoldenTree Multi-Sector Credit market value based on manager estimate.

 $Private \ Markets \ values \ are \ cash \ flow \ adjusted \ from \ 6/30/2021 \ NAVs. \ Starwood \ Distressed \ Opportunity \ Fund \ XII, GTCR \ Fund \ XII, GTCR \ Fund \ XII/A\&B, \ and \ ISQ \ Global \ Infrastructure \ Fund \ III \ are \ adjusted \ from \ 3/31/2021 \ NAVs.$ 

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.

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# Total Fund | As of September 30, 2021

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Greenfield Gap VII(Net)	6,251,776	0.5	9.6	NA	13.5	31.0	32.9	16.8	15.6		15.1	Dec-14
Taconic CRE Dislocation Fund $II(Net)$	4,233,579	0.4	6.5	NA	4.4	8.6	9.5				8.8	Nov-18
Taconic CRE Dislocation Onshore Fund $\operatorname{III}(\operatorname{Net})$	4,000,000	0.3	6.1									
Cerberus Real Estate Debt Fund, L.P.(Net)	2,713,313	0.2	4.2	NA	-1.5	5.2	22.8				17.9	Jul-20
AG Realty Value Fund X, L.P.(Net)	2,697,860	0.2	4.1	NA	5.6	15.2	18.6				0.2	Jun-19
Carlyle Realty VIII(Net)	1,720,541	0.2	2.6	NA	21.3	30.8	37.8	4.7			-4.6	Dec-17
Rockpoint Real Estate Fund VI, L.P.(Net)	1,565,197	0.1	2.4	NA	18.0	30.2	25.6				15.5	May-20
Carmel Partners Investment Fund VII(Net)	913,905	0.1	1.4	NA	-0.7	-10.5	-17.7				-35.7	Apr-19
Starwood Distressed Opportunity Fund XII Global(Net)	-2,603	0.0	0.0									
Private Equity(Net)	103,778,115	9.1	9.1	NA	7.6	36.7	51.3	19.1	17.4	11.5	10.1	Jun-05
Custom Private Equity Benchmark				NA	12.1	43.6	59.9	26.4	24.0	22.7		Jun-05
Russell 3000 +3% 1-Quarter Lag				2.7	9.0	34.9	48.4	22.2	21.4	18.1	14.0	Jun-05
Ocean Avenue II(Net)	8,751,045	0.8	8.4	NA	11.2	101.1	147.4	40.5	34.5		22.4	Jun-14
TCV X(Net)	8,450,431	0.7	8.1	NA	32.4	94.6	117.8				42.2	Apr-19
Genstar Capital Partners IX(Net)	7,698,396	0.7	7.4	NA	14.3	34.9	54.3				27.3	Jul-19
Adams Street(Net)	7,417,227	0.6	7.1	NA	11.2	48.3	69.5	24.9	20.9	16.0	10.1	Sep-05
Cortec Group Fund VII(Net)	5,205,296	0.5	5.0	NA	27.8	61.1	57.1			-	40.4	Dec-19
Spark Capital Growth Fund III(Net)	5,136,410	0.4	4.9	NA	-1.9	22.2	18.6				6.6	Mar-20

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

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.

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

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Davidson Kempner Long-Term Distressed Opportunities Fund IV(Net)	5,047,498	0.4	4.9	NA	-3.6	2.1	7.1	5.4			7.2	Apr-18
Summit Partners Growth Equity Fund X-A(Net)	4,977,145	0.4	4.8	NA	11.1	-4.3	2.4				2.7	Mar-20
Carrick Capital Partners III(Net)	4,847,928	0.4	4.7	NA	4.1	22.3	25.4	10.1			9.5	Aug-18
GTCR Fund XII(Net)	4,658,149	0.4	4.5	NA	0.0	14.2	36.8	13.7			12.2	Jun-18
Cressey & Company Fund VI(Net)	4,585,586	0.4	4.4	NA	6.5	24.0	43.7				15.0	Jan-19
Pantheon II(Net)	4,561,647	0.4	4.4	NA	9.7	45.7	71.2	25.3	22.1		16.1	Dec-11
Marlin Heritage Europe II, L.P.(Net)	4,189,565	0.4	4.0	NA	-10.1	-11.9	-11.9				-11.9	Oct-20
Silver Point Specialty Credit Fund II, L.P.(Net)	4,086,207	0.4	3.9	NA	-1.2	12.0	20.6				16.2	Jul-20
Thoma Bravo Discover Fund III(Net)	3,893,229	0.3	3.8	NA	-0.8						3.6	Jun-21
Taconic Market Dislocation Fund III L.P.(Net)	3,710,094	0.3	3.6	NA	11.3	38.6	38.6				29.8	Jul-20
Accel-KKR Growth Capital Partners III(Net)	3,459,240	0.3	3.3	NA	14.1	31.8	36.0				6.4	Jul-19
Invesco VI(Net)	3,351,389	0.3	3.2	NA	9.9	100.6	131.4	40.9	30.9		22.3	Jun-13
TCV XI(Net)	2,325,282	0.2	2.2	NA	-0.5						-5.6	Feb-21
Raven Asset Fund II(Net)	2,073,726	0.2	2.0	NA	-21.6	-20.9	-24.1	-12.9	-8.9		-7.1	Aug-14
Spark Capital VI(Net)	1,543,107	0.1	1.5	NA	-1.4	-4.8	-8.8				-10.7	Mar-20
Khosla Ventures VII(Net)	1,224,649	0.1	1.2	NA	4.2	-0.8					-0.8	Jan-21
Summit Partners Venture Capital Fund V-A(Net)	1,163,819	0.1	1.1	NA	-1.0						-3.0	May-21
GTCR Fund XIII/A & B(Net)	564,560	0.0	0.5									

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

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

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Pantheon Secondary(Net)	265,219	0.0	0.3	NA	-0.5	-5.4	-3.2	-3.1	1.6	0.4	2.4	Jun-07
Khosla Ventures Seed E(Net)	214,596	0.0	0.2							- 1		
Pantheon I(Net)	197,149	0.0	0.2	NA	-1.6	11.1	10.9	-10.4	-2.7	0.8	1.0	Dec-05
Accel-KKR Capital Partners VI(Net)	179,525	0.0	0.2	NA	-13.0						-49.0	Feb-21
Hedge Fund(Net)	106,822,982	9.3	9.3	1.7	0.7	8.6	15.7	5.6	7.0	-	4.9	Jun-14
Custom Blended Hedge Fund Benchmark				0.2	0.8	5.8	14.4	6.5	5.9		4.5	Jun-14
Silver Point Capital(Net)	17,231,030	1.5	16.1	2.2	3.8	22.4	34.7	10.9			10.0	Nov-17
Laurion Capital(Net)	14,487,825	1.3	13.6	4.3	-4.9	22.3	34.7	19.8			19.4	Aug-18
Wellington-Archipelago(Net)	14,143,318	1.2	13.2	0.3	1.8	5.0	10.5	5.5			5.9	Aug-17
Sculptor (OZ) Domestic II(Net)	14,003,806	1.2	13.1	0.7	1.2	6.5	12.5	11.3	10.6		8.0	Jun-14
Taconic Opportunity Fund(Net)	13,824,585	1.2	12.9	0.8	0.1	6.9	13.5				5.2	Dec-18
Marshall Wace Global Opportunities(Net)	9,993,136	0.9	9.4	1.5	4.0	-3.8	5.1				7.7	May-20
Caxton Global Investments(Net)	9,724,549	0.9	9.1	1.5	0.5						-2.8	Jun-21
Graham Absolute Return(Net)	8,024,265	0.7	7.5	2.8	-1.0	3.5	6.8	2.3			2.4	Aug-17
Marshall Wace Eureka(Net)	4,191,797	0.4	3.9	0.9	3.3	7.1	15.3	7.4			7.5	Nov-17
KLS Diversified(Net)	1,198,670	0.1	1.1	-0.9	-1.0	1.6	5.9	-3.9			-1.3	Oct-17
Real Assets(Net)	58,009,211	5.1	5.1	NA	-1.5	8.4	13.1	8.4	7.5	8.4		Mar-99
Custom Blended Real Assets Benchmark				NA	4.8	15.9	19.1	7.5	8.1			Mar-99
CPI + 5% (Seasonally Adjusted)				0.8	2.4	8.7	10.7	8.0	7.8	7.0		Mar-99
SSgA(Net)	25,067,384	2.2	43.2	0.3	1.9	14.6	27.3	7.4			6.6	Apr-17
Real Asset NL Custom Blended Index				0.2	2.2	16.6	29.8	8.0			7.1	Apr-17

