

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, FEBRUARY 28, 2024

10:00 AM

ONE FRANK H. OGAWA PLAZA, HEARING ROOM 2  
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  
      **Recommendation:** **APPROVE** the January 31, 2024 Audit & Operations Committee Meeting Minutes
  
2.   **Subject:**                   **ADMINISTRATIVE EXPENSES REPORT**  
      **From:**                     Staff of the PFRS Board  
      **Recommendation:** **ACCEPT** informational report regarding PFRS administrative expenses as of December 31, 2023
  
3.   **REVIEW OF PENDING AUDIT COMMITTEE MEETING AGENDA ITEMS**
4.   **OPEN FORUM**
5.   **FUTURE SCHEDULING**
6.   **ADJOURNMENT**

**A MEETING OF THE AUDIT & OPERATIONS COMMITTEE** of the Oakland Police and Fire Retirement System (“PFRS”) was held Wednesday, January 31, 2024 , at One Frank Ogawa Plaza, Hearing Room 2, Oakland, California.

Committee Members	▪ John C. Speakman	Chairperson
	▪ Martin J. Melia	Member
	▪ 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 10:04 a.m. Pacific

### **1. PFRS AUDIT & OPERATIONS COMMITTEE MEETING MINUTES**

Member Melia made a motion to approve the December 6, 2023, Audit & Operations Committee Meeting minutes, second by Chairperson Speakman. Motion passed.

[SPEAKMAN – Y / MELIA – Y / WILKINSON – Y]  
(AYES:3 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 0)

### **2. ADMINISTRATIVE EXPENSES REPORT**

PFRS Investment & Operations Manager Jenkins presented an informational report regarding PFRS’ administrative expenditures as of November 30, 2023. PFRS has an approved annual budget of approximately \$3.8 million and expensed approximately \$861,000 to date for fiscal year 2023/2024. Membership consisted of 642 retired members and beneficiaries, which included 401 Police Members and 241 Fire Members.

**MOTION:** Member Melia made a motion to accept the administrative expenses report as of November 30, 2023, and forward to the Board, second by member Wilkinson. Motion passed.

[SPEAKMAN – Y / MELIA – Y / WILKINSON – Y]  
(AYES:3 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 0)

### **3. RESOLUTION NO. 8089**

Resolution authorizing request of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson to travel and attend the California Association of Public Retirement Systems (CALAPERS) 2024 General Assembly conference from March 2, 2024 through March 5, 2024 in Rancho Mirage, CA and authorizing reimbursement of registration fees and travel-related expenses in an amount not to exceed two-thousand seven hundred fifty dollars (\$2,750.00)

**MOTION:** Member Melia made a motion to recommend Board approval of Resolution No. 8089, second by Chairperson Speakman. Motion passed.

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

**4. 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: The January 29, 2024 Ad Hoc Committee meeting was cancelled due to scheduling conflicts and rescheduled for February 26, 2024. Item 2) Monitor & Update PFRS Board of Upcoming City Council Agendas Regarding Discussion of the 2026 Actuarial Funding Date: PFRS Staff presented a background report on PFRS to the City's Finance & Management Committee on December 9, 2023. Chairperson Speakman requested the status of the City Attorney's Office opinion regarding the extension of the Property Tax Override and was advised by Legal Counsel Warren a meeting is scheduled for this week.

**5. OPEN FORUM – No Report**

**6. FUTURE SCHEDULING**

The next PFRS Audit & Operations Committee Meeting will be held in-person and is tentatively scheduled to occur February 28, 2024 at One Frank Ogawa Plaza, Hearing Room 2, Oakland, CA.

**7. ADJOURNMENT – Member Melia made a motion to adjourn, second by Member Wilkinson. Motion passed.**

[SPEAKMAN – Y / MELIA – Y / WILKINSON – Y]  
(AYES:3 / NOES: 0 / ABSTAIN: 0 / ABSENT: 0 / EXCUSED: 0)

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

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JOHN C. SPEAKMAN  
COMMITTEE CHAIRPERSON

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DATE

**Table 1**

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**

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

As of December 31, 2023

	Approved Budget		December 2023		FYTD		Remaining		Percent Remaining	
<b>Internal Administrative Costs</b>										
PFRS Staff Salaries	\$	1,459,000	\$	72,542	\$	581,573	\$	877,427		60.1%
Board Travel Expenditures		52,500		36		2,233		50,267		95.7%
Staff Training		20,000		-		-		20,000		100.0%
Staff Training - Tuition Reimbursement		7,500		-		-		7,500		100.0%
Board Hospitality		3,600		-		1,804		1,796		49.9%
Payroll Processing Fees		40,000		-		-		40,000		100.0%
Miscellaneous Expenditures		45,000		563		7,501		37,499		83.3%
Internal Service Fees (ISF)		88,000		-		41,500		46,500		52.8%
Contract Services Contingency		50,000		-		500		49,500		99.0%
<b>Internal Administrative Costs Subtotal :</b>	<b>\$</b>	<b>1,765,600</b>	<b>\$</b>	<b>73,142</b>	<b>\$</b>	<b>635,112</b>	<b>\$</b>	<b>1,130,488</b>		<b>64.0%</b>
<b>Actuary and Accounting Services</b>										
Audit	\$	52,800	\$	-	\$	18,941	\$	33,859		64.1%
Actuary		49,400		-		-		49,400		100.0%
<b>Actuary and Accounting Subtotal:</b>	<b>\$</b>	<b>102,200</b>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>18,941</b>	<b>\$</b>	<b>83,259</b>		<b>81.5%</b>
<b>Legal Services</b>										
City Attorney Salaries	\$	212,100	\$	-	\$	-	\$	212,100		100.0%
Legal Contingency		150,000		-		-		150,000		100.0%
<b>Legal Services Subtotal:</b>	<b>\$</b>	<b>362,100</b>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>362,100</b>		<b>100.0%</b>
<b>Investment Services</b>										
Money Manager Fees	\$	1,353,000	\$	-	\$	255,936	\$	1,097,064		81.1%
Custodial Fee		124,500		-		-		124,500		100.0%
Investment Consultant		100,000		-		25,000		75,000		75.0%
<b>Investment Subtotal:</b>	<b>\$</b>	<b>1,577,500</b>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>280,936</b>	<b>\$</b>	<b>1,296,564</b>		<b>82.2%</b>
<b>Total Operating Budget</b>	<b>\$</b>	<b>3,807,400</b>	<b>\$</b>	<b>73,142</b>	<b>\$</b>	<b>934,989</b>	<b>\$</b>	<b>2,872,411</b>		<b>75.44%</b>

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary

As of December 31, 2023

	December 2023	
<b>Beginning Cash as of 12/1/2023</b>	\$	10,366,364
<b>Additions:</b>		
City Pension Contribution - December	\$	3,396,917
Investment Draw	\$	1,000,000
Misc. Receipts		800
<b>Total Additions:</b>	\$	4,397,717
<b>Deductions:</b>		
Pension Payment (November Pension Paid on 12/1/2023)		(4,194,846)
Expenditures Paid		(115,514)
<b>Total Deductions</b>	\$	(4,310,360)
 <b>Ending Cash Balance as of 12/31/2023*</b>	 \$	 10,453,720

\* On 1/2/2024, December pension payment of appx \$4,175,000 will be made leaving a cash balance of \$6,279,000.

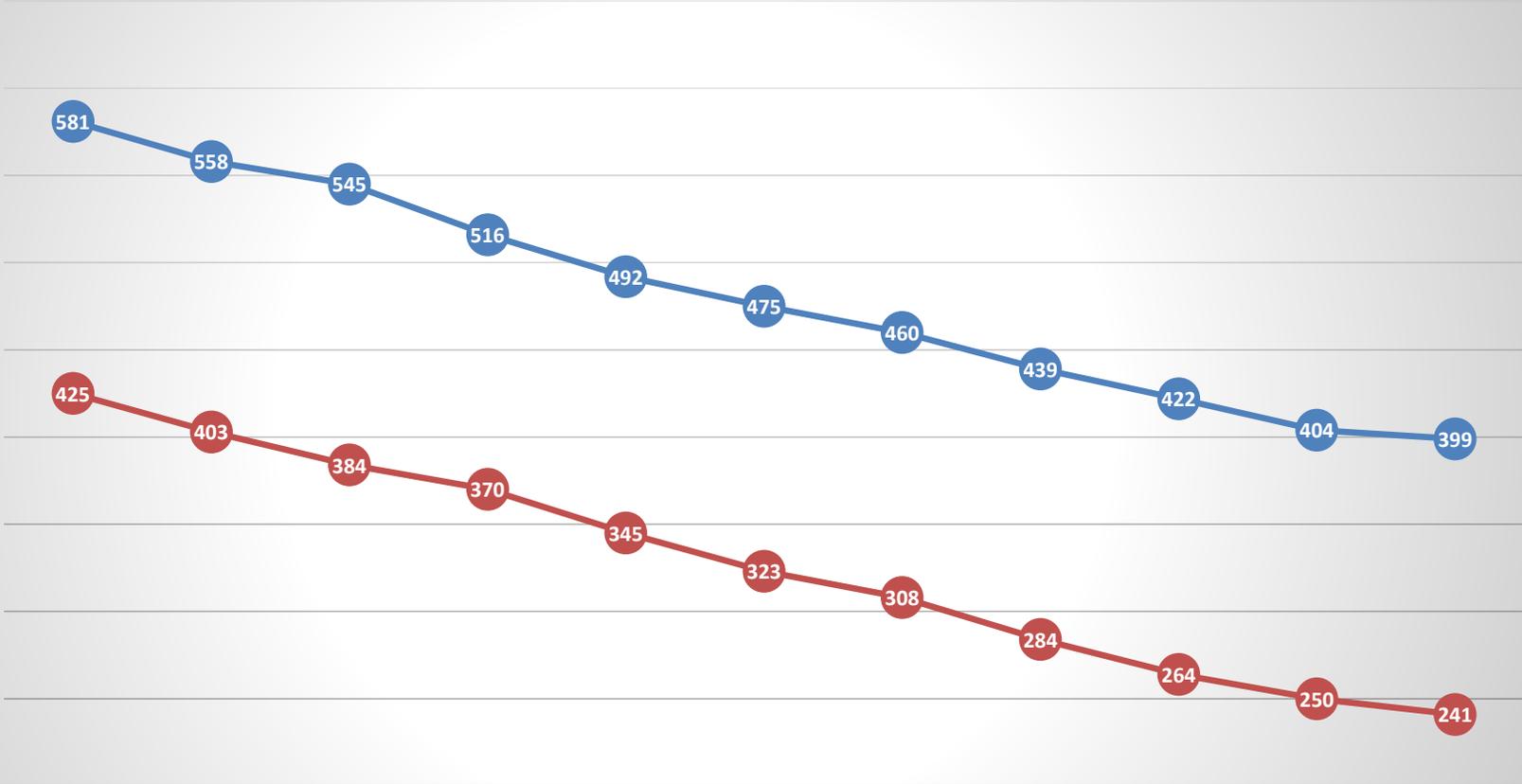
**Table 3**  
**CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**

Census  
As of December 31, 2023

COMPOSITION	POLICE	FIRE	TOTAL
<b>Retired Member:</b>			
Retiree	272	153	425
Beneficiary	127	88	215
<b><i>Total Retired Members</i></b>	<b>399</b>	<b>241</b>	<b>640</b>
<b><i>Total Membership:</i></b>	<b>399</b>	<b>241</b>	<b>640</b>

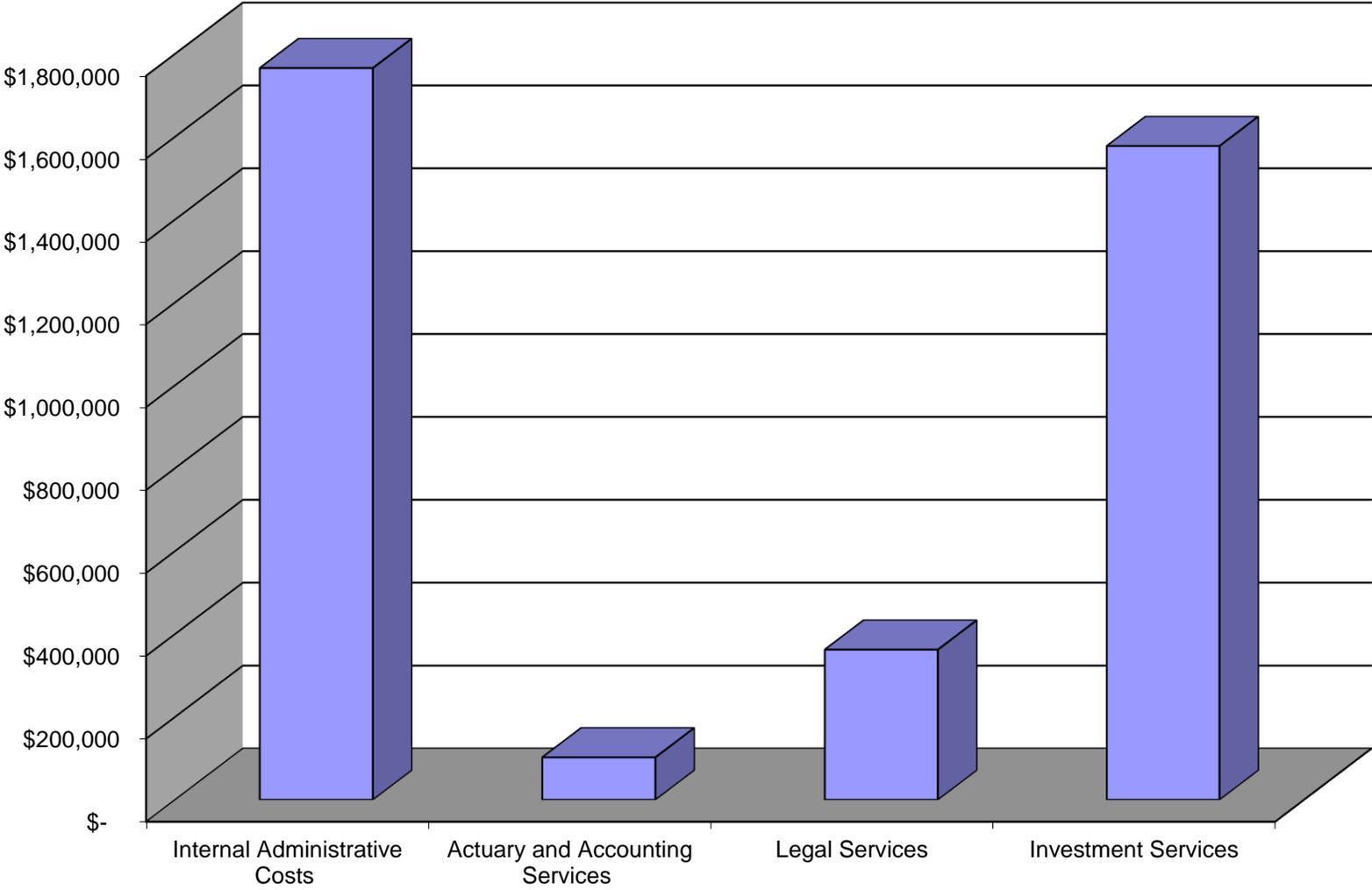
COMPOSITION	POLICE	FIRE	TOTAL
<b>Retired Member:</b>			
Service Retirement	267	113	380
Disability Retirement	124	117	241
Death Allowance	8	11	19
<b><i>Total Retired Members:</i></b>	<b>399</b>	<b>241</b>	<b>640</b>
<b><i>Total Membership as of December 31, 2023:</i></b>	<b>399</b>	<b>241</b>	<b>640</b>
<b><i>Total Membership as of June 30, 2023:</i></b>	<b>404</b>	<b>250</b>	<b>654</b>
<b><i>Annual Difference:</i></b>	<b>-5</b>	<b>-9</b>	<b>-14</b>

## Oakland Police and Fire Retirement System Pension Plan Membership Count As of December 31, 2023 (FY 2014 - FY 2024)

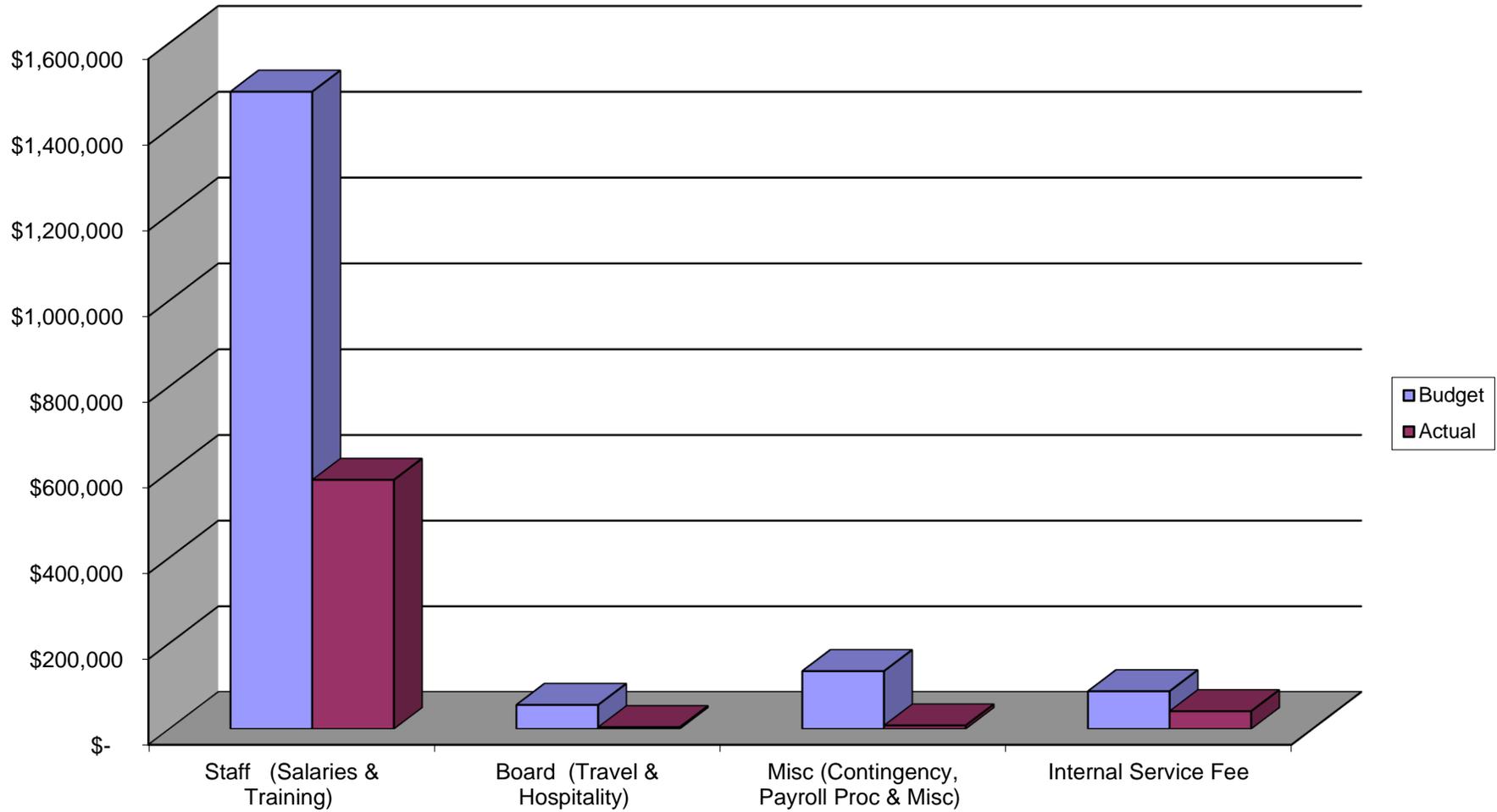


	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 FYTD
Police	581	558	545	516	492	475	460	439	422	404	399
Fire	425	403	384	370	345	323	308	284	264	250	241
Total	1006	961	929	886	837	798	768	723	686	654	640

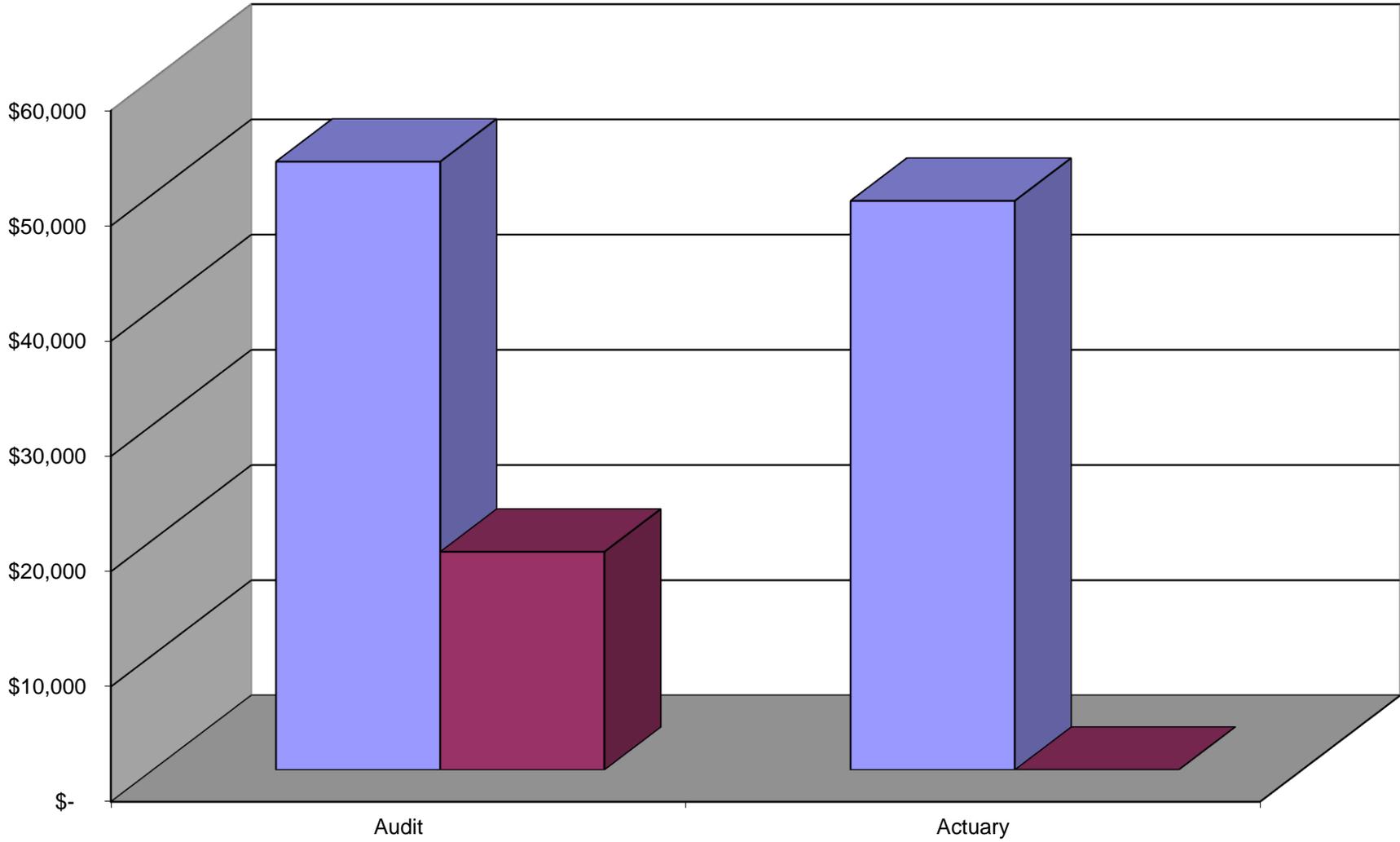
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
Approved Budget  
FY 2023-2024



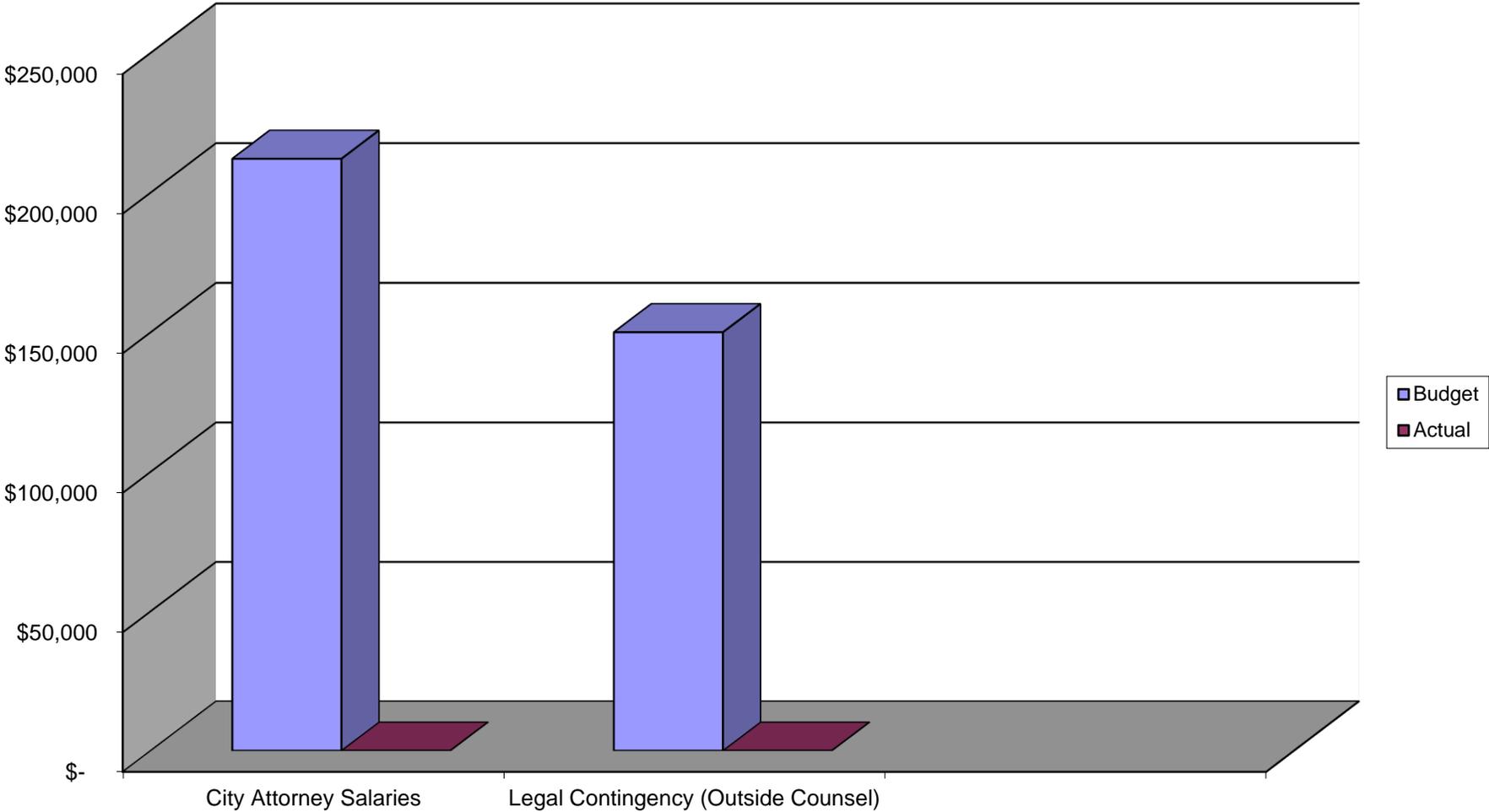
**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**  
**Budget vs Actual as of December 31, 2023**  
**Internal Administrative Costs**



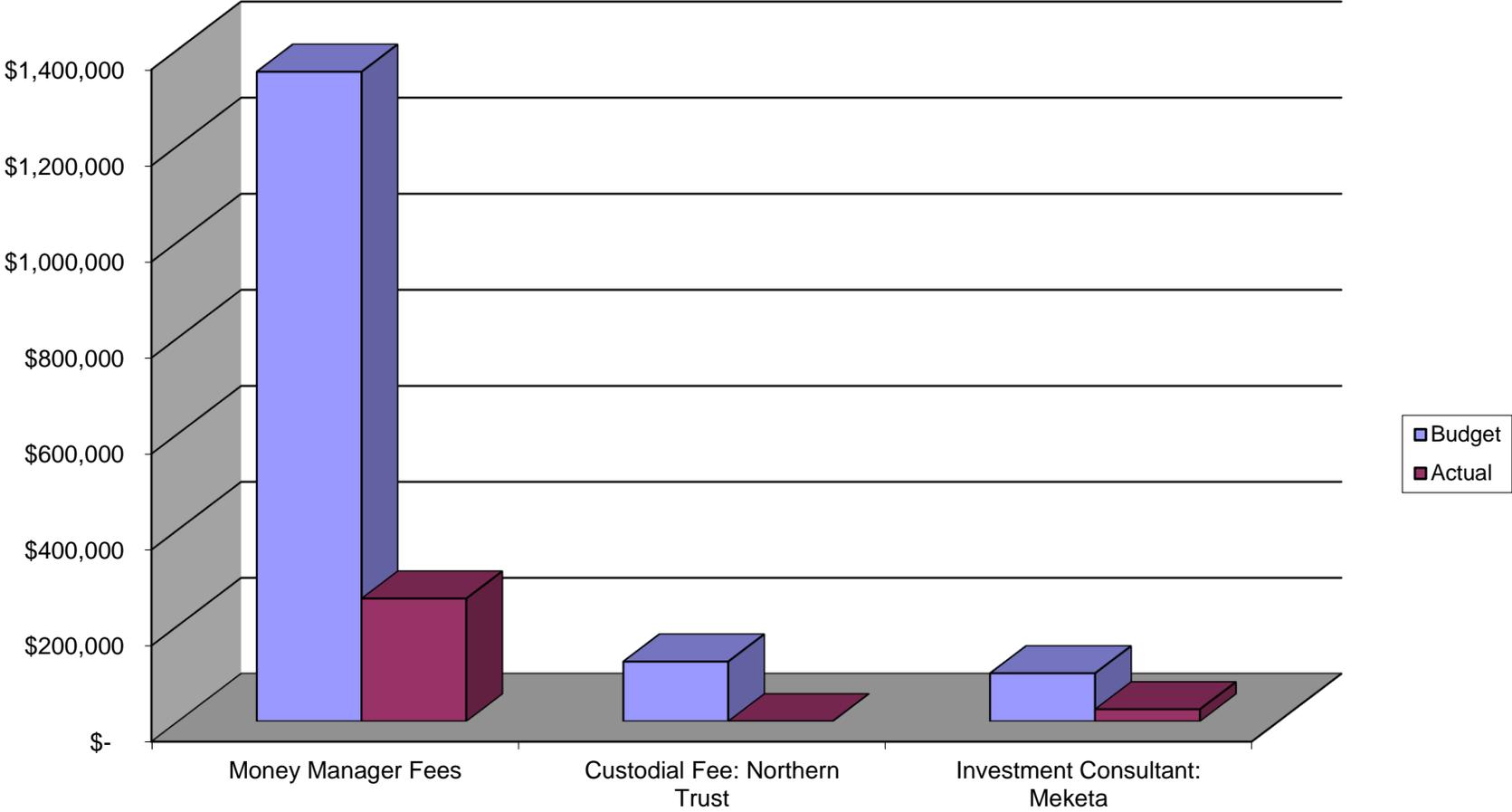
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
Budget vs. Actual as of December 31, 2023  
Actuary and Accounting Services



OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
Budget vs. Actual as of December 31, 2023  
Legal Services



**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**  
**Budget vs. Actual as of December 31, 2023**  
**Investment Services**





# AGENDA REPORT

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

**SUBJECT:** Audit Committee Agenda  
Pending List

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

**DATE:** February 28, 2024

	SUBJECT	TENTATIVE SCHEDULED MTG DATE	STATUS
1	Status Report of the Ad Hoc Committee regarding Actuarial Funding date of July 1, 2026	TBD	Meeting was scheduled for 02/26/2024
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  
Police & Fire Retirement Systems

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**Retirement Unit**  
**150 Frank H. Ogawa Plaza**  
**Oakland, California 94612**

# AGENDA

## INVESTMENT COMMITTEE MEMBERS

**Jaime T. Godfrey**  
Chairperson

**R. Steven Wilkinson**  
Member

**Robert W. Nichelini**  
Member

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

**WEDNESDAY, FEBRUARY 28, 2024**

**10:30 AM**

**ONE FRANK H. OGAWA PLAZA, HEARING ROOM 2**  
**OAKLAND, CA 94612**

### **OBSERVE**

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- 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
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- Webinar ID: 828 8049 3983.
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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 January 31, 2024 Investment and Financial Matters Committee Meeting Minutes
  
2. **Subject:** INVESTMENT MANAGER PERFORMANCE UPDATE:  
RICE HALL JAMES & ASSOCIATES, LLC

**From:** Rice Hall James & Associates, LLC

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

**From:** Meketa Investment Group

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**Recommendation:** **ACCEPT** Meketa Investment Group’s review and evaluation regarding a firm overview and managerial assessment; peer ranking; and investment portfolio performance of PFRS’ Domestic Equity Small-Cap Growth Investment Strategy Manager Rice Hall James & Associates, LLC
  
4. **Subject:** RESOLUTION 8093  
RESOLUTION AUTHORIZING A ONE-YEAR EXTENSION OF PROFESSIONAL SERVICES AGREEMENT WITH RICE HALL JAMES & ASSOCIATES, LLC FOR THE PROVISION OF DOMESTIC EQUITY SMALL-CAP GROWTH INVESTMENT STRATEGY MANAGER SERVICES FOR THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

**From:** Staff of the PFRS Board

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**Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 8093 authorizing the execution of a one-year extension of professional services agreement with Rice Hall James & Associates, LLC for the provision of Domestic Equity Small-Cap Growth Investment Strategy Manager Services for the City of Oakland Police and Fire Retirement System

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
INVESTMENT & FINANCIAL MATTERS COMMITTEE MEETING  
FEBRUARY 28, 2024

5. **Subject:** **INFORMATIONAL OVERVIEW:  
INVESTMENT OPPORTUNITIES IN AFRICA**  
**From:** PFRS Board Member Wilkinson  
\*The speakers will be presenting via Zoom; the presentation will be broadcast live in the hearing room so the Board and all other in-person attendees will be able to hear the presentation.
- 
- Recommendation:** **ACCEPT** informational overview regarding investment opportunities in Africa from the following presenters:  
1) Joseph Boateng, Casey Family Programs  
2) Papa Madiaw Ndiaye, Advanced Finance & Investment Group (AFIG Funds)  
3) Cameron Khosrowshahi, United States Agency for International Development (USAID)  
4) Eric Osiakwan, Chanzo Capital
6. **Subject:** **ECONOMIC AND INVESTMENT MARKET OVERVIEW  
AS OF JANUARY 31, 2024**  
**From:** Meketa Investment Group
- 
- Recommendation:** **ACCEPT** informational report regarding the Global Investment Markets as of January 31, 2024
7. **Subject:** **PRELIMINARY INVESTMENT FUND PERFORMANCE UPDATE  
AS OF JANUARY 31, 2024**  
**From:** Meketa Investment Group
- 
- Recommendation:** **ACCEPT** informational report regarding the Preliminary Investment Fund Performance Update as of January 31, 2024
8. **Subject:** **PFRS INVESTMENT FUND QUARTERLY PERFORMANCE UPDATE  
AS OF DECEMBER 31, 2023**  
**From:** Meketa Investment Group
- 
- Recommendation:** **ACCEPT** PFRS Investment Fund Quarterly Performance Update as of December 31, 2023
9. **Subject:** **MEKETA INVESTMENT GROUP ANNUAL DIVERSITY, EQUITY, &  
INCLUSION REPORT**  
**From:** Meketa Investment Group
- 
- Recommendation:** **ACCEPT** informational report regarding the diversity representation of PFRS' Investment Managers as of December 31, 2023

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
INVESTMENT & FINANCIAL MATTERS COMMITTEE MEETING  
FEBRUARY 28, 2024

10. **Subject:** ASSET-LIABILITY STUDY OF THE PFRS FUND  
**From:** Meketa Investment Group
- 
- Recommendation:** **RECEIVE** informational report regarding options for an updated asset allocation distribution of the PFRS Fund and **DISCUSS** Meketa's recommendations based on the results of the 2023 Asset-Liability Study of the PFRS Fund. **RECOMMEND BOARD APPROVAL** of Meketa Investment Group's recommended course of action moving forward

11. SCHEDULE OF PENDING INVESTMENT COMMITTEE MEETING AGENDA ITEMS
12. NEW BUSINESS
13. OPEN FORUM
14. FUTURE SCHEDULING
15. ADJOURNMENT

**A MEETING OF THE INVESTMENT AND FINANCIAL MATTERS COMMITTEE** of the Oakland Police and Fire Retirement System (“PFRS”) was held Wednesday, January 31, 2024 , at One Frank H. Ogawa Plaza, Hearing Room 2, Oakland, CA.

Committee Members	▪ Jaime T. Godfrey	Chairperson (Excused)
	▪ Robert W. Nichelini	Member
	▪ R. Steven Wilkinson	Member & 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
	▪ Jeffrey Jackson	EARNEST Partners, LLC
	▪ Patmon Malcolm	EARNEST Partners, LLC

The meeting was called to order at 10:35 a.m. Pacific

**1. APPROVAL OF INVESTMENT & FINANCIAL MATTERS COMMITTEE MEETING MINUTES**

Member Nichelini made a motion to approve the December 6, 2023 Investment & Financial Matters Committee Meeting Minutes as submitted, 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 UPDATE: EARNEST PARTNERS, LLC**

Jeffrey Jackson and Patmon Malcolm of EARNEST Partners, LLC (EARNEST) presented an informational report regarding a firm overview and managerial assessment; diversity and inclusion policy and practices; investment strategy and portfolio performance of PFRS’ Domestic Equity Mid-Cap Core Investment Strategy.

Acting Chairperson Wilkinson and Investment & Plan Administrator Jones made inquiries to further the discussion regarding the following topics: the firm’s diversity and inclusion policy and culture, research process when evaluating prospective companies to add to the portfolio, investment strategy and how AI factors into that process.

**MOTION:** Member Nichelini made a motion to accept the informational report from EARNEST and forward to the Board, second by Acting Chairperson Wilkinson. Motion passed.

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

**3. INVESTMENT MANAGER PERFORMANCE REVIEW: EARNEST PARTNERS, LLC**

Paola Nealon of Meketa Investment Group (“Meketa”) presented an informational memo regarding a firm overview and managerial assessment; peer ranking; and investment portfolio performance of EARNEST, PFRS’ Domestic Equity Mid-Cap Core Investment Strategy. P. Nealon noted EARNEST’s performance has been solid; they rank above average relative to their peers; and there are no issues with the organization, investment philosophy, or process. Meketa has no concerns with the strategy at this time.

**MOTION:** Member Nichelini made a motion to accept Meketa’s evaluation of EARNEST and forward to the Board, second by Acting Chairperson Wilkinson. Motion passed.

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

**4. RESOLUTION NO. 8090**

A Resolution authorizing the execution of a one-year extension of professional services agreement with Earnest Partners, LLC for the provision of Domestic Equity Mid-Cap Core Investment Strategy Manager Services for the City of Oakland Police and Fire Retirement System.

**MOTION:** Member Nichelini made a motion to recommend Board approval of Resolution No. 8090, second by Acting Chairperson Wilkinson. Motion passed.

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

**5. ECONOMIC AND INVESTMENT MARKET OVERVIEW AS OF DECEMBER 31, 2023**

Paola Nealon of Meketa presented an informational report regarding the Economic and Investment Market Overview as of December 31, 2023, and highlighted Index Returns and Domestic Equity Returns and noted current factors impacting outcomes.

**MOTION:** Member Nichelini made a motion to accept the informational report presented by Meketa regarding the Economic and Investment Market Overview as of December 31, 2023, and forward to the Board, second by Acting Chairperson Wilkinson. Motion passed.

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

**6. PRELIMINARY INVESTMENT PERFORMANCE UPDATE AS OF DECEMBER 31, 2023**

Paola Nealon of Meketa presented an informational report regarding the Preliminary Investment Performance Update as of December 31, 2023 and highlighted the Asset Class Performance Summary and noted current factors impacting outcomes.

**MOTION:** Member Nichelini made a motion to accept the informational report presented by Meketa regarding the Preliminary Investment Performance Update as of December 31, 2023, and forward to the Board, second by Acting Chairperson Wilkinson. Motion passed.

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

**7. ASSET-LIABILITY STUDY OF THE PFRS FUND**

Acting Chairperson Wilkinson forwarded this item to the Full Board meeting. No action was taken on this item.

**8. SCHEDULE OF PENDING INVESTMENT COMMITTEE MEETING AGENDA ITEMS**

David Sancewich of Meketa presented the 2024 Strategic Investment Agenda Plan for review and discussion and noted, while not on the planning agenda today, February should include the next phase of the Asset Liability Study as the PFRS Board moves towards selecting an investment policy. No other changes or additions were proposed.

**9. NEW BUSINESS**

Member Wilkinson requested an educational item regarding investment opportunities in Africa be added to the February 28, 2024 PFRS Investment Committee meeting agenda and proposed the presentation be conducted via Zoom.

**MOTION:** Acting Chairperson Wilkinson made a motion to add the item to the February 28, 2024 PFRS Investment Committee meeting agenda, second by Member Nichelini. Motion passed.

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

**10. OPEN FORUM – No Report**

**11. FUTURE SCHEDULING**

The next PFRS Investment Committee Meeting will be held in-person and is tentatively scheduled to occur February 28, 2024 at One Frank Ogawa Plaza, Hearing Room 2, Oakland, CA.

**12. 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 11:27 a.m. Pacific

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

---

**DATE**

# City of Oakland Police & Fire Retirement System

RHJ Small Cap  
Opportunities Strategy

February 28, 2024



**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

**December 31, 2023**

Investment-led firm, founded in 1974

Firm AUM + AUA: \$2.0 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 31 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

32 institutional clients, representing 81% of assets



# Diversity

## Diversity Representation Survey for Oakland Police and Fire

DATA AS OF 12/31/2023

Firm Name	Rice Hall James & Associates, LLC
Product Name	RHJ Small Cap Opportunities
Total No. 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%	0.0%	0.0%**
Asian/Hawaiian/Pacific Islander	16.7%	7.4%	0.0%
Latino/Hispanic	0.0%	7.4%	6.7%
White	83.3%	81.5%	86.7%
American Indian/ Alaska Native	0.0%	3.7%	6.7%
Other	0.0%	0.0%	0.0%
<b>Gender</b>			
Male	66.7%	70.4%	80.0%
Female	33.3%	29.6%	20.0%
Non-Identified/Other	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%
	100.0%	100.0%	100.0%

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

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



# 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 31 years of investment experience and 24 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 December 31, 2023

## Portfolio Details

Inception Date: July 13, 2017

Initial Value: \$10,537,872.22

Market Value as of December 31, 2023: \$15,324,001.35

Net Flows Since Inception: (\$981,714.23)

	1 Year*	3 Years*	5 Years*	Since Inception* July 31, 2017
<b>Oakland Police &amp; Fire Ret System [Gross]</b>	<b>15.20%</b>	<b>0.68%</b>	<b>8.58%</b>	<b>7.69%</b>
<b>Oakland Police &amp; Fire Ret System [Net]</b>	<b>14.30%</b>	<b>-0.17%</b>	<b>7.61%</b>	<b>6.74%</b>
Russell 2000 Growth Index	18.66%	-3.50%	9.22%	7.10%

\*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, 2022. Please refer to important disclosures at the end of this presentation regarding the returns and index shown above.

# Oakland Police & Fire Retirement System

As of January 31, 2024

## Portfolio Details

Inception Date: July 13, 2017

Initial Value: \$10,537,872.22

Market Value as of January 31, 2024: \$15,097,915.91

Net Flows Since Inception: (\$981,714.23)

	1 Month	1 Year*	3 Years*	5 Years*	Since Inception* July 31, 2017
<b>Oakland Police &amp; Fire Ret System [Gross]</b>	<b>-1.47%</b>	<b>-0.41%</b>	<b>-1.11%</b>	<b>6.43%</b>	<b>7.34%</b>
<b>Oakland Police &amp; Fire Ret System [Net]</b>	<b>-1.67%</b>	<b>-1.22%</b>	<b>-1.94%</b>	<b>5.48%</b>	<b>6.37%</b>
Russell 2000 Growth Index	-3.21%	4.46%	-6.03%	6.17%	6.47%

\*Annualized

Source: FactSet



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# RHJ Attribution Report

## 1 Year Ending December 31, 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>15.19</b>	<b>15.19</b>	<b>100.00</b>	<b>18.66</b>	<b>18.66</b>	<b>0.40</b>	<b>-3.87</b>	<b>-3.47</b>
Financials	12.53	37.59	4.58	6.47	19.26	1.16	0.15	2.10	2.25
Consumer Discretionary	11.60	37.29	4.02	11.19	21.56	2.32	0.14	1.69	1.82
Energy	--	--	--	5.79	8.63	-0.01	0.87	--	0.87
Utilities	--	--	--	1.65	-2.42	-0.01	0.38	--	0.38
Real Estate	--	--	--	1.86	16.55	0.29	0.10	--	0.10
Industrials	19.09	23.24	3.99	19.88	24.22	4.64	-0.03	-0.22	-0.25
[Cash]	3.72	5.16	0.20	--	--	--	-0.44	--	-0.44
Materials	1.84	-32.96	-0.86	4.44	10.83	0.50	0.22	-1.08	-0.86
Consumer Staples	0.46	-28.68	-0.24	4.56	28.61	1.26	-0.44	-0.48	-0.92
Communication Services	9.82	3.47	0.27	2.22	17.52	0.43	-0.09	-1.33	-1.42
Health Care	27.25	6.96	2.11	22.23	11.27	2.73	-0.13	-1.42	-1.55
Information Technology	13.69	7.00	1.11	19.71	27.84	5.35	-0.32	-3.13	-3.45

Sources: FactSet, GICS Sector Classification, & FTSE Russell



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Past performance does not guarantee future results. Attribution results are based on sector returns, which are gross of fees and include reinvestment of all income. 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. Please refer to important disclosures at the end of this presentation regarding the index shown above.

# Top/Bottom 5 Contributors

## 1 Year Ending December 31, 2023 Contributors

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

Ticker		Average Weight	Total Return	Contribution To Return
<b>5 Highest</b>				
LRN	Stride, Inc.	3.96	89.80	3.03
DFIN	Donnelley Financial Solutions, Inc.	4.01	61.37	2.18
XPO	XPO, Inc.	1.71	163.11	1.76
ARLO	Arlo Technologies, Inc.	2.11	171.23	1.56
MEDP	Medpace Holdings, Inc.	3.44	44.31	1.47
<b>5 Lowest</b>				
ESTA	Establishment Labs Holdings, Inc.	0.92	-64.37	-1.51
APPS	Digital Turbine, Inc.	1.38	-54.99	-1.24
WNS	WNS (Holdings) Limited Sponsored ADR	4.44	-20.99	-1.18
NGVT	Ingevity Corporation	1.84	-32.96	-0.86
CMBM	Cambium Networks Corporation	0.57	-72.31	-0.82

Sources: FactSet, GICS Sector Classification, & FTSE Russell



# 2023 Transactions: RHJ Small Cap Opportunities

## 2023 Portfolio Purchases

Establishment Labs Holdings, Inc.	ESTA
Eventbrite, Inc.	EB
Karuna Therapeutics, Inc.	KRTX
Ritchie Bros. Auctioneers, Inc.	RBA
BioCryst Pharmaceuticals, Inc.	BCRX
Evolus, Inc.	EOLS
SiTime Corp.	SITM
Alkermes PLC	ALKS
Verona Pharma PLC	VRNA

## 2023 Portfolio Sales

Albireo Pharma, Inc.	ALBO
Fate Therapeutics, Inc.	FATE
IAA, Inc.	IAA
Rackspace Technology, Inc.	RXT
Strategic Education, Inc.	STRA
Medifast, Inc.	MED
Semtech Corp.	SMTC
MSC Industrial Direct Co., Inc.	MSM
Silicon Motion Technology Corp.	SIMO



# Small Cap Opportunities Portfolio

## As of December 31, 2023

### Communication Services

Eventbrite, Inc.  
Shutterstock, Inc.  
TechTarget, Inc.  
TKO Group Holdings, Inc.  
Ziff Davis, Inc.

8.7%

1.1%  
1.3%  
0.4%  
3.3%  
2.6%

### Consumer Discretionary

Beyond, Inc.  
Century Casinos, Inc.  
LCI Industries  
Pool Corp.  
Sleep Number Corp.  
Stride, Inc.  
Vail Resorts, Inc.

9.7%

0.4%  
0.4%  
1.5%  
1.4%  
0.2%  
4.4%  
1.3%

### Financials

Axos Financial, Inc.  
Bank OZK  
Donnelley Financial Solutions, Inc.  
Euronet Worldwide, Inc.  
Federal Agricultural Mortgage Corp.

13.6%

2.3%  
1.5%  
4.7%  
3.6%  
1.5%

### Health Care

ACADIA Pharmaceuticals, Inc.  
Alkermes Public Ltd. Co.  
Amicus Therapeutics, Inc.  
Ascendis Pharma  
BioCryst Pharmaceuticals, Inc.  
Doximity, Inc.  
Establishment Labs Holdings, Inc.  
Evolus, Inc.  
Insme, Inc.  
Iovance Biotherapeutics, Inc.  
Karuna Therapeutics, Inc.  
Kiniksa Pharmaceuticals Ltd.  
Ligand Pharmaceuticals, Inc.  
Medpace Holdings, Inc.  
Neurocrine Biosciences, Inc.  
OmniAb, Inc.  
OptiNose, Inc.  
Pacira Biosciences, Inc.  
Premier, Inc.  
Prestige Consumer Healthcare, Inc.  
Puma Biotechnology, Inc.  
Revance Therapeutics, Inc.  
Supernus Pharmaceuticals, Inc.  
Verona Pharma PLC

30.1%

2.0%  
0.1%  
1.2%  
1.9%  
0.9%  
1.9%  
1.4%  
0.7%  
0.5%  
1.0%  
1.4%  
0.8%  
1.4%  
3.5%  
1.6%  
1.1%  
0.1%  
2.8%  
0.5%  
3.4%  
0.1%  
0.5%  
1.0%  
0.7%

### Industrials

Armstrong World Industries, Inc.  
Franklin Covey Co.  
GXO Logistics, Inc.  
Masonite International Corp.  
MAXIMUS, Inc.  
PGT Innovations, Inc.  
RB Global, Inc.  
RXO, Inc.  
Willdan Group, Inc.  
WNS Holdings Ltd.  
XPO, Inc.

20.0%

2.1%  
1.4%  
0.6%  
3.2%  
1.7%  
2.1%  
1.2%  
0.6%  
0.6%  
4.0%  
2.4%

### Information Technology

ACI Worldwide, Inc.  
Arlo Technologies, Inc.  
Cambium Networks Corp.  
CEVA, Inc.  
Consensus Cloud Solutions, Inc.  
Digital Turbine, Inc.  
Ituran Location and Control Ltd.  
Qualys, Inc.  
Radware Ltd.  
SiTime Corp.  
SolarWinds Corp.  
Wix.com Ltd.

12.6%

4.1%  
2.5%  
0.1%  
0.8%  
0.4%  
0.9%  
0.2%  
0.8%  
1.0%  
0.5%  
0.2%  
1.2%

### Materials

Ingevity Corp.

1.4%

1.4%

Total Equity	96.1%
Total Cash	3.9%

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 December 31, 2023

	Small Cap Opportunities	Russell 2000 Growth Index
Communication Services	8.7%	2.2%
Consumer Discretionary	9.7%	11.1%
Consumer Staples	--%	4.5%
Energy	--%	4.5%
Financials	13.6%	6.4%
Health Care	30.1%	22.4%
Industrials	20.0%	20.0%
Information Technology	12.6%	21.7%
Materials	1.4%	4.2%
Real Estate	--%	1.7%
Utilities	--%	1.5%
[Cash]	3.9%	--%

Capitalization	Small Cap Opportunities	Russell 2000 Growth Index
>\$5 billion	29.0	25.2
\$2 billion- 5 billion	37.7	50.3
\$750 million- 2 billion	24.8	18.6
\$400 million- 750 million	7.1	3.8
<\$400 million	1.5	2.1

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.



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# Small Cap Opportunities Portfolio Characteristics

As of December 31, 2023

	RHJ Small Cap Opportunities	Russell 2000 Growth Index
Number of Holdings	65	1,074
Portfolio Turnover (3Y annual avg)	17.7%	--
Long-Term Earnings Growth Forecast	13.7%	16.3%
P/E - 1 Year Forecast*	16.4	18.2
Weighted Median Market Cap	\$3.04 billion	\$3.28 billion
Weighted Average Market Cap	\$4.06 billion	\$3.78 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 December 31, 2023

	4Q23	1 Year*	3 Year*	5 Year*	7 Year*	10 Year*	Since Inception* October 10, 1994*
RHJ Small Cap Opportunities [Gross]	13.69%	15.19%	0.62%	8.55%	8.88%	8.20%	12.52%
RHJ Small Cap Opportunities [Net]	13.50%	14.46%	-0.02%	7.84%	8.17%	7.52%	11.61%
Russell 2000 Growth Index	12.75%	18.66%	-3.50%	9.22%	8.08%	7.16%	7.63%

\*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, 2022. Please refer to important disclosures at the end of this presentation regarding the returns and index shown above.

# 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 sustainable competitive advantages** 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%	(42%)	(15%)	24%	39%	251%
	10% - 15%	(46%)	(31%)	8%	22%	65%
	5% - 10%	(40%)	(14%)	(16%)	(27%)	28%
	Less than 5%	(53%)	(41%)	(27%)	(30%)	(28%)

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.

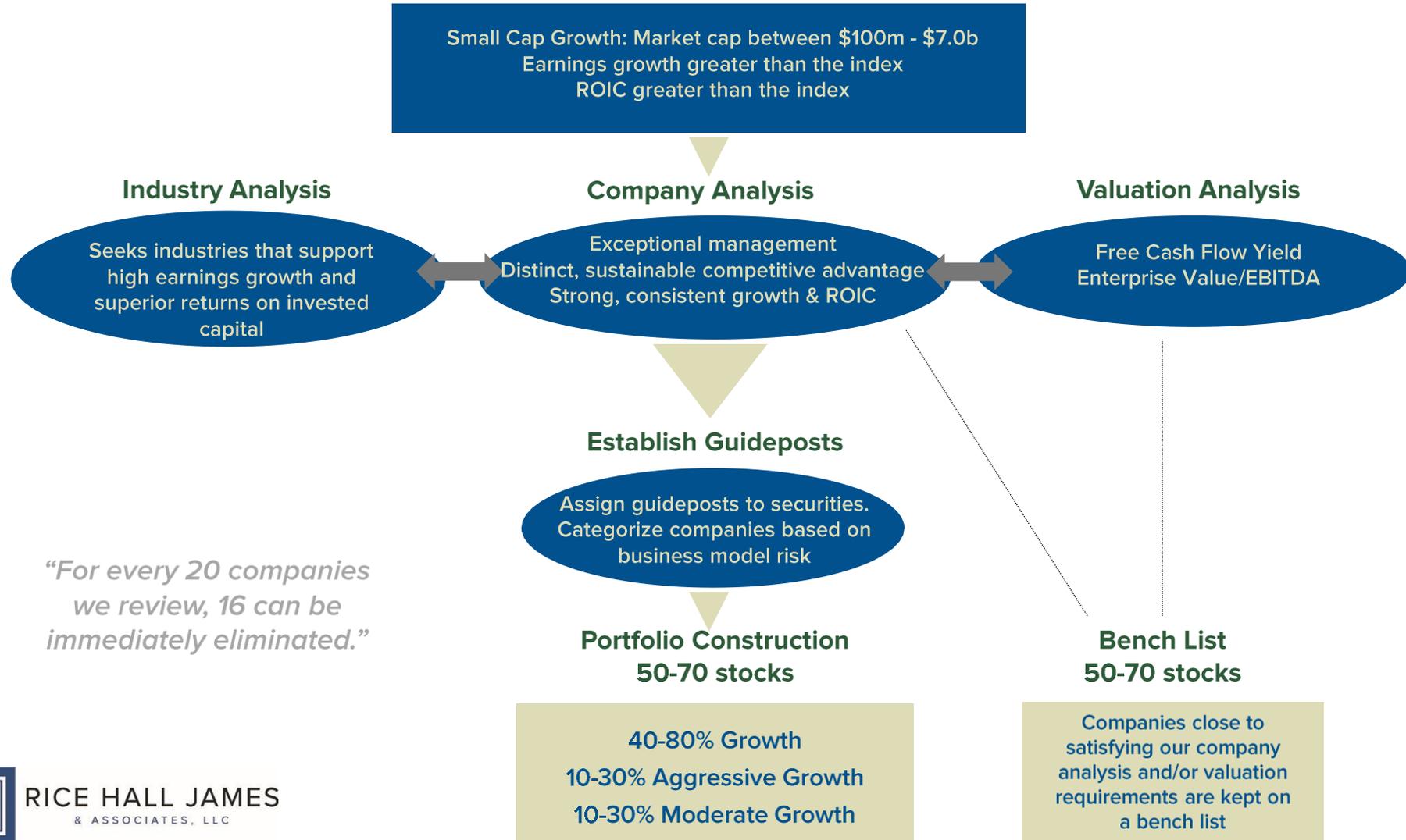
Sources: FactSet & FTSE Russell

Relative performance compares individual Russell<sup>®</sup> 2000 constituent performance vs. an equal-weighted index (Russell 2000) return. Only the Russell 2000 constituents (as of 12/31/2022) 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 12/31/2022. The Russell<sup>®</sup> 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<sup>®</sup> 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 31 years of investment experience and 24 years working together
- ▶ Proven long-term results with success through a variety of economic environments



# Small Cap Opportunities Composite Historical Returns

	Small Cap Opportunities [Gross]	Small Cap Opportunities [Net]	Russell 2000 Growth Index
2023	15.19 %	14.46 %	18.66 %
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 %



# Biographies

## Portfolio Management & Analysis Team

### **Lou Holtz, CFA**

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

Lou joined RHJ in October 2008 and has 32 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 29 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.

### **Carlos A. Salcedo, CFA**

#### ***Client Service & Marketing Associate***

Carlos joined RHJ in 2018 as an Operations Administrator focused on reconciliation, data integrity, and operational reporting. In May 2021, he joined the Client Service and Marketing Team and is currently responsible for a number of client service responsibilities, including portfolio analytics, client reporting, and data management. Prior to RHJ, Carlos was a Client Service Specialist at Dowling & Yahnke. He holds a B.A. degree in Economics from the University of California, San Diego. Carlos is a CFA charterholder. He is a member of CFA Society San Diego.



# Biographies

## Trading

### **Brandon Toney, CFA**

#### *Head of Trading*

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.

### **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.

### **Samantha Radillo**

#### *Equity Trading Associate*

Samantha joined RHJ in November 2023 as an Equity Trading Associate. She received a B.S. in Finance from San Diego State University in May 2023.



# 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 35 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 30 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 24 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
2022	-23.85%	-24.33%	-26.36%	0.14%	25.09%	26.20%
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%



# 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
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*	20.70%	20.39%	1.40%	N/A <sup>1</sup>		



# 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
2022	17	842	1,803	248	2,051	995	16	1,012
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>



# 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
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>



# 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, 2022. 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, 2022. 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:** February 28, 2024  
**RE:** Rice Hall James – Manager Update

### Manager: Rice Hall James

<b>Inception Date:</b>	August 2017	<b>OPFRS AUM (01/31/2024):</b>	\$15.1 million
<b>Strategy:</b>	Small Cap Opportunities	<b>Strategy AUM (12/31/2023):</b>	\$1.0 billion
<b>Benchmark:</b>	Russell 2000 Growth	<b>Firm-wide AUM (12/31/2023):</b>	\$1.7 billion

### Summary

Rice Hall James has managed a part of OPFRS's domestic equity portfolio since August 2017. As of 01/31/2024, the portfolio is approximately \$15.1 million or about 3.5% of OPFRS's Total Fund. Since last review in May 2023, the strategy has continued to perform within expectations and guidelines for the portfolio, and no major organizational changes or personnel turnover in the portfolio management team have been observed since the last review. **Therefore, Meketa does not have any major concerns with Rice Hall James and the Small Cap Opportunities strategy.**

### Investment Performance Review Summary

As of 01/31/2024, Rice Hall James Small Cap Opportunities strategy has outperformed its benchmark (Russell 2000 Growth Index) across all time periods except over the 1-year trailing period on gross of fees basis. On net of fees basis, it has outperformed its benchmark during the most recent quarter and over the 3-year trailing period, while trailing the benchmark over the 1- and 5-year periods, and since inception. In comparison with its peers in the eVestment US Small Cap Growth Equity (Net) universe, it has ranked average or above average during the most recent quarter and over the 3-year trailing period while ranking in the last quartile for the 1-year, 5-year, and since inception periods.

### OPFRS Portfolio Returns (as of 01/31/2024)<sup>1</sup>

Portfolio	Balance (\$000)	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	S.I. (%)	Inception Date
Rice Hall James (Gross)	15,101.0	-1.5	-0.4	-1.1	6.5	7.4	8/2017
<i>Russell 2000 Growth</i>	---	-3.2	4.5	-6.0	6.2	6.5	---
Excess Return	---	1.7	-4.9	4.9	0.3	0.9	---
Rice Hall James (Net)	15,101.0	-1.6	-1.3	-2.1	5.4	6.3	8/2017
<i>Russell 2000 Growth</i>	---	-3.2	4.5	-6.0	6.2	6.5	---
Excess Return	---	1.6	-5.8	3.9	-0.8	-0.2	---
Peer Group Rank (Net) <sup>2</sup>	---	42	86	50	89	91	---

<sup>1</sup> Performance is annualized for periods longer than one year. "S.I." signifies Since Inception.

<sup>2</sup> Peer group is eVestment US Small Cap Growth (Net) as of 01/31/2024.

## Product and Organization Review Summary

Rice Hall James	Areas of Potential Impact				
	Level of Concern	Investment Process	Investment Team	Performance Track Record	Team/Firm Culture
<b>Product</b>					
Key people changes	None				
Changes to team structure or individuals' roles	None				
Product client gain/losses	None				
Changes to 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 May 2023.

### Investment Philosophy & Process<sup>3</sup>

The RHJ Small Cap Opportunities team believes that superior risk-adjusted performance can be achieved by creating a diversified portfolio of companies that have three primary characteristics: above-average earnings growth, high or improving return on invested capital, and sustainable competitive advantages.

Having studied historical returns for small cap companies, they believe that earnings-per-share (EPS) growth alone is not a comprehensive determinant of outperformance relative to benchmark. However, over longer holding periods, companies exhibiting EPS growth in combination with high ROIC do consistently show strong outperformance relative to a benchmark. This observation informs the team's philosophy and the criteria they seek out for potential investments; they believe that a disciplined, fundamental, bottom-up research process best serves the search for these types of companies.

Since strong relative results tend to manifest over longer holding periods, they focus 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. This feature is consistent with their inclusion of only high-conviction, long-term ideas, and lower turnover could potentially mitigate unnecessary cost and transaction risk for clients within the scope of the mandate.

DS/PN/JLC/mn

<sup>3</sup> Source: eVestment, as of 12/31/2023.



## 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.



# AGENDA REPORT

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

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

**SUBJECT:** Expiration Notice of PFRS Investment Manager Service Agreement and Action to Extend Service Agreements

**DATE:** February 28, 2024

## SUMMARY

The Service Contract for the following Investment Manager for the Oakland Police & Fire Retirement Systems (PFRS) is set to expire March 1, 2024. The PFRS Board is asked to consider acting to extend the service agreement for this manager for one additional year pursuant to their service agreements.

## BACKGROUND

The Service Agreement for the following Investment Manager who provides services for the PFRS Board will expire shortly. The following table describes the investment manager contract:

Investment Manager	Investment Strategy	Date Entered Into Contract	Contract/Extension Expiration Date
Rice Hall James & Associates	Domestic Equity Small-Cap Growth	March 1, 2017	March 01, 2024

## RECOMMENDATION

Staff recommends that the PFRS Board approve the implementation of the relevant service agreement provision for the manager to extend the service agreement between the above mentioned PFRS Investment Manager and PFRS.

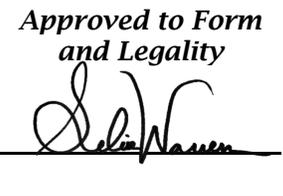
Respectfully submitted,

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

Attachment:  
(1) Resolution # 8093

Agenda Item C3  
PFRS Board of Administration Meeting  
February 28, 2024

OAKLAND POLICE AND FIRE RETIREMENT BOARD  
CITY OF OAKLAND, CALIFORNIA  
RESOLUTION No. 8093



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

**RESOLUTION TO AUTHORIZE A ONE-YEAR EXTENSION OF THE PROFESSIONAL SERVICES AGREEMENT WITH RICE HALL JAMES & ASSOCIATES FOR THE PROVISION OF DOMESTIC EQUITY SMALL-CAP GROWTH INVESTMENT STRATEGY MANAGER SERVICES FOR THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM COMMENCING MARCH 1, 2024 AND ENDING MARCH 1, 2025.**

**WHEREAS**, Article XVI §17 of the California Constitution, commonly referred to as the Pension Protection Act or Proposition 162, and Article XXVI of the Oakland City Charter (“Charter”) vest the Oakland Police and Fire Retirement System Board (“PFRS Board”) with exclusive control of the administration and investment of the assets of the Police and Fire Retirement Fund (the “Fund”); and

**WHEREAS**, the PFRS Board manages and administers the Police and Fire Retirement System (“PFRS”), pursuant to the requirements of Article XXVI of the Charter; and

**WHEREAS**, Charter section 2601(e) gives the Board power to make all necessary rules and regulation for its guidance and exclusive control of the administration and investment of the funds established for the maintenance and operation of the system; and

**WHEREAS**, Article XXVI of the Charter expressly authorizes the PFRS Board to secure competent investment counsel to provide advice and counsel regarding the investment of the Fund and further provides that discretionary powers granted to such investment counsel will be at the option of the Board; and

**WHEREAS**, on December 21, 2016, the PFRS Board passed a motion to enter into a professional service agreement (“the Agreement”) with Rice Hall James & Associates, LLC (“Investment Counsel”) to provide advice and counsel regarding investments of the assets of the Police and Fire Retirement Fund (“Fund”) for the provision of Domestic Equity Small-Cap Growth Investment Manager Services; and

**WHEREAS**, on February 22, 2017 the PFRS Board ratified the December 21, 2016 motion by approving Resolution No. 6942 authorizing the PFRS Board to enter into the Agreement with Investment Counsel for the provision of Domestic Equity Small-Cap Growth Investment Manager Services; and

**OAKLAND POLICE AND FIRE RETIREMENT BOARD**

CITY OF OAKLAND, CALIFORNIA

**RESOLUTION No. 8065**

**WHEREAS**, the Agreement between the PFRS Board and Investment Counsel commenced March 1, 2017 for a five-year term; and

**WHEREAS**, on March 30, 2022, the Board approved Resolution 8044 which authorized an amendment to the Agreement provision in Section IV(B) in order to (1) provide for unlimited one-year extension options under section iv(b) and (2) authorize a one-year extension of the professional services agreement for the provision of domestic equity small-cap growth investment manager services for the City of Oakland Police and Fire Retirement System; and

**WHEREAS**, on October 26, 2022, the Board approved Resolution 8065 which authorized a one-year extension of the professional services agreement for the provision of domestic equity small-cap growth investment manager services for the City of Oakland Police and Fire Retirement System; and

**WHEREAS**, the PFRS Board now wishes to exercise its option to renew the Agreement with Investment Counsel for an additional one-year term, commencing March 1, 2024, at the annual fee rate of 0.80 percent of the Fund assets under management (presently valued at approximately \$15 Million Dollars (\$15,000,000.00)), which fees are estimated to be approximately One Hundred Twenty Thousand Dollars (\$120,000.00); now, therefore, be it

**RESOLVED:** That the Board hereby authorizes a one-year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System and Rice Hall James & Associates, LLC for the provision of Domestic Equity Small-Cap Growth Investment Manager Services, commencing March 1, 2024 and ending March 1, 2025; and be it

**FURTHER RESOLVED:** That the President of the PFRS Board is hereby authorized to execute, on behalf of PFRS, a one-year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System and Rice Hall James & Associates, LLC.

IN BOARD MEETING, CITY HALL, OAKLAND, CA                     **FEBRUARY 28, 2024**                    

PASSED BY THE FOLLOWING VOTE:

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

NOES:

ABSTAIN:

ABSENT:

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

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



## **Board Presentation for:**

### **City of Oakland Police & fire Retirement System**

#### **Description: Earning Impact, Returns, and Diversification in Africa**

The main purpose of this Board presentation is for the presenters to make a brief case for making investments into Africa and highlight the opportunities that make the continent an investment destination.

The Board will understand how to maximize impact, returns, and overall portfolio diversification through investments in Africa. After a brief macro-overview by Prosper Africa and IIN, the participants will underscore the key role institutional investors, and pension funds in particular can play in achieving scale-level capital flows in the developing world to achieve global climate and impact goals. In turn, this should lead to an increase in allocations to Africa and emerging markets.

#### **Presenters:**

1. Joseph BOATENG, Chief Investment Officer, Casey Family Program
2. Papa Madiaw NDIAYE, Founder and Chief Executive Officer AFIG Fund
3. Cameron KHOSROUSHASHI, Senior Investment Advisor, Prosper Africa

# BIOGRAPHIES



**Joseph BOATENG, Chief Investment Officer, Casey Family Programs**

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Joseph Boateng is the Chief Investment Officer (CIO) at Casey Family Programs and joined as Casey's first CIO in 2007. He is responsible for overseeing the foundation's US\$2.2bn endowment in collaboration with Casey's Board of Trustees. Before joining Casey Family Programs, Mr. Boateng was a member of the Johnson & Johnson Investment Committee, responsible for managing over US\$17bn in employee benefit assets worldwide. Previously, Mr. Boateng was a Managing Consultant at KPMG Consulting, leading major derivatives, financing, and securitization projects. Mr. Boateng spent 13 years with the Xerox Corporation where he was a key member of the Trust Investment Team that managed US\$10bn assets worldwide. Mr. Boateng is a member of the International Accounting Standards Board's Financial Instruments Working Group and FASB/IASB Financial Institutions Advisory Group. He is Chair of the Investment Advisory Committee for the Seattle City Employees' Retirement System and a member of The Seattle Foundation's Investment Committee. He also serves on the Advisory Council for the African Private Equity and Venture Capital Association, the pan-African industry body which promotes and enables private investment in Africa.

Mr. Boateng received his Bachelor of Science degree from the University of Ghana in 1987 and his Masters in Business Administration degree from the University of California, Los Angeles in 1991. He is an alumnus of the Oxford University Said Business School. His professional designations include Chartered Financial Analyst, Certified Public Accountant, Chartered Global Management Accountant and Personal Financial Specialist.



## **Papa Madiaw NDIAYE, Founder and Chief Executive Officer AFIG Funds**

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Papa Madiaw Ndiaye is Founding Partner and Chief Executive Officer of AFIG Funds. AFIG Funds is a Mauritius registered private equity fund management company established in 2005 with its main office in Dakar (Senegal), and additional offices in Johannesburg (South Africa), and Washington D.C. (United States). AFIG Funds' maiden fund, the Atlantic Coast Regional Fund (ACRF), is a US\$122mn regional fund focused on growth equity investments targeting 29 countries in North, East, West and Central Africa. AFIG Funds has a portfolio of companies operating across a group of countries in sectors ranging from agro-chemicals to automotive assembly and including contract drilling services, financial services and petroleum products distribution.

Prior to AFIG Funds, Mr. Ndiaye was Investment Director at Emerging Markets Partnership in Washington. He was one of three partners to raise the US\$407mn AIG African Infrastructure Fund, which, when launched in 2000, was the largest ever pan-African fund. Before EMP, he held senior responsibilities for the International Finance Corporation's investment activities in financial institutions in Africa between 1996 and 2000 and helped to launch several landmark funds in Africa. Mr. Ndiaye spent the early part of his career at Salomon Brothers and joined JP Morgan's Emerging Markets Group in 1992.

In 1994, he launched JP Morgan's securities trading in Africa and the Middle East. In 2000, Mr. Ndiaye was named Special Advisor for Economic and Financial Affairs to the President of the Republic of Senegal and Chairman of the Senegalese Presidential Economic & Financial Advisory Council. In the same year, he launched MIDROC BVI, a direct investment vehicle for Sheikh Mohammed Al-Amoudi, a lead investor in the AIG African Infrastructure Fund. He serves on the Boards of a number of African companies and non-profit organizations involved with Africa. He holds an M.B.A. degree from the Wharton School of Business, an M.A. in International Affairs from the University of Pennsylvania's Lauder Institute, and a B.A. in Economics from Harvard College. In 2004, he was selected as a "Young Global Leader" by the World Economic Forum of Davos and then as one of the "Frontier 100 CEOs" of the Initiative for Global Development in 2009.



**Cameron KHOSROWSHASHI, Senior Investment Advisor, Prosper Africa**

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Cameron Khosrowshahi is an Emerging Markets and Blended Finance expert with over two decades of experience working with global corporations, institutional investors and local businesses in 20 countries. He is currently working in the Bureau for Economic Growth, Environment, and Education at the United States Agency for International Development (USAID).

Cameron is a founding member of USAID's Private Sector Engagement Hub, which drives the Agency's engagement policy with the private sector through structuring transactions that mobilizing private sector capital and expertise into priority emerging market sectors such as infrastructure, SME growth, agriculture, and clean energy. He directs the USAID INVEST mechanism, a \$167 million collaboration platform that aligns the skills and capital of donors, investors and corporates to achieve development outcomes. INVEST deploys USAID resources globally to create viable investment opportunities that produce both positive financial returns and social and environmental results

Cameron has designed and executed transactions and development projects in the areas of private equity and SME investment funds, sustainability and local business growth, project finance, municipal finance, early-stage finance, capital markets development, privatization, and workforce development.

He also served as a pre-launch member of the Power Africa Presidential Initiative and was part of a small USAID team that secured Power Africa's private sector commitments from investors and corporations totaling over \$20 billion.

Cameron's expertise extends to the IT sector as well, where he has served in the senior management of two Silicon Valley firms.

Cameron has traveled and lived extensively in Africa, the Middle East and North Africa. He speaks Arabic, Farsi and French.



**AFIG Funds Overview**  
*Prepared for City of Oakland Police & Fire  
Retirement System*  
*February 2024*



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# We Invest in a Growing Market with Great Promise

## African alternatives can generate outsized risk-adjusted returns:

- Over the past several years, **emerging markets** have taken an **increasingly more significant** role in alternative investments
- Recently, **Africa** has started to carve a place for itself, given **strong economic growth fundamentals** (countries with high GDP growth, urbanization, young labor population)
- This is why we at AFIG Funds chose to **invest in Africa** and African entrepreneurs
  - We have built a team with the specific skills to help local entrepreneurs accelerate the growth of their business
- The **next decade will be even more attractive** for Africa, our target market, and we see great promise for future investments



# Africa is at an exciting turning point in its economic journey - 1

Africans are experiencing a new phase of their socio-political and economic emancipation which goes beyond a few coups d'état

- **Africa has changed and is changing**
  - Continent in transition and at work.
  - Africa is the oldest continent, where all humanity comes from. Today, it is the youngest in terms of population
  - By the end of the century, Africa will be the most populated continent
  - **One in four human beings will be African in barely 25 years**
  - **Africa has 65% of the world's arable land: It can feed the planet !**
  - **It is essential to the world's green transition with 30% of the world's critical minerals**
  - But beyond all this, Africans are working hard – in 2024 six of the ten fastest growing economies will be African.
  - The number of African millionaires is expected to double within three years.
  - Over the next 5 years, Hilton will open 65 new hotels in Africa
  - **The continent is building the largest free trade zone in the world**



## Africa is at an exciting turning point in its economic journey - 2

---

**Africa's transformation is a real renaissance with economic, socio-political and cultural ramifications**

- **A middle class is emerging, and it is educated.**
  - That means customers with more cell phones which is more than Europe and America combined
  - Africans are experiencing an unprecedented digital revolution
- **The very same African consumers are also at the origin of a political transformation** where Africans speak with their own voice and despite the normal hiccup in a democratic transition, the continent is irreversibly moving forward
- **The transformation is also cultural.** the New York Times recently published that Nigerian singer Burna Boy was in 2023, the first African to play to a sold-out audience in an 80,000-seat American stadium. African music is now played in all popular radio stations in the United States



## Africa is at an exciting turning point in its economic journey - 3

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- **The new Africa no longer speaks the language of development aid:** the money that the diaspora sends to Africa has far exceeded development aid.
- **Yet the impact of artificial intelligence has not been truly felt yet while only 43 people live on every square kilometer in Africa**
  - This is three times less than the European Union - Africa is underpopulated and VERY PROMISING with a renaissance on the way



# Expertise Is Key -- AFIG Funds' Three Partners Have One of the Longest Track Record Investing in EM and Africa

1

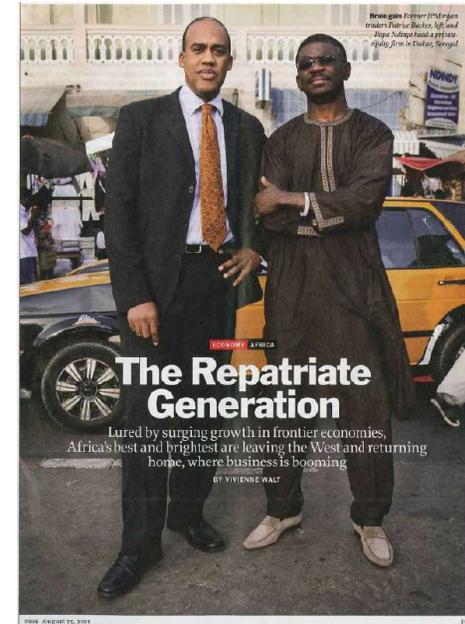
Papa Madiaw Ndiaye (CEO) and Patrice Backer's (CIO) **long-term relationship** and shared involvement with Africa for last 39 years

2

Papa's **track record and leadership** on investing in African PE helped us seize the opportunity

3

Our belief in the sustainability of the **African economic growth story**



*Papa and Patrice featured in Time Magazine in August 2011*

These factors pushed us to establish AFIG Funds and have subsequently shaped our investment strategy



# Investment Success in Africa Requires Innovation and Strong Local Presence

## Key Success Factors in Africa Investment

- First independent GPs owned and led by Africans
- One of the first PE fund managers of scale based locally in Africa, not London or Johannesburg
- We decided that to maximize alpha required being equally competent across language and cultural lines
- Risk mitigation enhanced by one of the most geographically diverse portfolios in Africa
- Most diverse team in African PE and committed to promoting women, particularly in portfolio companies

## AFIG Funds At a Glance

AFIG Fund II target region:



**\$267m**

AFIG Funds AUM  
(AFIG Fund I and II)

**\$10-20m+**

Typical check size of  
AFIG Fund II

**3 years**

Full commitment of AFIG Fund II, rapid  
deployment 2 years ahead of schedule

## AFIG Funds Team: 10 Nationalities

Global experience



**Salomon Brothers**



J.P.Morgan



ARDIAN

ARM



LAZARD

Best-in-class education

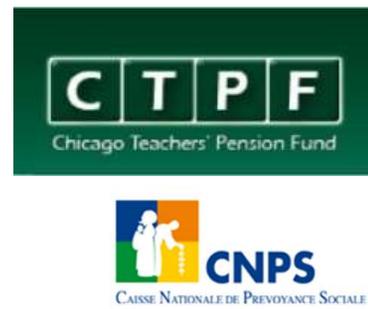


HARVARD  
BUSINESS SCHOOL



# Diverse Global Investors with Deep Experience in African PE

- AFIG Funds' investors include some of the most active investors in African private equity, as well as American and African pension funds.
- We received Chicago Teachers' Pension Fund's first allocation to Africa in a competitive process among 24 managers from around the world

	<table border="0"> <tr> <td>Global</td> <td rowspan="2">Development Finance Institutions (DFIs)</td> </tr> <tr> <td>Africa</td> </tr> </table>	Global	Development Finance Institutions (DFIs)	Africa		<table border="0"> <tr> <td>U.S.</td> <td rowspan="2">Pension Funds</td> </tr> <tr> <td>Africa</td> </tr> </table>	U.S.	Pension Funds	Africa
Global	Development Finance Institutions (DFIs)								
Africa									
U.S.	Pension Funds								
Africa									

- DFIs are *the most experienced investors* in African PE, and the investors with the largest portfolio of African funds
- Our DFI investors have invested in AFIG Funds three times over the past 11 years

- We received one of the first PE allocations of Cote d'Ivoire's national security fund (CNPS)

	<table border="0"> <tr> <td>U.S.</td> <td rowspan="2">Fund of Funds</td> </tr> <tr> <td>Africa</td> </tr> </table>	U.S.	Fund of Funds	Africa		<table border="0"> <tr> <td>Africa</td> <td>Insurance Companies</td> </tr> </table>	Africa	Insurance Companies
U.S.	Fund of Funds							
Africa								
Africa	Insurance Companies							

AFIG Funds' current investors collectively manage over USD 800 billion of assets



# Portfolio: Successful Investors Must Be at Home Everywhere in Africa

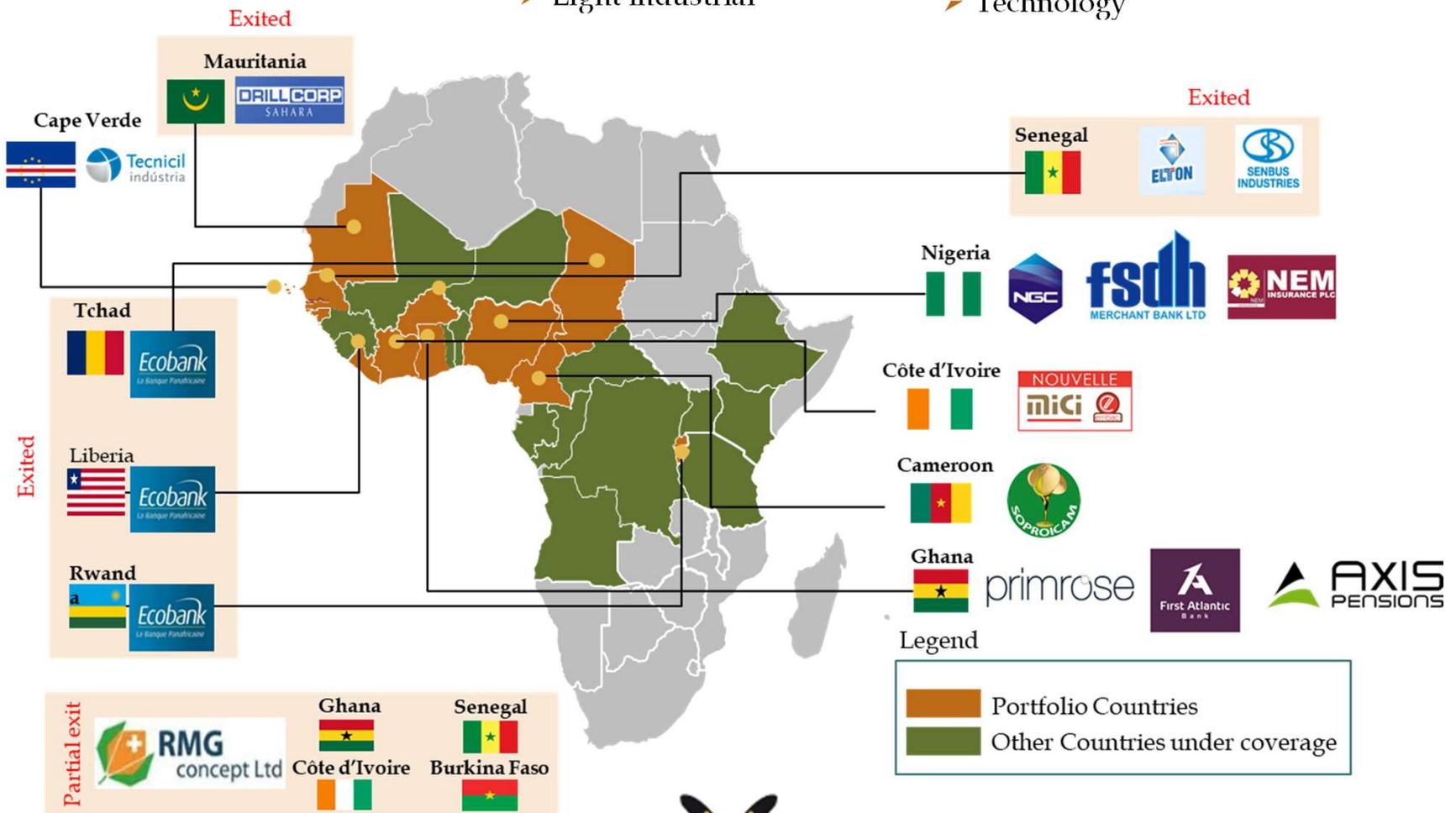
Our portfolio is diversified among sectors and countries across the continent

## Investments

- **Companies:** 16
- **Countries:** 12
- **Exits:** 7

## Sectors

- Financial services
- Agribusiness
- Downstream oil and gas
- Food and beverages
- Light industrial
- Mining services
- Pharmaceuticals
- Real estate
- Packaging
- Technology



# Our Fund Targets Strong Risk-Adjusted Return

## To achieve strong risk-adjusted returns:

- The greatest alpha source is from **African entrepreneurs, who will take ever more center stage in the African growth story**
- Always be selective and pick companies for which our **value-added approach is at least as important as our capital**
- **Negotiate low entry valuation** as a first step toward high ROI



*Senbus, Senegal*



*RMG Concept, Ghana*

AFIG Fund II  
was  
committed 2  
years ahead of  
schedule

It has invested  
in companies  
which are #1  
or #2 in their  
markets, at  
low valuations

We are  
confident that  
Fund II will  
earn  
significant  
risk-adjusted  
returns



# Keys to Strong Returns: *Anchored on Adding Value at Every Step*

We have a structured philosophy around sourcing, execution, and portfolio value-add which we believe helps us identify and grow the best companies.



