

Due to the termination of the statewide COVID-19 State of Emergency by the Governor of California, effective March 1, 2023, all meetings of the Oakland Police & Fire Retirement System Board and its Committees will be conducted in person.

Meetings are held in wheelchair accessible facilities.

The Board may take action on items not on the agenda only if findings pursuant to the Sunshine Ordinance and Brown Act are made that the matter is urgent or an emergency.

For additional information, contact the Retirement Unit by calling (510) 238-7295. or send an email to [mvisaya@oaklandca.gov](mailto:mvisaya@oaklandca.gov)



# AGENDA

## AUDIT COMMITTEE MEMBERS

**John C. Speakman**  
Chairperson

**R. Steven Wilkinson**  
Member

**Martin J. Melia**  
Member

*\*In the event a quorum of the Board participates in the Committee meeting, the meeting is noticed as a Special Meeting of the Board; however, no final Board action can be taken. In the event that the Audit Committee does not reach quorum, this meeting is noticed as an informational meeting between staff and the Chair of the Audit Committee.*

## MEETING of the AUDIT & OPERATIONS COMMITTEE of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (“PFRS”)

WEDNESDAY, MAY 31, 2023

10:00 AM

ONE FRANK H. OGAWA PLAZA, HEARING ROOM 1  
OAKLAND, CA 94612

### OBSERVE

- To observe the meeting by video conference, please click on this link: <https://us02web.zoom.us/j/82880493983> at the noticed meeting time.
- To listen to the meeting by phone, please call the numbers below at the noticed meeting time: Dial (for higher quality, dial a number based on your current location):
- iPhone one-tap: US: +16699006833, 82880493983# or +13462487799, 82880493983#
- US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099
- International numbers available: <https://us02web.zoom.us/j/82880493983>
- Webinar ID: 828 8049 3983.  
If asked for a participant ID or code, press #.

### PUBLIC COMMENTS

There are two ways to submit public comments:

- Speaker Card: All persons wishing to address the Board must complete a speaker’s card, stating their name and the agenda item they wish to address, including “Open Forum”.
- eComment: To send your comment directly to staff BEFORE the meeting starts, please email to [mvisaya@oaklandca.gov](mailto:mvisaya@oaklandca.gov) with “PFRS Board Meeting Public Comment” in the subject line for the corresponding meeting. Please note that eComment submission **closes two (2) hours before posted meeting time**.

If you have any questions, please email Maxine Visaya, Administrative Assistant II at [mvisaya@oaklandca.gov](mailto:mvisaya@oaklandca.gov)

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## ORDER OF BUSINESS

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1. **Subject:** OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (“PFRS)  
AUDIT & OPERATIONS COMMITTEE MEETING MINUTES  
**From:** Staff of the PFRS Board  

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**Recommendation:** **APPROVE** the March 29, 2023 Audit & Operations Committee Meeting Minutes
  
2. **Subject:** ADMINISTRATIVE EXPENSES REPORT  
**From:** Staff of the PFRS Board  

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**Recommendation:** **ACCEPT** informational report regarding PFRS administrative expenses as of March 31, 2023
  
3. **Subject:** ELECTION OF 5-YR RETIRED POLICE REPRESENTATIVE TO THE  
PFRS BOARD  
**From:** Staff of the PFRS Board  

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**Recommendation:** **ACCEPT** informational report regarding the election of the 5-Year Retired Police Representative for the PFRS Board seat currently held by member Robert W. Nichelini
  
4. **Subject:** RESOLUTION NO. 8078  
**From:** Staff of the PFRS Board  

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**Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 8078 ratifying the Board President’s approval of Oakland Police and Fire Retirement System Trustee R. Steven Wilkinson’s request to attend the Milken Institute Global Conference from April 30, 2023 Through May 3, 2023 in Beverly Hills, CA, and authorizing reimbursement of travel-related expenses in an amount not to exceed Three Thousand Dollars (\$3,000.00)
  
5. REVIEW OF PENDING AUDIT COMMITTEE MEETING AGENDA ITEMS
6. OPEN FORUM
7. FUTURE SCHEDULING
8. ADJOURNMENT

**A MEETING OF THE AUDIT & OPERATIONS COMMITTEE** of the Oakland Police and Fire Retirement System (“PFRS”) was held Wednesday, March 29, 2023 at One Frank Ogawa Plaza, Hearing Room 1, Oakland, California.

Committee Members	▪ John C. Speakman	Chairperson
	▪ Martin J. Melia	Member (EXCUSED)
	▪ R. Steven Wilkinson	Member
Additional Attendees	▪ David Jones	PFRS Secretary & Plan Administrator
	▪ Téir Jenkins	PFRS Investment & Operations Manager
	▪ Maxine Visaya	PFRS Staff Member
	▪ Selia Warren	PFRS Legal Counsel

The meeting was called to order at 10:08 a.m. Pacific

- 1. PFRS AUDIT & OPERATIONS COMMITTEE MEETING MINUTES** – Chairperson Speakman made a motion to approve the February 22, 2023 Audit & Operations Committee Meeting minutes, second by Member Wilkinson. Motion passed.

[SPEAKMAN – Y / MELIA – EXCUSED / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

- 2. ADMINISTRATIVE EXPENSES REPORT** – PFRS Investment & Operations Manager Jenkins presented an informational report on PFRS’ administrative expenditures as of January 31, 2023. PFRS has an approved annual budget of approximately \$3.6 million and have expensed approximately \$1.1 million to date for fiscal year 2022/2023. Membership consisted of 671 retired members, which included 415 Police Members and 256 Fire Members.

**MOTION:** Chairperson Speakman made a motion to accept the administrative expenses report as of January 31, 2023 and forward to the Board, second by Member Wilkinson. Motion passed.

[SPEAKMAN – Y / MELIA – EXCUSED / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

- 3. PFRS 2-YEAR ADMINISTRATIVE BUDGET FOR FISCAL YEARS 2023/2024 AND 2024/2025** – PFRS Investment & Operations Manager Téir Jenkins presented the proposed PFRS 2-Year Administrative Budget for Fiscal Years 2023/2024 and 2024/2025. T. Jenkins noted the current budget is approximately \$3.6 million and Staff does not recommend any significant increases. Projected increases include staff salaries due to the recent MOU between the City and Local 21 which granted a 5% Cost of Living Adjustment (COLA); Audit and Actuary contractual increases; and City Attorney salary increases based on the updated COLA, thereby resulting in an overall proposed increase of 4%. It was further noted the City provides an updated benefits calculation formula to determine the estimated cost of staff retirement and medical benefits expenses; however this information has not been released to date and staff will return to the Board with updated information when available. Staff is confident in the numbers and recommends the Board approve the new 2-Year Budget.

**MOTION:** Chairperson Speakman made a motion to accept the proposed PFRS 2-Year Administrative Budget for Fiscal Years 2023/2024 and 2024/2025 forward to the Board for approval, second by Member Wilkinson. Motion passed.

[SPEAKMAN – Y / MELIA – EXCUSED / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

- 4. PFRS ANNUAL REPORT FOR YEAR ENDED JUNE 30, 2022** – PFRS Investment & Operations Manager Jenkins presented the proposed PFRS Annual Report for year ended June 30, 2022. T. Jenkins and Plan Administrator Jones acknowledged all the hard work that goes into producing the annual report and thanked both internal and external contributors, as well as the retirees for all they bring to the report. Plan Administrator Jones also welcomed member feedback to provide for enhancements and suggestions for additional content they would like to see incorporated into future reports.

**MOTION:** Member Wilkinson made a motion to recommend Board approval of printing and publication of the PFRS Annual Report for year ended June 30, 2022, second by Chairperson Speakman. Motion passed.

[SPEAKMAN – Y / MELIA – EXCUSED / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

- 5. REVIEW OF PENDING AUDIT COMMITTEE MEETING AGENDA ITEMS** – PFRS Secretary & Plan Administrator Jones reported on the two (2) items on the Audit and Operations Committee Agenda pending list. Item 1) Status Report of the Ad Hoc Committee regarding the Actuarial Funding Date of July 1, 2026: Staff is working to schedule as availability permits. Item 2) Monitor & Update PFRS Board of Upcoming City Council Agendas Regarding Discussion of the 2026 Actuarial Funding Date: There are no updates at this time, and we will continue to provide updates as available.

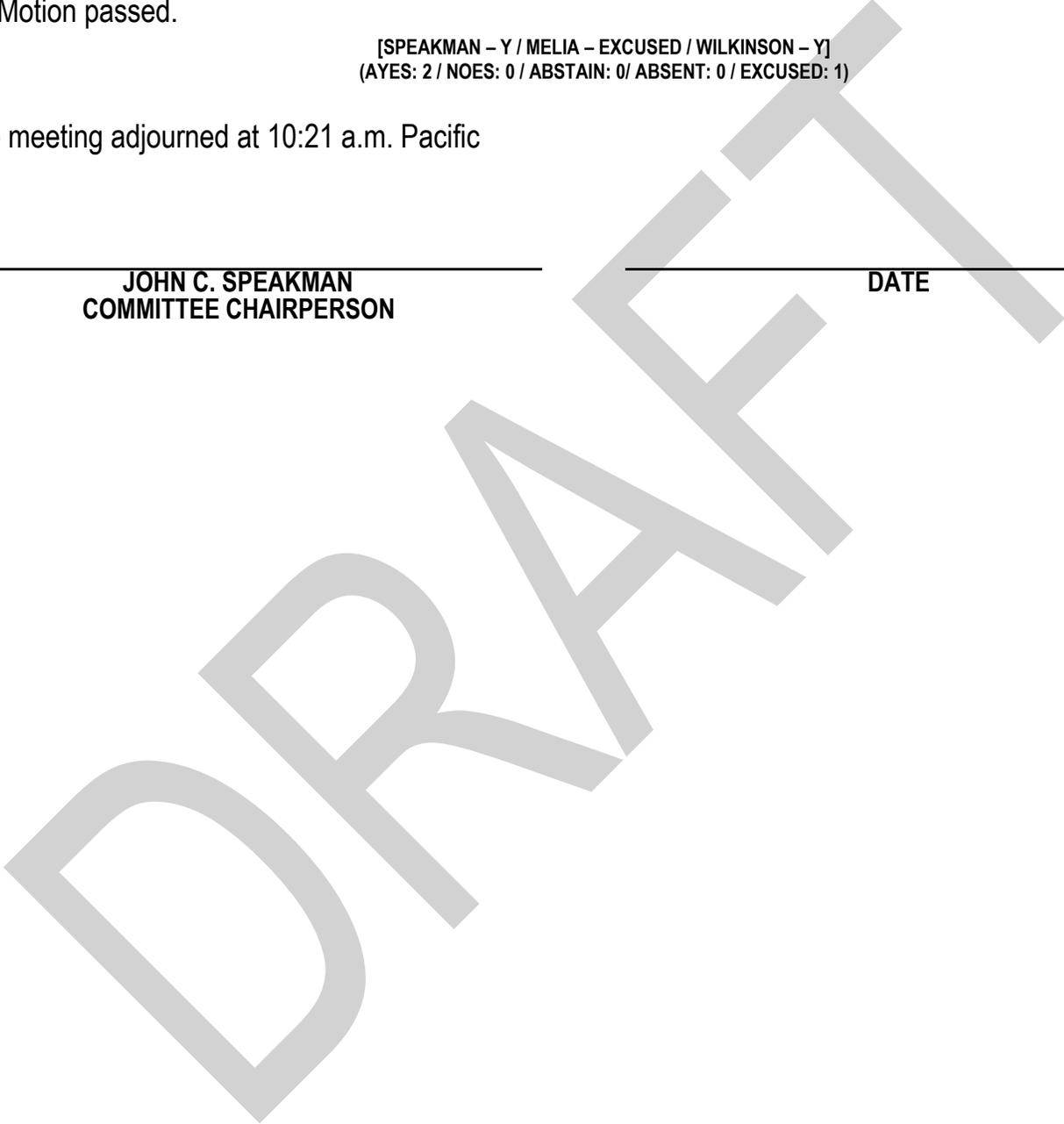
- 6. **OPEN FORUM** – No Report.
- 7. **FUTURE SCHEDULING** – The next Audit & Operations Committee Meeting will be held in-person and is tentatively scheduled to occur April 26, 2023.
- 8. **ADJOURNMENT** – Member Wilkinson made a motion to adjourn, second by Chairperson Speakman. Motion passed.

[SPEAKMAN – Y / MELIA – EXCUSED / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

The meeting adjourned at 10:21 a.m. Pacific

\_\_\_\_\_  
JOHN C. SPEAKMAN  
COMMITTEE CHAIRPERSON

\_\_\_\_\_  
DATE



**Table 1**

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**

**Administrative Budget Spent to Date (Preliminary)**

As of March 31, 2023

	Approved Budget				
		March 2023	FYTD	Remaining	Percent Remaining
<b>Internal Administrative Costs</b>					
PFRS Staff Salaries	\$ 1,330,000	\$ 111,216	\$ 874,808	\$ 455,192	34.2%
Board Travel Expenditures	52,500	-	-	52,500	100.0%
Staff Training	20,000	-	-	20,000	100.0%
Staff Training - Tuition Reimbursement	7,500	-	-	7,500	100.0%
Board Hospitality	3,600	240	240	3,360	93.3%
Payroll Processing Fees	40,000	-	-	40,000	100.0%
Miscellaneous Expenditures	45,000	2,015	28,762	16,238	36.1%
Internal Service Fees (ISF)	88,000	-	47,884	40,116	45.6%
Contract Services Contingency	50,000	-	1,500	48,500	97.0%
<b>Internal Administrative Costs Subtotal :</b>	<b>\$ 1,636,600</b>	<b>\$ 113,471</b>	<b>\$ 953,195</b>	<b>\$ 683,405</b>	<b>41.8%</b>
<b>Actuary and Accounting Services</b>					
Audit	\$ 50,500	\$ -	\$ 33,883	\$ 16,617	32.9%
Actuary	47,900	1,241	24,409	23,491	49.0%
<b>Actuary and Accounting Subtotal:</b>	<b>\$ 98,400</b>	<b>\$ 1,241</b>	<b>\$ 58,292</b>	<b>\$ 40,108</b>	<b>40.8%</b>
<b>Legal Services</b>					
City Attorney Salaries	\$ 194,000	\$ -	\$ 28	\$ 193,972	100.0%
Legal Contingency	150,000	-	-	150,000	100.0%
<b>Legal Services Subtotal:</b>	<b>\$ 344,000</b>	<b>\$ -</b>	<b>\$ 28</b>	<b>\$ 343,972</b>	<b>100.0%</b>
<b>Investment Services</b>					
Money Manager Fees	\$ 1,353,000	\$ 52,167	\$ 560,811	\$ 792,189	58.6%
Custodial Fee	124,000	60,250	60,250	63,750	51.4%
Investment Consultant	100,000	25,000	75,000	25,000	25.0%
<b>Investment Subtotal:</b>	<b>\$ 1,577,000</b>	<b>\$ 137,417</b>	<b>\$ 696,061</b>	<b>\$ 880,939</b>	<b>55.9%</b>
<b>Total Operating Budget</b>	<b>\$ 3,656,000</b>	<b>\$ 252,129</b>	<b>\$ 1,707,575</b>	<b>\$ 1,948,425</b>	<b>53.29%</b>

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary

As of March 31, 2023

	March 2023
<b>Beginning Cash as of 3/1/2023</b>	\$ 8,516,695
<b>Additions:</b>	
City Pension Contribution - March	\$ 2,726,000
Investment Draw	\$ 2,000,000
Misc. Receipts	-
<b>Total Additions:</b>	\$ 4,726,000
<b>Deductions:</b>	
Pension Payment (February Pension Paid on 3/1/2023)	(4,218,535)
Expenditures Paid	(307,649)
<b>Total Deductions</b>	\$ (4,526,184)
 <b>Ending Cash Balance as of 3/31/2023*</b>	 \$ 8,716,511

\* On 4/3/2023, March pension payment of appx \$4,199,000 will be made leaving a cash balance of \$4,518,000.

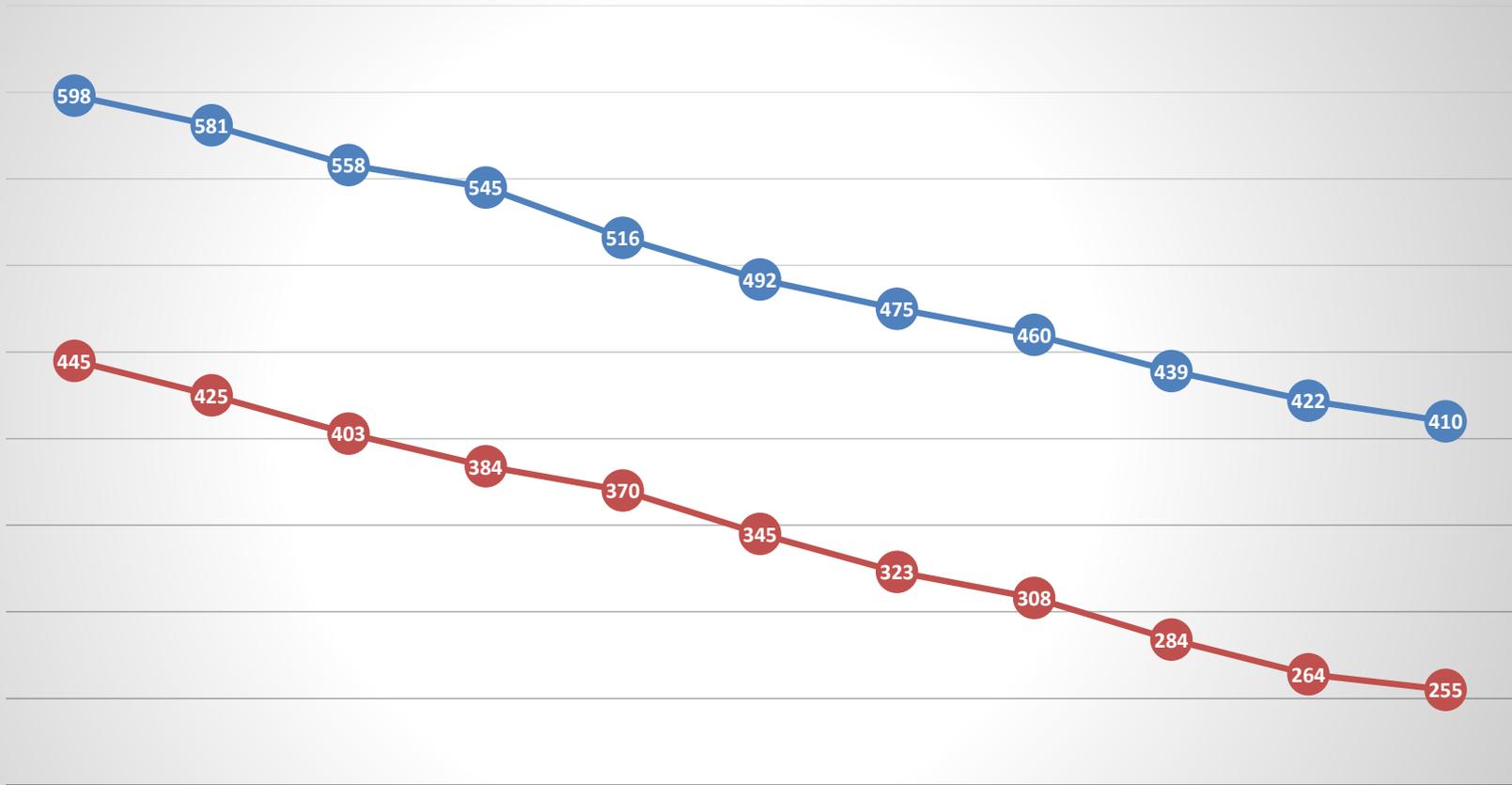
**Table 3**  
**CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**

Census  
As of March 31, 2023

COMPOSITION	POLICE	FIRE	TOTAL
<b>Retired Member:</b>			
Retiree	286	165	451
Beneficiary	124	90	214
<b><i>Total Retired Members</i></b>	<b>410</b>	<b>255</b>	<b>665</b>
<b><i>Total Membership:</i></b>	<b>410</b>	<b>255</b>	<b>665</b>

COMPOSITION	POLICE	FIRE	TOTAL
<b>Retired Member:</b>			
Service Retirement	275	127	402
Disability Retirement	125	117	242
Death Allowance	10	11	21
<b><i>Total Retired Members:</i></b>	<b>410</b>	<b>255</b>	<b>665</b>
<b><i>Total Membership as of March 31, 2023:</i></b>	<b>410</b>	<b>255</b>	<b>665</b>
<b><i>Total Membership as of June 30, 2022:</i></b>	<b>422</b>	<b>264</b>	<b>686</b>
<b><i>Annual Difference:</i></b>	<b>-12</b>	<b>-9</b>	<b>-21</b>

## Oakland Police and Fire Retirement System Pension Plan Membership Count As of March 31, 2023 (FY 2013 - FY 2023)



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 FYTD
Police	598	581	558	545	516	492	475	460	439	422	410
Fire	445	425	403	384	370	345	323	308	284	264	255
Total	1043	1006	961	929	886	837	798	768	723	686	665



# AGENDA REPORT

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**TO:** Oakland Police and Fire  
Retirement System Board  
(PFRS)

**FROM:** David F. Jones  
Secretary and Plan  
Administrator

**SUBJECT:** Election of 5-Year Police  
Department Representative  
Board Position

**DATE:** May 31, 2023

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## **SUMMARY**

The 5-year police representative board seat currently held by Robert W. Nichelini is set to expire on August 31, 2023. Pursuant to the PFRS election guidelines outlined in **Article 11** of the PFRS Rules and Regulations, an election for this board seat will be conducted by the Staff of the PFRS board with the assistance of the City Clerk's office.

## **BACKGROUND**

Robert W. Nichelini, a retired PFRS Police Member, was elected to the 5-year elected term as the PFRS 5-year member. Member Nichelini's board seat is set to expire on August 31, 2023, and a 5-year police member will need to be elected to this seat from the retired police membership.

Following the PFRS rules & regulations section 11.2, the PFRS staff will inform the Retired Oakland Police Officers Association (ROPOA) of the upcoming board vacancy and deliver to them the election schedules and nomination forms.

Should no more than one ( 1 ) nomination form be received by the nomination form submission deadline of 5 pm, July 19, 2023, then the single nominee will be automatically elected to the nominated position; an election would otherwise follow on August 23, 2023. The elected board member will begin the new term at the September 2023 Board Meeting.

**Attachment (1):** *Rules & Regulations - Excerpt of Election*  
**Attachment (2):** *Nomination Form - 5-Year Position (Police)*

Agenda Item     C2      
PFRS Board Meeting  
May 31, 2023

The following timeline shows the due dates for nominees and PFRS staff during this election cycle:

- Last day for furnishing the ROPOA a notice stating that nominating papers may be obtained from the Retirement Systems office..... June 1, 2023
- Last day for filing nominees to submit nominating papers to the City Clerk's Office..... July 19, 2023
- Last day for City Clerk to certify to Office of the PFRS Board the names of members nominated..... July 19, 2023
- Last day for mailing of ballots to members..... August 14, 2023
- Last day for delivering to City Clerk the Roster of Police Department..... August 14, 2023
- Ballots due to City Clerk no later than 10 am..... August 23, 2023
- Day for counting of ballots by City Clerk..... August 23, 2023

Respectfully submitted,



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David F. Jones  
Secretary and Plan Administrator  
Oakland Police and Fire Retirement System

**Attachment (1):** Rules & Regulations - Excerpt of Election  
**Attachment (2):** Nomination Form - 5-Year Position (Police)

# **ATTACHMENT 1**

*Rules & Regulations  
Excerpt of Election  
Article 11*

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

## RULES AND REGULATIONS

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### **Article 11: ELECTION OF MEMBERS OF THE BOARD REPRESENTING RETIRED MEMBERS OF THE RETIREMENT SYSTEM**

#### Section 11.1: Day for Counting of Ballots

The fourth Wednesday in August of the year in which such election is required to be held is hereby the day for counting of ballots.

In the event of a vacancy of one or more of the elected PFRS Retirement Board seats before the completion of the full term, the day for counting ballots for the election to fill the vacant PFRS Retirement Board seat shall be the fourth Wednesday of the month that follows 90 days after the date of being informed of the vacancy.

#### Section 11.2: Notice of Nomination

On or before the first business day in June of each year in which an election is required, the office of the Police and Fire Retirement Board shall send a notice stating that nomination papers may be obtained at the office of said Police and Fire Retirement Board, the place where nomination papers shall be filed and the final date of filing thereof, the date when ballots will be counted and such other information as may be appropriate to the following organizations:

- Retired Oakland Police Officers' Association (ROPOA)
- International Association of Fire Fighters, Local 55 (IAFF Local 55)

In the event of a vacancy of one of the elected PFRS Retirement Board seats before the completion of the full term, the office of the Police and Fire Retirement Board shall send notice as stated above no later than ten (10) calendar days after the date of being informed of the vacancy.

#### Section 11.3: Nomination for Membership

Nomination for membership on the Police and Fire Retirement Board from the retired membership of the Police and Fire Department shall be in writing on forms supplied by the office of said Police and Fire Retirement Board upon request. Nomination papers shall be substantially in the form shown in Appendix A. Nomination papers shall be signed by at least ten retired members of the Police or Fire Department, as the case may be, who are members of the POLICE AND FIRE RETIREMENT SYSTEM, other than the person nominated. Each signatory of a nominating paper shall write the date of his/her signature at the end of the line opposite his/her signature. Beneficiaries of deceased members are not eligible to vote in elections.

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

## RULES AND REGULATIONS

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### Section 11.4: Date of Filing Nomination Papers

Nominating papers shall be filed in the Office of the Oakland City Clerk, Room 306 of the Oakland City Hall, not less than thirty-five days before the day of counting ballots. If said date falls on a non-business day for the City of Oakland, it shall be filed on the next business day.

### Section 11.5: Determination of Sufficiency of Nominating Papers

The City Clerk of the City of Oakland will determine when a member is nominated and for this purpose shall have access to the records of the Police and Fire Retirement Board the names of those retired members of the respective departments determined by him to have been nominated.

### Section 11.6: Winner by Default

In the event that only one person is nominated in accordance with this Article 11 as a member of the Board, that person shall be declared a winner.

### Section 11.7: Mailing of Ballots

Not less than fifteen days before the day for the counting of the ballots that shall be prepared by and mailed for the office of the Police and Fire Retirement Board to each retired member of the Police Department of Fire Department who is a member of the Police and Fire Retirement System a ballot addressed to his or her address as shown by the records of the Police and Fire Retirement Board. The Ballots shall contain the names in alphabetical order of the candidates certified by the City Clerk as nominated. Such ballot, sealed in a blank envelope provided for this purpose, which shall be enclosed in another envelope, also provided for such purpose, upon which the voter shall place his or her name, may be returned to the City Clerk not later than 10:00 a.m. of the day for the counting of ballots.

### Section 11.8: Roster of Eligible Voters

There shall be prepared in the office of the Police and Fire Retirement Board a roster of eligible voters which shall contain the names of the retired members of the Police or Fire Department who are members of the Police and Fire Retirement System, excluding beneficiaries of deceased members. Such roster of eligible voters shall be delivered to the City Clerk not less than fifteen days before the day for the counting of ballots and shall be in such form as to permit appropriate asking thereon by the City Clerk to indicate that an eligible member has voted.

### Section 11.9: Counting of Ballots

On the day for the counting of ballots at the hour of 10:00 A.M. thereof, the ballot box shall be opened and no ballot received after said hour shall be counted. The ballots will be counted under the

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

## RULES AND REGULATIONS

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supervision and control of the City Clerk in such manner that the identity of the individual casting any ballot will not be disclosed. No ballot shall be counted unless it is enclosed in an envelope bearing the name of the voter. No ballot shall be counted which contains a vote for a person not nominated in accordance with Article 12. Upon the conclusion of the counting of the ballots, the City Clerk will certify the count and the candidate elected and notify each candidate thereof by mail.

### Section 11.10: Vote Necessary for Election

The candidate receiving the highest number of eligible votes shall be declared elected.

### Section 11.11: Disposition of Ballots after Counting

Upon conclusion of the counting of the ballots they shall be kept by the City Clerk in the manner and for the period the ballots of municipal elections are kept.

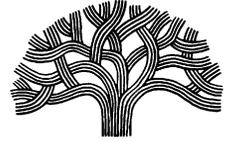
### Section 11.12: Procedure to Fill Vacancy of Elected Members

In the event a vacancy occurs before the end of a full term in any of the three (3) elected offices of the Board which are filled by retired members of the Retirement System, a successor shall be elected for the unexpired portion of the term vacated. The successor shall be elected from the same department of the member who is vacating the seat for the remainder of said unexpired three (3) year, or five (5) year, term. The election shall be governed by Article 11.

# **ATTACHMENT 2**

## ***Nomination Form Police Department Representative 5-Year Position***

# CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, SUITE 3349 • OAKLAND, CALIFORNIA 94612-2021

Finance Department  
Treasury Bureau  
Retirement Unit

PHONE (510) 238-7295  
FAX (510) 238-7129  
CA RELAY 711

## OAKLAND POLICE AND FIRE RETIREMENT BOARD NOMINATION FORM

I/We, the undersigned, am/are a retired member(s) of the Oakland Police Department, and a member(s) of the Oakland Police and Fire Retirement Systems. I/we hereby nominate \_\_\_\_\_, a  
**PRINT NOMINEE NAME HERE**  
retired member of the Oakland Police and Fire Retirement Systems, as a candidate for membership on the Police and Fire Retirement Board from the retired membership of the Oakland Police Department for the term expiring August 31, 2023.

<u>Name</u> (please print clearly)	<u>Signature</u>	<u>Date</u>
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____

I accept the nomination and consent to serve, if elected.

\_\_\_\_\_  
**Signature of Nominee**

\_\_\_\_\_  
**Date**

**NOTE:** This nomination paper must be signed by 10 retired members of the Oakland Fire Department who are **also members** of the Police and Fire Retirement System. The person nominated must also be a retired member of the Oakland Fire Department and a member of the Oakland Police and Fire Retirement System. Before filing, the person nominated must sign the above statement accepting the nomination and consenting to serve if elected. Nomination papers must be filed in the Office of the City Clerk, One Frank Ogawa Plaza, 2<sup>nd</sup> floor, Oakland, CA, no later than 5:00 p.m., Wednesday, July 19, 2023



# AGENDA REPORT

**TO:** Oakland Police and Fire Retirement System Board (PFRS)      **FROM:** David F. Jones  
PFRS Plan Administrator & Secretary

**SUBJECT:** Authorization and Reimbursement of Trustee R. Steven Wilkinson's Travel/Education Expenses      **DATE:** May 31, 2023

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**R. Steven Wilkinson**, Trustee of the **Oakland Police and Fire Retirement System** Board, requests authorization for reimbursement of travel and/or board education related funds for the event detailed below. Staff has verified that budgeted funds are available for this Board Member to be reimbursed.

Staff recommends the reimbursement of travel/education funds for the event below be approved by board motion.

Travel/Education Event: Milken Institute Global Conference 2023

Event Location: The Beverly Hilton, Beverly Hills, CA

Event Date: April 30, 2023 - May 3, 2023

Estimated Event Expense: \$3,000.00

Notes: Prior Approval received from President Walter L. Johnson Sr.

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\* If enrollment, registration or admission expenses are required, the fund will process a check in advance and pay vendor directly; all other board-approved reimbursements will be made upon delivery of receipts to staff by the travelling party. Cancellation of event attendance requires return of all reimbursed funds paid to attendee to the fund.

Respectfully submitted,

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David F. Jones  
Plan Administrator & Secretary  
Oakland Police & Fire Retirement Systems

For questions please contact Maxine Visaya, Administrative Assistant II, at 510.238.7295

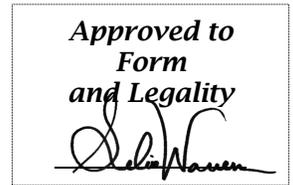
Attachments:  
(1) Resolution 8078  
(2) Conference Agenda

Agenda Item C3  
PFRS Board Meeting  
May 31, 2023

**ATTACHMENT 1**

***RESOLUTION NO.  
8078***

OAKLAND POLICE AND FIRE RETIREMENT BOARD  
CITY OF OAKLAND, CALIFORNIA  
RESOLUTION No. 8078



ON MOTION OF MEMBER \_\_\_\_\_ SECONDED BY MEMBER \_\_\_\_\_

**RESOLUTION RATIFYING THE BOARD PRESIDENT’S APPROVAL OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM TRUSTEE R. STEVEN WILKINSON’S REQUEST TO ATTEND THE MILKEN INSTITUTE GLOBAL CONFERENCE FROM APRIL 30, 2023 THROUGH MAY 3, 2023 IN BEVERLY HILLS, CA AND AUTHORIZING REIMBURSEMENT OF TRAVEL-RELATED EXPENSES IN AN AMOUNT NOT TO EXCEED THREE THOUSAND DOLLARS (\$3,000.00)**

**WHEREAS**, the Oakland Police and Fire Retirement System (PFRS) Education and Travel Policy (“Travel Policy”) requires that PFRS Board members and staff obtain prior Board approval of all education and travel-related expenses that will be reimburse by PFRS; and;

**WHEREAS**, pursuant to Section IV(2)(c) of the Travel Policy, the PFRS Board President, in consultation with the Plan Administrator, may authorize education and travel expenses without prior approval of the Board when prior approval cannot be obtained; and

**WHEREAS**, PFRS Trustee Wilkinson attended the Milken Institute Global Conference (“the Conference”) in Beverly Hills, CA from April 30, 2023 through May 3, 2023; and

**WHEREAS**, pursuant to Section IV(21)(a) of the Travel Policy Plan PFRS Trustee Wilkinson will submit documentation showing costs in an amount not to exceed Three Thousand Dollars (\$3,000.00) incurred as reimbursable expenses to attend the Conference within 15 days of the date of his return from the conference; and

**WHEREAS**, PFRS Trustee Wilkinson was unable to obtain Board approval prior to attending the Conference because he was unable to submit his request prior to the agenda posting deadline in time to bring his request to the full board before the Conference; and

**WHEREAS**, in compliance with Section IV(2)(c) of the Travel Policy, PFRS Trustee Wilkinson obtained written authorization from PFRS Board President Walter L. Johnson, Sr. to attend the Conference; now, therefore be it

**OAKLAND POLICE AND FIRE RETIREMENT BOARD**

CITY OF OAKLAND, CALIFORNIA

**RESOLUTION No. 8078**

**RESOLVED:** That the PFRS Board hereby ratifies the Board President's approval of PFRS Trustee Wilkinson's request to attend the Milken Institute Global Conference from April 30, 2023 through May 3, 2023; and be it

**FURTHER RESOLVED:** That the PFRS Board authorizes reimbursement of the expenses PFRS Trustee Wilkinson incurred to attend the Milken Institute Global Conference in an amount not to exceed Three Thousand Dollars (\$3,000.00).

IN BOARD MEETING, CITY HALL, OAKLAND, CA           MAY 31, 2023          

PASSED BY THE FOLLOWING VOTE:

AYES: GODFREY, MELIA, NICHELINI, ROSEMAN, SPEAKMAN, WILKINSON, & PRESIDENT JOHNSON

NOES:

ABSTAIN:

ABSENT:

ATTEST: \_\_\_\_\_  
PRESIDENT

ATTEST: \_\_\_\_\_  
SECRETARY

# **ATTACHMENT 2**

## ***Conference Agenda***

***Milken Institute  
Global Conference  
2023***

APRIL 30-MAY 3, 2023

# Milken Institute Global Conference

Advancing a Thriving World

## SATURDAY APRIL 29, 2023

### Breakfast: Finance as a Force for Social and Economic Mobility (Invite only)

8:15 AM - 10:15 AM PDT  
Private Residence

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### 2023 Milken Institute Global Conference Private Welcome Brunch (Invite only)

10:30 AM - 12:15 PM PDT  
Private Residence

› Brunch: Art and Giving: Philanthropy for the Next Generation (Invite only)

10:30 AM - 12:15 PM PDT  
Private Residence

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› Brunch: The Future of Venture Capital (Invite only)

10:30 AM - 12:15 PM PDT  
Private Residence

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### 2023 Milken Institute Global Conference Private Welcome Lunch (Invite Only)

12:30 PM - 2:30 PM PDT  
Private Residence

› Lunch: How Medical Technology Will Improve and Extend Your Life (Invite only)

12:30 PM - 2:30 PM PDT  
Private Residence

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› Lunch: The Geopolitics of Energy (Invite only)

12:30 PM - 2:30 PM PDT  
Private Residence

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### Private Welcome Session: Financial Innovation and the Future of Digital Assets (Invite only)

2:30 PM - 4:30 PM PDT  
Private Residence

---

## SUNDAY APRIL 30, 2023

### Global Conference Check-In

8:00 AM - 8:00 PM PDT  
Beverly Hilton - Lobby

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### Forum for Family Asset Management: Networking and Discussion (Invite only)

8:30 AM - 11:00 AM PDT

## Milken Institute Health Welcome Breakfast (Invite only)

10:00 AM - 12:00 PM PDT  
Waldorf Astoria – Sway Patio

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## What Matters Now (Invite only)

12:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Leaders in Health (Invite only)

12:30 PM - 2:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Media Reception (Invite only)

3:00 PM - 4:00 PM PDT  
Beverly Hilton - Poolside East

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## Leaders in Finance (Invite only)

3:00 PM - 4:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Private Welcome Reception Presented by Citadel Securities (Invite only)

4:30 PM - 6:00 PM PDT  
Beverly Canon Gardens

---

## Welcome Reception

5:00 PM - 7:00 PM PDT  
Beverly Hilton - Poolside West

---

## Young Leaders Circle Welcome Reception hosted by Pendry Residences West Hollywood (Invite only)

5:00 PM - 7:00 PM PDT  
Pendry Residences West Hollywood

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## MONDAY MAY 01, 2023

## Aligned and At Ease Yoga

6:00 AM - 6:45 AM PDT  
Beverly Hilton - Wellness Garden

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## Global Conference Check-In

6:00 AM - 8:30 PM PDT  
Beverly Hilton - Lobby

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## Workout with Dogpound

6:30 AM - 7:15 AM PDT  
Dogpound - 627 N. Robertson Blvd., West Hollywood

---

## Associates Breakfast (Invite Only)

7:00 AM - 8:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

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## Continental Breakfast

7:00 AM - 9:00 AM PDT  
Wilshire Garden and Executive Center Foyer

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## The State of the Global Financial System

8:00 AM - 9:30 AM PDT  
Beverly Hilton - International Ballroom

### › Part 1: A Conversation with IMF Managing Director Kristalina Georgieva

8:00 AM - 8:30 AM PDT  
Beverly Hilton - International Ballroom

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### › Part 2: Global Capital Markets

8:30 AM - 9:30 AM PDT  
Beverly Hilton - International Ballroom

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## Advancing A Thriving Future in Health

8:00 AM - 9:30 AM PDT  
Beverly Hilton - Oasis Pavilion

### › Part 1: FasterCures: Accelerating the Future of Health

8:00 AM - 8:20 AM PDT  
Beverly Hilton - Oasis Pavilion

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### › Part 2: Global Trends in Health Care: The Challenges of the 22nd Century, Today

8:20 AM - 9:30 AM PDT  
Beverly Hilton - Oasis Pavilion

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## Simulcast | The State of the Global Financial System

8:00 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Garden

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## Strategic Philanthropy Around the World

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Building Trust in an Age of Distrust (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Santolina

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## The Risk and Reward of the Employer's Role in Health (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Brighton

---

## Getting Real About Climate Deployment: The Road to 2035 (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Maple

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## Philanthropy Leadership Collective | Strategies for Corporate Philanthropies (Invite only)

9:30 AM - 11:00 AM PDT  
Beverly Hilton - Boardroom

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## Wellness Garden Healing Sessions

9:30 AM - 4:30 PM PDT  
Beverly Hilton - Wellness Garden

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### Ukraine: Global Perspectives on Russia's Invasion of Ukraine

10:00 AM - 11:00 AM PDT  
Beverly Hilton - International Ballroom

› **Part 1: A Conversation with NATO Admiral Rob Bauer** 

10:00 AM - 10:20 AM PDT  
Beverly Hilton - International Ballroom

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› **Part 2: The Ukraine War and Reconstruction Efforts** 

10:20 AM - 11:00 AM PDT  
Beverly Hilton - International Ballroom

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### The Future of Asset Classes

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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### A New Game Plan: A Reset for Venture Capital, Innovation, and Entrepreneurship in 2023

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Oasis Pavilion

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### Funding Real Estate: Win, Lose, or Draw?

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Sunset Pavilion

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### Emerging Market America

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

› **Part 1: A Conversation with US House Democratic Caucus Chairman Pete Aguilar** 

10:00 AM - 10:20 AM PDT  
Beverly Hilton - Wilshire Ballroom

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› **Part 2: How 10,000 Communities Can Build Resilient and Equitable Economies** 

10:20 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

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### Seeding Science for Impactful Discoveries: Philanthropy's Role in Driving Research Forward

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Whittier

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### The Future of Work: Charting a New Course

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Garden

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### Investing in a Resilient Food System to Build a Better Tomorrow

10:00 AM - 11:00 AM PDT  
Beverly Hilton - California Terrace

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## Innovation Versus Access to Medicines: Can We Have Both?

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Dayton

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## The Art of Aging: Humor and Other Ways to Age Well

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Palm

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## Global Investors' View: ASEAN (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Brighton

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## The Business Case for Private Sector Data Sharing to Improve Global Health (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Maple

---

## Meet the Author: Deepak Chopra "Living in the Light: Yoga for Self-Realization"

11:00 AM - 11:30 AM PDT  
Beverly Hilton - Sunset Room

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## Fueling the Future: A Conversation with US Senate Energy & Natural Resources Committee Chairman Joe Manchin and ExxonMobil CEO Darren Woods

11:30 AM - 12:00 PM PDT  
Beverly Hilton - International Ballroom

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## Stretch It Out!

11:30 AM - 12:00 PM PDT  
Beverly Hilton - Wellness Garden

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## Evaluating Credit Market Dislocations

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Inside the Growing World of Private Markets

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Transformational Technology

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Sunset Pavilion

### > Part 1: A Conversation with White House OSTP Director Dr. Arati Prabhakar

11:30 AM - 11:50 AM PDT  
Beverly Hilton - Sunset Pavilion

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### > Part 2: Head in the Clouds: Embracing the Potential and Promise of Artificial Intelligence

11:50 AM - 12:30 PM PDT  
Beverly Hilton - Sunset Pavilion

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## The Drive Toward More Non-Invasive Treatments for Patients

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Reimagining Health through Prevention

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Whittier

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## Game Changers: The New Business of Sports

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Garden

---

## Corporate Philanthropy: Connecting Profits and Purpose

11:30 AM - 12:30 PM PDT  
Beverly Hilton - California Terrace

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## What's Next for Impact Investing in Africa?

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Dayton

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## China and the Global Economy: Insights on the Ground

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Palm

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## The Future of Impact Strategies in Asset Management (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Santolina

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## Russia, Ukraine and its Neighborhood: Preparing to Win the Peace (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Brighton

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## Asset Management—Navigating the Storm (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Maple

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## Sleep Strategies for Peak Performance

12:00 PM - 12:30 PM PDT  
Beverly Hilton - Wellness Garden

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## Boxed Lunch Pick-Up

12:00 PM - 1:30 PM PDT  
Beverly Hills Ballroom Foyer and Executive Center

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## Making Meaningful Connections

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Wellness Garden

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## Global Overview: Shifting Tensions, Divergence, and Convergence (Invite only)

12:30 PM - 2:00 PM PDT  
Beverly Hilton - International Ballroom

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## CEO Roundtable: Building a Resilient Business (Invite only)

12:45 PM - 2:15 PM PDT  
Beverly Hilton - Santolina

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## Simulcast | Global Overview: Shifting Tensions, Divergence, and Convergence

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Home Free: A Conversation with John Legend on the Path to Reentry after Incarceration



1:00 PM - 2:00 PM PDT  
Beverly Hilton - Oasis Pavilion

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## US Energy Markets in Transition: Who Will Invest the Smartest?

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Sunset Pavilion

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

### > Governing America: A Conversation with Virginia Governor Glenn Youngkin

1:00 PM - 1:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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### > Creating Opportunities in Emerging Markets: A Conversation with IFC Managing Director Makhtar Diop

1:30 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Trust Your Gut: Is the Microbiome the New Disruptor in Healthcare and Disease Treatment?

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Whittier

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

### > Lifestyle Medicine for the Brain: A Conversation with Deepak Chopra and Seth Rogen

1:00 PM - 1:30 PM PDT  
Beverly Hilton - Wilshire Garden

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### > What Makes a Meaningful Mentor? A Conversation with Jerry Reinsdorf and Alex Rodriguez

1:30 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Global Leaders' View: Japan (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Brighton

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## Leveraging Private Market Investments (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Maple

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## Philanthropy Leadership Collective | Roundtable Discussion with Private Medical Research Funders (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Boardroom

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## Global Conference Puppy Playtime Presented by PGIM

1:30 PM - 3:00 PM PDT  
Beverly Hilton - Wellness Garden

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## Meet the Author: Marie Yovanovitch "Lessons From the Edge: A Memoir"

2:00 PM - 2:30 PM PDT  
Beverly Hilton - Sunset Room

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## Deal or No Deal in Private Equity

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Making Net-Zero Possible

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Moving Digital Assets Forward

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Sunset Pavilion

### > Part 1: A Conversation with CFTC Chairman Rostin Behnam

2:30 PM - 2:50 PM PDT  
Beverly Hilton - Sunset Pavilion

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### > Part 2: Digital Assets: From Creative Disruption to Market Adoption

2:50 PM - 3:30 PM PDT  
Beverly Hilton - Sunset Pavilion

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## The Future of Democracy

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Modernizing Global Supply Chains

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Whittier

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## A View from the Top: Leaders on Energy and the Environment

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Garden

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### Inclusive Capitalism

2:30 PM - 3:30 PM PDT  
Beverly Hilton - California Terrace

› **Part 1: A Conversation with US House Financial Services Committee Ranking Member Maxine Waters **

2:30 PM - 2:50 PM PDT  
Beverly Hilton - California Terrace

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› **Part 2: The Path to Inclusive Capitalism **

2:50 PM - 3:30 PM PDT  
Beverly Hilton - California Terrace

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## A Functional Approach to Healing

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Dayton

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## A Roadmap for Biosecurity

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Palm

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## The Future of Healthcare: A Roundtable Discussion on Systems, Workforce, and Supply Chains (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Boardroom

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## Advancing a Thriving World through Digital Transformation

2:30 PM - 3:30 PM PDT  
Beverly Hilton - International Ballroom

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## Future of Active Fund Management (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Santolina

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## New Frontiers: What Artificial Intelligence Means for the Future (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Brighton

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## Liquidity and the Denominator Effect in a Time of Financial Turbulence (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Maple

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## Meet the Author: Dan Harris “10% Happier”

3:30 PM - 4:00 PM PDT  
Beverly Hilton - Sunset Room

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## Be Crystal Clear Sound Bath and Guided Meditation

## Common Sense from Uncommon Investors

4:00 PM - 5:00 PM PDT  
Beverly Hilton - International Ballroom

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4:00 PM - 5:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

### > Capital, Crypto, and Climate: A Conversation with US House Financial Services Committee Chairman Patrick McHenry

4:00 PM - 4:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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### > A Conversation with Citadel Securities CEO Peng Zhao

4:30 PM - 5:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Town Hall: Healing a Divided America

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Sunset Pavilion

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## Asset Management in Incalculable Times

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## A Roadmap to Rejuvenation: Rewiring the World Economy

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Whittier

### > Part 1: A Conversation with His Excellency, Faisal Alibrahim, Minister of Economy and Planning for the Kingdom of Saudi Arabia

4:00 PM - 4:15 PM PDT  
Beverly Hilton - Whittier

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### > Part 2: Globalization 2.0: New Paradigms in Innovation and Integration

4:15 PM - 5:00 PM PDT  
Beverly Hilton - Whittier

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## A View from the Top: Leaders on the Roles and Goals of Corporate Boards in 2023

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Brand Evolution: Building Community, Identity, and Legacy

4:00 PM - 5:00 PM PDT  
Beverly Hilton - California Terrace

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## The New Vanguard: Scaling Climate and Resilient Solutions

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Dayton

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## Building the Health Data System of the Future

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Palm

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## Global Leaders' View: Hong Kong (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Boardroom

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## The Path to Board Diversity: Moving the Needle from Progress to Maintenance (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Brighton

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## Aligning Capital with Net-Zero Promises (Invite Only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Maple

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## Scaling Innovation: Milken-Motsepe Prize in AgriTech Award Announcement and Reception

5:00 PM - 6:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Reception for Speakers and Sponsors (Invite only)

5:30 PM - 6:30 PM PDT  
Beverly Hilton - Wilshire Garden

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## Late Night with Chris Tucker and Friends!

9:00 PM - 10:15 PM PDT  
Beverly Hilton - Wilshire Ballroom

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### TUESDAY MAY 02, 2023

## Go Long, Go High Pilates

6:00 AM - 6:45 AM PDT  
Beverly Hilton - Wellness Garden

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## Global Conference Check-In

6:00 AM - 7:30 PM PDT  
Beverly Hilton - Lobby

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## Workout with Dogpound

6:30 AM - 7:15 AM PDT  
Dogpound - 627 N. Robertson Blvd., West Hollywood

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## The Power of Philanthropy: Creating Lasting Change by Investing in Next Generation Leaders (Invite only)

7:00 AM - 8:00 AM PDT  
Beverly Hilton - Brighton

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## Continental Breakfast

7:00 AM - 9:00 AM PDT  
Wilshire Garden and Executive Center Foyer

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## Global Capital Markets Advisory Council Roundtable (Invite only)

7:00 AM - 9:00 AM PDT  
Beverly Hilton - Santolina

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## The Road to COP28: Investing in Food Systems to Address Climate Change (Invite only)

8:15 AM - 9:45 AM PDT  
Beverly Hilton - Brighton

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## Credit Outlook

8:30 AM - 9:30 AM PDT  
Beverly Hilton - International Ballroom

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## Russia: Present Tense, Future Uncertain

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Disrupt or Be Disrupted: Venturing into Tech

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Oasis Pavilion

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## Better, Faster, Stronger: The Future of Travel and Leisure

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Sunset Pavilion

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## The Future of Global Trade

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Ballroom

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## Can Biotechs Bounce Back?

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Whittier

---

## Cultural Institutions as Agents of Change

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Garden

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## Progress and Innovation: The Dawning of a New Day in Treating Mental Health

8:30 AM - 9:30 AM PDT  
Beverly Hilton - California Terrace

---

## Democratizing Capital for Energy and Sustainable Growth Transitions

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Dayton

---

## Global Investors' View: China (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Maple

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## Meet the Author: Andrew Weiss “Accidental Czar: The Life and Lies of Vladimir Putin”

9:30 AM - 10:00 AM PDT  
Beverly Hilton - Sunset Room

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## Wellness Garden Healing Sessions

9:30 AM - 4:30 PM PDT  
Beverly Hilton - Wellness Garden

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## US Overview: Advancing through Uncertainty

10:00 AM - 11:00 AM PDT  
Beverly Hilton - International Ballroom

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## Private Markets Rallying to New Heights

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## The M&A State of Play

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Oasis Pavilion

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## Governing AI: Ethics, Regulation, and Practical Applications

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Sunset Pavilion

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## The State of US Public Capital Markets

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

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## Emerging Markets: Clearer Skies Ahead

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Whittier

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## A View from the Top: Leaders Prioritizing People, Policy, and Potential

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Garden

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## Women's Leadership and the Face of the Modern C-Suite

10:00 AM - 11:00 AM PDT  
Beverly Hilton - California Terrace

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## How Do Drugs Get Approved Faster Using RWE and AI?

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Dayton

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## Digital Defense and Diplomacy: Enhancing Global Cyber Coordination

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Palm

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## The Fed's Balancing Act: Managing Inflation and Growth (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Santolina

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## Digital Assets Regulation: Designing Frameworks for the Future (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Brighton

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## Investing in the Age of Longevity (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Maple

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### A Conversation with "Extrapolations" Creatives: Perspectives on the Future of Climate



11:30 AM - 12:00 PM PDT  
Beverly Hilton - International Ballroom

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### Stretch Out the Kinks!

11:30 AM - 12:00 PM PDT  
Beverly Hilton - Wellness Garden

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### Asset Management: Constructing Portfolios for the Future

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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### The Only Way Forward—Leading through Global Turbulence

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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### From Asian Excellence to Creative Excellence

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Sunset Pavilion

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11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

### > Governing America: A Conversation with Arkansas Governor Sarah Huckabee Sanders



11:30 AM - 12:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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### > Combatting Fentanyl and Drug Cartels: A Conversation with DEA Administrator Anne Milgram

12:00 PM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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### The FinTech Movement: Social Economic Mobility Strategies

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Whittier

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### Access, Outcomes, and Value: Envisioning the Future of Higher Education

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Garden

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### A Psychedelic Journey to Health

11:30 AM - 12:30 PM PDT  
Beverly Hilton - California Terrace

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## Is Indonesia the World's Best-Kept Secret?

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Dayton

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## Hacking Aging: The Quest for Longevity

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Palm

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## The Evolving Business of Private Equity (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Santolina

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## Africa in the Driver's Seat: The New Rush for Africa (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Brighton

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## Keeping up with the Real Estate Market (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Maple

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## The Gratitude Game of Life

12:00 PM - 12:30 PM PDT  
Beverly Hilton - Wellness Garden

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## Boxed Lunch Pick-up

12:00 PM - 1:30 PM PDT  
Beverly Hills Ballroom Foyer and Executive Center

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## Meditation for Fidgety Skeptics

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Wellness Garden

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## Meet the Author: John Hope Bryant "Up From Nothing: The Untold Story of How We (All) Succeed"

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Sunset Room

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## Meet the Author: Padma Lakshmi "Love, Loss, and What We Ate: A Memoir"

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Sunset Room

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## The United States and China: Navigating Strategic Competition (Invite only)

12:30 PM - 2:00 PM PDT  
Beverly Hilton - International Ballroom

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## CEO Roundtable: Trends and Challenges in the Global Economy (Invite only)

12:45 PM - 2:15 PM PDT  
Beverly Hilton - Santolina

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## Feeding Change Private Lunch (Invite only)

12:45 PM - 2:15 PM PDT  
Beverly Hilton - Sunset Pavilion

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## Simulcast | The United States and China: Navigating Strategic Competition

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - Oasis Pavilion

### > A Conversation with California Governor Gavin Newsom

1:00 PM - 1:20 PM PDT  
Beverly Hilton - Oasis Pavilion

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### > Tech Titans: A Conversation with Reid Hoffman and Eric Schmidt

1:20 PM - 2:00 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Risk and Regulation: The State of US Banking

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

### > Content is Queen: A Conversation with Issa Rae and Sherrese Clarke Soares

1:00 PM - 1:30 PM PDT  
Beverly Hilton - Wilshire Garden

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### > Triple Threat: Women-Led, Internet-Enabled, and Social Media-Driven Movements in Iran and Russia

1:30 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Private Markets Outlook (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Brighton

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## Global Investors' View: Korea (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Maple

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## Global Conference Puppy Playtime Presented by PGIM

1:30 PM - 3:00 PM PDT  
Beverly Hilton - Wellness Garden

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## Meet the Author: Chris Miller "Chip War: The Fight for the World's Most Critical Technology"

2:00 PM - 2:30 PM PDT  
Beverly Hilton - Sunset Room

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## Macroeconomy: Finding Checks and Rebalances

2:30 PM - 3:30 PM PDT  
Beverly Hilton - International Ballroom

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## Credit Markets: Pressures Abound

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## A New Era of Mobility: Moving Safely, Swiftly and Sustainably

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Healthcare of the Future

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Sunset Pavilion

### > Part 1: Governing America: A Conversation with Hawaii Governor Josh Green

2:30 PM - 2:50 PM PDT  
Beverly Hilton - Sunset Pavilion

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### > Part 2: Cancer in the Year 2040

2:50 PM - 3:30 PM PDT  
Beverly Hilton - Sunset Pavilion

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## Expanding Economic Opportunity through Workforce Transformation

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Financing a Green Future

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Whittier

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## Storytelling to Move the Needle

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Garden

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## An Investment that Affects Us All: Women's Reproductive Health Care

2:30 PM - 3:30 PM PDT  
Beverly Hilton - California Terrace

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## Transitioning to a Food Environment Built for Health

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Dayton

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## Traversing Latin America: The World's Fastest Growing Entrepreneurial Ecosystem

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Palm

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## Saudi Arabia: Vision to Reality (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Santolina

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## Evolution and Opportunities in Private Credit (Invite Only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Brighton

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## Swinging for the Fences: Innovation for Increasing Financial Fluency in America (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Maple

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## Be Crystal Clear Sound Bath and Guided Meditation

4:00 PM - 4:30 PM PDT  
Beverly Hilton - Wellness Garden

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## Private Equity: Unlocking Value in a Changing Landscape

4:00 PM - 5:00 PM PDT  
Beverly Hilton - International Ballroom

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## Building the Rails of Our Financial Future

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## A Journey into Immersive Worlds

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Sports for Social Impact

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Sunset Pavilion

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## Levers of Change: Gun Violence Prevention and Solutions

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Frontier Market Investing: Outlook, Risks, and the \$Trillion Opportunity

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Whittier

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## Food for Thought: Cultivating Our Culinary Landscape

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Saving the Lungs of the Planet: Creating Sustainable and Inclusive Forest Solutions

4:00 PM - 5:00 PM PDT  
Beverly Hilton - California Terrace

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## Is this India's Moment?

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Dayton

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## There's an App for That: Hype or Health?

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Palm

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## Rising Allocators (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Santolina

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## Addressing the American Retirement Crisis (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Brighton

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## Center for the Future of Aging Advisory Board Meeting (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Maple

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## Speaker and Sponsor Reception Presented by Principal Asset Management (Invite only)

5:30 PM - 6:30 PM PDT  
Beverly Hilton - Santolina

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## Young Leaders Circle Program Hosted by The Ned (Invite only)

5:30 PM - 7:30 PM PDT  
Private Residence

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## A Conversation Between Michael Milken and IFC Managing Director Makhtar Diop: Celebrating Tomorrow's Leaders in Financial Policy

5:30 PM - 7:30 PM PDT  
Beverly Hilton - Sunset Pavilion

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### WEDNESDAY MAY 03, 2023

## Double Espresso-Om Yoga

6:00 AM - 6:45 AM PDT  
Beverly Hilton - Wellness Garden

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## Global Conference Check-In

6:00 AM - 4:00 PM PDT  
Beverly Hilton - Lobby

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## Workout with Dogpound

6:30 AM - 7:15 AM PDT  
Dogpound - 627 N. Robertson Blvd., West Hollywood

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## Is 90 the New 60? Drafting a Blueprint for your Best Health (Invite only)

7:00 AM - 8:15 AM PDT  
Beverly Hilton - Santolina

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## Continental Breakfast

7:00 AM - 9:00 AM PDT  
Wilshire Garden and Executive Center Foyer

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## Things That Will Blow Your Mind

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Funding the Future: Adaptation Amidst Uncertainty

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Oasis Pavilion

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## The Challenges of Manhood in Today's America

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Ballroom

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## Building Cooperation for Post-Conflict Regions: New Bridges from the Gulf to the Mediterranean

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Whittier

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## Reframing Aging: Never Past Your Prime

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Garden

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## The Race for Global Green Energy

8:30 AM - 9:30 AM PDT  
Beverly Hilton - California Terrace

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## Buy or Bye: A Guide to Asia-Pacific Investment Opportunities (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Brighton

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## Gun Violence Prevention: What Innovations and Investments Can Make a Breakthrough? (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Maple

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## Wellness Garden Healing Sessions

9:30 AM - 3:30 PM PDT  
Beverly Hilton - Wellness Garden

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## All in a Day's Work: Prepare, Adapt, Innovate

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Africa: Next Frontier for the Creative Economy

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Oasis Pavilion

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## CMO Insights: How to Manage Your Marketing in an Age of Volatility

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

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## From European Dream to Reality

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Whittier

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## Retail Renaissance: Businesses Embracing Technology, Sustainability, and Innovation

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Garden

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## The Art of Living Well: A Conversation on Mindfulness and Self-Care

10:00 AM - 11:00 AM PDT  
Beverly Hilton - California Terrace

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## Impact Investing 2.0: Achieving Scale and Acceptance (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Santolina

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## Nearshoring's Impact on North America: A New Era in Trade Dynamics (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Brighton

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## Soul Wisdom Healing

11:00 AM - 11:30 AM PDT  
Beverly Hilton - Wellness Garden

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## Meet the Author: George Mumford "Unlocked: Embrace Your Greatness, Find the Flow, Discover Success"

11:00 AM - 11:30 AM PDT  
Beverly Hilton - Sunset Room

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## Meet the Author: Kristin Neff "Fierce Self-Compassion: How Women Can Harness Kindness to Speak Up, Claim Their Power and Thrive"

11:00 AM - 11:30 AM PDT  
Beverly Hilton - Sunset Room

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## Stretch and Go!

11:30 AM - 12:00 PM PDT  
Beverly Hilton - Wellness Garden

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11:30 AM - 12:30 PM PDT  
Beverly Hilton - International Ballroom

### > A Conversation with World Bank President David Malpass

11:30 AM - 12:00 PM PDT  
Beverly Hilton - International Ballroom

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### > A Conversation with Eldridge CEO Todd Boehly

12:00 PM - 12:30 PM PDT  
Beverly Hilton - International Ballroom

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# Countdown to Default? How to Stop Worrying About a Debt Crisis and Achieve Fiscal Sustainability

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## In the Spotlight

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

### > Part 1: A Conversation with Demi Lovato

11:30 AM - 11:50 AM PDT  
Beverly Hilton - Wilshire Ballroom

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### > Part 2: Growing Up Online: Youth Mental Health in a Modern World

11:50 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## All Hands on Deck: The Case for Super Annuation Funds, Big and Small

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Whittier

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## How Has the Digital Age Transformed Democracy and Civil Discourse?

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Garden

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## Digital Health for Whole Person Care

11:30 AM - 12:30 PM PDT  
Beverly Hilton - California Terrace

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## FinTech and Other Innovative Solutions to Enhance Lifetime Financial Security

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Dayton

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## Accelerating Community Infrastructure and Equitable Economic Development: The 10,000 Communities Initiative (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Brighton

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## Neuroscience for Peak Performance

12:00 PM - 12:30 PM PDT  
Beverly Hilton - Wellness Garden

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## Boxed Lunch Pick-up

12:00 PM - 1:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom Foyer

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## Introduction to Ayurveda – The Science of Life

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Wellness Garden

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## Opportunities in Digitalization and Innovation: A Conversation with His Excellency Taro Kono

1:00 PM - 1:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - International Ballroom

### > The Evolution of Comedy: Laughter is the Best Medicine

1:00 PM - 1:30 PM PDT  
Beverly Hilton - International Ballroom

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### > A Conversation with Snoop Dogg and Larry Jackson

1:30 PM - 2:00 PM PDT  
Beverly Hilton - International Ballroom

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## Simulcast | The Evolution of Comedy: Laughter is the Best Medicine and A Conversation with Snoop Dogg and Larry Jackson

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Navigating Northward: The Geopolitics of the Arctic Arena

1:00 PM - 2:00 PM PDT  
Beverly Hilton - California Terrace

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## Building the Sustainable Development Tech Project Pipeline (Invite only)

1:00 PM - 2:30 PM PDT  
Beverly Hilton - Santolina

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## Meet the Author: Julia Boorstin "When Women Lead"

1:30 PM - 2:00 PM PDT  
Beverly Hilton - Sunset Room

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## Global Conference Puppy Playtime Presented by PGIM

1:30 PM - 3:00 PM PDT  
Beverly Hilton - Wellness Garden

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## What's Next for New Japan: A Private Discussion with Minister Taro Kono (Invite only)

1:45 PM - 2:30 PM PDT  
Beverly Hilton - Boardroom

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## Out of This World: Investing in Space Exploration

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## From Streaming to Short Form: The Power and Potential of Media

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Hope and Optimism

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Garden

> Inspiring Hope and Taking Action: A Conversation with Obama Foundation CEO  
Valerie Jarrett 

2:30 PM - 3:00 PM PDT  
Beverly Hilton - Wilshire Garden

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> How to Be an Optimist: A Conversation with Arthur Brooks 

3:00 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Garden

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Closing Concert and Reception Featuring Diana Ross

3:45 PM - 5:00 PM PDT  
Beverly Hilton - Oasis Pavilion

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# AGENDA REPORT

**TO:** Oakland Police and Fire  
Retirement System Audit &  
Operation Committee

**FROM:** David F. Jones  
Plan Administrator & Secretary

**SUBJECT:** Audit Committee Agenda  
Pending List

**DATE:** May 31, 2023

	SUBJECT	TENTATIVE SCHEDULED MTG DATE	STATUS
1	Status Report of the Ad Hoc Committee regarding Actuarial Funding date of July 1, 2026	TBD	TBD
2	Monitor & Update PFRS Board of Upcoming City Council Agendas Regarding Discussion of the July 1, 2026 Actuarial Funding Date	Ongoing	Ongoing

Respectfully submitted,

David F. Jones  
Plan Administrator & Secretary  
Oakland Police & Fire Retirement Systems

Due to the termination of the statewide COVID-19 State of Emergency by the Governor of California, effective March 1, 2023, all meetings of the Oakland Police & Fire Retirement System Board and its Committees will be conducted in person.

Meetings are held in wheelchair accessible facilities.

The Board may take action on items not on the agenda only if findings pursuant to the Sunshine Ordinance and Brown Act are made that the matter is urgent or an emergency.

For additional information, contact the Retirement Unit by calling (510) 238-7295. or send an email to [mvisaya@oaklandca.gov](mailto:mvisaya@oaklandca.gov)



# AGENDA

## INVESTMENT COMMITTEE MEMBERS

**Jaime T. Godfrey**  
Chairperson

**R. Steven Wilkinson**  
Member

**Robert W. Nichelini**  
Member

*\*In the event a quorum of the Board participates in the Committee meeting, the meeting is noticed as a Special Meeting of the Board; however, no final Board action can be taken. In the event that the Investment Committee does not reach quorum, this meeting is noticed as an informational meeting between staff and the Chair of the Investment Committee.*

## MEETING of the INVESTMENT AND FINANCIAL MATTERS COMMITTEE of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (“PFRS”)

WEDNESDAY, MAY 31, 2023

10:30 AM

ONE FRANK H. OGAWA PLAZA, HEARING ROOM 1  
OAKLAND, CA 94612

### OBSERVE

- To observe the meeting by video conference, please click on this link: <https://us02web.zoom.us/j/82880493983> at the noticed meeting time.
- To listen to the meeting by phone, please call the numbers below at the noticed meeting time: Dial (for higher quality, dial a number based on your current location):
- iPhone one-tap: US: +16699006833, 82880493983# or +13462487799, 82880493983#
- US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099
- International numbers available: <https://us02web.zoom.us/j/82880493983>
- Webinar ID: 828 8049 3983.
- If asked for a participant ID or code, press #.

### PUBLIC COMMENTS

There are two ways to submit public comments.

- Speaker Card: All persons wishing to address the Board must complete a speaker’s card, stating their name and the agenda item they wish to address, including “Open Forum”.
- eComment: To send your comment directly to staff BEFORE the meeting starts, please email to [mvisaya@oaklandca.gov](mailto:mvisaya@oaklandca.gov) with “PFRS Board Meeting Public Comment” in the subject line for the corresponding meeting. Please note that eComment submission **closes two (2) hours before posted meeting time.**

If you have any questions, please email Maxine Visaya, Administrative Assistant II at [mvisaya@oaklandca.gov](mailto:mvisaya@oaklandca.gov)

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## ORDER OF BUSINESS

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1. **Subject:** POLICE AND FIRE RETIREMENT SYSTEM (“PFRS”) INVESTMENT AND FINANCIAL MATTERS COMMITTEE MEETING MINUTES

**From:** Staff of the PFRS Board

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**Recommendation:** **APPROVE** the March 29, 2023 Investment and Financial Matters Committee Meeting Minutes
  
2. **Subject:** INVESTMENT MANAGER PERFORMANCE UPDATE – RICE HALL JAMES & ASSOCIATES

**From:** Rice Hall James & Associates

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**Recommendation:** **ACCEPT** informational report regarding a firm overview and managerial assessment; diversity and inclusion policy and practices; and investment strategy and portfolio performance of Rice Hall James & Associates, a PFRS’ Domestic Equity Small-Cap Growth Investment Strategy Manager
  
3. **Subject:** INVESTMENT MANAGER PERFORMANCE REVIEW – RICE HALL JAMES & ASSOCIATES

**From:** Meketa Investment Group

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**Recommendation:** **ACCEPT** Meketa Investment Group’s review and evaluation of Rice Hall James & Associates, a PFRS Domestic Equity Small-Cap Growth Investment Strategy Manager, regarding a firm overview and managerial assessment; investment portfolio performance; peer ranking, watch status update; and recommendation to maintain/terminate the current professional services agreement. **DISCUSS** and **RECOMMEND BOARD APPROVAL** of the Committee’s course of action with regard to Rice Hall James & Associates
  
4. **Subject:** BENCHMARK REVIEW: CRISIS RISK OFFSET INVESTMENT STRATEGY

**From:** Meketa Investment Group

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**Recommendation:** **ACCEPT** informational report regarding the Crisis Risk Offset Investment Strategy Benchmark Review and Meketa’s recommendation to update the strategy’s policy benchmark and for the change to be reflected in the PFRS Investment Policy Strategy. **DISCUSS** and **RECOMMEND BOARD APPROVAL** of the Committee’s course of action with regard to updating the Credit Risk Offset policy benchmark

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
INVESTMENT COMMITTEE MEETING  
MAY 31, 2023**

5. **Subject:** INVESTMENT MARKET OVERVIEW AS OF APRIL 30, 2023  
**From:** Meketa Investment Group  

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**Recommendation:** **ACCEPT** informational report regarding the Global Investment Markets as of April 30, 2023
6. **Subject:** PRELIMINARY INVESTMENT FUND PERFORMANCE UPDATE AS OF APRIL 30, 2023  
**From:** Meketa Investment Group  

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**Recommendation:** **ACCEPT** informational report regarding the Preliminary Investment Fund Performance Update as of April 30, 2023
7. **Subject:** INVESTMENT FUND QUARTERLY PERFORMANCE UPDATE AS OF MARCH 31, 2023  
**From:** Meketa Investment Group  

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**Recommendation:** **ACCEPT** the Investment Fund Quarterly Performance Update as of March 31, 2023
8. **Subject:** 2023 ANNUAL DIVERSITY SURVEY RESULTS: CURRENT PFRS INVESTMENT MANAGERS AND ANNUAL INDUSTRY REPORT  
**From:** Meketa Investment Group  

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**Recommendation:** **ACCEPT** informational report regarding the diversity representation of current PFRS Investment Managers and across the industry as of December 31, 2022
9. **SCHEDULE OF PENDING INVESTMENT COMMITTEE MEETING AGENDA ITEMS**
10. **OPEN FORUM**
11. **FUTURE SCHEDULING**
12. **ADJOURNMENT**

**A MEETING OF THE INVESTMENT AND FINANCIAL MATTERS COMMITTEE** of the Oakland Police and Fire Retirement System (“PFRS”) was held Wednesday, March 29, 2023 at One Frank H. Ogawa Plaza, Hearing Room 1, Oakland, CA.

Committee Members	▪ Jaime T. Godfrey	Chairperson (EXCUSED)
	▪ Robert W. Nichelini	Member
	▪ R. Steven Wilkinson	Member and Acting Chairperson
Additional Attendees	▪ David F. Jones	PFRS Secretary & Plan Administrator
	▪ Téir Jenkins	PFRS Investment & Operations Manager
	▪ Maxine Visaya	PFRS Staff Member
	▪ Selia Warren	PFRS Legal Counsel
	▪ David Sancewich	Meketa Investment Group
	▪ Paola Nealon	Meketa Investment Group

The meeting was called to order at 10:34 a.m. Pacific

1. **APPROVAL OF INVESTMENT & FINANCIAL MATTERS COMMITTEE MEETING MINUTES –** Memeber Nichelini made a motion to approve the February 22, 2023 Investment & Financial Matters Committee Meeting Minutes, as written, second by Acting Chairperson Wilkinson. Motion Passed.

[GODFREY – EXCUSED / NICHELINI – Y / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

2. **INVESTMENT MANAGER PERFORMANCE REVIEW – POLEN CAPITAL CREDIT –** David Sancewich of Meketa Investment Group (“Meketa”) presented an overview memo regarding a performance review, evaluation, and watch status update of Polen Capital Credit (“Polen”), a PFRS High Yield Fixed Income Investment Strategy Manager. Acting Chairperson Wilkinson inquired why Polen was not in attendance today and D. Sancewich explained this review is to provide a watch status update and noted an upcoming agenda item today will address market assumptions and asset allocations and if a credit allocation continues to make sense in the portfolio. D. Sancewich advised Polen outperformed the benchmark in the latest year-to-date one-year period and Meketa recommended taking them off watch status. Acting Chairperson Wilkinson made inquires to further the discussion regarding the organizational changes and if it has benefited the firm.

**MOTION:** Acting Chairperson Wilkinson made a motion to accept Maketa’s evaluation of Polen Capital Credit and recommendation to remove the firm from Watch Status, second by Member Nichelini. Motion passed.

[GODFREY – EXCUSED / NICHELINI – Y / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

3. **INVESTMENT MARKET OVERVIEW AS OF FEBRUARY 28, 2023** – Paola Nealon of Meketa presented an informational report regarding the Investment Market Overview as of February 28, 2023. P. Nealon highlighted Index Returns and current factors impacting outcomes.

**MOTION:** Acting Chairperson Wilkinson made a motion to accept the informational report presented by Meketa regarding the Investment Market Overview as of February 28, 2023 and forward to the Board, second by Member Nichelini. Motion passed.

[GODFREY – EXCUSED / NICHELINI – Y / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

4. **PRELIMINARY INVESTMENT PERFORMANCE UPDATE AS OF FEBRUARY 28, 2023** – Paola Nealon of Meketa presented an informational report regarding the Preliminary Investment Performance Update as of February 28, 2023. P. Nealon highlighted Allocation vs. Targets and Policy and the Asset Class Performance Summary and current factors impacting outcomes.

**MOTION:** Acting Chairperson Wilkinson made a motion to accept the informational report presented by Meketa regarding the Preliminary Investment Performance Update as of February 28, 2023, second by Member Nichelini. Motion passed.

[GODFREY – EXCUSED / NICHELINI – Y / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

5. **\$14.2 MILLION DRAWDOWN FOR MEMBER RETIREMENT ALLOWANCES (FISCAL YEAR 2022/2023; QUARTER ENDING JUNE 30, 2023)** – David Sancewich of Meketa presented an informational report and recommendation for a \$14.2 million drawdown; which includes an \$8.2 Million contribution from the City of Oakland and a \$6.0 Million contribution from the PFRS Investment Fund, to be used to pay the April 1, 2023 through June 30, 2023 Member Retirement Allowances and PFRS contribution be drawn from the Earnest Partners portfolio.

**MOTION:** Member Nichelini made a motion to accept Meketa's recommendation regarding the \$14.2 Million drawdown and PFRS contribution be drawn from the Earnest Partners portfolio and forward to the Board for approval, second by Acting Chairperson Wilkinson. Motion passed.

[GODFREY – EXCUSED / NICHELINI – Y / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

6. **2023 10-YEAR CAPITAL MARKET ASSUMPTIONS REVIEW** – David Sancewich of Meketa presented an informational report regarding Investment Return Expectations and 2023 10-year Capital Market Assumptions. D. Sancewich noted PFRS has a declining membership, and as we move closer to the 2026 Actuarial Funding Date PFRS no longer needs to take on as much risk to meet the return expectation and will work to move assets into safer exposures.

**MOTION:** Acting Chairperson Wilkinson made a motion to accept the informational report presented by Meketa regarding Investment Return Expectations and 2023 10-year Capital Market Assumptions Review, second by Member Nichelini.

[GODFREY – EXCUSED / NICHELINI – Y / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

7. **SCHEDULE OF PENDING INVESTMENT COMMITTEE MEETING AGENDA ITEMS** – David Sancewich presented Meketa’s 2023 Strategic Investment Agenda Plan for discussion and noted benchmark reviews for Credit and Credit Risk Offset are not shown here, but we will work with staff to bring these items forward in the coming months. No other changes or additions were proposed.
8. **OPEN FORUM** – No Report
9. **FUTURE SCHEDULING** – The next Investment Committee Meeting will be held in-person and is tentatively scheduled to occur April 26, 2023.
10. **ADJOURNMENT** – Member Nichelini made a motion to adjourn, second by Acting Chairperson Wilkinson. Motion passed.

[GODFREY – EXCUSED / NICHELINI – Y / WILKINSON – Y]  
(AYES: 2 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 1)

The meeting adjourned at 11:23 a.m. Pacific

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**R. STEVEN WILKINSON**  
**ACTING COMMITTEE CHAIRPERSON**

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**DATE**

# Rice Hall James & Associates, LLC

RHJ Small Cap  
Opportunities Strategy

May 31, 2023



**RICE HALL JAMES**  
& ASSOCIATES, LLC

**Rice Hall James & Associates, LLC**  
600 West Broadway, Suite 1000  
San Diego, California 92101

Telephone: (619) 239-4855  
E-mail: [info@ricehall.com](mailto:info@ricehall.com)  
Website: [www.ricehalljames.com](http://www.ricehalljames.com)

For one-on-one presentation only, not for public distribution.

# Firm Profile

**March 31, 2023**

Investment-led firm, founded in 1974

Firm AUM + AUA: \$2.1 billion <sup>1</sup>

## Ownership

Independent and 100% employee-owned. RHJ is focused solely on investment management with no other lines of business

## Personnel

27 employees, including 12 owners averaging 30 years of industry experience and 22 years with Rice Hall James

## Time-Tested Investment Strategies

RHJ's professionals have been managing micro-, small-, and SMID-cap portfolios for more than three decades

## Established Client Base

34 institutional clients, representing 81% of assets

<sup>1</sup>Assets include assets under management and advisory-only assets. Advisory-only assets are client assets for which RHJ provides investment management services; they are non-managed assets.



# Diversity

## Diversity Representation Survey for Oakland Police and Fire

DATA AS OF 04/30/2023

Firm Name	Rice Hall James & Associates, LLC
Product Name	RHJ Small Cap Opportunities
Total Number of Employees	27

Race and Ethnicity*	Percentage (%) of Board of Directors / Managing Members	Percentage(%) of Firm (Entire Staff)	Percentage (%) of Firm (Investment Professionals)
African American/Black	0%	0%**	0%**
Asian/Hawaiian/Pacific Islander	17%	7%	0%
Latino/Hispanic	0%	4%	0%
White	83%	85%	93%
American Indian/Alaska Native	0%	4%	7%
Other	0%	0%	0%
<b>Gender</b>			
Male	67%	70%	80%
Female	33%	30%	20%
Non-Identified/Other	0%	0%	0%

\* Racial/ethnic categories appear as defined by EEOC guidance.

\*\*Does not include RHJ DEI Opportunities Internship Program.



# Successfully Launched RHJ DEI Internship Program

- ▶ Selected candidate to start on June 5, 2023.
- ▶ Candidate will join the five person Small Cap Opportunities Team in our Pasadena, CA office.
- ▶ Internship will expose the student to a variety of areas relating to fundamental equity research including public company management meetings, internal research meetings, financial statement analysis, and business model analysis.
- ▶ Candidate will develop a written investment thesis on one to two companies during their internship.
- ▶ Goal is to give candidate tangible experience to help begin their career in investment management.



# Value Proposition

## Long-Term Oriented

- Portfolio Manager/Analysts have an investment horizon that is longer than other micro, small, and SMID cap growth managers, typically 3 to 5 years.
- Long-term focus allows us to develop an **informational edge** on companies and their management teams relative to our peer group universe.

## Experienced & Stable

- Portfolio Manager/Analysts average 30 years of investment experience and 23 years working together.
- Knowledge base that includes a **deep understanding** of the companies' management teams, competitors, and customers.

## Quality-Focused

- Portfolio is comprised of companies that generate high returns on invested capital or have the potential to do so in the near future.
- We invest in those companies that we believe have a **sustainable competitive advantage** compared to rivals.

## Risk-Controlled

- Structure portfolio weightings in **most compelling ideas** on a risk-adjusted basis.
- Carefully monitor guideposts which are established at the time of initial investment.



# Portfolio Review



RICE HALL JAMES  
& ASSOCIATES, LLC

# Oakland Police & Fire Retirement System

**As of April 30, 2023**

## Portfolio Details

Inception Date: July 13, 2017

Initial Value: \$10,537,872.22

Market Value as of April 30, 2023: \$14,333,562.62

Net Flows Since Inception: (\$985,346.24)

	YTD	1 Year*	3 Years*	5 Years*	Since Inception* July 31, 2017
<b>Oakland Police &amp; Fire Ret System [Gross]</b>	<b>7.78%</b>	<b>1.93%</b>	<b>11.52%</b>	<b>4.75%</b>	<b>7.38%</b>
<b>Oakland Police &amp; Fire Ret System [Net]</b>	<b>7.38%</b>	<b>1.17%</b>	<b>10.54%</b>	<b>3.79%</b>	<b>6.39%</b>
Russell 2000 Growth Index	4.84%	0.72%	7.82%	4.00%	5.66%
<i>Difference (Net) vs. Russell 2000 Growth</i>	<i>+254 bps</i>	<i>+45 bps</i>	<i>+272 bps</i>	<i>(21 bps)</i>	<i>+73 bps</i>

\*Annualized

Source: FactSet



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& ASSOCIATES, LLC

Past performance does not guarantee future results. Returns are shown both gross and net of fees in U.S. dollars. For performance calculation purposes, the portfolio's inception date is July 31, 2017. Indices are provided for comparative purposes only. An investor cannot invest directly in an index. Rice Hall James & Associates, LLC's compliance with the GIPS standards has been verified for the period January 1, 1993 through December 31, 2021. Please refer to important disclosures at the end of this presentation regarding the returns and index shown above.

# RHJ Attribution Report

## YTD Attribution Analysis as of April 30, 2023

### Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

GICS Sector	City of Oakland			Russell 2000 Growth			Attribution Analysis		
	Avg. Port. Wt.	Port. Return	Port. Contrib.	Avg. Bmrk. Wt.	Bmrk. Return	Bmrk. Contrib.	Alloc. Effect	Select Effect	Total Effect
<b>Total</b>	<b>100.00</b>	<b>7.78</b>	<b>7.78</b>	<b>100.00</b>	<b>4.84</b>	<b>4.84</b>	<b>1.59</b>	<b>1.35</b>	<b>2.94</b>
Communication Services	9.99	21.80	2.05	2.46	11.95	0.29	0.49	0.91	1.40
Energy	--	--	--	6.82	-8.36	-0.57	0.97	--	0.97
Industrials	15.47	11.84	1.64	18.36	5.56	0.92	-0.06	0.99	0.93
Consumer Discretionary	12.08	16.38	1.75	11.35	11.63	1.21	0.10	0.48	0.59
Financials	8.02	7.70	0.50	5.87	0.74	0.04	-0.05	0.52	0.47
Real Estate	--	--	--	2.15	-3.43	-0.06	0.18	--	0.18
Information Technology	20.85	2.76	0.78	19.87	1.91	0.41	-0.02	0.16	0.14
Utilities	--	--	--	1.71	0.04	0.02	0.09	--	0.09
[Cash]	3.79	1.53	0.06	--	--	--	-0.03	--	-0.03
Materials	2.37	1.85	0.02	4.63	5.86	0.27	-0.01	-0.11	-0.12
Consumer Staples	1.36	-19.22	-0.21	4.49	9.90	0.44	-0.26	-0.38	-0.63
Health Care	26.07	3.62	1.19	22.29	8.20	1.87	0.17	-1.23	-1.06

Sources: FactSet, GICS Sector Classification, & FTSE Russell

# RHJ Attribution Report

## 1 Year Ending April 30, 2023 Attribution Analysis

### Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

GICS Sector	City of Oakland			Russell 2000 Growth			Attribution Analysis		
	Avg. Port. Wt.	Port. Return	Port. Contrib.	Avg. Bmrk. Wt.	Bmrk. Return	Bmrk. Contrib.	Alloc. Effect	Select Effect	Total Effect
<b>Total</b>	<b>100.00</b>	<b>2.09</b>	<b>2.09</b>	<b>100.00</b>	<b>0.72</b>	<b>0.72</b>	<b>0.19</b>	<b>1.17</b>	<b>1.36</b>
Financials	7.65	23.84	1.42	6.10	-4.81	-0.35	-0.05	1.93	1.89
Health Care	25.45	18.26	4.97	23.01	11.32	3.11	0.21	1.37	1.57
Communication Services	9.12	12.29	1.31	2.48	-8.55	-0.21	-0.50	1.89	1.39
Real Estate	--	--	--	2.31	-28.49	-0.86	0.85	--	0.85
Industrials	15.07	8.27	1.00	17.80	5.28	0.70	-0.12	0.46	0.34
Materials	2.25	19.77	0.31	4.39	3.97	0.11	-0.05	0.29	0.24
[Cash]	3.49	3.41	0.12	--	--	--	0.17	--	0.17
Consumer Discretionary	13.08	0.85	-0.10	11.54	1.27	-0.26	0.11	0.00	0.11
Utilities	--	--	--	1.54	4.49	0.00	0.07	--	0.07
Energy	--	--	--	6.33	-1.30	-0.10	0.04	--	0.04
Telecommunication Services	--	--	--	0.10	5.16	0.03	-0.02	--	-0.02
Consumer Staples	2.43	-45.80	-1.43	4.45	15.46	0.72	-0.32	-1.78	-2.10
Information Technology	21.45	-21.67	-5.51	19.95	-10.50	-2.18	-0.18	-2.99	-3.17

Sources: FactSet, GICS Sector Classification, & FTSE Russell

# Top/Bottom 5 Performers

## YTD Performers as of April 30, 2023

### Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

Ticker		Average Weight	Total Return	Contribution To Return
<b>5 Highest</b>				
ALBO	Albireo Pharma, Inc.	0.45	103.89	0.77
ARLO	Arlo Technologies, Inc.	1.15	83.48	0.67
RVNC	Revance Therapeutics, Inc.	1.63	72.43	0.74
WWE	World Wrestling Entertainment, Inc. Class A	4.22	56.64	1.99
PGTI	PGT Innovations, Inc.	1.21	42.87	0.42
<b>5 Lowest</b>				
CCSI	Consensus Cloud Solutions, Inc.	0.59	-30.56	-0.19
SMTc	Semtech Corporation	1.41	-32.07	-0.44
PBYI	Puma Biotechnology, Inc.	0.07	-36.64	-0.03
ASND	Ascendis Pharma A/S Sponsored ADR	1.47	-42.72	-0.73
FATE	Fate Therapeutics, Inc.	0.01	-43.31	-0.08

Sources: FactSet, GICS Sector Classification, & FTSE Russell



# Top/Bottom 5 Performers

## 1 Year Ending April 30, 2023 Performers

### Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

Ticker		Average Weight	Total Return	Contribution To Return
<b>5 Highest</b>				
BHVN	Biohaven Ltd.	0.01	139.14	0.04
AERI	Aerie Pharmaceuticals, Inc.	0.65	114.49	0.82
RVNC	Revance Therapeutics, Inc.	1.26	94.32	0.80
WWE	World Wrestling Entertainment, Inc. Class A	3.70	84.78	2.48
BHVN.1	Biohaven Pharmaceutical Holding Company Ltd.	1.05	70.24	1.18
<b>5 Lowest</b>				
IOVA	Iovance Biotherapeutics Inc	0.90	-62.77	-0.73
APPS	Digital Turbine, Inc.	1.92	-62.94	-1.36
RXT	Rackspace Technology, Inc.	0.63	-66.43	-1.04
SMTC	Semtech Corporation	1.93	-67.30	-2.05
FATE	Fate Therapeutics, Inc.	0.26	-79.97	-0.37

Sources: FactSet, GICS Sector Classification, & FTSE Russell



# Appendix



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# Investment Philosophy

We believe that superior, long-term, risk-adjusted returns are generated by building a portfolio of companies with three primary characteristics – **high earnings growth, high or improving returns on invested capital and better sustainability characteristics** than that of the index.



# Why Earnings Growth & ROIC?

The probability of alpha generation increases when high earnings growth is coupled with high returns on invested capital.

		EARNINGS GROWTH <sup>1</sup>				
		Less than 0%	0%-10%	10-20%	20%-25%	More than 25%
PERFORMANCE OF RUSSELL 2000 COMPANIES RELATIVE TO OVERALL INDEX						
5-YEAR AVG ROIC <sup>2</sup>	More than 15%	(27%)	(45%)	5%	96%	379%
	10% - 15%	(80%)	(58%)	2%	40%	159%
	5% - 10%	(27%)	(64%)	(24%)	11%	39%
	Less than 5%	(86%)	(57%)	(64%)	(17%)	32%

Historical performance does not guarantee future results.

<sup>1</sup> 5-year Earnings Per Share (EPS) growth, compounded annually.

<sup>2</sup> ROIC = Return on Invested Capital.

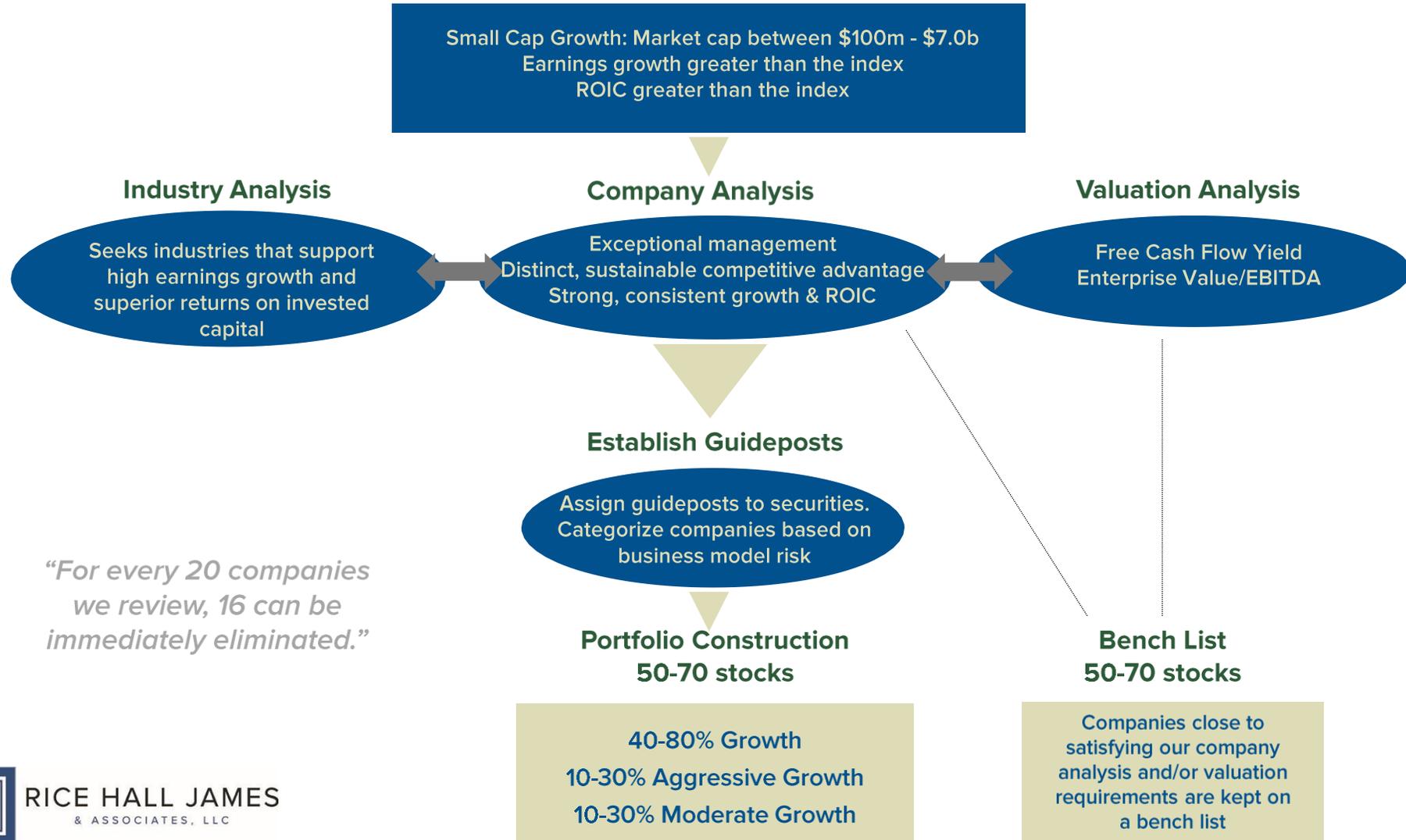
Sources: FactSet & FTSE Russell

Relative performance compares individual Russell® 2000 constituent performance vs. an equal-weighted index (Russell 2000) return. Only the Russell 2000 constituents (as of 12/31/2021) with 5 years of measurable history (EPS, ROIC and Performance) were used in the study. The index return is calculated using the combined equal-weighted 5 year return of these Russell 2000 constituents as of 12/31/2021. The Russell® 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000® Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 2000 is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set. The index is calculated on a total-return basis with dividends reinvested. Please refer to important disclosures at the end of this presentation.



# Portfolio Construction

Investable universe is significantly reduced by adhering to this discipline.



# Industry Analysis

A large initial universe allows us the freedom to identify and implement our investment strategy within traditional, non-traditional, and emerging growth industries.

- ▶ Industries which have been **historically identified** by companies with high earnings growth and superior returns on invested capital
- ▶ Industries exhibiting **changing dynamics**, supporting high growth and superior returns on invested capital
- ▶ New and **emerging industries** that can support companies with high earnings growth and superior returns on invested capital



# Investment Process - Company Analysis

We perform in-depth research to identify:

▶ **Companies that generate strong and consistent ROIC and earnings growth**

- Large or growing addressable markets
- Stability of existing revenue stream
- Ability to maintain or increase pricing
- High probability of retaining or widening margins

▶ **Capable management teams**

- Experience and integrity
- Track record of success
- Clear goals and viable long-term business model

▶ **Unique, sustainable competitive advantages**

- Proprietary products, services, distribution/manufacturing advantages
- Strategy for defending against competition
- High barriers to entry
- High or improving market share
- Brand name recognition

*We maintain contact with management teams of companies we own and all those considered for investment (our bench list)*



# Investment Process - Valuation Analysis

- ▶ Valuation analysis is a key component of our determination in how we assess a company's absolute & relative attractiveness

## Valuation Analysis

- Cash flow analysis that incorporates ROIC & the duration of earnings growth
- Analyze companies across industries and sectors, using common valuation techniques
- Analyze companies relative to valuation of securities in existing portfolio

## Other valuation methods:

- P/E to Growth Rate (PEG Ratio)
- Free Cash Flow Yield
- Price to earnings (P/E Ratio)
- Enterprise Value/EBITDA



# Investment Process – Establishing Guideposts

- ▶ As part of our research process, we create guideposts for each security:
  - Specific factors unique to each company used to monitor company progress
    - Examples: new drug filings in Health Care, or new store sales productivity in Retail
  - Through this ongoing monitoring process, position sizes are increased or decreased
  - Guideposts help to identify deteriorating or improving fundamentals before they are reflected in the stock price



# Investment Process – Portfolio Construction

- ▶ Portfolio Construction is a function of our bottom-up selection process – each holding is grouped into one of the three categories below:

## **Growth**

40-80% of portfolio

- Industry leader and/or gaining market share
- ROIC greater than 10%
- Earnings growth higher than the relative index
- Sustainable competitive advantage
- Proven successful operating history
- High confidence in management

## **Aggressive Growth**

10-30% of portfolio

- Emerging high growth companies with improving ROIC
- Companies in a unique/turnaround situation
- Higher volatility, but higher potential return candidates

## **Moderate Growth**

10-30% of portfolio

- Dominant position in their industry
- Moderate, consistent earnings growth and stable ROIC
- Self-funding and generating strong cash flow



# Sell Discipline

Sell discipline is a function of a review and violation of one or more of the following:

- ▶ Change in fundamentals or competitive advantages
- ▶ Missing Guideposts
- ▶ Change in management team
- ▶ Relative Valuation



# Summary

---

- ▶ Disciplined research process with focus on high growth, high return on invested capital companies with good sustainability characteristics
- ▶ Experienced Portfolio Manager/Analysts average 30 years of investment experience and 23 years working together
- ▶ Proven long-term results with success through a variety of economic environments



# Small Cap Opportunities Portfolio

## As of March 31, 2023

### Communication Services 10.3%

Eventbrite, Inc.	0.1%
Shutterstock, Inc.	2.1%
TechTarget, Inc.	0.5%
World Wrestling Entertainment, Inc.	4.4%
Ziff Davis, Inc.	3.2%

### Consumer Discretionary 11.2%

Century Casinos, Inc.	0.7%
LCI Industries	2.3%
Overstock.com, Inc.	1.3%
Pool Corp.	1.3%
Sleep Number Corp.	0.5%
Stride, Inc.	3.7%
Vail Resorts, Inc.	1.6%

### Consumer Staples 0.8%

Medifast, Inc.	0.8%
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### Financials 12.0%

Axos Financial, Inc.	2.1%
Bank OZK	1.1%
Donnelley Financial Solutions, Inc.	3.4%
Euronet Worldwide, Inc.	4.3%
Federal Agricultural Mortgage Corp.	1.1%

### Materials 2.3%

Ingevity Corp.	2.3%
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### Industrials 18.5%

Armstrong World Industries, Inc.	1.7%
Franklin Covey Co.	1.0%
GXO Logistics, Inc.	0.5%
Masonite International Corp.	3.6%
MAXIMUS, Inc.	1.8%
MSC Industrial Direct Co., Inc.	0.5%
PGT Innovations, Inc.	1.4%
Ritchie Bros. Auctioneers, Inc.	1.1%
RXO, Inc.	0.6%
Willdan Group, Inc.	0.5%
WNS Holdings Ltd.	4.9%
XPO, Inc.	0.9%

### Information Technology 15.5%

ACI Worldwide, Inc.	3.9%
Arlo Technologies, Inc.	1.5%
Cambium Networks Corp.	0.8%
CEVA, Inc.	1.2%
Consensus Cloud Solutions, Inc.	0.5%
Digital Turbine, Inc.	1.8%
Ituran Location and Control Ltd.	0.2%
Qualys, Inc.	1.2%
Radware Ltd.	1.4%
Semtech Corp.	1.2%
Silicon Motion Technology Corp.	0.6%
SolarWinds Corp.	0.1%
Wix.com Ltd.	1.1%

### Health Care 26.5%

ACADIA Pharmaceuticals, Inc.	1.5%
Amicus Therapeutics, Inc.	0.7%
Ascendis Pharma	1.5%
Doximity, Inc.	2.4%
Establishment Labs Holdings, Inc.	0.5%
Insmed, Inc.	0.3%
Iovance Biotherapeutics, Inc.	0.8%
Karuna Therapeutics, Inc.	0.3%
Kiniksa Pharmaceuticals Ltd.	0.5%
Ligand Pharmaceuticals, Inc.	1.5%
Medpace Holdings, Inc.	3.2%
Neurocrine Biosciences, Inc.	1.3%
OmniAb, Inc.	0.7%
OptiNose, Inc.	0.1%
Pacira Biosciences, Inc.	2.1%
Premier, Inc.	2.5%
Prestige Consumer Healthcare, Inc.	3.7%
Puma Biotechnology, Inc.	0.1%
Revance Therapeutics, Inc.	1.7%
Supernus Pharmaceuticals, Inc.	1.3%

<b>Total Equity</b>	<b>97.0%</b>
<b>Total Cash</b>	<b>3.0%</b>

Sources: FactSet & S&P Dow Jones Indices LLC

The above is provided for informational purposes only and should not be considered investment advice or a recommendation to buy or sell any securities. Holdings are subject to change at any time and are based on a model portfolio. Holdings of individual client accounts may differ from those shown above. Sector weightings may not add up to 100% due to rounding. The sectors referenced herein are determined based on the Global Industry Classification Standard ("GICS") methodology. A complete list of portfolio holdings and specific securities transactions for the preceding 12 months is available upon request. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of securities in this article. Rice Hall James & Associates, LLC, or one or more of its officers, may have a position in the securities discussed herein and may purchase or sell such securities from time to time. Please refer to the important information at the end of this presentation for additional sector information.



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# Small Cap Opportunities Portfolio Guidelines

## Position Limit Parameters

Position size is scaled up or down based on evolving reward to risk profile

Position Limit at Market	6%
Portfolio Holdings	50-70
Cash Weight	Typically less than 5%

## Market Cap Range

Between \$100 million and \$7.0 billion market capitalization at time of purchase

## Sector Weight Parameters

Sector weights are +/-1000 basis points of the benchmark weights of the major economic sectors

## Sector Allocations As of March 31, 2023

	Small Cap Opportunities	Russell 2000 Growth Index
Communication Services	10.3%	2.5%
Consumer Discretionary	11.2%	11.5%
Consumer Staples	0.8%	4.7%
Energy	--%	6.5%
Financials	12.0%	5.7%
Health Care	26.5%	21.6%
Industrials	18.5%	18.5%
Information Technology	15.5%	20.6%
Materials	2.3%	4.7%
Real Estate	--%	2.1%
Utilities	--%	1.7%
[Cash]	3.0%	--%

Capitalization	Small Cap Opportunities	Russell 2000 Growth Index
>\$5 billion	23.7	22.8
\$2 billion- 5 billion	44.5	50.3
\$750 million- 2 billion	23.5	20.6
\$400 million- 750 million	6.4	4.3
<\$400 million	2.0	2.0

Sources: FactSet & GICS Sector Classification

Sector weightings and market capitalizations are subject to change at any time and are based on a model portfolio. Sector weightings and market capitalizations of individual client portfolios in the strategy may differ from those shown above. Sector weightings and market capitalization ranges may not add up to 100% due to rounding. Please see important disclosure information at the end of this presentation regarding the index and sector classifications shown above.



# Small Cap Opportunities Portfolio Characteristics

As of March 31, 2023

	RHJ Small Cap Opportunities	Russell 2000 Growth Index
Number of Holdings	64	1,095
Portfolio Turnover (3Y annual avg)	19.7%	--
Long-Term Earnings Growth Forecast	12.9%	17.0%
P/E - 1 Year Forecast*	16.4	16.2
Weighted Median Market Cap	\$2.92 billion	\$3.13 billion
Weighted Average Market Cap	\$3.46 billion	\$3.35 billion
Active Share	95.5%	--

\*P/E Ratio calculation excludes companies with negative earnings.

Source: FactSet

Portfolio characteristics are subject to change at any time and are based on a model portfolio. Portfolio characteristics of individual client portfolios in the strategy may differ from those shown above. Please see important disclosure information at the end of this presentation regarding the index shown above.



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# Small Cap Opportunities Composite Performance

## Returns for Periods Ending March 31, 2023

	1Q23	1 Year*	3 Year*	5 Year*	7 Year*	10 Year*	Since Inception* October 10, 1994*
RHJ Small Cap Opportunities [Gross]	7.07%	-7.80%	18.53%	4.10%	9.99%	11.15%	12.58%
RHJ Small Cap Opportunities [Net]	6.91%	-8.37%	17.77%	3.41%	9.28%	10.43%	11.67%
Russell 2000 Growth Index	6.07%	-10.60%	13.36%	4.26%	8.74%	8.49%	7.41%

\*Annualized

Source: FactSet



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# Small Cap Opportunities Composite Historical Returns

	Small Cap Opportunities [Gross]	Small Cap Opportunities [Net]	Russell 2000 Growth Index
2022	-23.85 %	-24.33 %	-26.36 %
2021	16.13 %	15.38 %	2.83 %
2020	24.50 %	23.65 %	34.63 %
2019	18.85 %	18.04 %	28.48 %
2018	-6.49 %	-7.11 %	-9.31 %
2017	28.71 %	27.93 %	22.17 %
2016	11.93 %	11.28 %	11.32 %
2015	-0.06 %	-0.60 %	-1.38 %
2014	8.41 %	7.69 %	5.60 %
2013	56.34 %	55.12 %	43.30 %
2012	14.56 %	13.62 %	14.59 %
2011	9.55 %	8.68 %	-2.91 %
2010	38.73 %	37.65 %	29.09 %
2009	48.47 %	47.27 %	34.47 %
2008	-43.34 %	-43.71 %	-38.54 %
2007	10.48 %	9.50 %	7.05 %
2006	7.10 %	6.11 %	13.35 %
2005	11.46 %	10.42 %	4.15 %
2004	10.03 %	9.04 %	14.31 %
2003	50.70 %	49.31 %	48.54 %
2002	-29.41 %	-30.07 %	-30.26 %
2001	-28.87 %	-29.52 %	-9.23 %
2000	-13.23 %	-14.01 %	-22.43 %
1999	87.81 %	86.06 %	43.09 %
1998	16.33 %	15.20 %	1.23 %
1997	28.67 %	27.41 %	12.95 %
1996	53.30 %	51.78 %	11.26 %

Source: FTSE Russell



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Past performance does not guarantee future results. Composite returns are shown both gross and net of fees in U.S. dollars. Rice Hall James & Associates, LLC's compliance with the GIPS standards has been verified for the period January 1, 1993 through December 31, 2021. RHJ's GIPS Report is located at the end of this presentation as well as other important disclosure information regarding the returns and index shown above.

# Additional Documentation



RICE HALL JAMES  
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# RHJ Diversity, Equity, and Inclusion Policy

## **Our Commitment**

RHJ is keenly aware of the need to actively promote diversity, equity, and inclusion (DEI) within our industry, and this policy formalizes our commitment to improve DEI at the firm. Even as a small boutique firm with low personnel turnover, the composition of our ownership and employee base evidences our commitment to DEI.

We maintain that diversity encompasses every employee's distinctive attributes and unique qualities. Respecting these differences is key to building a sense of inclusion. We foster diversity of thought and value innovative thinking. RHJ has a "diverse" investment team in the sense that we have historically hired individuals with considerably different backgrounds and experience. Having a diverse group of decision makers in senior management and within our investment teams challenges conventional thinking. It helps us avoid "group-think" and the "following the herd" mentality which can be prevalent in the industry. We believe that this leads to improved investment decisions over time, and ultimately allows us to generate superior results, thus better serving our clients.

## **Our History**

RHJ has a longstanding commitment to DEI. Thirty percent of RHJ is women-owned (and within that share, 15% is minority woman-owned). Furthermore, there are 4 women with senior management positions. From its inception, RHJ has been a long-time supporter of organizations that promote diversity. We actively seek to expand our reach of support to additional DEI-related organizations.

## **Exercising Diversity, Equity, and Inclusion**

RHJ is also dedicated to ensuring that our firm is a workplace where every employee feels included, comfortable, respected, and provided with opportunities for continued growth. The firm will encourage initiatives focused on promoting awareness of DEI topics through training opportunities and creating a safe space for employees to express DEI-related concerns. RHJ's Management Committee will oversee and track progress made by the firm in relation to DEI, and ensure firm adherence to this policy.



# Biographies

## Portfolio Management & Analysis Team

### **Lou Holtz, CFA**

#### ***Chief Investment Officer & Portfolio Manager/Analyst***

Lou joined RHJ in October 2008 and has 31 years of investment experience. Prior to joining the firm he was a Managing Director and Portfolio Manager at Engemann Asset Management. Prior to that, Lou was a business valuation analyst at a national independent appraisal firm and an analyst for a regional real estate appraisal firm. Lou holds a Bachelor of Arts degree in business economics with honors from the University of California, Santa Barbara and an M.B.A. with an emphasis in finance from the University of Southern California, where he was on the Dean's List. Lou is a CFA® charterholder. He is a member of CFA Society Los Angeles.

### **Yossi Lipsker, CFA**

#### ***Portfolio Manager/Analyst***

Yossi joined RHJ in October 2008 and has 28 years of investment experience. Prior to joining the firm he was a Managing Director and Portfolio Manager at Engemann Asset Management. He received an M.B.A. with an emphasis in finance from Columbia Business School. While at Columbia he excelled academically, gaining membership in both the Beta Gamma Sigma Honor Society and the Dean's List. Additionally, Yossi holds a B.R.S. degree in religious studies from the Rabbinical College of America. Yossi is a CFA® charterholder. He is a member of CFA Society Los Angeles.

### **Anthony S. Yamarone, CFA**

#### ***Analyst***

Tony joined RHJ in September 2016. Prior to joining the firm, he worked at Ameriprise Financial as a member of their financial planning team. He received a B.S. in Business Administration from San Francisco State University and an M.S. in Financial Analysis and Investment Management from Saint Mary's College of California. Tony is a CFA® charterholder. He is a member of CFA Society Los Angeles.

### **Dakota Safford, CFA**

#### ***Analyst***

Dakota joined RHJ in August 2017. Prior to joining the firm, he worked at Advanced Financial Strategies as a financial analyst. He received a B.A. in Business Economics from the University of California, Irvine. While at UCI, he was involved in the Student Managed Investment Fund, where he performed equity research and evaluated portfolio structures. Dakota is a CFA® charterholder. He is a member of CFA Society Los Angeles.