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

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	QTD (%)	YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Private Infrastructure(Net)	19,625,342	1.7	33.8	NA	-10.5	0.2	2.0	9.7	10.5		7.8	Dec-14
Cambridge Infrastructure (1 Quarter Lagged)				NA	0.0	6.6	11.0	8.7	10.2	8.6	10.0	Dec-14
KKR Global II(Net)	8,006,789	0.7	40.8	NA	1.4	35.4	35.0	29.1	21.8		18.1	Dec-14
ISQ Global Infrastructure Fund II(Net)	4,373,291	0.4	22.3	NA	2.9	13.0	19.3	14.6			0.0	Jul-18
KKR Global Infrastructure Investors III(Net)	3,525,147	0.3	18.0	NA	-1.3	0.7	8.4				-4.6	Jan-19
North Haven Infrastructure II(Net)	2,737,764	0.2	14.0	NA	-48.4	-48.5	-48.4	-15.3	-4.9		-4.5	May-15
Ardian Infrastructure Fund $V(Net)$	1,029,004	0.1	5.2	NA	11.8	4.2	9.7				-22.1	Oct-19
ISQ Global Infrastructure Fund III(Net)	-46,653	0.0	-0.2									
Private Natural Resources(Net)	13,316,485	1.2	23.0	NA	5.7	13.9	15.9	5.2	8.7		12.2	Sep-15
Cambridge Energy Upstream & Royalties & Private Energy (1 Quarter Lagged)				NA	9.6	25.8	27.3					Sep-15
GSO Energy Opportunities(Net)	2,820,462	0.2	21.2	NA	6.9	33.4	40.9	4.8	9.0		12.0	Nov-15
Tailwater Energy Fund IV, $\operatorname{LP}(\operatorname{Net})$	2,798,393	0.2	21.0	NA	6.9	15.5	27.9				-13.0	Oct-19
BlackRock Global Energy and Power Infrastructure Fund III $\operatorname{LP}(\operatorname{Net})$	2,270,116	0.2	17.0	NA	1.4	4.0	4.1				18.0	Jul-19
EnCap XI(Net)	2,013,187	0.2	15.1	NA	14.4	23.3	16.8	-12.8			-21.9	Jul-17
EnCap IV(Net)	1,352,798	0.1	10.2	NA	1.6	6.9	5.7	7.8			1.4	Feb-18
Taurus Mining(Net)	1,061,051	0.1	8.0	NA	1.9	-4.7	-6.9	-0.1	4.2		8.9	Sep-15
Taurus Mining Annex(Net)	1,000,479	0.1	7.5	NA	2.7	1.3	6.0	15.1			21.8	Jan-17
Cash(Net)	9,728,169	0.9	0.9	0.0	0.0	0.0	0.1	8.0				
Cash(Net)	8,515,227	0.7	87.5	0.0	0.0	0.0	0.1	1.1	1.1	0.8		Sep-03
Treasury Cash(Net)	1,212,942	0.1	12.5									

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

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

		Benchmark History
		As of September 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 Alte	ernatives	
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 Ed	ıuity	
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 Ir	nternational Equity	
1/1/2020	Present	80% MSCI EAFE / 20% MSCI ACWI ex US Small Cap
1/31/2008	12/31/2019	MSCI EAFE
Emerging Ma	arkets Equity	
1/1/2020	Present	MSCI Emerging Markets
4/30/2012	12/31/2019	MSCI Emerging Markets Gross
US Fixed Inc	ome	
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

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

Opportunisti	c 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 Est	tate	
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 Infrastro	ucture	
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

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

Annual Investment Expense Analysis										
As Of September 30, 2021										
Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee						
Total Fund w/o Alternatives		\$775,254,981								
US Equity		\$274,910,087								
Mellon Dynamic US Equity	0.30% of Assets	\$126,232,238	\$378,697	0.30%						
Mellon Large Cap	0.04% of First 100.0 Mil, 0.02% Thereafter	\$117,567,852	\$43,514	0.04%						
Champlain Small Cap	1.00% of Assets	\$31,109,997	\$311,100	1.00%						
International Equity		\$239,001,795								
Developed International Equity		\$139,909,469								
Acadian ACWI ex U.S. Small Cap Equity	0.99% of Assets	\$15,300,318	\$151,473	0.99%						
Driehaus International Small Cap Growth	0.90% of Assets	\$17,061,944	\$153,557	0.90%						
GQG International Equity	0.50% of Assets	\$57,819,059	\$289,095	0.50%						
First Eagle International Value Fund	0.79% of Assets	\$49,728,148	\$392,852	0.79%						
Emerging Markets Equity		\$99,092,325								
Artisan Developing World TR	1.05% of Assets	\$70,747,029	\$742,844	1.05%						
RWC	0.87% of Assets	\$28,345,296	\$246,604	0.87%						
US Fixed Income		\$193,086,173								
Barrow Hanley	0.30% of First 50.0 Mil, 0.20% of Next 100.0 Mil, 0.15% Thereafter	\$90,339,297	\$230,679	0.26%						
Vanguard Short-Term Treasury Index Fund	0.05% of Assets	\$10,596,728	\$5,298	0.05%						
Vanguard Total Bond Market Index Fund	0.04% of Assets	\$92,150,148	\$32,253	0.04%						
Opportunistic Credit		\$68,256,927								
PIMCO Income Fund	0.50% of Assets	\$25,479,322	\$127,397	0.50%						
GoldenTree Multi-Sector Credit	0.70% of Assets	\$23,982,633	\$167,878	0.70%						
Sculptor Credit Opportunities Domestic Partners, LP	Performance-based 1.00 and 20.00	\$18,794,972	\$187,950	1.00%						

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

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Real Estate		\$89,515,160		
Vanguard REIT Index	0.10% of Assets	\$24,412,083	\$24,412	0.10%
Private Real Estate		\$65,103,077		
Greenfield Gap VII		\$6,251,776		
Patron Capital V		\$9,103,671		
UBS Trumbull Property		\$31,905,838		
Carlyle Realty VIII		\$1,720,541		
Taconic CRE Dislocation Fund II		\$4,233,579		
Carmel Partners Investment Fund VII		\$913,905		
AG Realty Value Fund X, L.P.		\$2,697,860		
Rockpoint Real Estate Fund VI, L.P.		\$1,565,197		
Cerberus Real Estate Debt Fund, L.P.		\$2,713,313		
Taconic CRE Dislocation Onshore Fund III		\$4,000,000		
Starwood Distressed Opportunity Fund XII Global		-\$2,603		
Invesco IV		\$0		
Invesco VI		\$3,351,389		
Ocean Avenue II		\$8,751,045		
Pantheon I		\$197,149		
Pantheon II		\$4,561,647		
Pantheon Secondary		\$265,219		
Raven Asset Fund II		\$2,073,726		
Davidson Kempner Long-Term Distressed Opportunities Fund IV	/	\$5,047,498		
GTCR Fund XII		\$4,658,149		
Carrick Capital Partners III		\$4,847,928		
Cressey & Company Fund VI		\$4,585,586		
TCV X		\$8,450,431		

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

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Accel-KKR Growth Capital Partners III		\$3,459,240		
Genstar Capital Partners IX		\$7,698,396		
Cortec Group Fund VII		\$5,205,296		
Spark Capital Growth Fund III		\$5,136,410		
Spark Capital VI		\$1,543,107		
Summit Partners Growth Equity Fund X-A		\$4,977,145		
Taconic Market Dislocation Fund III L.P.		\$3,710,094		
Silver Point Specialty Credit Fund II, L.P.		\$4,086,207		
Marlin Heritage Europe II, L.P.		\$4,189,565		
Khosla Ventures VII		\$1,224,649		
Accel-KKR Capital Partners VI		\$179,525		
Khosla Ventures Seed E		\$214,596		
TCV XI		\$2,325,282		
Thoma Bravo Discover Fund III		\$3,893,229		
Summit Partners Venture Capital Fund V-A		\$1,163,819		
GTCR Fund XIII/A & B		\$564,560		
Hedge Fund		\$106,822,982		
Sculptor (OZ) Domestic II	Performance-based 1.50 and 20.00	\$14,003,806	\$230,615	1.65%
Graham Absolute Return	Performance-based 1.75 and 20.00	\$8,024,265	\$189,212	2.36%
Wellington-Archipelago	Performance-based 1.00 and 20.00	\$14,143,318	\$149,099	1.05%
KLS Diversified	Performance-based 2.00 and 20.00	\$1,198,670	\$23,973	2.00%
Marshall Wace Eureka	Performance-based 2.00 and 20.00	\$4,191,797	\$90,971	2.17%
Silver Point Capital	Performance-based 1.50 and 20.00	\$17,231,030	\$332,559	1.93%
Laurion Capital	Performance-based 2.00 and 20.00	\$14,487,825	\$414,642	2.86%
Taconic Opportunity Fund	Performance-based 1.40 and 20.00	\$13,824,585	\$214,558	1.55%
Marshall Wace Global Opportunities	Performance-based 2.00 and 20.00	\$9,993,136	\$229,816	2.30%
Caxton Global Investments	Performance-based 1.95 and 22.50	\$9,724,549	\$222,887	2.29%