In a competitive market, entrepreneurs choose to **work with us for our value-add capability.**



## Value Addition: Case Studies of Portfolio Companies

- Securing advantageous investment opportunities demands both global insight and nuanced local expertise, alongside a robust network. Such a foundation is essential to negotiate favorable terms, including entry pricing and investment structures that safeguard Limited Partners' interests.
- The bigger challenge is to engineer an effective growth and expansion strategy for all these companies below are a few examples of value add that we have executed

Beverage company which produces bottled water, carbonated soft drinks, juice, milk, and yogurt.

### Value Add

- Formalized governance
- Introduced to global strategic partner for potential partnership and exit
- Linked to West African candidates for a managing director who can double sales through exports
- Helped identify and negotiate favorable financing for additional capital needs

Commercial bank is fast-growing full-service bank which provides services to retail and corporate clients.

### Value Add

- Led the fundraising of USD 45m to meet increased minimum capital requirements by the central bank of Ghana, drawing on our network
- Helped restructure HR systems for employee by instituting bonuses and incentives schemes
- Helping expand regionally via acquisition

Pharmaceutical company which manufactures pharmaceutical and FMCG (soft drinks and water).

### Value Add

- Implemented a turnaround in sales & operations, finance, and debt restructuring
- Oversaw 400+ hiring and firing decisions via our operating consultant, who was embedded in the Company
- Led the restructuring of the Board with the constitution of the Transformation Committee



# AFIG Fund II Performance: Strong 3-Year Run for our Portfolio

- Our portfolio continues a strong run-in topline growth and profitability over the past 3 years
- Portfolio companies exhibited strong performance across the board in terms of: Revenues, Shareholders' Funds (financial companies), and EBITDA (non-financial companies):

**Revenues: +28.5% 3-Yr CAGR**

**Shareholders Funds: +16.3% 3-Yr CAGR**

**EBITDA: +30% 3-Yr CAGR**

Cape Verde



**Tecnical**  
indústria

- Sector: FMCG / Beverages
- Investment date: April 2017

Nigeria



- Sector: Insurance
- Investment date: December 2018

Ghana



- Sector: Commercial Banking
- Investment date: January 2018

Ghana



- Sector: Technology
- Investment date: May 2019

Cote d'Ivoire

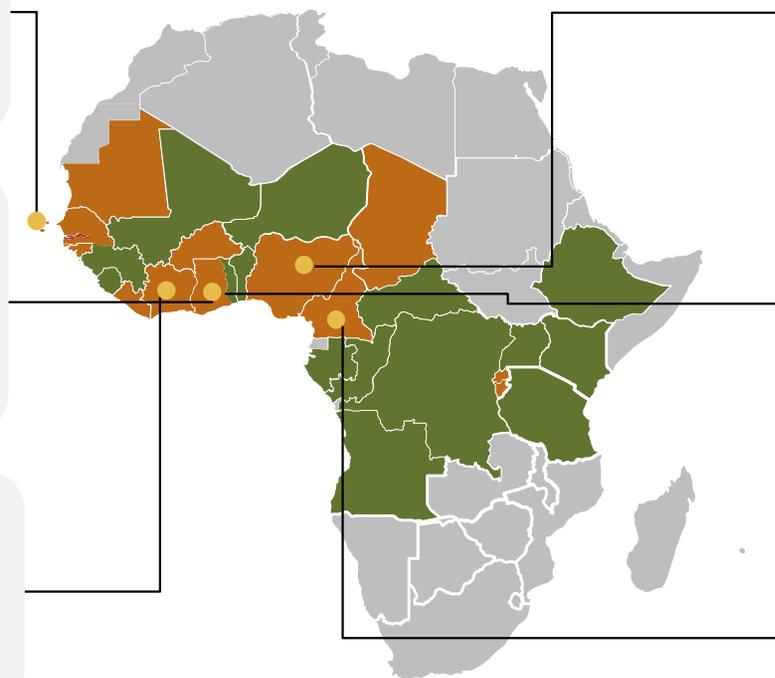


- Sector: Packaging
- Investment date: August 2019

Cameroon



- Sector: Agribusiness
- Investment date: April 2020



- Portfolio Countries
- Other Countries under coverage



# We Are Structured to Mitigate Currency and Political Risk

Overview

Investment Strategy

AFIG Fund II

Key Risks and Mitigants

Looking Ahead

## Strategies to Mitigate Currency Risk

1

### Get cash back early

Through structuring of quasi-equity instruments and favorable dividend policies.

2

### Source high-growth companies

Invest in companies with projected topline growth of 20% per year or more.

3

### Diversified currency exposure

Invest across different currencies, including currencies which are pegged to a hard currency (e.g., XOF).

4

### Entry price negotiated in local currency

To avoid downside if there is rapid devaluation while the deal is being executed.

## Considerations on Political Risk



1999: coup in Cote d'Ivoire



2016: opposition wins democratic election in Ghana

- In most major African economies, political risk has shifted from unpredictable coups to slowdowns stemming from elections
- We invest only in non-politically-exposed companies and entrepreneurs

## Case Study: Ecobank (Financial Services)



- Exited in the middle of Ebola outbreak in Liberia due to favorable structuring
- Earned back 66% of investment in the first 3 years, before exit (Ecobank Tchad)



# Exit Strategies: Multiple Exit Avenues, Proven Through Experience

We have exited 7 companies in our vintage 2008 Fund I. We have successfully exited from some of the toughest markets in Africa, such as Chad and Liberia.

Strategic Sale	Financial Sale	Put Option	Self-liquidating	Listing
<ul style="list-style-type: none"> <li>▪ We receive inbound interest from strategics looking to expand in Africa (Asian, American, European)</li> <li>▪ Many strategic investors are open to significant minority stakes</li> <li>▪ PE value-add of clean accounting, improved corporate governance, and good E&amp;S practices are valued</li> <li>▪ We start exit conversations with strategics as soon as we make an investment</li> </ul> 	<ul style="list-style-type: none"> <li>▪ Other financial buyers think like us and also ascribe value to good corporate governance, etc.</li> <li>▪ Our portfolio companies can be of interest to larger African funds, especially once we help them scale</li> </ul> 	<ul style="list-style-type: none"> <li>▪ Often, entrepreneurs prefer to have the option to buy back shares and re-attain full control over the companies they founded</li> <li>▪ We negotiate put options as a backstop, at a price advantageous to us</li> <li>▪ We protect ourselves from counterparty risk, for example with a drag</li> </ul> 	<ul style="list-style-type: none"> <li>▪ These include mezzanine and convertible debt instruments</li> <li>▪ They are usually structured with return-enhancing terms such as kickers, income participation features, etc.</li> <li>▪ They can earn upwards of 2.0 TMB</li> </ul> 	<ul style="list-style-type: none"> <li>▪ We monitor key stock exchanges in our target region weekly, and have a partnership with BRVM, the francophone West African stock exchange</li> <li>▪ We hope to effect a listing from one of our promising portfolio companies in Fund II</li> </ul>



# We Are Excited About Africa's Future for Investment

Overview

Investment Strategy

AFIG Fund II

Key Risks and Mitigants

Looking Ahead

- AFIG Fund II was one of the fastest-deploying funds in Africa
  - Our portfolio companies and target companies are performing well; our value-add and monitoring is bearing fruit
  - We have structured innovative and pioneering structures, including the first LBO in French-speaking Africa and the first convertible bond in Central Africa
- We will keep the **City of Oakland PFRS** updated on our upcoming fundraising plans
- Thanks for the opportunity to present AFIG Funds to you





AFIG  
FUNDS

[WWW.AFIGFUNDS.COM](http://WWW.AFIGFUNDS.COM)



# INVESTING IN AFRICA'S DIGITAL ECONOMY

Eric M.K Osiakwan

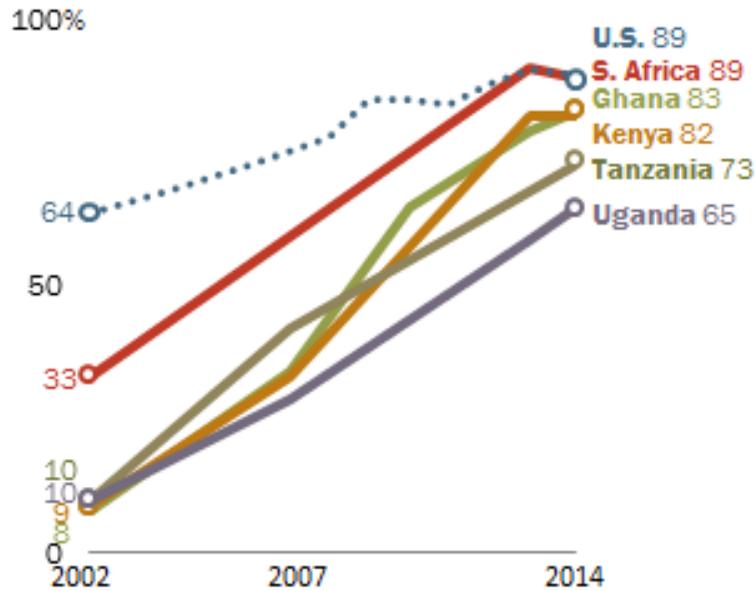
US PENSION FUNDS TRUSTEES

# DIGITAL DIVIDE TO DIGITAL ECONOMY IN 3 DECADES

## MOBILE FIRST => MOBILE AFRICA

### Cell Phone Ownership Surges in Africa

Adults who own a cell phone

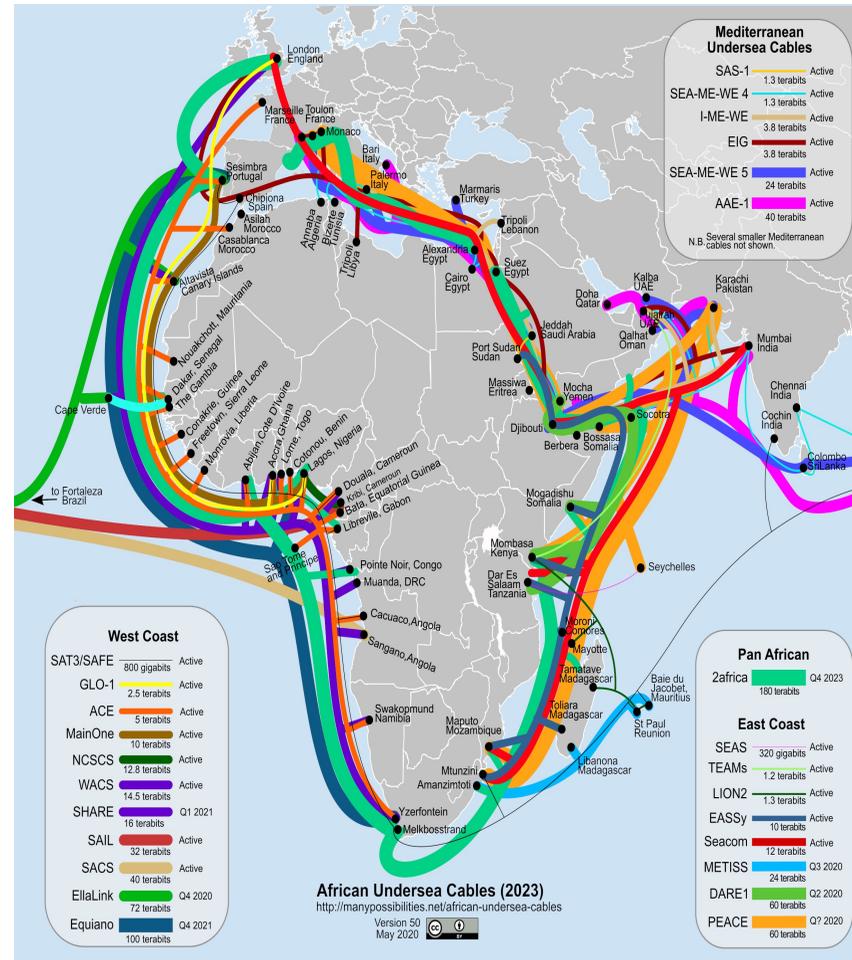


Note: U.S. data from Pew Research Center surveys.

Source: Spring 2014 Global Attitudes survey. Q68.

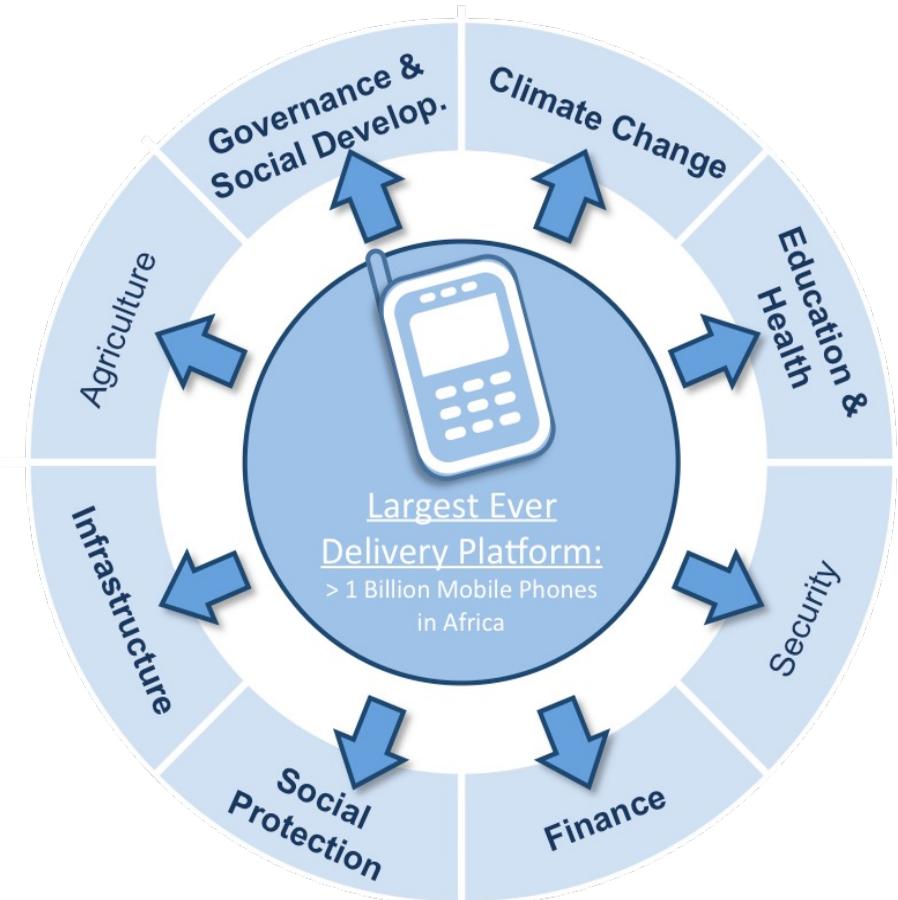
PEW RESEARCH CENTER

## FIBER SECOND => MOBILE BROADBAND



SAT-3/WASC/SAFE started in 2001 – PPP

## MOBILE WEB => DIGITAL ECONOMY



Worldbank digital economy for Africa initiative at:  
<https://www.worldbank.org/en/programs/all-africa-digital-transformation>

Startups Proliferated in 2010 – Private Sector

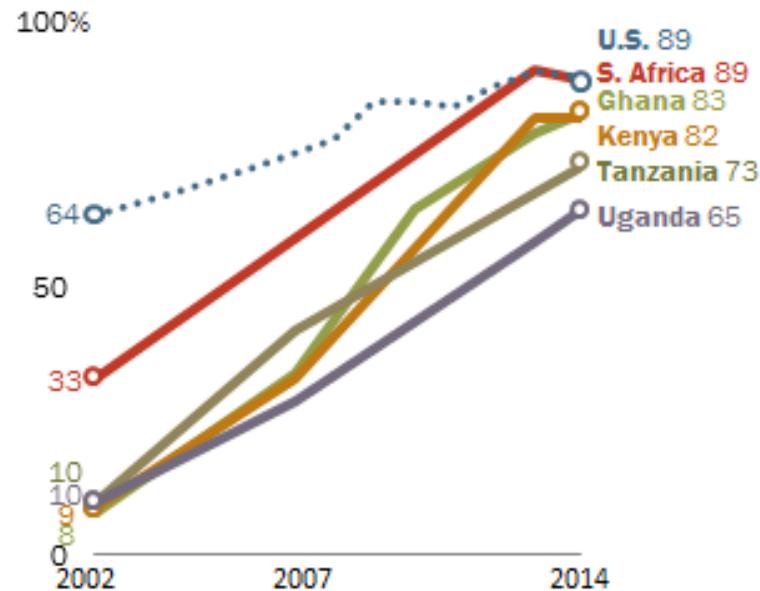
Telecel started in 1986 in Zaire – Private Sector

# MOBILE AND ISP REVOLUTION – 1993 TO 2003

## MOBILE OWNERSHIP

### Cell Phone Ownership Surges in Africa

Adults who own a cell phone



Note: U.S. data from Pew Research Center surveys.

Source: Spring 2014 Global Attitudes survey, Q68.

PEW RESEARCH CENTER

Mobile phones adoption in Africa is a mystery

## MOBILE NETWORK OPERATORS - MNOs



Exponential mobile growth in a decade

## INTERNET SERVICE PROVIDERS - ISPs



Many ISPs were established to provide access to the Internet across Africa. The African ISP Association (AfrISPA) was founded in 2002 by Eric Osiakwan from Ghana, Brian Longwe from Kenya and William Stucke from South Africa as a trade body representing the ISP industry.

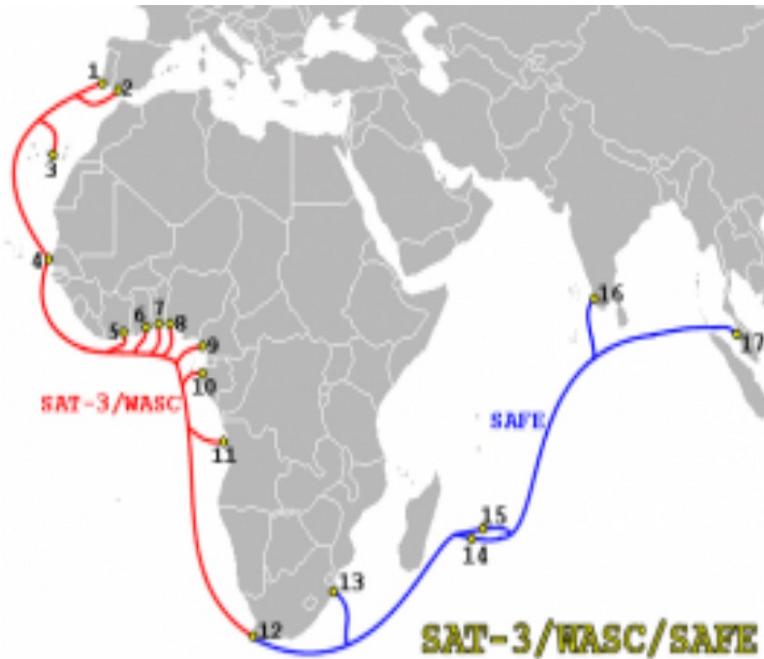
AfrISPA led the development of critical Internet infrastructure like ISP Associations (ISPAs), Internet eXchange Points (IXPs) and Regional eXchange Points (RXPs).

AfrISPA started the Africa Internet eXchange System (AXIS) which is now an African Union (AU) funded project across the continent.

Africa ISP Association – AfrISPA

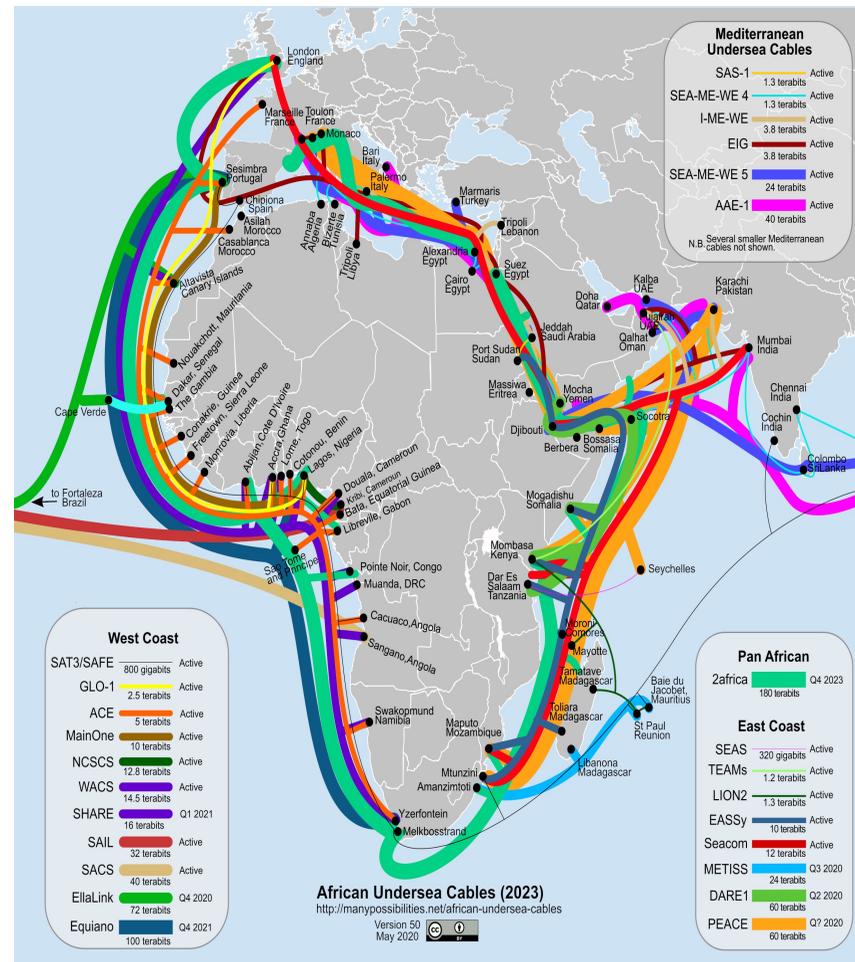
# OPEN ACCESS FIBER INFRASTRUCTURE – 2003 TO 2013

## SAT-3/WASC/SAFE - 2003



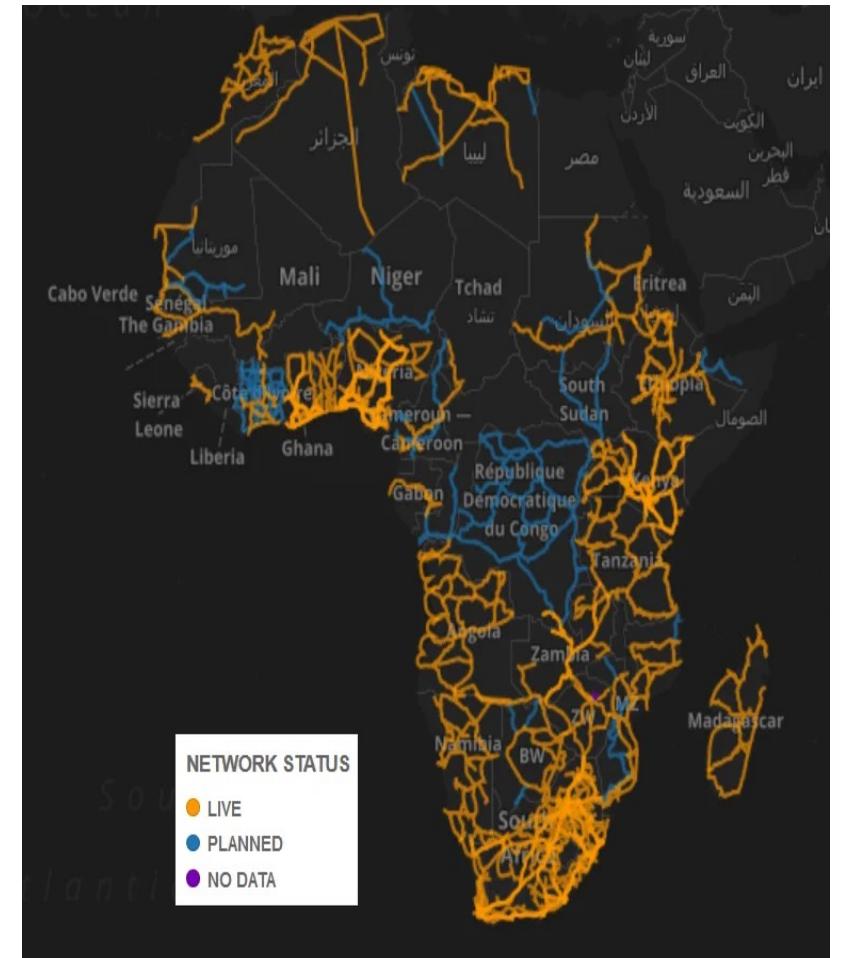
Closed Club Consortium model

## SUBMARINE FIBER



Open Access model

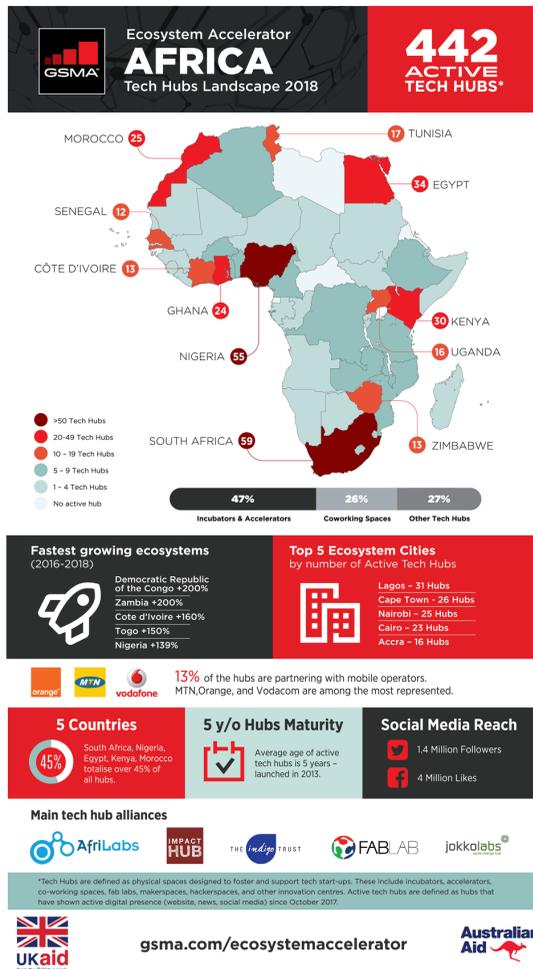
## TERRESTRIAL FIBER



Majority are Open Access model

# MOBILE WEB APPLICATIONS – 2013 TO 2023

## INNOVATION HUBS IN AFRICA



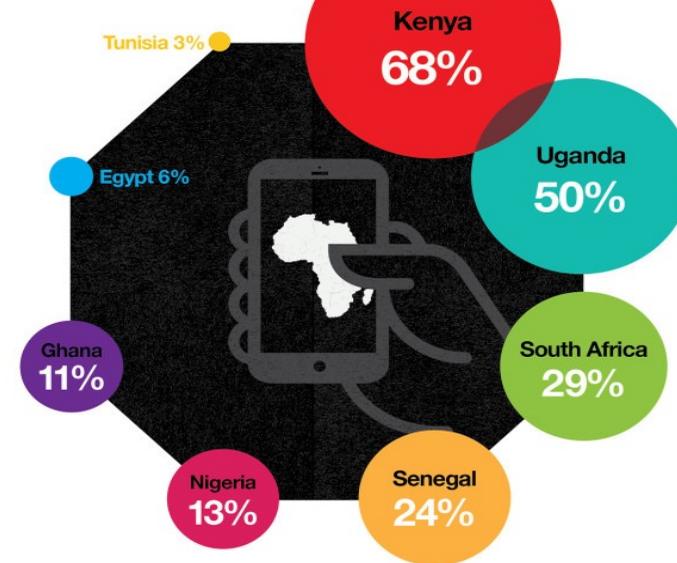
Mobile web applications are built here

## MOBILE MONEY

### Mobile Payments in Africa

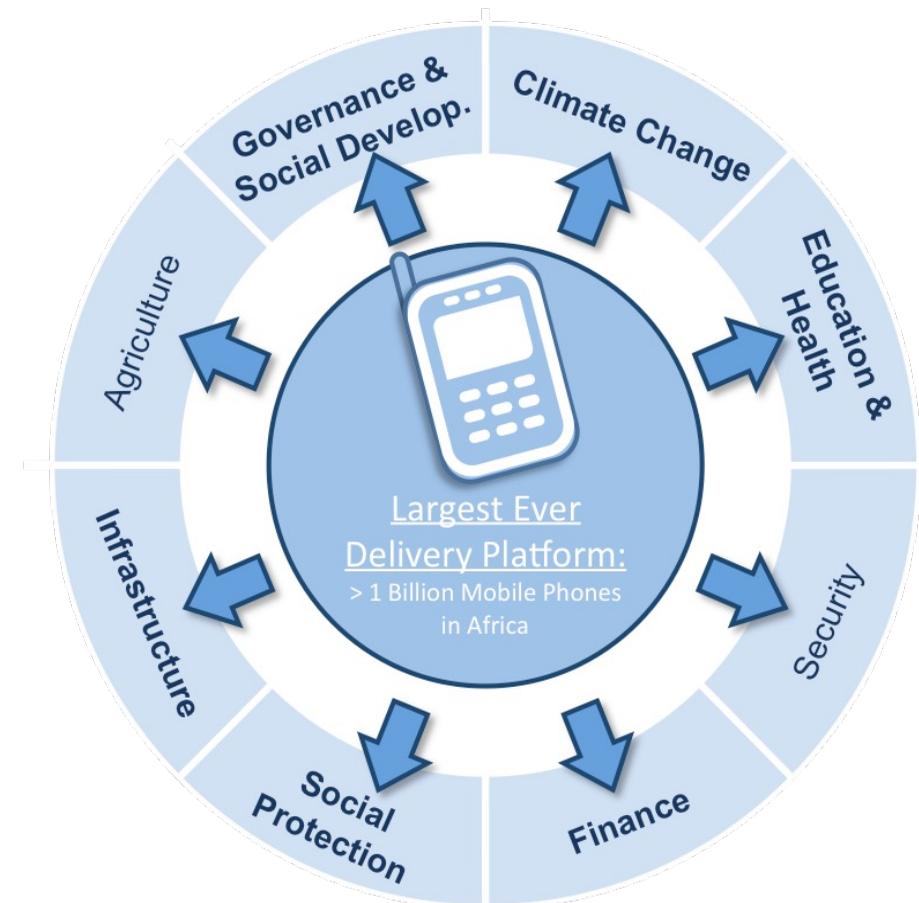
Percentage of mobile phone users who regularly make or receive payments on their phones.

**11% WORLDWIDE MOBILE PAYMENT AVERAGE**



Mobile Money (MoMo) is the widest used app

## MOBILE WEB DIGITAL ECONOMY



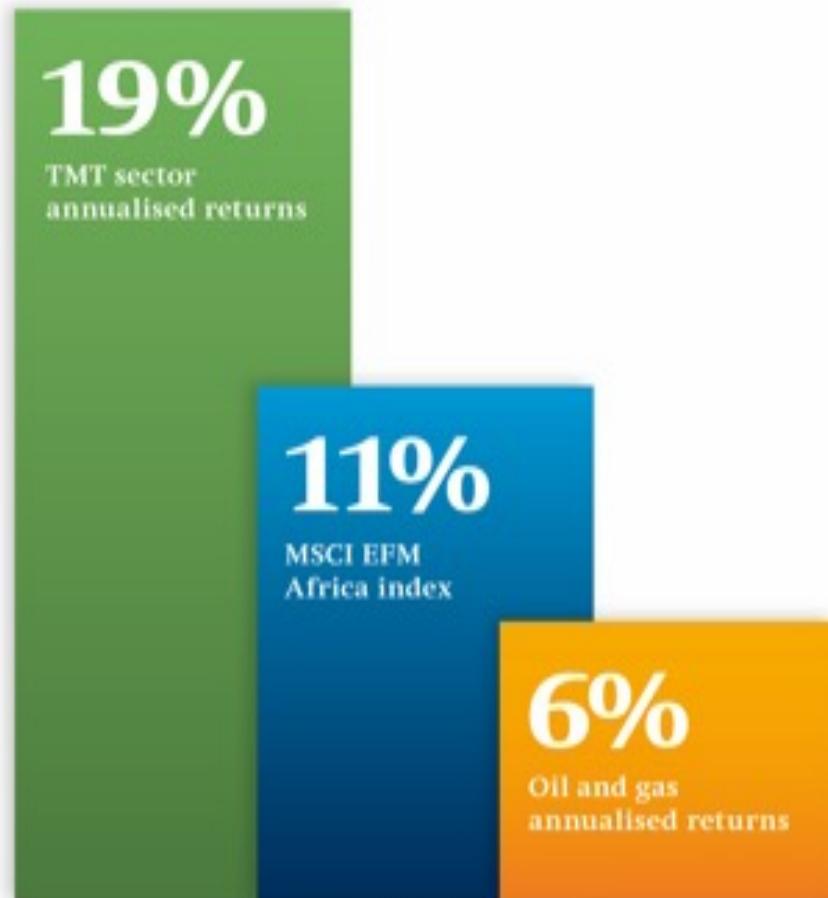
Worldbank digital economy for Africa initiative at: <https://www.worldbank.org/en/programs/all-africa-digital-transformation>

Startups Proliferated in 2010 – Private Sector

# TELECOM, MEDIA & TECHNOLOGY OUTPERFORMS O&G

## Africa poised for tech take-off

as continent's leading TMT companies outperform other sectors over the past decade



Annualized returns over ten-year period since 2004: [http://news.freshfields.com/en/Global/r/2305/africa\\_poised\\_for\\_tech\\_take-off\\_as\\_continent\\_s\\_leading\\_tmt/](http://news.freshfields.com/en/Global/r/2305/africa_poised_for_tech_take-off_as_continent_s_leading_tmt/)

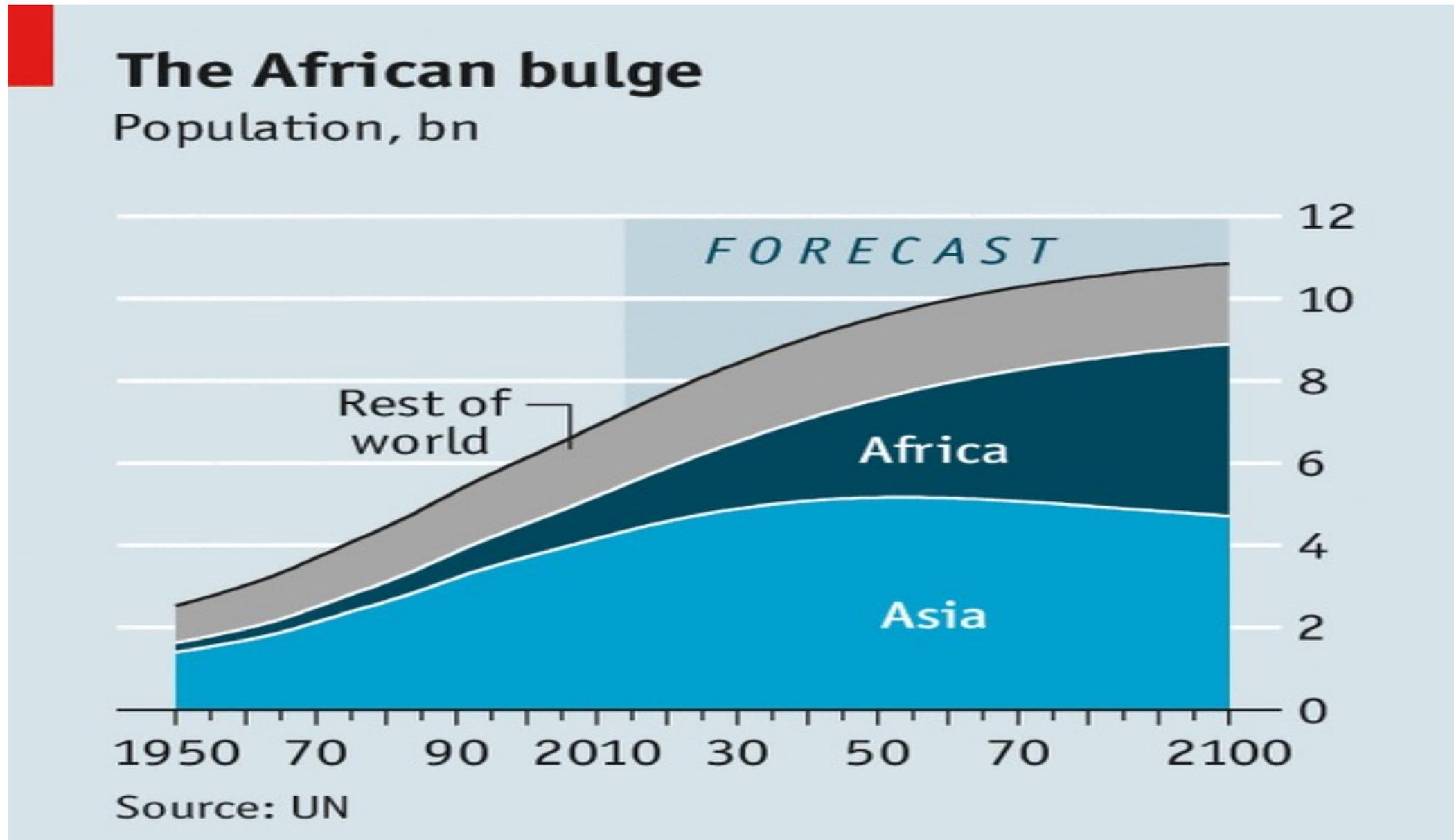
# CONTRIBUTION TO GDP GROWTH



<b>Ghana</b>	<b>GDP Growth</b>
<b>1. Information and Communication</b>	<b>239%</b>
<b>2. Financial and Insurance</b>	<b>85%</b>
<b>3. Healthcare</b>	<b>58%</b>
<b>Kenya</b>	<b>GDP Growth</b>
<b>1. Construction</b>	<b>65%</b>
<b>2. Information and Communication</b>	<b>57%</b>
<b>3. Electricity and Water</b>	<b>51%</b>

Africa's economic growth rides on wireless rails available at: <https://www.bloomberg.com/view/articles/2017-11-13/african-economic-growth-rides-on-wireless-rails>

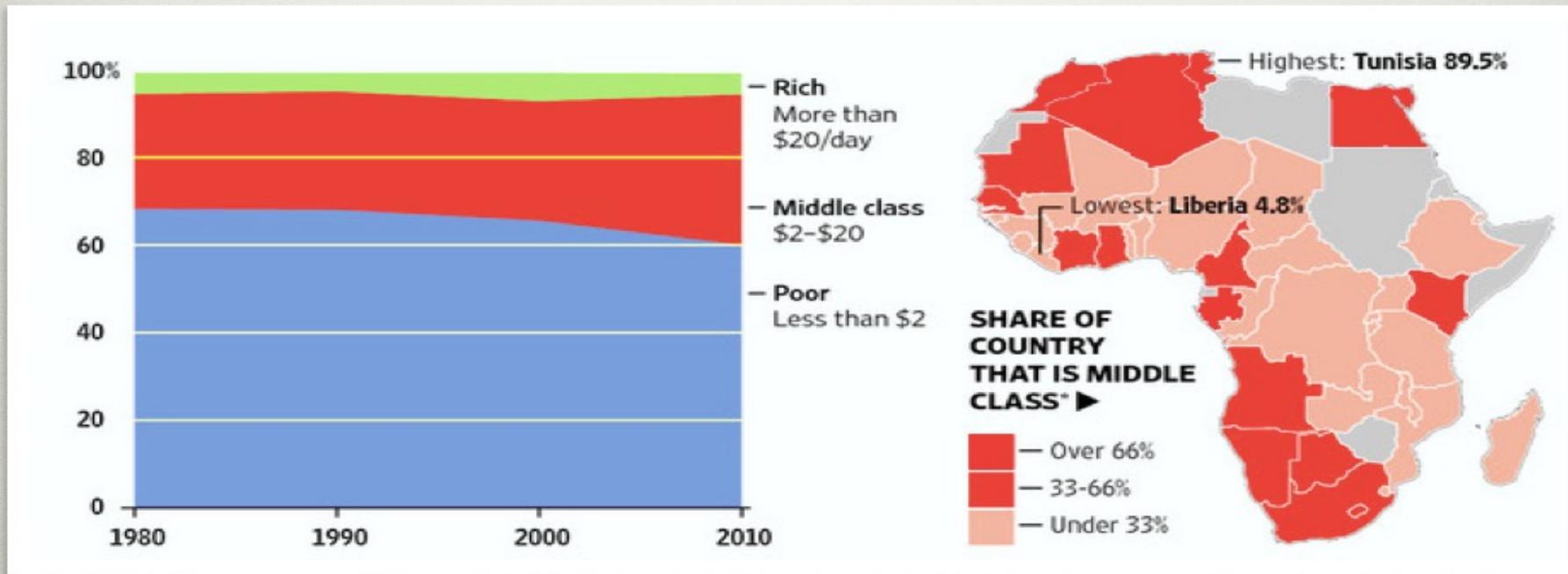
# GROWING YOUTHFUL POPULATION



Africa's population is going to lead the world by 2100: <https://www.economist.com/middle-east-and-africa/2014/08/23/can-it-survive-such-speedy-growth>

# EMERGING MIDDLE CLASS

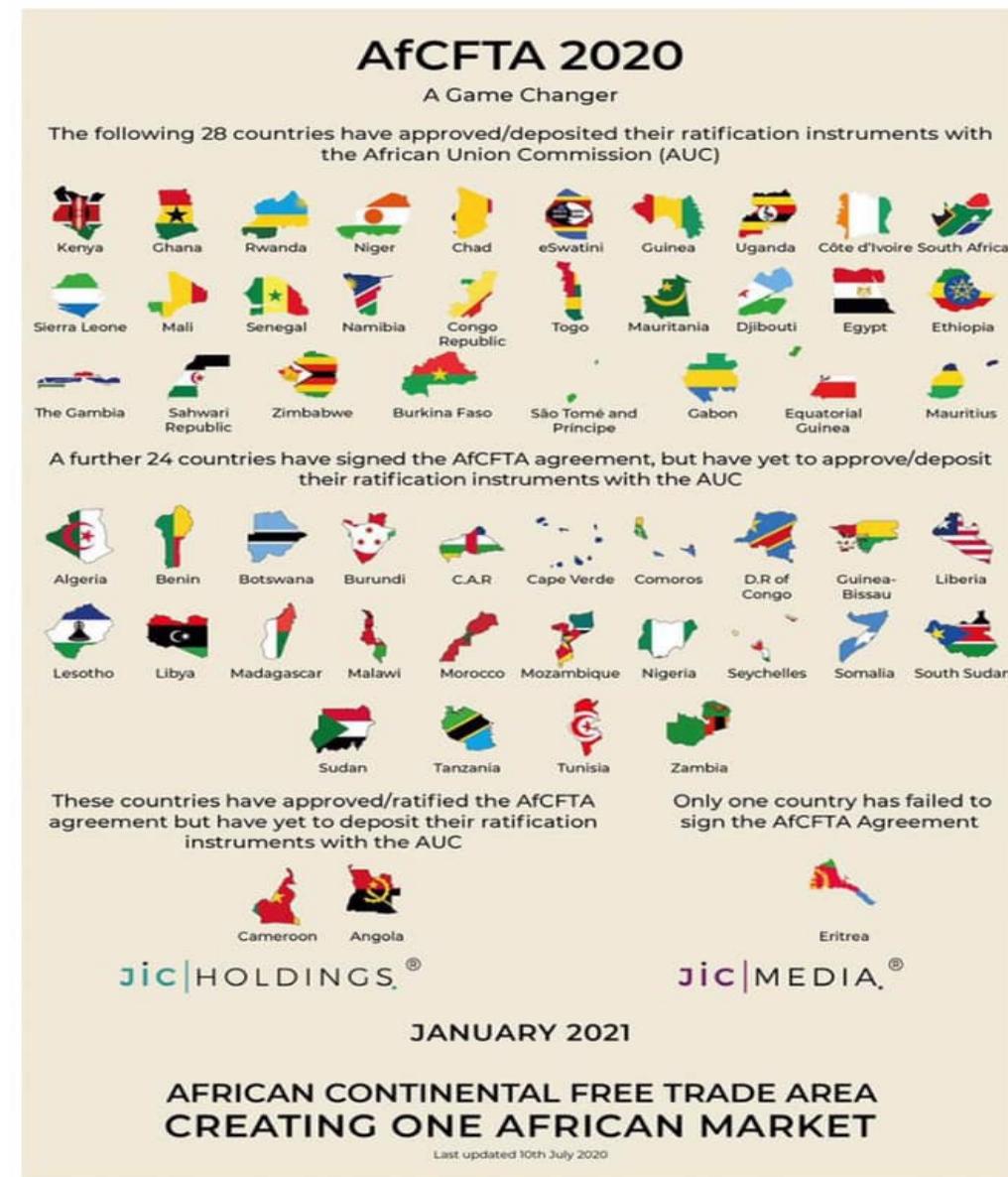
313 million  
middle class 34%



Africa is the fastest growing middle class according to George Soros: <https://www.uhy.com/the-worlds-fastest-growing-middle-class/>

# AFRICA COMMON MARKET

- Came into force on 1<sup>st</sup> January 2021 with Secretariat in Ghana
- Market currently estimated at \$3T
- Championed by Ghana's founding President, Dr. Kwame Nkrumah
- Predated by political unity through the African Union
- Sub-Regional groupings like ECOWAS, COMESA, SADC, EAC, etc



# POTENTIAL OF AFRICA'S DIGITAL ECONOMY



Africa's  
Internet  
economy  
potential



Google/IFC Africa Internet Economy report @ <https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=26066>

# CONTACT



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<http://www.chanzocapital.com>

## Economic and Market Update

January 2024 Report

## Commentary

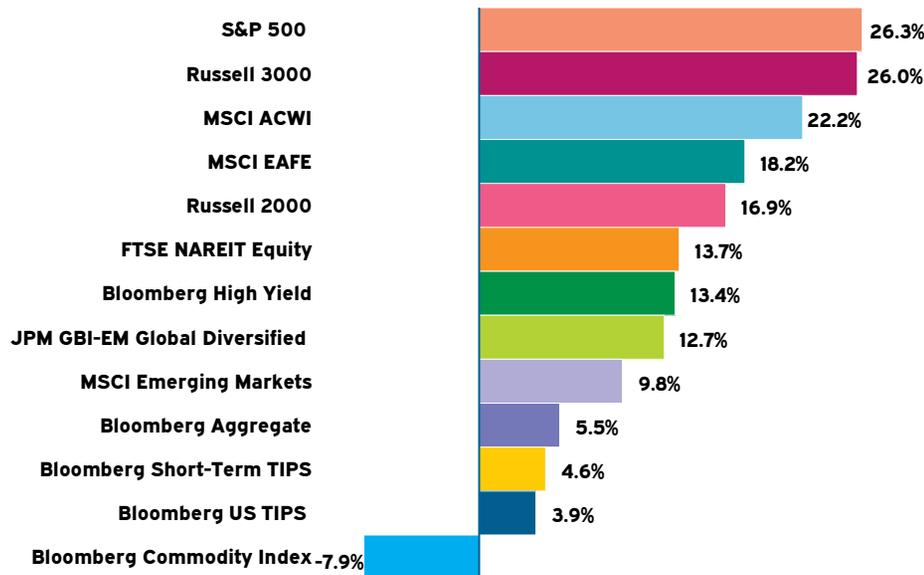
→ Markets were mixed in January after posting strong returns in 2023.

- Major central banks have largely paused interest rate hikes with expectations for many to cut rates this year. During the month there were signs though that many central banks, including the US, might not cut rates as soon as expected given strong economic data.
- In general inflation pressures have receded in most countries, but some uncertainty remains. Headline inflation fell in January in the US, but core inflation remained unchanged and elevated. China moved further into deflationary territory (-0.8%) in January.
- US equity markets (Russell 3000 index) rose 1.1% in January after a very strong 2023 (26.0%). There were mixed results across sectors, but technology continued to do well.
- Non-US developed equity markets gained 0.6% in January but 2.6% in local terms as the US dollar reversed course and strengthened during the month. The appreciation of the dollar was largely driven by strong economic data and related expectations that the Fed may delay policy rate cuts this year.
- Emerging market equity returns were also negatively influenced by the strong US dollar, but the biggest headwind in January was China (-10.6%). Emerging market equities had the weakest results for the month, down 4.6%.
- Bonds experienced selling pressure over the month, but ultimately finished the month nearly unchanged. The broad US bond market (Bloomberg Aggregate) declined (0.3%) in January.

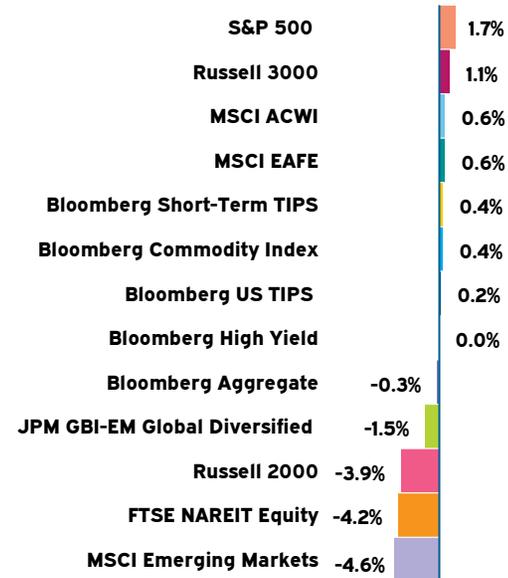
→ Looking to the rest of this year, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, the many looming elections, and the wars in Ukraine and Israel, will be key.

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

2023



January



→ After a strong market performance in 2023, the start of 2024 saw US large cap growth stocks continue their rally causing the S&P 500 to lead the way. Emerging market equity was the worst performer, dragged down by the continued sell-off of Chinese stocks.

→ Better than expected economic news in the US weighed on bond markets for the month with the broad US bond market (Bloomberg Aggregate) down slightly.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

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

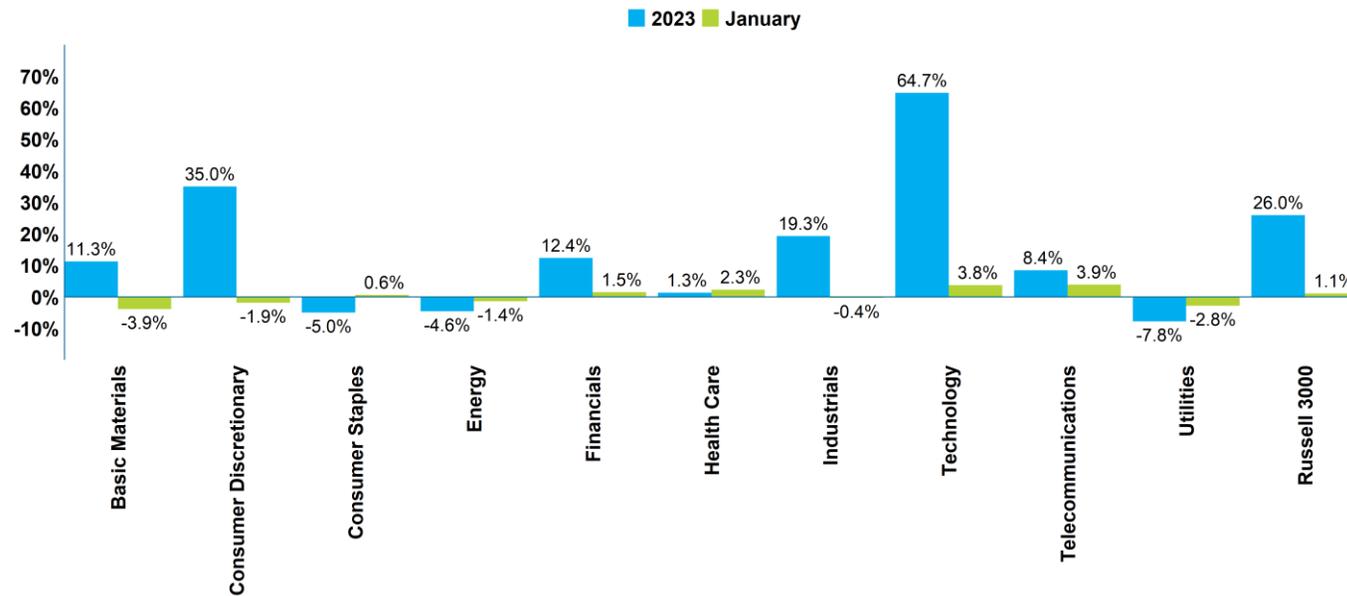
Domestic Equity	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	1.7	11.7	20.8	11.0	14.3	12.6
Russell 3000	1.1	12.1	19.1	9.1	13.5	12.0
Russell 1000	1.4	12.0	20.2	9.8	14.0	12.3
Russell 1000 Growth	2.5	14.2	35.0	10.0	18.0	15.5
Russell 1000 Value	0.1	9.5	6.1	9.2	9.3	8.8
Russell MidCap	-1.4	12.8	6.7	5.5	10.1	9.5
Russell MidCap Growth	-0.5	14.5	15.1	1.2	11.2	10.7
Russell MidCap Value	-1.8	12.1	2.4	7.8	8.6	8.2
Russell 2000	-3.9	14.0	2.4	-0.8	6.8	7.0
Russell 2000 Growth	-3.2	12.7	4.5	-6.0	6.2	7.0
Russell 2000 Value	-4.5	15.3	-0.1	4.5	6.7	6.7

#### US Equities: The Russell 3000 increased 1.1% in January with a one-year return of 19.1%.

- US equities built on their large gains from last year in January. Strong corporate earnings, economic data suggesting a soft landing might be achievable, and hopes for significant interest rate cuts (for most of the month) all drove results.
- Large cap stocks accounted for all the US equity market gains in January. NVIDIA, Microsoft, and Meta Platforms made up nearly 90% of the increase in the Russell 1000 index. Growth stocks outperformed value stocks across the market cap spectrum.
- While US equities advanced as a group, small and mid-cap stocks both declined in January. Banks contributed to this dynamic after a surprise loss at New York Community Bancorp rekindled fears regarding the banking system.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

### Russell 3000 Sector Returns<sup>1</sup>



→ In January, telecommunications (3.9%), technology stocks (3.8%), and health care (2.3%) outperformed other sectors. Traditionally defensive sector utilities (-2.8%) trailed along with basic materials (-3.9%) and energy stocks (-1.4%).

→ In 2023, technology (64.7%) and consumer discretionary (35.0%) sectors had the best results, helped respectively by artificial intelligence optimism and a healthy US consumer.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

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

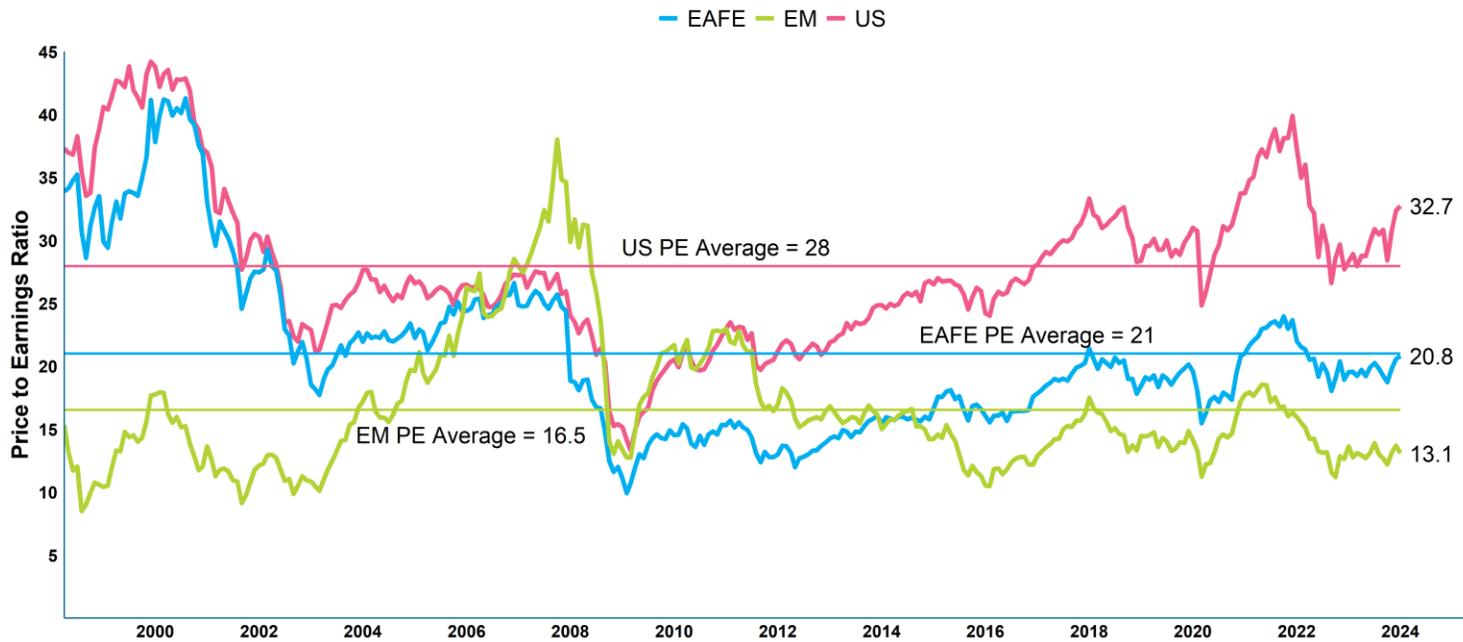
Foreign Equity	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-1.0	9.8	5.9	1.1	5.3	4.2
MSCI EAFE	0.6	10.4	10.0	4.6	6.9	4.8
MSCI EAFE (Local Currency)	2.6	5.0	12.1	9.7	8.9	7.2
MSCI EAFE Small Cap	-1.6	11.1	3.6	-1.1	4.6	4.8
MSCI Emerging Markets	-4.6	7.9	-2.9	-7.5	1.0	2.9
MSCI Emerging Markets (Local Currency)	-3.5	5.6	-0.5	-4.9	3.2	5.3
MSCI China	-10.6	-4.2	-29.0	-23.2	-6.9	0.4

**Foreign Equity: Developed international equities (MSCI EAFE) gained 0.6% in January and had a one-year return of 10.0%. Emerging market equities (MSCI EM) fell -4.6% in January, and -2.9% for the trailing year.**

- International developed equities saw slight gains for the month, while emerging market equities saw large losses for the same period; both were hampered by the US dollar reversing its sell-off from the end of last year. Outside of emerging markets, growth outperformed value for the month.
- Eurozone equities performed well, benefiting from ECB policy expectations, developments in the tech sector, and promising manufacturing data. U.K. equities stalled, as an unexpected increase in inflation pushed out the expected timing of rate cuts. Japan continues to see the highest returns globally over optimism on structural changes, January being no exception.
- EM equities continue to be bogged down by China (-10.6%) despite news of further stimulus by the PBOC.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

**Equity Cyclically Adjusted P/E Ratios<sup>1</sup>**



→ In January, the US equity price-to-earnings ratio increased further above its 21st century average.

→ International market valuations were mixed in January and remain below the US. In the case of developed markets, valuations increased slightly to just below their long-term average, while emerging market valuations declined, remaining well below their 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: Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of January 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.

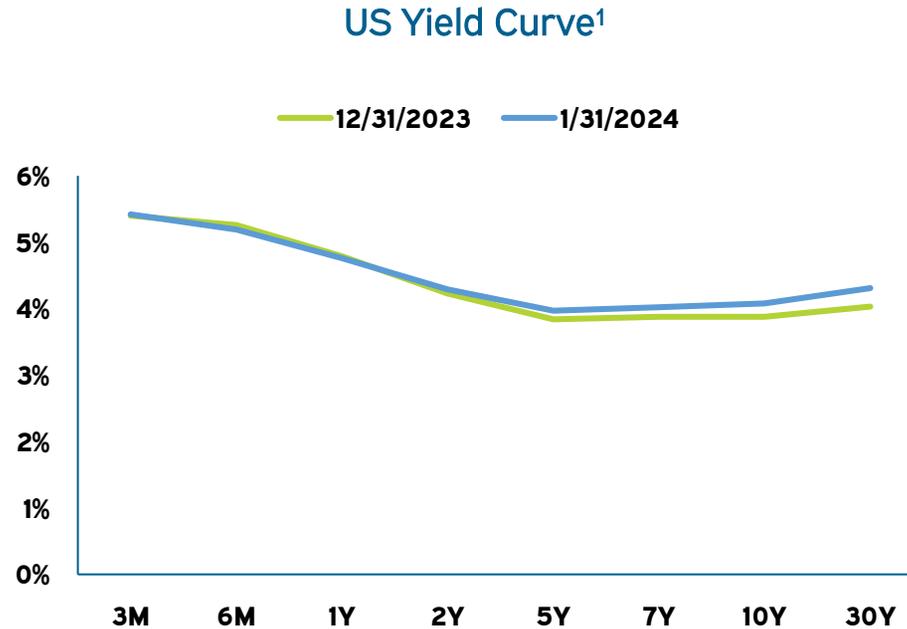
### Fixed Income Returns<sup>1</sup>

Fixed Income	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-0.2	6.8	2.7	-2.8	1.1	1.9	4.9	6.0
Bloomberg Aggregate	-0.3	6.8	2.1	-3.2	0.8	1.6	4.6	6.2
Bloomberg US TIPS	0.2	4.7	2.2	-1.0	2.9	2.2	4.2	6.9
Bloomberg Short-term TIPS	0.4	2.6	4.3	2.3	3.3	2.0	4.4	2.6
Bloomberg High Yield	0.0	7.2	9.3	1.9	4.4	4.5	7.8	3.7
JPM GBI-EM Global Diversified (USD)	-1.5	8.1	6.4	-3.3	-0.2	0.4	6.3	5.0

**Fixed Income: The Bloomberg Universal index fell -0.2% in January but gained 2.7% on a one-year basis.**

- Strong economic data in January and comments toward the end of the month by Federal Reserve Chair Jerome Powell hinting that rate cuts were not imminent drove rates up over the month, weighing on bonds.
- The broad US bond market (Bloomberg Aggregate) declined 0.3% for the month. The broader TIPS index rose 0.2%, while the less interest-rate-sensitive short-term TIPS index rose 0.4%.
- High yield bonds ended the month unchanged, while emerging market debt declined by 1.5%. Both asset classes produced double-digit gains last year.

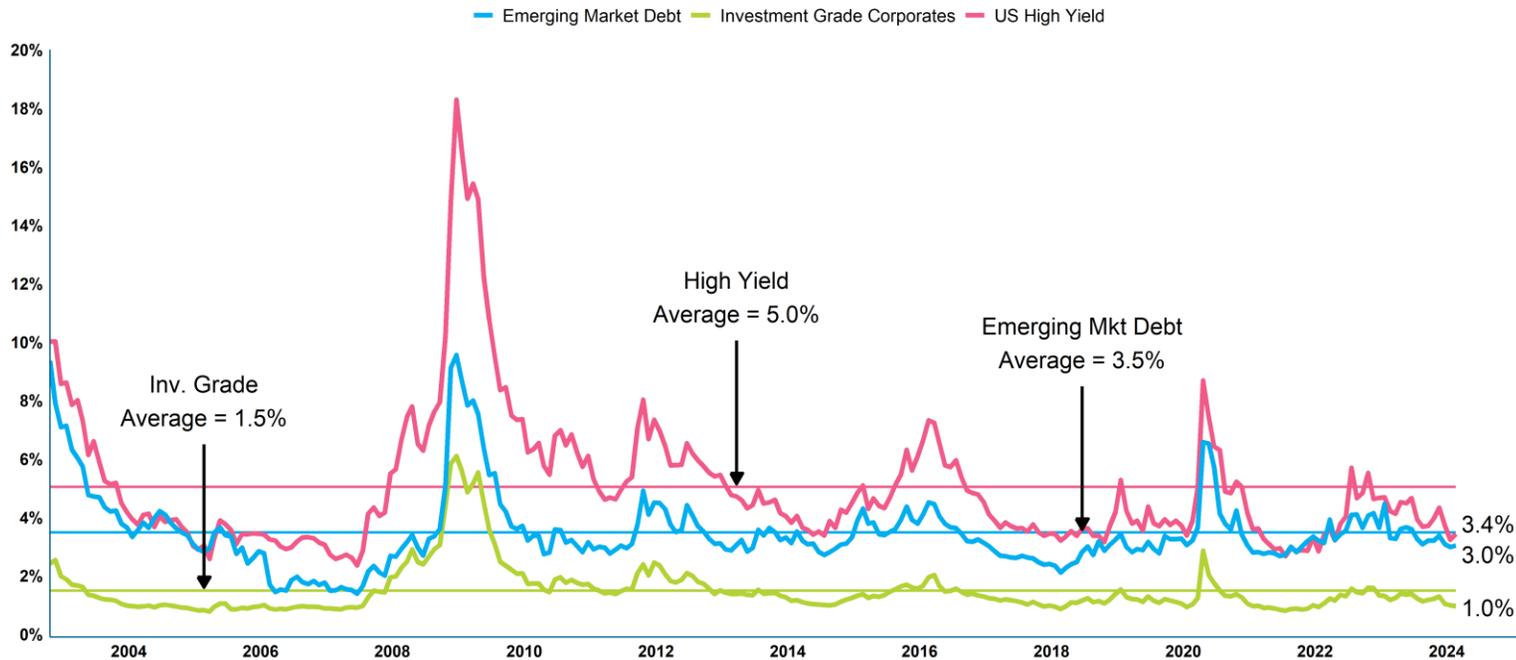
<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of January 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- Both short-term and longer-term maturities ended the month largely unchanged, however, yields were volatile over the month on surprisingly strong economic data and shifts in monetary policy expectations.
- For the month, two-year Treasury yields ended at 4.2% (around 1% below the peak from October) while 10-year Treasury yields ended at 3.9%.
- The yield curve remained inverted at month-end despite a recent flattening trend. The yield spread between the two-year and ten-year Treasury was -0.3% at the end of January.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

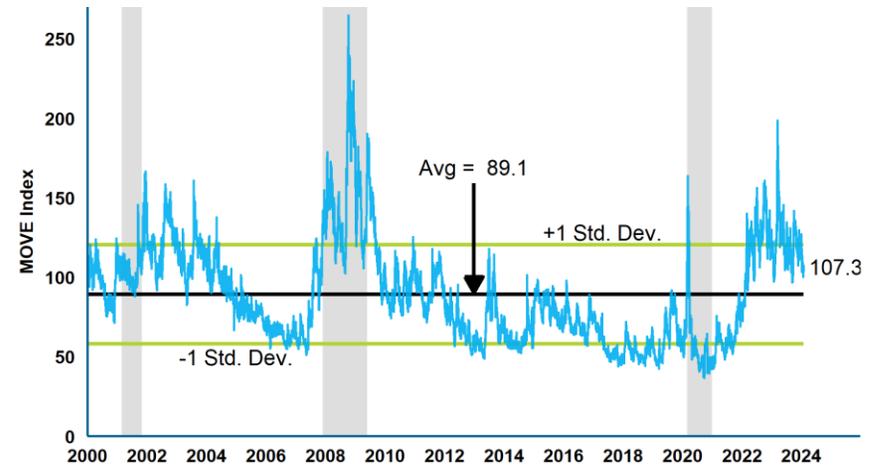
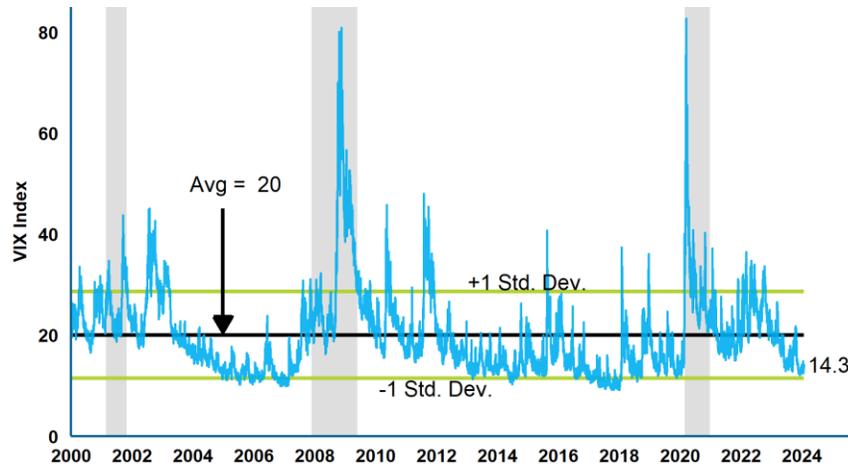
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- Credit spreads widened slightly for high yield in January (3.2% to 3.4%) while spreads for investment grade corporate and emerging market bonds remained the same.
- Expectations of peaking policy rates and the corresponding increase in risk appetite has recently benefited credit, with spreads (the added yield above a comparable maturity Treasury) narrowing.
- All spreads remain below their respective long run averages, particularly within high yield.

<sup>1</sup> Sources: Bloomberg. Data is as of January 31, 2024. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

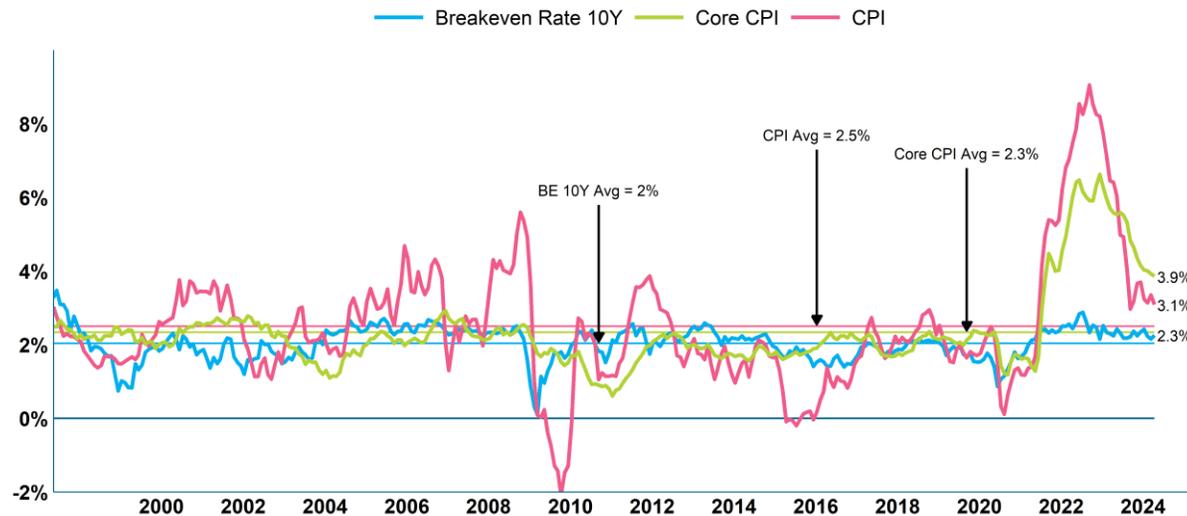
### Equity and Fixed Income Volatility<sup>1</sup>



- Volatility in equities (VIX) remains close to one standard deviation below the long-term average as the focus shifted late last year to peaking policy rates and the potential for a soft landing.
- Volatility in the bond market (MOVE) came down over the month (114.6 to 107.3) but remains elevated and well above its long-run average (89.1). The bond market remained on edge for most of 2023, driven largely by uncertainty about the ultimate path of monetary policy, as well as continued (and surprising) strength in economic data.

<sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of January 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and January 2024.

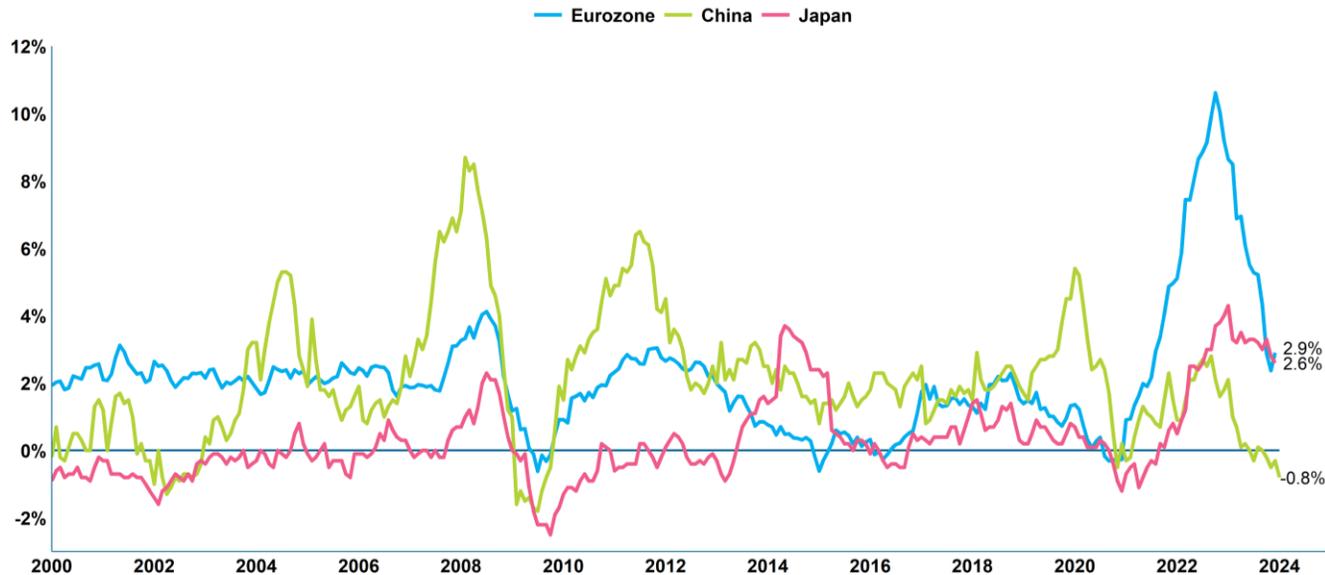
**US Ten-Year Breakeven Inflation and CPI<sup>1</sup>**



- Year-over-year headline inflation declined in January (3.4% to 3.1%) but not by as much as expected (expectations were for a 2.9% reading). Month-over-month inflation came in at 0.3%, the same as last month and slightly above expectations of 0.2%. Shelter continues to keep inflation elevated, increasing 6.0% from a year prior. Food rose 2.6% over the same period, while downward pressure on energy prices continued, falling 4.6%.
- Core inflation - excluding food and energy - remained unchanged at 3.9% year-over-year (expectations were for a decline to 3.7%), with shelter costs again driving the total core index increase.
- Inflation expectations (breakevens) have remained relatively stable despite the recent significant volatility in inflation.

<sup>1</sup> Source: FRED. Data is as January 2024. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

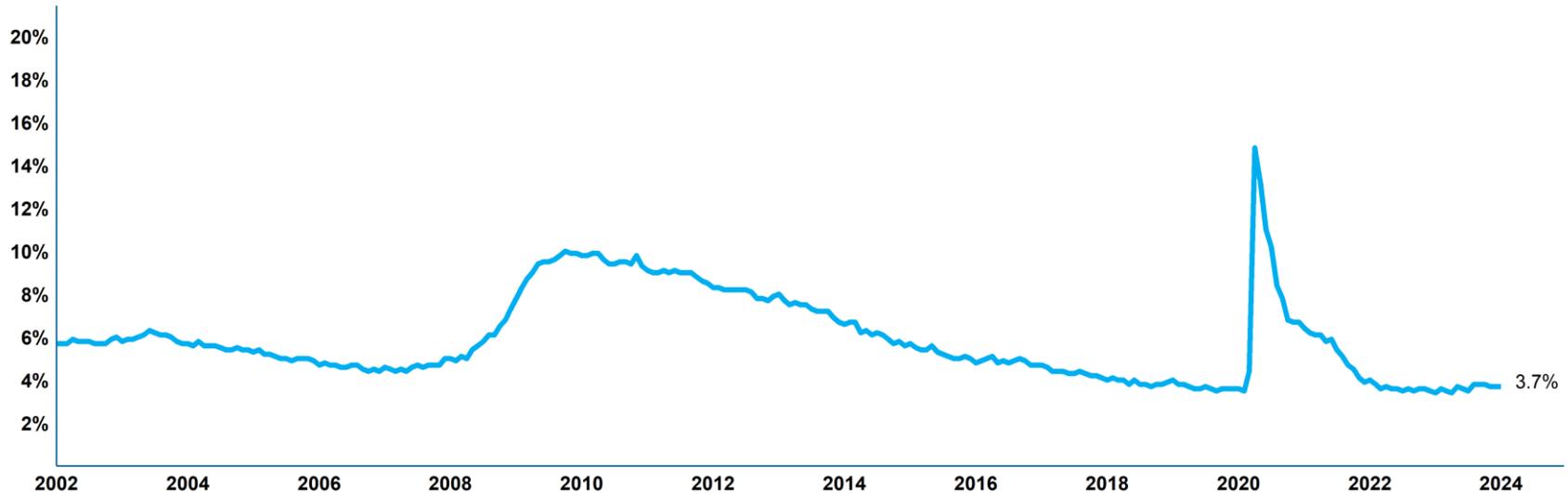
**Global Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- Outside the US, inflation is also falling across major economies with China slipping further into deflation.
- In the eurozone, inflation experienced a dramatic decline last year. In January inflation rose slightly (2.8% to 2.9%) remaining below the 3.1% year-over-year level in the US.
- Inflation in Japan has slowly declined from the early 2023 peak, but it remains near levels not seen in almost a decade, largely driven by higher food prices.

<sup>1</sup> Source: FRED for United States CPI and Eurozone CPI. Source: Bloomberg for Japan CPI, China CPI, and Eurozone CPI. Data is as January 31, 2024, except Japan which is as of December 31, 2023.

### US Unemployment<sup>1</sup>

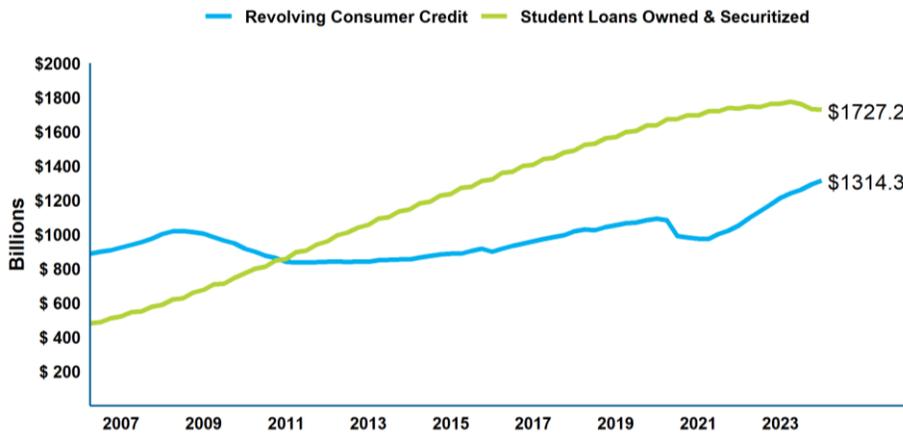


- Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- In January, the number of jobs added in the US were stronger than expected (353,000 versus 185,000) with the unemployment rate remaining at 3.7%. Payrolls from November and December of last year were also revised upward. Business and professional, health care, and retail sales jobs rose the most in January.
- The labor force participation remained relatively stable at 62.5%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%).
- The pace of hourly wage growth has declined from its peak of close to 6.0% but is above the 3.1% level of inflation. Wage growth rose at 4.5% year-on-year in January, an increase from the 4.1% level in December and above expectations of 4.1%.

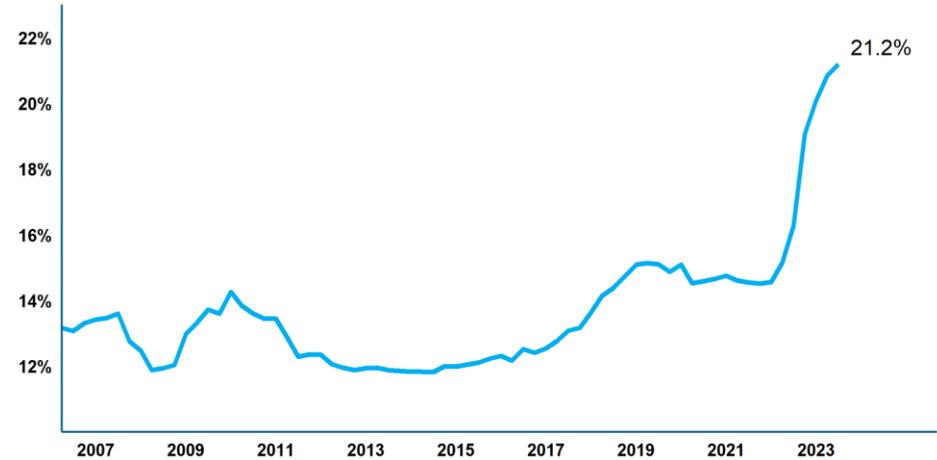
<sup>1</sup> Source: FRED. Data is as January 31, 2024.

