

Pursuant to California +Government Code section 54953(e), the Oakland Police & Fire Retirement System Board and Committee Members, as well as City staff, will participate via phone/video conference, and no physical teleconference locations are required.

Please see the agenda to participate in the meeting. For additional information, contact the Retirement Unit by calling (510) 238-7295.



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.*

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

WEDNESDAY, FEBRUARY 22, 2023

10:00 AM

TELE-CONFERENCE BOARD MEETING
VIA ZOOM WEBINAR

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 three ways to submit public comments.

- eComment. To send your comment directly to staff BEFORE the meeting starts, please email to mvisaya@oaklandca.gov with “PFRS Board Meeting” in the subject line for the corresponding meeting. Please note that eComment submission **closes two (2) hours before posted meeting time.**

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR AUDIT COMMITTEE MEETING
FEBRUARY 22, 2023**

- To comment by Zoom video conference, click the “Raise Your Hand” button to request to speak when Public Comment is being taken on an eligible agenda item at the beginning of the meeting. You will be permitted to speak during your turn, allowed to comment, and after the allotted time, re-muted. Instructions on how to “Raise Your Hand” is available at: [https://support.zoom.us/hc/en-us/articles/205566129 - Raise-Hand-In-Webinar](https://support.zoom.us/hc/en-us/articles/205566129-Raise-Hand-In-Webinar).
- To comment by phone, please call on one of the above listed phone numbers. You will be prompted to “Raise Your Hand” by pressing “*9” to speak when Public Comment is taken. You will be permitted to speak during your turn, allowed to comment, and after the allotted time, re-muted. Please unmute yourself by pressing “*6.”

If you have any questions, please email Maxine Visaya, Administrative Assistant II at mvisaya@oaklandca.gov

ORDER OF BUSINESS

- | | |
|----|--|
| 1. | Subject: Oakland Police and Fire Retirement System (“PFRS”) Audit Committee Meeting Minutes |
| | From: Staff of the PFRS Board |
| | Recommendation: APPROVE the January 25, 2023 Audit Committee Meeting Minutes |

- | | |
|----|---|
| 2. | Subject: Informational Overview Regarding Management Audits |
| | From: Macias Gini & O’Connell, LLP |
| | Recommendation: ACCEPT informational overview regarding management audits |

3. REVIEW OF PENDING AUDIT COMMITTEE MEETING AGENDA ITEMS
4. OPEN FORUM
5. FUTURE SCHEDULING
6. ADJOURNMENT

A REGULAR MEETING OF THE AUDIT & OPERATIONS COMMITTEE of the Oakland Police and Fire Retirement System (“PFRS”) was held Wednesday, January 25, 2023 via Zoom Webinar.

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

The meeting was called to order at 10:02 a.m. Pacific

- 1. PFRS Audit & Operations Committee Meeting Minutes** – Chairperson Speakman made a motion to approve the December 14, 2022 Audit & Operations Committee Meeting minutes, second by Member Wilkinson. Motion passed.

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

- 2. Administrative Expenses Report** – Investment & Operations Manager Jenkins presented an informational report on PFRS’ administrative expenditures as of November 30, 2022. PFRS has an approved annual budget of approximately \$3.6 million and have expensed approximately \$700,000.00 to date for fiscal year 2022-2023. Membership consisted of 676 retired members, which included 417 Police Members and 259 Fire Members.

MOTION: Chairperson Speakman made a motion to accept the administrative expenses report as of November 30, 2022 and forward to the Board, second by Member Melia. Motion passed.