### **Alec R. Harrell, CFA**

#### ***Analyst***

Alec joined RHJ in December 2017 and has 20 years of investment experience. Prior to joining the firm he was a Senior Portfolio Manager/Analyst at Northern Trust Asset Management. Prior to that, Alec worked as a Portfolio Manager/Analyst for Convergent Fund Management and an Analyst for Needelman Asset Management. His experience includes fundamental research on U.S. and international securities as well as the development of quantitative equity strategies. He received a B.A. in politics, philosophy and economics from Claremont McKenna College and a J.D. and M.B.A. from the University of Southern California [USC]. Alec is a CFA® charterholder. He is a member of CFA Society Los Angeles.



# Biographies

## Marketing & Client Service

### **Thao N. Buuhoan**

#### ***President & Chief Operating Officer***

Thao joined RHJ in June of 2000 and was initially responsible for Institutional Marketing and Client Service. In 2009, Thao assumed responsibility as President and Chief Operating Officer and leads the growth and strategic initiatives of the firm. She also oversees Compliance, Operations, and Trading, in addition to her Marketing and Client Service responsibilities. Prior to joining RHJ, she was a Marketing Manager at State Street Global Advisors in Hong Kong, responsible for sales and marketing to Asian institutions. Thao is a former board member of AAAIM (Association of Asian American Investment Managers) and continues to be active with a number of affinity groups focused on Diversity, Equity, and Inclusion. She received a B.A. from the University of Pennsylvania.

### **Michael C. Meoli**

#### ***Director of Client Service & Marketing***

Mike joined RHJ in March 2011 and is responsible for Institutional Marketing and Consultant Relations. Prior to joining the firm, he worked at Everest Capital where he focused on consultant relations and business development. Other previous work experience includes business development at Pathway Capital Management and conducting research on investment managers at an institutional investment consulting firm. Mike holds a B.A. from Concordia University and an M.B.A. from the University of California, Irvine.

### **Lauren Maskell**

#### ***Assistance Vice President***

Lauren joined RHJ in 2016 and has performed various functions in the Administration and Operations departments. In December 2018, she joined the Client Service and Marketing Team and is currently responsible for servicing institutional client, consultant, and third party relationships. Lauren oversees firm RFPs and questionnaires, institutional database updates, and marketing material production. Lauren holds a B.A degree in Liberal Studies from San Diego State University.



# Biographies

## Trading

### **DJ Devin**

#### ***Head Securities Trader***

DJ joined the firm in June 1981 and served in several administrative and trade-related positions. In 1986, she assumed responsibility for the execution of all trades and management of soft dollars and commissions. She received a Certificate in Personal Financial Planning from San Diego State University and is a member of the Security Traders Association of Los Angeles.

### **Jorji-Ann McAllister**

#### ***Trader***

Jorji-Ann joined RHJ in May 1987 and has served in several administrative and trade related positions. Jorji-Ann completes all trading functions, including placement and execution of orders. She received a B.S. from Kearney State College, Kearney, Nebraska.

### **Brandon Toney, CFA**

#### ***Trader***

Brandon joined RHJ in March 2017. Prior to joining the firm, he worked at Wall Street Associates for two years as a trader. He received a B.S. in Finance from San Diego State University. Brandon is a CFA® charterholder. He is a member of CFA Society San Diego.



# Biographies

## Administration

### **Carl M. Obeck** *Chief Financial Officer*

Carl joined RHJ as Marketing Manager in 2003 and was promoted to Chief Administrative Officer in 2004 and Chief Financial Officer in 2009. Prior to joining the firm, Carl was responsible for Institutional Consulting Relationships and Marketing at Freeman Associates Investment Management. He also served as Director of Marketing at Messner & Smith. Previous experience includes Corporate Vice President at Montgomery Asset Management and Product Manager for Citibank London NA. Carl has a B.A. from the University of Delaware and an M.A. from Webster University in Vienna, Austria.

### **Janine Marquez, IACCP** *Chief Compliance Officer*

Janine joined RHJ in July 2002. Janine was appointed Chief Compliance Officer (CCO) for RHJ in June 2009. As CCO, she is responsible for oversight and implementation of the compliance program and regulatory requirements for the firm. Throughout her tenure with RHJ, Janine has held various roles within Marketing, Trading and Compliance. Previously, she was a Senior Investment Analyst at Callan Associates Inc. She was responsible for researching and analyzing money management firms for pension fund plan sponsors. She holds a B.S. degree from California Polytechnic State University, San Luis Obispo, California. Additionally, Janine holds the designation of Investment Adviser Certified Compliance Professional® (IACCP®).

### **Shelley Hamilton** *Senior Compliance Manager*

Shelley joined RHJ in February 1997, and has 34 years of industry experience. Shelley was promoted to Senior Compliance Manager for RHJ in November 2018. Throughout her tenure with RHJ, Shelley has held various roles within the Operations Department, including Operations Manager, Project Manager and Operations Administrator.

### **Tony Shaw, CFA** *Director of Operations*

Tony joined the firm in August 2010 and has 29 years of experience in the financial services industry. Prior to joining RHJ, he served as Vice President at LPL Financial overseeing areas in operations and client services as well as issue resolution. Tony holds a B.A. degree from San Diego State University. Tony is a CFA® charterholder.

### **Brett Knight** *Director of Information Technology*

Brett joined RHJ in April 2015 as Director of Information Technology and the acting Information Security Officer. He has 23 years of industry experience. Prior to joining the firm, Brett was a founding partner at Bravura Networks Inc., a managed service provider in the IT industry. Brett has a B.S. in Business Administration with an emphasis in Management Information Systems from San Diego State University; additionally, Brett holds a Microsoft Certified Systems Engineer (MCSE) certification.



# Investment Statistics: Definitions & Formulas

**Active Share** - This is a measure of the percentage of stock holdings in the portfolio that differs from the benchmark index. Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the portfolio versus the weight of each holding in the benchmark index and dividing by two.

**EV/EBITDA** - Enterprise multiple, also known as the EV multiple, is a ratio used to determine the value of a company. The enterprise multiple, which is enterprise value divided by earnings before interest, taxes, depreciation, and amortization (EBITDA), looks at a company the way a potential acquirer would by considering the company's debt.

**Free Cash Flow Yield** - Free cash flow yield is a financial solvency ratio that compares the free cash flow per share a company is expected to earn against its market value per share. The ratio is calculated by taking the free cash flow per share divided by the current share price.

**Long-Term Earnings Growth Forecast** - Long-Term Growth [LTG] is the annual EPS growth that the company can sustain over the next 3 or 5 years.

**P/E Ratio** - The price-to-earnings ratio is the ratio for valuing a company that measures its current share price relative to its earnings per share. The price-to-earnings ratio is also sometimes known as the price multiple or the earnings multiple.

**P/E to Growth Ratio** - A stock's price-to-earnings ratio divided by the growth rate of its earnings for a specific time period. This is used to determine a stock's value while also factoring in the company's expected earnings growth, and is considered to show a more full picture than the standard P/E Ratio calculation.

**P/E Ratio - 1 Year Forecast** - A forward-looking valuation measure of a company's common stock, excluding negative earnings. It encapsulates the amount of earnings estimated for next year per dollar of current share price. For the portfolio, the individual P/E stock ratios are then weighted by their respective portfolio market values in order to calculate a weighted average representative of the portfolio as a whole.

**Return on Invested Capital** - Return on invested capital (ROIC) is a calculation used to assess a company's efficiency at allocating the capital under its control to profitable investments.

Sources: *eVestment Analytics & FactSet*



# Important Disclosures

Rice Hall James & Associates, LLC (“RHJ”) obtained some of the information provided herein from third party sources believed to be reliable but it is not guaranteed. Data contained herein is for informational purposes only and should not be considered a recommendation to buy or sell any securities. Nothing presented herein is or is intended to constitute investment advice, and no investment decision should be made based solely on any information provided herein. RHJ has not taken into account the investment objectives, financial situation or particular needs of any individual investor who may view this report. There is a risk of loss from an investment in securities, including the risk of loss of principal. Different types of investments involve varying degrees of risk, and there can be no assurance that any specific investment will be profitable or suitable for a particular investor’s financial situation or risk tolerance. Asset allocation and portfolio diversification cannot assure or guarantee better performance and cannot eliminate the risk of investment losses.

## GICS Sector Classification

The Global Industry Classification Standard (GICS®) was developed by and is the exclusive property and a trademark of S&P and MSCI. GICS® is used for all portfolio characteristics involving sector and industry data such as benchmark, active and relative weights, and attribution. Neither MSCI, S&P nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

*Source: S&P Dow Jones Indices LLC*

## CFA Designation

The Chartered Financial Analyst (CFA) charter is a globally respected, graduate-level investment credential established in 1962 and awarded by CFA Institute - the largest global association of investment professionals. To earn the CFA charter, candidates must: 1) pass three levels of the CFA exam; 2) achieve qualified professional investment experience or work experience; 3) submit professional reference letters; and 4) apply for CFA Institute charterholder membership.

*Source: CFA Institute*

## Indices Disclosure

Indices are provided for comparative purposes only. Broad-based securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. An investor cannot invest directly in an index. RHJ may invest in securities not covered by the index referenced. This is an actively managed strategy that does not invest in all of the securities of an index, and will have some associated concentration risk. Comparisons have limitations because indices may have volatility, investment and other characteristics that may differ from an investment account strategy to which it is compared. Indices are unmanaged, include the reinvestment of dividends, and do not reflect transaction costs, management, or other fees. See the following for a description of each index used in this material.

### Russell 2000® Growth Index

The Russell 2000® Growth Index measures the performance of the small cap growth segment of the U.S. equity universe. It includes those Russell 2000 companies with relatively higher price-to-book ratios, higher I/B/E/S forecast medium term (2 year) growth, and higher sales per share historical growth (5 years). The Russell 2000 Growth Index is constructed to provide a comprehensive and unbiased barometer for the small-cap growth segment. The index is completely reconstituted annually to ensure new and growing equities are included and that the represented companies continue to reflect growth characteristics.

*Index Definition Source: FTSE Russell*



# GIPS Report

## RHJ Small Cap Opportunities Composite

Year End	Annual Performance Results				3-Year Annualized Standard Deviation	
	Composite Gross Returns	Composite Net Returns	Russell 2000 Growth	Composite Dispersion Gross Returns	Composite Gross Returns	Russell 2000 Growth
2021	16.13%	15.38%	2.83%	0.10%	23.68%	23.07%
2020	24.50%	23.65%	34.63%	0.43%	26.10%	25.10%
2019	18.85%	18.04%	28.48%	0.11%	15.65%	16.37%
2018	-6.49%	-7.11%	-9.31%	0.28%	16.34%	16.46%
2017	28.71%	27.93%	22.17%	0.14%	14.14%	14.59%
2016	11.93%	11.28%	11.32%	0.13%	15.57%	16.67%
2015	-0.06%	-0.60%	-1.38%	0.41%	14.26%	14.95%
2014	8.41%	7.69%	5.60%	N/A <sup>1</sup>	13.02%	13.82%
2013	56.34%	55.12%	43.30%	N/A <sup>1</sup>	14.91%	17.27%
2012	14.56%	13.62%	14.59%	N/A <sup>1</sup>	18.25%	20.72%
2011	9.55%	8.68%	-2.91%	N/A <sup>1</sup>	22.77%	24.31%
2010	38.73%	37.65%	29.09%	N/A <sup>1</sup>	28.56%	27.70%
2009	48.47%	47.27%	34.47%	N/A <sup>1</sup>	26.27%	24.85%
2008	-43.34%	-43.71%	-38.54%	N/A <sup>1</sup>	21.32%	21.26%
2007	10.48%	9.50%	7.05%	N/A <sup>1</sup>	13.87%	14.23%
2006	7.10%	6.11%	13.35%	N/A <sup>1</sup>	15.82%	15.57%
2005	11.46%	10.42%	4.15%	N/A <sup>1</sup>	17.92%	16.51%
2004	10.03%	9.04%	14.31%	N/A <sup>1</sup>	23.95%	21.40%
2003	50.70%	49.31%	48.54%	N/A <sup>1</sup>	34.03%	27.00%
2002	-29.41%	-30.07%	-30.26%	N/A <sup>1</sup>	43.88%	33.33%
2001	-28.87%	-29.52%	-9.23%	N/A <sup>1</sup>	46.49%	33.58%
2000	-13.23%	-14.01%	-22.43%	N/A <sup>1</sup>	42.60%	33.28%
1999	87.81%	86.06%	43.09%	N/A <sup>1</sup>	32.26%	26.31%
1998	16.33%	15.20%	1.23%	N/A <sup>1</sup>	28.77%	25.03%
1997	28.67%	27.41%	12.95%	N/A <sup>1</sup>	21.20%	18.27%
1996	53.30%	51.78%	11.26%	N/A <sup>1</sup>		
1995	25.69%	24.45%	31.04%	N/A <sup>1</sup>		
1994 <sup>*</sup>	20.70%	20.39%	1.40%	N/A <sup>1</sup>		



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N/A<sup>1</sup> - Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire calendar year (five or fewer).

\*Results shown for the year 1994 represent partial period performance from October 10 through December 31, 1994.

# GIPS Report

## RHJ Small Cap Opportunities Composite

Year End	Composite Assets		Firm Assets (\$ M)			Strategy Assets (\$ M)		
	Number of Accounts	USD (\$ M)	Total Assets Under Management	Total Advisory-Only Assets	Total Assets Under Management + Advisory-Only Assets*	Total Assets Under Management	Total Advisory-Only Assets	Total Assets Under Management + Advisory-Only Assets
2021	18	1,267	2,948	347	3,295	1,546	20	1,566
2020	19	1,333	3,120	205	3,325	1,634	19	1,653
2019	20	1,110	3,359	207	3,566	1,495	25	1,520
2018	20	991	3,051	199	3,250	1,383	19	1,402
2017	19	1,121	3,607	235	3,842	1,634	14	1,648
2016	20	813	2,843	65	2,907	1,194	-	1,194
2015	17	557	2,258	-	2,258	784	-	784
2014	10	255	1,955	2	1,958	434	-	434
2013	Five or fewer	54	1,514	2	1,516	66	-	66
2012	Five or fewer	30	1,087	8	1,095	31	-	31
2011	Five or fewer	35	1,144	6	1,150	36	-	36
2010	Five or fewer	50	1,312	2	1,314	50	-	50
2009	Five or fewer	40	1,203	1	1,205	41	-	41
2008	Five or fewer	27	1,030	-	1,030	28	-	28
2007	Five or fewer	187	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2006	Five or fewer	211	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2005	Five or fewer	254	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2004	Five or fewer	369	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2003	Five or fewer	360	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2002	Five or fewer	259	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2001	Five or fewer	463	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2000	Five or fewer	407	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1999	Five or fewer	244	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1998	Five or fewer	101	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1997	Five or fewer	53	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1996	Five or fewer	9	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1995	Five or fewer	2	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1994	Five or fewer	0	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>



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N/A<sup>1</sup> - Performance presented prior to September 30, 2008, occurred while the portfolio management team was affiliated with another firm. Firm and strategy assets prior to 2008 are not presented because the composite was not part of the firm.

\*Assets Under Management + Advisory-Only Assets totals may differ from Total Assets Under Management and Total Advisory-Only Assets due to rounding.

# GIPS Report

The RHJ Small Cap Opportunities Composite contains all fully discretionary, tax-exempt, institutional, and high net worth portfolios invested in small cap companies that have three primary characteristics: high earnings growth, high or improving return-on-invested capital, and sustainable competitive advantages. The composite was created on April 1, 1999, and the inception date is October 10, 1994. The performance presented prior to October 1, 2008, represents that of a prior firm and was known as the Small Cap Growth Institutional Composite. The portfolio management team members were the only individuals responsible for selecting securities to buy and sell. The minimum account size for this composite is \$1 million. From January 1, 1996 to March 31, 2004, the minimum account size was \$5 million. Prior to January 1, 1996, there was no minimum. For comparison purposes the composite is measured against the Russell 2000 Growth index.

Results are based on fully discretionary accounts under management, including those accounts no longer with the firm. As of January 1, 2005, composite policy requires the temporary removal of any portfolios incurring a client initiated significant cash inflow or outflow of 50% or greater of portfolio assets. The temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurs and the account re-enters the composite the month after the cash flow is fully invested. From January 1, 2005 to June 30, 2006, the temporary removal of such an account occurred at the beginning of the month in which the significant cash flow occurred and the account is re-entered into the composite the month after the cash flow. From July 1, 2006 to September 30, 2008, the temporary removal of such an account occurs at the beginning of the quarter in which the significant cash flow occurs and the account re-enters the composite the second calendar quarter after the cash flow. As of September 30, 2008, the temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurred and the account is re-entered into the composite the month after the cash flow. Additional information regarding the treatment of significant cash flows is available upon request. Past performance is not indicative of future results.

Founded in 1974, Rice Hall James & Associates, LLC is an SEC registered investment adviser. The firm is 100% employee owned.

The U.S. Dollar is the currency used to express performance. Returns are presented gross and net of management fees, and include the reinvestment of all income. Net of fee performance was calculated using actual management fees. The annual composite dispersion presented is an asset-weighted standard deviation calculated for the gross returns of accounts in the composite the entire year. Additional information regarding policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. The firm maintains a complete list of pooled funds and composite descriptions, which is available upon request.

Indices are provided for comparative purposes only. An investor cannot invest directly in an index. Comparisons have limitations because indices may have volatility, investment and other characteristics that may differ from an investment account strategy to which it is compared. Indices are unmanaged, include the reinvestment of dividends, and do not reflect transaction costs, management, or other fees. The Russell 2000® Growth Index measures the performance of the small-cap growth segment of the U.S. equity universe. It includes those Russell 2000 companies with higher price-to-value ratios and higher forecasted growth values. The Russell 2000 Growth Index is constructed to provide a comprehensive and unbiased barometer for the small-cap growth segment. The Index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set and that the represented companies continue to reflect growth characteristics.

The management fee schedule is as follows: 1.0% flat rate. Actual investment advisory fees incurred by clients may vary. This composite does not include any non-fee paying accounts.

Rice Hall James & Associates, LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Rice Hall James & Associates, LLC has been independently verified for the periods January 1, 1993 through December 31, 2021. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The RHJ Small Cap Opportunities Composite has had a performance examination for the periods October 1, 2008 through December 31, 2021. The verification and performance examination reports are available upon request at the following address: 600 West Broadway, Suite 1000, San Diego, California 92101.

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## MEMORANDUM

**TO:** Oakland Police and Fire Retirement System (“OPFRS”)  
**FROM:** Meketa Investment Group (“Meketa”)  
**DATE:** May 31, 2023  
**RE:** Rice Hall James—Manager Update

### Manager: Rice Hall James

<b>Inception Date:</b>	July 2017	<b>OPFRS AUM (4/30/2023):</b>	\$14.3 million
<b>Strategy:</b>	Small Cap Opportunities	<b>Firm-wide AUM (3/31/2023):</b>	\$1.8 billion
<b>Benchmark:</b>	Russell 2000 Growth	<b>Strategy AUM (3/31/2023):</b>	\$1.0 billion

### Summary & Recommendation

Rice Hall James has managed a part of OPFRS’s small cap equity portfolio since July 2017. As of 4/30/2023, the portfolio is approximately \$14.3 million or about 3.5% of OPFRS’s total plan.

The strategy was put on the Watch status in May 2019 for performance concerns, as Rice Hall James experienced poor relative performance in 2019 and 2020.

As of the last review in October 2022 and thereafter, Rice Hall James has performed within expectations and guidelines for the portfolio. No major organizational changes or personnel turnover in the portfolio management team have been observed since the last review.

***Therefore, from investment management process and performance perspective, Meketa does not have any major concerns with Rice Hall James and the Small Cap Opportunities strategy, and recommends that it be removed from the Watch status.***

### Investment Performance Review Summary

As of 4/30/2023, Rice Hall James’s Small Cap Opportunities strategy has outperformed the benchmark Russell 2000 Growth Index on gross-of-fees basis over all the trailing time periods measured. On net-of-fees basis, the strategy outperformed the benchmark across all periods except in the trailing 5-year period, where it slightly underperformed. Since inception in July 2017, the strategy has generated an annualized net-of-fees investment return of 6.0% and has outperformed the benchmark.

In comparison with the other US small cap growth managers, the portfolio ranks in the first quartile year-to-date (through April) and above the 1- and 3-year trailing periods. Reflecting the past underperformance in 2019 and 2020, the strategy ranks below average for the longer time periods, namely the 5-year trailing period and since inception in July 2017.

**OPFRS Portfolio Annualized Returns (as of 4/30/2023)<sup>1</sup>**

Portfolio	Market Value (\$000)	YTD	1 YR	3 YR	5 YR	Since Inception	Inception Date
Rice Hall James (Gross)	14,336	7.8	2.0	11.5	4.8	7.1	7/2017
<i>Russell 2000 Growth</i>	---	4.8	0.7	7.8	4.0	5.7	---
Excess Return (Gross)	---	3.0	1.3	3.7	0.8	1.4	---
Rice Hall James (Net)	---	7.4	0.9	10.4	3.7	6.0	---
<i>Russell 2000 Growth</i>	---	4.8	0.7	7.8	4.0	5.7	---
Excess Return (Net)	---	2.6	0.2	2.6	(0.3)	0.3	---
Peer Group Ranking <sup>2</sup>	---	20	32	48	91	88	---
Reference: Median Net Return	---	4.4	(2.3)	10.0	7.9	9.3	---

**Product and Organization Review Summary**

Rice Hall James	Areas of Potential Impact				
	Level of Concern	Investment process (Client Portfolio)	Investment Team	Performance Track Record	Team/Firm Culture
<b>Product</b>					
Key people changes	None				
Changes to team structure/individuals' roles	None				
Product client gain/losses	None				
Changes to the investment process	None				
Personnel turnover	None				
<b>Organization</b>					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
<b>Recommended Action</b>	<b>None - X</b>		<b>Watch Status</b>	<b>Termination</b>	

A review of Rice Hall James and the Small Cap Opportunities strategy revealed no concerning organizational issues or changes since last review in October 2022.

<sup>1</sup> Performance is annualized for periods longer than one year.

<sup>2</sup> Peer group is eVestment US Small Cap Growth Equity Managers Net.

## Investment Philosophy & Process, per Manager

The Small Cap Opportunities strategy employs a fundamental, bottom-up analytical process to identify companies that meet three primary criteria: high earnings growth, high or improving return-on-invested capital ("ROIC"), and sustainable competitive advantages.

RHJ's philosophy is rooted in historical analysis indicating the high relative return potential of these factors in combination. They believe that superior results can be achieved by owning companies that exhibit not only high earnings growth, but also the ability to sustainably generate high ROIC over long periods of time. RHJ's investment universe consists of companies with market capitalizations between \$100 million and \$4 billion at the time of purchase.

The heart of RHJ's process is fundamental, bottom-up analysis at the company level. The portfolio managers conduct all research on every company held in the portfolio. As generalists, each with over twenty years of investment experience, both portfolio managers bring to bear extensive knowledge of the companies they own or follow, understanding of industries, and general expertise on the small cap landscape in various market environments. Cornerstones of the bottom-up fundamental investment process include:

- Clear understanding of a firm's competitive context and advantages
- Assessment of the sustainability characteristics of the underlying business
- Emphasis on high or improving ROIC; a clear sense of the future direction of ROIC
- Estimation of ability to generate and grow free cash flow over life of the investment
- Valuation that affords a reasonable return over investment horizon
- Scrutiny of company management, ability to identify/ execute on the right plan

Idea generation begins with an analysis of companies within the FactSet universe with market caps ranging from \$100 million to \$4 billion, with an emphasis on growth-oriented industries comprised of companies that feature high earnings growth and high ROIC criteria. Health Care, Technology, and Consumer traditionally have been rich with such companies. They also look for new or emerging industries that can support high growth companies going forward. While these types of investments typically carry more risk, certain areas of the internet and biotechnology, for example, management believes they can create space for attractive long-term growth characteristics.

Finally, RHJ looks for catalysts within industries that are not typically associated with growth characteristics, seeking to capitalize on tactical growth opportunities that arise due to demographic, regulatory and supply/demand issues. Cyclical industries can provide the landscape for attractive growth opportunities to crop up due to such changes.

### Investment Philosophy & Process, per Manager (continued)

At the company level, RHJ focuses on businesses that can generate above-average earnings and free cash flow relative to the benchmark. Management favors companies that they believe can achieve these results in tandem with sustained high ROIC, or that can increase their returns to above-average levels over the relevant investment horizon. It is essential that a company can protect these attributes through a well-defined, competitive position, which will protect growth, margins and returns.

Since strong relative results tend to manifest over longer holding periods, RHJ focuses on long-term sustainability factors rather than short-term data points and market movements; as such, low turnover is a notable characteristic of the portfolio.

DS/PN/JLC/mn

## Disclosure

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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

## MEMORANDUM

**TO:** Oakland Police and Fire Retirement System (“OPFRS”)  
**FROM:** Meketa Investment Group (“Meketa”)  
**DATE:** May 31, 2023  
**RE:** Crisis Risk Offset (CRO) Asset Class Benchmark Update

### Background

The Oakland Police and Fire Retirement System (“OPFRS”) adopted the Crisis Risk Offset (CRO) asset class as part of the asset allocation policy in 2017. This asset class serves to diversify both the equity risk and nominal interest rate risk of the total portfolio. Thus, it is structured as a combination of multiple underlying components, so that the aggregate class exhibits uncorrelated returns and characteristics.

In the OPFRS portfolio, this class is implemented with a mix of Long Duration fixed income, Systematic Trend Following, and Alternative Risk Premia elements, each having one-third of the total CRO assets as the allocation target.

### Current & Recommended Benchmarks

In the latest revision of the Investment Policy Statement (IPS) in March 2022, Société Générale (SG) Multi Alternative Risk Premia Index was established as the benchmark for the CRO asset class as all of its underlying components had not been fully implemented.

Since then, the CRO asset class has been fully implemented with all three components. Thus, we recommend that the asset class benchmark for CRO is updated as the following to better reflect its components and measure the asset class’s performance against its intended purpose: **33.34% SG Trend Index, 33.33% Bloomberg US Gov Long Index, and 33.33% SG Multi Alternative Risk Premia Index.**

We also recommend that the recommended benchmark be retroactively applied to the CRO asset class starting January 1, 2023.

	2023 Q1	1 Year	3 Years
Crisis Risk Offset	0.0	-6.5	-8.7
Current Benchmark	1.1	6.4	2.1
Recommended Benchmark	0.1	5.3	1.7

In the following pages, the sections of the IPS (Revised March 2022) which will be updated upon adoption of this recommendation are presented in a red-lined version.

## E. ASSET ALLOCATION

### 1) Asset Classes to be Used

The Board has considered and adopted the use of three significant asset classes:

- a) Domestic Stocks,
- b) International Stocks, and
- c) Fixed Income instruments to include: U.S. Treasury Notes and Bonds, U.S. Government Agency Mortgage-Backed Securities\*, U.S. Corporate Notes and Bonds, Collateralized Mortgage Obligations, Yankee Bonds, High Yield Bonds/Bank Loans, and Non-U.S. issued fixed income securities denominated in foreign currencies

There will be a negligible permanent allocation to cash equivalents.

### 2) Long-Term Target Allocations

In March 1996, Oakland voters passed Measure E which amended Article XXVI, Section 2601(e) of the Oakland City Charter to increase the percentage of the invested funds of the System that may be invested in common stocks and mutual funds from forty percent (40%) to fifty percent (50%).

In November 2006, Oakland voters passed Measure M which further amended Article XXVI of the Oakland City Charter to allow the OPFRS Board to make investments solely in accordance with the prudent person standard as required by the California Constitution, Article XVI, Section 17 (a).

Long-Term Asset class targets as adopted by the Board in 4Q 2017 are as follows:

Investment Class	Phase 1 Interim Policy Targets (%)	Phase 2 Long-Term Policy Targets (%)	Benchmark
Domestic Equity	40	40	Russell 3000 Index
International Equity	12	12	MSCI ACWI ex US Index
Fixed Income	31	21	Bloomberg US Universal Index
Credit	2	2	Bloomberg US High Yield Index
Covered Calls	5	5	CBOE S&P 500 Buy Write Index (BXM)
Crisis Risk Offset	10	20	<u>33.34% SG Trend Index, 33.33% Bloomberg US Gov Long Index, 33.33% SG Multi Alternative Risk Premia Index</u> <del>SG Multi Alternative Risk Premia Index</del>
Cash	0	0	90-day T-Bills

\* Includes Non-Agency issues, which are fully collateralized by Agency paper.

**F. PERFORMANCE OBJECTIVES**

**1) Overall Investment Goal**

The overall investment goal of the retirement system is to generate a long-term oriented rate of return for the total portfolio that equals or exceeds the actuarial investment rate assumption. This objective will primarily emanate from the overall asset allocation policy of the Plan. The Board will maintain a long-term investment horizon and will monitor on a routine periodic basis the investment performance of the total fund, various asset classes, and investment managers (see Monitoring Procedures).

**2) Performance Benchmarks and Targets for the Total Fund and Fund Asset Classes**

Total Fund performance is evaluated against two benchmarks: (i) a Policy Index (a weighted average of performance using policy targets by asset class), and (ii) an Asset Allocation Index (a weighted average of performance using actual allocations by asset class). By doing so, the Board is able to determine whether Fund performance is due to active decisions by its investment managers and/or differences between the target policy allocation and actual asset allocation.

In addition, the Board will compare performance of each asset class against a benchmark that has characteristics representative of a broad market and indicative of the investment managers comprising that asset class.

Asset Class	Benchmark*
Domestic Equity	Russell 3000 Index
International Equity	MSCI ACWI ex US Index
Fixed Income	Bloomberg US Universal Bond Index
Credit	Bloomberg US High Yield Index
Covered Calls	CBOE S&P 500 Buy Write Index (BXM)
Crisis Risk Offset (CRO)	<u>33.34% SG Trend Index, 33.33% Bloomberg US Gov Long Index, 33.33% SG Multi Alternative Risk Premia Index, SG Multi Alternative Risk Premia Index</u>

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\* Reported asset class benchmark returns may contain results of prior benchmarks (a blended benchmark)

### **M. CRISIS RISK OFFSET (CRO) AND PORTFOLIO COMPONENT DEFINITIONS**

In accordance with the objectives of the Statement of Investment Policy and Procedures of the Oakland Police and Fire Retirement System (the “System” or “OPFRS”), the System has created a CRO strategic class. The role of the CRO class is to mitigate the effects of growth risk on the portfolio by focusing on investment strategies that further enhance asset diversification within the portfolio with strategies that exhibit lower correlations with equities and fixed income.

This class can include investments in commingled funds, interests in the following categories:

- Long Duration Treasury Bonds
- Systematic Trend Following
- Alternative Risk Premia

#### **1) Objective**

The CRO Class is to be structured as a combination of multiple underlying assets and/or vehicles, so that the aggregate class exhibits uncorrelated returns and characteristics. The objective of this class is to diversify both the equity risk and nominal interest rate risk of the total portfolio.

#### **2) Benchmark**

Performance of the CRO asset class is measured against ~~the SG Multi Alternative Risk Premia Index~~ a custom benchmark composed of 33.34% SG Trend Index, 33.33% Bloomberg US Gov Long Index, and 33.33% SG Multi Alternative Risk Premia Index.

#### **3) Eligible Investment Approaches**

##### **a) Long Duration**

- i) Portfolios of long-dated (maturities in excess of 10 years) high-quality bonds (Treasury and Government-backed high-quality agencies).
- ii) Portfolios of cash-collateralized derivatives that mirror the performance of long-dated high-quality bonds.

##### **b) Systematic Trend Following**

- i) Long-short portfolios using both cash and derivatives-based instruments to capture both periodic appreciation and periodic depreciation trends that evolve and dissipate across a very wide array of liquid global markets. Risk/volatility is calibrated to a pre-determined level using cash and derivatives-based leverage.

##### **c) Alternative Risk Premia**

- i) Long-short portfolios using both cash and derivatives-based instruments to capture well-researched/documented non-market risk premia (e.g., momentum, carry, value, low-volatility, etc.) on a continuous basis, using an array of liquid global markets. Risk/volatility is calibrated to a pre-determined level using cash and derivatives-based leverage.

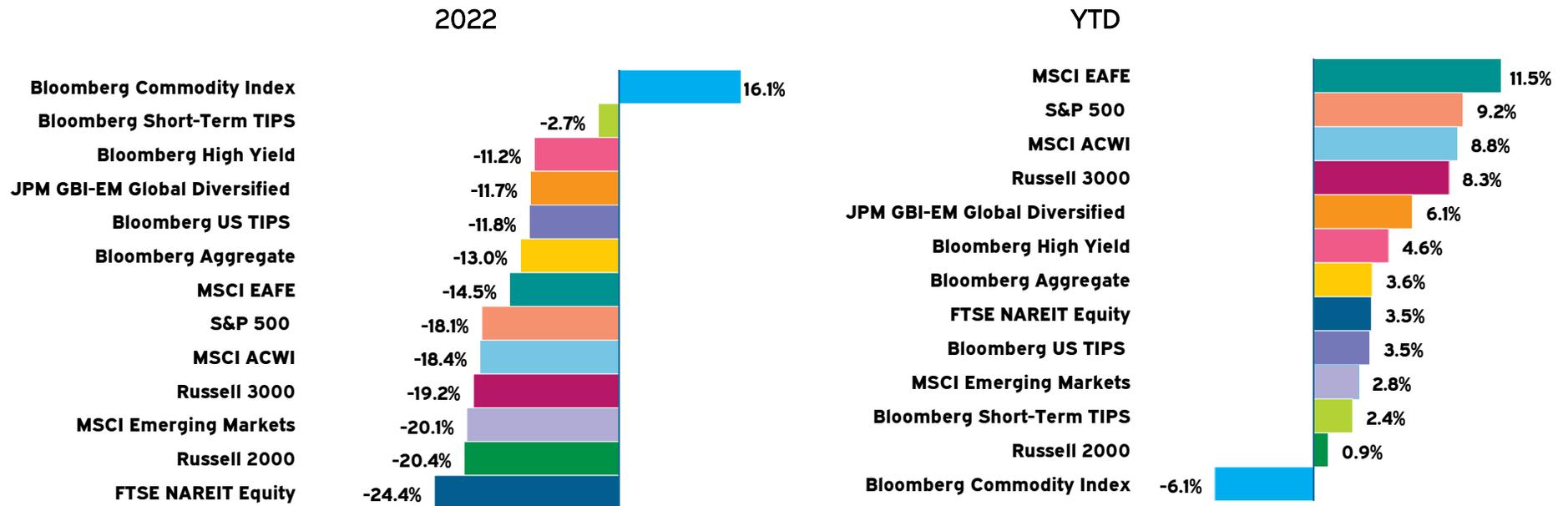
# Economic and Market Update

April 2023 Report

### Commentary

- Most asset classes added to first quarter gains in April as investors remained focused on slowing inflation and a potential end to rate hikes.
- The Fed increased interest rates for the tenth time after month-end, to a range of 5.0% - 5.25%, with this action largely expected to be their final hike.
  - Political struggles over the debt ceiling led to a significant increase in short-term rates and a historically high price of the cost to insure against defaults on US Treasuries.
  - US equity markets (Russell 3000) rose in April (+1.1%) adding to YTD gains (+8.3%). Some of the largest technology names drove positive results, with lingering issues in the banking sector (e.g., First Republic) weighing on parts of the equity markets.
  - Non-US developed equity markets also rallied in April (MSCI EAFE +2.8%) extending the outperformance relative to the US so far in 2023 (+11.5% versus +8.3%).
  - Emerging market equities fell in April (-1.1%) driven by declines in China (-5.2%). They significantly trail developed market equities YTD returning +2.8% partly due to higher US-China tensions.
  - After a strong March driven by the issues in the banking sector, bonds had more subdued gains in April, with the broad US bond market (Bloomberg Aggregate) gaining 0.6% for the month.
- This year, the path of inflation and monetary policy, slowing global growth, and the war in Ukraine, as well as recent pressures in regional banks and the looming debt ceiling breach in the US, will all be key.

### Index Returns<sup>1</sup>



→ After a particularly difficult 2022, most public market assets are up in 2023, building on gains from the fourth quarter of last year.

→ Risk sentiment has been supported by expectations that policy tightening could be ending soon, as inflation continues to fall and growth has slowed.

<sup>1</sup> Source: Bloomberg and FactSet. Data is as of April 30, 2023.

### Domestic Equity Returns<sup>1</sup>

Domestic Equity	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	1.6	7.5	9.2	2.7	14.5	11.4	12.2
Russell 3000	1.1	7.2	8.3	1.5	14.1	10.6	11.7
Russell 1000	1.2	7.5	8.8	1.8	14.2	11.1	12.0
Russell 1000 Growth	1.0	14.4	15.5	2.3	13.6	13.8	14.5
Russell 1000 Value	1.5	1.0	2.5	1.2	14.4	7.7	9.1
Russell MidCap	-0.5	4.1	3.5	-1.7	13.8	8.0	9.9
Russell MidCap Growth	-1.4	9.1	7.6	1.6	9.2	9.0	10.8
Russell MidCap Value	0.0	1.3	1.3	-3.5	15.8	6.4	8.7
Russell 2000	-1.8	2.7	0.9	-3.6	11.9	4.1	7.9
Russell 2000 Growth	-1.2	6.1	4.8	0.7	7.8	4.0	8.4
Russell 2000 Value	-2.5	-0.7	-3.1	-8.0	15.5	3.7	7.0

#### US Equities: Russell 3000 Index rose 1.1% in April and 8.3% YTD.

- US stocks rose in April as optimism over the Fed potentially ending its rate hiking campaign was mitigated by lingering concerns in the banking sector and slowing growth. Year-to-date gains in the US equity market remain strong though.
- Most sectors in the Russell 3000 index rose during the month, led by consumer staples and communication services. Growth stocks have significantly outperformed value stocks across the market capitalization spectrum this year, particularly in the large cap space due to technology stocks.
- The resurgence of large cap technology stocks is also driving the outperformance of the large cap indices versus the small cap indices. Weakness in the performance of small cap bank stocks is also contributing to results.

<sup>1</sup> Source: Bloomberg. Data is as of April 30, 2023.

### Foreign Equity Returns<sup>1</sup>

Foreign Equity	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	1.7	6.9	8.7	3.0	9.8	2.5	4.0
MSCI EAFE	2.8	8.5	11.5	8.4	11.7	3.6	4.8
MSCI EAFE (Local Currency)	2.3	7.5	9.9	7.7	13.5	5.8	7.1
MSCI EAFE Small Cap	2.0	4.9	7.0	-1.2	9.2	1.0	5.7
MSCI Emerging Markets	-1.1	4.0	2.8	-6.5	4.3	-1.0	1.8
MSCI Emerging Markets (Local Currency)	-0.7	3.8	3.1	-3.9	5.5	1.5	5.0
MSCI China	-5.2	4.7	-0.7	-5.8	-6.3	-5.0	2.7

**Foreign Equity: Developed international equities (MSCI EAFE) rose 2.8% in April and 11.5% YTD. Emerging market equities (MSCI EM) fell -1.1% for the month but rose 2.8% YTD.**

- Non-US equities had mixed results in April with developed markets (MSCI EAFE) gaining and outpacing US equities (2.8% versus 1.1%) for the month, while emerging markets (MSCI Emerging Markets) were the one area that declined (-1.1%).
- Developed market equity gains were broad-based across European sectors, while financials and energy were strong in the UK. In Japan, further weakness in the yen continued to boost market sentiment.
- The decline in emerging market equities (-1.1%) was driven largely by China (-5.2%). An escalation in US-China tensions and mixed results from the reopening of their economy weighed on shares. Taiwan also experienced marked declines over geopolitical concerns and weakness in semiconductors, while India was a bright spot.

<sup>1</sup> Source: Bloomberg. Data is as of April 30, 2023.

**Fixed Income Returns<sup>1</sup>**

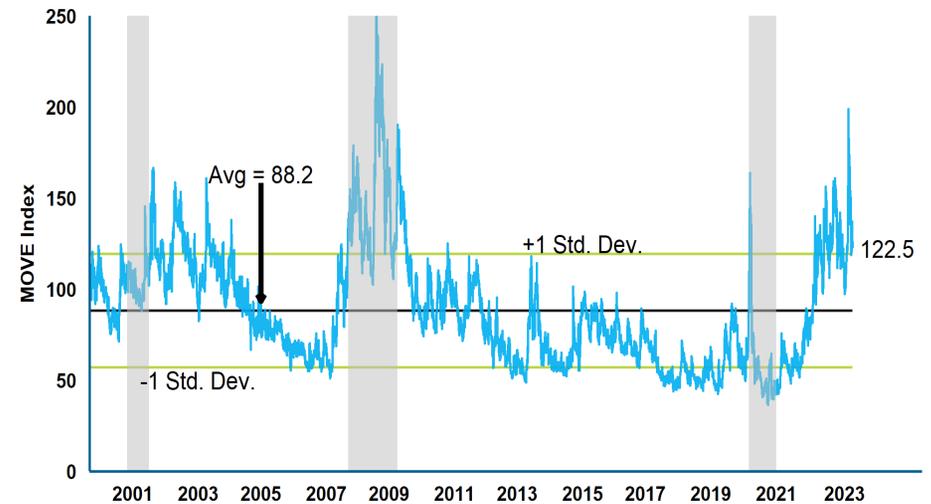
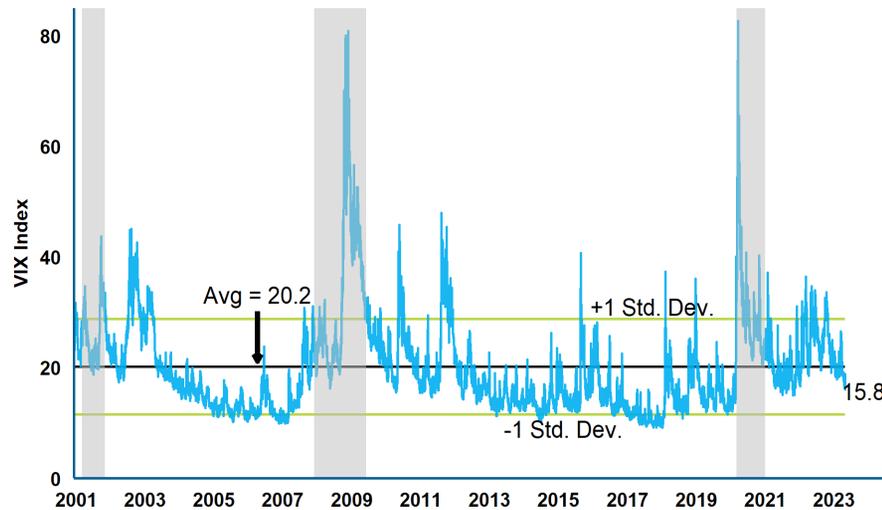
Fixed Income	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	0.6	2.9	3.6	-0.3	-2.5	1.3	1.6	4.8	6.3
Bloomberg Aggregate	0.6	3.0	3.6	-0.4	-3.2	1.2	1.3	4.4	6.5
Bloomberg US TIPS	0.1	3.3	3.5	-4.0	0.9	3.0	1.4	4.0	7.0
Bloomberg Short-term TIPS	0.2	2.2	2.4	-0.1	3.1	3.0	1.6	4.6	2.6
Bloomberg High Yield	1.0	3.6	4.6	1.2	4.7	3.3	4.0	8.5	4.2
JPM GBI-EM Global Diversified (USD)	0.9	5.2	6.1	6.6	-0.1	-1.6	-1.8	7.0	5.0

**Fixed Income: The Bloomberg Universal rose 0.6% in April and 3.6% YTD as global sovereign debt yields generally declined for major economies.**

- As issues in the banking sector from March eased, the US bond market had a calm April, with interest rates, outside of the very shortest maturities, remaining stable.
- The TIPS index and short-term TIPS index had gains for the month but trailed the broad US bond market (Bloomberg Aggregate).
- High yield bonds (+1.0%) had the best results for the month as they particularly benefited from support for the banking sector.

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of April 30, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

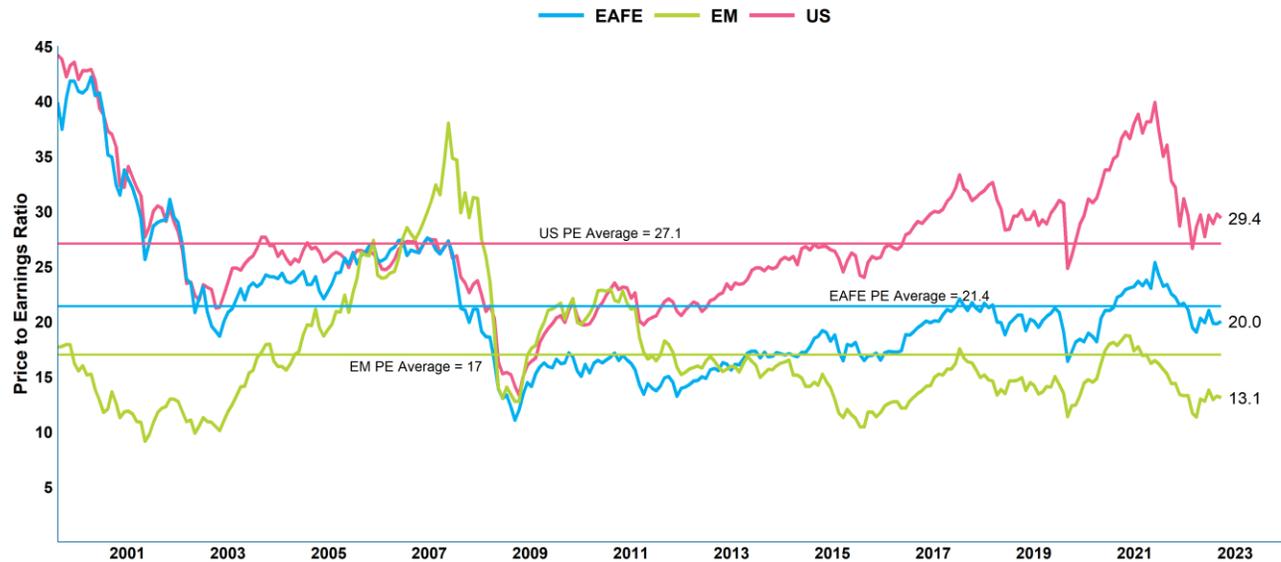
### Equity and Fixed Income Volatility<sup>1</sup>



- Volatility in equities (VIX) continued to decline in April, reaching levels not seen since late 2021 as investors anticipate the end of the Fed's policy tightening.
- In comparison, the bond market remains on edge after last year's historic losses and continued volatility in interest rates this year due to policy uncertainty and issues in the banking sector. The MOVE (fixed income volatility) remains well above its long-run average, but off its recent peak during the heart of the banking crises.

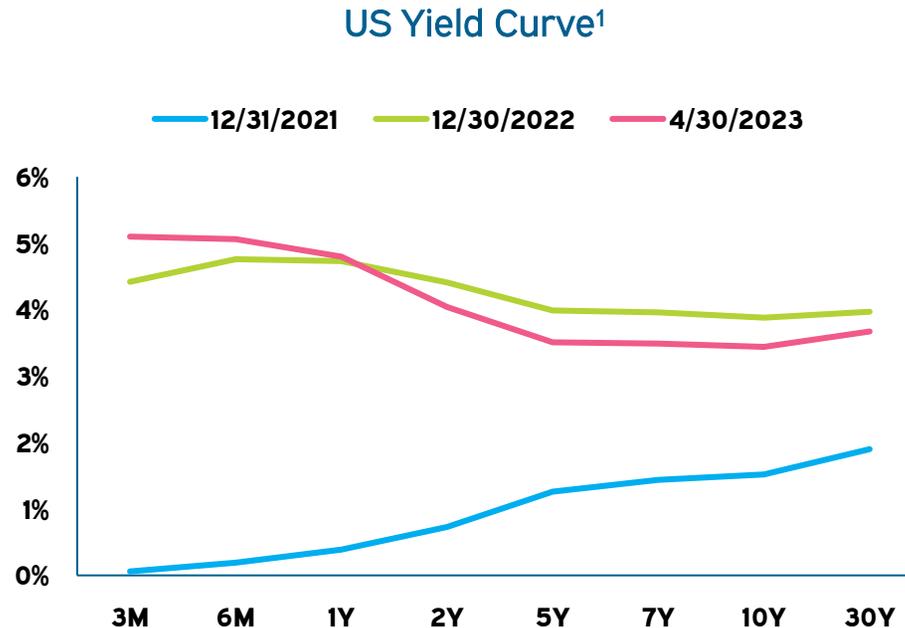
<sup>1</sup> Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of April 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and April 2023.

### Equity Cyclically Adjusted P/E Ratios<sup>1</sup>



- After its dramatic decline last year the US equity price-to-earnings ratio remains above its long-run (21st century) average.
- International developed market valuations are slightly below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

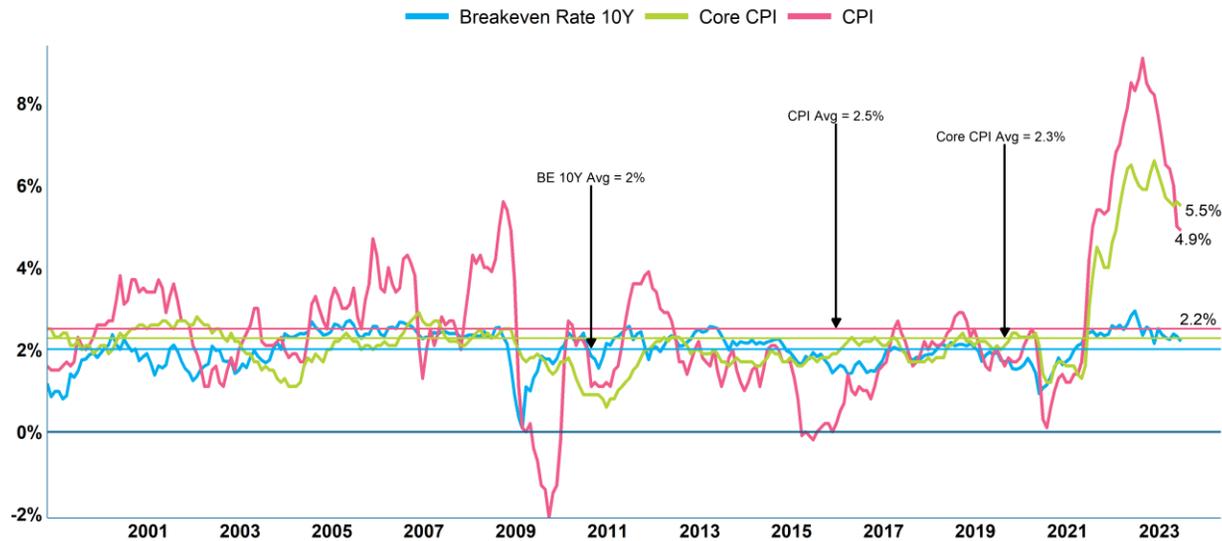
<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of April 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



- Interest rates have declined this year for maturities two years and beyond, given expectations for peaking policy, while the rates on the very shortest maturities increased due to debt ceiling concerns.
- During April, interest rates at the very front-end of the yield curve rose significantly as the debt ceiling debate continued while other maturities remained largely flat.
- After hitting -1.07% in early March, the yield spread between two-year and ten-year Treasuries finished the month largely unchanged at -0.59%. The more closely watched measure (by the Fed) of three-month and ten-year Treasuries remained inverted. Inversions in the yield curve have often preceded recessions.

<sup>1</sup> Source: Bloomberg. Data is as of April 30, 2023.

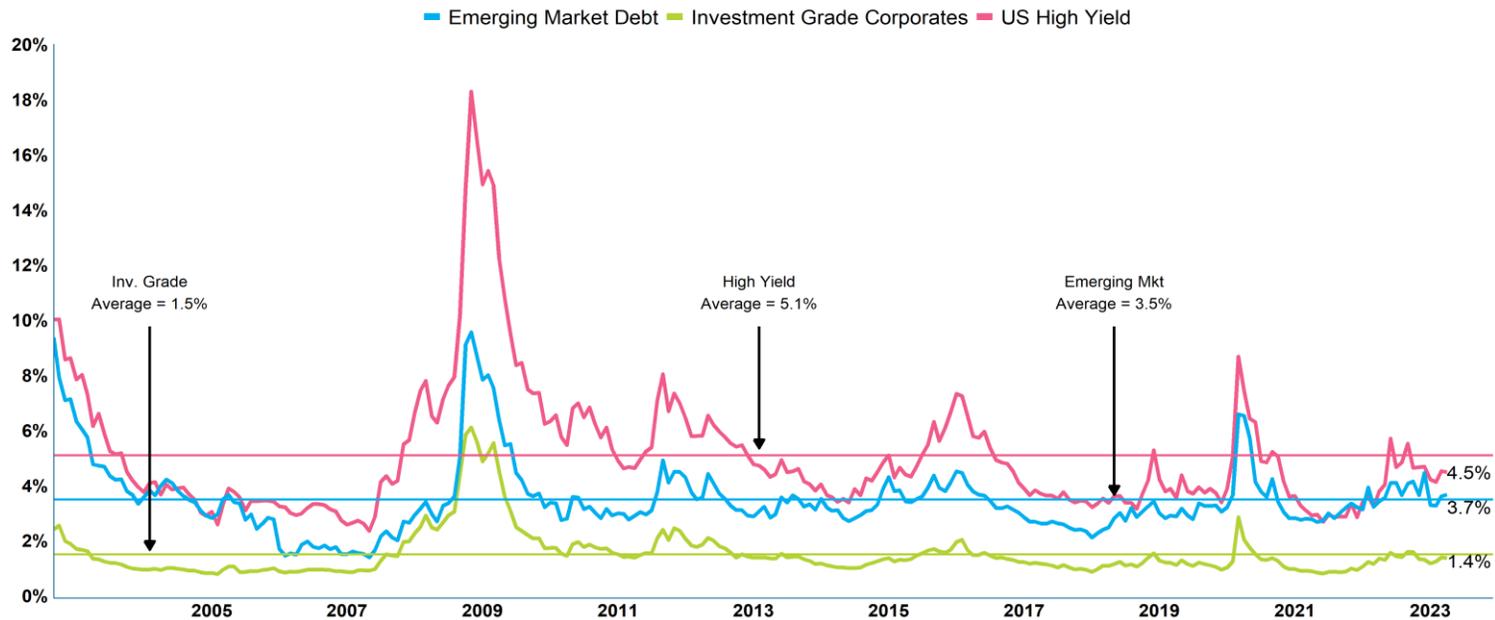
**Ten-Year Breakeven Inflation and CPI<sup>1</sup>**



- Inflation continued to decline in April, with the year-over-year reading falling from 5.0% to 4.9% (slightly below expectations). The month-over-month rate of price increases was 0.4% (matching expectations), with food prices remaining flat, energy prices slightly increasing (0.6%), and all other areas rising 0.4% in aggregate.
- Core inflation – excluding food and energy - fell slightly (5.6% to 5.5%) but remained stubbornly high as the cost for shelter continued to rise.
- Inflation expectations (breakevens) declined very slightly for the month as investors continue to expect inflation to track back toward the Fed’s 2% target.

<sup>1</sup> Source: Bloomberg. Data is as of April 30, 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

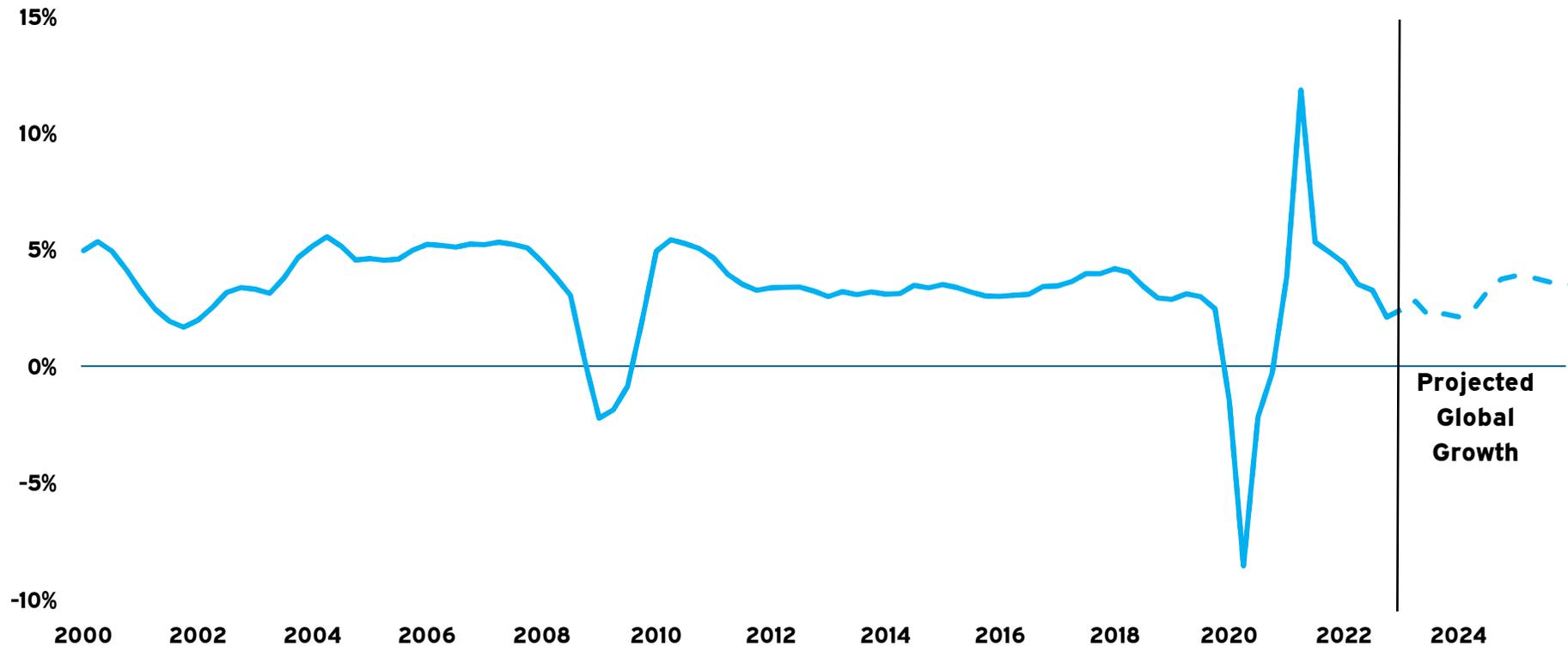
### Credit Spreads vs. US Treasury Bonds<sup>1</sup>



- Spreads (the added yield above a comparable maturity Treasury) were stable in April as concerns over the banking sector subsided and government and corporate bonds had similar gains.
- High yield spreads remain below the long-term average. Investment grade spreads and emerging market spreads are narrower than high yield spreads and close to their respective long-term averages.

<sup>1</sup> Sources: Bloomberg. Data is as of April 30, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end, respectively.

### Global Real Gross Domestic Product (GDP) Growth<sup>1</sup>

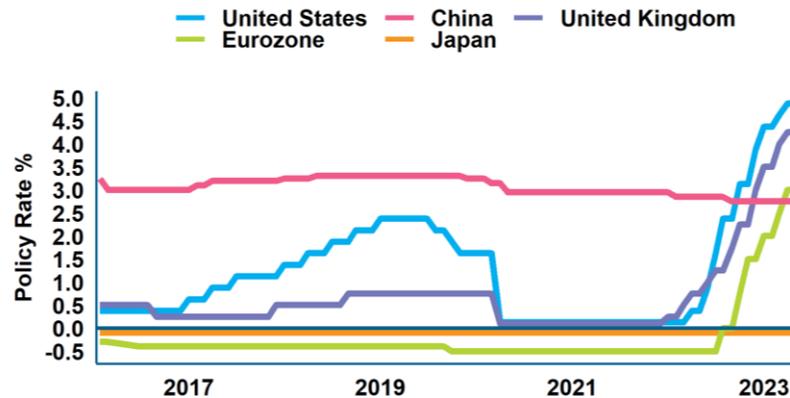


- Global economies are expected to slow this year compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically depressing growth will remain key.

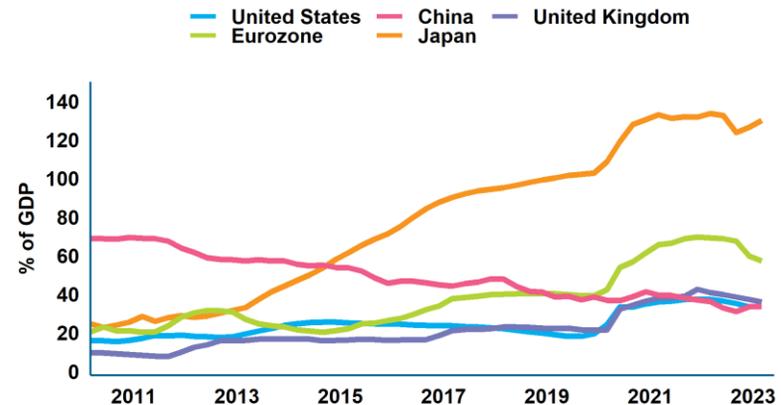
<sup>1</sup> Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated April 2023.

### Central Bank Response<sup>1</sup>

#### Policy Rates



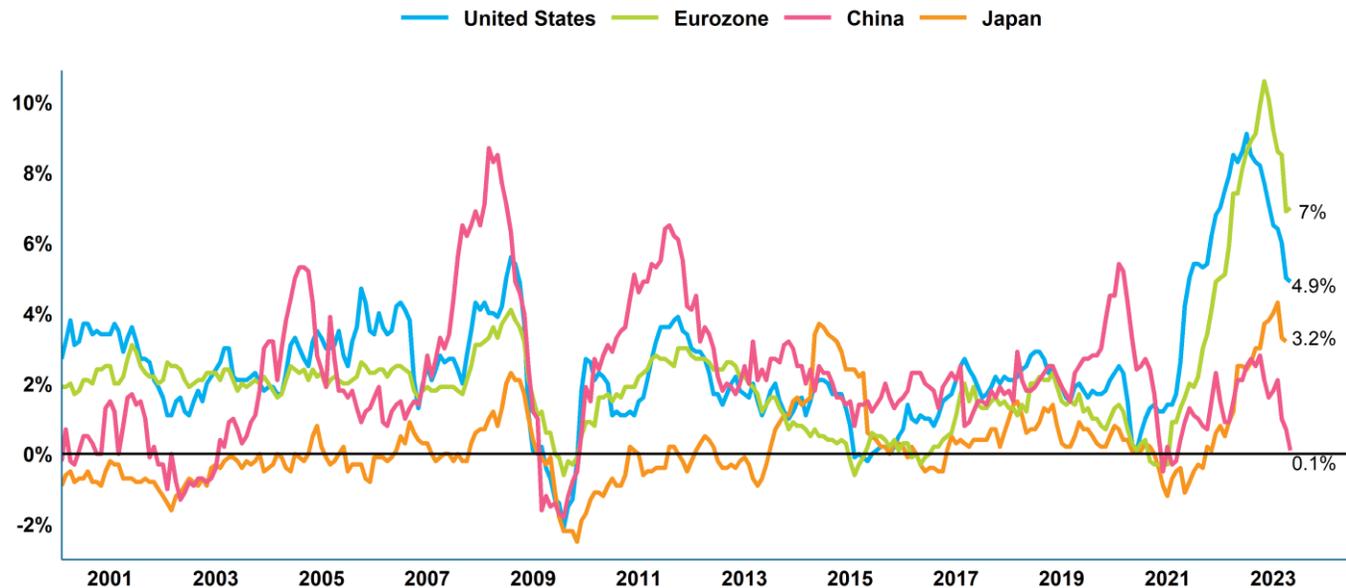
#### Balance Sheet as % of GDP



- In 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation, with the US taking the most aggressive approach. Slowing inflation and recent signs of instability in the banking sector have led to expectations for the slowing of policy tightening going forward.
- Since month-end, the Fed remained committed to fighting inflation despite pressures in the banking sector, raising rates another 25 basis points to a range of 5.0% to 5.25% at its early May meeting. This is largely expected to be the Fed's last rate hike in this cycle.
- China's central bank is a notable exception. They are expected to maintain an accommodative monetary stance to support the economy.
- Looking ahead the risk remains for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and growth.

<sup>1</sup> Source: Bloomberg. Policy rate data is as of April 30, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of March 31, 2023.

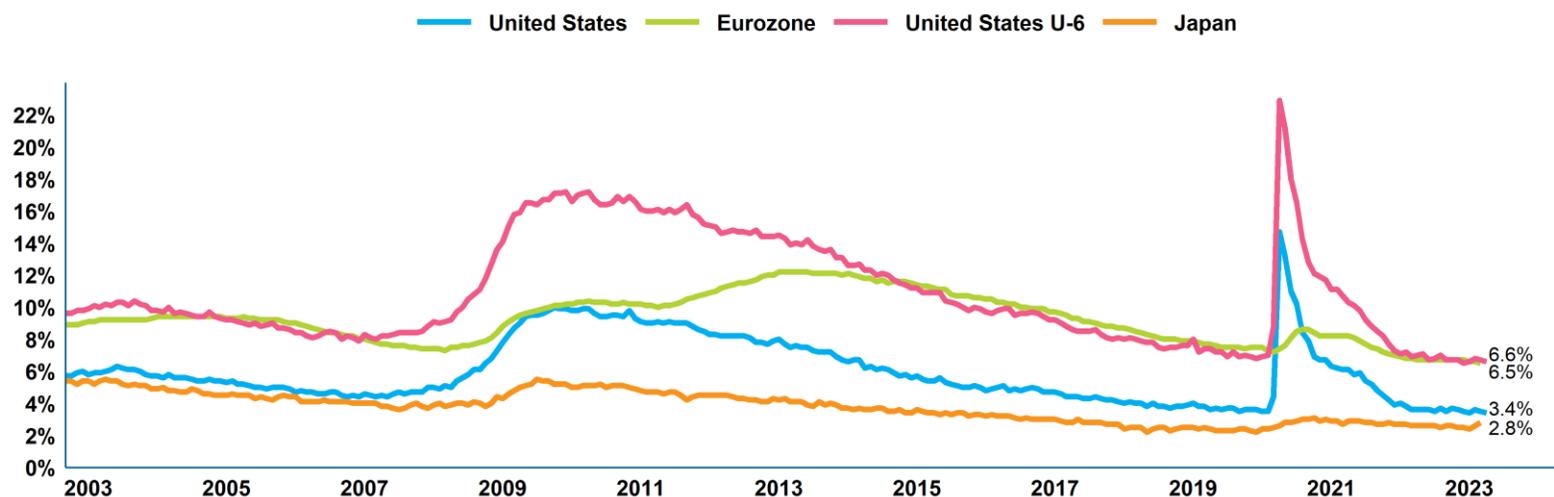
### Inflation (CPI Trailing Twelve Months)<sup>1</sup>



- Inflation pressures continued to decline globally due to the easing of supply chain issues from the pandemic, declining energy prices, and tighter monetary policy.
- In the US, inflation fell to 4.9% at month-end, while eurozone inflation increased slightly (7.0% versus 6.9%) a level well off its peak. Despite 2023's declines in the US and Europe, inflation levels remain elevated.
- Inflation remains relatively lower in China and Japan and has also declined recently. In China, inflation levels approached 0% at month-end as the reopening of their economy has led to an uneven economic recovery.

<sup>1</sup> Source: Bloomberg. Data is as April 30, 2023. The most recent Japanese inflation data is as of March 2023.

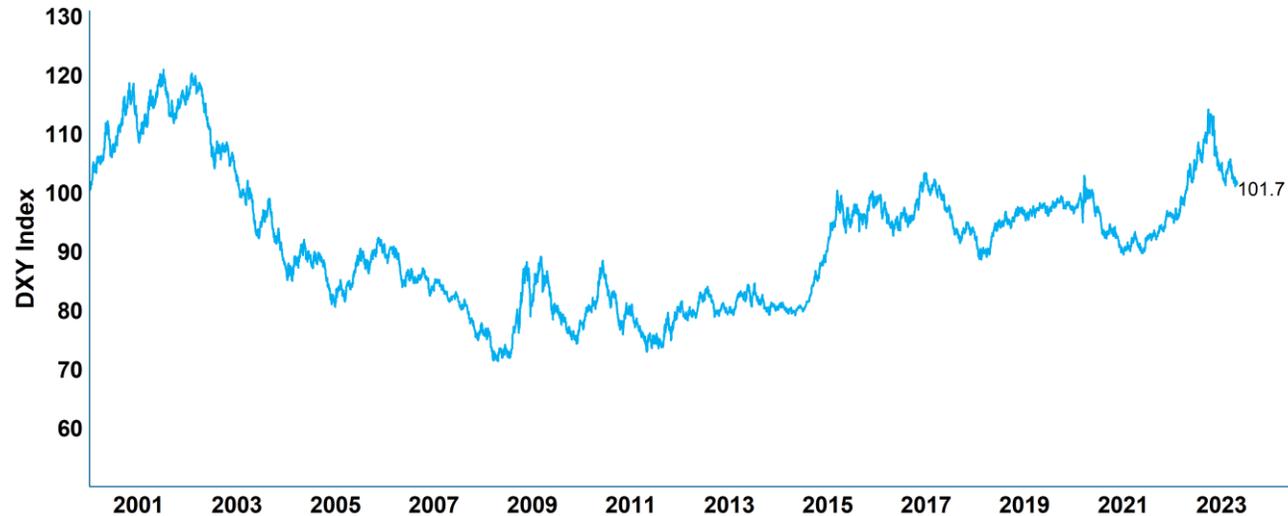
### Unemployment<sup>1</sup>



- Labor markets have significantly improved from the pandemic as economies have largely reopened.
- Despite slowing growth and high inflation, the US labor market remains a particular bright spot. Unemployment in the US, which experienced the steepest rise, recently returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.6% but also declined dramatically from their peak.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.
- Unemployment in Europe has also declined but remains higher than the US, while levels in Japan have been relatively flat through the pandemic given less layoffs.

<sup>1</sup> Source: Bloomberg. Data is as April 30, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of March 2023.

### US Dollar versus Broad Currencies<sup>1</sup>



- The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- Late last year and into early this year, the dollar has fallen, as weaker economic data and declining inflation led to investors anticipating the end of Fed tightening.
- This year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

<sup>1</sup> Source: Bloomberg. Data as of April 30, 2023.

## Summary

### Key Trends:

- The impacts of still relatively high inflation will remain key, with bond market volatility likely to stay high.
- Recent issues related to the banking sector have created a delicate balance for central banks to continue to fight inflation but also to try to maintain financial stability.
- Global monetary policies could diverge in 2023. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- Growth is expected to slow globally this year, with many economies forecast to tip into recession. Inflation, monetary policy, and the war will all be key.
- In the US, the end of many fiscal programs is expected to put the burden of continued growth on consumers. Costs for shelter, medical care, and education could continue to rise, keeping 'sticky price' inflation at elevated levels.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.
- Equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation weighing particularly on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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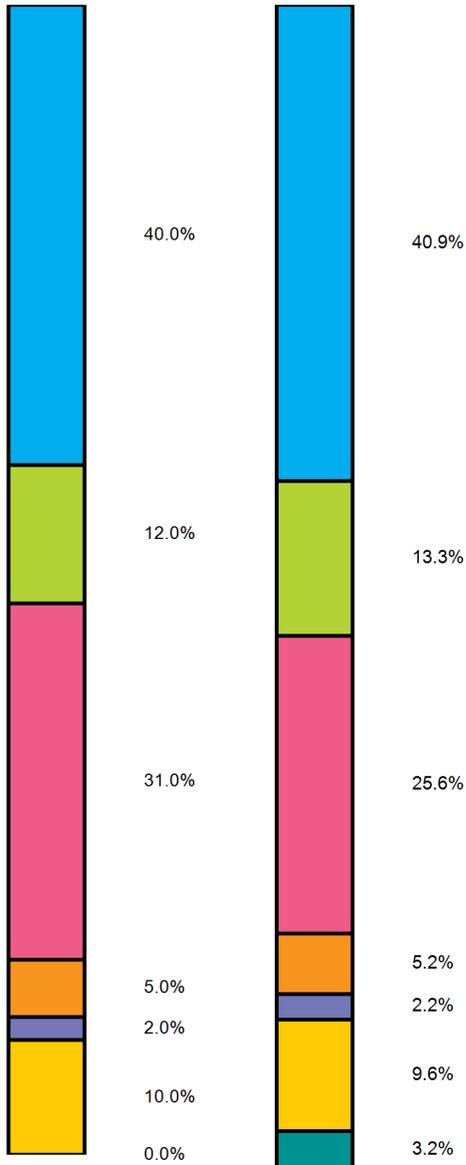
PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

# Oakland Police and Fire Retirement System

May 31, 2023

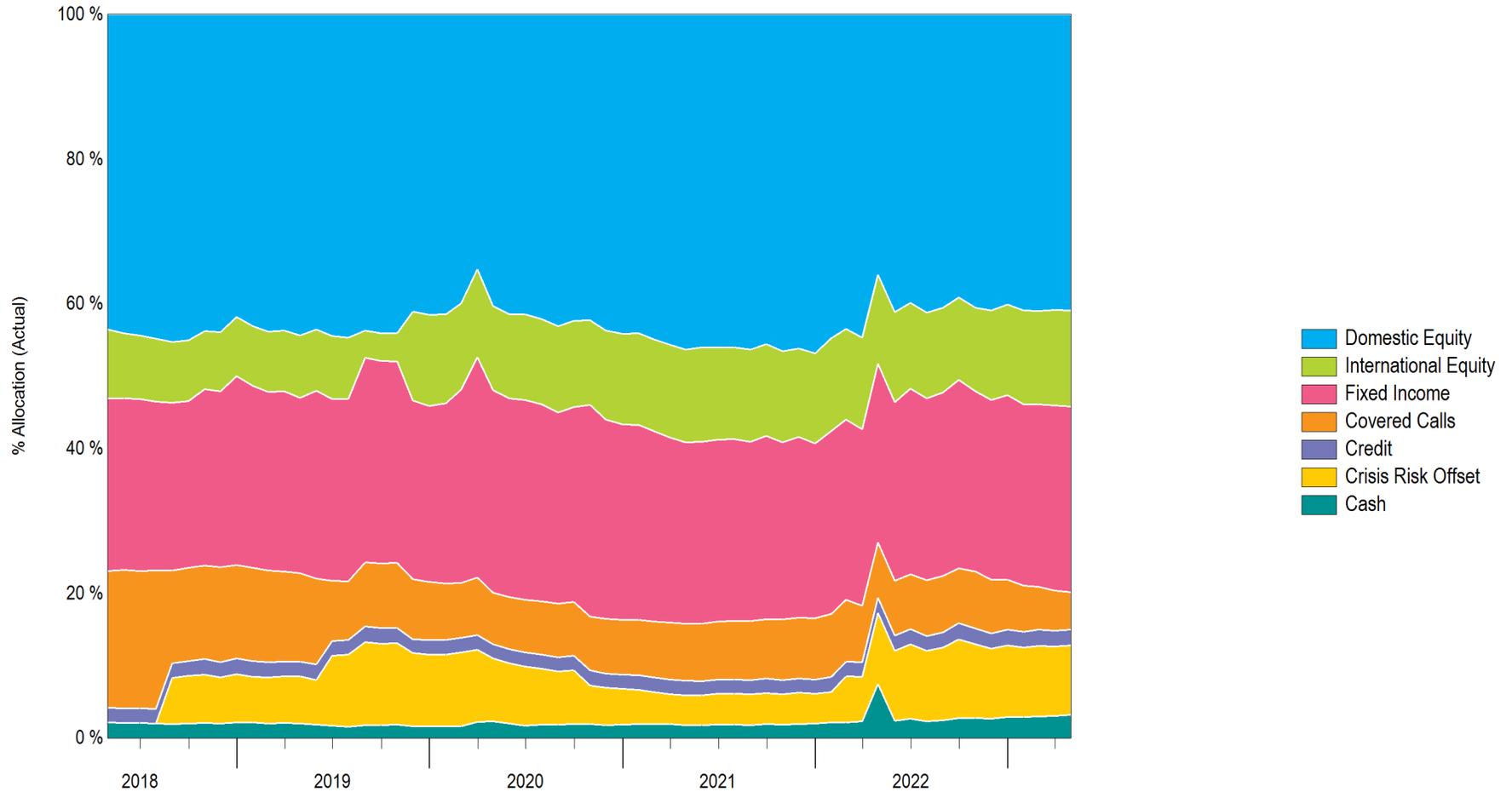
April Flash Report

As of April 30, 2023



Allocation vs. Targets and Policy							
	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?	
Domestic Equity	\$168,855,784	40.9%	40.0%	0.9%	30.0% - 50.0%	Yes	
International Equity	\$54,859,867	13.3%	12.0%	1.3%	8.0% - 14.0%	Yes	
Fixed Income	\$105,807,574	25.6%	31.0%	-5.4%	25.0% - 40.0%	Yes	
Covered Calls	\$21,377,752	5.2%	5.0%	0.2%	5.0% - 10.0%	Yes	
Credit	\$9,033,784	2.2%	2.0%	0.2%	0.0% - 100.0%	Yes	
Crisis Risk Offset	\$39,661,106	9.6%	10.0%	-0.4%	5.0% - 15.0%	Yes	
Cash	\$13,204,305	3.2%	0.0%	3.2%	0.0% - 5.0%	Yes	
<b>Total</b>	<b>\$412,800,173</b>	<b>100.0%</b>	<b>100.0%</b>				

Asset Allocation History  
5 Years Ending April 30, 2023



As of April 30, 2023

Asset Class Performance Summary											
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>OPFRS Total Plan</b>	<b>412,800,173</b>	<b>100.0</b>	<b>0.8</b>	<b>5.3</b>	<b>6.1</b>	<b>0.9</b>	<b>7.6</b>	<b>5.4</b>	<b>7.0</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			<i>1.0</i>	<i>6.2</i>	<i>7.4</i>	<i>1.6</i>	<i>6.6</i>	<i>5.4</i>	<i>6.7</i>	<i>7.8</i>	<i>Dec-88</i>
Excess Return			-0.2	-0.9	-1.3	-0.7	1.0	0.0	0.3	-1.2	
<b>Domestic Equity</b>	<b>168,855,784</b>	<b>40.9</b>	<b>0.5</b>	<b>5.7</b>	<b>8.9</b>	<b>1.3</b>	<b>13.9</b>	<b>9.6</b>	<b>11.4</b>	<b>8.7</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>1.1</i>	<i>8.3</i>	<i>10.9</i>	<i>1.5</i>	<i>14.1</i>	<i>10.6</i>	<i>11.7</i>	<i>8.9</i>	<i>Jun-97</i>
Excess Return			-0.6	-2.6	-2.0	-0.2	-0.2	-1.0	-0.3	-0.2	
<b>International Equity</b>	<b>54,859,867</b>	<b>13.3</b>	<b>1.3</b>	<b>10.2</b>	<b>14.7</b>	<b>4.6</b>	<b>10.3</b>	<b>3.5</b>	<b>5.4</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			<i>1.7</i>	<i>8.7</i>	<i>11.9</i>	<i>3.0</i>	<i>9.7</i>	<i>2.5</i>	<i>4.0</i>	<i>5.0</i>	<i>Jan-98</i>
Excess Return			-0.4	1.5	2.8	1.6	0.6	1.0	1.4	0.3	
<b>Fixed Income</b>	<b>105,807,574</b>	<b>25.6</b>	<b>0.7</b>	<b>4.2</b>	<b>1.5</b>	<b>0.1</b>	<b>-1.2</b>	<b>1.7</b>	<b>1.9</b>	<b>4.8</b>	<b>Dec-93</b>
<i>Bloomberg Universal (Blend)</i>			<i>0.6</i>	<i>3.6</i>	<i>1.2</i>	<i>-0.3</i>	<i>-2.5</i>	<i>1.3</i>	<i>1.6</i>	<i>4.6</i>	<i>Dec-93</i>
Excess Return			0.1	0.6	0.3	0.4	1.3	0.4	0.3	0.2	
<b>Credit</b>	<b>9,033,784</b>	<b>2.2</b>	<b>1.4</b>	<b>5.2</b>	<b>6.8</b>	<b>0.2</b>	<b>10.1</b>	<b>3.6</b>	<b>--</b>	<b>5.1</b>	<b>Feb-15</b>
<i>Bloomberg US High Yield TR</i>			<i>1.0</i>	<i>4.6</i>	<i>8.3</i>	<i>1.2</i>	<i>4.7</i>	<i>3.3</i>	<i>4.0</i>	<i>4.2</i>	<i>Feb-15</i>
Excess Return			0.4	0.6	-1.5	-1.0	5.4	0.3		0.9	
<b>Covered Calls</b>	<b>21,377,752</b>	<b>5.2</b>	<b>1.8</b>	<b>8.1</b>	<b>10.5</b>	<b>4.3</b>	<b>14.0</b>	<b>9.3</b>	<b>--</b>	<b>8.8</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 BuyWrite USD</i>			<i>1.2</i>	<i>7.2</i>	<i>5.8</i>	<i>-1.1</i>	<i>11.0</i>	<i>4.4</i>	<i>5.9</i>	<i>5.5</i>	<i>Apr-14</i>
Excess Return			0.6	0.9	4.7	5.4	3.0	4.9		3.3	
<b>Crisis Risk Offset</b>	<b>39,661,106</b>	<b>9.6</b>	<b>0.7</b>	<b>0.7</b>	<b>-4.1</b>	<b>-4.8</b>	<b>-8.2</b>	<b>-8.1</b>	<b>--</b>	<b>-8.5</b>	<b>Aug-18</b>
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.3</i>	<i>2.4</i>	<i>4.9</i>	<i>4.6</i>	<i>2.9</i>	<i>--</i>	<i>--</i>	<i>0.0</i>	<i>Aug-18</i>
Excess Return			-0.6	-1.7	-9.0	-9.4	-11.1			-8.5	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

As of April 30, 2023

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Cash</b>	<b>13,204,305</b>	<b>3.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>0.7</b>	<b>0.6</b>	<b>Mar-11</b>
<i>FTSE T-Bill 3 Months TR</i>			<i>0.4</i>	<i>1.5</i>	<i>2.9</i>	<i>3.0</i>	<i>1.1</i>	<i>1.5</i>	<i>0.9</i>	<i>0.7</i>	<i>Mar-11</i>
Excess Return			-0.4	-1.5	-2.9	-3.0	-1.1	-0.5	-0.2	-0.1	

Fiscal year begins on July 1.

As of April 30, 2023

Performance Summary												
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>OPFRS Total Plan</b>	<b>412,800,173</b>	<b>100.0</b>	<b>--</b>	<b>0.8</b>	<b>5.3</b>	<b>6.1</b>	<b>0.9</b>	<b>7.6</b>	<b>5.4</b>	<b>7.0</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>				<u>1.0</u>	<u>6.2</u>	<u>7.4</u>	<u>1.6</u>	<u>6.6</u>	<u>5.4</u>	<u>6.7</u>	<u>7.8</u>	<i>Dec-88</i>
Excess Return				-0.2	-0.9	-1.3	-0.7	1.0	0.0	0.3	-1.2	
<b>Domestic Equity</b>	<b>168,855,784</b>	<b>40.9</b>	<b>40.9</b>	<b>0.5</b>	<b>5.7</b>	<b>8.9</b>	<b>1.3</b>	<b>13.9</b>	<b>9.6</b>	<b>11.4</b>	<b>8.7</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>				<u>1.1</u>	<u>8.3</u>	<u>10.9</u>	<u>1.5</u>	<u>14.1</u>	<u>10.6</u>	<u>11.7</u>	<u>8.9</u>	<i>Jun-97</i>
Excess Return				-0.6	-2.6	-2.0	-0.2	-0.2	-1.0	-0.3	-0.2	
Northern Trust Russell 1000	75,873,985	18.4	44.9	1.2	8.8	11.3	1.5	14.1	11.0	11.9	12.9	Jun-10
<i>Russell 1000</i>				<u>1.2</u>	<u>8.8</u>	<u>11.3</u>	<u>1.8</u>	<u>14.2</u>	<u>11.1</u>	<u>12.0</u>	<u>13.0</u>	<i>Jun-10</i>
Excess Return				0.0	0.0	0.0	-0.3	-0.1	-0.1	-0.1	-0.1	
EARNEST Partners	45,006,350	10.9	26.7	-1.4	3.2	4.9	-0.7	15.4	10.6	12.5	10.0	Apr-06
<i>Russell MidCap</i>				<u>-0.5</u>	<u>3.5</u>	<u>9.1</u>	<u>-1.7</u>	<u>13.8</u>	<u>8.0</u>	<u>9.9</u>	<u>8.4</u>	<i>Apr-06</i>
Excess Return				-0.9	-0.3	-4.2	1.0	1.6	2.6	2.6	1.6	
Wellington Select Quality Equity	22,975,674	5.6	13.6	2.7	3.5	10.8	4.4	--	--	--	4.4	May-22
<i>Russell 1000</i>				<u>1.2</u>	<u>8.8</u>	<u>11.3</u>	<u>1.8</u>	<u>14.2</u>	<u>11.1</u>	<u>12.0</u>	<u>1.8</u>	<i>May-22</i>
Excess Return				1.5	-5.3	-0.5	2.6	--	--	--	2.6	
Brown Fundamental Small Cap Value	10,664,172	2.6	6.3	-1.8	-2.1	8.3	2.9	--	--	--	0.5	Apr-21
<i>Russell 2000 Value</i>				<u>-2.5</u>	<u>-3.1</u>	<u>0.2</u>	<u>-8.0</u>	<u>15.4</u>	<u>3.7</u>	<u>7.0</u>	<u>-6.1</u>	<i>Apr-21</i>
Excess Return				0.7	1.0	8.1	10.9	--	--	--	6.6	
Rice Hall James	14,335,604	3.5	8.5	0.7	7.8	6.6	2.0	11.5	4.8	--	7.1	Jul-17
<i>Russell 2000 Growth</i>				<u>-1.2</u>	<u>4.8</u>	<u>9.4</u>	<u>0.7</u>	<u>7.8</u>	<u>4.0</u>	<u>8.4</u>	<u>5.7</u>	<i>Jul-17</i>
Excess Return				1.9	3.0	-2.8	1.3	3.7	0.8	--	1.4	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

As of April 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>International Equity</b>	<b>54,859,867</b>	<b>13.3</b>	<b>13.3</b>	<b>1.3</b>	<b>10.2</b>	<b>14.7</b>	<b>4.6</b>	<b>10.3</b>	<b>3.5</b>	<b>5.4</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>				<u>1.7</u>	<u>8.7</u>	<u>11.9</u>	<u>3.0</u>	<u>9.7</u>	<u>2.5</u>	<u>4.0</u>	<u>5.0</u>	<u>Jan-98</u>
Excess Return				-0.4	1.5	2.8	1.6	0.6	1.0	1.4	0.3	
Vanguard Developed Markets ETF	15,524,341	3.8	28.3	2.6	10.9	15.7	6.8	12.2	--	--	7.1	Sep-19
<i>FTSE Developed All Cap Ex US TR USD</i>				<u>2.6</u>	<u>10.5</u>	<u>16.3</u>	<u>5.6</u>	<u>12.1</u>	<u>3.8</u>	<u>5.2</u>	<u>7.3</u>	<u>Sep-19</u>
Excess Return				0.0	0.4	-0.6	1.2	0.1			-0.2	
SGA ACWI ex-U.S. Equity	39,335,525	9.5	71.7	0.8	9.9	14.2	3.7	9.8	--	--	3.2	Dec-19
<i>MSCI ACWI ex USA</i>				<u>1.7</u>	<u>8.7</u>	<u>11.9</u>	<u>3.0</u>	<u>9.7</u>	<u>2.5</u>	<u>4.0</u>	<u>3.8</u>	<u>Dec-19</u>
Excess Return				-0.9	1.2	2.3	0.7	0.1			-0.6	
<b>Fixed Income</b>	<b>105,807,574</b>	<b>25.6</b>	<b>25.6</b>	<b>0.7</b>	<b>4.2</b>	<b>1.5</b>	<b>0.1</b>	<b>-1.2</b>	<b>1.7</b>	<b>1.9</b>	<b>4.8</b>	<b>Dec-93</b>
<i>Bloomberg Universal (Blend)</i>				<u>0.6</u>	<u>3.6</u>	<u>1.2</u>	<u>-0.3</u>	<u>-2.5</u>	<u>1.3</u>	<u>1.6</u>	<u>4.6</u>	<u>Dec-93</u>
Excess Return				0.1	0.6	0.3	0.4	1.3	0.4	0.3	0.2	
Ramirez	71,828,220	17.4	67.9	0.7	4.1	1.1	-0.2	-1.2	1.6	--	1.8	Jan-17
<i>Bloomberg US Aggregate TR</i>				<u>0.6</u>	<u>3.6</u>	<u>0.5</u>	<u>-0.4</u>	<u>-3.1</u>	<u>1.2</u>	<u>1.3</u>	<u>1.1</u>	<u>Jan-17</u>
Excess Return				0.1	0.5	0.6	0.2	1.9	0.4		0.7	
Wellington Core Bond	6,806,698	1.6	6.4	0.6	4.3	1.1	-0.7	--	--	--	-4.4	Apr-21
<i>Bloomberg US Aggregate TR</i>				<u>0.6</u>	<u>3.6</u>	<u>0.5</u>	<u>-0.4</u>	<u>-3.1</u>	<u>1.2</u>	<u>1.3</u>	<u>-4.0</u>	<u>Apr-21</u>
Excess Return				0.0	0.7	0.6	-0.3				-0.4	
Reams	27,172,656	6.6	25.7	0.8	4.5	2.5	1.3	-0.8	4.0	2.9	5.2	Feb-98
<i>Bloomberg Universal (Blend)</i>				<u>0.6</u>	<u>3.6</u>	<u>1.2</u>	<u>-0.3</u>	<u>-2.5</u>	<u>1.3</u>	<u>1.6</u>	<u>4.2</u>	<u>Feb-98</u>
Excess Return				0.2	0.9	1.3	1.6	1.7	2.7	1.3	1.0	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

Though Vanguard Developed Markets ETF is a passive strategy, short-term performance may appear to diverge from the index it tracks more than what would be expected. This is due to Fair Value Pricing (FVP) adjustments that address the pricing discrepancies that may arise from time-zone differences among global securities markets. The resulting temporary divergence is expected to correct itself when the foreign markets reopen."

As of April 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Credit</b>	<b>9,033,784</b>	<b>2.2</b>	<b>2.2</b>	<b>1.4</b>	<b>5.2</b>	<b>6.8</b>	<b>0.2</b>	<b>10.1</b>	<b>3.6</b>	<b>--</b>	<b>5.1</b>	<b>Feb-15</b>
<i>Bloomberg US High Yield TR</i>				<u>1.0</u>	<u>4.6</u>	<u>8.3</u>	<u>1.2</u>	<u>4.7</u>	<u>3.3</u>	<u>4.0</u>	<u>4.2</u>	<u>Feb-15</u>
Excess Return				0.4	0.6	-1.5	-1.0	5.4	0.3		0.9	
Polen Capital	9,033,784	2.2	100.0	1.4	5.2	6.8	0.2	10.1	3.6	--	5.1	Feb-15
<i>ICE BofA High Yield Master TR</i>				<u>0.9</u>	<u>4.7</u>	<u>8.1</u>	<u>1.0</u>	<u>4.9</u>	<u>3.1</u>	<u>3.9</u>	<u>4.1</u>	<u>Feb-15</u>
Excess Return				0.5	0.5	-1.3	-0.8	5.2	0.5		1.0	
<b>Covered Calls</b>	<b>21,377,752</b>	<b>5.2</b>	<b>5.2</b>	<b>1.8</b>	<b>8.1</b>	<b>10.5</b>	<b>4.3</b>	<b>14.0</b>	<b>9.3</b>	<b>--</b>	<b>8.8</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 BuyWrite USD</i>				<u>1.2</u>	<u>7.2</u>	<u>5.8</u>	<u>-1.1</u>	<u>11.0</u>	<u>4.4</u>	<u>5.9</u>	<u>5.5</u>	<u>Apr-14</u>
Excess Return				0.6	0.9	4.7	5.4	3.0	4.9		3.3	
Parametric BXM	10,740,176	2.6	50.2	1.6	6.8	8.1	4.1	12.0	6.9	--	7.0	Apr-14
<i>CBOE S&amp;P 500 BuyWrite USD</i>				<u>1.2</u>	<u>7.2</u>	<u>5.8</u>	<u>-1.1</u>	<u>11.0</u>	<u>4.4</u>	<u>5.9</u>	<u>5.5</u>	<u>Apr-14</u>
Excess Return				0.4	-0.4	2.3	5.2	1.0	2.5		1.5	
Parametric DeltaShift	10,637,577	2.6	49.8	2.1	9.4	13.0	4.5	15.6	11.4	--	10.7	Apr-14
<i>CBOE S&amp;P 500 BuyWrite USD</i>				<u>1.2</u>	<u>7.2</u>	<u>5.8</u>	<u>-1.1</u>	<u>11.0</u>	<u>4.4</u>	<u>5.9</u>	<u>5.5</u>	<u>Apr-14</u>
Excess Return				0.9	2.2	7.2	5.6	4.6	7.0		5.2	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

As of April 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Crisis Risk Offset</b>	<b>39,661,106</b>	<b>9.6</b>	<b>9.6</b>	<b>0.7</b>	<b>0.7</b>	<b>-4.1</b>	<b>-4.8</b>	<b>-8.2</b>	<b>-8.1</b>	<b>--</b>	<b>-8.5</b>	<b>Aug-18</b>
<i>SG Multi Alternative Risk Premia Index</i>				<u>1.3</u>	<u>2.4</u>	<u>4.9</u>	<u>4.6</u>	<u>2.9</u>	--	--	<u>0.0</u>	<u>Aug-18</u>
Excess Return				-0.6	-1.7	-9.0	-9.4	-11.1			-8.5	
Kepos Alternative Risk Premia	10,454,824	2.5	26.4	1.8	6.5	10.2	5.8	--	--	--	4.4	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>				<u>1.3</u>	<u>2.4</u>	<u>4.9</u>	<u>4.6</u>	<u>2.9</u>	--	--	<u>5.1</u>	<u>Feb-22</u>
Excess Return				0.5	4.1	5.3	1.2				-0.7	
Versor Trend Following	14,596,620	3.5	36.8	0.0	-8.6	-12.1	-8.8	--	--	--	-2.5	Apr-22
<i>SG Trend Index</i>				<u>2.8</u>	<u>-4.7</u>	<u>-5.8</u>	<u>3.0</u>	<u>13.6</u>	<u>9.4</u>	<u>5.2</u>	<u>9.4</u>	<u>Apr-22</u>
Excess Return				-2.8	-3.9	-6.3	-11.8				-11.9	
Vanguard Long-Term Treasury ETF	14,609,662	3.5	36.8	0.5	7.4	-4.2	-7.4	-11.7	--	--	-3.4	Jul-19
<i>Bloomberg US Govt Long TR</i>				<u>0.5</u>	<u>6.7</u>	<u>-4.1</u>	<u>-7.3</u>	<u>-11.7</u>	<u>0.1</u>	<u>1.1</u>	<u>-3.4</u>	<u>Jul-19</u>
Excess Return				0.0	0.7	-0.1	-0.1	0.0			0.0	
<b>Cash</b>	<b>13,204,305</b>	<b>3.2</b>	<b>3.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>0.7</b>	<b>0.6</b>	<b>Mar-11</b>
<i>FTSE T-Bill 3 Months TR</i>				<u>0.4</u>	<u>1.5</u>	<u>2.9</u>	<u>3.0</u>	<u>1.1</u>	<u>1.5</u>	<u>0.9</u>	<u>0.7</u>	<u>Mar-11</u>
Excess Return				-0.4	-1.5	-2.9	-3.0	-1.1	-0.5	-0.2	-0.1	
Cash - Money Market	4,102,305	1.0	31.1	0.0	0.0	0.0	0.0	0.2	1.1	0.8	0.6	Mar-11
<i>FTSE T-Bill 3 Months TR</i>				<u>0.4</u>	<u>1.5</u>	<u>2.9</u>	<u>3.0</u>	<u>1.1</u>	<u>1.5</u>	<u>0.9</u>	<u>0.7</u>	<u>Mar-11</u>
Excess Return				-0.4	-1.5	-2.9	-3.0	-0.9	-0.4	-0.1	-0.1	
Cash - Treasury	9,102,000	2.2	68.9									

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

As of April 30, 2023

Cash Flow Summary

Month to Date

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Brown Fundamental Small Cap Value	\$10,865,239	\$0	-\$201,067	\$10,664,172
Cash - Money Market	\$3,868,100	\$234,205	\$0	\$4,102,305
Cash - Treasury	\$8,737,000	\$365,000	\$0	\$9,102,000
EARNEST Partners	\$45,658,799	\$0	-\$652,448	\$45,006,350
Kepos Alternative Risk Premia	\$10,273,004	\$0	\$181,820	\$10,454,824
Northern Trust Russell 1000	\$74,942,881	\$0	\$931,104	\$75,873,985
Parametric BXM	\$11,572,026	-\$1,000,000	\$168,149	\$10,740,176
Parametric DeltaShift	\$11,421,217	-\$1,000,000	\$216,360	\$10,637,577
Polen Capital	\$8,909,576	\$0	\$124,209	\$9,033,784
Ramirez	\$71,307,125	\$0	\$521,094	\$71,828,220
Reams	\$26,955,387	\$0	\$217,269	\$27,172,656
Rice Hall James	\$14,239,905	\$0	\$95,699	\$14,335,604
Securities Lending Northern Trust	\$0	-\$9,368	\$9,368	\$0
SGA ACWI ex-U.S. Equity	\$39,015,100	\$0	\$320,425	\$39,335,525
Vanguard Developed Markets ETF	\$15,125,852	\$0	\$398,489	\$15,524,341
Vanguard Long-Term Treasury ETF	\$14,571,848	\$0	\$37,814	\$14,609,662
Versor Trend Following	\$14,592,261	\$0	\$4,359	\$14,596,620
Wellington Core Bond	\$6,763,874	\$0	\$42,824	\$6,806,698
Wellington Select Quality Equity	\$22,362,811	\$0	\$612,863	\$22,975,674
<b>Total</b>	<b>\$411,182,005</b>	<b>-\$1,410,163</b>	<b>\$3,028,331</b>	<b>\$412,800,173</b>

**Benchmark History**

As of April 30, 2023

OPFRS Total Plan

6/1/2022	Present	40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield TR
1/1/2019	5/31/2022	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
12/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR

**Benchmark History**

As of April 30, 2023

**Domestic Equity**

1/1/2005	Present	Russell 3000
4/1/1998	12/31/2004	28.57% Russell 1000 / 57.14% Russell 1000 Value / 14.29% Russell MidCap
6/1/1997	3/31/1998	S&P 500

**International Equity**

1/1/2005	Present	MSCI ACWI ex USA
1/1/1998	12/31/2004	MSCI EAFE Gross

**Fixed Income**

4/1/2006	Present	Bloomberg US Universal TR
12/31/1993	3/31/2006	Bloomberg US Aggregate TR

**Covered Calls**

4/1/2014	Present	CBOE S&P 500 BuyWrite USD
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**Crisis Risk Offset**

8/1/2018	Present	SG Multi Alternative Risk Premia Index
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**Cash**

3/1/2011	Present	FTSE T-Bill 3 Months TR
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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

# Oakland Police and Fire Retirement System

Quarterly Performance Report  
as of March 31, 2023

## Agenda

1. Executive Summary
2. Economic and Market Update as of March 31, 2023
3. Quarterly Performance as of March 31, 2023
4. Manager Monitoring / Probation Status
5. Disclaimer, Glossary, and Notes

# Executive Summary

### Total Portfolio Review

The Oakland Police and Fire Retirement System (OPFRS) finished the quarter with a market value of **\$411.2 million**.

→ This represents a \$18.1 million capital appreciation after \$5.4 million in net outflows over the quarter.

→ Over the past 12-months, the OPFRS Total Portfolio faced a \$24.8 million depreciation, after withdrawals totaling \$13.4 million for net outflows including benefit payments.

→ As of 03/31/2023, all the asset classes were within acceptable allocation ranges relative to policy targets.<sup>1</sup>

### Investment Performance

→ During the most recent quarter, the OPFRS portfolio generated an absolute return of 4.5%, gross of fees, underperforming its policy benchmark<sup>2</sup> by (-0.6%).

→ The portfolio underperformed the benchmark slightly over the trailing 1-year period while outperforming it over the 3-year period. Over the longer 5-year trailing period, the portfolio matched with the Policy Benchmark.

	Quarter	FYTD	1 Year	3 Year	5 Year
Total Portfolio (Gross)	4.5	5.3	(-5.5)	9.9	5.3
Policy Benchmark	5.1	6.3	(-5.4)	8.6	5.3
Excess Return	(-0.6)	(-1.0)	(-0.1)	1.3	0.0
Reference: Total Portfolio (Net) <sup>3</sup>	4.5	5.1	(-5.7)	9.6	5.0

<sup>1</sup> Asset allocation as of 03/31/2023. Target weightings reflect the interim phase (where Crisis Risk Offset component is set to 10%) of the Plan's previously approved asset allocation (effective 5/31/2017).

<sup>2</sup> Evolving Policy Benchmark consists of 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% Bloomberg Universal, 5% CBOE BXM, 6.7% SG Multi Asset Risk Premia, 3.3% Bloomberg Long Treasury from 1/1/2019 through 5/31/2022; and 40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield thereafter.

<sup>3</sup> Longer-term (>1 year) Net of fee returns include estimates based on OPFRS manager fee schedule (approximately 34 bps). Fiscal year begins on July 01.

Total Portfolio Review (continued)

Peer Comparison

- In comparison to its peer group<sup>1</sup>, the portfolio has outperformed the median fund’s return over the quarter while lagging in the trailing 1-, 3-, and 5-year periods.
- Similarly, in the most recent quarter, OPFRS ranks in the 25<sup>th</sup> percentile; over the longer periods, it falls in the third quartile in the universe of Public Defined Benefit Plans with \$250 million to \$1 billion in assets.

	Quarter	FYTD	1 Year	3 Year	5 Year
Total Portfolio (Gross)	4.5	5.3	(-5.5)	9.9	5.3
Peer Group Median Fund Return	4.1	5.5	(-4.9)	11.0	6.0
OPFRS vs. Peer Median Fund	0.4	(-0.2)	(-0.6)	(-1.1)	(-0.7)
Percentile Rank	25	63	71	73	67
<i>Reference: Total Portfolio (Net)</i> <sup>2</sup>	4.5	5.1	(-5.7)	9.6	5.0

<sup>1</sup> Source: Investment Metrics peer universe, Public Defined Benefit plans with \$250 million to \$1 billion in assets as of 03/31/2023.

<sup>2</sup> Longer-term (>1 year) Net of fee returns include estimates based on OPFRS manager fee schedule (approximately 34 bps).

### Asset Class & Manager Highlights

- **Domestic equity** underperformed the Russell 3000 Index over the quarter and in the 5-year period. All the active managers, except **Wellington Select Quality**, outperformed their respective benchmarks in the quarter as well as almost all other available time periods.<sup>1</sup>
- **International equity** outperformed the MSCI ACWI ex US Index for all time periods measured. The Plan's active international equity manager, **SGA MSCI ACWI ex US**, outperformed its benchmark over the quarter and the 1-year period, while slightly underperforming in the 3-year trailing period.<sup>1</sup> The passive **Vanguard** posted small variation<sup>1</sup> from the tracked benchmark over the periods measured.
- **Fixed income** outperformed the Bloomberg Universal Index across all time periods measured. The underlying managers also outperformed their respective benchmarks in all time periods, except for **Wellington Core Bond's** underperformance over the 1-year trailing period.
- The **Credit** segment, with **Polen Capital** as its only manager, outperformed the asset class's benchmark, Bloomberg US High Yield Index, in Q1, and over the 1- and 3-year periods, while matching it over the 5-year period.
- **Covered Calls** and the active DeltaShift strategy outperformed the CBOE S&P 500 Buy-Write Index across all periods measured. The passive BXM strategy outperformed the Index in all periods except over the quarter.
- The **Crisis Risk Offset** segment trailed its benchmark SG Multi Alternative Risk Premia Index across all time periods measured. Please note that the segment's current benchmark does not accurately reflect its components; a recommendation for suitable modification is presented along with this report.

<sup>1</sup> Wellington Select Quality has less than 1-year of performance history and Brown Fundamental Small Cap Value has less than 3-year of performance history. SGA MSCI ACWI ex US and Vanguard Developed Markets ETF have less than 5-year of performance history. Due to Vanguard's fair-value pricing methodology and timing of the international markets, the strategy's returns may deviate from its tracked index in the short-term that are expected to equalize over the longer term.

# **Economic and Market Update**

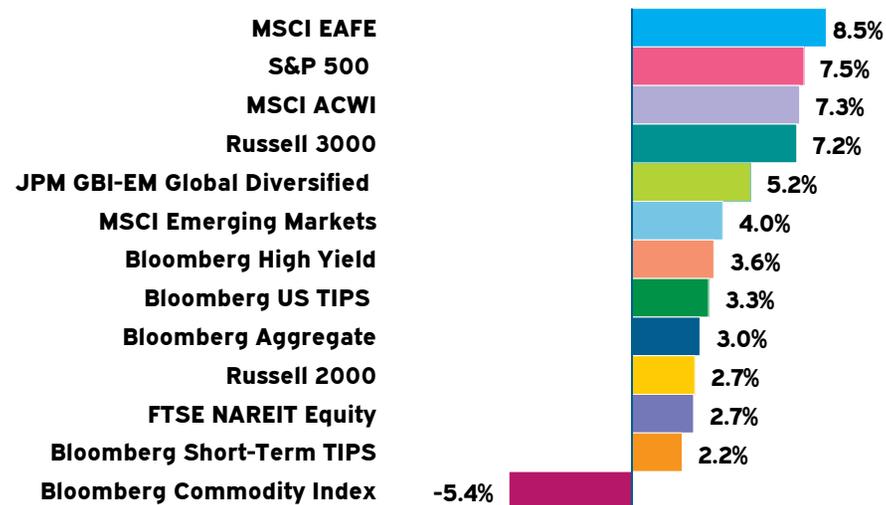
Data as of March 31, 2023

### Commentary

- It was a volatile quarter for most asset classes driven by evolving monetary policy expectations and high-profile bank failures. Ultimately, investors remained focused on slowing inflation and potentially peaking rate hikes leading to positive results across most asset classes for the quarter.
- The Fed's, and others', quick responses to pressures in the banking sector brought confidence back to the markets in March with the crisis driving the terminal policy rate expectations lower.
  - US equity markets (Russell 3000) rallied in March (+2.7%) finishing the first quarter in strongly positive territory (+7.2%). Growth significantly outperformed value for the quarter, driven by the technology sector.
  - Non-US developed equity markets (MSCI EAFE +2.5%) also posted positive returns in March. They returned 8.5% for the quarter, finishing ahead of US equities.
  - Emerging market equities had positive returns for the month (+3.0%) supported by Chinese equities (+4.5%) and a weaker US dollar. They trailed developed market equities for the quarter partly due to higher US-China tensions.
  - On expectations for lower inflation and concerns over the banking sector, bonds rallied in March, with the broad US bond market (Bloomberg Aggregate) rising 2.5%. For the quarter, the broad US bond market was up 3.0%.
- This year, the path of inflation and monetary policy, slowing global growth, and the war in Ukraine, as well as recent pressures in small- and medium-sized regional banks in the US, will all be key.

### Index Returns<sup>1</sup>

Q1 2023



→ Despite volatility during the quarter, public markets, except commodities, finished the first quarter of 2023 in positive territory adding to the strong gains from the fourth quarter of last year.

<sup>1</sup> Source: Bloomberg and FactSet. Data is as of March 31, 2023.

### Domestic Equity Returns<sup>1</sup>

Domestic Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	3.7	7.5	-7.7	18.6	11.2	12.2
Russell 3000	2.7	7.2	-8.6	18.5	10.4	11.7
Russell 1000	3.2	7.5	-8.4	18.6	10.9	12.0
Russell 1000 Growth	6.8	14.4	-10.9	18.6	13.6	14.6
Russell 1000 Value	-0.5	1.0	-5.9	17.9	7.5	9.1
Russell MidCap	-1.5	4.1	-8.8	19.2	8.0	10.0
Russell MidCap Growth	1.4	9.1	-8.5	15.2	9.1	11.2
Russell MidCap Value	-3.1	1.3	-9.2	20.7	6.5	8.8
Russell 2000	-4.8	2.7	-11.6	17.5	4.7	8.0
Russell 2000 Growth	-2.5	6.1	-10.6	13.4	4.3	8.5
Russell 2000 Value	-7.2	-0.7	-13.0	21.0	4.5	7.2

#### US Equities: Russell 3000 Index rose 2.7% in March and 7.2% in Q1.

- US stocks rose in aggregate for the month and quarter as investors were optimistic that the Federal Reserve may end its policy tightening earlier than expected. However, turmoil in the regional banking industry weighed on segments of the market.
- The small cap and value indices were more exposed to the banking turmoil and underperformed their broad market indices by significant margins.
- Large cap stocks were driven higher by the continued strength of the technology and communication services sectors. This same dynamic contributed to the continued outperformance of growth stocks against their value counterparts across the capitalization spectrum.