### US Consumer Under Stress?<sup>1</sup>

#### Revolving Consumer Credit & Student Loans (\$B)



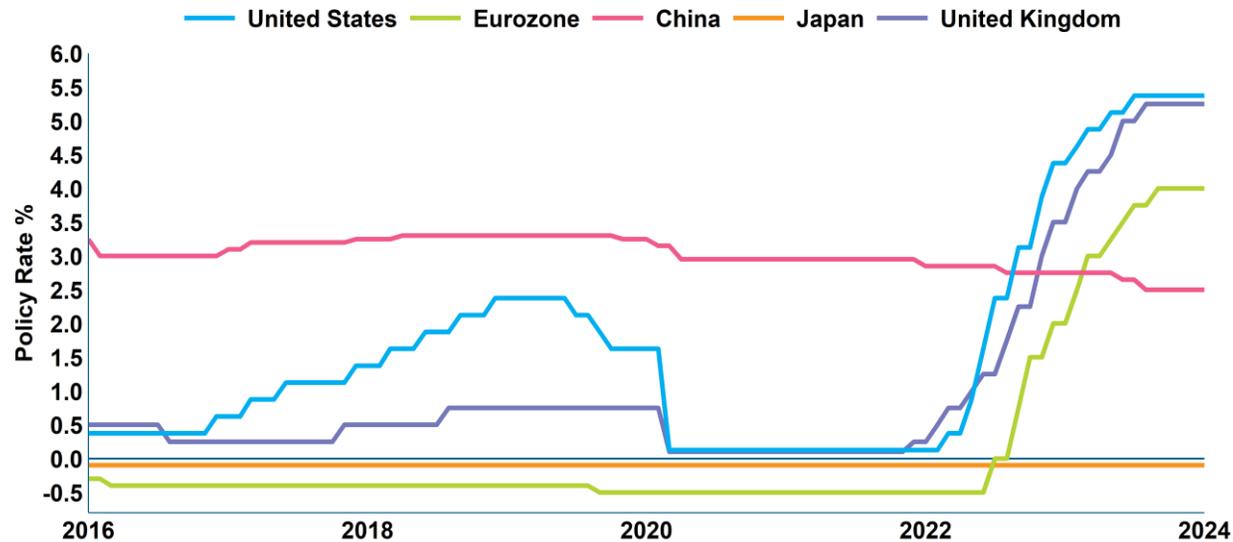
#### Consumer Credit Card Interest Rates (%)



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s). Recently we have also seen payment delinquencies on credit cards start to increase.
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

<sup>1</sup> Source: FRED. Data is as of December 31, 2023. Consumer Credit Card Rate data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.

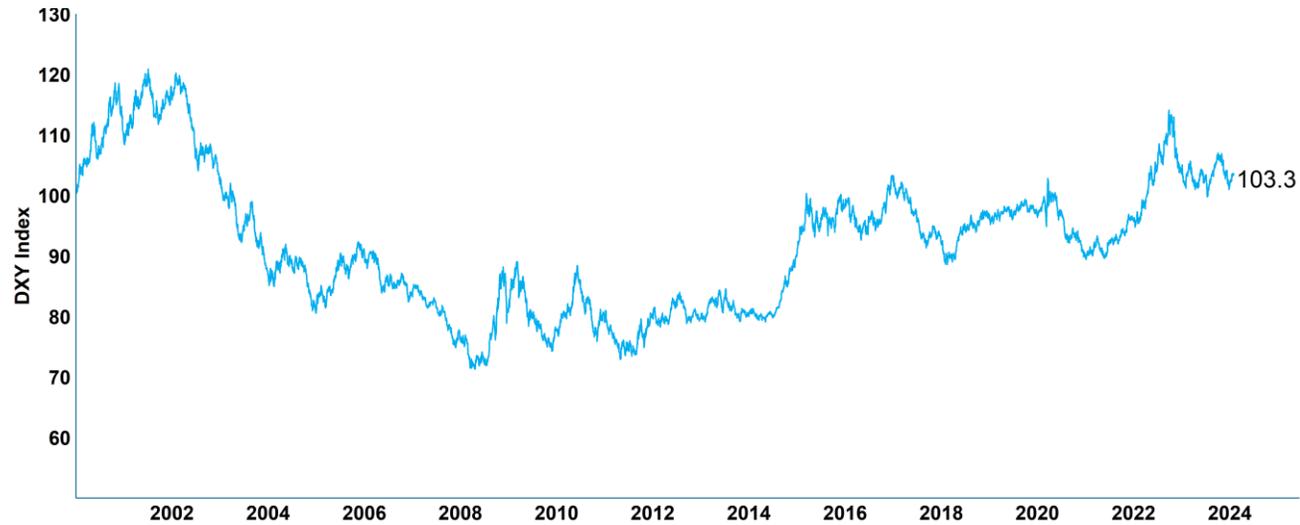
### Policy Rates<sup>1</sup>



- The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are now pricing in around four rate cuts this year down from close to seven late last year as economic data has come in above expectations. There remains a gap between the amount of rate cuts the Fed is predicting compared to the market's expectations, but it has significantly narrowed.
- The European and UK central banks also recently paused their rate increases on slowing inflation with cuts likely to follow there too. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

<sup>1</sup> Source: Bloomberg. Data is as of January 2024.

**US Dollar vs. Broad Currencies<sup>1</sup>**



- Overall, the dollar finished last year only slightly below where it started but it was a volatile year for the US currency as expectations related to monetary policy evolved.
- Strong economic data in the US may delay policy rate cuts this year which could contribute to upward pressure on the dollar as other countries pivot to rate cuts.

<sup>1</sup> Source: Bloomberg. Data as of January 31, 2024.

## Summary

### Key Trends:

- The impact of inflation still above policy targets will remain important, with bond market volatility likely to stay high.
- Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession. In the case of the US the resolution of the disparity between market expectations for the path of interest rates versus the Fed's dot plot will be key.
- Global growth is expected to slow this year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will remain key in 2024.
- US consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- A focus for US equities going forward, will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including China's economic uncertainty and on-going weakness in the real estate sector which could spill over into key trading partners' economies. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.

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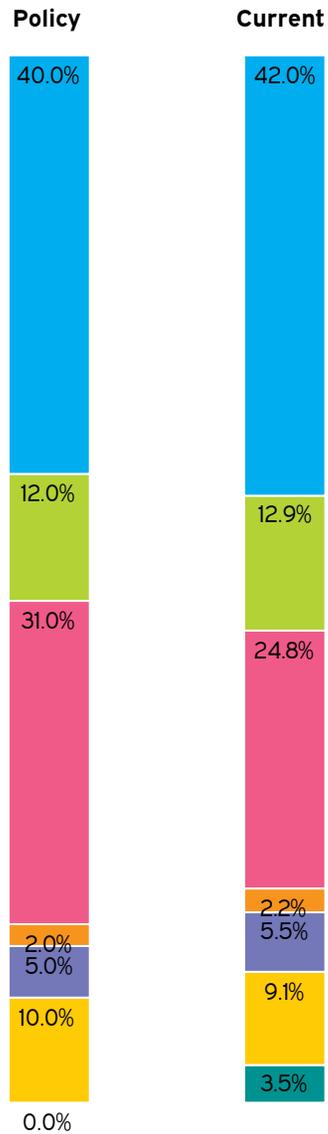
PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

## Oakland Police and Fire Retirement System

February 28, 2024

January Performance Report

As of January 31, 2024



Allocation vs. Targets and Policy						
	Current Balance (\$)	Current (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
Domestic Equity	182,953,195	42.0	40.0	2.0	30.0 - 50.0	Yes
International Equity	56,313,946	12.9	12.0	0.9	8.0 - 14.0	Yes
Fixed Income	107,993,825	24.8	31.0	-6.2	25.0 - 40.0	No
Credit	9,783,813	2.2	2.0	0.2	1.0 - 3.0	Yes
Covered Calls	24,128,940	5.5	5.0	0.5	5.0 - 10.0	Yes
Crisis Risk Offset	39,565,997	9.1	10.0	-0.9	5.0 - 15.0	Yes
Cash	15,343,456	3.5	0.0	3.5	0.0 - 5.0	Yes
<b>Total</b>	<b>436,083,171</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>		

## Asset Class Performance Summary | As of January 31, 2024

Asset Class Performance Summary									
	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>OPFRS Total Plan</b>	<b>436,083,171</b>	<b>100.0</b>	<b>0.3</b>	<b>7.8</b>	<b>3.5</b>	<b>6.7</b>	<b>6.8</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			<i>0.4</i>	<i>9.9</i>	<i>3.8</i>	<i>7.0</i>	<i>7.0</i>	<i>7.9</i>	
Excess Return			-0.1	-2.1	-0.3	-0.3	-0.2	-1.3	
<b>Domestic Equity</b>	<b>182,953,195</b>	<b>42.0</b>	<b>0.4</b>	<b>12.3</b>	<b>7.7</b>	<b>11.8</b>	<b>11.0</b>	<b>8.9</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>1.1</i>	<i>19.1</i>	<i>9.1</i>	<i>13.5</i>	<i>12.0</i>	<i>9.3</i>	
Excess Return			-0.7	-6.8	-1.4	-1.7	-1.0	-0.4	
<b>International Equity</b>	<b>56,313,946</b>	<b>12.9</b>	<b>-0.1</b>	<b>9.6</b>	<b>3.5</b>	<b>7.1</b>	<b>5.4</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			<i>-1.0</i>	<i>5.9</i>	<i>1.1</i>	<i>5.3</i>	<i>4.2</i>	<i>5.1</i>	
Excess Return			0.9	3.7	2.4	1.8	1.2	0.2	
<b>Fixed Income</b>	<b>107,993,825</b>	<b>24.8</b>	<b>0.0</b>	<b>2.6</b>	<b>-2.6</b>	<b>1.2</b>	<b>2.0</b>	<b>4.5</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			<i>-0.2</i>	<i>2.7</i>	<i>-2.8</i>	<i>1.1</i>	<i>1.9</i>	<i>4.5</i>	
Excess Return			0.2	-0.1	0.2	0.1	0.1	0.0	
<b>Credit</b>	<b>9,783,813</b>	<b>2.2</b>	<b>0.9</b>	<b>9.8</b>	<b>3.9</b>	<b>4.5</b>	<b>--</b>	<b>5.0</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			<i>0.0</i>	<i>9.3</i>	<i>1.9</i>	<i>4.4</i>	<i>4.5</i>	<i>4.8</i>	
Excess Return			0.9	0.5	2.0	0.1	--	0.2	
<b>Covered Calls</b>	<b>24,128,940</b>	<b>5.5</b>	<b>1.4</b>	<b>16.4</b>	<b>9.9</b>	<b>11.2</b>	<b>--</b>	<b>9.1</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>1.8</i>	<i>9.2</i>	<i>6.7</i>	<i>5.9</i>	<i>6.1</i>	<i>5.7</i>	
Excess Return			-0.4	7.2	3.2	5.3	--	3.4	
<b>Crisis Risk Offset</b>	<b>39,565,997</b>	<b>9.1</b>	<b>0.2</b>	<b>-1.2</b>	<b>-5.2</b>	<b>-7.0</b>	<b>--</b>	<b>-7.5</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			<i>0.8</i>	<i>1.3</i>	<i>4.9</i>	<i>0.2</i>	<i>--</i>	<i>0.2</i>	
Excess Return			-0.6	-2.5	-10.1	-7.2	--	-7.7	

Performance shown is net of fees, except for Total Plan, Domestic Equity, and International Equity composites which have a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

## Asset Class & Manager Performance | As of January 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>OPFRS Total Plan</b>	<b>436,083,171</b>	<b>100.0</b>	<b>0.3</b>	<b>7.8</b>	<b>3.5</b>	<b>6.7</b>	<b>6.8</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			<i>0.4</i>	<i>9.9</i>	<i>3.8</i>	<i>7.0</i>	<i>7.0</i>	<i>7.9</i>	
Excess Return			-0.1	-2.1	-0.3	-0.3	-0.2	-1.3	
<b>Domestic Equity</b>	<b>182,953,195</b>	<b>42.0</b>	<b>0.4</b>	<b>12.3</b>	<b>7.7</b>	<b>11.8</b>	<b>11.0</b>	<b>8.9</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>1.1</i>	<i>19.1</i>	<i>9.1</i>	<i>13.5</i>	<i>12.0</i>	<i>9.3</i>	
Excess Return			-0.7	-6.8	-1.4	-1.7	-1.0	-0.4	
Northern Trust Russell 1000	89,480,556	20.5	1.4	20.2	9.6	13.9	12.2	13.5	Jun-10
<i>Russell 1000 Index</i>			<i>1.4</i>	<i>20.2</i>	<i>9.8</i>	<i>14.0</i>	<i>12.3</i>	<i>13.6</i>	
Excess Return			0.0	0.0	-0.2	-0.1	-0.1	-0.1	
EARNEST Partners	40,982,252	9.4	-0.8	6.1	6.9	12.3	11.4	9.3	Apr-06
<i>Russell Midcap Index</i>			<i>-1.4</i>	<i>6.7</i>	<i>5.5</i>	<i>10.1</i>	<i>9.5</i>	<i>8.7</i>	
Excess Return			0.6	-0.6	1.4	2.2	1.9	0.6	
Wellington Select Quality Equity	24,728,360	5.7	1.1	10.5	--	--	--	6.9	May-22
<i>Russell 1000 Index</i>			<i>1.4</i>	<i>20.2</i>	<i>9.8</i>	<i>14.0</i>	<i>12.3</i>	<i>11.0</i>	
Excess Return			-0.3	-9.7	--	--	--	-4.1	
Brown Fundamental Small Cap Value	12,661,004	2.9	-1.4	7.3	--	--	--	5.9	Apr-21
<i>Russell 2000 Value Index</i>			<i>-4.5</i>	<i>-0.1</i>	<i>4.5</i>	<i>6.7</i>	<i>6.7</i>	<i>-0.3</i>	
Excess Return			3.1	7.4	--	--	--	6.2	
Rice Hall James	15,101,023	3.5	-1.6	-1.3	-2.1	5.4	--	6.3	Aug-17
<i>Russell 2000 Growth Index</i>			<i>-3.2</i>	<i>4.5</i>	<i>-6.0</i>	<i>6.2</i>	<i>7.0</i>	<i>6.5</i>	
Excess Return			1.6	-5.8	3.9	-0.8	--	-0.2	

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## Asset Class & Manager Performance | As of January 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>International Equity</b>	<b>56,313,946</b>	<b>12.9</b>	<b>-0.1</b>	<b>9.6</b>	<b>3.5</b>	<b>7.1</b>	<b>5.4</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			-1.0	5.9	1.1	5.3	4.2	5.1	
Excess Return			0.9	3.7	2.4	1.8	1.2	0.2	
Vanguard Developed Markets ETF	15,865,904	3.6	-1.1	7.0	3.6	--	--	7.1	Sep-19
<i>FTSE Developed All Cap ex-U.S. Index</i>			-0.4	9.0	4.1	7.1	5.2	7.5	
Excess Return			-0.7	-2.0	-0.5	--	--	-0.4	
SGA ACWI ex-U.S. Equity	40,448,042	9.3	0.3	11.1	3.4	--	--	4.4	Dec-19
<i>MSCI AC World ex USA (Net)</i>			-1.0	5.9	1.1	5.3	4.2	4.4	
Excess Return			1.3	5.2	2.3	--	--	0.0	
<b>Fixed Income</b>	<b>107,993,825</b>	<b>24.8</b>	<b>0.0</b>	<b>2.6</b>	<b>-2.6</b>	<b>1.2</b>	<b>2.0</b>	<b>4.5</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			-0.2	2.7	-2.8	1.1	1.9	4.5	
Excess Return			0.2	-0.1	0.2	0.1	0.1	0.0	
Ramirez	73,300,154	16.8	0.1	2.6	-2.7	1.2	--	1.7	Jan-17
<i>Blmbg. U.S. Aggregate Index</i>			-0.3	2.1	-3.2	0.8	1.6	1.2	
Excess Return			0.4	0.5	0.5	0.4	--	0.5	
Wellington Core Bond	6,990,373	1.6	0.0	3.1	--	--	--	-2.5	Apr-21
<i>Blmbg. U.S. Aggregate Index</i>			-0.3	2.1	-3.2	0.8	1.6	-2.4	
Excess Return			0.3	1.0	--	--	--	-0.1	
Reams	27,703,298	6.4	-0.2	2.7	-2.4	3.4	3.0	4.9	Feb-98
<i>Bloomberg Universal (Blend)</i>			-0.2	2.7	-2.8	1.1	1.9	4.1	
Excess Return			0.0	0.0	0.4	2.3	1.1	0.8	

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### Asset Class & Manager Performance | As of January 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>Credit</b>	<b>9,783,813</b>	<b>2.2</b>	<b>0.9</b>	<b>9.8</b>	<b>3.9</b>	<b>4.5</b>	<b>--</b>	<b>5.0</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.0	9.3	1.9	4.4	4.5	4.8	
Excess Return			0.9	0.5	2.0	0.1	--	0.2	
Polen Capital	9,783,813	2.2	0.9	9.8	3.9	4.5	--	5.0	Feb-15
<i>ICE BofA High Yield Master II</i>			0.0	9.2	1.9	4.3	4.4	4.7	
Excess Return			0.9	0.6	2.0	0.2	--	0.3	
<b>Covered Calls</b>	<b>24,128,940</b>	<b>5.5</b>	<b>1.4</b>	<b>16.4</b>	<b>9.9</b>	<b>11.2</b>	<b>--</b>	<b>9.1</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			1.8	9.2	6.7	5.9	6.1	5.7	
Excess Return			-0.4	7.2	3.2	5.3	--	3.4	
Parametric BXM	11,839,199	2.7	1.5	13.8	8.2	8.4	--	7.2	Apr-14
<i>CBOE S&amp;P 500 Buy Write Index</i>			1.8	9.2	6.7	5.9	6.1	5.7	
Excess Return			-0.3	4.6	1.5	2.5	--	1.5	
Parametric DeltaShift	12,289,741	2.8	1.4	19.0	11.4	13.8	--	11.1	Apr-14
<i>CBOE S&amp;P 500 Buy Write Index</i>			1.8	9.2	6.7	5.9	6.1	5.7	
Excess Return			-0.4	9.8	4.7	7.9	--	5.4	

Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions.

### Asset Class & Manager Performance | As of January 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>Crisis Risk Offset</b>	<b>39,565,997</b>	<b>9.1</b>	<b>0.2</b>	<b>-1.2</b>	<b>-5.2</b>	<b>-7.0</b>	<b>--</b>	<b>-7.5</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			<i>0.8</i>	<i>1.3</i>	<i>4.9</i>	<i>0.2</i>	<i>--</i>	<i>0.2</i>	
Excess Return			-0.6	-2.5	-10.1	-7.2	--	-7.7	
Kepos Alternative Risk Premia	11,252,325	2.6	3.4	11.8	--	--	--	6.1	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>			<i>2.9</i>	<i>8.9</i>	<i>7.0</i>	<i>1.4</i>	<i>--</i>	<i>6.7</i>	
Excess Return			0.5	2.9	--	--	--	-0.6	
Versor Trend Following	14,871,804	3.4	-0.2	-5.1	--	--	--	-0.5	Apr-22
<i>SG Trend Index</i>			<i>1.6</i>	<i>-1.2</i>	<i>10.9</i>	<i>10.2</i>	<i>5.7</i>	<i>2.9</i>	
Excess Return			-1.8	-3.9	--	--	--	-3.4	
Vanguard Long-Term Treasury ETF	13,441,868	3.1	-1.8	-5.8	-11.1	--	--	-4.2	Jul-19
<i>Blmbg. U.S. Gov Long Index</i>			<i>-2.2</i>	<i>-5.2</i>	<i>-10.9</i>	<i>-1.8</i>	<i>1.5</i>	<i>-4.0</i>	
Excess Return			0.4	-0.6	-0.2	--	--	-0.2	
<b>Cash</b>	<b>15,343,456</b>	<b>3.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>Mar-11</b>

Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions. Versor Trend Following's market value is estimated using the manager return due to statement availability.

**Cash Flow Summary  
Month to Date**

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Northern Trust Russell 1000	88,252,834	-	1,227,722	89,480,556
EARNEST Partners	42,300,855	-1,000,000	-318,603	40,982,252
Wellington Select Quality Equity	24,458,953	-	269,407	24,728,360
Brown Fundamental Small Cap Value	12,835,326	-	-174,322	12,661,004
Rice Hall James	15,327,009	-	-225,986	15,101,023
Vanguard Developed Markets ETF	16,040,034	-	-174,130	15,865,904
SGA ACWI ex-U.S. Equity	40,307,575	-	140,468	40,448,042
Ramirez	73,247,942	-	52,212	73,300,154
Wellington Core Bond	6,993,592	-	-3,219	6,990,373
Reams	27,742,062	-	-38,764	27,703,298
Polen Capital	9,697,822	-	85,991	9,783,813
Parametric BXM	11,662,453	-	176,746	11,839,199
Parametric DeltaShift	12,121,242	-	168,499	12,289,741
Kepos Alternative Risk Premia	10,884,494	-	367,831	11,252,325
Versor Trend Following	14,897,129	-	-25,325	14,871,804
Vanguard Long-Term Treasury ETF	13,686,549	-	-244,681	13,441,868
Cash - Money Market	5,092,650	-16,195	-	5,076,456
Cash - Treasury	10,407,000	-140,000	-	10,267,000
Securities Lending Northern Trust	-	-15,460	15,460	-
<b>OPFRS Total Plan</b>	<b>435,955,522</b>	<b>-1,171,655</b>	<b>1,299,305</b>	<b>436,083,171</b>

Versor Trend Following's market value is estimated using the manager return due to statement availability.

Benchmark History		
From Date	To Date	Benchmark
<b>OPFRS Total Plan</b>		
06/01/2022	Present	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 31.0% Blmbg. U.S. Universal Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 5.0% CBOE S&P 500 Buy Write Index, 10.0% Crisis Risk Offset Benchmark
01/01/2019	06/01/2022	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 31.0% Blmbg. U.S. Universal Index, 5.0% CBOE S&P 500 Buy Write Index, 2.0% Blmbg. U.S. Treasury: Long, 10.0% Crisis Risk Offset Benchmark
05/01/2016	01/01/2019	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 20.0% CBOE BXM
10/01/2015	05/01/2016	43.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 15.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
01/01/2014	10/01/2015	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 10.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
03/01/2013	01/01/2014	40.0% Russell 3000 Index, 10.0% MSCI AC World ex USA index, 17.0% Blmbg. U.S. Universal Index, 33.0% ICE BofA 3 Month U.S. T-Bill
08/01/2012	03/01/2013	20.0% Russell 3000 Index, 7.0% MSCI AC World ex USA index, 18.0% Blmbg. U.S. Universal Index, 55.0% ICE BofA 3 Month U.S. T-Bill
10/01/2007	08/01/2012	53.0% Russell 3000 Index, 17.0% MSCI AC World ex USA index, 30.0% Blmbg. U.S. Universal Index
04/01/2006	10/01/2007	35.0% Russell 3000 Index, 15.0% MSCI AC World ex USA index, 50.0% Blmbg. U.S. Universal Index
01/01/2005	04/01/2006	35.0% Russell 3000 Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI AC World ex USA index
04/01/1998	01/01/2005	20.0% Russell 1000 Value Index, 10.0% Russell 1000 Index, 5.0% Russell Midcap Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI EAFE (Net)
09/01/1988	04/01/1998	40.0% S&P 500 Index, 55.0% Blmbg. U.S. Aggregate Index, 5.0% FTSE 3 Month T-Bill

**Benchmark History**

From Date	To Date	Benchmark
<b>Domestic Equity</b>		
01/01/2005	Present	100.0% Russell 3000 Index
04/01/1998	01/01/2005	57.1% Russell 1000 Value Index, 28.6% Russell 1000 Index, 14.3% Russell Midcap Index
09/01/1988	04/01/1998	100.0% S&P 500 Index
<b>International Equity</b>		
01/01/2005	Present	100.0% MSCI AC World ex USA (Net)
01/01/1998	01/01/2005	100.0% MSCI EAFE Index
<b>Fixed Income</b>		
04/01/2006	Present	100.0% Blmbg. U.S. Universal Index
01/01/1976	04/01/2006	100.0% Blmbg. U.S. Aggregate Index
<b>Covered Calls</b>		
04/01/2014	Present	CBOE S&P 500 Buy Write Index
<b>Crisis Risk Offset</b>		
01/01/2023	Present	33.3% SG Trend Index, 33.3% SG Multi Alternative Risk Premia Index, 33.3% Blmbg. U.S. Government: Long Term Bond Index
08/01/2018	01/01/2023	100.0% SG Multi Alternative Risk Premia Index
<b>Cash</b>		
03/01/2011	Present	FTSE 3 Month T-Bill

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# Oakland Police and Fire Retirement System

February 28, 2024

Quarterly Performance Report  
as of December 31, 2023

## Agenda

1. Executive Summary
2. Economic and Market Update as of December 31, 2023
3. Quarterly Performance as of December 31, 2023
4. Manager Monitoring / Probation Status
5. Appendix
6. Disclaimer, Glossary, and Notes

## **Executive Summary**

### Total Portfolio Review

The Oakland Police and Fire Retirement System (OPFRS) finished the quarter with \$435.9 million in assets after net cash flows including monthly benefit payments. All asset classes in their acceptable target allocation ranges except for Fixed Income which is marginally underweight at the end of the year.

Cash Flow Summary (\$ Millions)	Quarter	1 Year
<b>Beginning Market Value</b>	<b>405.1</b>	<b>398.5</b>
Net Cash Flows (including Benefit Payments)	-2.6	-15.6
Net Investment Change (Gain/Loss)	33.4	53.0
<b>Ending Market Value</b>	<b>435.9</b>	<b>435.9</b>

### Investment Performance<sup>1</sup>

	QTD	FYTD	1 Year	3 Year	5 Year
<b>Total Plan (Gross)</b>	<b>8.4</b>	<b>5.3</b>	<b>13.8</b>	<b>3.6</b>	<b>8.1</b>
<b>Total Plan (Net)</b>	<b>8.3</b>	<b>5.2</b>	<b>13.5</b>	<b>3.3</b>	<b>7.8</b>
<i>Policy Benchmark</i>	<i>8.7</i>	<i>5.4</i>	<i>15.1</i>	<i>3.6</i>	<i>8.0</i>
Excess Return	-0.4	-0.2	-1.6	-0.3	-0.2
<i>Public DB (\$250M-\$1B) Median Fund</i>	<i>7.7</i>	<i>4.7</i>	<i>12.4</i>	<i>3.5</i>	<i>8.6</i>
Total Plan (Net) vs. Peer Median Fund	0.6	0.5	1.0	-0.2	-0.8
<i>Peer Group Percentile Rank</i>	<i>33</i>	<i>29</i>	<i>32</i>	<i>62</i>	<i>66</i>

<sup>1</sup> Fiscal year begins on July 1. Peer group is Investment Metrics Public Defined Benefit plans with \$250 million to \$1 billion in assets. The number of peers is about 80-90 portfolios in each time period. Please see the Benchmark History section for the Policy Benchmark's current and historical compositions.

### Asset Class and Manager Highlights

- Total Plan underperformed its Policy Benchmark across all time periods on net of fees basis. The underperformance during the quarter was attributable to the Crisis Risk Offset segment's underperformance.
  - The 1-year period's underperformance was primarily due to Domestic Equity's lag behind its broad market Russell 3000 Index. International Equity, along with Fixed Income and Covered Calls, were positive contributors to the Total Plan's relative performance in 2023, partially offsetting Domestic Equity's underperformance.
- **Domestic Equity** underperformed the Russell 3000 Index over all trailing periods.
  - Rice Hall James outperformed its benchmark while all other active managers underperformed their respective benchmarks for the quarter.
  - All active Domestic Equity managers across different styles trailed the broad market Russell 3000 Index over the 1-year period as a handful of companies ("Magnificent Seven") drove returns in 2023.
- **International Equity** outperformed the MSCI ACWI ex US (Net) for all periods except for the most recent quarter.
- **Fixed Income** slightly underperformed or matched its custom benchmark over the quarter, 1-year, and since inception time periods. The underlying managers outperformed their respective benchmarks across almost all time periods.
- The **Credit** segment, with Polen Capital as its only manager, underperformed the asset class's benchmark, Bloomberg US High Yield Index, for all time periods except over the 3-year and since inception periods.
- **Covered Calls**, as well as both the passive BXM and the active DeltaShift strategies outperformed the CBOE S&P 500 Buy Write Index across all periods measured.
- The **Crisis Risk Offset** segment underperformed its custom benchmark over all time periods measured.
  - Kepos Alternative Risk Premia outperformed its benchmark during the quarter and over the 1-year period while Versor Trend Following and Vanguard Long-term Treasury ETF underperformed their respective benchmarks for the same periods.

# **Economic and Market Update**

## Data as of December 31, 2023

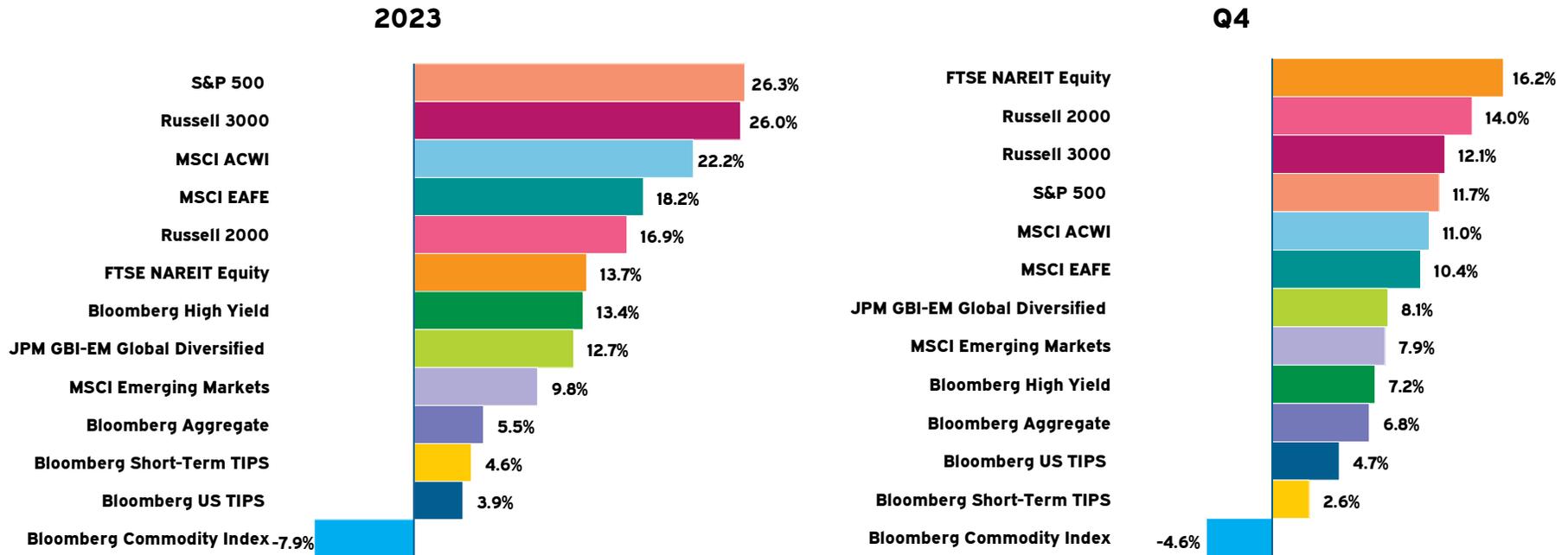
## Commentary

→ Most markets rallied in the fourth quarter in anticipation that policy rates cuts were ahead in 2024.

- Major central banks have largely paused interest rates hikes. Markets are now largely expecting the FOMC to maintain interest rates at the current levels and begin cutting rates as soon as Q1 2024.
- Inflation rose in December in the US and Europe, but both finished the year much lower than where they started. China remained in deflationary territory (-0.3%) at year-end.
- US equity markets (Russell 3000 index) posted strong gains for the quarter (12.1%), raising full year results to +26.0%. Most sectors rallied, with more defensive sectors lagging.
- Non-US developed equity markets also rallied in the fourth quarter (MSCI EAFE 10.4%), with the weakening of the US dollar contributing meaningfully (10.4% versus 5.0% ex-US dollar influence). The performance difference between US and international developed equities for the year remained wide (26.0% versus 18.2%).
- Emerging market equities were up 7.9% in the fourth quarter and 9.8% for calendar 2023 but trailed developed markets due to lagging returns in China (-4.2% Q4/-11.2% one-year). Emerging market equities ex-China returned 20% in 2023.
- Interest rates generally fell in the fourth quarter, particularly for longer-dated maturities. The broad US bond market rallied (6.8%) for the quarter, lifting 2023 returns into positive territory (5.5%).

→ Looking to 2024, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, and the wars in Ukraine and Israel, will be key.

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



→ After a tough start to the quarter on lingering fears that the Federal Reserve might keep interest rates “higher for longer”, markets rallied in November and December. Economic data generally coming in below expectations sparked expectations that the Federal Reserve might really be done raising policy rates for this cycle.

→ Strong results for the quarter built on gains for the year with all asset classes finishing in positive territory in 2023, except commodities.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

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

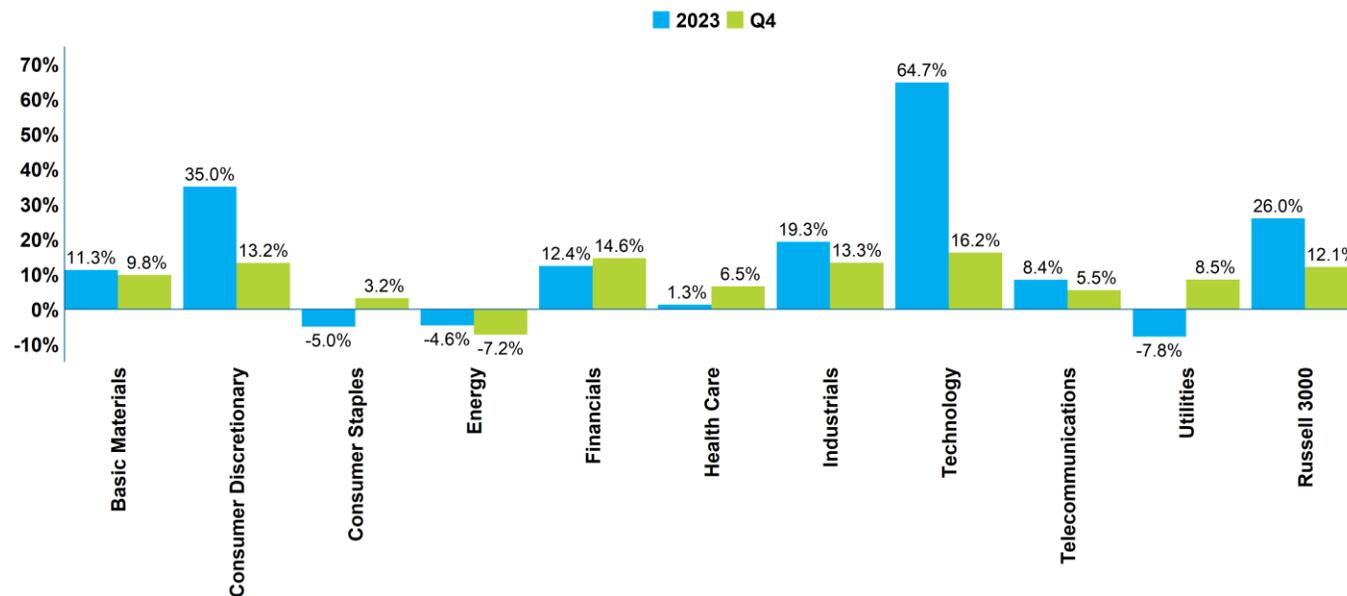
Domestic Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	4.5	11.7	26.3	10.0	15.7	12.0
Russell 3000	5.3	12.1	26.0	8.6	15.2	11.5
Russell 1000	4.9	12.0	26.5	9.0	15.5	11.8
Russell 1000 Growth	4.4	14.2	42.7	8.9	19.5	14.9
Russell 1000 Value	5.5	9.5	11.5	8.9	10.9	8.4
Russell MidCap	7.7	12.8	17.2	5.9	12.7	9.4
Russell MidCap Growth	7.6	14.5	25.9	1.3	13.8	10.6
Russell MidCap Value	7.8	12.1	12.7	8.4	11.2	8.3
Russell 2000	12.2	14.0	16.9	2.2	10.0	7.2
Russell 2000 Growth	12.0	12.7	18.7	-3.5	9.2	7.2
Russell 2000 Value	12.4	15.3	14.6	8.0	10.0	6.8

**US Equities: The Russell 3000 rallied 5.3% in December, bringing fourth quarter results to +12.1%. US stocks were up 26.0% in 2023.**

- US equities had a strong final quarter of the year, driven by expectations that rate cuts may be ahead in 2024.
- Small cap stocks outperformed their large cap peers for the quarter while growth outpaced value with the exception of small cap. Large cap stocks outperformed small cap stocks by a wide margin for the calendar year and growth outpaced value across market caps.
- Calendar year results were clearly driven by large cap technology stocks. Within the S&P 500 index, the “Magnificent 7” stocks generated more than 50% of the total gains.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023. Magnificent Seven stocks include: Apple, Microsoft, Alphabet, Amazon, Nvidia, Tesla, and Meta.

### Russell 3000 Sector Returns<sup>1</sup>



- All sectors posted gains for the fourth quarter, except for energy (-7.2%) given oil's recent declines. Technology (+16.2%) led the way for the quarter followed by financials (+14.6%).
- In 2023, technology (+64.7%) and consumer discretionary (+35.0%) sectors had the best results, helped respectively by artificial intelligence optimism and a healthy US consumer. Traditionally defensive sectors like utilities (-7.8%) and consumer staples (-5.0%) trailed.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

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

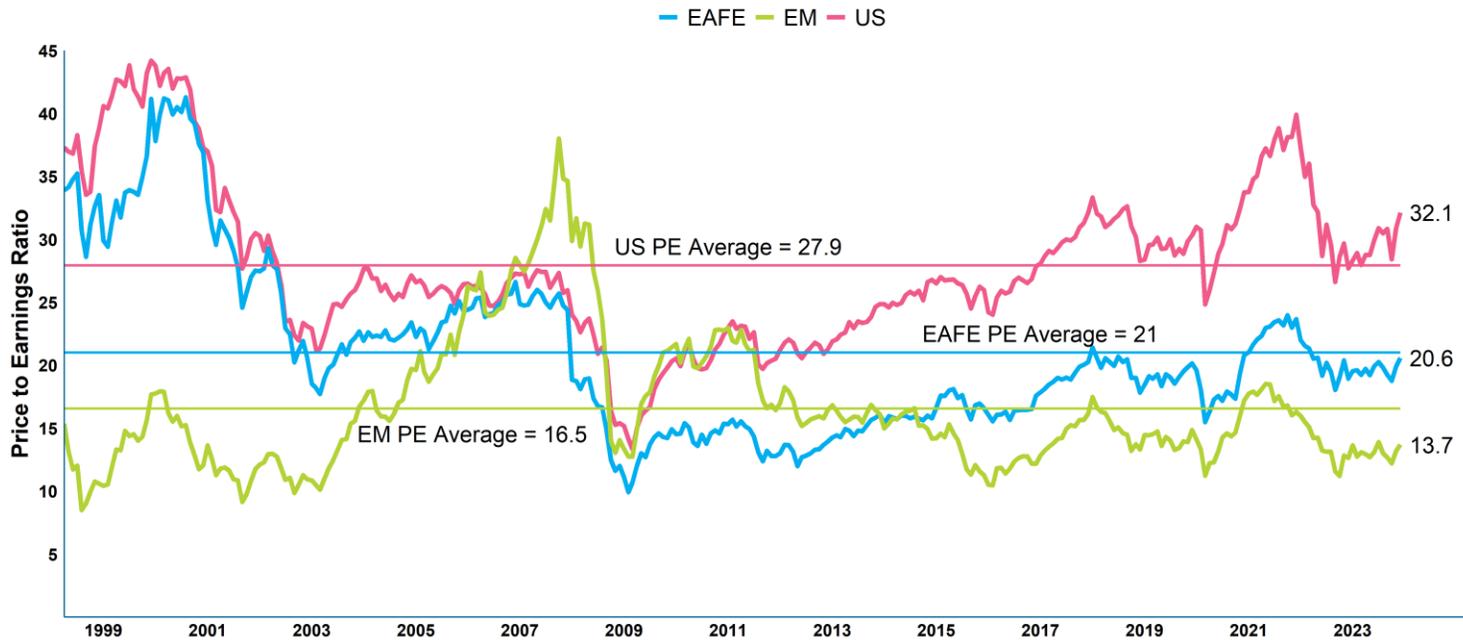
Foreign Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	5.0	9.8	15.6	1.5	7.1	3.8
MSCI EAFE	5.3	10.4	18.2	4.0	8.2	4.3
MSCI EAFE (Local Currency)	2.9	5.0	16.2	8.7	9.5	6.6
MSCI EAFE Small Cap	7.3	11.1	13.2	-0.7	6.6	4.8
MSCI Emerging Markets	3.9	7.9	9.8	-5.1	3.7	2.7
MSCI Emerging Markets (Local Currency)	3.1	5.6	9.9	-2.5	5.4	5.2
MSCI China	-2.4	-4.2	-11.2	-18.5	-2.8	0.9

**Foreign Equity:** Developed international equities (MSCI EAFE) gained 5.3% in December and 10.4% in the fourth quarter bringing calendar year results to 18.2%. Emerging market equities (MSCI EM) rose 3.9% in December, 7.9% for the quarter, and 9.8% for the year.

- Optimism around lower inflation and potentially peaking and declining policy rates drove gains in the UK and Europe. Japan had weaker results for the quarter as concerns over a strengthening yen weighed on returns in December. Overall weakness in the US dollar also contributed to quarterly and full year results across developed markets.
- Emerging markets also experienced strong performance in the fourth quarter but trailed developed markets. China weighed on relative results for the quarter and year, declining 4.2% and 11.2%, respectively. Slowing growth, issues in the property sector, and on-going tensions with the US all weighed on results.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

**Equity Cyclically Adjusted P/E Ratios<sup>1</sup>**



- Given the strong technology-driven rally last year, the US equity price-to-earnings ratio increased above its 21st century average. Fourth quarter gains brought valuations to their highest level for the year.
- International market valuations also increased in the fourth quarter, but remain below the US. In the case of developed markets, valuations finished the year close to the their long-term average, while emerging markets remained well below their 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: Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of December 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.

### Fixed Income Returns<sup>1</sup>

Fixed Income	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	3.8	6.8	6.2	-3.0	1.4	2.1	4.8	6.1
Bloomberg Aggregate	3.8	6.8	5.5	-3.3	1.1	1.8	4.5	6.3
Bloomberg US TIPS	2.7	4.7	3.9	-1.0	3.2	2.4	4.2	6.7
Bloomberg Short-term TIPS	1.1	2.6	4.6	2.3	3.4	2.0	4.5	2.4
Bloomberg High Yield	3.7	7.2	13.4	2.0	5.4	4.6	7.6	3.8
JPM GBI-EM Global Diversified (USD)	3.2	8.1	12.7	-3.2	1.1	0.1	6.5	5.0

**Fixed Income: The Bloomberg Universal index rose 3.8% in December, 6.8% for the quarter, and 6.2% for the year.**

- Policy rate expectations swung from pessimism to optimism in November and December. Signs of the labor market cooling and improving inflation led investors to bring forward expectations for interest rate cuts to early 2024, leading to one of the best quarterly results in over twenty years.
- The broad US bond market (Bloomberg Aggregate) rallied 6.8% for the quarter, lifting full-year performance into positive territory (+5.5%). The broader TIPS index rose 4.7% for the quarter and 3.9% for the year, while the less interest-rate-sensitive short-term TIPS index rose 2.6% and 4.6% over the same periods.
- High yield bonds rallied on better risk sentiment (+7.2%), as did emerging market bonds (+8.1%). Both asset classes produced double-digit results last year.

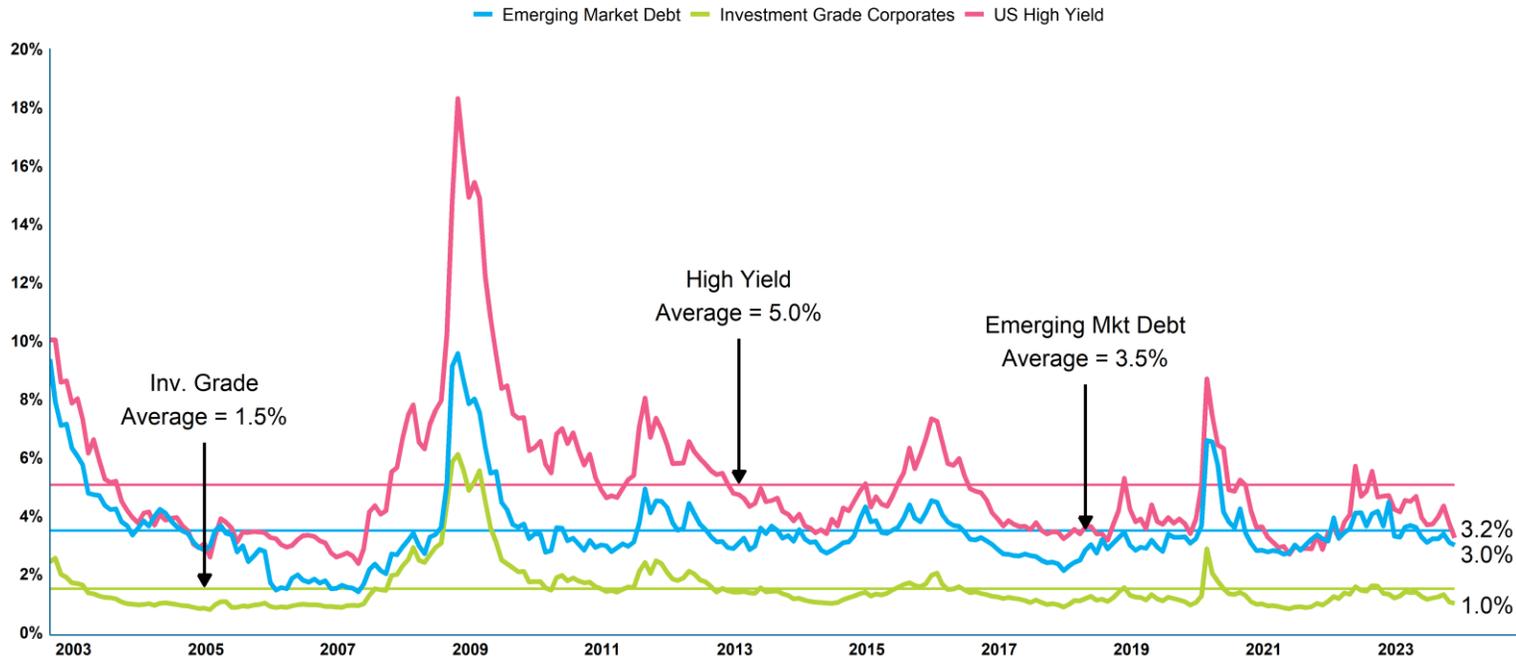
<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of December 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- The more policy sensitive short-term maturities were higher this year while longer-term maturities finished the year where they started.
- Still, rates declined sharply over the quarter, particularly at the longer end of the yield curve on continued easing of inflation-related risks and speculation that the Federal Reserve is done with their policy rate increases for this cycle.
- For the quarter, two-year Treasury yields fell from 5.05% to 4.24% while ten-year Treasury yields declined from 4.56% to 3.88%.
- The yield curve remained inverted at year-end despite a recent flattening trend. The spread between the 2-year and 10-year Treasury was -0.37% at the end of December.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

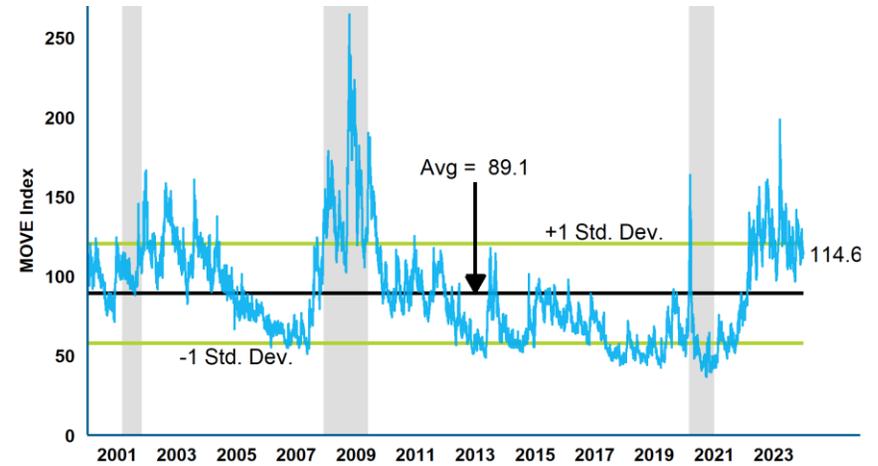
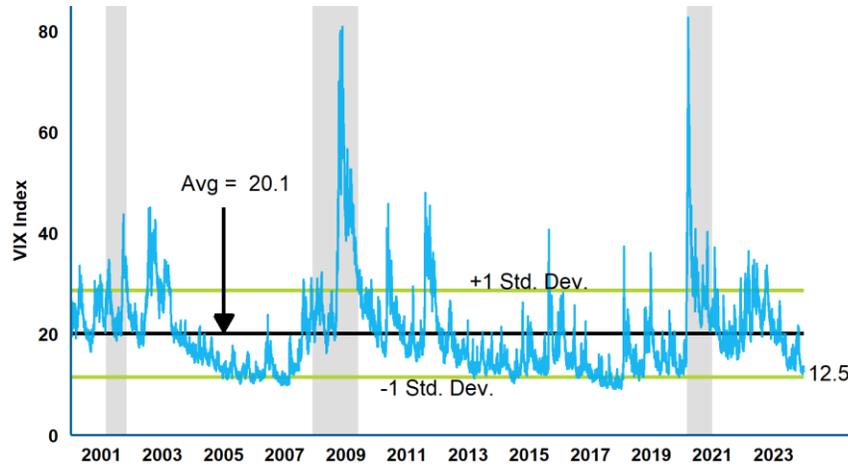
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- Expectations of peaking policy rates and the corresponding increase in risk appetite benefited credit in the fourth quarter with spreads (the added yield above a comparable maturity Treasury) narrowing. All spreads remain below their respective long run averages.
- High yield spreads continue to be the furthest below their long-term average given the overall risk appetite last year and lower duration. Investment-grade corporate and emerging market spreads are also below their respective long-term averages, but by smaller margins.

<sup>1</sup> Sources: Bloomberg. Data is as of December 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

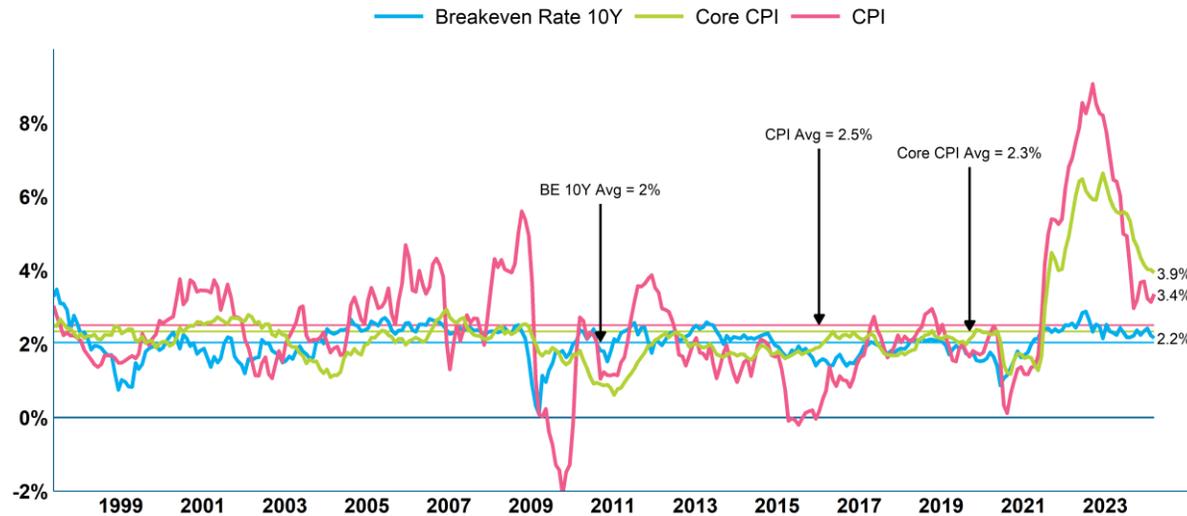
**Equity and Fixed Income Volatility<sup>1</sup>**



- Volatility in equities (VIX) finished the year close to its lows, remaining well below the long-term average as the focus shifted to peaking policy rates and the potential for a soft landing.
- Volatility in the bond market (MOVE) remained elevated to close out 2023 and is well above its long-run average (89.1). The bond market remained on edge for most of 2024 largely driven by uncertainty about the ultimate path of monetary policy.

<sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of December 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and December 2023.

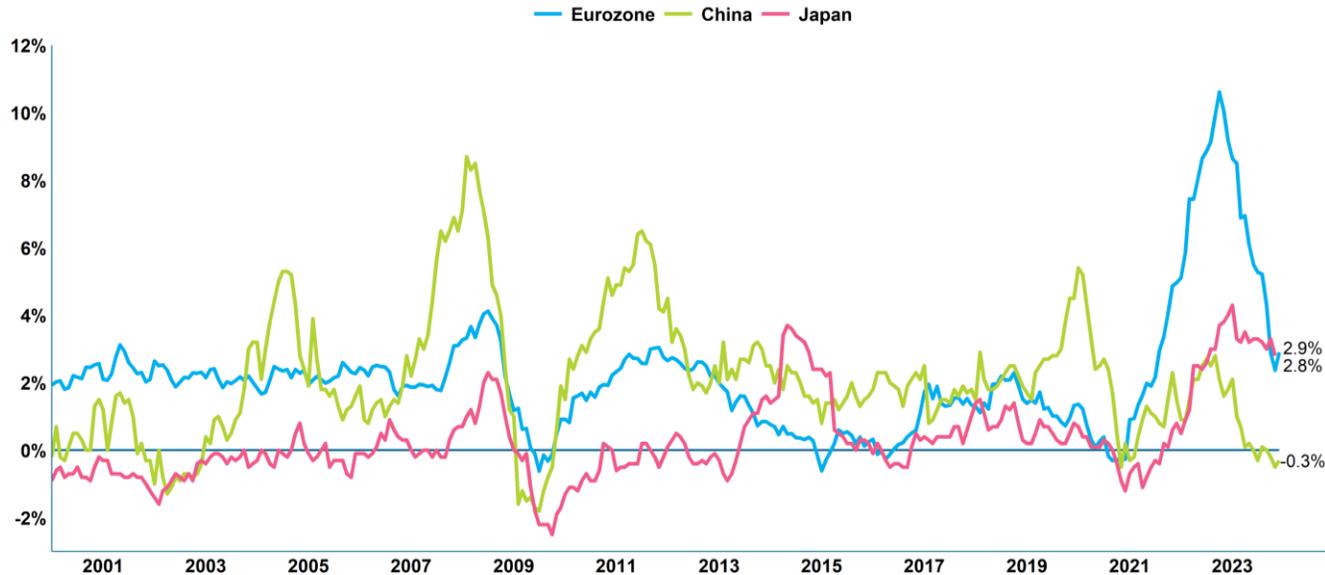
### US Ten-Year Breakeven Inflation and CPI<sup>1</sup>



- Year-over-year headline inflation rose from 3.1% to 3.4% in December, coming in above expectations of 3.2%. An increase in shelter (+6.2%) drove results, with food also increasing from a year prior (+2.7%) and energy prices falling (-2.0%). Month-over-month inflation came in at 0.3%, above expectations of 0.2% and the prior reading of 0.1%.
- Core inflation - excluding food and energy – declined in December (3.9% versus 4.0%) year-over-year, with shelter costs again driving the total core index increase.
- Inflation expectations (breakevens) have remained relatively stable despite the recent significant volatility in inflation.

<sup>1</sup> Source: FRED. Data is as December 2023. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

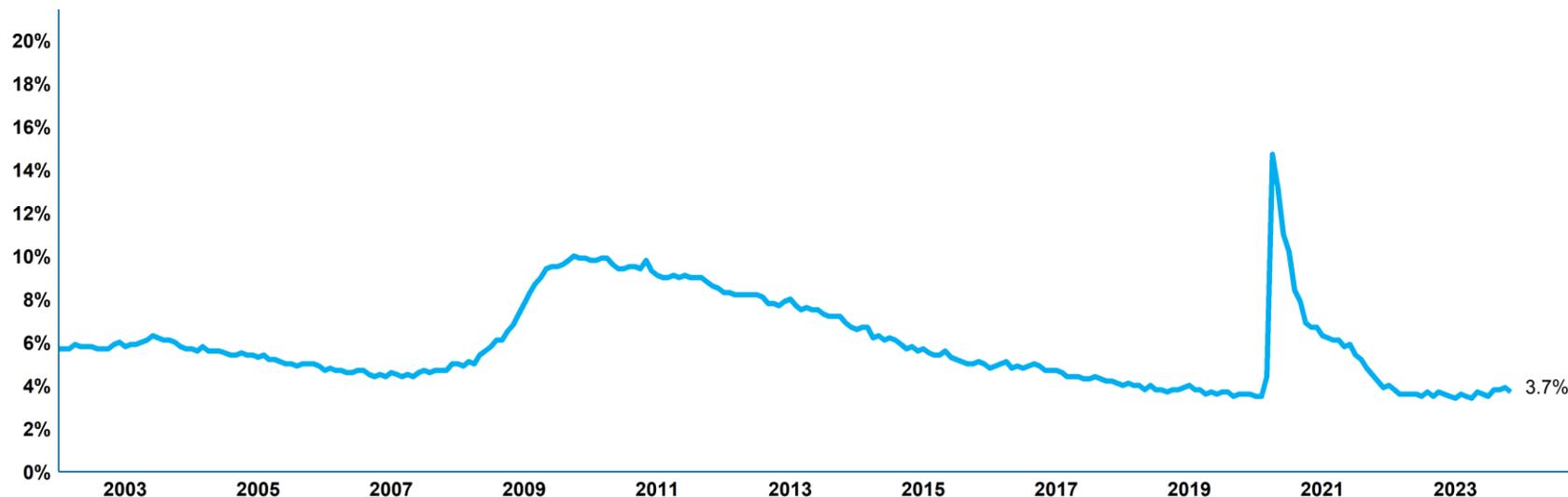
**Global Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- Outside the US, inflation is also falling across major economies with China slipping into deflation.
- In the eurozone, inflation experienced a dramatic decline last year. Despite a small increase in December (2.9% versus 2.4%) it finished the year below the 3.4% year-over-year reading in the US.
- Inflation in Japan remains near levels not seen in almost a decade, driven by food and home related items.

<sup>1</sup> Source: FRED for United States CPI and Eurozone CPI. Source: Bloomberg for Japan CPI, China CPI, and Eurozone December flash estimate. Data is as December 31, 2023, except Japan which is as of November 30, 2023.

### US Unemployment<sup>1</sup>

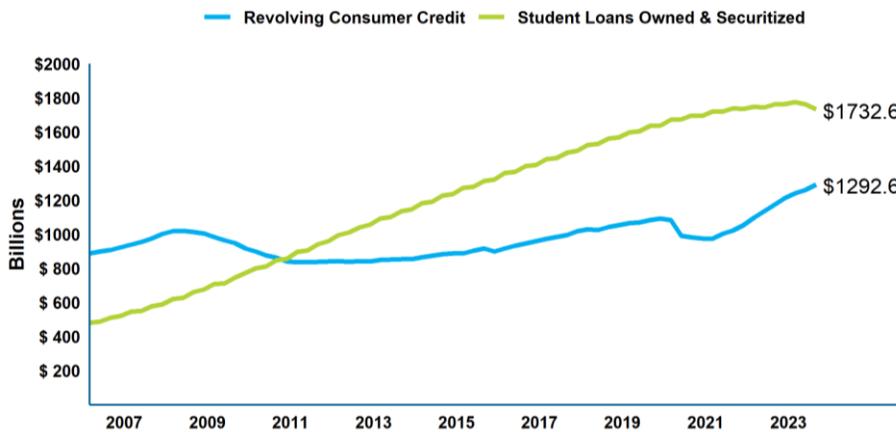


- Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- In December, US unemployment remained unchanged (3.7%) and came in slightly below expectations of an increase to 3.8%. The number of jobs added did come in above expectations (216k versus 175k) though with the most jobs added in the government, leisure and hospitality, and health care sectors.
- The labor force participation remained relatively stable at 62.5%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%).
- The pace of hourly wage growth has declined from its peak of close to 6.0% finishing 2023 at 4.1% yoy. Wage growth remains positive in real terms though.

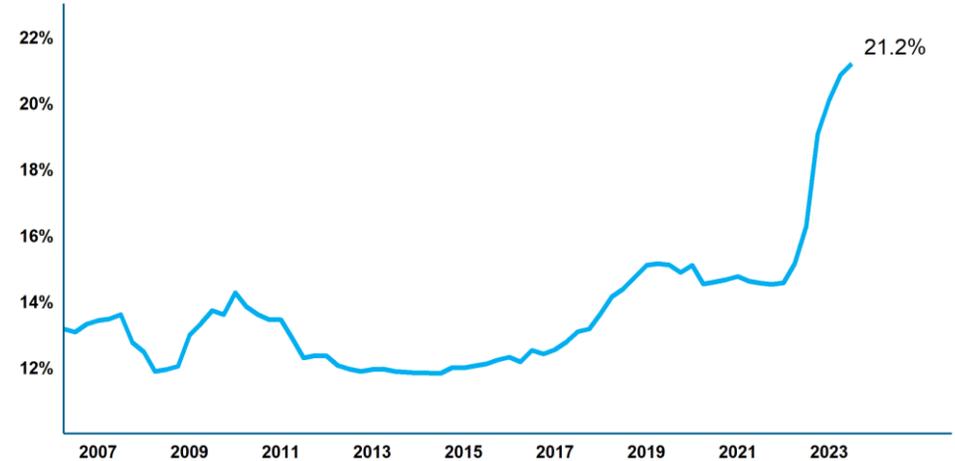
Source: FRED. Data is as December 31, 2023.

### US Consumer Under Stress?<sup>1</sup>

#### Revolving Consumer Credit & Student Loans (\$B)



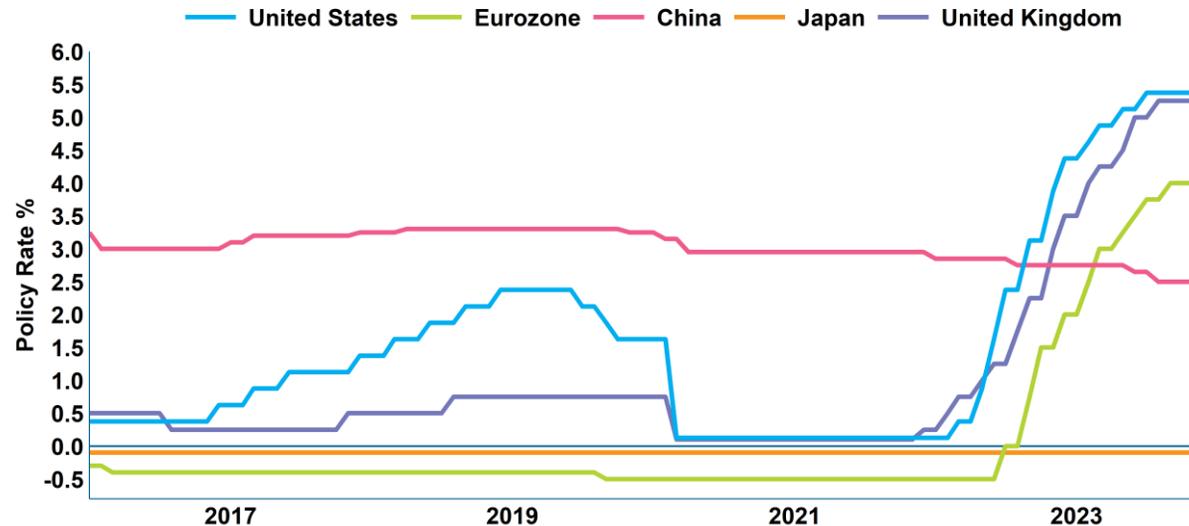
#### Consumer Credit Card Interest Rates (%)



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s).
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

<sup>1</sup> Source: FRED. Data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.

### Policy Rates<sup>1</sup>



- Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are pricing in six rate cuts next year given the track of economic data and recent comments from the Fed, while the Fed itself is only predicting three. How this discrepancy is resolved will be key this year.
- The European and UK central banks also recently paused their rate increases on slowing inflation. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

<sup>1</sup> Source: Bloomberg. Data is as of December 2023.

US Dollar vs. Broad Currencies<sup>1</sup>



- The US dollar declined around 5% in the fourth quarter as generally weaker economic data led investors to anticipate the end of FOMC tightening and interest rate cuts in 2024.
- Overall, the dollar finished the year only slightly below where it started but it was a volatile year for the US currency as expectations related to monetary policy evolved.

<sup>1</sup> Source: Bloomberg. Data as of December 31, 2023.

## Summary

### Key Trends:

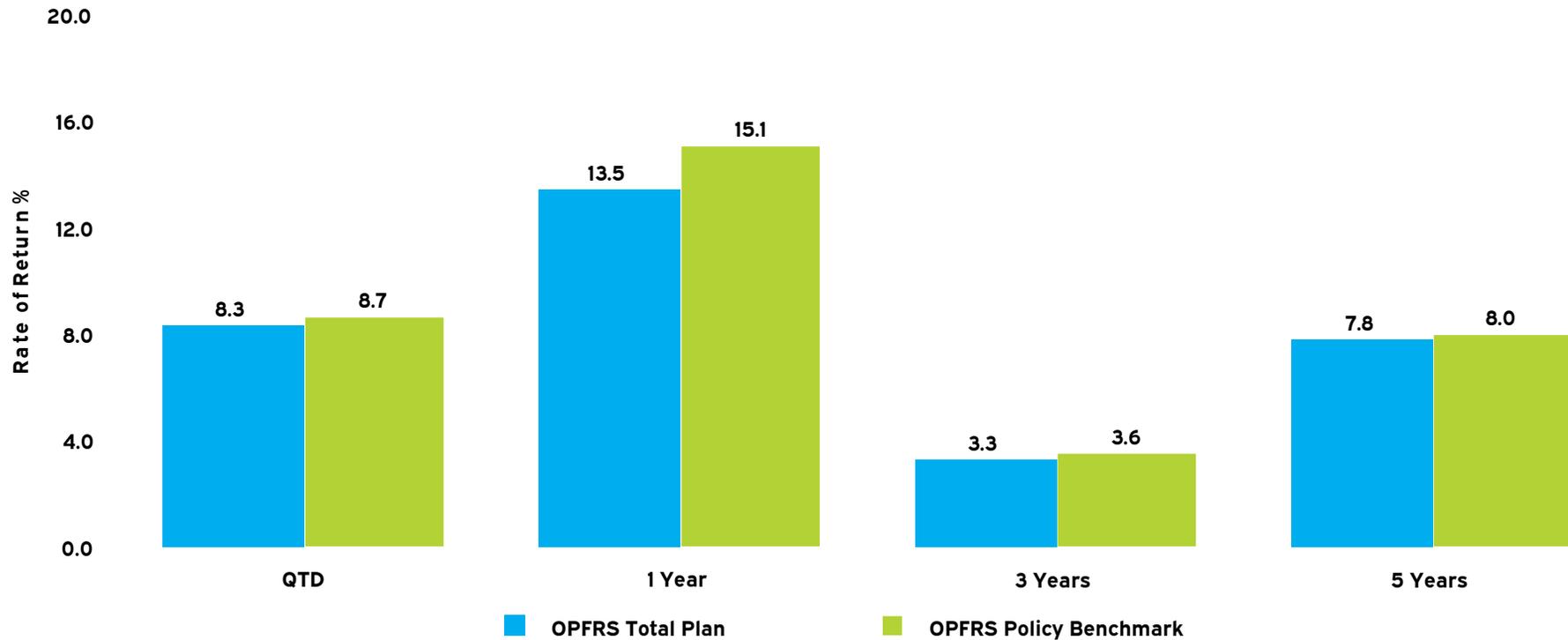
- The impact of inflation still above policy targets will remain important, with bond market volatility likely to stay high.
- Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession. In the case of the US the resolution of the disparity between market expectations for the path of interest rates versus the Fed's dot plot will be key.
- Global growth is expected to slow next year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will remain key in 2024.
- US consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- A focus for US equities going forward, will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including the potential for China's economic slowdown and on-going weakness in the real estate sector could spill over into key trading partners' economies. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.
- Recent, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

## **Quarterly Performance** as of December 31, 2023

#### Summary of Cash Flows

	QTD	1 Year
<b>OPFRS Total Plan</b>		
<b>Beginning Market Value</b>	<b>405,143,449</b>	<b>398,501,201</b>
Net Cash Flow	-2,587,879	-15,572,778
Net Investment Change	33,399,952	53,027,098
<b>Ending Market Value</b>	<b>435,955,522</b>	<b>435,955,522</b>

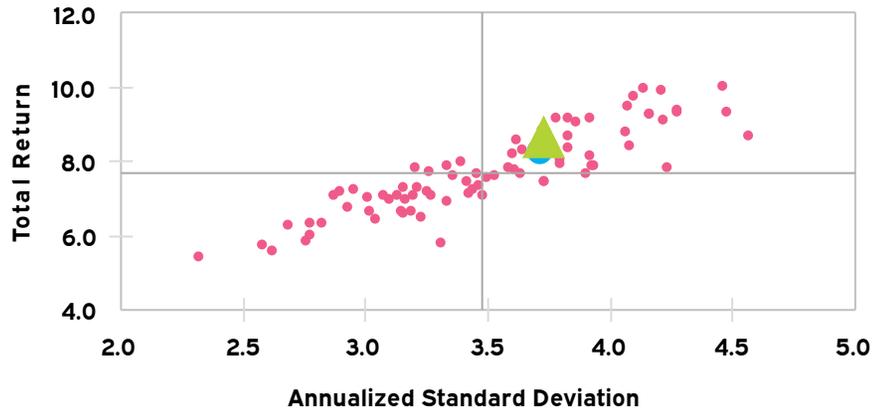
#### Return Summary Ending December 31, 2023



Total Plan performance shown is net of fees.

### Total Plan Risk/Return Summary | As of December 31, 2023

#### Risk-Return Summary QTD Ending December 31, 2023

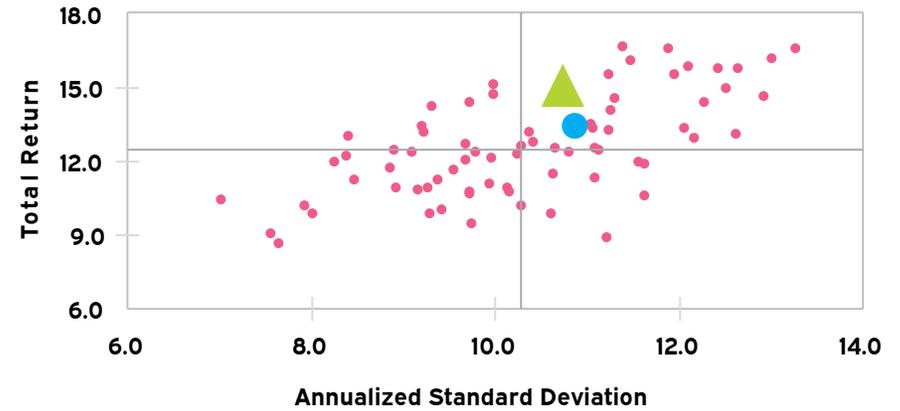


- IM Public DB \$250M-\$1B
- OPFRS Total Plan
- ▲ OPFRS Policy Benchmark

	Return	Standard Deviation
--	--------	--------------------

OPFRS Total Plan	8.3	3.7
OPFRS Policy Benchmark	8.7	3.7
Median	7.7	3.5

#### Risk-Return Summary 1 Yr Ending December 31, 2023



- IM Public DB \$250M-\$1B
- OPFRS Total Plan
- ▲ OPFRS Policy Benchmark

	Return	Standard Deviation
--	--------	--------------------

OPFRS Total Plan	13.5	10.9
OPFRS Policy Benchmark	15.1	10.7
Median	12.4	10.3

Performance shown is net of fees. Calculation is based on monthly periodicity. Parentheses contain percentile rankings. Fiscal year begins on July 1. Plan Sponsor Peer Group shown is net of fees.

## Asset Class Performance: Gross of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>OPFRS Total Plan (Gross)</b>	<b>435,955,522</b>	<b>100.0</b>	<b>8.4</b>	<b>5.3</b>	<b>13.8</b>	<b>3.6</b>	<b>8.1</b>	<b>6.8</b>	<b>6.7</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			<i>8.7</i>	<i>5.4</i>	<i>15.1</i>	<i>3.6</i>	<i>8.0</i>	<i>6.8</i>	<i>7.9</i>	
Excess Return			-0.3	-0.1	-1.3	0.0	0.1	0.0	-1.2	
<b>Domestic Equity (Gross)</b>	<b>183,174,978</b>	<b>42.0</b>	<b>12.1</b>	<b>7.9</b>	<b>20.3</b>	<b>7.8</b>	<b>14.1</b>	<b>10.9</b>	<b>9.0</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>12.1</i>	<i>8.4</i>	<i>26.0</i>	<i>8.5</i>	<i>15.2</i>	<i>11.5</i>	<i>9.3</i>	
Excess Return			0.0	-0.5	-5.7	-0.7	-1.1	-0.6	-0.3	
<b>International Equity (Gross)</b>	<b>56,347,608</b>	<b>12.9</b>	<b>9.6</b>	<b>7.2</b>	<b>20.2</b>	<b>4.2</b>	<b>9.1</b>	<b>5.3</b>	<b>5.5</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			<i>9.8</i>	<i>5.6</i>	<i>15.6</i>	<i>1.5</i>	<i>7.1</i>	<i>3.8</i>	<i>5.1</i>	
Excess Return			-0.2	1.6	4.6	2.7	2.0	1.5	0.4	
<b>Fixed Income (Gross)</b>	<b>107,983,596</b>	<b>24.8</b>	<b>6.8</b>	<b>3.4</b>	<b>6.3</b>	<b>-2.6</b>	<b>1.7</b>	<b>2.4</b>	<b>4.8</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			<i>6.8</i>	<i>3.8</i>	<i>6.2</i>	<i>-3.0</i>	<i>1.4</i>	<i>2.1</i>	<i>4.6</i>	
Excess Return			0.0	-0.4	0.1	0.4	0.3	0.3	0.2	
<b>Credit (Gross)</b>	<b>9,697,822</b>	<b>2.2</b>	<b>4.1</b>	<b>5.7</b>	<b>13.3</b>	<b>4.7</b>	<b>5.4</b>	<b>--</b>	<b>5.6</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			<i>7.2</i>	<i>7.7</i>	<i>13.4</i>	<i>2.0</i>	<i>5.4</i>	<i>4.6</i>	<i>4.8</i>	
Excess Return			-3.1	-2.0	-0.1	2.7	0.0	--	0.8	
<b>Covered Calls (Gross)</b>	<b>23,783,695</b>	<b>5.5</b>	<b>7.3</b>	<b>5.5</b>	<b>20.3</b>	<b>9.5</b>	<b>12.3</b>	<b>--</b>	<b>9.3</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>4.2</i>	<i>1.2</i>	<i>11.8</i>	<i>6.1</i>	<i>6.2</i>	<i>5.7</i>	<i>5.5</i>	
Excess Return			3.1	4.3	8.5	3.4	6.1	--	3.8	
<b>Crisis Risk Offset (Gross)</b>	<b>39,468,172</b>	<b>9.1</b>	<b>0.4</b>	<b>-0.9</b>	<b>1.0</b>	<b>-6.3</b>	<b>-6.7</b>	<b>--</b>	<b>-7.4</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			<i>2.1</i>	<i>-0.3</i>	<i>2.4</i>	<i>4.9</i>	<i>0.4</i>	<i>--</i>	<i>0.0</i>	
Excess Return			-1.7	-0.6	-1.4	-11.2	-7.1	--	-7.4	
<b>Cash (Gross)</b>	<b>15,499,650</b>	<b>3.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>Mar-11</b>

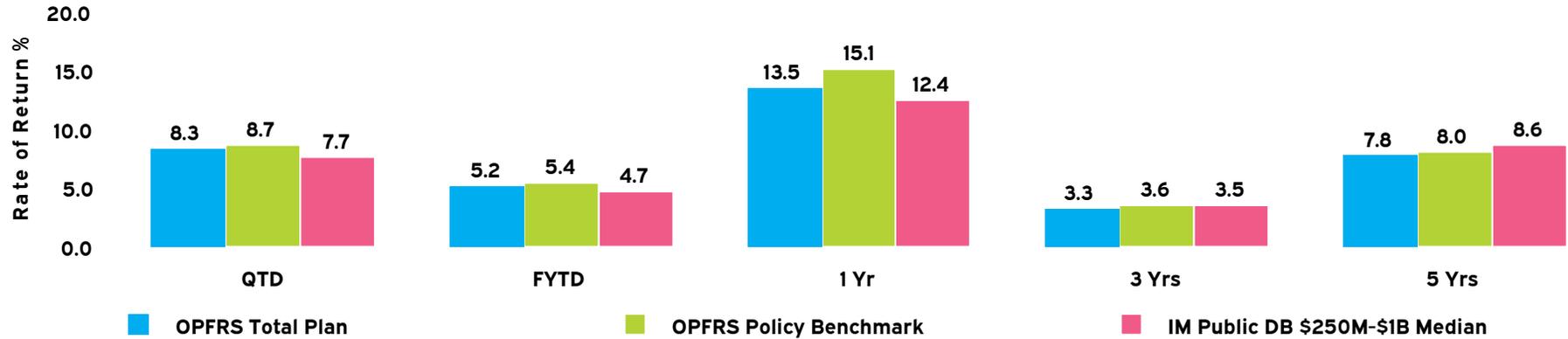
Performance shown is gross of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

## Asset Class Performance: Net of Fees | As of December 31, 2023

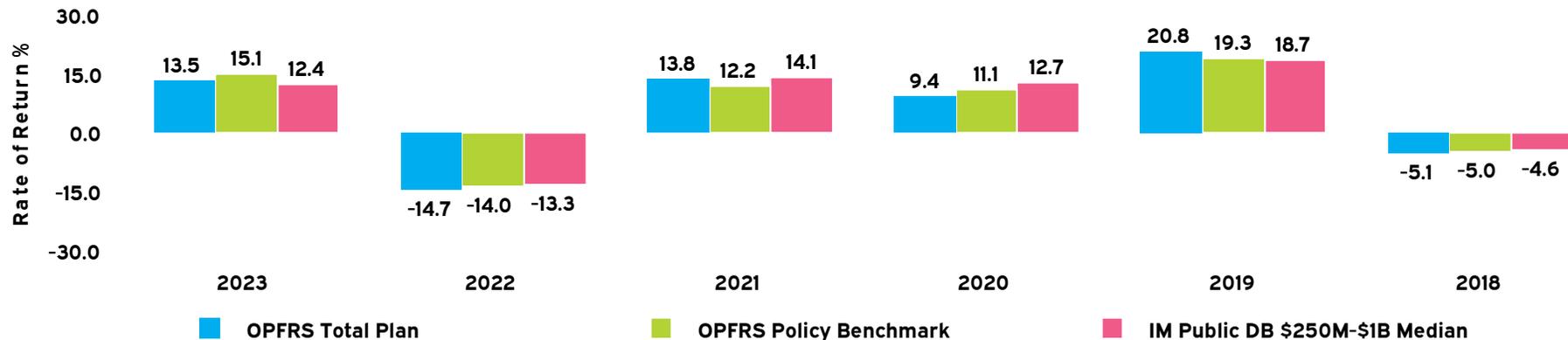
	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>OPFRS Total Plan (Net)</b>	<b>435,955,522</b>	<b>100.0</b>	<b>8.3</b>	<b>5.2</b>	<b>13.5</b>	<b>3.3</b>	<b>7.8</b>	<b>6.5</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			8.7	5.4	15.1	3.6	8.0	6.8	7.9	
Excess Return			-0.4	-0.2	-1.6	-0.3	-0.2	-0.3	-1.3	
<i>IM Public DB \$250M-\$1B Median (Net)</i>			7.7	4.7	12.4	3.5	8.6	6.3	--	
IM Public DB \$250M-\$1B Median (Net) Rank			33	29	32	62	66	45	--	
<b>Domestic Equity (Net)</b>	<b>183,174,978</b>	<b>42.0</b>	<b>12.0</b>	<b>7.7</b>	<b>19.9</b>	<b>7.4</b>	<b>13.8</b>	<b>10.6</b>	<b>8.9</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			12.1	8.4	26.0	8.5	15.2	11.5	9.3	
Excess Return			-0.1	-0.7	-6.1	-1.1	-1.4	-0.9	-0.4	
<b>International Equity (Net)</b>	<b>56,347,608</b>	<b>12.9</b>	<b>9.4</b>	<b>6.9</b>	<b>19.5</b>	<b>3.6</b>	<b>8.5</b>	<b>4.9</b>	<b>5.4</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			9.8	5.6	15.6	1.5	7.1	3.8	5.1	
Excess Return			-0.4	1.3	3.9	2.1	1.4	1.1	0.3	
<b>Fixed Income (Net)</b>	<b>107,983,596</b>	<b>24.8</b>	<b>6.7</b>	<b>3.3</b>	<b>6.1</b>	<b>-2.8</b>	<b>1.5</b>	<b>2.2</b>	<b>4.5</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			6.8	3.8	6.2	-3.0	1.4	2.1	4.6	
Excess Return			-0.1	-0.5	-0.1	0.2	0.1	0.1	-0.1	
<b>Credit (Net)</b>	<b>9,697,822</b>	<b>2.2</b>	<b>3.9</b>	<b>5.4</b>	<b>12.7</b>	<b>4.1</b>	<b>4.8</b>	<b>--</b>	<b>4.9</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			7.2	7.7	13.4	2.0	5.4	4.6	4.8	
Excess Return			-3.3	-2.3	-0.7	2.1	-0.6	--	0.1	
<b>Covered Calls (Net)</b>	<b>23,783,695</b>	<b>5.5</b>	<b>7.3</b>	<b>5.4</b>	<b>20.0</b>	<b>9.2</b>	<b>12.1</b>	<b>--</b>	<b>9.0</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			4.2	1.2	11.8	6.1	6.2	5.7	5.5	
Excess Return			3.1	4.2	8.2	3.1	5.9	--	3.5	
<b>Crisis Risk Offset (Net)</b>	<b>39,468,172</b>	<b>9.1</b>	<b>0.4</b>	<b>-1.0</b>	<b>0.8</b>	<b>-6.4</b>	<b>-6.9</b>	<b>--</b>	<b>-7.6</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			2.1	-0.3	2.4	4.9	0.4	--	0.0	
Excess Return			-1.7	-0.7	-1.6	-11.3	-7.3	--	-7.6	
<b>Cash (Net)</b>	<b>15,499,650</b>	<b>3.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>Mar-11</b>

Performance shown is net of fees, except for Total Plan, Domestic Equity, and International Equity composites which have a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

#### Trailing Period Performance Ending December 31, 2023



#### Calendar Year Performance Ending December 31, 2023



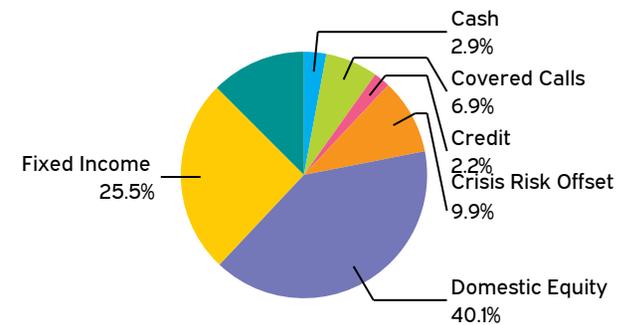
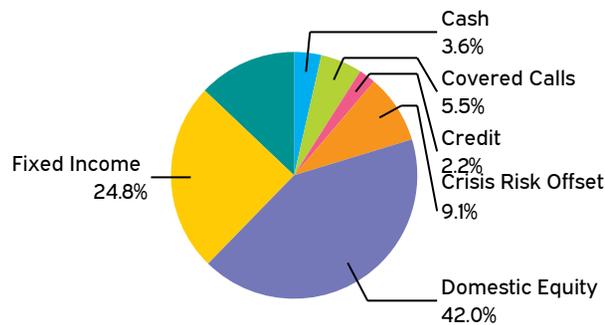
Total Plan performance is a mix of gross and net of fees; performance is gross of fees prior to January 2016 and thereafter. Fiscal year begins on July 1.