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

- 3. Review of Pending Audit Committee Meeting Agenda Items** – Investment & Operations Manager Jenkins reported on the four (4) pending items on the Audit and Committee Agenda. Item 1) Staff held extensive conversations with several auditors, and they advised additional information is required respective to purpose and scope in order to determine cost estimates. One of the auditors proposed coming before the Committee and conducting an informational presentation regarding Management Audits that would encompass what they entail and method of approach. Member Speakman agreed to schedule a presentation to the Committee for either the February or March 2023 meeting. Item 2) Status Report of the Ad Hoc Committee regarding the Actuarial Funding Date of July 1, 2026: The next meeting is scheduled to occur tomorrow January 26, 2023 at 3:00 pm. Item 3) Monitor & Update PFRS Board of Upcoming City Council Agendas Regarding Discussion of the 2026 Actuarial Funding Date: Legal Counsel Bhakta advised here are no updates to report at this time and will continue to monitor.

4) Review Options Regarding Frequency & Manner of Committee & Board Meetings: Investment & Operations Manager Jenkins noted Vice President Godfrey requested the Board consider the frequency of meetings and possibly schedule them to occur quarterly and President Johnson directed the matter to the Audit Committee for review. Therefore, this item was added to the pending list to consider scheduling the matter for discussion at a future meeting. Chairperson Speakman inquired if we are guided by the City Charter on the matter. PFRS Legal Counsel Bhakta advised the Charter does have specifications regarding frequency, but there is room for flexibility in how the Committees and the Board decides how they operate. However, there are logistical limitations, aside from legal limitations in the Charter, which need to be discussed with Staff before Legal Counsel could further analyze the matter and advise the Board. Member Melia opined the Audit & Operations Committee could reduce the frequency of their meetings, however, the Investment & Financial Matters Committee reduction in meeting frequency might prove to be problematic if there is a need to adjust strategies quickly. Member Wilkinson opined, in addition to the point of Member Melia, the Investment & Financial Matters Committee currently brings in an investment management firm each month and if the frequency of meetings were to be reduced to quarterly it would result in having to schedule three (3) firms per meeting and potentially increase the length of the meeting to three (3) hours; otherwise we would not performing our due diligence by conducting a thorough review of firms. Chairperson Speakman will carry the matter to the Full Board for further discussion. Advice regarding direction and future scheduling is pending per outcome of discussion at the Full Board meeting.

4. **Open Forum** – No Report.

5. **Future Scheduling** – The next regular Audit & Operations Committee meeting is tentatively scheduled to occur February 22, 2023.

6. **Adjournment** – Chairperson Speakman made a motion to adjourn, second by Member Melia. Motion passed.

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

The meeting adjourned at 10:18 a.m. Pacific

JOHN C. SPEAKMAN
COMMITTEE CHAIRPERSON

DATE



mgo.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

ORGANIZATIONAL ASSESSMENTS

Presented by MACIAS GINI & O'CONNELL LLP

February 22, 2023

Contents

- 01 PFRS @ June 30, 2022
- 02 PERS organizational structure
- 03 Types of assessments
- 04 The process