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023.

### Foreign Equity Returns<sup>1</sup>

Foreign Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	2.4	6.9	-5.1	11.8	2.5	4.2
MSCI EAFE	2.5	8.5	-1.4	13.0	3.6	5.0
MSCI EAFE (Local Currency)	0.5	7.5	3.8	14.6	6.3	7.3
MSCI EAFE Small Cap	-0.2	4.9	-9.8	12.1	0.9	5.8
MSCI Emerging Markets	3.0	4.0	-10.7	7.8	-0.9	2.0
MSCI Emerging Markets (Local Currency)	2.2	3.8	-6.6	8.8	1.9	5.0
MSCI China	4.5	4.7	-4.7	-2.6	-4.0	3.4

**Foreign Equity: Developed international equities (MSCI EAFE) rose 2.5% in March and 8.5% for the quarter. Emerging market equities (MSCI EM) rose 3.0% for the month and 4.0% in the first quarter.**

- Non-US equities also recovered in March with developed markets (MSCI EAFE) outpacing US equities (8.5% versus 7.2%) for the quarter and emerging markets (MSCI Emerging Markets) trailing (4.0% versus 7.2%).
- Developed market equities also benefited from expectations that monetary policy may be peaking on declining inflation. The continued weakness in the US dollar also added to the quarterly results (+1%) for US investors.
- Emerging market equities started the year with optimism over the reopening of China’s economy, but the escalation of US-China tensions and the broader banking crisis led to weaker relative results compared to developed markets.

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023.

### Fixed Income Returns<sup>1</sup>

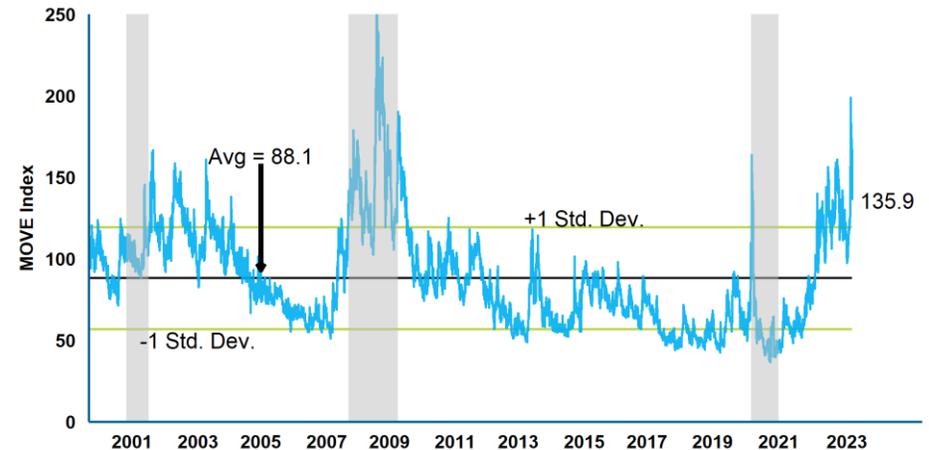
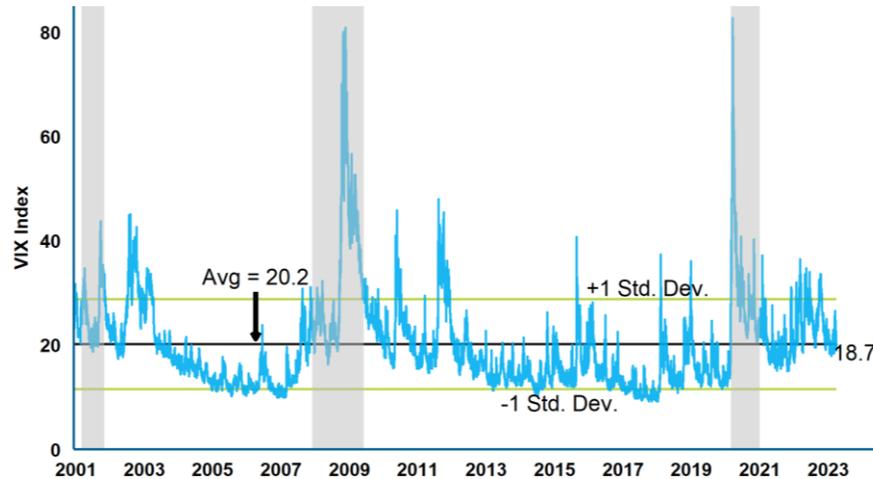
Fixed Income	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Barclays Universal	2.3	2.9	-4.6	-2.0	1.0	1.6	4.8	6.3
Bloomberg Barclays Aggregate	2.5	3.0	-4.8	-2.8	0.9	1.4	4.4	6.5
Bloomberg Barclays US TIPS	2.9	3.3	-6.1	1.8	2.9	1.5	4.1	7.0
Bloomberg Short-term TIPS	1.9	2.2	-0.3	3.5	3.0	1.5	4.6	2.5
Bloomberg Barclays High Yield	1.1	3.6	-3.3	5.9	3.2	4.1	8.5	4.2
JPM GBI-EM Global Diversified (USD)	4.1	5.2	-0.7	0.9	-2.4	-1.5	7.1	5.1

**Fixed Income: The Bloomberg Universal rose 2.3% in March and 2.9% in Q1 as global sovereign debt yields fell on monetary policy expectations.**

- Anecdotal reports suggest bouts of flight-to-quality flows during the peak of interest rate volatility connected to the banking sector pushed sovereign debt yields lower. These concerns largely outweighed continued inflation concerns and caused investors to adjust their policy expectations.
- The broad TIPS index outperformed the broad US bond market (Bloomberg Aggregate) in March and for the quarter.
- High yield bonds had the weakest results in March driven by banking sector weakness but outperformed the broad US bond market for the quarter.

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of March 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

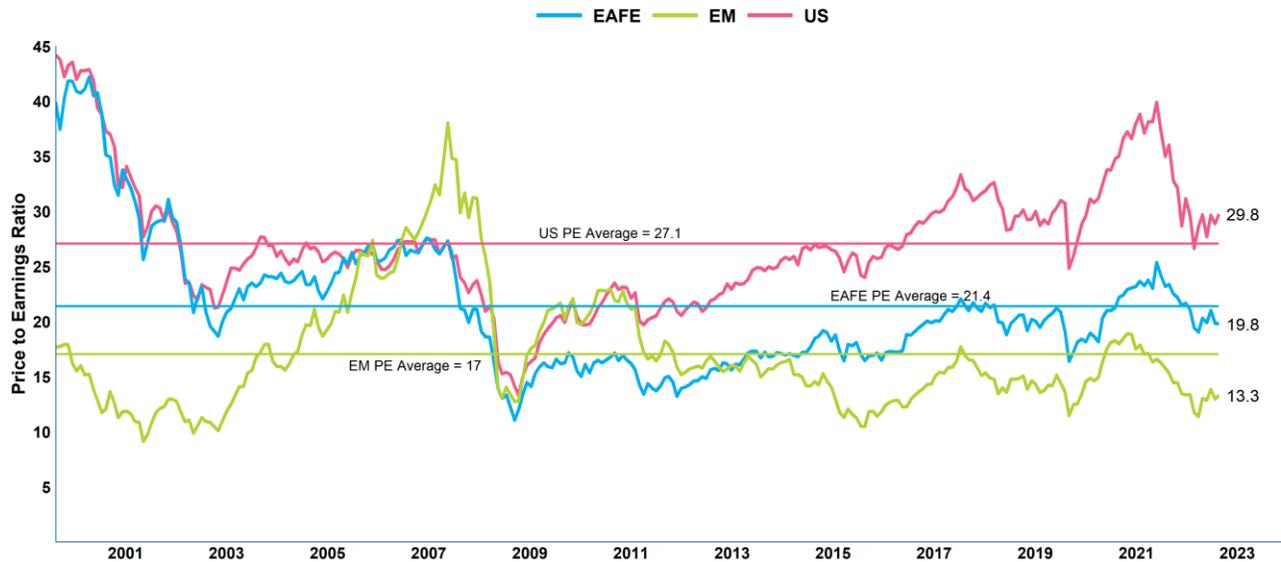
### Equity and Fixed Income Volatility<sup>1</sup>



- Volatility in equities (VIX) remained subdued through the end of March as investors continued to anticipate the end of the Fed’s policy tightening.
- In comparison, the bond market remains on edge with the more policy sensitive MOVE (fixed income volatility) remaining well above its long-run average. During the quarter it hit the highest level since the Global Financial Crisis as the banking sector issues created uncertainty over how the Fed would balance fighting inflation and maintaining financial stability.

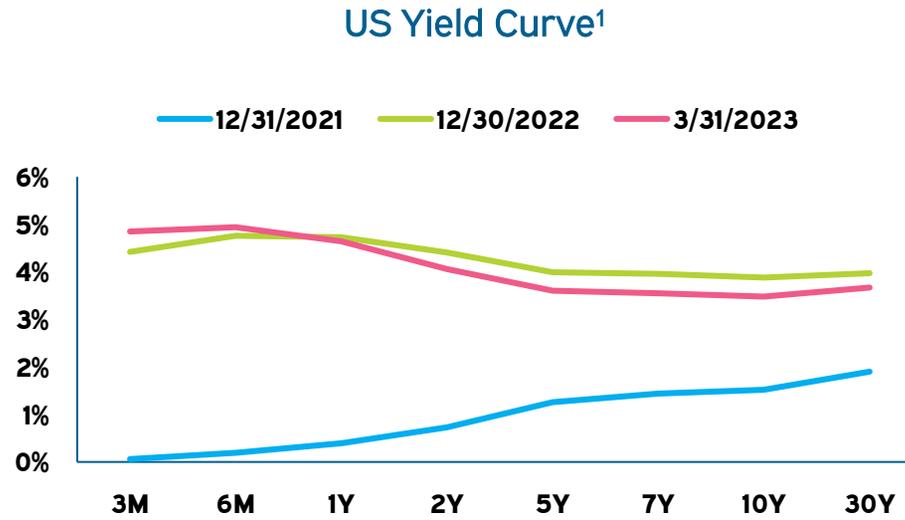
<sup>1</sup> Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of March 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and March 2023.

**Equity Cyclically Adjusted P/E Ratios<sup>1</sup>**



- After its dramatic decline last year the US equity price-to-earnings ratio remains above its long-run (21st century) average.
- International developed market valuations are slightly below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

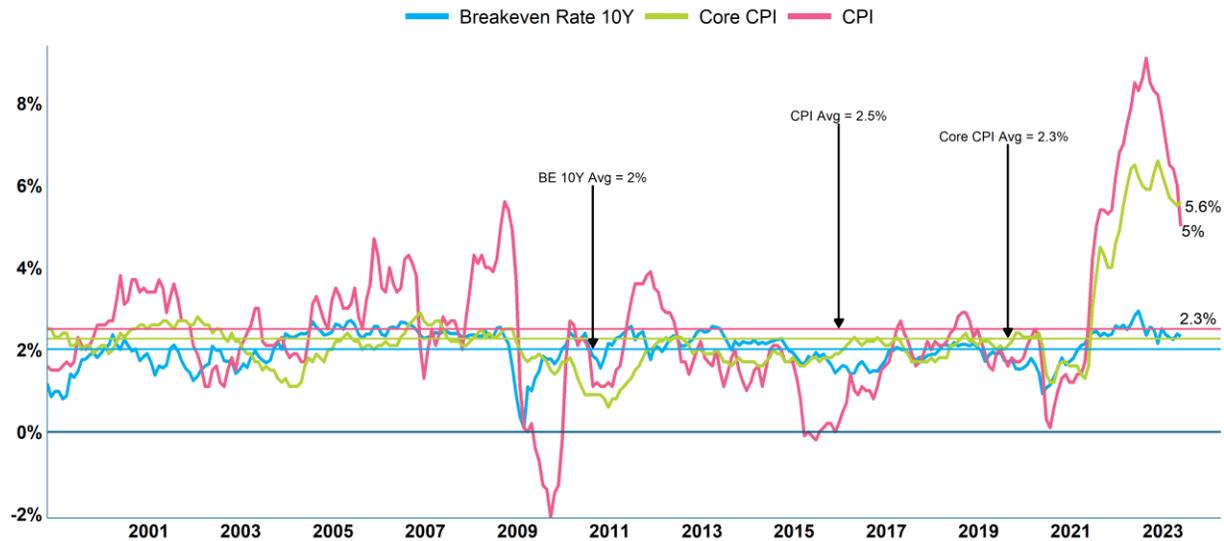
<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of March 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



- It was a volatile quarter for interest rates, particularly shorter-dated maturities. Except for the shortest maturities, rates largely declined across the yield curve in the first quarter on expectations of peaking policy.
- After hitting -1.07% in early March, the yield spread between two-year and ten-year Treasuries finished the quarter at -0.55% as policy-sensitive rates at the front-end of the curve declined faster than longer maturities. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Inversions in the yield curve have often preceded recessions.
- The Fed remained committed to fighting inflation, despite pressures in the banking sector, raising rates another 25 basis points to a range of 4.75% to 5.0% at its March meeting.

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023.

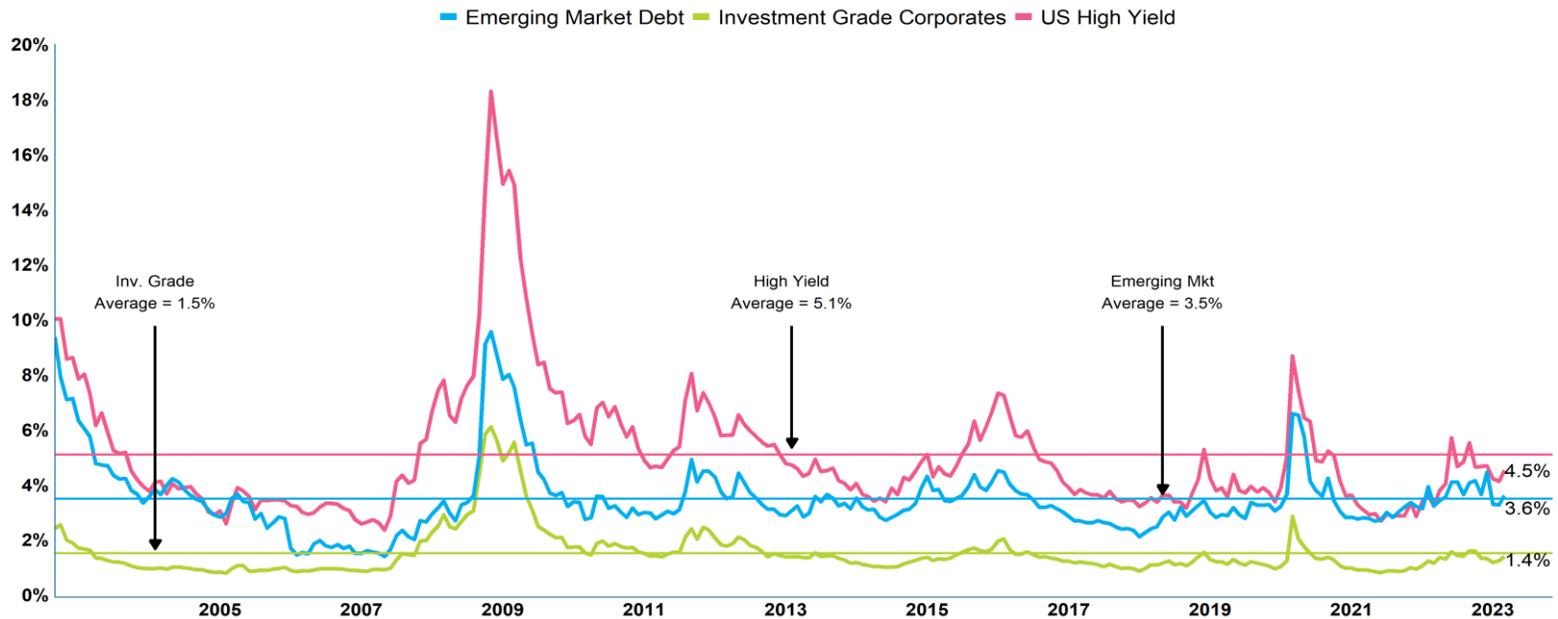
**Ten-Year Breakeven Inflation and CPI<sup>1</sup>**



- Inflation continued to decline in March with the year-over-year reading falling from 6.0% to 5.0% and coming in slightly below the 5.1% expectations. The rate of price increases also slowed on a month-over-month basis (0.1% versus 0.4%), with food prices only slightly higher and energy prices declining.
- Core inflation – excluding food and energy - rose (5.6% versus 5.5%) mostly driven by transportation and housing.
- Inflation expectations (breakevens) were volatile over the month and declined on net, but nonetheless ended the month at 2.3% (roughly where it started the quarter).

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

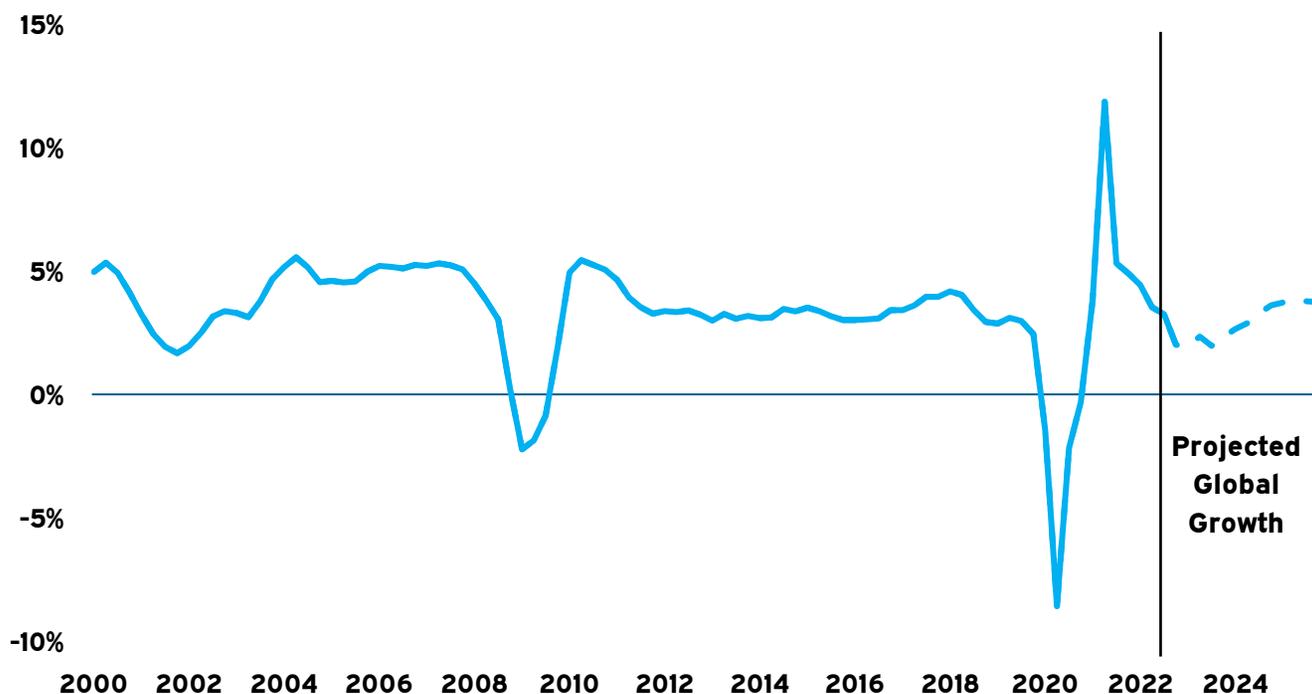
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- Spreads (the added yield above a comparable maturity Treasury) experienced a significant spike in March during the banking crisis but subsequently declined as the Fed and others stepped in to provide support.
- High yield spreads rose from 4.1% to a peak of 5.2% in March before finishing the quarter at 4.5% (lower than the start of the quarter by 0.2%). Investment grade spreads also spiked in March (1.2% to 1.6%) but also fell from their peak to 1.4%. Emerging market spreads finished the quarter at 3.6% experiencing the largest decline (-0.9%).

<sup>1</sup> Sources: Bloomberg. Data is as of March 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end, respectively.

### Global Real Gross Domestic Product (GDP) Growth<sup>1</sup>

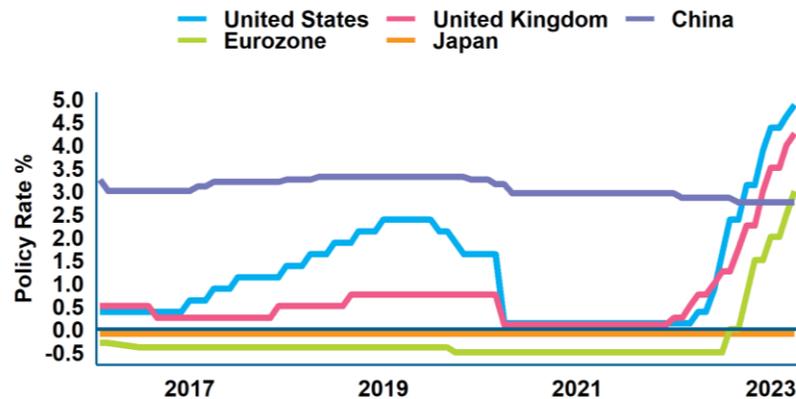


- Global economies are expected to slow in 2023 compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

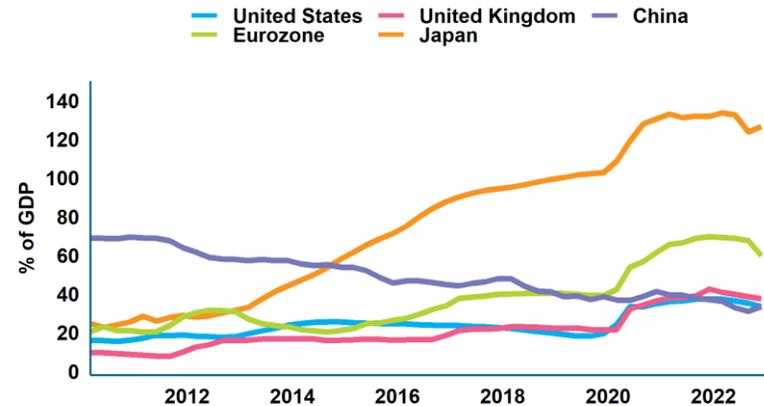
<sup>1</sup> Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated March 2023.

### Central Bank Response<sup>1</sup>

#### Policy Rates



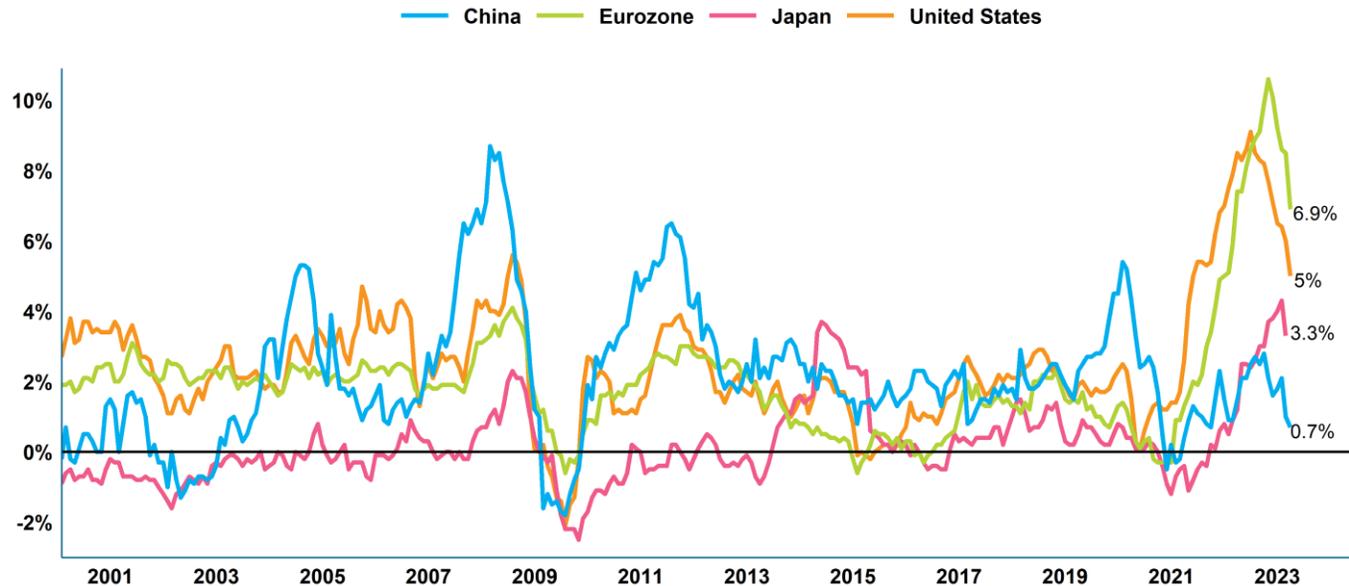
#### Balance Sheet as % of GDP



- In 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the US taking the most aggressive approach. Slowing inflation and recent signs of instability in the banking sector have led to expectations for the slowing of policy tightening going forward.
- In March, the Fed, FDIC, and Treasury provided deposit guarantees after high profile bank failures revealed bank capital losses on US Treasuries related to higher interest rates and lax risk management.
- China's central bank is one notable exception. They are expected to maintain an accommodative monetary stance to support the economy. They cut bank reserves requirements to improve bank liquidity and banks have also securitized over \$390 billion in non-performing loans to improve loan quality ratios.
- Looking ahead the risk remains for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and growth.

<sup>1</sup> Source: Bloomberg. Policy rate data is as of March 31, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of December 31, 2022.

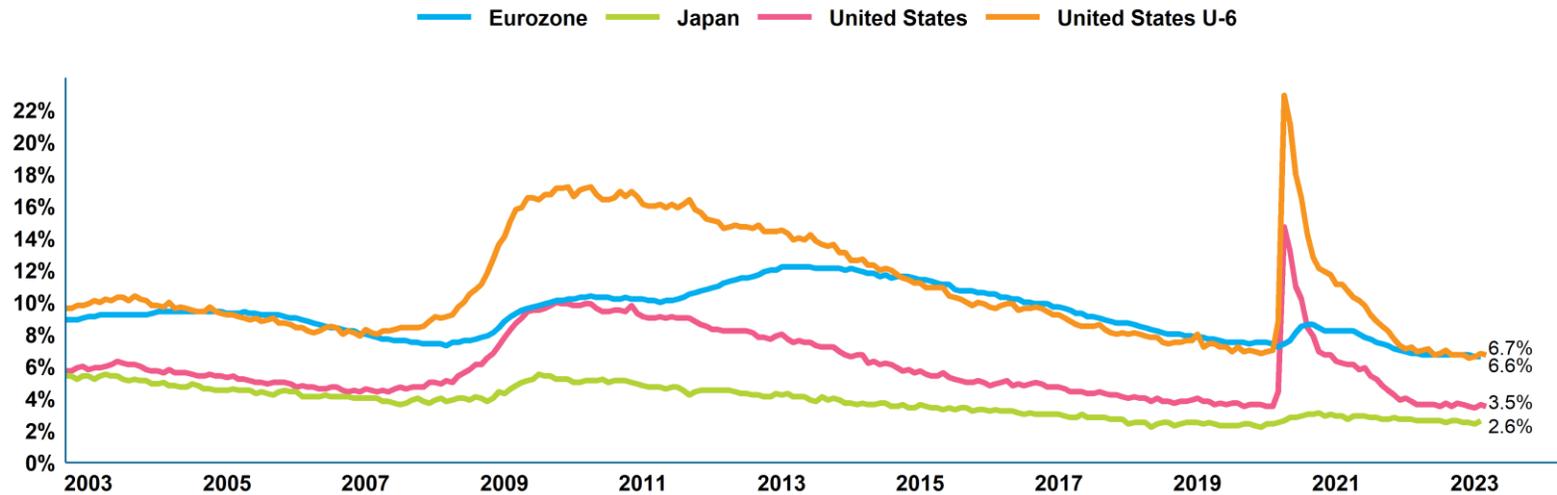
**Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it reached levels not seen in many decades.
- Inflation pressures are slowly declining in the US as supply issues ease, but they remain elevated, while in Europe they have also started to fall as energy prices have eased.
- Lingering supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

<sup>1</sup> Source: Bloomberg. Data is as March 31, 2023. The most recent Japanese inflation data is as of February 2023.

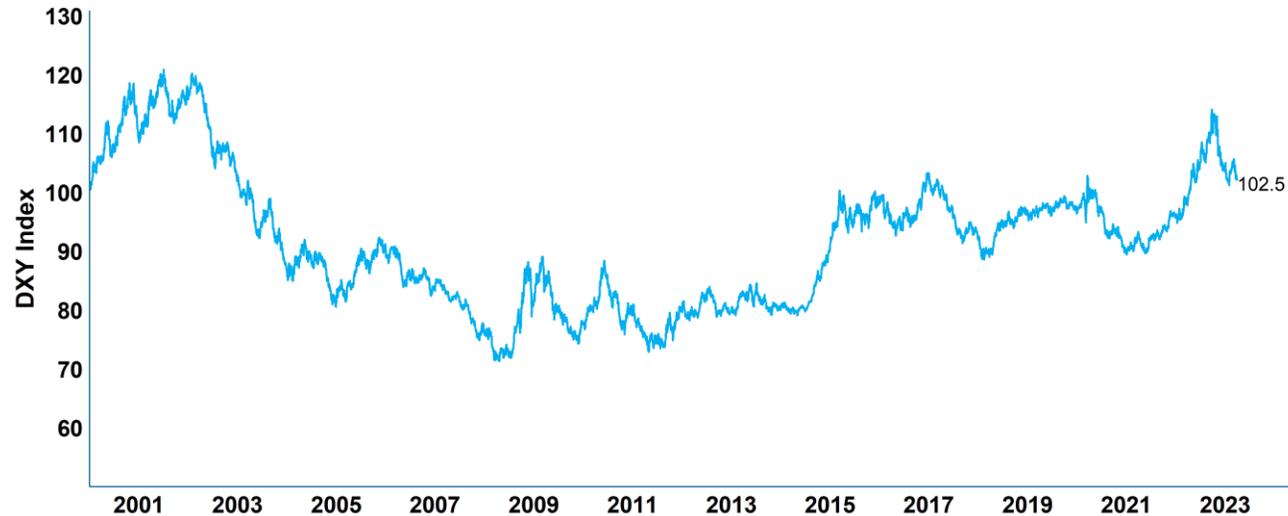
### Unemployment<sup>1</sup>



- Labor markets have significantly improved from the pandemic as economies have largely reopened.
- Despite slowing growth and high inflation, the US labor market remains a particular bright spot. Unemployment in the US, which experienced the steepest rise, recently has returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.7% but have also declined dramatically from their peak.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.

<sup>1</sup> Source: Bloomberg. Data is as March 31, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of February 2023.

**US Dollar versus Broad Currencies<sup>1</sup>**



- The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows. Late last year and into early this year, the dollar experienced some weakness though as investors anticipated the end of Fed tightening.
- Overall, the US dollar depreciated in March and finished the quarter slightly lower than where it started as weaker economic data and bank turmoil drove interest rates lower in the US.
- This year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

<sup>1</sup> Source: Bloomberg. Data as of March 31, 2023.

## Summary

### Key Trends:

- The impacts of record high inflation will remain key, with market volatility likely to stay high.
- Recent issues related to the banking sector have created a delicate balance for central banks to continue to fight inflation but also try to maintain financial stability.
- Global monetary policies could diverge in 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors remains elevated given persistent inflation pressures and a strong US labor market.
- Growth is expected to slow globally this year, with many economies forecast to tip into recession. Inflation, monetary policy, and the war will all be key.
- In the US, the end of many fiscal programs is expected to put the burden of continued growth on consumers. Costs for shelter, medical care, and education could continue to rise, keeping 'sticky price' inflation at elevated levels.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

**1Q 2023 Performance**  
as of March 31, 2023

### OPFRS Total Plan | As of March 31, 2023

#### Return Summary Ending March 31, 2023



#### Summary of Cash Flows

	Quarter-To-Date	One Year
Beginning Market Value	\$398,501,201	\$449,373,445
Net Cash Flow	-\$5,442,419	-\$13,425,368
Capital Appreciation	\$18,123,266	-\$24,766,028
Ending Market Value	\$411,182,049	\$411,182,049

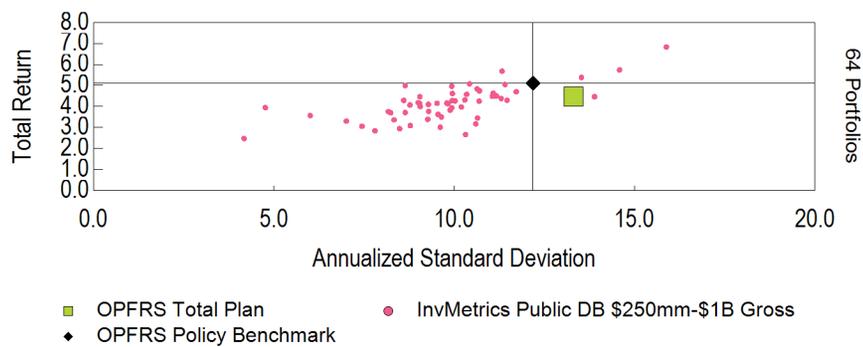
#### YTD Ending March 31, 2023

	Total Return	Anlzd Standard Deviation
OPFRS Total Plan	4.5%	13.3%
OPFRS Policy Benchmark	5.1%	12.2%

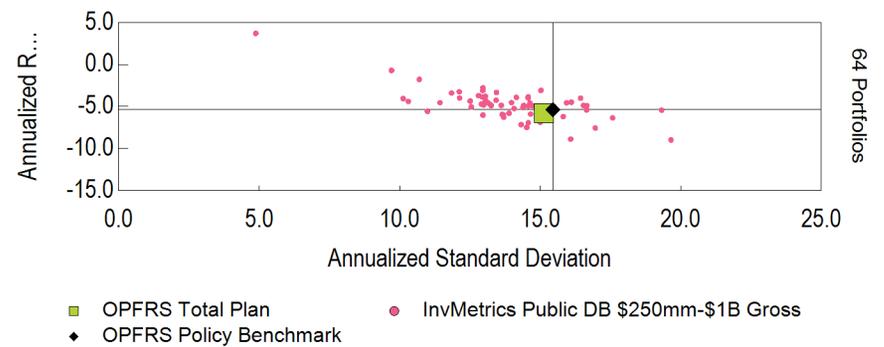
#### 1 Year Ending March 31, 2023

	Anlzd Return	Anlzd Standard Deviation
OPFRS Total Plan	-5.5%	15.1%
OPFRS Policy Benchmark	-5.4%	15.4%

#### Total Return vs. Annualized Standard Deviation 3 Months Ending March 31, 2023



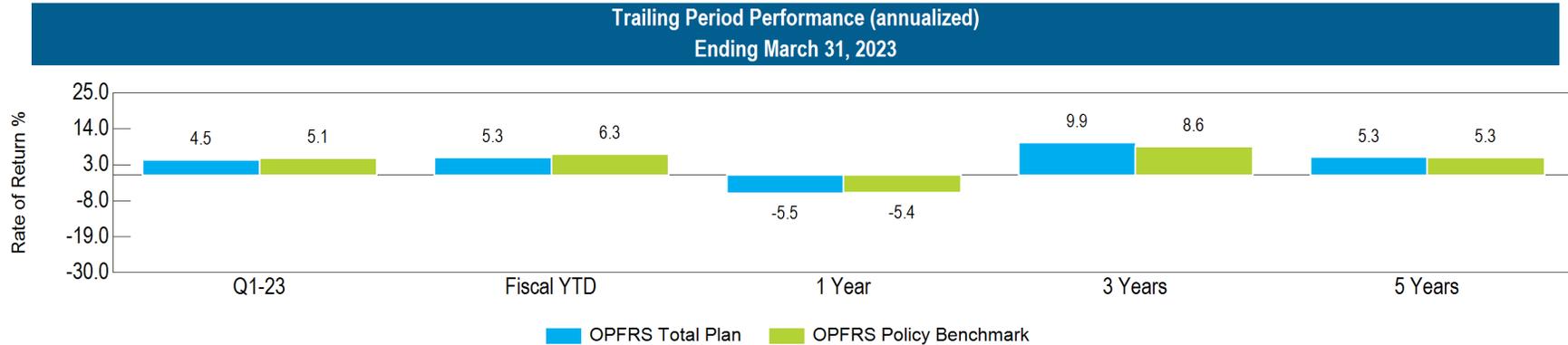
#### Annualized Return vs. Annualized Standard Deviation 1 Year Ending March 31, 2023



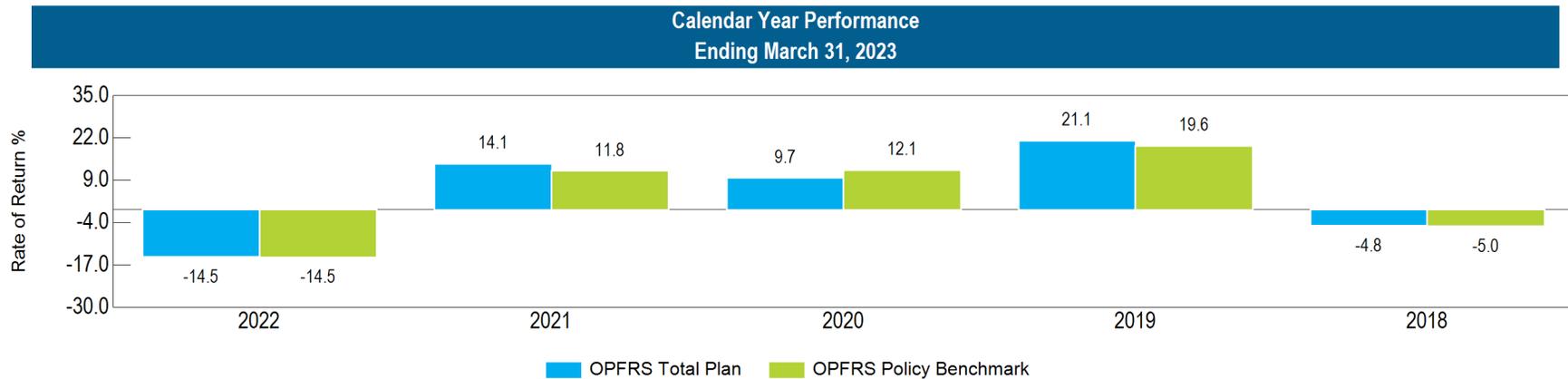
Performance shown is Gross-of-Fees.

	Market Value (\$)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>OPFRS Total Plan</b>	<b>411,182,049</b>	<b>4.5</b>	<b>5.3</b>	<b>-5.5</b>	<b>9.9</b>	<b>5.3</b>	<b>7.5</b>	<b>7.0</b>
<i>OPFRS Policy Benchmark</i>		<u>5.1</u>	<u>6.3</u>	<u>-5.4</u>	<u>8.6</u>	<u>5.3</u>	<u>7.1</u>	<u>6.7</u>
Excess Return		-0.6	-1.0	-0.1	1.3	0.0	0.4	0.3
<i>InvMetrics Public DB \$250mm-\$1B Gross Median</i>		4.1	5.5	-4.9	11.0	6.0	7.6	7.1
<b>Domestic Equity</b>	<b>168,069,634</b>	<b>5.2</b>	<b>8.4</b>	<b>-7.2</b>	<b>18.6</b>	<b>9.5</b>	<b>11.7</b>	<b>11.5</b>
<i>Russell 3000 (Blend)</i>		<u>7.2</u>	<u>9.7</u>	<u>-8.6</u>	<u>18.5</u>	<u>10.4</u>	<u>12.0</u>	<u>11.7</u>
Excess Return		-2.0	-1.3	1.4	0.1	-0.9	-0.3	-0.2
<b>International Equity</b>	<b>54,140,952</b>	<b>8.7</b>	<b>13.2</b>	<b>-3.9</b>	<b>12.2</b>	<b>3.6</b>	<b>7.2</b>	<b>5.7</b>
<i>MSCI ACWI ex US (Blend)</i>		<u>6.9</u>	<u>10.0</u>	<u>-5.1</u>	<u>11.8</u>	<u>2.5</u>	<u>5.9</u>	<u>4.2</u>
Excess Return		1.8	3.2	1.2	0.4	1.1	1.3	1.5
<b>Fixed Income</b>	<b>105,026,387</b>	<b>3.4</b>	<b>0.7</b>	<b>-4.2</b>	<b>-0.6</b>	<b>1.4</b>	<b>1.8</b>	<b>1.9</b>
<i>Bloomberg Universal (Blend)</i>		<u>2.9</u>	<u>0.5</u>	<u>-4.6</u>	<u>-2.0</u>	<u>1.0</u>	<u>1.2</u>	<u>1.6</u>
Excess Return		0.5	0.2	0.4	1.4	0.4	0.6	0.3
<b>Credit</b>	<b>8,909,576</b>	<b>3.7</b>	<b>5.2</b>	<b>-3.1</b>	<b>10.4</b>	<b>3.2</b>	<b>6.3</b>	<b>--</b>
<i>Bloomberg US High Yield TR</i>		<u>3.6</u>	<u>7.2</u>	<u>-3.3</u>	<u>5.9</u>	<u>3.2</u>	<u>5.1</u>	<u>--</u>
Excess Return		0.1	-2.0	0.2	4.5	0.0	1.2	--
<b>Covered Calls</b>	<b>22,993,243</b>	<b>6.2</b>	<b>8.5</b>	<b>-4.7</b>	<b>16.6</b>	<b>9.1</b>	<b>9.7</b>	<b>--</b>
<i>CBOE S&amp;P 500 BuyWrite USD</i>		<u>6.0</u>	<u>4.6</u>	<u>-6.9</u>	<u>12.3</u>	<u>4.4</u>	<u>5.9</u>	<u>--</u>
Excess Return		0.2	3.9	2.2	4.3	4.7	3.8	--
<b>Crisis Risk Offset</b>	<b>39,437,113</b>	<b>0.0</b>	<b>-4.7</b>	<b>-6.5</b>	<b>-8.7</b>	<b>-8.2</b>	<b>--</b>	<b>--</b>
<i>SG Multi Alternative Risk Premia Index</i>		<u>1.1</u>	<u>3.6</u>	<u>6.4</u>	<u>2.1</u>	<u>--</u>	<u>--</u>	<u>--</u>
Excess Return		-1.1	-8.3	-12.9	-10.8	--	--	--
<b>Cash</b>	<b>12,605,144</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>1.0</b>	<b>0.7</b>
<i>FTSE T-Bill 3 Months TR</i>		<u>1.1</u>	<u>2.5</u>	<u>2.6</u>	<u>1.0</u>	<u>1.4</u>	<u>1.2</u>	<u>0.9</u>
Excess Return		-1.1	-2.5	-2.6	-1.0	-0.4	-0.2	-0.2

Performance shown is gross-of-fees. Fiscal year begins on July 1.



	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	2018 (%)	2019 (%)	2020 (%)	2021 (%)	2022 (%)
<b>OPFRS Total Plan</b>	<b>4.5</b>	<b>5.3</b>	<b>-5.5</b>	<b>9.9</b>	<b>5.3</b>	<b>-4.8</b>	<b>21.1</b>	<b>9.7</b>	<b>14.1</b>	<b>-14.5</b>
<i>OPFRS Policy Benchmark</i>	<i>5.1</i>	<i>6.3</i>	<i>-5.4</i>	<i>8.6</i>	<i>5.3</i>	<i>-5.0</i>	<i>19.6</i>	<i>12.1</i>	<i>11.8</i>	<i>-14.5</i>
<i>InvMetrics Public DB \$250mm-\$1B Gross Median</i>	<i>4.1</i>	<i>5.5</i>	<i>-4.9</i>	<i>11.0</i>	<i>6.0</i>	<i>-4.1</i>	<i>18.6</i>	<i>13.1</i>	<i>13.6</i>	<i>-13.4</i>

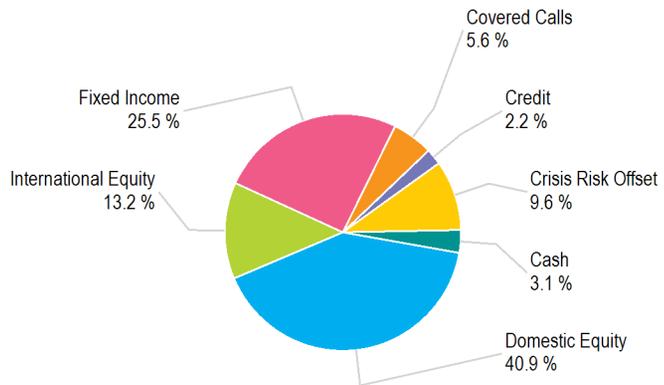


Fiscal year begins on July 1.

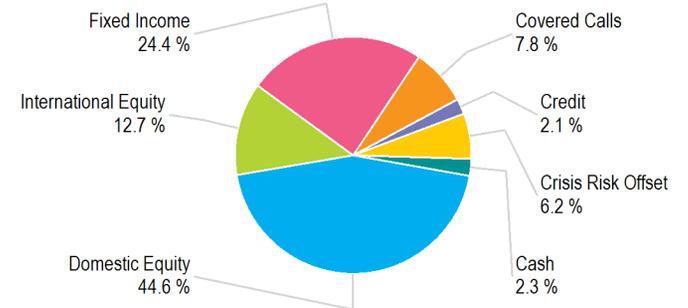
#### Asset Allocation vs. Target As Of March 31, 2023

	Current	%	Policy	Difference*
Domestic Equity	\$168,069,634	40.9%	40.0%	0.9%
International Equity	\$54,140,952	13.2%	12.0%	1.2%
Fixed Income	\$105,026,387	25.5%	31.0%	-5.5%
Covered Calls	\$22,993,243	5.6%	5.0%	0.6%
Credit	\$8,909,576	2.2%	2.0%	0.2%
Crisis Risk Offset	\$39,437,113	9.6%	10.0%	-0.4%
Cash	\$12,605,144	3.1%	0.0%	3.1%
<b>Total</b>	<b>\$411,182,049</b>	<b>100.0%</b>	<b>100.0%</b>	

March 31, 2023: \$382,458,040



March 31, 2022: \$449,834,415



Cash account market value includes cash balances held in ETF accounts at the custodian and residuals from terminated managers.

Target weightings reflect the Plan's evolving asset allocation (effective 5/31/2017.)

## Oakland Police and Fire Retirement System Total Plan

### Manager Performance - Gross of Fees | As of March 31, 2023

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Domestic Equity</b>	<b>168,069,634</b>	<b>100.0</b>	<b>5.2</b>	<b>-7.2</b>	<b>18.6</b>	<b>9.5</b>	<b>8.7</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>7.2</i>	<i>-8.6</i>	<i>18.5</i>	<i>10.4</i>	<i>8.9</i>	<i>Jun-97</i>
Excess Return			-2.0	1.4	0.1	-0.9	-0.2	
Northern Trust Russell 1000	74,942,881	44.6	7.5	-8.7	18.4	10.8	12.9	Jun-10
<i>Russell 1000</i>			<i>7.5</i>	<i>-8.4</i>	<i>18.6</i>	<i>10.9</i>	<i>13.0</i>	<i>Jun-10</i>
Excess Return			0.0	-0.3	-0.2	-0.1	-0.1	
EARNEST Partners	45,658,799	27.2	4.7	-6.0	20.9	11.0	10.1	Apr-06
<i>Russell MidCap</i>			<i>4.1</i>	<i>-8.8</i>	<i>19.2</i>	<i>8.1</i>	<i>8.4</i>	<i>Apr-06</i>
Excess Return			0.6	2.8	1.7	2.9	1.7	
<i>eV US Mid Cap Core Equity Gross Rank</i>			<i>50</i>	<i>62</i>	<i>39</i>	<i>17</i>	<i>34</i>	<i>Apr-06</i>
Wellington Select Quality Equity	22,362,811	13.3	0.7	--	--	--	1.6	May-22
<i>Russell 1000</i>			<i>7.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>0.6</i>	<i>May-22</i>
Excess Return			-6.8				1.0	
<i>eV US Large Cap Core Equity Gross Rank</i>			<i>94</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>46</i>	<i>May-22</i>
Brown Fundamental Small Cap Value	10,865,239	6.5	-0.3	-2.3	--	--	1.4	Apr-21
<i>Russell 2000 Value</i>			<i>-0.7</i>	<i>-13.0</i>	<i>--</i>	<i>--</i>	<i>-5.2</i>	<i>Apr-21</i>
Excess Return			0.4	10.7			6.6	
<i>eV US Small Cap Value Equity Gross Rank</i>			<i>86</i>	<i>24</i>	<i>--</i>	<i>--</i>	<i>32</i>	<i>Apr-21</i>
Rice Hall James	14,239,905	8.5	7.1	-7.7	18.6	4.2	7.1	Jul-17
<i>Russell 2000 Growth</i>			<i>6.1</i>	<i>-10.6</i>	<i>13.4</i>	<i>4.3</i>	<i>6.0</i>	<i>Jul-17</i>
Excess Return			1.0	2.9	5.2	-0.1	1.1	
<i>eV US Small Cap Growth Equity Gross Rank</i>			<i>51</i>	<i>28</i>	<i>38</i>	<i>95</i>	<i>90</i>	<i>Jul-17</i>

Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>International Equity</b>	<b>54,140,952</b>	<b>100.0</b>	<b>8.7</b>	<b>-3.9</b>	<b>12.2</b>	<b>3.6</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			<i>6.9</i>	<i>-5.1</i>	<i>11.8</i>	<i>2.5</i>	<i>5.0</i>	<i>Jan-98</i>
Excess Return			1.8	1.2	0.4	1.1	0.3	
Vanguard Developed Markets ETF	15,125,852	27.9	8.0	-3.0	13.8	--	6.5	Sep-19
<i>FTSE Developed All Cap Ex US TR USD</i>			<i>7.7</i>	<i>-3.8</i>	<i>13.9</i>	--	<i>6.6</i>	<i>Sep-19</i>
Excess Return			0.3	0.8	-0.1		-0.1	
SGA ACWI ex-U.S. Equity	39,015,100	72.1	9.0	-4.3	11.7	--	3.0	Dec-19
<i>MSCI ACWI ex USA</i>			<i>6.9</i>	<i>-5.1</i>	<i>11.8</i>	--	<i>3.4</i>	<i>Dec-19</i>
Excess Return			2.1	0.8	-0.1		-0.4	
<i>eV ACWI ex-US All Cap Core Eq Gross Rank</i>			<i>22</i>	<i>57</i>	<i>80</i>	--	<i>92</i>	<i>Dec-19</i>

Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Fixed Income</b>	<b>105,026,387</b>	<b>100.0</b>	<b>3.4</b>	<b>-4.2</b>	<b>-0.6</b>	<b>1.4</b>	<b>4.8</b>	<b>Dec-93</b>
<i>Bloomberg Universal (Blend)</i>			<u>2.9</u>	<u>-4.6</u>	<u>-2.0</u>	<u>1.0</u>	<u>4.6</u>	<u>Dec-93</u>
Excess Return			0.5	0.4	1.4	0.4	0.2	
Ramirez	71,307,125	67.9	3.3	-4.3	-0.6	1.3	1.7	Jan-17
<i>Bloomberg US Aggregate TR</i>			<u>3.0</u>	<u>-4.8</u>	<u>-2.8</u>	<u>0.9</u>	<u>1.0</u>	<u>Jan-17</u>
Excess Return			0.3	0.5	2.2	0.4	0.7	
<i>eV US Core Fixed Inc Gross Rank</i>			24	36	12	67	34	Jan-17
Wellington Core Bond	6,763,874	6.4	3.6	-5.3	--	--	-4.9	Apr-21
<i>Bloomberg US Aggregate TR</i>			<u>3.0</u>	<u>-4.8</u>	--	--	<u>-4.5</u>	<u>Apr-21</u>
Excess Return			0.6	-0.5			-0.4	
<i>eV US Core Fixed Inc Gross Rank</i>			5	89	--	--	98	Apr-21
Reams	26,955,387	25.7	3.7	-3.5	0.6	3.7	5.2	Feb-98
<i>Bloomberg Universal (Blend)</i>			<u>2.9</u>	<u>-4.6</u>	<u>-2.0</u>	<u>1.0</u>	<u>4.2</u>	<u>Feb-98</u>
Excess Return			0.8	1.1	2.6	2.7	1.0	
<i>eV US Core Plus Fixed Inc Gross Rank</i>			15	15	25	2	39	Feb-98

Performance shown is gross-of-fees.

## Oakland Police and Fire Retirement System Total Plan

Manager Performance - Gross of Fees | As of March 31, 2023

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Credit</b>	<b>8,909,576</b>	<b>100.0</b>	<b>3.7</b>	<b>-3.1</b>	<b>10.4</b>	<b>3.2</b>	<b>5.0</b>	<b>Feb-15</b>
<i>Bloomberg US High Yield TR</i>			<i>3.6</i>	<i>-3.3</i>	<i>5.9</i>	<i>3.2</i>	<i>4.1</i>	<i>Feb-15</i>
Excess Return			0.1	0.2	4.5	0.0	0.9	
Polen Capital	8,909,576	100.0	3.7	-3.1	10.4	3.2	5.0	Feb-15
<i>ICE BofA High Yield Master TR</i>			<i>3.7</i>	<i>-3.6</i>	<i>5.8</i>	<i>3.1</i>	<i>4.0</i>	<i>Feb-15</i>
Excess Return			0.0	0.5	4.6	0.1	1.0	
<i>eV US High Yield Fixed Inc Gross Rank</i>			<i>32</i>	<i>65</i>	<i>4</i>	<i>75</i>	<i>14</i>	<i>Feb-15</i>

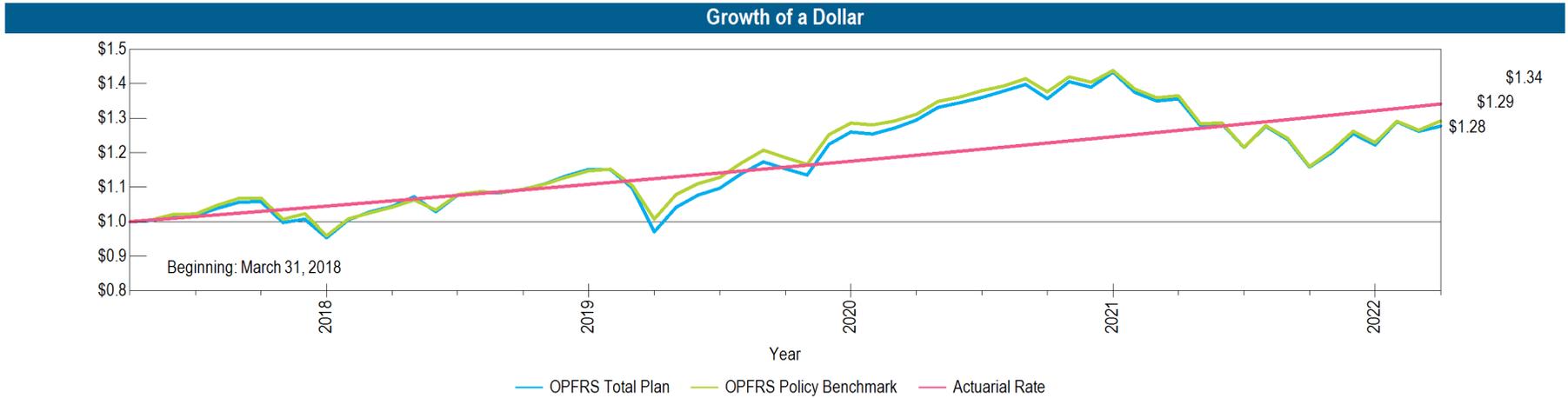
Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Covered Calls</b>	<b>22,993,243</b>	<b>100.0</b>	<b>6.2</b>	<b>-4.7</b>	<b>16.6</b>	<b>9.1</b>	<b>8.6</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 BuyWrite USD</i>			<i>6.0</i>	<i>-6.9</i>	<i>12.3</i>	<i>4.4</i>	<i>5.4</i>	<i>Apr-14</i>
Excess Return			0.2	2.2	4.3	4.7	3.2	
Parametric BXM	11,572,026	50.3	5.2	-3.4	13.4	6.8	6.8	Apr-14
<i>CBOE S&amp;P 500 BuyWrite USD</i>			<i>6.0</i>	<i>-6.9</i>	<i>12.3</i>	<i>4.4</i>	<i>5.4</i>	<i>Apr-14</i>
Excess Return			-0.8	3.5	1.1	2.4	1.4	
Parametric DeltaShift	11,421,217	49.7	7.2	-5.9	19.3	11.1	10.6	Apr-14
<i>CBOE S&amp;P 500 BuyWrite USD</i>			<i>6.0</i>	<i>-6.9</i>	<i>12.3</i>	<i>4.4</i>	<i>5.4</i>	<i>Apr-14</i>
Excess Return			1.2	1.0	7.0	6.7	5.2	
<i>eV US Large Cap Core Equity Gross Rank</i>			<i>28</i>	<i>44</i>	<i>29</i>	<i>40</i>	<i>61</i>	<i>Apr-14</i>

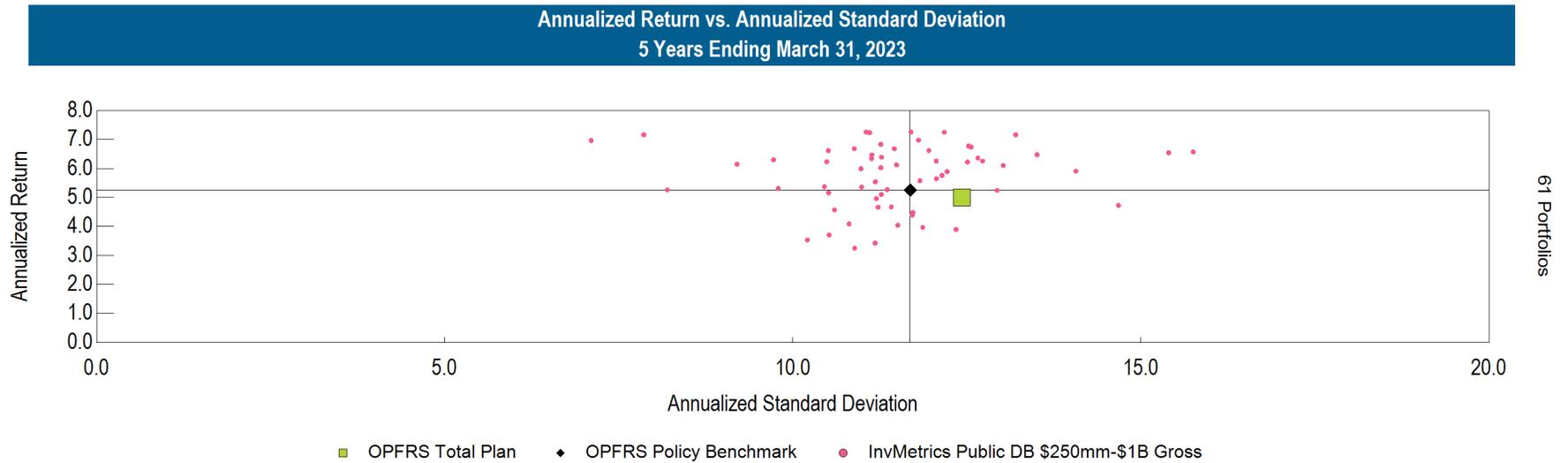
Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Crisis Risk Offset</b>	<b>39,437,113</b>	<b>100.0</b>	<b>0.0</b>	<b>-6.5</b>	<b>-8.7</b>	<b>-8.2</b>	<b>-8.8</b>	<b>Aug-18</b>
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.1</i>	<i>6.4</i>	<i>2.1</i>	<i>--</i>	<i>-0.2</i>	<i>Aug-18</i>
Excess Return			-1.1	-12.9	-10.8		-8.6	
Versor Trend Following	14,592,261	37.0	-8.7	-2.7	--	--	-2.7	Apr-22
<i>SG Trend Index</i>			<i>-7.3</i>	<i>7.2</i>	<i>--</i>	<i>--</i>	<i>7.2</i>	<i>Apr-22</i>
Excess Return			-1.4	-9.9			-9.9	
Vanguard Long-Term Treasury ETF	14,571,848	36.9	6.8	-16.3	-11.5	--	-3.6	Jul-19
<i>Bloomberg US Govt Long TR</i>			<i>6.2</i>	<i>-15.9</i>	<i>-11.3</i>	<i>--</i>	<i>-3.6</i>	<i>Jul-19</i>
Excess Return			0.6	-0.4	-0.2		0.0	
Kepos Alternative Risk Premia	10,273,004	26.0	4.6	5.8	--	--	3.1	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.1</i>	<i>6.4</i>	<i>--</i>	<i>--</i>	<i>4.3</i>	<i>Feb-22</i>
Excess Return			3.5	-0.6			-1.2	

Performance shown is gross-of-fees.

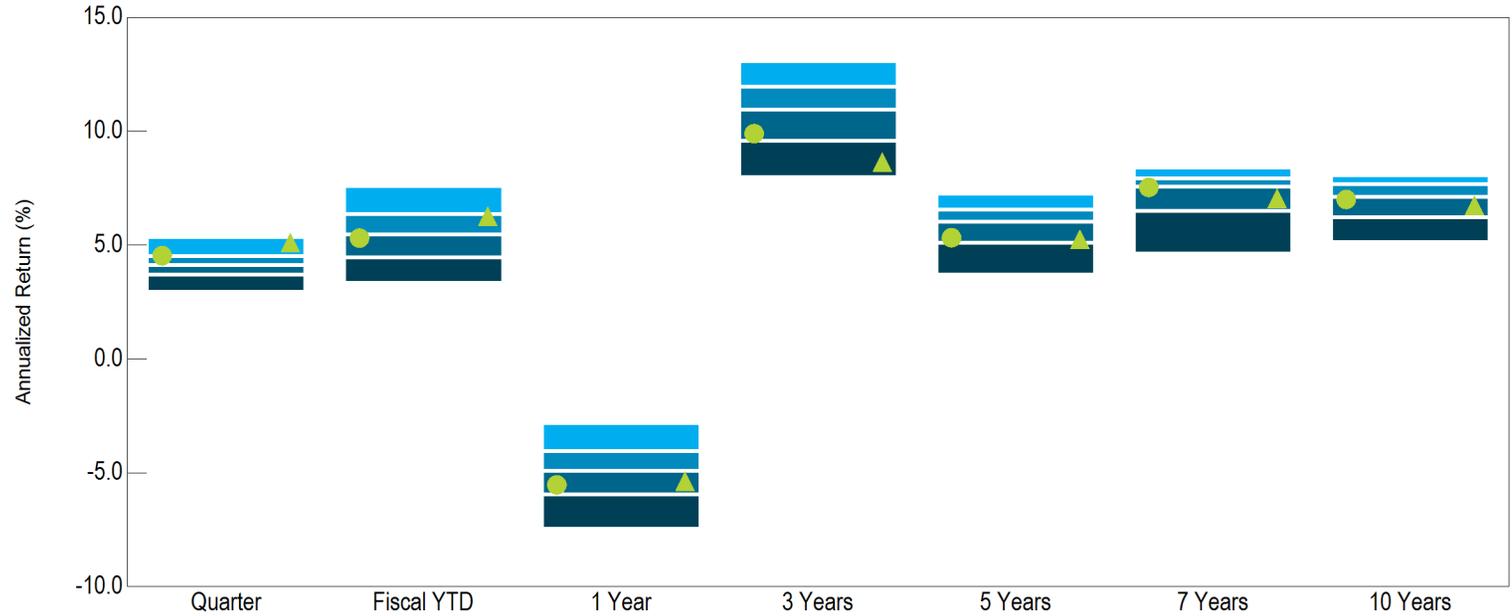


The actuarial expected rate of return was 8% through 6/30/2009, 7.5% through 6/30/2010, 7% through 6/30/2011, 6.75% through 6/30/2014, 6.5% through 2/31/2017 and 6.0% currently



Performance shown is gross-of-fees.

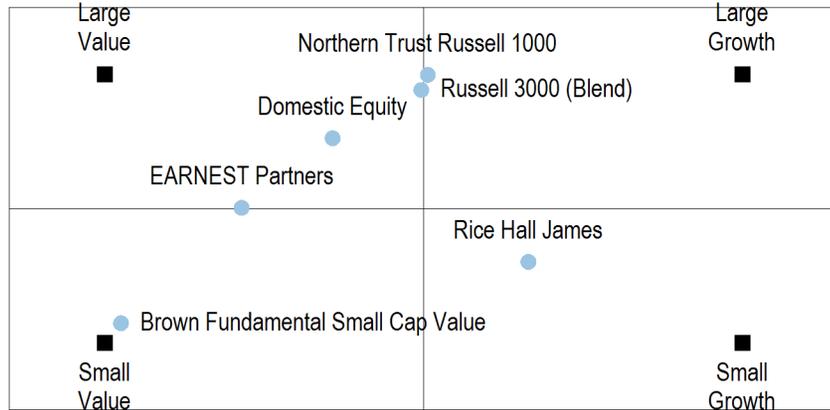
#### InvMetrics Public DB \$250mm-\$1B Gross Return Comparison



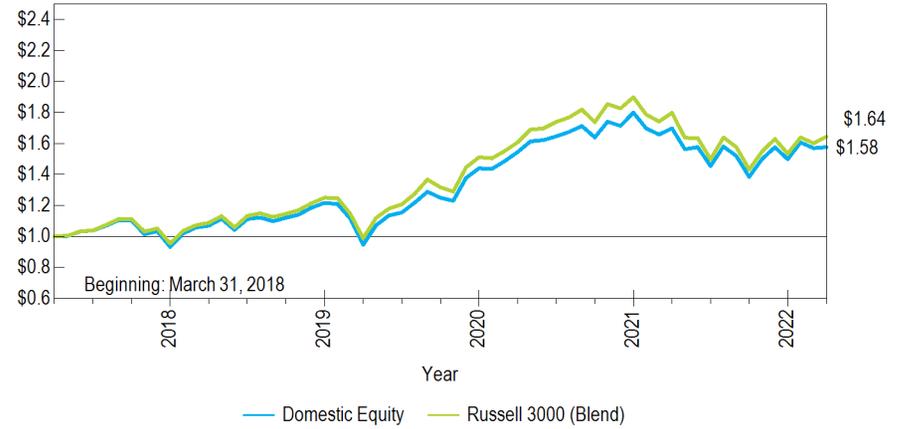
	Quarter		Fiscal YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
<b>Return (Rank)</b>														
5th Percentile	5.3		7.6		-2.8		13.0		7.2		8.4		8.0	
25th Percentile	4.5		6.4		-4.0		12.0		6.6		7.9		7.7	
Median	4.1		5.5		-4.9		11.0		6.0		7.6		7.1	
75th Percentile	3.7		4.5		-5.9		9.6		5.1		6.5		6.2	
95th Percentile	2.9		3.3		-7.4		8.0		3.7		4.6		5.1	
# of Portfolios	64		64		64		63		61		59		56	
● OPFRS Total Plan	4.5	(25)	5.3	(63)	-5.5	(71)	9.9	(73)	5.3	(67)	7.5	(51)	7.0	(56)
▲ OPFRS Policy Benchmark	5.1	(7)	6.3	(28)	-5.4	(68)	8.6	(91)	5.3	(71)	7.1	(62)	6.7	(68)

Fiscal year begins on July 1.

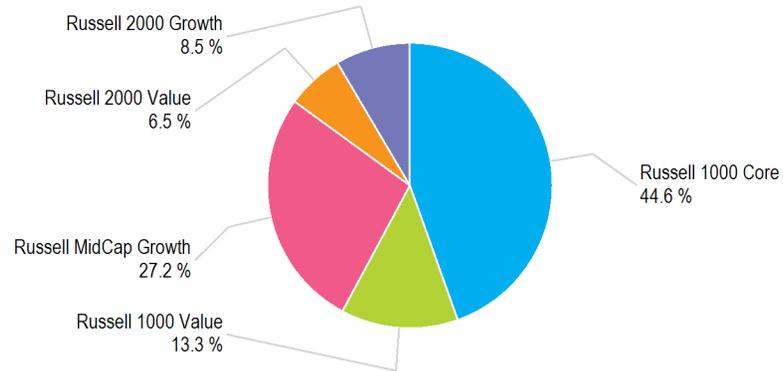
#### U.S. Effective Style Map



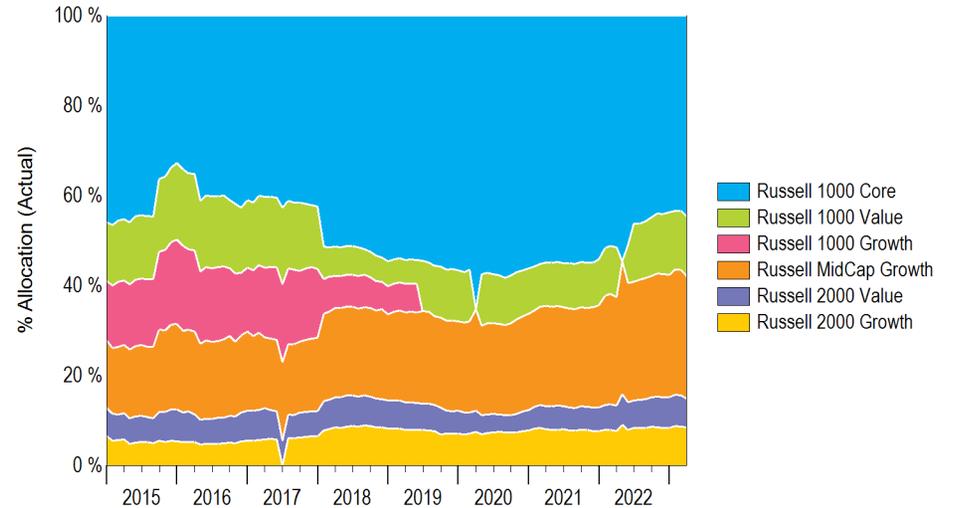
#### Growth of a Dollar



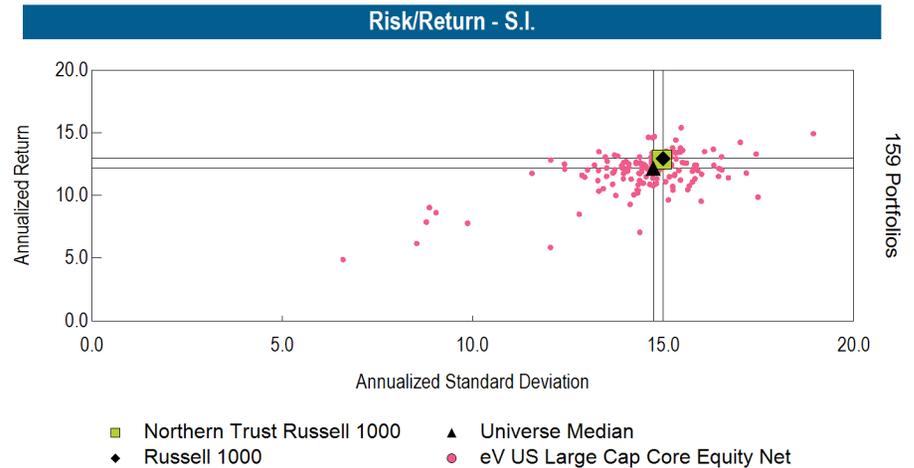
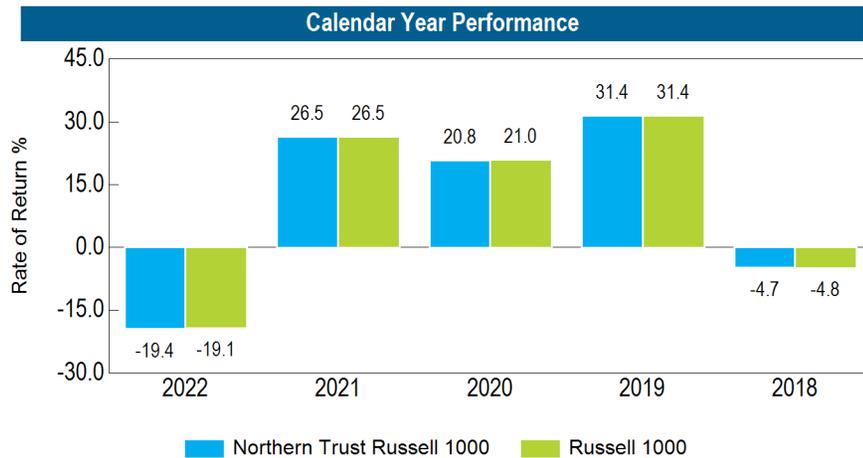
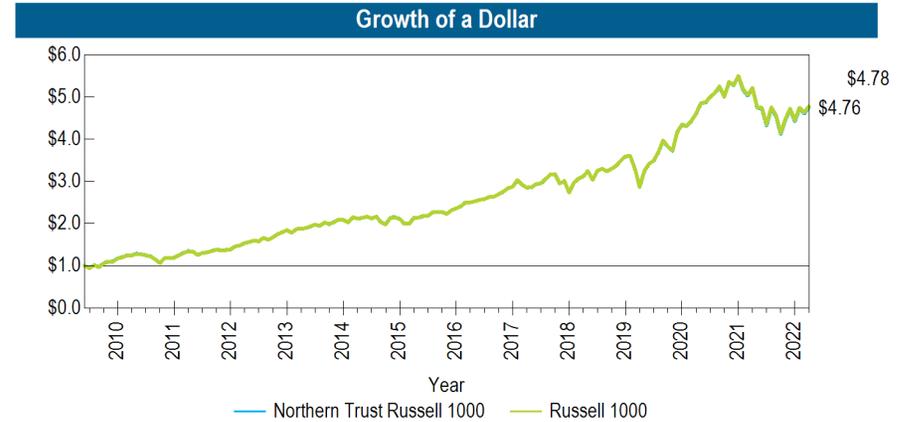
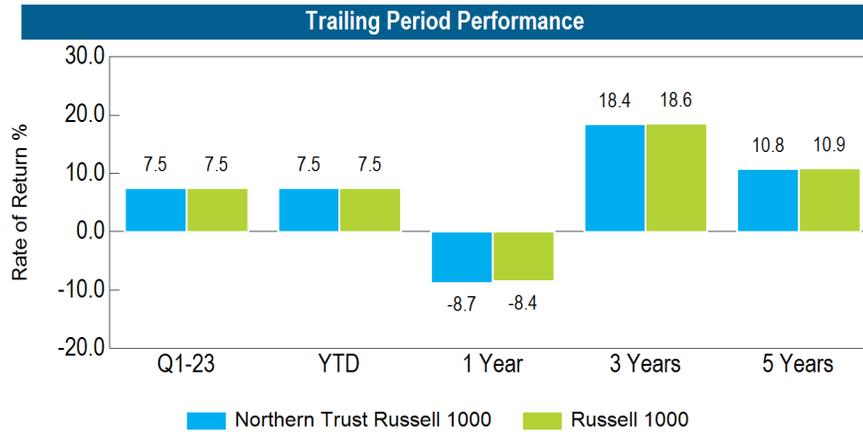
#### Style Exposure



#### Style History (5-Year)

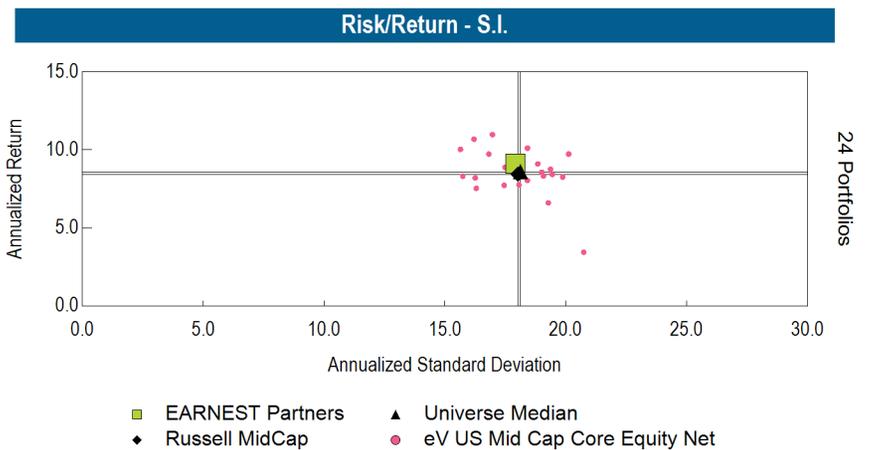
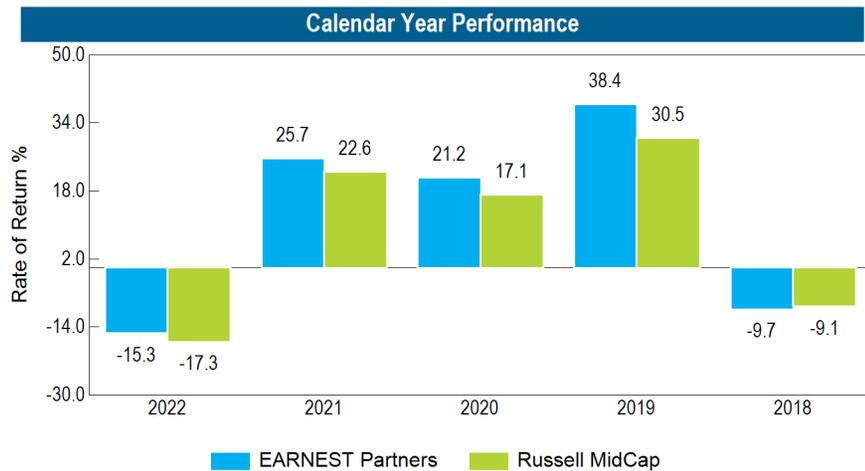
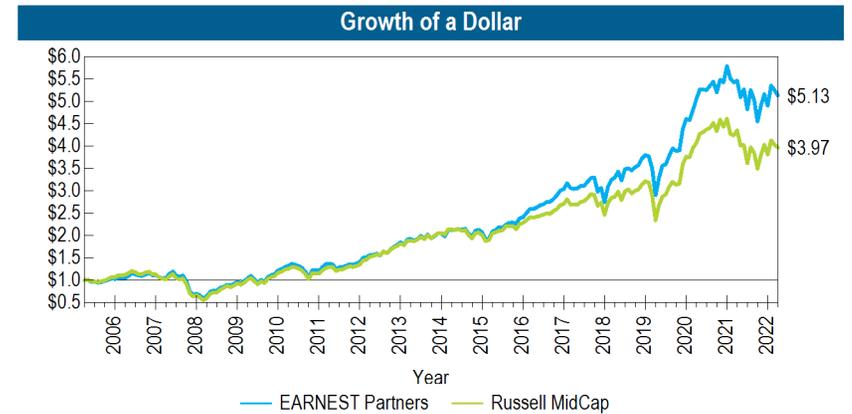
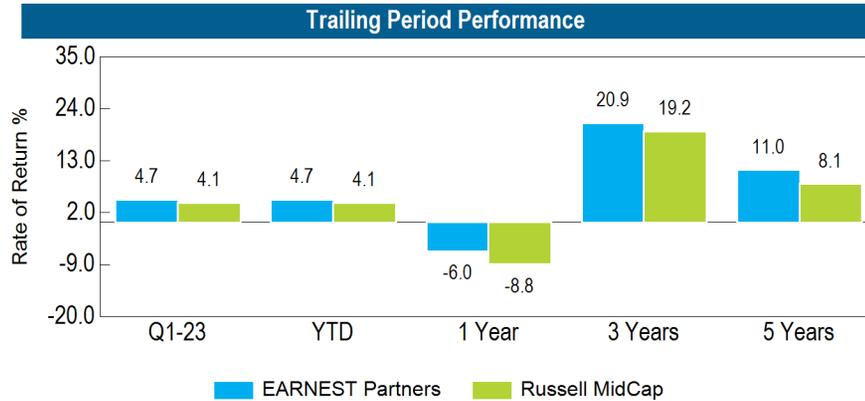


	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Northern Trust Russell 1000	12.9%	15.0%	0.0%	1.0	-0.6	0.2%	98.5%	100.0%
Russell 1000	13.0%	15.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



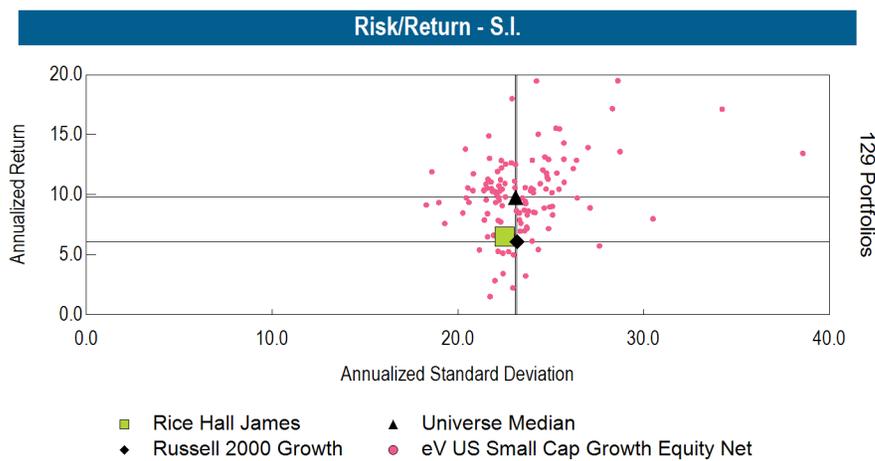
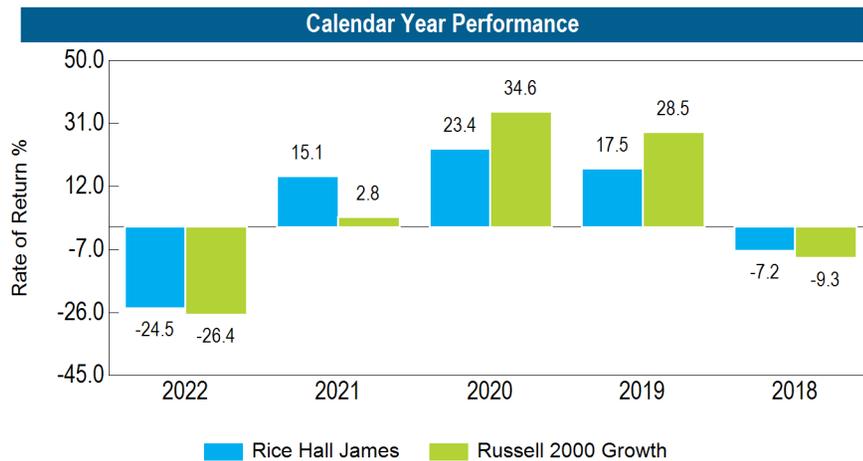
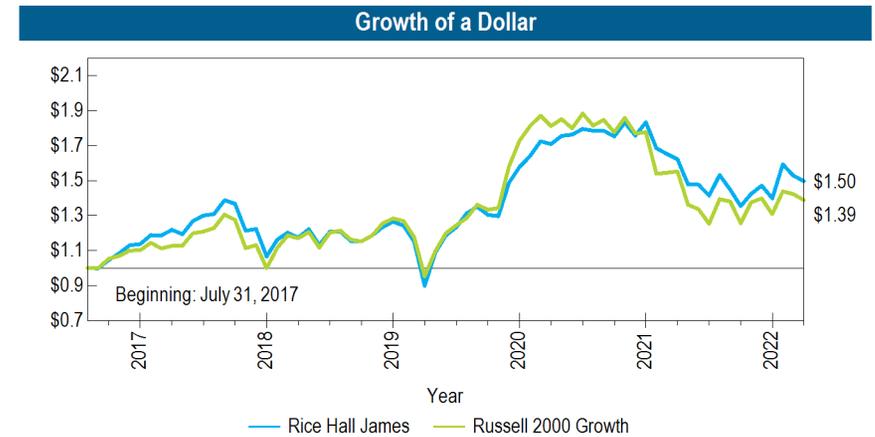
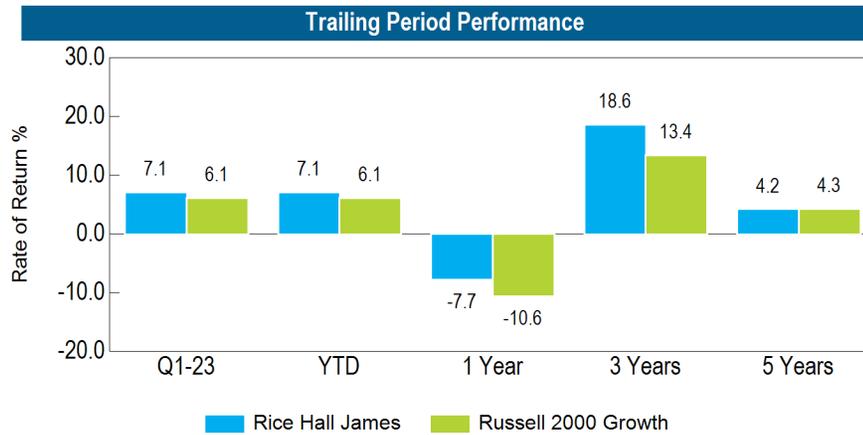
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
EARNEST Partners	9.1%	17.9%	0.1%	1.0	0.2	3.6%	94.2%	99.3%
Russell MidCap	8.4%	18.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

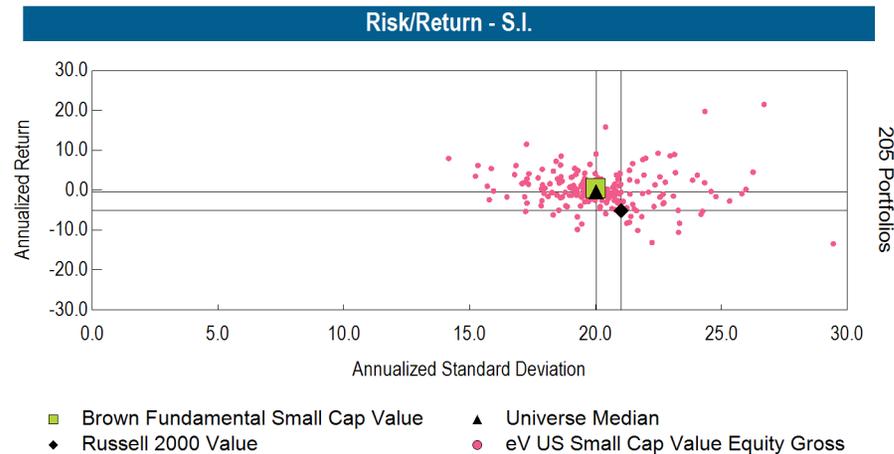
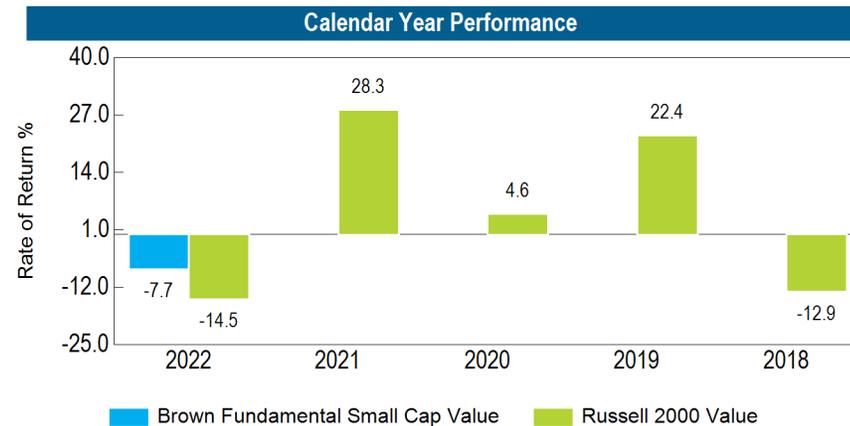
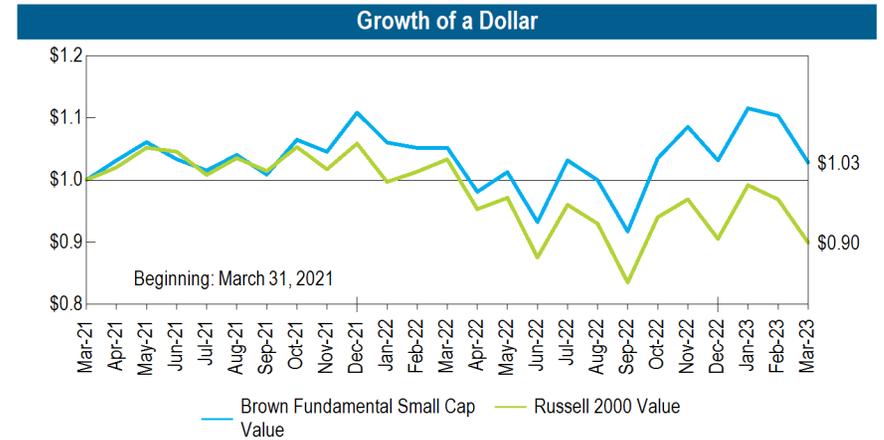
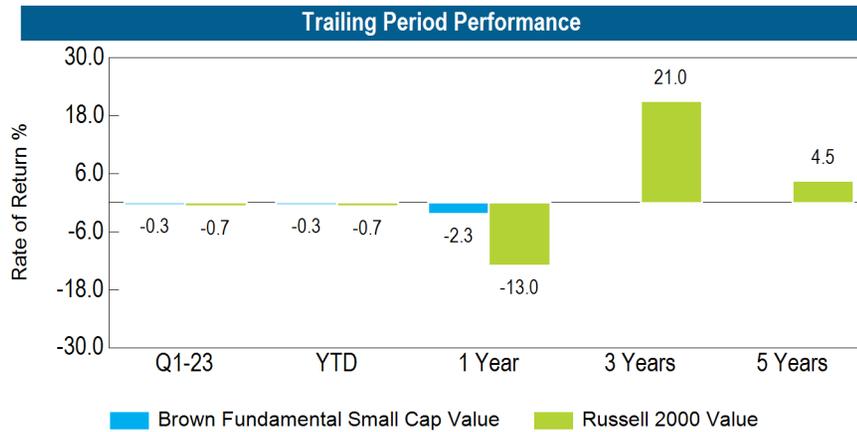
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Rice Hall James	6.3%	22.3%	0.1%	0.9	0.0	7.8%	83.3%	94.8%
Russell 2000 Growth	6.0%	23.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

### Brown Fundamental Small Cap Value | As of March 31, 2023

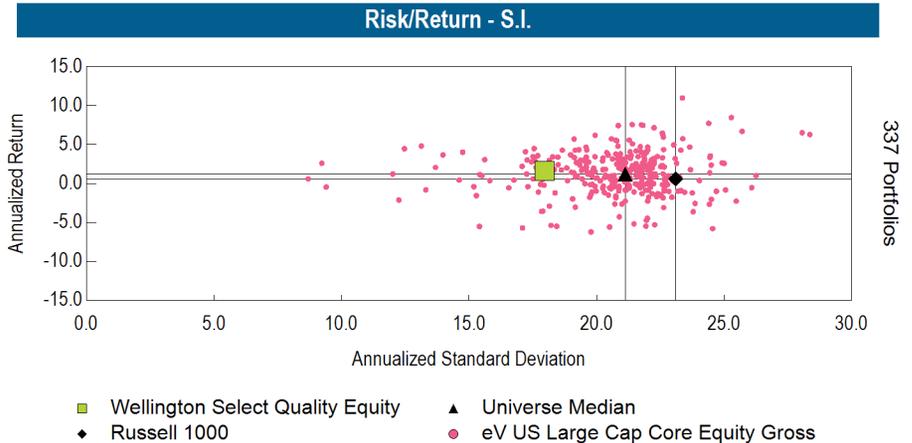
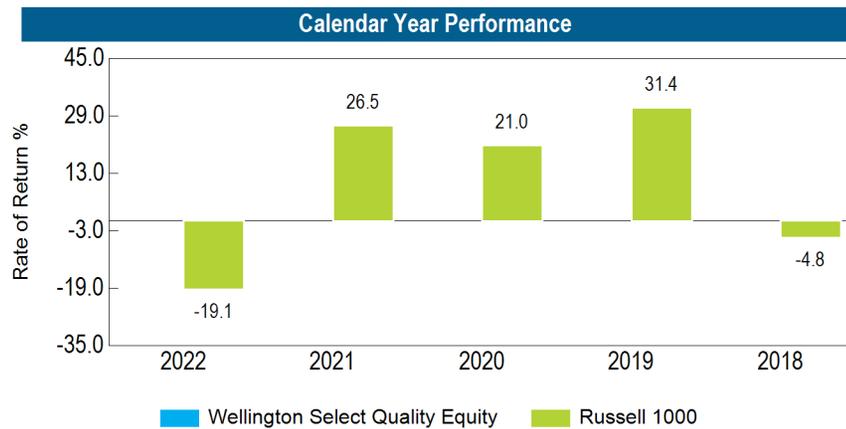
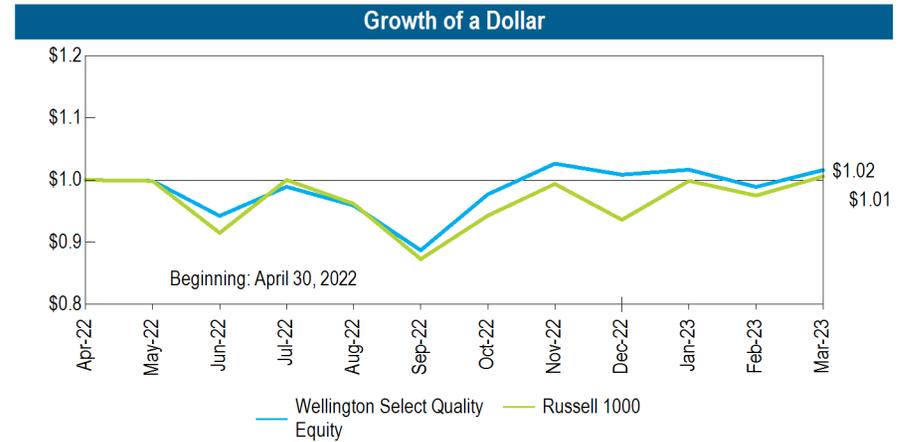
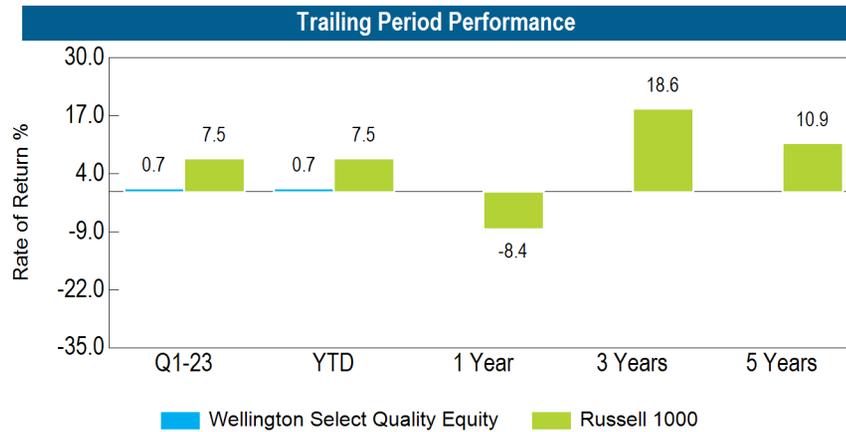
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Brown Fundamental Small Cap Value	0.5%	20.0%	0.4%	0.9	1.2	4.8%	104.3%	88.6%
Russell 2000 Value	-5.2%	21.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

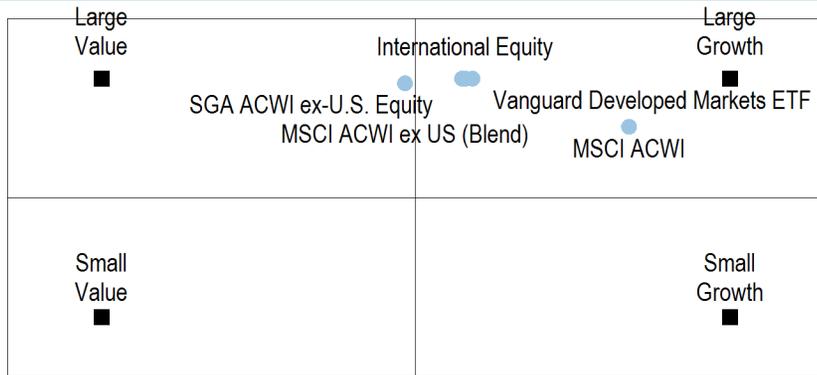
### Wellington Select Quality Equity | As of March 31, 2023

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wellington Select Quality Equity	1.6%	18.0%	0.1%	0.7	0.1	10.2%	69.7%	72.4%
Russell 1000	0.6%	23.1%	0.0%	1.0	--	0.0%	100.0%	100.0%

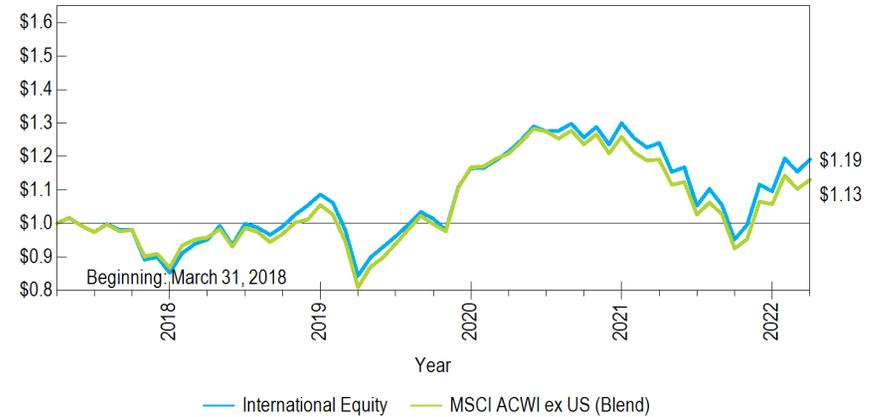


Performance shown is net-of-fees and since inception. Annualized Return is not available for managers without a history longer than one year.

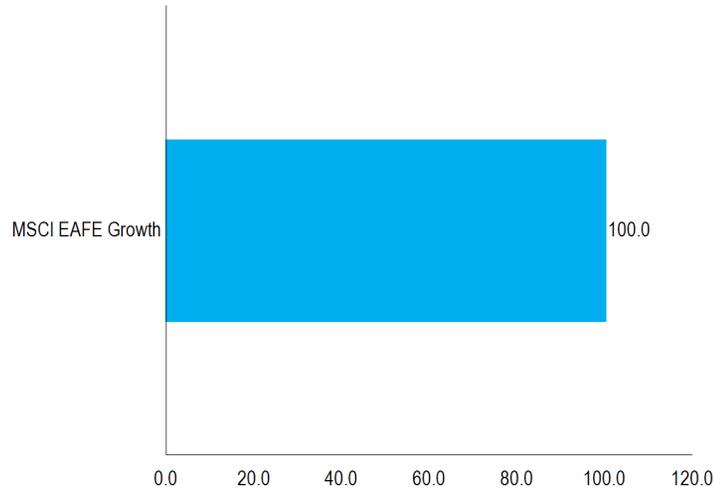
Non U.S. Effective Style Map vs. EAFE



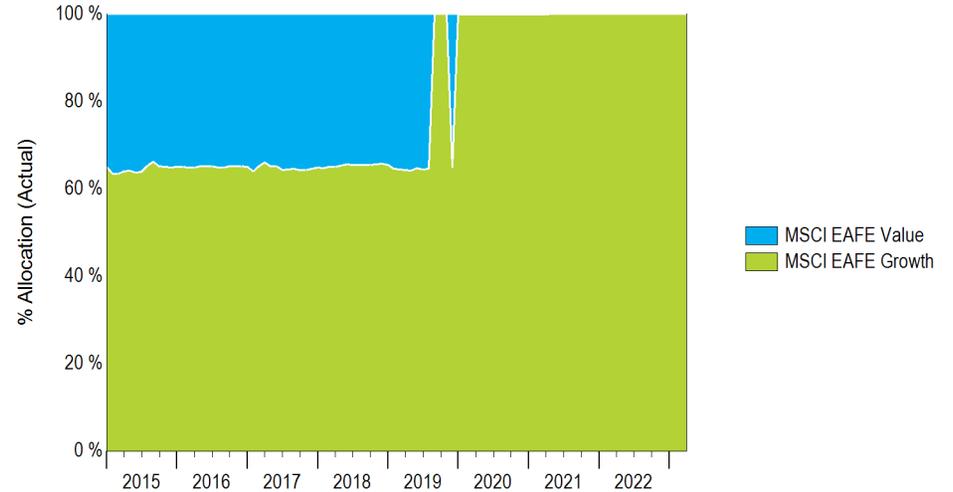
Growth of a Dollar  
5 Years Ending March 31, 2023



Style Exposure

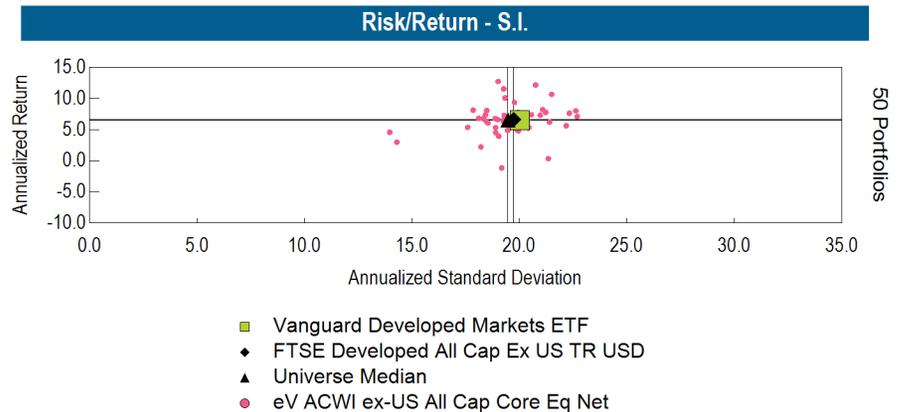
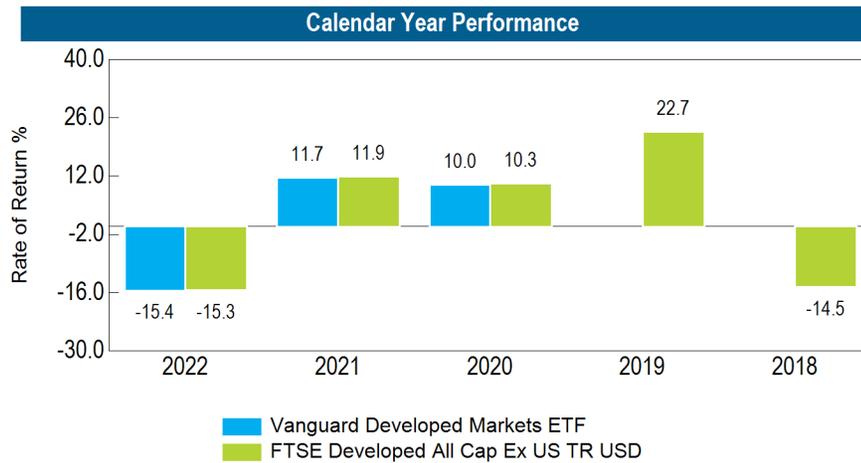
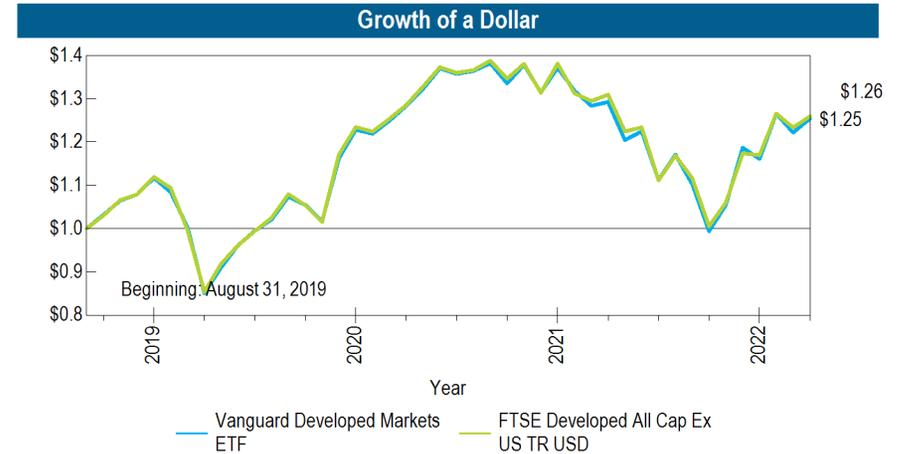
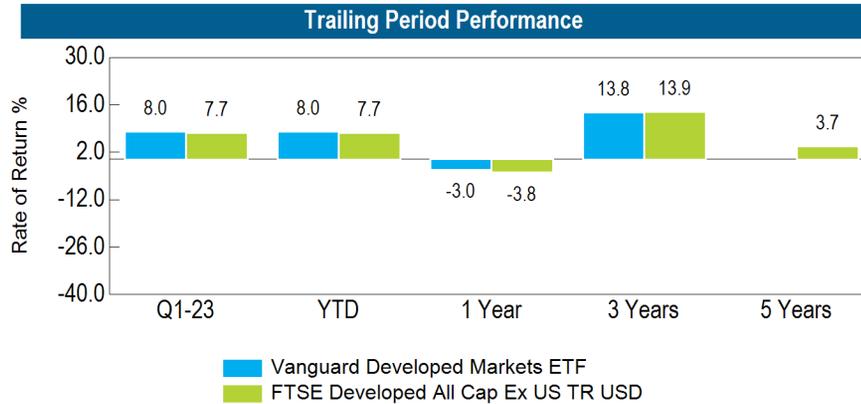


Style History (5-Year)



### Vanguard Developed Markets ETF | As of March 31, 2023

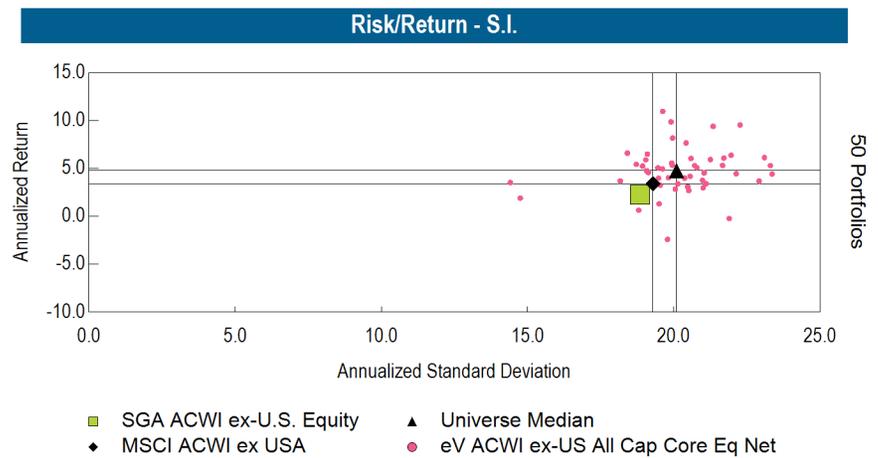
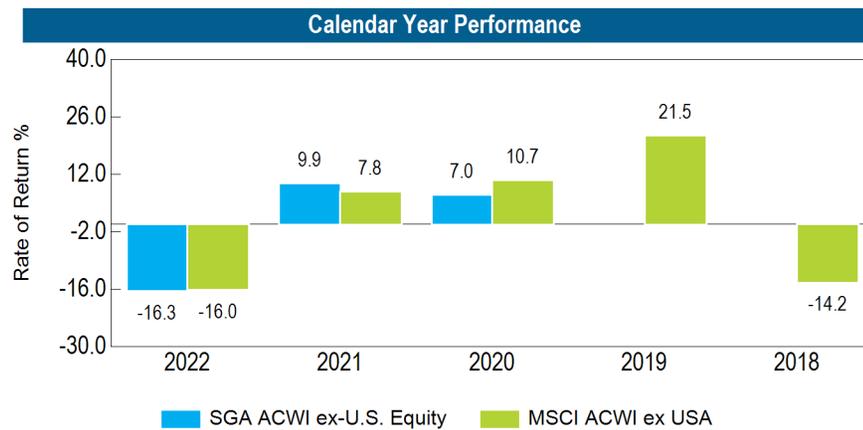
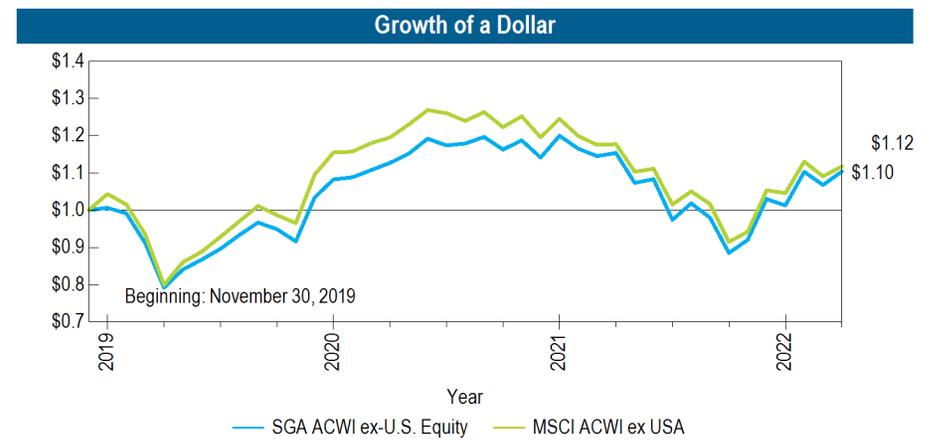
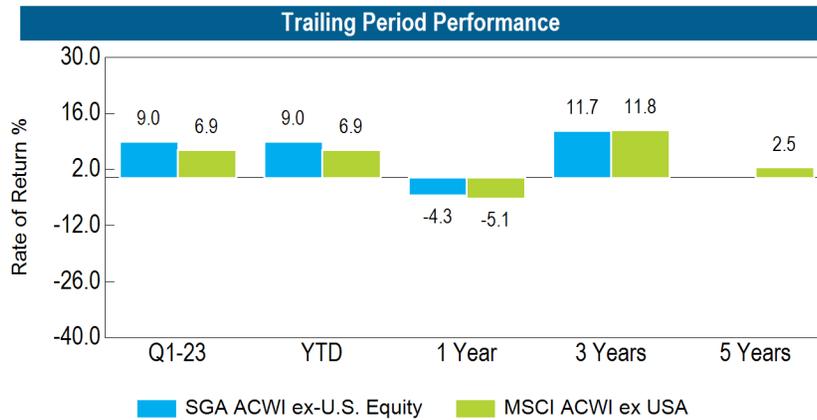
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Developed Markets ETF	6.5%	20.0%	0.0%	1.0	-0.1	2.6%	104.2%	102.3%
FTSE Developed All Cap Ex US TR USD	6.6%	19.7%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

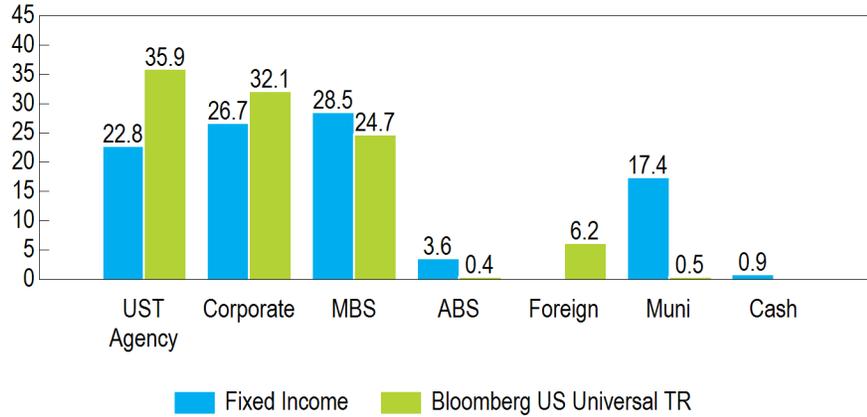
### SGA ACWI ex-U.S. Equity | As of March 31, 2023

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
SGA ACWI ex-U.S. Equity	2.3%	18.8%	-0.1%	1.0	-0.3	3.5%	92.2%	99.1%
MSCI ACWI ex USA	3.4%	19.3%	0.0%	1.0	--	0.0%	100.0%	100.0%

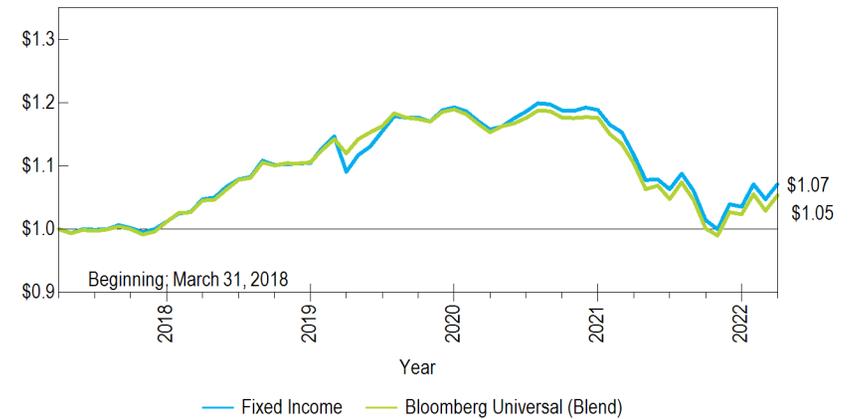


Performance shown is net-of-fees and since inception.