### Asset Allocation | As of December 31, 2023

	Current Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
Domestic Equity	183,174,978	42.0	40.0	2.0	30.0 - 50.0	Yes
International Equity	56,347,608	12.9	12.0	0.9	8.0 - 14.0	Yes
Fixed Income	107,983,596	24.8	31.0	-6.2	25.0 - 40.0	No
Credit	9,697,822	2.2	2.0	0.2	1.0 - 3.0	Yes
Covered Calls	23,783,695	5.5	5.0	0.5	5.0 - 10.0	Yes
Crisis Risk Offset	39,468,172	9.1	10.0	-0.9	5.0 - 15.0	Yes
Cash	15,499,650	3.6	0.0	3.6	0.0 - 5.0	Yes
<b>Total</b>	<b>435,955,522</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>		

December 31, 2023: \$435,955,521.5

December 31, 2022: \$406,308,110.42



Cash account market value includes cash balances held in ETF accounts at the custodian and residuals from terminated managers. Target weights reflect the Plan's evolving asset allocation (effective 05/31/2017).

## Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>Domestic Equity</b>	<b>183,174,978</b>	<b>100.0</b>	<b>12.0</b>	<b>7.7</b>	<b>19.9</b>	<b>7.4</b>	<b>13.8</b>	<b>10.6</b>	<b>8.9</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>12.1</i>	<i>8.4</i>	<i>26.0</i>	<i>8.5</i>	<i>15.2</i>	<i>11.5</i>	<i>9.3</i>	
Excess Return			-0.1	-0.7	-6.1	-1.1	-1.4	-0.9	-0.4	
Northern Trust Russell 1000	88,252,834	48.2	12.0	8.5	26.5	8.8	15.4	11.7	13.5	Jun-10
<i>Russell 1000 Index</i>			<i>12.0</i>	<i>8.4</i>	<i>26.5</i>	<i>9.0</i>	<i>15.5</i>	<i>11.8</i>	<i>13.6</i>	
Excess Return			0.0	0.1	0.0	-0.2	-0.1	-0.1	-0.1	
EARNEST Partners	42,300,855	23.1	12.7	7.6	16.8	7.0	15.1	11.1	9.4	Apr-06
<i>Russell Midcap Index</i>			<i>12.8</i>	<i>7.5</i>	<i>17.2</i>	<i>5.9</i>	<i>12.7</i>	<i>9.4</i>	<i>8.8</i>	
Excess Return			-0.1	0.1	-0.4	1.1	2.4	1.7	0.6	
eV US Mid Cap Core Equity Rank			29	42	52	64	20	14	28	
Wellington Select Quality Equity	24,458,953	13.4	9.8	4.6	10.2	--	--	--	6.5	May-22
<i>Russell 1000 Index</i>			<i>12.0</i>	<i>8.4</i>	<i>26.5</i>	<i>9.0</i>	<i>15.5</i>	<i>11.8</i>	<i>10.7</i>	
Excess Return			-2.2	-3.8	-16.3	--	--	--	-4.2	
eV US Large Cap Core Equity Rank			80	90	94	--	--	--	82	
Brown Fundamental Small Cap Value	12,835,326	7.0	12.9	13.8	17.5	--	--	--	6.7	Apr-21
<i>Russell 2000 Value Index</i>			<i>15.3</i>	<i>11.8</i>	<i>14.6</i>	<i>7.9</i>	<i>10.0</i>	<i>6.8</i>	<i>1.4</i>	
Excess Return			-2.4	2.0	2.9	--	--	--	5.3	
eV US Small Cap Value Equity Rank			45	14	39	--	--	--	21	
Rice Hall James	15,327,009	8.4	13.4	4.0	14.1	-0.3	7.5	--	6.6	Aug-17
<i>Russell 2000 Growth Index</i>			<i>12.7</i>	<i>4.5</i>	<i>18.7</i>	<i>-3.5</i>	<i>9.2</i>	<i>7.2</i>	<i>7.1</i>	
Excess Return			0.7	-0.5	-4.6	3.2	-1.7	--	-0.5	
eV US Small Cap Growth Equity Rank			13	45	68	35	95	--	90	

Performance shown is net of fees, except for the Domestic Equity composite which has a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

### Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>International Equity</b>	<b>56,347,608</b>	<b>100.0</b>	<b>9.4</b>	<b>6.9</b>	<b>19.5</b>	<b>3.6</b>	<b>8.5</b>	<b>4.9</b>	<b>5.4</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			9.8	5.6	15.6	1.5	7.1	3.8	5.1	
Excess Return			-0.4	1.3	3.9	2.1	1.4	1.1	0.3	
Vanguard Developed Markets ETF	16,040,034	28.5	11.0	5.8	17.9	3.7	--	--	7.5	Sep-19
<i>FTSE Developed All Cap ex-U.S. Index</i>			10.9	6.5	18.3	3.9	8.7	4.8	7.8	
Excess Return			0.1	-0.7	-0.4	-0.2	--	--	-0.3	
SGA ACWI ex-U.S. Equity	40,307,575	71.5	8.8	7.3	20.5	3.5	--	--	4.4	Dec-19
<i>MSCI AC World ex USA (Net)</i>			9.8	5.6	15.6	1.5	7.1	3.8	4.8	
Excess Return			-1.0	1.7	4.9	2.0	--	--	-0.4	
eV ACWI ex-US All Cap Core Eq Rank			77	18	7	29	--	--	71	

Performance shown is net of fees, except for the International Equity composite which has a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

### Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>Fixed Income</b>	<b>107,983,596</b>	<b>100.0</b>	<b>6.7</b>	<b>3.3</b>	<b>6.1</b>	<b>-2.8</b>	<b>1.5</b>	<b>2.2</b>	<b>4.5</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			6.8	3.8	6.2	-3.0	1.4	2.1	4.6	
Excess Return			-0.1	-0.5	-0.1	0.2	0.1	0.1	-0.1	
Ramirez	73,247,942	67.8	6.6	3.2	5.9	-2.8	1.4	--	1.7	Jan-17
<i>Blmbg. U.S. Aggregate Index</i>			6.8	3.4	5.5	-3.3	1.1	1.8	1.3	
Excess Return			-0.2	-0.2	0.4	0.5	0.3	--	0.4	
eV US Core Fixed Inc Rank			70	78	48	22	53	--	29	
Wellington Core Bond	6,993,592	6.5	7.3	4.0	7.1	--	--	--	-2.5	Apr-21
<i>Blmbg. U.S. Aggregate Index</i>			6.8	3.4	5.5	-3.3	1.1	1.8	-2.4	
Excess Return			0.5	0.6	1.6	--	--	--	-0.1	
eV US Core Fixed Inc Rank			11	13	5	--	--	--	78	
Reams	27,742,062	25.7	7.0	3.2	6.5	-2.7	3.6	3.1	4.9	Feb-98
<i>Bloomberg Universal (Blend)</i>			6.8	3.8	6.2	-3.0	1.4	2.1	4.2	
Excess Return			0.2	-0.6	0.3	0.3	2.2	1.0	0.7	
eV US Core Plus Fixed Inc Rank			49	86	52	40	2	7	24	

Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

### Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>Credit</b>	<b>9,697,822</b>	<b>100.0</b>	<b>3.9</b>	<b>5.4</b>	<b>12.7</b>	<b>4.1</b>	<b>4.8</b>	<b>--</b>	<b>4.9</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			<i>7.2</i>	<i>7.7</i>	<i>13.4</i>	<i>2.0</i>	<i>5.4</i>	<i>4.6</i>	<i>4.8</i>	
Excess Return			<i>-3.3</i>	<i>-2.3</i>	<i>-0.7</i>	<i>2.1</i>	<i>-0.6</i>	<i>--</i>	<i>0.1</i>	
<b>Polen Capital</b>	<b>9,697,822</b>	<b>100.0</b>	<b>3.9</b>	<b>5.4</b>	<b>12.7</b>	<b>4.1</b>	<b>4.8</b>	<b>--</b>	<b>4.9</b>	<b>Feb-15</b>
<i>ICE BofA High Yield Master II</i>			<i>7.1</i>	<i>7.6</i>	<i>13.5</i>	<i>2.0</i>	<i>5.2</i>	<i>4.5</i>	<i>4.7</i>	
Excess Return			<i>-3.2</i>	<i>-2.2</i>	<i>-0.8</i>	<i>2.1</i>	<i>-0.4</i>	<i>--</i>	<i>0.2</i>	
eV US High Yield Fixed Inc Rank			94	90	39	9	64	--	21	

Performance shown is net of fees. Since inception date and performance begin in the month following an investment's initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

## Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>Covered Calls</b>	<b>23,783,695</b>	<b>100.0</b>	<b>7.3</b>	<b>5.4</b>	<b>20.0</b>	<b>9.2</b>	<b>12.1</b>	<b>--</b>	<b>9.0</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>4.2</i>	<i>1.2</i>	<i>11.8</i>	<i>6.1</i>	<i>6.2</i>	<i>5.7</i>	<i>5.5</i>	
Excess Return			3.1	4.2	8.2	3.1	5.9	--	3.5	
Parametric BXM	11,662,453	49.0	5.0	4.0	15.8	7.5	8.9	--	7.1	Apr-14
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>4.2</i>	<i>1.2</i>	<i>11.8</i>	<i>6.1</i>	<i>6.2</i>	<i>5.7</i>	<i>5.5</i>	
Excess Return			0.8	2.8	4.0	1.4	2.7	--	1.6	
Parametric DeltaShift	12,121,242	51.0	9.6	6.8	24.3	10.7	15.0	--	11.1	Apr-14
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>4.2</i>	<i>1.2</i>	<i>11.8</i>	<i>6.1</i>	<i>6.2</i>	<i>5.7</i>	<i>5.5</i>	
Excess Return			5.4	5.6	12.5	4.6	8.8	--	5.6	

Performance shown is net of fees. Since inception date and performance begin in the month following an investment's initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

### Manager Performance - Net of Fees | As of December 31, 2023

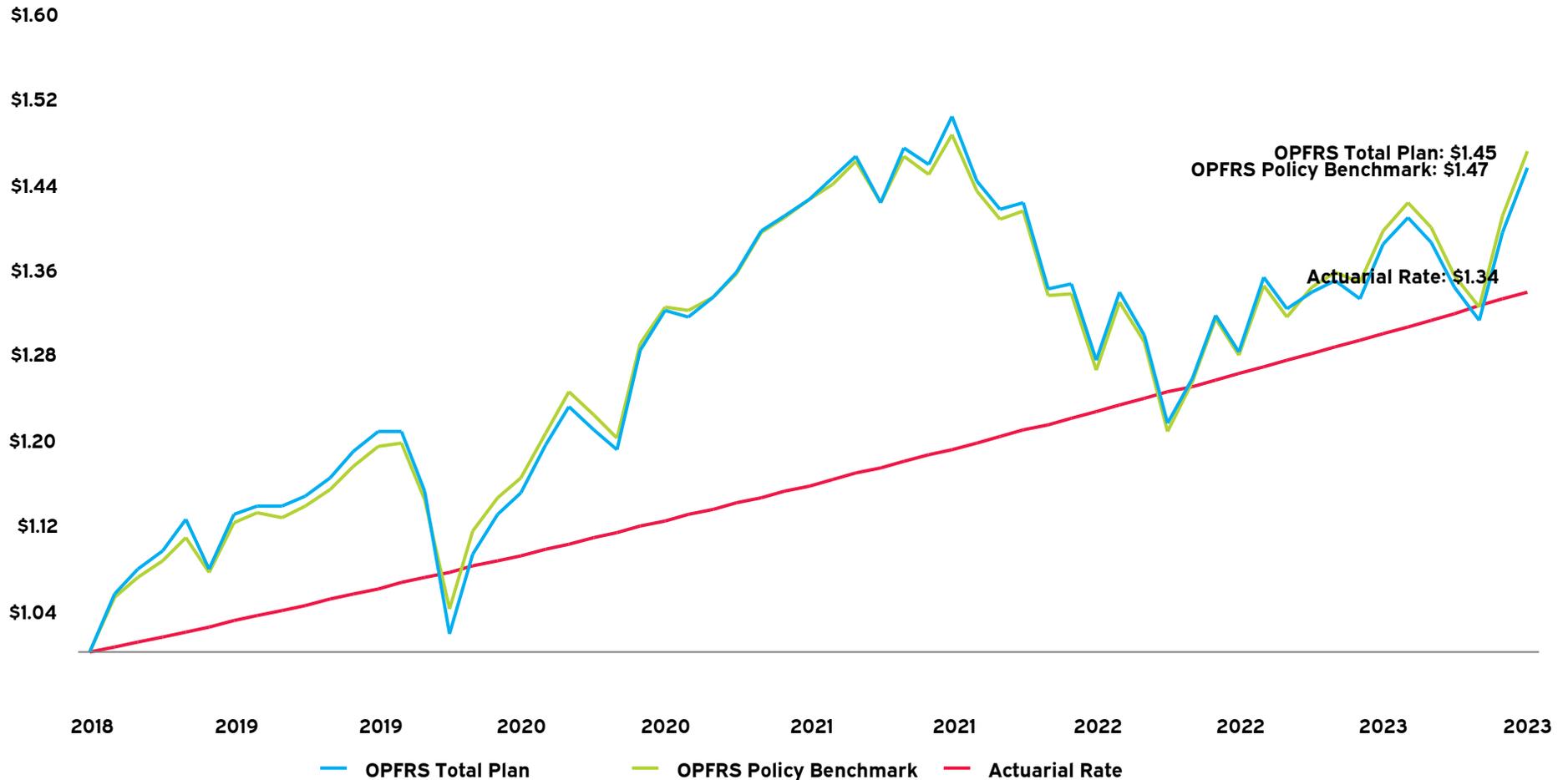
	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Crisis Risk Offset</b>	<b>39,468,172</b>	<b>100.0</b>	<b>0.4</b>	<b>-1.0</b>	<b>0.8</b>	<b>-6.4</b>	<b>-6.9</b>	<b>--</b>	<b>-7.6</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			<i>2.1</i>	<i>-0.3</i>	<i>2.4</i>	<i>4.9</i>	<i>0.4</i>	<i>--</i>	<i>0.0</i>	
Over/Under			<i>-1.7</i>	<i>-0.7</i>	<i>-1.6</i>	<i>-11.3</i>	<i>-7.3</i>	<i>--</i>	<i>-7.6</i>	
<b>Kepos Alternative Risk Premia</b>	<b>10,884,494</b>	<b>27.6</b>	<b>-0.8</b>	<b>3.9</b>	<b>10.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.5</b>	<b>Feb-22</b>
<i>SG Multi Alternative Risk Premia Index</i>			<i>-1.4</i>	<i>2.8</i>	<i>6.4</i>	<i>6.3</i>	<i>1.2</i>	<i>--</i>	<i>5.4</i>	
Over/Under			<i>0.6</i>	<i>1.1</i>	<i>4.2</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-0.9</i>	
<b>Versor Trend Following</b>	<b>14,897,129</b>	<b>37.7</b>	<b>-7.9</b>	<b>-4.2</b>	<b>-6.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-0.4</b>	<b>Apr-22</b>
<i>SG Trend Index</i>			<i>-5.1</i>	<i>-4.3</i>	<i>-4.2</i>	<i>10.0</i>	<i>9.1</i>	<i>5.0</i>	<i>2.1</i>	
Over/Under			<i>-2.8</i>	<i>0.1</i>	<i>-2.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-2.5</i>	
<b>Vanguard Long-Term Treasury ETF</b>	<b>13,686,549</b>	<b>34.7</b>	<b>12.3</b>	<b>-1.1</b>	<b>2.8</b>	<b>-11.6</b>	<b>--</b>	<b>--</b>	<b>-3.9</b>	<b>Jul-19</b>
<i>Blmbg. U.S. Government: Long Term Bond Index</i>			<i>12.7</i>	<i>-0.6</i>	<i>3.1</i>	<i>-11.3</i>	<i>-1.2</i>	<i>2.3</i>	<i>-3.6</i>	
Over/Under			<i>-0.4</i>	<i>-0.5</i>	<i>-0.3</i>	<i>-0.3</i>	<i>--</i>	<i>--</i>	<i>-0.3</i>	

Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

**Cash Flow Summary  
Quarter To Date**

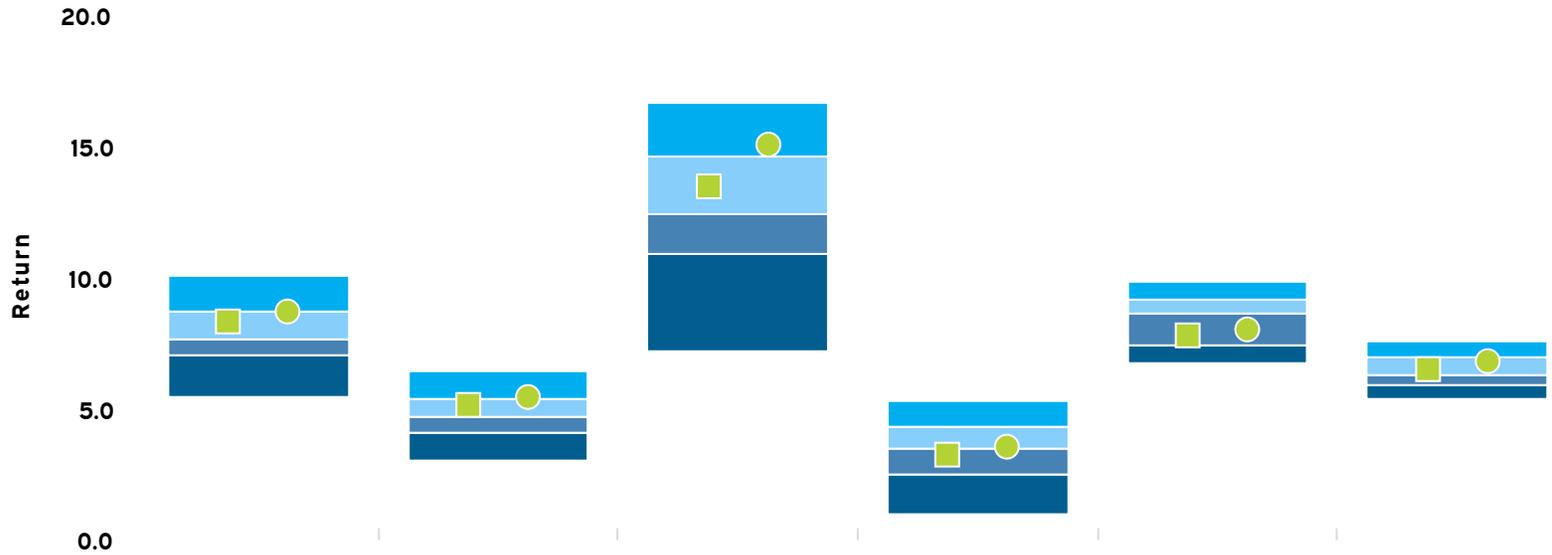
	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Northern Trust Russell 1000	78,815,151	-	9,437,683	88,252,834
EARNEST Partners	39,440,769	-2,000,000	4,860,086	42,300,855
Wellington Select Quality Equity	22,275,787	-	2,183,166	24,458,953
Brown Fundamental Small Cap Value	11,370,103	-	1,465,223	12,835,326
Rice Hall James	13,489,312	-	1,837,698	15,327,009
Vanguard Developed Markets ETF	14,640,298	-204,167	1,603,903	16,040,034
SGA ACWI ex-U.S. Equity	36,967,020	-	3,340,554	40,307,575
Ramirez	68,697,575	-	4,550,367	73,247,942
Wellington Core Bond	6,517,141	-	476,451	6,993,592
Reams	25,907,515	-	1,834,547	27,742,062
Polen Capital	9,329,974	-	367,848	9,697,822
Parametric BXM	11,106,210	-	556,243	11,662,453
Parametric DeltaShift	11,051,591	-	1,069,650	12,121,242
Kepos Alternative Risk Premia	10,968,295	-	-83,801	10,884,494
Versor Trend Following	16,170,216	-	-1,273,086	14,897,129
Vanguard Long-Term Treasury ETF	12,347,478	-58,772	1,397,843	13,686,549
Cash - Money Market	5,644,014	-551,364	-	5,092,650
Cash - Treasury	10,405,000	2,000	-	10,407,000
Securities Lending Northern Trust	-	-38,516	38,516	-
<b>OPFRS Total Plan</b>	<b>405,143,449</b>	<b>-2,850,819</b>	<b>33,662,891</b>	<b>435,955,522</b>

#### Growth of a Dollar 5 Years ending December 31, 2023



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.

#### Plan Sponsor Peer Group Performance Comparison vs. InvMetrics Public DB \$250M-\$1B Net

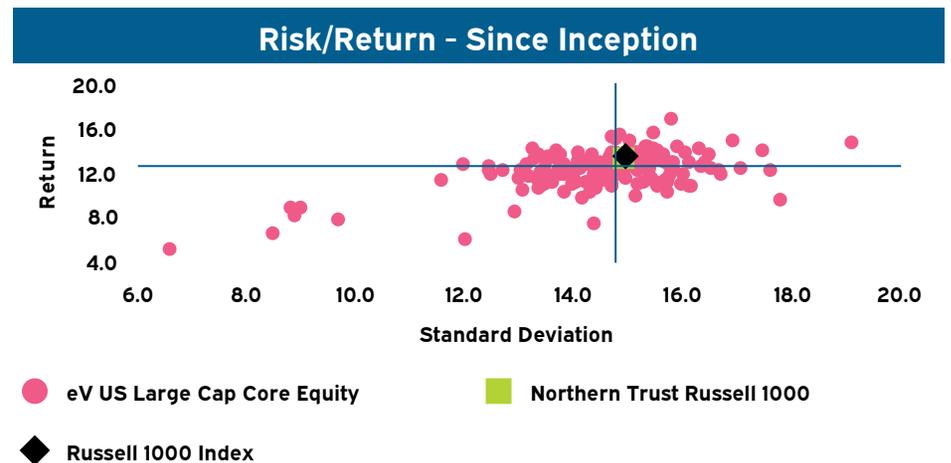
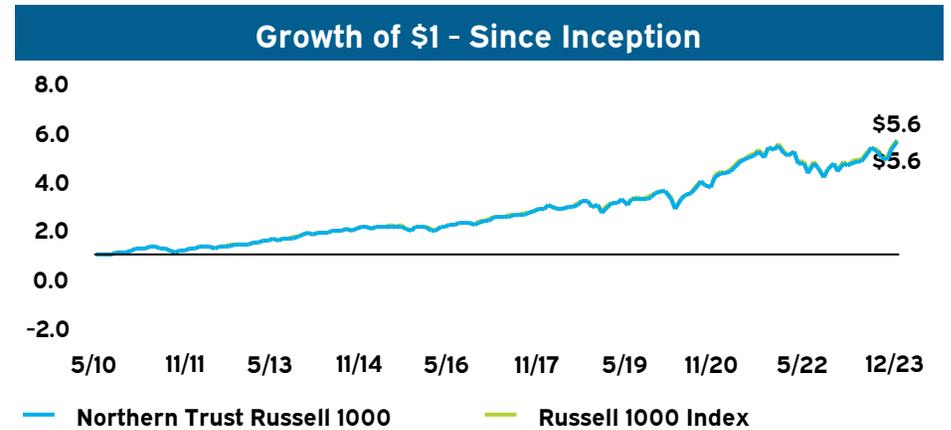
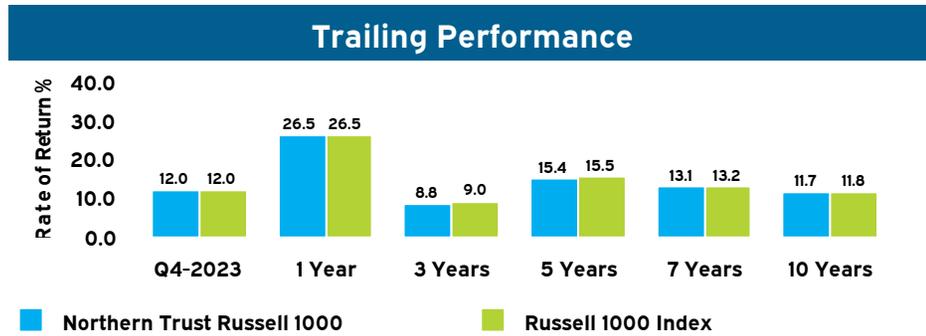


	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
■ OPFRS Total Plan	8.3 (33)	5.2 (29)	13.5 (32)	3.3 (62)	7.8 (66)	6.5 (45)
● OPFRS Policy Benchmark	8.7 (27)	5.4 (24)	15.1 (21)	3.6 (49)	8.0 (63)	6.8 (35)
5th Percentile	10.1	6.4	16.7	5.3	9.8	7.5
1st Quartile	8.7	5.4	14.6	4.3	9.1	7.0
Median	7.7	4.7	12.4	3.5	8.6	6.3
3rd Quartile	7.0	4.1	10.9	2.5	7.4	5.9
95th Percentile	5.4	3.0	7.2	1.0	6.7	5.4
Population	93	90	85	78	78	67

Total Plan performance is a mix of gross and net of fees; performance is gross of fees prior to January 2016 and net of fees thereafter. Parentheses contain percentile rankings. Calculation based on monthly periodicity. Fiscal year begins on July 1.

## **Portfolio Characteristics & Manager Profiles**

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Northern Trust Russell 1000	0.00	1.00	0.28	0.72	0.01	1.00	100.03	99.99
Russell 1000 Index	0.00	1.00	-	0.72	0.00	1.00	100.00	100.00



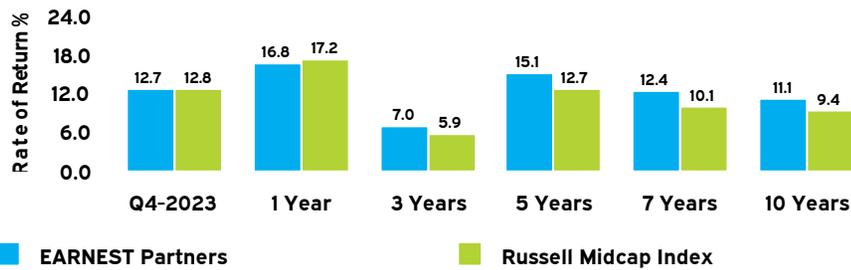
	QTD Return	QTD Risk
Northern Trust Russell 1000	11.97	4.85
Russell 1000 Index	11.96	4.85

Performance shown is net of fees. Risk is measured as Standard Deviation.

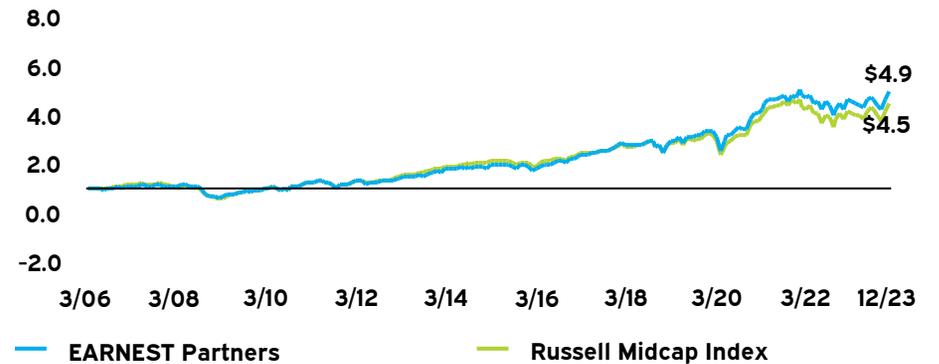
EARNEST Partners | As of December 31, 2023

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
EARNEST Partners	0.55	0.85	-0.08	0.66	1.01	1.00	91.86	75.68
Russell Midcap Index	0.00	1.00	-	0.58	0.00	1.00	100.00	100.00

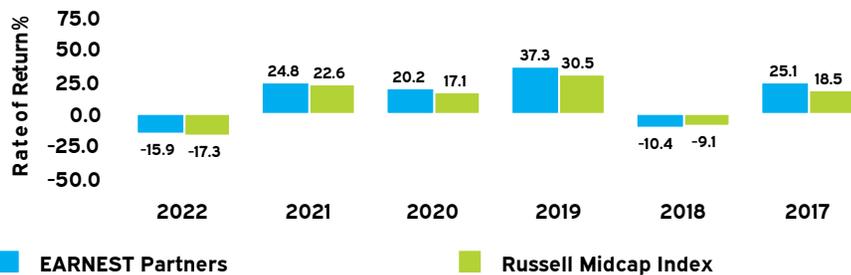
### Trailing Performance



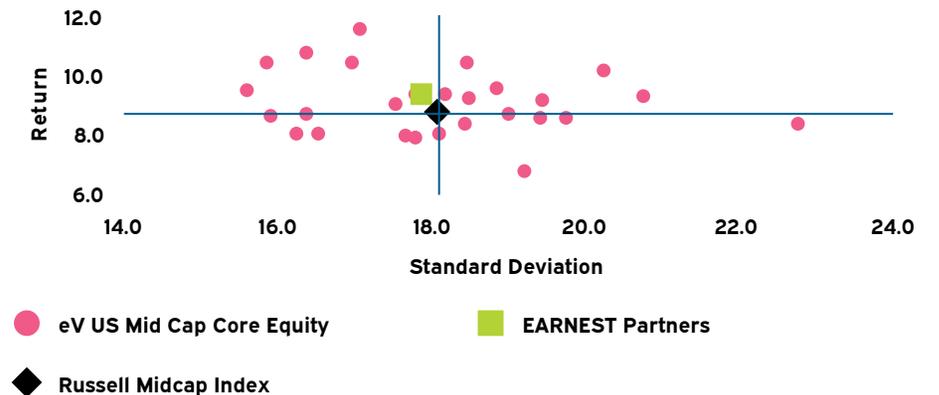
### Growth of \$1 - Since Inception



### Calendar Year Returns



### Risk/Return - Since Inception



	QTD Return	QTD Risk
EARNEST Partners	12.74	5.70
Russell Midcap Index	12.82	6.67

Performance shown is net of fees. Risk is measured as Standard Deviation.

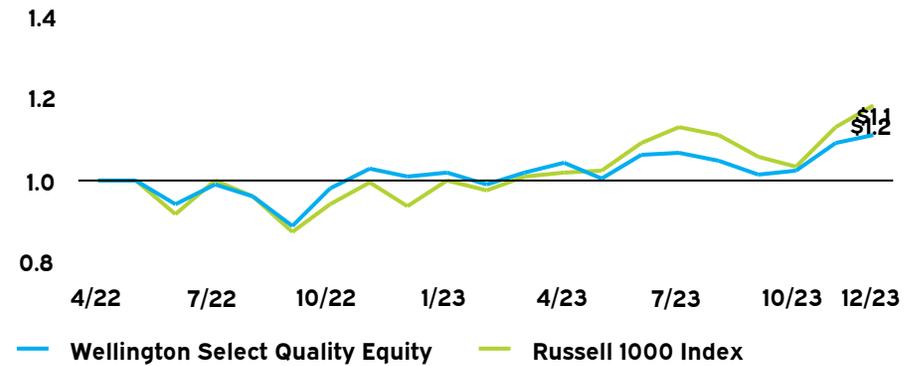
### Wellington Select Quality Equity | As of December 31, 2023

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Wellington Select Quality Equity	1.29	0.48	-0.26	1.01	2.87	0.74	61.29	-35.29
Russell 1000 Index	0.00	1.00	-	0.72	0.00	1.00	100.00	100.00

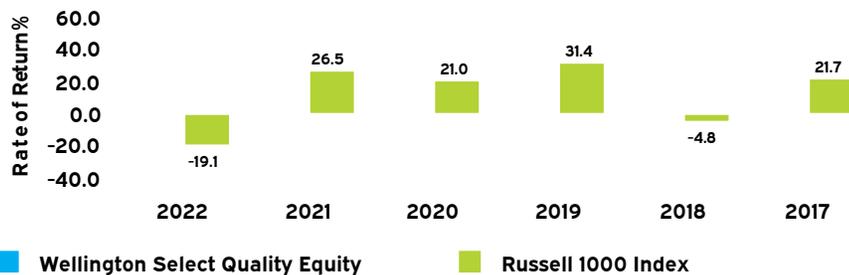
#### Trailing Performance



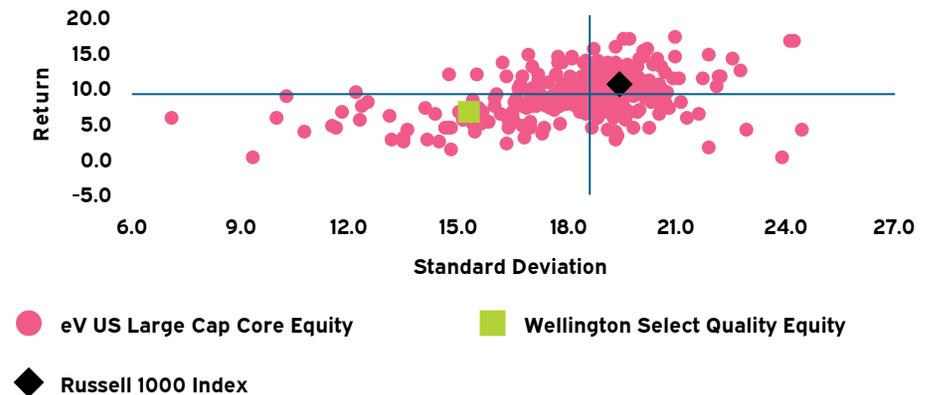
#### Growth of \$1 - Since Inception



#### Calendar Year Returns



#### Risk/Return - Since Inception



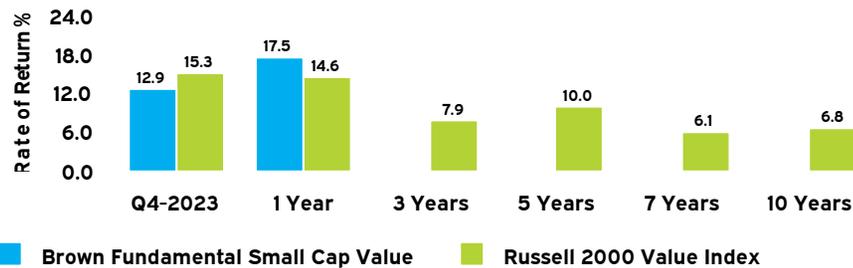
	QTD Return	QTD Risk
Wellington Select Quality Equity	9.80	2.72
Russell 1000 Index	11.96	4.85

Performance shown is net of fees. Risk is measured as Standard Deviation.

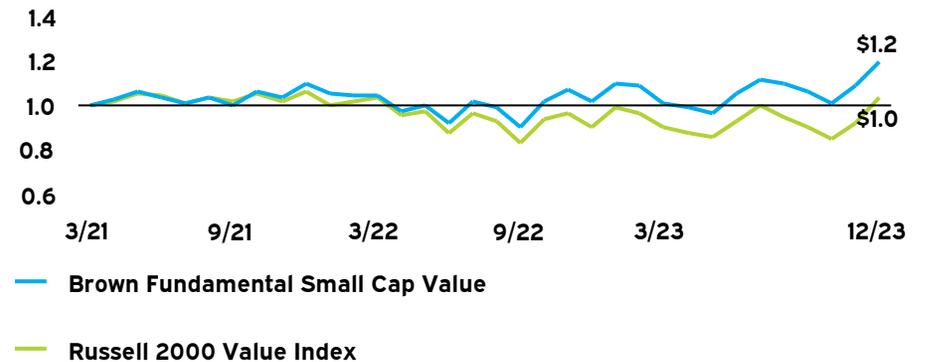
### Brown Fundamental Small Cap Value | As of December 31, 2023

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Brown Fundamental Small Cap Value	0.37	0.76	-0.45	0.63	1.90	1.00	79.94	70.84
Russell 2000 Value Index	0.00	1.00	-	0.59	0.00	1.00	100.00	100.00

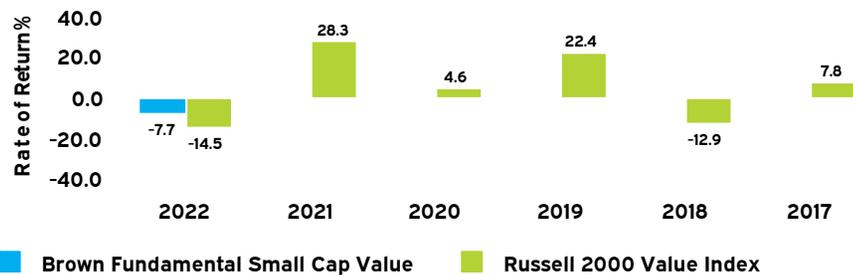
#### Trailing Performance



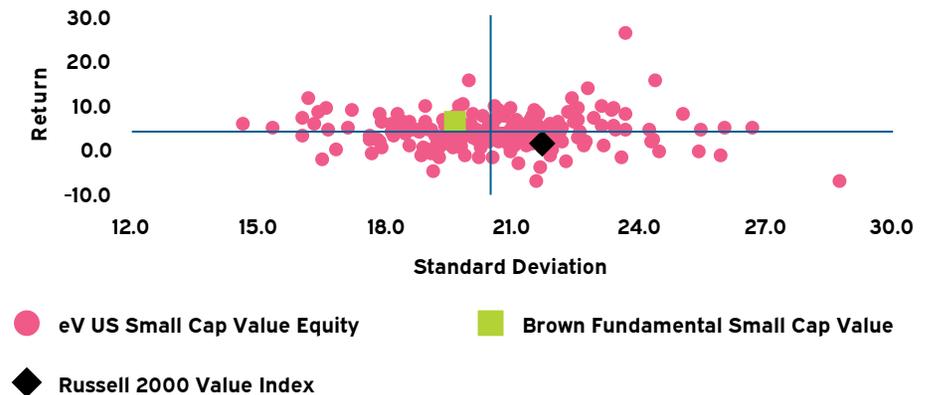
#### Growth of \$1 - Since Inception



#### Calendar Year Returns



#### Risk/Return - Since Inception



	QTD Return	QTD Risk
Brown Fundamental Small Cap Value	12.89	6.10
Russell 2000 Value Index	15.26	7.99

Performance shown is net of fees. Risk is measured as Standard Deviation.

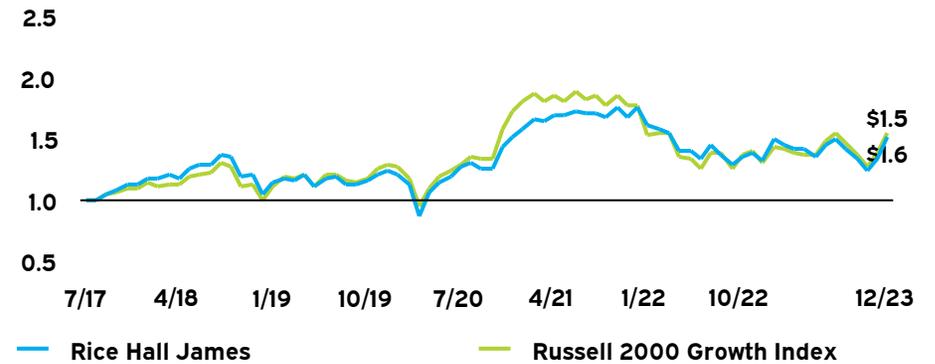
Rice Hall James | As of December 31, 2023

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Rice Hall James	0.54	0.91	0.09	0.52	1.33	0.98	94.78	81.06
Russell 2000 Growth Index	0.00	1.00	-	0.46	0.00	1.00	100.00	100.00

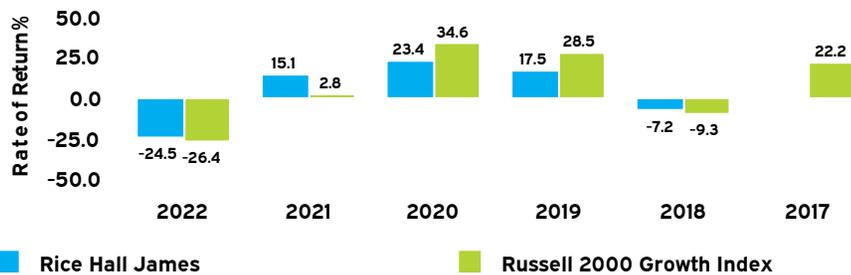
### Trailing Performance



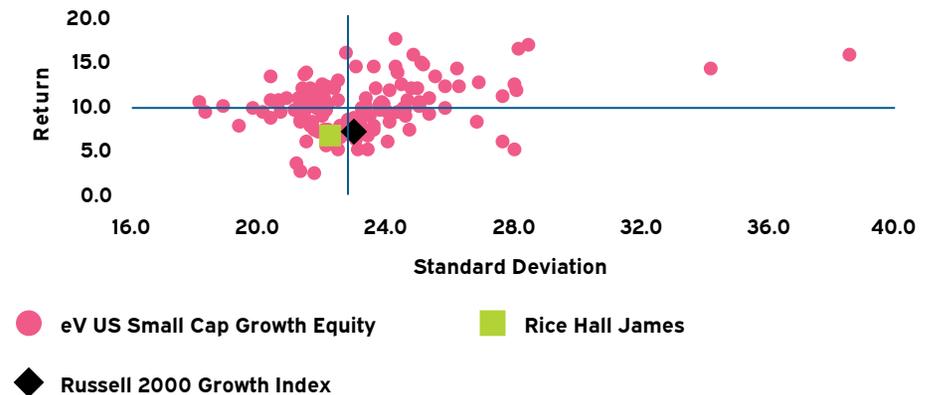
### Growth of \$1 - Since Inception



### Calendar Year Returns



### Risk/Return - Since Inception



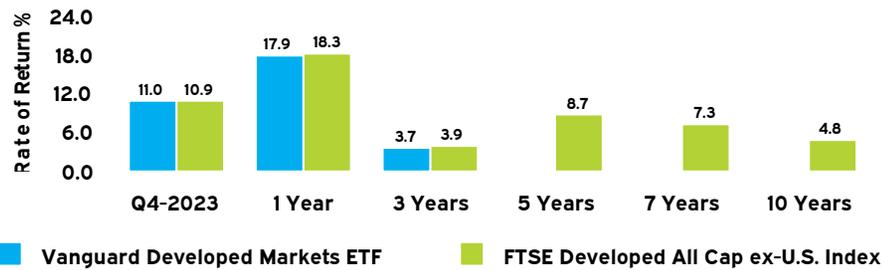
	QTD Return	QTD Risk
Rice Hall James	13.35	7.94
Russell 2000 Growth Index	12.75	8.68

Performance shown is net of fees. Risk is measured as Standard Deviation.

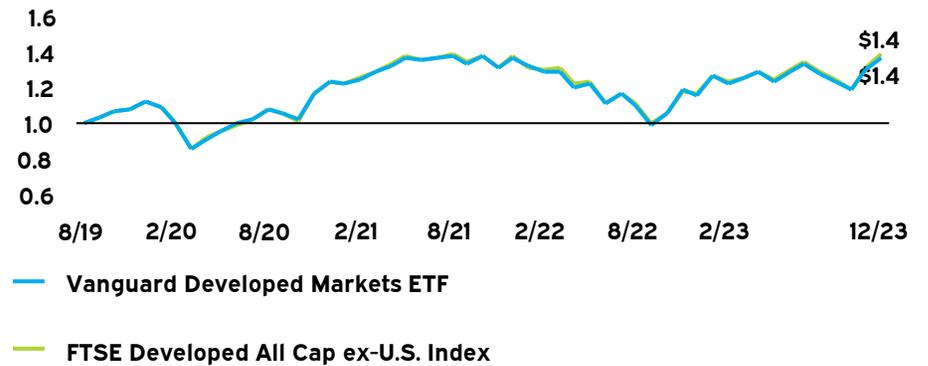
### Vanguard Developed Markets ETF | As of December 31, 2023

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Vanguard Developed Markets ETF	0.50	0.86	-0.01	0.62	0.84	1.00	92.79	75.72
FTSE Developed All Cap ex-U.S. Index	0.00	1.00	-	0.54	0.00	1.00	100.00	100.00

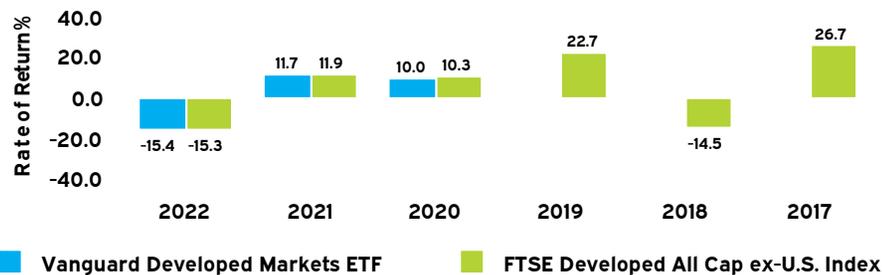
#### Trailing Performance



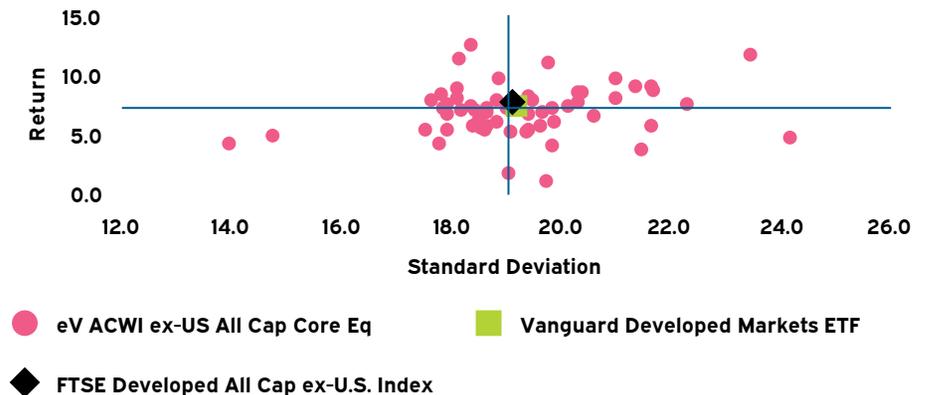
#### Growth of \$1 - Since Inception



#### Calendar Year Returns



#### Risk/Return - Since Inception



	QTD Return	QTD Risk
Vanguard Developed Markets ETF	10.98	5.16
FTSE Developed All Cap ex-U.S. Index	10.87	5.99

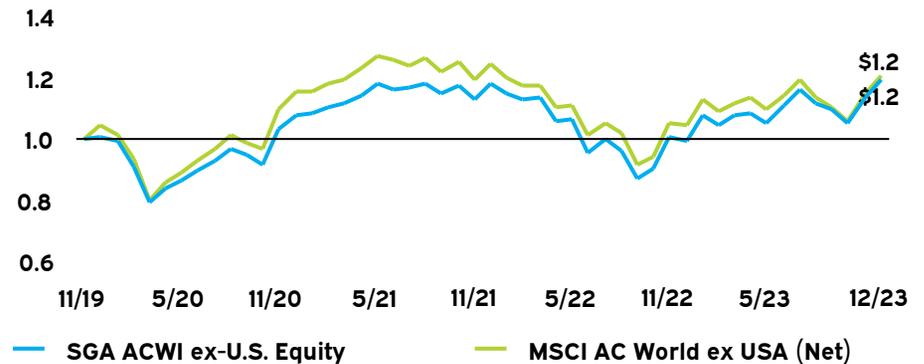
Performance shown is net of fees. Risk is measured as Standard Deviation.

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
SGA ACWI ex-U.S. Equity	-0.27	0.99	-1.94	0.47	0.15	1.00	95.67	106.99
MSCI AC World ex USA (Net)	0.00	1.00	-	0.52	0.00	1.00	100.00	100.00

### Trailing Performance



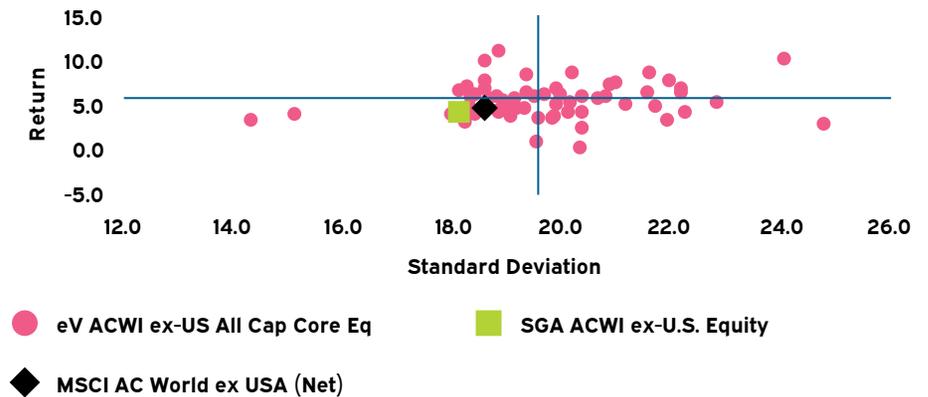
### Growth of \$1 - Since Inception



### Calendar Year Returns



### Risk/Return - Since Inception



	QTD Return	QTD Risk
SGA ACWI ex-U.S. Equity	8.81	5.45
MSCI AC World ex USA (Net)	9.75	5.50

Performance shown is net of fees. Risk is measured as Standard Deviation.

#### Account Information

Account Name	Ramirez
Account Structure	Separate Account
Inception Date	01/30/2017
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index
Peer Group	eV US Core Fixed Inc

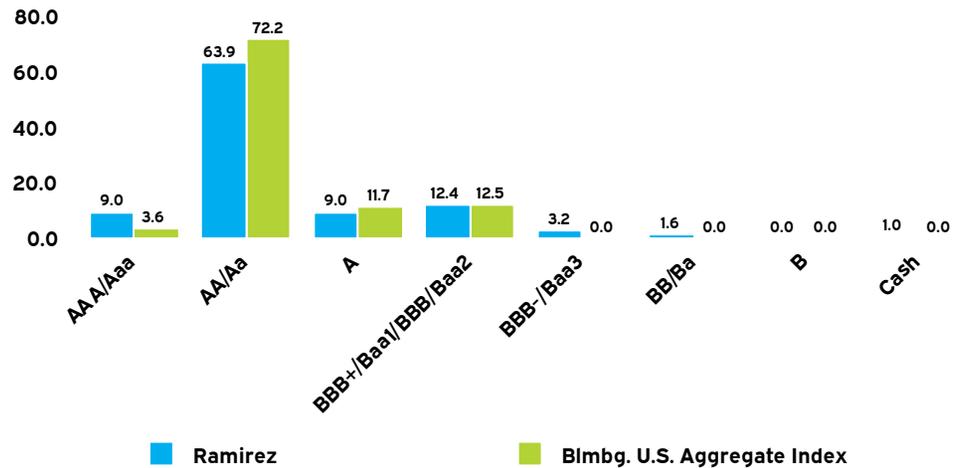
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Ramirez	6.6	5.9	-2.8	1.4
Blmbg. U.S. Aggregate Index	6.8	5.5	-3.3	1.1

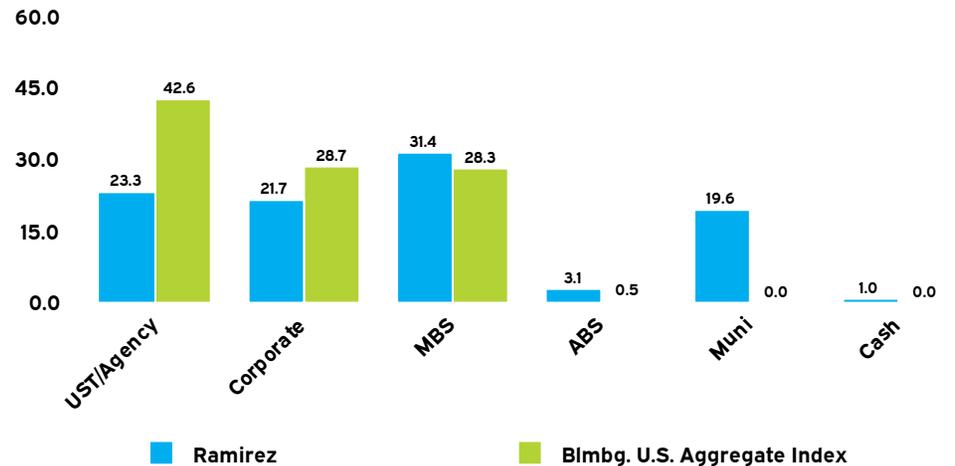
#### Portfolio Fixed Income Characteristics

	Q4-23 Portfolio	Q3-23 Portfolio
Yield To Maturity	4.9	5.7
Average Duration	5.8	6.2
Average Quality	AA	AA
Weighted Average Maturity	8.6	9.1

#### Credit Quality Allocation



#### Sector Allocation



Performance shown is net of fees.

#### Account Information

Account Name	Wellington Core Bond
Account Structure	Commingled Fund
Inception Date	04/01/2021
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index
Peer Group	eV US Core Fixed Inc

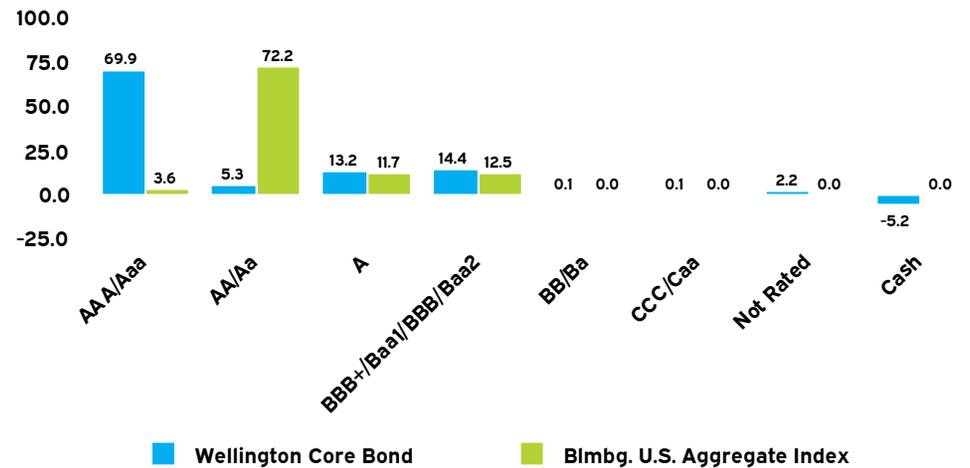
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Wellington Core Bond	7.3	7.1	-	-
Blmbg. U.S. Aggregate Index	6.8	5.5	-3.3	1.1

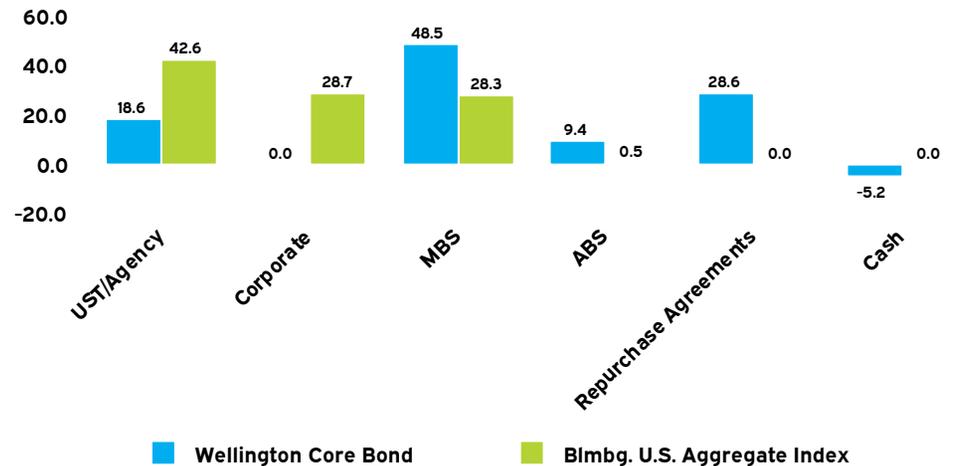
#### Portfolio Fixed Income Characteristics

	Q4-23 Portfolio	Q3-23 Portfolio
Yield To Maturity	4.9	5.3
Average Duration	6.5	6.7
Average Quality	AA	AA
Weighted Average Maturity	-	-

#### Credit Quality Allocation



#### Sector Allocation



Performance shown is net of fees.

#### Account Information

Account Name	Reams
Account Structure	Separate Account
Inception Date	01/01/1998
Asset Class	US Fixed Income
Benchmark	Bloomberg Universal (Blend)
Peer Group	eV US Core Plus Fixed Inc

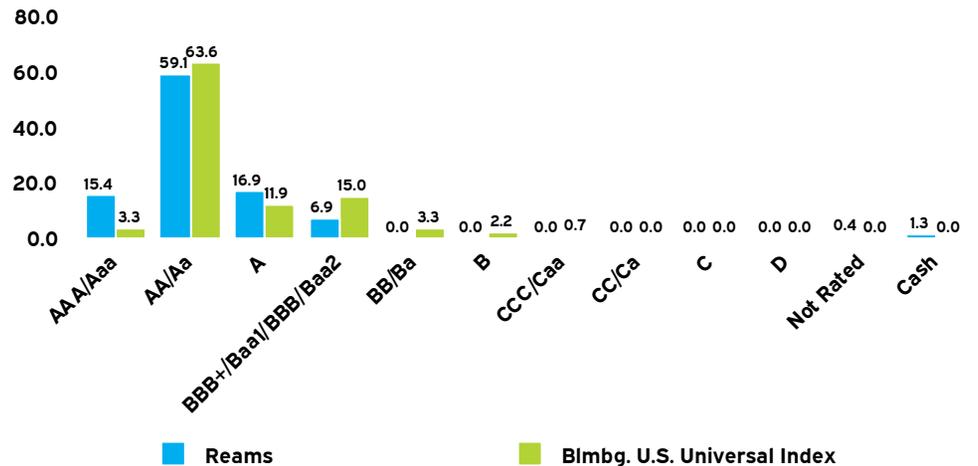
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Reams	7.0	6.5	-2.7	3.6
Bimbg. U.S. Universal Index	6.8	6.2	-3.0	1.4

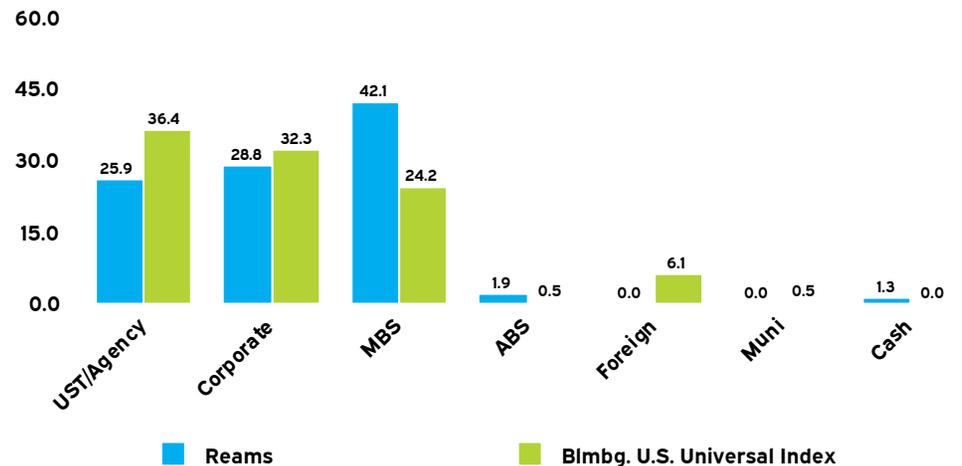
#### Portfolio Fixed Income Characteristics

	Q4-23 Portfolio	Q3-23 Portfolio
Yield To Maturity	5.1	6.4
Average Duration	6.2	6.9
Average Quality	AA	AA
Weighted Average Maturity	-	-

#### Credit Quality Allocation



#### Sector Allocation



Performance shown is net of fees.

#### Account Information

Account Name	Polen Capital
Account Structure	Commingled Fund
Inception Date	02/01/2015
Asset Class	US Fixed Income
Benchmark	ICE BofA High Yield Master II
Peer Group	eV US High Yield Fixed Inc

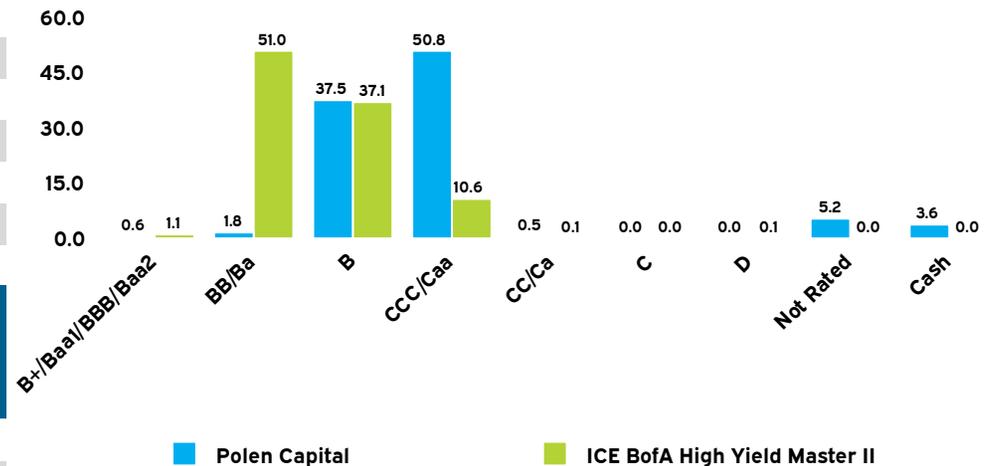
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Polen Capital	3.9	12.7	4.1	4.8
ICE BofA High Yield Master II	7.1	13.5	2.0	5.2

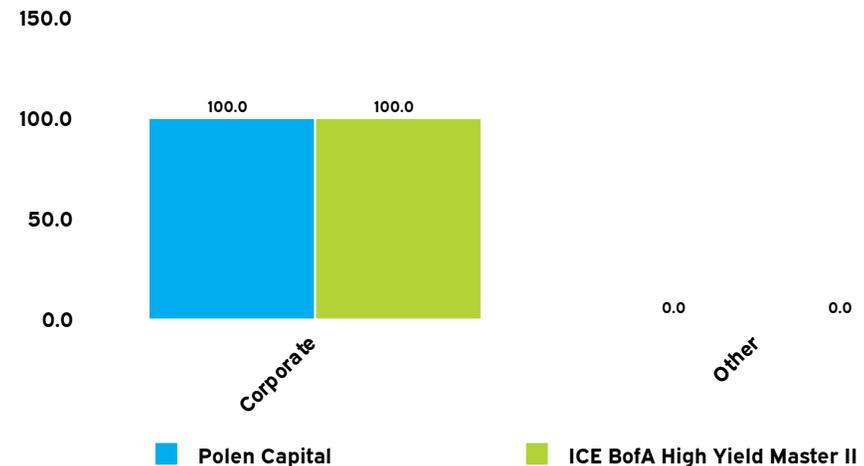
#### Portfolio Fixed Income Characteristics

	Q4-23 Portfolio	Q3-23 Portfolio
Yield To Maturity	9.7	10.8
Average Duration	1.5	1.8
Average Quality	CCC	BBB
Weighted Average Maturity	-	-

#### Credit Quality Allocation



#### Sector Allocation

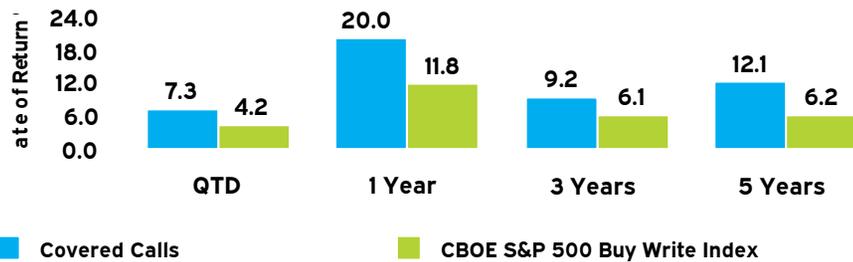


Performance shown is net of fees.

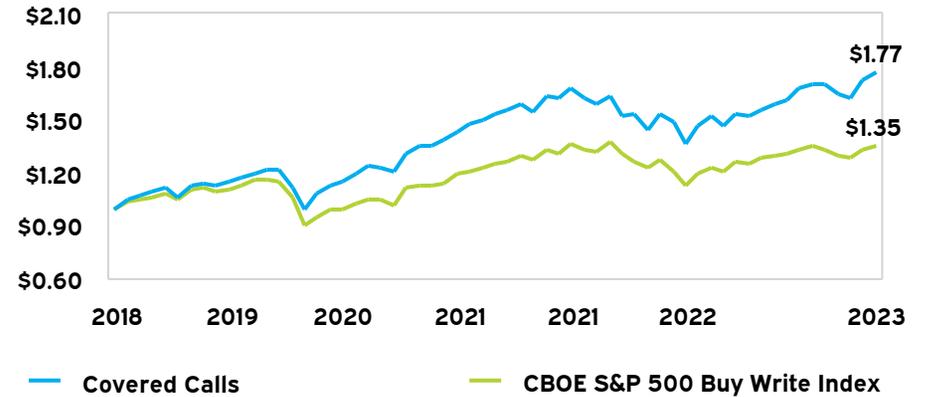
### Covered Calls | As of December 31, 2023

	Return	Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Capture	Down Capture	Inception Date
Covered Calls	9.0	11.5	3.2	1.0	0.8	4.0	124.2	105.0	04/01/2014
CBOE S&P 500 Buy Write Index	5.5	10.5	0.0	1.0	-	0.0	100.0	100.0	
Parametric BXM	7.1	9.4	2.2	0.9	0.4	3.2	99.3	85.4	04/01/2014
CBOE S&P 500 Buy Write Index	5.5	10.5	0.0	1.0	-	0.0	100.0	100.0	
Parametric DeltaShift	11.1	13.9	4.5	1.2	0.9	6.3	148.3	121.8	04/01/2014
CBOE S&P 500 Buy Write Index	5.5	10.5	0.0	1.0	-	0.0	100.0	100.0	

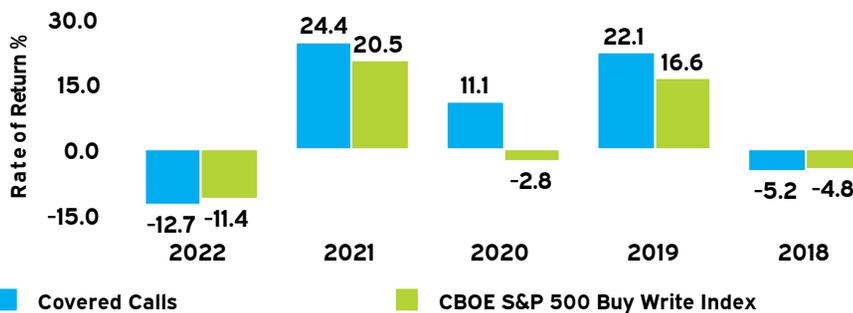
### Trailing Period Performance



### Growth of a Dollar



### Calendar Year Performance



Performance shown is net of fees.

### Crisis Risk Offset | As of December 31, 2023

	Return	Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Capture	Down Capture	Inception Date
Crisis Risk Offset	-7.6	11.1	-7.2	0.8	-0.7	10.3	28.1	129.9	08/01/2018
Crisis Risk Offset Benchmark	0.0	5.4	0.0	1.0	-	0.0	100.0	100.0	
Kepos Alternative Risk Premia	4.5	6.1	0.8	0.7	-0.2	5.1	74.3	62.3	02/01/2022
SG Multi Alternative Risk Premia Index	5.4	5.1	0.0	1.0	-	0.0	100.0	100.0	
Versor Trend Following	-0.4	15.8	-2.4	1.1	-0.3	6.8	98.8	111.6	04/01/2022
SG Trend Index	2.1	12.8	0.0	1.0	-	0.0	100.0	100.0	
Vanguard Long-Term Treasury ETF	-3.9	15.6	-0.2	1.0	-0.2	1.1	101.1	102.0	07/01/2019
Blmbg. U.S. Government: Long Term Bond Index	-3.6	15.4	0.0	1.0	-	0.0	100.0	100.0	

### Correlation Matrix

#### 3 Months Ending December 31, 2023

	Crisis Risk Offset	MSCI AC World Index Value	S&P 500 Index	Blmbg. Global Aggregate
Crisis Risk Offset	1.00			
MSCI AC World Index Value	1.00	1.00		
S&P 500 Index	0.98	0.97	1.00	
Blmbg. Global Aggregate	0.99	1.00	0.96	1.00

### Trailing Period Performance



Performance shown is net of fees.

## **Additional Information**

Benchmark History		
From Date	To Date	Benchmark
<b>OPFRS Total Plan</b>		
06/01/2022	Present	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 31.0% Blmbg. U.S. Universal Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 5.0% CBOE S&P 500 Buy Write Index, 10.0% Crisis Risk Offset Benchmark
01/01/2019	06/01/2022	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 31.0% Blmbg. U.S. Universal Index, 5.0% CBOE S&P 500 Buy Write Index, 2.0% Blmbg. U.S. Treasury: Long, 10.0% Crisis Risk Offset Benchmark
05/01/2016	01/01/2019	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 20.0% CBOE BXM
10/01/2015	05/01/2016	43.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 15.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
01/01/2014	10/01/2015	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 10.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
03/01/2013	01/01/2014	40.0% Russell 3000 Index, 10.0% MSCI AC World ex USA index, 17.0% Blmbg. U.S. Universal Index, 33.0% ICE BofA 3 Month U.S. T-Bill
08/01/2012	03/01/2013	20.0% Russell 3000 Index, 7.0% MSCI AC World ex USA index, 18.0% Blmbg. U.S. Universal Index, 55.0% ICE BofA 3 Month U.S. T-Bill
10/01/2007	08/01/2012	53.0% Russell 3000 Index, 17.0% MSCI AC World ex USA index, 30.0% Blmbg. U.S. Universal Index
04/01/2006	10/01/2007	35.0% Russell 3000 Index, 15.0% MSCI AC World ex USA index, 50.0% Blmbg. U.S. Universal Index
01/01/2005	04/01/2006	35.0% Russell 3000 Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI AC World ex USA index
04/01/1998	01/01/2005	20.0% Russell 1000 Value Index, 10.0% Russell 1000 Index, 5.0% Russell Midcap Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI EAFE (Net)
09/01/1988	04/01/1998	40.0% S&P 500 Index, 55.0% Blmbg. U.S. Aggregate Index, 5.0% FTSE 3 Month T-Bill

**Benchmark History**

From Date	To Date	Benchmark
<b>Domestic Equity</b>		
01/01/2005	Present	100.0% Russell 3000 Index
04/01/1998	01/01/2005	57.1% Russell 1000 Value Index, 28.6% Russell 1000 Index, 14.3% Russell Midcap Index
09/01/1988	04/01/1998	100.0% S&P 500 Index
<b>International Equity</b>		
01/01/2005	Present	100.0% MSCI AC World ex USA (Net)
01/01/1998	01/01/2005	100.0% MSCI EAFE Index
<b>Fixed Income</b>		
04/01/2006	Present	100.0% Blmbg. U.S. Universal Index
01/01/1976	04/01/2006	100.0% Blmbg. U.S. Aggregate Index
<b>Covered Calls</b>		
04/01/2014	Present	CBOE S&P 500 Buy Write Index
<b>Crisis Risk Offset</b>		
01/01/2023	Present	33.3% SG Trend Index, 33.3% SG Multi Alternative Risk Premia Index, 33.3% Blmbg. U.S. Government: Long Term Bond Index
08/01/2018	01/01/2023	100.0% SG Multi Alternative Risk Premia Index
<b>Cash</b>		
03/01/2011	Present	FTSE 3 Month T-Bill

## **Manager Monitoring / Probation Status**

### Managers on Watch / Probation Status

Manager & Strategy	Concern Triggering Watch Status	Date of Corrective Action <sup>1</sup>	Months Since Placement	Performance <sup>2</sup> Since Placement	Peer Group Rank Since Placement
Versor Trend Following	Organization / Performance	9/27/2023	3	-7.9	N/A
<i>Benchmark: SG Trend Index</i>	--	--	--	-4.6	--

### Investment Manager Monitoring Criteria<sup>3</sup>

Investment managers are evaluated on ongoing and periodic basis using both quantitative performance criteria and qualitative aspects of the managers. The quantitative criteria for different asset classes are as follows.

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>4</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> Date when the Board voted to either monitor a manager at a heightened level or place it on probation.

<sup>2</sup> Annualized performance if over one year. Performance shown is net of fees.

<sup>3</sup> Per Investment Policy Statement and Manager Guidelines, Revised 5/31/2023, section H.

<sup>4</sup> VRR (Value Relative Ratio) is calculated as manager cumulative return/ benchmark cumulative return.

# Appendix

### Additional Information

**Performance Return Types:** Performance shown is net of fees, except for OPFRS Total Plan, Domestic Equity, and International Equity Composites, which have a mix of gross and net of fees performance. Performance shown for OPFRS Total Plan and International Equity composite is gross of fees prior to January 2016. Performance shown for Domestic Equity composite is gross of fees prior to January 2017.

**Inception Date:** Since inception date and performance begin in the month following an investments initial funding.

**Fiscal Year:** Fiscal year begins on July 1.

**Fair Value Pricing Methodology:** Though Vanguard Developed Markets ETF is a passive strategy, short-term performance may appear to diverge from the index it tracks more than 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.

## **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:** February 28, 2024  
**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 thirteen investment managers regarding their diversity representation as of December 31, 2023.

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 it 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. As in 2023, we expect Meketa's Annual Diversity, Equity, & Inclusion Questionnaire results aggregating the investment managers' DEI statistics and work in this area to be published in March 2024.

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.

## Employee Composition by Race & Ethnicity

Firmwide	Average (494) <sup>1</sup>	Brown	Earnest	Kepos	Northern Trust <sup>2</sup>	Parametric	Polen	Ramirez	Reams	Rice Hall James	Strategic Global Advisors	Vanguard	Versor	Wellington
<b>No. of Employees</b>	---	874	46	47	639	855	243	41	38	27	22	20000	52	3128
<b>African/Black</b>	5%	8%	21%	2%	9%	4%	5%	10%	---	---	5%	---	2%	5%
<b>Asian/Pacific Islander</b>	15%	6%	21%	17%	12%	19%	12%	22%	11%	7%	27%	---	94%	29%
<b>Latino/Hispanic</b>	6%	2%	---	8%	8%	5%	7%	15%	3%	7%	---	---	---	4%
<b>White</b>	65%	71%	59%	72%	68%	65%	71%	54%	83%	82%	68%	---	4%	56%
<b>Other</b>	3%	3%	---	2%	3%	4%	5%	---	---	4%	---	---	---	2%
<b>Not Disclosed</b>	6%	10%	---	0%	---	3%	---	---	3%	---	---	---	---	4%

Investment Team	Average (494)	Brown <sup>3</sup>	Earnest	Kepos	Northern Trust <sup>2</sup>	Parametric	Polen	Ramirez	Reams <sup>4</sup>	Rice Hall James	Strategic Global Advisors	Vanguard	Versor	Wellington
<b>No. of Employees</b>	--	258	15	24	387	191	47	16	---	15	11	---	39	768
<b>African/Black</b>	4%	4%	20%	---	9%	2%	7%	6%	---	---	---	2%	---	5%
<b>Asian/Pacific Islander</b>	18%	9%	27%	13%	11%	16%	17%	44%	---	---	46%	22%	95%	25%
<b>Latino/Hispanic</b>	4%	1%	---	8%	8%	3%	---	6%	---	7%	---	3%	---	4%
<b>White</b>	64%	74%	53%	75%	70%	74%	72%	44%	---	86%	55%	69%	5%	61%
<b>Other</b>	4%	2%	---	4%	2%	4%	---	---	---	7%	---	4%	---	2%
<b>Not Disclosed</b>	6%	10%	---	---	---	1%	---	---	---	---	---	---	---	3%

<sup>1</sup> Number in the parenthesis after "Average" represents the number of firms which provided data for the question.

<sup>2</sup> Northern Trust data is as of 06/30/2023.

<sup>3</sup> Brown noted that the number of investment team employees includes only the investment professionals in the institutional business.

<sup>4</sup> Reams noted that diversity statistics are only provided at the firm (Reams Asset Management) level per its parent company Raymond James's policy.

## Employee Composition by Race &amp; Ethnicity (continued)

Sr Organization Management	Average (494)	Brown	Earnest	Kepos	Northern Trust <sup>1</sup>	Parametric	Polen	Ramirez	Reams <sup>2</sup>	Rice Hall James	Strategic Global Advisors	Vanguard <sup>3</sup>	Versor	Wellington
<b>No. of Employees</b>	--	33	9	5	43	13	12	4	---	11	5	---	14	31
<b>African/Black</b>	4%	6%	13%	---	2%	8%	---	25%	---	---	---	---	7%	6%
<b>Asian/Pacific Islander</b>	10%	3%	25%	---	23%	15%	---	25%	---	9%	---	---	79%	13%
<b>Latino/Hispanic</b>	3%	---	---	---	---	---	---	25%	---	---	---	---	---	---
<b>White</b>	75%	82%	63%	100%	70%	77%	92%	25%	---	91%	100%	75%	14%	81%
<b>Other</b>	3%	3%	---	---	5%	---	8%	---	---	---	---	25%	---	---
<b>Not Disclosed</b>	5%	---	---	---	---	---	---	---	---	---	---	---	---	---

<sup>1</sup> Northern Trust data is as of 06/30/2023.

<sup>2</sup> Reams noted that diversity statistics are only provided at the firm (Reams Asset Management) level per its parent company Raymond James's policy.

<sup>3</sup> While Vanguard did not provide detailed breakdown of employee composition by race and ethnicity information for the Senior Organization Management employee population, it noted that in the US, people of color represent 25% of leaders, 24% of principals (senior-level leaders approved by Vanguard's board of directors), 25% of executive management, and 17% of the board of directors. The percentage of people of color in executive management (25%) is illustrated here under "Other" category and is used to derive the percentage of white employees in the senior organization management population (75%).

## Employee Composition by Gender

Firmwide	Average (620)	Brown	Earnest	Kepos	Northern Trust <sup>1</sup>	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
<b>No. of Employees</b>	--	874	46	47	639	855	243	41	38	27	22	20000	52	3128
<b>Women</b>	35%	45%	40%	15%	38%	35%	40%	34%	42%	30%	46%	---	13%	45%
<b>Men</b>	63%	55%	60%	85%	62%	65%	60%	66%	58%	70%	55%	---	87%	55%
<b>Non-Binary</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>Not Disclosed</b>	1%	---	---	---	---	---	---	---	---	---	---	---	---	---

Investment Team	Average (620)	Brown	Earnest	Kepos	Northern Trust <sup>1</sup>	Parametric	Polen	Ramirez	Reams <sup>2</sup>	Rice Hall James	SGA	Vanguard <sup>3</sup>	Versor	Wellington
<b>No. of Employees</b>	--	258	15	24	387	191	47	16	---	15	11	---	39	768
<b>Women</b>	21%	27%	20%	---	33%	23%	21%	35%	---	20%	27%	23%	13%	31%
<b>Men</b>	78%	73%	80%	100%	67%	77%	79%	64%	---	80%	73%	77%	87%	69%
<b>Non-Binary</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>Not Disclosed</b>	2%	---	---	---	---	---	---	---	---	---	---	---	---	---

Sr. Org. Management	Average (620)	Brown	Earnest	Kepos	Northern Trust <sup>1</sup>	Parametric	Polen	Ramirez	Reams <sup>2</sup>	Rice Hall James	SGA	Vanguard <sup>4</sup>	Versor	Wellington
<b>No. of Employees</b>	--	33	9	5	43	13	12	4	---	11	5	---	14	31
<b>Women</b>	23%	27%	22%	---	26%	31%	17%	---	---	27%	40%	25%	7%	48%
<b>Men</b>	75%	73%	78%	100%	74%	69%	83%	100%	---	73%	60%	75%	93%	52%
<b>Non-Binary</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>Not Disclosed</b>	2%	---	---	---	---	---	---	---	---	---	---	---	---	---

<sup>1</sup> Northern Trust data is as of 06/30/2023.

<sup>2</sup> Reams noted that diversity statistics are only provided at the firm (Reams Asset Management) level per its parent company Raymond James's policy.

<sup>3</sup> Vanguard noted that women represent 23% of the overall investment teams; male employee population percentage is derived as the remainder.

<sup>4</sup> Vanguard noted that globally, women represent: 44% of leaders, 38% of principals (senior-level leaders approved by Vanguard's board of directors), 25% of executive management, and 25% of the board of directors. Percentage of women in executive management (25%) is illustrated here and is used to derive the percentage of men in the senior organization management population (75%).

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:** February 28, 2024  
**RE:** Asset Liability Study: Strategic Policy Selection

### Summary

At its January 2024 meeting, Meketa reviewed potential new strategic allocations with the board. Following discussion OPFRS asked Meketa to construct a policy allocation that was roughly 50% fixed income. This option is listed below in the allocation called Balanced. This option holds a small portion in US equity assets, CRO and fixed income. This policy is expected to produce a 6.2% return over the next 10-year period with materially less volatility than the current policy allocation.

### Comparison of OPFRS's Current Policy with Potential New Long-Term Allocations

Asset Group	Current Policy (CP) (%)	Long-term Growth (LTG) (%)	Red. Vol. (RV) (%)	Balanced (%)	75% Fixed (%)
<b>Return-Seeking Assets</b>					
US Equity	40	30	18	25	25
Developed Market Equity (non-US)	12	15	5	5	0
Buy Write (Covered Calls)	5	0	0	0	0
High Yield Bonds	2	20	20	10	0
<b>Crisis Risk Offset</b>					
CTA (Trend Following)	6.7	6.7	3	3	0
Alternative Risk Premia (ARP)	6.7	6.7	3	3	0
Long-term Government Bonds	6.7	6.7	3	3	0
<b>Liability Driven Investments</b>					
Investment Grade Bonds	21	15	48	51	75
Intermediate Government Bonds	0	0	0	0	0
Long-term Corporate Bonds	0	0	0	0	0
10-year Geometric Return	7.1	7.4	6.3	6.2	5.5
Return Volatility (St. Dev.)	10.2	10.0	6.6	6.8	5.5
Sharpe Ratio	.39	0.43	0.49	.46	0.43



From an allocation perspective, the major change is a decrease in growth-oriented assets (largely US and international equity mandates). In addition, there are changes to the Covered Calls and CRO.