OBJECTIVES

PFRS @ June 30, 2022

686

Plan
Participants

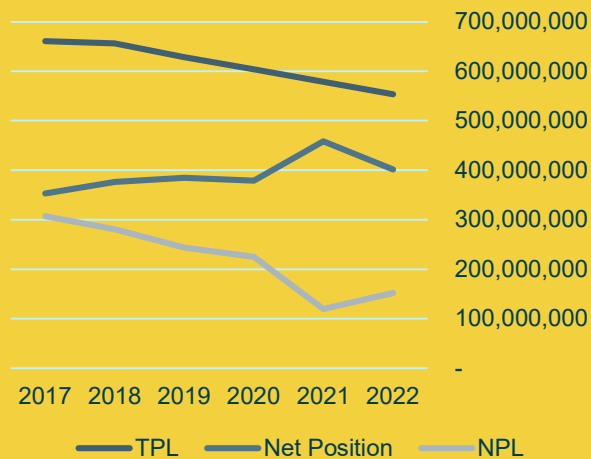
\$553M

Total Pension
Liability

\$401M

Net Position

**Closed
Plan**



\$152M

Net Pension
Liability

PERS org structure

Board of Administration Treasurer/Plan Administrator

Investment Activities

Investment Policies

Portfolio Management

- Custodian/Banking
- Investment Managers
- Investment Consultant

Benefit Administration

Customer Relations

Benefit Payments

Beneficiary Eligibility

Death Audits

Actuarial Services

- Assumptions
- Funding/City Contributions
- Net Pension Liabilities

General Operations

General Accounting

- Financial Reporting
- Payroll
- Disbursements/Vendor Payments
- Budget

Procurement

Compliance/Legal

Information Systems

Internal Audit

Public Relations/Communications

Types of assessments

Operational Audit

- Evaluation of effectiveness, efficiency and economy of operations, including internal controls.
- Focus: Policies and Achievements Related to Objectives; Internal Control Gap Analysis; On-going Internal Control Testing

Risk Management Plan Assessment

- Assessment of Management's Plan – assumptions, actions, procedures and risk analysis
- Focus: Management's Risk Assessment

GRC Assessment

- Assessment of Governance, Risk Management and Compliance objectives, policies, and achievements.
- Focus: Organizational Strategy, Processes, Technology and People.

IT & Security Assessment Audit

- Evaluation of IT governance, policies and procedures, ITGC, and cybersecurity risks.
- Focus: Governance; Policies and Procedures; Incident Response

AICPA

- Statement on Standards for Consulting Services
- Statements on Standards for Attest Engagements

AICPA

- Statement on Standards for Consulting Services

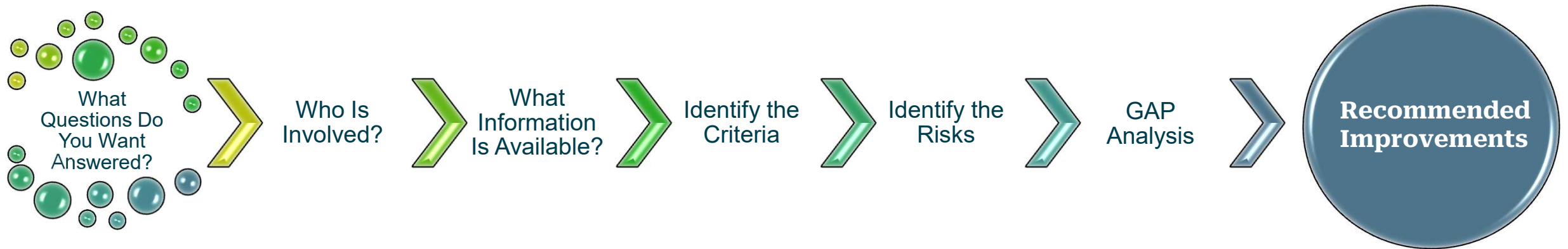
AICPA

- Statement on Standards for Consulting Services

AICPA

- Statement on Standards for Consulting Services

The process



mGO.

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Oakland Police
and Fire
Retirement
System

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AGENDA REPORT

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

FROM: David F. Jones
Plan Administrator & Secretary

SUBJECT: Audit Committee Agenda
Pending List

DATE: February 22, 2023

	SUBJECT	TENTATIVE SCHEDULED MTG DATE	STATUS
1	Staff Review of the 2006 Management Audit	Report Findings 1 st Qtr. 2023	Ongoing
2	Status Report of the Ad Hoc Committee regarding Actuarial Funding date of July 1, 2026	TBD	TBD
3	Monitor & Update PFRS Board of Upcoming City Council Agendas Regarding Discussion of the July 1, 2026 Actuarial Funding Date	Ongoing	Ongoing

Respectfully submitted,

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

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INVESTMENT COMMITTEE MEMBERS

- Jaime T. Godfrey
Chairperson
- R. Steven Wilkinson
Member
- Robert W. Nichelini
Member