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

Name	Fee Schedule	Market Value	Estimated Fee Value	Estimated Fee
Real Assets		\$58,009,211		
SSgA	0.30% of First 50.0 Mil, 0.27% of Next 50.0 Mil, 0.25% Thereafter	\$25,067,384	\$75,202	0.30%
Private Infrastructure		\$19,625,342		
KKR Global II		\$8,006,789		
North Haven Infrastructure II		\$2,737,764		
ISQ Global Infrastructure Fund II		\$4,373,291		
KKR Global Infrastructure Investors III		\$3,525,147		
Ardian Infrastructure Fund V		\$1,029,004		
ISQ Global Infrastructure Fund III		-\$46,653		
Private Natural Resources		\$13,316,485		
EnCap XI		\$2,013,187		
EnCap IV		\$1,352,798		
GSO Energy Opportunities		\$2,820,462		
Taurus Mining		\$1,061,051		
Taurus Mining Annex		\$1,000,479		
BlackRock Global Energy and Power Infrastructure Fund I	II LP	\$2,270,116		
Tailwater Energy Fund IV, LP		\$2,798,393		
Cash		\$9,728,169		
Cash		\$8,515,227		
Treasury Cash		\$1,212,942		

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SIGNIFICANT EVENTS MAY OCCUR (OR HAVE OCCURRED) AFTER THE DATE OF THIS REPORT AND THAT IT IS NOT OUR FUNCTION OR RESPONSIBILITY TO UPDATE THIS REPORT. ANY OPINIONS OR RECOMMENDATIONS PRESENTED HEREIN REPRESENT OUR GOOD FAITH VIEWS AS OF THE DATE OF THIS REPORT AND ARE SUBJECT TO CHANGE AT ANY TIME. ALL INVESTMENTS INVOLVE RISK. THERE CAN BE NO GUARANTEE THAT THE STRATEGIES, TACTICS, AND METHODS DISCUSSED HERE WILL BE SUCCESSFUL.

INFORMATION USED TO PREPARE THIS REPORT WAS OBTAINED FROM INVESTMENT MANAGERS, CUSTODIANS, AND OTHER EXTERNAL SOURCES. WHILE WE HAVE EXERCISED REASONABLE CARE IN PREPARING THIS REPORT, WE CANNOT GUARANTEE THE ACCURACY OF ALL SOURCE INFORMATION CONTAINED HEREIN.

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Credit Risk: Refers to the risk that the issuer of a fixed income security may default (i.e., the issuer will be unable to make timely principal and/or interest payments on the security.)

**Duration:** Measure of the sensitivity of the price of a bond to a change in its yield to maturity. Duration summarizes, in a single number, the characteristics that cause bond prices to change in response to a change in interest rates. For example, the price of a bond with a duration of three years will rise by approximately 3% for each 1% decrease in its yield to maturity. Conversely, the price will decrease 3% for each 1% increase in the bond's yield. Price changes for two different bonds can be compared using duration. A bond with a duration of six years will exhibit twice the percentage price change of a bond with a three-year duration. The actual calculation of a bond's duration is somewhat complicated, but the idea behind the calculation is straightforward. The first step is to measure the time interval until receipt for each cash flow (coupon and principal payments) from a bond. The second step is to compute a weighted average of these time intervals. Each time interval is measured by the present value of that cash flow. This weighted average is the duration of the bond measured in years.

**Information Ratio:** This statistic is a measure of the consistency of a portfolio's performance relative to a benchmark. It is calculated by subtracting the benchmark return from the portfolio return (excess return), and dividing the resulting excess return by the standard deviation (volatility) of this excess return. A positive information ratio indicates outperformance versus the benchmark, and the higher the information ratio, the more consistent the outperformance.

Jensen's Alpha: A measure of the average return of a portfolio or investment in excess of what is predicted by its beta or "market" risk. Portfolio Return- [Risk Free Rate+Beta\*(market return-Risk Free Rate)].

Market Capitalization: For a firm, market capitalization is the total market value of outstanding common stock. For a portfolio, market capitalization is the sum of the capitalization of each company weighted by the ratio of holdings in that company to total portfolio holdings; thus it is a weighted-average capitalization. Meketa Investment Group considers the largest 65% of the broad domestic equity market as large capitalization, the next 25% of the market as medium capitalization, and the smallest 10% of stocks as small capitalization.

**Market Weighted:** Stocks in many indices are weighted based on the total market capitalization of the issue. Thus, the individual returns of higher market-capitalization issues will more heavily influence an index's return than the returns of the smaller market-capitalization issues in the index.

Maturity: The date on which a loan, bond, mortgage, or other debt/security becomes due and is to be paid off.

**Prepayment Risk:** The risk that prepayments will increase (homeowners will prepay all or part of their mortgage) when mortgage interest rates decline; hence, investors' monies will be returned to them in a lower interest rate environment. Also, the risk that prepayments will slow down when mortgage interest rates rise; hence, investors will not have as much money as previously anticipated in a higher interest rate environment. A prepayment is any payment in excess of the scheduled mortgage payment.

**Price-Book Value (P/B) Ratio:** The current market price of a stock divided by its book value per share. Meketa Investment Group calculates P/B as the current price divided by Compustat's quarterly common equity. Common equity includes common stock, capital surplus, retained earnings, and treasury stock adjusted for both common and nonredeemable preferred stock. Similar to high P/E stocks, stocks with high P/B's tend to be riskier investments.

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Price-Earnings (P/E) Ratio: A stock's market price divided by its current or estimated future earnings. Lower P/E ratios often characterize stocks in low growth or mature industries, stocks in groups that have fallen out of favor, or stocks of established blue chip companies with long records of stable earnings and regular dividends. Sometimes a company that has good fundamentals may be viewed unfavorably by the market if it is an industry that is temporarily out of favor. Or a business may have experienced financial problems causing investors to be skeptical about is future. Either of these situations would result in lower relative P/E ratios. Some stocks exhibit above-average sales and earnings growth or expectations for above average growth. Consequently, investors are willing to pay more for these companies' earnings, which results in elevated P/E ratios. In other words, investors will pay more for shares of companies whose profits, in their opinion, are expected to increase faster than average. Because future events are in no way assured, high P/E stocks tend to be riskier and more volatile investments. Meketa Investment Group calculates P/E as the current price divided by the I/B/E/S consensus of twelve-month forecast earnings per share.

Quality Rating: The rank assigned a security by such rating services as Fitch, Moody's, and Standard & Poor's. The rating may be determined by such factors as (1) the likelihood of fulfillment of dividend, income, and principal payment of obligations; (2) the nature and provisions of the issue; and (3) the security's relative position in the event of liquidation of the company. Bonds assigned the top four grades (AAA, AA, A, BBB) are considered investment grade because they are eligible bank investments as determined by the controller of the currency.

Sharpe Ratio: A commonly used measure of risk-adjusted return. It is calculated by subtracting the risk free return (usually three-month Treasury bill) from the portfolio return and dividing the resulting excess return by the portfolio's total risk level (standard deviation). The result is a measure of return per unit of total risk taken. The higher the Sharpe ratio, the better the fund's historical risk adjusted performance.

STIF Account: Short-term investment fund at a custodian bank that invests in cash-equivalent instruments. It is generally used to safely invest the excess cash held by portfolio managers.

**Standard Deviation:** A measure of the total risk of an asset or a portfolio. Standard deviation measures the dispersion of a set of numbers around a central point (e.g., the average return). If the standard deviation is small, the distribution is concentrated within a narrow range of values. For a normal distribution, about two thirds of the observations will fall within one standard deviation of the mean, and 95% of the observations will fall within two standard deviations of the mean.

**Style:** The description of the type of approach and strategy utilized by an investment manager to manage funds. For example, the style for equities is determined by portfolio characteristics such as price-to-book value, price-to-earnings ratio, and dividend yield. Equity styles include growth, value, and core.

Tracking Error: A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark, as defined by the difference in standard deviation.

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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%.

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 guarterly 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

The Russell Indices, TM, SM are trademarks/service marks of the Frank Russell Company.

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.

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### Direct Lending Overview

## Merced County Employees' Retirement Association



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## What is the U.S. Middle Market?



The U.S. Middle Market

is made up of companies with

Annual revenues between \$10 million & \$1 billion

Responsible for roughly onethird of private U.S. GDP, enough to be the 5<sup>th</sup> largest economy in the world Catalyst of economic opportunity – creating over 2 million jobs in the years spanning the global financial crisis from 2007 to 2010

Consists of nearly 200,000 companies – including family-controlled, private equity sponsored, and publicly owned businesses

2020 employment declines in the U.S. Middle Market (-2.2%) were significantly lower than smaller and larger businesses (-5.1% and -8.2% respectively)

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## Direct Lending and Bank Lending are Not the Same









### **Direct Lending**

### **Bank Lending**

### Full Enterprise Value Pledged as Collateral

Loans are typically secured by all assets and operations of a firm, including future cash flows and all equity. This makes a much larger term loan available with higher interest rates, L+5%-9%.