### **An Evolving Strategic Policy**

One feature of adopting the new strategic policy is that it will require a significant amount of change, both from an asset adjustment standpoint and from the perspective of updating and searching for new potential managers. When working with other clients in similar positions, Meketa has found that it can be challenging to keep the actual portfolio aligned with the intended long-term policy portfolio. Specifically, some moves/adjustments toward policy allocations take significant time, resulting in an actual portfolio that may deviate significantly from its policy benchmark, from both investment performance and asset allocation perspectives.

To help resolve and/or manage this issue, Meketa will be recommending an “evolving policy” once the strategic policy is selected by the board. Under an evolving policy framework, the policy portfolio is allowed to adjust over time, reflecting the incremental funding nature that many of the minor classes require to achieve their policy targets.

DS/PN/JLC/mps

## MEMORANDUM

**FTO:** Oakland Police and Fire Retirement System (OPFRS)  
**FROM:** Meketa Investment Group (Meketa)  
**DATE:** February 28, 2024  
**RE:** 2024 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 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.

### 2024 Preliminary Investment Project Agenda

Expected Completion Date	Task
March 2024	Flash Performance (2024 Feb) Cash Flow Report (2024 Q2) Informational: <b>2024 Meketa Capital Market Assumptions</b> Manager Update: <b>Reams</b>
April 2024	Flash Performance (2024 Mar) Manager Update: <b>Polen</b>
May 2024	Flash Performance (2024 Apr) Quarterly Performance Report (2024 Q1) Manager Update: <b>Wellington Core Bonds</b>
June 2024	Flash Performance (2024 May) Cash Flow Report (2024 Q3) Manager Update: <b>Brown Advisory</b>
July 2024	Flash Performance (2024 Jun) Manager Update: <b>Kepos</b>
August 2024	Flash Performance (2024 Jul) Quarterly Performance Report (2023 Q2) Manager Update: <b>Strategic Global Advisors (SGA)</b> Contract Renewal: Strategic Global Advisors (SGA)



Expected Completion Date	Task
September 2024	Flash Performance (2024 Aug) Cash Flow Report (2024 Q4) Manager Update: <b>Parametric</b> Contract Renewal: Parametric
October 2024	Flash Performance (2024 Sep) Thermal Coal List Update: 2024 Manager Update: <b>Ramirez</b> Contract Renewal: Ramirez
November 2024	Flash Performance (2024 Oct) Informational Item: TBD
December 2024	Flash Performance (2024 Nov) Quarterly Performance Report (2024 Q3) Cash Flow Report (2025 Q1) Manager Update: <b>Versor</b>

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

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

## MEETING of the BOARD OF ADMINISTRATION of the OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (“PFRS”)

**WEDNESDAY, FEBRUARY 28, 2024**

**11:30 AM**

**ONE FRANK H. OGAWA PLAZA, HEARING ROOM 2**  
**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  

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**Recommendation:** **APPROVE** the January 31, 2024 PFRS Board of Administration Meeting Minutes

**B. AUDIT & OPERATIONS COMMITTEE AGENDA – FEBRUARY 28, 2024**

B1. **Subject:** ADMINISTRATIVE EXPENSES REPORT  
**From:** Staff of the PFRS Board  

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**Recommendation:** **ACCEPT** informational report regarding PFRS administrative expenses as of December 31, 2023

**C. INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA – FEBRUARY 28, 2024**

C1. **Subject:** INVESTMENT MANAGER PERFORMANCE UPDATE:  
RICE HALL JAMES & ASSOCIATES, LLC  
**From:** Rice Hall James & Associates, LLC  

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**Recommendation:** **ACCEPT** informational report regarding a firm overview and managerial assessment; diversity and inclusion policy and practices; local brokerage usage; and investment strategy and portfolio performance of PFRS’ Domestic Equity Small-Cap Growth Investment Strategy Manager Rice Hall James & Associates, LLC

C2. **Subject:** INVESTMENT MANAGER PERFORMANCE REVIEW:  
RICE HALL JAMES & ASSOCIATES, LLC  
**From:** Meketa Investment Group  

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**Recommendation:** **ACCEPT** Meketa Investment Group’s review and evaluation regarding a firm overview and managerial assessment; peer ranking; and investment portfolio performance of PFRS’ Domestic Equity Small-Cap Growth Investment Strategy Manager Rice Hall James & Associates, LLC

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
BOARD OF ADMINISTRATION MEETING  
FEBRUARY 28, 2024

- C3. **Subject:** RESOLUTION NO. 8093  
RESOLUTION AUTHORIZING A ONE-YEAR EXTENSION OF PROFESSIONAL SERVICES AGREEMENT WITH RICE HALL JAMES & ASSOCIATES, LLC FOR THE PROVISION OF DOMESTIC EQUITY SMALL-CAP GROWTH INVESTMENT STRATEGY MANAGER SERVICES FOR THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
- From:** Staff of the PFRS Board
- 
- Recommendation:** **APPROVE** Resolution No. 8093 authorizing the execution of a one-year extension of professional services agreement with Rice Hall James & Associates, LLC for the provision of Domestic Equity Small-Cap Growth Investment Strategy Manager Services for the City of Oakland Police and Fire Retirement System
- C4. **Subject:** **INFORMATIONAL OVERVIEW:  
INVESTMENT OPPORTUNITIES IN AFRICA**
- From:** PFRS Board Member Wilkinson\*
- \*The speakers will be presenting via Zoom; the presentation will be broadcast live in the hearing room so the Board and all other in-person attendees will be able to hear the presentation.
- 
- Recommendation:** **ACCEPT** informational overview regarding investment opportunities in Africa from the following presenters:
- 1) Joseph Boateng, Casey Family Programs
  - 2) Papa Madiaw Ndiaye, Advanced Finance & Investment Group (AFIG Funds)
  - 3) Cameron Khosrowshahi, United States Agency for International Development (USAID)
  - 4) Eric Osiakwan, Chanzo Capital
- C5. **Subject:** **ECONOMIC AND INVESTMENT MARKET OVERVIEW  
AS OF JANUARY 31, 2024**
- From:** Meketa Investment Group
- 
- Recommendation:** **ACCEPT** informational report regarding the Global Investment Markets as of January 31, 2024
- C6. **Subject:** **PRELIMINARY INVESTMENT FUND PERFORMANCE UPDATE  
AS OF JANUARY 31, 2024**
- From:** Meketa Investment Group
- 
- Recommendation:** **ACCEPT** informational report regarding the Preliminary Investment Fund Performance Update as of January 31, 2024

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
 BOARD OF ADMINISTRATION MEETING  
 FEBRUARY 28, 2024**

- C7. **Subject:** PFRS INVESTMENT FUND QUARTERLY PERFORMANCE UPDATE AS OF DECEMBER 31, 2023  
**From:** Meketa Investment Group  


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**Recommendation:** **ACCEPT** PFRS Investment Fund Quarterly Performance Update as of December 31, 2023
  
- C8. **Subject:** MEKETA INVESTMENT GROUP ANNUAL DIVERSITY, EQUITY, & INCLUSION REPORT  
**From:** Meketa Investment Group  


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**Recommendation:** **ACCEPT** informational report regarding the diversity representation of PFRS' Investment Managers as of December 31, 2023
  
- C9. **Subject:** ASSET-LIABILITY STUDY OF THE PFRS FUND  
**From:** Meketa Investment Group  


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**Recommendation:** **RECEIVE** informational report regarding options for an updated asset allocation distribution of the PFRS Fund and **DISCUSS** Meketa's recommendations based on the results of the 2023 Asset-Liability Study of the PFRS Fund. **APPROVE** Meketa Investment Group's recommended course of action moving forward
  
- D. **Subject:** MEMBER RESOLUTION NO. 8094  
**From:** Staff of the PFRS Board  


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**Recommendation:** **APPROVE** Member Resolution No. 8094

**RESOLUTION  
 NO. 8094**

Resolution fixing the monthly allowance of the 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>
▪ Richard Randall	Carolyn Randall	\$5,120.13

- E. PENDING ITEMS
- F. NEW BUSINESS
- G. OPEN FORUM
- H. FUTURE SCHEDULING
- I. ADJOURNMENT

**A MEETING OF THE OAKLAND POLICE AND FIRE RETIREMENT SYSTEM (“PFRS”) BOARD OF ADMINISTRATION** was held on Wednesday, January 31, 2024 , at One Frank H. Ogawa Plaza, Hearing Room 2, Oakland, CA.

Board Members:

- Walter L. Johnson      President
- Jaime T. Godfrey      Vice President (Excused)
- Martin J. Melia      Member
- 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 11:33 a.m. Pacific

**A. APPROVAL OF THE PFRS BOARD OF ADMINISTRATION MEETING MINUTES**

Member Nichelini made a motion to approve the December 06, 2023 PFRS Board of Administration Meeting Minutes, second by Member Melia. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**B. AUDIT AND OPERATIONS COMMITTEE AGENDA – JANUARY 31, 2024**

**B1. ADMINISTRATIVE EXPENSES REPORT**

Investment & Operations Manager Jenkins presented an informational report on PFRS’ administrative expenditures as of October 31, 2023. PFRS has an approved annual budget of \$3.8 million and have expensed approximately \$861,000 to date for fiscal year 2023/2024. Membership consisted of 642 retired members and beneficiaries, which included 401 Police Members and 241 Fire Members.

**MOTION:** Member Nichelini made a motion to accept the informational report regarding PFRS’ Administrative Expenses Report, second by Member Speakman. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**B2. RESOLUTION NO. 8089**

Resolution authorizing request of Oakland Police and Fire Retirement System Board Member R. Steven Wilkinson to travel and attend the California Association of Public Retirement Systems (CALAPERS) 2024 General Assembly conference from March 2, 2024 through March 5, 2024 in Rancho Mirage, CA and authorizing reimbursement of registration fees and travel-related expenses in an amount not to exceed two-thousand seven hundred fifty dollars (\$2,750.00).

**MOTION:** Member Speakman made a motion to approve Resolution No. 8089, second by Member Melia. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: ABSTAIN]  
(AYES: 5 / NOES: 0 / ABSENT: 0 / ABSTAIN: 1 / EXCUSED: 1)

**C. INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA – JANUARY 31, 2024**

**C1. INVESTMENT MANAGER PERFORMANCE UPDATE: EARNEST PARTNERS, LLC**

Member Wilkinson presented a brief overview of the presentation provided by EARNEST Partners, LLC (EARNEST), PFRS' Domestic Equity Mid-Cap Core Investment Strategy Manager and noted the firm's performance has been excellent and attributed the success to their process and how they work together as a team.

**MOTION:** Member Wilkinson made a motion to accept the informational report provided by EARNEST, second by Member Speakman. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**C2. INVESTMENT MANAGER PERFORMANCE REVIEW: EARNEST PARTNERS, LLC**

Paola Nealon of Meketa Investment Group ("Meketa") presented an informational memo regarding a firm overview and managerial assessment; peer ranking; and investment portfolio performance of EARNEST, PFRS' Domestic Equity Mid-Cap Core Investment Strategy Manager. P. Nealon advised Meketa maintains a high-conviction opinion of EARNEST and have no concerns at this time.

**MOTION:** Member Wilkinson made a motion to accept Meketa's evaluation of EARNEST, second by Member Speakman. Motion Passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**C3. RESOLUTION NO. 8090**

A Resolution authorizing the execution of a one-year extension of professional services agreement with Earnest Partners, LLC for the provision of Domestic Equity Mid-Cap Core Investment Strategy Manager Services for the City of Oakland Police and Fire Retirement System.

**MOTION:** Member Wilkinson made a motion to approve Resolution No. 8090, second by Member Nichelini. Motion Passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**C4. ECONOMIC AND INVESTMENT MARKET OVERVIEW AS OF DECEMBER 31, 2023**

Paola Nealon of Meketa presented an informational report regarding the Economic and Investment Market Overview as of December 31, 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 Economic and Investment Market Overview as of December 31, 2023, second by Member Speakman. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**C5. PRELIMINARY INVESTMENT FUND PERFORMANCE UPDATE AS OF DECEMBER 31, 2023**

Paola Nealon of Meketa presented the Preliminary Investment Fund Performance Update as of December 31, 2023 and highlighted the Asset Class Performance Summary.

**MOTION:** Member Wilkinson made a motion to accept the informational report provided by Meketa regarding the Preliminary Investment Fund Performance Update as of December 31, 2023, second by Member Speakman. Motion Passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**C6. ASSET-LIABILITY STUDY OF THE PFRS FUND**

David Sancewich of Meketa presented an informational report regarding the Asset-Liability Study of the PFRS Fund. D. Sancewich provided a variety of sample objectives and policies to reach those objectives and highlighted PFRS need to diversify the portfolio and reduce volatility by moving the portfolios allocation away from growth assets towards fixed-income assets . Meketa's recommendation would be to come back with improved portfolio models, some of which would include an allocation of at least 50% in Fixed Income, and exact recommendations or the Board's consideration at the next meeting.

**MOTION:** Member Nichelini made a motion to accept Meketa's informational report and recommendation regarding the next steps in the Asset-Liability Study of the PFRS Fund, second by Member Speakman. Motion Passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**D. MEMBER RESOLUTIONS NOS. 8091 – 8092**

**D1. RESOLUTION NO. 8091**

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>
▪ Robert L. Dutton	Suzanne B. Dutton	\$4,436.71

**MOTION:** Member Nichelini made a motion to approve Resolution No. 8091, second by Member Speakman. Motion Passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**D2. RESOLUTION NO. 8092**

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:

- George M. Drennon
- James E. Parr

**MOTION:** Member Nichelini made a motion to approve Resolution No. 8092, second by Member Speakman. Motion Passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

**E. PENDING ITEMS** – Plan Administrator Jones advised the January 29, 2024 2026 Ad Hoc Committee Meeting was cancelled due to scheduling conflicts and was rescheduled to February 26, 2024.

**F. NEW BUSINESS** – None

**G. OPEN FORUM** – No Speaker Cards were submitted. President Johnson noted he and Member Wilkinson attended the City's Finance & Management Committee meeting and felt the information provided by staff was very well received. Member Roseman agreed and has the expectation for staff to return to the committee with the results of the Asset- Liability Study as they would be interested in the long-term planning of the Fund.

**H. FUTURE SCHEDULING**

The next Regular Board Meeting will be held in-person and is tentatively scheduled to occur February 28, 2024 at One Frank Ogawa Plaza, Hearing Room 2, Oakland, CA.

**I. ADJOURNMENT**

Member Speakman made a motion to adjourn, second by Member Melia. Motion passed.

[JOHNSON: Y / GODFREY: EXCUSED / MELIA: Y / NICHELINI: Y / ROSEMAN: Y / SPEAKMAN: Y / WILKINSON: Y]  
(AYES: 6 / NOES: 0 / ABSENT: 0 / ABSTAIN: 0 / EXCUSED: 1)

The meeting adjourned at 12:11 p.m.

---

DAVID F. JONES  
PLAN ADMINISTRATOR & SECRETARY

---

DATE

Table 1

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Administrative Budget Spent to Date (Preliminary)

As of December 31, 2023

	Approved Budget		December 2023		FYTD		Remaining		Percent Remaining	
<b>Internal Administrative Costs</b>										
PFRS Staff Salaries	\$	1,459,000	\$	72,542	\$	581,573	\$	877,427		60.1%
Board Travel Expenditures		52,500		36		2,233		50,267		95.7%
Staff Training		20,000		-		-		20,000		100.0%
Staff Training - Tuition Reimbursement		7,500		-		-		7,500		100.0%
Board Hospitality		3,600		-		1,804		1,796		49.9%
Payroll Processing Fees		40,000		-		-		40,000		100.0%
Miscellaneous Expenditures		45,000		563		7,501		37,499		83.3%
Internal Service Fees (ISF)		88,000		-		41,500		46,500		52.8%
Contract Services Contingency		50,000		-		500		49,500		99.0%
<b>Internal Administrative Costs Subtotal :</b>	<b>\$</b>	<b>1,765,600</b>	<b>\$</b>	<b>73,142</b>	<b>\$</b>	<b>635,112</b>	<b>\$</b>	<b>1,130,488</b>		<b>64.0%</b>
<b>Actuary and Accounting Services</b>										
Audit	\$	52,800	\$	-	\$	18,941	\$	33,859		64.1%
Actuary		49,400		-		-		49,400		100.0%
<b>Actuary and Accounting Subtotal:</b>	<b>\$</b>	<b>102,200</b>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>18,941</b>	<b>\$</b>	<b>83,259</b>		<b>81.5%</b>
<b>Legal Services</b>										
City Attorney Salaries	\$	212,100	\$	-	\$	-	\$	212,100		100.0%
Legal Contingency		150,000		-		-		150,000		100.0%
<b>Legal Services Subtotal:</b>	<b>\$</b>	<b>362,100</b>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>362,100</b>		<b>100.0%</b>
<b>Investment Services</b>										
Money Manager Fees	\$	1,353,000	\$	-	\$	255,936	\$	1,097,064		81.1%
Custodial Fee		124,500		-		-		124,500		100.0%
Investment Consultant		100,000		-		25,000		75,000		75.0%
<b>Investment Subtotal:</b>	<b>\$</b>	<b>1,577,500</b>	<b>\$</b>	<b>-</b>	<b>\$</b>	<b>280,936</b>	<b>\$</b>	<b>1,296,564</b>		<b>82.2%</b>
<b>Total Operating Budget</b>	<b>\$</b>	<b>3,807,400</b>	<b>\$</b>	<b>73,142</b>	<b>\$</b>	<b>934,989</b>	<b>\$</b>	<b>2,872,411</b>		<b>75.44%</b>

Table 2

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

Cash in Treasury (Fund 7100) - Preliminary

As of December 31, 2023

	December 2023	
<b>Beginning Cash as of 12/1/2023</b>	\$	10,366,364
<b>Additions:</b>		
City Pension Contribution - December	\$	3,396,917
Investment Draw	\$	1,000,000
Misc. Receipts		800
<b>Total Additions:</b>	\$	4,397,717
<b>Deductions:</b>		
Pension Payment (November Pension Paid on 12/1/2023)		(4,194,846)
Expenditures Paid		(115,514)
<b>Total Deductions</b>	\$	(4,310,360)
 <b>Ending Cash Balance as of 12/31/2023*</b>	 \$	 10,453,720

\* On 1/2/2024, December pension payment of appx \$4,175,000 will be made leaving a cash balance of \$6,279,000.

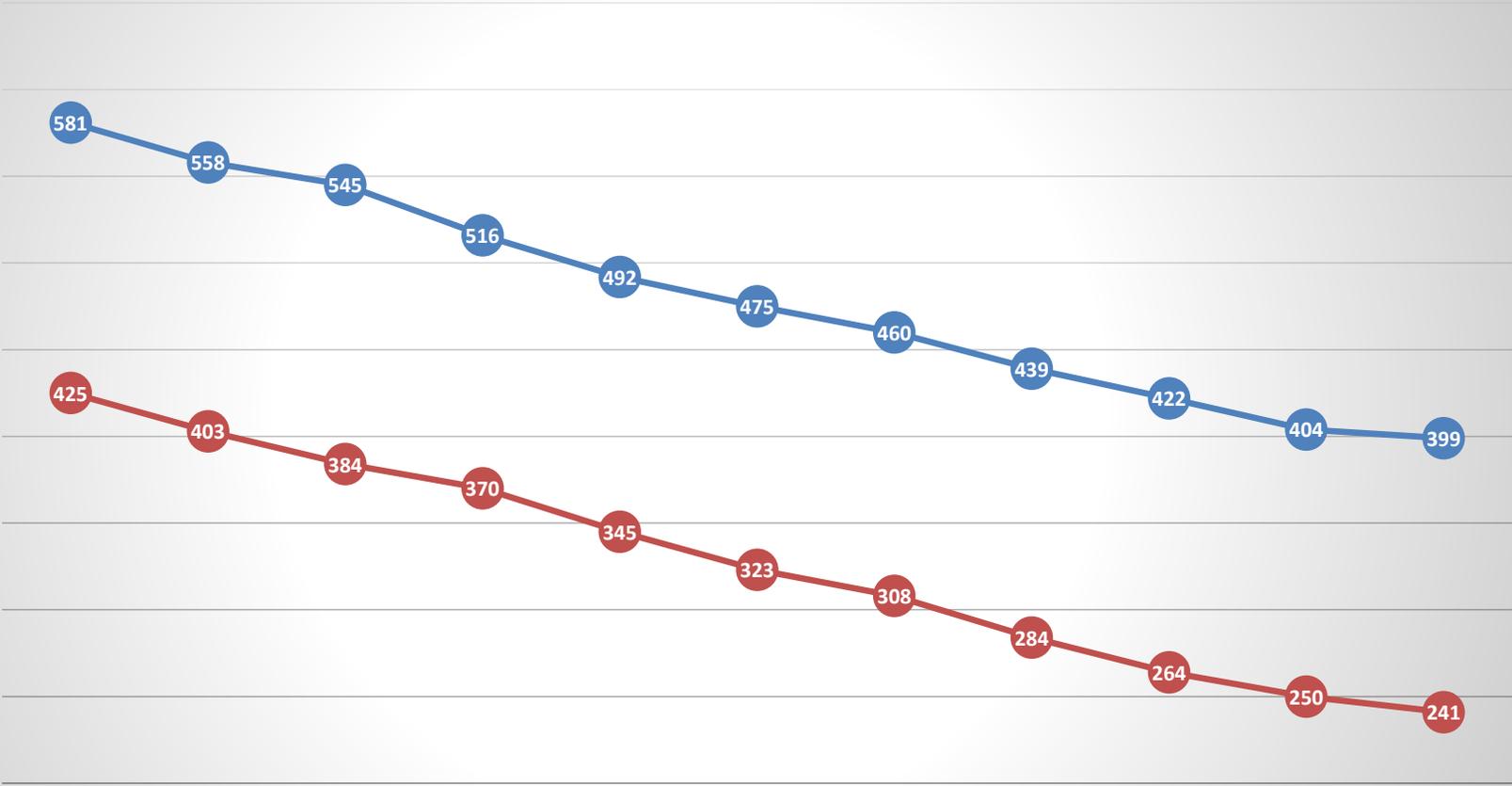
**Table 3**  
**CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**

Census  
As of December 31, 2023

COMPOSITION	POLICE	FIRE	TOTAL
<b>Retired Member:</b>			
Retiree	272	153	425
Beneficiary	127	88	215
<b><i>Total Retired Members</i></b>	<b>399</b>	<b>241</b>	<b>640</b>
<b><i>Total Membership:</i></b>	<b>399</b>	<b>241</b>	<b>640</b>

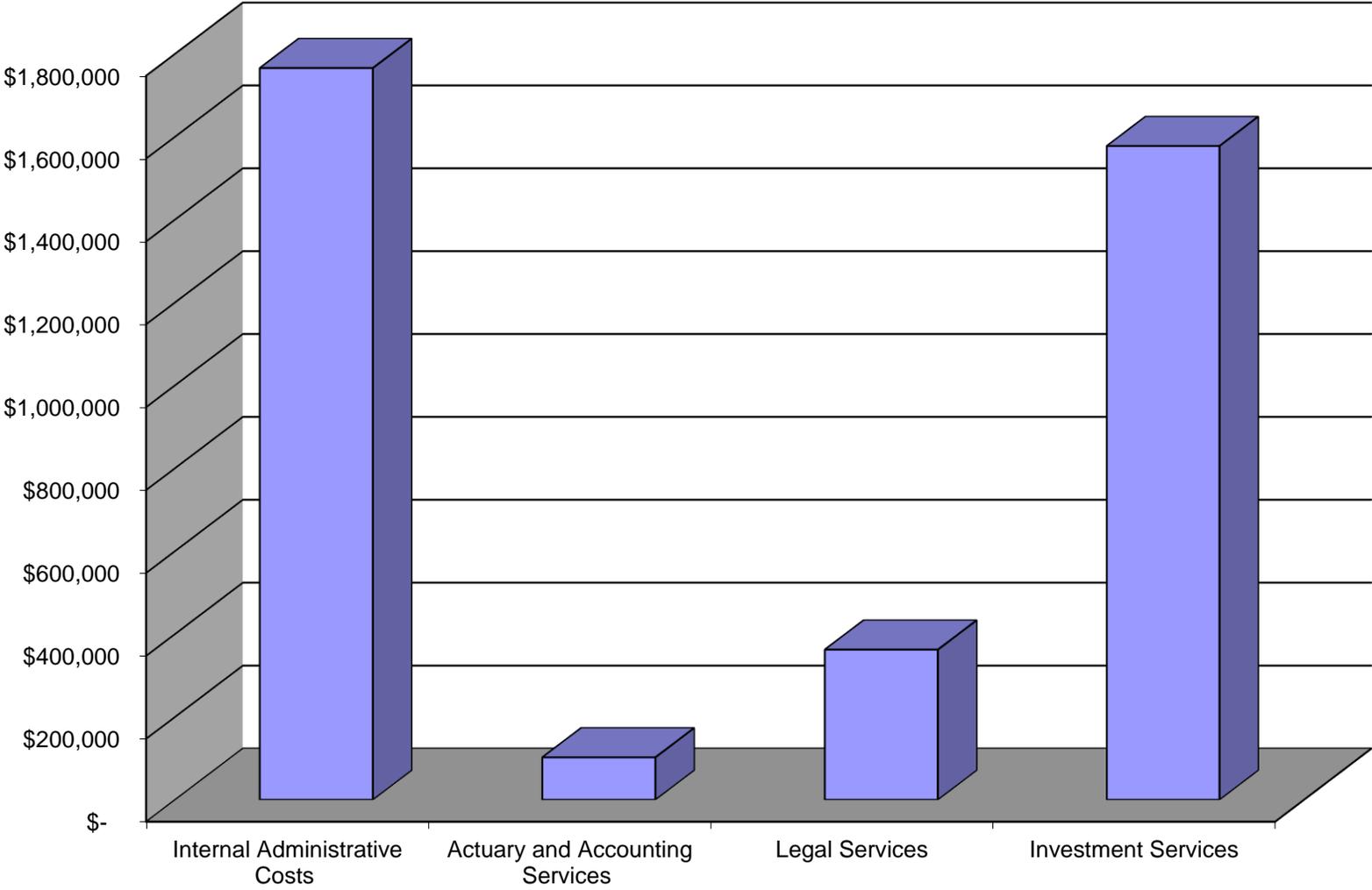
COMPOSITION	POLICE	FIRE	TOTAL
<b>Retired Member:</b>			
Service Retirement	267	113	380
Disability Retirement	124	117	241
Death Allowance	8	11	19
<b><i>Total Retired Members:</i></b>	<b>399</b>	<b>241</b>	<b>640</b>
<b><i>Total Membership as of December 31, 2023:</i></b>	<b>399</b>	<b>241</b>	<b>640</b>
<b><i>Total Membership as of June 30, 2023:</i></b>	<b>404</b>	<b>250</b>	<b>654</b>
<b><i>Annual Difference:</i></b>	<b>-5</b>	<b>-9</b>	<b>-14</b>

## Oakland Police and Fire Retirement System Pension Plan Membership Count As of December 31, 2023 (FY 2014 - FY 2024)

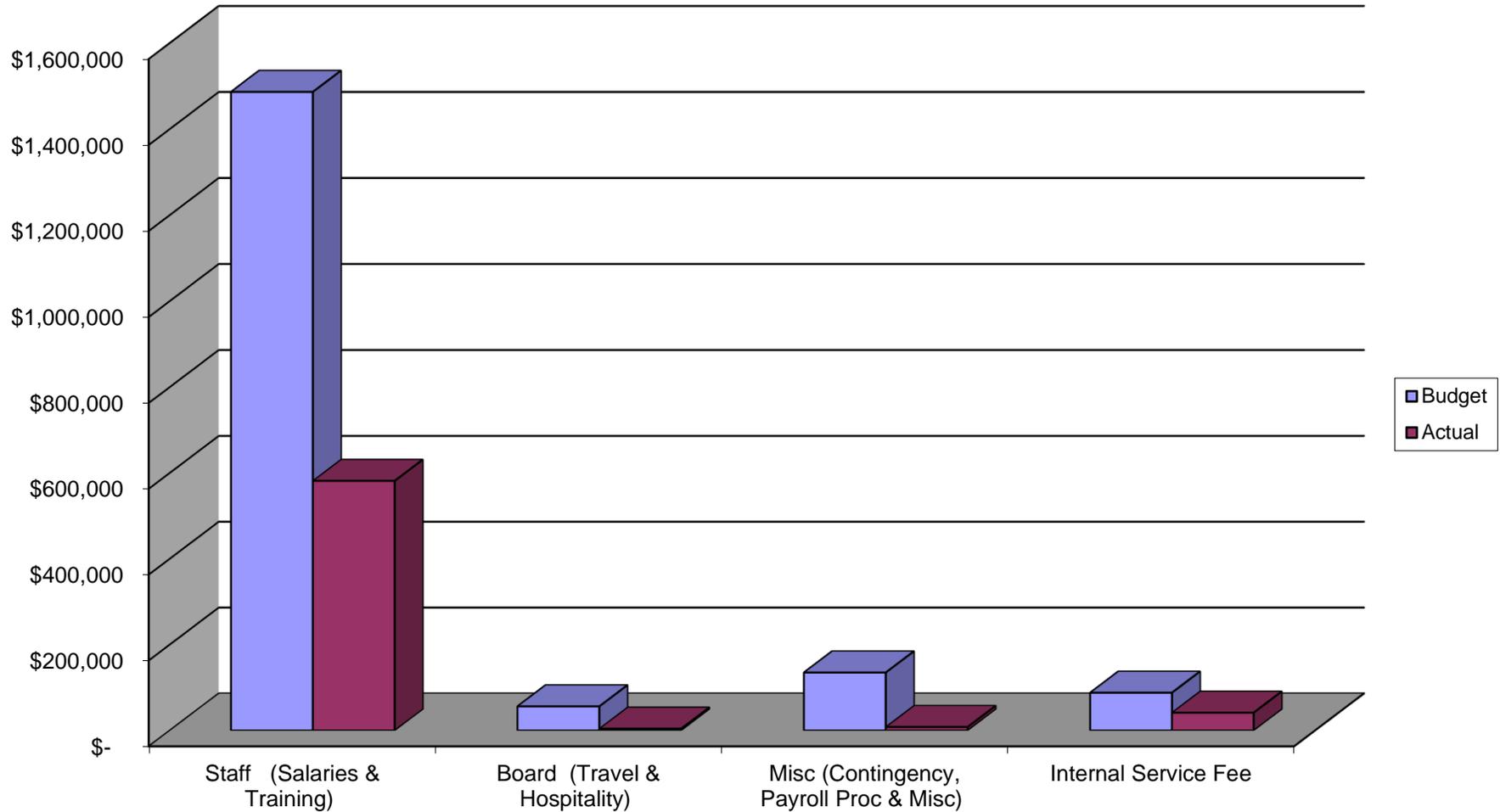


	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024 FYTD
Police	581	558	545	516	492	475	460	439	422	404	399
Fire	425	403	384	370	345	323	308	284	264	250	241
Total	1006	961	929	886	837	798	768	723	686	654	640

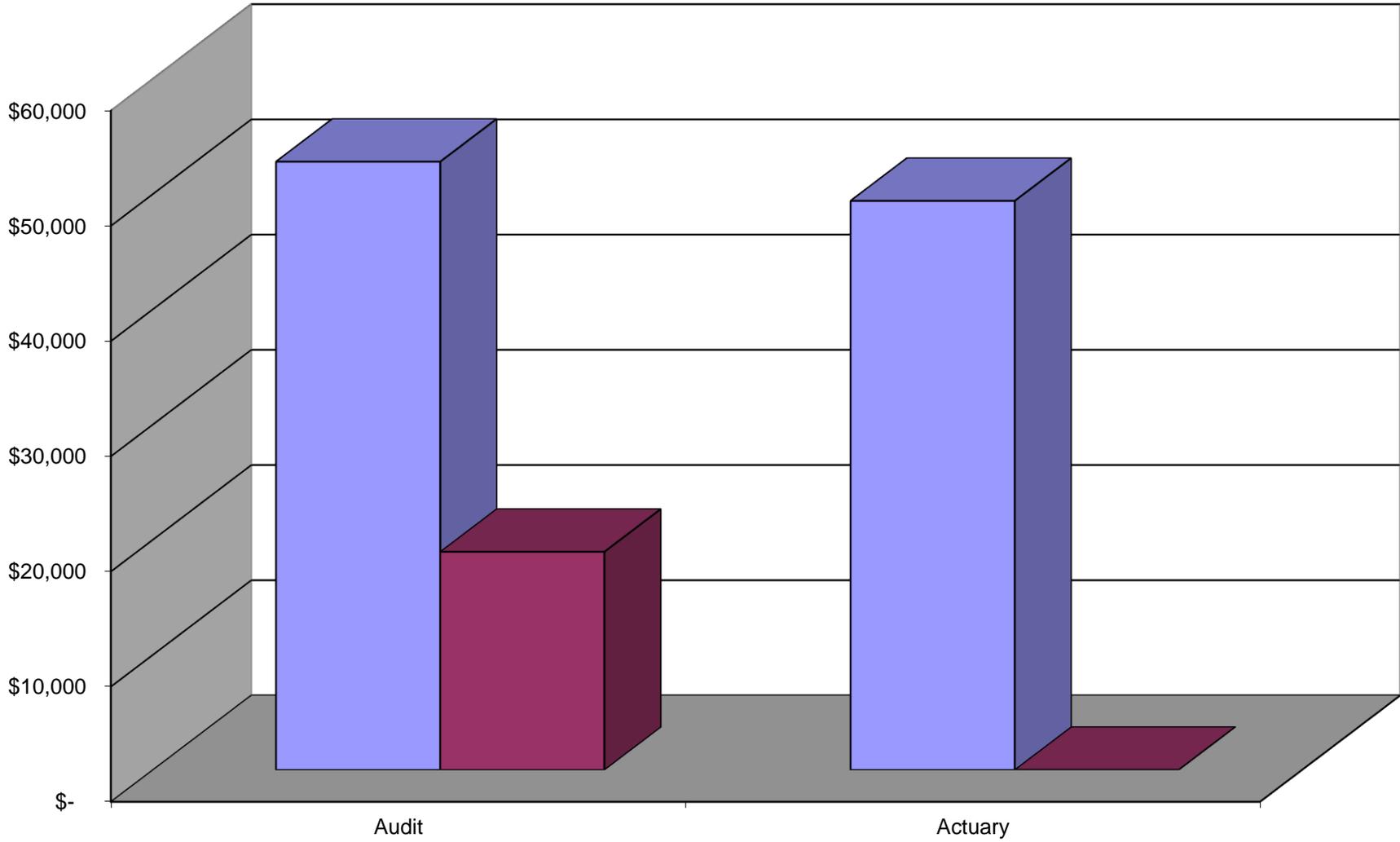
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
Approved Budget  
FY 2023-2024



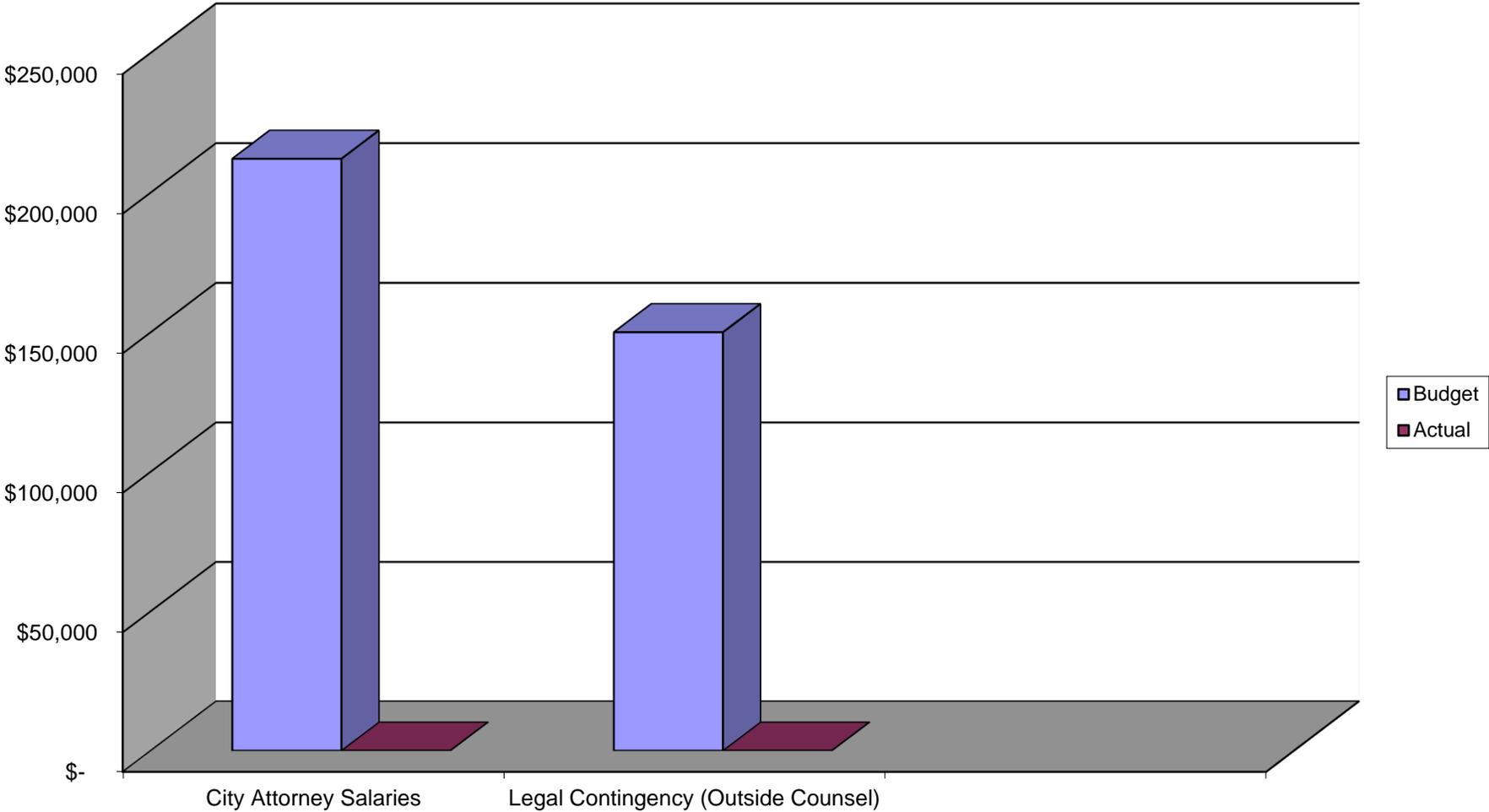
**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM**  
**Budget vs Actual as of December 31, 2023**  
**Internal Administrative Costs**



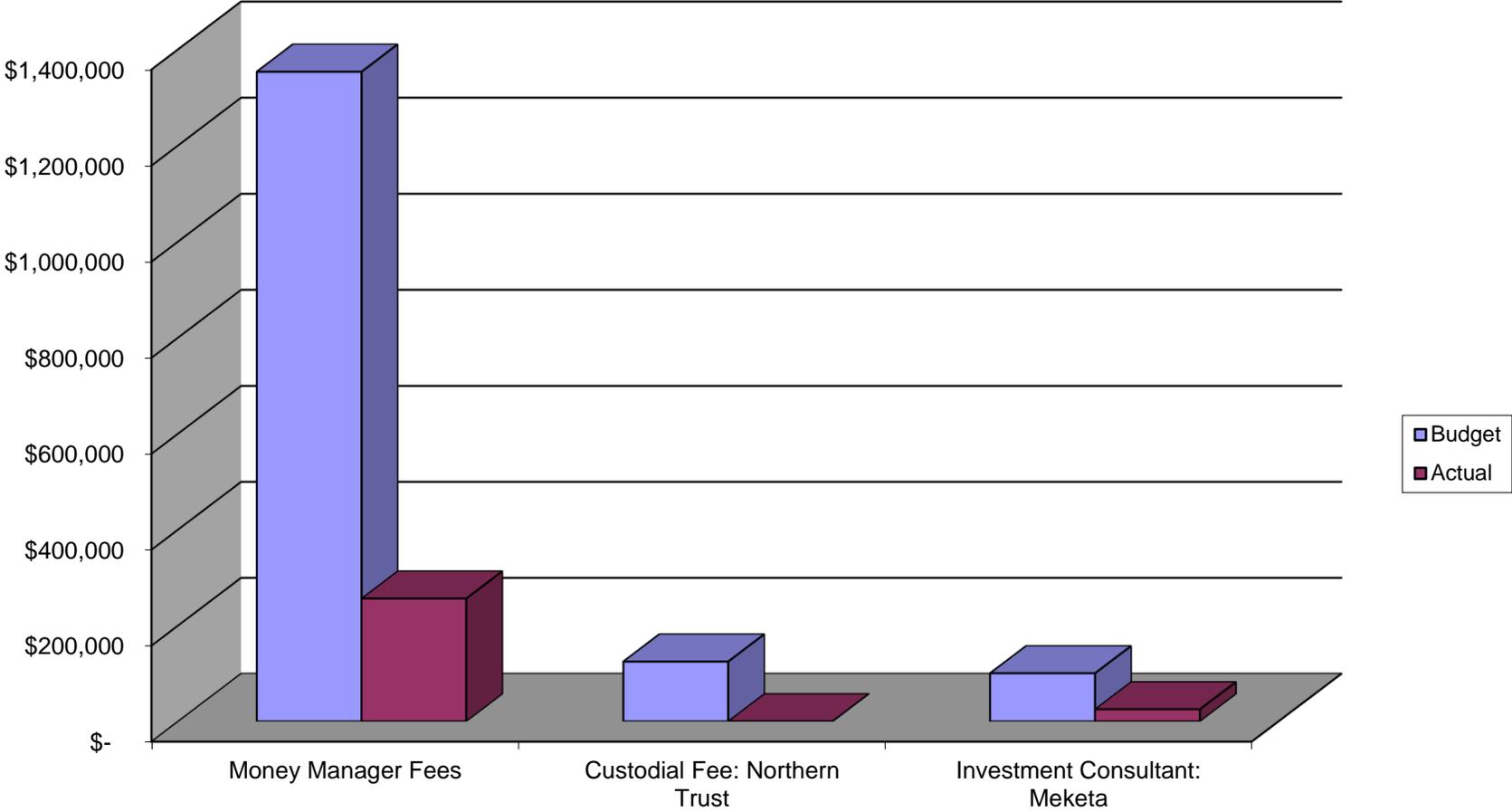
OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
Budget vs. Actual as of December 31, 2023  
Actuary and Accounting Services



OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
Budget vs. Actual as of December 31, 2023  
Legal Services



OAKLAND POLICE AND FIRE RETIREMENT SYSTEM  
Budget vs. Actual as of December 31, 2023  
Investment Services



# City of Oakland Police & Fire Retirement System

RHJ Small Cap  
Opportunities Strategy

February 28, 2024



**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

**December 31, 2023**

Investment-led firm, founded in 1974

Firm AUM + AUA: \$2.0 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 31 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

32 institutional clients, representing 81% of assets



# Diversity

## Diversity Representation Survey for Oakland Police and Fire

DATA AS OF 12/31/2023

Firm Name	Rice Hall James & Associates, LLC
Product Name	RHJ Small Cap Opportunities
Total No. 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%	0.0%	0.0%**
Asian/Hawaiian/Pacific Islander	16.7%	7.4%	0.0%
Latino/Hispanic	0.0%	7.4%	6.7%
White	83.3%	81.5%	86.7%
American Indian/ Alaska Native	0.0%	3.7%	6.7%
Other	0.0%	0.0%	0.0%
<b>Gender</b>			
Male	66.7%	70.4%	80.0%
Female	33.3%	29.6%	20.0%
Non-Identified/Other	0.0%	0.0%	0.0%
	100.0%	100.0%	100.0%
	100.0%	100.0%	100.0%

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

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



# 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 31 years of investment experience and 24 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 December 31, 2023

## Portfolio Details

Inception Date: July 13, 2017

Initial Value: \$10,537,872.22

Market Value as of December 31, 2023: \$15,324,001.35

Net Flows Since Inception: (\$981,714.23)

	1 Year*	3 Years*	5 Years*	Since Inception* July 31, 2017
<b>Oakland Police &amp; Fire Ret System [Gross]</b>	<b>15.20%</b>	<b>0.68%</b>	<b>8.58%</b>	<b>7.69%</b>
<b>Oakland Police &amp; Fire Ret System [Net]</b>	<b>14.30%</b>	<b>-0.17%</b>	<b>7.61%</b>	<b>6.74%</b>
Russell 2000 Growth Index	18.66%	-3.50%	9.22%	7.10%

\*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, 2022. Please refer to important disclosures at the end of this presentation regarding the returns and index shown above.

# Oakland Police & Fire Retirement System

As of January 31, 2024

## Portfolio Details

Inception Date: July 13, 2017

Initial Value: \$10,537,872.22

Market Value as of January 31, 2024: \$15,097,915.91

Net Flows Since Inception: (\$981,714.23)

	1 Month	1 Year*	3 Years*	5 Years*	Since Inception* July 31, 2017
<b>Oakland Police &amp; Fire Ret System [Gross]</b>	<b>-1.47%</b>	<b>-0.41%</b>	<b>-1.11%</b>	<b>6.43%</b>	<b>7.34%</b>
<b>Oakland Police &amp; Fire Ret System [Net]</b>	<b>-1.67%</b>	<b>-1.22%</b>	<b>-1.94%</b>	<b>5.48%</b>	<b>6.37%</b>
Russell 2000 Growth Index	-3.21%	4.46%	-6.03%	6.17%	6.47%

\*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, 2022. Please refer to important disclosures at the end of this presentation regarding the returns and index shown above.

# RHJ Attribution Report

## 1 Year Ending December 31, 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>15.19</b>	<b>15.19</b>	<b>100.00</b>	<b>18.66</b>	<b>18.66</b>	<b>0.40</b>	<b>-3.87</b>	<b>-3.47</b>
Financials	12.53	37.59	4.58	6.47	19.26	1.16	0.15	2.10	2.25
Consumer Discretionary	11.60	37.29	4.02	11.19	21.56	2.32	0.14	1.69	1.82
Energy	--	--	--	5.79	8.63	-0.01	0.87	--	0.87
Utilities	--	--	--	1.65	-2.42	-0.01	0.38	--	0.38
Real Estate	--	--	--	1.86	16.55	0.29	0.10	--	0.10
Industrials	19.09	23.24	3.99	19.88	24.22	4.64	-0.03	-0.22	-0.25
[Cash]	3.72	5.16	0.20	--	--	--	-0.44	--	-0.44
Materials	1.84	-32.96	-0.86	4.44	10.83	0.50	0.22	-1.08	-0.86
Consumer Staples	0.46	-28.68	-0.24	4.56	28.61	1.26	-0.44	-0.48	-0.92
Communication Services	9.82	3.47	0.27	2.22	17.52	0.43	-0.09	-1.33	-1.42
Health Care	27.25	6.96	2.11	22.23	11.27	2.73	-0.13	-1.42	-1.55
Information Technology	13.69	7.00	1.11	19.71	27.84	5.35	-0.32	-3.13	-3.45

Sources: FactSet, GICS Sector Classification, & FTSE Russell



**RICE HALL JAMES**  
& ASSOCIATES, LLC

Past performance does not guarantee future results. Attribution results are based on sector returns, which are gross of fees and include reinvestment of all income. 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. Please refer to important disclosures at the end of this presentation regarding the index shown above.

# Top/Bottom 5 Contributors

## 1 Year Ending December 31, 2023 Contributors

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

Ticker		Average Weight	Total Return	Contribution To Return
<b>5 Highest</b>				
LRN	Stride, Inc.	3.96	89.80	3.03
DFIN	Donnelley Financial Solutions, Inc.	4.01	61.37	2.18
XPO	XPO, Inc.	1.71	163.11	1.76
ARLO	Arlo Technologies, Inc.	2.11	171.23	1.56
MEDP	Medpace Holdings, Inc.	3.44	44.31	1.47
<b>5 Lowest</b>				
ESTA	Establishment Labs Holdings, Inc.	0.92	-64.37	-1.51
APPS	Digital Turbine, Inc.	1.38	-54.99	-1.24
WNS	WNS (Holdings) Limited Sponsored ADR	4.44	-20.99	-1.18
NGVT	Ingevity Corporation	1.84	-32.96	-0.86
CMBM	Cambium Networks Corporation	0.57	-72.31	-0.82

Sources: FactSet, GICS Sector Classification, & FTSE Russell



# 2023 Transactions: RHJ Small Cap Opportunities

## 2023 Portfolio Purchases

Establishment Labs Holdings, Inc.	ESTA
Eventbrite, Inc.	EB
Karuna Therapeutics, Inc.	KRTX
Ritchie Bros. Auctioneers, Inc.	RBA
BioCryst Pharmaceuticals, Inc.	BCRX
Evolus, Inc.	EOLS
SiTime Corp.	SITM
Alkermes PLC	ALKS
Verona Pharma PLC	VRNA

## 2023 Portfolio Sales

Albireo Pharma, Inc.	ALBO
Fate Therapeutics, Inc.	FATE
IAA, Inc.	IAA
Rackspace Technology, Inc.	RXT
Strategic Education, Inc.	STRA
Medifast, Inc.	MED
Semtech Corp.	SMTC
MSC Industrial Direct Co., Inc.	MSM
Silicon Motion Technology Corp.	SIMO



# Small Cap Opportunities Portfolio

## As of December 31, 2023

### Communication Services

Eventbrite, Inc.	1.1%
Shutterstock, Inc.	1.3%
TechTarget, Inc.	0.4%
TKO Group Holdings, Inc.	3.3%
Ziff Davis, Inc.	2.6%

### Consumer Discretionary

Beyond, Inc.	0.4%
Century Casinos, Inc.	0.4%
LCI Industries	1.5%
Pool Corp.	1.4%
Sleep Number Corp.	0.2%
Stride, Inc.	4.4%
Vail Resorts, Inc.	1.3%

### Financials

Axos Financial, Inc.	2.3%
Bank OZK	1.5%
Donnelley Financial Solutions, Inc.	4.7%
Euronet Worldwide, Inc.	3.6%
Federal Agricultural Mortgage Corp.	1.5%

**8.7%**

### Health Care

ACADIA Pharmaceuticals, Inc.	2.0%
Alkermes Public Ltd. Co.	0.1%
Amicus Therapeutics, Inc.	1.2%
Ascendis Pharma	1.9%
BioCryst Pharmaceuticals, Inc.	0.9%
Doximity, Inc.	1.9%
Establishment Labs Holdings, Inc.	1.4%
Evolus, Inc.	0.7%
Insme, Inc.	0.5%
Iovance Biotherapeutics, Inc.	1.0%
Karuna Therapeutics, Inc.	1.4%
Kiniksa Pharmaceuticals Ltd.	0.8%
Ligand Pharmaceuticals, Inc.	1.4%
Medpace Holdings, Inc.	3.5%
Neurocrine Biosciences, Inc.	1.6%
OmniAb, Inc.	1.1%
OptiNose, Inc.	0.1%
Pacira Biosciences, Inc.	2.8%
Premier, Inc.	0.5%
Prestige Consumer Healthcare, Inc.	3.4%
Puma Biotechnology, Inc.	0.1%
Revanche Therapeutics, Inc.	0.5%
Supernus Pharmaceuticals, Inc.	1.0%
Verona Pharma PLC	0.7%

**13.6%**

**30.1%**

### Industrials

Armstrong World Industries, Inc.	2.1%
Franklin Covey Co.	1.4%
GXO Logistics, Inc.	0.6%
Masonite International Corp.	3.2%
MAXIMUS, Inc.	1.7%
PGT Innovations, Inc.	2.1%
RB Global, Inc.	1.2%
RXO, Inc.	0.6%
Willdan Group, Inc.	0.6%
WNS Holdings Ltd.	4.0%
XPO, Inc.	2.4%

**20.0%**

### Information Technology

ACI Worldwide, Inc.	4.1%
Arlo Technologies, Inc.	2.5%
Cambium Networks Corp.	0.1%
CEVA, Inc.	0.8%
Consensus Cloud Solutions, Inc.	0.4%
Digital Turbine, Inc.	0.9%
Ituran Location and Control Ltd.	0.2%
Qualys, Inc.	0.8%
Radware Ltd.	1.0%
SiTime Corp.	0.5%
SolarWinds Corp.	0.2%
Wix.com Ltd.	1.2%

**12.6%**

### Materials

Ingevity Corp.	1.4%
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**1.4%**

Total Equity	<b>96.1%</b>
Total Cash	<b>3.9%</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 December 31, 2023

	Small Cap Opportunities	Russell 2000 Growth Index
Communication Services	8.7%	2.2%
Consumer Discretionary	9.7%	11.1%
Consumer Staples	--%	4.5%
Energy	--%	4.5%
Financials	13.6%	6.4%
Health Care	30.1%	22.4%
Industrials	20.0%	20.0%
Information Technology	12.6%	21.7%
Materials	1.4%	4.2%
Real Estate	--%	1.7%
Utilities	--%	1.5%
[Cash]	3.9%	--%

Capitalization	Small Cap Opportunities	Russell 2000 Growth Index
>\$5 billion	29.0	25.2
\$2 billion- 5 billion	37.7	50.3
\$750 million- 2 billion	24.8	18.6
\$400 million- 750 million	7.1	3.8
<\$400 million	1.5	2.1

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.



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# Small Cap Opportunities Portfolio Characteristics

As of December 31, 2023

	RHJ Small Cap Opportunities	Russell 2000 Growth Index
Number of Holdings	65	1,074
Portfolio Turnover (3Y annual avg)	17.7%	--
Long-Term Earnings Growth Forecast	13.7%	16.3%
P/E - 1 Year Forecast*	16.4	18.2
Weighted Median Market Cap	\$3.04 billion	\$3.28 billion
Weighted Average Market Cap	\$4.06 billion	\$3.78 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 December 31, 2023

	4Q23	1 Year*	3 Year*	5 Year*	7 Year*	10 Year*	Since Inception* October 10, 1994*
RHJ Small Cap Opportunities [Gross]	13.69%	15.19%	0.62%	8.55%	8.88%	8.20%	12.52%
RHJ Small Cap Opportunities [Net]	13.50%	14.46%	-0.02%	7.84%	8.17%	7.52%	11.61%
Russell 2000 Growth Index	12.75%	18.66%	-3.50%	9.22%	8.08%	7.16%	7.63%

\*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, 2022. Please refer to important disclosures at the end of this presentation regarding the returns and index shown above.

# 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 sustainable competitive advantages** 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%	(42%)	(15%)	24%	39%	251%
	10% - 15%	(46%)	(31%)	8%	22%	65%
	5% - 10%	(40%)	(14%)	(16%)	(27%)	28%
	Less than 5%	(53%)	(41%)	(27%)	(30%)	(28%)

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.

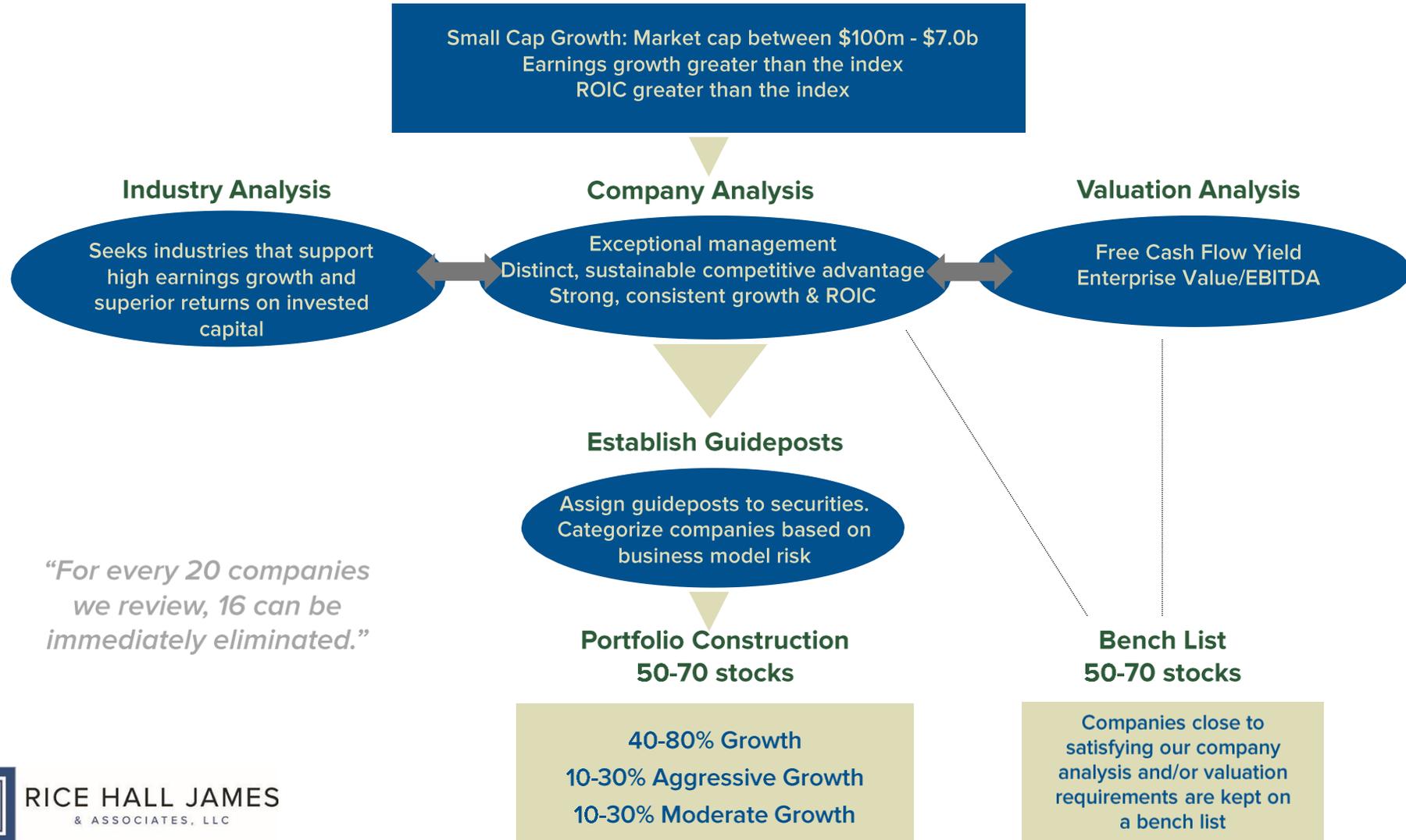
Sources: FactSet & FTSE Russell

Relative performance compares individual Russell<sup>®</sup> 2000 constituent performance vs. an equal-weighted index (Russell 2000) return. Only the Russell 2000 constituents (as of 12/31/2022) 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 12/31/2022. The Russell<sup>®</sup> 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<sup>®</sup> 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 31 years of investment experience and 24 years working together
- ▶ Proven long-term results with success through a variety of economic environments



# Small Cap Opportunities Composite Historical Returns

	Small Cap Opportunities [Gross]	Small Cap Opportunities [Net]	Russell 2000 Growth Index
2023	15.19 %	14.46 %	18.66 %
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 %



# Biographies

## Portfolio Management & Analysis Team

### **Lou Holtz, CFA**

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

Lou joined RHJ in October 2008 and has 32 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 29 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.

### **Carlos A. Salcedo, CFA**

#### ***Client Service & Marketing Associate***

Carlos joined RHJ in 2018 as an Operations Administrator focused on reconciliation, data integrity, and operational reporting. In May 2021, he joined the Client Service and Marketing Team and is currently responsible for a number of client service responsibilities, including portfolio analytics, client reporting, and data management. Prior to RHJ, Carlos was a Client Service Specialist at Dowling & Yahnke. He holds a B.A. degree in Economics from the University of California, San Diego. Carlos is a CFA charterholder. He is a member of CFA Society San Diego.



# Biographies

## Trading

### **Brandon Toney, CFA**

#### *Head of Trading*

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.

### **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.

### **Samantha Radillo**

#### *Equity Trading Associate*

Samantha joined RHJ in November 2023 as an Equity Trading Associate. She received a B.S. in Finance from San Diego State University in May 2023.



# 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 35 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 30 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 24 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
2022	-23.85%	-24.33%	-26.36%	0.14%	25.09%	26.20%
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%



# 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
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*	20.70%	20.39%	1.40%	N/A <sup>1</sup>		



# 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
2022	17	842	1,803	248	2,051	995	16	1,012
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>



# 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
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>



# 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, 2022. 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, 2022. 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:** February 28, 2024  
**RE:** Rice Hall James – Manager Update

### Manager: Rice Hall James

<b>Inception Date:</b>	August 2017	<b>OPFRS AUM (01/31/2024):</b>	\$15.1 million
<b>Strategy:</b>	Small Cap Opportunities	<b>Strategy AUM (12/31/2023):</b>	\$1.0 billion
<b>Benchmark:</b>	Russell 2000 Growth	<b>Firm-wide AUM (12/31/2023):</b>	\$1.7 billion

### Summary

Rice Hall James has managed a part of OPFRS’s domestic equity portfolio since August 2017. As of 01/31/2024, the portfolio is approximately \$15.1 million or about 3.5% of OPFRS’s Total Fund. Since last review in May 2023, the strategy has continued to perform within expectations and guidelines for the portfolio, and no major organizational changes or personnel turnover in the portfolio management team have been observed since the last review. **Therefore, Meketa does not have any major concerns with Rice Hall James and the Small Cap Opportunities strategy.**

### Investment Performance Review Summary

As of 01/31/2024, Rice Hall James Small Cap Opportunities strategy has outperformed its benchmark (Russell 2000 Growth Index) across all time periods except over the 1-year trailing period on gross of fees basis. On net of fees basis, it has outperformed its benchmark during the most recent quarter and over the 3-year trailing period, while trailing the benchmark over the 1- and 5-year periods, and since inception. In comparison with its peers in the eVestment US Small Cap Growth Equity (Net) universe, it has ranked average or above average during the most recent quarter and over the 3-year trailing period while ranking in the last quartile for the 1-year, 5-year, and since inception periods.

### OPFRS Portfolio Returns (as of 01/31/2024)<sup>1</sup>

Portfolio	Balance (\$000)	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	S.I. (%)	Inception Date
Rice Hall James (Gross)	15,101.0	-1.5	-0.4	-1.1	6.5	7.4	8/2017
<i>Russell 2000 Growth</i>	---	-3.2	4.5	-6.0	6.2	6.5	---
Excess Return	---	1.7	-4.9	4.9	0.3	0.9	---
Rice Hall James (Net)	15,101.0	-1.6	-1.3	-2.1	5.4	6.3	8/2017
<i>Russell 2000 Growth</i>	---	-3.2	4.5	-6.0	6.2	6.5	---
Excess Return	---	1.6	-5.8	3.9	-0.8	-0.2	---
Peer Group Rank (Net) <sup>2</sup>	---	42	86	50	89	91	---

<sup>1</sup> Performance is annualized for periods longer than one year. “S.I.” signifies Since Inception.

<sup>2</sup> Peer group is eVestment US Small Cap Growth (Net) as of 01/31/2024.

## Product and Organization Review Summary

Rice Hall James	Areas of Potential Impact				
	Level of Concern	Investment Process	Investment Team	Performance Track Record	Team/Firm Culture
<b>Product</b>					
Key people changes	None				
Changes to team structure or individuals' roles	None				
Product client gain/losses	None				
Changes to 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 May 2023.

### Investment Philosophy & Process<sup>3</sup>

The RHJ Small Cap Opportunities team believes that superior risk-adjusted performance can be achieved by creating a diversified portfolio of companies that have three primary characteristics: above-average earnings growth, high or improving return on invested capital, and sustainable competitive advantages.

Having studied historical returns for small cap companies, they believe that earnings-per-share (EPS) growth alone is not a comprehensive determinant of outperformance relative to benchmark. However, over longer holding periods, companies exhibiting EPS growth in combination with high ROIC do consistently show strong outperformance relative to a benchmark. This observation informs the team's philosophy and the criteria they seek out for potential investments; they believe that a disciplined, fundamental, bottom-up research process best serves the search for these types of companies.

Since strong relative results tend to manifest over longer holding periods, they focus 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. This feature is consistent with their inclusion of only high-conviction, long-term ideas, and lower turnover could potentially mitigate unnecessary cost and transaction risk for clients within the scope of the mandate.

DS/PN/JLC/mn

<sup>3</sup> Source: eVestment, as of 12/31/2023.



## 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.



# AGENDA REPORT

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

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

**SUBJECT:** Expiration Notice of PFRS Investment Manager Service Agreement and Action to Extend Service Agreements

**DATE:** February 28, 2024

## SUMMARY

The Service Contract for the following Investment Manager for the Oakland Police & Fire Retirement Systems (PFRS) is set to expire March 1, 2024. The PFRS Board is asked to consider acting to extend the service agreement for this manager for one additional year pursuant to their service agreements.

## BACKGROUND

The Service Agreement for the following Investment Manager who provides services for the PFRS Board will expire shortly. The following table describes the investment manager contract:

Investment Manager	Investment Strategy	Date Entered Into Contract	Contract/Extension Expiration Date
Rice Hall James & Associates	Domestic Equity Small-Cap Growth	March 1, 2017	March 01, 2024

## RECOMMENDATION

Staff recommends that the PFRS Board approve the implementation of the relevant service agreement provision for the manager to extend the service agreement between the above mentioned PFRS Investment Manager and PFRS.

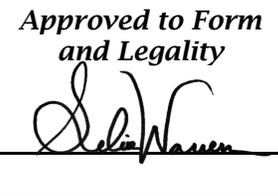
Respectfully submitted,

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

Attachment:  
(1) Resolution # 8093

Agenda Item C3  
PFRS Board of Administration Meeting  
February 28, 2024

OAKLAND POLICE AND FIRE RETIREMENT BOARD  
CITY OF OAKLAND, CALIFORNIA  
RESOLUTION No. 8093



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

**RESOLUTION TO AUTHORIZE A ONE-YEAR EXTENSION OF THE PROFESSIONAL SERVICES AGREEMENT WITH RICE HALL JAMES & ASSOCIATES FOR THE PROVISION OF DOMESTIC EQUITY SMALL-CAP GROWTH INVESTMENT STRATEGY MANAGER SERVICES FOR THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM COMMENCING MARCH 1, 2024 AND ENDING MARCH 1, 2025.**

**WHEREAS**, Article XVI §17 of the California Constitution, commonly referred to as the Pension Protection Act or Proposition 162, and Article XXVI of the Oakland City Charter (“Charter”) vest the Oakland Police and Fire Retirement System Board (“PFRS Board”) with exclusive control of the administration and investment of the assets of the Police and Fire Retirement Fund (the “Fund”); and

**WHEREAS**, the PFRS Board manages and administers the Police and Fire Retirement System (“PFRS”), pursuant to the requirements of Article XXVI of the Charter; and

**WHEREAS**, Charter section 2601(e) gives the Board power to make all necessary rules and regulation for its guidance and exclusive control of the administration and investment of the funds established for the maintenance and operation of the system; and

**WHEREAS**, Article XXVI of the Charter expressly authorizes the PFRS Board to secure competent investment counsel to provide advice and counsel regarding the investment of the Fund and further provides that discretionary powers granted to such investment counsel will be at the option of the Board; and

**WHEREAS**, on December 21, 2016, the PFRS Board passed a motion to enter into a professional service agreement (“the Agreement”) with Rice Hall James & Associates, LLC (“Investment Counsel”) to provide advice and counsel regarding investments of the assets of the Police and Fire Retirement Fund (“Fund”) for the provision of Domestic Equity Small-Cap Growth Investment Manager Services; and

**WHEREAS**, on February 22, 2017 the PFRS Board ratified the December 21, 2016 motion by approving Resolution No. 6942 authorizing the PFRS Board to enter into the Agreement with Investment Counsel for the provision of Domestic Equity Small-Cap Growth Investment Manager Services; and

**OAKLAND POLICE AND FIRE RETIREMENT BOARD**

CITY OF OAKLAND, CALIFORNIA

**RESOLUTION No. 8065**

**WHEREAS**, the Agreement between the PFRS Board and Investment Counsel commenced March 1, 2017 for a five-year term; and

**WHEREAS**, on March 30, 2022, the Board approved Resolution 8044 which authorized an amendment to the Agreement provision in Section IV(B) in order to (1) provide for unlimited one-year extension options under section iv(b) and (2) authorize a one-year extension of the professional services agreement for the provision of domestic equity small-cap growth investment manager services for the City of Oakland Police and Fire Retirement System; and

**WHEREAS**, on October 26, 2022, the Board approved Resolution 8065 which authorized a one-year extension of the professional services agreement for the provision of domestic equity small-cap growth investment manager services for the City of Oakland Police and Fire Retirement System; and

**WHEREAS**, the PFRS Board now wishes to exercise its option to renew the Agreement with Investment Counsel for an additional one-year term, commencing March 1, 2024, at the annual fee rate of 0.80 percent of the Fund assets under management (presently valued at approximately \$15 Million Dollars (\$15,000,000.00)), which fees are estimated to be approximately One Hundred Twenty Thousand Dollars (\$120,000.00); now, therefore, be it

**RESOLVED:** That the Board hereby authorizes a one-year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System and Rice Hall James & Associates, LLC for the provision of Domestic Equity Small-Cap Growth Investment Manager Services, commencing March 1, 2024 and ending March 1, 2025; and be it

**FURTHER RESOLVED:** That the President of the PFRS Board is hereby authorized to execute, on behalf of PFRS, a one-year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System and Rice Hall James & Associates, LLC.

IN BOARD MEETING, CITY HALL, OAKLAND, CA                     **FEBRUARY 28, 2024**                    

PASSED BY THE FOLLOWING VOTE:

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

NOES:

ABSTAIN:

ABSENT:

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

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



## **Board Presentation for:**

### **City of Oakland Police & fire Retirement System**

#### **Description: Earning Impact, Returns, and Diversification in Africa**

The main purpose of this Board presentation is for the presenters to make a brief case for making investments into Africa and highlight the opportunities that make the continent an investment destination.

The Board will understand how to maximize impact, returns, and overall portfolio diversification through investments in Africa. After a brief macro-overview by Prosper Africa and IIN, the participants will underscore the key role institutional investors, and pension funds in particular can play in achieving scale-level capital flows in the developing world to achieve global climate and impact goals. In turn, this should lead to an increase in allocations to Africa and emerging markets.

#### **Presenters:**

1. Joseph BOATENG, Chief Investment Officer, Casey Family Program
2. Papa Madiaw NDIAYE, Founder and Chief Executive Officer AFIG Fund
3. Cameron KHOSROUSHASHI, Senior Investment Advisor, Prosper Africa

# BIOGRAPHIES



**Joseph BOATENG, Chief Investment Officer, Casey Family Programs**

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Joseph Boateng is the Chief Investment Officer (CIO) at Casey Family Programs and joined as Casey's first CIO in 2007. He is responsible for overseeing the foundation's US\$2.2bn endowment in collaboration with Casey's Board of Trustees. Before joining Casey Family Programs, Mr. Boateng was a member of the Johnson & Johnson Investment Committee, responsible for managing over US\$17bn in employee benefit assets worldwide. Previously, Mr. Boateng was a Managing Consultant at KPMG Consulting, leading major derivatives, financing, and securitization projects. Mr. Boateng spent 13 years with the Xerox Corporation where he was a key member of the Trust Investment Team that managed US\$10bn assets worldwide. Mr. Boateng is a member of the International Accounting Standards Board's Financial Instruments Working Group and FASB/IASB Financial Institutions Advisory Group. He is Chair of the Investment Advisory Committee for the Seattle City Employees' Retirement System and a member of The Seattle Foundation's Investment Committee. He also serves on the Advisory Council for the African Private Equity and Venture Capital Association, the pan-African industry body which promotes and enables private investment in Africa.

Mr. Boateng received his Bachelor of Science degree from the University of Ghana in 1987 and his Masters in Business Administration degree from the University of California, Los Angeles in 1991. He is an alumnus of the Oxford University Said Business School. His professional designations include Chartered Financial Analyst, Certified Public Accountant, Chartered Global Management Accountant and Personal Financial Specialist.



## **Papa Madiaw NDIAYE, Founder and Chief Executive Officer AFIG Funds**

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Papa Madiaw Ndiaye is Founding Partner and Chief Executive Officer of AFIG Funds. AFIG Funds is a Mauritius registered private equity fund management company established in 2005 with its main office in Dakar (Senegal), and additional offices in Johannesburg (South Africa), and Washington D.C. (United States). AFIG Funds' maiden fund, the Atlantic Coast Regional Fund (ACRF), is a US\$122mn regional fund focused on growth equity investments targeting 29 countries in North, East, West and Central Africa. AFIG Funds has a portfolio of companies operating across a group of countries in sectors ranging from agro-chemicals to automotive assembly and including contract drilling services, financial services and petroleum products distribution.

Prior to AFIG Funds, Mr. Ndiaye was Investment Director at Emerging Markets Partnership in Washington. He was one of three partners to raise the US\$407mn AIG African Infrastructure Fund, which, when launched in 2000, was the largest ever pan-African fund. Before EMP, he held senior responsibilities for the International Finance Corporation's investment activities in financial institutions in Africa between 1996 and 2000 and helped to launch several landmark funds in Africa. Mr. Ndiaye spent the early part of his career at Salomon Brothers and joined JP Morgan's Emerging Markets Group in 1992.

In 1994, he launched JP Morgan's securities trading in Africa and the Middle East. In 2000, Mr. Ndiaye was named Special Advisor for Economic and Financial Affairs to the President of the Republic of Senegal and Chairman of the Senegalese Presidential Economic & Financial Advisory Council. In the same year, he launched MIDROC BVI, a direct investment vehicle for Sheikh Mohammed Al-Amoudi, a lead investor in the AIG African Infrastructure Fund. He serves on the Boards of a number of African companies and non-profit organizations involved with Africa. He holds an M.B.A. degree from the Wharton School of Business, an M.A. in International Affairs from the University of Pennsylvania's Lauder Institute, and a B.A. in Economics from Harvard College. In 2004, he was selected as a "Young Global Leader" by the World Economic Forum of Davos and then as one of the "Frontier 100 CEOs" of the Initiative for Global Development in 2009.



**Cameron KHOSROWSHASHI, Senior Investment Advisor, Prosper Africa**

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Cameron Khosrowshahi is an Emerging Markets and Blended Finance expert with over two decades of experience working with global corporations, institutional investors and local businesses in 20 countries. He is currently working in the Bureau for Economic Growth, Environment, and Education at the United States Agency for International Development (USAID).

Cameron is a founding member of USAID's Private Sector Engagement Hub, which drives the Agency's engagement policy with the private sector through structuring transactions that mobilizing private sector capital and expertise into priority emerging market sectors such as infrastructure, SME growth, agriculture, and clean energy. He directs the USAID INVEST mechanism, a \$167 million collaboration platform that aligns the skills and capital of donors, investors and corporates to achieve development outcomes. INVEST deploys USAID resources globally to create viable investment opportunities that produce both positive financial returns and social and environmental results

Cameron has designed and executed transactions and development projects in the areas of private equity and SME investment funds, sustainability and local business growth, project finance, municipal finance, early-stage finance, capital markets development, privatization, and workforce development.

He also served as a pre-launch member of the Power Africa Presidential Initiative and was part of a small USAID team that secured Power Africa's private sector commitments from investors and corporations totaling over \$20 billion.

Cameron's expertise extends to the IT sector as well, where he has served in the senior management of two Silicon Valley firms.

Cameron has traveled and lived extensively in Africa, the Middle East and North Africa. He speaks Arabic, Farsi and French.



**AFIG Funds Overview**  
*Prepared for City of Oakland Police & Fire  
Retirement System*  
*February 2024*



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# We Invest in a Growing Market with Great Promise

## African alternatives can generate outsized risk-adjusted returns:

- Over the past several years, **emerging markets** have taken an **increasingly more significant** role in alternative investments
- Recently, **Africa** has started to carve a place for itself, given **strong economic growth fundamentals** (countries with high GDP growth, urbanization, young labor population)
- This is why we at AFIG Funds chose to **invest in Africa** and African entrepreneurs
  - We have built a team with the specific skills to help local entrepreneurs accelerate the growth of their business
- The **next decade will be even more attractive** for Africa, our target market, and we see great promise for future investments



# Africa is at an exciting turning point in its economic journey - 1

Africans are experiencing a new phase of their socio-political and economic emancipation which goes beyond a few coups d'état

- **Africa has changed and is changing**

- Continent in transition and at work.
- Africa is the oldest continent, where all humanity comes from. Today, it is the youngest in terms of population
- By the end of the century, Africa will be the most populated continent
- **One in four human beings will be African in barely 25 years**
- **Africa has 65% of the world's arable land: It can feed the planet !**
- **It is essential to the world's green transition with 30% of the world's critical minerals**
- But beyond all this, Africans are working hard – in 2024 six of the ten fastest growing economies will be African.
- The number of African millionaires is expected to double within three years.
- Over the next 5 years, Hilton will open 65 new hotels in Africa
- **The continent is building the largest free trade zone in the world**



## Africa is at an exciting turning point in its economic journey - 2

---

**Africa's transformation is a real renaissance with economic, socio-political and cultural ramifications**

- **A middle class is emerging, and it is educated.**
  - That means customers with more cell phones which is more than Europe and America combined
  - Africans are experiencing an unprecedented digital revolution
- **The very same African consumers are also at the origin of a political transformation** where Africans speak with their own voice and despite the normal hiccup in a democratic transition, the continent is irreversibly moving forward
- **The transformation is also cultural.** the New York Times recently published that Nigerian singer Burna Boy was in 2023, the first African to play to a sold-out audience in an 80,000-seat American stadium. African music is now played in all popular radio stations in the United States



## Africa is at an exciting turning point in its economic journey - 3

---

- **The new Africa no longer speaks the language of development aid:** the money that the diaspora sends to Africa has far exceeded development aid.
- **Yet the impact of artificial intelligence has not been truly felt yet while only 43 people live on every square kilometer in Africa**
  - This is three times less than the European Union - Africa is underpopulated and **VERY PROMISING** with a renaissance on the way



# Expertise Is Key -- AFIG Funds' Three Partners Have One of the Longest Track Record Investing in EM and Africa

1

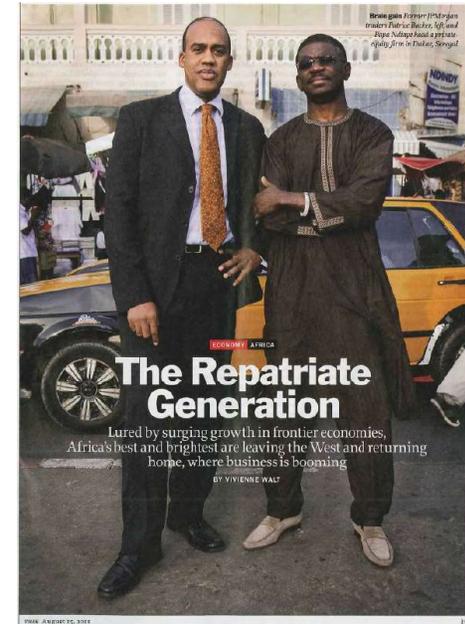
Papa Madiaw Ndiaye (CEO) and Patrice Backer's (CIO) **long-term relationship** and shared involvement with Africa for last 39 years

2

Papa's **track record and leadership** on investing in African PE helped us seize the opportunity

3

Our belief in the sustainability of the **African economic growth story**



*Papa and Patrice featured in Time Magazine in August 2011*

These factors pushed us to establish AFIG Funds and have subsequently shaped our investment strategy



# Investment Success in Africa Requires Innovation and Strong Local Presence

## Key Success Factors in Africa Investment

- First independent GPs owned and led by Africans
- One of the first PE fund managers of scale based locally in Africa, not London or Johannesburg
- We decided that to maximize alpha required being equally competent across language and cultural lines
- Risk mitigation enhanced by one of the most geographically diverse portfolios in Africa
- Most diverse team in African PE and committed to promoting women, particularly in portfolio companies

## AFIG Funds At a Glance

AFIG Fund II target region:



**\$267m**

AFIG Funds AUM  
(AFIG Fund I and II)

**\$10-20m+**

Typical check size of  
AFIG Fund II

**3 years**

Full commitment of AFIG Fund II, rapid  
deployment 2 years ahead of schedule

## AFIG Funds Team: 10 Nationalities

Global experience

Best-in-class education



**Salomon Brothers**



J.P.Morgan



**HARVARD  
BUSINESS SCHOOL**



ARDIAN

ARM



INP ENSAT



LAZARD



# Diverse Global Investors with Deep Experience in African PE

- AFIG Funds' investors include some of the most active investors in African private equity, as well as American and African pension funds.
- We received Chicago Teachers' Pension Fund's first allocation to Africa in a competitive process among 24 managers from around the world

Global	Development Finance Institutions (DFIs)
Africa	

U.S.	Pension Funds
Africa	

- DFIs are *the most experienced investors* in African PE, and the investors with the largest portfolio of African funds
- Our DFI investors have invested in AFIG Funds three times over the past 11 years

- We received one of the first PE allocations of Cote d'Ivoire's national security fund (CNPS)

U.S.	Fund of Funds
Africa	

Africa	Insurance Companies
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AFIG Funds' current investors collectively manage over USD 800 billion of assets



# Portfolio: Successful Investors Must Be at Home Everywhere in Africa

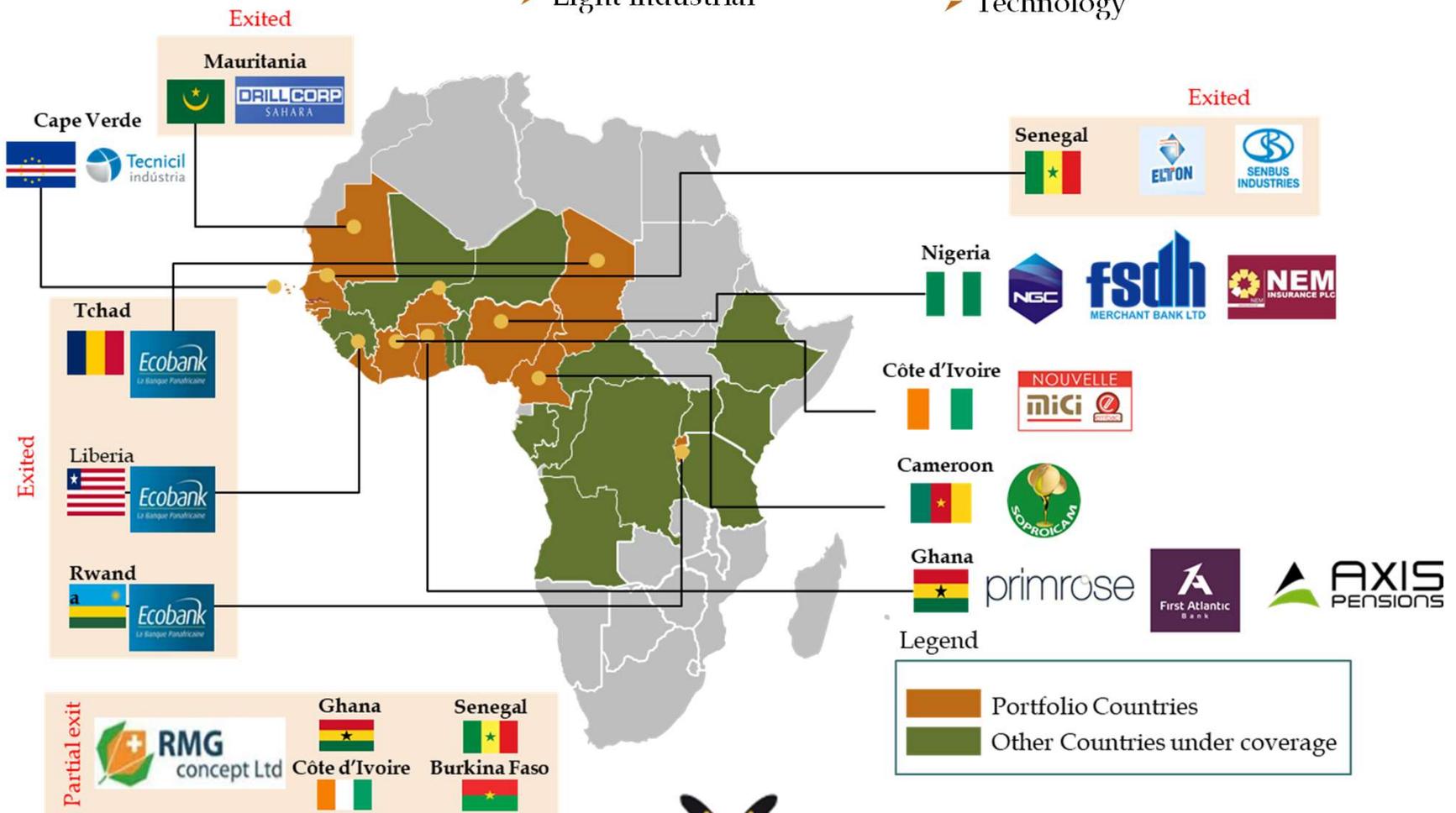
Our portfolio is diversified among sectors and countries across the continent

## Investments

- **Companies:** 16
- **Countries:** 12
- **Exits:** 7

## Sectors

- Financial services
- Agribusiness
- Downstream oil and gas
- Food and beverages
- Light industrial
- Mining services
- Pharmaceuticals
- Real estate
- Packaging
- Technology



# Our Fund Targets Strong Risk-Adjusted Return

## To achieve strong risk-adjusted returns:

- The greatest alpha source is from **African entrepreneurs, who will take ever more center stage in the African growth story**
- Always be selective and pick companies for which our **value-added approach is at least as important as our capital**
- **Negotiate low entry valuation** as a first step toward high ROI



*Senbus, Senegal*



*RMG Concept, Ghana*

AFIG Fund II  
was  
committed 2  
years ahead of  
schedule

It has invested  
in companies  
which are #1  
or #2 in their  
markets, at  
low valuations

We are  
confident that  
Fund II will  
earn  
significant  
risk-adjusted  
returns



# Keys to Strong Returns: *Anchored on Adding Value at Every Step*

We have a structured philosophy around sourcing, execution, and portfolio value-add which we believe helps us identify and grow the best companies.