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

WEDNESDAY, FEBRUARY 22, 2023
10:30 AM
TELE-CONFERENCE BOARD MEETING
VIA ZOOM WEBINAR

OBSERVE

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- 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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**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
FEBRUARY 22, 2023**

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If you have any questions, please email Maxine Visaya, Administrative Assistant II at mvisaya@oaklandca.gov

ORDER OF BUSINESS

- 1. Subject:** Police and Fire Retirement System (“PFRS”) Investment and Financial Matters Committee Meeting Minutes
From: Staff of the PFRS Board

Recommendation: **APPROVE** the January 25, 2023 Investment and Financial Matters Committee Meeting Minutes
- 2. Subject:** Investment Manager Performance Update – Earnest Partners, LLC
From: Earnest Partners, LLC

Recommendation: **ACCEPT** informational report regarding Earnest Partners, LLC , a PFRS Domestic Equity Mid-Cap Core Investment Strategy Manager, firm overview and managerial assessment; diversity and inclusion policy and practices; investment strategy and portfolio performance; and local brokerage usage
- 3. Subject:** Investment Manager Performance Review – Earnest Partners, LLC
From: Meketa Investment Group

Recommendation: **ACCEPT** Meketa Investment Group’s review and evaluation of Earnest Partners, LLC, a PFRS Domestic Equity Mid-Cap Core Investment Strategy Manager regarding a firm overview and managerial assessment; investment portfolio performance; peer ranking, and recommendation to extend/terminate the current professional services agreement **DISCUSS** and **RECOMMEND BOARD APPROVAL** of the Committees recommended course of action with regard to Earnest Partners, LLC

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
FEBRUARY 22, 2023

4. **Subject:** Resolution 8074 – Resolution Authorizing a One-Year Extension of the Professional Services Agreement with Earnest Partners, LLC for the Provision of Domestic Equity Mid-Cap Core Investment Strategy Manager Services
From: Staff of the PFRS Board
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 8074 authorizing a one-year extension of the 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
5. **Subject:** Investment Market Overview as of January 31, 2023
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** informational report regarding the Global Investment Markets as of January 31, 2023
6. **Subject:** Preliminary Investment Fund Performance Update as of January 31, 2023
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** informational report regarding the Preliminary Investment Fund Performance Update as of January 31, 2023
7. **Subject:** Investment Fund Quarterly Performance Update as of December 31, 2022
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** the Investment Fund Quarterly Performance Update as of December 31, 2022
8. **Subject:** Asset Class Reviews (VERBAL)
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** verbal informational report regarding the upcoming scheduled asset class reviews **DISCUSS** and **RECOMMEND BOARD APPROVAL** of the Committee’s recommended course of action regarding scheduled asset class reviews

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR INVESTMENT COMMITTEE MEETING
FEBRUARY 22, 2023**

9. Subject: July 1, 2026 Actuarial Funding Date (VERBAL)
From: Meketa Investment Group

Recommendation: ACCEPT verbal informational report regarding the July 1, 2026 Actuarial Funding Date. **DISCUSS** and **RECOMMEND BOARD APPROVAL** of the Committee's recommended course of action regarding the July 1, 2026 Actuarial Funding Date

- 10. Schedule of Pending Investment Committee Meeting Agenda Items**
- 11. Open Forum**
- 12. Future Scheduling**
- 13. Adjournment**

PFRS INVESTMENT & FINANCIAL MATTERS COMMITTEE
REGULAR MEETING MINUTES
JANUARY 25, 2023
PAGE 1 OF 3

A REGULAR MEETING OF THE INVESTMENT AND FINANCIAL MATTERS COMMITTEE of the Oakland Police and Fire Retirement System (“PFRS”) was held Wednesday, January 25, 2023 via Zoom Webinar.