### Limited Collateral

Banks compete for loans secured by certain assets, such as accounts receivable and inventory, making this a market for relatively smaller transactions. Rates tend to be ~L+2%.

### Significant Business Impact

### **Direct Lending Facilitates**

Transformative acquisitions that can greatly boost earnings. Refinancings that can reduce operating costs and extend debt maturities. Debt lending also allows owners to execute their plans without equity dilution.

### Modest Business Impact

### Bank Lending Facilitates

Short-term liquidity and working capital loans. Bank lending does not generally add much buying power as borrowing capacity is too limited to facilitate meaningful expansion or acquisition.

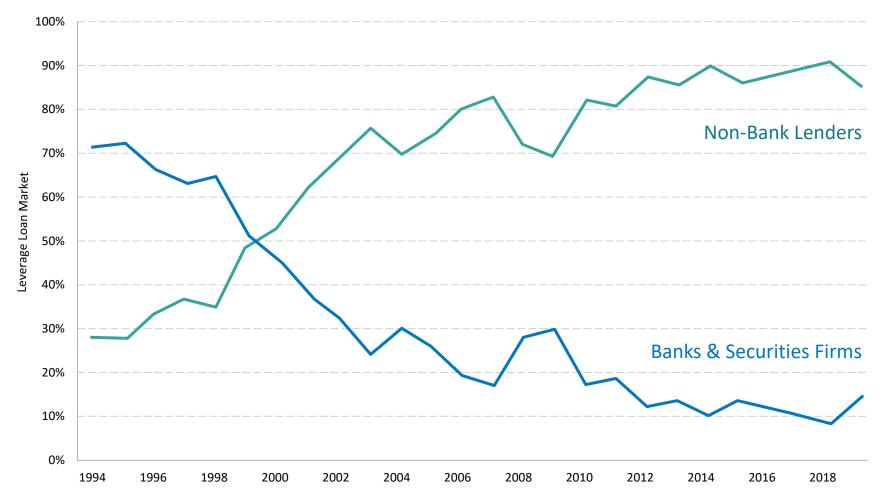
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## Who Executes Middle Market Loan Transactions?



Regulatory reform and industry consolidation have pushed banks from this market.

Bank absence contributes to capital scarcity and enhances investor opportunity.



### Direct Loan Characteristics



### Duration

Short-lived assets

Generally written with 5 years to maturity

Often paid off within 3 years

### Middle Market Loans

vary in seniority

Predominantly senior secured. Other forms include unitranche, second lien, and mezzanine

### Issuance

Originated by the manager, i.e, the direct lender, not a bank
Held until maturity, not traded
US companies with
\$10M-\$100M EBITDA

### Risk Characteristics

Floating-rate loan; no interest rate risk

Reduce portfolio volatility & hedge against inflation

Cushion against potential decline in valuation

Typical loan-to-value of 50%

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## Representative U.S. Middle Market Borrowers



- Established, profitable companies are sought by direct lenders
- Range of opportunities allows managers to diversify by sector and industry



Sotheby's

























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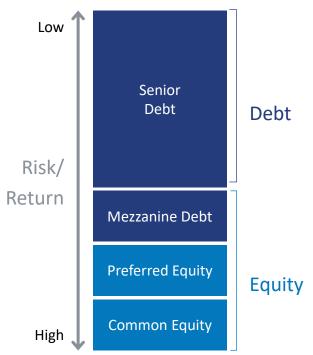
## Why Lend to Middle Market Companies?



### Senior Secured

Middle market loans are predominantly senior secured, meaning they have a priority claim over any junior debt or equity, cushioning lenders against potential declines in valuation.

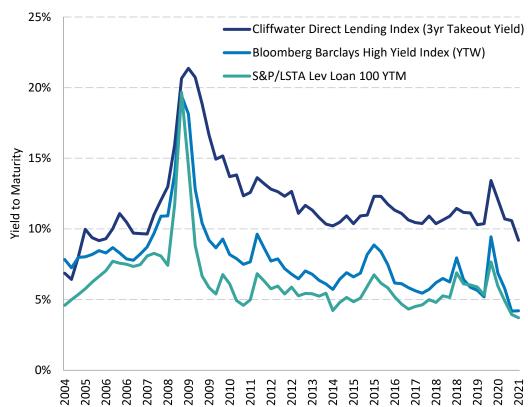
### The Capital Stack



### **Return Potential**

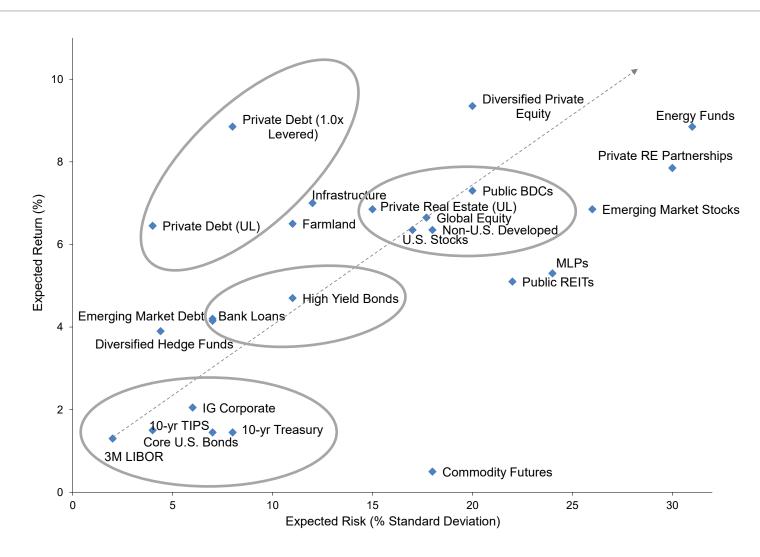
Yield premium continues to be very attractive relative to bank loans and publicly traded fixed income markets.

CDLI, High Yield Bond, and Leveraged Loan-to-Maturity Comparisons



### Cliffwater Expected Asset Class Returns

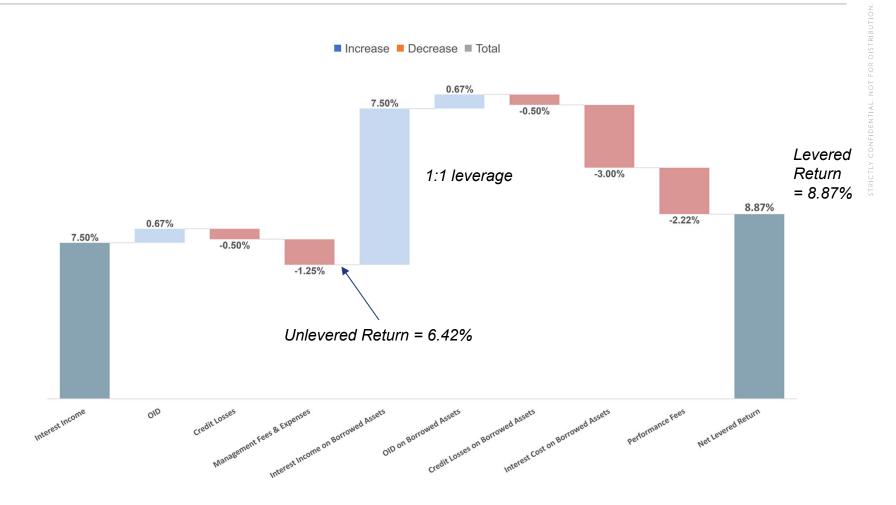




Source: Cliffwater 3Q 2021 Capital Market Assumptions.