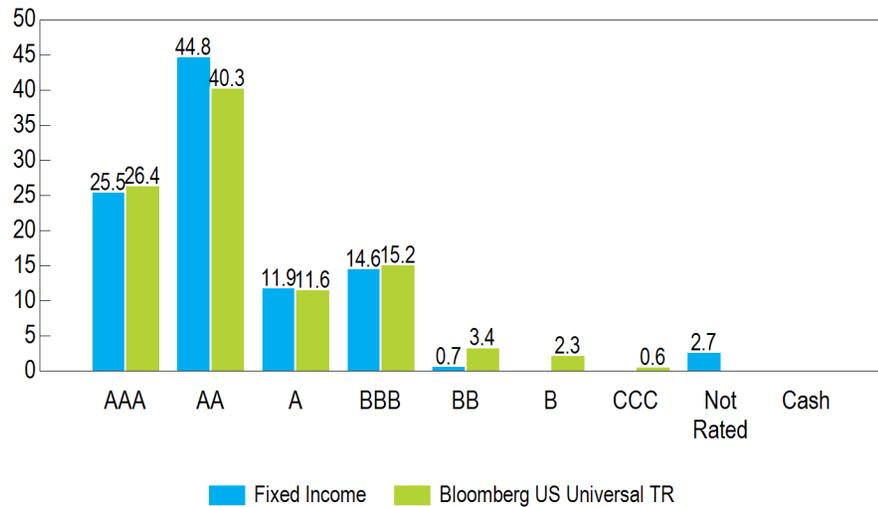
#### US Sector Allocation



#### Growth of a Dollar 5 Years Ending March 31, 2023



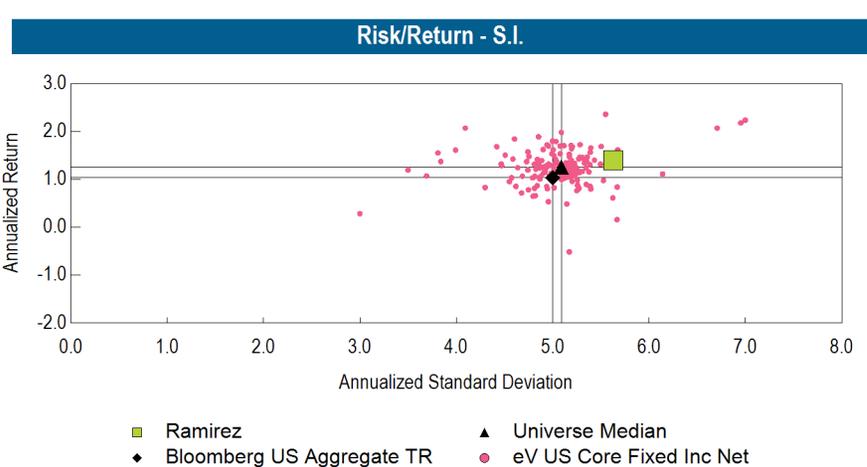
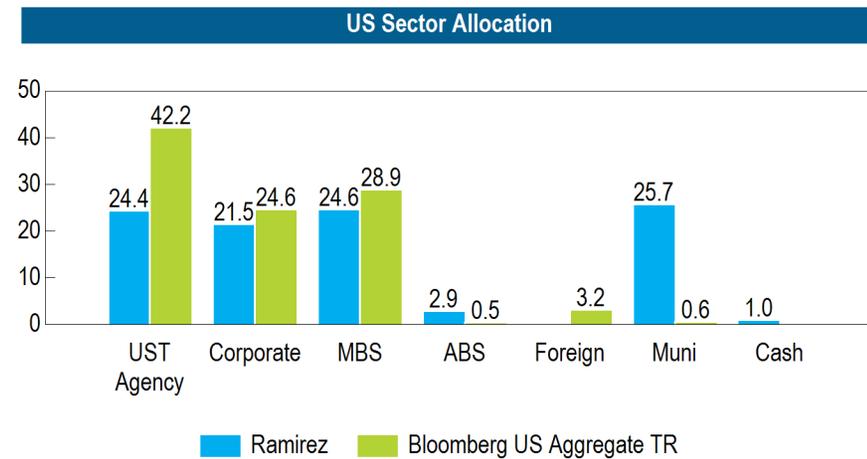
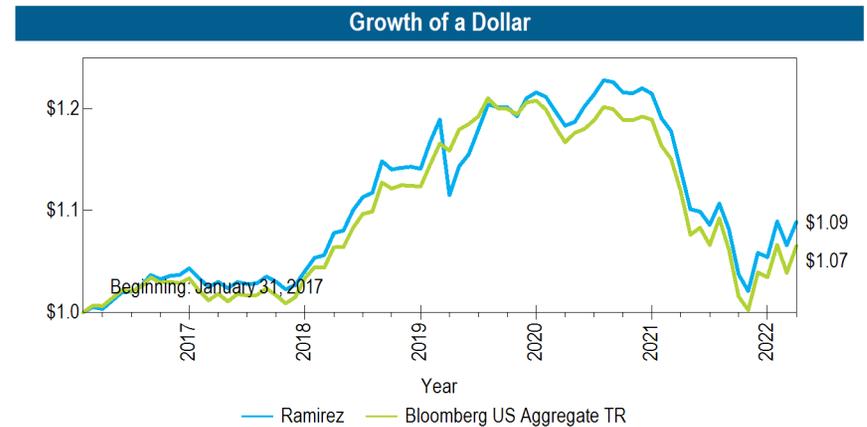
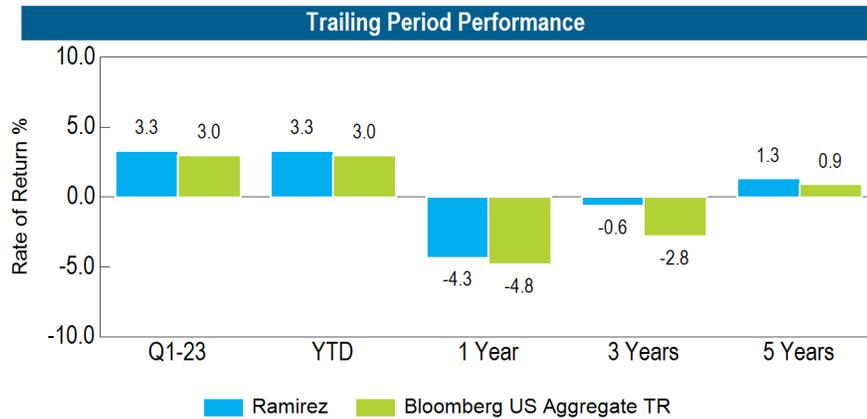
#### Credit Quality Allocation



#### Fixed Income Fixed Income Characteristics vs. Bloomberg US Universal TR

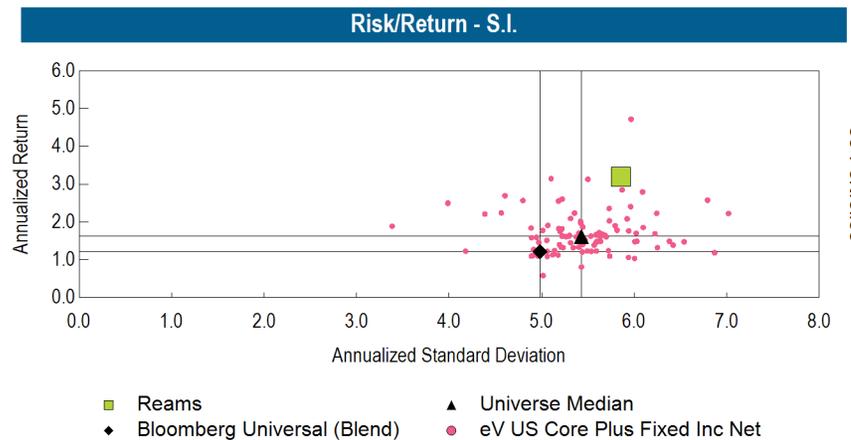
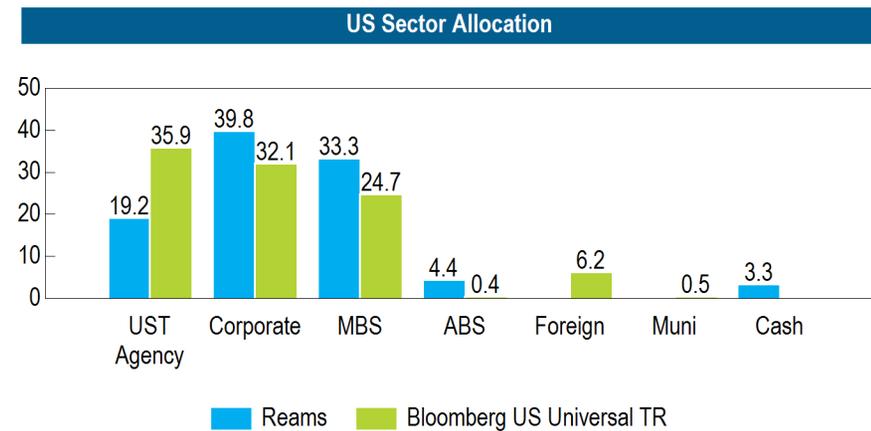
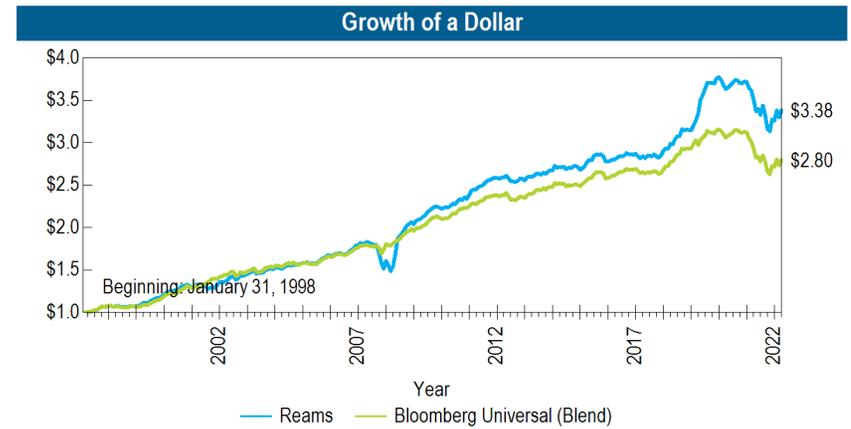
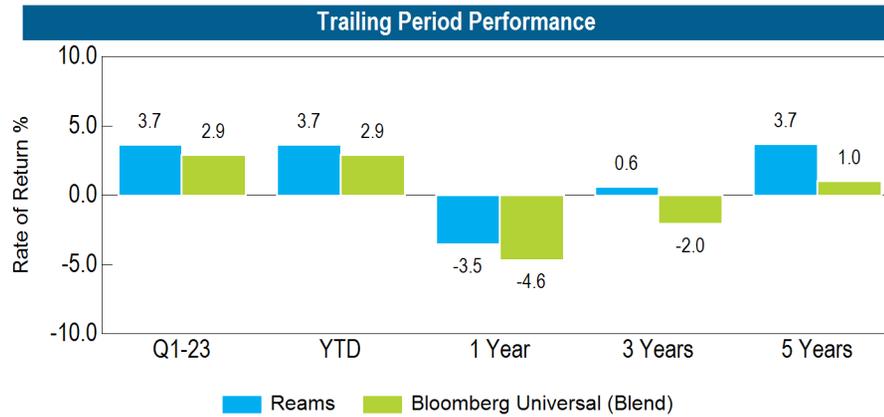
	Portfolio Q1-23	Index Q1-23
<b>Fixed Income Characteristics</b>		
Yield to Maturity	4.94	5.10
Average Duration	6.18	6.25
Average Quality	AA	AA
Weighted Average Maturity	9.19	12.25

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Ramirez	1.4%	5.6%	0.0%	1.0	0.1	2.6%	113.1%	105.1%
Bloomberg US Aggregate TR	1.0%	5.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



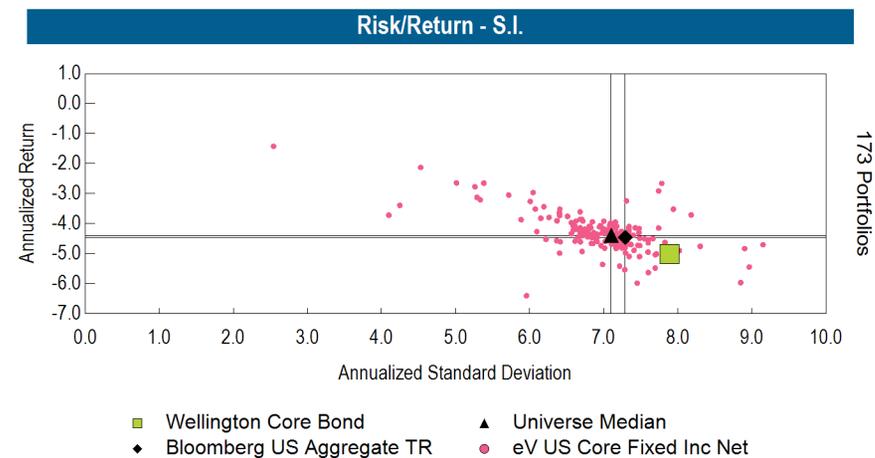
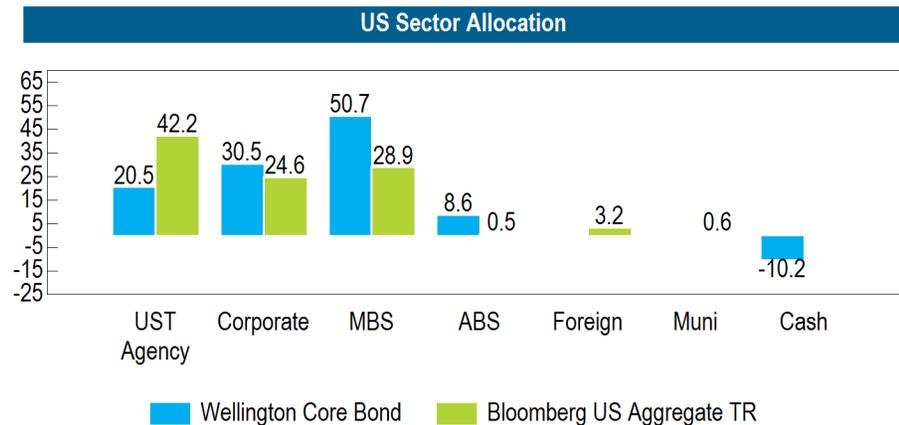
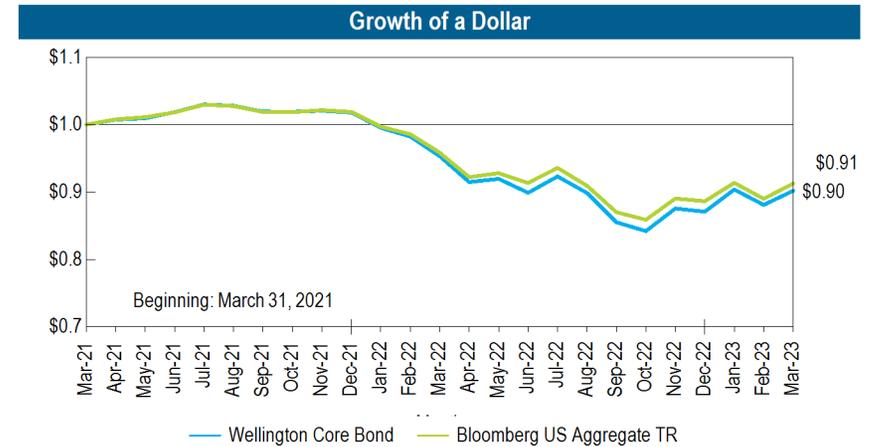
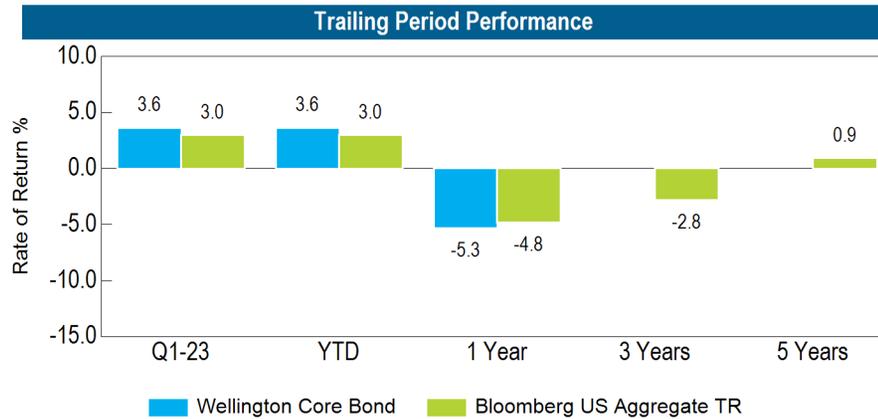
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Reams	5.0%	5.6%	0.0%	1.1	0.2	3.8%	124.9%	100.1%
Bloomberg Universal (Blend)	4.2%	3.9%	0.0%	1.0	--	0.0%	100.0%	100.0%



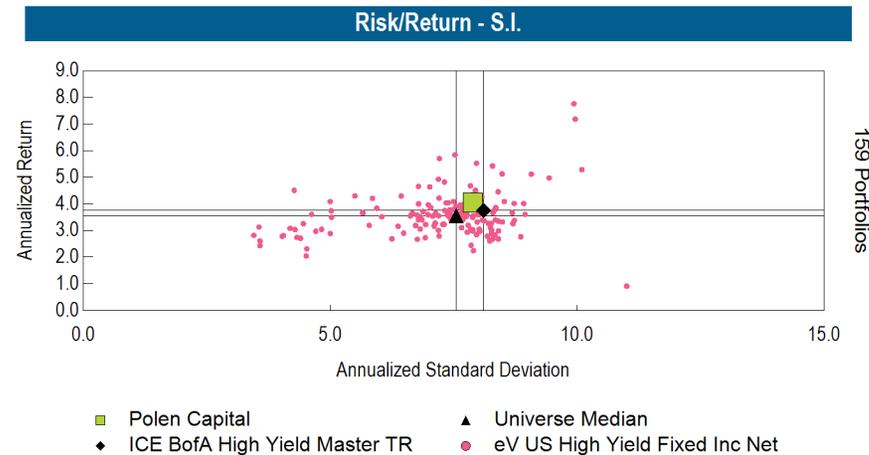
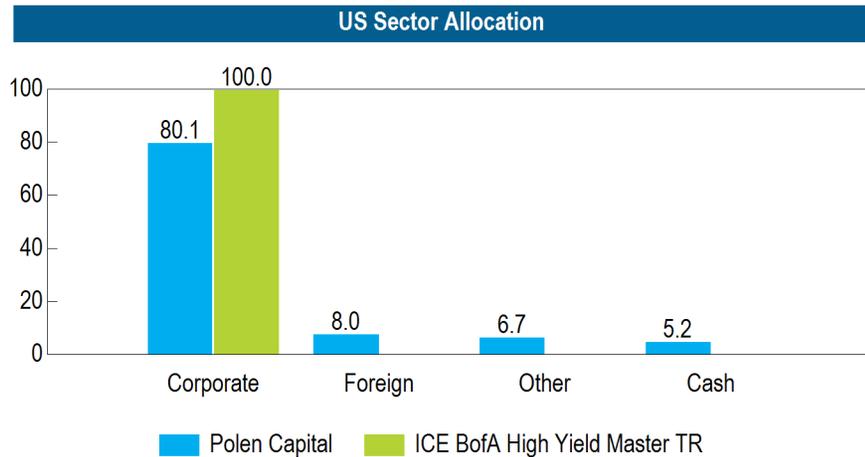
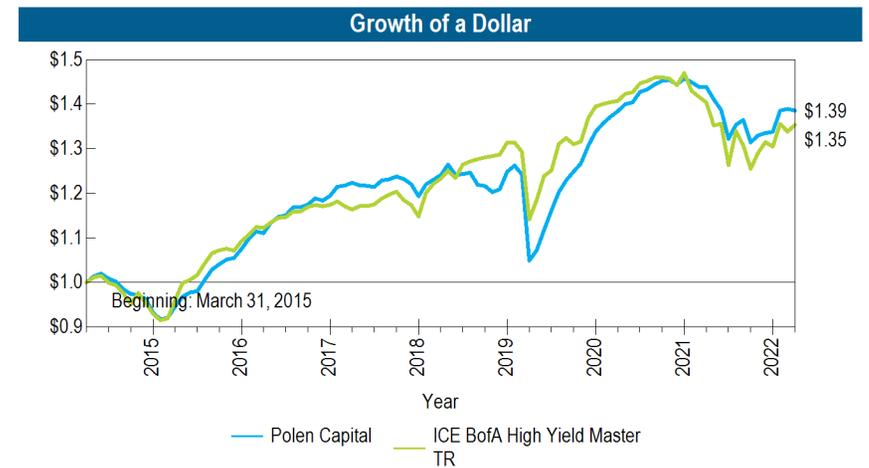
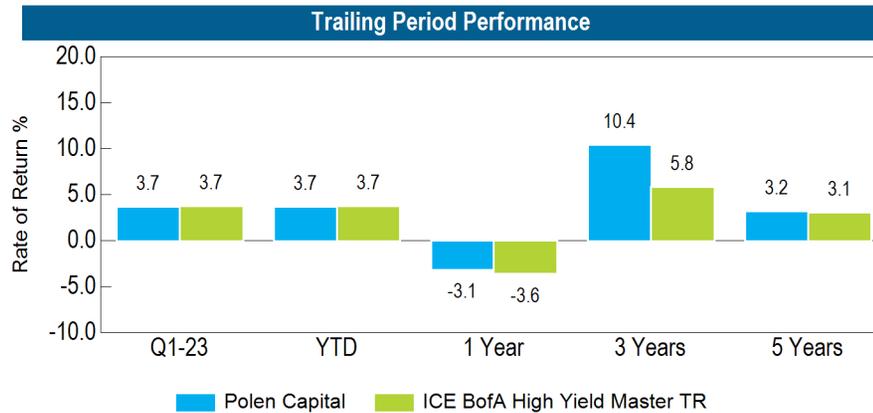
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wellington Core Bond	-5.0%	7.9%	0.0%	1.1	-0.6	0.9%	105.7%	107.1%
Bloomberg US Aggregate TR	-4.5%	7.3%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

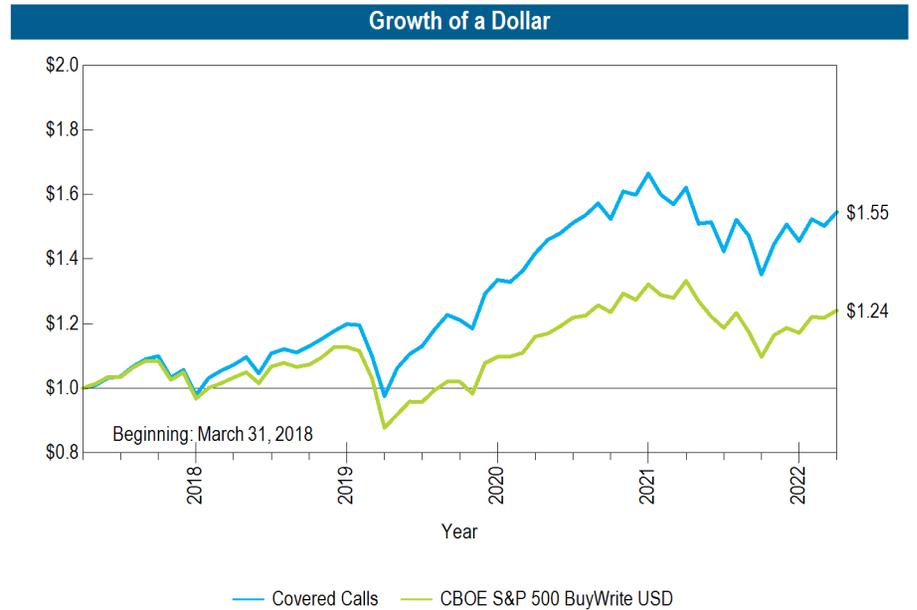
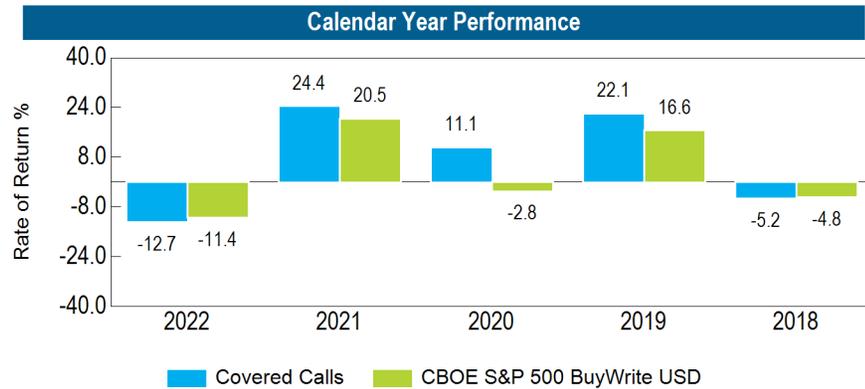
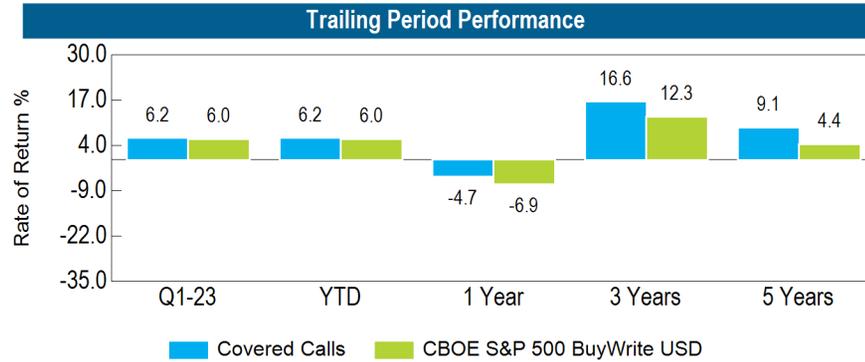
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Polen Capital	4.3%	7.9%	0.1%	0.8	0.1	4.3%	76.0%	77.1%
ICE BofA High Yield Master TR	4.0%	8.1%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

### Covered Calls | As of March 31, 2023

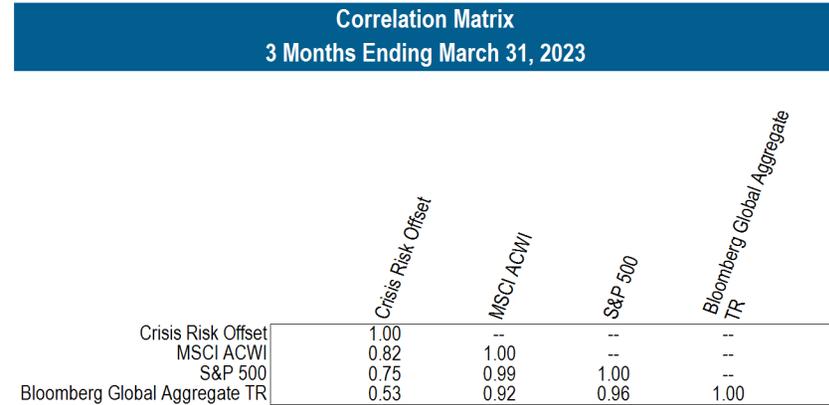
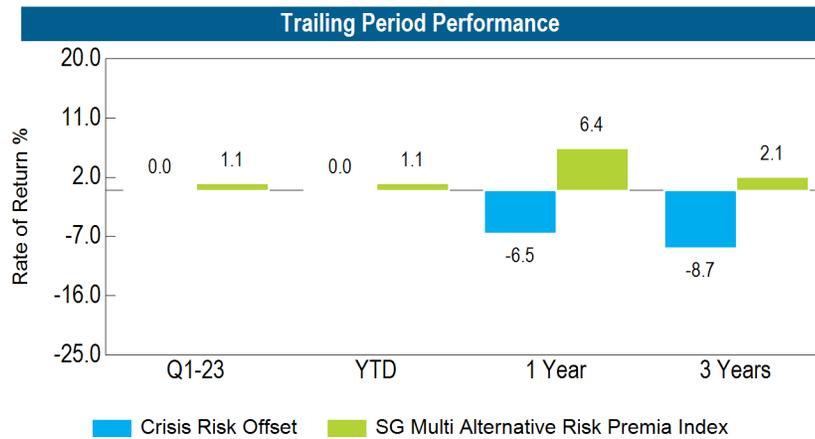
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Covered Calls	8.3%	11.8%	0.2%	1.0	0.7	4.1%	145.8%	103.0%
CBOE S&P 500 BuyWrite USD	5.4%	10.8%	0.0%	1.0	--	0.0%	100.0%	100.0%
Parametric BXM	6.6%	9.7%	0.2%	0.9	0.4	3.3%	96.3%	91.6%
CBOE S&P 500 BuyWrite USD	5.4%	10.8%	0.0%	1.0	--	0.0%	100.0%	100.0%
Parametric DeltaShift	10.2%	14.1%	0.3%	1.2	0.8	6.2%	210.3%	111.4%
CBOE S&P 500 BuyWrite USD	5.4%	10.8%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

### Crisis Risk Offset | As of March 31, 2023

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Crisis Risk Offset	-10.20%	11.26%	-0.82%	0.56	-0.88	11.07%	-30.22%	98.01%
SG Multi Alternative Risk Premia Index	-0.49%	5.93%	0.00%	1.00	--	0.00%	100.00%	100.00%
Kepos Alternative Risk Premia	--	--	--	--	--	--	--	--
SG Multi Alternative Risk Premia Index	-0.49%	5.93%	0.00%	1.00	--	0.00%	100.00%	100.00%
Versor Trend Following	--	--	--	--	--	--	--	--
SG Trend Index	11.16%	13.27%	0.00%	1.00	--	0.00%	100.00%	100.00%
Vanguard Long-Term Treasury ETF	-3.63%	15.13%	0.00%	1.02	-0.04	1.19%	102.56%	101.12%
Bloomberg US Govt Long TR	-3.58%	14.86%	0.00%	1.00	--	0.00%	100.00%	100.00%



Performance shown is net-of-fees and since inception.

### Benchmark History

As of March 31, 2023

#### OPFRS Total Plan

6/1/2022	Present	40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield TR
1/1/2019	5/31/2022	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
12/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR

### Benchmark History As of March 31, 2023

#### Domestic Equity

1/1/2005	Present	Russell 3000
4/1/1998	12/31/2004	28.57% Russell 1000 / 57.14% Russell 1000 Value / 14.29% Russell MidCap
6/1/1997	3/31/1998	S&P 500

#### International Equity

1/1/2005	Present	MSCI ACWI ex USA
1/1/1998	12/31/2004	MSCI EAFE Gross

#### Fixed Income

4/1/2006	Present	Bloomberg US Universal TR
12/31/1993	3/31/2006	Bloomberg US Aggregate TR

#### Covered Calls

4/1/2014	Present	CBOE S&P 500 BuyWrite USD
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#### Crisis Risk Offset

8/1/2018	Present	SG Multi Alternative Risk Premia Index
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#### Cash

3/1/2011	Present	FTSE T-Bill 3 Months TR
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## **Manager Monitoring / Probation Status**

### Manager Monitoring/Probation Status

#### Return vs. Benchmark since Corrective Action

Portfolio	Status	Concern Triggering the Watch Status	Months Since Corrective Action	Performance <sup>1</sup> Since Corrective Action	Peer Group Percentile Rank	Date of Corrective Action <sup>2</sup>
Rice Hall James	On Watch	Performance/ Organization	45	7.6	70	5/29/2019
Russell 2000 Growth				5.9		

#### Investment Performance Criteria for Manager Monitoring/Probation Status

Asset Class	Short-term (Rolling 12 months)	Medium-term (Rolling 36 months)	Long-term (60 + months)
Active Domestic Equity	Fund return < benchmark return by 3.5%	Annualized Fund return < benchmark return by 1.75% for 6 consecutive months	VRR <sup>3</sup> < 0.97 for 6 consecutive months
Active International Equity	Fund return < benchmark return by 4.5%	Annualized Fund return < benchmark return by 2.0% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Passive International Equity	Tracking Error > 0.50%	Tracking Error > 0.45% for 6 consecutive months	Annualized Fund return < benchmark return by 0.4% for 6 consecutive months
Fixed Income	Fund return < benchmark return by 1.5%	Annualized Fund return < benchmark return by 1.0% for 6 consecutive months	VRR < 0.98 for 6 consecutive months

<sup>1</sup> Annualized performance if over one year. Performance shown is gross-of-fees.

<sup>2</sup> Approximate date based on when the Board voted to either monitor a manager at a heightened level or place it on probation.

<sup>3</sup> VRR (Value Relative Ratio) is calculated as manager cumulative return/ benchmark return.

## **Disclaimer, Glossary, and Notes**

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Yield to Maturity:** The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

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

**Yield to Worst:** The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

**NCREIF Property Index (NPI):** Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

**NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE):** Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.  
The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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.

## MEMORANDUM

**TO:** Oakland Police and Fire Retirement System (“OPFRS”)  
**FROM:** Meketa Investment Group (“Meketa”)  
**DATE:** May 31, 2023  
**RE:** Annual Diversity, Equity, & Inclusion (DEI) Questionnaire Results

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This memorandum provides the Oakland Police and Fire Retirement System (“OPFRS”) with the data collected from OPFRS’s investment managers regarding their diversity representation as of December 31, 2022. OPFRS requested Meketa to collect this information at the December 2020 Board meeting as part of the discussion on minority representation at a specific manager, and to present as a recurring annual report.

In the same year in 2020, Meketa launched a formal initiative to gather data from public and private market asset management firms within our proprietary database to evaluate asset management firms’ efforts on diversity, equity, and inclusion matters more thoroughly within their organizations.

In March 2023, the third Annual Diversity, Equity, & Inclusion Questionnaire results were published to report on the managers’ work in this area. In this questionnaire, 923 firms—including OPFRS’s thirteen managers—were requested for information; 528 firms responded with at least some information.<sup>1</sup>

The data collected from OPFRS’s thirteen investment managers along with the aggregate findings from the questionnaire are summarized in the following section. Please note that response bias is likely in the averages derived from all the responded firms, with firms which have focused more on DEI initiatives opting to respond to the questionnaire.

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<sup>1</sup> Please note that not every firm responded to every question.

### Employee Composition by Race & Ethnicity

All Firm	Average (439) <sup>1</sup>	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	Strategic Global Advisors	Vanguard	Versor	Wellington
No. of Employees	--	856	45	46	634	799	210	28	37	27	23	18000	10	3384
African/Black	5%	9%	21%	2%	10%	4%	4%	14%	--	--	4%	8%	10%	6%
Asian	13%	7%	21%	20%	10%	18%	9%	14%	3%	7%	26%	12%	40%	28%
Latino/Hispanic	5%	2%	--	4%	7%	4%	5%	18%	3%	4%	--	5%	10%	4%
White	68%	79%	58%	72%	70%	70%	76%	54%	91%	85%	70%	73%	40%	55%
Other	4%	3%	--	2%	3%	4%	6%	--	3%	4%	--	2%	--	2%
Not Disclosed	5%	--	--	--	--	--	--	--	--	--	--	--	--	--

Investment Team	Average (412)	Brown <sup>2</sup>	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Investment Team Employees	--	74	15	23	381	187	37	10	16	15	12	--	4	836
African/Black	3%	1%	20%	--	9%	2%	5%	10%	--	--	--	2%	--	5%
Asian	15%	16%	27%	17%	10%	16%	8%	30%	6%	--	42%	22%	50%	26%
Latino/Hispanic	4%	--	--	4%	7%	3%	--	10%	6%	--	--	3%	--	4%
White	65%	82%	53%	75%	72%	75%	82%	50%	82%	93%	58%	70%	50%	61%
Other	4%	1%	--	4%	2%	4%	5%	--	6%	7%	--	3%	--	--
Not Disclosed	9%	--	--	--	--	--	--	--	--	--	--	--	--	4%

<sup>1</sup> Number in the parenthesis after "Average" represents the number of firms which provided data for the question.

<sup>2</sup> Brown noted that the number of investment team employees includes only the investment professionals in the institutional business.

### Employee Composition by Race & Ethnicity (Continued)

Sr Organization Management	Average (410)	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Sr Org Mgmt Employees	--	25	8	5	44	10	11	4	1	11	5	--	8	662
African/Black	3%	8%	13%	--	5%	10%	--	25%	--	--	--	--	13%	2%
Asian	9%	--	25%	--	20%	10%	--	25%	--	9%	--	--	38%	15%
Latino/Hispanic	3%	--	--	--	--	10%	--	25%	--	--	--	--	--	3%
White	77%	92%	62%	100%	70%	70%	91%	25%	100%	91%	100%	75%	49%	76%
Other	3%	--	--	--	5%	--	9%	--	--	--	--	--	--	1%
Not Disclosed	5%	--	--	--	--	--	--	--	--	--	--	--	--	3%

While Vanguard did not provide detailed breakdown of employee composition by race and ethnicity information for this employee population, it noted that in the US, non-white individuals represent 23% of leaders, 21% of officers, 25% of executive management, and 18% of the board of directors. Executive management data is applied to this table to derive the percentage of white employees in the senior organization management population.

## Employee Composition by Gender

All Firm	Average (460)	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Employees	--	856	45	46	634	799	210	28	37	27	23	18000	10	3384
Women	36%	45%	40%	17%	38%	36%	40%	32%	41%	30%	44%	40%	40%	45%
Men	63%	55%	60%	83%	62%	64%	60%	68%	59%	70%	57%	60%	60%	55%
Non-Binary	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not Disclosed	1%	--	--	--	--	--	--	--	--	--	--	--	--	--

Investment Team	Average (431)	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Investment Team Employees	--	74	15	23	381	187	37	10	16	15	12	--	4	836
Women	21%	31%	20%	--	32%	24%	19%	46%	13%	20%	25%	23%	25%	31%
Men	77%	69%	80%	100%	68%	77%	81%	60%	87%	80%	75%	77%	75%	69%
Non-Binary	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not Disclosed	3%	--	--	--	--	--	--	--	--	--	--	--	--	--

Sr Organization Management	Average (422)	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Sr Org Mgmt Employees	--	25	8	5	44	10	11	4	1	11	5	--	8	662
Women	24%	32%	13%	--	30%	30%	18%	25%	--	36%	40%	64%	63%	28%
Men	75%	68%	88%	100%	70%	70%	82%	75%	100%	64%	60%	36%	38%	72%
Non-Binary	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not Disclosed	1%	--	--	--	--	--	--	--	--	--	--	--	--	--

Vanguard noted that globally, women represent: 44% of leaders, 39% of officers, 25% of executive management, and 27% of the board of directors.

**MEKETA**

INVESTMENT GROUP

MARCH 2023 | ISSUE THREE | 2022 RESULTS

# DIVERSITY EQUITY & INCLUSION annual questionnaire

**PUBLIC AND  
PRIVATE MARKETS  
RESEARCH TEAMS**



# INTRODUCTION

Meketa has a longstanding commitment to Diversity, Equity & Inclusion (DEI). We believe that DEI is a key differentiator in the marketplace, which can lead to better social and investment outcomes.

\* Information regarding the methodology and DEI-related terms specific to this questionnaire can be found in the appendix.

We also have considerable experience with and are dedicated to selecting, evaluating, and monitoring diverse and emerging managers in every asset class to bring the strongest investment opportunities to our clients. In 2017, we began hosting an emerging and diverse manager event to broaden our exposure to small and diverse firms. These emerging manager events are organized and hosted by our Emerging and Diverse Manager Committee in conjunction with manager research and consulting teams in the fall and spring each year.

In 2020 as a next step in our commitment to DEI, Meketa launched a formal initiative to gather data from public and private market asset management firms within our proprietary database. The initiative focused on evaluating asset management firm's efforts to understand DEI more thoroughly within their organizations. 2022 marks the third year in a row we have asked firms to complete our questionnaire to report on their work in this area.

As the asset management industry continues its focus on improving DEI, we believe an increase in transparency and reporting, more clarity on policies and internal initiatives, and a better understanding of employee conduct and regulations provides the industry with more information to enhance the chances of success to create long-lasting results.

This report summarizes the results of our third annual DEI questionnaire. Of 923 firms surveyed, 528 firms responded. The 2022 response rate is a 5% increase from managers compared to 2021 and a 55% increase from 2020. (Please note, not every firm responded to every question.) The construction of the questionnaire is in three sections: (1) Transparency and Reporting, (2) Policies and Initiatives, and (3) Employee Conduct. In this report, we will summarize our findings from the questionnaire and conclude with recommendations for asset managers that could serve as differentiators in the future.

\*\* Note that respondent bias is likely in the results, with firms focusing more on DEI initiatives opting to respond to the questionnaire. The following analysis summarizes key findings from the responses received.



# SECTION I TRANSPARENCY AND REPORTING

# KEY TAKEAWAYS

Firm Composition by Race and Gender	New Hires, Promotions, and Turnover Rates	Reporting
<ul style="list-style-type: none"> <li>→ 439 organizations reported total firm diversity statistics, with only 229 reporting diversity statistics for their Board, and 255 reporting diversity statistics for equity ownership. It is worth noting that not all firms have a Board in place.</li> <li>→ On trend with past years, women continue to be the least represented in portfolio management positions (21%) while diverse employees are least represented on the board of directors (25%).</li> <li>→ Lower-level positions are the most diverse by racial and gender measures. (Operations top quartile &gt; 40% diverse and &gt;56% female. Admin top quartile &gt; 46% diverse and &gt;82% female.)</li> <li>→ Veteran, disabled, and LGBTQIA+ employee representation was &lt;2% across all categories.</li> <li>→ 28% of firms reported planning to expand diversity.</li> </ul>	<ul style="list-style-type: none"> <li>→ Over half (53%) of firms reported tracking and measuring the levels and time to promotion across diverse groups.</li> <li>→ Nearly 60% of new hires and promotions were given to non-racially diverse people. Asian Americans were next at 14%, with all other diverse groups offered jobs or promotions in the single digits.</li> <li>→ Women made up 40% of new hires and promotions.</li> <li>→ The turnover rate was 16% higher for men than women in 2022, starkly contrasting the prior year, which was 4% higher for women. Over half of the resignations were from non-racially diverse people.</li> </ul>	<ul style="list-style-type: none"> <li>→ Regarding reporting, 74% of firms released annual diversity statistics to their clients, followed closely by the consultants covering the firm at 70%, their prospects at 58%, and regulators at 23%.</li> <li>→ Excluding reporting to regulators, firms have increased reporting diversity statistics by 20% compared to last year.</li> </ul>

**FIGURE 1**  
**KEY TAKEAWAYS**

Source: Meketa Investment Group 2022 Questionnaire.

# FIRM COMPOSITION BY RACE AND GENDER

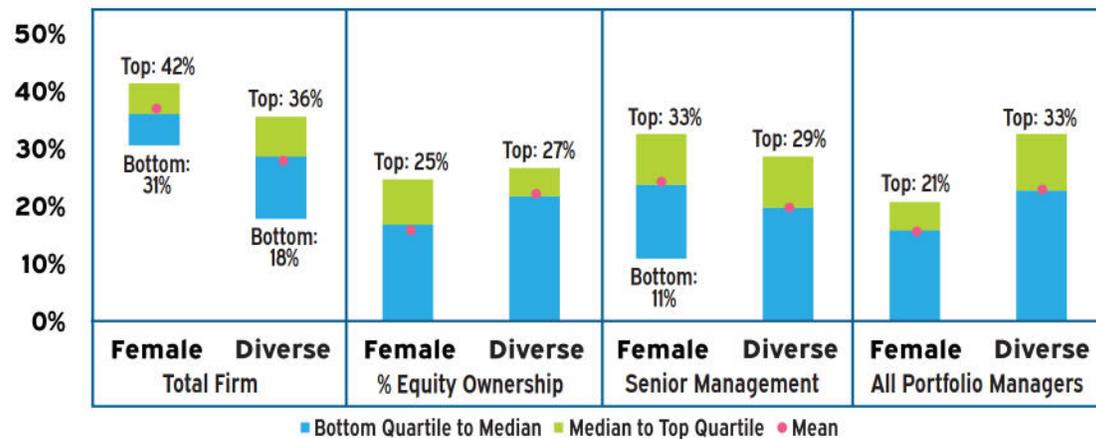
The chart below summarizes diversity statistics in quartile ranges for total firm, equity ownership, senior management, and portfolio management roles. The top quartile represents the highest percentage of diverse and female employees.

The below table depicts the mean, median, and cutoff points between the second and top quartile and between the third and bottom quartile. To interpret this data, let's use the Total Firm-Female category as an example of how the table should be read. If more than 42% of your firm identifies as female, you would be in the top quartile of questionnaire results. Conversely, if less than 31% of your firm identifies as female, you would be in the bottom quartile of questionnaire results.

Relative to the 2021 survey data, the Top Quartile experienced positive changes ranging from 1% to 10% in both Female and Diverse representation across percentage of Equity Ownership, Senior Management, and All Portfolio Managers. At the Total Firm level, the Top Quartile had no change in the percentage of females and a 3% decrease in the percentage in Diversity.

	Total Firm				% Equity Ownership			
	Female	% Change	Diverse	% Change	Female	% Change	Diverse	% Change
Top Quartile	>42%	→0%	>36%	↓3%	>25%	↑5%	>27%	↑10%
Median	37%	↑2%	28%	↑3%	10%	↑3%	11%	↑11%
Mean	37%	→0%	29%	↑1%	17%	↑5%	22%	↑10%
Bottom Quartile	<31%	↑2%	<18%	↑3%	0%	→0%	0%	→0%

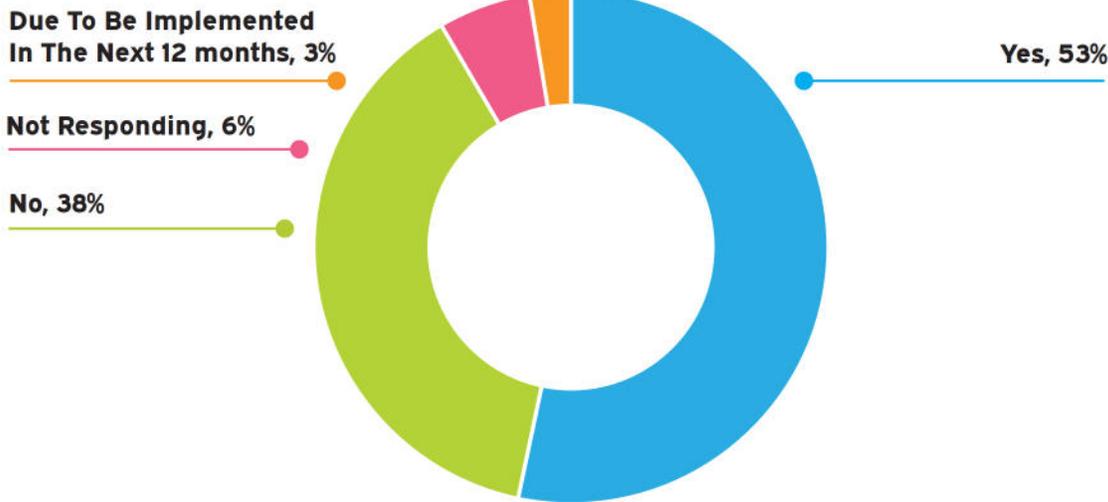
	Senior Management				All Portfolio Managers			
	Female	% Change	Diverse	% Change	Female	% Change	Diverse	% Change
Top Quartile	>33%	↑4%	>29%	↑5%	>21%	↑1%	>33%	↑7%
Median	23%	↑4%	14%	↑3%	13%	↑4%	20%	↑6%
Mean	24%	↑6%	20%	↑4%	16%	↑3%	23%	↑5%
Bottom Quartile	<11%	↑3%	0%	→0%	0%	→0%	0%	→0%



**FIGURE 2**  
FIRM COMPOSITION BY RACE AND GENDER QUARTILE RANGES  
Source: Meketa Investment Group 2022 Questionnaire.

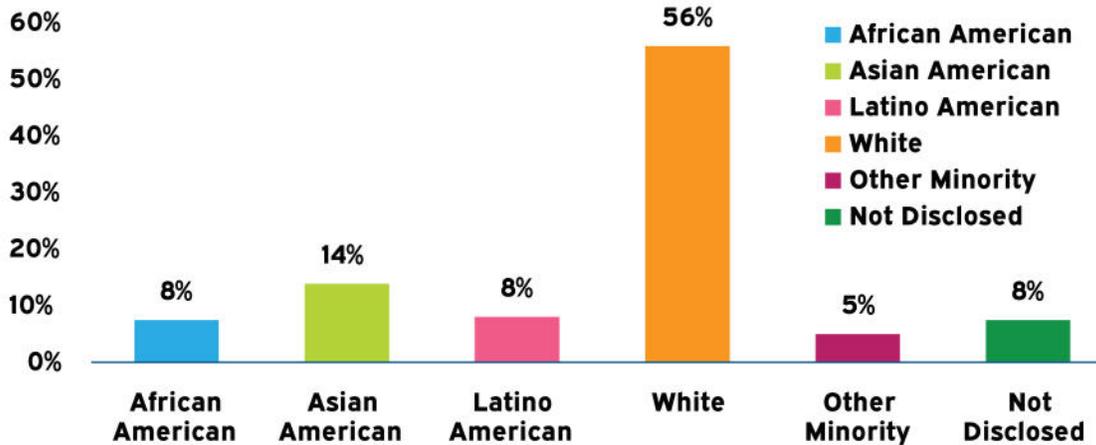
**FIGURE 3**  
FIRM COMPOSITION BY RACE AND GENDER QUARTILE RANGES  
Source: Meketa Investment Group 2022 Questionnaire.

# NEW HIRES, PROMOTIONS, AND TURNOVER RATES



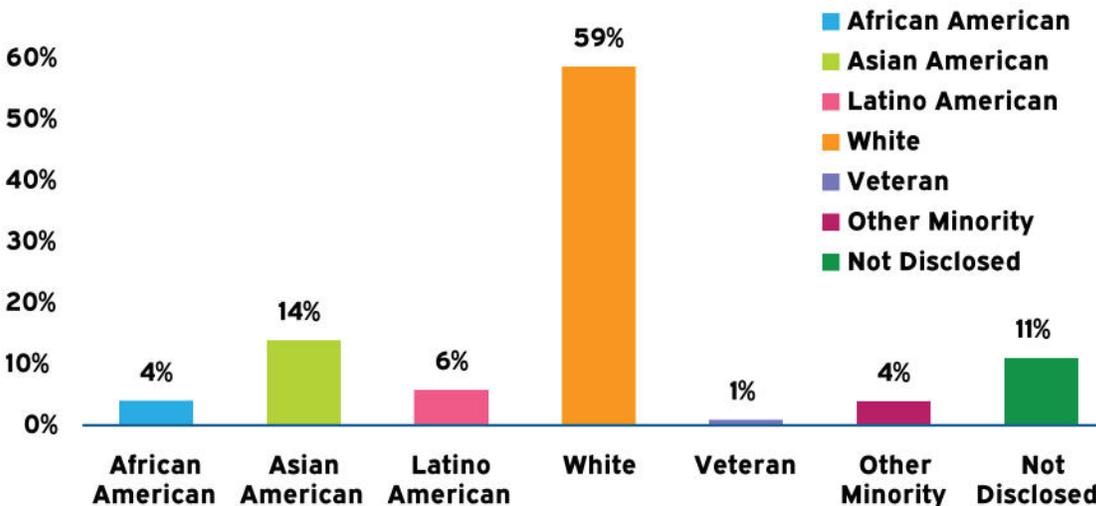
**FIGURE 4**  
DOES THE FIRM TRACK AND MEASURE PROMOTION LEVELS AND TIME TO PROMOTION ACROSS DIVERSE GROUPS?

Source: Meketa Investment Group 2022 Questionnaire.



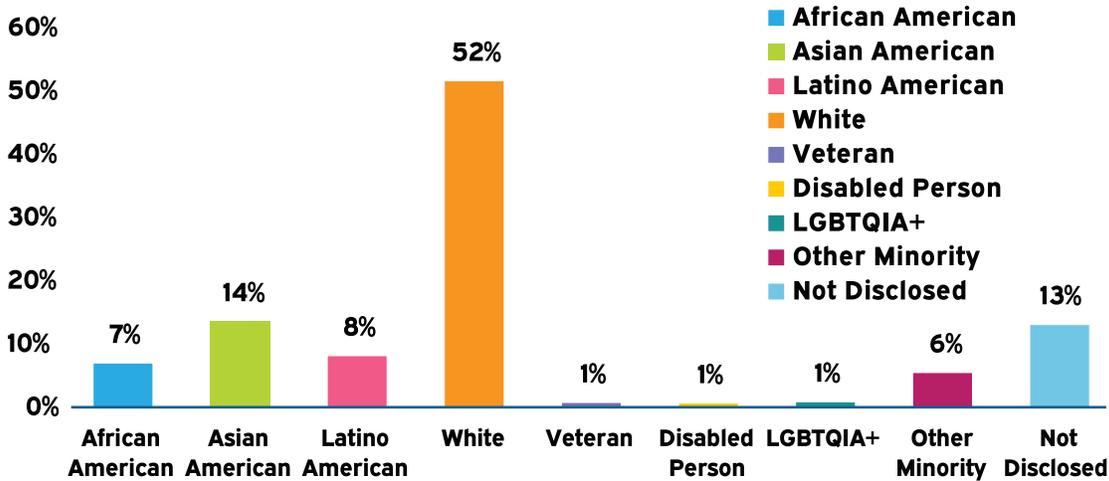
**FIGURE 5**  
2022 NEW HIRES BY DIVERSITY

Source: Meketa Investment Group 2022 Questionnaire.



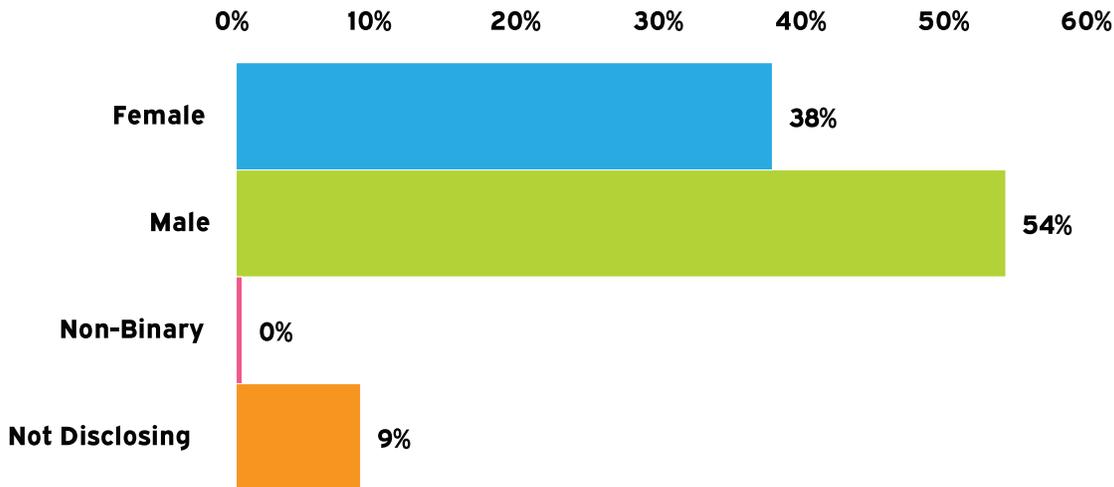
**FIGURE 6**  
2022 PROMOTIONS BY DIVERSITY

Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 7**  
**2022 TURNOVER RATE BY DIVERSITY**

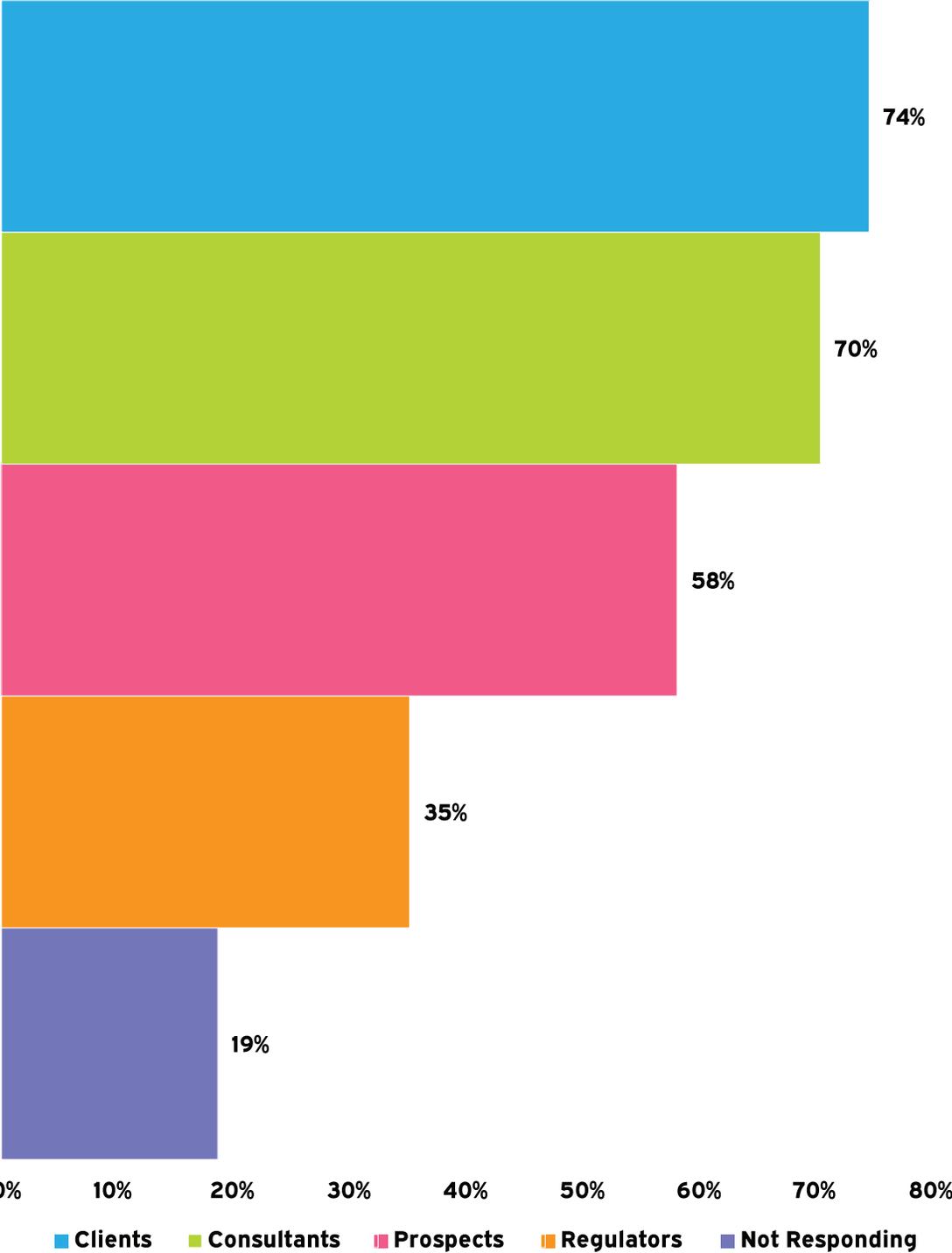
Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 8**  
**2022 TURNOVER RATE BY GENDER**

Source: Meketa Investment Group 2022 Questionnaire.

# REPORTING



**FIGURE 9**  
**RECIPIENTS OF ANNUAL DIVERSITY STATISTICS REPORT FROM ASSET MANAGERS**

Source: Meketa Investment Group 2022 Questionnaire.



# SECTION II POLICIES AND INITIATIVES

# KEY TAKEAWAYS

Recruitment and Retention	LGBTQIA+ and Family Planning	Service Providers and DEI
<ul style="list-style-type: none"> <li>→ From our research we found a 4% increase in firms that have a formal DEI policy in place, from 78% to 82%. An additional 4% have committed to implementing a policy in the next 12 months.</li> <li>→ Over two-thirds of firms reported that members of senior management partake in the firm's Diversity and Inclusion committee or group.</li> <li>→ There was a 6% increase in the number of firms that reported using diversity targets compared to 2021.</li> <li>→ While 54% of firms define goals and measure diversity outcomes at all levels of the organization and across departments, only 42% of senior management has included DEI in their performance objectives over the past year. This statistic is up 6% from 36% in 2021.</li> <li>→ Over three-quarters of firms reported that diversity statistics were regularly reviewed by the Executive Committee or Board in the last 12 months.</li> </ul>	<ul style="list-style-type: none"> <li>→ 80% of firms reported engaging with organizations or programs that promote the recruitment and retention of diverse groups. However, formal mentorship, sponsorship, or employer affinity programs for women or diverse groups is less common at 56%. Only 30% offer LGBTQIA+ employee resource groups.</li> <li>→ 45% of firms offer health coverage that covers transitioning costs. 34% do not cover transitioning costs and 21% did not respond.</li> <li>→ An average of 40% of firms offer family formation benefits: in-vitro fertilization, infertility treatment coverage, and adoption assistance regardless of sex. 28% provide cryopreservation, 22% provide foster care assistance and 21% offer surrogacy benefits.</li> </ul>	<ul style="list-style-type: none"> <li>→ There was a slight increase (1%) in the number of firms that have written policies in place to ensure equal pay for equal work. However, there was a significant 11% increase of firms that monitor gender pay gap disparities and a 12% increase in those that monitor racial pay gap disparities.</li> <li>→ The percentage of firms that partner with Minority, Women, and Disadvantaged Business Enterprises ("MWDBE") increased at a third of the rate from the previous year.</li> </ul>

**FIGURE 10**  
**KEY TAKEAWAYS**

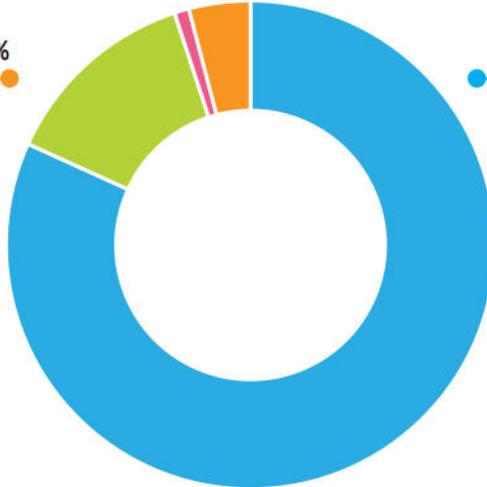
Source: Meketa Investment Group 2022 Questionnaire.

# DEI INITIATIVES

Due To Be Implemented  
In The Next 12 months, 4%

Not Responding, 1%

No, 13%



Yes, 82%

**FIGURE 11**  
**DOES THE FIRM HAVE A FORMAL DIVERSITY AND INCLUSION POLICY OR INITIATIVE?**

Source: Meketa Investment Group 2022 Questionnaire.

Not Responding, 3%

No, 60%



Yes, 37%

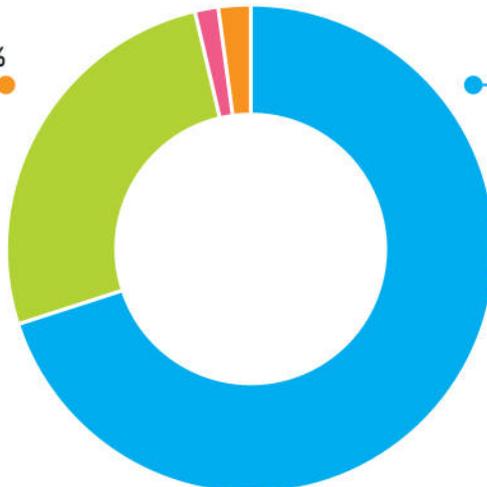
**FIGURE 12**  
**DO YOU HAVE DIVERSITY TARGETS?**

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented  
In The Next 12 months, 2%

Not Responding, 2%

No, 26%



Yes, 70%

**FIGURE 13**  
**DOES THE FIRM HAVE A DIVERSITY AND INCLUSION COMMITTEE OR GROUP WITHIN THE ORGANIZATION THAT INCLUDES MEMBERS OF SENIOR MANAGEMENT?**

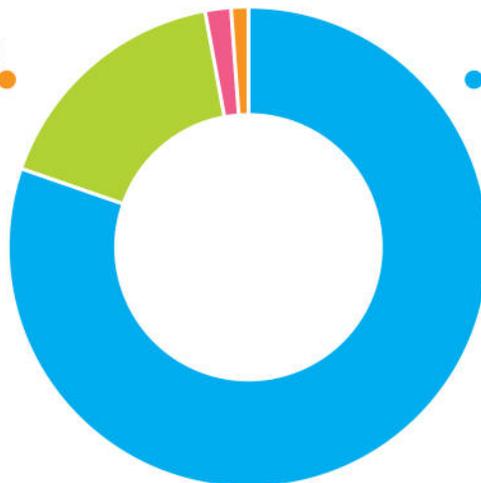
Source: Meketa Investment Group 2022 Questionnaire.

# RECRUITMENT AND RETENTION

Due To Be Implemented In The Next 12 months, 1%

Not Responding, 2%

No, 17%



Yes, 80%

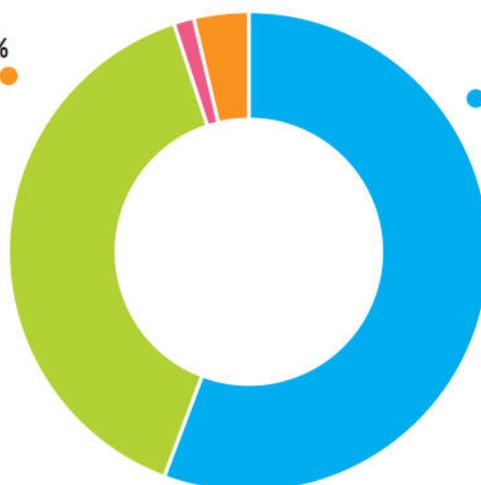
**FIGURE 14**  
IN THE PAST YEAR, HAS THE FIRM ENGAGED WITH ORGANIZATIONS OR PROGRAMS THAT PROMOTE THE RECRUITMENT AND RETENTION OF DIVERSE GROUPS?

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented In The Next 12 months, 4%

Not Responding, 1%

No, 39%



Yes, 56%

**FIGURE 15**  
DOES THE FIRM HAVE A FORMAL MENTORSHIP, SPONSORSHIP OR EMPLOYER AFFINITY PROGRAM FOR WOMEN AND/OR DIVERSE GROUPS?

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented In The Next 12 months, 2%

Not Responding, 5%

No, 64%

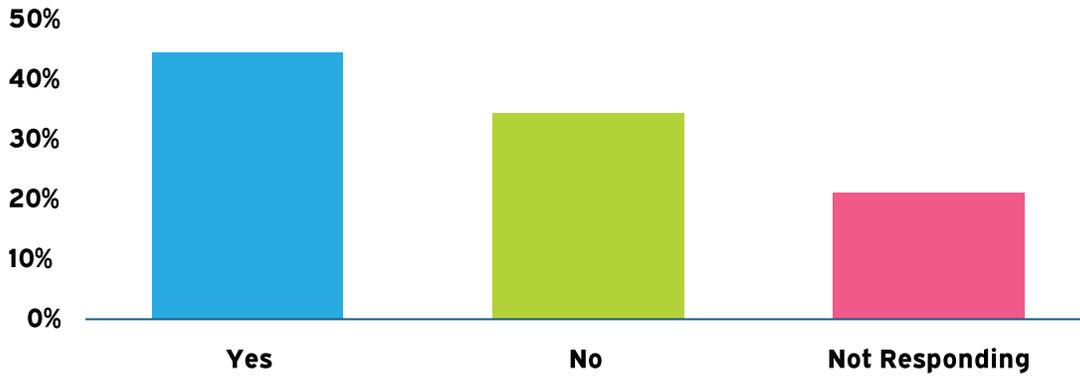


Yes, 30%

**FIGURE 16**  
DOES THE FIRM HAVE LESBIAN, GAY, BISEXUAL, TRANSGENDER AND/OR QUEER EMPLOYEE RESOURCE GROUP IN THE WORKPLACE?

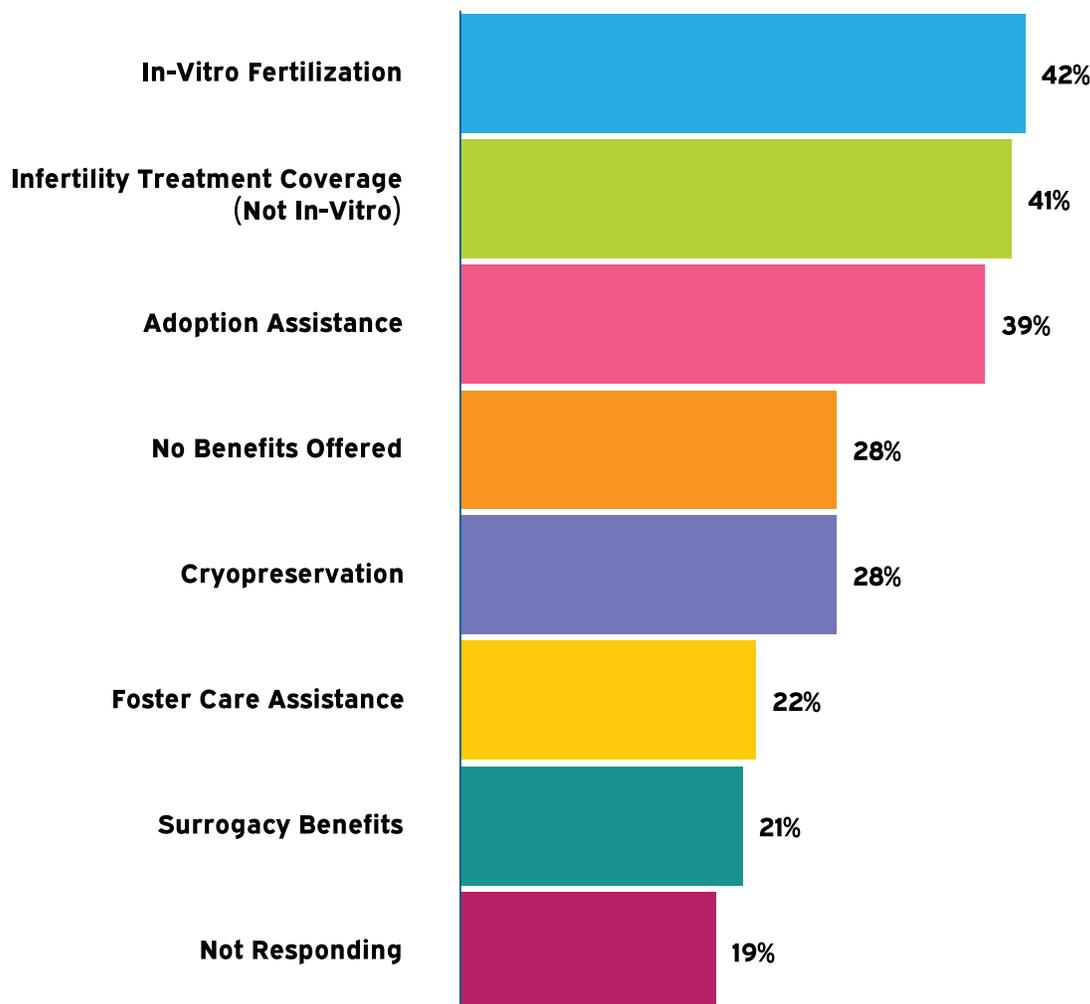
Source: Meketa Investment Group 2022 Questionnaire.

# RECRUITMENT AND RETENTION



**FIGURE 17**  
**DOES THE FIRM'S HEALTH COVERAGE COVER TRANSITIONING COSTS?**

Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 18**  
**PERCENTAGE OF FIRMS THAT OFFER FAMILY FORMATION BENEFITS REGARDLESS OF SEX**

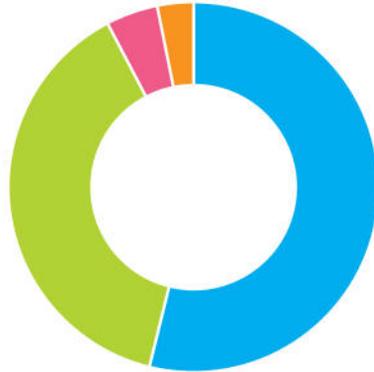
Source: Meketa Investment Group 2022 Questionnaire.

# MEASUREMENT

Due To Be Implemented  
In The Next 12 months, 3%

Not Responding, 5%

No, 38%



Yes, 54%

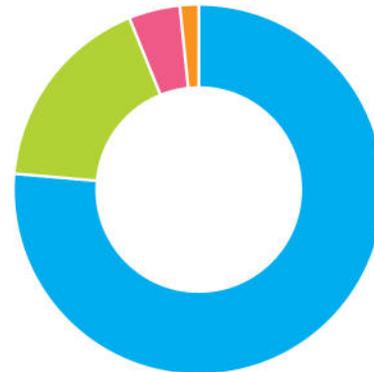
**FIGURE 19**  
**DOES THE FIRM DEFINE GOALS AND MEASURE DIVERSITY OUTCOMES AT ALL LEVELS OF THE ORGANIZATION, ACROSS ALL DEPARTMENTS?**

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented  
In The Next 12 months, 2%

Not Responding, 4%

No, 18%



Yes, 76%

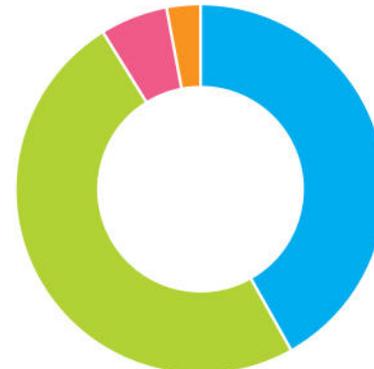
**FIGURE 20**  
**HAVE DIVERSITY STATISTICS BEEN REGULARLY REVIEWED BY THE EXECUTIVE COMMITTEE AND/OR BOARD IN THE LAST 12 MONTHS?**

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented  
In The Next 12 months, 3%

Not Responding, 6%

No, 49%



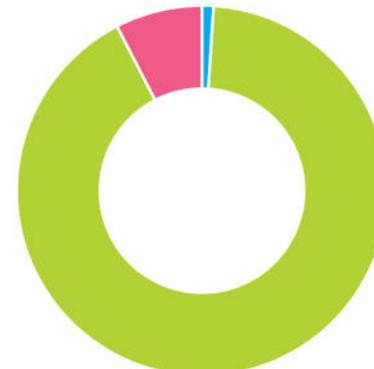
Yes, 42%

**FIGURE 21**  
**HAVE DIVERSITY, EQUITY, AND INCLUSION BEEN INCLUDED WITHIN THE PERFORMANCE OBJECTIVES FOR SENIOR MANAGEMENT IN THE LAST 12 MONTHS?**

Source: Meketa Investment Group 2022 Questionnaire.

Not Responding, 8%

No, 91%



Yes, 1%

**FIGURE 22**  
**IS THE FIRM A MEMBER OR FINANCIAL SUPPORTER OF ANY ORGANIZATIONS THAT LOBBIED AGAINST DEI DURING 2022?**

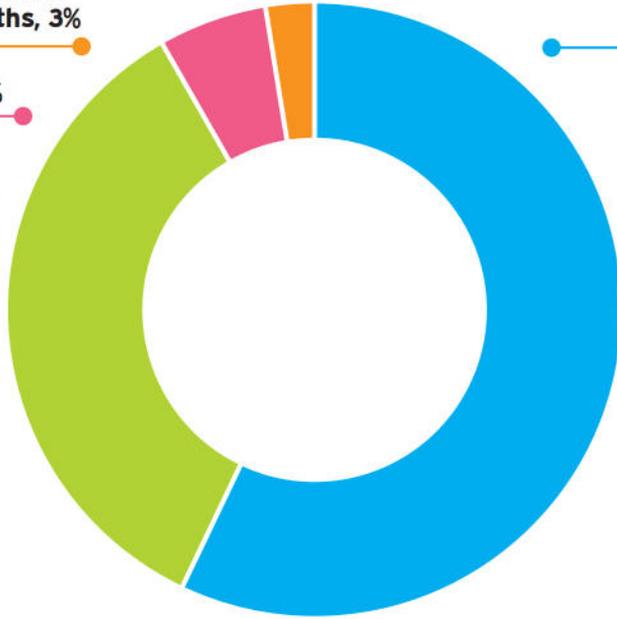
Source: Meketa Investment Group 2022 Questionnaire.

# EQUAL PAY

Due To Be Implemented  
In The Next 12 months, 3%

Not Responding, 6%

No, 35%



Yes, 57%

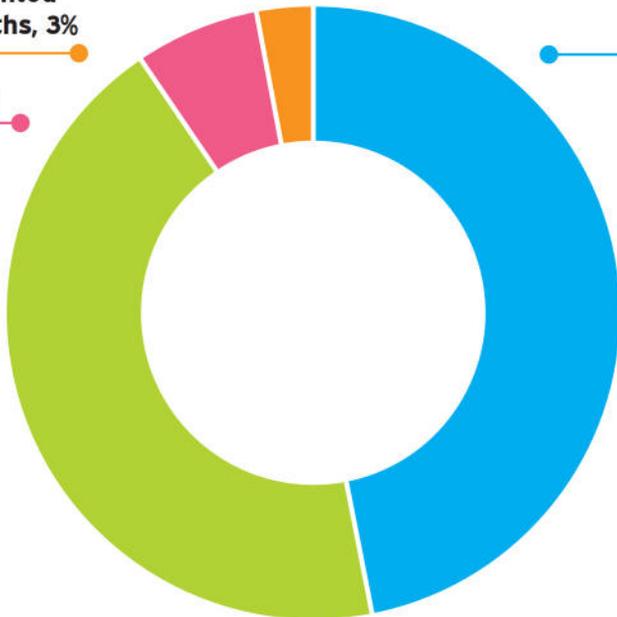
**FIGURE 23**  
**DOES THE FIRM MONITOR GENDER PAY GAP DISPARITY?**

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented  
In The Next 12 months, 3%

Not Responding, 7%

No, 44%

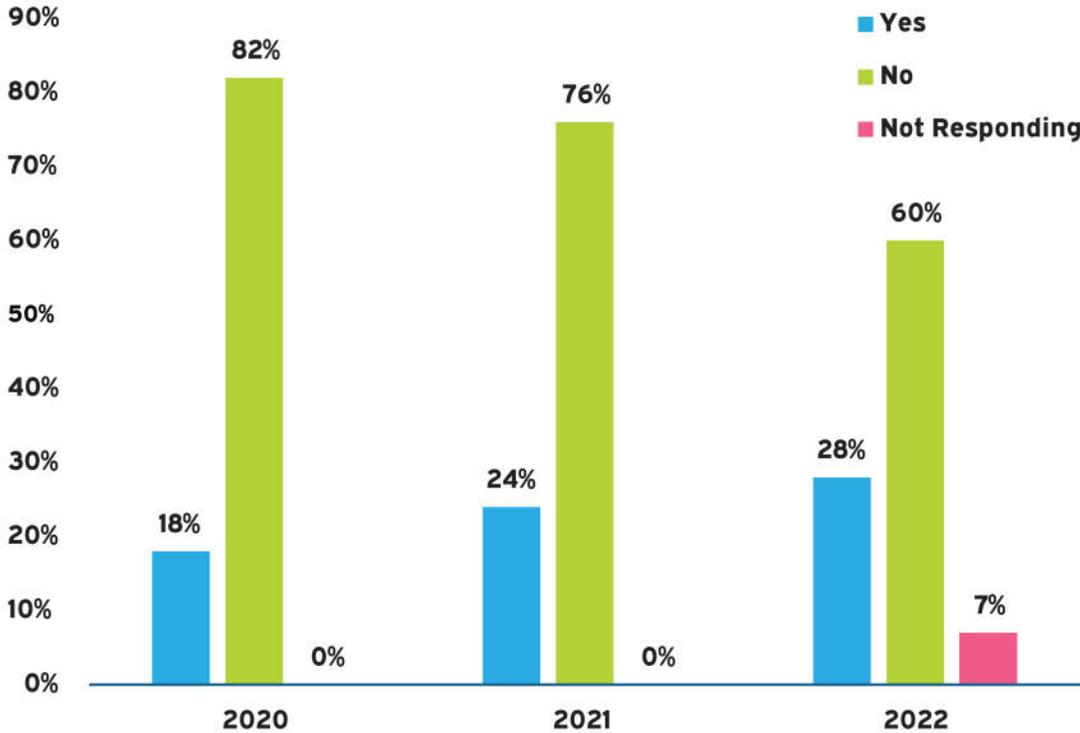


Yes, 47%

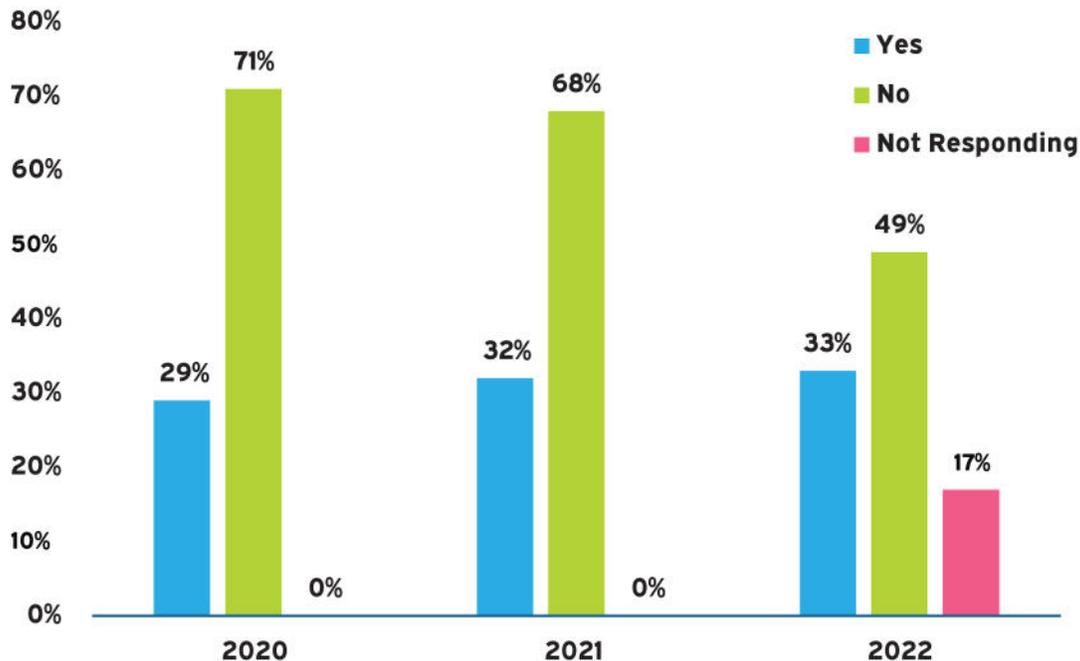
**FIGURE 24**  
**DOES THE FIRM MONITOR ETHNICITY PAY GAP DISPARITY?**

Source: Meketa Investment Group 2022 Questionnaire.

# SERVICE PROVIDERS AND DEI



**FIGURE 25**  
**WHEN SELECTING SERVICE PROVIDERS, DOES THE FIRM FORMALLY ASSESS EACH PROVIDER'S DEI POLICIES?**  
 Source: Meketa Investment Group 2022 Questionnaire.



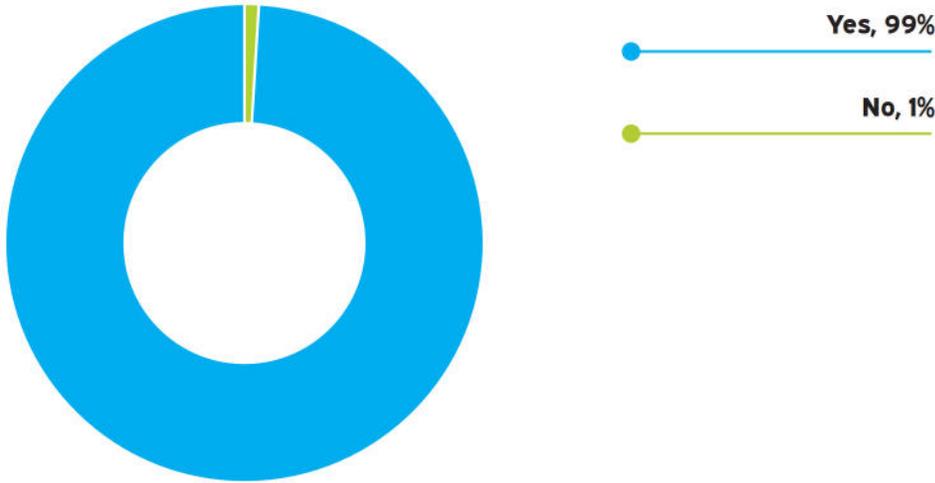
**FIGURE 26**  
**DOES THE FIRM UTILIZE DIVERSE-OWNED INVESTMENT BANKS FOR CAPITAL MARKETS SERVICES, MERGERS AND ACQUISITIONS SERVICES AND/OR OTHER ADVISORY SERVICES?**  
 Source: Meketa Investment Group 2022 Questionnaire.



# SECTION III EMPLOYEE CONDUCT

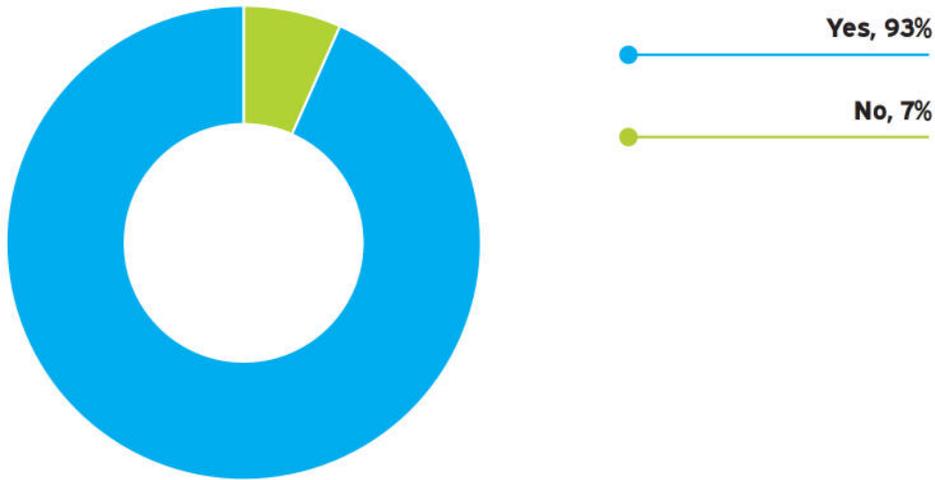
# KEY TAKEAWAYS

Almost all firms, 99%, reported having a Code of Conduct that addresses harassment, discrimination, and workplace violence, regardless of whether the conduct takes place in the formal workspace. Written procedures in place for the allowance of anonymous reporting and investigation increased 7% from 2021.



**FIGURE 27**  
**DOES THE FIRM HAVE A CODE OF CONDUCT THAT ADDRESSES HARASSMENT, DISCRIMINATION AND/OR WORKPLACE VIOLENCE IN AND/OR OUTSIDE OF THE WORKPLACE?**

Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 28**  
**DOES THE FIRM HAVE WRITTEN PROCEDURES IN PLACE FOR THE ANONYMOUS REPORTING AND INVESTIGATION OF HARASSMENT, DISCRIMINATION AND/OR WORKPLACE VIOLENCE?**

Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 29**  
**DOES THE FIRM PROVIDE MANDATORY ANTI-HARASSMENT AND NON-DISCRIMINATION TRAINING TO ALL EMPLOYEES OR MANAGERS ONLY?**

Source: Meketa Investment Group 2022 Questionnaire.



# SUMMARY CONCLUSIONS

Across the asset management industry, we saw small but increasing numbers of female and diverse individuals in equity ownership, senior management, and portfolio management. We are encouraged by the series of actions taken to achieve better results with respect to creating more diverse, equitable, and inclusive firms. Our 2022 DEI survey was more expansive as we continue to refine our approach. Whether refining our questions on recruitment and retention or adding questions on healthcare and employee resource groups, our continuing improvements bolster our efforts around improving clarity and transparency in our DEI survey efforts. As we continue our annual surveys, we anticipate more progress to be made and we look forward to increased efforts made by asset management firms.

We acknowledge that fully integrating DEI into the teams and cultures of firms will not happen overnight. Firms will need time, resources, and buy-in to sustainably evolve into more diverse organizations. Asset management firms may continue to differentiate themselves by focusing on the following areas:

- Establish a plan to add more representation to key decision-making positions
- Continue to measure how the firm's policies and committees contribute to the firm's overall DEI strategy
- Mentorship is to recruitment as sponsorship is to retention. Consider increasing sponsorship opportunities to elevate underrepresented groups
- Evaluate service providers' DEI policies to ensure an alignment of values

# APPENDIX

**Asset Manager:** Includes public and private managers in Meketa's database as of November 2022.

**Clients:** Current clients of asset managers who responded to the questionnaire.

**Consultants:** Oversee asset managers who responded to the questionnaire.

**Prospects:** Potential clients of an asset manager who responded to the questionnaire.

**Regulators:** Bodies established by governments or other organizations that oversee the functioning and fairness of financial markets and the firms that engage in financial activity.

**Service Providers:** Third-party suppliers, vendors, or subcontractors of asset managers who responded to the questionnaire.

**Definitions:** Below are definitions of the DEI-related terms specific to this questionnaire:

- Diverse groups are defined on the basis of the following factors: race/ethnicity, LGBTQIA+ identity, veteran status and disability.
- Racial/Ethnic Minorities are defined as non-white minorities.
- Other Diverse Groups refer to those who identify as LGBTQIA+, Veterans and Persons with Disabilities.
- Diversity is defined as the inclusion of Women and Diverse groups while Inclusion is defined as the practice of equal recognition, respect, and merit-based evaluation.
- The use of the term Diverse is meant to represent a numerical minority.

**Methodology:** The questionnaire was distributed to all public and private markets asset management firms in November 2022. Asset managers completed the questionnaire with best available data. All responses were collected from November 29, 2022 through February 1, 2023.

# CONTACT US

If you want to learn more, or access Meketa's library of white papers and economic research, please contact us or visit <https://meketa.com/thought-leadership/>.

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## **DISCLOSURE**

THIS CONTAINS CONFIDENTIAL AND PROPRIETARY INFORMATION OF MEKETA INVESTMENT GROUP AND IS INTENDED FOR THE EXCLUSIVE USE OF THE PARTIES TO WHOM IT WAS PROVIDED BY MEKETA. ITS CONTENT MAY NOT BE MODIFIED, SOLD, OR OTHERWISE PROVIDED, IN WHOLE OR IN PART, TO ANY OTHER PERSON OR ENTITY WITHOUT MEKETA'S PRIOR WRITTEN PERMISSION.

## MEMORANDUM

**TO:** Oakland Police and Fire Retirement System (OPFRS)  
**FROM:** Meketa Investment Group (Meketa)  
**DATE:** May 31, 2023  
**RE:** 2023 Ongoing Strategic Investment Agenda

On an ongoing (monthly) basis, Meketa develops a list of projects that we expect to work closely with OPFRS to complete over throughout the calendar year (see table below). In an attempt to coordinate the scheduling of these tasks, this memo details a Preliminary Investment Project Agenda by calendaring and prioritizing the expected tasks and deliverables that would be required to fulfill the Agenda. Meketa welcomes any suggestions and/or modifications to the proposed timeline.

### 2023 Preliminary Investment Project Agenda

Expected Completion Date	Task
June 2023	Flash Performance Report (2023 May) Cash Flow Report (3Q 2023) Informational Item: TBD Manager Update: <b>Brown Advisory</b>
July 2023	Flash Performance Report (2023 Jun) Manager Update: <b>Wellington; Northern Trust</b>
August 2023	Flash Performance Report (2023 Jul) Quarterly Performance Report (2Q 2023) Manager Update: <b>Kepos</b>
September 2023	Flash Performance Report (2023 Aug) Cash Flow Report (4Q 2023) Asset Class Review: <b>Credit</b> <b>Thermal Coal List</b> Update: 2023
October 2023	Flash Performance Report (2023 Sep) Informational Item: TBD Manager Update: <b>Versor</b> Manager Update & Contract Renewal: <b>Parametric</b>



Expected Completion Date	Task
November 2023	Flash Performance Report (2023 Oct) Quarterly Performance Report (3Q 2023) Manager Update: <b>Strategic Global Advisors</b>
December 2023	Flash Performance Report (2023 Nov) Cash Flow Report (1Q 2024) Manager Update: <b>Ramirez</b> Informational Item: TBD

This agenda includes only major strategic items. Meketa also expects to work with the Staff and Board to complete more routine tasks and projects, as expected.

DS/PN/JLC/mn

## Disclosure

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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

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

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

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

Due to the termination of the statewide COVID-19 State of Emergency by the Governor of California, effective March 1, 2023, all meetings of the Oakland Police & Fire Retirement System Board and its Committees will be conducted in person.

Meetings are held in wheelchair accessible facilities.

The Board may take action on items not on the agenda only if findings pursuant to the Sunshine Ordinance and Brown Act are made that the matter is urgent or an emergency.

For additional information, contact the Retirement Unit by calling (510) 238-7295. or send an email to [mvisaya@oaklandca.gov](mailto:mvisaya@oaklandca.gov)



**Retirement Unit**  
**150 Frank H. Ogawa Plaza**  
**Oakland, California 94612**

# AGENDA

## RETIREMENT BOARD MEMBERS

**Walter L. Johnson, Sr.**  
President

**Jaime T. Godfrey**  
Vice President

**Martin J. Melia**  
Member

**Robert W. Nichelini**  
Member

**John C. Speakman**  
Member

**R. Steven Wilkinson**  
Member

**Erin Roseman**  
Member

## REGULAR MEETING of the BOARD OF ADMINISTRATION of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM ("PFRS")

**WEDNESDAY, MAY 31, 2023**

**11:30 AM**

**ONE FRANK H. OGAWA PLAZA, HEARING ROOM 1**  
**OAKLAND, CA 94612**

### **OBSERVE**

- To observe the meeting by video conference, please click on this link: <https://us02web.zoom.us/j/82880493983> at the noticed meeting time.
- To listen to the meeting by phone, please call the numbers below at the noticed meeting time: Dial (for higher quality, dial a number based on your current location):
- iPhone one-tap: US: +16699006833, 82880493983# or +13462487799, 82880493983#
- US: +1 669 900 6833 or +1 346 248 7799 or +1 253 215 8782 or +1 301 715 8592 or +1 312 626 6799 or +1 929 205 6099
- International numbers available: <https://us02web.zoom.us/j/82880493983>
- Webinar ID: 828 8049 3983.
- If asked for a participant ID or code, press #.

### **PUBLIC COMMENTS**

There are two ways to submit public comments.

- **Speaker Card:** All persons wishing to address the Board must complete a speaker's card, stating their name and the agenda item they wish to address, including "Open Forum".
- **eComment:** To send your comment directly to staff BEFORE the meeting starts, please email to [mvisaya@oaklandca.gov](mailto:mvisaya@oaklandca.gov) with "PFRS Board Meeting Public Comment" in the subject line for the corresponding meeting. Please note that eComment submission **closes two (2) hours before posted meeting time.**

If you have any questions, please email Maxine Visaya, Administrative Assistant II at [mvisaya@oaklandca.gov](mailto:mvisaya@oaklandca.gov)

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## ORDER OF BUSINESS

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- A. **Subject:** POLICE AND FIRE RETIREMENT SYSTEM (“PFRS”) BOARD OF ADMINISTRATION MEETING MINUTES  
**From:** Staff of the PFRS Board  
**Recommendation:** APPROVE the March 29, 2023 PFRS Board of Administration Meeting Minutes
- B. **Subject:** INFORMATIONAL REPORT REGARDING ACTUARIAL FUNDING  
**From:** Cheiron, Inc., PFRS Plan Actuary  
**Recommendation:** ACCEPT informational report regarding actuarial funding as it relates to the July 1, 2026 Actuarial Funding Date
- C. **AUDIT & OPERATIONS COMMITTEE AGENDA – MAY 31, 2023**
- C1. **Subject:** ADMINISTRATIVE EXPENSES REPORT  
**From:** Staff of the PFRS Board  
**Recommendation:** ACCEPT informational report regarding PFRS administrative expenses as of March 31, 2023
- C2. **Subject:** ELECTION OF 5-YR RETIRED POLICE REPRESENTATIVE TO THE PFRS BOARD  
**From:** Staff of the PFRS Board  
**Recommendation:** ACCEPT informational report regarding the election of the 5-Year Retired Police Representative for the PFRS Board seat currently held by member Robert W. Nichelini
- C3. **Subject:** RESOLUTION NO.8078  
**From:** Staff of the PFRS Board  
**Recommendation:** APPROVE of Resolution No. 8078 ratifying the Board President’s approval of Oakland Police and Fire Retirement System Trustee R. Steven Wilkinson’s request to attend the Milken Institute Global Conference from April 30, 2023 Through May 3, 2023 in Beverly Hills, CA, and authorizing reimbursement of travel-related expenses in an amount not to exceed Three Thousand Dollars (\$3,000.00)

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
REGULAR BOARD MEETING  
MAY 31, 2023

D. INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA – MAY 31, 2023

- D1. **Subject:** INVESTMENT MANAGER PERFORMANCE UPDATE – RICE HALL JAMES & ASSOCIATES  
**From:** Rice Hall James & Associates  

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**Recommendation:** **ACCEPT** informational report regarding a firm overview and managerial assessment; diversity and inclusion policy and practices; and investment strategy and portfolio performance of Rice Hall James & Associates, a PFRS' Domestic Equity Small-Cap Growth Investment Strategy Manager
- D2. **Subject:** INVESTMENT MANAGER PERFORMANCE REVIEW – RICE HALL JAMES & ASSOCIATES  
**From:** Meketa Investment Group  

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**Recommendation:** **ACCEPT** Meketa Investment Group's review and evaluation of Rice Hall James & Associates, a PFRS Domestic Equity Small-Cap Growth Investment Strategy Manager, regarding a firm overview and managerial assessment; investment portfolio performance; peer ranking, watch status update; and recommendation to maintain/terminate the current professional services agreement. **DISCUSS** and **APPROVE** the Committees course of action with regard to Rice Hall James & Associates
- D3. **Subject:** BENCHMARK REVIEW: CRISIS RISK OFFSET INVESTMENT STRATEGY  
**From:** Meketa Investment Group  

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**Recommendation:** **ACCEPT** informational report regarding the Crisis Risk Offset Investment Strategy Benchmark Review and Meketa's recommendation to update the strategy's policy benchmark and for the change to be reflected in the PFRS Investment Policy Strategy. **DISCUSS** and **APPROVE** of the Committee's course of action with regard to updating the Credit Risk Offset policy benchmark.
- D4. **Subject:** INVESTMENT MARKET OVERVIEW AS OF APRIL 30, 2023  
**From:** Meketa Investment Group  

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**Recommendation:** **ACCEPT** informational report regarding the Global Investment Markets as of April 30, 2023

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
 REGULAR BOARD MEETING  
 MAY 31, 2023**

- D5. **Subject:** PRELIMINARY INVESTMENT FUND PERFORMANCE UPDATE AS OF APRIL 30, 2023  
**From:** Meketa Investment Group  


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**Recommendation:** **ACCEPT** informational report regarding the Preliminary Investment Fund Performance Update as of February 28, 2023
- D6. **Subject:** INVESTMENT FUND QUARTERLY PERFORMANCE UPDATE AS OF MARCH 31, 2023  
**From:** Meketa Investment Group  


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**Recommendation:** **ACCEPT** Investment Fund Quarterly Performance Update as of March 31, 2023
- D7. **Subject:** 2023 ANNUAL DIVERSITY SURVEY RESULTS: CURRENT PFRS INVESTMENT MANAGERS AND ANNUAL INDUSTRY REPORT  
**From:** Meketa Investment Group  


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**Recommendation:** **ACCEPT** informational report regarding the diversity representation of current PFRS Investment Managers and across the industry as of December 31, 2022
- E. **Subject:** MEMBER RESOLUTIONS NOS. 8076 – 8077  
**From:** Staff of the PFRS Board  


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**Recommendation:** **APPROVE** Member Resolution Nos. 8076 – 8077
- E1. **RESOLUTION NO. 8076** | Resolution fixing the monthly allowance of surviving spouse of the following retired member of the Oakland Police and Fire Retirement System in the amount indicated:
- | <u>Deceased Member</u>  | <u>Surviving Spouse</u> | <u>Monthly Allowance</u> |
|-------------------------|-------------------------|--------------------------|
| ▪ Harold D. Pendergrass | Sharon K. Pendergrass   | \$ 4,288.67              |
- E2. **RESOLUTION NO. 8077** | Resolution approving death benefit payments and directing warrants thereunder in the total sum of \$1,000.00 payable to the beneficiary of the following deceased member of the Oakland Police and Fire Retirement System:
- Norbert F. Banach
  - George S. Eberhardt
  - Clyde Walker

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
REGULAR BOARD MEETING  
MAY 31, 2023

F. Subject: MANNER AND FREQUENCY OF PFRS BOARD AND COMMITTEE MEETINGS

From: PFRS Legal Counsel

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Recommendation: **ACCEPT** public legal opinion regarding the manner and frequency of PFRS Board and Committee meetings; **DISCUSS** legal opinion and recommendation for reduction in frequency of meetings; and **APPROVE** change to Article 5, section 5.2 of the PFRS Rules and Regulations by 1) reading recommended proposed rule change from public legal opinion into the record (first reading) or 2) by directing staff to return with a recommendation for a change to Article 5, section 5.2(b) of the PFRS Rules and Regulations consistent with the Board's recommendation and discussion.

G. PENDING ITEMS: NONE

H. NEW BUSINESS: **REQUEST/RECOMMENDATION** to schedule a Board Agenda Item regarding requirements to initiate and conduct hybrid meetings to engage with presenters and facilitate public comment via virtual participation

I. OPEN FORUM

J. FUTURE SCHEDULING

K. ADJOURNMENT

**A MEETING OF THE OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (“PFRS”) BOARD OF ADMINISTRATION** was held on Wednesday, March 29, 2023 at One Frank H. Ogawa Plaza, Hearing Room 1, Oakland, CA.

Board Members:	▪ Walter L. Johnson	President
	▪ Jaime T. Godfrey	Vice President (EXCUSED)
	▪ Martin J. Melia	Member (EXCUSED)
	▪ Robert W. Nichelini	Member
	▪ Erin Roseman	Member
	▪ John C. Speakman	Member
	▪ R. Steven Wilkinson	Member
Additional Attendees:	▪ David F. Jones	PFRS Secretary & Plan Administrator
	▪ Téir Jenkins	PFRS Investment & Operations Manager
	▪ Maxine Visaya	PFRS Staff Member
	▪ Selia Warren	PFRS Legal Counsel
	▪ David Sancewich	Meketa Investment Group
	▪ Paola Nealon	Meketa Investment Group

The meeting was called to order at 11:41 a.m. Pacific

- A. PFRS BOARD MEETING MINUTES** – Member Speakman made a motion to approve the February 22, 2023 Board of Administration Meeting Minutes, second by Member Wilkinson. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

Plan Administrator & Secretary Jones welcomed the Board back to in-person meetings and made introductions of Erin Roseman, Selia Warren, and Maxine Visaya as they had not previously attended an in-person meeting. D. Jones also thanked the Board for their support and staff for making the transition to Zoom seamless and productive.

**B. AUDIT AND OPERATIONS COMMITTEE AGENDA – MARCH 29, 2023**

- B1. ADMINISTRATIVE EXPENSES REPORT** – Investment & Operations Manager Jenkins presented an informational report on PFRS’ administrative expenditures as of January 31, 2023. PFRS has an approved annual budget of approximately \$3.6 million and have expensed approximately \$1.1 million to date for fiscal year 2022/2023. Membership consisted of 671 retired members, which included 415 Police Members and 256 Fire Members.