Committee Members	▪ Jaime T. Godfrey	Chairperson (EXCUSED)
	▪ Robert W. Nichelini	Member
	▪ R. Steven Wilkinson	Member and Acting Chairperson
Additional Attendees	▪ David F. Jones	PFRS Secretary & Plan Administrator (EXCUSED)
	▪ Téir Jenkins	PFRS Investment & Operations Manager and Acting Secretary
	▪ Mitesh Bhakta	PFRS Legal Counsel
	▪ Maxine Visaya	PFRS Staff Member
	▪ David Sancewich	Meketa Investment Group
	▪ Jason Leong Campbell	Meketa Investment Group
	▪ Jason Hoyer	Reams Asset Management
	▪ Joy Facos	Reams Asset Management

The meeting was called to order at 10:32 a.m. Pacific

1. **Approval of Investment & Financial Matters Committee Meeting Minutes** – Acting Chairperson Wilkinson made a motion to approve the December 14, 2022 Investment & Financial Matters Committee Special Meeting Minutes, as written, second by Member Nichelini. Motion Passed.

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

2. **Investment Manager Performance Update – Reams Asset Management (Reams)** – Jason Hoyer and Joy Facos of Reams, a PFRS Core Plus Fixed Income Investment Strategy Manager, presented an informational report regarding a firm overview and managerial assessment; local brokerage usage; investment strategy and PFRS investment portfolio performance; and the firm’s Diversity, Equity, & Inclusion policy and practices.

Acting Chairperson Wilkinson and Investment & Operations Manager Jenkins made inquiries to further discussion regarding the firm’s Diversity, Equity, & Inclusion policy and practices and investment strategy looking forward.

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

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

3. **Investment Manager Performance Review – Reams Asset Management** – David Sancewich of Meketa Investment Group (“Meketa”) provided an overview memo regarding a review and evaluation of Reams, a PFRS Core Plus Fixed Income Investment Strategy Manager. D. Sancewich noted Reams did well during the 2022 period, as they outperformed the index and when compared relative to their peers, and Meketa has no concerns at this time from an investment standpoint. Acting Chairperson Wilkinson inquired when the last review of this portion of the portfolio occurred, and D. Sancewich indicated it has been some time and proposed Meketa conduct a review in the 3rd or 4th quarter of this year.

MOTION: Acting Chairperson Wilkinson made a motion to accept Meketa’s overview, evaluation, and recommendation regarding Reams and to conduct an asset class review in the 3rd or 4th quarter of this year, second by Member Nichelini. Motion passed.

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

4. **Investment Market Overview as of December 31, 2022** – David Sancewich of Meketa presented an informational report regarding the Investment Market Overview as of December 31, 2022 and current factors impacting outcomes. D. Sancewich highlighted Equity Cyclically Adjusted Price to Earnings Ratios; Ten-Year Breakeven Inflation and CPI; and Inflation (CPI Trailing Twelve Months).

MOTION: Acting Chairperson Wilkinson made a motion to accept the informational report presented by Meketa regarding the Investment Market Overview as of December 31, 2022 and forward to the Board, second by Member Nichelini. Motion passed.

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

5. **Preliminary Investment Performance Update as of December 31, 2022** – David Sancewich of Meketa presented an informational report regarding the Preliminary Investment Performance Update as of December 31, 2022 and current factors impacting outcomes. D. Sancewich highlighted Allocation vs. Targets and Policy and Asset Class Performance Summary.

MOTION: Acting Chairperson Wilkinson made a motion to accept the informational report presented by Meketa regarding the Preliminary Investment Performance Update as of December 31, 2022 and forward to the Board, second by Member Nichelini. Motion passed.

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

6. **Schedule of Pending Investment Committee Meeting Agenda Items** – David Sancewich presented Meketa’s 2023 Strategic Investment Agenda Plan for discussion and noted this is a rolling agenda plan and subject to change. No changes or additions were proposed.