## Cliffwater Private Debt Expected Return (Direct Lending)

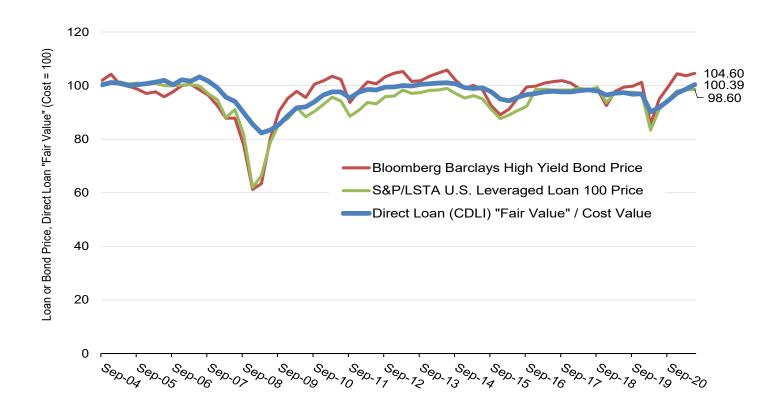




## CDLI Valuation vs. Leveraged Loans vs. High Yield Bonds



Middle market loan values move with broadly syndicated loan values, though with less volatility



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## U.S. Middle Market Funding Activity



### Managers differ in their investment style by:



Target company size

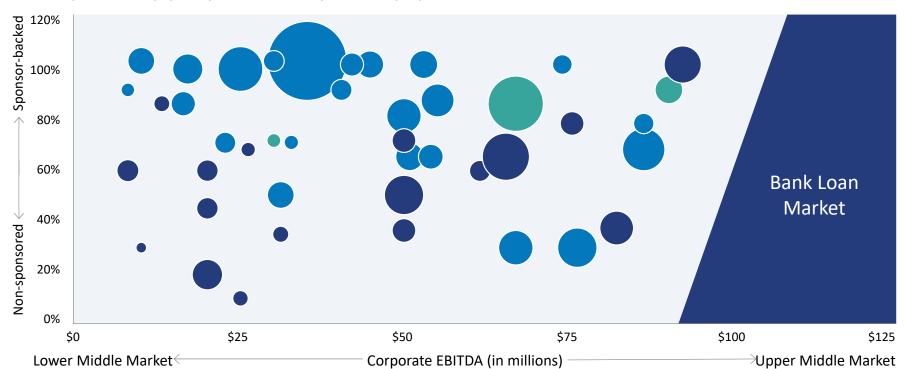


Credit risk profile



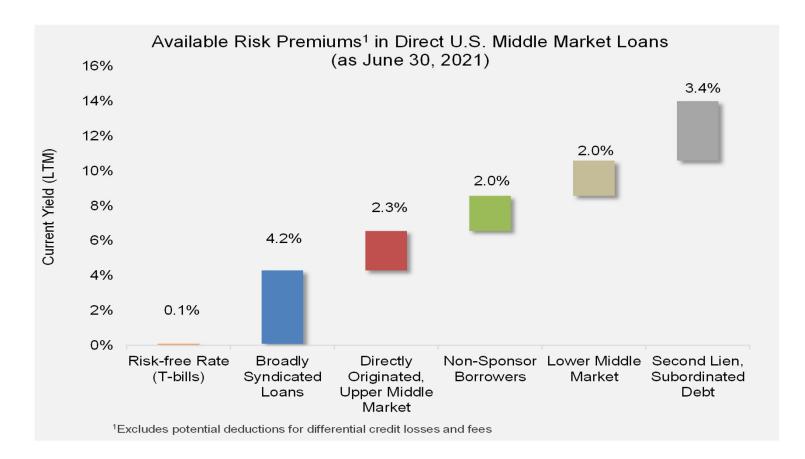
Focus on sponsor- vs. non-sponsor-backed businesses

#### DIRECT LENDERS CAPTURE VARIED RISK PREMIUMS



- Managers focused on portfolios greater than 80% first lien senior secured
- Managers focused on portfolios between 50% - 80% first lien senior secured
- Managers focused on portfolios with less than 50% first lien senior secured

Lenders receive five independent "risk premiums" beyond the risk-free rate for investing in middle market loans



### Portfolio Impact



### Direct lending has historically delivered attractive returns with very low volatility

Reallocating equity investments to direct lending offers potential for similar long-term returns with substantial reduction in volatility

Reallocating bond investments to direct lending offers the potential to increase yield and reduce interest rate risk

### Historic Asset Class Performance (9/2004 - 3/2021)

	Return <sup>1</sup>	Risk <sup>1</sup>	Return/ Risk Ratio	Max Drawdown	Stock Correlation <sup>2</sup>	Stock Beta <sup>2</sup>
Cliffwater Direct Lending Index	9.30%	3.71%	2.50	-8%	0.71	0.16
NCREIF Property (Real Estate)	8.08%	5.07%	1.59	-24%	0.16	0.05
Cambridge Private Equity	15.23%	10.00%	1.52	-25%	0.79	0.47
Bloomberg Barclays U.S. Aggregate	4.35%	3.20%	1.36	-3%	-0.20	-0.04
Bloomberg Barclays High Yield	7.37%	10.87%	0.68	-27%	0.80	0.52
Russell 3000	10.23%	16.92%	0.60	-46%	1.00	1.00
S&P/LSTA U.S. Leveraged Loan	4.66%	10.25%	0.45	-30%	0.73	0.44

<sup>&</sup>lt;sup>1</sup>Annualized

<sup>&</sup>lt;sup>2</sup>Russell 3000 used to measure stock correlation and beta See disclosures at the end of this presentation.

## Cliffwater Direct Lending Index Disclosures



The Cliffwater Direct Lending Index (the "CDLI") seeks to measure the unlevered, gross of fees performance of U.S. middle market corporate loans, as represented by the underlying assets of Business Development Companies ("BDCs"), including both exchange-traded and unlisted BDCs, subject to certain eligibility requirements. The CDLI: Senior-Only (CDLI-S) is comprised of six BDC direct loan portfolios within the CDLI that Cliffwater has determined focus on investing in senior secured direct corporate loans. Data begins on September 30, 2010. The CDLI and CDLI-S are asset-weighted indexrd that are calculated on a quarterly basis using financial statements and other information contained in the U.S. Securities and Exchange Commission ("SEC") filings of all eligible BDCs. Cliffwater believes that the CDLI is representative of the direct lending asset class. The CDLI and the CDLI-S are owned exclusively by Cliffwater, and are protected by law including, but not limited to, United States copyright, trade secret, and trademark law, as well as other state, national, and international laws and regulations. Cliffwater provides this information on an "as is" and "as available" basis, without any warranty of any kind, whether express or implied. Past performance of the CDLI and CDLI-S are not indicative of future returns. It is not possible to invest directly in the CDLI or the CDLI-S. The CDLI and CDLI-S never not based on actual advisory client returns and do not reflect the actual trading of investible assets. The performance of the CDLI or CDLI-S have not been reviewed by an independent accounting firm, have been prepared for informational purposes only and should not be considered investment advice. Index returns do not reflect payment of any sales charges or fees a person may pay to purchase the securities underlying the CDLI, CDLI-S or a product that is intended to track the performance of the CDLI or the CDLI-S. The imposition of these fees and charges would cause the actual and back-tested performance of these secu

Any information presented prior to the Launch Date of the CDLI (September 30, 2015) or that of the CDLI-S (June 30, 2017) is back-tested. Back-tested performance is not actual performance, but is hypothetical. Unless otherwise indicated, the back-tested calculations are based on the same methodology that was in effect when the CDLI or the CDLI-S were officially launched. Please refer to the methodology papers for the CDLI and CDLI-S (available at www.CliffwaterDirectLendingIndex.com) for more details about the CDLI and the CDLI-S, including the Base Dates/Values (September 30, 2004 for the CDLI; and September 30, 2010 for the CDLI-S), the Launch Dates, the manner in which the CDLI and CDLI-S are reconstituted and the eligibility criteria for the CDLI. Prospective application of the methodology used to construct the CDLI and CDLI-S may not result in performance commensurate with any back-tested returns shown. The back-test period does not necessarily correspond to the entire available history of the CDLI and CDLI-S. Another limitation of back-tested hypothetical information is that generally the back-tested calculation is prepared with the benefit of hindsight. Back-tested data reflect the application of the CDLI and CDLI-S methodology and selection of CDLI and CDLI-S constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the financial markets in general which cannot be, and have not been accounted for, in the preparation of the CDLI and CDLI-S information set forth, all of which can affect actual performance. When Cliffwater was unable to determine the nature of a BDC's investments because of limited information included in historical SEC fillings, Cliffwater did not apply the portfolio composition criteria (a substantial majority (approximately 75%) of reported total assets are represented by direct loans made to corporate borrowers, as categorized by each BDC and subject to Cliffwater's dis

The CDLI and CDLI-S are derived from sources that are considered reliable, but Cliffwater does not guarantee the veracity, currency, completeness or accuracy of the CDLI, the CDLI-S or other information furnished in connection with them. The CDLI and CDLI-S may include inaccuracies or typographical errors. Due to various factors, including the inherent possibility of human or mechanical error, the accuracy, completeness, timeliness and correct sequencing of such information and the results obtained from its use are not guaranteed by Cliffwater. No representation, warranty or condition, express or implied, statutory or otherwise, as to condition, satisfactory quality, performance, or fitness for purpose are given or duty or liability assumed by Cliffwater in respect of the CDLI or CDLI-S or any data included therein, omissions therefrom or the use of the CDLI or CDLI-S in connection with any product, and all those representations, warranties and conditions are excluded save to the extent such exclusion is prohibited by applicable law.