**MOTION:** Member Speakman made a motion to accept the informational report regarding the Administrative Expenses Report presented by Investment & Operations Manager, second by Member Nichelini. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

- B2. PFRS 2-YEAR ADMINISTRATIVE BUDGET FOR FISCAL YEARS 2023/2024 AND 2024/2025 –** Investment & Operations Manager Jenkins presented the proposed PFRS 2-Year Administrative Budget for Fiscal Years 2023/2024 and 2024/2025. T. Jenkins noted the current budget is approximately \$3.6 million and Staff proposed a slight increase of 4% to \$3.8 million. Projected increases include staff salaries due to the recent MOU between the City and Local 21 which granted a 5% Cost of Living Adjustment (COLA) and contractual increases to our Audit and Actuary services.

**MOTION:** Member Nichelini made a motion made a motion to approve the proposed PFRS 2-Year Administrative Budget for Fiscal Years 2023/2024 and 2024/2025, second by Member Speakman. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

- B3. PFRS Annual Report for Year Ended June 30, 2022 –** PFRS Investment & Operations Manager Jenkins presented the proposed PFRS Annual Report for year ended June 30, 2022. T. Jenkins and Plan Administrator Jones acknowledged all the hard work that goes into producing the annual report and thanked both internal and external contributors, as well as the retirees for all they bring to the report. Plan Administrator Jones also welcomed member feedback to provide for enhancements and suggestions for additional content they would like to see incorporated into future reports.

**MOTION:** Member Speakman made a motion to accept the proposed PFRS Annual Report for year ended June 30, 2022 and approve for printing and distribution, second by Member Nichelini. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

**C. INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA – MARCH 29, 2023**

- c1. INVESTMENT MANAGER PERFORMANCE REVIEW – POLEN CAPITAL CREDIT –** David Sancewich of Meketa Investment Group (“Meketa”) presented an overview memo regarding a performance review, evaluation, and watch status update of Polen Capital Credit (“Polen”), a PFRS High Yield Fixed Income Investment Strategy Manager. D. Sancewich recommended taking Polen off watch status as their performance has improved and the organization has settled down following the merger. Meketa has no concerns from an investment standpoint, however it was noted Meketa will review the credit allocation, as part of PFRS total plan, to determine if this strategy continues to be a good fit within the PFRS portfolio.

**MOTION:** Member Wilkinson made a motion to accept Meketa’s performance review regarding Polen and the recommendation to remove Watch Status, second by Member Nichelini. Motion Passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

- c2. **INVESTMENT MARKET OVERVIEW AS OF FEBRUARY 28, 2023** – Paola Nealon of Meketa presented an informational report regarding the Investment Market Overview as of February 28, 2023 and highlighted Index Returns and current factors impacting outcomes.

**MOTION:** Member Wilkinson made a motion to accept the informational report provided by Meketa regarding the Investment Market Overview as of February 28, 2023, second by Member Speakman. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

- c3. **PRELIMINARY INVESTMENT FUND PERFORMANCE UPDATE AS OF FEBRUARY 28, 2023**  
Paola Nealon of Meketa presented the Preliminary Investment Fund Performance Update as of February 28, 2023 and highlighted Allocation vs. Targets and Policy and the Asset Class Performance Summary and current factors impacting outcomes.

**MOTION:** Member Nichelini made a motion to accept the informational report provided by Meketa regarding the Preliminary Investment Fund Performance Update as of February 28, 2023, second by Member Speakman. Motion Passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

- c4. **\$14.2 MILLION DRAWDOWN FOR MEMBER RETIREMENT ALLOWANCES (FISCAL YEAR 2022/2023; QUARTER ENDING JUNE 30, 2023)** – David Sancewich of Meketa presented an informational report and recommendation for a \$14.2 million drawdown; which includes an \$8.2 Million contribution from the City of Oakland and a \$6.0 Million contribution from the PFRS Investment Fund, to be used to pay the April 1, 2023 through June 30, 2023 Member Retirement Allowances and PFRS contribution be drawn from the Earnest Partners portfolio.

**MOTION:** Member Nichelini made a motion to approve Meketa's recommendation regarding a \$14.2 Million Drawdown to fund Member Retirement Allowances and PFRS contribution be drawn from the Earnest Partners portfolio, second by Member Speakman. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

- c5. **2023 10-YEAR CAPITAL MARKET ASSUMPTIONS REVIEW** – David Sancewich of Meketa presented an informational report regarding Investment Return Expectations and 2023 10-year Capital Market Assumptions. D. Sancewich noted Meketa will continue to de-risk the portfolio as we near the 2026 Actuarial Funding Date.

**MOTION:** Member Wilkinson made a motion to accept the informational report provided by Meketa regarding Investment Return Expectations and 2023 10-Year Capital Market Assumptions Review, second by Member Speakman. Motion Passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

- D. PENDING ITEMS** – Plan Administrator Jones provided a review of the Board pending item to review options regarding the frequency and manner of Committee and Board Meetings. President Johnson requested a written legal opinion on the matter and to bring forward for discussion at the next meeting.
- E. NEW BUSINESS** – None
- F. OPEN FORUM** – President Johnson noted food must be served in a different space and, in the interest of time, suggested lunch be provided after the conclusion of the Board meeting. The Board consented.
- G. FUTURE SCHEDULING** – The next Regular Board Meeting will be held in-person and is tentatively scheduled to occur April 26, 2023.
- H. ADJOURNMENT** –Member Nichelini made a motion to adjourn, second by Member Speakman. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: EXCUSED / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 2)

The meeting adjourned at 12:11 p.m.

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DAVID F. JONES  
PLAN ADMINISTRATOR

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DATE

***Via Electronic Mail***

May 23, 2023

City of Oakland Police and Fire  
Retirement System Board  
150 Frank H. Ogawa Plaza  
Oakland, CA 94612

***Re: Issues Related to the Wind-Down of the Plan***

Dear Members of the Board:

This memo provides an overview of the key issues related to the wind-down of the City of Oakland Police and Fire Retirement Plan (PFRS) in accordance with Article XXVI of the Oakland City Code. It discusses the meaning of "actuarially funding all liabilities," the challenges in determining the funding status by the deadline, and the considerations for de-risking the plan's assets. Additionally, it highlights the ongoing experience study being conducted by Cheiron to review the Plan's assumptions.

***Background***

As per Article XXVI of the Oakland City Code, the City of Oakland is required to "actuarially fund all liabilities for all members prior to July 1, 1976, by July 1, 2026." This memo aims to provide guidance on the necessary steps and challenges involved in meeting this requirement and successfully winding down the PFRS.

To actuarially fund all liabilities means that the plan's assets must exceed or match its liabilities. In simpler terms, the plan should have sufficient funds to cover all present and future benefits owed to its members. Actuaries use various assumptions to estimate the amount required, including life expectancy, retirement age, and investment returns. Meeting this requirement ensures that all members receive their promised benefits and that the plan remains financially stable.

***Challenges in Determining Funding Status by the Deadline***

Determining whether the PFRS is fully funded by the July 1, 2026 deadline poses several challenges. An actuarial valuation, which measures the plan's assets and liabilities, cannot be completed until several months after the deadline. This is due to the time needed to gather and analyze data, such as investment performance, member data, and changes in actuarial assumptions.

Furthermore, there is currently a 12-month delay between the valuation date and the contribution effective date, in order to provide time to incorporate the required contribution into the City's budget. As a result, the contribution expected to be made during Fiscal Year 2025-2026, which is the last contribution prior to the required full funding date, will be based on the actuarial valuation performed as of July 1, 2024. Consequently, under current practices, any changes that occur

between July 1, 2024 and June 30, 2026 will not affect the contributions until after July 1, 2026. This delay in incorporating updated information could lead to potential discrepancies between the plan's actual funding status and the projected funding status based on the July 1, 2024 valuation.

As a result, it will not be possible to determine with certainty whether the plan has met the funding requirement by the specified deadline. Instead, the trustees must make decisions based on the most recent actuarial valuation and ongoing monitoring of the plan's financial status. One possible approach for increasing the likelihood of the Plan being fully funded as of July 1, 2026 would be to target a funded status *above 100%*, and using that margin as a buffer in case there are actuarial losses in the future (i.e., investment returns below the assumed return, or benefit payments exceeding expectations).

### ***Maintaining Full Funding Status After 2026***

While the statute does not explicitly mention the requirements for the plan after the July 1, 2026 deadline, it is essential to consider how the plan can remain fully funded in the long term. As asset and liability gains and losses will inevitably occur after the full funding date, there is a possibility that the plan's funding status will drop below 100% in a future valuation.

If the plan's funding status drops below 100%, it raises the question of whether the resulting unfunded liabilities need to be paid off immediately or can be amortized over a period of time. While the statute does not provide specific guidance on this matter, it is generally advisable for the trustees to establish a funding policy that addresses potential fluctuations in the plan's funding status.

### ***Actuarial vs. Market Assets***

In addition to the challenges discussed above related to the timing of funded status measurements vs. the calculation and implementation of contributions, there is another issue that must be addressed when determining whether the Plan is considered fully funded related to the measurement of the assets. There are two asset measurements that can be used to determine the funded status: the Market Value of Assets and the (smoothed) Actuarial Value of Assets. The plan has traditionally used the smoothed asset value and the resulting Unfunded Actuarial Liability (the UAL) – calculated as the difference between the Actuarial Value of Assets and the Plan's Actuarial Liability, or funding target – to determine the contributions to the plan. In contrast, the financial statements of the Plan report the unfunded liability, known as the Net Pension Liability, using the market value, as required under governmental accounting standards.

The actuarially smoothed value of assets defers the recognition of a portion of prior-years' investment gains or losses until future years. As a result, the plan could appear fully funded on an actuarial basis but still have an unfunded liability if measured on a market basis (or vice versa), particularly if the plan has recently experienced a period of investment returns below the assumed rate of return.

When determining whether the PFRS is fully funded, a decision will need to be made as to whether the definition of full funding should be based on the actuarial and/or market value asset measurements. We note that retaining the use of the actuarial value (as has been past practice) would confer a significant advantage with respect to the volatility in future funded status and contribution amounts, as will be shown in the projections which follow.

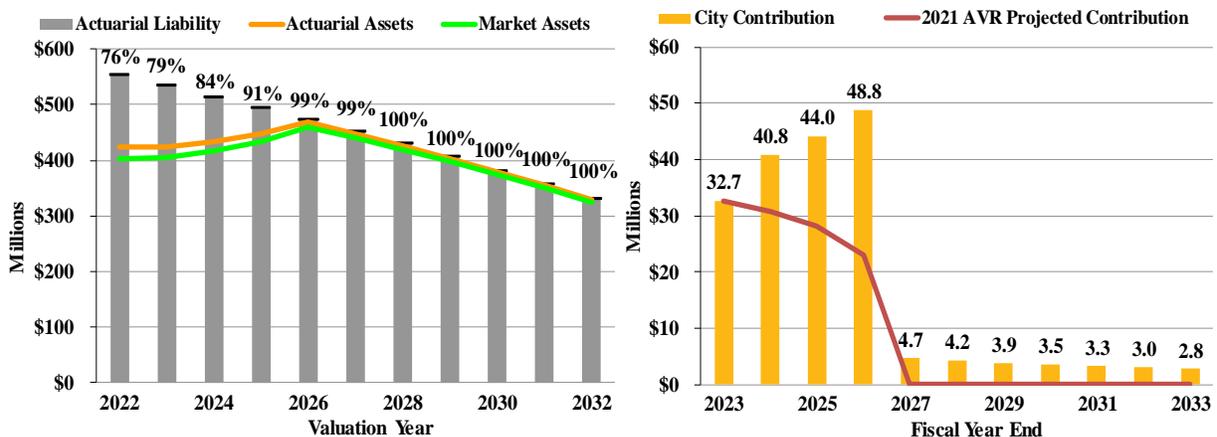
**Projections**

The sample projections that follow illustrate the difficulty of attaining full actuarial funding with absolute certainty at a specific date. The chart on the left side of these projections shows the expected funded status of PFRS. The gray bars represent the Actuarial Liability (AL) on July 1 of each valuation year. The green line represents the Market Value of Assets, while the orange line represents the (smoothed) Actuarial Value of Assets. The percentages above each column show the Actuarial Funded Ratio which is calculated by dividing the Actuarial Value of Assets by the Actuarial Liability.

The chart on the right shows the expected Actuarially Determined Contribution (the ADC) amount for PFRS each fiscal year. The red line represents projected contributions based on the assumptions and data used for the valuation in the legend of each chart. The gold bars represent the expected contributions under each scenario based on the July 1, 2022 Actuarial Valuation. Unless noted, all assumptions, methods, and data used are the same as those disclosed in our July 1, 2022 Actuarial Valuation Report for PFRS.

Under the funding policy set by the PFRS Board, the annual ADC amounts for PFRS are equal to the payment necessary to amortize the Unfunded Actuarial Liability (UAL) plus expected Administrative Expenses for each fiscal year. The amortization period is set so that the projected unfunded liability is expected to be fully amortized by July 1, 2026. For the purposes of these projections, we have assumed that any unfunded liability existing on or after July 1, 2026 is expected to be amortized *in a single year*.

**Baseline Scenario: Investment Returns Equal to the Expected Return for all Years**

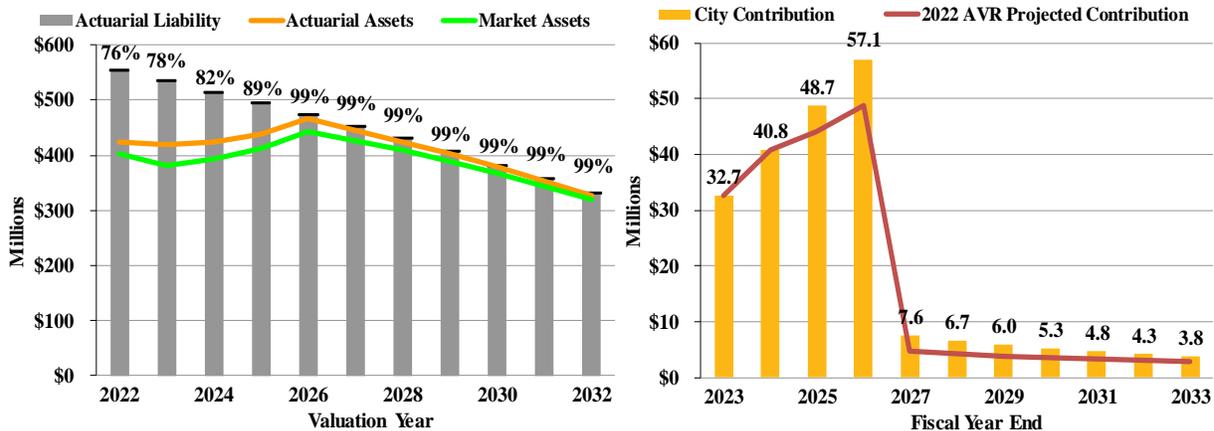


The first scenario shows the baseline contribution projections from the two most recent actuarial valuations, the July 1, 2021 actuarial valuation (with the contributions shown in the red line in the right-hand graph) and the July 1, 2022 actuarial valuation (with the contributions shown in the gold bars in the same graph):

- The July 1, 2021 actuarial valuation expected a funded ratio of 101% as of July 1, 2026, and anticipated that no contributions would need to be made for FYE 2027 onward, as the UAL has been fully amortized, and the expected Administrative Expenses are completely offset by the amortization of a negative (surplus) UAL.
- Lower than expected returns for FYE 2022 resulted in a significantly different scenario for the projected contributions in the July 1, 2022 valuation, causing the FYE 2024 contribution to increase from \$30.8 million to \$40.8 million for FYE 2024, and increasing further to \$44.0 million and \$48.8 million over the next two years. These contributions were expected to get the Plan nearly back to being fully funded as of July 1, 2026 (assuming all assumptions are met subsequent to the July 1, 2022 actuarial valuation), but there is a small residual unfunded liability due to the asset smoothing method, as can be seen by the fact that the funded ratio only reaches 99% in 2026. A contribution must also be made to cover the Plan’s ongoing administrative expenses.

For the next scenario, we review the impact of a modest actuarial investment loss occurring during the current fiscal year.

**Scenario A: 0% Return in FYE 2023, Expected Return Thereafter**

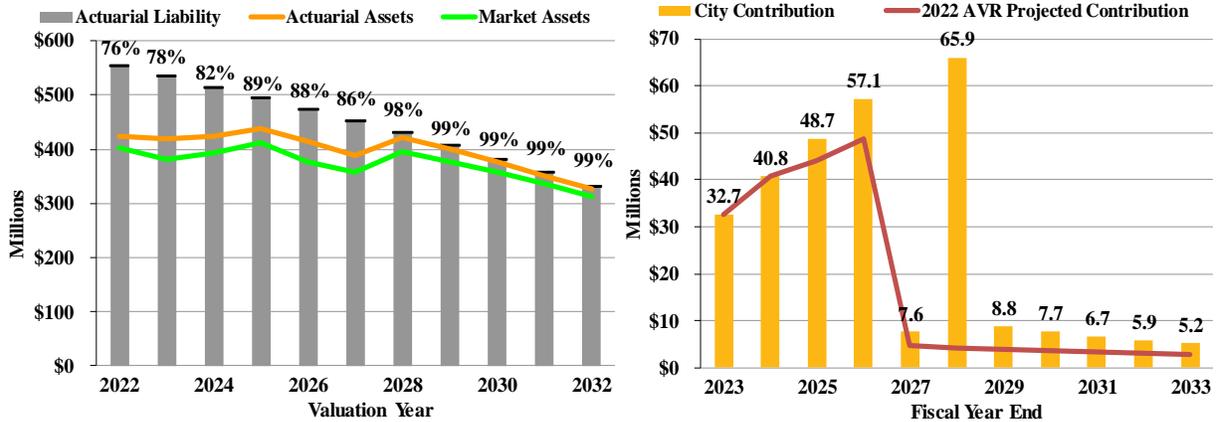


Scenario A shows the expected funded ratios and ADC amounts for PFRS if the return on investments is 0% for the FYE 2023. The expected contribution for FYE 2025 increases from \$44.0 million to \$48.7 million if there is no investment return in FYE 2023 and all other assumptions are met exactly. Under this scenario, the assets are again expected to approach – but not quite exceed – the liabilities because of the mechanics of the asset smoothing policy (which continuously defers recognition of a portion of the investment returns different than the assumption to future years). In this scenario, the funded ratio is not expected to reach 100% until 2035.



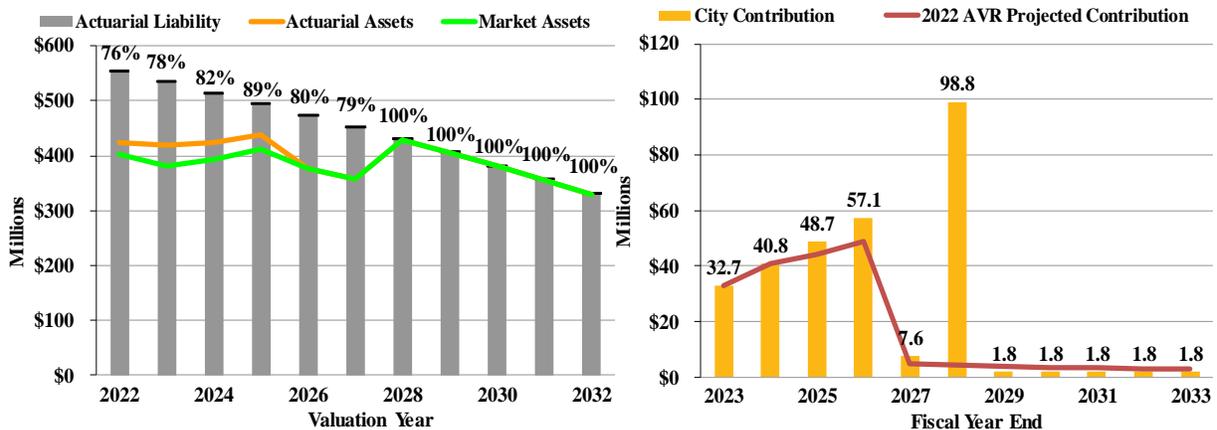
The next two scenarios start from the same baseline and add in a more significant loss in the year leading up to the full funding requirement. These scenarios illustrate the extreme level of volatility in the contributions which could result if the Plan is held to a strict standard to fully fund *and maintain* a 100% funded ratio at every measurement date following July 1, 2026.

**Scenario B: 0% Return in FYE 2023 and -10% Return in FYE 2026, Expected Return all Other Years**



Scenario B considers the expected contributions and funded ratios should there be a 0% return on investments in FYE 2023 and -10% return on investments in 2026. Under current practice, a loss occurring during FYE 2026 won't affect the contributions until FYE 2028, so there is no possibility that an additional contribution could be made to bring the funded status to 100% on July 1, 2026. Under this scenario PFRS would be just 88% funded as of June 1, 2026. In addition, a significant contribution – almost \$66 million – would be needed to bring the expected funded status back to approach full funding.

**Scenario C: Scenario B with Funded Ratios and Contributions Calculated using MVA from the 2026 Valuation Year Onward**



Scenario C mirrors Scenario B (0% in FYE 2023 and -10% 2026) but calculates the funded ratios and contributions based on the Market Value of Assets from the 2026 valuation year onward, rather than using the smoothed Actuarial Valuation of Assets. In this scenario the asset losses occurring during FYE 2026 are recognized immediately in the July 1, 2026 actuarial valuation instead of being smoothed over a 5-year period leading to a \$32.9 million increase in FYE 2028 when compared to Scenario B. A massive spike in the contribution – nearing \$100 million – would be necessary to bring the funded status back to 100% by July 1, 2028.

### ***De-risking the Plan's Assets***

De-risking the plan's assets is one option for reducing the likelihood of future shortfalls and to help ensure that the plan remains fully funded. This process involves adjusting the plan's investment portfolio to reduce its exposure to market volatility and other risks. The investment return assumptions used in the actuarial valuations since 2014 have included an assumption that the Plan will begin gradually de-risking after 2026, with the assumed rate of return currently expected to drop from the current rate of 6.00% to an ultimate rate of 3.25% over a 10-year period beginning after the July 1, 2026 actuarial valuation.

Strategies for de-risking may include shifting the asset allocation towards more conservative investments, such as bonds or cash, implementing liability-driven investment strategies (which focus on matching the plan's assets with its liabilities) or transferring the liabilities to an insurance company. However, the latter option may be difficult to implement, due to the post-retirement Cost-of-Living Adjustments promised to the members, which are tied to changes in the salaries paid to the City of Oakland Police and Fire current active employees.

If the Board decides to pursue a de-risking approach, it is crucial for the trustees to work closely with their investment consultant and managers to develop an appropriate strategic asset allocation that balances risk reduction with the need to achieve sufficient returns and other investment considerations (such as liquidity needs).

### ***Experience Study and Assumption Review***

As your actuarial consultant, Cheiron is currently performing an experience study to review all assumptions used in estimating the plan's liabilities, including a review of the investment return, cost-of-living adjustment, and mortality assumptions. This process is critical for ensuring that the Plan's funding status is accurately assessed. The experience study may result in adjustments to assumptions, which could impact the Plan's funding status and the actions needed to meet the funding requirement by the deadline.

It is important to note that while changes in the assumptions could lead to changes in the funding targets and contributions; changes in the financing plan – including any expected modifications to the target asset allocation – could conversely result in the actuary making changes to the assumptions. As such, it would be best to integrate the discussions of the funding and investment policy with the experience study to the extent possible.

By closely aligning the experience study with the funding and investment policy discussions, the trustees can ensure that any changes in assumptions or financial strategies are mutually supportive and consistent with the plan's long-term objectives. This integrated approach will help maintain the plan's financial stability and better position it to meet the full funding requirement before and after the specified deadline.

### ***Conclusion***

Winding down the City of Oakland Police and Fire Retirement Plan in accordance with Article XXVI of the Oakland City Code presents several challenges, including determining the funding status by the deadline, reviewing the potential and appropriateness of de-risking the plan's assets, updating actuarial assumptions, and maintaining full funding status after 2026. To navigate these challenges, it is essential for the trustees to:

- Establish a clear funding policy that addresses potential fluctuations in the plan's funding status, including setting target funding levels, determining the appropriate amortization period, and outlining contingency plans for significant fluctuations,
- Consider both actuarial and market value measurements when determining the funding status,
- Consider whether to develop and implement an appropriate de-risking strategy that balances risk reduction with the need to achieve sufficient returns,
- Align the experience study with the funding and investment policy discussions to ensure that any changes in assumptions or financial strategies are mutually supportive and consistent with the plan's long-term objectives, and

By proactively addressing these challenges and regularly monitoring the plan's financial status, the trustees can ensure the plan remains financially stable and capable of meeting its obligations to members both in the short term and well beyond the July 1, 2026 deadline.

### ***Disclosures***

The purpose of this letter is to present issues related to the wind-down of the plan. This letter is for the use of the Retirement Board. Other users of this letter are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to such other users. The assumptions used in this letter were the same as those used in PFRS' July 1, 2022 Actuarial Valuation Report unless otherwise noted.

The funding ratios in this letter are for the purpose of establishing contribution rates. These measures are not appropriate for assessing the sufficiency of plan assets to cover the estimated cost of settling the plan's benefit obligations.

Cheiron utilizes ProVal actuarial valuation software leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in

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

Deterministic projections in this valuation report were developed using P-scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the Plan. P-scan uses standard roll-forward techniques. Because P-scan does not automatically capture how changes in one variable affect all other variables, some scenarios may not be consistent. We relied on Cheiron colleagues for the development of the model.

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

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

Respectfully Submitted,  
Cheiron



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**Table 1**

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**

**Administrative Budget Spent to Date (Preliminary)**

As of March 31, 2023

	Approved Budget				
		March 2023	FYTD	Remaining	Percent Remaining
<b>Internal Administrative Costs</b>					
PFRS Staff Salaries	\$ 1,330,000	\$ 111,216	\$ 874,808	\$ 455,192	34.2%
Board Travel Expenditures	52,500	-	-	52,500	100.0%
Staff Training	20,000	-	-	20,000	100.0%
Staff Training - Tuition Reimbursement	7,500	-	-	7,500	100.0%
Board Hospitality	3,600	240	240	3,360	93.3%
Payroll Processing Fees	40,000	-	-	40,000	100.0%
Miscellaneous Expenditures	45,000	2,015	28,762	16,238	36.1%
Internal Service Fees (ISF)	88,000	-	47,884	40,116	45.6%
Contract Services Contingency	50,000	-	1,500	48,500	97.0%
<b>Internal Administrative Costs Subtotal :</b>	<b>\$ 1,636,600</b>	<b>\$ 113,471</b>	<b>\$ 953,195</b>	<b>\$ 683,405</b>	<b>41.8%</b>
<b>Actuary and Accounting Services</b>					
Audit	\$ 50,500	\$ -	\$ 33,883	\$ 16,617	32.9%
Actuary	47,900	1,241	24,409	23,491	49.0%
<b>Actuary and Accounting Subtotal:</b>	<b>\$ 98,400</b>	<b>\$ 1,241</b>	<b>\$ 58,292</b>	<b>\$ 40,108</b>	<b>40.8%</b>
<b>Legal Services</b>					
City Attorney Salaries	\$ 194,000	\$ -	\$ 28	\$ 193,972	100.0%
Legal Contingency	150,000	-	-	150,000	100.0%
<b>Legal Services Subtotal:</b>	<b>\$ 344,000</b>	<b>\$ -</b>	<b>\$ 28</b>	<b>\$ 343,972</b>	<b>100.0%</b>
<b>Investment Services</b>					
Money Manager Fees	\$ 1,353,000	\$ 52,167	\$ 560,811	\$ 792,189	58.6%
Custodial Fee	124,000	60,250	60,250	63,750	51.4%
Investment Consultant	100,000	25,000	75,000	25,000	25.0%
<b>Investment Subtotal:</b>	<b>\$ 1,577,000</b>	<b>\$ 137,417</b>	<b>\$ 696,061</b>	<b>\$ 880,939</b>	<b>55.9%</b>
<b>Total Operating Budget</b>	<b>\$ 3,656,000</b>	<b>\$ 252,129</b>	<b>\$ 1,707,575</b>	<b>\$ 1,948,425</b>	<b>53.29%</b>

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary

As of March 31, 2023

	March 2023
<b>Beginning Cash as of 3/1/2023</b>	\$ 8,516,695
<b>Additions:</b>	
City Pension Contribution - March	\$ 2,726,000
Investment Draw	\$ 2,000,000
Misc. Receipts	-
<b>Total Additions:</b>	\$ 4,726,000
<b>Deductions:</b>	
Pension Payment (February Pension Paid on 3/1/2023)	(4,218,535)
Expenditures Paid	(307,649)
<b>Total Deductions</b>	\$ (4,526,184)
 <b>Ending Cash Balance as of 3/31/2023*</b>	 \$ 8,716,511

\* On 4/3/2023, March pension payment of appx \$4,199,000 will be made leaving a cash balance of \$4,518,000.

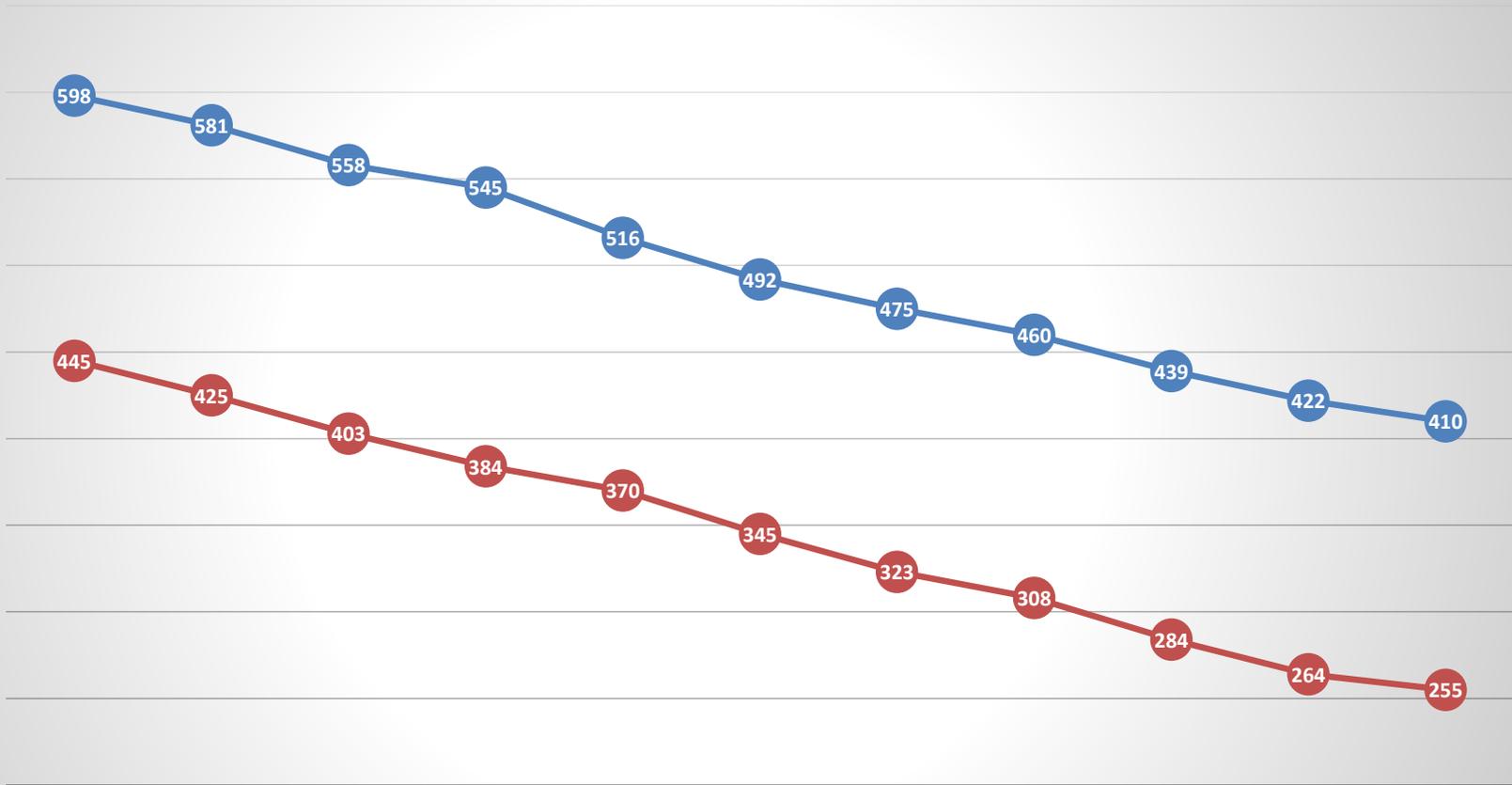
**Table 3**  
**CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**

Census  
As of March 31, 2023

COMPOSITION	POLICE	FIRE	TOTAL
<b>Retired Member:</b>			
Retiree	286	165	451
Beneficiary	124	90	214
<b><i>Total Retired Members</i></b>	<b>410</b>	<b>255</b>	<b>665</b>
<b><i>Total Membership:</i></b>	<b>410</b>	<b>255</b>	<b>665</b>

COMPOSITION	POLICE	FIRE	TOTAL
<b>Retired Member:</b>			
Service Retirement	275	127	402
Disability Retirement	125	117	242
Death Allowance	10	11	21
<b><i>Total Retired Members:</i></b>	<b>410</b>	<b>255</b>	<b>665</b>
<b><i>Total Membership as of March 31, 2023:</i></b>	<b>410</b>	<b>255</b>	<b>665</b>
<b><i>Total Membership as of June 30, 2022:</i></b>	<b>422</b>	<b>264</b>	<b>686</b>
<b><i>Annual Difference:</i></b>	<b>-12</b>	<b>-9</b>	<b>-21</b>

## Oakland Police and Fire Retirement System Pension Plan Membership Count As of March 31, 2023 (FY 2013 - FY 2023)



	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023 FYTD
Police	598	581	558	545	516	492	475	460	439	422	410
Fire	445	425	403	384	370	345	323	308	284	264	255
Total	1043	1006	961	929	886	837	798	768	723	686	665



# AGENDA REPORT

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**TO:** Oakland Police and Fire  
Retirement System Board  
(PFRS)

**FROM:** David F. Jones  
Secretary and Plan  
Administrator

**SUBJECT:** Election of 5-Year Police  
Department Representative  
Board Position

**DATE:** May 31, 2023

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## **SUMMARY**

The 5-year police representative board seat currently held by Robert W. Nichelini is set to expire on August 31, 2023. Pursuant to the PFRS election guidelines outlined in **Article 11** of the PFRS Rules and Regulations, an election for this board seat will be conducted by the Staff of the PFRS board with the assistance of the City Clerk's office.

## **BACKGROUND**

Robert W. Nichelini, a retired PFRS Police Member, was elected to the 5-year elected term as the PFRS 5-year member. Member Nichelini's board seat is set to expire on August 31, 2023, and a 5-year police member will need to be elected to this seat from the retired police membership.

Following the PFRS rules & regulations section 11.2, the PFRS staff will inform the Retired Oakland Police Officers Association (ROPOA) of the upcoming board vacancy and deliver to them the election schedules and nomination forms.

Should no more than one ( 1 ) nomination form be received by the nomination form submission deadline of 5 pm, July 19, 2023, then the single nominee will be automatically elected to the nominated position; an election would otherwise follow on August 23, 2023. The elected board member will begin the new term at the September 2023 Board Meeting.

**Attachment (1):** *Rules & Regulations - Excerpt of Election*  
**Attachment (2):** *Nomination Form - 5-Year Position (Police)*

Agenda Item     C2      
PFRS Board Meeting  
May 31, 2023

The following timeline shows the due dates for nominees and PFRS staff during this election cycle:

- Last day for furnishing the ROPOA a notice stating that nominating papers may be obtained from the Retirement Systems office..... June 1, 2023
- Last day for filing nominees to submit nominating papers to the City Clerk's Office..... July 19, 2023
- Last day for City Clerk to certify to Office of the PFRS Board the names of members nominated..... July 19, 2023
- Last day for mailing of ballots to members..... August 14, 2023
- Last day for delivering to City Clerk the Roster of Police Department..... August 14, 2023
- Ballots due to City Clerk no later than 10 am..... August 23, 2023
- Day for counting of ballots by City Clerk..... August 23, 2023

Respectfully submitted,



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David F. Jones  
Secretary and Plan Administrator  
Oakland Police and Fire Retirement System

**Attachment (1):** Rules & Regulations - Excerpt of Election  
**Attachment (2):** Nomination Form - 5-Year Position (Police)

# **ATTACHMENT 1**

*Rules & Regulations  
Excerpt of Election  
Article 11*

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

## RULES AND REGULATIONS

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### **Article 11: ELECTION OF MEMBERS OF THE BOARD REPRESENTING RETIRED MEMBERS OF THE RETIREMENT SYSTEM**

#### Section 11.1: Day for Counting of Ballots

The fourth Wednesday in August of the year in which such election is required to be held is hereby the day for counting of ballots.

In the event of a vacancy of one or more of the elected PFRS Retirement Board seats before the completion of the full term, the day for counting ballots for the election to fill the vacant PFRS Retirement Board seat shall be the fourth Wednesday of the month that follows 90 days after the date of being informed of the vacancy.

#### Section 11.2: Notice of Nomination

On or before the first business day in June of each year in which an election is required, the office of the Police and Fire Retirement Board shall send a notice stating that nomination papers may be obtained at the office of said Police and Fire Retirement Board, the place where nomination papers shall be filed and the final date of filing thereof, the date when ballots will be counted and such other information as may be appropriate to the following organizations:

- Retired Oakland Police Officers' Association (ROPOA)
- International Association of Fire Fighters, Local 55 (IAFF Local 55)

In the event of a vacancy of one of the elected PFRS Retirement Board seats before the completion of the full term, the office of the Police and Fire Retirement Board shall send notice as stated above no later than ten (10) calendar days after the date of being informed of the vacancy.

#### Section 11.3: Nomination for Membership

Nomination for membership on the Police and Fire Retirement Board from the retired membership of the Police and Fire Department shall be in writing on forms supplied by the office of said Police and Fire Retirement Board upon request. Nomination papers shall be substantially in the form shown in Appendix A. Nomination papers shall be signed by at least ten retired members of the Police or Fire Department, as the case may be, who are members of the POLICE AND FIRE RETIREMENT SYSTEM, other than the person nominated. Each signatory of a nominating paper shall write the date of his/her signature at the end of the line opposite his/her signature. Beneficiaries of deceased members are not eligible to vote in elections.

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

## RULES AND REGULATIONS

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### Section 11.4: Date of Filing Nomination Papers

Nominating papers shall be filed in the Office of the Oakland City Clerk, Room 306 of the Oakland City Hall, not less than thirty-five days before the day of counting ballots. If said date falls on a non-business day for the City of Oakland, it shall be filed on the next business day.

### Section 11.5: Determination of Sufficiency of Nominating Papers

The City Clerk of the City of Oakland will determine when a member is nominated and for this purpose shall have access to the records of the Police and Fire Retirement Board the names of those retired members of the respective departments determined by him to have been nominated.

### Section 11.6: Winner by Default

In the event that only one person is nominated in accordance with this Article 11 as a member of the Board, that person shall be declared a winner.

### Section 11.7: Mailing of Ballots

Not less than fifteen days before the day for the counting of the ballots that shall be prepared by and mailed for the office of the Police and Fire Retirement Board to each retired member of the Police Department of Fire Department who is a member of the Police and Fire Retirement System a ballot addressed to his or her address as shown by the records of the Police and Fire Retirement Board. The Ballots shall contain the names in alphabetical order of the candidates certified by the City Clerk as nominated. Such ballot, sealed in a blank envelope provided for this purpose, which shall be enclosed in another envelope, also provided for such purpose, upon which the voter shall place his or her name, may be returned to the City Clerk not later than 10:00 a.m. of the day for the counting of ballots.

### Section 11.8: Roster of Eligible Voters

There shall be prepared in the office of the Police and Fire Retirement Board a roster of eligible voters which shall contain the names of the retired members of the Police or Fire Department who are members of the Police and Fire Retirement System, excluding beneficiaries of deceased members. Such roster of eligible voters shall be delivered to the City Clerk not less than fifteen days before the day for the counting of ballots and shall be in such form as to permit appropriate asking thereon by the City Clerk to indicate that an eligible member has voted.

### Section 11.9: Counting of Ballots

On the day for the counting of ballots at the hour of 10:00 A.M. thereof, the ballot box shall be opened and no ballot received after said hour shall be counted. The ballots will be counted under the

# OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

## RULES AND REGULATIONS

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supervision and control of the City Clerk in such manner that the identity of the individual casting any ballot will not be disclosed. No ballot shall be counted unless it is enclosed in an envelope bearing the name of the voter. No ballot shall be counted which contains a vote for a person not nominated in accordance with Article 12. Upon the conclusion of the counting of the ballots, the City Clerk will certify the count and the candidate elected and notify each candidate thereof by mail.

### Section 11.10: Vote Necessary for Election

The candidate receiving the highest number of eligible votes shall be declared elected.

### Section 11.11: Disposition of Ballots after Counting

Upon conclusion of the counting of the ballots they shall be kept by the City Clerk in the manner and for the period the ballots of municipal elections are kept.

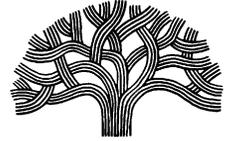
### Section 11.12: Procedure to Fill Vacancy of Elected Members

In the event a vacancy occurs before the end of a full term in any of the three (3) elected offices of the Board which are filled by retired members of the Retirement System, a successor shall be elected for the unexpired portion of the term vacated. The successor shall be elected from the same department of the member who is vacating the seat for the remainder of said unexpired three (3) year, or five (5) year, term. The election shall be governed by Article 11.

# **ATTACHMENT 2**

*Nomination Form  
Police Department Representative  
5-Year Position*

# CITY OF OAKLAND



150 FRANK H. OGAWA PLAZA, SUITE 3349 • OAKLAND, CALIFORNIA 94612-2021

Finance Department  
Treasury Bureau  
Retirement Unit

PHONE (510) 238-7295  
FAX (510) 238-7129  
CA RELAY 711

## OAKLAND POLICE AND FIRE RETIREMENT BOARD NOMINATION FORM

I/We, the undersigned, am/are a retired member(s) of the Oakland Police Department, and a member(s) of the Oakland Police and Fire Retirement Systems. I/we hereby nominate \_\_\_\_\_, a  
**PRINT NOMINEE NAME HERE**  
retired member of the Oakland Police and Fire Retirement Systems, as a candidate for membership on the Police and Fire Retirement Board from the retired membership of the Oakland Police Department for the term expiring August 31, 2023.

<u>Name</u> (please print clearly)	<u>Signature</u>	<u>Date</u>
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____
9. _____	_____	_____
10. _____	_____	_____

I accept the nomination and consent to serve, if elected.

\_\_\_\_\_  
**Signature of Nominee**

\_\_\_\_\_  
**Date**

**NOTE:** This nomination paper must be signed by 10 retired members of the Oakland Fire Department who are **also members** of the Police and Fire Retirement System. The person nominated must also be a retired member of the Oakland Fire Department and a member of the Oakland Police and Fire Retirement System. Before filing, the person nominated must sign the above statement accepting the nomination and consenting to serve if elected. Nomination papers must be filed in the Office of the City Clerk, One Frank Ogawa Plaza, 2<sup>nd</sup> floor, Oakland, CA, no later than 5:00 p.m., Wednesday, July 19, 2023



# AGENDA REPORT

**TO:** Oakland Police and Fire Retirement System Board (PFRS)      **FROM:** David F. Jones  
PFRS Plan Administrator & Secretary

**SUBJECT:** Authorization and Reimbursement of Trustee R. Steven Wilkinson's Travel/Education Expenses      **DATE:** May 31, 2023

**R. Steven Wilkinson**, Trustee of the **Oakland Police and Fire Retirement System** Board, requests authorization for reimbursement of travel and/or board education related funds for the event detailed below. Staff has verified that budgeted funds are available for this Board Member to be reimbursed.

Staff recommends the reimbursement of travel/education funds for the event below be approved by board motion.

Travel/Education Event: Milken Institute Global Conference 2023

Event Location: The Beverly Hilton, Beverly Hills, CA

Event Date: April 30, 2023 - May 3, 2023

Estimated Event Expense: \$3,000.00

Notes: Prior Approval received from President Walter L. Johnson Sr.

\* If enrollment, registration or admission expenses are required, the fund will process a check in advance and pay vendor directly; all other board-approved reimbursements will be made upon delivery of receipts to staff by the travelling party. Cancellation of event attendance requires return of all reimbursed funds paid to attendee to the fund.

Respectfully submitted,

David F. Jones  
Plan Administrator & Secretary  
Oakland Police & Fire Retirement Systems

For questions please contact Maxine Visaya, Administrative Assistant II, at 510.238.7295

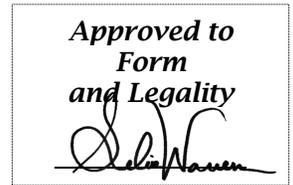
Attachments:  
(1) Resolution 8078  
(2) Conference Agenda

Agenda Item C3  
PFRS Board Meeting  
May 31, 2023

**ATTACHMENT 1**

***RESOLUTION NO.  
8078***

OAKLAND POLICE AND FIRE RETIREMENT BOARD  
CITY OF OAKLAND, CALIFORNIA  
RESOLUTION No. 8078



ON MOTION OF MEMBER \_\_\_\_\_ SECONDED BY MEMBER \_\_\_\_\_

**RESOLUTION RATIFYING THE BOARD PRESIDENT’S APPROVAL OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM TRUSTEE R. STEVEN WILKINSON’S REQUEST TO ATTEND THE MILKEN INSTITUTE GLOBAL CONFERENCE FROM APRIL 30, 2023 THROUGH MAY 3, 2023 IN BEVERLY HILLS, CA AND AUTHORIZING REIMBURSEMENT OF TRAVEL-RELATED EXPENSES IN AN AMOUNT NOT TO EXCEED THREE THOUSAND DOLLARS (\$3,000.00)**

**WHEREAS**, the Oakland Police and Fire Retirement System (PFRS) Education and Travel Policy (“Travel Policy”) requires that PFRS Board members and staff obtain prior Board approval of all education and travel-related expenses that will be reimburse by PFRS; and;

**WHEREAS**, pursuant to Section IV(2)(c) of the Travel Policy, the PFRS Board President, in consultation with the Plan Administrator, may authorize education and travel expenses without prior approval of the Board when prior approval cannot be obtained; and

**WHEREAS**, PFRS Trustee Wilkinson attended the Milken Institute Global Conference (“the Conference”) in Beverly Hills, CA from April 30, 2023 through May 3, 2023; and

**WHEREAS**, pursuant to Section IV(21)(a) of the Travel Policy Plan PFRS Trustee Wilkinson will submit documentation showing costs in an amount not to exceed Three Thousand Dollars (\$3,000.00) incurred as reimbursable expenses to attend the Conference within 15 days of the date of his return from the conference; and

**WHEREAS**, PFRS Trustee Wilkinson was unable to obtain Board approval prior to attending the Conference because he was unable to submit his request prior to the agenda posting deadline in time to bring his request to the full board before the Conference; and

**WHEREAS**, in compliance with Section IV(2)(c) of the Travel Policy, PFRS Trustee Wilkinson obtained written authorization from PFRS Board President Walter L. Johnson, Sr. to attend the Conference; now, therefore be it



# **ATTACHMENT 2**

## ***Conference Agenda***

***Milken Institute  
Global Conference  
2023***

APRIL 30-MAY 3, 2023

# Milken Institute Global Conference

Advancing a Thriving World

## SATURDAY APRIL 29, 2023

### Breakfast: Finance as a Force for Social and Economic Mobility (Invite only)

8:15 AM - 10:15 AM PDT  
Private Residence

---

### 2023 Milken Institute Global Conference Private Welcome Brunch (Invite only)

10:30 AM - 12:15 PM PDT  
Private Residence

› Brunch: Art and Giving: Philanthropy for the Next Generation (Invite only)

10:30 AM - 12:15 PM PDT  
Private Residence

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› Brunch: The Future of Venture Capital (Invite only)

10:30 AM - 12:15 PM PDT  
Private Residence

---

### 2023 Milken Institute Global Conference Private Welcome Lunch (Invite Only)

12:30 PM - 2:30 PM PDT  
Private Residence

› Lunch: How Medical Technology Will Improve and Extend Your Life (Invite only)

12:30 PM - 2:30 PM PDT  
Private Residence

---

› Lunch: The Geopolitics of Energy (Invite only)

12:30 PM - 2:30 PM PDT  
Private Residence

---

### Private Welcome Session: Financial Innovation and the Future of Digital Assets (Invite only)

2:30 PM - 4:30 PM PDT  
Private Residence

---

## SUNDAY APRIL 30, 2023

### Global Conference Check-In

8:00 AM - 8:00 PM PDT  
Beverly Hilton - Lobby

---

### Forum for Family Asset Management: Networking and Discussion (Invite only)

8:30 AM - 11:00 AM PDT

## Milken Institute Health Welcome Breakfast (Invite only)

10:00 AM - 12:00 PM PDT  
Waldorf Astoria – Sway Patio

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## What Matters Now (Invite only)

12:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Leaders in Health (Invite only)

12:30 PM - 2:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Media Reception (Invite only)

3:00 PM - 4:00 PM PDT  
Beverly Hilton - Poolside East

---

## Leaders in Finance (Invite only)

3:00 PM - 4:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Private Welcome Reception Presented by Citadel Securities (Invite only)

4:30 PM - 6:00 PM PDT  
Beverly Canon Gardens

---

## Welcome Reception

5:00 PM - 7:00 PM PDT  
Beverly Hilton - Poolside West

---

## Young Leaders Circle Welcome Reception hosted by Pendry Residences West Hollywood (Invite only)

5:00 PM - 7:00 PM PDT  
Pendry Residences West Hollywood

---

## MONDAY MAY 01, 2023

## Aligned and At Ease Yoga

6:00 AM - 6:45 AM PDT  
Beverly Hilton - Wellness Garden

---

## Global Conference Check-In

6:00 AM - 8:30 PM PDT  
Beverly Hilton - Lobby

---

## Workout with Dogpound

6:30 AM - 7:15 AM PDT  
Dogpound - 627 N. Robertson Blvd., West Hollywood

---

## Associates Breakfast (Invite Only)

7:00 AM - 8:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

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## Continental Breakfast

7:00 AM - 9:00 AM PDT  
Wilshire Garden and Executive Center Foyer

---

## The State of the Global Financial System

8:00 AM - 9:30 AM PDT  
Beverly Hilton - International Ballroom

### › Part 1: A Conversation with IMF Managing Director Kristalina Georgieva

8:00 AM - 8:30 AM PDT  
Beverly Hilton - International Ballroom

---

### › Part 2: Global Capital Markets

8:30 AM - 9:30 AM PDT  
Beverly Hilton - International Ballroom

---

## Advancing A Thriving Future in Health

8:00 AM - 9:30 AM PDT  
Beverly Hilton - Oasis Pavilion

### › Part 1: FasterCures: Accelerating the Future of Health

8:00 AM - 8:20 AM PDT  
Beverly Hilton - Oasis Pavilion

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### › Part 2: Global Trends in Health Care: The Challenges of the 22nd Century, Today

8:20 AM - 9:30 AM PDT  
Beverly Hilton - Oasis Pavilion

---

## Simulcast | The State of the Global Financial System

8:00 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Garden

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## Strategic Philanthropy Around the World

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Building Trust in an Age of Distrust (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Santolina

---

## The Risk and Reward of the Employer's Role in Health (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Brighton

---

## Getting Real About Climate Deployment: The Road to 2035 (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Maple

---

## Philanthropy Leadership Collective | Strategies for Corporate Philanthropies (Invite only)

9:30 AM - 11:00 AM PDT  
Beverly Hilton - Boardroom

---

## Wellness Garden Healing Sessions

9:30 AM - 4:30 PM PDT  
Beverly Hilton - Wellness Garden

---

### Ukraine: Global Perspectives on Russia's Invasion of Ukraine

10:00 AM - 11:00 AM PDT  
Beverly Hilton - International Ballroom

› **Part 1: A Conversation with NATO Admiral Rob Bauer** 

10:00 AM - 10:20 AM PDT  
Beverly Hilton - International Ballroom

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› **Part 2: The Ukraine War and Reconstruction Efforts** 

10:20 AM - 11:00 AM PDT  
Beverly Hilton - International Ballroom

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### The Future of Asset Classes

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

---

### A New Game Plan: A Reset for Venture Capital, Innovation, and Entrepreneurship in 2023

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Oasis Pavilion

---

### Funding Real Estate: Win, Lose, or Draw?

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Sunset Pavilion

---

### Emerging Market America

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

› **Part 1: A Conversation with US House Democratic Caucus Chairman Pete Aguilar** 

10:00 AM - 10:20 AM PDT  
Beverly Hilton - Wilshire Ballroom

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› **Part 2: How 10,000 Communities Can Build Resilient and Equitable Economies** 

10:20 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

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### Seeding Science for Impactful Discoveries: Philanthropy's Role in Driving Research Forward

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Whittier

---

### The Future of Work: Charting a New Course

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Garden

---

### Investing in a Resilient Food System to Build a Better Tomorrow

10:00 AM - 11:00 AM PDT  
Beverly Hilton - California Terrace

---

## Innovation Versus Access to Medicines: Can We Have Both?

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Dayton

---

## The Art of Aging: Humor and Other Ways to Age Well

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Palm

---

## Global Investors' View: ASEAN (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Brighton

---

## The Business Case for Private Sector Data Sharing to Improve Global Health (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Maple

---

## Meet the Author: Deepak Chopra "Living in the Light: Yoga for Self-Realization"

11:00 AM - 11:30 AM PDT  
Beverly Hilton - Sunset Room

---

## Fueling the Future: A Conversation with US Senate Energy & Natural Resources Committee Chairman Joe Manchin and ExxonMobil CEO Darren Woods

11:30 AM - 12:00 PM PDT  
Beverly Hilton - International Ballroom

---

## Stretch It Out!

11:30 AM - 12:00 PM PDT  
Beverly Hilton - Wellness Garden

---

## Evaluating Credit Market Dislocations

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

---

## Inside the Growing World of Private Markets

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Oasis Pavilion

---

## Transformational Technology

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Sunset Pavilion

### > Part 1: A Conversation with White House OSTP Director Dr. Arati Prabhakar

11:30 AM - 11:50 AM PDT  
Beverly Hilton - Sunset Pavilion

---

### > Part 2: Head in the Clouds: Embracing the Potential and Promise of Artificial Intelligence

11:50 AM - 12:30 PM PDT  
Beverly Hilton - Sunset Pavilion

---

## The Drive Toward More Non-Invasive Treatments for Patients

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

---

## Reimagining Health through Prevention

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Whittier

---

## Game Changers: The New Business of Sports

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Garden

---

## Corporate Philanthropy: Connecting Profits and Purpose

11:30 AM - 12:30 PM PDT  
Beverly Hilton - California Terrace

---

## What's Next for Impact Investing in Africa?

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Dayton

---

## China and the Global Economy: Insights on the Ground

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Palm

---

## The Future of Impact Strategies in Asset Management (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Santolina

---

## Russia, Ukraine and its Neighborhood: Preparing to Win the Peace (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Brighton

---

## Asset Management—Navigating the Storm (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Maple

---

## Sleep Strategies for Peak Performance

12:00 PM - 12:30 PM PDT  
Beverly Hilton - Wellness Garden

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## Boxed Lunch Pick-Up

12:00 PM - 1:30 PM PDT  
Beverly Hills Ballroom Foyer and Executive Center

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## Making Meaningful Connections

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Wellness Garden

---

## Global Overview: Shifting Tensions, Divergence, and Convergence (Invite only)

12:30 PM - 2:00 PM PDT  
Beverly Hilton - International Ballroom

---

## CEO Roundtable: Building a Resilient Business (Invite only)

12:45 PM - 2:15 PM PDT  
Beverly Hilton - Santolina

---

## Simulcast | Global Overview: Shifting Tensions, Divergence, and Convergence

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

---

## Home Free: A Conversation with John Legend on the Path to Reentry after Incarceration



1:00 PM - 2:00 PM PDT  
Beverly Hilton - Oasis Pavilion

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## US Energy Markets in Transition: Who Will Invest the Smartest?

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Sunset Pavilion

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

### > Governing America: A Conversation with Virginia Governor Glenn Youngkin

1:00 PM - 1:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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### > Creating Opportunities in Emerging Markets: A Conversation with IFC Managing Director Makhtar Diop

1:30 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Trust Your Gut: Is the Microbiome the New Disruptor in Healthcare and Disease Treatment?

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Whittier

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

### > Lifestyle Medicine for the Brain: A Conversation with Deepak Chopra and Seth Rogen

1:00 PM - 1:30 PM PDT  
Beverly Hilton - Wilshire Garden

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### > What Makes a Meaningful Mentor? A Conversation with Jerry Reinsdorf and Alex Rodriguez

1:30 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

---

## Global Leaders' View: Japan (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Brighton

---

## Leveraging Private Market Investments (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Maple

---

## Philanthropy Leadership Collective | Roundtable Discussion with Private Medical Research Funders (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Boardroom

---

## Global Conference Puppy Playtime Presented by PGIM

1:30 PM - 3:00 PM PDT  
Beverly Hilton - Wellness Garden

---

## Meet the Author: Marie Yovanovitch "Lessons From the Edge: A Memoir"

2:00 PM - 2:30 PM PDT  
Beverly Hilton - Sunset Room

---

## Deal or No Deal in Private Equity

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

---

## Making Net-Zero Possible

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Oasis Pavilion

---

## Moving Digital Assets Forward

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Sunset Pavilion

### > Part 1: A Conversation with CFTC Chairman Rostin Behnam

2:30 PM - 2:50 PM PDT  
Beverly Hilton - Sunset Pavilion

---

### > Part 2: Digital Assets: From Creative Disruption to Market Adoption

2:50 PM - 3:30 PM PDT  
Beverly Hilton - Sunset Pavilion

---

## The Future of Democracy

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

---

## Modernizing Global Supply Chains

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Whittier

---

## A View from the Top: Leaders on Energy and the Environment

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Garden

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### Inclusive Capitalism

2:30 PM - 3:30 PM PDT  
Beverly Hilton - California Terrace

› **Part 1: A Conversation with US House Financial Services Committee Ranking Member Maxine Waters **

2:30 PM - 2:50 PM PDT  
Beverly Hilton - California Terrace

---

› **Part 2: The Path to Inclusive Capitalism **

2:50 PM - 3:30 PM PDT  
Beverly Hilton - California Terrace

---

## A Functional Approach to Healing

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Dayton

---

## A Roadmap for Biosecurity

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Palm

---

## The Future of Healthcare: A Roundtable Discussion on Systems, Workforce, and Supply Chains (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Boardroom

---

## Advancing a Thriving World through Digital Transformation

2:30 PM - 3:30 PM PDT  
Beverly Hilton - International Ballroom

---

## Future of Active Fund Management (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Santolina

---

## New Frontiers: What Artificial Intelligence Means for the Future (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Brighton

---

## Liquidity and the Denominator Effect in a Time of Financial Turbulence (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Maple

---

## Meet the Author: Dan Harris “10% Happier”

3:30 PM - 4:00 PM PDT  
Beverly Hilton - Sunset Room

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## Be Crystal Clear Sound Bath and Guided Meditation

## Common Sense from Uncommon Investors

4:00 PM - 5:00 PM PDT  
Beverly Hilton - International Ballroom

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4:00 PM - 5:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

### > Capital, Crypto, and Climate: A Conversation with US House Financial Services Committee Chairman Patrick McHenry

4:00 PM - 4:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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### > A Conversation with Citadel Securities CEO Peng Zhao

4:30 PM - 5:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Town Hall: Healing a Divided America

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Sunset Pavilion

---

## Asset Management in Incalculable Times

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## A Roadmap to Rejuvenation: Rewiring the World Economy

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Whittier

### > Part 1: A Conversation with His Excellency, Faisal Alibrahim, Minister of Economy and Planning for the Kingdom of Saudi Arabia

4:00 PM - 4:15 PM PDT  
Beverly Hilton - Whittier

---

### > Part 2: Globalization 2.0: New Paradigms in Innovation and Integration

4:15 PM - 5:00 PM PDT  
Beverly Hilton - Whittier

---

## A View from the Top: Leaders on the Roles and Goals of Corporate Boards in 2023

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Garden

---

## Brand Evolution: Building Community, Identity, and Legacy

4:00 PM - 5:00 PM PDT  
Beverly Hilton - California Terrace

---

## The New Vanguard: Scaling Climate and Resilient Solutions

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Dayton

---

## Building the Health Data System of the Future

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Palm

---

## Global Leaders' View: Hong Kong (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Boardroom

---

## The Path to Board Diversity: Moving the Needle from Progress to Maintenance (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Brighton

---

## Aligning Capital with Net-Zero Promises (Invite Only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Maple

---

## Scaling Innovation: Milken-Motsepe Prize in AgriTech Award Announcement and Reception

5:00 PM - 6:30 PM PDT  
Beverly Hilton - Oasis Pavilion

---

## Reception for Speakers and Sponsors (Invite only)

5:30 PM - 6:30 PM PDT  
Beverly Hilton - Wilshire Garden

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## Late Night with Chris Tucker and Friends!

9:00 PM - 10:15 PM PDT  
Beverly Hilton - Wilshire Ballroom

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### TUESDAY MAY 02, 2023

## Go Long, Go High Pilates

6:00 AM - 6:45 AM PDT  
Beverly Hilton - Wellness Garden

---

## Global Conference Check-In

6:00 AM - 7:30 PM PDT  
Beverly Hilton - Lobby

---

## Workout with Dogpound

6:30 AM - 7:15 AM PDT  
Dogpound - 627 N. Robertson Blvd., West Hollywood

---

## The Power of Philanthropy: Creating Lasting Change by Investing in Next Generation Leaders (Invite only)

7:00 AM - 8:00 AM PDT  
Beverly Hilton - Brighton

---

## Continental Breakfast

7:00 AM - 9:00 AM PDT  
Wilshire Garden and Executive Center Foyer

---

## Global Capital Markets Advisory Council Roundtable (Invite only)

7:00 AM - 9:00 AM PDT  
Beverly Hilton - Santolina

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## The Road to COP28: Investing in Food Systems to Address Climate Change (Invite only)

8:15 AM - 9:45 AM PDT  
Beverly Hilton - Brighton

---

## Credit Outlook

8:30 AM - 9:30 AM PDT  
Beverly Hilton - International Ballroom

---

## Russia: Present Tense, Future Uncertain

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Disrupt or Be Disrupted: Venturing into Tech

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Oasis Pavilion

---

## Better, Faster, Stronger: The Future of Travel and Leisure

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Sunset Pavilion

---

## The Future of Global Trade

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Ballroom

---

## Can Biotechs Bounce Back?

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Whittier

---

## Cultural Institutions as Agents of Change

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Garden

---

## Progress and Innovation: The Dawning of a New Day in Treating Mental Health

8:30 AM - 9:30 AM PDT  
Beverly Hilton - California Terrace

---

## Democratizing Capital for Energy and Sustainable Growth Transitions

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Dayton

---

## Global Investors' View: China (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Maple

---

## Meet the Author: Andrew Weiss “Accidental Czar: The Life and Lies of Vladimir Putin”

9:30 AM - 10:00 AM PDT  
Beverly Hilton - Sunset Room

---

## Wellness Garden Healing Sessions

9:30 AM - 4:30 PM PDT  
Beverly Hilton - Wellness Garden

---

## US Overview: Advancing through Uncertainty

10:00 AM - 11:00 AM PDT  
Beverly Hilton - International Ballroom

---

## Private Markets Rallying to New Heights

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

---

## The M&A State of Play

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Oasis Pavilion

---

## Governing AI: Ethics, Regulation, and Practical Applications

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Sunset Pavilion

---

## The State of US Public Capital Markets

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

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## Emerging Markets: Clearer Skies Ahead

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Whittier

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## A View from the Top: Leaders Prioritizing People, Policy, and Potential

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Garden

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## Women's Leadership and the Face of the Modern C-Suite

10:00 AM - 11:00 AM PDT  
Beverly Hilton - California Terrace

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## How Do Drugs Get Approved Faster Using RWE and AI?

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Dayton

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## Digital Defense and Diplomacy: Enhancing Global Cyber Coordination

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Palm

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## The Fed's Balancing Act: Managing Inflation and Growth (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Santolina

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## Digital Assets Regulation: Designing Frameworks for the Future (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Brighton

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## Investing in the Age of Longevity (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Maple

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### A Conversation with "Extrapolations" Creatives: Perspectives on the Future of Climate



11:30 AM - 12:00 PM PDT  
Beverly Hilton - International Ballroom

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### Stretch Out the Kinks!

11:30 AM - 12:00 PM PDT  
Beverly Hilton - Wellness Garden

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### Asset Management: Constructing Portfolios for the Future

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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### The Only Way Forward—Leading through Global Turbulence

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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### From Asian Excellence to Creative Excellence

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Sunset Pavilion

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11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

### > Governing America: A Conversation with Arkansas Governor Sarah Huckabee Sanders



11:30 AM - 12:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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### > Combatting Fentanyl and Drug Cartels: A Conversation with DEA Administrator Anne Milgram

12:00 PM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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### The FinTech Movement: Social Economic Mobility Strategies

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Whittier

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### Access, Outcomes, and Value: Envisioning the Future of Higher Education

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Garden

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### A Psychedelic Journey to Health

11:30 AM - 12:30 PM PDT  
Beverly Hilton - California Terrace

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## Is Indonesia the World's Best-Kept Secret?

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Dayton

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## Hacking Aging: The Quest for Longevity

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Palm

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## The Evolving Business of Private Equity (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Santolina

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## Africa in the Driver's Seat: The New Rush for Africa (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Brighton

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## Keeping up with the Real Estate Market (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Maple

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## The Gratitude Game of Life

12:00 PM - 12:30 PM PDT  
Beverly Hilton - Wellness Garden

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## Boxed Lunch Pick-up

12:00 PM - 1:30 PM PDT  
Beverly Hills Ballroom Foyer and Executive Center

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## Meditation for Fidgety Skeptics

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Wellness Garden

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## Meet the Author: John Hope Bryant "Up From Nothing: The Untold Story of How We (All) Succeed"

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Sunset Room

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## Meet the Author: Padma Lakshmi "Love, Loss, and What We Ate: A Memoir"

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Sunset Room

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## The United States and China: Navigating Strategic Competition (Invite only)

12:30 PM - 2:00 PM PDT  
Beverly Hilton - International Ballroom

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## CEO Roundtable: Trends and Challenges in the Global Economy (Invite only)

12:45 PM - 2:15 PM PDT  
Beverly Hilton - Santolina

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## Feeding Change Private Lunch (Invite only)

12:45 PM - 2:15 PM PDT  
Beverly Hilton - Sunset Pavilion

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## Simulcast | The United States and China: Navigating Strategic Competition

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - Oasis Pavilion

### > A Conversation with California Governor Gavin Newsom

1:00 PM - 1:20 PM PDT  
Beverly Hilton - Oasis Pavilion

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### > Tech Titans: A Conversation with Reid Hoffman and Eric Schmidt

1:20 PM - 2:00 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Risk and Regulation: The State of US Banking

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

### > Content is Queen: A Conversation with Issa Rae and Sherrese Clarke Soares

1:00 PM - 1:30 PM PDT  
Beverly Hilton - Wilshire Garden

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### > Triple Threat: Women-Led, Internet-Enabled, and Social Media-Driven Movements in Iran and Russia

1:30 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Private Markets Outlook (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Brighton

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## Global Investors' View: Korea (Invite only)

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Maple

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## Global Conference Puppy Playtime Presented by PGIM

1:30 PM - 3:00 PM PDT  
Beverly Hilton - Wellness Garden

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## Meet the Author: Chris Miller "Chip War: The Fight for the World's Most Critical Technology"

2:00 PM - 2:30 PM PDT  
Beverly Hilton - Sunset Room

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## Macroeconomy: Finding Checks and Rebalances

2:30 PM - 3:30 PM PDT  
Beverly Hilton - International Ballroom

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## Credit Markets: Pressures Abound

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## A New Era of Mobility: Moving Safely, Swiftly and Sustainably

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Healthcare of the Future

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Sunset Pavilion

### > Part 1: Governing America: A Conversation with Hawaii Governor Josh Green

2:30 PM - 2:50 PM PDT  
Beverly Hilton - Sunset Pavilion

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### > Part 2: Cancer in the Year 2040

2:50 PM - 3:30 PM PDT  
Beverly Hilton - Sunset Pavilion

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## Expanding Economic Opportunity through Workforce Transformation

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Financing a Green Future

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Whittier

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## Storytelling to Move the Needle

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Garden

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## An Investment that Affects Us All: Women's Reproductive Health Care

2:30 PM - 3:30 PM PDT  
Beverly Hilton - California Terrace

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## Transitioning to a Food Environment Built for Health

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Dayton

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## Traversing Latin America: The World's Fastest Growing Entrepreneurial Ecosystem

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Palm

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## Saudi Arabia: Vision to Reality (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Santolina

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## Evolution and Opportunities in Private Credit (Invite Only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Brighton

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## Swinging for the Fences: Innovation for Increasing Financial Fluency in America (Invite only)

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Maple

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## Be Crystal Clear Sound Bath and Guided Meditation

4:00 PM - 4:30 PM PDT  
Beverly Hilton - Wellness Garden

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## Private Equity: Unlocking Value in a Changing Landscape

4:00 PM - 5:00 PM PDT  
Beverly Hilton - International Ballroom

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## Building the Rails of Our Financial Future

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## A Journey into Immersive Worlds

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Oasis Pavilion

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## Sports for Social Impact

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Sunset Pavilion

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## Levers of Change: Gun Violence Prevention and Solutions

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Frontier Market Investing: Outlook, Risks, and the \$Trillion Opportunity

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Whittier

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## Food for Thought: Cultivating Our Culinary Landscape

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Saving the Lungs of the Planet: Creating Sustainable and Inclusive Forest Solutions

4:00 PM - 5:00 PM PDT  
Beverly Hilton - California Terrace

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## Is this India's Moment?

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Dayton

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## There's an App for That: Hype or Health?

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Palm

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## Rising Allocators (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Santolina

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## Addressing the American Retirement Crisis (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Brighton

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## Center for the Future of Aging Advisory Board Meeting (Invite only)

4:00 PM - 5:00 PM PDT  
Beverly Hilton - Maple

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## Speaker and Sponsor Reception Presented by Principal Asset Management (Invite only)

5:30 PM - 6:30 PM PDT  
Beverly Hilton - Santolina

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## Young Leaders Circle Program Hosted by The Ned (Invite only)

5:30 PM - 7:30 PM PDT  
Private Residence

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## A Conversation Between Michael Milken and IFC Managing Director Makhtar Diop: Celebrating Tomorrow's Leaders in Financial Policy

5:30 PM - 7:30 PM PDT  
Beverly Hilton - Sunset Pavilion

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### WEDNESDAY MAY 03, 2023

## Double Espresso-Om Yoga

6:00 AM - 6:45 AM PDT  
Beverly Hilton - Wellness Garden

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## Global Conference Check-In

6:00 AM - 4:00 PM PDT  
Beverly Hilton - Lobby

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## Workout with Dogpound

6:30 AM - 7:15 AM PDT  
Dogpound - 627 N. Robertson Blvd., West Hollywood

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## Is 90 the New 60? Drafting a Blueprint for your Best Health (Invite only)

7:00 AM - 8:15 AM PDT  
Beverly Hilton - Santolina

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## Continental Breakfast

7:00 AM - 9:00 AM PDT  
Wilshire Garden and Executive Center Foyer

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## Things That Will Blow Your Mind

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Funding the Future: Adaptation Amidst Uncertainty

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Oasis Pavilion

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## The Challenges of Manhood in Today's America

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Ballroom

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## Building Cooperation for Post-Conflict Regions: New Bridges from the Gulf to the Mediterranean

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Whittier

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## Reframing Aging: Never Past Your Prime

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Wilshire Garden

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## The Race for Global Green Energy

8:30 AM - 9:30 AM PDT  
Beverly Hilton - California Terrace

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## Buy or Bye: A Guide to Asia-Pacific Investment Opportunities (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Brighton

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## Gun Violence Prevention: What Innovations and Investments Can Make a Breakthrough? (Invite only)

8:30 AM - 9:30 AM PDT  
Beverly Hilton - Maple

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## Wellness Garden Healing Sessions

9:30 AM - 3:30 PM PDT  
Beverly Hilton - Wellness Garden

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## All in a Day's Work: Prepare, Adapt, Innovate

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## Africa: Next Frontier for the Creative Economy

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Oasis Pavilion

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## CMO Insights: How to Manage Your Marketing in an Age of Volatility

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Ballroom

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## From European Dream to Reality

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Whittier

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## Retail Renaissance: Businesses Embracing Technology, Sustainability, and Innovation

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Wilshire Garden

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## The Art of Living Well: A Conversation on Mindfulness and Self-Care

10:00 AM - 11:00 AM PDT  
Beverly Hilton - California Terrace

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## Impact Investing 2.0: Achieving Scale and Acceptance (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Santolina

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## Nearshoring's Impact on North America: A New Era in Trade Dynamics (Invite only)

10:00 AM - 11:00 AM PDT  
Beverly Hilton - Brighton

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## Soul Wisdom Healing

11:00 AM - 11:30 AM PDT  
Beverly Hilton - Wellness Garden

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## Meet the Author: George Mumford "Unlocked: Embrace Your Greatness, Find the Flow, Discover Success"

11:00 AM - 11:30 AM PDT  
Beverly Hilton - Sunset Room

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## Meet the Author: Kristin Neff "Fierce Self-Compassion: How Women Can Harness Kindness to Speak Up, Claim Their Power and Thrive"

11:00 AM - 11:30 AM PDT  
Beverly Hilton - Sunset Room

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## Stretch and Go!

11:30 AM - 12:00 PM PDT  
Beverly Hilton - Wellness Garden

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11:30 AM - 12:30 PM PDT  
Beverly Hilton - International Ballroom

### > A Conversation with World Bank President David Malpass

11:30 AM - 12:00 PM PDT  
Beverly Hilton - International Ballroom

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### > A Conversation with Eldridge CEO Todd Boehly

12:00 PM - 12:30 PM PDT  
Beverly Hilton - International Ballroom

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# Countdown to Default? How to Stop Worrying About a Debt Crisis and Achieve Fiscal Sustainability

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## In the Spotlight

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

### > Part 1: A Conversation with Demi Lovato

11:30 AM - 11:50 AM PDT  
Beverly Hilton - Wilshire Ballroom

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### > Part 2: Growing Up Online: Youth Mental Health in a Modern World

11:50 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## All Hands on Deck: The Case for Super Annuation Funds, Big and Small

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Whittier

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## How Has the Digital Age Transformed Democracy and Civil Discourse?

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Wilshire Garden

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## Digital Health for Whole Person Care

11:30 AM - 12:30 PM PDT  
Beverly Hilton - California Terrace

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## FinTech and Other Innovative Solutions to Enhance Lifetime Financial Security

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Dayton

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## Accelerating Community Infrastructure and Equitable Economic Development: The 10,000 Communities Initiative (Invite only)

11:30 AM - 12:30 PM PDT  
Beverly Hilton - Brighton

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## Neuroscience for Peak Performance

12:00 PM - 12:30 PM PDT  
Beverly Hilton - Wellness Garden

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## Boxed Lunch Pick-up

12:00 PM - 1:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom Foyer

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## Introduction to Ayurveda – The Science of Life

12:30 PM - 1:00 PM PDT  
Beverly Hilton - Wellness Garden

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## Opportunities in Digitalization and Innovation: A Conversation with His Excellency Taro Kono

1:00 PM - 1:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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1:00 PM - 2:00 PM PDT  
Beverly Hilton - International Ballroom

### > The Evolution of Comedy: Laughter is the Best Medicine

1:00 PM - 1:30 PM PDT  
Beverly Hilton - International Ballroom

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### > A Conversation with Snoop Dogg and Larry Jackson

1:30 PM - 2:00 PM PDT  
Beverly Hilton - International Ballroom

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## Simulcast | The Evolution of Comedy: Laughter is the Best Medicine and A Conversation with Snoop Dogg and Larry Jackson

1:00 PM - 2:00 PM PDT  
Beverly Hilton - Wilshire Garden

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## Navigating Northward: The Geopolitics of the Arctic Arena

1:00 PM - 2:00 PM PDT  
Beverly Hilton - California Terrace

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## Building the Sustainable Development Tech Project Pipeline (Invite only)

1:00 PM - 2:30 PM PDT  
Beverly Hilton - Santolina

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## Meet the Author: Julia Boorstin "When Women Lead"

1:30 PM - 2:00 PM PDT  
Beverly Hilton - Sunset Room

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## Global Conference Puppy Playtime Presented by PGIM

1:30 PM - 3:00 PM PDT  
Beverly Hilton - Wellness Garden

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## What's Next for New Japan: A Private Discussion with Minister Taro Kono (Invite only)

1:45 PM - 2:30 PM PDT  
Beverly Hilton - Boardroom

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## Out of This World: Investing in Space Exploration

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Beverly Hills Ballroom

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## From Streaming to Short Form: The Power and Potential of Media

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Ballroom

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## Hope and Optimism

2:30 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Garden

> Inspiring Hope and Taking Action: A Conversation with Obama Foundation CEO  
Valerie Jarrett 

2:30 PM - 3:00 PM PDT  
Beverly Hilton - Wilshire Garden

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> How to Be an Optimist: A Conversation with Arthur Brooks 

3:00 PM - 3:30 PM PDT  
Beverly Hilton - Wilshire Garden

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Closing Concert and Reception Featuring Diana Ross

3:45 PM - 5:00 PM PDT  
Beverly Hilton - Oasis Pavilion

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# Rice Hall James & Associates, LLC

RHJ Small Cap  
Opportunities Strategy

May 31, 2023



**RICE HALL JAMES**  
& ASSOCIATES, LLC

**Rice Hall James & Associates, LLC**  
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San Diego, California 92101

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E-mail: [info@ricehall.com](mailto:info@ricehall.com)  
Website: [www.ricehalljames.com](http://www.ricehalljames.com)

For one-on-one presentation only, not for public distribution.

# Firm Profile

**March 31, 2023**

Investment-led firm, founded in 1974

Firm AUM + AUA: \$2.1 billion <sup>1</sup>

## Ownership

Independent and 100% employee-owned. RHJ is focused solely on investment management with no other lines of business

## Personnel

27 employees, including 12 owners averaging 30 years of industry experience and 22 years with Rice Hall James

## Time-Tested Investment Strategies

RHJ's professionals have been managing micro-, small-, and SMID-cap portfolios for more than three decades

## Established Client Base

34 institutional clients, representing 81% of assets

<sup>1</sup>Assets include assets under management and advisory-only assets. Advisory-only assets are client assets for which RHJ provides investment management services; they are non-managed assets.



# Diversity

## Diversity Representation Survey for Oakland Police and Fire

DATA AS OF 04/30/2023

Firm Name	Rice Hall James & Associates, LLC
Product Name	RHJ Small Cap Opportunities
Total Number of Employees	27

Race and Ethnicity*	Percentage (%) of Board of Directors / Managing Members	Percentage(%) of Firm (Entire Staff)	Percentage (%) of Firm (Investment Professionals)
African American/Black	0%	0%**	0%**
Asian/Hawaiian/Pacific Islander	17%	7%	0%
Latino/Hispanic	0%	4%	0%
White	83%	85%	93%
American Indian/Alaska Native	0%	4%	7%
Other	0%	0%	0%
<b>Gender</b>			
Male	67%	70%	80%
Female	33%	30%	20%
Non-Identified/Other	0%	0%	0%

\* Racial/ethnic categories appear as defined by EEOC guidance.

\*\*Does not include RHJ DEI Opportunities Internship Program.



# Successfully Launched RHJ DEI Internship Program

- ▶ Selected candidate to start on June 5, 2023.
- ▶ Candidate will join the five person Small Cap Opportunities Team in our Pasadena, CA office.
- ▶ Internship will expose the student to a variety of areas relating to fundamental equity research including public company management meetings, internal research meetings, financial statement analysis, and business model analysis.
- ▶ Candidate will develop a written investment thesis on one to two companies during their internship.
- ▶ Goal is to give candidate tangible experience to help begin their career in investment management.



# Value Proposition

## Long-Term Oriented

- Portfolio Manager/Analysts have an investment horizon that is longer than other micro, small, and SMID cap growth managers, typically 3 to 5 years.
- Long-term focus allows us to develop an **informational edge** on companies and their management teams relative to our peer group universe.

## Experienced & Stable

- Portfolio Manager/Analysts average 30 years of investment experience and 23 years working together.
- Knowledge base that includes a **deep understanding** of the companies' management teams, competitors, and customers.

## Quality-Focused

- Portfolio is comprised of companies that generate high returns on invested capital or have the potential to do so in the near future.
- We invest in those companies that we believe have a **sustainable competitive advantage** compared to rivals.

## Risk-Controlled

- Structure portfolio weightings in **most compelling ideas** on a risk-adjusted basis.
- Carefully monitor guideposts which are established at the time of initial investment.



# Portfolio Review



RICE HALL JAMES  
& ASSOCIATES, LLC

# Oakland Police & Fire Retirement System

As of April 30, 2023

## Portfolio Details

Inception Date: July 13, 2017

Initial Value: \$10,537,872.22

Market Value as of April 30, 2023: \$14,333,562.62

Net Flows Since Inception: (\$985,346.24)

	YTD	1 Year*	3 Years*	5 Years*	Since Inception* July 31, 2017
<b>Oakland Police &amp; Fire Ret System [Gross]</b>	<b>7.78%</b>	<b>1.93%</b>	<b>11.52%</b>	<b>4.75%</b>	<b>7.38%</b>
<b>Oakland Police &amp; Fire Ret System [Net]</b>	<b>7.38%</b>	<b>1.17%</b>	<b>10.54%</b>	<b>3.79%</b>	<b>6.39%</b>
Russell 2000 Growth Index	4.84%	0.72%	7.82%	4.00%	5.66%
<i>Difference (Net) vs. Russell 2000 Growth</i>	<i>+254 bps</i>	<i>+45 bps</i>	<i>+272 bps</i>	<i>(21 bps)</i>	<i>+73 bps</i>

\*Annualized

Source: FactSet



**RICE HALL JAMES**  
& ASSOCIATES, LLC

Past performance does not guarantee future results. Returns are shown both gross and net of fees in U.S. dollars. For performance calculation purposes, the portfolio's inception date is July 31, 2017. Indices are provided for comparative purposes only. An investor cannot invest directly in an index. Rice Hall James & Associates, LLC's compliance with the GIPS standards has been verified for the period January 1, 1993 through December 31, 2021. Please refer to important disclosures at the end of this presentation regarding the returns and index shown above.

# RHJ Attribution Report

## YTD Attribution Analysis as of April 30, 2023

### Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

GICS Sector	City of Oakland			Russell 2000 Growth			Attribution Analysis		
	Avg. Port. Wt.	Port. Return	Port. Contrib.	Avg. Bmrk. Wt.	Bmrk. Return	Bmrk. Contrib.	Alloc. Effect	Select Effect	Total Effect
<b>Total</b>	<b>100.00</b>	<b>7.78</b>	<b>7.78</b>	<b>100.00</b>	<b>4.84</b>	<b>4.84</b>	<b>1.59</b>	<b>1.35</b>	<b>2.94</b>
Communication Services	9.99	21.80	2.05	2.46	11.95	0.29	0.49	0.91	1.40
Energy	--	--	--	6.82	-8.36	-0.57	0.97	--	0.97
Industrials	15.47	11.84	1.64	18.36	5.56	0.92	-0.06	0.99	0.93
Consumer Discretionary	12.08	16.38	1.75	11.35	11.63	1.21	0.10	0.48	0.59
Financials	8.02	7.70	0.50	5.87	0.74	0.04	-0.05	0.52	0.47
Real Estate	--	--	--	2.15	-3.43	-0.06	0.18	--	0.18
Information Technology	20.85	2.76	0.78	19.87	1.91	0.41	-0.02	0.16	0.14
Utilities	--	--	--	1.71	0.04	0.02	0.09	--	0.09
[Cash]	3.79	1.53	0.06	--	--	--	-0.03	--	-0.03
Materials	2.37	1.85	0.02	4.63	5.86	0.27	-0.01	-0.11	-0.12
Consumer Staples	1.36	-19.22	-0.21	4.49	9.90	0.44	-0.26	-0.38	-0.63
Health Care	26.07	3.62	1.19	22.29	8.20	1.87	0.17	-1.23	-1.06

Sources: FactSet, GICS Sector Classification, & FTSE Russell

# RHJ Attribution Report

## 1 Year Ending April 30, 2023 Attribution Analysis

### Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

GICS Sector	City of Oakland			Russell 2000 Growth			Attribution Analysis		
	Avg. Port. Wt.	Port. Return	Port. Contrib.	Avg. Bmrk. Wt.	Bmrk. Return	Bmrk. Contrib.	Alloc. Effect	Select Effect	Total Effect
<b>Total</b>	<b>100.00</b>	<b>2.09</b>	<b>2.09</b>	<b>100.00</b>	<b>0.72</b>	<b>0.72</b>	<b>0.19</b>	<b>1.17</b>	<b>1.36</b>
Financials	7.65	23.84	1.42	6.10	-4.81	-0.35	-0.05	1.93	1.89
Health Care	25.45	18.26	4.97	23.01	11.32	3.11	0.21	1.37	1.57
Communication Services	9.12	12.29	1.31	2.48	-8.55	-0.21	-0.50	1.89	1.39
Real Estate	--	--	--	2.31	-28.49	-0.86	0.85	--	0.85
Industrials	15.07	8.27	1.00	17.80	5.28	0.70	-0.12	0.46	0.34
Materials	2.25	19.77	0.31	4.39	3.97	0.11	-0.05	0.29	0.24
[Cash]	3.49	3.41	0.12	--	--	--	0.17	--	0.17
Consumer Discretionary	13.08	0.85	-0.10	11.54	1.27	-0.26	0.11	0.00	0.11
Utilities	--	--	--	1.54	4.49	0.00	0.07	--	0.07
Energy	--	--	--	6.33	-1.30	-0.10	0.04	--	0.04
Telecommunication Services	--	--	--	0.10	5.16	0.03	-0.02	--	-0.02
Consumer Staples	2.43	-45.80	-1.43	4.45	15.46	0.72	-0.32	-1.78	-2.10
Information Technology	21.45	-21.67	-5.51	19.95	-10.50	-2.18	-0.18	-2.99	-3.17

Sources: FactSet, GICS Sector Classification, & FTSE Russell

# Top/Bottom 5 Performers

## YTD Performers as of April 30, 2023

### Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

Ticker		Average Weight	Total Return	Contribution To Return
<b>5 Highest</b>				
ALBO	Albireo Pharma, Inc.	0.45	103.89	0.77
ARLO	Arlo Technologies, Inc.	1.15	83.48	0.67
RVNC	Revance Therapeutics, Inc.	1.63	72.43	0.74
WWE	World Wrestling Entertainment, Inc. Class A	4.22	56.64	1.99
PGTI	PGT Innovations, Inc.	1.21	42.87	0.42
<b>5 Lowest</b>				
CCSI	Consensus Cloud Solutions, Inc.	0.59	-30.56	-0.19
SMTC	Semtech Corporation	1.41	-32.07	-0.44
PBYI	Puma Biotechnology, Inc.	0.07	-36.64	-0.03
ASND	Ascendis Pharma A/S Sponsored ADR	1.47	-42.72	-0.73
FATE	Fate Therapeutics, Inc.	0.01	-43.31	-0.08

Sources: FactSet, GICS Sector Classification, & FTSE Russell



# Top/Bottom 5 Performers

## 1 Year Ending April 30, 2023 Performers

### Oakland Police & Fire Retirement System vs. Russell 2000 Growth Index

Ticker		Average Weight	Total Return	Contribution To Return
<b>5 Highest</b>				
BHVN	Biohaven Ltd.	0.01	139.14	0.04
AERI	Aerie Pharmaceuticals, Inc.	0.65	114.49	0.82
RVNC	Revance Therapeutics, Inc.	1.26	94.32	0.80
WWE	World Wrestling Entertainment, Inc. Class A	3.70	84.78	2.48
BHVN.1	Biohaven Pharmaceutical Holding Company Ltd.	1.05	70.24	1.18
<b>5 Lowest</b>				
IOVA	Iovance Biotherapeutics Inc	0.90	-62.77	-0.73
APPS	Digital Turbine, Inc.	1.92	-62.94	-1.36
RXT	Rackspace Technology, Inc.	0.63	-66.43	-1.04
SMTC	Semtech Corporation	1.93	-67.30	-2.05
FATE	Fate Therapeutics, Inc.	0.26	-79.97	-0.37

Sources: FactSet, GICS Sector Classification, & FTSE Russell



# Appendix



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# Investment Philosophy

We believe that superior, long-term, risk-adjusted returns are generated by building a portfolio of companies with three primary characteristics – **high earnings growth, high or improving returns on invested capital and better sustainability characteristics** than that of the index.



# Why Earnings Growth & ROIC?

The probability of alpha generation increases when high earnings growth is coupled with high returns on invested capital.

		EARNINGS GROWTH <sup>1</sup>				
		Less than 0%	0%-10%	10-20%	20%-25%	More than 25%
PERFORMANCE OF RUSSELL 2000 COMPANIES RELATIVE TO OVERALL INDEX						
5-YEAR AVG ROIC <sup>2</sup>	More than 15%	(27%)	(45%)	5%	96%	379%
	10% - 15%	(80%)	(58%)	2%	40%	159%
	5% - 10%	(27%)	(64%)	(24%)	11%	39%
	Less than 5%	(86%)	(57%)	(64%)	(17%)	32%

Historical performance does not guarantee future results.

<sup>1</sup> 5-year Earnings Per Share (EPS) growth, compounded annually.

<sup>2</sup> ROIC = Return on Invested Capital.

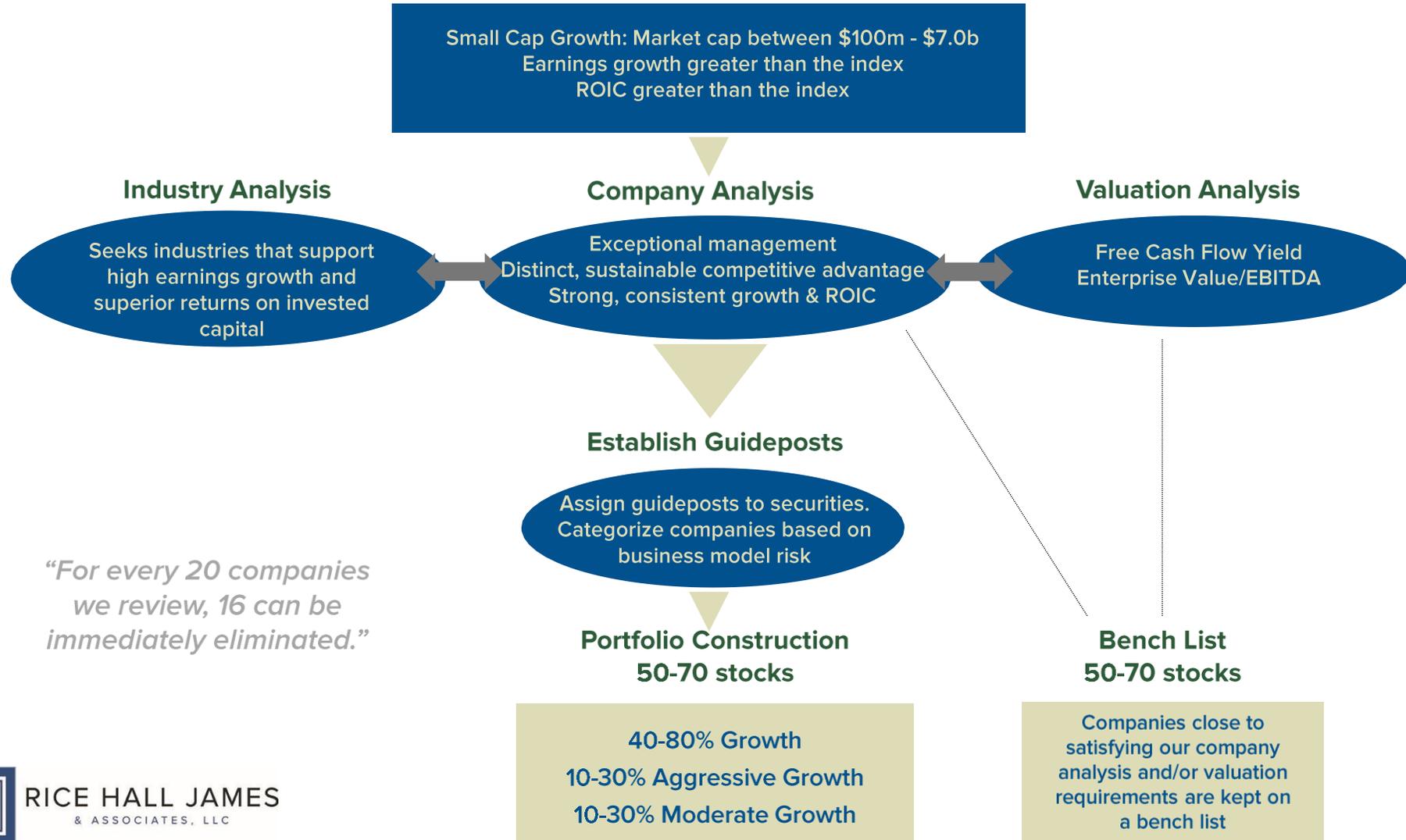
Sources: FactSet & FTSE Russell

Relative performance compares individual Russell® 2000 constituent performance vs. an equal-weighted index (Russell 2000) return. Only the Russell 2000 constituents (as of 12/31/2021) with 5 years of measurable history (EPS, ROIC and Performance) were used in the study. The index return is calculated using the combined equal-weighted 5 year return of these Russell 2000 constituents as of 12/31/2021. The Russell® 2000 Index measures the performance of the small-cap segment of the U.S. equity universe. The Russell 2000 Index is a subset of the Russell 3000® Index representing approximately 10% of the total market capitalization of that index. It includes approximately 2000 of the smallest securities based on a combination of their market cap and current index membership. The Russell 2000 is constructed to provide a comprehensive and unbiased small-cap barometer and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set. The index is calculated on a total-return basis with dividends reinvested. Please refer to important disclosures at the end of this presentation.



# Portfolio Construction

Investable universe is significantly reduced by adhering to this discipline.



# Industry Analysis

A large initial universe allows us the freedom to identify and implement our investment strategy within traditional, non-traditional, and emerging growth industries.

- ▶ Industries which have been **historically identified** by companies with high earnings growth and superior returns on invested capital
- ▶ Industries exhibiting **changing dynamics**, supporting high growth and superior returns on invested capital
- ▶ New and **emerging industries** that can support companies with high earnings growth and superior returns on invested capital



# Investment Process - Company Analysis

We perform in-depth research to identify:

▶ **Companies that generate strong and consistent ROIC and earnings growth**

- Large or growing addressable markets
- Stability of existing revenue stream
- Ability to maintain or increase pricing
- High probability of retaining or widening margins

▶ **Capable management teams**

- Experience and integrity
- Track record of success
- Clear goals and viable long-term business model

▶ **Unique, sustainable competitive advantages**

- Proprietary products, services, distribution/manufacturing advantages
- Strategy for defending against competition
- High barriers to entry
- High or improving market share
- Brand name recognition

*We maintain contact with management teams of companies we own and all those considered for investment (our bench list)*



# Investment Process - Valuation Analysis

- ▶ Valuation analysis is a key component of our determination in how we assess a company's absolute & relative attractiveness

## Valuation Analysis

- Cash flow analysis that incorporates ROIC & the duration of earnings growth
- Analyze companies across industries and sectors, using common valuation techniques
- Analyze companies relative to valuation of securities in existing portfolio

## Other valuation methods:

- P/E to Growth Rate (PEG Ratio)
- Free Cash Flow Yield
- Price to earnings (P/E Ratio)
- Enterprise Value/EBITDA



# Investment Process – Establishing Guideposts

- ▶ As part of our research process, we create guideposts for each security:
  - Specific factors unique to each company used to monitor company progress
    - Examples: new drug filings in Health Care, or new store sales productivity in Retail
  - Through this ongoing monitoring process, position sizes are increased or decreased
  - Guideposts help to identify deteriorating or improving fundamentals before they are reflected in the stock price



# Investment Process – Portfolio Construction

- ▶ Portfolio Construction is a function of our bottom-up selection process – each holding is grouped into one of the three categories below:

## **Growth**

40-80% of portfolio

- Industry leader and/or gaining market share
- ROIC greater than 10%
- Earnings growth higher than the relative index
- Sustainable competitive advantage
- Proven successful operating history
- High confidence in management

## **Aggressive Growth**

10-30% of portfolio

- Emerging high growth companies with improving ROIC
- Companies in a unique/turnaround situation
- Higher volatility, but higher potential return candidates

## **Moderate Growth**

10-30% of portfolio

- Dominant position in their industry
- Moderate, consistent earnings growth and stable ROIC
- Self-funding and generating strong cash flow



# Sell Discipline

Sell discipline is a function of a review and violation of one or more of the following:

- ▶ Change in fundamentals or competitive advantages
- ▶ Missing Guideposts
- ▶ Change in management team
- ▶ Relative Valuation



# Summary

---

- ▶ Disciplined research process with focus on high growth, high return on invested capital companies with good sustainability characteristics
- ▶ Experienced Portfolio Manager/Analysts average 30 years of investment experience and 23 years working together
- ▶ Proven long-term results with success through a variety of economic environments



# Small Cap Opportunities Portfolio

## As of March 31, 2023

### Communication Services 10.3%

Eventbrite, Inc.	0.1%
Shutterstock, Inc.	2.1%
TechTarget, Inc.	0.5%
World Wrestling Entertainment, Inc.	4.4%
Ziff Davis, Inc.	3.2%

### Consumer Discretionary 11.2%

Century Casinos, Inc.	0.7%
LCI Industries	2.3%
Overstock.com, Inc.	1.3%
Pool Corp.	1.3%
Sleep Number Corp.	0.5%
Stride, Inc.	3.7%
Vail Resorts, Inc.	1.6%

### Consumer Staples 0.8%

Medifast, Inc.	0.8%
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### Financials 12.0%

Axos Financial, Inc.	2.1%
Bank OZK	1.1%
Donnelley Financial Solutions, Inc.	3.4%
Euronet Worldwide, Inc.	4.3%
Federal Agricultural Mortgage Corp.	1.1%

### Materials 2.3%

Ingevity Corp.	2.3%
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### Industrials 18.5%

Armstrong World Industries, Inc.	1.7%
Franklin Covey Co.	1.0%
GXO Logistics, Inc.	0.5%
Masonite International Corp.	3.6%
MAXIMUS, Inc.	1.8%
MSC Industrial Direct Co., Inc.	0.5%
PGT Innovations, Inc.	1.4%
Ritchie Bros. Auctioneers, Inc.	1.1%
RXO, Inc.	0.6%
Willdan Group, Inc.	0.5%
WNS Holdings Ltd.	4.9%
XPO, Inc.	0.9%

### Information Technology 15.5%

ACI Worldwide, Inc.	3.9%
Arlo Technologies, Inc.	1.5%
Cambium Networks Corp.	0.8%
CEVA, Inc.	1.2%
Consensus Cloud Solutions, Inc.	0.5%
Digital Turbine, Inc.	1.8%
Ituran Location and Control Ltd.	0.2%
Qualys, Inc.	1.2%
Radware Ltd.	1.4%
Semtech Corp.	1.2%
Silicon Motion Technology Corp.	0.6%
SolarWinds Corp.	0.1%
Wix.com Ltd.	1.1%

### Health Care 26.5%

ACADIA Pharmaceuticals, Inc.	1.5%
Amicus Therapeutics, Inc.	0.7%
Ascendis Pharma	1.5%
Doximity, Inc.	2.4%
Establishment Labs Holdings, Inc.	0.5%
Insmed, Inc.	0.3%
Iovance Biotherapeutics, Inc.	0.8%
Karuna Therapeutics, Inc.	0.3%
Kiniksa Pharmaceuticals Ltd.	0.5%
Ligand Pharmaceuticals, Inc.	1.5%
Medpace Holdings, Inc.	3.2%
Neurocrine Biosciences, Inc.	1.3%
OmniAb, Inc.	0.7%
OptiNose, Inc.	0.1%
Pacira Biosciences, Inc.	2.1%
Premier, Inc.	2.5%
Prestige Consumer Healthcare, Inc.	3.7%
Puma Biotechnology, Inc.	0.1%
Revance Therapeutics, Inc.	1.7%
Supernus Pharmaceuticals, Inc.	1.3%

<b>Total Equity</b>	<b>97.0%</b>
<b>Total Cash</b>	<b>3.0%</b>

Sources: FactSet & S&P Dow Jones Indices LLC

The above is provided for informational purposes only and should not be considered investment advice or a recommendation to buy or sell any securities. Holdings are subject to change at any time and are based on a model portfolio. Holdings of individual client accounts may differ from those shown above. Sector weightings may not add up to 100% due to rounding. The sectors referenced herein are determined based on the Global Industry Classification Standard ("GICS") methodology. A complete list of portfolio holdings and specific securities transactions for the preceding 12 months is available upon request. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of securities in this article. Rice Hall James & Associates, LLC, or one or more of its officers, may have a position in the securities discussed herein and may purchase or sell such securities from time to time. Please refer to the important information at the end of this presentation for additional sector information.



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# Small Cap Opportunities Portfolio Guidelines

## Position Limit Parameters

Position size is scaled up or down based on evolving reward to risk profile

Position Limit at Market	6%
Portfolio Holdings	50-70
Cash Weight	Typically less than 5%

## Market Cap Range

Between \$100 million and \$7.0 billion market capitalization at time of purchase

## Sector Weight Parameters

Sector weights are +/-1000 basis points of the benchmark weights of the major economic sectors

## Sector Allocations As of March 31, 2023

	Small Cap Opportunities	Russell 2000 Growth Index
Communication Services	10.3%	2.5%
Consumer Discretionary	11.2%	11.5%
Consumer Staples	0.8%	4.7%
Energy	--%	6.5%
Financials	12.0%	5.7%
Health Care	26.5%	21.6%
Industrials	18.5%	18.5%
Information Technology	15.5%	20.6%
Materials	2.3%	4.7%
Real Estate	--%	2.1%
Utilities	--%	1.7%
[Cash]	3.0%	--%

Capitalization	Small Cap Opportunities	Russell 2000 Growth Index
>\$5 billion	23.7	22.8
\$2 billion- 5 billion	44.5	50.3
\$750 million- 2 billion	23.5	20.6
\$400 million- 750 million	6.4	4.3
<\$400 million	2.0	2.0

Sources: FactSet & GICS Sector Classification

Sector weightings and market capitalizations are subject to change at any time and are based on a model portfolio. Sector weightings and market capitalizations of individual client portfolios in the strategy may differ from those shown above. Sector weightings and market capitalization ranges may not add up to 100% due to rounding. Please see important disclosure information at the end of this presentation regarding the index and sector classifications shown above.



# Small Cap Opportunities Portfolio Characteristics

As of March 31, 2023

	RHJ Small Cap Opportunities	Russell 2000 Growth Index
Number of Holdings	64	1,095
Portfolio Turnover (3Y annual avg)	19.7%	--
Long-Term Earnings Growth Forecast	12.9%	17.0%
P/E - 1 Year Forecast*	16.4	16.2
Weighted Median Market Cap	\$2.92 billion	\$3.13 billion
Weighted Average Market Cap	\$3.46 billion	\$3.35 billion
Active Share	95.5%	--

\*P/E Ratio calculation excludes companies with negative earnings.

Source: FactSet

Portfolio characteristics are subject to change at any time and are based on a model portfolio. Portfolio characteristics of individual client portfolios in the strategy may differ from those shown above. Please see important disclosure information at the end of this presentation regarding the index shown above.



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# Small Cap Opportunities Composite Performance

## Returns for Periods Ending March 31, 2023

	1Q23	1 Year*	3 Year*	5 Year*	7 Year*	10 Year*	Since Inception* October 10, 1994*
<b>RHJ Small Cap Opportunities [Gross]</b>	<b>7.07%</b>	<b>-7.80%</b>	<b>18.53%</b>	<b>4.10%</b>	<b>9.99%</b>	<b>11.15%</b>	<b>12.58%</b>
<b>RHJ Small Cap Opportunities [Net]</b>	<b>6.91%</b>	<b>-8.37%</b>	<b>17.77%</b>	<b>3.41%</b>	<b>9.28%</b>	<b>10.43%</b>	<b>11.67%</b>
Russell 2000 Growth Index	6.07%	-10.60%	13.36%	4.26%	8.74%	8.49%	7.41%

\*Annualized

Source: FactSet



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Past performance does not guarantee future results. Composite returns are shown both gross and net of fees in U.S. dollars. Rice Hall James & Associates, LLC's compliance with the GIPS standards has been verified for the period January 1, 1993 through December 31, 2021. Please refer to important disclosures at the end of this presentation regarding the returns and index shown above.

# Small Cap Opportunities Composite Historical Returns

	Small Cap Opportunities [Gross]	Small Cap Opportunities [Net]	Russell 2000 Growth Index
2022	-23.85 %	-24.33 %	-26.36 %
2021	16.13 %	15.38 %	2.83 %
2020	24.50 %	23.65 %	34.63 %
2019	18.85 %	18.04 %	28.48 %
2018	-6.49 %	-7.11 %	-9.31 %
2017	28.71 %	27.93 %	22.17 %
2016	11.93 %	11.28 %	11.32 %
2015	-0.06 %	-0.60 %	-1.38 %
2014	8.41 %	7.69 %	5.60 %
2013	56.34 %	55.12 %	43.30 %
2012	14.56 %	13.62 %	14.59 %
2011	9.55 %	8.68 %	-2.91 %
2010	38.73 %	37.65 %	29.09 %
2009	48.47 %	47.27 %	34.47 %
2008	-43.34 %	-43.71 %	-38.54 %
2007	10.48 %	9.50 %	7.05 %
2006	7.10 %	6.11 %	13.35 %
2005	11.46 %	10.42 %	4.15 %
2004	10.03 %	9.04 %	14.31 %
2003	50.70 %	49.31 %	48.54 %
2002	-29.41 %	-30.07 %	-30.26 %
2001	-28.87 %	-29.52 %	-9.23 %
2000	-13.23 %	-14.01 %	-22.43 %
1999	87.81 %	86.06 %	43.09 %
1998	16.33 %	15.20 %	1.23 %
1997	28.67 %	27.41 %	12.95 %
1996	53.30 %	51.78 %	11.26 %

Source: FTSE Russell



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Past performance does not guarantee future results. Composite returns are shown both gross and net of fees in U.S. dollars. Rice Hall James & Associates, LLC's compliance with the GIPS standards has been verified for the period January 1, 1993 through December 31, 2021. RHJ's GIPS Report is located at the end of this presentation as well as other important disclosure information regarding the returns and index shown above.

# Additional Documentation



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# RHJ Diversity, Equity, and Inclusion Policy

## **Our Commitment**

RHJ is keenly aware of the need to actively promote diversity, equity, and inclusion (DEI) within our industry, and this policy formalizes our commitment to improve DEI at the firm. Even as a small boutique firm with low personnel turnover, the composition of our ownership and employee base evidences our commitment to DEI.

We maintain that diversity encompasses every employee's distinctive attributes and unique qualities. Respecting these differences is key to building a sense of inclusion. We foster diversity of thought and value innovative thinking. RHJ has a "diverse" investment team in the sense that we have historically hired individuals with considerably different backgrounds and experience. Having a diverse group of decision makers in senior management and within our investment teams challenges conventional thinking. It helps us avoid "group-think" and the "following the herd" mentality which can be prevalent in the industry. We believe that this leads to improved investment decisions over time, and ultimately allows us to generate superior results, thus better serving our clients.

## **Our History**

RHJ has a longstanding commitment to DEI. Thirty percent of RHJ is women-owned (and within that share, 15% is minority woman-owned). Furthermore, there are 4 women with senior management positions. From its inception, RHJ has been a long-time supporter of organizations that promote diversity. We actively seek to expand our reach of support to additional DEI-related organizations.

## **Exercising Diversity, Equity, and Inclusion**

RHJ is also dedicated to ensuring that our firm is a workplace where every employee feels included, comfortable, respected, and provided with opportunities for continued growth. The firm will encourage initiatives focused on promoting awareness of DEI topics through training opportunities and creating a safe space for employees to express DEI-related concerns. RHJ's Management Committee will oversee and track progress made by the firm in relation to DEI, and ensure firm adherence to this policy.



# Biographies

## Portfolio Management & Analysis Team

### **Lou Holtz, CFA**

#### ***Chief Investment Officer & Portfolio Manager/Analyst***

Lou joined RHJ in October 2008 and has 31 years of investment experience. Prior to joining the firm he was a Managing Director and Portfolio Manager at Engemann Asset Management. Prior to that, Lou was a business valuation analyst at a national independent appraisal firm and an analyst for a regional real estate appraisal firm. Lou holds a Bachelor of Arts degree in business economics with honors from the University of California, Santa Barbara and an M.B.A. with an emphasis in finance from the University of Southern California, where he was on the Dean's List. Lou is a CFA® charterholder. He is a member of CFA Society Los Angeles.