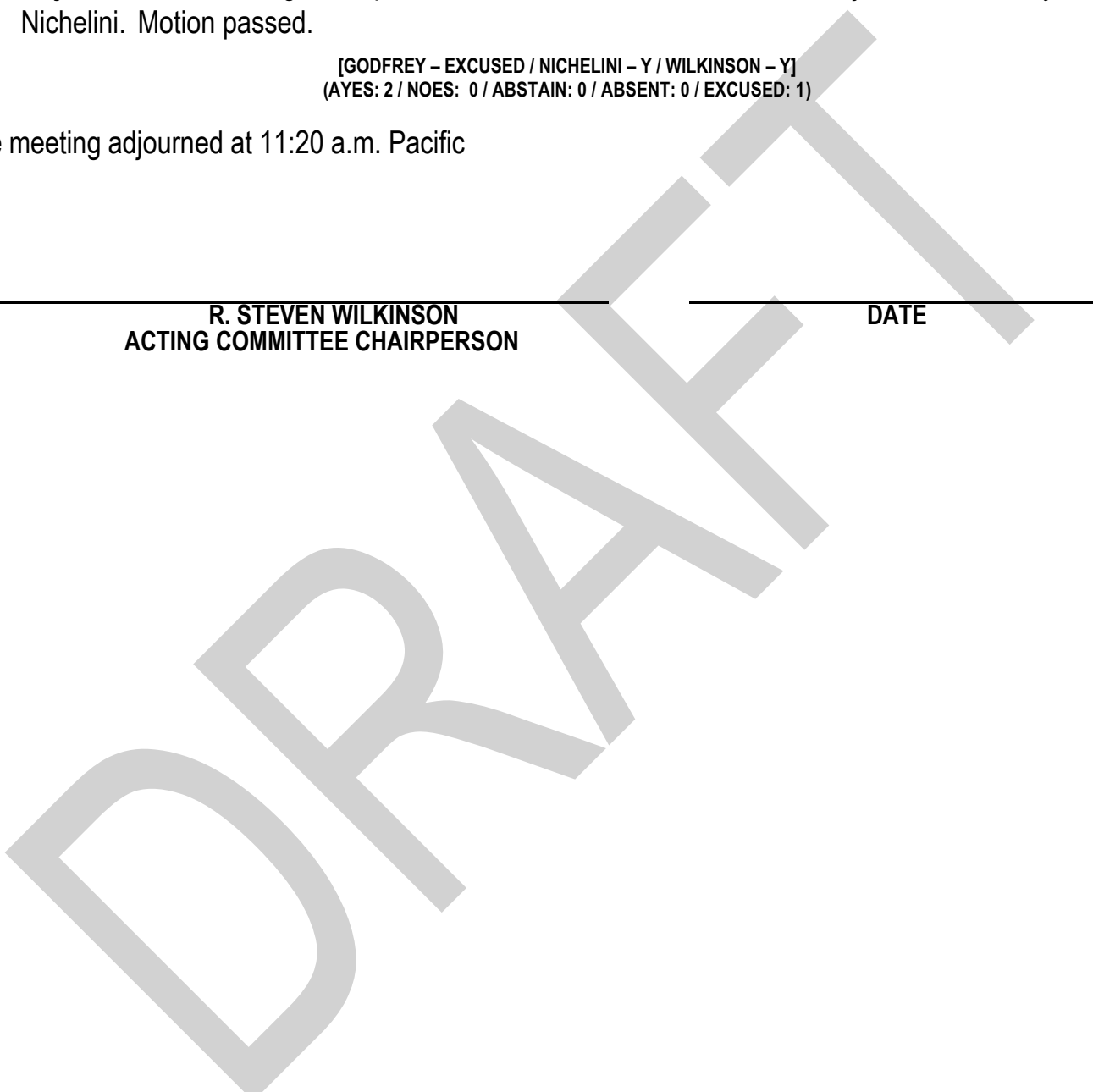
7. **Open Forum** – No Report
8. **Future Scheduling** – The next regular Investment Committee meeting is tentatively scheduled to occur February 22, 2023.
9. **Adjournment** – Acting Chairperson Wilkinson made a motion to adjourn, second by Member Nichelini. Motion passed.