### General Disclosures



Index Disclosures: References to market or indices, benchmarks or other measures of relative market performance over a specified period of time (each, an "index") are provided for information only. Reference to an index does not imply that a portfolio will achieve returns, volatility or other results similar to the index. The composition of an index may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility or tracking error targets, all of which are subject to change over time. Investors cannot invest directly in indices and, unlike an account managed by Cliffwater, an index is unmanaged and fully invested. Index returns reflect the reinvestment of dividends but do not reflect the deduction of any fees or expenses, which would reduce returns.

The S&P/LSTA U.S. Leveraged Loan Index is a market value weighted index tracking institutional leveraged loans in the United States based upon market weightings, spreads and interest payment, including Term Loan A, Term Loan B and Second Lien tranches.

The Bloomberg Barclays U.S. Corporate High Yield Index (Bloomberg Barclays High Yield) measures the USD-denominated, high yield, fixed-rate corporate bond market. Securities are classified as high yield if the middle rating of Moody's, Fitch and S&P is Ba1/BB+/BB+ or below. Bonds from issuers with an emerging markets country of risk, based on the indices' EM country definition are excluded.

The Bloomberg Barclays U.S. Aggregate Index represents securities that are SEC-registered, taxable, and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities.

The NCREIF Property Index is a quarterly time series composite total rate of return measure of investment performance of a very large pool of individual commercial real estate properties acquired in the private market for investment purposes only. All properties in the index have been acquired, at least in part, on behalf of tax-exempt institutional investors.

The Cambridge Private Equity Index is based on data compiled from global institutional-quality buyout, growth equity, private equity energy, venture capital and mezzanine funds, including fully liquidated partnerships, formed between 1986 and 2016.

The Russell 3000 Index is a capitalization-weighted stock market index that seeks to track the entire U.S stock market. It measures the performance of the 3,000 largest publicly held companies incorporated in the United States based on market capitalization.



## Private Asset Capital Budget Update

## Merced County Employees' Retirement Association



Strictly Confidential. Not for Distribution.

### MercedCERA Private Equity Capital Budget & Implementation Plan

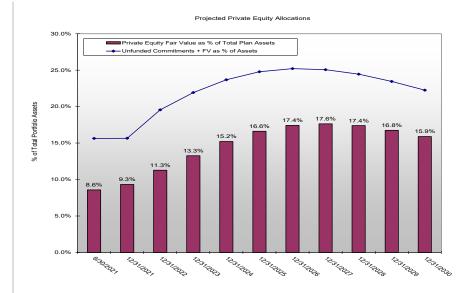


### 15% fund level target; an increase from 9% in 2018

- Increase annual capital budget target to \$55 mm from \$40 mm
   Range of \$40-\$70 million
- Target 5-10 investments, range of \$5-\$15 million per inv; average size of \$8 million per
- Forecasted to reach the targeted level in 3 years
- Targets for strategy exposures remain the same
- Update capital budgets on an annual basis

### Performance comparisons:

- Long term investment objective: Earn a return premium over public equity (Russell 3000 + 3%)
- Recommended primary asset class benchmark: Cambridge Associates Global Private Equity & VC Index
- Recommended fund benchmarks: Each fund will be compared to the Cambridge Associates strategy universe for the respective vintage years and each vintage year will be compared to Cambridge Associates Global Private Equity & VC Index



### **Target Strategy Diversification**



Note: MCERA's existing private equity portfolio was modeled using vintage year drawdown/return of capital assumptions patterned after historical category averages. Total fund growth of 5.5%.



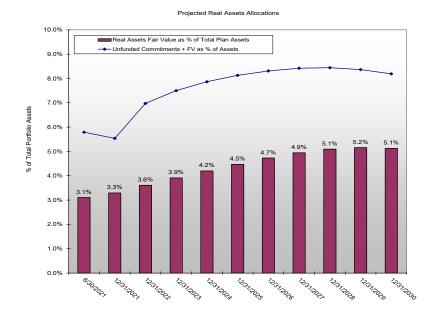
### MercedCERA Real Asset Capital Budget & Implementation Plan

### 5% fund level target; a decrease from the prior 6% target in 2018

- Increase annual capital budget target from \$15 to \$18 million
- Range of \$10-\$25 million
- Target 2-4 investments, range of \$5-\$10 million per inv
  - Average investment size of \$8 million
- If an average of 2-4 GP partnership commitments per year, expect a total of 8-16 GP relationships over a 4 year fund raising cycle
- Portfolio targeted to be equally split between infrastructure and energy/natural resource funds

### Performance comparisons:

- Long term investment objective: Earn a return premium over inflation (CPI-U + 5%)
- Recommended primary asset class benchmark: 50/50
   Cambridge Global Infrastructure/Cambridge Energy Upstream
   & Royalties and Private Energy Index
- Recommended fund benchmarks: Each fund will be compared to the Cambridge Associates strategy universe for the respective vintage years and each vintage year will be compared to the 50/50 index



Note: MCERA's existing real asset portfolio was modeled using vintage year drawdown/return of capital assumptions patterned after historical category averages. Total fund growth rate of 5.5%.





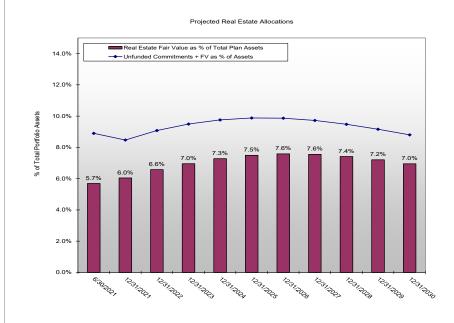
### MercedCERA Real Estate Capital Budget & Implementation Plan

### 8% fund level target; same as prior target

- Increase annual capital budget to \$20 m from \$15 mm
- Range of \$10-\$30 million
- Target 2-4 investments, range of \$5-\$10 million per inv
- Average investment size of \$8 million
- If an average of 2-4 GP partnership commitments per year, expect a total of 8-16 GP relationships over a 4 year fund raising cycle
- Continue using REITS as a substitute until funding private real estate investments is needed; core RE target is 25% of RE portfolio

### Performance comparisons:

- Long term investment objective: Earn a return premium over inflation (CPI-U + 5%)
- Recommended primary asset class benchmark: NCREIF NFI-ODCE; revisit over time as the structure of the portfolio changes
- Recommended fund benchmarks: Cambridge Associates strategy universe for the respective vintage years and each vintage year will be compared to Cambridge Associates Global Real Estate Index



Note: MCERA's existing real estate portfolio was modeled using vintage year drawdown/return of capital assumptions patterned after historical averages. Total fund growth rate of 5.5%.

### Cliffwater Disclosures



#### **Important Notice**

This presentation was prepared exclusively for information and discussion purposes, and is not meant to be, nor shall it be construed as, an attempt to define all information that may be material to you. All information including opinions or facts expressed herein are current as of the date appearing in this presentation and is subject to change without notice. All information has been obtained from sources believed to be reliable. No representation, warranty, or undertaking, express or implied, is given as to the accuracy or completeness of the information or opinions contained in this presentation. Past performance does not guarantee future performance.

This presentation may include sample or pro forma performance. Such information is presented for illustrative purposes only and is based on various assumptions, not all of which are described herein. Such assumptions, data, or projections may have a material impact on the returns shown.

References to market or composite indices (such as the S&P 500), benchmarks or other measures of relative market performance over a specified period of time (each, an "index") are provided for information only. Reference to an index does not imply that a portfolio will achieve returns, volatility or other results similar to the index. The composition of an index may not reflect the manner in which a portfolio is constructed in relation to expected or achieved returns, portfolio guidelines, restrictions, sectors, correlations, concentrations, volatility or tracking error targets, all of which are subject to change over time.

The S&P/LSTA U.S. Leveraged Loan Index is a market value weighted index tracking institutional leveraged loans in the United States based upon market weightings, spreads and interest payment, including Term Loan A, Term Loan B and Second Lien tranches.

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October 28, 2021

Asset Allocation: Phase II

### Introduction



**Asset Allocation: Phase II** 

#### Introduction

- As a matter of fiduciary oversight, asset allocation should be reviewed regularly, to take into account new capital market assumptions and either confirm that the Board approves the course the Fund is on, or determine if a change is warranted.
- Throughout the course of the year, Meketa in conjunction with Trustee members and Cliffwater (private markets consultant), have discussed a variety of topics as it relates to the Asset Allocation Review.
- In the last meeting (September 2021), Meketa in conjunction with Trustee members and Cliffwater reviewed the initial proposed Asset Allocation Policy Options. Today's meeting picks up from where we last left off, expanding on the Asset Allocation Policy Options discussed in Phase I.
- The alternative policy options center on:

Option A: Reduction of IGB in favor of short-term TIPS (+5%) and Hedge Funds (+2%)

Option B: Reduction of IGB in favor of a higher allocation to Direct Lending (+5%)

Option C: Reduction of IGB in favor of a higher allocation to Direct Lending (+5%) and Hedge Funds (+2%)

Option D: Reduction of Investment Grade Bonds (IGB) in favor of Equity (+2%) and Direct Lending (+5%)

- The goal for today's October meeting is for Trustee members to determine which AA Policy Option to move forward with.
- Once an asset allocation is approved, the next step would be to recommend an implementation plan at the next Board meeting.