### **Yossi Lipsker, CFA**

#### ***Portfolio Manager/Analyst***

Yossi joined RHJ in October 2008 and has 28 years of investment experience. Prior to joining the firm he was a Managing Director and Portfolio Manager at Engemann Asset Management. He received an M.B.A. with an emphasis in finance from Columbia Business School. While at Columbia he excelled academically, gaining membership in both the Beta Gamma Sigma Honor Society and the Dean's List. Additionally, Yossi holds a B.R.S. degree in religious studies from the Rabbinical College of America. Yossi is a CFA® charterholder. He is a member of CFA Society Los Angeles.

### **Anthony S. Yamarone, CFA**

#### ***Analyst***

Tony joined RHJ in September 2016. Prior to joining the firm, he worked at Ameriprise Financial as a member of their financial planning team. He received a B.S. in Business Administration from San Francisco State University and an M.S. in Financial Analysis and Investment Management from Saint Mary's College of California. Tony is a CFA® charterholder. He is a member of CFA Society Los Angeles.

### **Dakota Safford, CFA**

#### ***Analyst***

Dakota joined RHJ in August 2017. Prior to joining the firm, he worked at Advanced Financial Strategies as a financial analyst. He received a B.A. in Business Economics from the University of California, Irvine. While at UCI, he was involved in the Student Managed Investment Fund, where he performed equity research and evaluated portfolio structures. Dakota is a CFA® charterholder. He is a member of CFA Society Los Angeles.

### **Alec R. Harrell, CFA**

#### ***Analyst***

Alec joined RHJ in December 2017 and has 20 years of investment experience. Prior to joining the firm he was a Senior Portfolio Manager/Analyst at Northern Trust Asset Management. Prior to that, Alec worked as a Portfolio Manager/Analyst for Convergent Fund Management and an Analyst for Needelman Asset Management. His experience includes fundamental research on U.S. and international securities as well as the development of quantitative equity strategies. He received a B.A. in politics, philosophy and economics from Claremont McKenna College and a J.D. and M.B.A. from the University of Southern California [USC]. Alec is a CFA® charterholder. He is a member of CFA Society Los Angeles.



# Biographies

## Marketing & Client Service

### **Thao N. Buuhoan**

#### ***President & Chief Operating Officer***

Thao joined RHJ in June of 2000 and was initially responsible for Institutional Marketing and Client Service. In 2009, Thao assumed responsibility as President and Chief Operating Officer and leads the growth and strategic initiatives of the firm. She also oversees Compliance, Operations, and Trading, in addition to her Marketing and Client Service responsibilities. Prior to joining RHJ, she was a Marketing Manager at State Street Global Advisors in Hong Kong, responsible for sales and marketing to Asian institutions. Thao is a former board member of AAAIM (Association of Asian American Investment Managers) and continues to be active with a number of affinity groups focused on Diversity, Equity, and Inclusion. She received a B.A. from the University of Pennsylvania.

### **Michael C. Meoli**

#### ***Director of Client Service & Marketing***

Mike joined RHJ in March 2011 and is responsible for Institutional Marketing and Consultant Relations. Prior to joining the firm, he worked at Everest Capital where he focused on consultant relations and business development. Other previous work experience includes business development at Pathway Capital Management and conducting research on investment managers at an institutional investment consulting firm. Mike holds a B.A. from Concordia University and an M.B.A. from the University of California, Irvine.

### **Lauren Maskell**

#### ***Assistance Vice President***

Lauren joined RHJ in 2016 and has performed various functions in the Administration and Operations departments. In December 2018, she joined the Client Service and Marketing Team and is currently responsible for servicing institutional client, consultant, and third party relationships. Lauren oversees firm RFPs and questionnaires, institutional database updates, and marketing material production. Lauren holds a B.A degree in Liberal Studies from San Diego State University.



# Biographies

## Trading

### **DJ Devin**

#### ***Head Securities Trader***

DJ joined the firm in June 1981 and served in several administrative and trade-related positions. In 1986, she assumed responsibility for the execution of all trades and management of soft dollars and commissions. She received a Certificate in Personal Financial Planning from San Diego State University and is a member of the Security Traders Association of Los Angeles.

### **Jorji-Ann McAllister**

#### ***Trader***

Jorji-Ann joined RHJ in May 1987 and has served in several administrative and trade related positions. Jorji-Ann completes all trading functions, including placement and execution of orders. She received a B.S. from Kearney State College, Kearney, Nebraska.

### **Brandon Toney, CFA**

#### ***Trader***

Brandon joined RHJ in March 2017. Prior to joining the firm, he worked at Wall Street Associates for two years as a trader. He received a B.S. in Finance from San Diego State University. Brandon is a CFA® charterholder. He is a member of CFA Society San Diego.



# Biographies

## Administration

### **Carl M. Obeck** *Chief Financial Officer*

Carl joined RHJ as Marketing Manager in 2003 and was promoted to Chief Administrative Officer in 2004 and Chief Financial Officer in 2009. Prior to joining the firm, Carl was responsible for Institutional Consulting Relationships and Marketing at Freeman Associates Investment Management. He also served as Director of Marketing at Messner & Smith. Previous experience includes Corporate Vice President at Montgomery Asset Management and Product Manager for Citibank London NA. Carl has a B.A. from the University of Delaware and an M.A. from Webster University in Vienna, Austria.

### **Janine Marquez, IACCP** *Chief Compliance Officer*

Janine joined RHJ in July 2002. Janine was appointed Chief Compliance Officer (CCO) for RHJ in June 2009. As CCO, she is responsible for oversight and implementation of the compliance program and regulatory requirements for the firm. Throughout her tenure with RHJ, Janine has held various roles within Marketing, Trading and Compliance. Previously, she was a Senior Investment Analyst at Callan Associates Inc. She was responsible for researching and analyzing money management firms for pension fund plan sponsors. She holds a B.S. degree from California Polytechnic State University, San Luis Obispo, California. Additionally, Janine holds the designation of Investment Adviser Certified Compliance Professional® (IACCP®).

### **Shelley Hamilton** *Senior Compliance Manager*

Shelley joined RHJ in February 1997, and has 34 years of industry experience. Shelley was promoted to Senior Compliance Manager for RHJ in November 2018. Throughout her tenure with RHJ, Shelley has held various roles within the Operations Department, including Operations Manager, Project Manager and Operations Administrator.

### **Tony Shaw, CFA** *Director of Operations*

Tony joined the firm in August 2010 and has 29 years of experience in the financial services industry. Prior to joining RHJ, he served as Vice President at LPL Financial overseeing areas in operations and client services as well as issue resolution. Tony holds a B.A. degree from San Diego State University. Tony is a CFA® charterholder.

### **Brett Knight** *Director of Information Technology*

Brett joined RHJ in April 2015 as Director of Information Technology and the acting Information Security Officer. He has 23 years of industry experience. Prior to joining the firm, Brett was a founding partner at Bravura Networks Inc., a managed service provider in the IT industry. Brett has a B.S. in Business Administration with an emphasis in Management Information Systems from San Diego State University; additionally, Brett holds a Microsoft Certified Systems Engineer (MCSE) certification.



# Investment Statistics: Definitions & Formulas

**Active Share** - This is a measure of the percentage of stock holdings in the portfolio that differs from the benchmark index. Active Share is calculated by taking the sum of the absolute value of the differences of the weight of each holding in the portfolio versus the weight of each holding in the benchmark index and dividing by two.

**EV/EBITDA** - Enterprise multiple, also known as the EV multiple, is a ratio used to determine the value of a company. The enterprise multiple, which is enterprise value divided by earnings before interest, taxes, depreciation, and amortization (EBITDA), looks at a company the way a potential acquirer would by considering the company's debt.

**Free Cash Flow Yield** - Free cash flow yield is a financial solvency ratio that compares the free cash flow per share a company is expected to earn against its market value per share. The ratio is calculated by taking the free cash flow per share divided by the current share price.

**Long-Term Earnings Growth Forecast** - Long-Term Growth [LTG] is the annual EPS growth that the company can sustain over the next 3 or 5 years.

**P/E Ratio** - The price-to-earnings ratio is the ratio for valuing a company that measures its current share price relative to its earnings per share. The price-to-earnings ratio is also sometimes known as the price multiple or the earnings multiple.

**P/E to Growth Ratio** - A stock's price-to-earnings ratio divided by the growth rate of its earnings for a specific time period. This is used to determine a stock's value while also factoring in the company's expected earnings growth, and is considered to show a more full picture than the standard P/E Ratio calculation.

**P/E Ratio - 1 Year Forecast** - A forward-looking valuation measure of a company's common stock, excluding negative earnings. It encapsulates the amount of earnings estimated for next year per dollar of current share price. For the portfolio, the individual P/E stock ratios are then weighted by their respective portfolio market values in order to calculate a weighted average representative of the portfolio as a whole.

**Return on Invested Capital** - Return on invested capital (ROIC) is a calculation used to assess a company's efficiency at allocating the capital under its control to profitable investments.

Sources: *eVestment Analytics & FactSet*



# Important Disclosures

Rice Hall James & Associates, LLC (“RHJ”) obtained some of the information provided herein from third party sources believed to be reliable but it is not guaranteed. Data contained herein is for informational purposes only and should not be considered a recommendation to buy or sell any securities. Nothing presented herein is or is intended to constitute investment advice, and no investment decision should be made based solely on any information provided herein. RHJ has not taken into account the investment objectives, financial situation or particular needs of any individual investor who may view this report. There is a risk of loss from an investment in securities, including the risk of loss of principal. Different types of investments involve varying degrees of risk, and there can be no assurance that any specific investment will be profitable or suitable for a particular investor’s financial situation or risk tolerance. Asset allocation and portfolio diversification cannot assure or guarantee better performance and cannot eliminate the risk of investment losses.

## GICS Sector Classification

The Global Industry Classification Standard (GICS®) was developed by and is the exclusive property and a trademark of S&P and MSCI. GICS® is used for all portfolio characteristics involving sector and industry data such as benchmark, active and relative weights, and attribution. Neither MSCI, S&P nor any other party involved in making or compiling any GICS classifications makes any express or implied warranties or representations with respect to such standard or classification (or the results to be obtained by the use thereof), and all such parties hereby expressly disclaim all warranties of originality, accuracy, completeness, merchantability or fitness for a particular purpose with respect to any of such standard or classification. Without limiting any of the foregoing, in no event shall MSCI, S&P, any of their affiliates or any third party involved in making or compiling any GICS classifications have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) even if notified of the possibility of such damages.

*Source: S&P Dow Jones Indices LLC*

## CFA Designation

The Chartered Financial Analyst (CFA) charter is a globally respected, graduate-level investment credential established in 1962 and awarded by CFA Institute - the largest global association of investment professionals. To earn the CFA charter, candidates must: 1) pass three levels of the CFA exam; 2) achieve qualified professional investment experience or work experience; 3) submit professional reference letters; and 4) apply for CFA Institute charterholder membership.

*Source: CFA Institute*

## Indices Disclosure

Indices are provided for comparative purposes only. Broad-based securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. An investor cannot invest directly in an index. RHJ may invest in securities not covered by the index referenced. This is an actively managed strategy that does not invest in all of the securities of an index, and will have some associated concentration risk. Comparisons have limitations because indices may have volatility, investment and other characteristics that may differ from an investment account strategy to which it is compared. Indices are unmanaged, include the reinvestment of dividends, and do not reflect transaction costs, management, or other fees. See the following for a description of each index used in this material.

### Russell 2000® Growth Index

The Russell 2000® Growth Index measures the performance of the small cap growth segment of the U.S. equity universe. It includes those Russell 2000 companies with relatively higher price-to-book ratios, higher I/B/E/S forecast medium term (2 year) growth, and higher sales per share historical growth (5 years). The Russell 2000 Growth Index is constructed to provide a comprehensive and unbiased barometer for the small-cap growth segment. The index is completely reconstituted annually to ensure new and growing equities are included and that the represented companies continue to reflect growth characteristics.

*Index Definition Source: FTSE Russell*



# GIPS Report

## RHJ Small Cap Opportunities Composite

Year End	Annual Performance Results				3-Year Annualized Standard Deviation	
	Composite Gross Returns	Composite Net Returns	Russell 2000 Growth	Composite Dispersion Gross Returns	Composite Gross Returns	Russell 2000 Growth
2021	16.13%	15.38%	2.83%	0.10%	23.68%	23.07%
2020	24.50%	23.65%	34.63%	0.43%	26.10%	25.10%
2019	18.85%	18.04%	28.48%	0.11%	15.65%	16.37%
2018	-6.49%	-7.11%	-9.31%	0.28%	16.34%	16.46%
2017	28.71%	27.93%	22.17%	0.14%	14.14%	14.59%
2016	11.93%	11.28%	11.32%	0.13%	15.57%	16.67%
2015	-0.06%	-0.60%	-1.38%	0.41%	14.26%	14.95%
2014	8.41%	7.69%	5.60%	N/A <sup>1</sup>	13.02%	13.82%
2013	56.34%	55.12%	43.30%	N/A <sup>1</sup>	14.91%	17.27%
2012	14.56%	13.62%	14.59%	N/A <sup>1</sup>	18.25%	20.72%
2011	9.55%	8.68%	-2.91%	N/A <sup>1</sup>	22.77%	24.31%
2010	38.73%	37.65%	29.09%	N/A <sup>1</sup>	28.56%	27.70%
2009	48.47%	47.27%	34.47%	N/A <sup>1</sup>	26.27%	24.85%
2008	-43.34%	-43.71%	-38.54%	N/A <sup>1</sup>	21.32%	21.26%
2007	10.48%	9.50%	7.05%	N/A <sup>1</sup>	13.87%	14.23%
2006	7.10%	6.11%	13.35%	N/A <sup>1</sup>	15.82%	15.57%
2005	11.46%	10.42%	4.15%	N/A <sup>1</sup>	17.92%	16.51%
2004	10.03%	9.04%	14.31%	N/A <sup>1</sup>	23.95%	21.40%
2003	50.70%	49.31%	48.54%	N/A <sup>1</sup>	34.03%	27.00%
2002	-29.41%	-30.07%	-30.26%	N/A <sup>1</sup>	43.88%	33.33%
2001	-28.87%	-29.52%	-9.23%	N/A <sup>1</sup>	46.49%	33.58%
2000	-13.23%	-14.01%	-22.43%	N/A <sup>1</sup>	42.60%	33.28%
1999	87.81%	86.06%	43.09%	N/A <sup>1</sup>	32.26%	26.31%
1998	16.33%	15.20%	1.23%	N/A <sup>1</sup>	28.77%	25.03%
1997	28.67%	27.41%	12.95%	N/A <sup>1</sup>	21.20%	18.27%
1996	53.30%	51.78%	11.26%	N/A <sup>1</sup>		
1995	25.69%	24.45%	31.04%	N/A <sup>1</sup>		
1994 <sup>*</sup>	20.70%	20.39%	1.40%	N/A <sup>1</sup>		



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N/A<sup>1</sup> - Information is not statistically meaningful due to an insufficient number of portfolios in the composite for the entire calendar year (five or fewer).

\*Results shown for the year 1994 represent partial period performance from October 10 through December 31, 1994.

# GIPS Report

## RHJ Small Cap Opportunities Composite

Year End	Composite Assets		Firm Assets (\$ M)			Strategy Assets (\$ M)		
	Number of Accounts	USD (\$ M)	Total Assets Under Management	Total Advisory-Only Assets	Total Assets Under Management + Advisory-Only Assets*	Total Assets Under Management	Total Advisory-Only Assets	Total Assets Under Management + Advisory-Only Assets
2021	18	1,267	2,948	347	3,295	1,546	20	1,566
2020	19	1,333	3,120	205	3,325	1,634	19	1,653
2019	20	1,110	3,359	207	3,566	1,495	25	1,520
2018	20	991	3,051	199	3,250	1,383	19	1,402
2017	19	1,121	3,607	235	3,842	1,634	14	1,648
2016	20	813	2,843	65	2,907	1,194	-	1,194
2015	17	557	2,258	-	2,258	784	-	784
2014	10	255	1,955	2	1,958	434	-	434
2013	Five or fewer	54	1,514	2	1,516	66	-	66
2012	Five or fewer	30	1,087	8	1,095	31	-	31
2011	Five or fewer	35	1,144	6	1,150	36	-	36
2010	Five or fewer	50	1,312	2	1,314	50	-	50
2009	Five or fewer	40	1,203	1	1,205	41	-	41
2008	Five or fewer	27	1,030	-	1,030	28	-	28
2007	Five or fewer	187	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2006	Five or fewer	211	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2005	Five or fewer	254	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2004	Five or fewer	369	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2003	Five or fewer	360	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2002	Five or fewer	259	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2001	Five or fewer	463	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
2000	Five or fewer	407	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1999	Five or fewer	244	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1998	Five or fewer	101	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1997	Five or fewer	53	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1996	Five or fewer	9	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1995	Five or fewer	2	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>
1994	Five or fewer	0	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>



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N/A<sup>1</sup> - Performance presented prior to September 30, 2008, occurred while the portfolio management team was affiliated with another firm. Firm and strategy assets prior to 2008 are not presented because the composite was not part of the firm.

\*Assets Under Management + Advisory-Only Assets totals may differ from Total Assets Under Management and Total Advisory-Only Assets due to rounding.

# GIPS Report

The RHJ Small Cap Opportunities Composite contains all fully discretionary, tax-exempt, institutional, and high net worth portfolios invested in small cap companies that have three primary characteristics: high earnings growth, high or improving return-on-invested capital, and sustainable competitive advantages. The composite was created on April 1, 1999, and the inception date is October 10, 1994. The performance presented prior to October 1, 2008, represents that of a prior firm and was known as the Small Cap Growth Institutional Composite. The portfolio management team members were the only individuals responsible for selecting securities to buy and sell. The minimum account size for this composite is \$1 million. From January 1, 1996 to March 31, 2004, the minimum account size was \$5 million. Prior to January 1, 1996, there was no minimum. For comparison purposes the composite is measured against the Russell 2000 Growth index.

Results are based on fully discretionary accounts under management, including those accounts no longer with the firm. As of January 1, 2005, composite policy requires the temporary removal of any portfolios incurring a client initiated significant cash inflow or outflow of 50% or greater of portfolio assets. The temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurs and the account re-enters the composite the month after the cash flow is fully invested. From January 1, 2005 to June 30, 2006, the temporary removal of such an account occurred at the beginning of the month in which the significant cash flow occurred and the account is re-entered into the composite the month after the cash flow. From July 1, 2006 to September 30, 2008, the temporary removal of such an account occurs at the beginning of the quarter in which the significant cash flow occurs and the account re-enters the composite the second calendar quarter after the cash flow. As of September 30, 2008, the temporary removal of such an account occurs at the beginning of the month in which the significant cash flow occurred and the account is re-entered into the composite the month after the cash flow. Additional information regarding the treatment of significant cash flows is available upon request. Past performance is not indicative of future results.

Founded in 1974, Rice Hall James & Associates, LLC is an SEC registered investment adviser. The firm is 100% employee owned.

The U.S. Dollar is the currency used to express performance. Returns are presented gross and net of management fees, and include the reinvestment of all income. Net of fee performance was calculated using actual management fees. The annual composite dispersion presented is an asset-weighted standard deviation calculated for the gross returns of accounts in the composite the entire year. Additional information regarding policies for valuing investments, calculating performance, and preparing GIPS Reports are available upon request. The firm maintains a complete list of pooled funds and composite descriptions, which is available upon request.

Indices are provided for comparative purposes only. An investor cannot invest directly in an index. Comparisons have limitations because indices may have volatility, investment and other characteristics that may differ from an investment account strategy to which it is compared. Indices are unmanaged, include the reinvestment of dividends, and do not reflect transaction costs, management, or other fees. The Russell 2000® Growth Index measures the performance of the small-cap growth segment of the U.S. equity universe. It includes those Russell 2000 companies with higher price-to-value ratios and higher forecasted growth values. The Russell 2000 Growth Index is constructed to provide a comprehensive and unbiased barometer for the small-cap growth segment. The Index is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true small-cap opportunity set and that the represented companies continue to reflect growth characteristics.

The management fee schedule is as follows: 1.0% flat rate. Actual investment advisory fees incurred by clients may vary. This composite does not include any non-fee paying accounts.

Rice Hall James & Associates, LLC claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Rice Hall James & Associates, LLC has been independently verified for the periods January 1, 1993 through December 31, 2021. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The RHJ Small Cap Opportunities Composite has had a performance examination for the periods October 1, 2008 through December 31, 2021. The verification and performance examination reports are available upon request at the following address: 600 West Broadway, Suite 1000, San Diego, California 92101.

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## MEMORANDUM

**TO:** Oakland Police and Fire Retirement System (“OPFRS”)  
**FROM:** Meketa Investment Group (“Meketa”)  
**DATE:** May 31, 2023  
**RE:** Rice Hall James—Manager Update

### Manager: Rice Hall James

<b>Inception Date:</b>	July 2017	<b>OPFRS AUM (4/30/2023):</b>	\$14.3 million
<b>Strategy:</b>	Small Cap Opportunities	<b>Firm-wide AUM (3/31/2023):</b>	\$1.8 billion
<b>Benchmark:</b>	Russell 2000 Growth	<b>Strategy AUM (3/31/2023):</b>	\$1.0 billion

### Summary & Recommendation

Rice Hall James has managed a part of OPFRS’s small cap equity portfolio since July 2017. As of 4/30/2023, the portfolio is approximately \$14.3 million or about 3.5% of OPFRS’s total plan.

The strategy was put on the Watch status in May 2019 for performance concerns, as Rice Hall James experienced poor relative performance in 2019 and 2020.

As of the last review in October 2022 and thereafter, Rice Hall James has performed within expectations and guidelines for the portfolio. No major organizational changes or personnel turnover in the portfolio management team have been observed since the last review.

***Therefore, from investment management process and performance perspective, Meketa does not have any major concerns with Rice Hall James and the Small Cap Opportunities strategy, and recommends that it be removed from the Watch status.***

### Investment Performance Review Summary

As of 4/30/2023, Rice Hall James’s Small Cap Opportunities strategy has outperformed the benchmark Russell 2000 Growth Index on gross-of-fees basis over all the trailing time periods measured. On net-of-fees basis, the strategy outperformed the benchmark across all periods except in the trailing 5-year period, where it slightly underperformed. Since inception in July 2017, the strategy has generated an annualized net-of-fees investment return of 6.0% and has outperformed the benchmark.

In comparison with the other US small cap growth managers, the portfolio ranks in the first quartile year-to-date (through April) and above the 1- and 3-year trailing periods. Reflecting the past underperformance in 2019 and 2020, the strategy ranks below average for the longer time periods, namely the 5-year trailing period and since inception in July 2017.

OPFRS Portfolio Annualized Returns (as of 4/30/2023)<sup>1</sup>

Portfolio	Market Value (\$000)	YTD	1 YR	3 YR	5 YR	Since Inception	Inception Date
Rice Hall James (Gross)	14,336	7.8	2.0	11.5	4.8	7.1	7/2017
<i>Russell 2000 Growth</i>	---	4.8	0.7	7.8	4.0	5.7	---
Excess Return (Gross)	---	3.0	1.3	3.7	0.8	1.4	---
Rice Hall James (Net)	---	7.4	0.9	10.4	3.7	6.0	---
<i>Russell 2000 Growth</i>	---	4.8	0.7	7.8	4.0	5.7	---
Excess Return (Net)	---	2.6	0.2	2.6	(0.3)	0.3	---
Peer Group Ranking <sup>2</sup>	---	20	32	48	91	88	---
Reference: Median Net Return	---	4.4	(2.3)	10.0	7.9	9.3	---

## Product and Organization Review Summary

Rice Hall James	Areas of Potential Impact				
	Level of Concern	Investment process (Client Portfolio)	Investment Team	Performance Track Record	Team/Firm Culture
<b>Product</b>					
Key people changes	None				
Changes to team structure/individuals' roles	None				
Product client gain/losses	None				
Changes to the investment process	None				
Personnel turnover	None				
<b>Organization</b>					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
<b>Recommended Action</b>	<b>None - X</b>		<b>Watch Status</b>		<b>Termination</b>

A review of Rice Hall James and the Small Cap Opportunities strategy revealed no concerning organizational issues or changes since last review in October 2022.

<sup>1</sup> Performance is annualized for periods longer than one year.

<sup>2</sup> Peer group is eVestment US Small Cap Growth Equity Managers Net.

## Investment Philosophy & Process, per Manager

The Small Cap Opportunities strategy employs a fundamental, bottom-up analytical process to identify companies that meet three primary criteria: high earnings growth, high or improving return-on-invested capital ("ROIC"), and sustainable competitive advantages.

RHJ's philosophy is rooted in historical analysis indicating the high relative return potential of these factors in combination. They believe that superior results can be achieved by owning companies that exhibit not only high earnings growth, but also the ability to sustainably generate high ROIC over long periods of time. RHJ's investment universe consists of companies with market capitalizations between \$100 million and \$4 billion at the time of purchase.

The heart of RHJ's process is fundamental, bottom-up analysis at the company level. The portfolio managers conduct all research on every company held in the portfolio. As generalists, each with over twenty years of investment experience, both portfolio managers bring to bear extensive knowledge of the companies they own or follow, understanding of industries, and general expertise on the small cap landscape in various market environments. Cornerstones of the bottom-up fundamental investment process include:

- Clear understanding of a firm's competitive context and advantages
- Assessment of the sustainability characteristics of the underlying business
- Emphasis on high or improving ROIC; a clear sense of the future direction of ROIC
- Estimation of ability to generate and grow free cash flow over life of the investment
- Valuation that affords a reasonable return over investment horizon
- Scrutiny of company management, ability to identify/ execute on the right plan

Idea generation begins with an analysis of companies within the FactSet universe with market caps ranging from \$100 million to \$4 billion, with an emphasis on growth-oriented industries comprised of companies that feature high earnings growth and high ROIC criteria. Health Care, Technology, and Consumer traditionally have been rich with such companies. They also look for new or emerging industries that can support high growth companies going forward. While these types of investments typically carry more risk, certain areas of the internet and biotechnology, for example, management believes they can create space for attractive long-term growth characteristics.

Finally, RHJ looks for catalysts within industries that are not typically associated with growth characteristics, seeking to capitalize on tactical growth opportunities that arise due to demographic, regulatory and supply/demand issues. Cyclical industries can provide the landscape for attractive growth opportunities to crop up due to such changes.

### Investment Philosophy & Process, per Manager (continued)

At the company level, RHJ focuses on businesses that can generate above-average earnings and free cash flow relative to the benchmark. Management favors companies that they believe can achieve these results in tandem with sustained high ROIC, or that can increase their returns to above-average levels over the relevant investment horizon. It is essential that a company can protect these attributes through a well-defined, competitive position, which will protect growth, margins and returns.

Since strong relative results tend to manifest over longer holding periods, RHJ focuses on long-term sustainability factors rather than short-term data points and market movements; as such, low turnover is a notable characteristic of the portfolio.

DS/PN/JLC/mn



## Disclosure

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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

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

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

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

## MEMORANDUM

**TO:** Oakland Police and Fire Retirement System (“OPFRS”)  
**FROM:** Meketa Investment Group (“Meketa”)  
**DATE:** May 31, 2023  
**RE:** Crisis Risk Offset (CRO) Asset Class Benchmark Update

### Background

The Oakland Police and Fire Retirement System (“OPFRS”) adopted the Crisis Risk Offset (CRO) asset class as part of the asset allocation policy in 2017. This asset class serves to diversify both the equity risk and nominal interest rate risk of the total portfolio. Thus, it is structured as a combination of multiple underlying components, so that the aggregate class exhibits uncorrelated returns and characteristics.

In the OPFRS portfolio, this class is implemented with a mix of Long Duration fixed income, Systematic Trend Following, and Alternative Risk Premia elements, each having one-third of the total CRO assets as the allocation target.

### Current & Recommended Benchmarks

In the latest revision of the Investment Policy Statement (IPS) in March 2022, Société Générale (SG) Multi Alternative Risk Premia Index was established as the benchmark for the CRO asset class as all of its underlying components had not been fully implemented.

Since then, the CRO asset class has been fully implemented with all three components. Thus, we recommend that the asset class benchmark for CRO is updated as the following to better reflect its components and measure the asset class’s performance against its intended purpose: **33.34% SG Trend Index, 33.33% Bloomberg US Gov Long Index, and 33.33% SG Multi Alternative Risk Premia Index.**

We also recommend that the recommended benchmark be retroactively applied to the CRO asset class starting January 1, 2023.

	2023 Q1	1 Year	3 Years
Crisis Risk Offset	0.0	-6.5	-8.7
Current Benchmark	1.1	6.4	2.1
Recommended Benchmark	0.1	5.3	1.7

In the following pages, the sections of the IPS (Revised March 2022) which will be updated upon adoption of this recommendation are presented in a red-lined version.

## E. ASSET ALLOCATION

### 1) Asset Classes to be Used

The Board has considered and adopted the use of three significant asset classes:

- a) Domestic Stocks,
- b) International Stocks, and
- c) Fixed Income instruments to include: U.S. Treasury Notes and Bonds, U.S. Government Agency Mortgage-Backed Securities\*, U.S. Corporate Notes and Bonds, Collateralized Mortgage Obligations, Yankee Bonds, High Yield Bonds/Bank Loans, and Non-U.S. issued fixed income securities denominated in foreign currencies

There will be a negligible permanent allocation to cash equivalents.

### 2) Long-Term Target Allocations

In March 1996, Oakland voters passed Measure E which amended Article XXVI, Section 2601(e) of the Oakland City Charter to increase the percentage of the invested funds of the System that may be invested in common stocks and mutual funds from forty percent (40%) to fifty percent (50%).

In November 2006, Oakland voters passed Measure M which further amended Article XXVI of the Oakland City Charter to allow the OPFRS Board to make investments solely in accordance with the prudent person standard as required by the California Constitution, Article XVI, Section 17 (a).

Long-Term Asset class targets as adopted by the Board in 4Q 2017 are as follows:

Investment Class	Phase 1 Interim Policy Targets (%)	Phase 2 Long-Term Policy Targets (%)	Benchmark
Domestic Equity	40	40	Russell 3000 Index
International Equity	12	12	MSCI ACWI ex US Index
Fixed Income	31	21	Bloomberg US Universal Index
Credit	2	2	Bloomberg US High Yield Index
Covered Calls	5	5	CBOE S&P 500 Buy Write Index (BXM)
Crisis Risk Offset	10	20	<u>33.34% SG Trend Index, 33.33% Bloomberg US Gov Long Index, 33.33% SG Multi Alternative Risk Premia Index</u> <del>SG Multi Alternative Risk Premia Index</del>
Cash	0	0	90-day T-Bills

\* Includes Non-Agency issues, which are fully collateralized by Agency paper.

**F. PERFORMANCE OBJECTIVES**

**1) Overall Investment Goal**

The overall investment goal of the retirement system is to generate a long-term oriented rate of return for the total portfolio that equals or exceeds the actuarial investment rate assumption. This objective will primarily emanate from the overall asset allocation policy of the Plan. The Board will maintain a long-term investment horizon and will monitor on a routine periodic basis the investment performance of the total fund, various asset classes, and investment managers (see Monitoring Procedures).

**2) Performance Benchmarks and Targets for the Total Fund and Fund Asset Classes**

Total Fund performance is evaluated against two benchmarks: (i) a Policy Index (a weighted average of performance using policy targets by asset class), and (ii) an Asset Allocation Index (a weighted average of performance using actual allocations by asset class). By doing so, the Board is able to determine whether Fund performance is due to active decisions by its investment managers and/or differences between the target policy allocation and actual asset allocation.

In addition, the Board will compare performance of each asset class against a benchmark that has characteristics representative of a broad market and indicative of the investment managers comprising that asset class.

Asset Class	Benchmark*
Domestic Equity	Russell 3000 Index
International Equity	MSCI ACWI ex US Index
Fixed Income	Bloomberg US Universal Bond Index
Credit	Bloomberg US High Yield Index
Covered Calls	CBOE S&P 500 Buy Write Index (BXM)
Crisis Risk Offset (CRO)	<u>33.34% SG Trend Index, 33.33% Bloomberg US Gov Long Index, 33.33% SG Multi Alternative Risk Premia Index, SG Multi Alternative Risk Premia Index</u>

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\* Reported asset class benchmark returns may contain results of prior benchmarks (a blended benchmark)

### M. CRISIS RISK OFFSET (CRO) AND PORTFOLIO COMPONENT DEFINITIONS

In accordance with the objectives of the Statement of Investment Policy and Procedures of the Oakland Police and Fire Retirement System (the “System” or “OPFRS”), the System has created a CRO strategic class. The role of the CRO class is to mitigate the effects of growth risk on the portfolio by focusing on investment strategies that further enhance asset diversification within the portfolio with strategies that exhibit lower correlations with equities and fixed income.

This class can include investments in commingled funds, interests in the following categories:

- Long Duration Treasury Bonds
- Systematic Trend Following
- Alternative Risk Premia

#### 1) Objective

The CRO Class is to be structured as a combination of multiple underlying assets and/or vehicles, so that the aggregate class exhibits uncorrelated returns and characteristics. The objective of this class is to diversify both the equity risk and nominal interest rate risk of the total portfolio.

#### 2) Benchmark

Performance of the CRO asset class is measured against ~~the SG Multi Alternative Risk Premia Index~~ a custom benchmark composed of 33.34% SG Trend Index, 33.33% Bloomberg US Gov Long Index, and 33.33% SG Multi Alternative Risk Premia Index.

#### 3) Eligible Investment Approaches

##### a) Long Duration

- i) Portfolios of long-dated (maturities in excess of 10 years) high-quality bonds (Treasury and Government-backed high-quality agencies).
- ii) Portfolios of cash-collateralized derivatives that mirror the performance of long-dated high-quality bonds.

##### b) Systematic Trend Following

- i) Long-short portfolios using both cash and derivatives-based instruments to capture both periodic appreciation and periodic depreciation trends that evolve and dissipate across a very wide array of liquid global markets. Risk/volatility is calibrated to a pre-determined level using cash and derivatives-based leverage.

##### c) Alternative Risk Premia

- i) Long-short portfolios using both cash and derivatives-based instruments to capture well-researched/documented non-market risk premia (e.g., momentum, carry, value, low-volatility, etc.) on a continuous basis, using an array of liquid global markets. Risk/volatility is calibrated to a pre-determined level using cash and derivatives-based leverage.

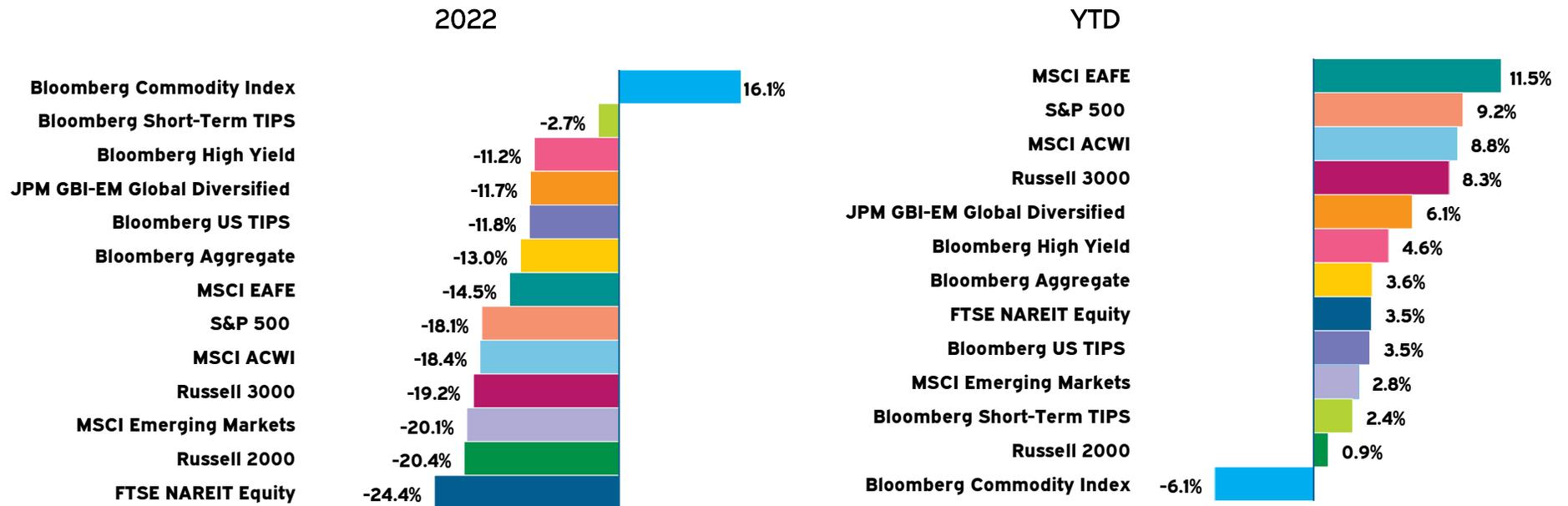
# Economic and Market Update

April 2023 Report

### Commentary

- Most asset classes added to first quarter gains in April as investors remained focused on slowing inflation and a potential end to rate hikes.
- The Fed increased interest rates for the tenth time after month-end, to a range of 5.0% - 5.25%, with this action largely expected to be their final hike.
  - Political struggles over the debt ceiling led to a significant increase in short-term rates and a historically high price of the cost to insure against defaults on US Treasuries.
  - US equity markets (Russell 3000) rose in April (+1.1%) adding to YTD gains (+8.3%). Some of the largest technology names drove positive results, with lingering issues in the banking sector (e.g., First Republic) weighing on parts of the equity markets.
  - Non-US developed equity markets also rallied in April (MSCI EAFE +2.8%) extending the outperformance relative to the US so far in 2023 (+11.5% versus +8.3%).
  - Emerging market equities fell in April (-1.1%) driven by declines in China (-5.2%). They significantly trail developed market equities YTD returning +2.8% partly due to higher US-China tensions.
  - After a strong March driven by the issues in the banking sector, bonds had more subdued gains in April, with the broad US bond market (Bloomberg Aggregate) gaining 0.6% for the month.
- This year, the path of inflation and monetary policy, slowing global growth, and the war in Ukraine, as well as recent pressures in regional banks and the looming debt ceiling breach in the US, will all be key.

### Index Returns<sup>1</sup>



→ After a particularly difficult 2022, most public market assets are up in 2023, building on gains from the fourth quarter of last year.

→ Risk sentiment has been supported by expectations that policy tightening could be ending soon, as inflation continues to fall and growth has slowed.

<sup>1</sup> Source: Bloomberg and FactSet. Data is as of April 30, 2023.

### Domestic Equity Returns<sup>1</sup>

Domestic Equity	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	1.6	7.5	9.2	2.7	14.5	11.4	12.2
Russell 3000	1.1	7.2	8.3	1.5	14.1	10.6	11.7
Russell 1000	1.2	7.5	8.8	1.8	14.2	11.1	12.0
Russell 1000 Growth	1.0	14.4	15.5	2.3	13.6	13.8	14.5
Russell 1000 Value	1.5	1.0	2.5	1.2	14.4	7.7	9.1
Russell MidCap	-0.5	4.1	3.5	-1.7	13.8	8.0	9.9
Russell MidCap Growth	-1.4	9.1	7.6	1.6	9.2	9.0	10.8
Russell MidCap Value	0.0	1.3	1.3	-3.5	15.8	6.4	8.7
Russell 2000	-1.8	2.7	0.9	-3.6	11.9	4.1	7.9
Russell 2000 Growth	-1.2	6.1	4.8	0.7	7.8	4.0	8.4
Russell 2000 Value	-2.5	-0.7	-3.1	-8.0	15.5	3.7	7.0

#### US Equities: Russell 3000 Index rose 1.1% in April and 8.3% YTD.

- US stocks rose in April as optimism over the Fed potentially ending its rate hiking campaign was mitigated by lingering concerns in the banking sector and slowing growth. Year-to-date gains in the US equity market remain strong though.
- Most sectors in the Russell 3000 index rose during the month, led by consumer staples and communication services. Growth stocks have significantly outperformed value stocks across the market capitalization spectrum this year, particularly in the large cap space due to technology stocks.
- The resurgence of large cap technology stocks is also driving the outperformance of the large cap indices versus the small cap indices. Weakness in the performance of small cap bank stocks is also contributing to results.

<sup>1</sup> Source: Bloomberg. Data is as of April 30, 2023.

### Foreign Equity Returns<sup>1</sup>

Foreign Equity	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	1.7	6.9	8.7	3.0	9.8	2.5	4.0
MSCI EAFE	2.8	8.5	11.5	8.4	11.7	3.6	4.8
MSCI EAFE (Local Currency)	2.3	7.5	9.9	7.7	13.5	5.8	7.1
MSCI EAFE Small Cap	2.0	4.9	7.0	-1.2	9.2	1.0	5.7
MSCI Emerging Markets	-1.1	4.0	2.8	-6.5	4.3	-1.0	1.8
MSCI Emerging Markets (Local Currency)	-0.7	3.8	3.1	-3.9	5.5	1.5	5.0
MSCI China	-5.2	4.7	-0.7	-5.8	-6.3	-5.0	2.7

**Foreign Equity: Developed international equities (MSCI EAFE) rose 2.8% in April and 11.5% YTD. Emerging market equities (MSCI EM) fell -1.1% for the month but rose 2.8% YTD.**

- Non-US equities had mixed results in April with developed markets (MSCI EAFE) gaining and outpacing US equities (2.8% versus 1.1%) for the month, while emerging markets (MSCI Emerging Markets) were the one area that declined (-1.1%).
- Developed market equity gains were broad-based across European sectors, while financials and energy were strong in the UK. In Japan, further weakness in the yen continued to boost market sentiment.
- The decline in emerging market equities (-1.1%) was driven largely by China (-5.2%). An escalation in US-China tensions and mixed results from the reopening of their economy weighed on shares. Taiwan also experienced marked declines over geopolitical concerns and weakness in semiconductors, while India was a bright spot.

<sup>1</sup> Source: Bloomberg. Data is as of April 30, 2023.

### Fixed Income Returns<sup>1</sup>

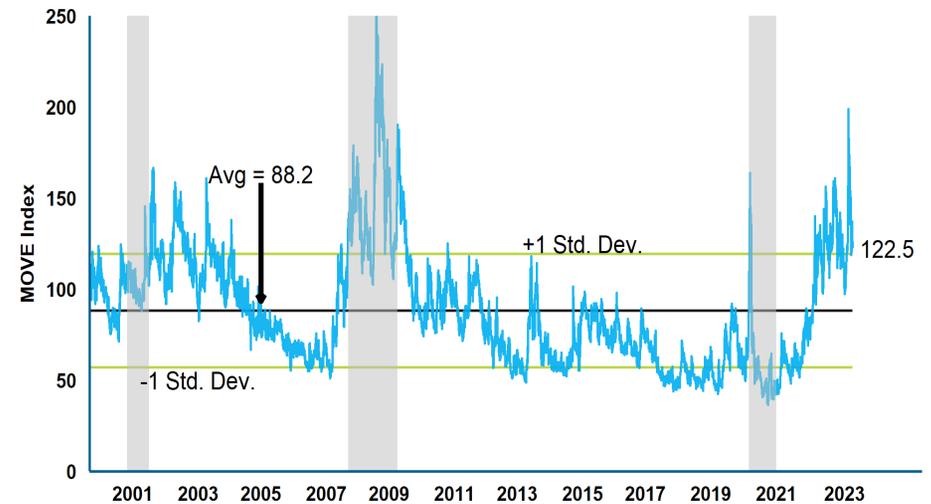
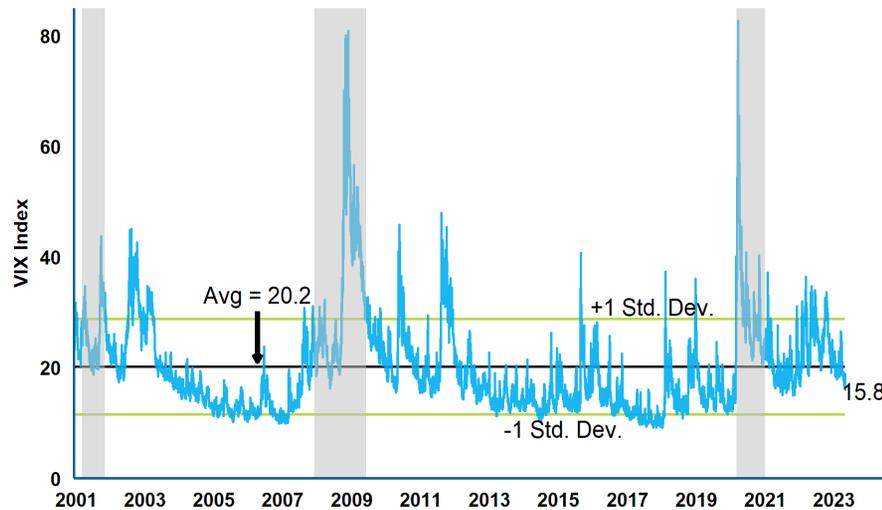
Fixed Income	April (%)	Q1 (%)	YTD (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	0.6	2.9	3.6	-0.3	-2.5	1.3	1.6	4.8	6.3
Bloomberg Aggregate	0.6	3.0	3.6	-0.4	-3.2	1.2	1.3	4.4	6.5
Bloomberg US TIPS	0.1	3.3	3.5	-4.0	0.9	3.0	1.4	4.0	7.0
Bloomberg Short-term TIPS	0.2	2.2	2.4	-0.1	3.1	3.0	1.6	4.6	2.6
Bloomberg High Yield	1.0	3.6	4.6	1.2	4.7	3.3	4.0	8.5	4.2
JPM GBI-EM Global Diversified (USD)	0.9	5.2	6.1	6.6	-0.1	-1.6	-1.8	7.0	5.0

**Fixed Income: The Bloomberg Universal rose 0.6% in April and 3.6% YTD as global sovereign debt yields generally declined for major economies.**

- As issues in the banking sector from March eased, the US bond market had a calm April, with interest rates, outside of the very shortest maturities, remaining stable.
- The TIPS index and short-term TIPS index had gains for the month but trailed the broad US bond market (Bloomberg Aggregate).
- High yield bonds (+1.0%) had the best results for the month as they particularly benefited from support for the banking sector.

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of April 30, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

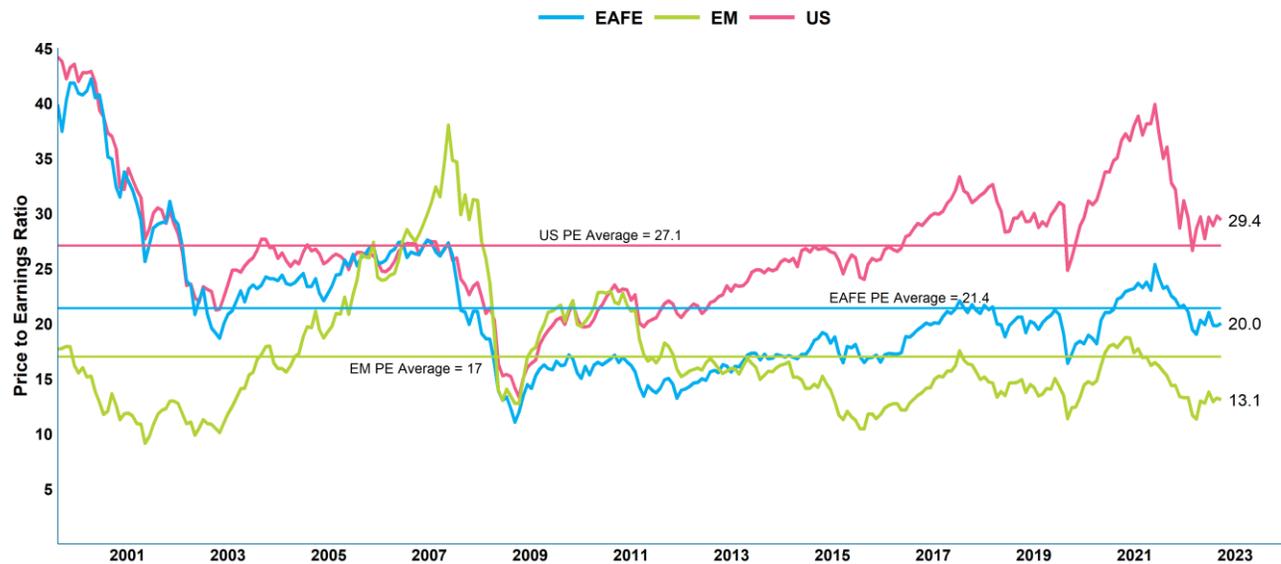
### Equity and Fixed Income Volatility<sup>1</sup>



- Volatility in equities (VIX) continued to decline in April, reaching levels not seen since late 2021 as investors anticipate the end of the Fed's policy tightening.
- In comparison, the bond market remains on edge after last year's historic losses and continued volatility in interest rates this year due to policy uncertainty and issues in the banking sector. The MOVE (fixed income volatility) remains well above its long-run average, but off its recent peak during the heart of the banking crises.

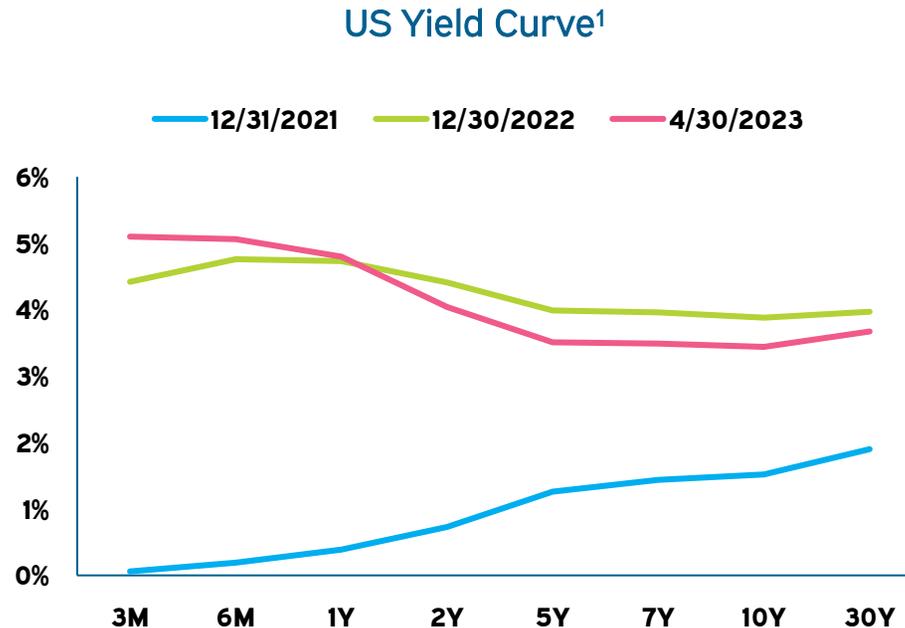
<sup>1</sup> Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of April 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and April 2023.

### Equity Cyclically Adjusted P/E Ratios<sup>1</sup>



- After its dramatic decline last year the US equity price-to-earnings ratio remains above its long-run (21st century) average.
- International developed market valuations are slightly below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

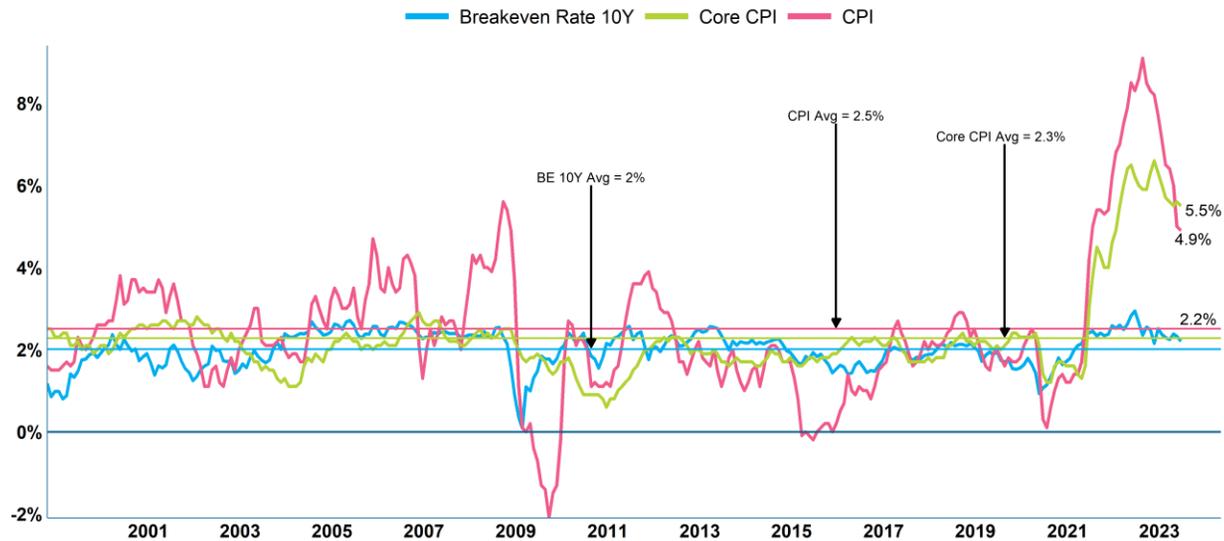
<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of April 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



- Interest rates have declined this year for maturities two years and beyond, given expectations for peaking policy, while the rates on the very shortest maturities increased due to debt ceiling concerns.
- During April, interest rates at the very front-end of the yield curve rose significantly as the debt ceiling debate continued while other maturities remained largely flat.
- After hitting -1.07% in early March, the yield spread between two-year and ten-year Treasuries finished the month largely unchanged at -0.59%. The more closely watched measure (by the Fed) of three-month and ten-year Treasuries remained inverted. Inversions in the yield curve have often preceded recessions.

<sup>1</sup> Source: Bloomberg. Data is as of April 30, 2023.

**Ten-Year Breakeven Inflation and CPI<sup>1</sup>**



- Inflation continued to decline in April, with the year-over-year reading falling from 5.0% to 4.9% (slightly below expectations). The month-over-month rate of price increases was 0.4% (matching expectations), with food prices remaining flat, energy prices slightly increasing (0.6%), and all other areas rising 0.4% in aggregate.
- Core inflation – excluding food and energy - fell slightly (5.6% to 5.5%) but remained stubbornly high as the cost for shelter continued to rise.
- Inflation expectations (breakevens) declined very slightly for the month as investors continue to expect inflation to track back toward the Fed’s 2% target.

<sup>1</sup> Source: Bloomberg. Data is as of April 30, 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

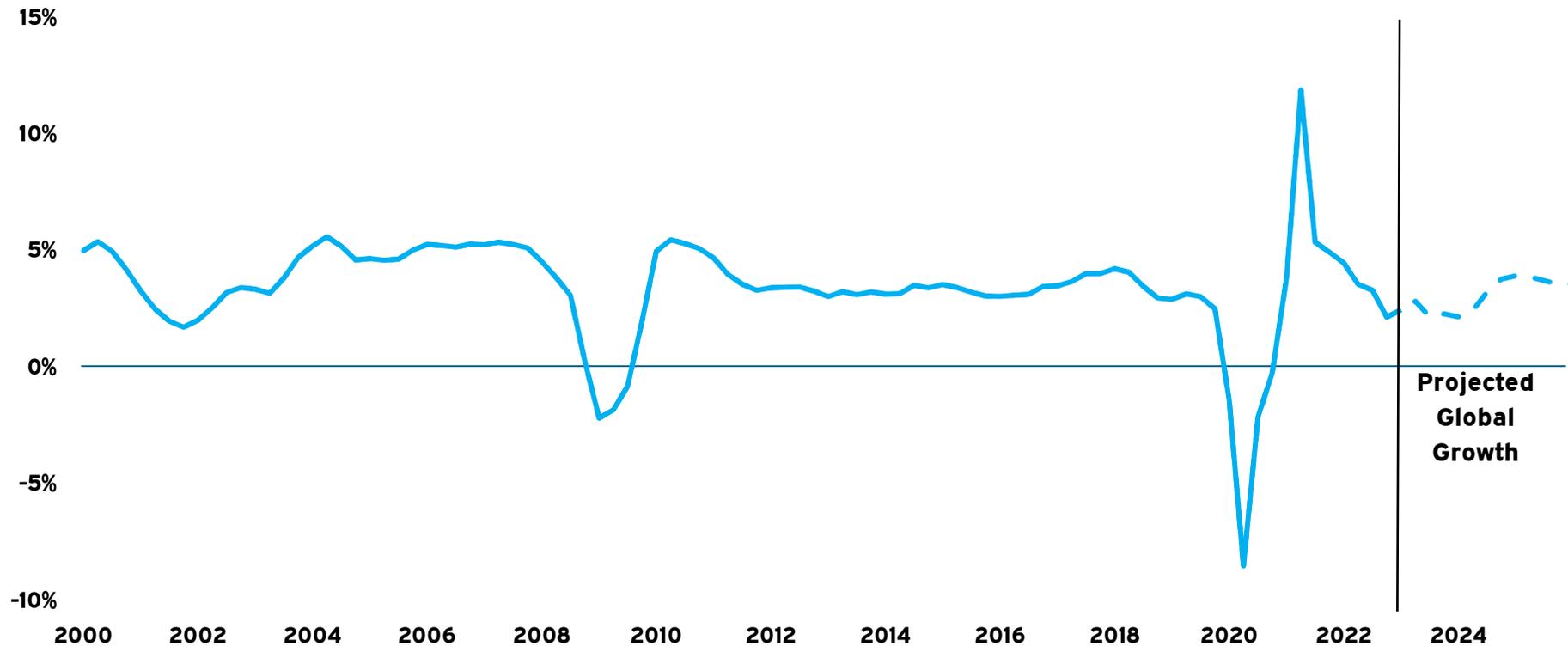
### Credit Spreads vs. US Treasury Bonds<sup>1</sup>



- Spreads (the added yield above a comparable maturity Treasury) were stable in April as concerns over the banking sector subsided and government and corporate bonds had similar gains.
- High yield spreads remain below the long-term average. Investment grade spreads and emerging market spreads are narrower than high yield spreads and close to their respective long-term averages.

<sup>1</sup> Sources: Bloomberg. Data is as of April 30, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end, respectively.

### Global Real Gross Domestic Product (GDP) Growth<sup>1</sup>

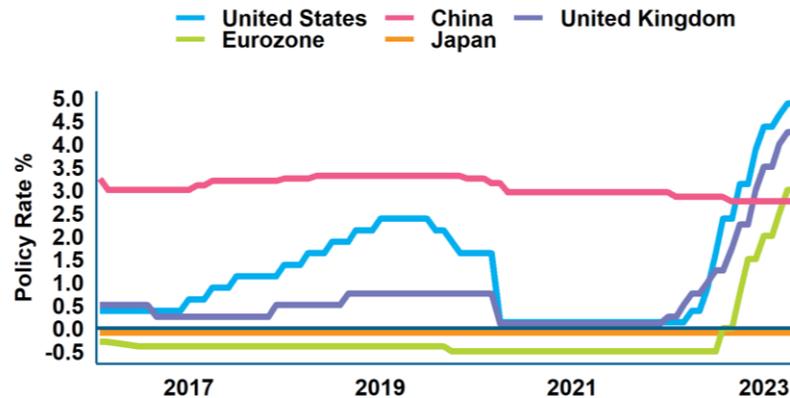


- Global economies are expected to slow this year compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically depressing growth will remain key.

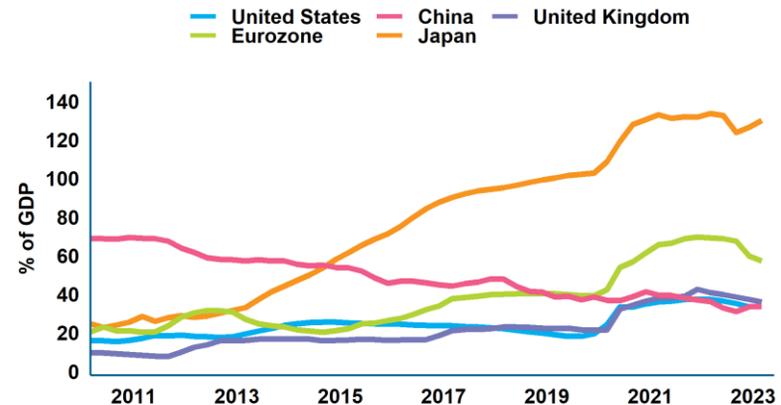
<sup>1</sup> Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated April 2023.

### Central Bank Response<sup>1</sup>

#### Policy Rates



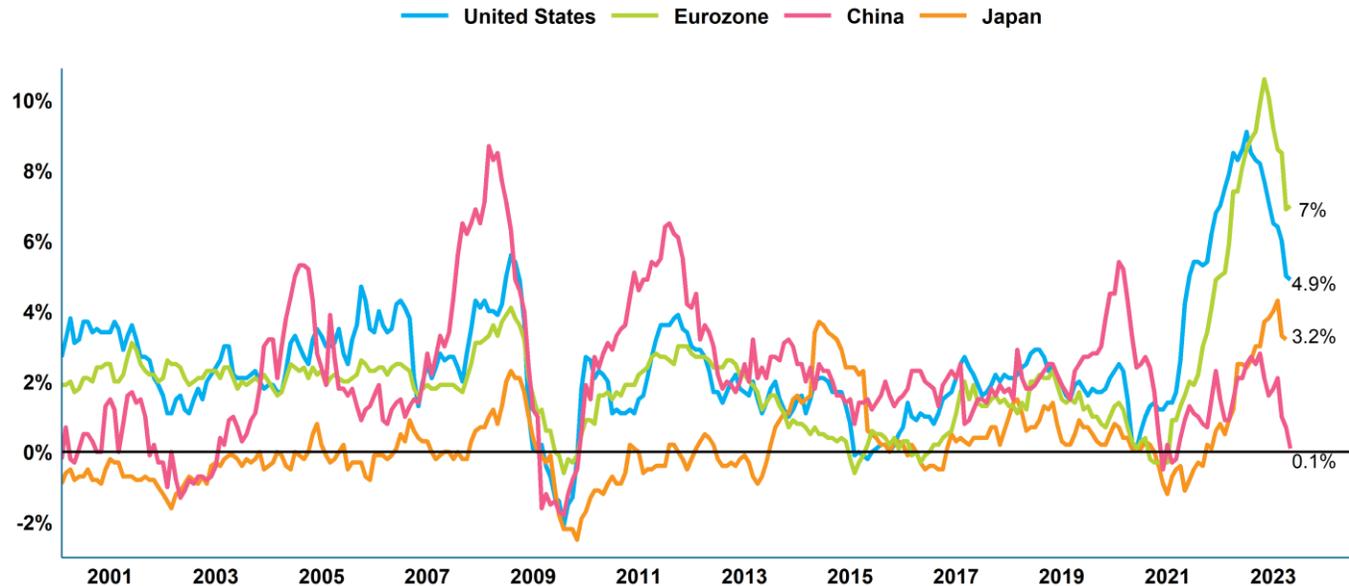
#### Balance Sheet as % of GDP



- In 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation, with the US taking the most aggressive approach. Slowing inflation and recent signs of instability in the banking sector have led to expectations for the slowing of policy tightening going forward.
- Since month-end, the Fed remained committed to fighting inflation despite pressures in the banking sector, raising rates another 25 basis points to a range of 5.0% to 5.25% at its early May meeting. This is largely expected to be the Fed's last rate hike in this cycle.
- China's central bank is a notable exception. They are expected to maintain an accommodative monetary stance to support the economy.
- Looking ahead the risk remains for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and growth.

<sup>1</sup> Source: Bloomberg. Policy rate data is as of April 30, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of March 31, 2023.

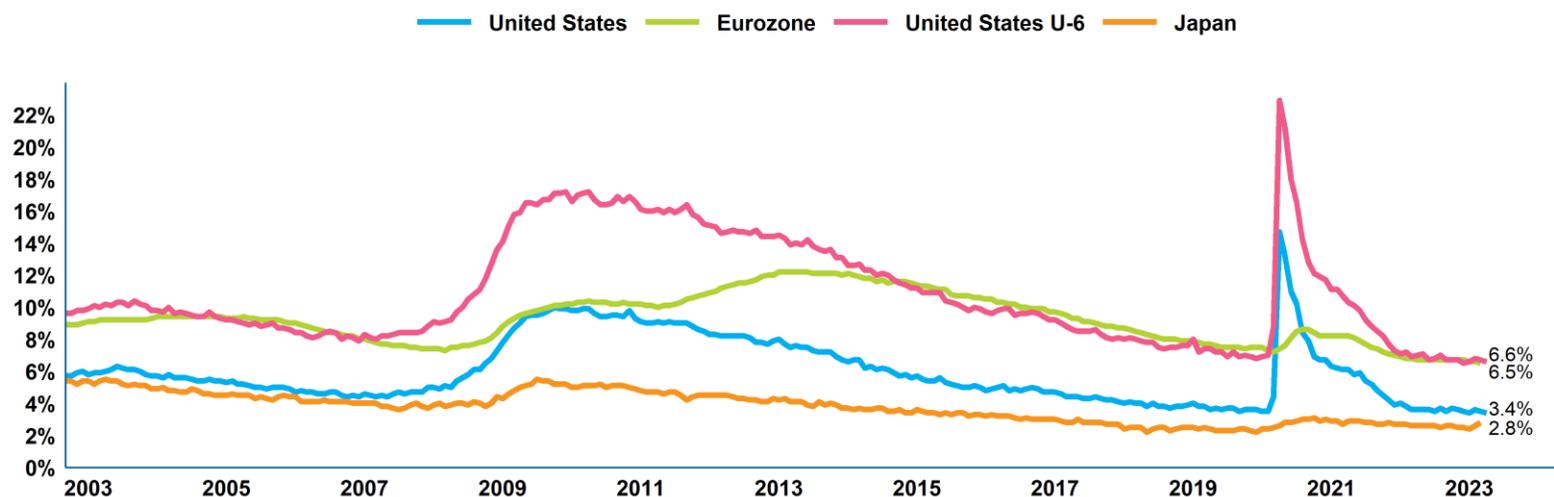
**Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- Inflation pressures continued to decline globally due to the easing of supply chain issues from the pandemic, declining energy prices, and tighter monetary policy.
- In the US, inflation fell to 4.9% at month-end, while eurozone inflation increased slightly (7.0% versus 6.9%) a level well off its peak. Despite 2023's declines in the US and Europe, inflation levels remain elevated.
- Inflation remains relatively lower in China and Japan and has also declined recently. In China, inflation levels approached 0% at month-end as the reopening of their economy has led to an uneven economic recovery.

<sup>1</sup> Source: Bloomberg. Data is as April 30, 2023. The most recent Japanese inflation data is as of March 2023.

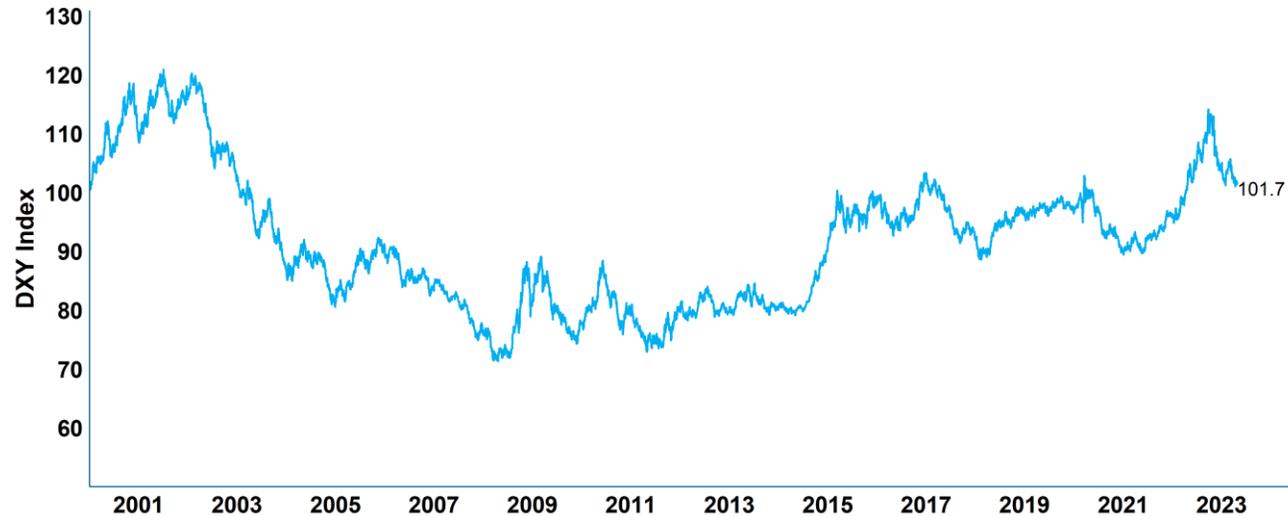
### Unemployment<sup>1</sup>



- Labor markets have significantly improved from the pandemic as economies have largely reopened.
- Despite slowing growth and high inflation, the US labor market remains a particular bright spot. Unemployment in the US, which experienced the steepest rise, recently returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.6% but also declined dramatically from their peak.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.
- Unemployment in Europe has also declined but remains higher than the US, while levels in Japan have been relatively flat through the pandemic given less layoffs.

<sup>1</sup> Source: Bloomberg. Data is as April 30, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of March 2023.

### US Dollar versus Broad Currencies<sup>1</sup>



- The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- Late last year and into early this year, the dollar has fallen, as weaker economic data and declining inflation led to investors anticipating the end of Fed tightening.
- This year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

<sup>1</sup> Source: Bloomberg. Data as of April 30, 2023.

## Summary

### Key Trends:

- The impacts of still relatively high inflation will remain key, with bond market volatility likely to stay high.
- Recent issues related to the banking sector have created a delicate balance for central banks to continue to fight inflation but also to try to maintain financial stability.
- Global monetary policies could diverge in 2023. The risk of policy errors remains elevated as central banks try to reduce persistent inflation while not tipping their economies into recession.
- Growth is expected to slow globally this year, with many economies forecast to tip into recession. Inflation, monetary policy, and the war will all be key.
- In the US, the end of many fiscal programs is expected to put the burden of continued growth on consumers. Costs for shelter, medical care, and education could continue to rise, keeping 'sticky price' inflation at elevated levels.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.
- Equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation weighing particularly on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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

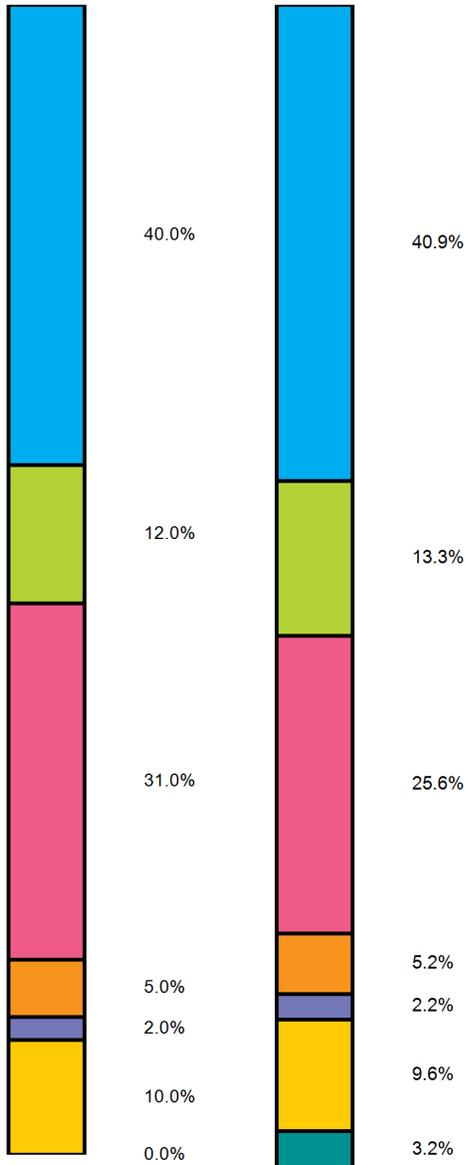
PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

# Oakland Police and Fire Retirement System

May 31, 2023

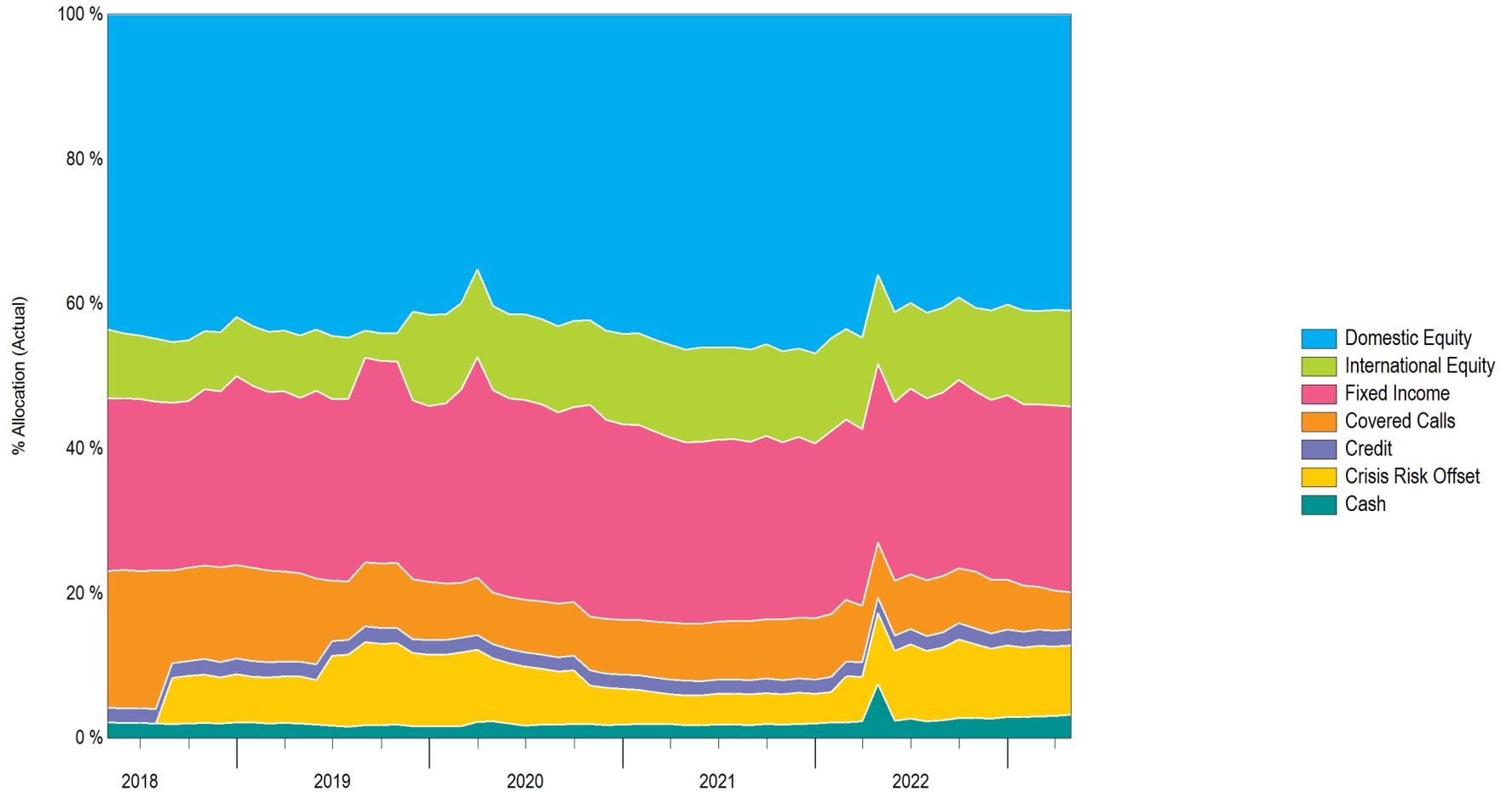
April Flash Report

As of April 30, 2023



Allocation vs. Targets and Policy							
	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?	
Domestic Equity	\$168,855,784	40.9%	40.0%	0.9%	30.0% - 50.0%	Yes	
International Equity	\$54,859,867	13.3%	12.0%	1.3%	8.0% - 14.0%	Yes	
Fixed Income	\$105,807,574	25.6%	31.0%	-5.4%	25.0% - 40.0%	Yes	
Covered Calls	\$21,377,752	5.2%	5.0%	0.2%	5.0% - 10.0%	Yes	
Credit	\$9,033,784	2.2%	2.0%	0.2%	0.0% - 100.0%	Yes	
Crisis Risk Offset	\$39,661,106	9.6%	10.0%	-0.4%	5.0% - 15.0%	Yes	
Cash	\$13,204,305	3.2%	0.0%	3.2%	0.0% - 5.0%	Yes	
<b>Total</b>	<b>\$412,800,173</b>	<b>100.0%</b>	<b>100.0%</b>				

Asset Allocation History  
5 Years Ending April 30, 2023



As of April 30, 2023

Asset Class Performance Summary											
	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>OPFRS Total Plan</b>	<b>412,800,173</b>	<b>100.0</b>	<b>0.8</b>	<b>5.3</b>	<b>6.1</b>	<b>0.9</b>	<b>7.6</b>	<b>5.4</b>	<b>7.0</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			<i>1.0</i>	<i>6.2</i>	<i>7.4</i>	<i>1.6</i>	<i>6.6</i>	<i>5.4</i>	<i>6.7</i>	<i>7.8</i>	<i>Dec-88</i>
Excess Return			-0.2	-0.9	-1.3	-0.7	1.0	0.0	0.3	-1.2	
<b>Domestic Equity</b>	<b>168,855,784</b>	<b>40.9</b>	<b>0.5</b>	<b>5.7</b>	<b>8.9</b>	<b>1.3</b>	<b>13.9</b>	<b>9.6</b>	<b>11.4</b>	<b>8.7</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>1.1</i>	<i>8.3</i>	<i>10.9</i>	<i>1.5</i>	<i>14.1</i>	<i>10.6</i>	<i>11.7</i>	<i>8.9</i>	<i>Jun-97</i>
Excess Return			-0.6	-2.6	-2.0	-0.2	-0.2	-1.0	-0.3	-0.2	
<b>International Equity</b>	<b>54,859,867</b>	<b>13.3</b>	<b>1.3</b>	<b>10.2</b>	<b>14.7</b>	<b>4.6</b>	<b>10.3</b>	<b>3.5</b>	<b>5.4</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			<i>1.7</i>	<i>8.7</i>	<i>11.9</i>	<i>3.0</i>	<i>9.7</i>	<i>2.5</i>	<i>4.0</i>	<i>5.0</i>	<i>Jan-98</i>
Excess Return			-0.4	1.5	2.8	1.6	0.6	1.0	1.4	0.3	
<b>Fixed Income</b>	<b>105,807,574</b>	<b>25.6</b>	<b>0.7</b>	<b>4.2</b>	<b>1.5</b>	<b>0.1</b>	<b>-1.2</b>	<b>1.7</b>	<b>1.9</b>	<b>4.8</b>	<b>Dec-93</b>
<i>Bloomberg Universal (Blend)</i>			<i>0.6</i>	<i>3.6</i>	<i>1.2</i>	<i>-0.3</i>	<i>-2.5</i>	<i>1.3</i>	<i>1.6</i>	<i>4.6</i>	<i>Dec-93</i>
Excess Return			0.1	0.6	0.3	0.4	1.3	0.4	0.3	0.2	
<b>Credit</b>	<b>9,033,784</b>	<b>2.2</b>	<b>1.4</b>	<b>5.2</b>	<b>6.8</b>	<b>0.2</b>	<b>10.1</b>	<b>3.6</b>	<b>--</b>	<b>5.1</b>	<b>Feb-15</b>
<i>Bloomberg US High Yield TR</i>			<i>1.0</i>	<i>4.6</i>	<i>8.3</i>	<i>1.2</i>	<i>4.7</i>	<i>3.3</i>	<i>4.0</i>	<i>4.2</i>	<i>Feb-15</i>
Excess Return			0.4	0.6	-1.5	-1.0	5.4	0.3		0.9	
<b>Covered Calls</b>	<b>21,377,752</b>	<b>5.2</b>	<b>1.8</b>	<b>8.1</b>	<b>10.5</b>	<b>4.3</b>	<b>14.0</b>	<b>9.3</b>	<b>--</b>	<b>8.8</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 BuyWrite USD</i>			<i>1.2</i>	<i>7.2</i>	<i>5.8</i>	<i>-1.1</i>	<i>11.0</i>	<i>4.4</i>	<i>5.9</i>	<i>5.5</i>	<i>Apr-14</i>
Excess Return			0.6	0.9	4.7	5.4	3.0	4.9		3.3	
<b>Crisis Risk Offset</b>	<b>39,661,106</b>	<b>9.6</b>	<b>0.7</b>	<b>0.7</b>	<b>-4.1</b>	<b>-4.8</b>	<b>-8.2</b>	<b>-8.1</b>	<b>--</b>	<b>-8.5</b>	<b>Aug-18</b>
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.3</i>	<i>2.4</i>	<i>4.9</i>	<i>4.6</i>	<i>2.9</i>	<i>--</i>	<i>--</i>	<i>0.0</i>	<i>Aug-18</i>
Excess Return			-0.6	-1.7	-9.0	-9.4	-11.1			-8.5	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

As of April 30, 2023

	Market Value (\$)	% of Portfolio	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Cash</b>	<b>13,204,305</b>	<b>3.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>0.7</b>	<b>0.6</b>	<b>Mar-11</b>
<i>FTSE T-Bill 3 Months TR</i>			<i>0.4</i>	<i>1.5</i>	<i>2.9</i>	<i>3.0</i>	<i>1.1</i>	<i>1.5</i>	<i>0.9</i>	<i>0.7</i>	<i>Mar-11</i>
Excess Return			-0.4	-1.5	-2.9	-3.0	-1.1	-0.5	-0.2	-0.1	

Fiscal year begins on July 1.

As of April 30, 2023

Performance Summary												
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>OPFRS Total Plan</b>	<b>412,800,173</b>	<b>100.0</b>	<b>--</b>	<b>0.8</b>	<b>5.3</b>	<b>6.1</b>	<b>0.9</b>	<b>7.6</b>	<b>5.4</b>	<b>7.0</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>				<u>1.0</u>	<u>6.2</u>	<u>7.4</u>	<u>1.6</u>	<u>6.6</u>	<u>5.4</u>	<u>6.7</u>	<u>7.8</u>	<i>Dec-88</i>
Excess Return				-0.2	-0.9	-1.3	-0.7	1.0	0.0	0.3	-1.2	
<b>Domestic Equity</b>	<b>168,855,784</b>	<b>40.9</b>	<b>40.9</b>	<b>0.5</b>	<b>5.7</b>	<b>8.9</b>	<b>1.3</b>	<b>13.9</b>	<b>9.6</b>	<b>11.4</b>	<b>8.7</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>				<u>1.1</u>	<u>8.3</u>	<u>10.9</u>	<u>1.5</u>	<u>14.1</u>	<u>10.6</u>	<u>11.7</u>	<u>8.9</u>	<i>Jun-97</i>
Excess Return				-0.6	-2.6	-2.0	-0.2	-0.2	-1.0	-0.3	-0.2	
Northern Trust Russell 1000	75,873,985	18.4	44.9	1.2	8.8	11.3	1.5	14.1	11.0	11.9	12.9	Jun-10
<i>Russell 1000</i>				<u>1.2</u>	<u>8.8</u>	<u>11.3</u>	<u>1.8</u>	<u>14.2</u>	<u>11.1</u>	<u>12.0</u>	<u>13.0</u>	<i>Jun-10</i>
Excess Return				0.0	0.0	0.0	-0.3	-0.1	-0.1	-0.1	-0.1	
EARNEST Partners	45,006,350	10.9	26.7	-1.4	3.2	4.9	-0.7	15.4	10.6	12.5	10.0	Apr-06
<i>Russell MidCap</i>				<u>-0.5</u>	<u>3.5</u>	<u>9.1</u>	<u>-1.7</u>	<u>13.8</u>	<u>8.0</u>	<u>9.9</u>	<u>8.4</u>	<i>Apr-06</i>
Excess Return				-0.9	-0.3	-4.2	1.0	1.6	2.6	2.6	1.6	
Wellington Select Quality Equity	22,975,674	5.6	13.6	2.7	3.5	10.8	4.4	--	--	--	4.4	May-22
<i>Russell 1000</i>				<u>1.2</u>	<u>8.8</u>	<u>11.3</u>	<u>1.8</u>	<u>14.2</u>	<u>11.1</u>	<u>12.0</u>	<u>1.8</u>	<i>May-22</i>
Excess Return				1.5	-5.3	-0.5	2.6	--	--	--	2.6	
Brown Fundamental Small Cap Value	10,664,172	2.6	6.3	-1.8	-2.1	8.3	2.9	--	--	--	0.5	Apr-21
<i>Russell 2000 Value</i>				<u>-2.5</u>	<u>-3.1</u>	<u>0.2</u>	<u>-8.0</u>	<u>15.4</u>	<u>3.7</u>	<u>7.0</u>	<u>-6.1</u>	<i>Apr-21</i>
Excess Return				0.7	1.0	8.1	10.9	--	--	--	6.6	
Rice Hall James	14,335,604	3.5	8.5	0.7	7.8	6.6	2.0	11.5	4.8	--	7.1	Jul-17
<i>Russell 2000 Growth</i>				<u>-1.2</u>	<u>4.8</u>	<u>9.4</u>	<u>0.7</u>	<u>7.8</u>	<u>4.0</u>	<u>8.4</u>	<u>5.7</u>	<i>Jul-17</i>
Excess Return				1.9	3.0	-2.8	1.3	3.7	0.8	--	1.4	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

As of April 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>International Equity</b>	<b>54,859,867</b>	<b>13.3</b>	<b>13.3</b>	<b>1.3</b>	<b>10.2</b>	<b>14.7</b>	<b>4.6</b>	<b>10.3</b>	<b>3.5</b>	<b>5.4</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>				<u>1.7</u>	<u>8.7</u>	<u>11.9</u>	<u>3.0</u>	<u>9.7</u>	<u>2.5</u>	<u>4.0</u>	<u>5.0</u>	<u>Jan-98</u>
Excess Return				-0.4	1.5	2.8	1.6	0.6	1.0	1.4	0.3	
Vanguard Developed Markets ETF	15,524,341	3.8	28.3	2.6	10.9	15.7	6.8	12.2	--	--	7.1	Sep-19
<i>FTSE Developed All Cap Ex US TR USD</i>				<u>2.6</u>	<u>10.5</u>	<u>16.3</u>	<u>5.6</u>	<u>12.1</u>	<u>3.8</u>	<u>5.2</u>	<u>7.3</u>	<u>Sep-19</u>
Excess Return				0.0	0.4	-0.6	1.2	0.1			-0.2	
SGA ACWI ex-U.S. Equity	39,335,525	9.5	71.7	0.8	9.9	14.2	3.7	9.8	--	--	3.2	Dec-19
<i>MSCI ACWI ex USA</i>				<u>1.7</u>	<u>8.7</u>	<u>11.9</u>	<u>3.0</u>	<u>9.7</u>	<u>2.5</u>	<u>4.0</u>	<u>3.8</u>	<u>Dec-19</u>
Excess Return				-0.9	1.2	2.3	0.7	0.1			-0.6	
<b>Fixed Income</b>	<b>105,807,574</b>	<b>25.6</b>	<b>25.6</b>	<b>0.7</b>	<b>4.2</b>	<b>1.5</b>	<b>0.1</b>	<b>-1.2</b>	<b>1.7</b>	<b>1.9</b>	<b>4.8</b>	<b>Dec-93</b>
<i>Bloomberg Universal (Blend)</i>				<u>0.6</u>	<u>3.6</u>	<u>1.2</u>	<u>-0.3</u>	<u>-2.5</u>	<u>1.3</u>	<u>1.6</u>	<u>4.6</u>	<u>Dec-93</u>
Excess Return				0.1	0.6	0.3	0.4	1.3	0.4	0.3	0.2	
Ramirez	71,828,220	17.4	67.9	0.7	4.1	1.1	-0.2	-1.2	1.6	--	1.8	Jan-17
<i>Bloomberg US Aggregate TR</i>				<u>0.6</u>	<u>3.6</u>	<u>0.5</u>	<u>-0.4</u>	<u>-3.1</u>	<u>1.2</u>	<u>1.3</u>	<u>1.1</u>	<u>Jan-17</u>
Excess Return				0.1	0.5	0.6	0.2	1.9	0.4		0.7	
Wellington Core Bond	6,806,698	1.6	6.4	0.6	4.3	1.1	-0.7	--	--	--	-4.4	Apr-21
<i>Bloomberg US Aggregate TR</i>				<u>0.6</u>	<u>3.6</u>	<u>0.5</u>	<u>-0.4</u>	<u>-3.1</u>	<u>1.2</u>	<u>1.3</u>	<u>-4.0</u>	<u>Apr-21</u>
Excess Return				0.0	0.7	0.6	-0.3				-0.4	
Reams	27,172,656	6.6	25.7	0.8	4.5	2.5	1.3	-0.8	4.0	2.9	5.2	Feb-98
<i>Bloomberg Universal (Blend)</i>				<u>0.6</u>	<u>3.6</u>	<u>1.2</u>	<u>-0.3</u>	<u>-2.5</u>	<u>1.3</u>	<u>1.6</u>	<u>4.2</u>	<u>Feb-98</u>
Excess Return				0.2	0.9	1.3	1.6	1.7	2.7	1.3	1.0	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

Though Vanguard Developed Markets ETF is a passive strategy, short-term performance may appear to diverge from the index it tracks more than what would be expected. This is due to Fair Value Pricing (FVP) adjustments that address the pricing discrepancies that may arise from time-zone differences among global securities markets. The resulting temporary divergence is expected to correct itself when the foreign markets reopen."

As of April 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Credit</b>	<b>9,033,784</b>	<b>2.2</b>	<b>2.2</b>	<b>1.4</b>	<b>5.2</b>	<b>6.8</b>	<b>0.2</b>	<b>10.1</b>	<b>3.6</b>	<b>--</b>	<b>5.1</b>	<b>Feb-15</b>
<i>Bloomberg US High Yield TR</i>				<u>1.0</u>	<u>4.6</u>	<u>8.3</u>	<u>1.2</u>	<u>4.7</u>	<u>3.3</u>	<u>4.0</u>	<u>4.2</u>	<u>Feb-15</u>
Excess Return				0.4	0.6	-1.5	-1.0	5.4	0.3		0.9	
Polen Capital	9,033,784	2.2	100.0	1.4	5.2	6.8	0.2	10.1	3.6	--	5.1	Feb-15
<i>ICE BofA High Yield Master TR</i>				<u>0.9</u>	<u>4.7</u>	<u>8.1</u>	<u>1.0</u>	<u>4.9</u>	<u>3.1</u>	<u>3.9</u>	<u>4.1</u>	<u>Feb-15</u>
Excess Return				0.5	0.5	-1.3	-0.8	5.2	0.5		1.0	
<b>Covered Calls</b>	<b>21,377,752</b>	<b>5.2</b>	<b>5.2</b>	<b>1.8</b>	<b>8.1</b>	<b>10.5</b>	<b>4.3</b>	<b>14.0</b>	<b>9.3</b>	<b>--</b>	<b>8.8</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 BuyWrite USD</i>				<u>1.2</u>	<u>7.2</u>	<u>5.8</u>	<u>-1.1</u>	<u>11.0</u>	<u>4.4</u>	<u>5.9</u>	<u>5.5</u>	<u>Apr-14</u>
Excess Return				0.6	0.9	4.7	5.4	3.0	4.9		3.3	
Parametric BXM	10,740,176	2.6	50.2	1.6	6.8	8.1	4.1	12.0	6.9	--	7.0	Apr-14
<i>CBOE S&amp;P 500 BuyWrite USD</i>				<u>1.2</u>	<u>7.2</u>	<u>5.8</u>	<u>-1.1</u>	<u>11.0</u>	<u>4.4</u>	<u>5.9</u>	<u>5.5</u>	<u>Apr-14</u>
Excess Return				0.4	-0.4	2.3	5.2	1.0	2.5		1.5	
Parametric DeltaShift	10,637,577	2.6	49.8	2.1	9.4	13.0	4.5	15.6	11.4	--	10.7	Apr-14
<i>CBOE S&amp;P 500 BuyWrite USD</i>				<u>1.2</u>	<u>7.2</u>	<u>5.8</u>	<u>-1.1</u>	<u>11.0</u>	<u>4.4</u>	<u>5.9</u>	<u>5.5</u>	<u>Apr-14</u>
Excess Return				0.9	2.2	7.2	5.6	4.6	7.0		5.2	

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As of April 30, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	YTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
<b>Crisis Risk Offset</b>	<b>39,661,106</b>	<b>9.6</b>	<b>9.6</b>	<b>0.7</b>	<b>0.7</b>	<b>-4.1</b>	<b>-4.8</b>	<b>-8.2</b>	<b>-8.1</b>	<b>--</b>	<b>-8.5</b>	<b>Aug-18</b>
<i>SG Multi Alternative Risk Premia Index</i>				<u>1.3</u>	<u>2.4</u>	<u>4.9</u>	<u>4.6</u>	<u>2.9</u>	--	--	<u>0.0</u>	<i>Aug-18</i>
Excess Return				-0.6	-1.7	-9.0	-9.4	-11.1			-8.5	
Kepos Alternative Risk Premia	10,454,824	2.5	26.4	1.8	6.5	10.2	5.8	--	--	--	4.4	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>				<u>1.3</u>	<u>2.4</u>	<u>4.9</u>	<u>4.6</u>	<u>2.9</u>	--	--	<u>5.1</u>	<i>Feb-22</i>
Excess Return				0.5	4.1	5.3	1.2				-0.7	
Versor Trend Following	14,596,620	3.5	36.8	0.0	-8.6	-12.1	-8.8	--	--	--	-2.5	Apr-22
<i>SG Trend Index</i>				<u>2.8</u>	<u>-4.7</u>	<u>-5.8</u>	<u>3.0</u>	<u>13.6</u>	<u>9.4</u>	<u>5.2</u>	<u>9.4</u>	<i>Apr-22</i>
Excess Return				-2.8	-3.9	-6.3	-11.8				-11.9	
Vanguard Long-Term Treasury ETF	14,609,662	3.5	36.8	0.5	7.4	-4.2	-7.4	-11.7	--	--	-3.4	Jul-19
<i>Bloomberg US Govt Long TR</i>				<u>0.5</u>	<u>6.7</u>	<u>-4.1</u>	<u>-7.3</u>	<u>-11.7</u>	<u>0.1</u>	<u>1.1</u>	<u>-3.4</u>	<i>Jul-19</i>
Excess Return				0.0	0.7	-0.1	-0.1	0.0			0.0	
<b>Cash</b>	<b>13,204,305</b>	<b>3.2</b>	<b>3.2</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>0.7</b>	<b>0.6</b>	<b>Mar-11</b>
<i>FTSE T-Bill 3 Months TR</i>				<u>0.4</u>	<u>1.5</u>	<u>2.9</u>	<u>3.0</u>	<u>1.1</u>	<u>1.5</u>	<u>0.9</u>	<u>0.7</u>	<i>Mar-11</i>
Excess Return				-0.4	-1.5	-2.9	-3.0	-1.1	-0.5	-0.2	-0.1	
Cash - Money Market	4,102,305	1.0	31.1	0.0	0.0	0.0	0.0	0.2	1.1	0.8	0.6	Mar-11
<i>FTSE T-Bill 3 Months TR</i>				<u>0.4</u>	<u>1.5</u>	<u>2.9</u>	<u>3.0</u>	<u>1.1</u>	<u>1.5</u>	<u>0.9</u>	<u>0.7</u>	<i>Mar-11</i>
Excess Return				-0.4	-1.5	-2.9	-3.0	-0.9	-0.4	-0.1	-0.1	
Cash - Treasury	9,102,000	2.2	68.9									

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

As of April 30, 2023

Cash Flow Summary

Month to Date

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Brown Fundamental Small Cap Value	\$10,865,239	\$0	-\$201,067	\$10,664,172
Cash - Money Market	\$3,868,100	\$234,205	\$0	\$4,102,305
Cash - Treasury	\$8,737,000	\$365,000	\$0	\$9,102,000
EARNEST Partners	\$45,658,799	\$0	-\$652,448	\$45,006,350
Kepos Alternative Risk Premia	\$10,273,004	\$0	\$181,820	\$10,454,824
Northern Trust Russell 1000	\$74,942,881	\$0	\$931,104	\$75,873,985
Parametric BXM	\$11,572,026	-\$1,000,000	\$168,149	\$10,740,176
Parametric DeltaShift	\$11,421,217	-\$1,000,000	\$216,360	\$10,637,577
Polen Capital	\$8,909,576	\$0	\$124,209	\$9,033,784
Ramirez	\$71,307,125	\$0	\$521,094	\$71,828,220
Reams	\$26,955,387	\$0	\$217,269	\$27,172,656
Rice Hall James	\$14,239,905	\$0	\$95,699	\$14,335,604
Securities Lending Northern Trust	\$0	-\$9,368	\$9,368	\$0
SGA ACWI ex-U.S. Equity	\$39,015,100	\$0	\$320,425	\$39,335,525
Vanguard Developed Markets ETF	\$15,125,852	\$0	\$398,489	\$15,524,341
Vanguard Long-Term Treasury ETF	\$14,571,848	\$0	\$37,814	\$14,609,662
Versor Trend Following	\$14,592,261	\$0	\$4,359	\$14,596,620
Wellington Core Bond	\$6,763,874	\$0	\$42,824	\$6,806,698
Wellington Select Quality Equity	\$22,362,811	\$0	\$612,863	\$22,975,674
<b>Total</b>	<b>\$411,182,005</b>	<b>-\$1,410,163</b>	<b>\$3,028,331</b>	<b>\$412,800,173</b>

**Benchmark History**

As of April 30, 2023

OPFRS Total Plan

6/1/2022	Present	40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield TR
1/1/2019	5/31/2022	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
12/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR

**Benchmark History**

As of April 30, 2023

**Domestic Equity**

1/1/2005	Present	Russell 3000
4/1/1998	12/31/2004	28.57% Russell 1000 / 57.14% Russell 1000 Value / 14.29% Russell MidCap
6/1/1997	3/31/1998	S&P 500

**International Equity**

1/1/2005	Present	MSCI ACWI ex USA
1/1/1998	12/31/2004	MSCI EAFE Gross

**Fixed Income**

4/1/2006	Present	Bloomberg US Universal TR
12/31/1993	3/31/2006	Bloomberg US Aggregate TR

**Covered Calls**

4/1/2014	Present	CBOE S&P 500 BuyWrite USD
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**Crisis Risk Offset**

8/1/2018	Present	SG Multi Alternative Risk Premia Index
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**Cash**

3/1/2011	Present	FTSE T-Bill 3 Months TR
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PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

# Oakland Police and Fire Retirement System

Quarterly Performance Report  
as of March 31, 2023

## Agenda

1. Executive Summary
2. Economic and Market Update as of March 31, 2023
3. Quarterly Performance as of March 31, 2023
4. Manager Monitoring / Probation Status
5. Disclaimer, Glossary, and Notes

# Executive Summary

### Total Portfolio Review

The Oakland Police and Fire Retirement System (OPFRS) finished the quarter with a market value of **\$411.2 million**.

→ This represents a \$18.1 million capital appreciation after \$5.4 million in net outflows over the quarter.

→ Over the past 12-months, the OPFRS Total Portfolio faced a \$24.8 million depreciation, after withdrawals totaling \$13.4 million for net outflows including benefit payments.

→ As of 03/31/2023, all the asset classes were within acceptable allocation ranges relative to policy targets.<sup>1</sup>

### Investment Performance

→ During the most recent quarter, the OPFRS portfolio generated an absolute return of 4.5%, gross of fees, underperforming its policy benchmark<sup>2</sup> by (-0.6%).

→ The portfolio underperformed the benchmark slightly over the trailing 1-year period while outperforming it over the 3-year period. Over the longer 5-year trailing period, the portfolio matched with the Policy Benchmark.

	Quarter	FYTD	1 Year	3 Year	5 Year
Total Portfolio (Gross)	4.5	5.3	(-5.5)	9.9	5.3
Policy Benchmark	5.1	6.3	(-5.4)	8.6	5.3
Excess Return	(-0.6)	(-1.0)	(-0.1)	1.3	0.0
Reference: Total Portfolio (Net) <sup>3</sup>	4.5	5.1	(-5.7)	9.6	5.0

<sup>1</sup> Asset allocation as of 03/31/2023. Target weightings reflect the interim phase (where Crisis Risk Offset component is set to 10%) of the Plan's previously approved asset allocation (effective 5/31/2017).

<sup>2</sup> Evolving Policy Benchmark consists of 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% Bloomberg Universal, 5% CBOE BXM, 6.7% SG Multi Asset Risk Premia, 3.3% Bloomberg Long Treasury from 1/1/2019 through 5/31/2022; and 40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield thereafter.

<sup>3</sup> Longer-term (>1 year) Net of fee returns include estimates based on OPFRS manager fee schedule (approximately 34 bps). Fiscal year begins on July 01.

Total Portfolio Review (continued)

Peer Comparison

- In comparison to its peer group<sup>1</sup>, the portfolio has outperformed the median fund’s return over the quarter while lagging in the trailing 1-, 3-, and 5-year periods.
- Similarly, in the most recent quarter, OPFRS ranks in the 25<sup>th</sup> percentile; over the longer periods, it falls in the third quartile in the universe of Public Defined Benefit Plans with \$250 million to \$1 billion in assets.

	Quarter	FYTD	1 Year	3 Year	5 Year
Total Portfolio (Gross)	4.5	5.3	(-5.5)	9.9	5.3
Peer Group Median Fund Return	4.1	5.5	(-4.9)	11.0	6.0
OPFRS vs. Peer Median Fund	0.4	(-0.2)	(-0.6)	(-1.1)	(-0.7)
Percentile Rank	25	63	71	73	67
<i>Reference: Total Portfolio (Net)</i> <sup>2</sup>	4.5	5.1	(-5.7)	9.6	5.0

<sup>1</sup> Source: Investment Metrics peer universe, Public Defined Benefit plans with \$250 million to \$1 billion in assets as of 03/31/2023.

<sup>2</sup> Longer-term (>1 year) Net of fee returns include estimates based on OPFRS manager fee schedule (approximately 34 bps).

### Asset Class & Manager Highlights

- **Domestic equity** underperformed the Russell 3000 Index over the quarter and in the 5-year period. All the active managers, except **Wellington Select Quality**, outperformed their respective benchmarks in the quarter as well as almost all other available time periods.<sup>1</sup>
- **International equity** outperformed the MSCI ACWI ex US Index for all time periods measured. The Plan's active international equity manager, **SGA MSCI ACWI ex US**, outperformed its benchmark over the quarter and the 1-year period, while slightly underperforming in the 3-year trailing period.<sup>1</sup>The passive **Vanguard** posted small variation<sup>1</sup> from the tracked benchmark over the periods measured.
- **Fixed income** outperformed the Bloomberg Universal Index across all time periods measured. The underlying managers also outperformed their respective benchmarks in all time periods, except for **Wellington Core Bond's** underperformance over the 1-year trailing period.
- The **Credit** segment, with **Polen Capital** as its only manager, outperformed the asset class's benchmark, Bloomberg US High Yield Index, in Q1, and over the 1- and 3-year periods, while matching it over the 5-year period.
- **Covered Calls** and the active DeltaShift strategy outperformed the CBOE S&P 500 Buy-Write Index across all periods measured. The passive BXM strategy outperformed the Index in all periods except over the quarter.
- The **Crisis Risk Offset** segment trailed its benchmark SG Multi Alternative Risk Premia Index across all time periods measured. Please note that the segment's current benchmark does not accurately reflect its components; a recommendation for suitable modification is presented along with this report.

<sup>1</sup> Wellington Select Quality has less than 1-year of performance history and Brown Fundamental Small Cap Value has less than 3-year of performance history. SGA MSCI ACWI ex US and Vanguard Developed Markets ETF have less than 5-year of performance history. Due to Vanguard's fair-value pricing methodology and timing of the international markets, the strategy's returns may deviate from its tracked index in the short-term that are expected to equalize over the longer term.

# **Economic and Market Update**

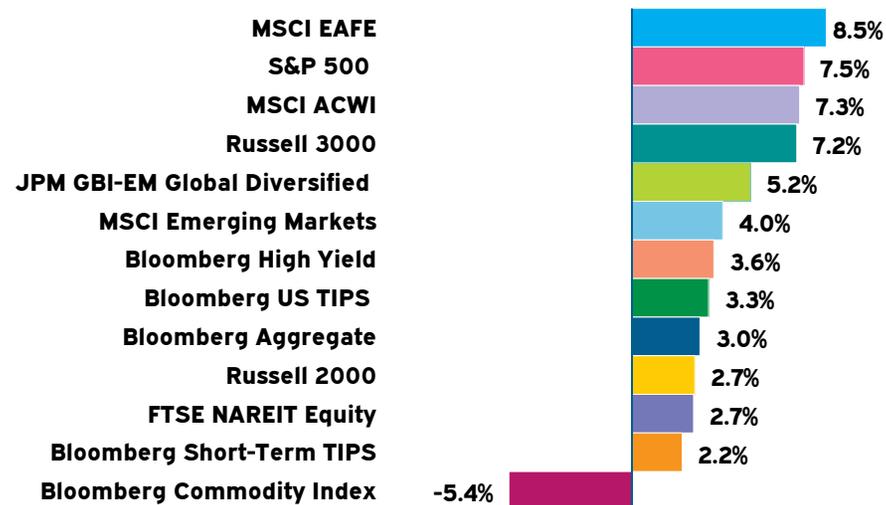
Data as of March 31, 2023

### Commentary

- It was a volatile quarter for most asset classes driven by evolving monetary policy expectations and high-profile bank failures. Ultimately, investors remained focused on slowing inflation and potentially peaking rate hikes leading to positive results across most asset classes for the quarter.
- The Fed's, and others', quick responses to pressures in the banking sector brought confidence back to the markets in March with the crisis driving the terminal policy rate expectations lower.
  - US equity markets (Russell 3000) rallied in March (+2.7%) finishing the first quarter in strongly positive territory (+7.2%). Growth significantly outperformed value for the quarter, driven by the technology sector.
  - Non-US developed equity markets (MSCI EAFE +2.5%) also posted positive returns in March. They returned 8.5% for the quarter, finishing ahead of US equities.
  - Emerging market equities had positive returns for the month (+3.0%) supported by Chinese equities (+4.5%) and a weaker US dollar. They trailed developed market equities for the quarter partly due to higher US-China tensions.
  - On expectations for lower inflation and concerns over the banking sector, bonds rallied in March, with the broad US bond market (Bloomberg Aggregate) rising 2.5%. For the quarter, the broad US bond market was up 3.0%.
- This year, the path of inflation and monetary policy, slowing global growth, and the war in Ukraine, as well as recent pressures in small- and medium-sized regional banks in the US, will all be key.

### Index Returns<sup>1</sup>

Q1 2023



→ Despite volatility during the quarter, public markets, except commodities, finished the first quarter of 2023 in positive territory adding to the strong gains from the fourth quarter of last year.

<sup>1</sup> Source: Bloomberg and FactSet. Data is as of March 31, 2023.

### Domestic Equity Returns<sup>1</sup>

Domestic Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	3.7	7.5	-7.7	18.6	11.2	12.2
Russell 3000	2.7	7.2	-8.6	18.5	10.4	11.7
Russell 1000	3.2	7.5	-8.4	18.6	10.9	12.0
Russell 1000 Growth	6.8	14.4	-10.9	18.6	13.6	14.6
Russell 1000 Value	-0.5	1.0	-5.9	17.9	7.5	9.1
Russell MidCap	-1.5	4.1	-8.8	19.2	8.0	10.0
Russell MidCap Growth	1.4	9.1	-8.5	15.2	9.1	11.2
Russell MidCap Value	-3.1	1.3	-9.2	20.7	6.5	8.8
Russell 2000	-4.8	2.7	-11.6	17.5	4.7	8.0
Russell 2000 Growth	-2.5	6.1	-10.6	13.4	4.3	8.5
Russell 2000 Value	-7.2	-0.7	-13.0	21.0	4.5	7.2

#### US Equities: Russell 3000 Index rose 2.7% in March and 7.2% in Q1.

- US stocks rose in aggregate for the month and quarter as investors were optimistic that the Federal Reserve may end its policy tightening earlier than expected. However, turmoil in the regional banking industry weighed on segments of the market.
- The small cap and value indices were more exposed to the banking turmoil and underperformed their broad market indices by significant margins.
- Large cap stocks were driven higher by the continued strength of the technology and communication services sectors. This same dynamic contributed to the continued outperformance of growth stocks against their value counterparts across the capitalization spectrum.

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023.