In a competitive market, entrepreneurs choose to **work with us for our value-add capability.**



## Value Addition: Case Studies of Portfolio Companies

- Securing advantageous investment opportunities demands both global insight and nuanced local expertise, alongside a robust network. Such a foundation is essential to negotiate favorable terms, including entry pricing and investment structures that safeguard Limited Partners' interests.
- The bigger challenge is to engineer an effective growth and expansion strategy for all these companies below are a few examples of value add that we have executed

Beverage company which produces bottled water, carbonated soft drinks, juice, milk, and yogurt.

### Value Add

- Formalized governance
- Introduced to global strategic partner for potential partnership and exit
- Linked to West African candidates for a managing director who can double sales through exports
- Helped identify and negotiate favorable financing for additional capital needs

Commercial bank is fast-growing full-service bank which provides services to retail and corporate clients.

### Value Add

- Led the fundraising of USD 45m to meet increased minimum capital requirements by the central bank of Ghana, drawing on our network
- Helped restructure HR systems for employee by instituting bonuses and incentives schemes
- Helping expand regionally via acquisition

Pharmaceutical company which manufactures pharmaceutical and FMCG (soft drinks and water).

### Value Add

- Implemented a turnaround in sales & operations, finance, and debt restructuring
- Oversaw 400+ hiring and firing decisions via our operating consultant, who was embedded in the Company
- Led the restructuring of the Board with the constitution of the Transformation Committee



# AFIG Fund II Performance: Strong 3-Year Run for our Portfolio

- Our portfolio continues a strong run-in topline growth and profitability over the past 3 years
- Portfolio companies exhibited strong performance across the board in terms of: Revenues, Shareholders' Funds (financial companies), and EBITDA (non-financial companies):

**Revenues: +28.5% 3-Yr CAGR**

**Shareholders Funds: +16.3% 3-Yr CAGR**

**EBITDA: +30% 3-Yr CAGR**

Cape Verde



**Tecnical**  
indústria

- Sector: FMCG / Beverages
- Investment date: April 2017

Nigeria



- Sector: Insurance
- Investment date: December 2018

Ghana



- Sector: Commercial Banking
- Investment date: January 2018

Ghana



- Sector: Technology
- Investment date: May 2019

Cote d'Ivoire

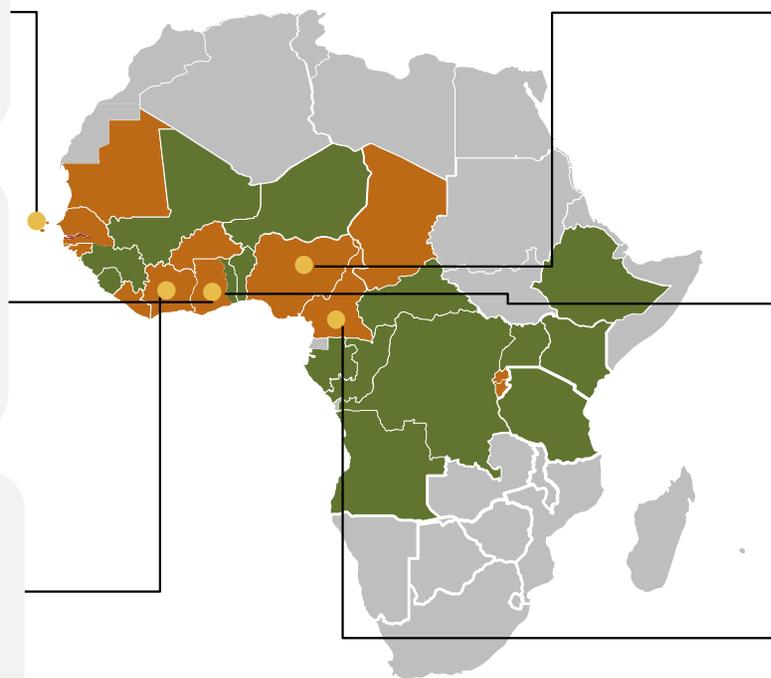


- Sector: Packaging
- Investment date: August 2019

Cameroon



- Sector: Agribusiness
- Investment date: April 2020



- Portfolio Countries
- Other Countries under coverage



# We Are Structured to Mitigate Currency and Political Risk

Overview

Investment Strategy

AFIG Fund II

Key Risks and Mitigants

Looking Ahead

## Strategies to Mitigate Currency Risk

1

### Get cash back early

Through structuring of quasi-equity instruments and favorable dividend policies.

2

### Source high-growth companies

Invest in companies with projected topline growth of 20% per year or more.

3

### Diversified currency exposure

Invest across different currencies, including currencies which are pegged to a hard currency (e.g., XOF).

4

### Entry price negotiated in local currency

To avoid downside if there is rapid devaluation while the deal is being executed.

## Considerations on Political Risk



1999: coup in Cote d'Ivoire



2016: opposition wins democratic election in Ghana

- In most major African economies, political risk has shifted from unpredictable coups to slowdowns stemming from elections
- We invest only in non-politically-exposed companies and entrepreneurs

## Case Study: Ecobank (Financial Services)



- Exited in the middle of Ebola outbreak in Liberia due to favorable structuring
- Earned back 66% of investment in the first 3 years, before exit (Ecobank Tchad)



# Exit Strategies: Multiple Exit Avenues, Proven Through Experience

We have exited 7 companies in our vintage 2008 Fund I. We have successfully exited from some of the toughest markets in Africa, such as Chad and Liberia.

Strategic Sale	Financial Sale	Put Option	Self-liquidating	Listing
<ul style="list-style-type: none"> <li>▪ We receive inbound interest from strategics looking to expand in Africa (Asian, American, European)</li> <li>▪ Many strategic investors are open to significant minority stakes</li> <li>▪ PE value-add of clean accounting, improved corporate governance, and good E&amp;S practices are valued</li> <li>▪ We start exit conversations with strategics as soon as we make an investment</li> </ul> 	<ul style="list-style-type: none"> <li>▪ Other financial buyers think like us and also ascribe value to good corporate governance, etc.</li> <li>▪ Our portfolio companies can be of interest to larger African funds, especially once we help them scale</li> </ul> 	<ul style="list-style-type: none"> <li>▪ Often, entrepreneurs prefer to have the option to buy back shares and re-attain full control over the companies they founded</li> <li>▪ We negotiate put options as a backstop, at a price advantageous to us</li> <li>▪ We protect ourselves from counterparty risk, for example with a drag</li> </ul> 	<ul style="list-style-type: none"> <li>▪ These include mezzanine and convertible debt instruments</li> <li>▪ They are usually structured with return-enhancing terms such as kickers, income participation features, etc.</li> <li>▪ They can earn upwards of 2.0 TMB</li> </ul> 	<ul style="list-style-type: none"> <li>▪ We monitor key stock exchanges in our target region weekly, and have a partnership with BRVM, the francophone West African stock exchange</li> <li>▪ We hope to effect a listing from one of our promising portfolio companies in Fund II</li> </ul>



# We Are Excited About Africa's Future for Investment

Overview

Investment Strategy

AFIG Fund II

Key Risks and Mitigants

Looking Ahead

- AFIG Fund II was one of the fastest-deploying funds in Africa
  - Our portfolio companies and target companies are performing well; our value-add and monitoring is bearing fruit
  - We have structured innovative and pioneering structures, including the first LBO in French-speaking Africa and the first convertible bond in Central Africa
- We will keep the **City of Oakland PFRS** updated on our upcoming fundraising plans
- Thanks for the opportunity to present AFIG Funds to you





AFIG  
FUNDS

[WWW.AFIGFUNDS.COM](http://WWW.AFIGFUNDS.COM)



# INVESTING IN AFRICA'S DIGITAL ECONOMY

Eric M.K Osiakwan

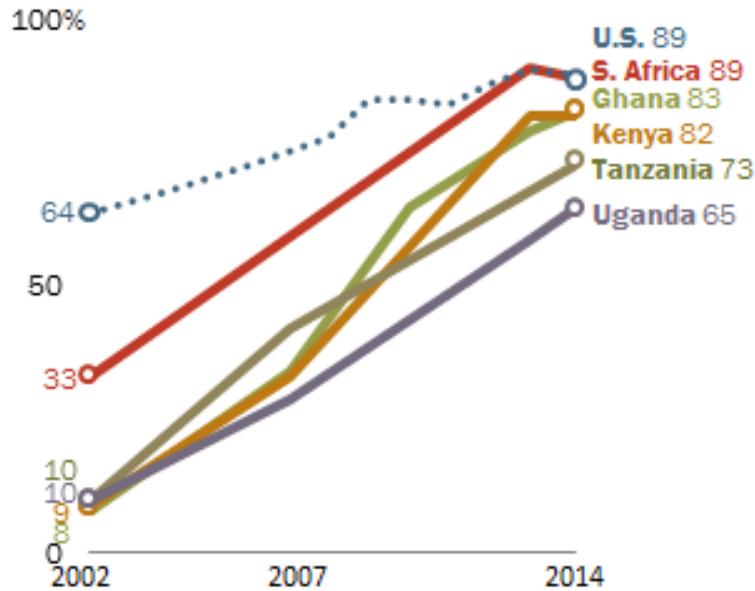
US PENSION FUNDS TRUSTEES

# DIGITAL DIVIDE TO DIGITAL ECONOMY IN 3 DECADES

## MOBILE FIRST => MOBILE AFRICA

### Cell Phone Ownership Surges in Africa

Adults who own a cell phone

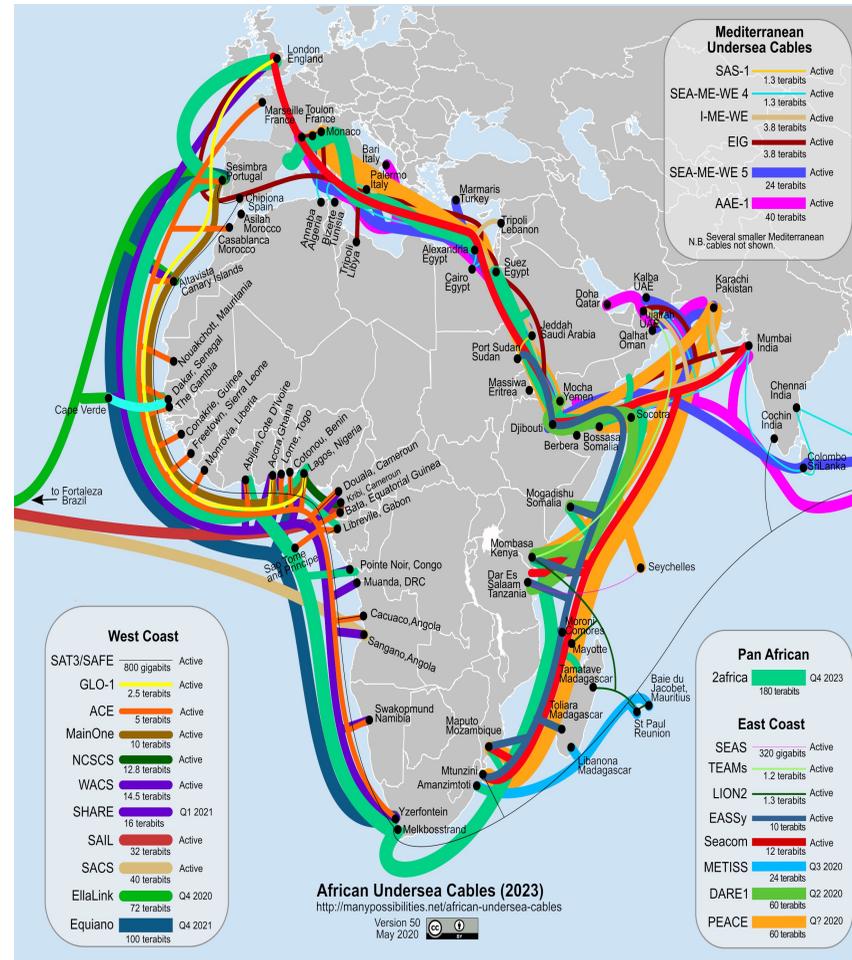


Note: U.S. data from Pew Research Center surveys.

Source: Spring 2014 Global Attitudes survey. Q68.

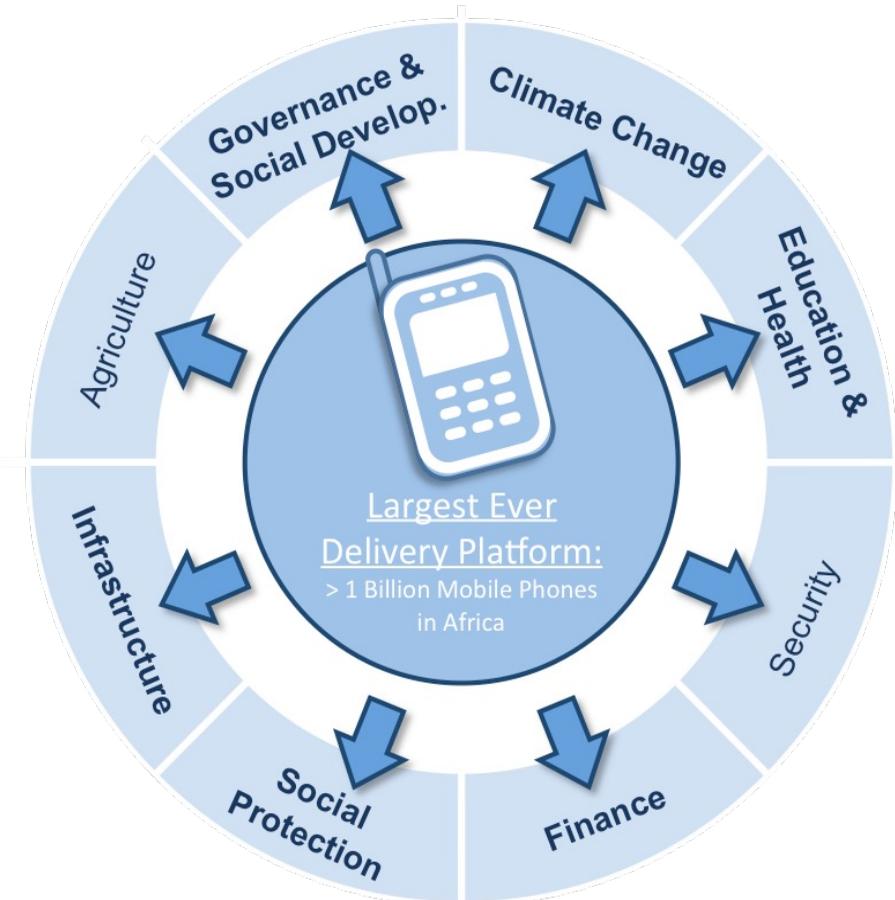
PEW RESEARCH CENTER

## FIBER SECOND => MOBILE BROADBAND



SAT-3/WASC/SAFE started in 2001 – PPP

## MOBILE WEB => DIGITAL ECONOMY



Worldbank digital economy for Africa initiative at:  
<https://www.worldbank.org/en/programs/all-africa-digital-transformation>

Startups Proliferated in 2010 – Private Sector

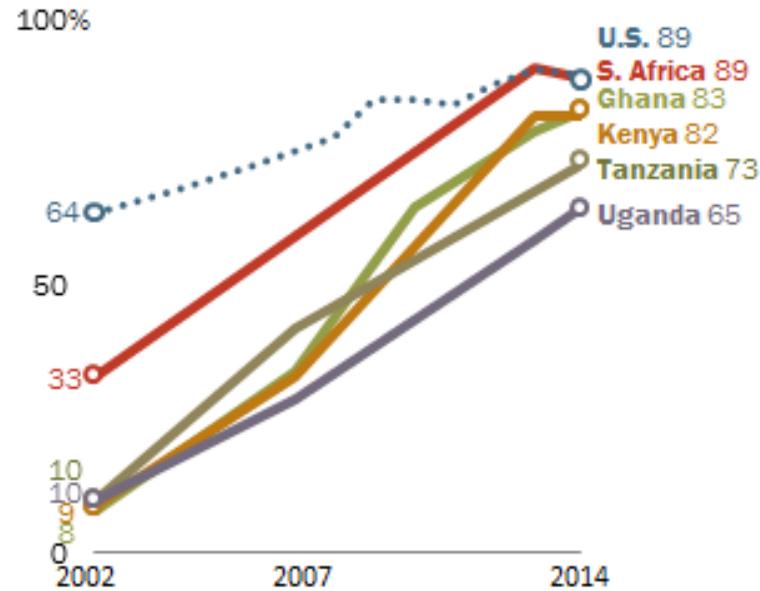
Telecel started in 1986 in Zaire – Private Sector

# MOBILE AND ISP REVOLUTION – 1993 TO 2003

## MOBILE OWNERSHIP

### Cell Phone Ownership Surges in Africa

Adults who own a cell phone



Note: U.S. data from Pew Research Center surveys.

Source: Spring 2014 Global Attitudes survey, Q68.

PEW RESEARCH CENTER

Mobile phones adoption in Africa is a mystery

## MOBILE NETWORK OPERATORS - MNOs



Exponential mobile growth in a decade

## INTERNET SERVICE PROVIDERS - ISPs



Many ISPs were established to provide access to the Internet across Africa. The African ISP Association (AfrISPA) was founded in 2002 by Eric Osiakwan from Ghana, Brian Longwe from Kenya and William Stucke from South Africa as a trade body representing the ISP industry.

AfrISPA led the development of critical Internet infrastructure like ISP Associations (ISPAs), Internet eXchange Points (IXPs) and Regional eXchange Points (RXPs).

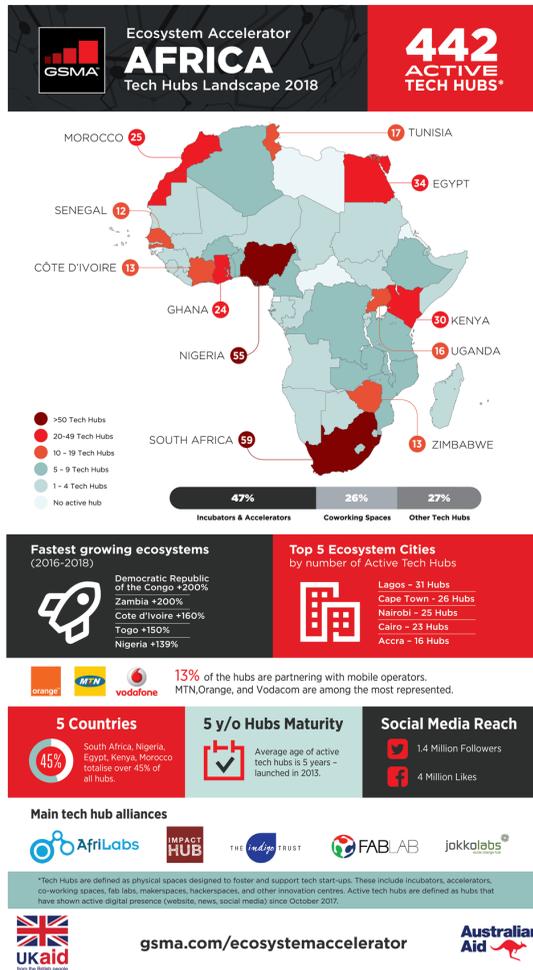
AfrISPA started the Africa Internet eXchange System (AXIS) which is now an African Union (AU) funded project across the continent.

Africa ISP Association – AfrISPA



# MOBILE WEB APPLICATIONS – 2013 TO 2023

## INNOVATION HUBS IN AFRICA



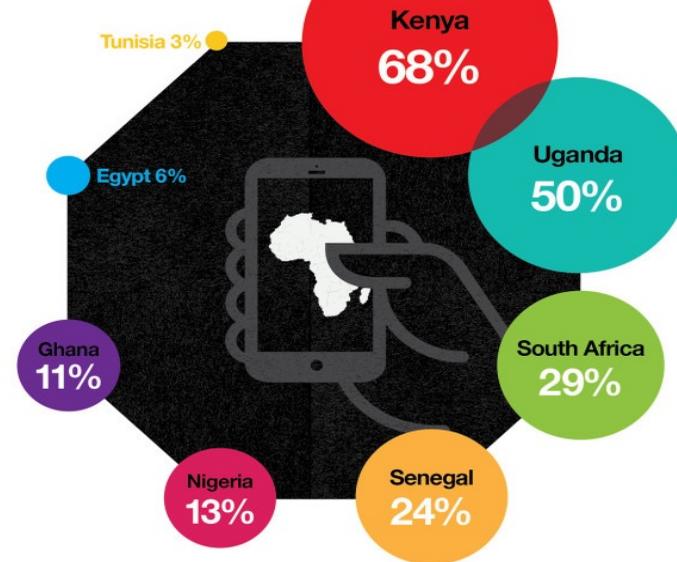
Mobile web applications are built here

## MOBILE MONEY

### Mobile Payments in Africa

Percentage of mobile phone users who regularly make or receive payments on their phones.

**11% WORLDWIDE MOBILE PAYMENT AVERAGE**



Source: Pew Research Center, 2013

afrographique.tumblr.com  
 Infographic designed by @ivanisawesome

Mobile Money (MoMo) is the widest used app

## MOBILE WEB DIGITAL ECONOMY



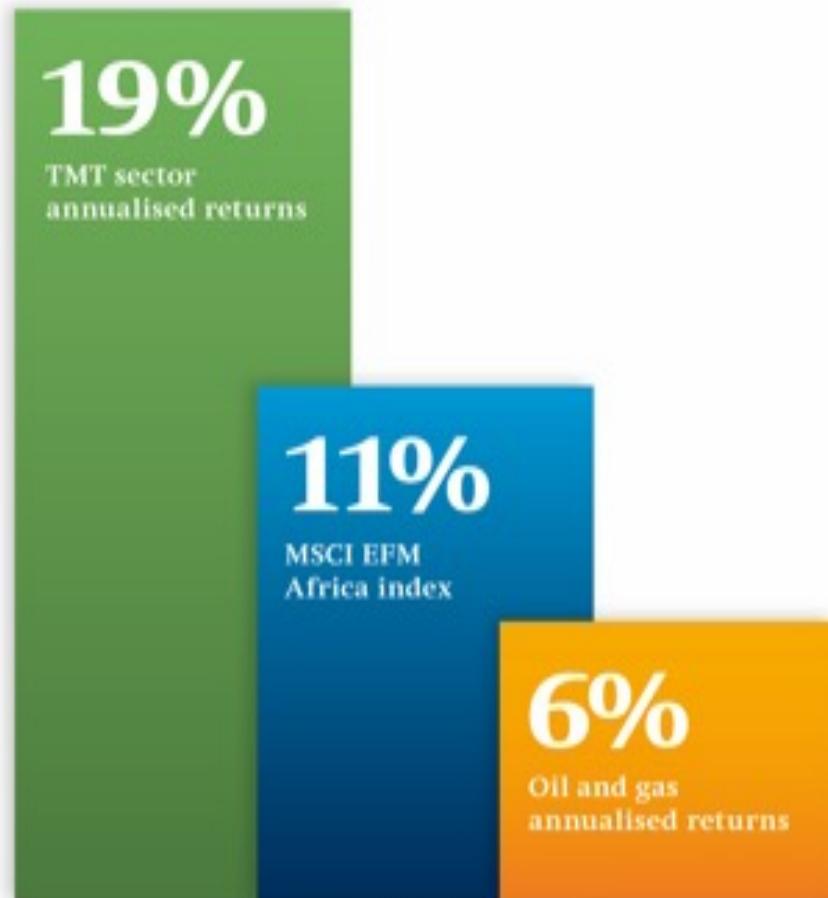
Worldbank digital economy for Africa initiative at: <https://www.worldbank.org/en/programs/all-africa-digital-transformation>

Startups Proliferated in 2010 – Private Sector

# TELECOM, MEDIA & TECHNOLOGY OUTPERFORMS O&G

## Africa poised for tech take-off

as continent's leading TMT companies outperform other sectors over the past decade



Annualized returns over ten-year period since 2004: [http://news.freshfields.com/en/Global/r/2305/africa\\_poised\\_for\\_tech\\_take-off\\_as\\_continent\\_s\\_leading\\_tmt/](http://news.freshfields.com/en/Global/r/2305/africa_poised_for_tech_take-off_as_continent_s_leading_tmt/)

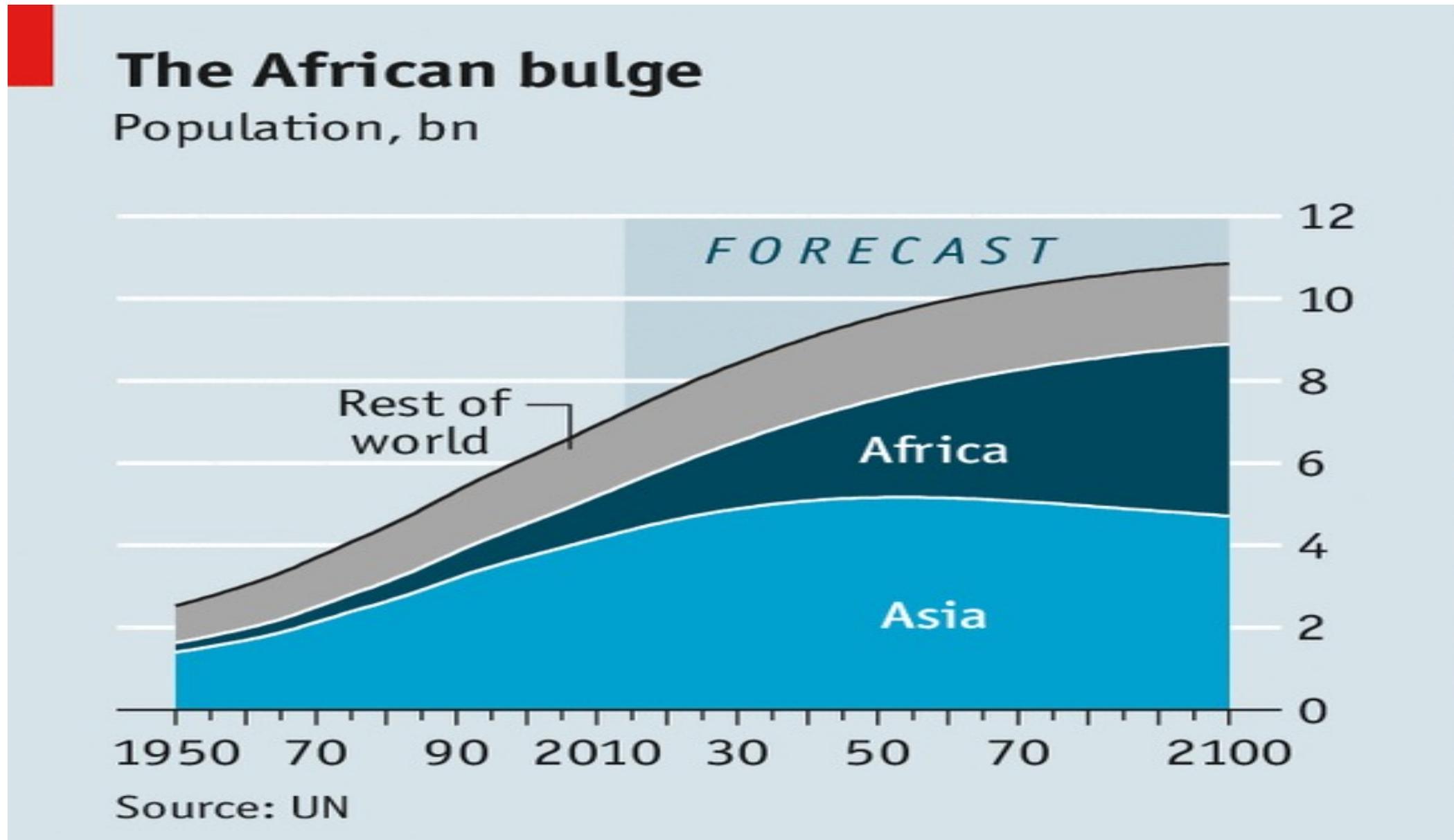
# CONTRIBUTION TO GDP GROWTH



<b>Ghana</b>	<b>GDP Growth</b>
<b>1. Information and Communication</b>	<b>239%</b>
<b>2. Financial and Insurance</b>	<b>85%</b>
<b>3. Healthcare</b>	<b>58%</b>
<b>Kenya</b>	<b>GDP Growth</b>
<b>1. Construction</b>	<b>65%</b>
<b>2. Information and Communication</b>	<b>57%</b>
<b>3. Electricity and Water</b>	<b>51%</b>

Africa's economic growth rides on wireless rails available at: <https://www.bloomberg.com/view/articles/2017-11-13/african-economic-growth-rides-on-wireless-rails>

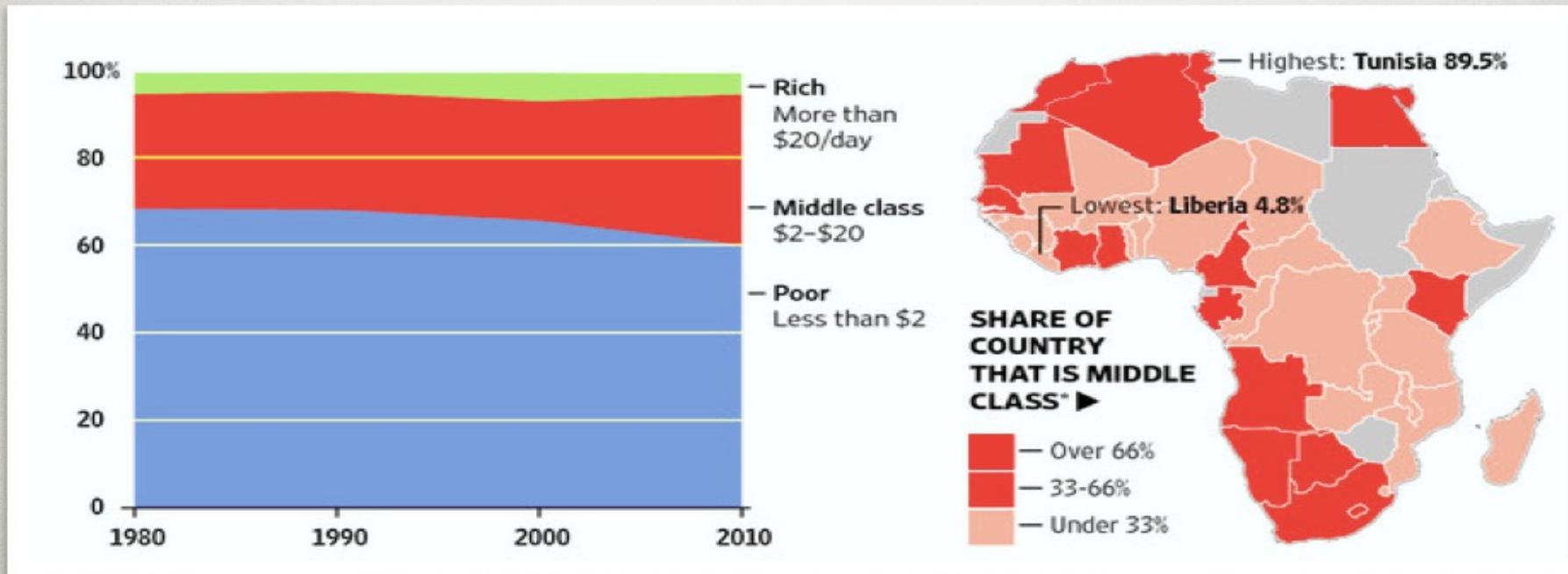
# GROWING YOUTHFUL POPULATION



Africa's population is going to lead the world by 2100: <https://www.economist.com/middle-east-and-africa/2014/08/23/can-it-survive-such-speedy-growth>

# EMERGING MIDDLE CLASS

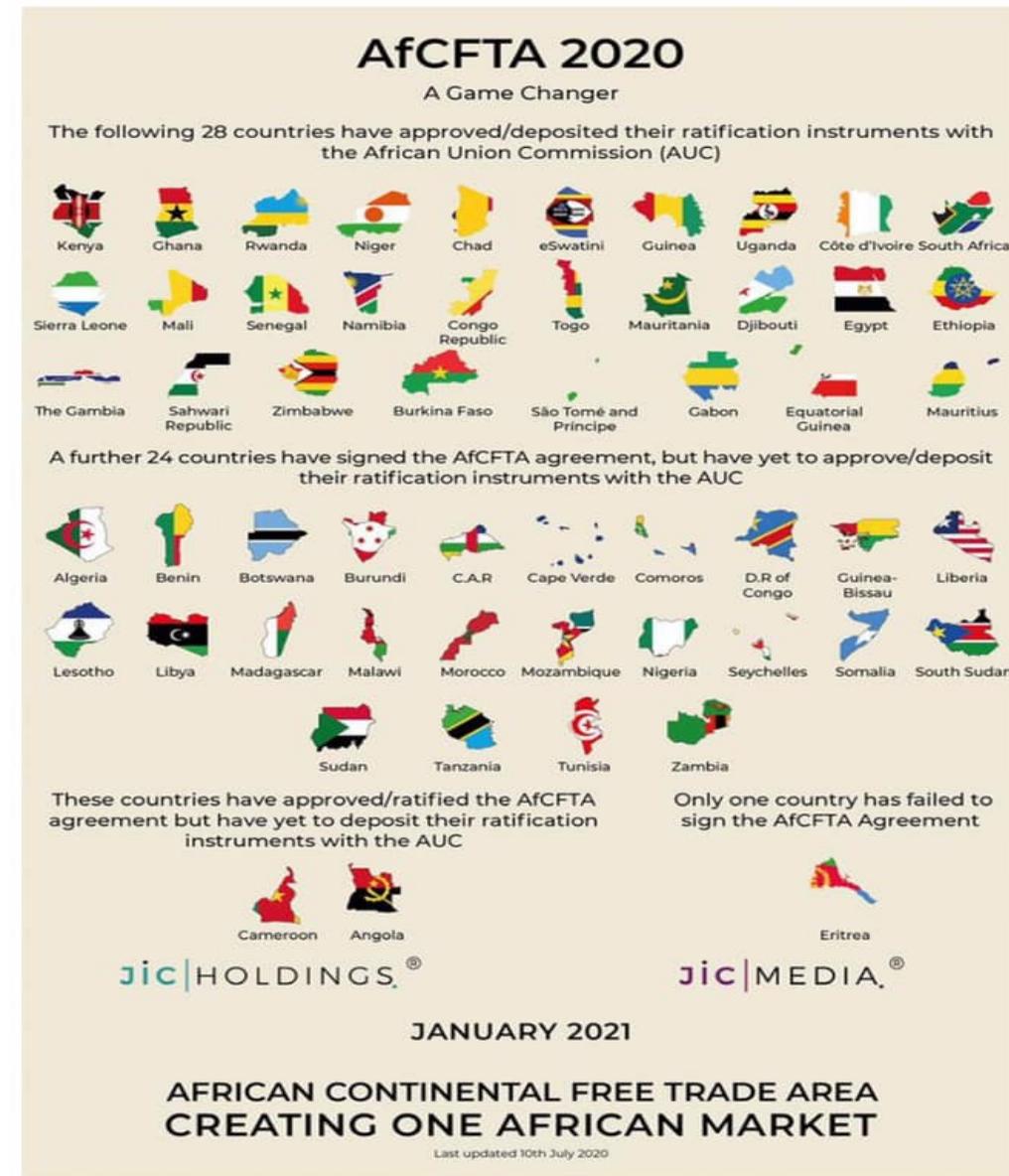
313 million  
middle class 34%



Africa is the fastest growing middle class according to George Soros: <https://www.uhy.com/the-worlds-fastest-growing-middle-class/>

# AFRICA COMMON MARKET

- Came into force on 1<sup>st</sup> January 2021 with Secretariat in Ghana
- Market currently estimated at \$3T
- Championed by Ghana's founding President, Dr. Kwame Nkrumah
- Predated by political unity through the African Union
- Sub-Regional groupings like ECOWAS, COMESA, SADC, EAC, etc



# POTENTIAL OF AFRICA'S DIGITAL ECONOMY



Africa's  
Internet  
economy  
potential



# CONTACT



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<http://www.chanzocapital.com>

## Economic and Market Update

January 2024 Report

## Commentary

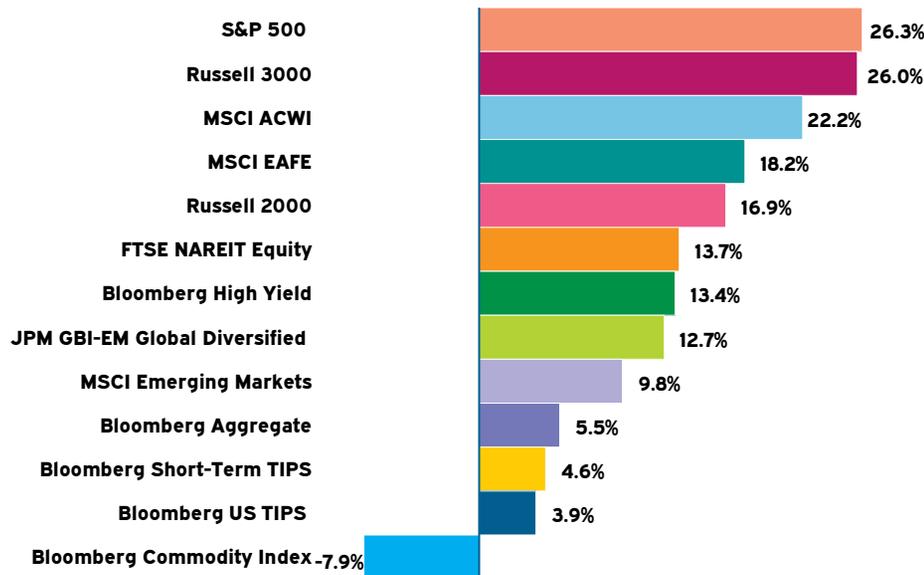
→ Markets were mixed in January after posting strong returns in 2023.

- Major central banks have largely paused interest rate hikes with expectations for many to cut rates this year. During the month there were signs though that many central banks, including the US, might not cut rates as soon as expected given strong economic data.
- In general inflation pressures have receded in most countries, but some uncertainty remains. Headline inflation fell in January in the US, but core inflation remained unchanged and elevated. China moved further into deflationary territory (-0.8%) in January.
- US equity markets (Russell 3000 index) rose 1.1% in January after a very strong 2023 (26.0%). There were mixed results across sectors, but technology continued to do well.
- Non-US developed equity markets gained 0.6% in January but 2.6% in local terms as the US dollar reversed course and strengthened during the month. The appreciation of the dollar was largely driven by strong economic data and related expectations that the Fed may delay policy rate cuts this year.
- Emerging market equity returns were also negatively influenced by the strong US dollar, but the biggest headwind in January was China (-10.6%). Emerging market equities had the weakest results for the month, down 4.6%.
- Bonds experienced selling pressure over the month, but ultimately finished the month nearly unchanged. The broad US bond market (Bloomberg Aggregate) declined (0.3%) in January.

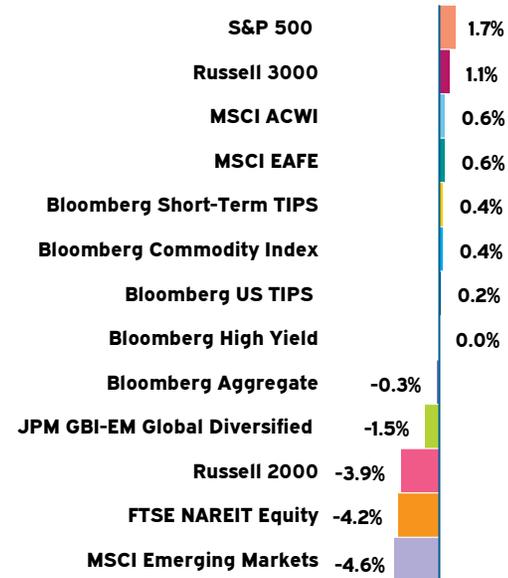
→ Looking to the rest of this year, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, the many looming elections, and the wars in Ukraine and Israel, will be key.

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

2023



January



→ After a strong market performance in 2023, the start of 2024 saw US large cap growth stocks continue their rally causing the S&P 500 to lead the way. Emerging market equity was the worst performer, dragged down by the continued sell-off of Chinese stocks.

→ Better than expected economic news in the US weighed on bond markets for the month with the broad US bond market (Bloomberg Aggregate) down slightly.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

Domestic Equity Returns<sup>1</sup>

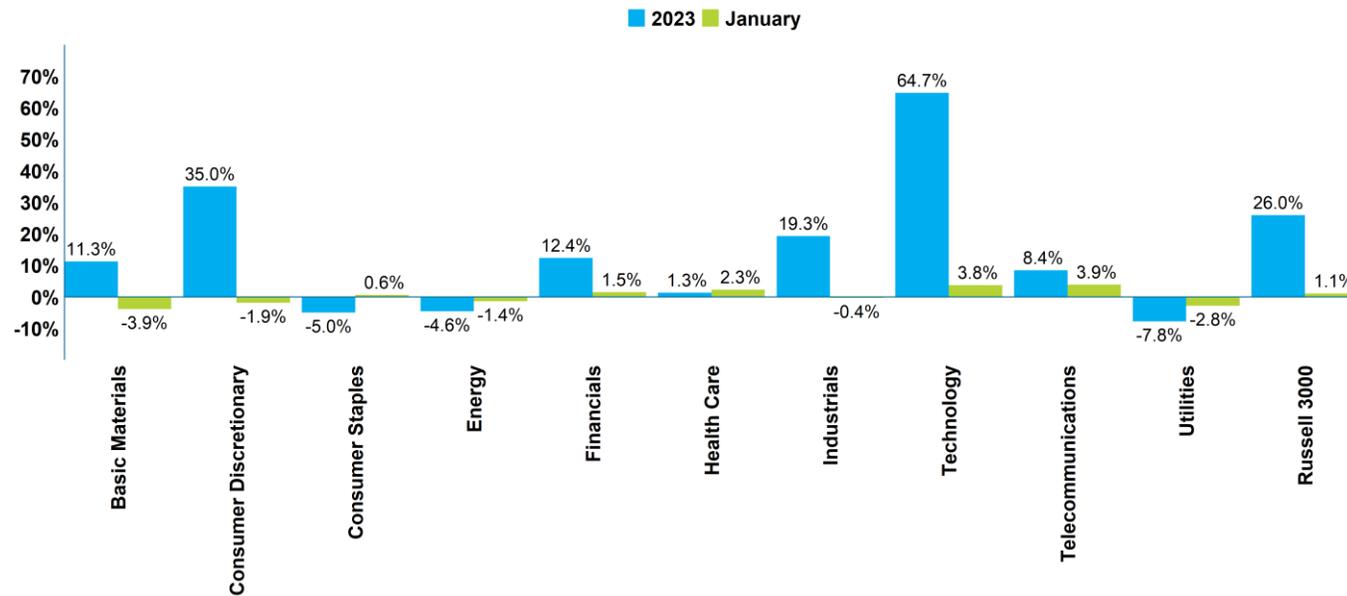
Domestic Equity	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	1.7	11.7	20.8	11.0	14.3	12.6
Russell 3000	1.1	12.1	19.1	9.1	13.5	12.0
Russell 1000	1.4	12.0	20.2	9.8	14.0	12.3
Russell 1000 Growth	2.5	14.2	35.0	10.0	18.0	15.5
Russell 1000 Value	0.1	9.5	6.1	9.2	9.3	8.8
Russell MidCap	-1.4	12.8	6.7	5.5	10.1	9.5
Russell MidCap Growth	-0.5	14.5	15.1	1.2	11.2	10.7
Russell MidCap Value	-1.8	12.1	2.4	7.8	8.6	8.2
Russell 2000	-3.9	14.0	2.4	-0.8	6.8	7.0
Russell 2000 Growth	-3.2	12.7	4.5	-6.0	6.2	7.0
Russell 2000 Value	-4.5	15.3	-0.1	4.5	6.7	6.7

**US Equities: The Russell 3000 increased 1.1% in January with a one-year return of 19.1%.**

- US equities built on their large gains from last year in January. Strong corporate earnings, economic data suggesting a soft landing might be achievable, and hopes for significant interest rate cuts (for most of the month) all drove results.
- Large cap stocks accounted for all the US equity market gains in January. NVIDIA, Microsoft, and Meta Platforms made up nearly 90% of the increase in the Russell 1000 index. Growth stocks outperformed value stocks across the market cap spectrum.
- While US equities advanced as a group, small and mid-cap stocks both declined in January. Banks contributed to this dynamic after a surprise loss at New York Community Bancorp rekindled fears regarding the banking system.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

### Russell 3000 Sector Returns<sup>1</sup>



→ In January, telecommunications (3.9%), technology stocks (3.8%), and health care (2.3%) outperformed other sectors. Traditionally defensive sector utilities (-2.8%) trailed along with basic materials (-3.9%) and energy stocks (-1.4%).

→ In 2023, technology (64.7%) and consumer discretionary (35.0%) sectors had the best results, helped respectively by artificial intelligence optimism and a healthy US consumer.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

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

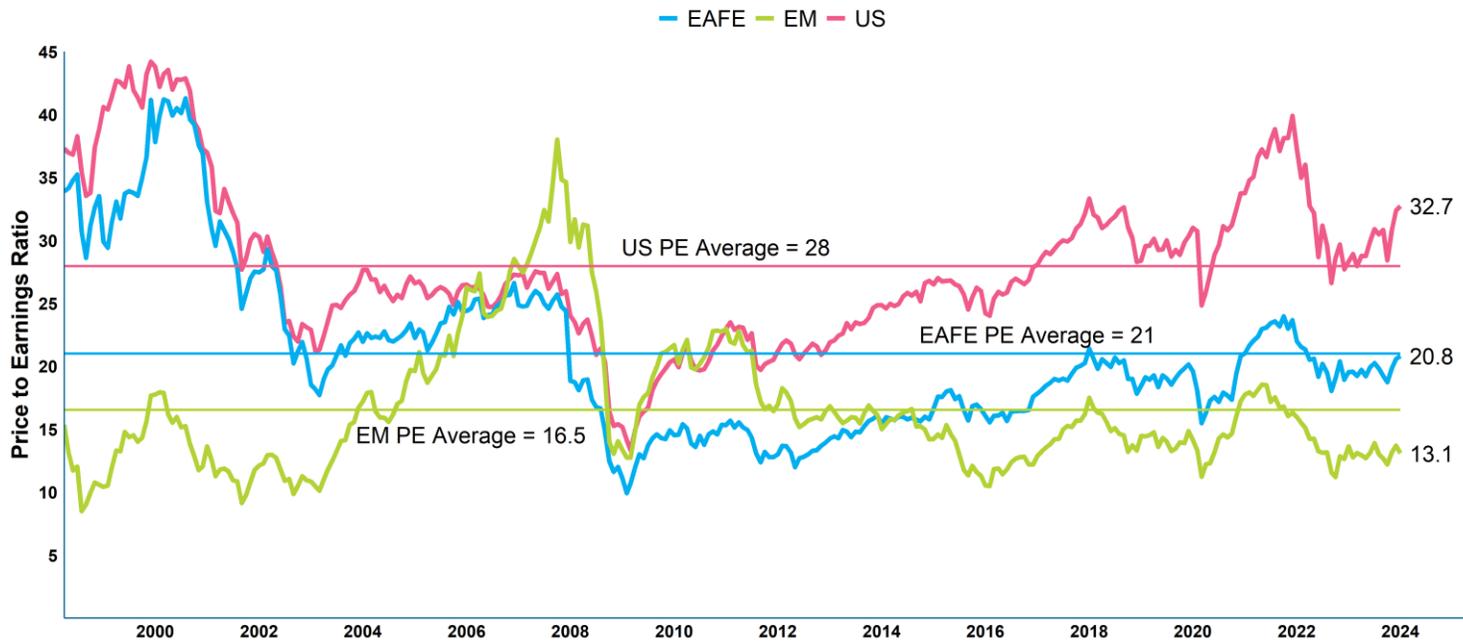
Foreign Equity	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-1.0	9.8	5.9	1.1	5.3	4.2
MSCI EAFE	0.6	10.4	10.0	4.6	6.9	4.8
MSCI EAFE (Local Currency)	2.6	5.0	12.1	9.7	8.9	7.2
MSCI EAFE Small Cap	-1.6	11.1	3.6	-1.1	4.6	4.8
MSCI Emerging Markets	-4.6	7.9	-2.9	-7.5	1.0	2.9
MSCI Emerging Markets (Local Currency)	-3.5	5.6	-0.5	-4.9	3.2	5.3
MSCI China	-10.6	-4.2	-29.0	-23.2	-6.9	0.4

**Foreign Equity: Developed international equities (MSCI EAFE) gained 0.6% in January and had a one-year return of 10.0%. Emerging market equities (MSCI EM) fell -4.6% in January, and -2.9% for the trailing year.**

- International developed equities saw slight gains for the month, while emerging market equities saw large losses for the same period; both were hampered by the US dollar reversing its sell-off from the end of last year. Outside of emerging markets, growth outperformed value for the month.
- Eurozone equities performed well, benefiting from ECB policy expectations, developments in the tech sector, and promising manufacturing data. U.K. equities stalled, as an unexpected increase in inflation pushed out the expected timing of rate cuts. Japan continues to see the highest returns globally over optimism on structural changes, January being no exception.
- EM equities continue to be bogged down by China (-10.6%) despite news of further stimulus by the PBOC.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

**Equity Cyclically Adjusted P/E Ratios<sup>1</sup>**



→ In January, the US equity price-to-earnings ratio increased further above its 21st century average.

→ International market valuations were mixed in January and remain below the US. In the case of developed markets, valuations increased slightly to just below their long-term average, while emerging market valuations declined, remaining well below their 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: Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of January 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.

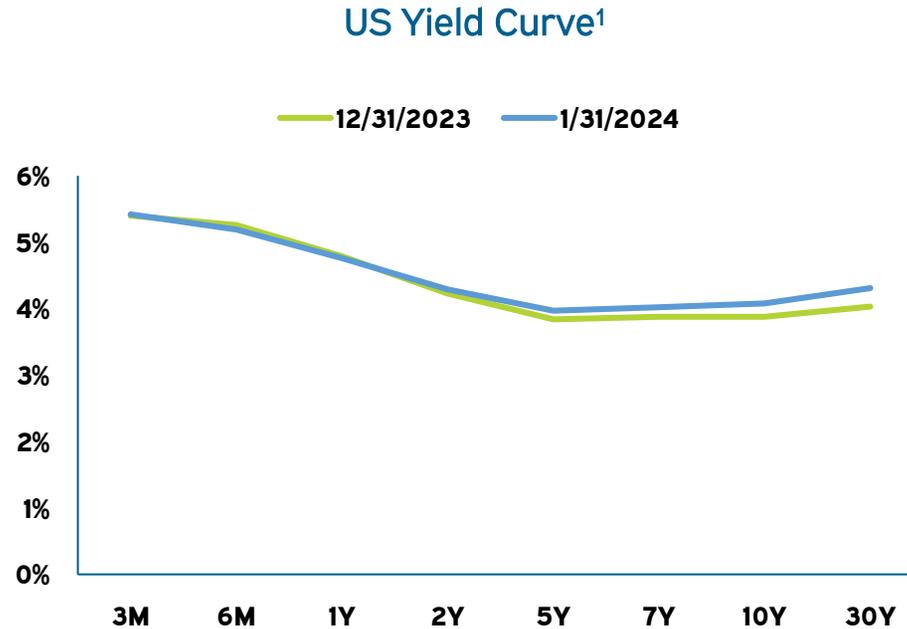
### Fixed Income Returns<sup>1</sup>

Fixed Income	January (%)	Q4 2023 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-0.2	6.8	2.7	-2.8	1.1	1.9	4.9	6.0
Bloomberg Aggregate	-0.3	6.8	2.1	-3.2	0.8	1.6	4.6	6.2
Bloomberg US TIPS	0.2	4.7	2.2	-1.0	2.9	2.2	4.2	6.9
Bloomberg Short-term TIPS	0.4	2.6	4.3	2.3	3.3	2.0	4.4	2.6
Bloomberg High Yield	0.0	7.2	9.3	1.9	4.4	4.5	7.8	3.7
JPM GBI-EM Global Diversified (USD)	-1.5	8.1	6.4	-3.3	-0.2	0.4	6.3	5.0

**Fixed Income: The Bloomberg Universal index fell -0.2% in January but gained 2.7% on a one-year basis.**

- Strong economic data in January and comments toward the end of the month by Federal Reserve Chair Jerome Powell hinting that rate cuts were not imminent drove rates up over the month, weighing on bonds.
- The broad US bond market (Bloomberg Aggregate) declined 0.3% for the month. The broader TIPS index rose 0.2%, while the less interest-rate-sensitive short-term TIPS index rose 0.4%.
- High yield bonds ended the month unchanged, while emerging market debt declined by 1.5%. Both asset classes produced double-digit gains last year.

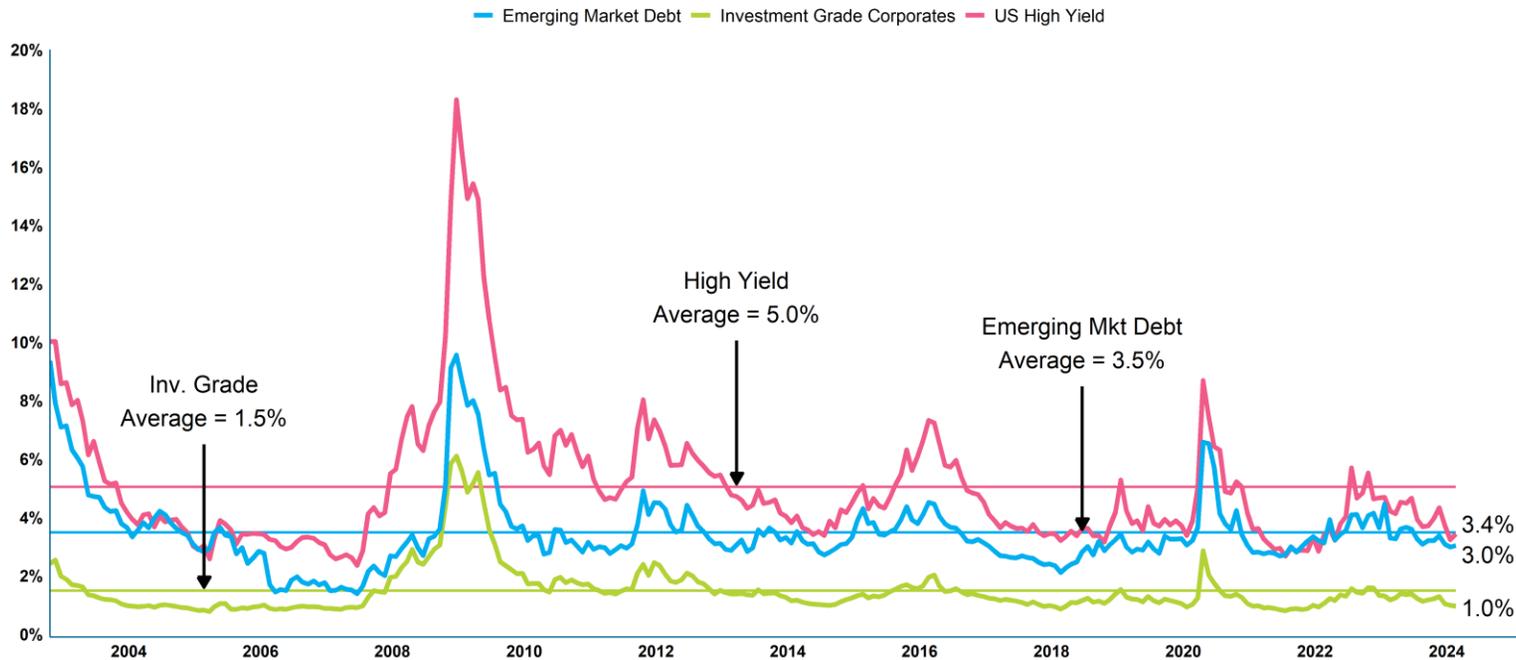
<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of January 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- Both short-term and longer-term maturities ended the month largely unchanged, however, yields were volatile over the month on surprisingly strong economic data and shifts in monetary policy expectations.
- For the month, two-year Treasury yields ended at 4.2% (around 1% below the peak from October) while 10-year Treasury yields ended at 3.9%.
- The yield curve remained inverted at month-end despite a recent flattening trend. The yield spread between the two-year and ten-year Treasury was -0.3% at the end of January.

<sup>1</sup> Source: Bloomberg. Data is as of January 31, 2024.

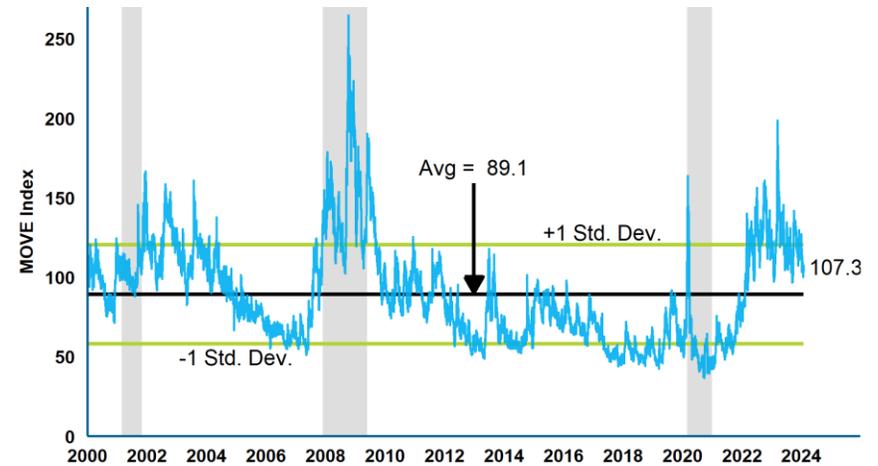
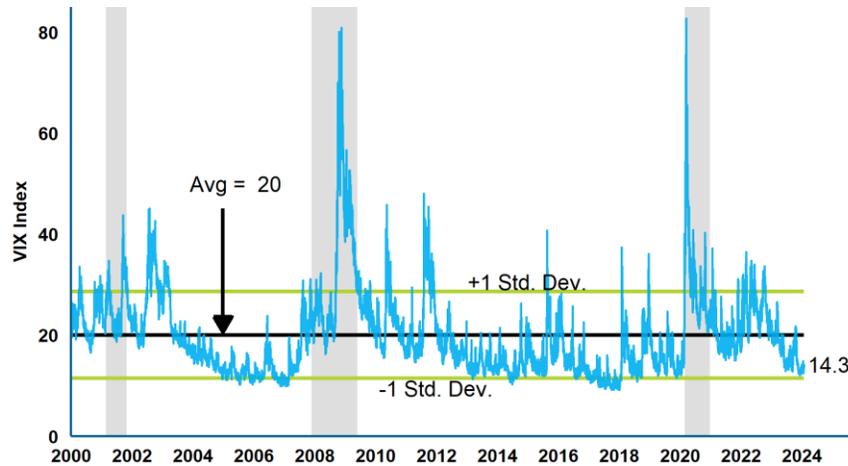
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- Credit spreads widened slightly for high yield in January (3.2% to 3.4%) while spreads for investment grade corporate and emerging market bonds remained the same.
- Expectations of peaking policy rates and the corresponding increase in risk appetite has recently benefited credit, with spreads (the added yield above a comparable maturity Treasury) narrowing.
- All spreads remain below their respective long run averages, particularly within high yield.

<sup>1</sup> Sources: Bloomberg. Data is as of January 31, 2024. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

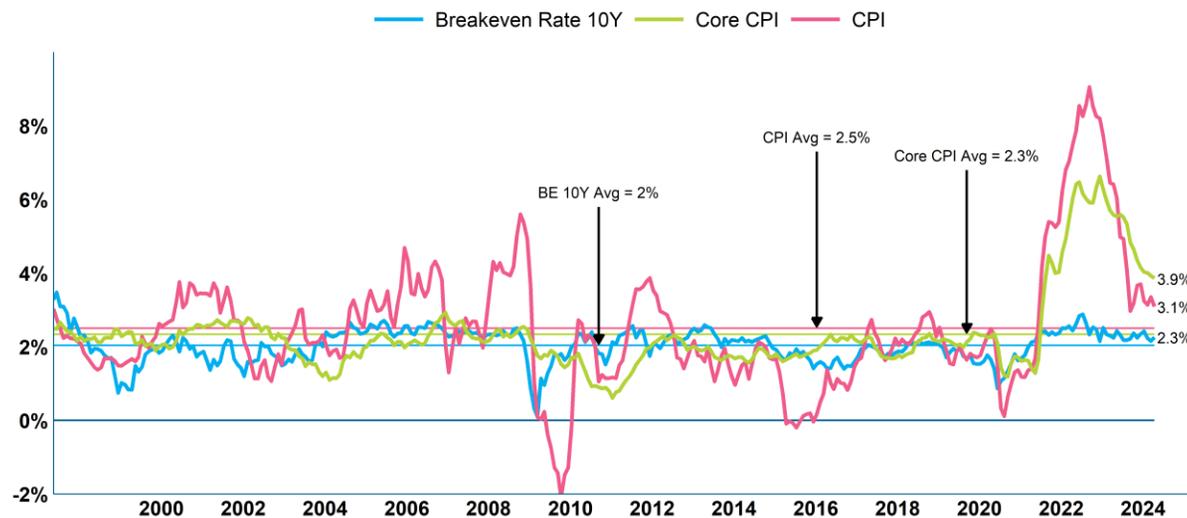
### Equity and Fixed Income Volatility<sup>1</sup>



- Volatility in equities (VIX) remains close to one standard deviation below the long-term average as the focus shifted late last year to peaking policy rates and the potential for a soft landing.
- Volatility in the bond market (MOVE) came down over the month (114.6 to 107.3) but remains elevated and well above its long-run average (89.1). The bond market remained on edge for most of 2023, driven largely by uncertainty about the ultimate path of monetary policy, as well as continued (and surprising) strength in economic data.

<sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of January 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and January 2024.

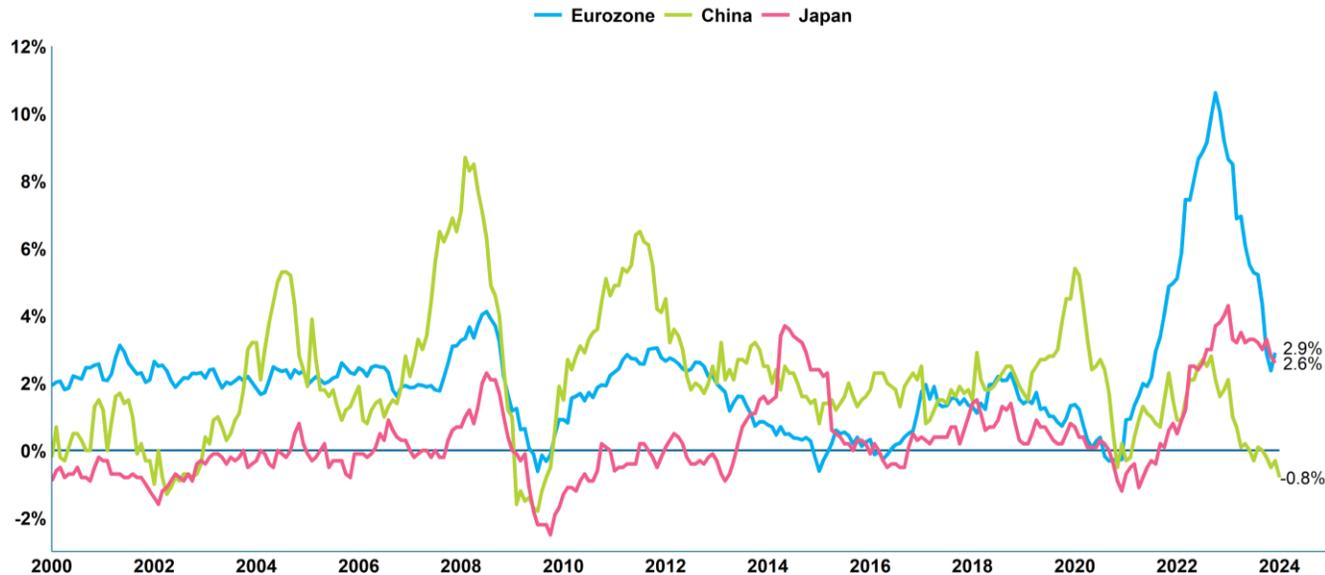
**US Ten-Year Breakeven Inflation and CPI<sup>1</sup>**



- Year-over-year headline inflation declined in January (3.4% to 3.1%) but not by as much as expected (expectations were for a 2.9% reading). Month-over-month inflation came in at 0.3%, the same as last month and slightly above expectations of 0.2%. Shelter continues to keep inflation elevated, increasing 6.0% from a year prior. Food rose 2.6% over the same period, while downward pressure on energy prices continued, falling 4.6%.
- Core inflation - excluding food and energy - remained unchanged at 3.9% year-over-year (expectations were for a decline to 3.7%), with shelter costs again driving the total core index increase.
- Inflation expectations (breakevens) have remained relatively stable despite the recent significant volatility in inflation.

<sup>1</sup> Source: FRED. Data is as January 2024. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

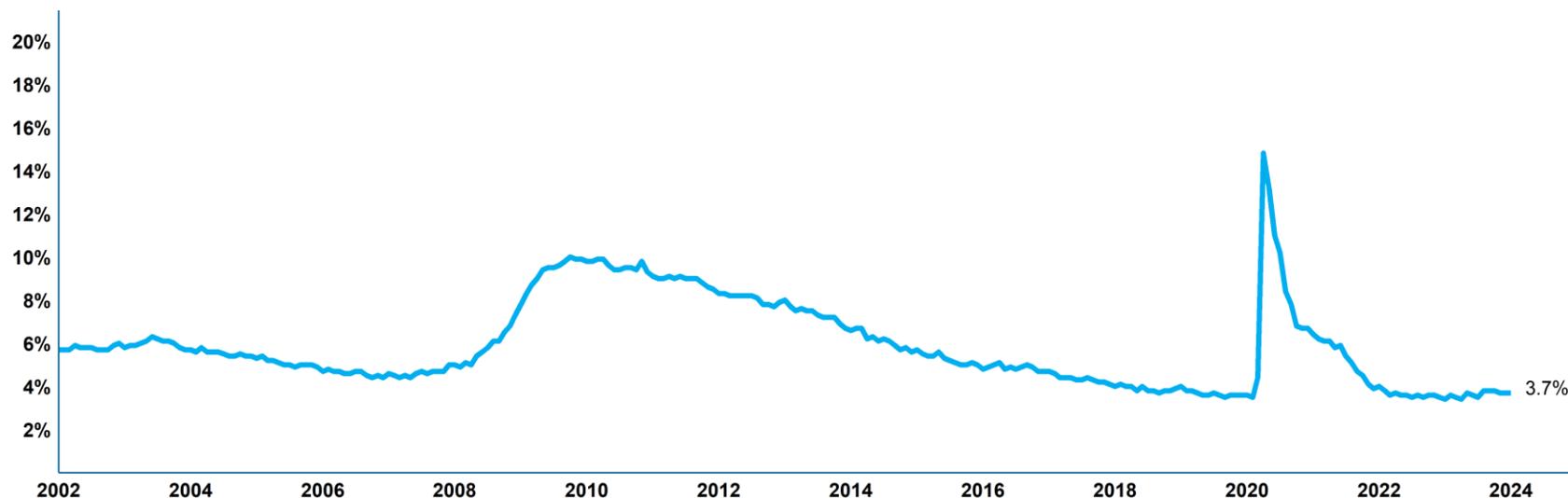
**Global Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- Outside the US, inflation is also falling across major economies with China slipping further into deflation.
- In the eurozone, inflation experienced a dramatic decline last year. In January inflation rose slightly (2.8% to 2.9%) remaining below the 3.1% year-over-year level in the US.
- Inflation in Japan has slowly declined from the early 2023 peak, but it remains near levels not seen in almost a decade, largely driven by higher food prices.

<sup>1</sup> Source: FRED for United States CPI and Eurozone CPI. Source: Bloomberg for Japan CPI, China CPI, and Eurozone CPI. Data is as January 31, 2024, except Japan which is as of December 31, 2023.

### US Unemployment<sup>1</sup>

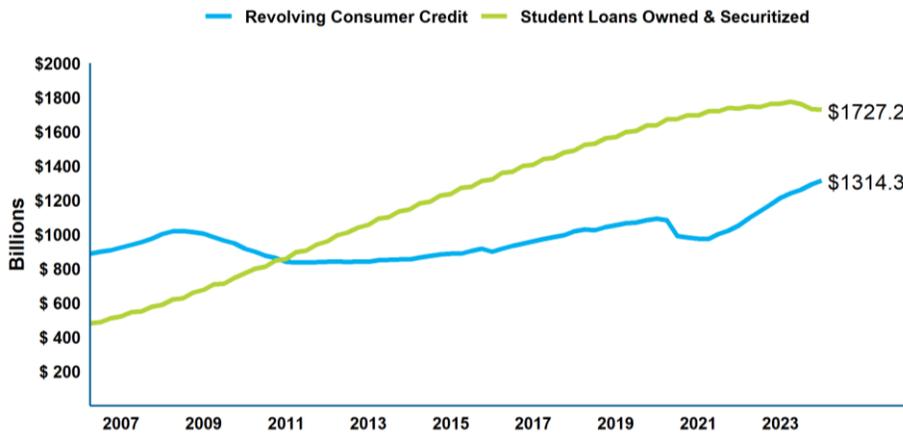


- Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- In January, the number of jobs added in the US were stronger than expected (353,000 versus 185,000) with the unemployment rate remaining at 3.7%. Payrolls from November and December of last year were also revised upward. Business and professional, health care, and retail sales jobs rose the most in January.
- The labor force participation remained relatively stable at 62.5%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%).
- The pace of hourly wage growth has declined from its peak of close to 6.0% but is above the 3.1% level of inflation. Wage growth rose at 4.5% year-on-year in January, an increase from the 4.1% level in December and above expectations of 4.1%.

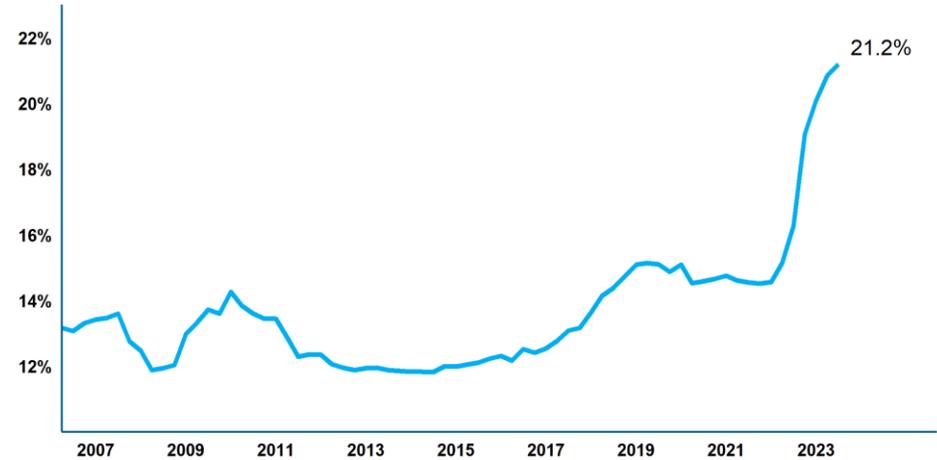
<sup>1</sup> Source: FRED. Data is as January 31, 2024.

### US Consumer Under Stress?<sup>1</sup>

#### Revolving Consumer Credit & Student Loans (\$B)



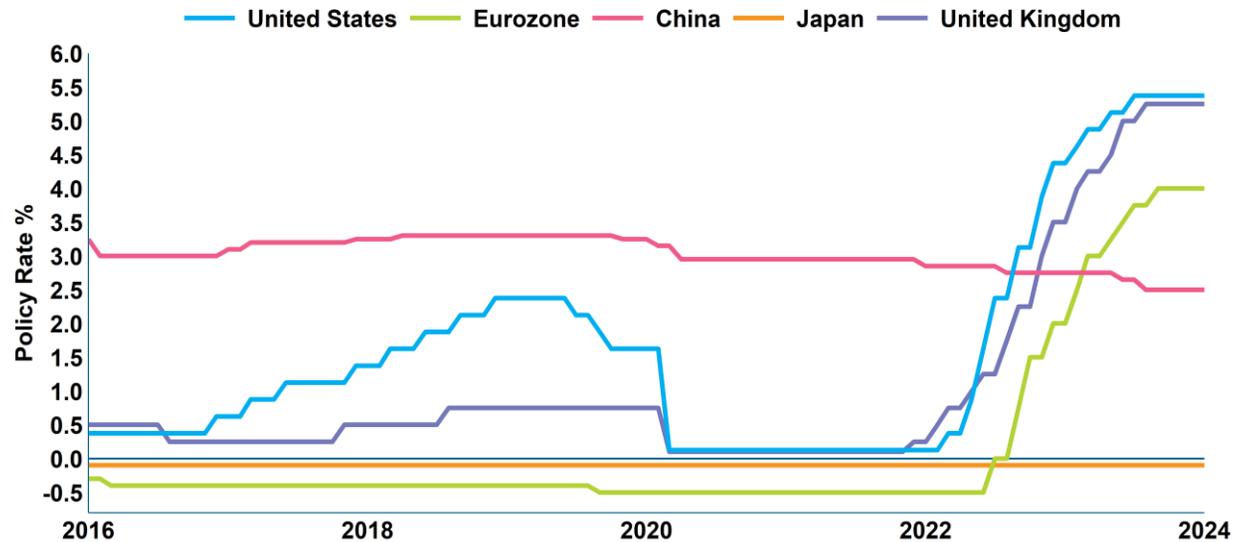
#### Consumer Credit Card Interest Rates (%)



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s). Recently we have also seen payment delinquencies on credit cards start to increase.
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

<sup>1</sup> Source: FRED. Data is as of December 31, 2023. Consumer Credit Card Rate data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.

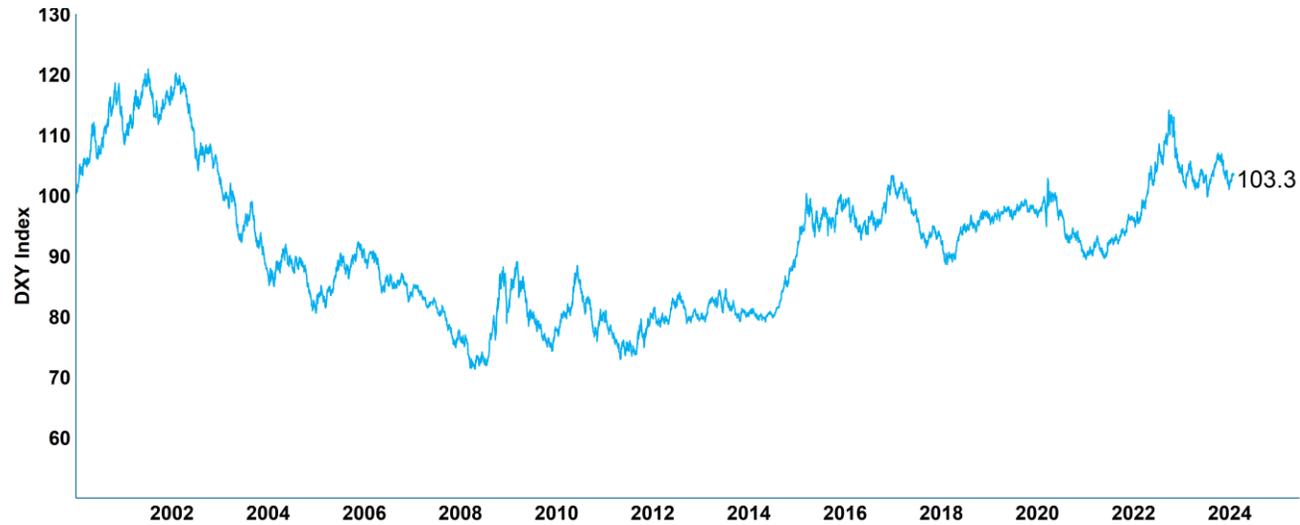
### Policy Rates<sup>1</sup>



- The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are now pricing in around four rate cuts this year down from close to seven late last year as economic data has come in above expectations. There remains a gap between the amount of rate cuts the Fed is predicting compared to the market's expectations, but it has significantly narrowed.
- The European and UK central banks also recently paused their rate increases on slowing inflation with cuts likely to follow there too. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

<sup>1</sup> Source: Bloomberg. Data is as of January 2024.

**US Dollar vs. Broad Currencies<sup>1</sup>**



- Overall, the dollar finished last year only slightly below where it started but it was a volatile year for the US currency as expectations related to monetary policy evolved.
- Strong economic data in the US may delay policy rate cuts this year which could contribute to upward pressure on the dollar as other countries pivot to rate cuts.

<sup>1</sup> Source: Bloomberg. Data as of January 31, 2024.

## Summary

### Key Trends:

- The impact of inflation still above policy targets will remain important, with bond market volatility likely to stay high.
- Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession. In the case of the US the resolution of the disparity between market expectations for the path of interest rates versus the Fed's dot plot will be key.
- Global growth is expected to slow this year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will remain key in 2024.
- US consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- A focus for US equities going forward, will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including China's economic uncertainty and on-going weakness in the real estate sector which could spill over into key trading partners' economies. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.

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.

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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.