Asset Allocation: Phase II

### Mean Variance Optimization

Mathematically determines an "efficient frontier" of policy portfolios with the highest risk-adjusted returns.

- All asset classes exhibit only three characteristics, which serve as inputs to the model:
  - Expected return.
  - Expected volatility.
  - Expected covariance with all other assets.
- The model assumes:
  - Normal return distribution.
  - Stable volatility and covariances over time.
  - Returns are not serially correlated.
- The MVO Model tends to underestimate the risks of large negative events. However, it is the appropriate first step in considering the myriad risks facing the Fund.

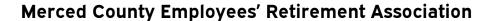
### Types of Risk Analysis Addressed

- MVO-based risk analytics
  - Includes worst-case return expectations and Value at Risk (VAR).<sup>1</sup>
  - Relies on assumptions underlying MVO.
- Scenario analysis
  - Stress tests policy portfolios using actual historical examples.
  - Stress tests policy portfolios under specific hypothetical scenarios.

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<sup>&</sup>lt;sup>1</sup> VaR is a risk measure that estimates the maximum loss on a portfolio over a given time horizon and a given confidence level (usually 95% or 99%).

### **Proposed Policy Options**





### Asset Allocation Policy Options<sup>1</sup>

	MCERA Policy (%)	Option A: TIPS/ HF (%)	Option B: DL (%)	Option C: DL/ HF (%)	Option D: Equity/ DL (%)
Public Equity	39	39	39	39	41
US Equity	21	21	21	21	22
Developed Market Equity (non-US)	10	10	10	10	11
Emerging Market Equity	8	8	8	8	8
US Fixed Income	18	16	13	11	11
Investment Grade Bonds	17	10	12	10	10
Short-term Investment Grade Bonds	1	1	1	1	1
Short-term TIPS	0	5	0	0	0
Opportunistic Credit	5	5	5	5	5
High Yield Bonds	2.5	2.5	2.5	2.5	2.5
Bank Loans	2.5	2.5	2.5	2.5	2.5
Real Estate	8	8	8	8	8
Private Equity	15	15	15	15	15
Hedge Funds	10	12	15	17	15
Hedge Funds (General)	10	12	10	12	10
Direct Lending	0	0	5	5	5
Real Assets	5	5	5	5	5
Natural Resources (Private)	2	2	2	2	2
Commodities (naive)	1	1	1	1	1
Infrastructure (Core Private)	2	2	2	2	2
Expected Return (20 years)	6.7	6.7	6.9	7.0	7.0
Standard Deviation	12.8	13.0	13.3	13.4	13.6
Sharpe Ratio	0.44	0.43	0.44	0.44	0.44

• Options B, C & D portfolios have the highest expected returns, though this return comes with higher standard deviations for each vs. the MCERA Policy.

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<sup>1</sup> Expected return and standard deviation are based upon Meketa Investment Group's 2021 Annual Asset Study. Throughout this document, returns for periods longer than one year are annualized.



### **MVO-Based Risk Analysis**

Scenario	MCERA Policy (%)	Option A: TIPS/ HF (%)	Option B: DL (%)	Option C: DL/ HF (%)	Option D: Equity/ DL (%)
Worst Case Returns (1)					
One Year	-19.1	-19.4	-19.7	-19.8	-20.2
Three Years (annualized)	-9.1	-9.3	-9.4	-9.5	-9.6
Five Years (annualized)	-5.8	-5.9	-5.9	-6.0	-6.1
Ten Years (annualized)	-2.3	-2.4	-2.3	-2.4	-2.5
Twenty Years (annualized)	0.3	0.2	0.3	0.3	0.2
Probability of Experiencing Negative Returns					
One Year	29.4	29.6	29.4	29.4	29.6
Three Years	17.4	17.7	17.4	17.4	17.6
Five Years	11.3	11.5	11.3	11.3	11.5
Ten Years	4.3	4.5	4.3	4.3	4.5
Twenty Years	0.8	0.8	0.8	8.0	0.8
Probability of Achieving at least a 6.5% Return					
One Year	50.5	50.5	51.2	51.3	51.5
Three Years	50.8	50.9	52.1	52.3	52.5
Five Years	51.1	51.2	52.7	52.9	53.2
Ten Years	51.5	51.7	53.8	54.1	54.6
Twenty Years	52.2	52.4	55.3	55.8	56.5

- Option A, TIPS/HF, is structured to be the most defensive portfolio due to its greater allocation to fixed income. However, it is also the least likely to reach the target return over the long term.
- Option D carries more risk relative to the alternatives, while also reflecting a slightly higher probability of meeting a 6.5% rate of return.



**Asset Allocation: Phase II** 

# Historical Negative Scenario Analysis¹ (Cumulative Return)

Scenario	MCERA Policy (%)	Option A: TIPS/ HF (%)	Option B: DL (%)	Option C: DL/ HF (%)	Option D: Equity/ DL (%)
COVID-19 Market Shock (Feb 2020-Mar 2020)	-17.0	-17.2	-17.2	-17.3	-17.8
Taper Tantrum (May - Aug 2013)	0.0	0.1	0.3	0.3	0.3
Global Financial Crisis (Oct 2007 - Mar 2009)	-27.6	-28.2	-28.2	-28.7	-29.3
Popping of the TMT Bubble (Apr 2000 - Sep 2002)	-10.6	-11.0	-12.1	-12.7	-13.6
LTCM (Jul - Aug 1998)	-8.2	-8.5	-8.5	-8.7	-8.8
Rate spike (1994 Calendar Year)	3.4	3.5	3.9	4.1	4.1
Crash of 1987 (Sep - Nov 1987)	-10.6	-10.8	-10.8	-11.0	-11.3
Strong dollar (Jan 1981 - Sep 1982)	3.2	1.4	1.9	1.2	1.1
Volcker Recession (Jan - Mar 1980)	-4.1	-3.8	-3.8	-3.6	-3.7
Stagflation (Jan 1973 - Sep 1974)	-18.7	-19.5	-19.5	-19.9	-20.4

• The current MCERA Policy & Option A: TIPS/HF, would have performed the best in environments of declining equity markets, due to its more conservative positioning.

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<sup>&</sup>lt;sup>1</sup> See the Appendix for our scenario inputs. In periods where the ideal benchmark was not yet available we used the next closest benchmark(s) as a proxy.



**Asset Allocation: Phase II** 

# Historical Positive Scenario Analysis¹ (Cumulative Return)

Scenario	MCERA Policy (%)	Option A: TIPS/ HF (%)	Option B: DL (%)	Option C:DL/ HF (%)	Option D: Equity/ DL (%)
Global Financial Crisis Recovery (Mar 2009 - Nov 2009)	34.4	34.6	34.4	34.6	35.3
Best of Great Moderation (Apr 2003 - Feb 2004)	29.6	29.9	30.5	30.9	31.4
Peak of the TMT Bubble (Oct 1998 - Mar 2000)	44.6	45.9	45.8	46.9	46.8
Plummeting Dollar (Jan 1986 - Aug 1987)	50.7	50.6	50.3	50.6	52.0
Volcker Recovery (Aug 1982 - Apr 1983)	30.3	29.0	29.4	29.2	29.8
Bretton Wood Recovery (Oct 1974 - Jun 1975)	26.8	26.6	26.8	26.9	27.5

 Option D: Equity/DL would have been the best option for capturing most of the upside in strongly positive markets.

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<sup>&</sup>lt;sup>1</sup> See the Appendix for our scenario inputs. In periods where the ideal benchmark was not yet available we used the next closest benchmark(s) as a proxy.