### Foreign Equity Returns<sup>1</sup>

Foreign Equity	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	2.4	6.9	-5.1	11.8	2.5	4.2
MSCI EAFE	2.5	8.5	-1.4	13.0	3.6	5.0
MSCI EAFE (Local Currency)	0.5	7.5	3.8	14.6	6.3	7.3
MSCI EAFE Small Cap	-0.2	4.9	-9.8	12.1	0.9	5.8
MSCI Emerging Markets	3.0	4.0	-10.7	7.8	-0.9	2.0
MSCI Emerging Markets (Local Currency)	2.2	3.8	-6.6	8.8	1.9	5.0
MSCI China	4.5	4.7	-4.7	-2.6	-4.0	3.4

**Foreign Equity: Developed international equities (MSCI EAFE) rose 2.5% in March and 8.5% for the quarter. Emerging market equities (MSCI EM) rose 3.0% for the month and 4.0% in the first quarter.**

- Non-US equities also recovered in March with developed markets (MSCI EAFE) outpacing US equities (8.5% versus 7.2%) for the quarter and emerging markets (MSCI Emerging Markets) trailing (4.0% versus 7.2%).
- Developed market equities also benefited from expectations that monetary policy may be peaking on declining inflation. The continued weakness in the US dollar also added to the quarterly results (+1%) for US investors.
- Emerging market equities started the year with optimism over the reopening of China’s economy, but the escalation of US-China tensions and the broader banking crisis led to weaker relative results compared to developed markets.

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023.

### Fixed Income Returns<sup>1</sup>

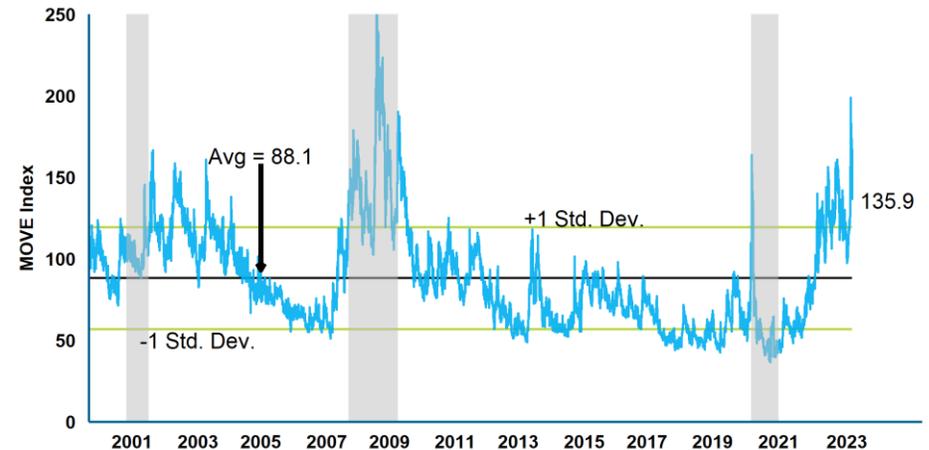
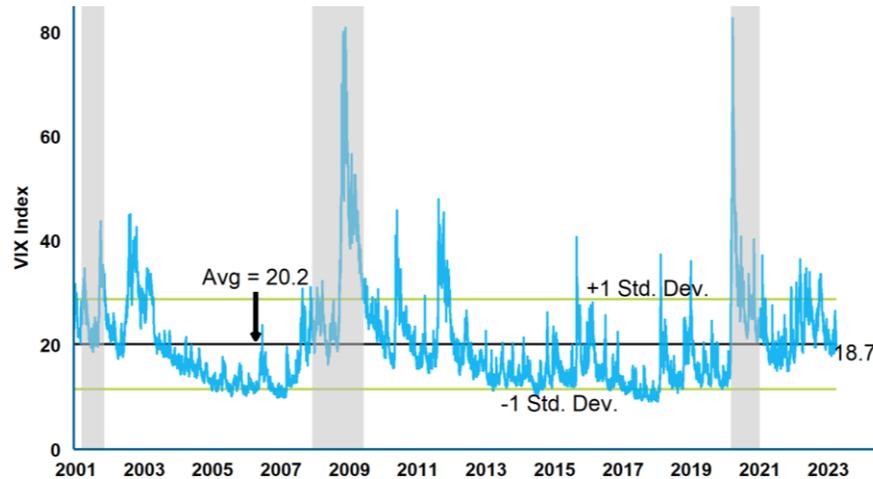
Fixed Income	March (%)	Q1 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Barclays Universal	2.3	2.9	-4.6	-2.0	1.0	1.6	4.8	6.3
Bloomberg Barclays Aggregate	2.5	3.0	-4.8	-2.8	0.9	1.4	4.4	6.5
Bloomberg Barclays US TIPS	2.9	3.3	-6.1	1.8	2.9	1.5	4.1	7.0
Bloomberg Short-term TIPS	1.9	2.2	-0.3	3.5	3.0	1.5	4.6	2.5
Bloomberg Barclays High Yield	1.1	3.6	-3.3	5.9	3.2	4.1	8.5	4.2
JPM GBI-EM Global Diversified (USD)	4.1	5.2	-0.7	0.9	-2.4	-1.5	7.1	5.1

**Fixed Income: The Bloomberg Universal rose 2.3% in March and 2.9% in Q1 as global sovereign debt yields fell on monetary policy expectations.**

- Anecdotal reports suggest bouts of flight-to-quality flows during the peak of interest rate volatility connected to the banking sector pushed sovereign debt yields lower. These concerns largely outweighed continued inflation concerns and caused investors to adjust their policy expectations.
- The broad TIPS index outperformed the broad US bond market (Bloomberg Aggregate) in March and for the quarter.
- High yield bonds had the weakest results in March driven by banking sector weakness but outperformed the broad US bond market for the quarter.

<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of March 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

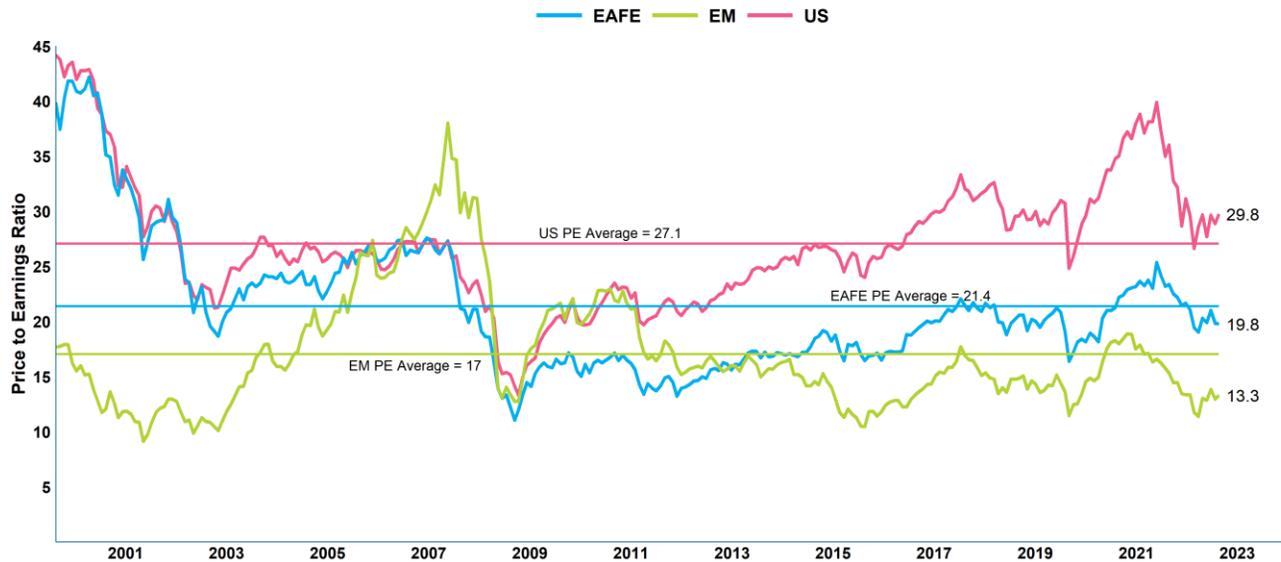
### Equity and Fixed Income Volatility<sup>1</sup>



- Volatility in equities (VIX) remained subdued through the end of March as investors continued to anticipate the end of the Fed’s policy tightening.
- In comparison, the bond market remains on edge with the more policy sensitive MOVE (fixed income volatility) remaining well above its long-run average. During the quarter it hit the highest level since the Global Financial Crisis as the banking sector issues created uncertainty over how the Fed would balance fighting inflation and maintaining financial stability.

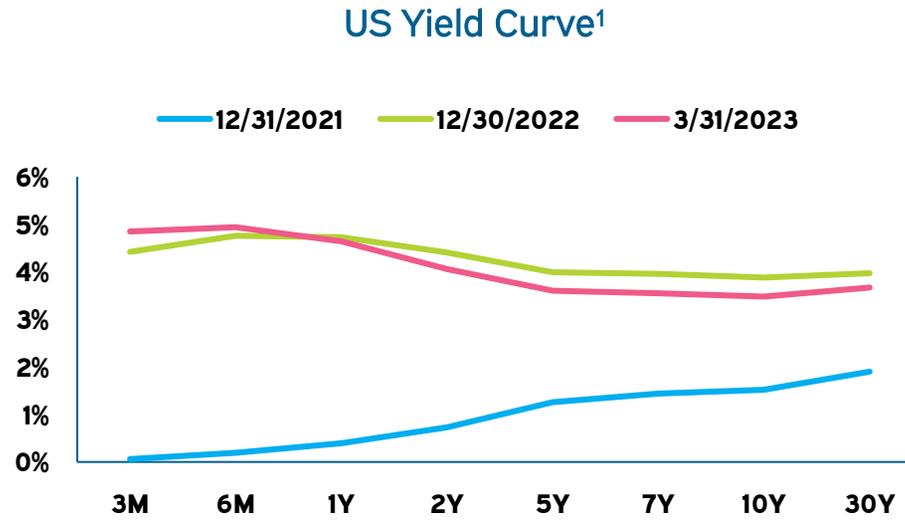
<sup>1</sup> Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of March 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and March 2023.

**Equity Cyclically Adjusted P/E Ratios<sup>1</sup>**



- After its dramatic decline last year the US equity price-to-earnings ratio remains above its long-run (21st century) average.
- International developed market valuations are slightly below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

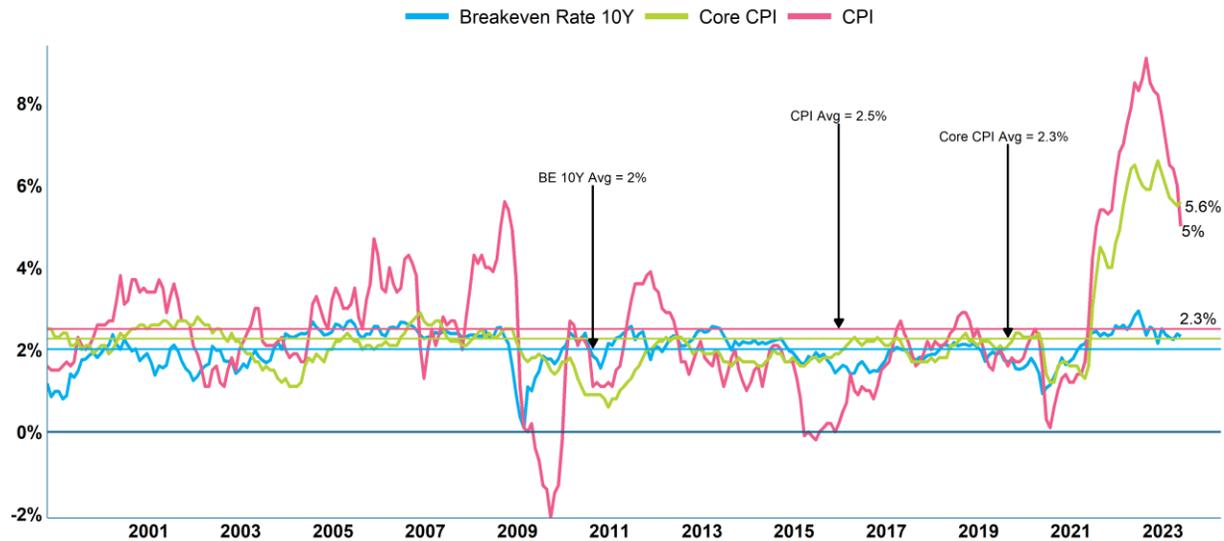
<sup>1</sup> US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of March 2023. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



- It was a volatile quarter for interest rates, particularly shorter-dated maturities. Except for the shortest maturities, rates largely declined across the yield curve in the first quarter on expectations of peaking policy.
- After hitting -1.07% in early March, the yield spread between two-year and ten-year Treasuries finished the quarter at -0.55% as policy-sensitive rates at the front-end of the curve declined faster than longer maturities. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Inversions in the yield curve have often preceded recessions.
- The Fed remained committed to fighting inflation, despite pressures in the banking sector, raising rates another 25 basis points to a range of 4.75% to 5.0% at its March meeting.

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023.

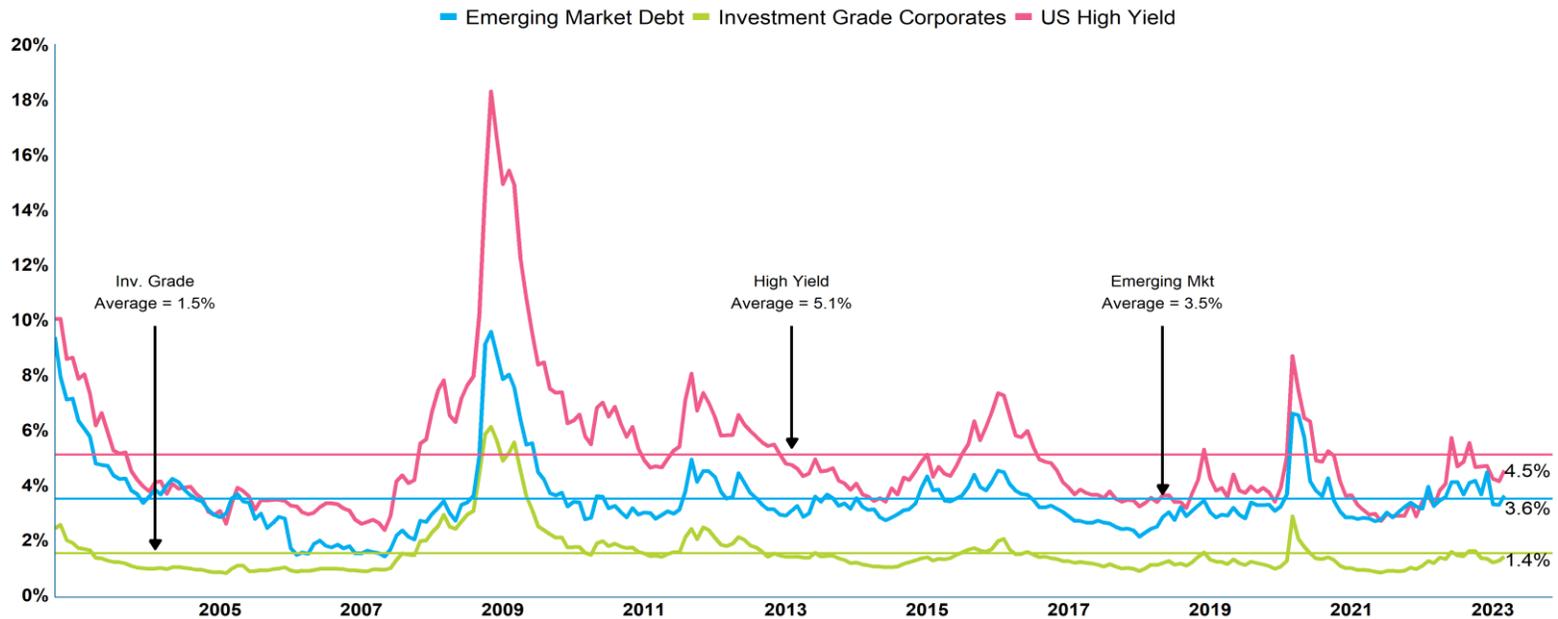
**Ten-Year Breakeven Inflation and CPI<sup>1</sup>**



- Inflation continued to decline in March with the year-over-year reading falling from 6.0% to 5.0% and coming in slightly below the 5.1% expectations. The rate of price increases also slowed on a month-over-month basis (0.1% versus 0.4%), with food prices only slightly higher and energy prices declining.
- Core inflation – excluding food and energy - rose (5.6% versus 5.5%) mostly driven by transportation and housing.
- Inflation expectations (breakevens) were volatile over the month and declined on net, but nonetheless ended the month at 2.3% (roughly where it started the quarter).

<sup>1</sup> Source: Bloomberg. Data is as of March 31, 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

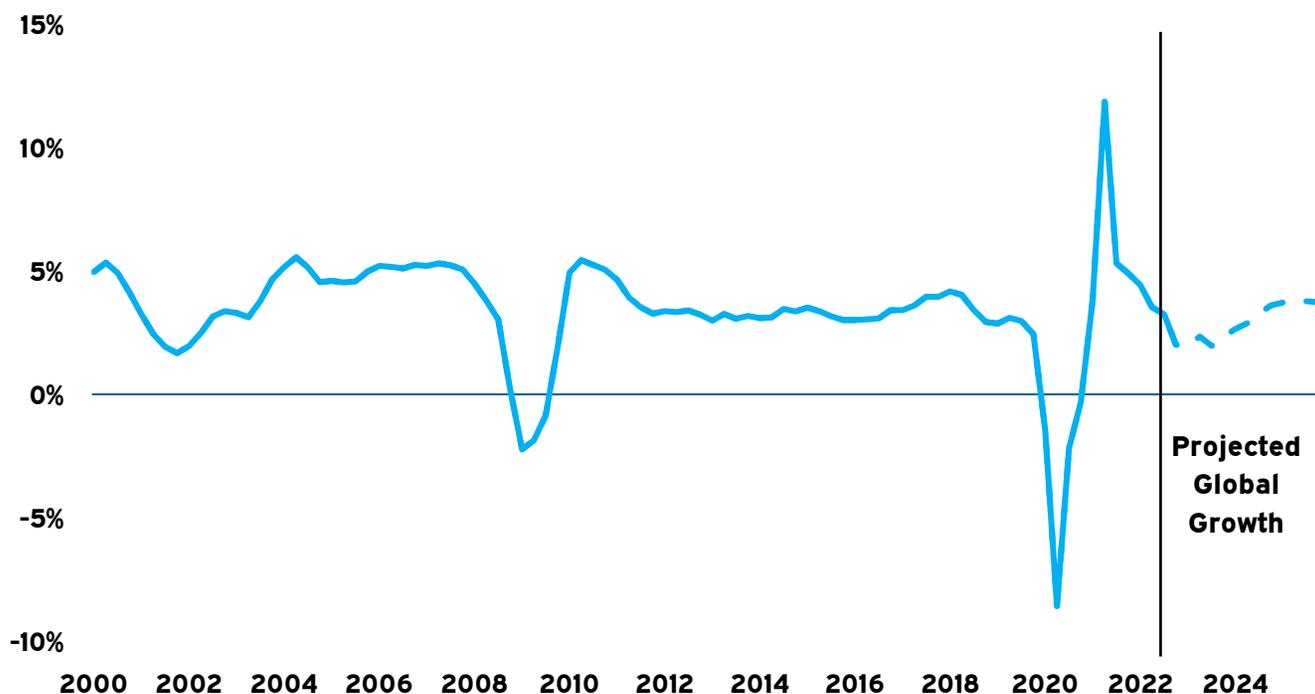
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- Spreads (the added yield above a comparable maturity Treasury) experienced a significant spike in March during the banking crisis but subsequently declined as the Fed and others stepped in to provide support.
- High yield spreads rose from 4.1% to a peak of 5.2% in March before finishing the quarter at 4.5% (lower than the start of the quarter by 0.2%). Investment grade spreads also spiked in March (1.2% to 1.6%) but also fell from their peak to 1.4%. Emerging market spreads finished the quarter at 3.6% experiencing the largest decline (-0.9%).

<sup>1</sup> Sources: Bloomberg. Data is as of March 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end, respectively.

### Global Real Gross Domestic Product (GDP) Growth<sup>1</sup>

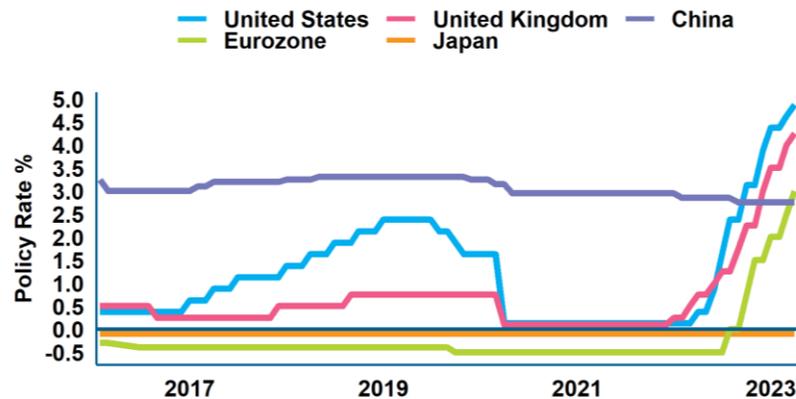


- Global economies are expected to slow in 2023 compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

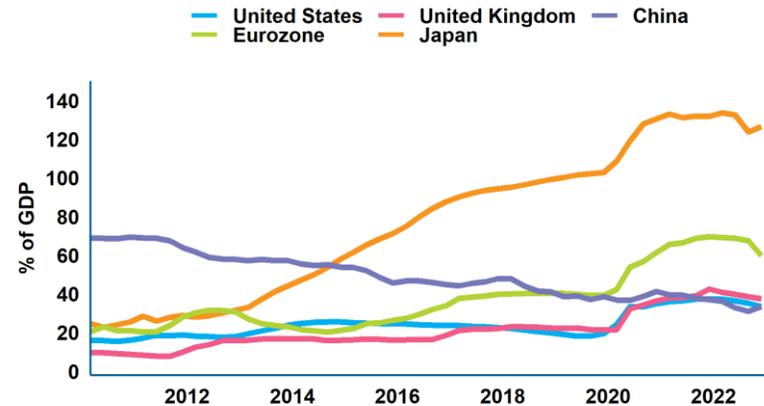
<sup>1</sup> Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated March 2023.

### Central Bank Response<sup>1</sup>

#### Policy Rates



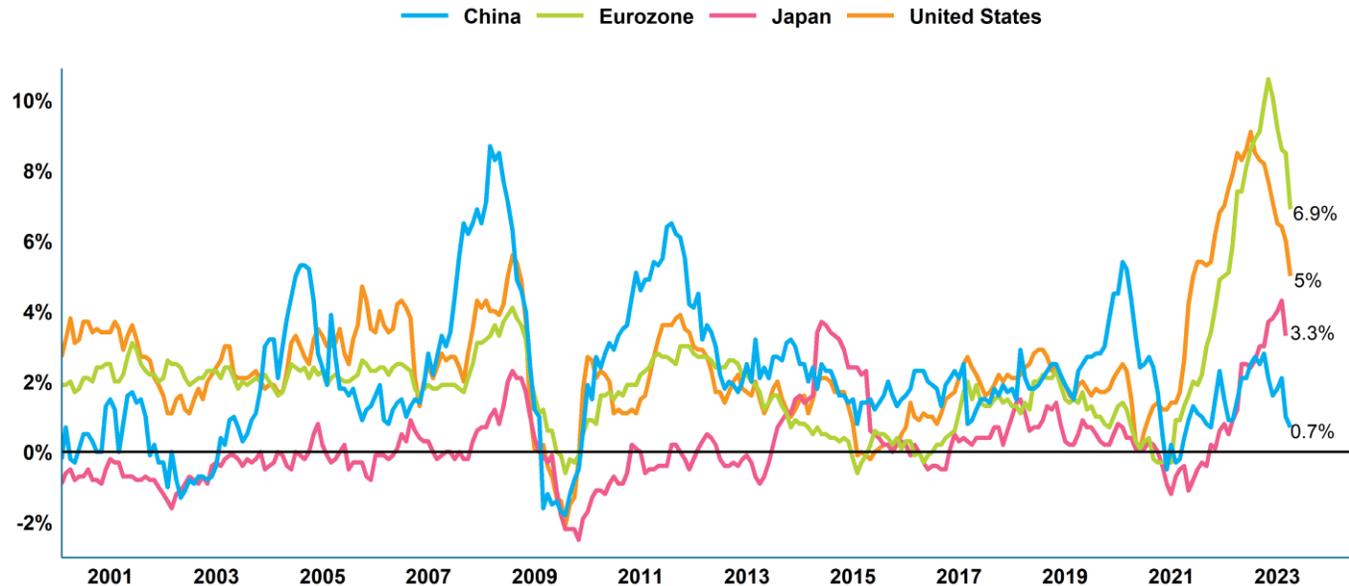
#### Balance Sheet as % of GDP



- In 2022, many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the US taking the most aggressive approach. Slowing inflation and recent signs of instability in the banking sector have led to expectations for the slowing of policy tightening going forward.
- In March, the Fed, FDIC, and Treasury provided deposit guarantees after high profile bank failures revealed bank capital losses on US Treasuries related to higher interest rates and lax risk management.
- China's central bank is one notable exception. They are expected to maintain an accommodative monetary stance to support the economy. They cut bank reserves requirements to improve bank liquidity and banks have also securitized over \$390 billion in non-performing loans to improve loan quality ratios.
- Looking ahead the risk remains for a policy error as central banks attempt to balance bringing down inflation, maintaining financial stability, and growth.

<sup>1</sup> Source: Bloomberg. Policy rate data is as of March 31, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of December 31, 2022.

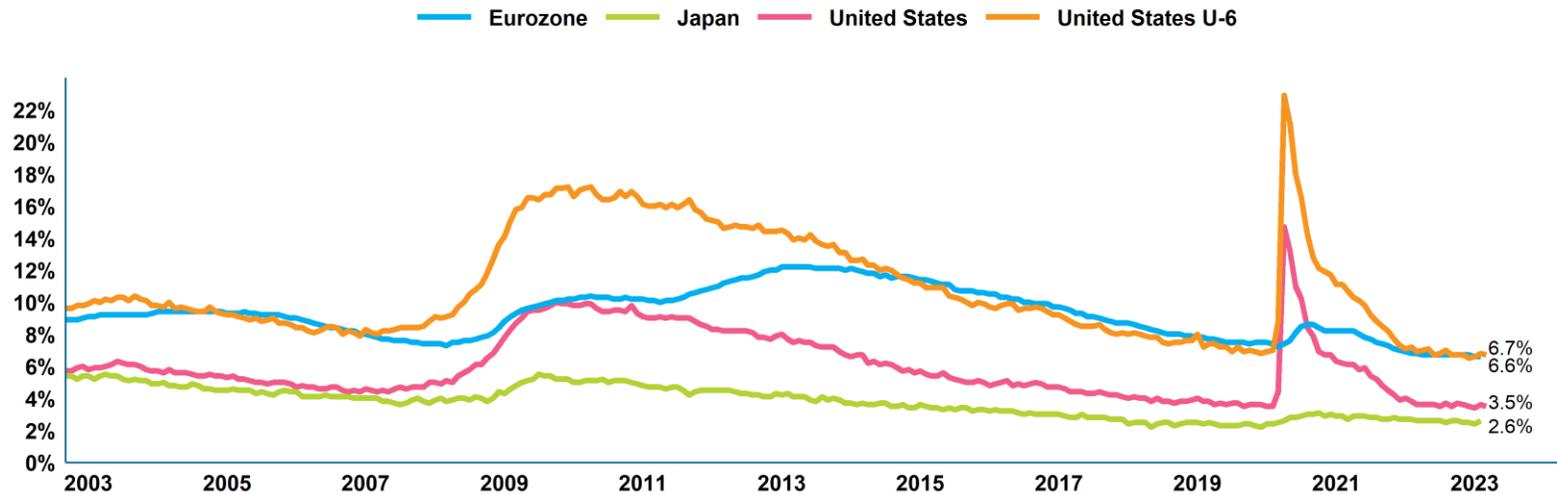
**Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it reached levels not seen in many decades.
- Inflation pressures are slowly declining in the US as supply issues ease, but they remain elevated, while in Europe they have also started to fall as energy prices have eased.
- Lingering supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

<sup>1</sup> Source: Bloomberg. Data is as March 31, 2023. The most recent Japanese inflation data is as of February 2023.

### Unemployment<sup>1</sup>



- Labor markets have significantly improved from the pandemic as economies have largely reopened.
- Despite slowing growth and high inflation, the US labor market remains a particular bright spot. Unemployment in the US, which experienced the steepest rise, recently has returned to pre-pandemic levels. Broader measures of unemployment (U-6) remain higher at 6.7% but have also declined dramatically from their peak.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.

<sup>1</sup> Source: Bloomberg. Data is as March 31, 2023, for the US. The most recent data for Eurozone and Japanese unemployment is as of February 2023.

US Dollar versus Broad Currencies<sup>1</sup>



- The dollar finished 2022 much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows. Late last year and into early this year, the dollar experienced some weakness though as investors anticipated the end of Fed tightening.
- Overall, the US dollar depreciated in March and finished the quarter slightly lower than where it started as weaker economic data and bank turmoil drove interest rates lower in the US.
- This year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

<sup>1</sup> Source: Bloomberg. Data as of March 31, 2023.

## Summary

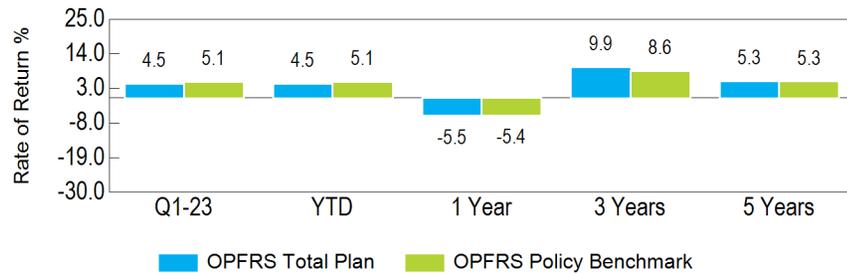
### Key Trends:

- The impacts of record high inflation will remain key, with market volatility likely to stay high.
- Recent issues related to the banking sector have created a delicate balance for central banks to continue to fight inflation but also try to maintain financial stability.
- Global monetary policies could diverge in 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors remains elevated given persistent inflation pressures and a strong US labor market.
- Growth is expected to slow globally this year, with many economies forecast to tip into recession. Inflation, monetary policy, and the war will all be key.
- In the US, the end of many fiscal programs is expected to put the burden of continued growth on consumers. Costs for shelter, medical care, and education could continue to rise, keeping 'sticky price' inflation at elevated levels.
- The key for US equities going forward will be whether earnings can remain resilient if growth continues to slow.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

**1Q 2023 Performance**  
as of March 31, 2023

### OPFRS Total Plan | As of March 31, 2023

#### Return Summary Ending March 31, 2023



#### Summary of Cash Flows

	Quarter-To-Date	One Year
Beginning Market Value	\$398,501,201	\$449,373,445
Net Cash Flow	-\$5,442,419	-\$13,425,368
Capital Appreciation	\$18,123,266	-\$24,766,028
Ending Market Value	\$411,182,049	\$411,182,049

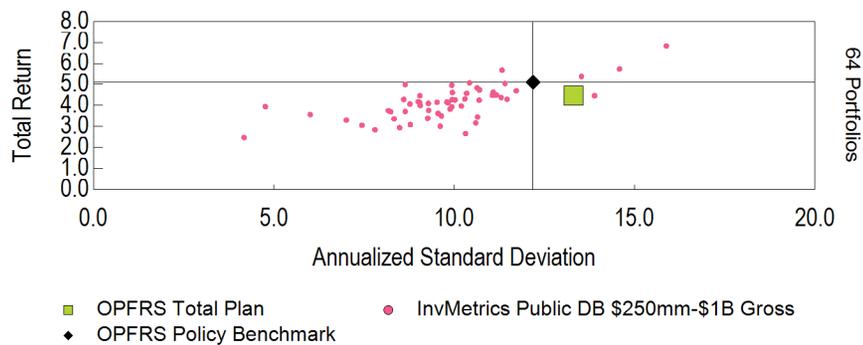
#### YTD Ending March 31, 2023

	Total Return	Anlzd Standard Deviation
OPFRS Total Plan	4.5%	13.3%
OPFRS Policy Benchmark	5.1%	12.2%

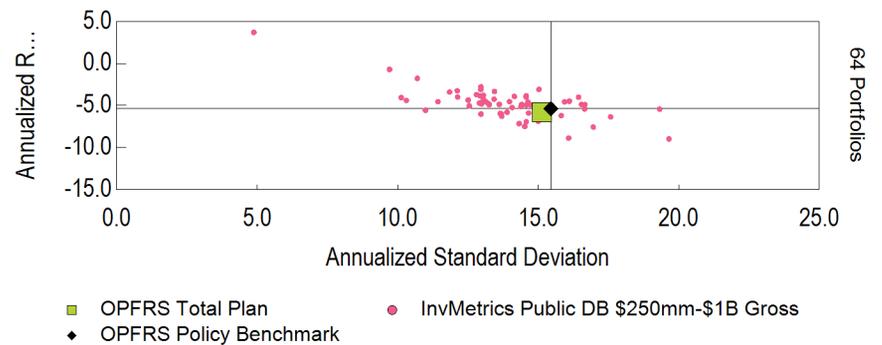
#### 1 Year Ending March 31, 2023

	Anlzd Return	Anlzd Standard Deviation
OPFRS Total Plan	-5.5%	15.1%
OPFRS Policy Benchmark	-5.4%	15.4%

#### Total Return vs. Annualized Standard Deviation 3 Months Ending March 31, 2023



#### Annualized Return vs. Annualized Standard Deviation 1 Year Ending March 31, 2023



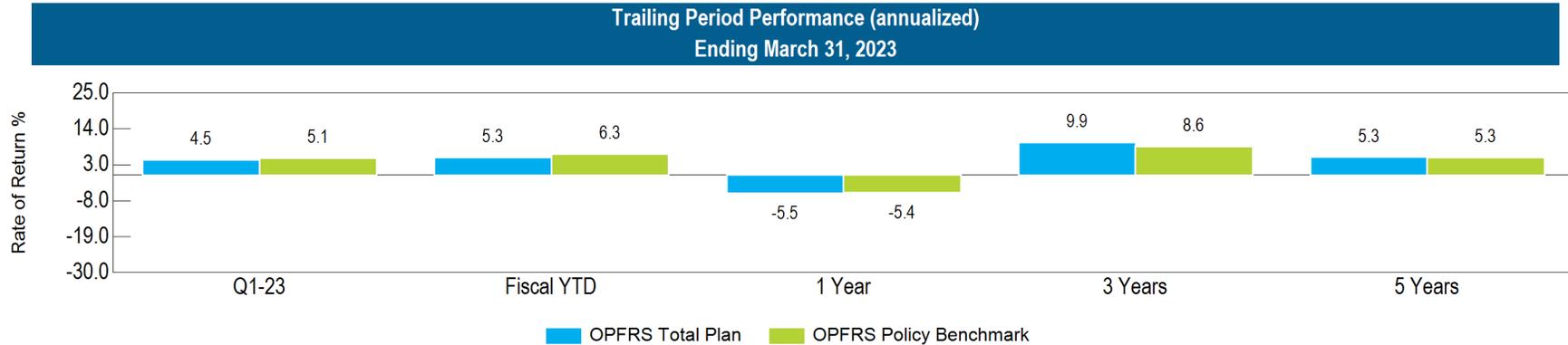
Performance shown is Gross-of-Fees.

## Oakland Police and Fire Retirement System Total Plan

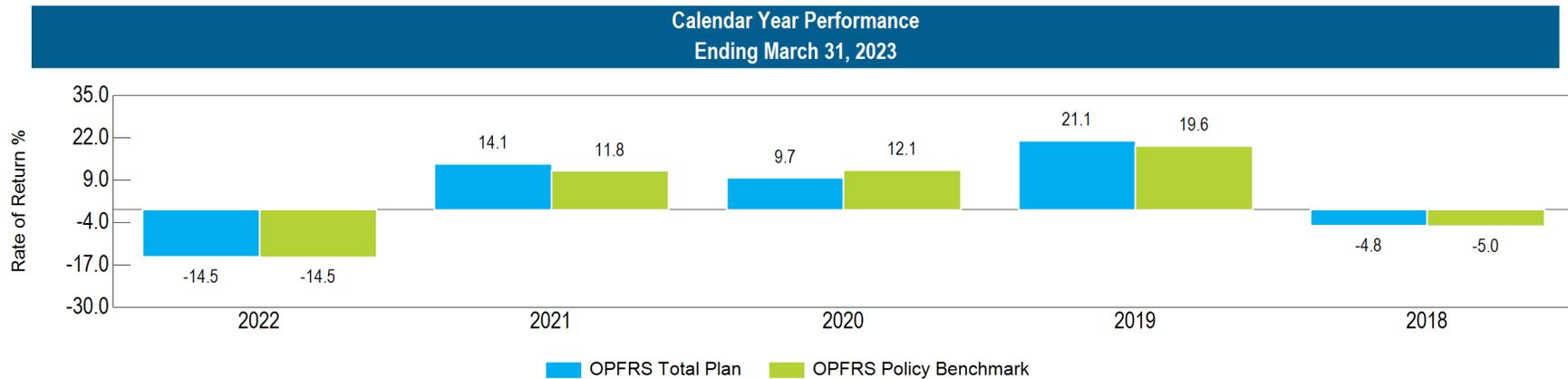
### Asset Class Performance (gross of fees) | As of March 31, 2023

	Market Value (\$)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
<b>OPFRS Total Plan</b>	<b>411,182,049</b>	<b>4.5</b>	<b>5.3</b>	<b>-5.5</b>	<b>9.9</b>	<b>5.3</b>	<b>7.5</b>	<b>7.0</b>
<i>OPFRS Policy Benchmark</i>		<u>5.1</u>	<u>6.3</u>	<u>-5.4</u>	<u>8.6</u>	<u>5.3</u>	<u>7.1</u>	<u>6.7</u>
Excess Return		-0.6	-1.0	-0.1	1.3	0.0	0.4	0.3
<i>InvMetrics Public DB \$250mm-\$1B Gross Median</i>		4.1	5.5	-4.9	11.0	6.0	7.6	7.1
<b>Domestic Equity</b>	<b>168,069,634</b>	<b>5.2</b>	<b>8.4</b>	<b>-7.2</b>	<b>18.6</b>	<b>9.5</b>	<b>11.7</b>	<b>11.5</b>
<i>Russell 3000 (Blend)</i>		<u>7.2</u>	<u>9.7</u>	<u>-8.6</u>	<u>18.5</u>	<u>10.4</u>	<u>12.0</u>	<u>11.7</u>
Excess Return		-2.0	-1.3	1.4	0.1	-0.9	-0.3	-0.2
<b>International Equity</b>	<b>54,140,952</b>	<b>8.7</b>	<b>13.2</b>	<b>-3.9</b>	<b>12.2</b>	<b>3.6</b>	<b>7.2</b>	<b>5.7</b>
<i>MSCI ACWI ex US (Blend)</i>		<u>6.9</u>	<u>10.0</u>	<u>-5.1</u>	<u>11.8</u>	<u>2.5</u>	<u>5.9</u>	<u>4.2</u>
Excess Return		1.8	3.2	1.2	0.4	1.1	1.3	1.5
<b>Fixed Income</b>	<b>105,026,387</b>	<b>3.4</b>	<b>0.7</b>	<b>-4.2</b>	<b>-0.6</b>	<b>1.4</b>	<b>1.8</b>	<b>1.9</b>
<i>Bloomberg Universal (Blend)</i>		<u>2.9</u>	<u>0.5</u>	<u>-4.6</u>	<u>-2.0</u>	<u>1.0</u>	<u>1.2</u>	<u>1.6</u>
Excess Return		0.5	0.2	0.4	1.4	0.4	0.6	0.3
<b>Credit</b>	<b>8,909,576</b>	<b>3.7</b>	<b>5.2</b>	<b>-3.1</b>	<b>10.4</b>	<b>3.2</b>	<b>6.3</b>	<b>--</b>
<i>Bloomberg US High Yield TR</i>		<u>3.6</u>	<u>7.2</u>	<u>-3.3</u>	<u>5.9</u>	<u>3.2</u>	<u>5.1</u>	<u>--</u>
Excess Return		0.1	-2.0	0.2	4.5	0.0	1.2	--
<b>Covered Calls</b>	<b>22,993,243</b>	<b>6.2</b>	<b>8.5</b>	<b>-4.7</b>	<b>16.6</b>	<b>9.1</b>	<b>9.7</b>	<b>--</b>
<i>CBOE S&amp;P 500 BuyWrite USD</i>		<u>6.0</u>	<u>4.6</u>	<u>-6.9</u>	<u>12.3</u>	<u>4.4</u>	<u>5.9</u>	<u>--</u>
Excess Return		0.2	3.9	2.2	4.3	4.7	3.8	--
<b>Crisis Risk Offset</b>	<b>39,437,113</b>	<b>0.0</b>	<b>-4.7</b>	<b>-6.5</b>	<b>-8.7</b>	<b>-8.2</b>	<b>--</b>	<b>--</b>
<i>SG Multi Alternative Risk Premia Index</i>		<u>1.1</u>	<u>3.6</u>	<u>6.4</u>	<u>2.1</u>	<u>--</u>	<u>--</u>	<u>--</u>
Excess Return		-1.1	-8.3	-12.9	-10.8	--	--	--
<b>Cash</b>	<b>12,605,144</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>1.0</b>	<b>1.0</b>	<b>0.7</b>
<i>FTSE T-Bill 3 Months TR</i>		<u>1.1</u>	<u>2.5</u>	<u>2.6</u>	<u>1.0</u>	<u>1.4</u>	<u>1.2</u>	<u>0.9</u>
Excess Return		-1.1	-2.5	-2.6	-1.0	-0.4	-0.2	-0.2

Performance shown is gross-of-fees. Fiscal year begins on July 1.



	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	2018 (%)	2019 (%)	2020 (%)	2021 (%)	2022 (%)
<b>OPFRS Total Plan</b>	<b>4.5</b>	<b>5.3</b>	<b>-5.5</b>	<b>9.9</b>	<b>5.3</b>	<b>-4.8</b>	<b>21.1</b>	<b>9.7</b>	<b>14.1</b>	<b>-14.5</b>
<i>OPFRS Policy Benchmark</i>	<i>5.1</i>	<i>6.3</i>	<i>-5.4</i>	<i>8.6</i>	<i>5.3</i>	<i>-5.0</i>	<i>19.6</i>	<i>12.1</i>	<i>11.8</i>	<i>-14.5</i>
<i>InvMetrics Public DB \$250mm-\$1B Gross Median</i>	<i>4.1</i>	<i>5.5</i>	<i>-4.9</i>	<i>11.0</i>	<i>6.0</i>	<i>-4.1</i>	<i>18.6</i>	<i>13.1</i>	<i>13.6</i>	<i>-13.4</i>

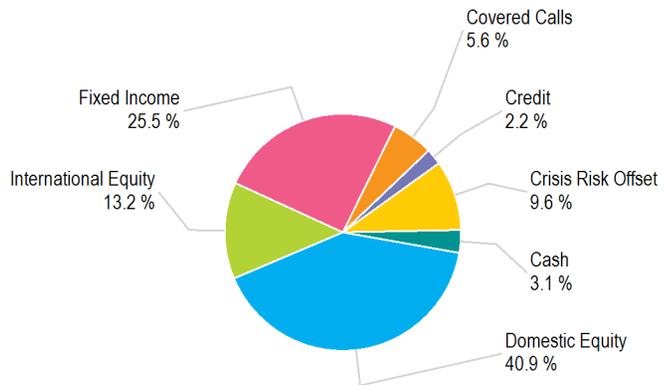


Fiscal year begins on July 1.

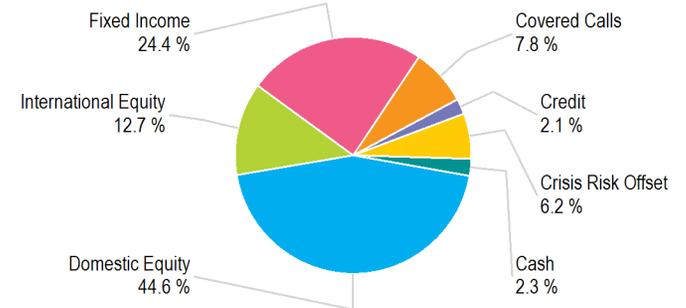
#### Asset Allocation vs. Target As Of March 31, 2023

	Current	%	Policy	Difference*
Domestic Equity	\$168,069,634	40.9%	40.0%	0.9%
International Equity	\$54,140,952	13.2%	12.0%	1.2%
Fixed Income	\$105,026,387	25.5%	31.0%	-5.5%
Covered Calls	\$22,993,243	5.6%	5.0%	0.6%
Credit	\$8,909,576	2.2%	2.0%	0.2%
Crisis Risk Offset	\$39,437,113	9.6%	10.0%	-0.4%
Cash	\$12,605,144	3.1%	0.0%	3.1%
<b>Total</b>	<b>\$411,182,049</b>	<b>100.0%</b>	<b>100.0%</b>	

March 31, 2023: \$382,458,040



March 31, 2022: \$449,834,415



Cash account market value includes cash balances held in ETF accounts at the custodian and residuals from terminated managers.

Target weightings reflect the Plan's evolving asset allocation (effective 5/31/2017.)

## Oakland Police and Fire Retirement System Total Plan

### Manager Performance - Gross of Fees | As of March 31, 2023

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Domestic Equity</b>	<b>168,069,634</b>	<b>100.0</b>	<b>5.2</b>	<b>-7.2</b>	<b>18.6</b>	<b>9.5</b>	<b>8.7</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>7.2</i>	<i>-8.6</i>	<i>18.5</i>	<i>10.4</i>	<i>8.9</i>	<i>Jun-97</i>
Excess Return			-2.0	1.4	0.1	-0.9	-0.2	
Northern Trust Russell 1000	74,942,881	44.6	7.5	-8.7	18.4	10.8	12.9	Jun-10
<i>Russell 1000</i>			<i>7.5</i>	<i>-8.4</i>	<i>18.6</i>	<i>10.9</i>	<i>13.0</i>	<i>Jun-10</i>
Excess Return			0.0	-0.3	-0.2	-0.1	-0.1	
EARNEST Partners	45,658,799	27.2	4.7	-6.0	20.9	11.0	10.1	Apr-06
<i>Russell MidCap</i>			<i>4.1</i>	<i>-8.8</i>	<i>19.2</i>	<i>8.1</i>	<i>8.4</i>	<i>Apr-06</i>
Excess Return			0.6	2.8	1.7	2.9	1.7	
<i>eV US Mid Cap Core Equity Gross Rank</i>			<i>50</i>	<i>62</i>	<i>39</i>	<i>17</i>	<i>34</i>	<i>Apr-06</i>
Wellington Select Quality Equity	22,362,811	13.3	0.7	--	--	--	1.6	May-22
<i>Russell 1000</i>			<i>7.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>0.6</i>	<i>May-22</i>
Excess Return			-6.8				1.0	
<i>eV US Large Cap Core Equity Gross Rank</i>			<i>94</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>46</i>	<i>May-22</i>
Brown Fundamental Small Cap Value	10,865,239	6.5	-0.3	-2.3	--	--	1.4	Apr-21
<i>Russell 2000 Value</i>			<i>-0.7</i>	<i>-13.0</i>	<i>--</i>	<i>--</i>	<i>-5.2</i>	<i>Apr-21</i>
Excess Return			0.4	10.7			6.6	
<i>eV US Small Cap Value Equity Gross Rank</i>			<i>86</i>	<i>24</i>	<i>--</i>	<i>--</i>	<i>32</i>	<i>Apr-21</i>
Rice Hall James	14,239,905	8.5	7.1	-7.7	18.6	4.2	7.1	Jul-17
<i>Russell 2000 Growth</i>			<i>6.1</i>	<i>-10.6</i>	<i>13.4</i>	<i>4.3</i>	<i>6.0</i>	<i>Jul-17</i>
Excess Return			1.0	2.9	5.2	-0.1	1.1	
<i>eV US Small Cap Growth Equity Gross Rank</i>			<i>51</i>	<i>28</i>	<i>38</i>	<i>95</i>	<i>90</i>	<i>Jul-17</i>

Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>International Equity</b>	<b>54,140,952</b>	<b>100.0</b>	<b>8.7</b>	<b>-3.9</b>	<b>12.2</b>	<b>3.6</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			<i>6.9</i>	<i>-5.1</i>	<i>11.8</i>	<i>2.5</i>	<i>5.0</i>	<i>Jan-98</i>
Excess Return			1.8	1.2	0.4	1.1	0.3	
Vanguard Developed Markets ETF	15,125,852	27.9	8.0	-3.0	13.8	--	6.5	Sep-19
<i>FTSE Developed All Cap Ex US TR USD</i>			<i>7.7</i>	<i>-3.8</i>	<i>13.9</i>	--	<i>6.6</i>	<i>Sep-19</i>
Excess Return			0.3	0.8	-0.1		-0.1	
SGA ACWI ex-U.S. Equity	39,015,100	72.1	9.0	-4.3	11.7	--	3.0	Dec-19
<i>MSCI ACWI ex USA</i>			<i>6.9</i>	<i>-5.1</i>	<i>11.8</i>	--	<i>3.4</i>	<i>Dec-19</i>
Excess Return			2.1	0.8	-0.1		-0.4	
<i>eV ACWI ex-US All Cap Core Eq Gross Rank</i>			<i>22</i>	<i>57</i>	<i>80</i>	--	<i>92</i>	<i>Dec-19</i>

Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Fixed Income</b>	<b>105,026,387</b>	<b>100.0</b>	<b>3.4</b>	<b>-4.2</b>	<b>-0.6</b>	<b>1.4</b>	<b>4.8</b>	<b>Dec-93</b>
<i>Bloomberg Universal (Blend)</i>			<u>2.9</u>	<u>-4.6</u>	<u>-2.0</u>	<u>1.0</u>	<u>4.6</u>	<u>Dec-93</u>
Excess Return			0.5	0.4	1.4	0.4	0.2	
Ramirez	71,307,125	67.9	3.3	-4.3	-0.6	1.3	1.7	Jan-17
<i>Bloomberg US Aggregate TR</i>			<u>3.0</u>	<u>-4.8</u>	<u>-2.8</u>	<u>0.9</u>	<u>1.0</u>	<u>Jan-17</u>
Excess Return			0.3	0.5	2.2	0.4	0.7	
<i>eV US Core Fixed Inc Gross Rank</i>			24	36	12	67	34	Jan-17
Wellington Core Bond	6,763,874	6.4	3.6	-5.3	--	--	-4.9	Apr-21
<i>Bloomberg US Aggregate TR</i>			<u>3.0</u>	<u>-4.8</u>	--	--	<u>-4.5</u>	<u>Apr-21</u>
Excess Return			0.6	-0.5			-0.4	
<i>eV US Core Fixed Inc Gross Rank</i>			5	89	--	--	98	Apr-21
Reams	26,955,387	25.7	3.7	-3.5	0.6	3.7	5.2	Feb-98
<i>Bloomberg Universal (Blend)</i>			<u>2.9</u>	<u>-4.6</u>	<u>-2.0</u>	<u>1.0</u>	<u>4.2</u>	<u>Feb-98</u>
Excess Return			0.8	1.1	2.6	2.7	1.0	
<i>eV US Core Plus Fixed Inc Gross Rank</i>			15	15	25	2	39	Feb-98

Performance shown is gross-of-fees.

## Oakland Police and Fire Retirement System Total Plan

Manager Performance - Gross of Fees | As of March 31, 2023

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Credit</b>	<b>8,909,576</b>	<b>100.0</b>	<b>3.7</b>	<b>-3.1</b>	<b>10.4</b>	<b>3.2</b>	<b>5.0</b>	<b>Feb-15</b>
<i>Bloomberg US High Yield TR</i>			<i>3.6</i>	<i>-3.3</i>	<i>5.9</i>	<i>3.2</i>	<i>4.1</i>	<i>Feb-15</i>
Excess Return			0.1	0.2	4.5	0.0	0.9	
Polen Capital	8,909,576	100.0	3.7	-3.1	10.4	3.2	5.0	Feb-15
<i>ICE BofA High Yield Master TR</i>			<i>3.7</i>	<i>-3.6</i>	<i>5.8</i>	<i>3.1</i>	<i>4.0</i>	<i>Feb-15</i>
Excess Return			0.0	0.5	4.6	0.1	1.0	
<i>eV US High Yield Fixed Inc Gross Rank</i>			<i>32</i>	<i>65</i>	<i>4</i>	<i>75</i>	<i>14</i>	<i>Feb-15</i>

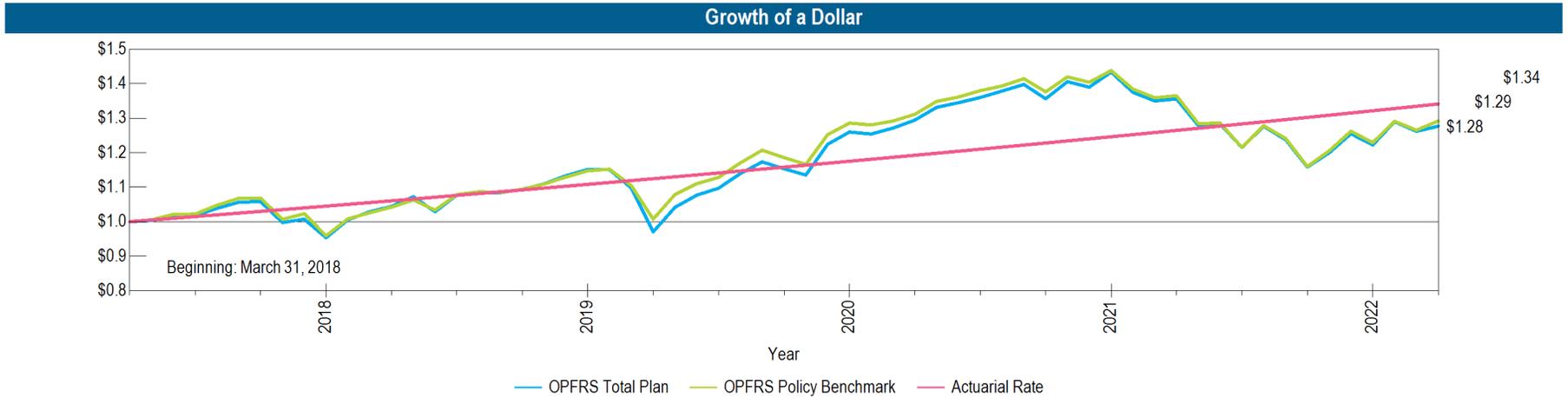
Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Covered Calls</b>	<b>22,993,243</b>	<b>100.0</b>	<b>6.2</b>	<b>-4.7</b>	<b>16.6</b>	<b>9.1</b>	<b>8.6</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 BuyWrite USD</i>			<i>6.0</i>	<i>-6.9</i>	<i>12.3</i>	<i>4.4</i>	<i>5.4</i>	<i>Apr-14</i>
Excess Return			0.2	2.2	4.3	4.7	3.2	
Parametric BXM	11,572,026	50.3	5.2	-3.4	13.4	6.8	6.8	Apr-14
<i>CBOE S&amp;P 500 BuyWrite USD</i>			<i>6.0</i>	<i>-6.9</i>	<i>12.3</i>	<i>4.4</i>	<i>5.4</i>	<i>Apr-14</i>
Excess Return			-0.8	3.5	1.1	2.4	1.4	
Parametric DeltaShift	11,421,217	49.7	7.2	-5.9	19.3	11.1	10.6	Apr-14
<i>CBOE S&amp;P 500 BuyWrite USD</i>			<i>6.0</i>	<i>-6.9</i>	<i>12.3</i>	<i>4.4</i>	<i>5.4</i>	<i>Apr-14</i>
Excess Return			1.2	1.0	7.0	6.7	5.2	
<i>eV US Large Cap Core Equity Gross Rank</i>			<i>28</i>	<i>44</i>	<i>29</i>	<i>40</i>	<i>61</i>	<i>Apr-14</i>

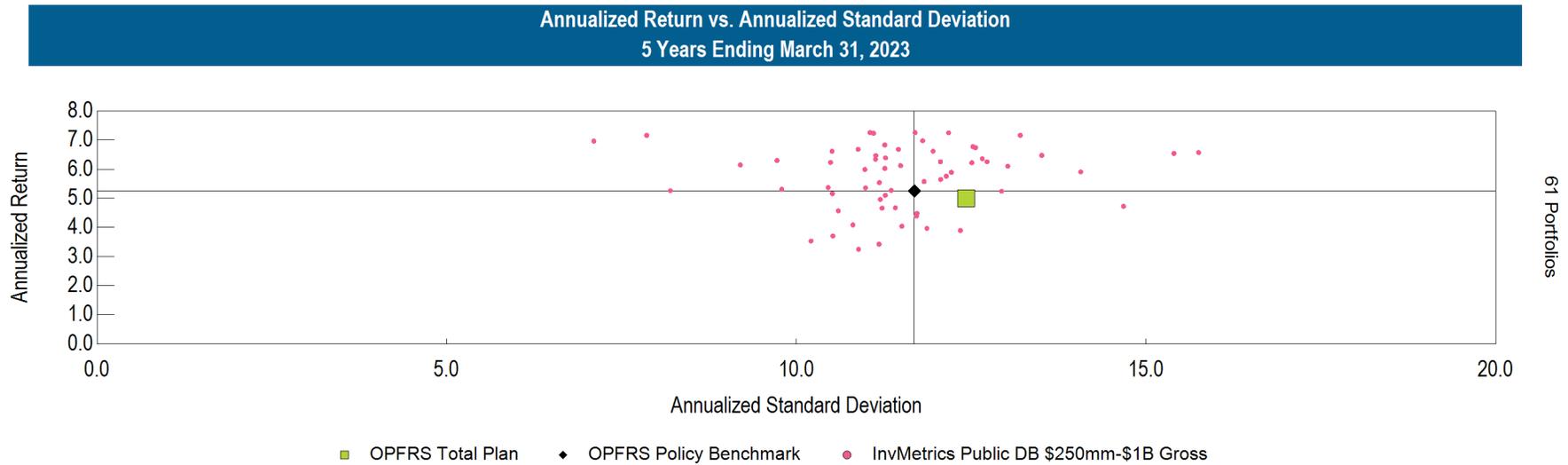
Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
<b>Crisis Risk Offset</b>	<b>39,437,113</b>	<b>100.0</b>	<b>0.0</b>	<b>-6.5</b>	<b>-8.7</b>	<b>-8.2</b>	<b>-8.8</b>	<b>Aug-18</b>
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.1</i>	<i>6.4</i>	<i>2.1</i>	<i>--</i>	<i>-0.2</i>	<i>Aug-18</i>
Excess Return			-1.1	-12.9	-10.8		-8.6	
Versor Trend Following	14,592,261	37.0	-8.7	-2.7	--	--	-2.7	Apr-22
<i>SG Trend Index</i>			<i>-7.3</i>	<i>7.2</i>	<i>--</i>	<i>--</i>	<i>7.2</i>	<i>Apr-22</i>
Excess Return			-1.4	-9.9			-9.9	
Vanguard Long-Term Treasury ETF	14,571,848	36.9	6.8	-16.3	-11.5	--	-3.6	Jul-19
<i>Bloomberg US Govt Long TR</i>			<i>6.2</i>	<i>-15.9</i>	<i>-11.3</i>	<i>--</i>	<i>-3.6</i>	<i>Jul-19</i>
Excess Return			0.6	-0.4	-0.2		0.0	
Kepos Alternative Risk Premia	10,273,004	26.0	4.6	5.8	--	--	3.1	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.1</i>	<i>6.4</i>	<i>--</i>	<i>--</i>	<i>4.3</i>	<i>Feb-22</i>
Excess Return			3.5	-0.6			-1.2	

Performance shown is gross-of-fees.

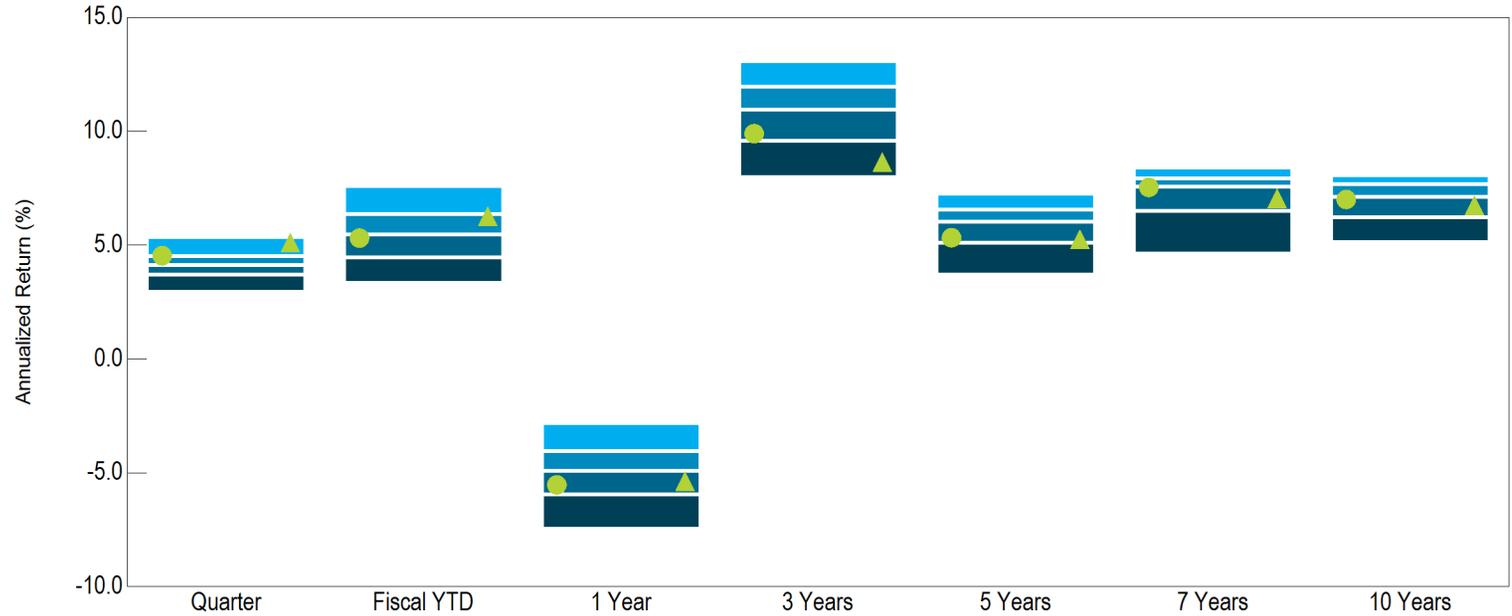


The actuarial expected rate of return was 8% through 6/30/2009, 7.5% through 6/30/2010, 7% through 6/30/2011, 6.75% through 6/30/2014, 6.5% through 2/31/2017 and 6.0% currently



Performance shown is gross-of-fees.

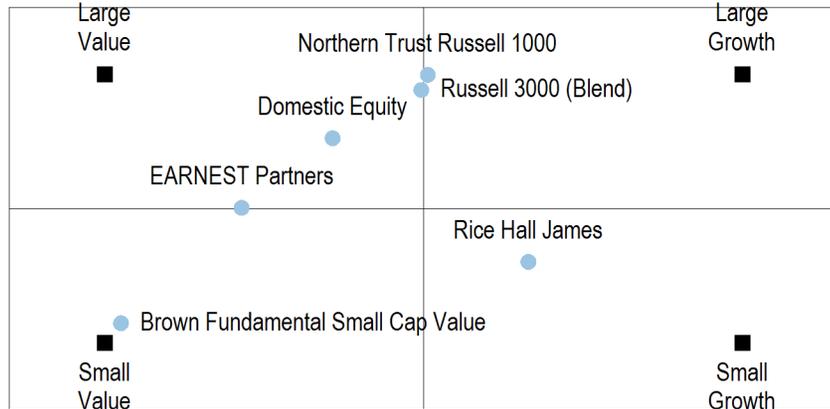
#### InvMetrics Public DB \$250mm-\$1B Gross Return Comparison



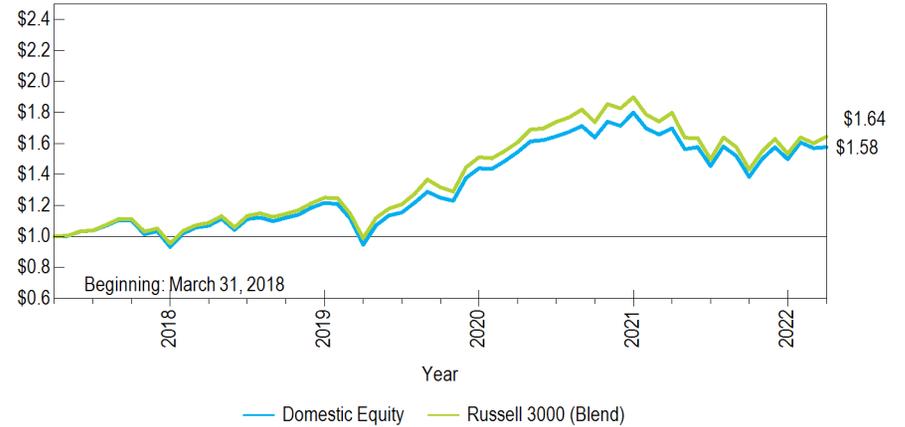
	Quarter		Fiscal YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
<b>5th Percentile</b>	5.3		7.6		-2.8		13.0		7.2		8.4		8.0	
<b>25th Percentile</b>	4.5		6.4		-4.0		12.0		6.6		7.9		7.7	
<b>Median</b>	4.1		5.5		-4.9		11.0		6.0		7.6		7.1	
<b>75th Percentile</b>	3.7		4.5		-5.9		9.6		5.1		6.5		6.2	
<b>95th Percentile</b>	2.9		3.3		-7.4		8.0		3.7		4.6		5.1	
<b># of Portfolios</b>	64		64		64		63		61		59		56	
<b>OPFRS Total Plan</b>	4.5	(25)	5.3	(63)	-5.5	(71)	9.9	(73)	5.3	(67)	7.5	(51)	7.0	(56)
<b>OPFRS Policy Benchmark</b>	5.1	(7)	6.3	(28)	-5.4	(68)	8.6	(91)	5.3	(71)	7.1	(62)	6.7	(68)

Fiscal year begins on July 1.

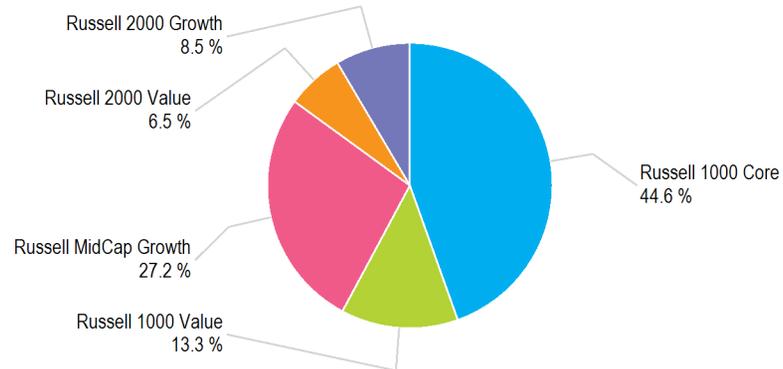
#### U.S. Effective Style Map



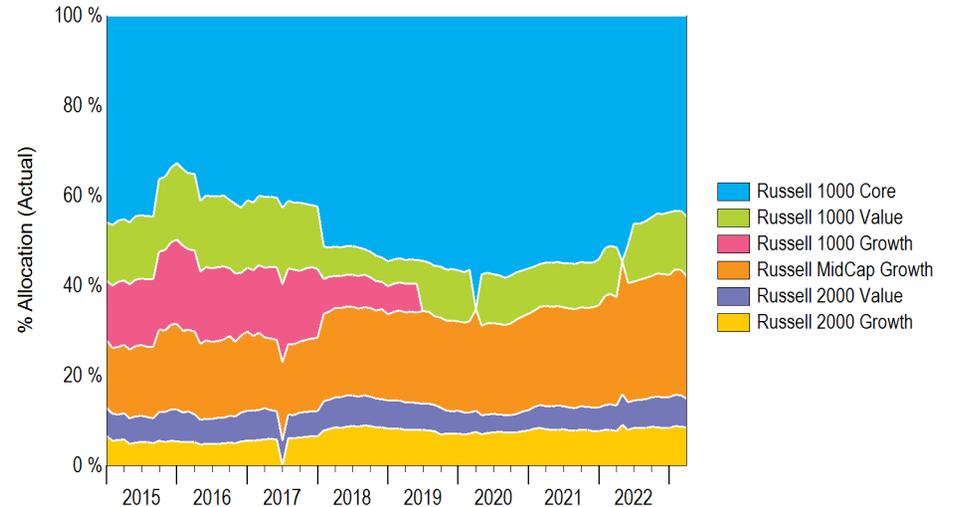
#### Growth of a Dollar



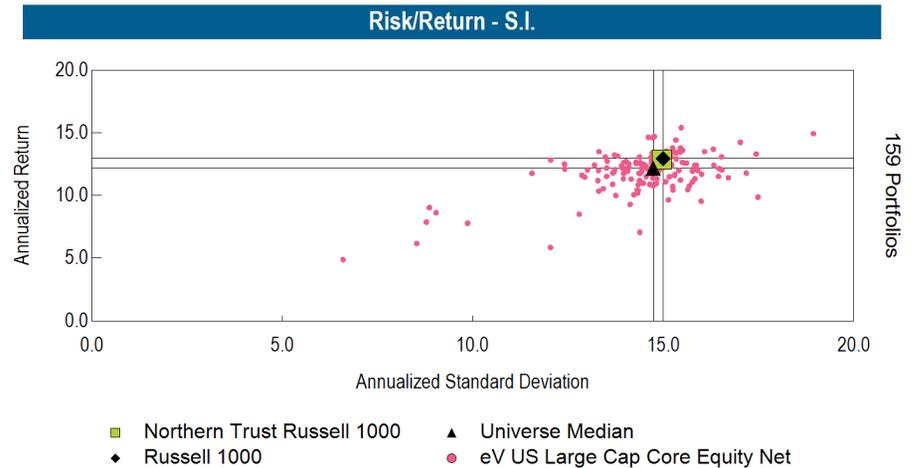
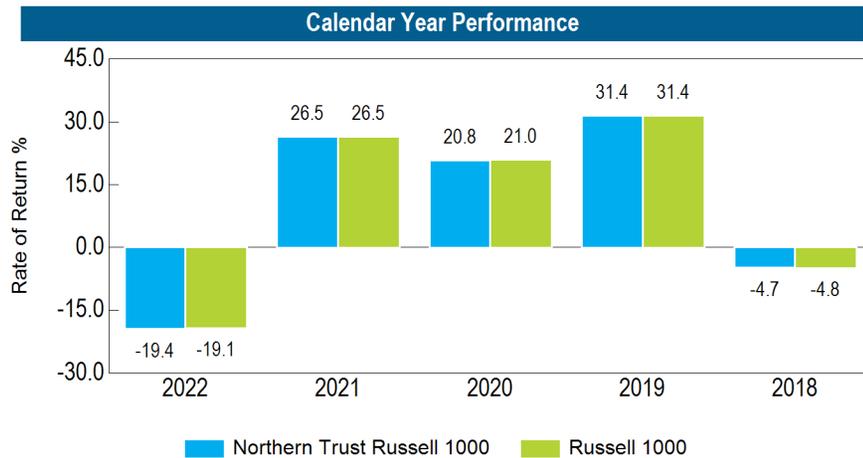
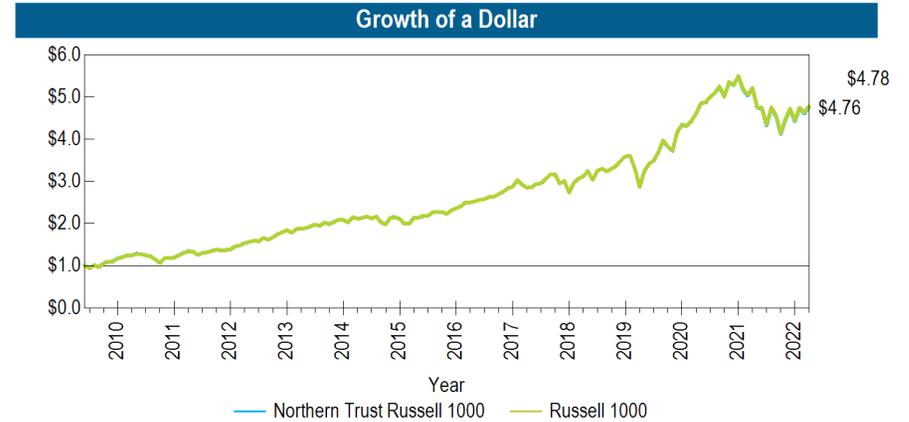
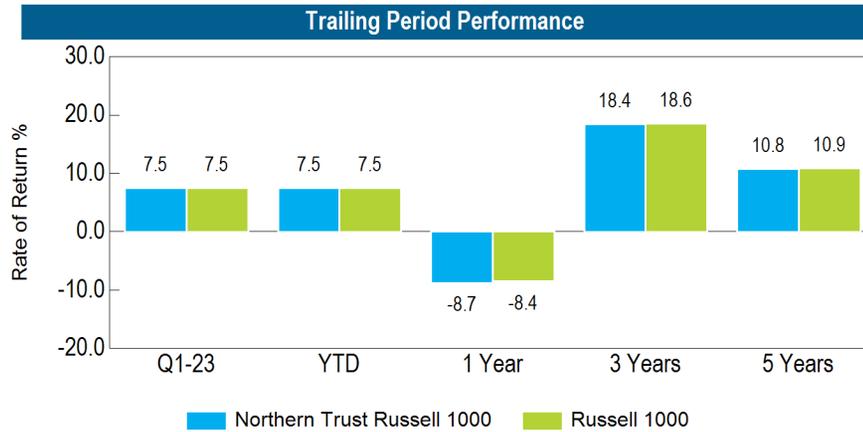
#### Style Exposure



#### Style History (5-Year)

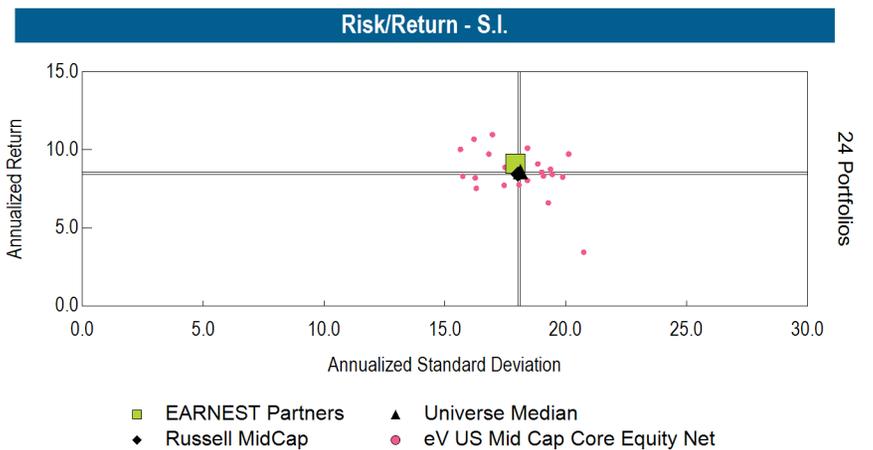
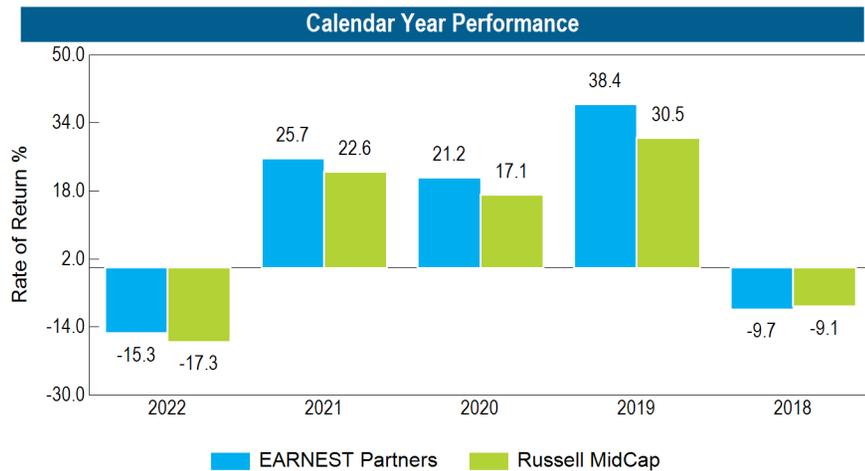
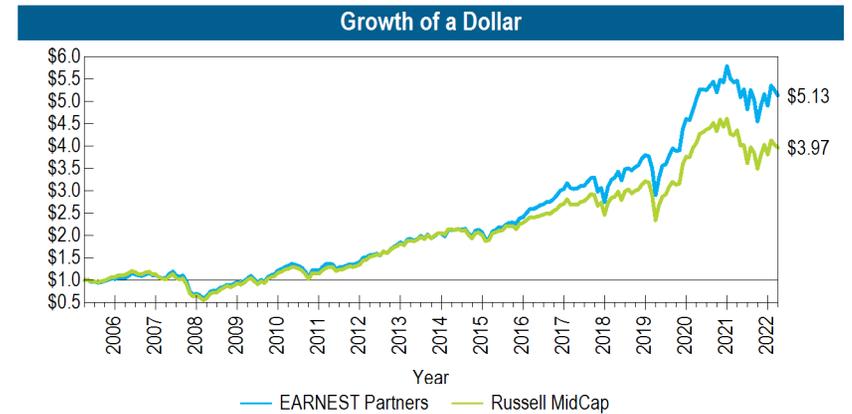
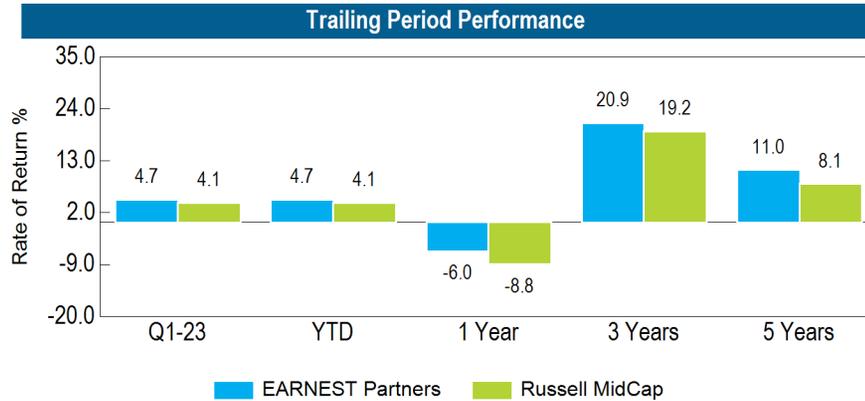


	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Northern Trust Russell 1000	12.9%	15.0%	0.0%	1.0	-0.6	0.2%	98.5%	100.0%
Russell 1000	13.0%	15.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



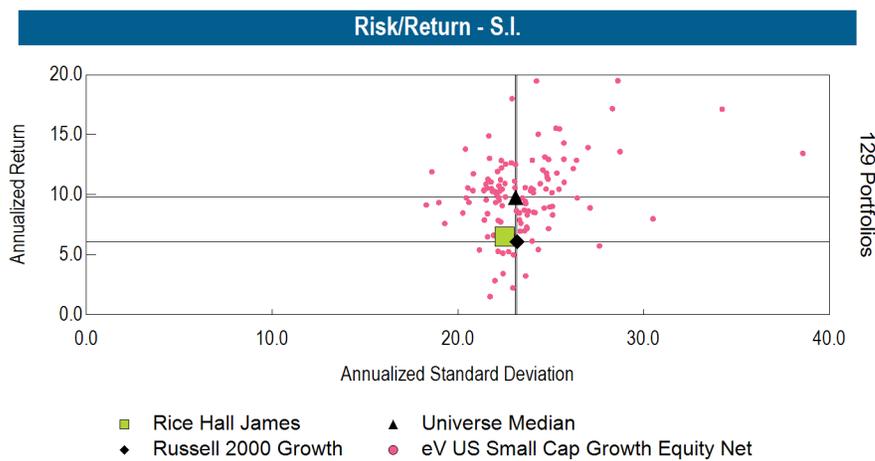
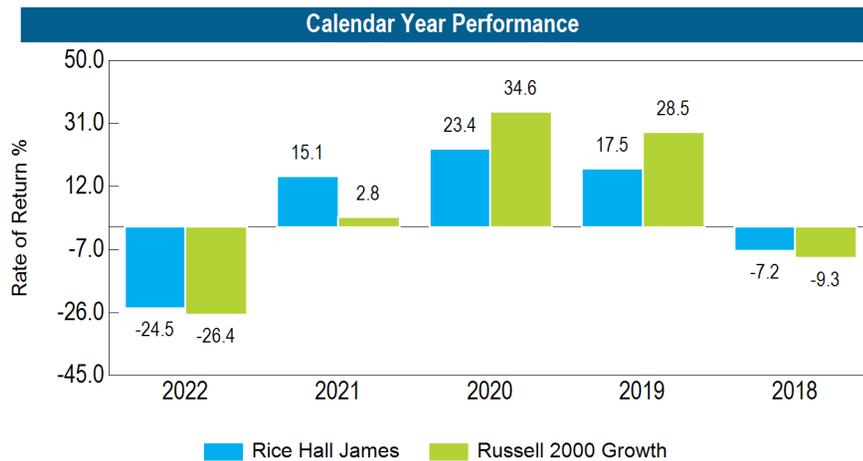
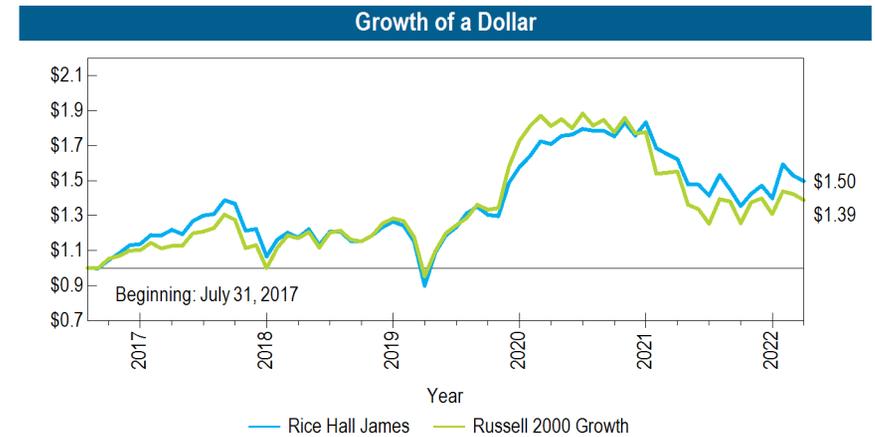
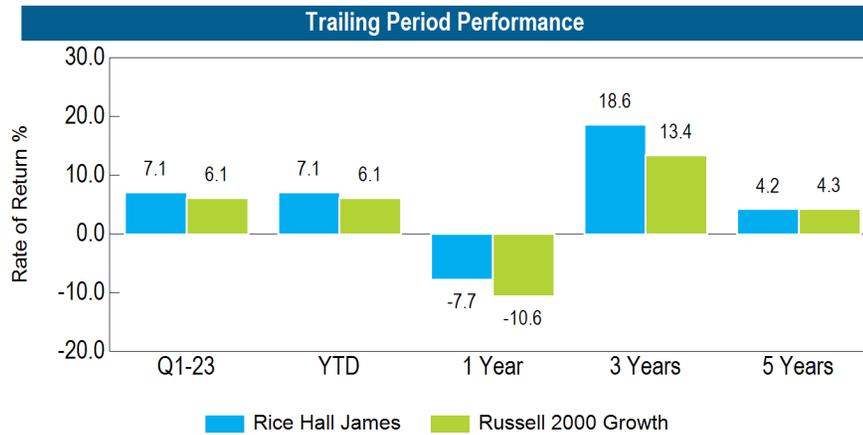
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
EARNEST Partners	9.1%	17.9%	0.1%	1.0	0.2	3.6%	94.2%	99.3%
Russell MidCap	8.4%	18.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

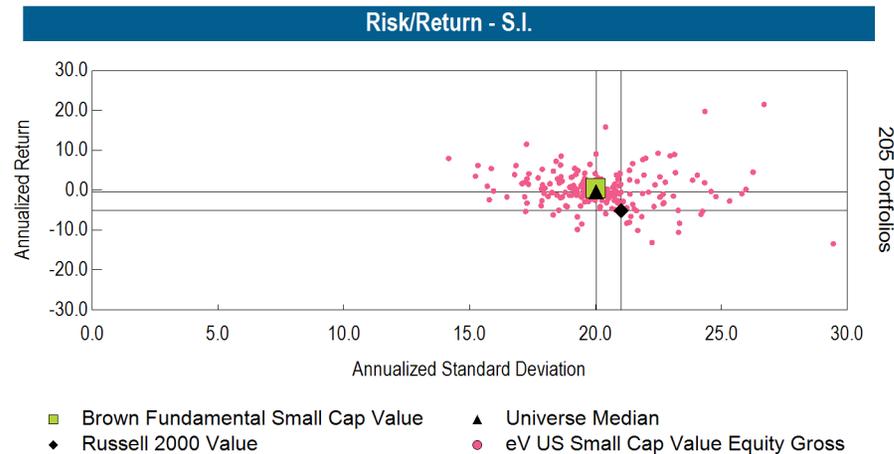
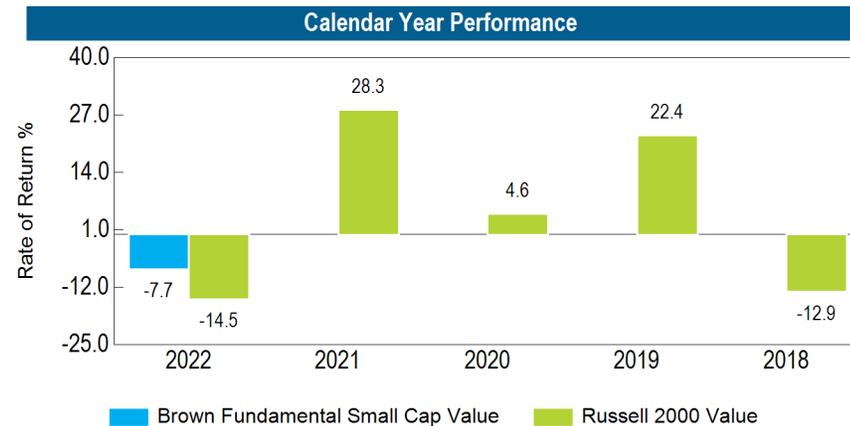
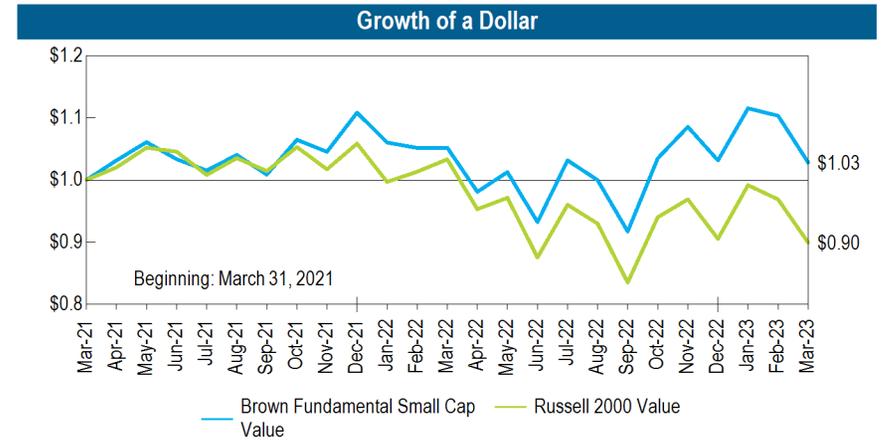
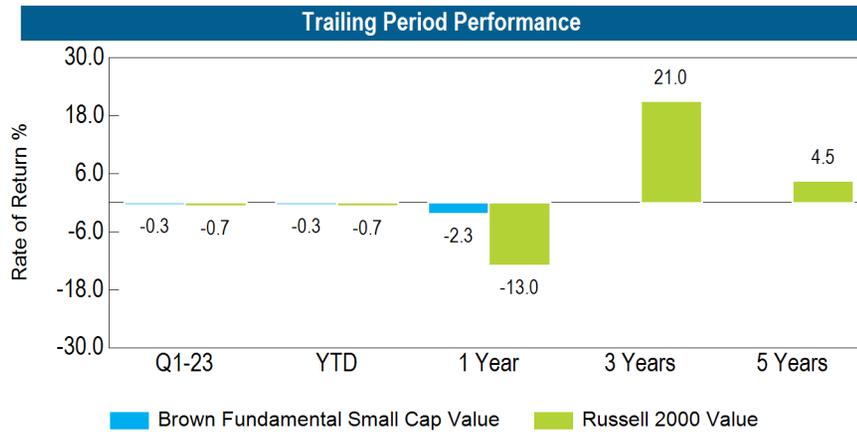
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Rice Hall James	6.3%	22.3%	0.1%	0.9	0.0	7.8%	83.3%	94.8%
Russell 2000 Growth	6.0%	23.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

### Brown Fundamental Small Cap Value | As of March 31, 2023

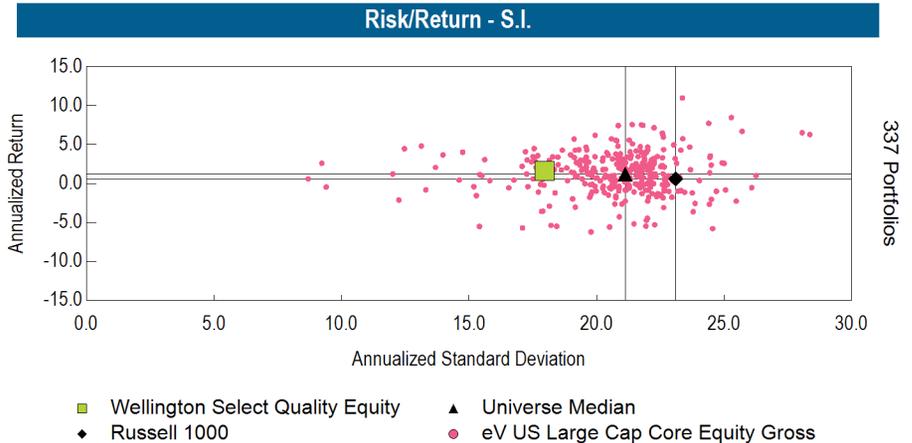
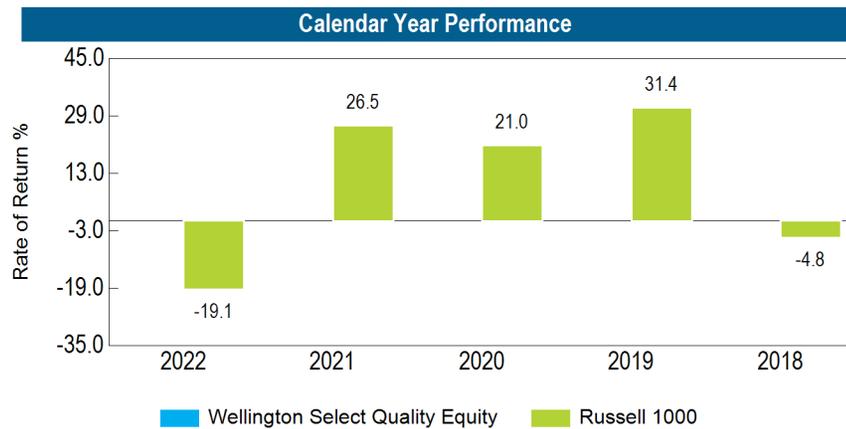
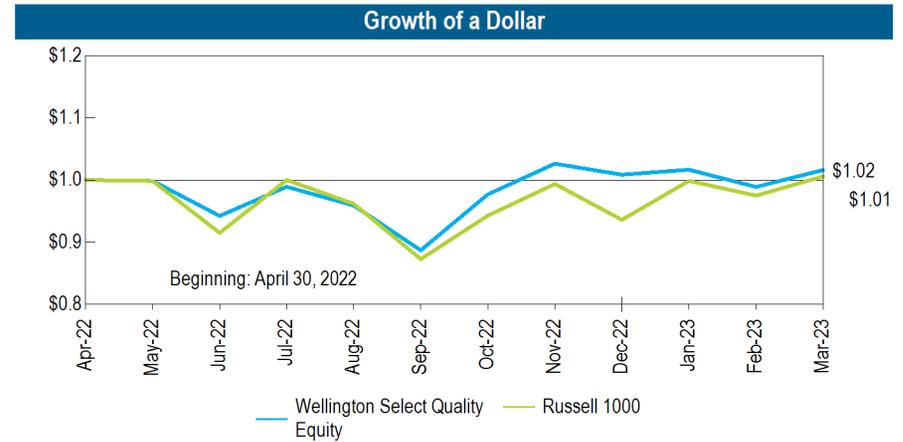
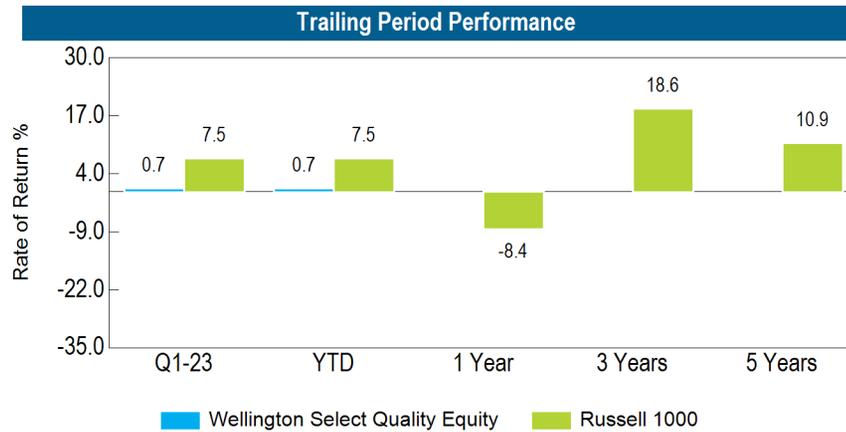
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Brown Fundamental Small Cap Value	0.5%	20.0%	0.4%	0.9	1.2	4.8%	104.3%	88.6%
Russell 2000 Value	-5.2%	21.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

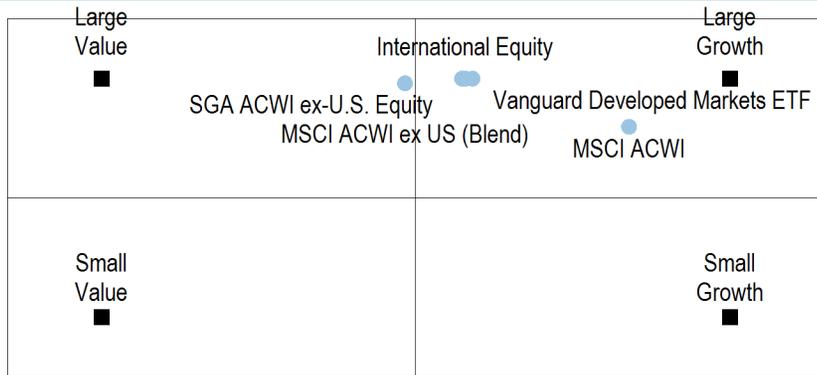
### Wellington Select Quality Equity | As of March 31, 2023

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wellington Select Quality Equity	1.6%	18.0%	0.1%	0.7	0.1	10.2%	69.7%	72.4%
Russell 1000	0.6%	23.1%	0.0%	1.0	--	0.0%	100.0%	100.0%

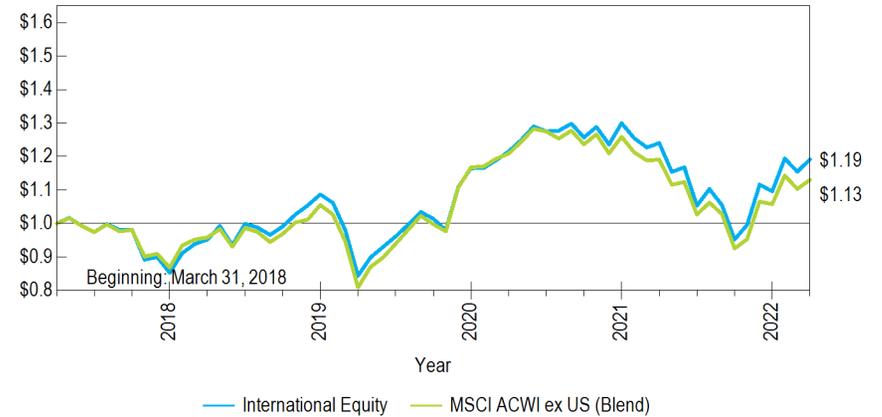


Performance shown is net-of-fees and since inception. Annualized Return is not available for managers without a history longer than one year.

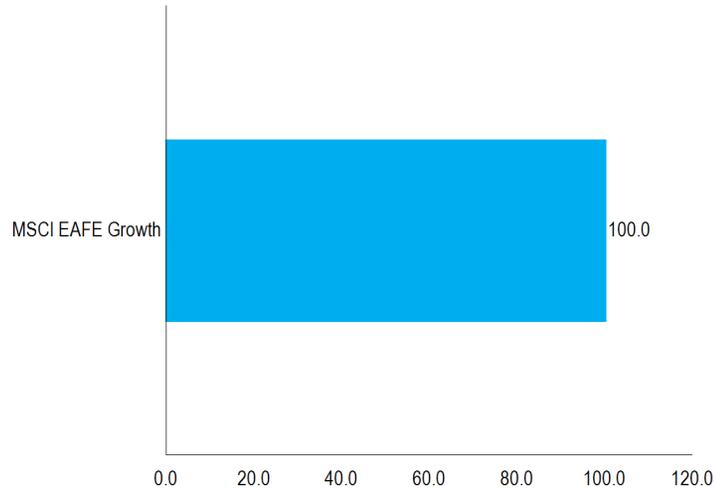
Non U.S. Effective Style Map vs. EAFE



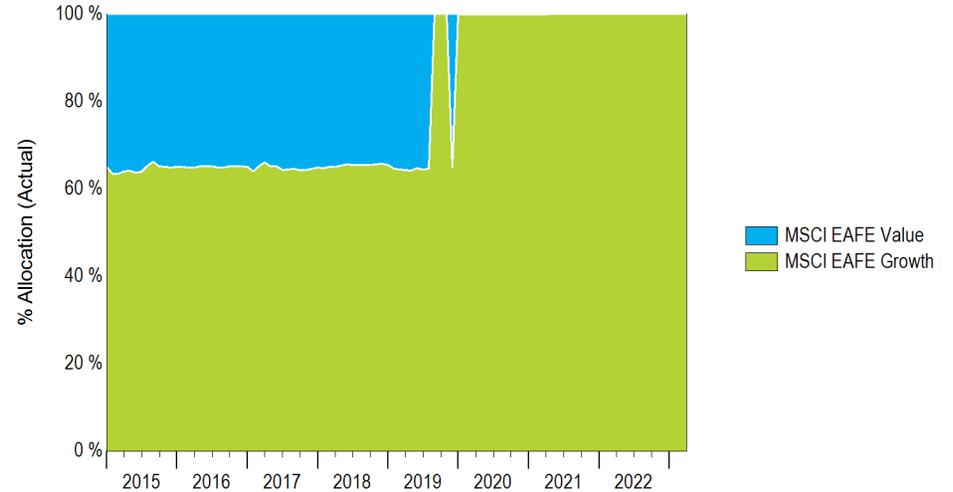
Growth of a Dollar  
5 Years Ending March 31, 2023



Style Exposure

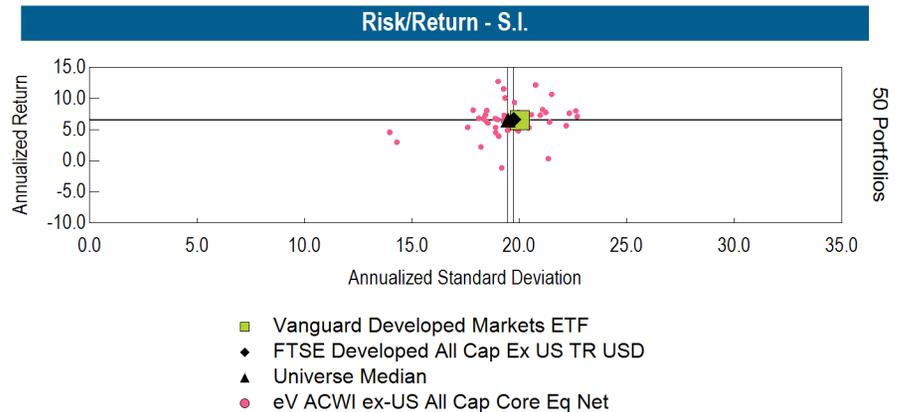
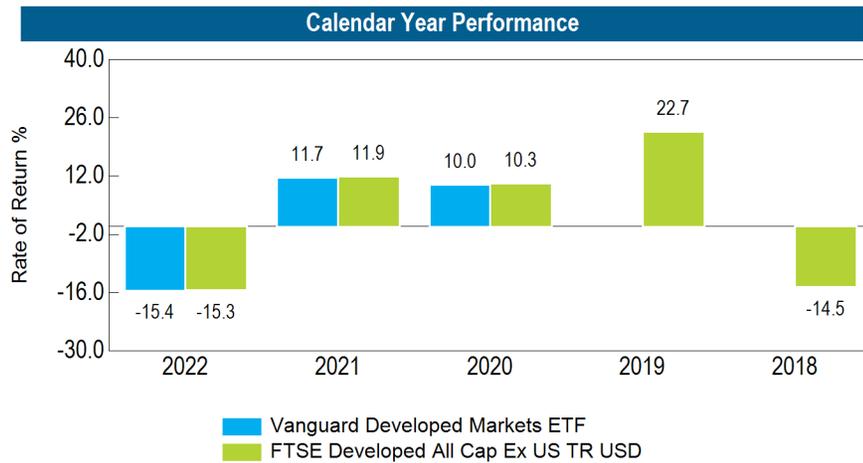
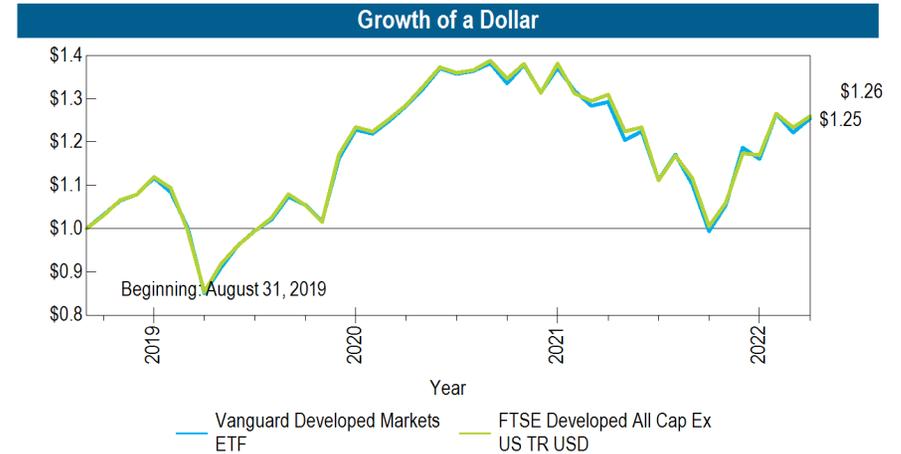
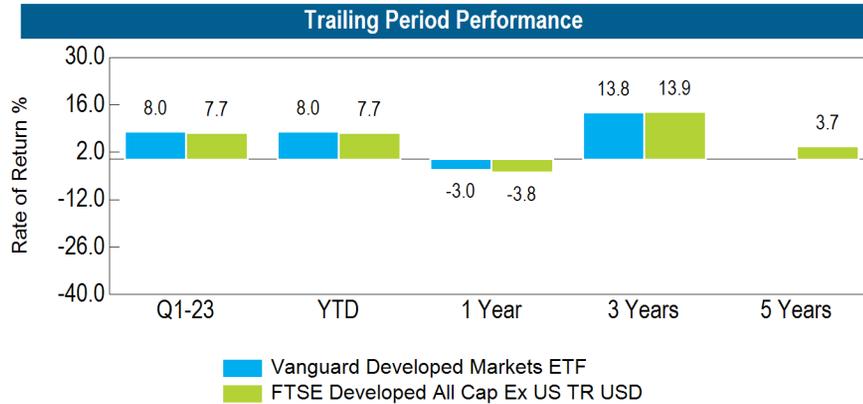


Style History (5-Year)



### Vanguard Developed Markets ETF | As of March 31, 2023

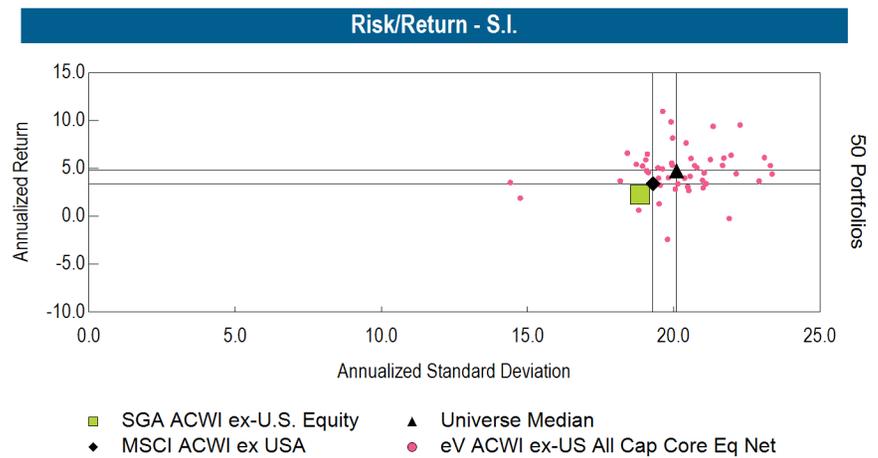
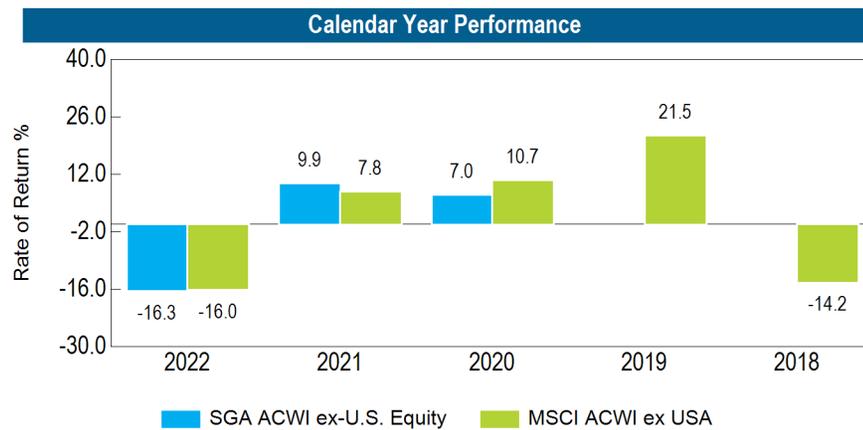
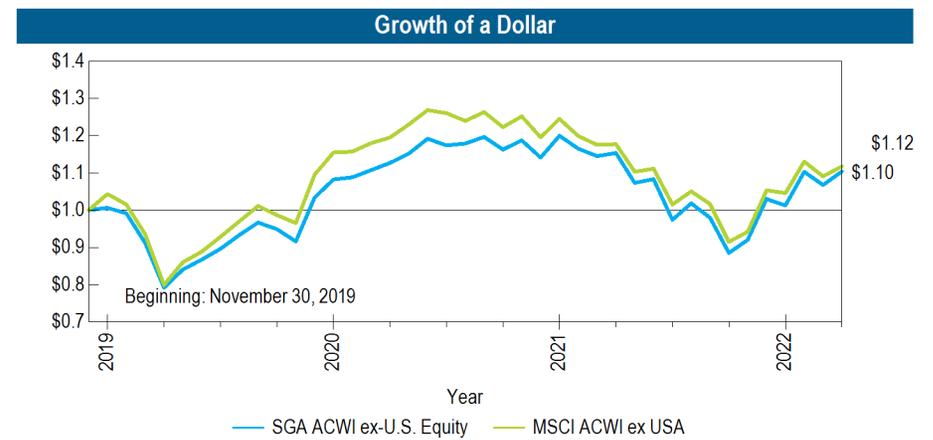
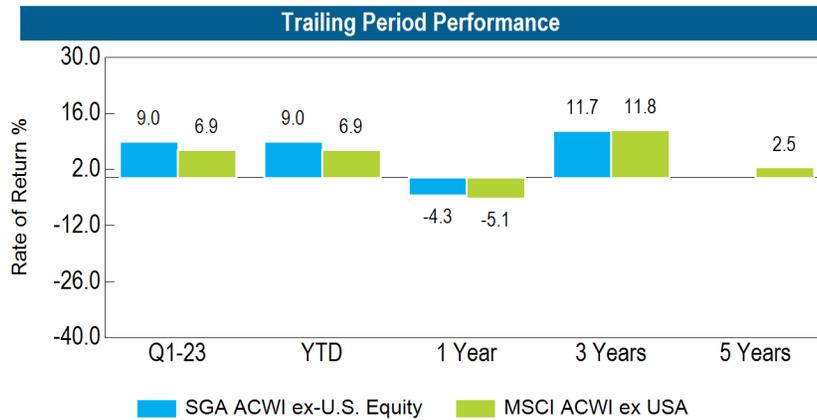
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Developed Markets ETF	6.5%	20.0%	0.0%	1.0	-0.1	2.6%	104.2%	102.3%
FTSE Developed All Cap Ex US TR USD	6.6%	19.7%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

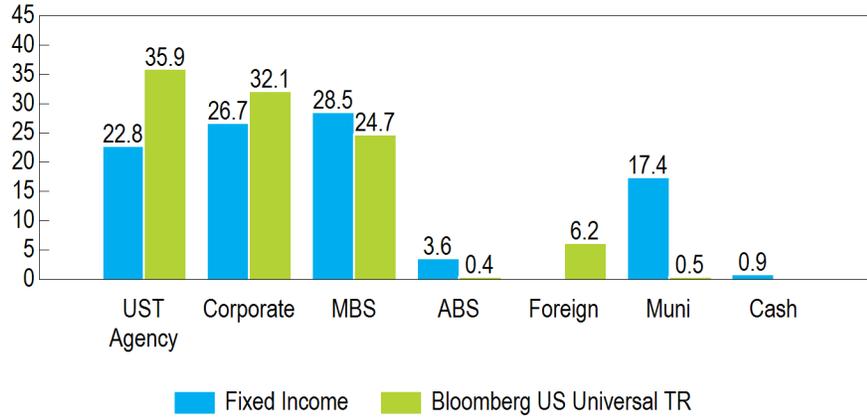
### SGA ACWI ex-U.S. Equity | As of March 31, 2023

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
SGA ACWI ex-U.S. Equity	2.3%	18.8%	-0.1%	1.0	-0.3	3.5%	92.2%	99.1%
MSCI ACWI ex USA	3.4%	19.3%	0.0%	1.0	--	0.0%	100.0%	100.0%

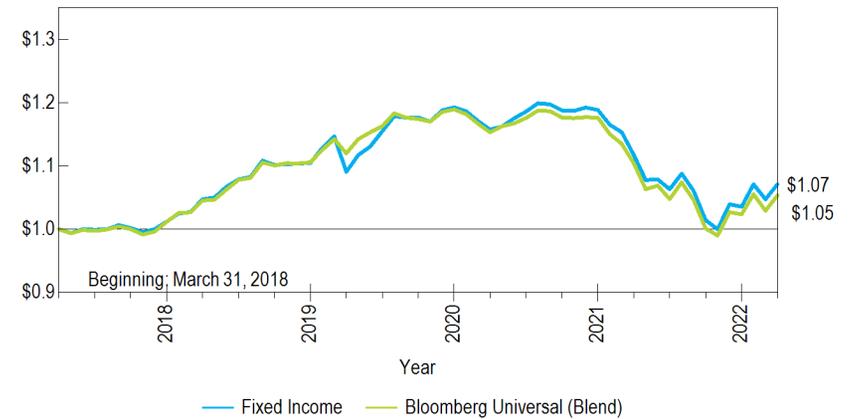


Performance shown is net-of-fees and since inception.