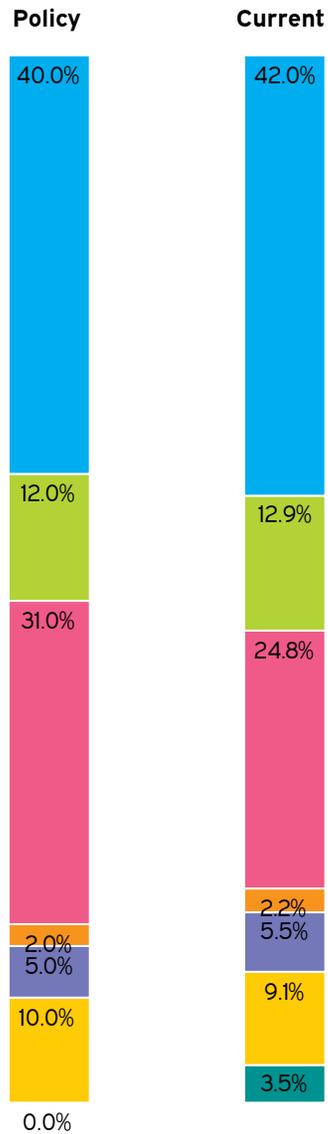
PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

## Oakland Police and Fire Retirement System

February 28, 2024

January Performance Report

As of January 31, 2024



Allocation vs. Targets and Policy						
	Current Balance (\$)	Current (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
Domestic Equity	182,953,195	42.0	40.0	2.0	30.0 - 50.0	Yes
International Equity	56,313,946	12.9	12.0	0.9	8.0 - 14.0	Yes
Fixed Income	107,993,825	24.8	31.0	-6.2	25.0 - 40.0	No
Credit	9,783,813	2.2	2.0	0.2	1.0 - 3.0	Yes
Covered Calls	24,128,940	5.5	5.0	0.5	5.0 - 10.0	Yes
Crisis Risk Offset	39,565,997	9.1	10.0	-0.9	5.0 - 15.0	Yes
Cash	15,343,456	3.5	0.0	3.5	0.0 - 5.0	Yes
<b>Total</b>	<b>436,083,171</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>		

## Asset Class Performance Summary | As of January 31, 2024

Asset Class Performance Summary									
	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>OPFRS Total Plan</b>	<b>436,083,171</b>	<b>100.0</b>	<b>0.3</b>	<b>7.8</b>	<b>3.5</b>	<b>6.7</b>	<b>6.8</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			<i>0.4</i>	<i>9.9</i>	<i>3.8</i>	<i>7.0</i>	<i>7.0</i>	<i>7.9</i>	
Excess Return			-0.1	-2.1	-0.3	-0.3	-0.2	-1.3	
<b>Domestic Equity</b>	<b>182,953,195</b>	<b>42.0</b>	<b>0.4</b>	<b>12.3</b>	<b>7.7</b>	<b>11.8</b>	<b>11.0</b>	<b>8.9</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>1.1</i>	<i>19.1</i>	<i>9.1</i>	<i>13.5</i>	<i>12.0</i>	<i>9.3</i>	
Excess Return			-0.7	-6.8	-1.4	-1.7	-1.0	-0.4	
<b>International Equity</b>	<b>56,313,946</b>	<b>12.9</b>	<b>-0.1</b>	<b>9.6</b>	<b>3.5</b>	<b>7.1</b>	<b>5.4</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			<i>-1.0</i>	<i>5.9</i>	<i>1.1</i>	<i>5.3</i>	<i>4.2</i>	<i>5.1</i>	
Excess Return			0.9	3.7	2.4	1.8	1.2	0.2	
<b>Fixed Income</b>	<b>107,993,825</b>	<b>24.8</b>	<b>0.0</b>	<b>2.6</b>	<b>-2.6</b>	<b>1.2</b>	<b>2.0</b>	<b>4.5</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			<i>-0.2</i>	<i>2.7</i>	<i>-2.8</i>	<i>1.1</i>	<i>1.9</i>	<i>4.5</i>	
Excess Return			0.2	-0.1	0.2	0.1	0.1	0.0	
<b>Credit</b>	<b>9,783,813</b>	<b>2.2</b>	<b>0.9</b>	<b>9.8</b>	<b>3.9</b>	<b>4.5</b>	<b>--</b>	<b>5.0</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			<i>0.0</i>	<i>9.3</i>	<i>1.9</i>	<i>4.4</i>	<i>4.5</i>	<i>4.8</i>	
Excess Return			0.9	0.5	2.0	0.1	--	0.2	
<b>Covered Calls</b>	<b>24,128,940</b>	<b>5.5</b>	<b>1.4</b>	<b>16.4</b>	<b>9.9</b>	<b>11.2</b>	<b>--</b>	<b>9.1</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>1.8</i>	<i>9.2</i>	<i>6.7</i>	<i>5.9</i>	<i>6.1</i>	<i>5.7</i>	
Excess Return			-0.4	7.2	3.2	5.3	--	3.4	
<b>Crisis Risk Offset</b>	<b>39,565,997</b>	<b>9.1</b>	<b>0.2</b>	<b>-1.2</b>	<b>-5.2</b>	<b>-7.0</b>	<b>--</b>	<b>-7.5</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			<i>0.8</i>	<i>1.3</i>	<i>4.9</i>	<i>0.2</i>	<i>--</i>	<i>0.2</i>	
Excess Return			-0.6	-2.5	-10.1	-7.2	--	-7.7	

Performance shown is net of fees, except for Total Plan, Domestic Equity, and International Equity composites which have a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

## Asset Class & Manager Performance | As of January 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>OPFRS Total Plan</b>	<b>436,083,171</b>	<b>100.0</b>	<b>0.3</b>	<b>7.8</b>	<b>3.5</b>	<b>6.7</b>	<b>6.8</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			<i>0.4</i>	<i>9.9</i>	<i>3.8</i>	<i>7.0</i>	<i>7.0</i>	<i>7.9</i>	
Excess Return			-0.1	-2.1	-0.3	-0.3	-0.2	-1.3	
<b>Domestic Equity</b>	<b>182,953,195</b>	<b>42.0</b>	<b>0.4</b>	<b>12.3</b>	<b>7.7</b>	<b>11.8</b>	<b>11.0</b>	<b>8.9</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>1.1</i>	<i>19.1</i>	<i>9.1</i>	<i>13.5</i>	<i>12.0</i>	<i>9.3</i>	
Excess Return			-0.7	-6.8	-1.4	-1.7	-1.0	-0.4	
Northern Trust Russell 1000	89,480,556	20.5	1.4	20.2	9.6	13.9	12.2	13.5	Jun-10
<i>Russell 1000 Index</i>			<i>1.4</i>	<i>20.2</i>	<i>9.8</i>	<i>14.0</i>	<i>12.3</i>	<i>13.6</i>	
Excess Return			0.0	0.0	-0.2	-0.1	-0.1	-0.1	
EARNEST Partners	40,982,252	9.4	-0.8	6.1	6.9	12.3	11.4	9.3	Apr-06
<i>Russell Midcap Index</i>			<i>-1.4</i>	<i>6.7</i>	<i>5.5</i>	<i>10.1</i>	<i>9.5</i>	<i>8.7</i>	
Excess Return			0.6	-0.6	1.4	2.2	1.9	0.6	
Wellington Select Quality Equity	24,728,360	5.7	1.1	10.5	--	--	--	6.9	May-22
<i>Russell 1000 Index</i>			<i>1.4</i>	<i>20.2</i>	<i>9.8</i>	<i>14.0</i>	<i>12.3</i>	<i>11.0</i>	
Excess Return			-0.3	-9.7	--	--	--	-4.1	
Brown Fundamental Small Cap Value	12,661,004	2.9	-1.4	7.3	--	--	--	5.9	Apr-21
<i>Russell 2000 Value Index</i>			<i>-4.5</i>	<i>-0.1</i>	<i>4.5</i>	<i>6.7</i>	<i>6.7</i>	<i>-0.3</i>	
Excess Return			3.1	7.4	--	--	--	6.2	
Rice Hall James	15,101,023	3.5	-1.6	-1.3	-2.1	5.4	--	6.3	Aug-17
<i>Russell 2000 Growth Index</i>			<i>-3.2</i>	<i>4.5</i>	<i>-6.0</i>	<i>6.2</i>	<i>7.0</i>	<i>6.5</i>	
Excess Return			1.6	-5.8	3.9	-0.8	--	-0.2	

Performance shown is net of fees, except for Total Plan and Domestic Equity which have a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions.

## Asset Class & Manager Performance | As of January 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>International Equity</b>	<b>56,313,946</b>	<b>12.9</b>	<b>-0.1</b>	<b>9.6</b>	<b>3.5</b>	<b>7.1</b>	<b>5.4</b>	<b>5.3</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			-1.0	5.9	1.1	5.3	4.2	5.1	
Excess Return			0.9	3.7	2.4	1.8	1.2	0.2	
Vanguard Developed Markets ETF	15,865,904	3.6	-1.1	7.0	3.6	--	--	7.1	Sep-19
<i>FTSE Developed All Cap ex-U.S. Index</i>			-0.4	9.0	4.1	7.1	5.2	7.5	
Excess Return			-0.7	-2.0	-0.5	--	--	-0.4	
SGA ACWI ex-U.S. Equity	40,448,042	9.3	0.3	11.1	3.4	--	--	4.4	Dec-19
<i>MSCI AC World ex USA (Net)</i>			-1.0	5.9	1.1	5.3	4.2	4.4	
Excess Return			1.3	5.2	2.3	--	--	0.0	
<b>Fixed Income</b>	<b>107,993,825</b>	<b>24.8</b>	<b>0.0</b>	<b>2.6</b>	<b>-2.6</b>	<b>1.2</b>	<b>2.0</b>	<b>4.5</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			-0.2	2.7	-2.8	1.1	1.9	4.5	
Excess Return			0.2	-0.1	0.2	0.1	0.1	0.0	
Ramirez	73,300,154	16.8	0.1	2.6	-2.7	1.2	--	1.7	Jan-17
<i>Blmbg. U.S. Aggregate Index</i>			-0.3	2.1	-3.2	0.8	1.6	1.2	
Excess Return			0.4	0.5	0.5	0.4	--	0.5	
Wellington Core Bond	6,990,373	1.6	0.0	3.1	--	--	--	-2.5	Apr-21
<i>Blmbg. U.S. Aggregate Index</i>			-0.3	2.1	-3.2	0.8	1.6	-2.4	
Excess Return			0.3	1.0	--	--	--	-0.1	
Reams	27,703,298	6.4	-0.2	2.7	-2.4	3.4	3.0	4.9	Feb-98
<i>Bloomberg Universal (Blend)</i>			-0.2	2.7	-2.8	1.1	1.9	4.1	
Excess Return			0.0	0.0	0.4	2.3	1.1	0.8	

Performance shown is net of fees, except for International Equity composite which has a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions.

### Asset Class & Manager Performance | As of January 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>Credit</b>	<b>9,783,813</b>	<b>2.2</b>	<b>0.9</b>	<b>9.8</b>	<b>3.9</b>	<b>4.5</b>	<b>--</b>	<b>5.0</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			0.0	9.3	1.9	4.4	4.5	4.8	
Excess Return			0.9	0.5	2.0	0.1	--	0.2	
Polen Capital	9,783,813	2.2	0.9	9.8	3.9	4.5	--	5.0	Feb-15
<i>ICE BofA High Yield Master II</i>			0.0	9.2	1.9	4.3	4.4	4.7	
Excess Return			0.9	0.6	2.0	0.2	--	0.3	
<b>Covered Calls</b>	<b>24,128,940</b>	<b>5.5</b>	<b>1.4</b>	<b>16.4</b>	<b>9.9</b>	<b>11.2</b>	<b>--</b>	<b>9.1</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			1.8	9.2	6.7	5.9	6.1	5.7	
Excess Return			-0.4	7.2	3.2	5.3	--	3.4	
Parametric BXM	11,839,199	2.7	1.5	13.8	8.2	8.4	--	7.2	Apr-14
<i>CBOE S&amp;P 500 Buy Write Index</i>			1.8	9.2	6.7	5.9	6.1	5.7	
Excess Return			-0.3	4.6	1.5	2.5	--	1.5	
Parametric DeltaShift	12,289,741	2.8	1.4	19.0	11.4	13.8	--	11.1	Apr-14
<i>CBOE S&amp;P 500 Buy Write Index</i>			1.8	9.2	6.7	5.9	6.1	5.7	
Excess Return			-0.4	9.8	4.7	7.9	--	5.4	

Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions.

### Asset Class & Manager Performance | As of January 31, 2024

	Market Value (\$)	% of Portfolio	1 Mo (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
<b>Crisis Risk Offset</b>	<b>39,565,997</b>	<b>9.1</b>	<b>0.2</b>	<b>-1.2</b>	<b>-5.2</b>	<b>-7.0</b>	<b>--</b>	<b>-7.5</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			<i>0.8</i>	<i>1.3</i>	<i>4.9</i>	<i>0.2</i>	<i>--</i>	<i>0.2</i>	
Excess Return			<i>-0.6</i>	<i>-2.5</i>	<i>-10.1</i>	<i>-7.2</i>	<i>--</i>	<i>-7.7</i>	
Kepos Alternative Risk Premia	11,252,325	2.6	3.4	11.8	--	--	--	6.1	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>			<i>2.9</i>	<i>8.9</i>	<i>7.0</i>	<i>1.4</i>	<i>--</i>	<i>6.7</i>	
Excess Return			<i>0.5</i>	<i>2.9</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-0.6</i>	
Versor Trend Following	14,871,804	3.4	-0.2	-5.1	--	--	--	-0.5	Apr-22
<i>SG Trend Index</i>			<i>1.6</i>	<i>-1.2</i>	<i>10.9</i>	<i>10.2</i>	<i>5.7</i>	<i>2.9</i>	
Excess Return			<i>-1.8</i>	<i>-3.9</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-3.4</i>	
Vanguard Long-Term Treasury ETF	13,441,868	3.1	-1.8	-5.8	-11.1	--	--	-4.2	Jul-19
<i>Blmbg. U.S. Gov Long Index</i>			<i>-2.2</i>	<i>-5.2</i>	<i>-10.9</i>	<i>-1.8</i>	<i>1.5</i>	<i>-4.0</i>	
Excess Return			<i>0.4</i>	<i>-0.6</i>	<i>-0.2</i>	<i>--</i>	<i>--</i>	<i>-0.2</i>	
<b>Cash</b>	<b>15,343,456</b>	<b>3.5</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>Mar-11</b>

Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions. Versor Trend Following's market value is estimated using the manager return due to statement availability.

**Cash Flow Summary  
Month to Date**

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Northern Trust Russell 1000	88,252,834	-	1,227,722	89,480,556
EARNEST Partners	42,300,855	-1,000,000	-318,603	40,982,252
Wellington Select Quality Equity	24,458,953	-	269,407	24,728,360
Brown Fundamental Small Cap Value	12,835,326	-	-174,322	12,661,004
Rice Hall James	15,327,009	-	-225,986	15,101,023
Vanguard Developed Markets ETF	16,040,034	-	-174,130	15,865,904
SGA ACWI ex-U.S. Equity	40,307,575	-	140,468	40,448,042
Ramirez	73,247,942	-	52,212	73,300,154
Wellington Core Bond	6,993,592	-	-3,219	6,990,373
Reams	27,742,062	-	-38,764	27,703,298
Polen Capital	9,697,822	-	85,991	9,783,813
Parametric BXM	11,662,453	-	176,746	11,839,199
Parametric DeltaShift	12,121,242	-	168,499	12,289,741
Kepos Alternative Risk Premia	10,884,494	-	367,831	11,252,325
Versor Trend Following	14,897,129	-	-25,325	14,871,804
Vanguard Long-Term Treasury ETF	13,686,549	-	-244,681	13,441,868
Cash - Money Market	5,092,650	-16,195	-	5,076,456
Cash - Treasury	10,407,000	-140,000	-	10,267,000
Securities Lending Northern Trust	-	-15,460	15,460	-
<b>OPFRS Total Plan</b>	<b>435,955,522</b>	<b>-1,171,655</b>	<b>1,299,305</b>	<b>436,083,171</b>

Versor Trend Following's market value is estimated using the manager return due to statement availability.

Benchmark History		
From Date	To Date	Benchmark
<b>OPFRS Total Plan</b>		
06/01/2022	Present	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 31.0% Blmbg. U.S. Universal Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 5.0% CBOE S&P 500 Buy Write Index, 10.0% Crisis Risk Offset Benchmark
01/01/2019	06/01/2022	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 31.0% Blmbg. U.S. Universal Index, 5.0% CBOE S&P 500 Buy Write Index, 2.0% Blmbg. U.S. Treasury: Long, 10.0% Crisis Risk Offset Benchmark
05/01/2016	01/01/2019	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 20.0% CBOE BXM
10/01/2015	05/01/2016	43.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 15.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
01/01/2014	10/01/2015	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 10.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
03/01/2013	01/01/2014	40.0% Russell 3000 Index, 10.0% MSCI AC World ex USA index, 17.0% Blmbg. U.S. Universal Index, 33.0% ICE BofA 3 Month U.S. T-Bill
08/01/2012	03/01/2013	20.0% Russell 3000 Index, 7.0% MSCI AC World ex USA index, 18.0% Blmbg. U.S. Universal Index, 55.0% ICE BofA 3 Month U.S. T-Bill
10/01/2007	08/01/2012	53.0% Russell 3000 Index, 17.0% MSCI AC World ex USA index, 30.0% Blmbg. U.S. Universal Index
04/01/2006	10/01/2007	35.0% Russell 3000 Index, 15.0% MSCI AC World ex USA index, 50.0% Blmbg. U.S. Universal Index
01/01/2005	04/01/2006	35.0% Russell 3000 Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI AC World ex USA index
04/01/1998	01/01/2005	20.0% Russell 1000 Value Index, 10.0% Russell 1000 Index, 5.0% Russell Midcap Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI EAFE (Net)
09/01/1988	04/01/1998	40.0% S&P 500 Index, 55.0% Blmbg. U.S. Aggregate Index, 5.0% FTSE 3 Month T-Bill

**Benchmark History**

From Date	To Date	Benchmark
<b>Domestic Equity</b>		
01/01/2005	Present	100.0% Russell 3000 Index
04/01/1998	01/01/2005	57.1% Russell 1000 Value Index, 28.6% Russell 1000 Index, 14.3% Russell Midcap Index
09/01/1988	04/01/1998	100.0% S&P 500 Index
<b>International Equity</b>		
01/01/2005	Present	100.0% MSCI AC World ex USA (Net)
01/01/1998	01/01/2005	100.0% MSCI EAFE Index
<b>Fixed Income</b>		
04/01/2006	Present	100.0% Blmbg. U.S. Universal Index
01/01/1976	04/01/2006	100.0% Blmbg. U.S. Aggregate Index
<b>Covered Calls</b>		
04/01/2014	Present	CBOE S&P 500 Buy Write Index
<b>Crisis Risk Offset</b>		
01/01/2023	Present	33.3% SG Trend Index, 33.3% SG Multi Alternative Risk Premia Index, 33.3% Blmbg. U.S. Government: Long Term Bond Index
08/01/2018	01/01/2023	100.0% SG Multi Alternative Risk Premia Index
<b>Cash</b>		
03/01/2011	Present	FTSE 3 Month T-Bill

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

February 28, 2024

Quarterly Performance Report  
as of December 31, 2023

## Agenda

1. Executive Summary
2. Economic and Market Update as of December 31, 2023
3. Quarterly Performance as of December 31, 2023
4. Manager Monitoring / Probation Status
5. Appendix
6. Disclaimer, Glossary, and Notes

## **Executive Summary**

### Total Portfolio Review

The Oakland Police and Fire Retirement System (OPFRS) finished the quarter with \$435.9 million in assets after net cash flows including monthly benefit payments. All asset classes in their acceptable target allocation ranges except for Fixed Income which is marginally underweight at the end of the year.

Cash Flow Summary (\$ Millions)	Quarter	1 Year
<b>Beginning Market Value</b>	<b>405.1</b>	<b>398.5</b>
Net Cash Flows (including Benefit Payments)	-2.6	-15.6
Net Investment Change (Gain/Loss)	33.4	53.0
<b>Ending Market Value</b>	<b>435.9</b>	<b>435.9</b>

### Investment Performance<sup>1</sup>

	QTD	FYTD	1 Year	3 Year	5 Year
<b>Total Plan (Gross)</b>	<b>8.4</b>	<b>5.3</b>	<b>13.8</b>	<b>3.6</b>	<b>8.1</b>
<b>Total Plan (Net)</b>	<b>8.3</b>	<b>5.2</b>	<b>13.5</b>	<b>3.3</b>	<b>7.8</b>
<i>Policy Benchmark</i>	<i>8.7</i>	<i>5.4</i>	<i>15.1</i>	<i>3.6</i>	<i>8.0</i>
Excess Return	-0.4	-0.2	-1.6	-0.3	-0.2
<i>Public DB (\$250M-\$1B) Median Fund</i>	<i>7.7</i>	<i>4.7</i>	<i>12.4</i>	<i>3.5</i>	<i>8.6</i>
Total Plan (Net) vs. Peer Median Fund	0.6	0.5	1.0	-0.2	-0.8
<i>Peer Group Percentile Rank</i>	<i>33</i>	<i>29</i>	<i>32</i>	<i>62</i>	<i>66</i>

<sup>1</sup> Fiscal year begins on July 1. Peer group is Investment Metrics Public Defined Benefit plans with \$250 million to \$1 billion in assets. The number of peers is about 80-90 portfolios in each time period. Please see the Benchmark History section for the Policy Benchmark's current and historical compositions.

### Asset Class and Manager Highlights

- Total Plan underperformed its Policy Benchmark across all time periods on net of fees basis. The underperformance during the quarter was attributable to the Crisis Risk Offset segment's underperformance.
  - The 1-year period's underperformance was primarily due to Domestic Equity's lag behind its broad market Russell 3000 Index. International Equity, along with Fixed Income and Covered Calls, were positive contributors to the Total Plan's relative performance in 2023, partially offsetting Domestic Equity's underperformance.
- **Domestic Equity** underperformed the Russell 3000 Index over all trailing periods.
  - Rice Hall James outperformed its benchmark while all other active managers underperformed their respective benchmarks for the quarter.
  - All active Domestic Equity managers across different styles trailed the broad market Russell 3000 Index over the 1-year period as a handful of companies ("Magnificent Seven") drove returns in 2023.
- **International Equity** outperformed the MSCI ACWI ex US (Net) for all periods except for the most recent quarter.
- **Fixed Income** slightly underperformed or matched its custom benchmark over the quarter, 1-year, and since inception time periods. The underlying managers outperformed their respective benchmarks across almost all time periods.
- The **Credit** segment, with Polen Capital as its only manager, underperformed the asset class's benchmark, Bloomberg US High Yield Index, for all time periods except over the 3-year and since inception periods.
- **Covered Calls**, as well as both the passive BXM and the active DeltaShift strategies outperformed the CBOE S&P 500 Buy Write Index across all periods measured.
- The **Crisis Risk Offset** segment underperformed its custom benchmark over all time periods measured.
  - Kepos Alternative Risk Premia outperformed its benchmark during the quarter and over the 1-year period while Versor Trend Following and Vanguard Long-term Treasury ETF underperformed their respective benchmarks for the same periods.

# **Economic and Market Update**

## Data as of December 31, 2023

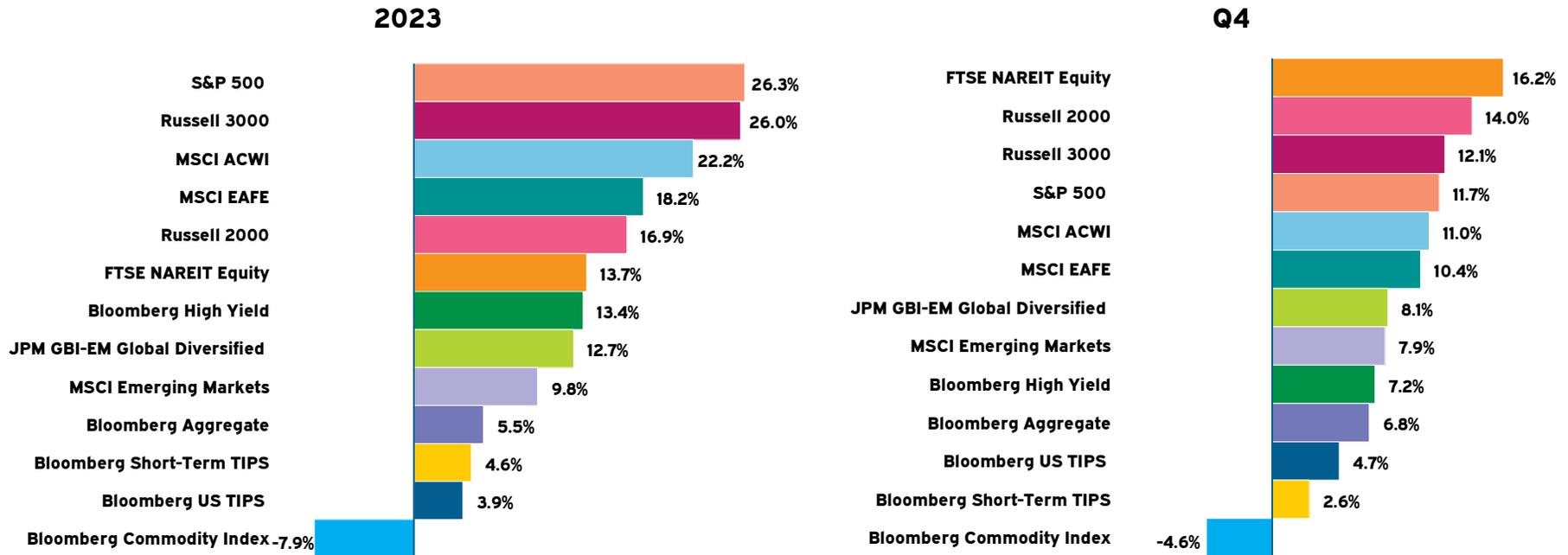
## Commentary

→ Most markets rallied in the fourth quarter in anticipation that policy rates cuts were ahead in 2024.

- Major central banks have largely paused interest rates hikes. Markets are now largely expecting the FOMC to maintain interest rates at the current levels and begin cutting rates as soon as Q1 2024.
- Inflation rose in December in the US and Europe, but both finished the year much lower than where they started. China remained in deflationary territory (-0.3%) at year-end.
- US equity markets (Russell 3000 index) posted strong gains for the quarter (12.1%), raising full year results to +26.0%. Most sectors rallied, with more defensive sectors lagging.
- Non-US developed equity markets also rallied in the fourth quarter (MSCI EAFE 10.4%), with the weakening of the US dollar contributing meaningfully (10.4% versus 5.0% ex-US dollar influence). The performance difference between US and international developed equities for the year remained wide (26.0% versus 18.2%).
- Emerging market equities were up 7.9% in the fourth quarter and 9.8% for calendar 2023 but trailed developed markets due to lagging returns in China (-4.2% Q4/-11.2% one-year). Emerging market equities ex-China returned 20% in 2023.
- Interest rates generally fell in the fourth quarter, particularly for longer-dated maturities. The broad US bond market rallied (6.8%) for the quarter, lifting 2023 returns into positive territory (5.5%).

→ Looking to 2024, the paths of inflation and monetary policy, China's economic disorder and slowing economic growth, and the wars in Ukraine and Israel, will be key.

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



→ After a tough start to the quarter on lingering fears that the Federal Reserve might keep interest rates “higher for longer”, markets rallied in November and December. Economic data generally coming in below expectations sparked expectations that the Federal Reserve might really be done raising policy rates for this cycle.

→ Strong results for the quarter built on gains for the year with all asset classes finishing in positive territory in 2023, except commodities.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

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

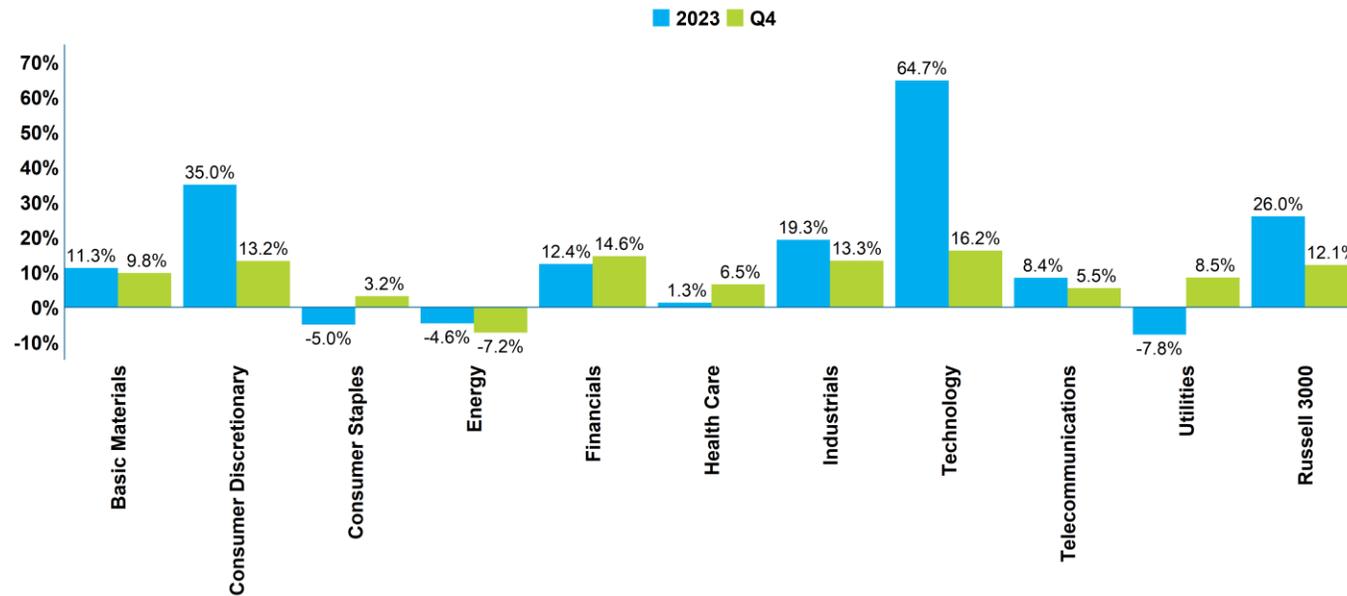
Domestic Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	4.5	11.7	26.3	10.0	15.7	12.0
Russell 3000	5.3	12.1	26.0	8.6	15.2	11.5
Russell 1000	4.9	12.0	26.5	9.0	15.5	11.8
Russell 1000 Growth	4.4	14.2	42.7	8.9	19.5	14.9
Russell 1000 Value	5.5	9.5	11.5	8.9	10.9	8.4
Russell MidCap	7.7	12.8	17.2	5.9	12.7	9.4
Russell MidCap Growth	7.6	14.5	25.9	1.3	13.8	10.6
Russell MidCap Value	7.8	12.1	12.7	8.4	11.2	8.3
Russell 2000	12.2	14.0	16.9	2.2	10.0	7.2
Russell 2000 Growth	12.0	12.7	18.7	-3.5	9.2	7.2
Russell 2000 Value	12.4	15.3	14.6	8.0	10.0	6.8

**US Equities: The Russell 3000 rallied 5.3% in December, bringing fourth quarter results to +12.1%. US stocks were up 26.0% in 2023.**

- US equities had a strong final quarter of the year, driven by expectations that rate cuts may be ahead in 2024.
- Small cap stocks outperformed their large cap peers for the quarter while growth outpaced value with the exception of small cap. Large cap stocks outperformed small cap stocks by a wide margin for the calendar year and growth outpaced value across market caps.
- Calendar year results were clearly driven by large cap technology stocks. Within the S&P 500 index, the “Magnificent 7” stocks generated more than 50% of the total gains.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023. Magnificent Seven stocks include: Apple, Microsoft, Alphabet, Amazon, Nvidia, Tesla, and Meta.

### Russell 3000 Sector Returns<sup>1</sup>



- All sectors posted gains for the fourth quarter, except for energy (-7.2%) given oil's recent declines. Technology (+16.2%) led the way for the quarter followed by financials (+14.6%).
- In 2023, technology (+64.7%) and consumer discretionary (+35.0%) sectors had the best results, helped respectively by artificial intelligence optimism and a healthy US consumer. Traditionally defensive sectors like utilities (-7.8%) and consumer staples (-5.0%) trailed.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

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

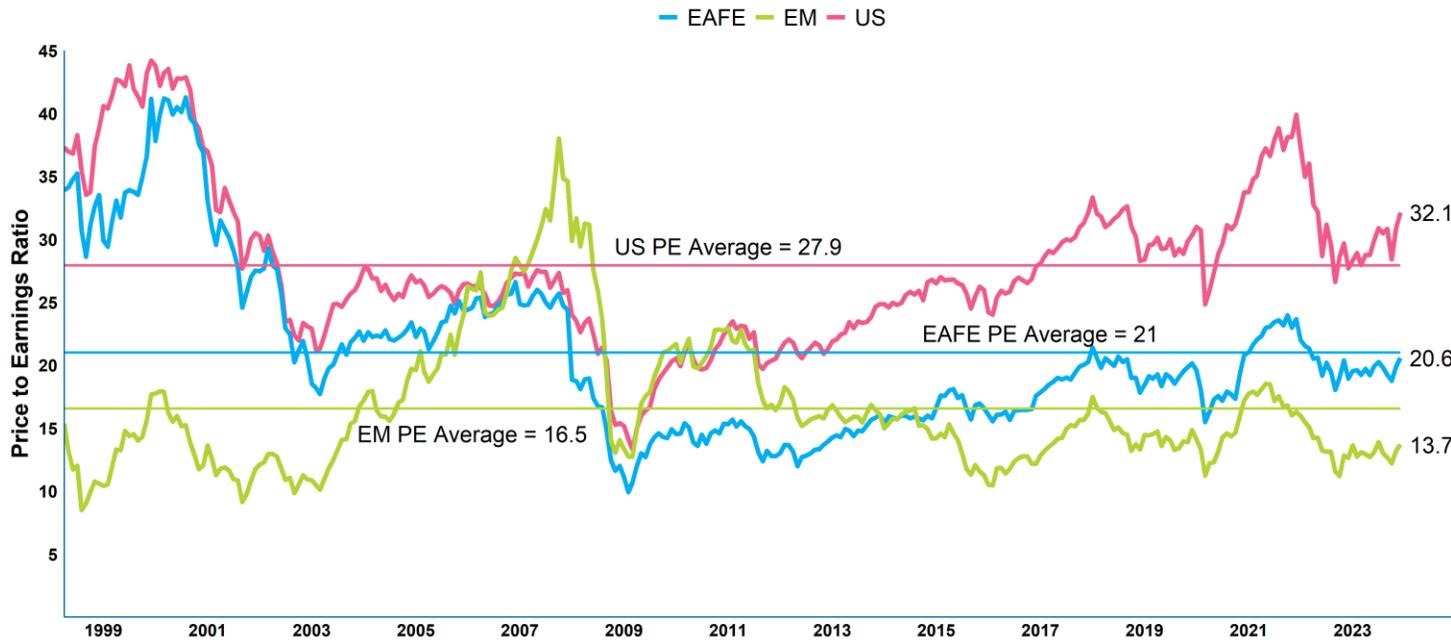
Foreign Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	5.0	9.8	15.6	1.5	7.1	3.8
MSCI EAFE	5.3	10.4	18.2	4.0	8.2	4.3
MSCI EAFE (Local Currency)	2.9	5.0	16.2	8.7	9.5	6.6
MSCI EAFE Small Cap	7.3	11.1	13.2	-0.7	6.6	4.8
MSCI Emerging Markets	3.9	7.9	9.8	-5.1	3.7	2.7
MSCI Emerging Markets (Local Currency)	3.1	5.6	9.9	-2.5	5.4	5.2
MSCI China	-2.4	-4.2	-11.2	-18.5	-2.8	0.9

**Foreign Equity:** Developed international equities (MSCI EAFE) gained 5.3% in December and 10.4% in the fourth quarter bringing calendar year results to 18.2%. Emerging market equities (MSCI EM) rose 3.9% in December, 7.9% for the quarter, and 9.8% for the year.

- Optimism around lower inflation and potentially peaking and declining policy rates drove gains in the UK and Europe. Japan had weaker results for the quarter as concerns over a strengthening yen weighed on returns in December. Overall weakness in the US dollar also contributed to quarterly and full year results across developed markets.
- Emerging markets also experienced strong performance in the fourth quarter but trailed developed markets. China weighed on relative results for the quarter and year, declining 4.2% and 11.2%, respectively. Slowing growth, issues in the property sector, and on-going tensions with the US all weighed on results.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

**Equity Cyclically Adjusted P/E Ratios<sup>1</sup>**



- Given the strong technology-driven rally last year, the US equity price-to-earnings ratio increased above its 21st century average. Fourth quarter gains brought valuations to their highest level for the year.
- International market valuations also increased in the fourth quarter, but remain below the US. In the case of developed markets, valuations finished the year close to the their long-term average, while emerging markets remained well below their 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: Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of December 2023. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end respectively.

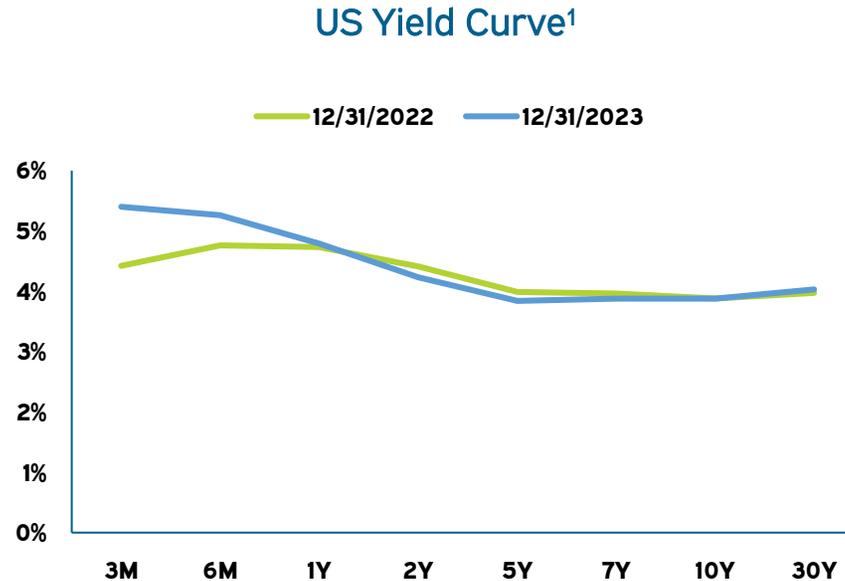
### Fixed Income Returns<sup>1</sup>

Fixed Income	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	3.8	6.8	6.2	-3.0	1.4	2.1	4.8	6.1
Bloomberg Aggregate	3.8	6.8	5.5	-3.3	1.1	1.8	4.5	6.3
Bloomberg US TIPS	2.7	4.7	3.9	-1.0	3.2	2.4	4.2	6.7
Bloomberg Short-term TIPS	1.1	2.6	4.6	2.3	3.4	2.0	4.5	2.4
Bloomberg High Yield	3.7	7.2	13.4	2.0	5.4	4.6	7.6	3.8
JPM GBI-EM Global Diversified (USD)	3.2	8.1	12.7	-3.2	1.1	0.1	6.5	5.0

**Fixed Income: The Bloomberg Universal index rose 3.8% in December, 6.8% for the quarter, and 6.2% for the year.**

- Policy rate expectations swung from pessimism to optimism in November and December. Signs of the labor market cooling and improving inflation led investors to bring forward expectations for interest rate cuts to early 2024, leading to one of the best quarterly results in over twenty years.
- The broad US bond market (Bloomberg Aggregate) rallied 6.8% for the quarter, lifting full-year performance into positive territory (+5.5%). The broader TIPS index rose 4.7% for the quarter and 3.9% for the year, while the less interest-rate-sensitive short-term TIPS index rose 2.6% and 4.6% over the same periods.
- High yield bonds rallied on better risk sentiment (+7.2%), as did emerging market bonds (+8.1%). Both asset classes produced double-digit results last year.

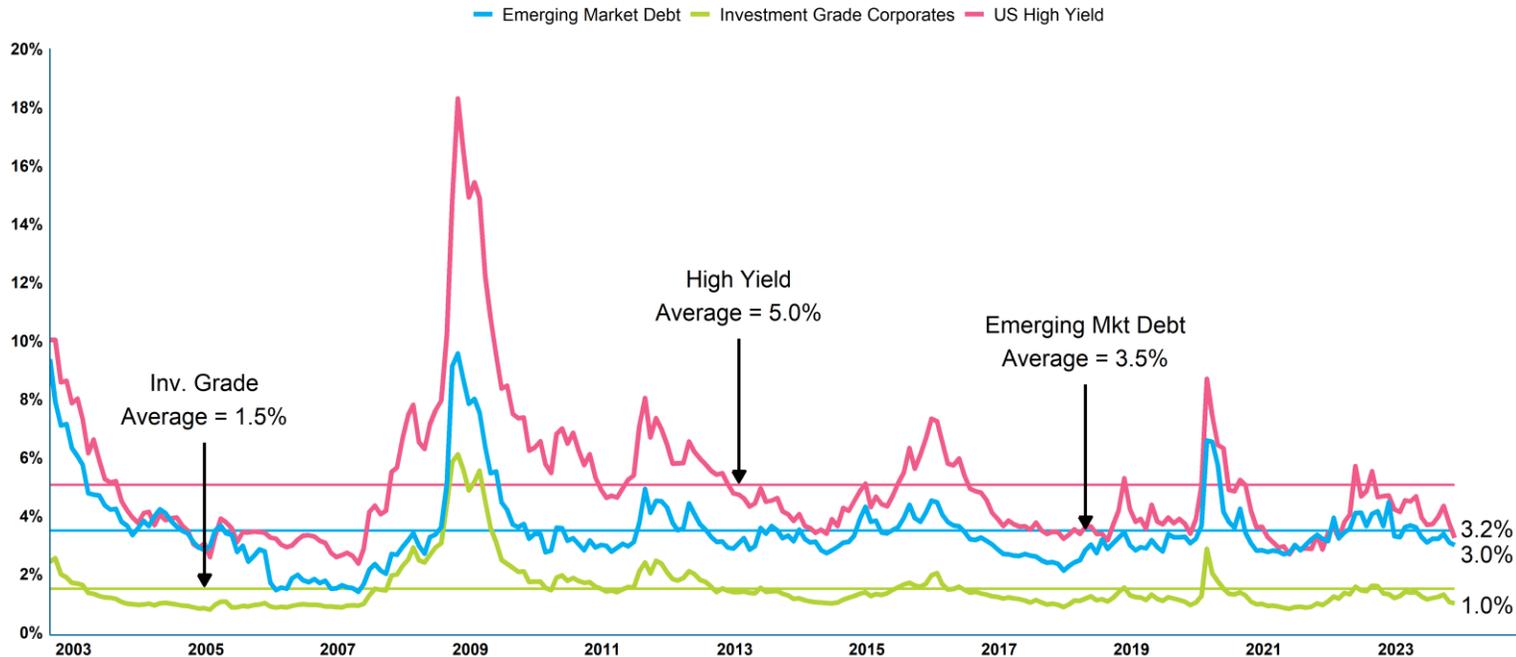
<sup>1</sup> Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of December 31, 2023. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.



- The more policy sensitive short-term maturities were higher this year while longer-term maturities finished the year where they started.
- Still, rates declined sharply over the quarter, particularly at the longer end of the yield curve on continued easing of inflation-related risks and speculation that the Federal Reserve is done with their policy rate increases for this cycle.
- For the quarter, two-year Treasury yields fell from 5.05% to 4.24% while ten-year Treasury yields declined from 4.56% to 3.88%.
- The yield curve remained inverted at year-end despite a recent flattening trend. The spread between the 2-year and 10-year Treasury was -0.37% at the end of December.

<sup>1</sup> Source: Bloomberg. Data is as of December 31, 2023.

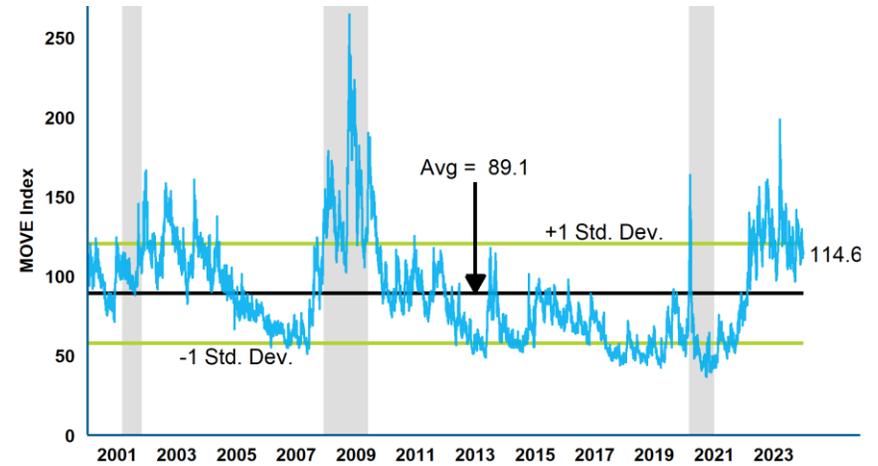
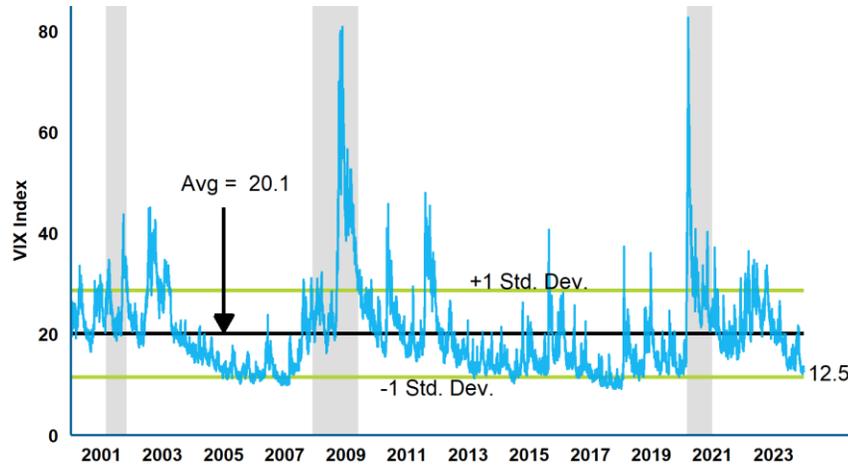
**Credit Spreads vs. US Treasury Bonds<sup>1</sup>**



- Expectations of peaking policy rates and the corresponding increase in risk appetite benefited credit in the fourth quarter with spreads (the added yield above a comparable maturity Treasury) narrowing. All spreads remain below their respective long run averages.
- High yield spreads continue to be the furthest below their long-term average given the overall risk appetite last year and lower duration. Investment-grade corporate and emerging market spreads are also below their respective long-term averages, but by smaller margins.

<sup>1</sup> Sources: Bloomberg. Data is as of December 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

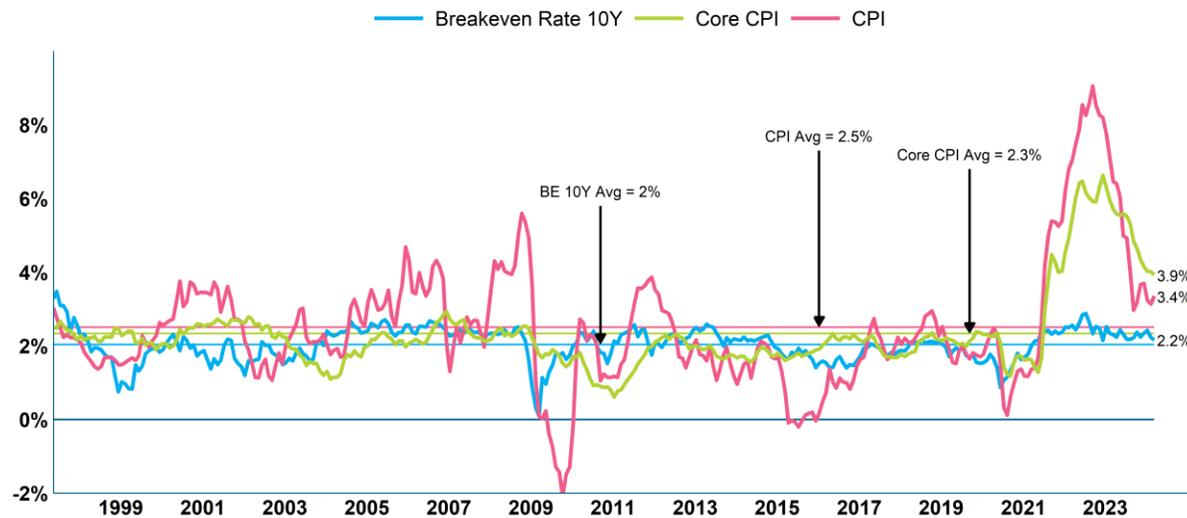
**Equity and Fixed Income Volatility<sup>1</sup>**



- Volatility in equities (VIX) finished the year close to its lows, remaining well below the long-term average as the focus shifted to peaking policy rates and the potential for a soft landing.
- Volatility in the bond market (MOVE) remained elevated to close out 2023 and is well above its long-run average (89.1). The bond market remained on edge for most of 2024 largely driven by uncertainty about the ultimate path of monetary policy.

<sup>1</sup> Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of December 2023. The average line indicated is the average of the VIX and MOVE values between January 2000 and December 2023.

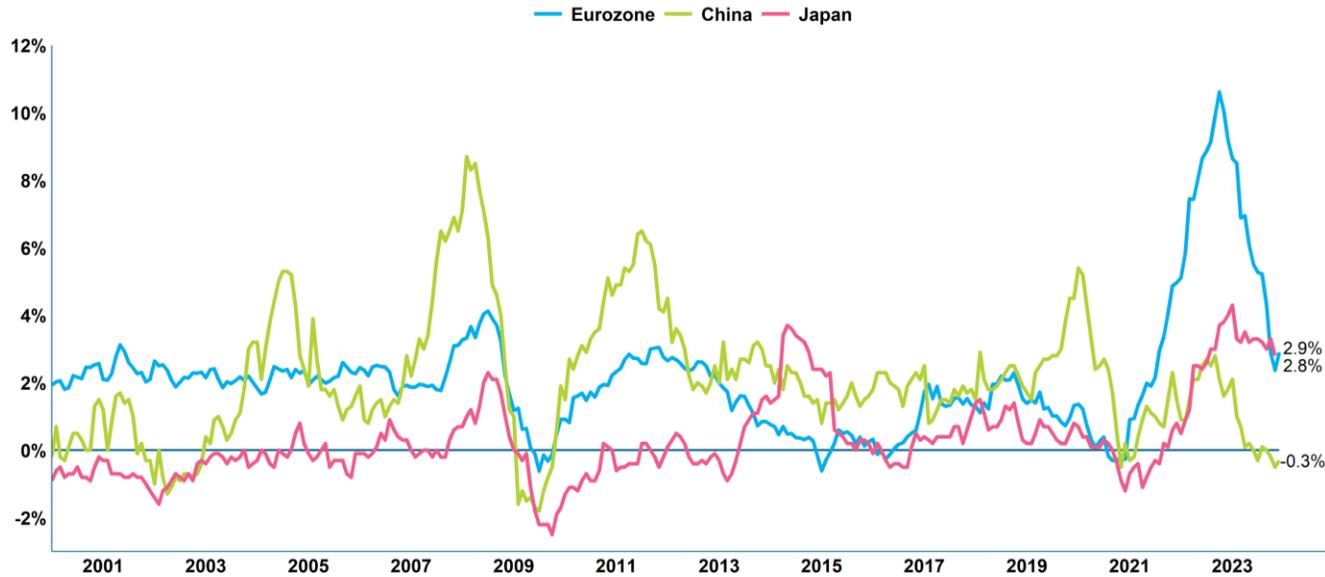
### US Ten-Year Breakeven Inflation and CPI<sup>1</sup>



- Year-over-year headline inflation rose from 3.1% to 3.4% in December, coming in above expectations of 3.2%. An increase in shelter (+6.2%) drove results, with food also increasing from a year prior (+2.7%) and energy prices falling (-2.0%). Month-over-month inflation came in at 0.3%, above expectations of 0.2% and the prior reading of 0.1%.
- Core inflation - excluding food and energy – declined in December (3.9% versus 4.0%) year-over-year, with shelter costs again driving the total core index increase.
- Inflation expectations (breakevens) have remained relatively stable despite the recent significant volatility in inflation.

<sup>1</sup> Source: FRED. Data is as December 2023. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

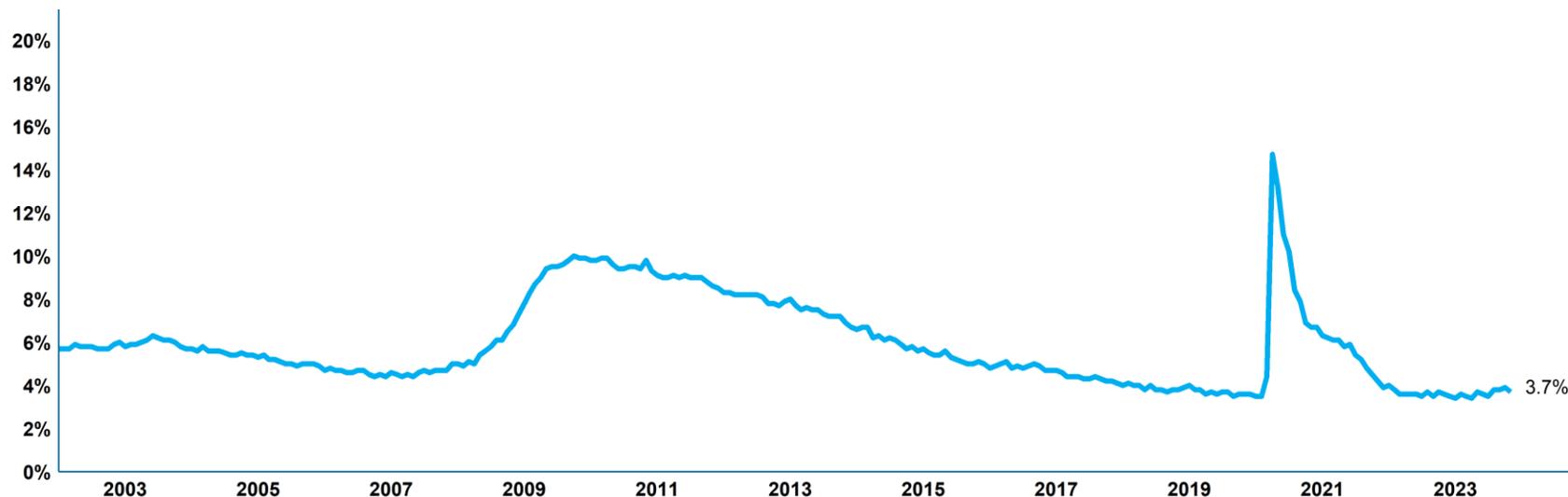
**Global Inflation (CPI Trailing Twelve Months)<sup>1</sup>**



- Outside the US, inflation is also falling across major economies with China slipping into deflation.
- In the eurozone, inflation experienced a dramatic decline last year. Despite a small increase in December (2.9% versus 2.4%) it finished the year below the 3.4% year-over-year reading in the US.
- Inflation in Japan remains near levels not seen in almost a decade, driven by food and home related items.

<sup>1</sup> Source: FRED for United States CPI and Eurozone CPI. Source: Bloomberg for Japan CPI, China CPI, and Eurozone December flash estimate. Data is as December 31, 2023, except Japan which is as of November 30, 2023.

### US Unemployment<sup>1</sup>

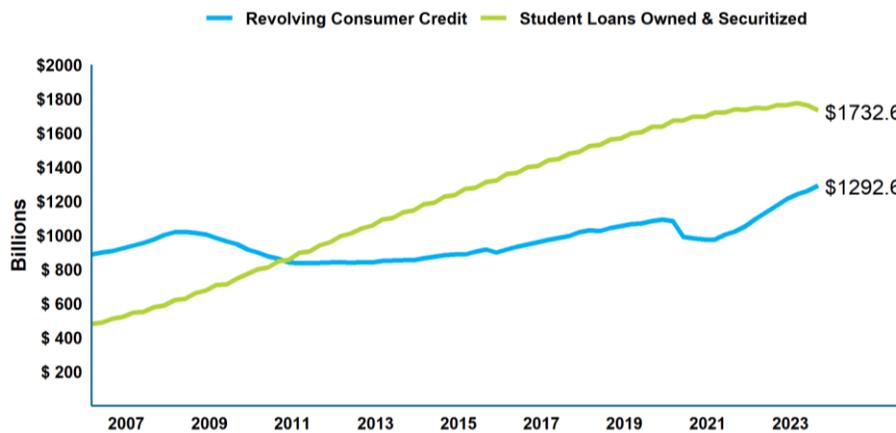


- Overall, the US labor market remains healthy with the unemployment rate relatively low, wage growth now positive in real terms, and initial claims for unemployment staying subdued.
- In December, US unemployment remained unchanged (3.7%) and came in slightly below expectations of an increase to 3.8%. The number of jobs added did come in above expectations (216k versus 175k) though with the most jobs added in the government, leisure and hospitality, and health care sectors.
- The labor force participation remained relatively stable at 62.5%, well off the lows of the pandemic (60.1%) but not back to pre-pandemic levels (63.3%).
- The pace of hourly wage growth has declined from its peak of close to 6.0% finishing 2023 at 4.1% yoy. Wage growth remains positive in real terms though.

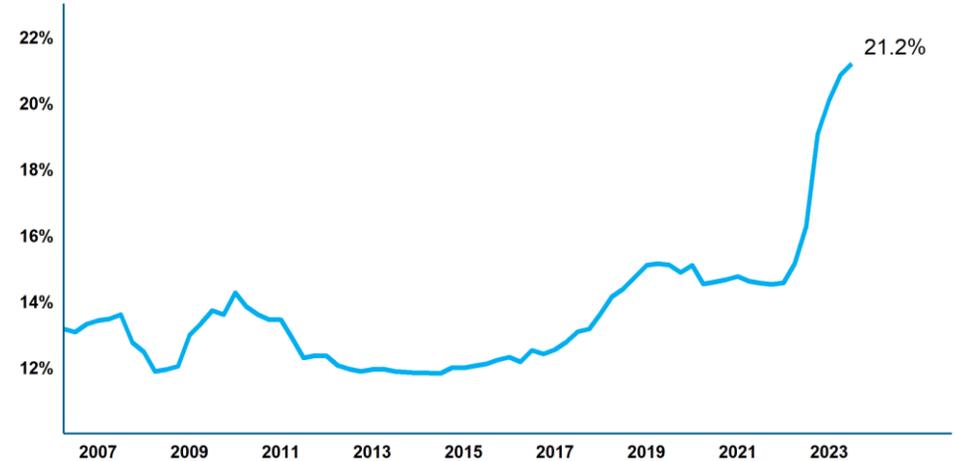
<sup>1</sup>Source: FRED. Data is as December 31, 2023.

### US Consumer Under Stress?<sup>1</sup>

#### Revolving Consumer Credit & Student Loans (\$B)



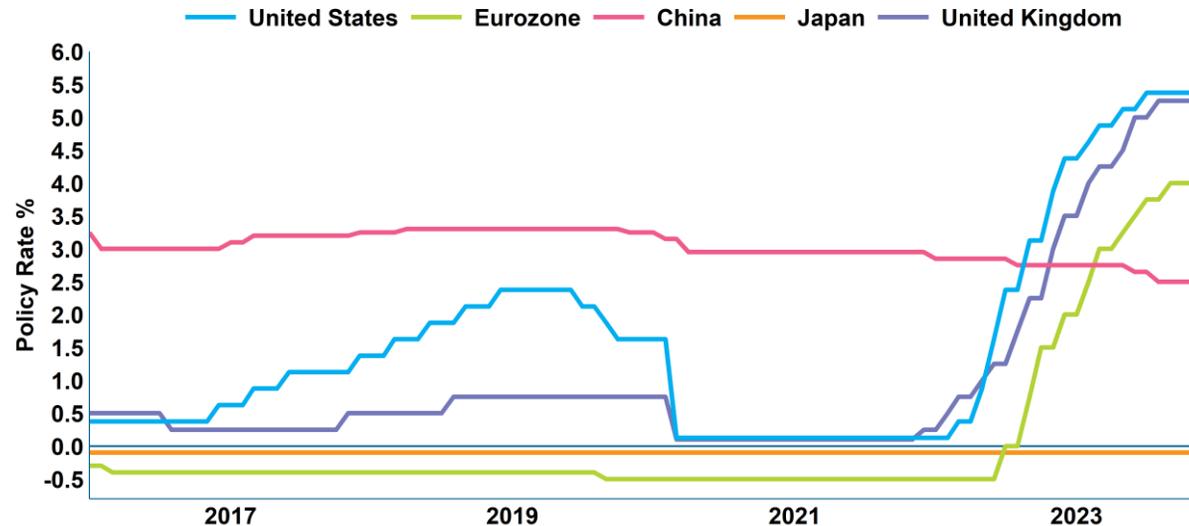
#### Consumer Credit Card Interest Rates (%)



- Despite the strong labor market and higher wages, pressures have started to build on the US consumer. This is an important consideration as consumer spending has been a key driver of economic growth.
- Revolving consumer credit surged to new highs in 2023 even as credit card interest rates hit levels not seen before (the prior peak was around 19% in the 1980s).
- The return of student loan repayments after a three-year pandemic-related reprieve could add to pressures on consumers' budgets. This might be partially mitigated by recently initiated repayment and forgiveness programs.
- As we look ahead, the strength of the US consumer will remain key as this sector makes up most of the domestic economy (GDP).

<sup>1</sup> Source: FRED. Data is as of September 30, 2023. Revolving Consumer Credit data is seasonally adjusted to remove distortions during the holiday season.

### Policy Rates<sup>1</sup>



- Slowing inflation and growth have led to expectations for a reduction in the pace of aggressive policy tightening.
- The Fed has been on hold since July 2023 when it raised rates to a range of 5.25%-5.50%. Markets are pricing in six rate cuts next year given the track of economic data and recent comments from the Fed, while the Fed itself is only predicting three. How this discrepancy is resolved will be key this year.
- The European and UK central banks also recently paused their rate increases on slowing inflation. In Japan, the BoJ has further relaxed its yield curve control on the 10-year bond, and expectations for further policy normalization are rising.
- The central bank in China has maintained interest rates at record low levels and continues to inject liquidity into the banking system, as weaker than expected economic data appears to indicate a widespread slowdown.

<sup>1</sup> Source: Bloomberg. Data is as of December 2023.

US Dollar vs. Broad Currencies<sup>1</sup>



- The US dollar declined around 5% in the fourth quarter as generally weaker economic data led investors to anticipate the end of FOMC tightening and interest rate cuts in 2024.
- Overall, the dollar finished the year only slightly below where it started but it was a volatile year for the US currency as expectations related to monetary policy evolved.

<sup>1</sup> Source: Bloomberg. Data as of December 31, 2023.

## Summary

### Key Trends:

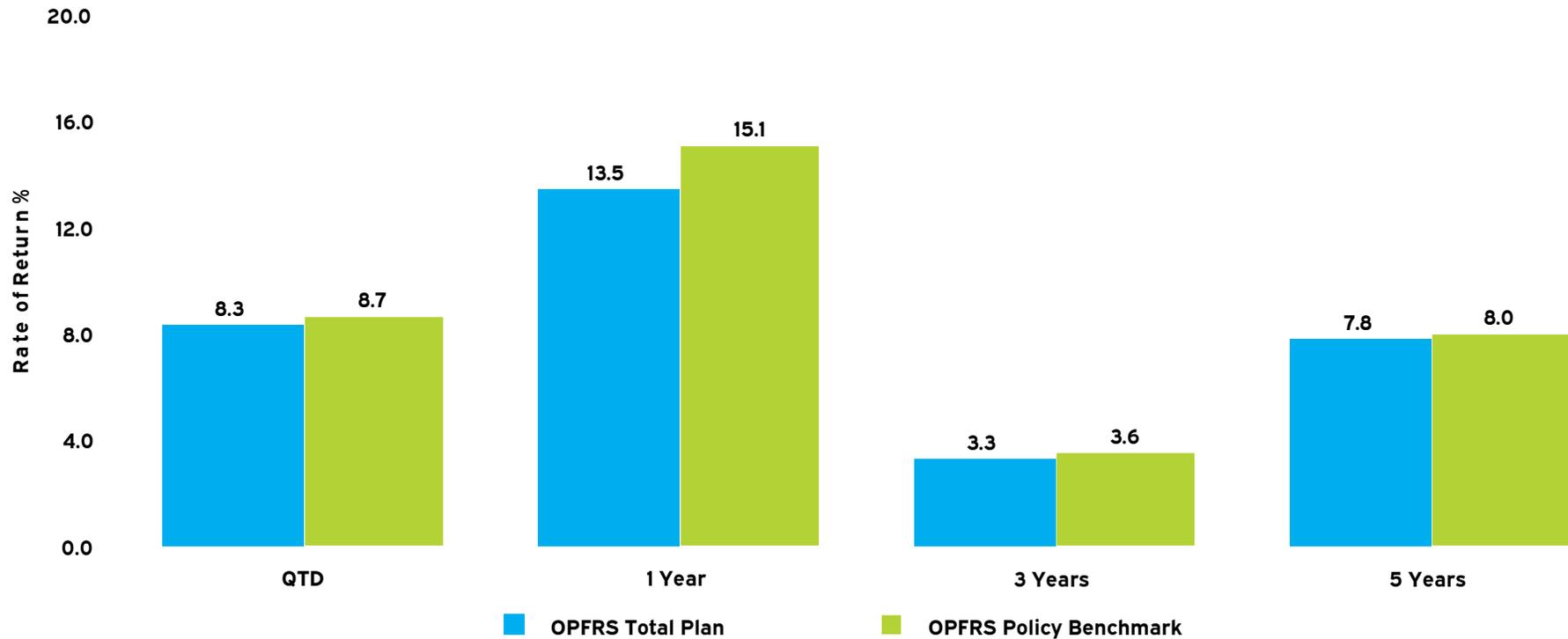
- The impact of inflation still above policy targets will remain important, with bond market volatility likely to stay high.
- Global monetary policies could diverge going forward. The risk of policy errors remains elevated as central banks try to further reduce inflation toward targets while not tipping their economies into recession. In the case of the US the resolution of the disparity between market expectations for the path of interest rates versus the Fed's dot plot will be key.
- Global growth is expected to slow next year, with some economies forecasted to tip into recession. However, optimism has been building that certain economies could experience soft landings. Inflation, monetary policy, and geopolitical issues will remain key in 2024.
- US consumers could feel pressure as certain components of inflation (e.g., shelter), remain high, borrowing costs are elevated, and the job market may weaken.
- A focus for US equities going forward, will be whether earnings can remain resilient if growth continues to slow. Also, the future paths of the large technology companies that have driven market gains will be important.
- Equity valuations remain lower in emerging and developed markets, but risks remain, including the potential for China's economic slowdown and on-going weakness in the real estate sector could spill over into key trading partners' economies. Japan's recent hint at potentially tightening monetary policy along with changes in corporate governance in the country could influence relative results.
- Recent, heightened tensions in Israel could add to overall uncertainty and drive safe haven flows.

## **Quarterly Performance** as of December 31, 2023

#### Summary of Cash Flows

	QTD	1 Year
<b>OPFRS Total Plan</b>		
<b>Beginning Market Value</b>	<b>405,143,449</b>	<b>398,501,201</b>
Net Cash Flow	-2,587,879	-15,572,778
Net Investment Change	33,399,952	53,027,098
<b>Ending Market Value</b>	<b>435,955,522</b>	<b>435,955,522</b>

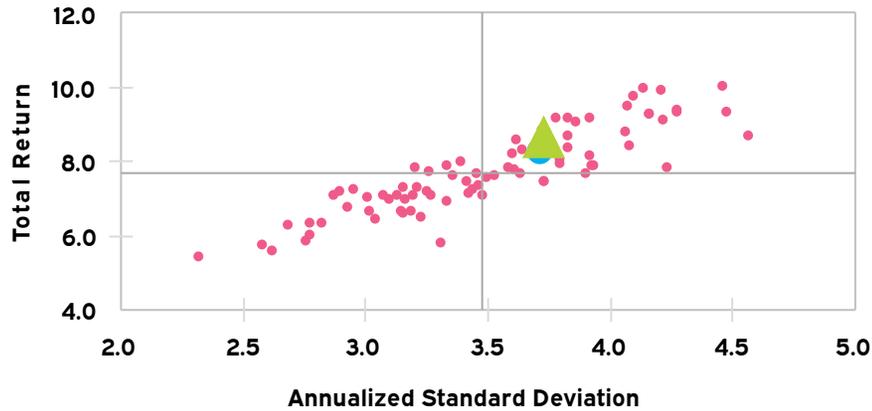
#### Return Summary Ending December 31, 2023



Total Plan performance shown is net of fees.

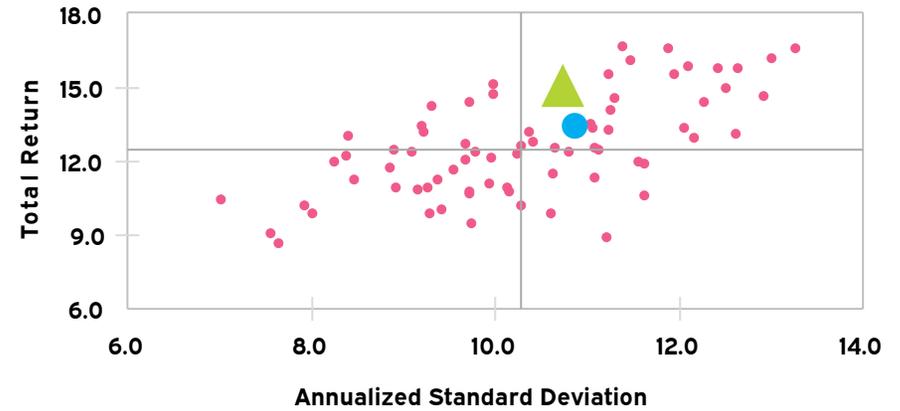
### Total Plan Risk/Return Summary | As of December 31, 2023

#### Risk-Return Summary QTD Ending December 31, 2023



- IM Public DB \$250M-\$1B
- OPFRS Total Plan
- ▲ OPFRS Policy Benchmark

#### Risk-Return Summary 1 Yr Ending December 31, 2023



- IM Public DB \$250M-\$1B
- OPFRS Total Plan
- ▲ OPFRS Policy Benchmark

	Return	Standard Deviation
--	--------	--------------------

OPFRS Total Plan	8.3	3.7
OPFRS Policy Benchmark	8.7	3.7
Median	7.7	3.5

	Return	Standard Deviation
--	--------	--------------------

OPFRS Total Plan	13.5	10.9
OPFRS Policy Benchmark	15.1	10.7
Median	12.4	10.3

Performance shown is net of fees. Calculation is based on monthly periodicity. Parentheses contain percentile rankings. Fiscal year begins on July 1. Plan Sponsor Peer Group shown is net of fees.

## Asset Class Performance: Gross of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>OPFRS Total Plan (Gross)</b>	<b>435,955,522</b>	<b>100.0</b>	<b>8.4</b>	<b>5.3</b>	<b>13.8</b>	<b>3.6</b>	<b>8.1</b>	<b>6.8</b>	<b>6.7</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			<i>8.7</i>	<i>5.4</i>	<i>15.1</i>	<i>3.6</i>	<i>8.0</i>	<i>6.8</i>	<i>7.9</i>	
Excess Return			-0.3	-0.1	-1.3	0.0	0.1	0.0	-1.2	
<b>Domestic Equity (Gross)</b>	<b>183,174,978</b>	<b>42.0</b>	<b>12.1</b>	<b>7.9</b>	<b>20.3</b>	<b>7.8</b>	<b>14.1</b>	<b>10.9</b>	<b>9.0</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			<i>12.1</i>	<i>8.4</i>	<i>26.0</i>	<i>8.5</i>	<i>15.2</i>	<i>11.5</i>	<i>9.3</i>	
Excess Return			0.0	-0.5	-5.7	-0.7	-1.1	-0.6	-0.3	
<b>International Equity (Gross)</b>	<b>56,347,608</b>	<b>12.9</b>	<b>9.6</b>	<b>7.2</b>	<b>20.2</b>	<b>4.2</b>	<b>9.1</b>	<b>5.3</b>	<b>5.5</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			<i>9.8</i>	<i>5.6</i>	<i>15.6</i>	<i>1.5</i>	<i>7.1</i>	<i>3.8</i>	<i>5.1</i>	
Excess Return			-0.2	1.6	4.6	2.7	2.0	1.5	0.4	
<b>Fixed Income (Gross)</b>	<b>107,983,596</b>	<b>24.8</b>	<b>6.8</b>	<b>3.4</b>	<b>6.3</b>	<b>-2.6</b>	<b>1.7</b>	<b>2.4</b>	<b>4.8</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			<i>6.8</i>	<i>3.8</i>	<i>6.2</i>	<i>-3.0</i>	<i>1.4</i>	<i>2.1</i>	<i>4.6</i>	
Excess Return			0.0	-0.4	0.1	0.4	0.3	0.3	0.2	
<b>Credit (Gross)</b>	<b>9,697,822</b>	<b>2.2</b>	<b>4.1</b>	<b>5.7</b>	<b>13.3</b>	<b>4.7</b>	<b>5.4</b>	<b>--</b>	<b>5.6</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			<i>7.2</i>	<i>7.7</i>	<i>13.4</i>	<i>2.0</i>	<i>5.4</i>	<i>4.6</i>	<i>4.8</i>	
Excess Return			-3.1	-2.0	-0.1	2.7	0.0	--	0.8	
<b>Covered Calls (Gross)</b>	<b>23,783,695</b>	<b>5.5</b>	<b>7.3</b>	<b>5.5</b>	<b>20.3</b>	<b>9.5</b>	<b>12.3</b>	<b>--</b>	<b>9.3</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>4.2</i>	<i>1.2</i>	<i>11.8</i>	<i>6.1</i>	<i>6.2</i>	<i>5.7</i>	<i>5.5</i>	
Excess Return			3.1	4.3	8.5	3.4	6.1	--	3.8	
<b>Crisis Risk Offset (Gross)</b>	<b>39,468,172</b>	<b>9.1</b>	<b>0.4</b>	<b>-0.9</b>	<b>1.0</b>	<b>-6.3</b>	<b>-6.7</b>	<b>--</b>	<b>-7.4</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			<i>2.1</i>	<i>-0.3</i>	<i>2.4</i>	<i>4.9</i>	<i>0.4</i>	<i>--</i>	<i>0.0</i>	
Excess Return			-1.7	-0.6	-1.4	-11.2	-7.1	--	-7.4	
<b>Cash (Gross)</b>	<b>15,499,650</b>	<b>3.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>Mar-11</b>

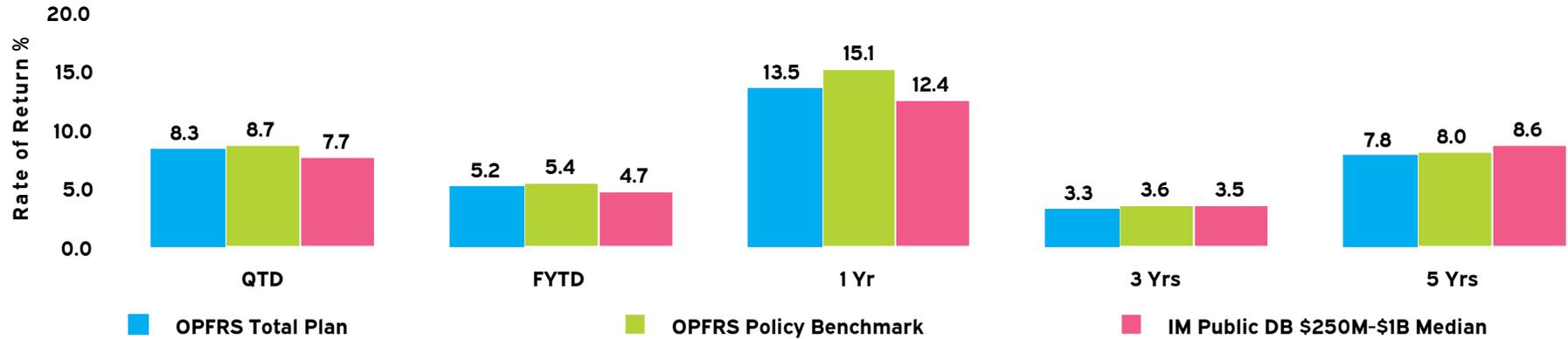
Performance shown is gross of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

## Asset Class Performance: Net of Fees | As of December 31, 2023

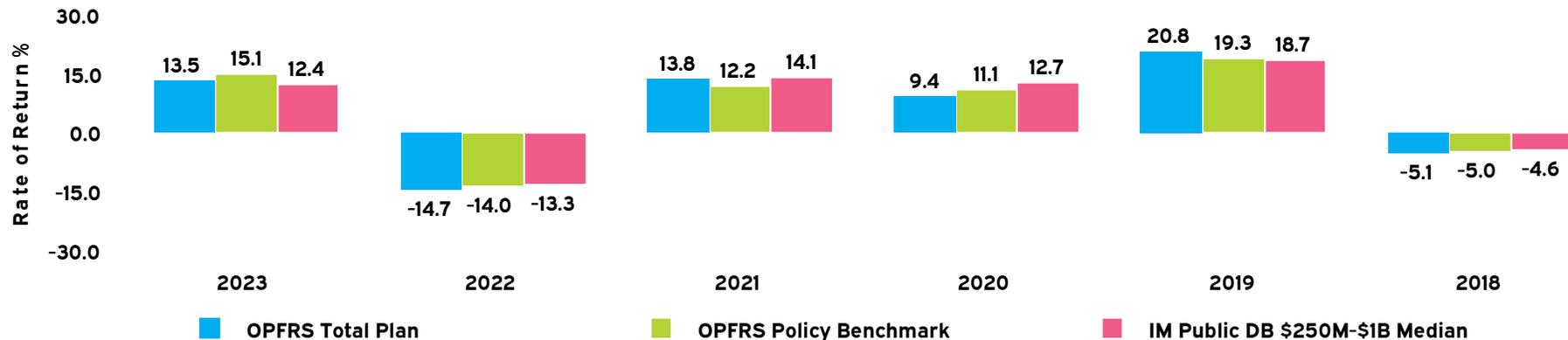
	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>OPFRS Total Plan (Net)</b>	<b>435,955,522</b>	<b>100.0</b>	<b>8.3</b>	<b>5.2</b>	<b>13.5</b>	<b>3.3</b>	<b>7.8</b>	<b>6.5</b>	<b>6.6</b>	<b>Dec-88</b>
<i>OPFRS Policy Benchmark</i>			8.7	5.4	15.1	3.6	8.0	6.8	7.9	
Excess Return			-0.4	-0.2	-1.6	-0.3	-0.2	-0.3	-1.3	
<i>IM Public DB \$250M-\$1B Median (Net)</i>			7.7	4.7	12.4	3.5	8.6	6.3	--	
IM Public DB \$250M-\$1B Median (Net) Rank			33	29	32	62	66	45	--	
<b>Domestic Equity (Net)</b>	<b>183,174,978</b>	<b>42.0</b>	<b>12.0</b>	<b>7.7</b>	<b>19.9</b>	<b>7.4</b>	<b>13.8</b>	<b>10.6</b>	<b>8.9</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			12.1	8.4	26.0	8.5	15.2	11.5	9.3	
Excess Return			-0.1	-0.7	-6.1	-1.1	-1.4	-0.9	-0.4	
<b>International Equity (Net)</b>	<b>56,347,608</b>	<b>12.9</b>	<b>9.4</b>	<b>6.9</b>	<b>19.5</b>	<b>3.6</b>	<b>8.5</b>	<b>4.9</b>	<b>5.4</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			9.8	5.6	15.6	1.5	7.1	3.8	5.1	
Excess Return			-0.4	1.3	3.9	2.1	1.4	1.1	0.3	
<b>Fixed Income (Net)</b>	<b>107,983,596</b>	<b>24.8</b>	<b>6.7</b>	<b>3.3</b>	<b>6.1</b>	<b>-2.8</b>	<b>1.5</b>	<b>2.2</b>	<b>4.5</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			6.8	3.8	6.2	-3.0	1.4	2.1	4.6	
Excess Return			-0.1	-0.5	-0.1	0.2	0.1	0.1	-0.1	
<b>Credit (Net)</b>	<b>9,697,822</b>	<b>2.2</b>	<b>3.9</b>	<b>5.4</b>	<b>12.7</b>	<b>4.1</b>	<b>4.8</b>	<b>--</b>	<b>4.9</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			7.2	7.7	13.4	2.0	5.4	4.6	4.8	
Excess Return			-3.3	-2.3	-0.7	2.1	-0.6	--	0.1	
<b>Covered Calls (Net)</b>	<b>23,783,695</b>	<b>5.5</b>	<b>7.3</b>	<b>5.4</b>	<b>20.0</b>	<b>9.2</b>	<b>12.1</b>	<b>--</b>	<b>9.0</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			4.2	1.2	11.8	6.1	6.2	5.7	5.5	
Excess Return			3.1	4.2	8.2	3.1	5.9	--	3.5	
<b>Crisis Risk Offset (Net)</b>	<b>39,468,172</b>	<b>9.1</b>	<b>0.4</b>	<b>-1.0</b>	<b>0.8</b>	<b>-6.4</b>	<b>-6.9</b>	<b>--</b>	<b>-7.6</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			2.1	-0.3	2.4	4.9	0.4	--	0.0	
Excess Return			-1.7	-0.7	-1.6	-11.3	-7.3	--	-7.6	
<b>Cash (Net)</b>	<b>15,499,650</b>	<b>3.6</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.0</b>	<b>0.7</b>	<b>0.7</b>	<b>0.5</b>	<b>Mar-11</b>

Performance shown is net of fees, except for Total Plan, Domestic Equity, and International Equity composites which have a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

#### Trailing Period Performance Ending December 31, 2023



#### Calendar Year Performance Ending December 31, 2023



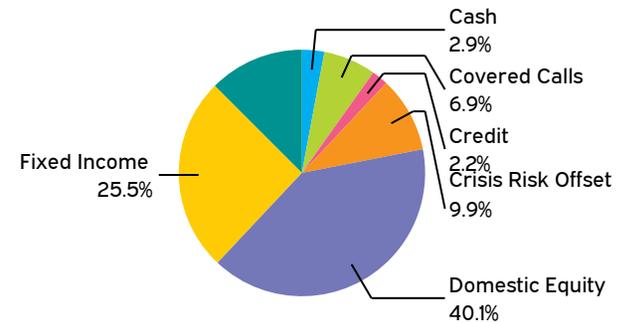
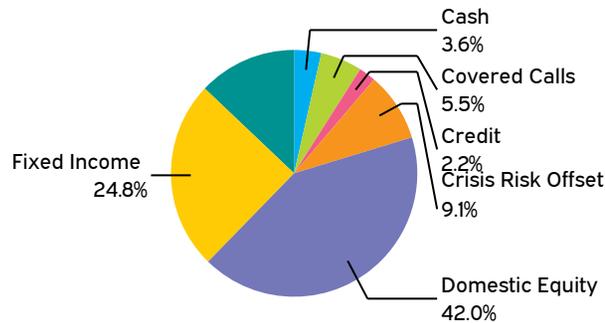
Total Plan performance is a mix of gross and net of fees; performance is gross of fees prior to January 2016 and thereafter. Fiscal year begins on July 1.

### Asset Allocation | As of As of December 31, 2023

	Current Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)	Policy Range (%)	Within IPS Range?
Domestic Equity	183,174,978	42.0	40.0	2.0	30.0 - 50.0	Yes
International Equity	56,347,608	12.9	12.0	0.9	8.0 - 14.0	Yes
Fixed Income	107,983,596	24.8	31.0	-6.2	25.0 - 40.0	No
Credit	9,697,822	2.2	2.0	0.2	1.0 - 3.0	Yes
Covered Calls	23,783,695	5.5	5.0	0.5	5.0 - 10.0	Yes
Crisis Risk Offset	39,468,172	9.1	10.0	-0.9	5.0 - 15.0	Yes
Cash	15,499,650	3.6	0.0	3.6	0.0 - 5.0	Yes
<b>Total</b>	<b>435,955,522</b>	<b>100.0</b>	<b>100.0</b>	<b>0.0</b>		

December 31, 2023: \$435,955,521.5

December 31, 2022: \$406,308,110.42



Cash account market value includes cash balances held in ETF accounts at the custodian and residuals from terminated managers. Target weights reflect the Plan's evolving asset allocation (effective 05/31/2017).

## Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>Domestic Equity</b>	<b>183,174,978</b>	<b>100.0</b>	<b>12.0</b>	<b>7.7</b>	<b>19.9</b>	<b>7.4</b>	<b>13.8</b>	<b>10.6</b>	<b>8.9</b>	<b>Jun-97</b>
<i>Russell 3000 (Blend)</i>			12.1	8.4	26.0	8.5	15.2	11.5	9.3	
Excess Return			-0.1	-0.7	-6.1	-1.1	-1.4	-0.9	-0.4	
Northern Trust Russell 1000	88,252,834	48.2	12.0	8.5	26.5	8.8	15.4	11.7	13.5	Jun-10
<i>Russell 1000 Index</i>			12.0	8.4	26.5	9.0	15.5	11.8	13.6	
Excess Return			0.0	0.1	0.0	-0.2	-0.1	-0.1	-0.1	
EARNEST Partners	42,300,855	23.1	12.7	7.6	16.8	7.0	15.1	11.1	9.4	Apr-06
<i>Russell Midcap Index</i>			12.8	7.5	17.2	5.9	12.7	9.4	8.8	
Excess Return			-0.1	0.1	-0.4	1.1	2.4	1.7	0.6	
eV US Mid Cap Core Equity Rank			29	42	52	64	20	14	28	
Wellington Select Quality Equity	24,458,953	13.4	9.8	4.6	10.2	--	--	--	6.5	May-22
<i>Russell 1000 Index</i>			12.0	8.4	26.5	9.0	15.5	11.8	10.7	
Excess Return			-2.2	-3.8	-16.3	--	--	--	-4.2	
eV US Large Cap Core Equity Rank			80	90	94	--	--	--	82	
Brown Fundamental Small Cap Value	12,835,326	7.0	12.9	13.8	17.5	--	--	--	6.7	Apr-21
<i>Russell 2000 Value Index</i>			15.3	11.8	14.6	7.9	10.0	6.8	1.4	
Excess Return			-2.4	2.0	2.9	--	--	--	5.3	
eV US Small Cap Value Equity Rank			45	14	39	--	--	--	21	
Rice Hall James	15,327,009	8.4	13.4	4.0	14.1	-0.3	7.5	--	6.6	Aug-17
<i>Russell 2000 Growth Index</i>			12.7	4.5	18.7	-3.5	9.2	7.2	7.1	
Excess Return			0.7	-0.5	-4.6	3.2	-1.7	--	-0.5	
eV US Small Cap Growth Equity Rank			13	45	68	35	95	--	90	

Performance shown is net of fees, except for the Domestic Equity composite which has a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

### Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>International Equity</b>	<b>56,347,608</b>	<b>100.0</b>	<b>9.4</b>	<b>6.9</b>	<b>19.5</b>	<b>3.6</b>	<b>8.5</b>	<b>4.9</b>	<b>5.4</b>	<b>Jan-98</b>
<i>MSCI ACWI ex US (Blend)</i>			9.8	5.6	15.6	1.5	7.1	3.8	5.1	
Excess Return			-0.4	1.3	3.9	2.1	1.4	1.1	0.3	
Vanguard Developed Markets ETF	16,040,034	28.5	11.0	5.8	17.9	3.7	--	--	7.5	Sep-19
<i>FTSE Developed All Cap ex-U.S. Index</i>			10.9	6.5	18.3	3.9	8.7	4.8	7.8	
Excess Return			0.1	-0.7	-0.4	-0.2	--	--	-0.3	
SGA ACWI ex-U.S. Equity	40,307,575	71.5	8.8	7.3	20.5	3.5	--	--	4.4	Dec-19
<i>MSCI AC World ex USA (Net)</i>			9.8	5.6	15.6	1.5	7.1	3.8	4.8	
Excess Return			-1.0	1.7	4.9	2.0	--	--	-0.4	
eV ACWI ex-US All Cap Core Eq Rank			77	18	7	29	--	--	71	

Performance shown is net of fees, except for the International Equity composite which has a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

### Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>Fixed Income</b>	<b>107,983,596</b>	<b>100.0</b>	<b>6.7</b>	<b>3.3</b>	<b>6.1</b>	<b>-2.8</b>	<b>1.5</b>	<b>2.2</b>	<b>4.5</b>	<b>Jan-94</b>
<i>Bloomberg Universal (Blend)</i>			6.8	3.8	6.2	-3.0	1.4	2.1	4.6	
Excess Return			-0.1	-0.5	-0.1	0.2	0.1	0.1	-0.1	
Ramirez	73,247,942	67.8	6.6	3.2	5.9	-2.8	1.4	--	1.7	Jan-17
<i>Blmbg. U.S. Aggregate Index</i>			6.8	3.4	5.5	-3.3	1.1	1.8	1.3	
Excess Return			-0.2	-0.2	0.4	0.5	0.3	--	0.4	
eV US Core Fixed Inc Rank			70	78	48	22	53	--	29	
Wellington Core Bond	6,993,592	6.5	7.3	4.0	7.1	--	--	--	-2.5	Apr-21
<i>Blmbg. U.S. Aggregate Index</i>			6.8	3.4	5.5	-3.3	1.1	1.8	-2.4	
Excess Return			0.5	0.6	1.6	--	--	--	-0.1	
eV US Core Fixed Inc Rank			11	13	5	--	--	--	78	
Reams	27,742,062	25.7	7.0	3.2	6.5	-2.7	3.6	3.1	4.9	Feb-98
<i>Bloomberg Universal (Blend)</i>			6.8	3.8	6.2	-3.0	1.4	2.1	4.2	
Excess Return			0.2	-0.6	0.3	0.3	2.2	1.0	0.7	
eV US Core Plus Fixed Inc Rank			49	86	52	40	2	7	24	

Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

### Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>Credit</b>	<b>9,697,822</b>	<b>100.0</b>	<b>3.9</b>	<b>5.4</b>	<b>12.7</b>	<b>4.1</b>	<b>4.8</b>	<b>--</b>	<b>4.9</b>	<b>Feb-15</b>
<i>Blmbg. U.S. Corp: High Yield Index</i>			<i>7.2</i>	<i>7.7</i>	<i>13.4</i>	<i>2.0</i>	<i>5.4</i>	<i>4.6</i>	<i>4.8</i>	
Excess Return			<i>-3.3</i>	<i>-2.3</i>	<i>-0.7</i>	<i>2.1</i>	<i>-0.6</i>	<i>--</i>	<i>0.1</i>	
<b>Polen Capital</b>	<b>9,697,822</b>	<b>100.0</b>	<b>3.9</b>	<b>5.4</b>	<b>12.7</b>	<b>4.1</b>	<b>4.8</b>	<b>--</b>	<b>4.9</b>	<b>Feb-15</b>
<i>ICE BofA High Yield Master II</i>			<i>7.1</i>	<i>7.6</i>	<i>13.5</i>	<i>2.0</i>	<i>5.2</i>	<i>4.5</i>	<i>4.7</i>	
Excess Return			<i>-3.2</i>	<i>-2.2</i>	<i>-0.8</i>	<i>2.1</i>	<i>-0.4</i>	<i>--</i>	<i>0.2</i>	
eV US High Yield Fixed Inc Rank			94	90	39	9	64	--	21	

Performance shown is net of fees. Since inception date and performance begin in the month following an investment's initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

## Manager Performance - Net of Fees | As of December 31, 2023

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
<b>Covered Calls</b>	<b>23,783,695</b>	<b>100.0</b>	<b>7.3</b>	<b>5.4</b>	<b>20.0</b>	<b>9.2</b>	<b>12.1</b>	<b>--</b>	<b>9.0</b>	<b>Apr-14</b>
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>4.2</i>	<i>1.2</i>	<i>11.8</i>	<i>6.1</i>	<i>6.2</i>	<i>5.7</i>	<i>5.5</i>	
Excess Return			3.1	4.2	8.2	3.1	5.9	--	3.5	
Parametric BXM	11,662,453	49.0	5.0	4.0	15.8	7.5	8.9	--	7.1	Apr-14
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>4.2</i>	<i>1.2</i>	<i>11.8</i>	<i>6.1</i>	<i>6.2</i>	<i>5.7</i>	<i>5.5</i>	
Excess Return			0.8	2.8	4.0	1.4	2.7	--	1.6	
Parametric DeltaShift	12,121,242	51.0	9.6	6.8	24.3	10.7	15.0	--	11.1	Apr-14
<i>CBOE S&amp;P 500 Buy Write Index</i>			<i>4.2</i>	<i>1.2</i>	<i>11.8</i>	<i>6.1</i>	<i>6.2</i>	<i>5.7</i>	<i>5.5</i>	
Excess Return			5.4	5.6	12.5	4.6	8.8	--	5.6	

Performance shown is net of fees. Since inception date and performance begin in the month following an investment's initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

### Manager Performance - Net of Fees | As of December 31, 2023

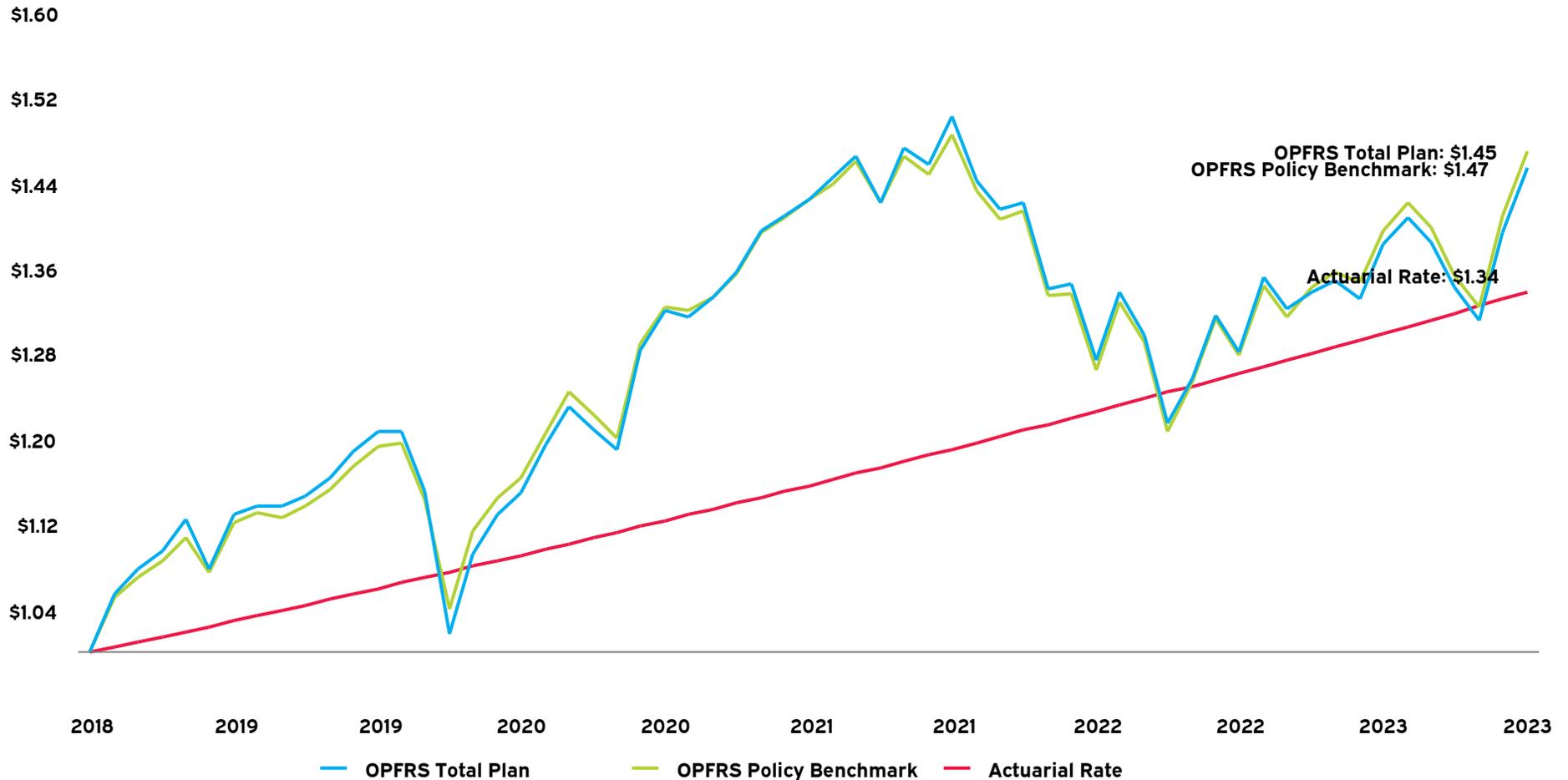
	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
<b>Crisis Risk Offset</b>	<b>39,468,172</b>	<b>100.0</b>	<b>0.4</b>	<b>-1.0</b>	<b>0.8</b>	<b>-6.4</b>	<b>-6.9</b>	<b>--</b>	<b>-7.6</b>	<b>Aug-18</b>
<i>Crisis Risk Offset Benchmark</i>			<i>2.1</i>	<i>-0.3</i>	<i>2.4</i>	<i>4.9</i>	<i>0.4</i>	<i>--</i>	<i>0.0</i>	
Over/Under			<i>-1.7</i>	<i>-0.7</i>	<i>-1.6</i>	<i>-11.3</i>	<i>-7.3</i>	<i>--</i>	<i>-7.6</i>	
<b>Kepos Alternative Risk Premia</b>	<b>10,884,494</b>	<b>27.6</b>	<b>-0.8</b>	<b>3.9</b>	<b>10.6</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>4.5</b>	<b>Feb-22</b>
<i>SG Multi Alternative Risk Premia Index</i>			<i>-1.4</i>	<i>2.8</i>	<i>6.4</i>	<i>6.3</i>	<i>1.2</i>	<i>--</i>	<i>5.4</i>	
Over/Under			<i>0.6</i>	<i>1.1</i>	<i>4.2</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-0.9</i>	
<b>Versor Trend Following</b>	<b>14,897,129</b>	<b>37.7</b>	<b>-7.9</b>	<b>-4.2</b>	<b>-6.7</b>	<b>--</b>	<b>--</b>	<b>--</b>	<b>-0.4</b>	<b>Apr-22</b>
<i>SG Trend Index</i>			<i>-5.1</i>	<i>-4.3</i>	<i>-4.2</i>	<i>10.0</i>	<i>9.1</i>	<i>5.0</i>	<i>2.1</i>	
Over/Under			<i>-2.8</i>	<i>0.1</i>	<i>-2.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-2.5</i>	
<b>Vanguard Long-Term Treasury ETF</b>	<b>13,686,549</b>	<b>34.7</b>	<b>12.3</b>	<b>-1.1</b>	<b>2.8</b>	<b>-11.6</b>	<b>--</b>	<b>--</b>	<b>-3.9</b>	<b>Jul-19</b>
<i>Blmbg. U.S. Government: Long Term Bond Index</i>			<i>12.7</i>	<i>-0.6</i>	<i>3.1</i>	<i>-11.3</i>	<i>-1.2</i>	<i>2.3</i>	<i>-3.6</i>	
Over/Under			<i>-0.4</i>	<i>-0.5</i>	<i>-0.3</i>	<i>-0.3</i>	<i>--</i>	<i>--</i>	<i>-0.3</i>	

Performance shown is net of fees. Since inception date and performance begin in the month following an investment's initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

**Cash Flow Summary  
Quarter To Date**

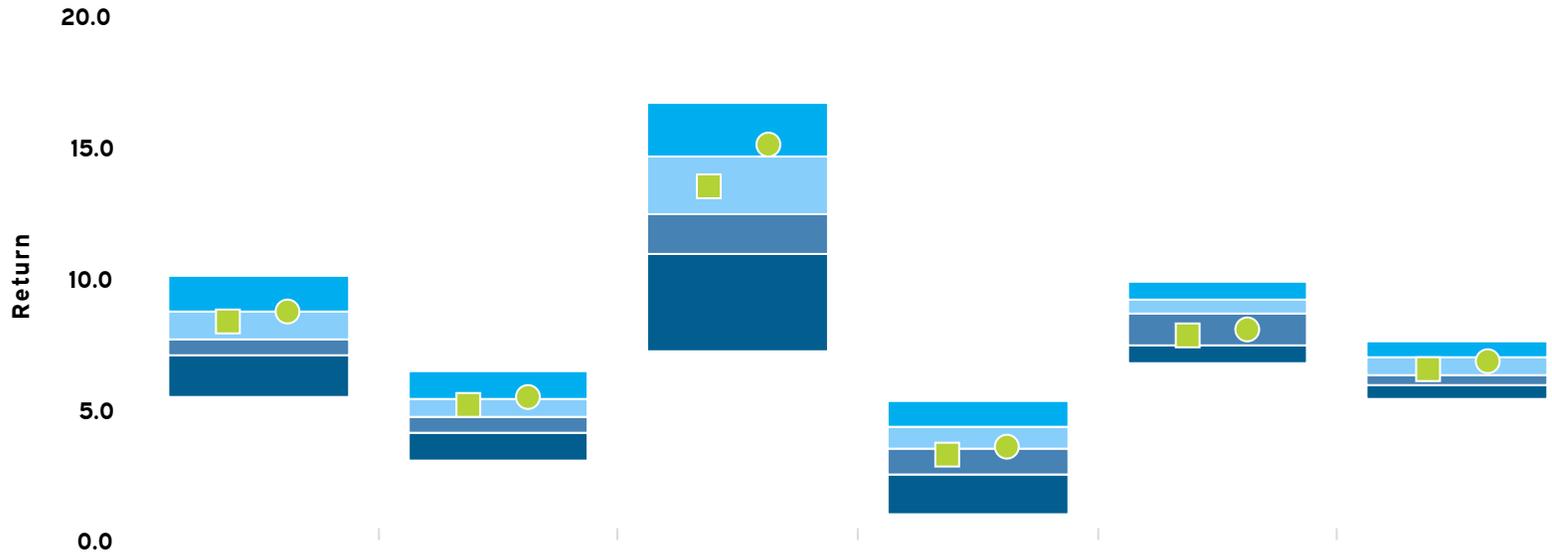
	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Northern Trust Russell 1000	78,815,151	-	9,437,683	88,252,834
EARNEST Partners	39,440,769	-2,000,000	4,860,086	42,300,855
Wellington Select Quality Equity	22,275,787	-	2,183,166	24,458,953
Brown Fundamental Small Cap Value	11,370,103	-	1,465,223	12,835,326
Rice Hall James	13,489,312	-	1,837,698	15,327,009
Vanguard Developed Markets ETF	14,640,298	-204,167	1,603,903	16,040,034
SGA ACWI ex-U.S. Equity	36,967,020	-	3,340,554	40,307,575
Ramirez	68,697,575	-	4,550,367	73,247,942
Wellington Core Bond	6,517,141	-	476,451	6,993,592
Reams	25,907,515	-	1,834,547	27,742,062
Polen Capital	9,329,974	-	367,848	9,697,822
Parametric BXM	11,106,210	-	556,243	11,662,453
Parametric DeltaShift	11,051,591	-	1,069,650	12,121,242
Kepos Alternative Risk Premia	10,968,295	-	-83,801	10,884,494
Versor Trend Following	16,170,216	-	-1,273,086	14,897,129
Vanguard Long-Term Treasury ETF	12,347,478	-58,772	1,397,843	13,686,549
Cash - Money Market	5,644,014	-551,364	-	5,092,650
Cash - Treasury	10,405,000	2,000	-	10,407,000
Securities Lending Northern Trust	-	-38,516	38,516	-
<b>OPFRS Total Plan</b>	<b>405,143,449</b>	<b>-2,850,819</b>	<b>33,662,891</b>	<b>435,955,522</b>

#### Growth of a Dollar 5 Years ending December 31, 2023



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.

#### Plan Sponsor Peer Group Performance Comparison vs. InvMetrics Public DB \$250M-\$1B Net

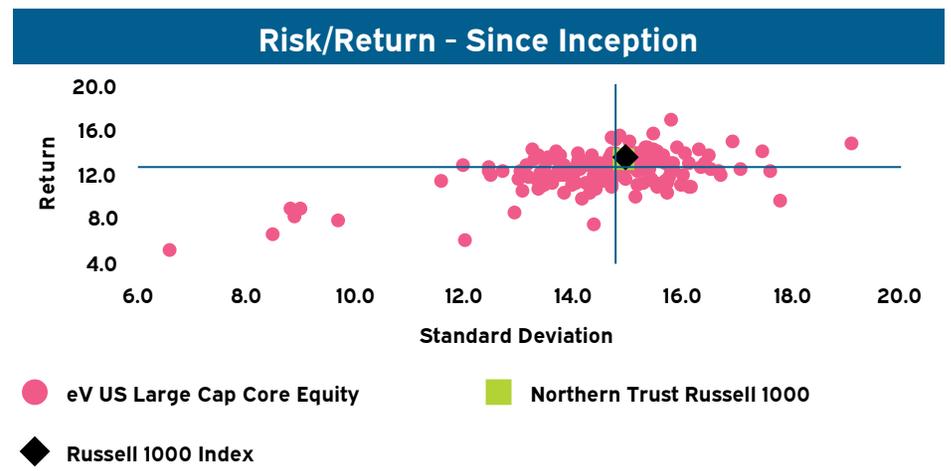
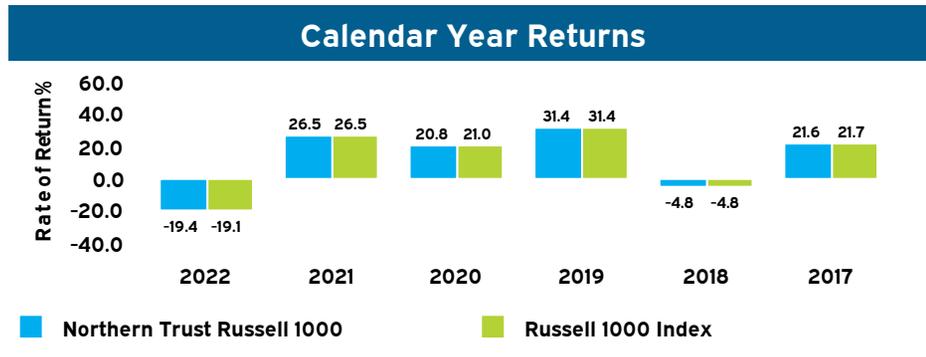
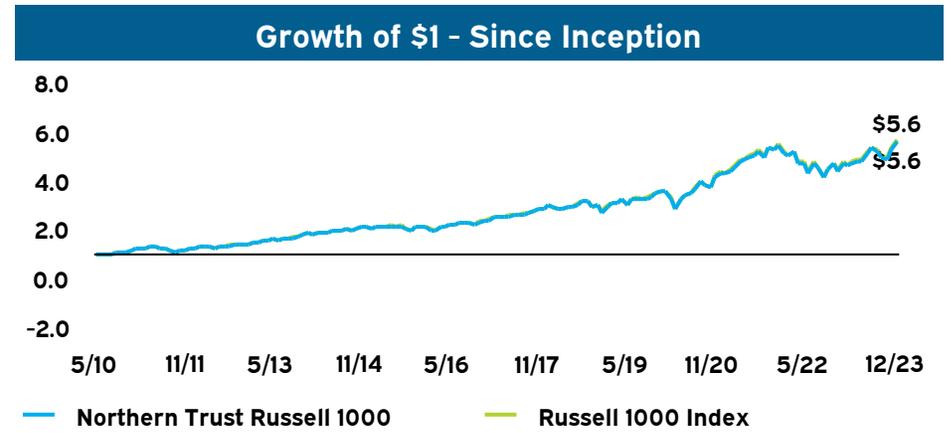
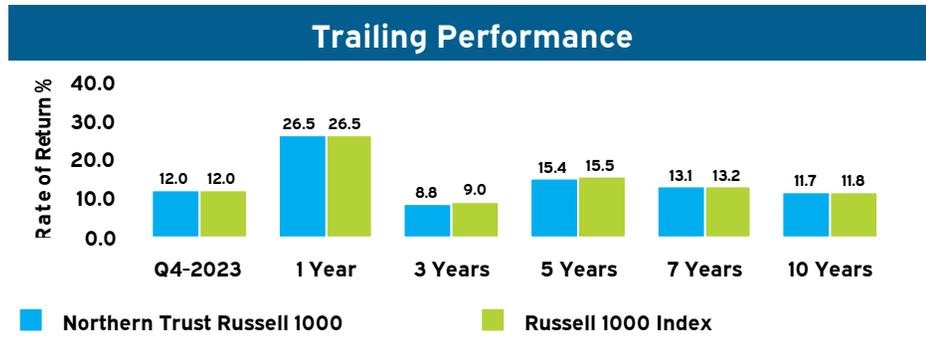


	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
■ OPFRS Total Plan	8.3 (33)	5.2 (29)	13.5 (32)	3.3 (62)	7.8 (66)	6.5 (45)
● OPFRS Policy Benchmark	8.7 (27)	5.4 (24)	15.1 (21)	3.6 (49)	8.0 (63)	6.8 (35)
5th Percentile	10.1	6.4	16.7	5.3	9.8	7.5
1st Quartile	8.7	5.4	14.6	4.3	9.1	7.0
Median	7.7	4.7	12.4	3.5	8.6	6.3
3rd Quartile	7.0	4.1	10.9	2.5	7.4	5.9
95th Percentile	5.4	3.0	7.2	1.0	6.7	5.4
Population	93	90	85	78	78	67

Total Plan performance is a mix of gross and net of fees; performance is gross of fees prior to January 2016 and net of fees thereafter. Parentheses contain percentile rankings. Calculation based on monthly periodicity. Fiscal year begins on July 1.

## **Portfolio Characteristics & Manager Profiles**

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Northern Trust Russell 1000	0.00	1.00	0.28	0.72	0.01	1.00	100.03	99.99
Russell 1000 Index	0.00	1.00	-	0.72	0.00	1.00	100.00	100.00

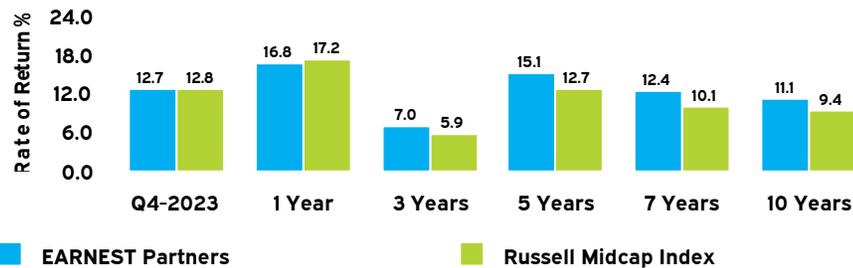


	QTD Return	QTD Risk
Northern Trust Russell 1000	11.97	4.85
Russell 1000 Index	11.96	4.85

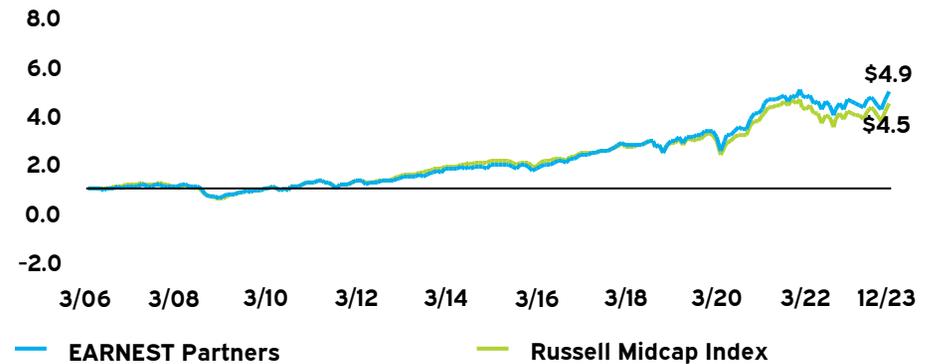
Performance shown is net of fees. Risk is measured as Standard Deviation.

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
EARNEST Partners	0.55	0.85	-0.08	0.66	1.01	1.00	91.86	75.68
Russell Midcap Index	0.00	1.00	-	0.58	0.00	1.00	100.00	100.00

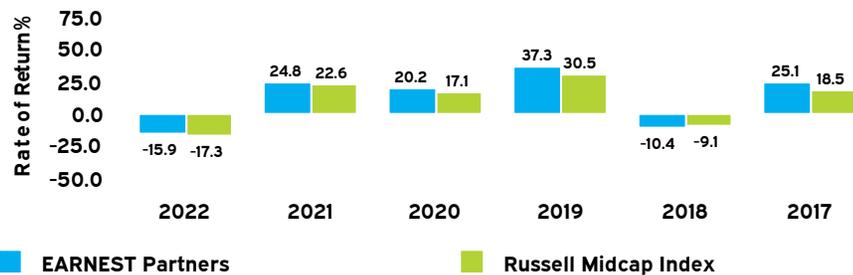
### Trailing Performance



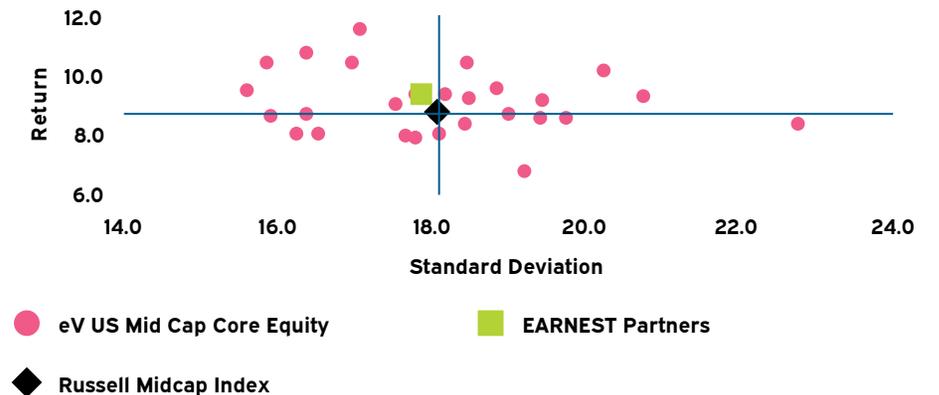
### Growth of \$1 - Since Inception



### Calendar Year Returns



### Risk/Return - Since Inception



	QTD Return	QTD Risk
EARNEST Partners	12.74	5.70
Russell Midcap Index	12.82	6.67

Performance shown is net of fees. Risk is measured as Standard Deviation.

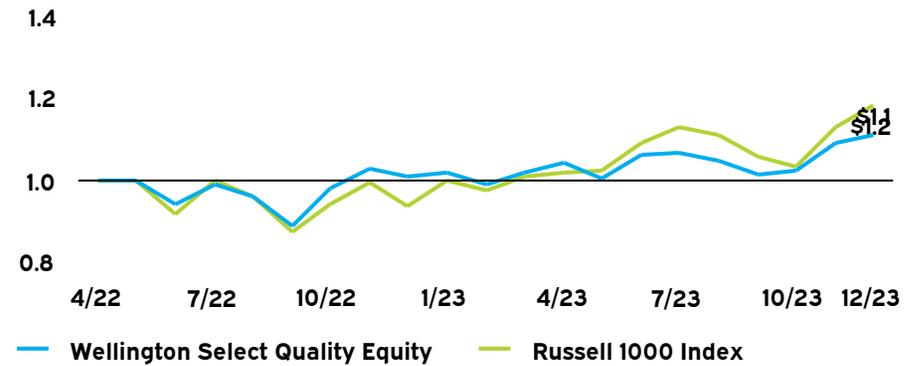
### Wellington Select Quality Equity | As of December 31, 2023

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Wellington Select Quality Equity	1.29	0.48	-0.26	1.01	2.87	0.74	61.29	-35.29
Russell 1000 Index	0.00	1.00	-	0.72	0.00	1.00	100.00	100.00

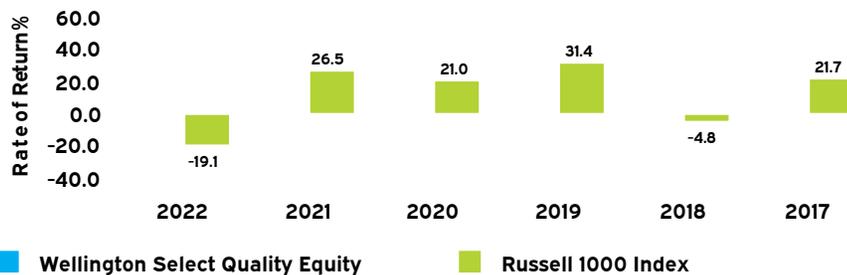
#### Trailing Performance



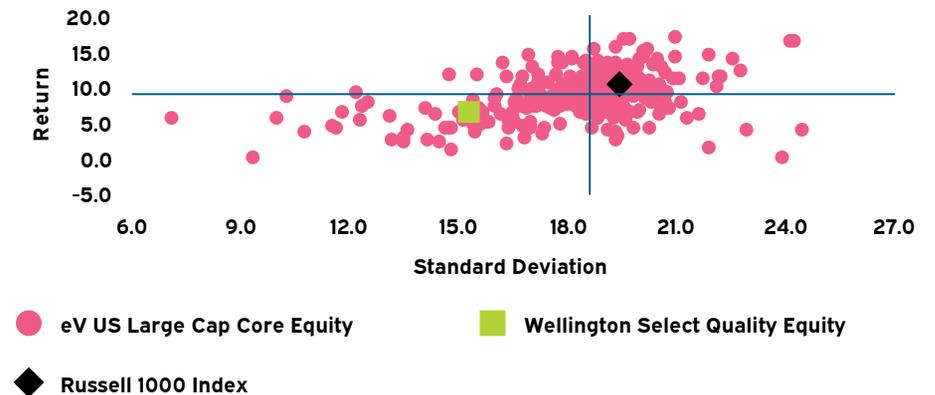
#### Growth of \$1 - Since Inception



#### Calendar Year Returns



#### Risk/Return - Since Inception



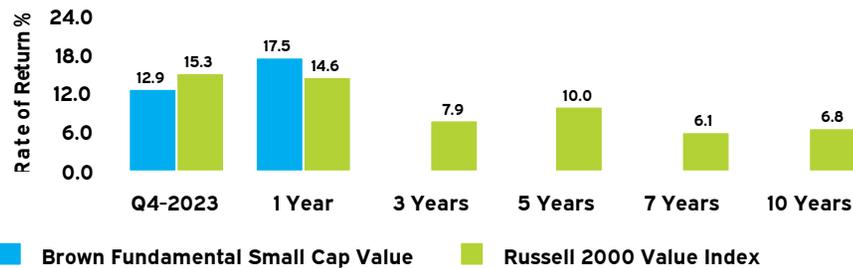
	QTD Return	QTD Risk
Wellington Select Quality Equity	9.80	2.72
Russell 1000 Index	11.96	4.85

Performance shown is net of fees. Risk is measured as Standard Deviation.

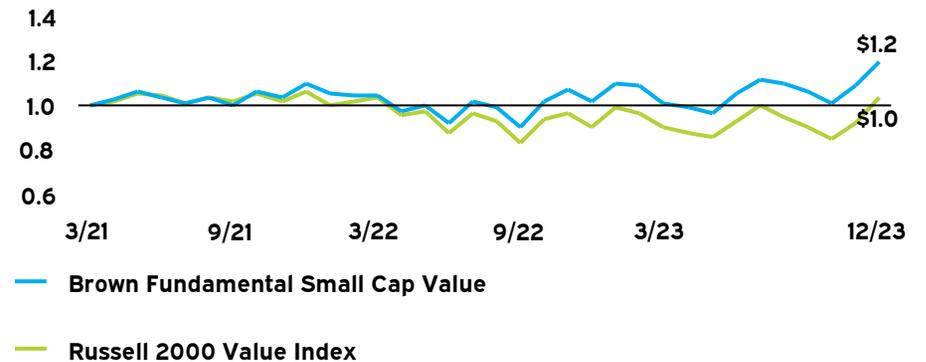
### Brown Fundamental Small Cap Value | As of December 31, 2023

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Brown Fundamental Small Cap Value	0.37	0.76	-0.45	0.63	1.90	1.00	79.94	70.84
Russell 2000 Value Index	0.00	1.00	-	0.59	0.00	1.00	100.00	100.00

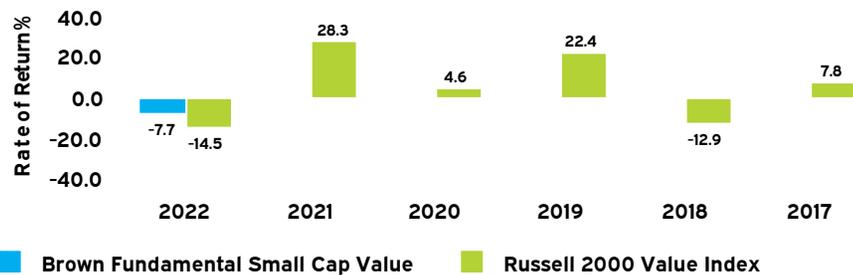
#### Trailing Performance



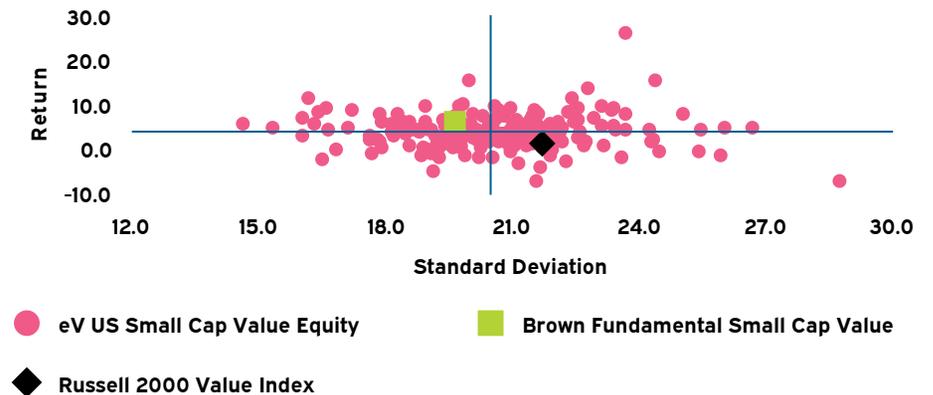
#### Growth of \$1 - Since Inception



#### Calendar Year Returns



#### Risk/Return - Since Inception



	QTD Return	QTD Risk
Brown Fundamental Small Cap Value	12.89	6.10
Russell 2000 Value Index	15.26	7.99

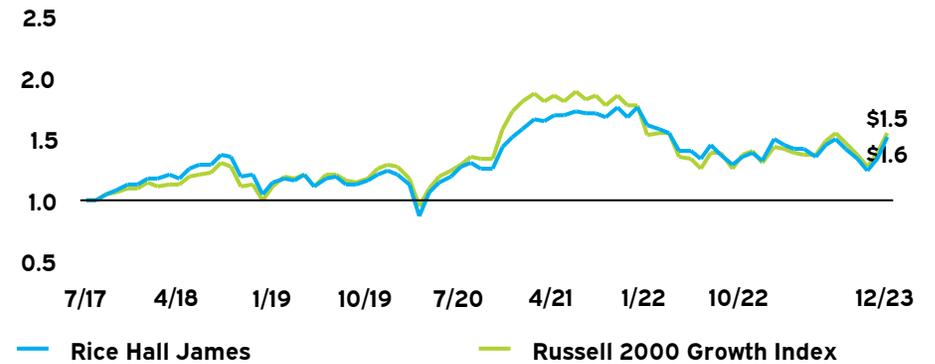
Performance shown is net of fees. Risk is measured as Standard Deviation.

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Rice Hall James	0.54	0.91	0.09	0.52	1.33	0.98	94.78	81.06
Russell 2000 Growth Index	0.00	1.00	-	0.46	0.00	1.00	100.00	100.00

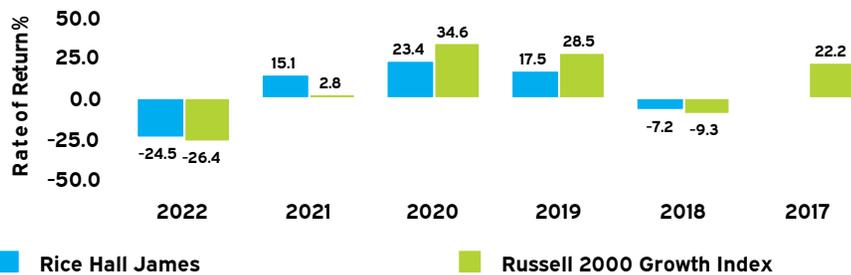
### Trailing Performance



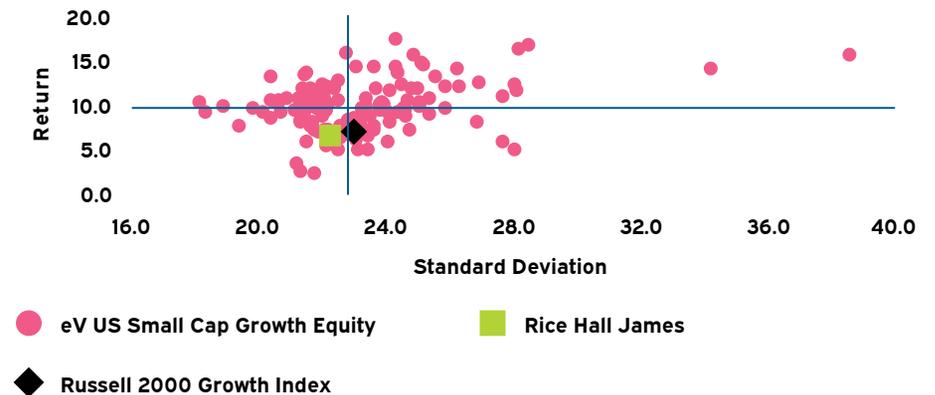
### Growth of \$1 - Since Inception



### Calendar Year Returns



### Risk/Return - Since Inception



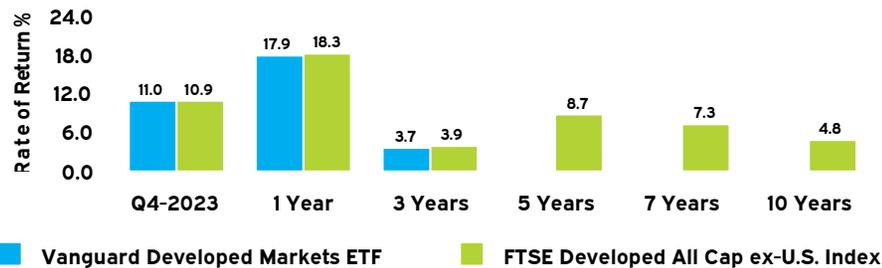
	QTD Return	QTD Risk
Rice Hall James	13.35	7.94
Russell 2000 Growth Index	12.75	8.68

Performance shown is net of fees. Risk is measured as Standard Deviation.

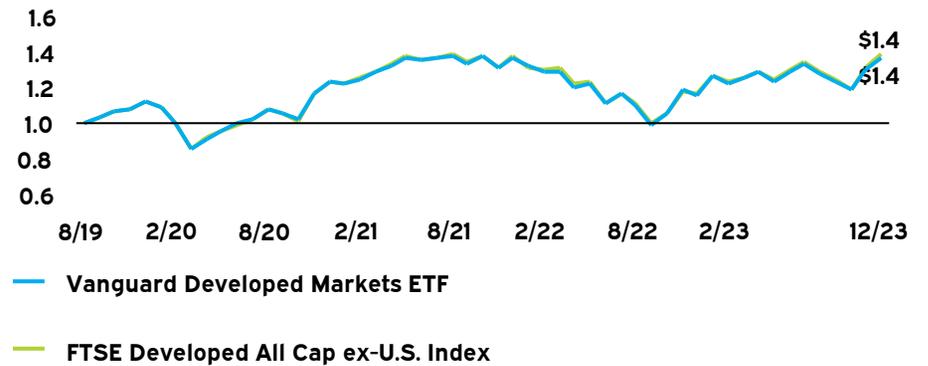
### Vanguard Developed Markets ETF | As of December 31, 2023

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Vanguard Developed Markets ETF	0.50	0.86	-0.01	0.62	0.84	1.00	92.79	75.72
FTSE Developed All Cap ex-U.S. Index	0.00	1.00	-	0.54	0.00	1.00	100.00	100.00

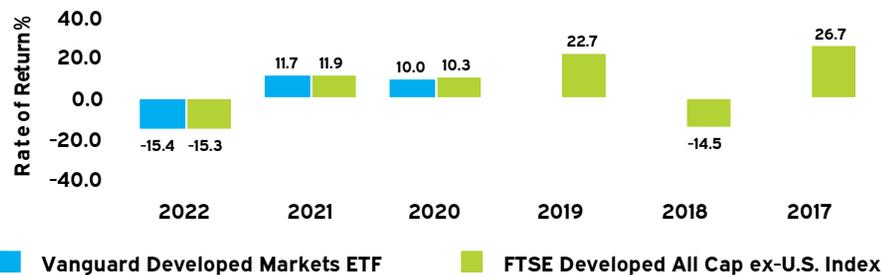
#### Trailing Performance



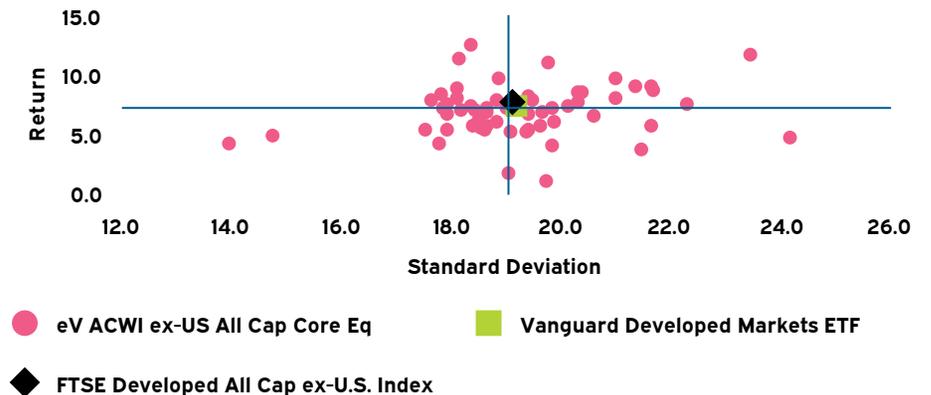
#### Growth of \$1 - Since Inception



#### Calendar Year Returns



#### Risk/Return - Since Inception



	QTD Return	QTD Risk
Vanguard Developed Markets ETF	10.98	5.16
FTSE Developed All Cap ex-U.S. Index	10.87	5.99

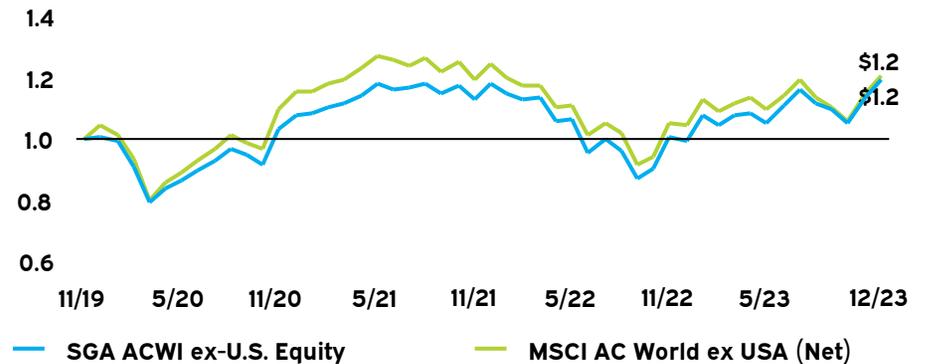
Performance shown is net of fees. Risk is measured as Standard Deviation.

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
SGA ACWI ex-U.S. Equity	-0.27	0.99	-1.94	0.47	0.15	1.00	95.67	106.99
MSCI AC World ex USA (Net)	0.00	1.00	-	0.52	0.00	1.00	100.00	100.00

### Trailing Performance



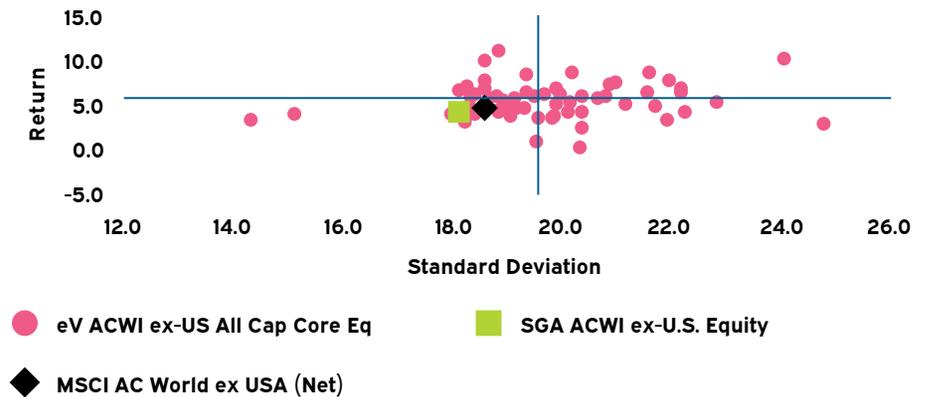
### Growth of \$1 - Since Inception



### Calendar Year Returns



### Risk/Return - Since Inception



	QTD Return	QTD Risk
SGA ACWI ex-U.S. Equity	8.81	5.45
MSCI AC World ex USA (Net)	9.75	5.50

Performance shown is net of fees. Risk is measured as Standard Deviation.

#### Account Information

Account Name	Ramirez
Account Structure	Separate Account
Inception Date	01/30/2017
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index
Peer Group	eV US Core Fixed Inc

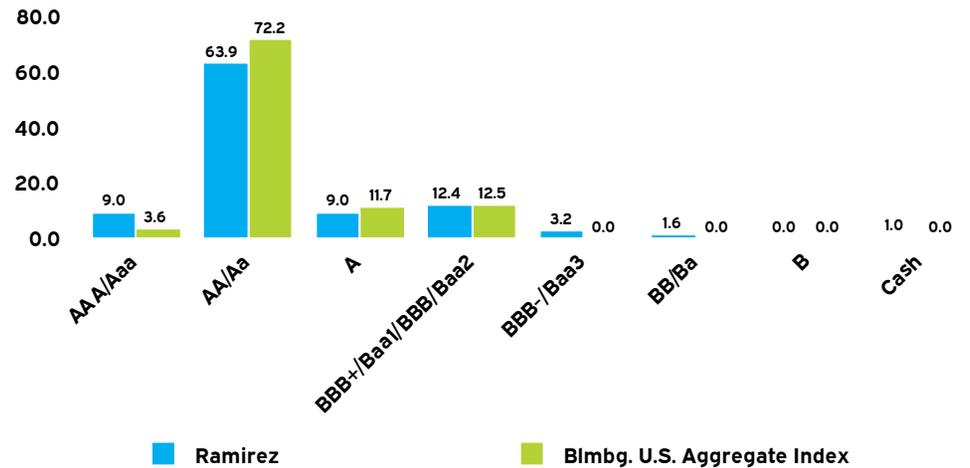
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Ramirez	6.6	5.9	-2.8	1.4
Blmbg. U.S. Aggregate Index	6.8	5.5	-3.3	1.1

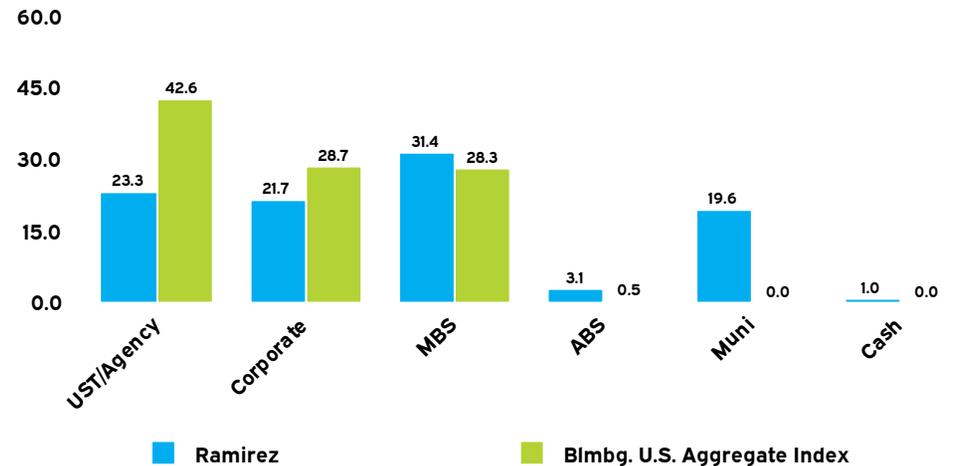
#### Portfolio Fixed Income Characteristics

	Q4-23 Portfolio	Q3-23 Portfolio
Yield To Maturity	4.9	5.7
Average Duration	5.8	6.2
Average Quality	AA	AA
Weighted Average Maturity	8.6	9.1

#### Credit Quality Allocation



#### Sector Allocation



Performance shown is net of fees.

#### Account Information

Account Name	Wellington Core Bond
Account Structure	Commingled Fund
Inception Date	04/01/2021
Asset Class	US Fixed Income
Benchmark	Blmbg. U.S. Aggregate Index
Peer Group	eV US Core Fixed Inc

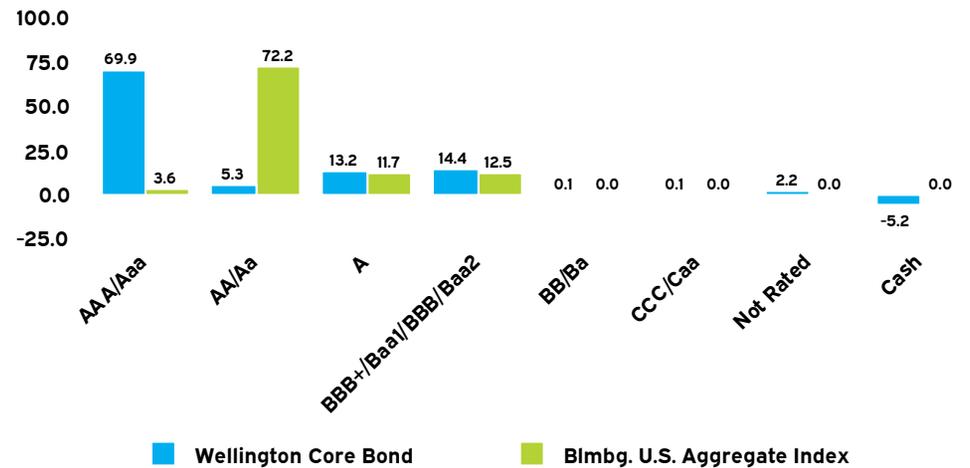
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Wellington Core Bond	7.3	7.1	-	-
Blmbg. U.S. Aggregate Index	6.8	5.5	-3.3	1.1

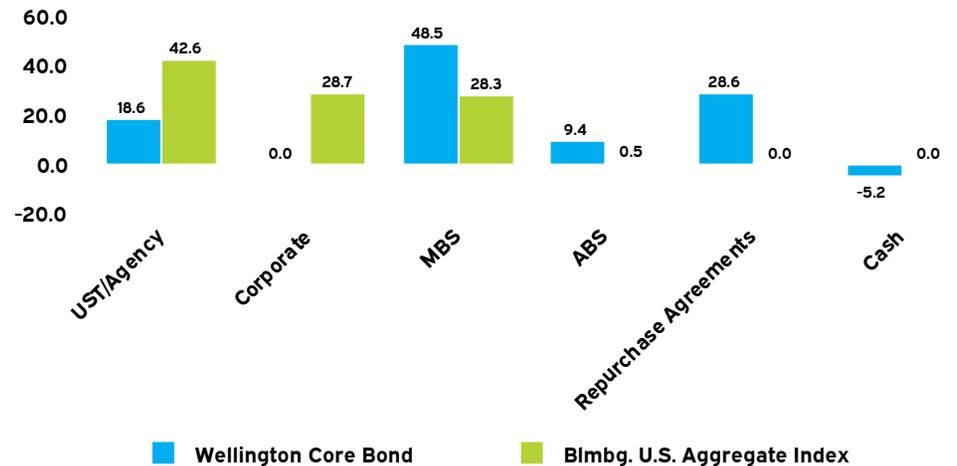
#### Portfolio Fixed Income Characteristics

	Q4-23 Portfolio	Q3-23 Portfolio
Yield To Maturity	4.9	5.3
Average Duration	6.5	6.7
Average Quality	AA	AA
Weighted Average Maturity	-	-

#### Credit Quality Allocation



#### Sector Allocation



Performance shown is net of fees.

#### Account Information

Account Name	Reams
Account Structure	Separate Account
Inception Date	01/01/1998
Asset Class	US Fixed Income
Benchmark	Bloomberg Universal (Blend)
Peer Group	eV US Core Plus Fixed Inc

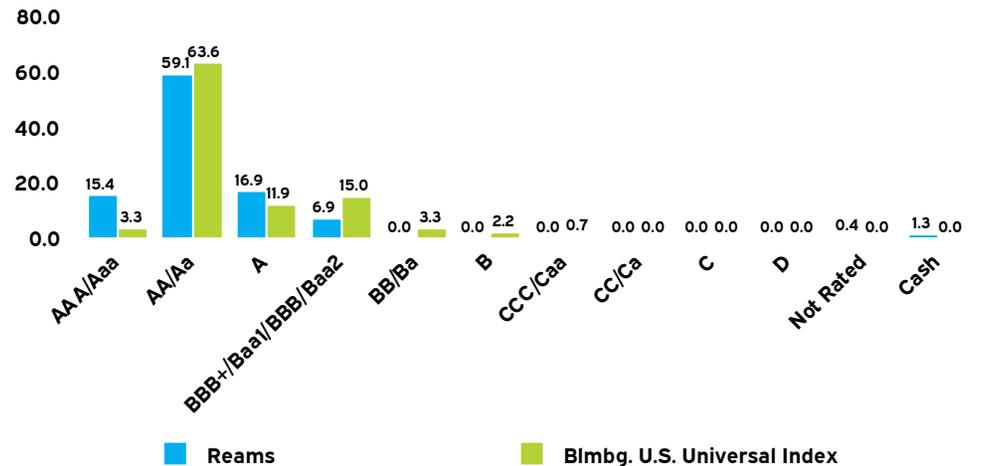
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Reams	7.0	6.5	-2.7	3.6
Bimbg. U.S. Universal Index	6.8	6.2	-3.0	1.4

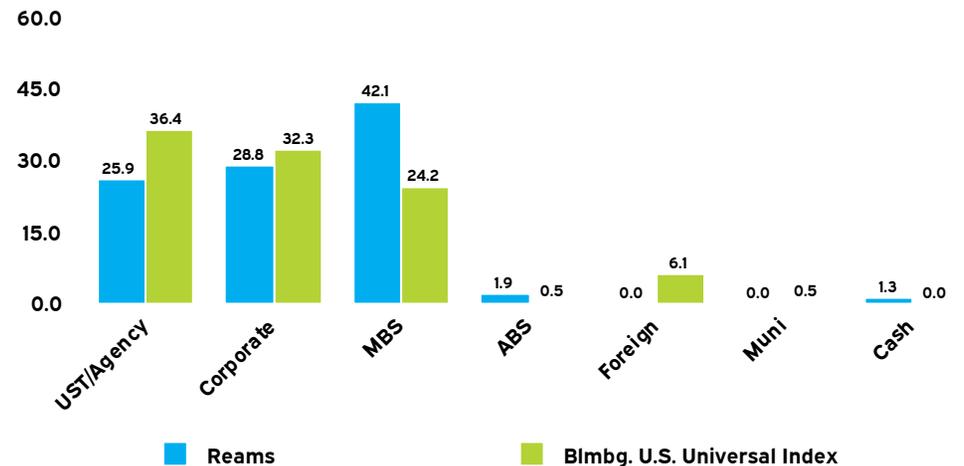
#### Portfolio Fixed Income Characteristics

	Q4-23 Portfolio	Q3-23 Portfolio
Yield To Maturity	5.1	6.4
Average Duration	6.2	6.9
Average Quality	AA	AA
Weighted Average Maturity	-	-

#### Credit Quality Allocation



#### Sector Allocation



Performance shown is net of fees.

#### Account Information

Account Name	Polen Capital
Account Structure	Commingled Fund
Inception Date	02/01/2015
Asset Class	US Fixed Income
Benchmark	ICE BofA High Yield Master II
Peer Group	eV US High Yield Fixed Inc

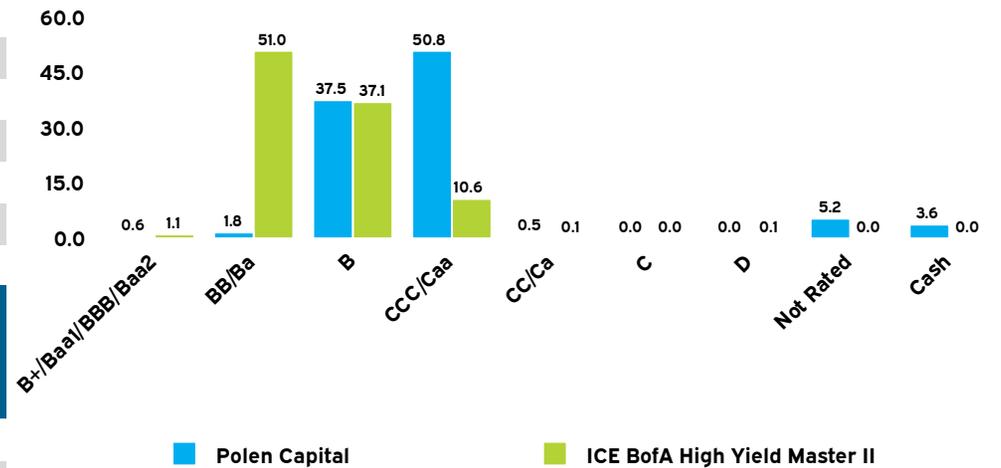
#### Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Polen Capital	3.9	12.7	4.1	4.8
ICE BofA High Yield Master II	7.1	13.5	2.0	5.2

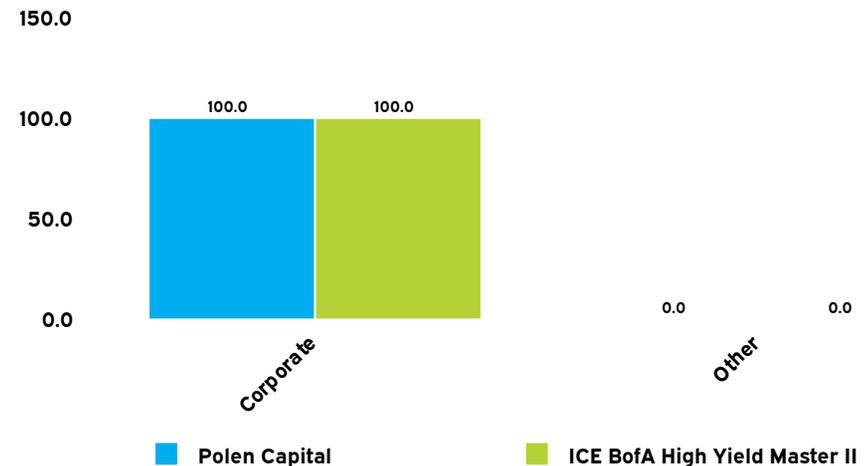
#### Portfolio Fixed Income Characteristics

	Q4-23 Portfolio	Q3-23 Portfolio
Yield To Maturity	9.7	10.8
Average Duration	1.5	1.8
Average Quality	CCC	BBB
Weighted Average Maturity	-	-

#### Credit Quality Allocation



#### Sector Allocation

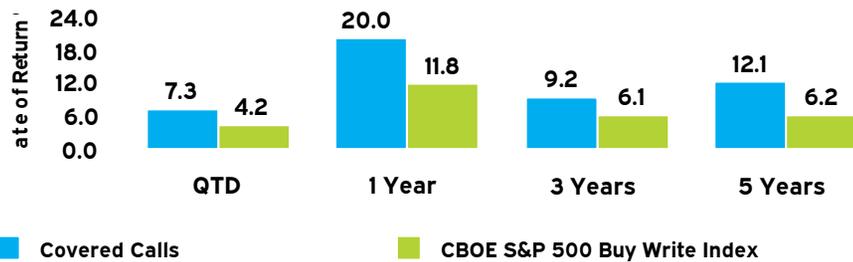


Performance shown is net of fees.

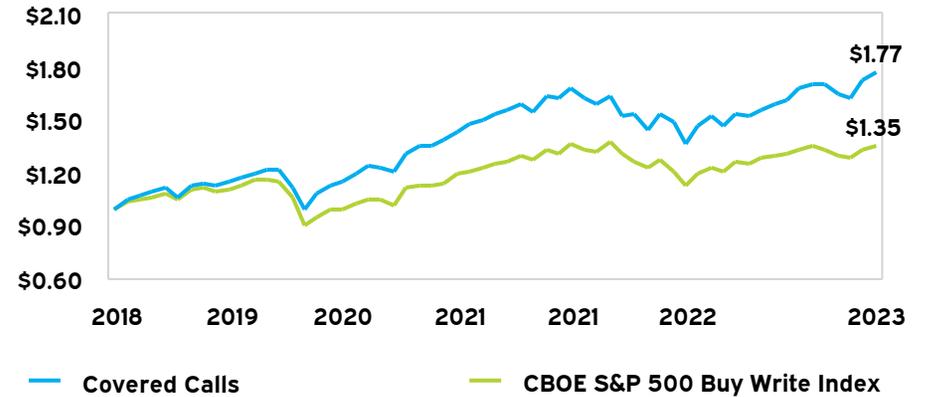
### Covered Calls | As of December 31, 2023

	Return	Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Capture	Down Capture	Inception Date
Covered Calls	9.0	11.5	3.2	1.0	0.8	4.0	124.2	105.0	04/01/2014
CBOE S&P 500 Buy Write Index	5.5	10.5	0.0	1.0	-	0.0	100.0	100.0	
Parametric BXM	7.1	9.4	2.2	0.9	0.4	3.2	99.3	85.4	04/01/2014
CBOE S&P 500 Buy Write Index	5.5	10.5	0.0	1.0	-	0.0	100.0	100.0	
Parametric DeltaShift	11.1	13.9	4.5	1.2	0.9	6.3	148.3	121.8	04/01/2014
CBOE S&P 500 Buy Write Index	5.5	10.5	0.0	1.0	-	0.0	100.0	100.0	

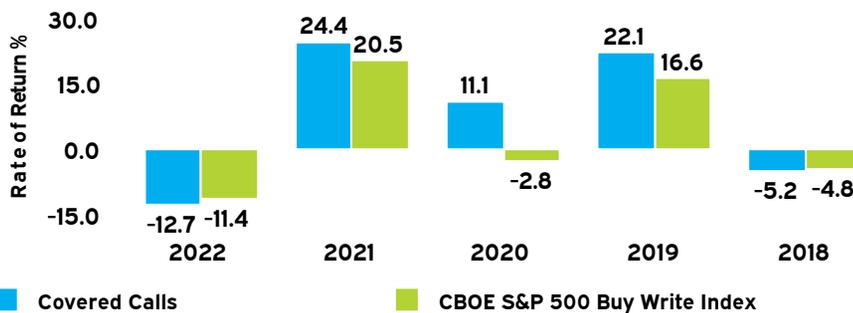
### Trailing Period Performance



### Growth of a Dollar



### Calendar Year Performance



Performance shown is net of fees.

### Crisis Risk Offset | As of December 31, 2023

	Return	Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Capture	Down Capture	Inception Date
Crisis Risk Offset	-7.6	11.1	-7.2	0.8	-0.7	10.3	28.1	129.9	08/01/2018
<a href="#">Crisis Risk Offset Benchmark</a>	0.0	5.4	0.0	1.0	-	0.0	100.0	100.0	
Kepos Alternative Risk Premia	4.5	6.1	0.8	0.7	-0.2	5.1	74.3	62.3	02/01/2022
<a href="#">SG Multi Alternative Risk Premia Index</a>	5.4	5.1	0.0	1.0	-	0.0	100.0	100.0	
Versor Trend Following	-0.4	15.8	-2.4	1.1	-0.3	6.8	98.8	111.6	04/01/2022
<a href="#">SG Trend Index</a>	2.1	12.8	0.0	1.0	-	0.0	100.0	100.0	
Vanguard Long-Term Treasury ETF	-3.9	15.6	-0.2	1.0	-0.2	1.1	101.1	102.0	07/01/2019
<a href="#">Blmbg. U.S. Government: Long Term Bond Index</a>	-3.6	15.4	0.0	1.0	-	0.0	100.0	100.0	

### Correlation Matrix

#### 3 Months Ending December 31, 2023

	Crisis Risk Offset	MSCI AC World Index Value	S&P 500 Index	Blmbg. Global Aggregate
Crisis Risk Offset	1.00			
MSCI AC World Index Value	1.00	1.00		
S&P 500 Index	0.98	0.97	1.00	
Blmbg. Global Aggregate	0.99	1.00	0.96	1.00

### Trailing Period Performance



Performance shown is net of fees.

## **Additional Information**

Benchmark History		
From Date	To Date	Benchmark
<b>OPFRS Total Plan</b>		
06/01/2022	Present	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 31.0% Blmbg. U.S. Universal Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 5.0% CBOE S&P 500 Buy Write Index, 10.0% Crisis Risk Offset Benchmark
01/01/2019	06/01/2022	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 31.0% Blmbg. U.S. Universal Index, 5.0% CBOE S&P 500 Buy Write Index, 2.0% Blmbg. U.S. Treasury: Long, 10.0% Crisis Risk Offset Benchmark
05/01/2016	01/01/2019	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 20.0% CBOE BXM
10/01/2015	05/01/2016	43.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 15.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
01/01/2014	10/01/2015	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 10.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
03/01/2013	01/01/2014	40.0% Russell 3000 Index, 10.0% MSCI AC World ex USA index, 17.0% Blmbg. U.S. Universal Index, 33.0% ICE BofA 3 Month U.S. T-Bill
08/01/2012	03/01/2013	20.0% Russell 3000 Index, 7.0% MSCI AC World ex USA index, 18.0% Blmbg. U.S. Universal Index, 55.0% ICE BofA 3 Month U.S. T-Bill
10/01/2007	08/01/2012	53.0% Russell 3000 Index, 17.0% MSCI AC World ex USA index, 30.0% Blmbg. U.S. Universal Index
04/01/2006	10/01/2007	35.0% Russell 3000 Index, 15.0% MSCI AC World ex USA index, 50.0% Blmbg. U.S. Universal Index
01/01/2005	04/01/2006	35.0% Russell 3000 Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI AC World ex USA index
04/01/1998	01/01/2005	20.0% Russell 1000 Value Index, 10.0% Russell 1000 Index, 5.0% Russell Midcap Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI EAFE (Net)
09/01/1988	04/01/1998	40.0% S&P 500 Index, 55.0% Blmbg. U.S. Aggregate Index, 5.0% FTSE 3 Month T-Bill

**Benchmark History**

From Date	To Date	Benchmark
<b>Domestic Equity</b>		
01/01/2005	Present	100.0% Russell 3000 Index
04/01/1998	01/01/2005	57.1% Russell 1000 Value Index, 28.6% Russell 1000 Index, 14.3% Russell Midcap Index
09/01/1988	04/01/1998	100.0% S&P 500 Index
<b>International Equity</b>		
01/01/2005	Present	100.0% MSCI AC World ex USA (Net)
01/01/1998	01/01/2005	100.0% MSCI EAFE Index
<b>Fixed Income</b>		
04/01/2006	Present	100.0% Blmbg. U.S. Universal Index
01/01/1976	04/01/2006	100.0% Blmbg. U.S. Aggregate Index
<b>Covered Calls</b>		
04/01/2014	Present	CBOE S&P 500 Buy Write Index
<b>Crisis Risk Offset</b>		
01/01/2023	Present	33.3% SG Trend Index, 33.3% SG Multi Alternative Risk Premia Index, 33.3% Blmbg. U.S. Government: Long Term Bond Index
08/01/2018	01/01/2023	100.0% SG Multi Alternative Risk Premia Index
<b>Cash</b>		
03/01/2011	Present	FTSE 3 Month T-Bill

## **Manager Monitoring / Probation Status**

### Managers on Watch / Probation Status

Manager & Strategy	Concern Triggering Watch Status	Date of Corrective Action <sup>1</sup>	Months Since Placement	Performance <sup>2</sup> Since Placement	Peer Group Rank Since Placement
Versor Trend Following	Organization / Performance	9/27/2023	3	-7.9	N/A
<i>Benchmark: SG Trend Index</i>	--	--	--	-4.6	--

### Investment Manager Monitoring Criteria<sup>3</sup>

Investment managers are evaluated on ongoing and periodic basis using both quantitative performance criteria and qualitative aspects of the managers. The quantitative criteria for different asset classes are as follows.

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>4</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> Date when the Board voted to either monitor a manager at a heightened level or place it on probation.

<sup>2</sup> Annualized performance if over one year. Performance shown is net of fees.

<sup>3</sup> Per Investment Policy Statement and Manager Guidelines, Revised 5/31/2023, section H.

<sup>4</sup> VRR (Value Relative Ratio) is calculated as manager cumulative return/ benchmark cumulative return.

# Appendix

### Additional Information

**Performance Return Types:** Performance shown is net of fees, except for OPFRS Total Plan, Domestic Equity, and International Equity Composites, which have a mix of gross and net of fees performance. Performance shown for OPFRS Total Plan and International Equity composite is gross of fees prior to January 2016. Performance shown for Domestic Equity composite is gross of fees prior to January 2017.

**Inception Date:** Since inception date and performance begin in the month following an investments initial funding.

**Fiscal Year:** Fiscal year begins on July 1.

**Fair Value Pricing Methodology:** Though Vanguard Developed Markets ETF is a passive strategy, short-term performance may appear to diverge from the index it tracks more than 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.

## **Disclaimer, Glossary, and Notes**

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

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

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

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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:** February 28, 2024  
**RE:** Asset Liability Study: Strategic Policy Selection

### Summary

At its January 2024 meeting, Meketa reviewed potential new strategic allocations with the board. Following discussion OPFRS asked Meketa to construct a policy allocation that was roughly 50% fixed income. This option is listed below in the allocation called Balanced. This option holds a small portion in US equity assets, CRO and fixed income. This policy is expected to produce a 6.2% return over the next 10-year period with materially less volatility than the current policy allocation.

### Comparison of OPFRS's Current Policy with Potential New Long-Term Allocations

Asset Group	Current Policy (CP) (%)	Long-term Growth (LTG) (%)	Red. Vol. (RV) (%)	Balanced (%)	75% Fixed (%)
<b>Return-Seeking Assets</b>					
US Equity	40	30	18	25	25
Developed Market Equity (non-US)	12	15	5	5	0
Buy Write (Covered Calls)	5	0	0	0	0
High Yield Bonds	2	20	20	10	0
<b>Crisis Risk Offset</b>					
CTA (Trend Following)	6.7	6.7	3	3	0
Alternative Risk Premia (ARP)	6.7	6.7	3	3	0
Long-term Government Bonds	6.7	6.7	3	3	0
<b>Liability Driven Investments</b>					
Investment Grade Bonds	21	15	48	51	75
Intermediate Government Bonds	0	0	0	0	0
Long-term Corporate Bonds	0	0	0	0	0
10-year Geometric Return	7.1	7.4	6.3	6.2	5.5
Return Volatility (St. Dev.)	10.2	10.0	6.6	6.8	5.5
Sharpe Ratio	.39	0.43	0.49	.46	0.43



From an allocation perspective, the major change is a decrease in growth-oriented assets (largely US and international equity mandates). In addition, there are changes to the Covered Calls and CRO.

### **An Evolving Strategic Policy**

One feature of adopting the new strategic policy is that it will require a significant amount of change, both from an asset adjustment standpoint and from the perspective of updating and searching for new potential managers. When working with other clients in similar positions, Meketa has found that it can be challenging to keep the actual portfolio aligned with the intended long-term policy portfolio. Specifically, some moves/adjustments toward policy allocations take significant time, resulting in an actual portfolio that may deviate significantly from its policy benchmark, from both investment performance and asset allocation perspectives.

To help resolve and/or manage this issue, Meketa will be recommending an “evolving policy” once the strategic policy is selected by the board. Under an evolving policy framework, the policy portfolio is allowed to adjust over time, reflecting the incremental funding nature that many of the minor classes require to achieve their policy targets.

DS/PN/JLC/mps

## MEMORANDUM

**TO:** Oakland Police and Fire Retirement System (OPFRS)  
**FROM:** Meketa Investment Group (Meketa)  
**DATE:** February 28, 2024  
**RE:** Annual Diversity, Equity, & Inclusion (DEI) Questionnaire Results

---

This memorandum provides the Oakland Police and Fire Retirement System (OPFRS) with the data collected from OPFRS's thirteen investment managers regarding their diversity representation as of December 31, 2023.

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 it 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. As in 2023, we expect Meketa's Annual Diversity, Equity, & Inclusion Questionnaire results aggregating the investment managers' DEI statistics and work in this area to be published in March 2024.

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.

## Employee Composition by Race & Ethnicity

Firmwide	Average (494) <sup>1</sup>	Brown	Earnest	Kepos	Northern Trust <sup>2</sup>	Parametric	Polen	Ramirez	Reams	Rice Hall James	Strategic Global Advisors	Vanguard	Versor	Wellington
<b>No. of Employees</b>	---	874	46	47	639	855	243	41	38	27	22	20000	52	3128
<b>African/Black</b>	5%	8%	21%	2%	9%	4%	5%	10%	---	---	5%	---	2%	5%
<b>Asian/Pacific Islander</b>	15%	6%	21%	17%	12%	19%	12%	22%	11%	7%	27%	---	94%	29%
<b>Latino/Hispanic</b>	6%	2%	---	8%	8%	5%	7%	15%	3%	7%	---	---	---	4%
<b>White</b>	65%	71%	59%	72%	68%	65%	71%	54%	83%	82%	68%	---	4%	56%
<b>Other</b>	3%	3%	---	2%	3%	4%	5%	---	---	4%	---	---	---	2%
<b>Not Disclosed</b>	6%	10%	---	0%	---	3%	---	---	3%	---	---	---	---	4%

Investment Team	Average (494)	Brown <sup>3</sup>	Earnest	Kepos	Northern Trust <sup>2</sup>	Parametric	Polen	Ramirez	Reams <sup>4</sup>	Rice Hall James	Strategic Global Advisors	Vanguard	Versor	Wellington
<b>No. of Employees</b>	--	258	15	24	387	191	47	16	---	15	11	---	39	768
<b>African/Black</b>	4%	4%	20%	---	9%	2%	7%	6%	---	---	---	2%	---	5%
<b>Asian/Pacific Islander</b>	18%	9%	27%	13%	11%	16%	17%	44%	---	---	46%	22%	95%	25%
<b>Latino/Hispanic</b>	4%	1%	---	8%	8%	3%	---	6%	---	7%	---	3%	---	4%
<b>White</b>	64%	74%	53%	75%	70%	74%	72%	44%	---	86%	55%	69%	5%	61%
<b>Other</b>	4%	2%	---	4%	2%	4%	---	---	---	7%	---	4%	---	2%
<b>Not Disclosed</b>	6%	10%	---	---	---	1%	---	---	---	---	---	---	---	3%

<sup>1</sup> Number in the parenthesis after "Average" represents the number of firms which provided data for the question.

<sup>2</sup> Northern Trust data is as of 06/30/2023.

<sup>3</sup> Brown noted that the number of investment team employees includes only the investment professionals in the institutional business.

<sup>4</sup> Reams noted that diversity statistics are only provided at the firm (Reams Asset Management) level per its parent company Raymond James's policy.

## Employee Composition by Race &amp; Ethnicity (continued)

Sr Organization Management	Average (494)	Brown	Earnest	Kepos	Northern Trust <sup>1</sup>	Parametric	Polen	Ramirez	Reams <sup>2</sup>	Rice Hall James	Strategic Global Advisors	Vanguard <sup>3</sup>	Versor	Wellington
<b>No. of Employees</b>	--	33	9	5	43	13	12	4	---	11	5	---	14	31
<b>African/Black</b>	4%	6%	13%	---	2%	8%	---	25%	---	---	---	---	7%	6%
<b>Asian/Pacific Islander</b>	10%	3%	25%	---	23%	15%	---	25%	---	9%	---	---	79%	13%
<b>Latino/Hispanic</b>	3%	---	---	---	---	---	---	25%	---	---	---	---	---	---
<b>White</b>	75%	82%	63%	100%	70%	77%	92%	25%	---	91%	100%	75%	14%	81%
<b>Other</b>	3%	3%	---	---	5%	---	8%	---	---	---	---	25%	---	---
<b>Not Disclosed</b>	5%	---	---	---	---	---	---	---	---	---	---	---	---	---

<sup>1</sup> Northern Trust data is as of 06/30/2023.

<sup>2</sup> Reams noted that diversity statistics are only provided at the firm (Reams Asset Management) level per its parent company Raymond James's policy.

<sup>3</sup> While Vanguard did not provide detailed breakdown of employee composition by race and ethnicity information for the Senior Organization Management employee population, it noted that in the US, people of color represent 25% of leaders, 24% of principals (senior-level leaders approved by Vanguard's board of directors), 25% of executive management, and 17% of the board of directors. The percentage of people of color in executive management (25%) is illustrated here under "Other" category and is used to derive the percentage of white employees in the senior organization management population (75%).

## Employee Composition by Gender

Firmwide	Average (620)	Brown	Earnest	Kepos	Northern Trust <sup>1</sup>	Parametric	Polen	Ramirez	Reams	Rice Hall James	SGA	Vanguard	Versor	Wellington
<b>No. of Employees</b>	--	874	46	47	639	855	243	41	38	27	22	20000	52	3128
<b>Women</b>	35%	45%	40%	15%	38%	35%	40%	34%	42%	30%	46%	---	13%	45%
<b>Men</b>	63%	55%	60%	85%	62%	65%	60%	66%	58%	70%	55%	---	87%	55%
<b>Non-Binary</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>Not Disclosed</b>	1%	---	---	---	---	---	---	---	---	---	---	---	---	---

Investment Team	Average (620)	Brown	Earnest	Kepos	Northern Trust <sup>1</sup>	Parametric	Polen	Ramirez	Reams <sup>2</sup>	Rice Hall James	SGA	Vanguard <sup>3</sup>	Versor	Wellington
<b>No. of Employees</b>	--	258	15	24	387	191	47	16	---	15	11	---	39	768
<b>Women</b>	21%	27%	20%	---	33%	23%	21%	35%	---	20%	27%	23%	13%	31%
<b>Men</b>	78%	73%	80%	100%	67%	77%	79%	64%	---	80%	73%	77%	87%	69%
<b>Non-Binary</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>Not Disclosed</b>	2%	---	---	---	---	---	---	---	---	---	---	---	---	---

Sr. Org. Management	Average (620)	Brown	Earnest	Kepos	Northern Trust <sup>1</sup>	Parametric	Polen	Ramirez	Reams <sup>2</sup>	Rice Hall James	SGA	Vanguard <sup>4</sup>	Versor	Wellington
<b>No. of Employees</b>	--	33	9	5	43	13	12	4	---	11	5	---	14	31
<b>Women</b>	23%	27%	22%	---	26%	31%	17%	---	---	27%	40%	25%	7%	48%
<b>Men</b>	75%	73%	78%	100%	74%	69%	83%	100%	---	73%	60%	75%	93%	52%
<b>Non-Binary</b>	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>Not Disclosed</b>	2%	---	---	---	---	---	---	---	---	---	---	---	---	---

<sup>1</sup> Northern Trust data is as of 06/30/2023.

<sup>2</sup> Reams noted that diversity statistics are only provided at the firm (Reams Asset Management) level per its parent company Raymond James's policy.

<sup>3</sup> Vanguard noted that women represent 23% of the overall investment teams; male employee population percentage is derived as the remainder.

<sup>4</sup> Vanguard noted that globally, women represent: 44% of leaders, 38% of principals (senior-level leaders approved by Vanguard's board of directors), 25% of executive management, and 25% of the board of directors. Percentage of women in executive management (25%) is illustrated here and is used to derive the percentage of men in the senior organization management population (75%).

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

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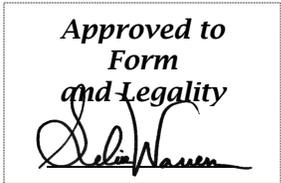
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OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 8094



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

RESOLUTION FIXING THE MONTHLY ALLOWANCE OF CAROLYN RANDALL, SURVIVING SPOUSE OF RICHARD RANDALL; RETIRED MEMBER OF THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

WHEREAS, the retired member of the Police and Fire Retirement System, whose name appears in Column (1) below, died on the date shown in Column (2) below; and

WHEREAS, the surviving spouse, whose name appears in Column (3) below, do not claim that their spouse's death was by reason of an injury received in, or illness caused by, or arising out of the performance of duty; and

WHEREAS, there is now presented to this Board, the monthly allowance shown in Column (7) below and as calculated by the Actuary in accordance with Article XXVI of the Charter of the City of Oakland; now, therefore, be it

RESOLVED: That the Police and Fire Retirement Board does hereby fix the amount shown in Column (7) as the monthly allowance that said surviving spouse shall receive beginning on the date shown in Column (4):

Table with 7 columns: (1) Name of Deceased Member, (2) Date of Death, (3) Name of Surviving Spouse, (4) Effective Date of Allowance, (5) Form of Retirement, (6) % of Compensation Attached to Avg. Rank Held, (7) Monthly Allowance. Row 1: Richard Randall, 02/04/2024, Carolyn Randall, 02/05/2024, DIS, 33.33%, \$5,120.13

IN BOARD MEETING, CITY HALL, OAKLAND, CA \_\_\_\_\_ FEBRUARY 28, 2024

PASSED BY THE FOLLOWING VOTE:

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

NOES:

ABSTAIN:

EXCUSED:

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

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



# AGENDA REPORT

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

**SUBJECT:** PFRS Board of Administration Agenda Pending List      **DATE:** February 28, 2024

	SUBJECT	TENTATIVE SCHEDULED MTG DATE	STATUS
1	Status Report of the Ad Hoc Committee regarding Actuarial Funding date of July 1, 2026	TBD	Ad Hoc Meeting was scheduled for 02/26/2024

Respectfully submitted,

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