**Asset Allocation: Phase II** 

## Stress Testing: Impact of Negative Market Movements (Expected Return under Stressed Conditions)<sup>1</sup>

Scenario	MCERA Policy (%)	Option A: TIPS/ HF	Option B: DL (%)	Option C: DL/ HF (%)	Option D: Equity/ DL (%)
10-year Treasury Bond rates rise 100 bps	3.7	3.9	3.8	3.9	4.0
10-year Treasury Bond rates rise 200 bps	-0.6	-0.1	-0.4	-0.2	-0.1
10-year Treasury Bond rates rise 300 bps	-4.1	-3.4	-3.7	-3.5	-3.4
Baa Spreads widen by 50 bps, High Yield by 200 bps	0.3	0.1	0.0	-0.1	-0.1
Baa Spreads widen by 300 bps, High Yield by 1000 bps	-21.4	-21.9	-22.0	-22.3	-22.7
Trade Weighted Dollar gains 10%	-3.6	-3.9	-4.0	-4.1	-4.2
Trade Weighted Dollar gains 20%	-1.9	-2.4	-2.1	-2.3	-2.3
U.S. Equities decline 10%	-5.8	-5.9	-6.2	-6.3	-6.4
U.S. Equities decline 25%	-16.9	-17.3	-17.4	-17.7	-17.9
U.S. Equities decline 40%	-25.7	-26.2	-26.1	-26.4	-26.9

- Each option presented has a different sensitivity to four major risk factors: interest rates, credit spreads, currency fluctuations, and equity values.
- The Fund's primary risk factors would continue to be an equity market decline and a widening of credit spreads, no matter the policy.
- MCERA's current policy would be most affected by an increase in rates given its greater exposure to rate sensitive assets.

 $<sup>^{1}</sup>$  Assumes that assets not directly exposed to the factor are affected nonetheless. See the Appendix for further details.



**Asset Allocation: Phase II** 

# Stress Testing: Impact of Positive Market Movements (Expected Return under Stressed Conditions)<sup>1</sup>

Scenario	MCERA Policy (%)	Option A: TIPS/ HF (%)	Option B: DL (%)	Option C: DL/ HF (%)	Option D: Equity/ DL (%)
10-year Treasury Bond rates drop 100 bps	2.8	2.6	2.4	2.3	2.2
10-year Treasury Bond rates drop 200 bps	10.7	10.1	9.9	9.7	9.9
Baa Spreads narrow by 30bps, High Yield by 100 bps	7.3	7.4	7.6	7.7	7.8
Baa Spreads narrow by 100bps, High Yield by 300 bps	13.6	13.9	13.8	14.0	14.1
Trade Weighted Dollar drops 10%	7.4	7.4	7.4	7.4	7.5
Trade Weighted Dollar drops 20%	20.1	19.8	19.9	19.9	20.4
U.S. Equities rise 10%	6.7	6.7	6.7	6.8	6.8
U.S. Equities rise 30%	15.3	15.1	15.3	15.4	15.7

- MCERA's existing portfolio would benefit most from a drop in interest rates given its relatively higher allocation to fixed income assets when compared to the alternative options presented.
- All options presented would participate in a strong equity market.

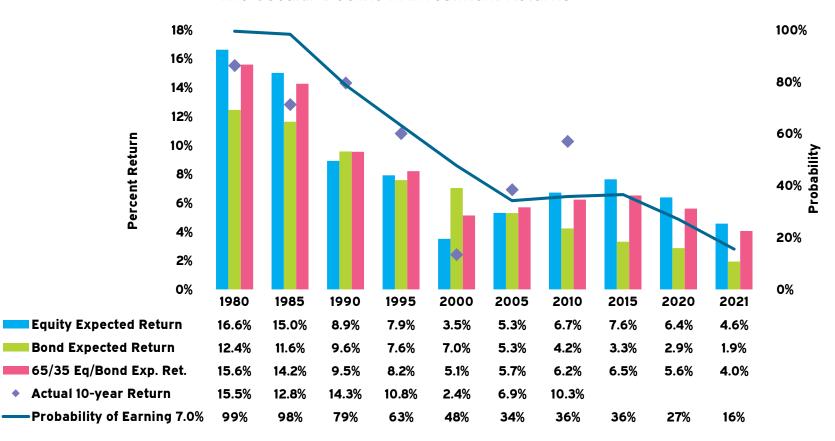
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<sup>&</sup>lt;sup>1</sup> Assumes that assets not directly exposed to the factor are affected nonetheless. See the Appendix for further details.

### **Appendix**



#### The Secular Decline in Investment Returns<sup>1</sup>



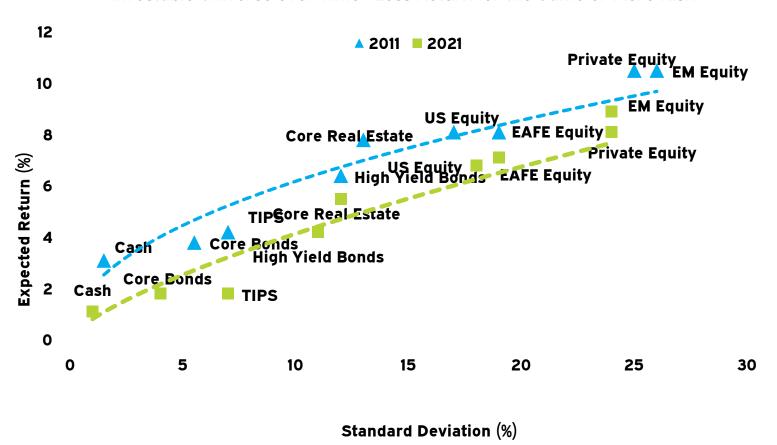
• The chart above illustrates that a portfolio comprising of 65% domestic stocks and 35% investment grade bonds has produced diminishing expected returns as well as actual returns over the past 30 years.

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<sup>1</sup> Expected return assumptions for 1) Bonds equals the yield of the ten-year Treasury plus 100 basis points, and 2) Equities equals the dividend yield plus the earnings yield of the S&P 500 index (using the inflation-adjusted trailing 10-year earnings). Probability calculation is for the subsequent ten years.



#### Investable Universe over Time: Less Return for the Same or More Risk<sup>1</sup>



- A positive relationship exists between long-term return expectations and the level of risk accepted.
- However, this relationship is not static.

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<sup>&</sup>lt;sup>1</sup> Expected return and standard deviation are based upon Meketa Investment Group's Annual Asset Study.



**Asset Allocation: Phase II** 

# Meketa Investment Group 2021 Annual Asset Study Twenty-Year Annualized Return and Volatility Expectations for Major Asset Classes

Asset Class	Annualized Compounded Return (%)	Annualized Average Return (%)	Annualized Standard Deviatior (%)
Rate Sensitive	(10)	(70)	(70)
Cash Equivalents	1.1	1.1	1.0
Investment Grade Bonds	1.8	1.9	4.0
Long-term Government Bonds	2.5	3.2	12.0
TIPS	1.8	2.0	7.0
Credit			
High Yield Bonds	4.2	4.8	11.0
Bank Loans	4.0	4.4	9.0
Emerging Market Bonds (major; unhedged)	3.7	4.3	11.0
Emerging Market Bonds (local; unhedged)	3.9	4.9	14.0
Direct Lending	6.7	7.7	14.0
Mezzanine Debt	6.9	8.2	16.0
Distressed Debt	7.0	9.2	21.0
Equities			
Public US Equity	6.8	8.4	18.0
Public Developed Market Equity	7.1	8.9	19.0
Public Emerging Market Equity	8.1	11.0	24.0
Private Equity Composite	9.1	13.0	28.0
Real Assets			
REITs	7.2	10.6	26.0
Core Private Real Estate	5.5	6.2	12.0
Value Added Real Estate	7.2	9.7	20.0
Opportunistic Real Estate	9.2	12.6	26.0
High Yield Real Estate Debt	6.0	7.6	18.0
Natural Resources (Private)	8.3	11.0	23.0
Commodities	3.7	5.1	17.0
Infrastructure (Core)	7.0	8.0	14.0
Infrastructure (Non-Core)	9.0	11.4	22.0
Other			
Hedge Funds	4.3	4.5	7.0
	5		

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Asset Allocation: Phase II

### Meketa Investment Group 2021 Annual Asset Study: Correlation Expectations

	Investment Grade Bonds	TIPS	High Yield Bonds	US Equity	Developed Market Equity	Emerging Market Equity	Private Equity	Real Estate	Natural Resources (private)	Commodities	Core Infrastructure (private)	Hedge Funds
Investment Grade Bonds	1.00											
TIPS	0.77	1.00										
High Yield Bonds	0.23	0.41	1.00									
US Equity	0.02	0.19	0.75	1.00								
Developed Market Equity	0.10	0.24	0.76	0.89	1.00							
Emerging Market Equity	0.15	0.33	0.75	0.78	0.87	1.00						
Private Equity	0.00	0.05	0.70	0.85	0.80	0.75	1.00					
Real Estate	0.20	0.10	0.50	0.50	0.45	0.40	0.45	1.00				
Natural Resources (private)	0.10	0.10	0.45	0.65	0.60	0.60	0.60	0.45	1.00			
Commodities	0.02	0.31	0.54	0.53	0.60	0.65	0.30	0.15	0.65	1.00		
Core Infrastructure (private)	0.30	0.30	0.60	0.55	0.55	0.50	0.45	0.60	0.60	0.35	1.00	
Hedge Funds	0.05	0.26	0.78	0.86	0.88	0.86	0.60	0.45	0.65	0.67	0.60	1.00

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