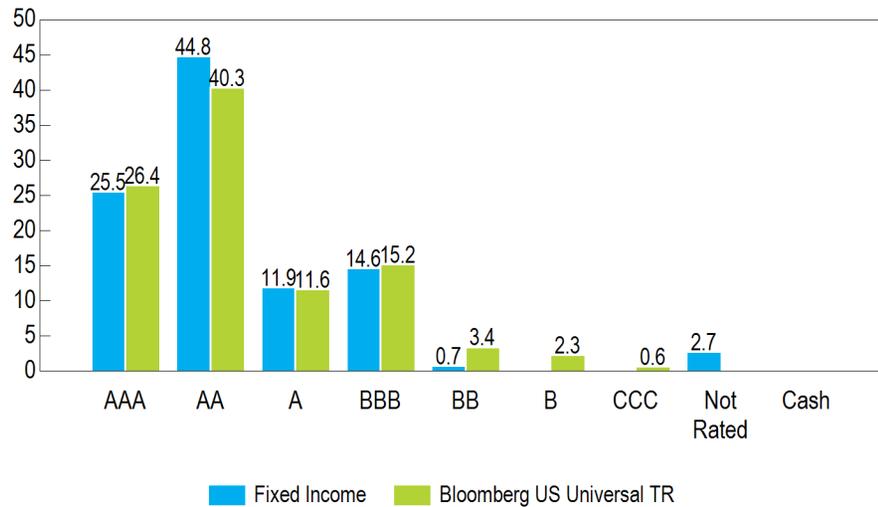
#### US Sector Allocation



#### Growth of a Dollar 5 Years Ending March 31, 2023



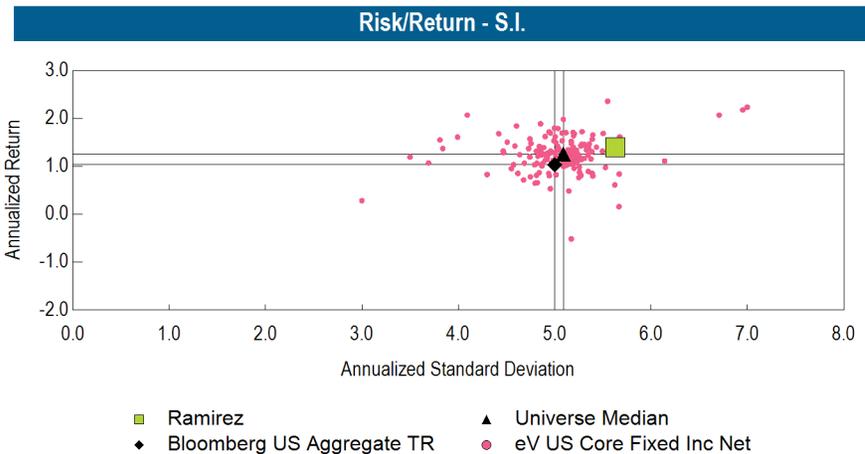
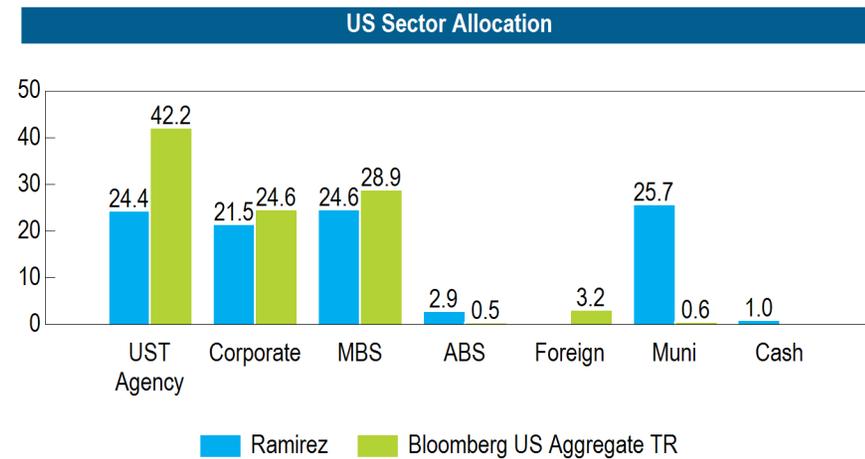
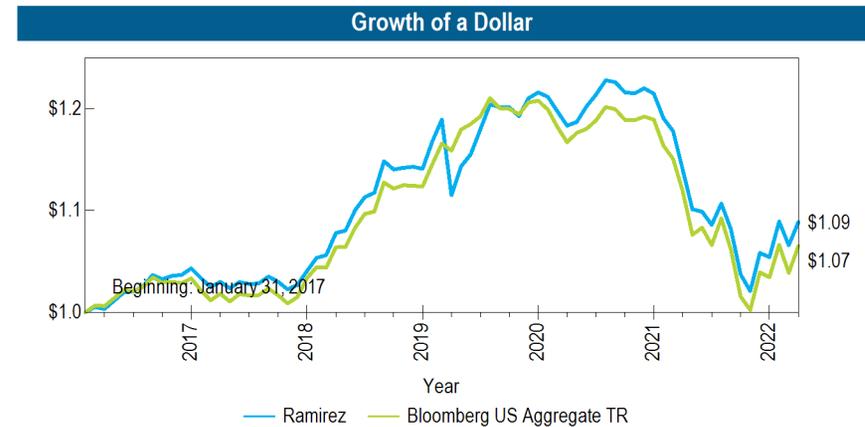
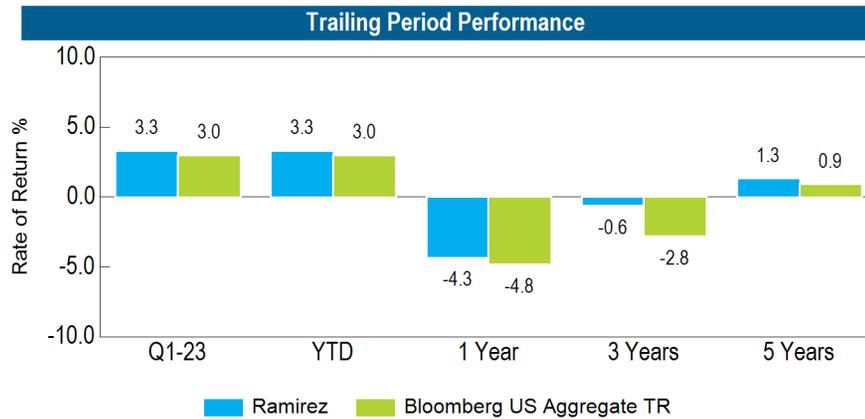
#### Credit Quality Allocation



#### Fixed Income Fixed Income Characteristics vs. Bloomberg US Universal TR

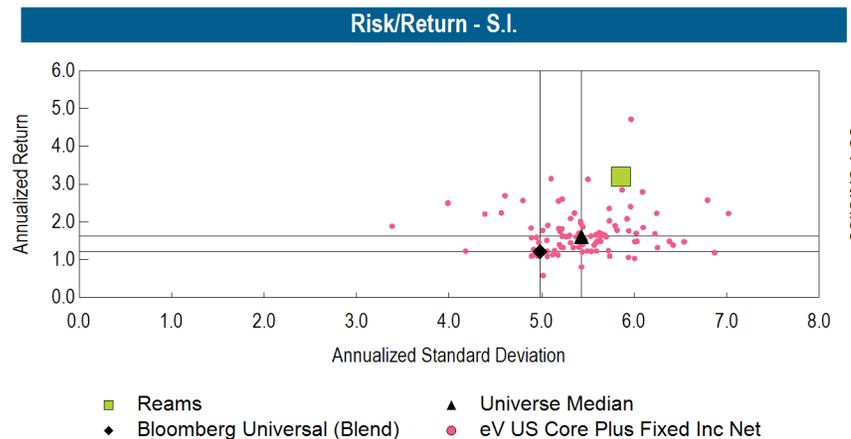
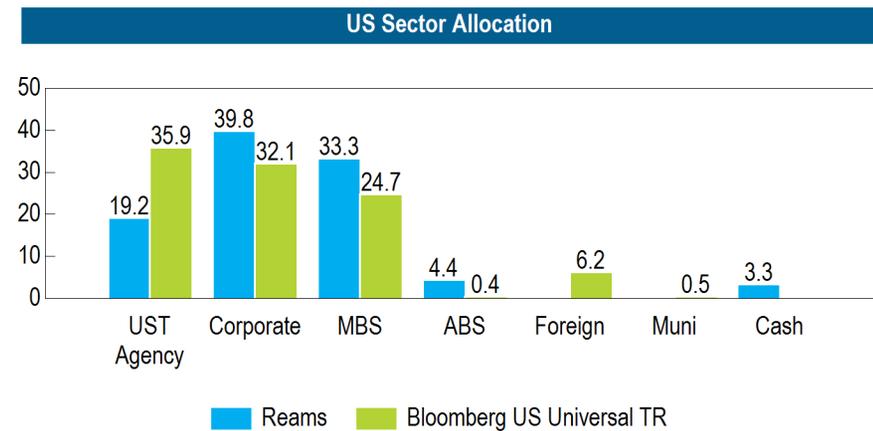
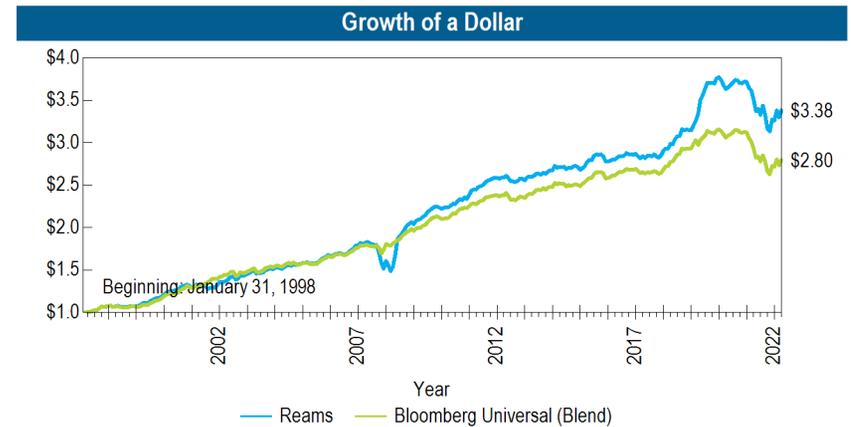
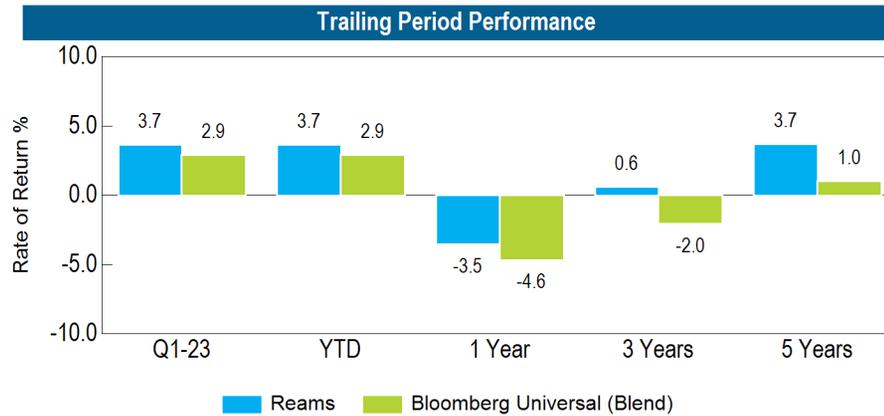
	Portfolio Q1-23	Index Q1-23
<b>Fixed Income Characteristics</b>		
Yield to Maturity	4.94	5.10
Average Duration	6.18	6.25
Average Quality	AA	AA
Weighted Average Maturity	9.19	12.25

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Ramirez	1.4%	5.6%	0.0%	1.0	0.1	2.6%	113.1%	105.1%
Bloomberg US Aggregate TR	1.0%	5.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



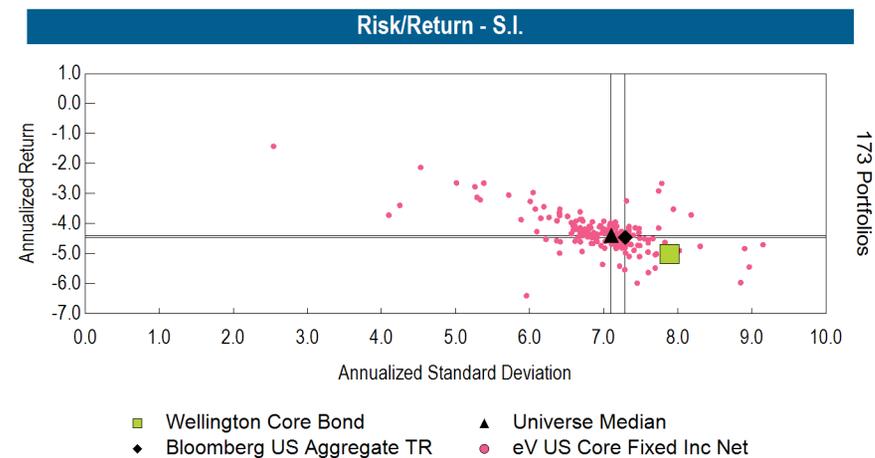
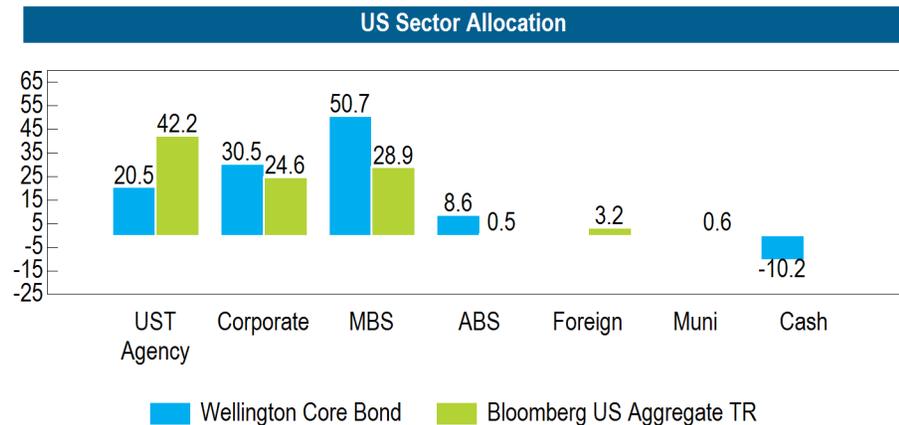
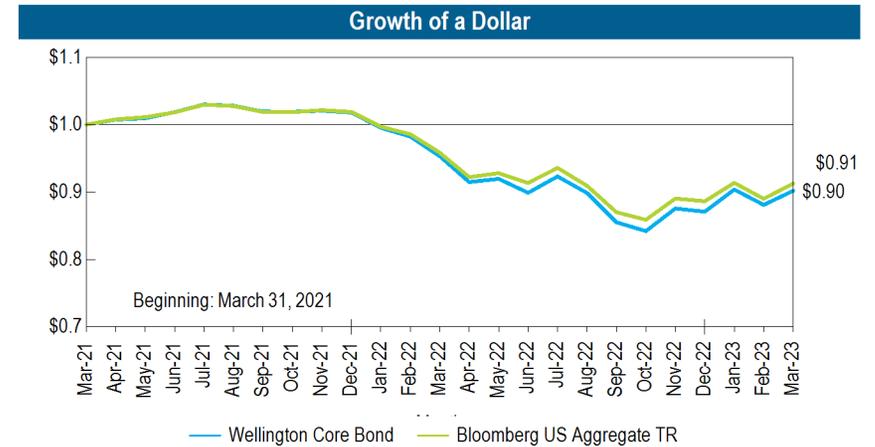
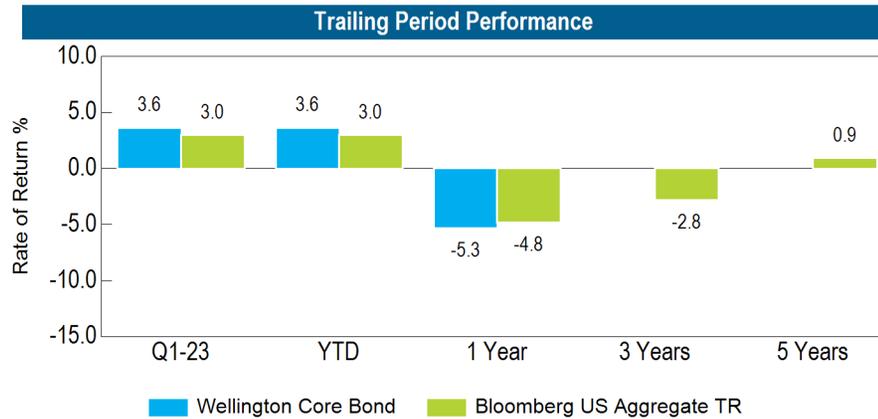
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Reams	5.0%	5.6%	0.0%	1.1	0.2	3.8%	124.9%	100.1%
Bloomberg Universal (Blend)	4.2%	3.9%	0.0%	1.0	--	0.0%	100.0%	100.0%



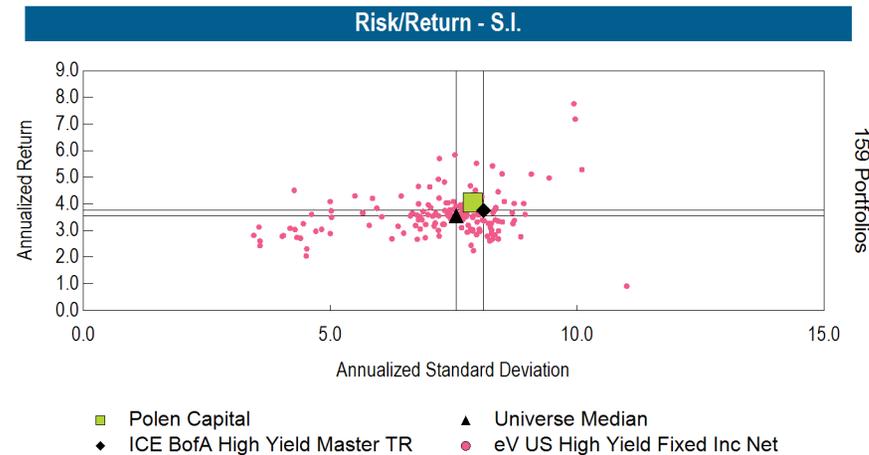
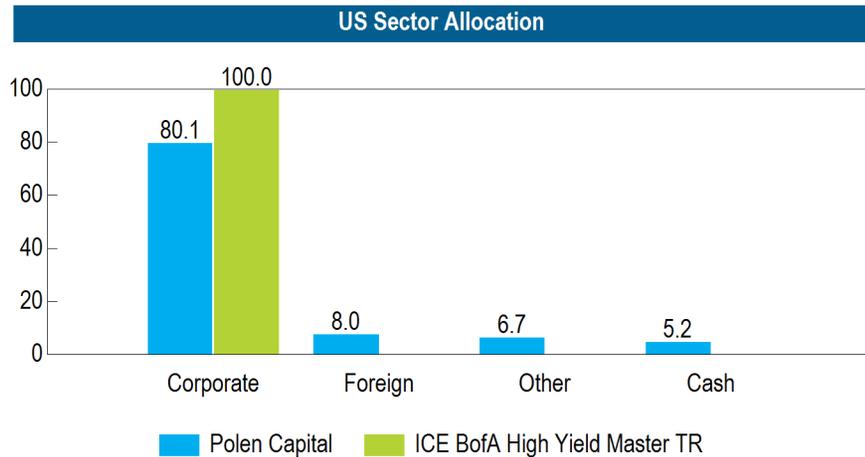
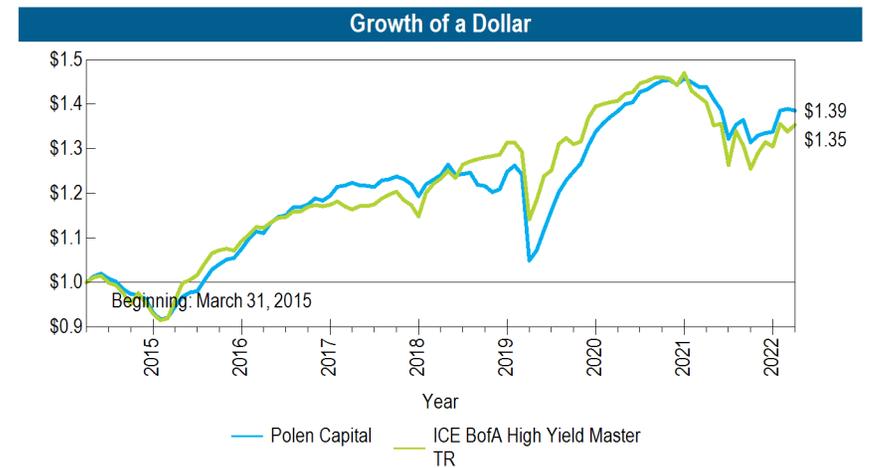
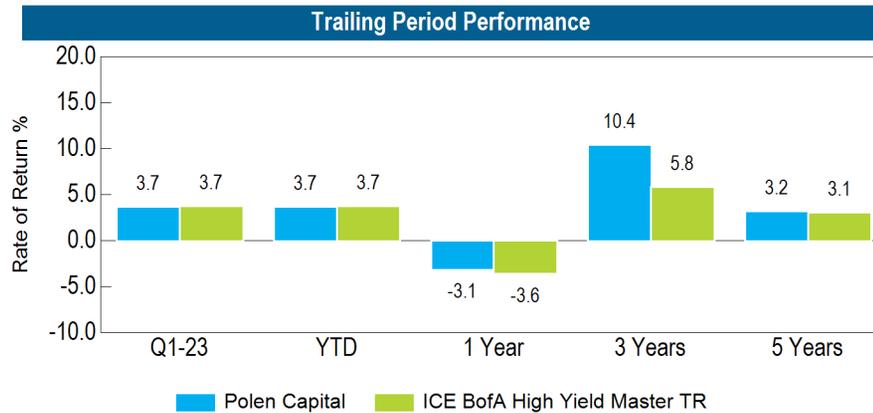
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wellington Core Bond	-5.0%	7.9%	0.0%	1.1	-0.6	0.9%	105.7%	107.1%
Bloomberg US Aggregate TR	-4.5%	7.3%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

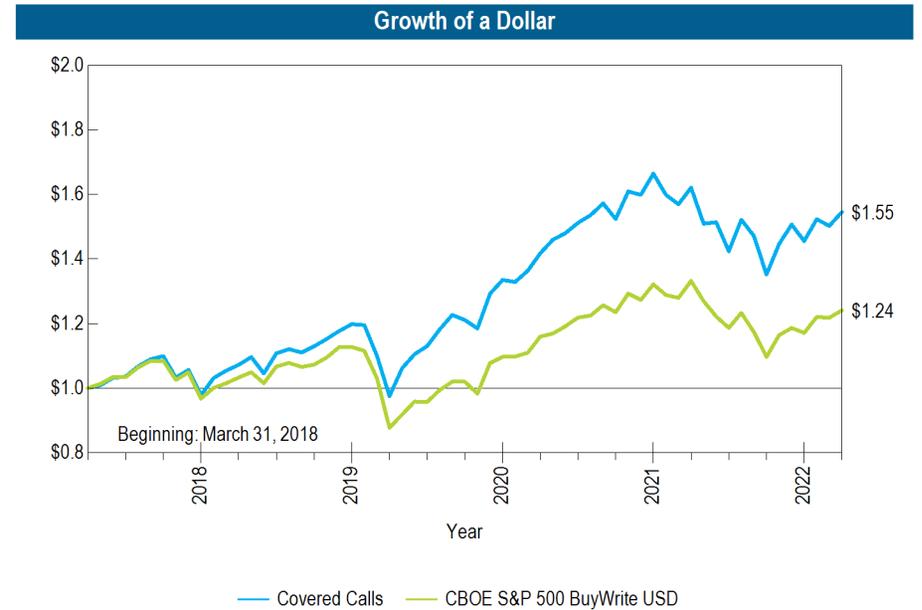
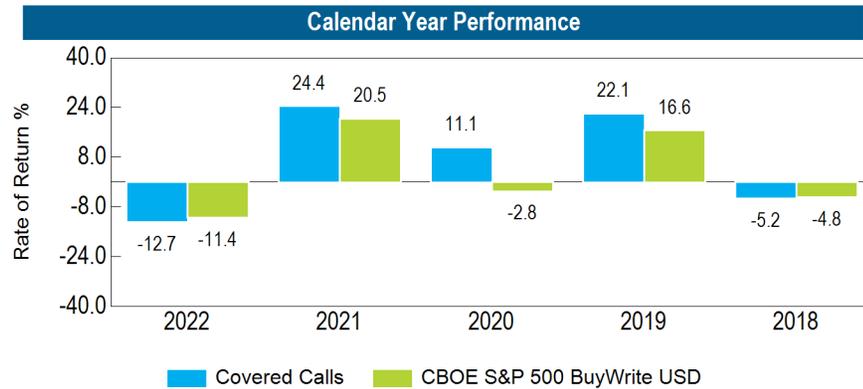
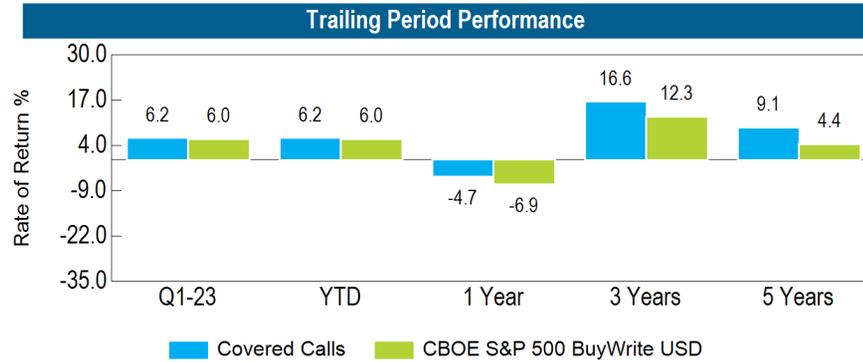
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Polen Capital	4.3%	7.9%	0.1%	0.8	0.1	4.3%	76.0%	77.1%
ICE BofA High Yield Master TR	4.0%	8.1%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

### Covered Calls | As of March 31, 2023

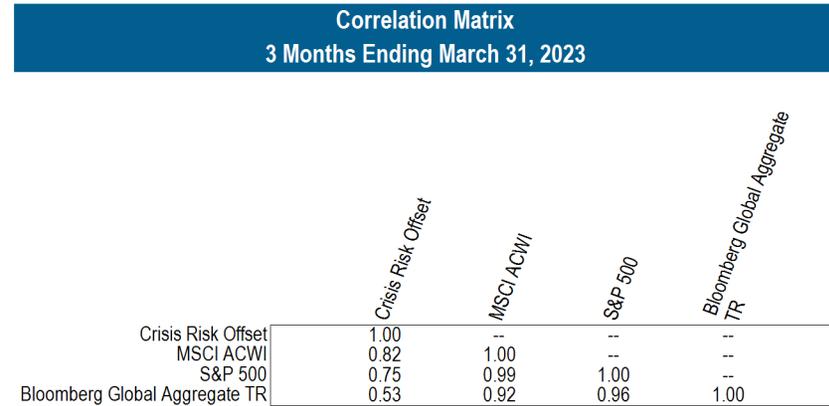
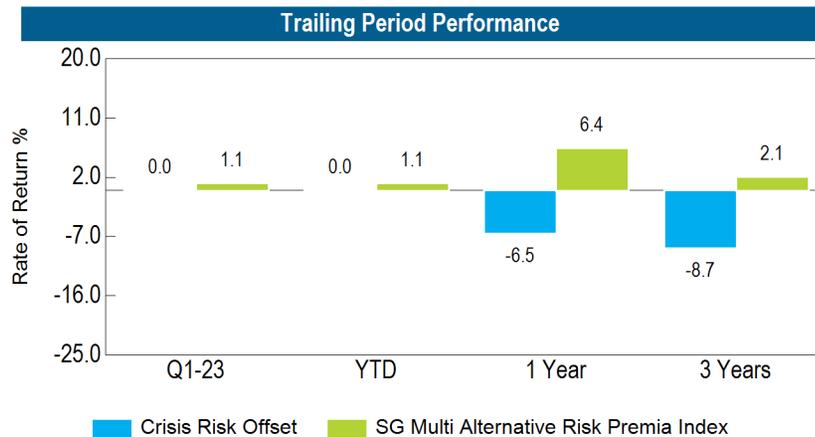
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Covered Calls	8.3%	11.8%	0.2%	1.0	0.7	4.1%	145.8%	103.0%
CBOE S&P 500 BuyWrite USD	5.4%	10.8%	0.0%	1.0	--	0.0%	100.0%	100.0%
Parametric BXM	6.6%	9.7%	0.2%	0.9	0.4	3.3%	96.3%	91.6%
CBOE S&P 500 BuyWrite USD	5.4%	10.8%	0.0%	1.0	--	0.0%	100.0%	100.0%
Parametric DeltaShift	10.2%	14.1%	0.3%	1.2	0.8	6.2%	210.3%	111.4%
CBOE S&P 500 BuyWrite USD	5.4%	10.8%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

### Crisis Risk Offset | As of March 31, 2023

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Crisis Risk Offset	-10.20%	11.26%	-0.82%	0.56	-0.88	11.07%	-30.22%	98.01%
SG Multi Alternative Risk Premia Index	-0.49%	5.93%	0.00%	1.00	--	0.00%	100.00%	100.00%
Kepos Alternative Risk Premia	--	--	--	--	--	--	--	--
SG Multi Alternative Risk Premia Index	-0.49%	5.93%	0.00%	1.00	--	0.00%	100.00%	100.00%
Versor Trend Following	--	--	--	--	--	--	--	--
SG Trend Index	11.16%	13.27%	0.00%	1.00	--	0.00%	100.00%	100.00%
Vanguard Long-Term Treasury ETF	-3.63%	15.13%	0.00%	1.02	-0.04	1.19%	102.56%	101.12%
Bloomberg US Govt Long TR	-3.58%	14.86%	0.00%	1.00	--	0.00%	100.00%	100.00%



Performance shown is net-of-fees and since inception.

### Benchmark History

As of March 31, 2023

#### OPFRS Total Plan

6/1/2022	Present	40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield TR
1/1/2019	5/31/2022	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
12/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR

**Benchmark History**  
As of March 31, 2023

**Domestic Equity**

1/1/2005	Present	Russell 3000
4/1/1998	12/31/2004	28.57% Russell 1000 / 57.14% Russell 1000 Value / 14.29% Russell MidCap
6/1/1997	3/31/1998	S&P 500

**International Equity**

1/1/2005	Present	MSCI ACWI ex USA
1/1/1998	12/31/2004	MSCI EAFE Gross

**Fixed Income**

4/1/2006	Present	Bloomberg US Universal TR
12/31/1993	3/31/2006	Bloomberg US Aggregate TR

**Covered Calls**

4/1/2014	Present	CBOE S&P 500 BuyWrite USD
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**Crisis Risk Offset**

8/1/2018	Present	SG Multi Alternative Risk Premia Index
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**Cash**

3/1/2011	Present	FTSE T-Bill 3 Months TR
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## **Manager Monitoring / Probation Status**

### Manager Monitoring/Probation Status

#### Return vs. Benchmark since Corrective Action

Portfolio	Status	Concern Triggering the Watch Status	Months Since Corrective Action	Performance <sup>1</sup> Since Corrective Action	Peer Group Percentile Rank	Date of Corrective Action <sup>2</sup>
Rice Hall James	On Watch	Performance/ Organization	45	7.6	70	5/29/2019
Russell 2000 Growth				5.9		

#### Investment Performance Criteria for Manager Monitoring/Probation Status

Asset Class	Short-term (Rolling 12 months)	Medium-term (Rolling 36 months)	Long-term (60 + months)
Active Domestic Equity	Fund return < benchmark return by 3.5%	Annualized Fund return < benchmark return by 1.75% for 6 consecutive months	VRR <sup>3</sup> < 0.97 for 6 consecutive months
Active International Equity	Fund return < benchmark return by 4.5%	Annualized Fund return < benchmark return by 2.0% for 6 consecutive months	VRR < 0.97 for 6 consecutive months
Passive International Equity	Tracking Error > 0.50%	Tracking Error > 0.45% for 6 consecutive months	Annualized Fund return < benchmark return by 0.4% for 6 consecutive months
Fixed Income	Fund return < benchmark return by 1.5%	Annualized Fund return < benchmark return by 1.0% for 6 consecutive months	VRR < 0.98 for 6 consecutive months

<sup>1</sup> Annualized performance if over one year. Performance shown is gross-of-fees.

<sup>2</sup> Approximate date based on when the Board voted to either monitor a manager at a heightened level or place it on probation.

<sup>3</sup> VRR (Value Relative Ratio) is calculated as manager cumulative return/ benchmark return.

## **Disclaimer, Glossary, and Notes**

WE HAVE PREPARED THIS REPORT (THIS "REPORT") FOR THE SOLE BENEFIT OF THE INTENDED RECIPIENT (THE "RECIPIENT").

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**Yield to Maturity:** The yield, or return, provided by a bond to its maturity date; determined by a mathematical process, usually requiring the use of a “basis book.” For example, a 5% bond pays \$5 a year interest on each \$100 par value. To figure its current yield, divide \$5 by \$95—the market price of the bond—and you get 5.26%. Assume that the same bond is due to mature in five years. On the maturity date, the issuer is pledged to pay \$100 for the bond that can be bought now for \$95. In other words, the bond is selling at a discount of 5% below par value. To figure yield to maturity, a simple and approximate method is to divide 5% by the five years to maturity, which equals 1% pro rata yearly. Add that 1% to the 5.26% current yield, and the yield to maturity is roughly 6.26%.

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

**Yield to Worst:** The lowest potential yield that can be received on a bond without the issuer actually defaulting. The yield to worst is calculated by making worst-case scenario assumptions on the issue by calculating the returns that would be received if provisions, including prepayment, call, or sinking fund, are used by the issuer.

**NCREIF Property Index (NPI):** Measures unleveraged investment performance of a very large pool of individual commercial real estate properties acquired in the private market by tax-exempt institutional investors for investment purposes only. The NPI index is capitalization-weighted for a quarterly time series composite total rate of return.

**NCREIF Fund Index - Open End Diversified Core Equity (NFI-ODCE):** Measures the investment performance of 28 open-end commingled funds pursuing a core investment strategy that reflects funds' leverage and cash positions. The NFI-ODCE index is equal-weighted and is reported gross and net of fees for a quarterly time series composite total rate of return.

Sources: Investment Terminology, International Foundation of Employee Benefit Plans, 1999.  
The Handbook of Fixed Income Securities, Fabozzi, Frank J., 1991

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Throughout this report, numbers may not sum due to rounding.

Returns for periods greater than one year are annualized throughout this report.

Values shown are in millions of dollars, unless noted otherwise.

## MEMORANDUM

**TO:** Oakland Police and Fire Retirement System (“OPFRS”)  
**FROM:** Meketa Investment Group (“Meketa”)  
**DATE:** May 31, 2023  
**RE:** Annual Diversity, Equity, & Inclusion (DEI) Questionnaire Results

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This memorandum provides the Oakland Police and Fire Retirement System (“OPFRS”) with the data collected from OPFRS’s investment managers regarding their diversity representation as of December 31, 2022. OPFRS requested Meketa to collect this information at the December 2020 Board meeting as part of the discussion on minority representation at a specific manager, and to present as a recurring annual report.

In the same year in 2020, Meketa launched a formal initiative to gather data from public and private market asset management firms within our proprietary database to evaluate asset management firms’ efforts on diversity, equity, and inclusion matters more thoroughly within their organizations.

In March 2023, the third Annual Diversity, Equity, & Inclusion Questionnaire results were published to report on the managers’ work in this area. In this questionnaire, 923 firms—including OPFRS’s thirteen managers—were requested for information; 528 firms responded with at least some information.<sup>1</sup>

The data collected from OPFRS’s thirteen investment managers along with the aggregate findings from the questionnaire are summarized in the following section. Please note that response bias is likely in the averages derived from all the responded firms, with firms which have focused more on DEI initiatives opting to respond to the questionnaire.

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<sup>1</sup> Please note that not every firm responded to every question.

### Employee Composition by Race & Ethnicity

All Firm	Average (439) <sup>1</sup>	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	Strategic Global Advisors	Vanguard	Versor	Wellington
No. of Employees	--	856	45	46	634	799	210	28	37	27	23	18000	10	3384
African/Black	5%	9%	21%	2%	10%	4%	4%	14%	--	--	4%	8%	10%	6%
Asian	13%	7%	21%	20%	10%	18%	9%	14%	3%	7%	26%	12%	40%	28%
Latino/Hispanic	5%	2%	--	4%	7%	4%	5%	18%	3%	4%	--	5%	10%	4%
White	68%	79%	58%	72%	70%	70%	76%	54%	91%	85%	70%	73%	40%	55%
Other	4%	3%	--	2%	3%	4%	6%	--	3%	4%	--	2%	--	2%
Not Disclosed	5%	--	--	--	--	--	--	--	--	--	--	--	--	--

Investment Team	Average (412)	Brown <sup>2</sup>	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Investment Team Employees	--	74	15	23	381	187	37	10	16	15	12	--	4	836
African/Black	3%	1%	20%	--	9%	2%	5%	10%	--	--	--	2%	--	5%
Asian	15%	16%	27%	17%	10%	16%	8%	30%	6%	--	42%	22%	50%	26%
Latino/Hispanic	4%	--	--	4%	7%	3%	--	10%	6%	--	--	3%	--	4%
White	65%	82%	53%	75%	72%	75%	82%	50%	82%	93%	58%	70%	50%	61%
Other	4%	1%	--	4%	2%	4%	5%	--	6%	7%	--	3%	--	--
Not Disclosed	9%	--	--	--	--	--	--	--	--	--	--	--	--	4%

<sup>1</sup> Number in the parenthesis after "Average" represents the number of firms which provided data for the question.

<sup>2</sup> Brown noted that the number of investment team employees includes only the investment professionals in the institutional business.

### Employee Composition by Race & Ethnicity (Continued)

Sr Organization Management	Average (410)	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Sr Org Mgmt Employees	--	25	8	5	44	10	11	4	1	11	5	--	8	662
African/Black	3%	8%	13%	--	5%	10%	--	25%	--	--	--	--	13%	2%
Asian	9%	--	25%	--	20%	10%	--	25%	--	9%	--	--	38%	15%
Latino/Hispanic	3%	--	--	--	--	10%	--	25%	--	--	--	--	--	3%
White	77%	92%	62%	100%	70%	70%	91%	25%	100%	91%	100%	75%	49%	76%
Other	3%	--	--	--	5%	--	9%	--	--	--	--	--	--	1%
Not Disclosed	5%	--	--	--	--	--	--	--	--	--	--	--	--	3%

While Vanguard did not provide detailed breakdown of employee composition by race and ethnicity information for this employee population, it noted that in the US, non-white individuals represent 23% of leaders, 21% of officers, 25% of executive management, and 18% of the board of directors. Executive management data is applied to this table to derive the percentage of white employees in the senior organization management population.

### Employee Composition by Gender

All Firm	Average (460)	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Employees	--	856	45	46	634	799	210	28	37	27	23	18000	10	3384
Women	36%	45%	40%	17%	38%	36%	40%	32%	41%	30%	44%	40%	40%	45%
Men	63%	55%	60%	83%	62%	64%	60%	68%	59%	70%	57%	60%	60%	55%
Non-Binary	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not Disclosed	1%	--	--	--	--	--	--	--	--	--	--	--	--	--

Investment Team	Average (431)	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Investment Team Employees	--	74	15	23	381	187	37	10	16	15	12	--	4	836
Women	21%	31%	20%	--	32%	24%	19%	46%	13%	20%	25%	23%	25%	31%
Men	77%	69%	80%	100%	68%	77%	81%	60%	87%	80%	75%	77%	75%	69%
Non-Binary	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not Disclosed	3%	--	--	--	--	--	--	--	--	--	--	--	--	--

Sr Organization Management	Average (422)	Brown	Earnest	Kepos	Northern Trust	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
No. of Sr Org Mgmt Employees	--	25	8	5	44	10	11	4	1	11	5	--	8	662
Women	24%	32%	13%	--	30%	30%	18%	25%	--	36%	40%	64%	63%	28%
Men	75%	68%	88%	100%	70%	70%	82%	75%	100%	64%	60%	36%	38%	72%
Non-Binary	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Not Disclosed	1%	--	--	--	--	--	--	--	--	--	--	--	--	--

Vanguard noted that globally, women represent: 44% of leaders, 39% of officers, 25% of executive management, and 27% of the board of directors.

**MEKETA**

INVESTMENT GROUP

MARCH 2023 | ISSUE THREE | 2022 RESULTS

# DIVERSITY EQUITY & INCLUSION annual questionnaire

**PUBLIC AND  
PRIVATE MARKETS  
RESEARCH TEAMS**



# INTRODUCTION

Meketa has a longstanding commitment to Diversity, Equity & Inclusion (DEI). We believe that DEI is a key differentiator in the marketplace, which can lead to better social and investment outcomes.

\* Information regarding the methodology and DEI-related terms specific to this questionnaire can be found in the appendix.

We also have considerable experience with and are dedicated to selecting, evaluating, and monitoring diverse and emerging managers in every asset class to bring the strongest investment opportunities to our clients. In 2017, we began hosting an emerging and diverse manager event to broaden our exposure to small and diverse firms. These emerging manager events are organized and hosted by our Emerging and Diverse Manager Committee in conjunction with manager research and consulting teams in the fall and spring each year.

In 2020 as a next step in our commitment to DEI, Meketa launched a formal initiative to gather data from public and private market asset management firms within our proprietary database. The initiative focused on evaluating asset management firm's efforts to understand DEI more thoroughly within their organizations. 2022 marks the third year in a row we have asked firms to complete our questionnaire to report on their work in this area.

As the asset management industry continues its focus on improving DEI, we believe an increase in transparency and reporting, more clarity on policies and internal initiatives, and a better understanding of employee conduct and regulations provides the industry with more information to enhance the chances of success to create long-lasting results.

This report summarizes the results of our third annual DEI questionnaire. Of 923 firms surveyed, 528 firms responded. The 2022 response rate is a 5% increase from managers compared to 2021 and a 55% increase from 2020. (Please note, not every firm responded to every question.) The construction of the questionnaire is in three sections: (1) Transparency and Reporting, (2) Policies and Initiatives, and (3) Employee Conduct. In this report, we will summarize our findings from the questionnaire and conclude with recommendations for asset managers that could serve as differentiators in the future.

\*\* Note that respondent bias is likely in the results, with firms focusing more on DEI initiatives opting to respond to the questionnaire. The following analysis summarizes key findings from the responses received.



# SECTION I TRANSPARENCY AND REPORTING

# KEY TAKEAWAYS

Firm Composition by Race and Gender	New Hires, Promotions, and Turnover Rates	Reporting
<ul style="list-style-type: none"> <li>→ 439 organizations reported total firm diversity statistics, with only 229 reporting diversity statistics for their Board, and 255 reporting diversity statistics for equity ownership. It is worth noting that not all firms have a Board in place.</li> <li>→ On trend with past years, women continue to be the least represented in portfolio management positions (21%) while diverse employees are least represented on the board of directors (25%).</li> <li>→ Lower-level positions are the most diverse by racial and gender measures. (Operations top quartile &gt; 40% diverse and &gt;56% female. Admin top quartile &gt; 46% diverse and &gt;82% female.)</li> <li>→ Veteran, disabled, and LGBTQIA+ employee representation was &lt;2% across all categories.</li> <li>→ 28% of firms reported planning to expand diversity.</li> </ul>	<ul style="list-style-type: none"> <li>→ Over half (53%) of firms reported tracking and measuring the levels and time to promotion across diverse groups.</li> <li>→ Nearly 60% of new hires and promotions were given to non-racially diverse people. Asian Americans were next at 14%, with all other diverse groups offered jobs or promotions in the single digits.</li> <li>→ Women made up 40% of new hires and promotions.</li> <li>→ The turnover rate was 16% higher for men than women in 2022, starkly contrasting the prior year, which was 4% higher for women. Over half of the resignations were from non-racially diverse people.</li> </ul>	<ul style="list-style-type: none"> <li>→ Regarding reporting, 74% of firms released annual diversity statistics to their clients, followed closely by the consultants covering the firm at 70%, their prospects at 58%, and regulators at 23%.</li> <li>→ Excluding reporting to regulators, firms have increased reporting diversity statistics by 20% compared to last year.</li> </ul>

**FIGURE 1**  
**KEY TAKEAWAYS**

Source: Meketa Investment Group 2022 Questionnaire.

# FIRM COMPOSITION BY RACE AND GENDER

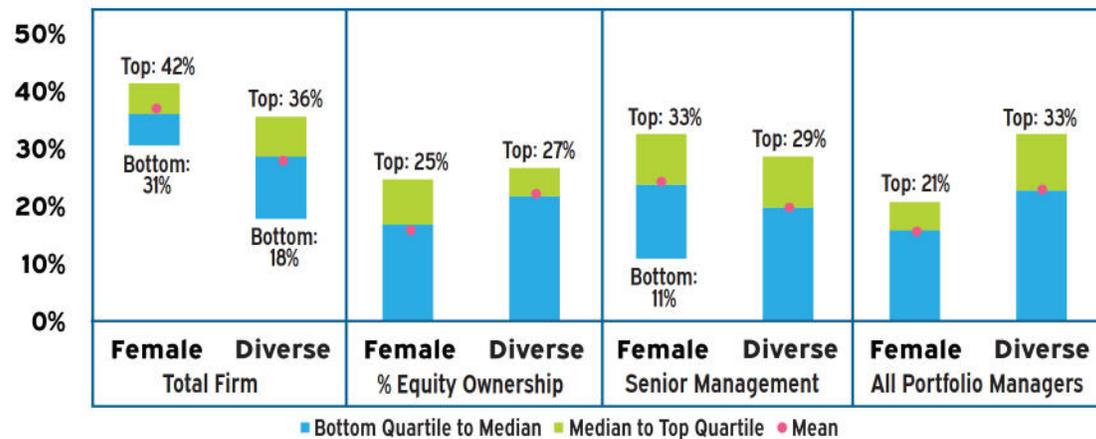
The chart below summarizes diversity statistics in quartile ranges for total firm, equity ownership, senior management, and portfolio management roles. The top quartile represents the highest percentage of diverse and female employees.

The below table depicts the mean, median, and cutoff points between the second and top quartile and between the third and bottom quartile. To interpret this data, let's use the Total Firm-Female category as an example of how the table should be read. If more than 42% of your firm identifies as female, you would be in the top quartile of questionnaire results. Conversely, if less than 31% of your firm identifies as female, you would be in the bottom quartile of questionnaire results.

Relative to the 2021 survey data, the Top Quartile experienced positive changes ranging from 1% to 10% in both Female and Diverse representation across percentage of Equity Ownership, Senior Management, and All Portfolio Managers. At the Total Firm level, the Top Quartile had no change in the percentage of females and a 3% decrease in the percentage in Diversity.

	Total Firm				% Equity Ownership			
	Female	% Change	Diverse	% Change	Female	% Change	Diverse	% Change
Top Quartile	>42%	→0%	>36%	↓3%	>25%	↑5%	>27%	↑10%
Median	37%	↑2%	28%	↑3%	10%	↑3%	11%	↑11%
Mean	37%	→0%	29%	↑1%	17%	↑5%	22%	↑10%
Bottom Quartile	<31%	↑2%	<18%	↑3%	0%	→0%	0%	→0%

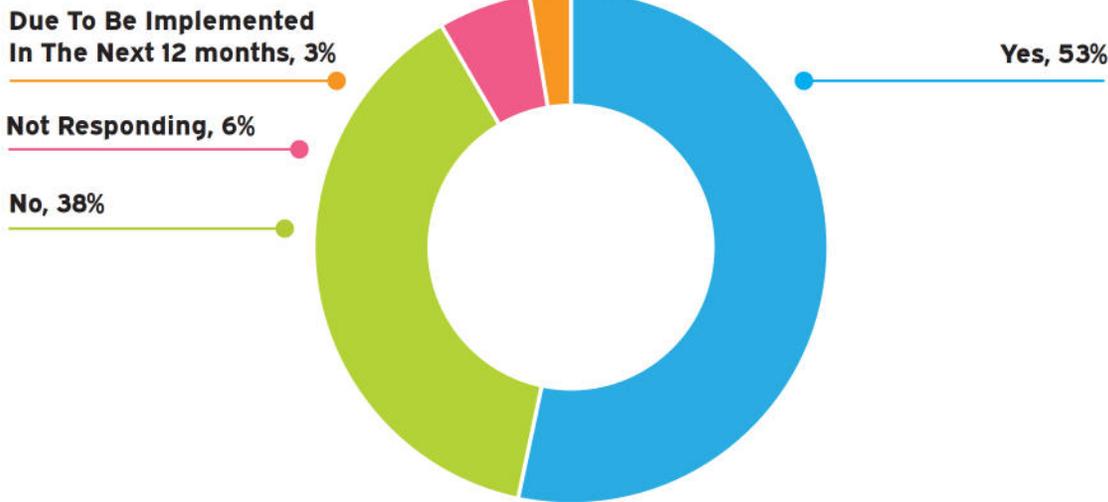
	Senior Management				All Portfolio Managers			
	Female	% Change	Diverse	% Change	Female	% Change	Diverse	% Change
Top Quartile	>33%	↑4%	>29%	↑5%	>21%	↑1%	>33%	↑7%
Median	23%	↑4%	14%	↑3%	13%	↑4%	20%	↑6%
Mean	24%	↑6%	20%	↑4%	16%	↑3%	23%	↑5%
Bottom Quartile	<11%	↑3%	0%	→0%	0%	→0%	0%	→0%



**FIGURE 2**  
FIRM COMPOSITION BY RACE AND GENDER QUARTILE RANGES  
Source: Meketa Investment Group 2022 Questionnaire.

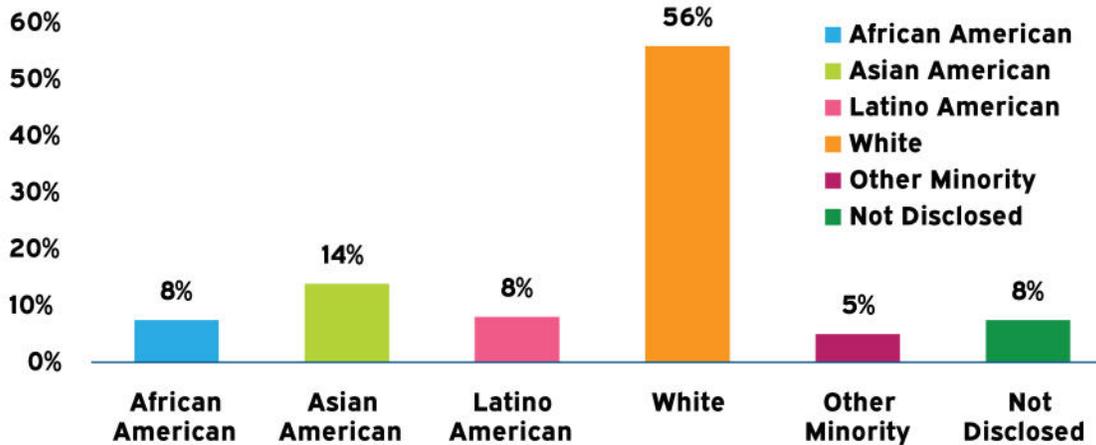
**FIGURE 3**  
FIRM COMPOSITION BY RACE AND GENDER QUARTILE RANGES  
Source: Meketa Investment Group 2022 Questionnaire.

# NEW HIRES, PROMOTIONS, AND TURNOVER RATES



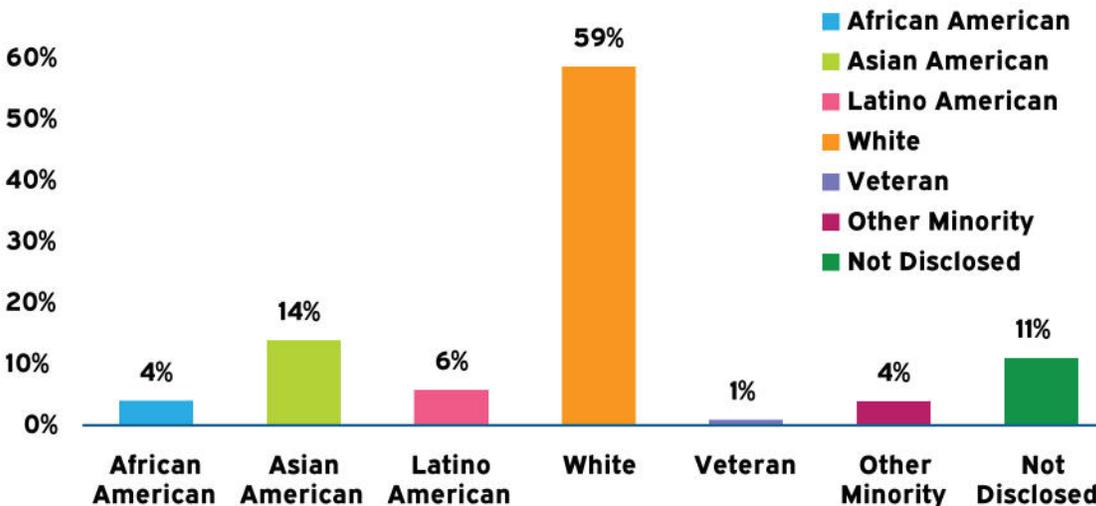
**FIGURE 4**  
DOES THE FIRM TRACK AND MEASURE PROMOTION LEVELS AND TIME TO PROMOTION ACROSS DIVERSE GROUPS?

Source: Meketa Investment Group 2022 Questionnaire.



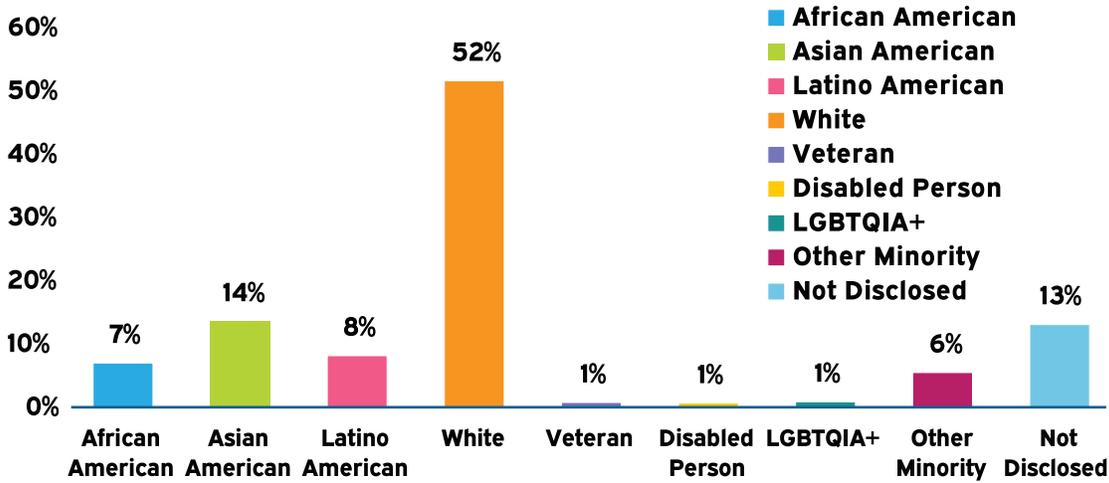
**FIGURE 5**  
2022 NEW HIRES BY DIVERSITY

Source: Meketa Investment Group 2022 Questionnaire.



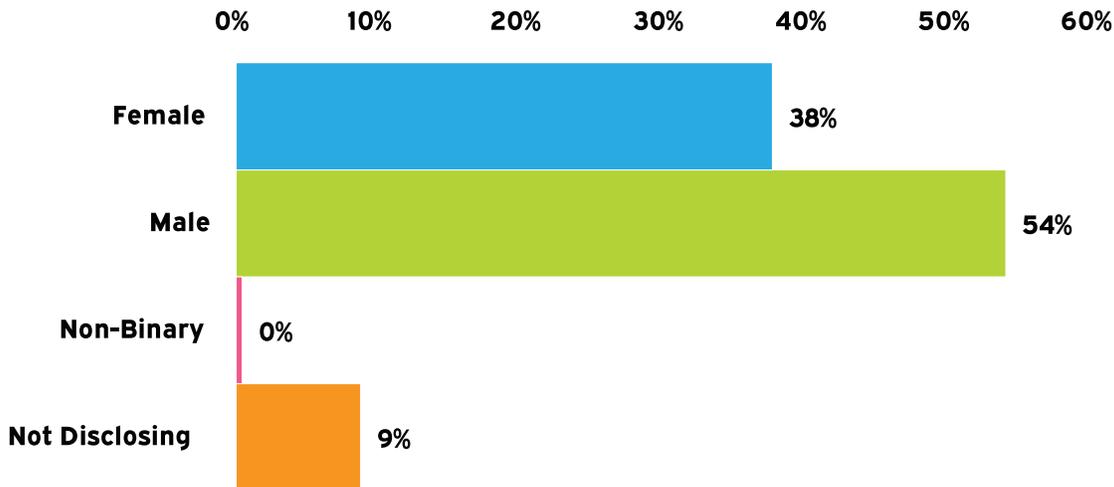
**FIGURE 6**  
2022 PROMOTIONS BY DIVERSITY

Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 7**  
**2022 TURNOVER RATE BY DIVERSITY**

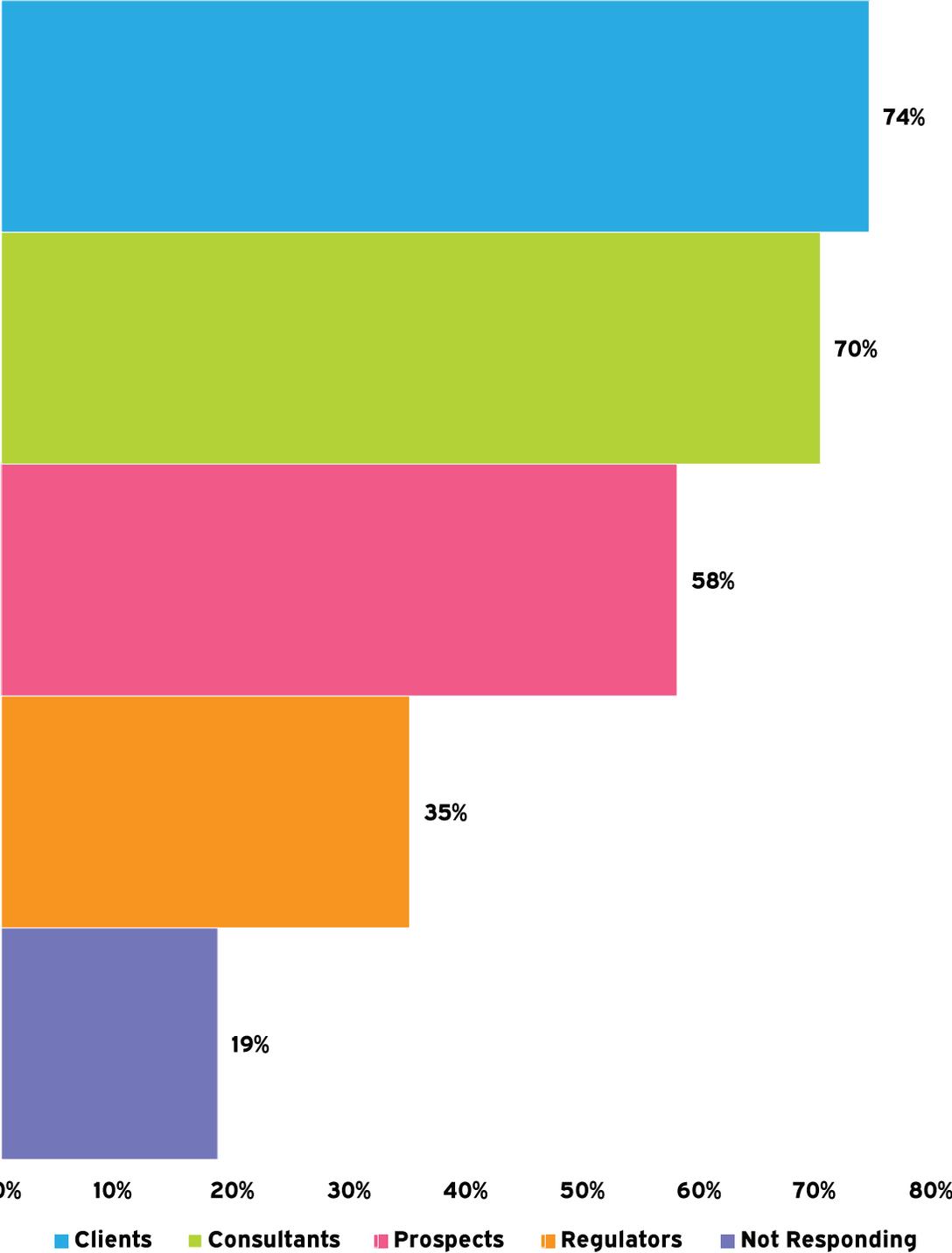
Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 8**  
**2022 TURNOVER RATE BY GENDER**

Source: Meketa Investment Group 2022 Questionnaire.

# REPORTING



**FIGURE 9**  
**RECIPIENTS OF ANNUAL DIVERSITY STATISTICS REPORT FROM ASSET MANAGERS**

Source: Meketa Investment Group 2022 Questionnaire.



# SECTION II POLICIES AND INITIATIVES

# KEY TAKEAWAYS

Recruitment and Retention	LGBTQIA+ and Family Planning	Service Providers and DEI
<ul style="list-style-type: none"> <li>→ From our research we found a 4% increase in firms that have a formal DEI policy in place, from 78% to 82%. An additional 4% have committed to implementing a policy in the next 12 months.</li> <li>→ Over two-thirds of firms reported that members of senior management partake in the firm's Diversity and Inclusion committee or group.</li> <li>→ There was a 6% increase in the number of firms that reported using diversity targets compared to 2021.</li> <li>→ While 54% of firms define goals and measure diversity outcomes at all levels of the organization and across departments, only 42% of senior management has included DEI in their performance objectives over the past year. This statistic is up 6% from 36% in 2021.</li> <li>→ Over three-quarters of firms reported that diversity statistics were regularly reviewed by the Executive Committee or Board in the last 12 months.</li> </ul>	<ul style="list-style-type: none"> <li>→ 80% of firms reported engaging with organizations or programs that promote the recruitment and retention of diverse groups. However, formal mentorship, sponsorship, or employer affinity programs for women or diverse groups is less common at 56%. Only 30% offer LGBTQIA+ employee resource groups.</li> <li>→ 45% of firms offer health coverage that covers transitioning costs. 34% do not cover transitioning costs and 21% did not respond.</li> <li>→ An average of 40% of firms offer family formation benefits: in-vitro fertilization, infertility treatment coverage, and adoption assistance regardless of sex. 28% provide cryopreservation, 22% provide foster care assistance and 21% offer surrogacy benefits.</li> </ul>	<ul style="list-style-type: none"> <li>→ There was a slight increase (1%) in the number of firms that have written policies in place to ensure equal pay for equal work. However, there was a significant 11% increase of firms that monitor gender pay gap disparities and a 12% increase in those that monitor racial pay gap disparities.</li> <li>→ The percentage of firms that partner with Minority, Women, and Disadvantaged Business Enterprises ("MWDBE") increased at a third of the rate from the previous year.</li> </ul>

**FIGURE 10**  
**KEY TAKEAWAYS**

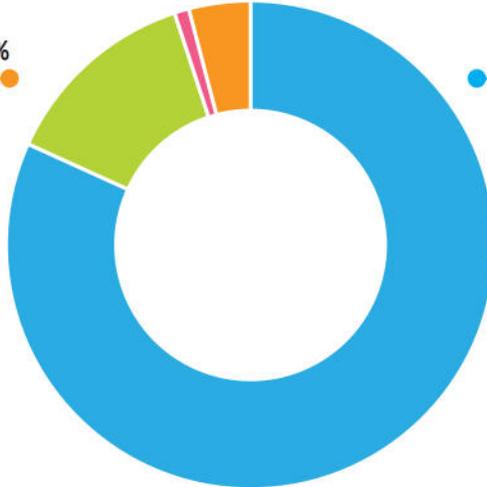
Source: Meketa Investment Group 2022 Questionnaire.

# DEI INITIATIVES

Due To Be Implemented  
In The Next 12 months, 4%

Not Responding, 1%

No, 13%



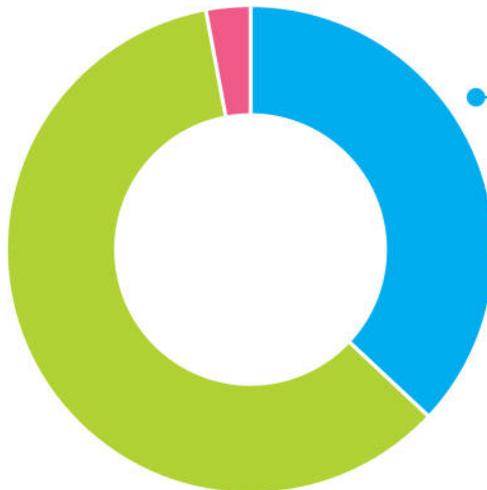
Yes, 82%

**FIGURE 11**  
**DOES THE FIRM HAVE A FORMAL DIVERSITY AND INCLUSION POLICY OR INITIATIVE?**

Source: Meketa Investment Group 2022 Questionnaire.

Not Responding, 3%

No, 60%



Yes, 37%

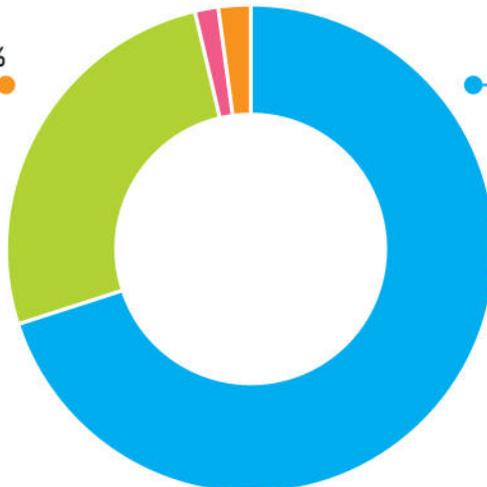
**FIGURE 12**  
**DO YOU HAVE DIVERSITY TARGETS?**

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented  
In The Next 12 months, 2%

Not Responding, 2%

No, 26%



Yes, 70%

**FIGURE 13**  
**DOES THE FIRM HAVE A DIVERSITY AND INCLUSION COMMITTEE OR GROUP WITHIN THE ORGANIZATION THAT INCLUDES MEMBERS OF SENIOR MANAGEMENT?**

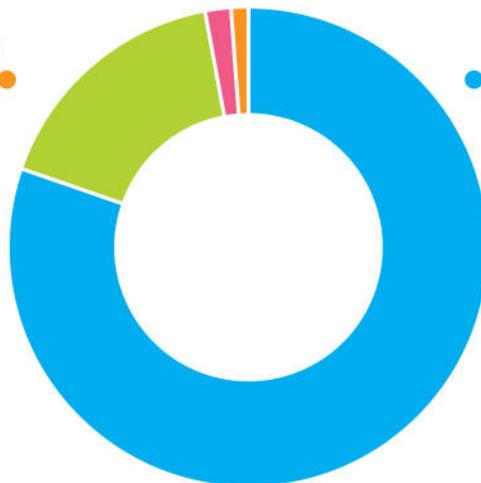
Source: Meketa Investment Group 2022 Questionnaire.

# RECRUITMENT AND RETENTION

Due To Be Implemented In The Next 12 months, 1%

Not Responding, 2%

No, 17%



Yes, 80%

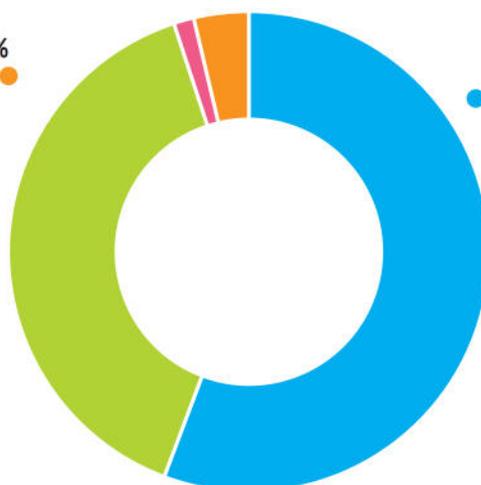
**FIGURE 14**  
IN THE PAST YEAR, HAS THE FIRM ENGAGED WITH ORGANIZATIONS OR PROGRAMS THAT PROMOTE THE RECRUITMENT AND RETENTION OF DIVERSE GROUPS?

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented In The Next 12 months, 4%

Not Responding, 1%

No, 39%



Yes, 56%

**FIGURE 15**  
DOES THE FIRM HAVE A FORMAL MENTORSHIP, SPONSORSHIP OR EMPLOYER AFFINITY PROGRAM FOR WOMEN AND/OR DIVERSE GROUPS?

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented In The Next 12 months, 2%

Not Responding, 5%

No, 64%

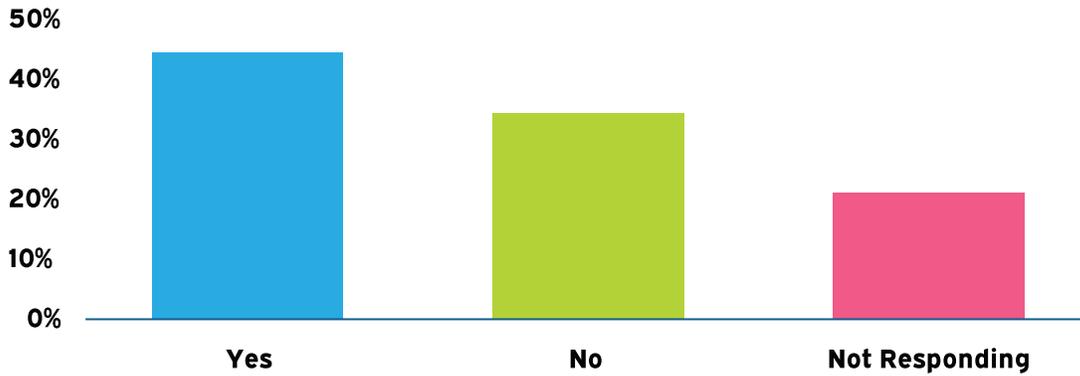


Yes, 30%

**FIGURE 16**  
DOES THE FIRM HAVE LESBIAN, GAY, BISEXUAL, TRANSGENDER AND/OR QUEER EMPLOYEE RESOURCE GROUP IN THE WORKPLACE?

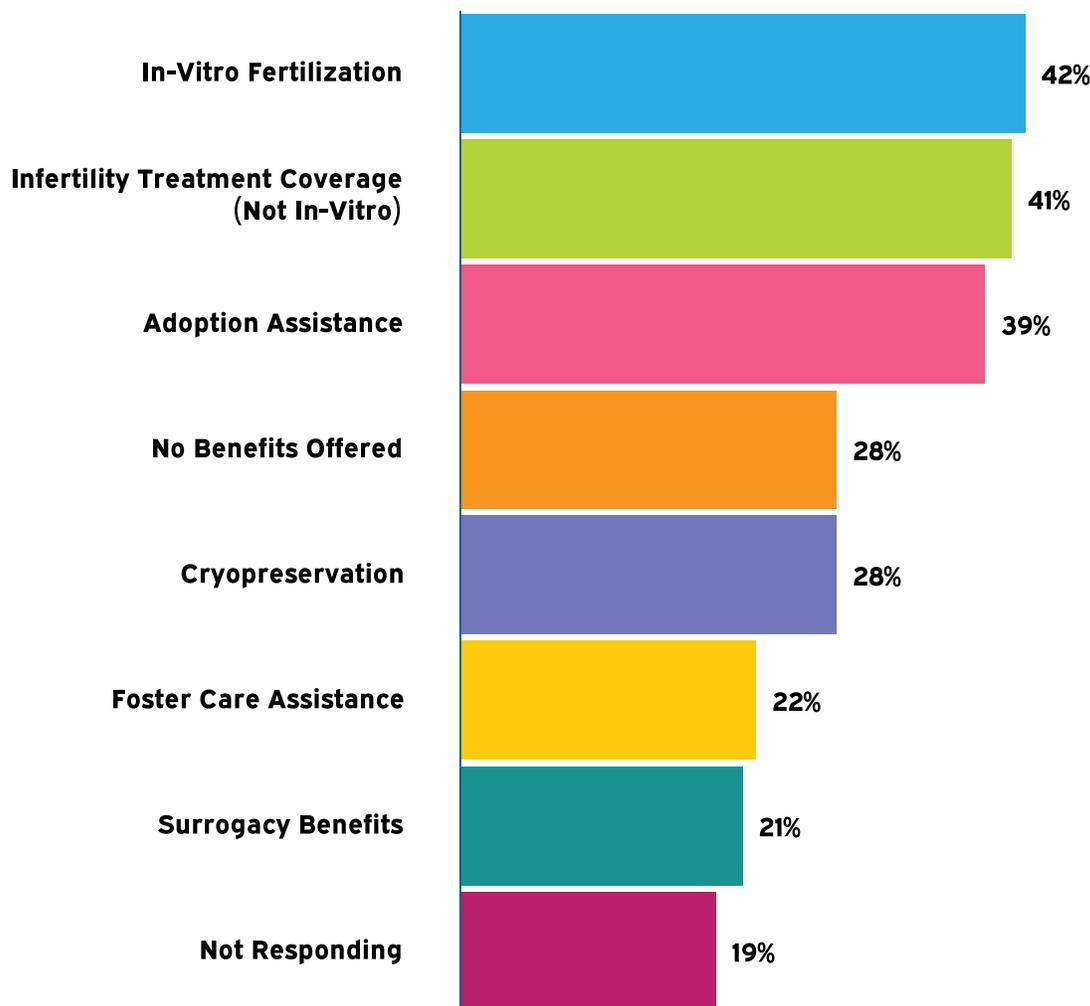
Source: Meketa Investment Group 2022 Questionnaire.

# RECRUITMENT AND RETENTION



**FIGURE 17**  
**DOES THE FIRM'S HEALTH COVERAGE COVER TRANSITIONING COSTS?**

Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 18**  
**PERCENTAGE OF FIRMS THAT OFFER FAMILY FORMATION BENEFITS REGARDLESS OF SEX**

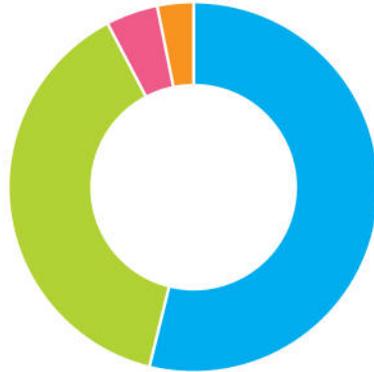
Source: Meketa Investment Group 2022 Questionnaire.

# MEASUREMENT

Due To Be Implemented  
In The Next 12 months, 3%

Not Responding, 5%

No, 38%



Yes, 54%

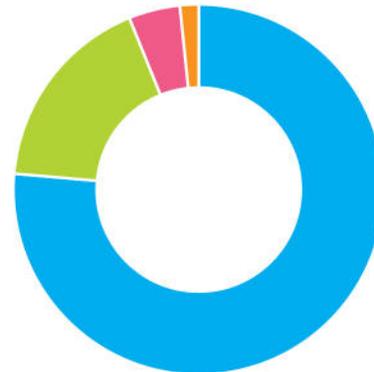
**FIGURE 19**  
DOES THE FIRM DEFINE GOALS AND MEASURE DIVERSITY OUTCOMES AT ALL LEVELS OF THE ORGANIZATION, ACROSS ALL DEPARTMENTS?

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented  
In The Next 12 months, 2%

Not Responding, 4%

No, 18%



Yes, 76%

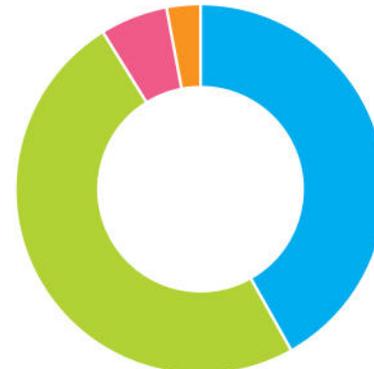
**FIGURE 20**  
HAVE DIVERSITY STATISTICS BEEN REGULARLY REVIEWED BY THE EXECUTIVE COMMITTEE AND/OR BOARD IN THE LAST 12 MONTHS?

Source: Meketa Investment Group 2022 Questionnaire.

Due To Be Implemented  
In The Next 12 months, 3%

Not Responding, 6%

No, 49%



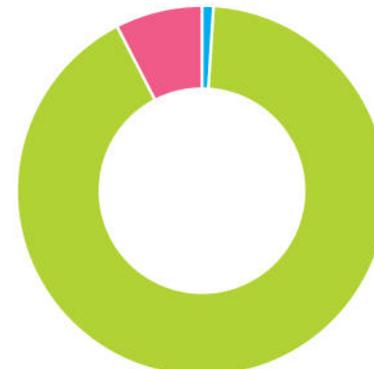
Yes, 42%

**FIGURE 21**  
HAVE DIVERSITY, EQUITY, AND INCLUSION BEEN INCLUDED WITHIN THE PERFORMANCE OBJECTIVES FOR SENIOR MANAGEMENT IN THE LAST 12 MONTHS?

Source: Meketa Investment Group 2022 Questionnaire.

Not Responding, 8%

No, 91%

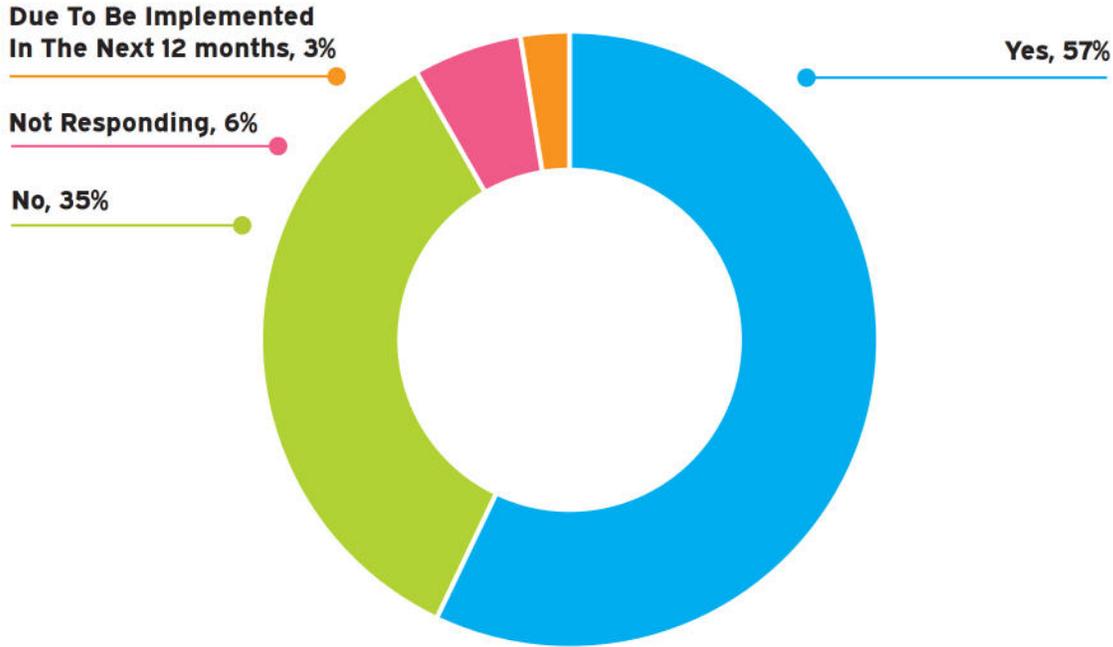


Yes, 1%

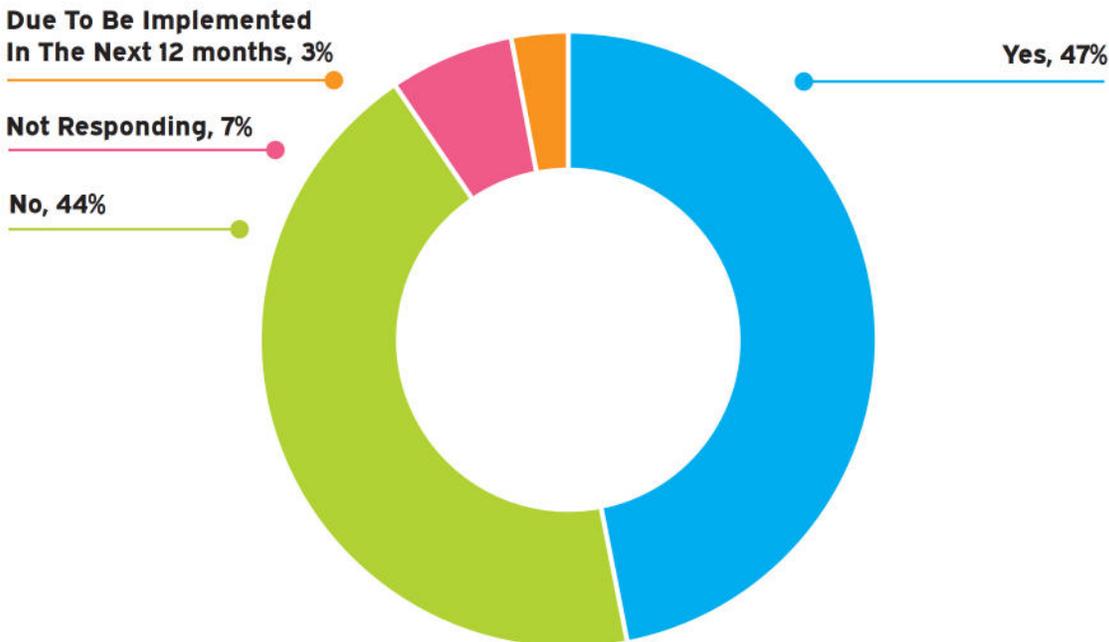
**FIGURE 22**  
IS THE FIRM A MEMBER OR FINANCIAL SUPPORTER OF ANY ORGANIZATIONS THAT LOBBIED AGAINST DEI DURING 2022?

Source: Meketa Investment Group 2022 Questionnaire.

# EQUAL PAY

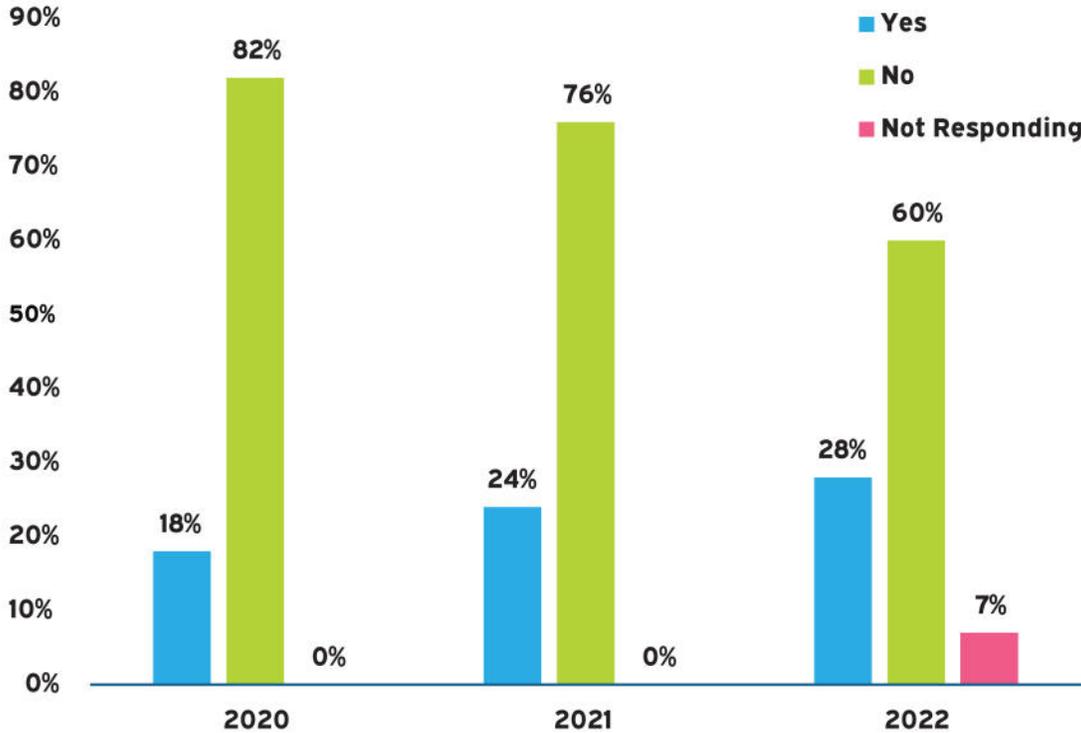


**FIGURE 23**  
**DOES THE FIRM MONITOR GENDER PAY GAP DISPARITY?**  
Source: Meketa Investment Group 2022 Questionnaire.

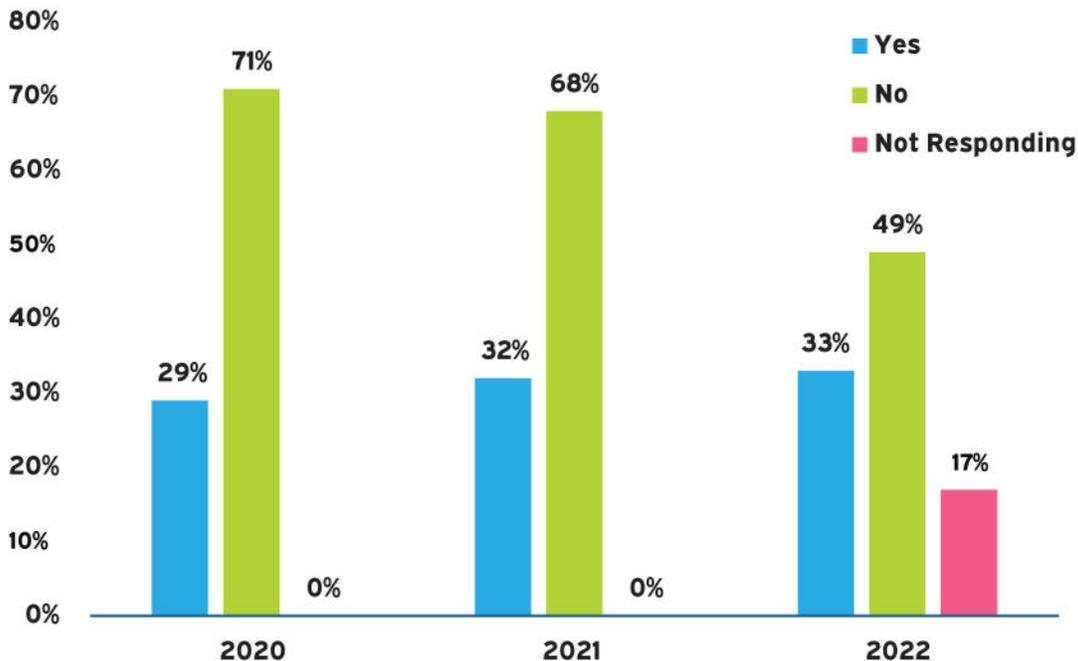


**FIGURE 24**  
**DOES THE FIRM MONITOR ETHNICITY PAY GAP DISPARITY?**  
Source: Meketa Investment Group 2022 Questionnaire.

# SERVICE PROVIDERS AND DEI



**FIGURE 25**  
**WHEN SELECTING SERVICE PROVIDERS, DOES THE FIRM FORMALLY ASSESS EACH PROVIDER'S DEI POLICIES?**  
 Source: Meketa Investment Group 2022 Questionnaire.



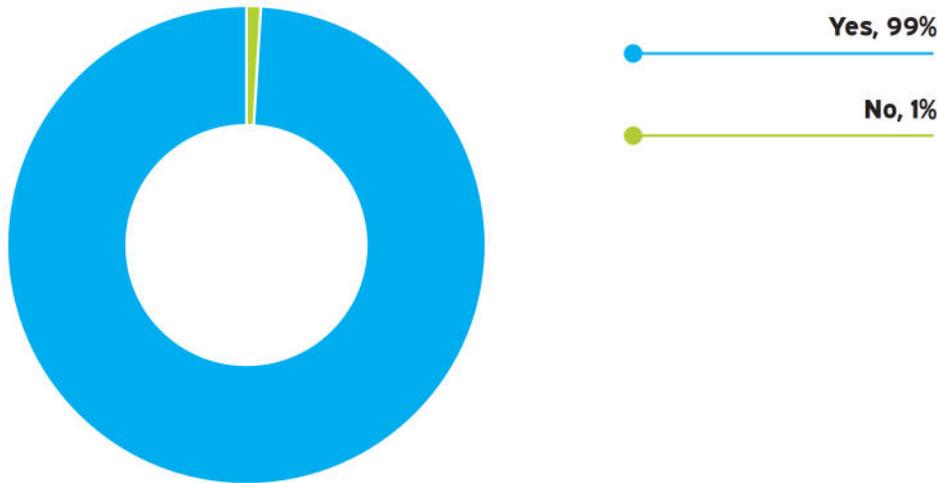
**FIGURE 26**  
**DOES THE FIRM UTILIZE DIVERSE-OWNED INVESTMENT BANKS FOR CAPITAL MARKETS SERVICES, MERGERS AND ACQUISITIONS SERVICES AND/OR OTHER ADVISORY SERVICES?**  
 Source: Meketa Investment Group 2022 Questionnaire.



# SECTION III EMPLOYEE CONDUCT

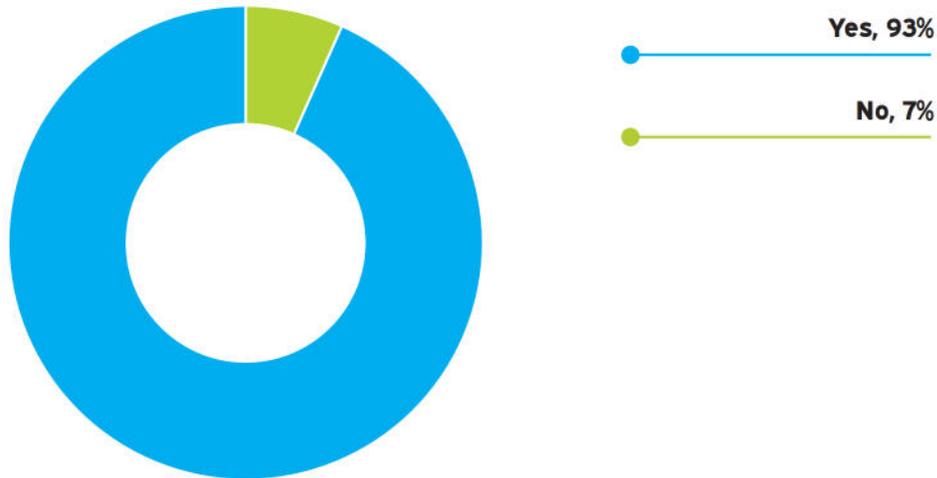
# KEY TAKEAWAYS

Almost all firms, 99%, reported having a Code of Conduct that addresses harassment, discrimination, and workplace violence, regardless of whether the conduct takes place in the formal workspace. Written procedures in place for the allowance of anonymous reporting and investigation increased 7% from 2021.



**FIGURE 27**  
**DOES THE FIRM HAVE A CODE OF CONDUCT THAT ADDRESSES HARASSMENT, DISCRIMINATION AND/OR WORKPLACE VIOLENCE IN AND/OR OUTSIDE OF THE WORKPLACE?**

Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 28**  
**DOES THE FIRM HAVE WRITTEN PROCEDURES IN PLACE FOR THE ANONYMOUS REPORTING AND INVESTIGATION OF HARASSMENT, DISCRIMINATION AND/OR WORKPLACE VIOLENCE?**

Source: Meketa Investment Group 2022 Questionnaire.



**FIGURE 29**  
**DOES THE FIRM PROVIDE MANDATORY ANTI-HARASSMENT AND NON-DISCRIMINATION TRAINING TO ALL EMPLOYEES OR MANAGERS ONLY?**

Source: Meketa Investment Group 2022 Questionnaire.



# SUMMARY CONCLUSIONS

Across the asset management industry, we saw small but increasing numbers of female and diverse individuals in equity ownership, senior management, and portfolio management. We are encouraged by the series of actions taken to achieve better results with respect to creating more diverse, equitable, and inclusive firms. Our 2022 DEI survey was more expansive as we continue to refine our approach. Whether refining our questions on recruitment and retention or adding questions on healthcare and employee resource groups, our continuing improvements bolster our efforts around improving clarity and transparency in our DEI survey efforts. As we continue our annual surveys, we anticipate more progress to be made and we look forward to increased efforts made by asset management firms.

We acknowledge that fully integrating DEI into the teams and cultures of firms will not happen overnight. Firms will need time, resources, and buy-in to sustainably evolve into more diverse organizations. Asset management firms may continue to differentiate themselves by focusing on the following areas:

- Establish a plan to add more representation to key decision-making positions
- Continue to measure how the firm's policies and committees contribute to the firm's overall DEI strategy
- Mentorship is to recruitment as sponsorship is to retention. Consider increasing sponsorship opportunities to elevate underrepresented groups
- Evaluate service providers' DEI policies to ensure an alignment of values

# APPENDIX

**Asset Manager:** Includes public and private managers in Meketa's database as of November 2022.

**Clients:** Current clients of asset managers who responded to the questionnaire.

**Consultants:** Oversee asset managers who responded to the questionnaire.

**Prospects:** Potential clients of an asset manager who responded to the questionnaire.

**Regulators:** Bodies established by governments or other organizations that oversee the functioning and fairness of financial markets and the firms that engage in financial activity.

**Service Providers:** Third-party suppliers, vendors, or subcontractors of asset managers who responded to the questionnaire.

**Definitions:** Below are definitions of the DEI-related terms specific to this questionnaire:

- Diverse groups are defined on the basis of the following factors: race/ethnicity, LGBTQIA+ identity, veteran status and disability.
- Racial/Ethnic Minorities are defined as non-white minorities.
- Other Diverse Groups refer to those who identify as LGBTQIA+, Veterans and Persons with Disabilities.
- Diversity is defined as the inclusion of Women and Diverse groups while Inclusion is defined as the practice of equal recognition, respect, and merit-based evaluation.
- The use of the term Diverse is meant to represent a numerical minority.

**Methodology:** The questionnaire was distributed to all public and private markets asset management firms in November 2022. Asset managers completed the questionnaire with best available data. All responses were collected from November 29, 2022 through February 1, 2023.

# CONTACT US

If you want to learn more, or access Meketa's library of white papers and economic research, please contact us or visit <https://meketa.com/thought-leadership/>.

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## **DISCLOSURE**

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OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 8077

Approved to Form and Legality

[Signature]

ON MOTION OF MEMBER \_\_\_\_\_ SECONDED BY MEMBER \_\_\_\_\_

RESOLUTION APPROVING DEATH BENEFIT PAYMENT AND DIRECTING A WARRANT THEREUNDER IN THE AMOUNT OF \$1,000.00 PAYABLE TO THE BENEFICIARIES OF DECEASED CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM MEMBERS NORBERT F. BANACH; GEORGE S. EBERHARDT; AND CLYDE WALKER.

WHEREAS, due proof having been received in accordance with Article XXVI of the Charter of the City of Oakland of the death of the retired members of the Oakland Police or Fire Department identified in Column (1) below; and

WHEREAS, the beneficiaries to whom the death benefit provided in Charter Section 2612 is payable, are the people whose names are stated in Column (2) opposite the names of the deceased retired members; and

WHEREAS, the amount of said death benefit is stated in Column (3) opposite the name of the beneficiaries; now, therefore, be it

RESOLVED: That the Police and Fire Retirement System Board does hereby approve the Death Benefit payments to the people named in Column (2); and be it

FURTHER RESOLVED: That the Director of Finance, be and is hereby directed to draw and sign a warrant for the amount in Column (3) payable to the people whose names appears in Column (2):

Table with 3 columns: (1) Name of Deceased Member, (2) Name of Beneficiary, (3) Death Benefit Amount. Rows include Norbert F. Banach, George S. Eberhardt, and Clyde Walker.

IN BOARD MEETING, CITY HALL, OAKLAND, CA \_\_\_\_\_ MAY 31, 2023

PASSED BY THE FOLLOWING VOTE:

AYES: GODFREY, MELIA, NICHELINI, ROSEMAN, SPEAKMAN, WILKINSON, & PRESIDENT JOHNSON

NOES:

ABSENT:

ATTEST: \_\_\_\_\_ PRESIDENT

ATTEST: \_\_\_\_\_ SECRETARY

**CITY OF OAKLAND**  
**OFFICE OF THE CITY ATTORNEY**  
**LEGAL OPINION**

TO: BOARD OF THE POLICE AND FIRE RETIREMENT SYSTEM (PFRS)

ATTN: PRESIDENT WALTER L. JOHNSON, SR. AND  
MEMBERS OF THE PFRS BOARD

FROM: BARBARA J. PARKER, CITY ATTORNEY

DATE: MAY 15, 2023

RE: **FREQUENCY OF REGULAR AND COMMITTEE MEETINGS**

---

**I. INTRODUCTION**

The Police and Fire Retirement System (“PFRS”) Board (Board) is considering adjusting the frequency of its meetings because the Board does not have enough business to necessitate monthly meetings. PFRS has two standing committees: the Audit & Operations Committee and the Investment Committee. Both committees contain three Board members. The Board, which is composed of seven members, and its two standing committees, currently meet on a monthly basis. The Board has asked that the City Attorney advise whether the Board may meet less frequently than on a monthly basis.

This is a public legal opinion because it interprets the City Charter and the powers and duties of the PFRS Board. Like all of our public legal opinions, this opinion will be posted on the City Attorney’s website at [www.oaklandcityattorney.org](http://www.oaklandcityattorney.org).

**II. QUESTIONS AND BRIEF ANSWERS**

**Question No. 1**

May the PFRS Board reduce the frequency of its regular Board meetings to less than monthly?

**Brief Answer:**

No. Article XXVI, Section 2601(b) of the City Charter provides that “[t]he Board shall hold regular meetings monthly and special meetings at any time upon the call of its President.” Generally, a charter may only be amended by placing the amendment on

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the ballot. (Cal. Const., art. XI, § 3.) Since the meeting frequency is set forth in the Charter, the PFRS Board may not reduce the frequency of its regular meetings.

### **Question No. 2**

May the PFRS Board reduce the frequency of its regular committee meetings to less than monthly?

### **Brief Answer:**

Yes. Because the City Charter does not address committee meetings of the PFRS Board, the Board may reduce the frequency of its regular committee meetings.

Section 5.2(b) of PFRS Board's Rules and Regulations specifically provides as follows:

The regularly scheduled meetings of the Audit/Operations Committee [and the] Investment Committee shall take place at Oakland City Hall on the last Wednesday of each month, at a specified time.

The Board has the authority to amend its own Rules and Regulations. Thus, the Board can amend its Rules and Regulations to reduce the frequency of the committee meetings. As long as the committees can continue to meet their responsibilities to timely make recommendations to the Board in the areas set forth in the Rules and Regulations, the Board may reduce the frequency of its committee meetings to less frequently than a monthly basis. The Board also could amend its Rules and Regulations to eliminate committee meetings and have the Board conduct all business if it can timely perform its Charter-mandated duties.

### **III. BACKGROUND**

Article XXVI, Section 2601(b) of the City Charter provides that "[t]he Board shall hold regular meetings monthly and special meetings at any time upon the call of its President." The Charter does not address committee meetings. However, Article 5, section 5.2(b) of the PFRS Rules and Regulations specifically state that "[t]he regularly scheduled meetings of the Audit/Operations Committee [and the] Investment Committee shall take place at Oakland City Hall on the last Wednesday of each month, at a specified time.

Article 8, sections 8.1 and 8.2 of the Board's Rules and Regulations provide that each committee "shall be a Standing Committee of the Board..." The Rules and Regulations also set forth the duties of the respective committees.

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Section 8.1 of the Rules and Regulations provides, in pertinent part:

The Investment Committee shall have the responsibility for making recommendations to the Board in the following areas:

- Review the Plan's overall investment objectives, risk tolerance and performance standards and recommend changes to the Board;
- Recommend the retention or termination of investment managers to the PFRS Board;
- Keep the Board apprised of the performance of the Plan's investment portfolio;
- Recommend the asset allocation of the Plan to the Board;
- Recommend to the Board which investments to target for the purpose of making benefit payments under the Plan; and
- Review and recommend to the Board changes to the Investment Policy.

Section 8.2 of the Rules and Regulations provides, in pertinent part:

The Audit/Operations Committee shall have the responsibility for making recommendations to the Board in the following areas:

- Review the Plan's administrative procedures for the purpose of ensuring prompt delivery of benefits and related services to participants and their beneficiaries and recommend necessary changes to the full Board;
- Review and recommend solutions to specific issues raised by the Board that relate to administration of the PFRS Plan;
- Review the actuarial valuation report and the annual financial audit report of the Plan and recommend approval by the Board, unless the Board President determines that a report should be reviewed in the first instance by the full Board;
- Review the annual budget and recommend approval by the Board;
- Monitor the Plan's administrative budget and assist the Board in defraying reasonable expenses;
- Develop and recommend changes to Board rules, regulations and policies in non-investment areas;
- Review PFRS Rules and Regulations every three years;
- Review PFRS Travel Policy as needed but not less than three years from the previous approval date;
- Recommend approval of board member and staff travel in accordance with the PFRS Travel Policy; and
- Other duties and/ or issues as directed by the Board.

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Article 14 of the PFRS Rules and Regulations provides that the Rules and Regulations may be amended in accordance with the following procedures:

- Amendments shall be read at a regular meetings.
- No vote may be taken earlier than the next regular meeting.
- At least four (4) members of the Board must cast affirmative votes to amend the Rules and Regulations.

The Board last revised the Rules and Regulations on June 27, 2018. On May 26, 2021, the Audit/Operations Committee reviewed the Rules and Regulations and determined that changes were not needed at that time. The Board approved of the Audit/Operations Committee determination. Thus, the Board last approved of the current version of the Rules and Regulations on May 26, 2021.

The Rules and Regulations are signed by the Board President and the Secretary.

#### **IV. ANALYSIS**

Since the meeting frequency of the Board's regular meetings is set forth in the Charter, the PFRS Board may not reduce the frequency of its regular meetings. Article XXVI, Section 2601(b) of the City Charter provides that "[t]he Board shall hold regular meetings monthly and special meetings at any time upon the call of its President." A charter may be amended only by the placing the amendment on the ballot. (Cal. Const., art. XI, § 3.) Accordingly, only the voters can reduce the frequency of the PFRS Board's regular meetings.

By contrast, the Board may reduce the meeting frequency of its two standing committee meetings: the Investment Committee and the Audit/Operations Committee, which are set forth in the PFRS Rules and Regulations and which the Charter empowers the Board to establish<sup>1</sup>. The Board may amend the Rules and Regulations by a vote of four members in favor of the revisions. (Rules and Regulations Art. 14.) The Audit/Operations Committee is specifically responsible for reviewing the PFRS Rules and Regulations every three years and making recommendations to the Board. (Rules and Regulations 8.2.) Since the Audit/Operations Committee last reviewed the Rules and Regulations in May 2021, the Audit/Operations Committee mandatory review and recommendation is not due until 2024.

The Rules and Regulations set forth specific areas of responsibility for the two committees. As long as the Board is able to ensure the committees meet frequently

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<sup>1</sup> City Charter section 2601(e) provides in pertinent part: "The Board shall possess power to make all necessary rules and regulations for its guidance."

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enough to meet their responsibilities as set forth in Article 8, sections 8.1 and 8.2, the Board is authorized to reduce the frequency of its two committees.

## V. CONCLUSION

The PFRS Board may not reduce the frequency of its regular meetings but it may reduce the frequency of its two standing committee meetings: the Investment Committee and the Audit/Operations Committee, which are set forth only in the PFRS Rules and Regulations and not addressed by the City Charter.

We recommend that the Audit/Operations Committee discuss this matter and make a recommendation to the Board to revise the PFRS Rules and Regulations to reduce the frequency of the two standing committees of the PFRS Board. Alternatively, the Board may consider the matter directly without a recommendation from the Audit/Operations Committee.

In all events, we recommend revising Article 5, section 5.2b as follows (strikethrough indicates omitted language; underline indicates new language):

### Section 5.2b: Standing Committee

The regularly scheduled meetings of the Audit/Operations Committee shall take place at Oakland City Hall on the last Wednesday of ~~each~~ the month, on a quarterly basis, at a specified time.

The regularly scheduled meetings of the Investment Committee shall take place at Oakland City Hall on the last Wednesday of ~~each~~ the month, on a quarterly basis, at a specified time.

Any proposed amendments will need to be read at a regular PFRS Board meeting, and the vote on the amendments must not occur until the next regular meeting. Any amendment requires passage by four (4) Board members.

Very truly yours,



BARBARA J. PARKER  
City Attorney

Attorney Assigned:  
Selia Warren

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