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

The meeting adjourned at 11:20 a.m. Pacific

R. STEVEN WILKINSON
ACTING COMMITTEE CHAIRPERSON

DATE





EARNEST
PARTNERS

1180 PEACHTREE STREET + SUITE 2300
ATLANTA + GA + 30309

INVEST@EARNESTPARTNERS.COM
WWW.EARNESTPARTNERS.COM

***Oakland Police and Fire Retirement Board
December 31, 2022***

Dinkar Singh, Ph.D.
Partner

Dr. Singh is co-head of the equity investment team at EARNEST Partners. Prior to joining EARNEST Partners, he worked at the IBM Watson Research Center in the Silicon Technology group. Leading a team of Ph.D.s/engineers, he helped develop semiconductor technology for next-generation electronic chips, resulting in the first demonstration of an advanced memory and world record chip speed and was awarded five U.S. patents with four additional patent applications pending. Dr. Singh has a Ph.D. from Stanford University in Applied Physics, an MBA with high honors from the University of Chicago, and studied previously at the Indian Institute of Technology. Dr. Singh is fluent in Hindi.

Jeffrey Jackson
Director

Mr. Jackson is a member of the product management team at EARNEST Partners. Prior to joining EARNEST Partners, he worked for the global investment bank, Evercore, in New York where he helped lead their Real Estate advisory practice as a Managing Director. His extensive background also includes experience in acquisitions, development and debt restructuring within Real Estate. He is a graduate of the Tuck School of Business at Dartmouth where he holds an MBA and was a Consortium Fellow and he holds a BS in Finance from Hampton University where he was a Presidential Scholar. Mr. Jackson was a member of the SEO Career Program and later served as a member of the SEO Junior Leadership Board. Mr. Jackson is a former collegiate basketball player and maintains an active lifestyle with his passion for cycling.



Guidelines and Investment Policy Audit

	Yes	No
• Benchmark: Exceed Russell Midcap [®] Index over a full market cycle	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Cash position is less than 10% of total portfolio value*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• No industry sector weight greater than 25% of total portfolio	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• No security held is greater than 5% of total portfolio value* or 8% at market	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Proxies voted in accordance with guidelines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• No prohibited securities held	<input checked="" type="checkbox"/>	<input type="checkbox"/>

EARNEST Partners believes that the attached information, along with other submissions, represents all the required reporting information. Please notify us immediately if any required information is missing.

**Threshold may be temporarily exceeded due to market conditions.*

Diversity Representation Survey for Oakland Police and Fire

DATA AS OF 01/31/2023

Firm Name	EARNEST Partners
Product Name	Mid Cap Core
Total Number of Employees	44

	Percentage (%) of Board of Directors / Managing Members	Percentage(%) of Firm (Entire Staff)	Percentage (%) of Firm (Investment Professionals)
Race and Ethnicity*			
African American/Black	12.50%	23%	20%
Asian/Hawaiian/Pacific Islander	25.00%	23%	30%
Latino/Hispanic	0.00%	0%	0%
White	62.50%	54%	50%
American Indian/Alaska Native	0.00%	0%	0%
Other			
Gender			
Male	87.5%	59%	80%
Female	12.5%	41%	20%
Non-Identified/Other			

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

Global equities were generally positive in the fourth quarter of 2022 as investors regained confidence in risk assets following the easing of supply chain concerns and encouraging inflation data. The S&P 500[®] rose 7.6% during the quarter, rebounding from a drawdown of about 25% in October. The U.S. large cap market, as represented by the Russell 1000[®] Index, rose 7.2%. The U.S. midcap market, as represented by the Russell Midcap[®] index, rose by 9.2%. Small cap equities, as represented by the Russell 2000[®], rose 6.2%. International equity markets, as represented by the MSCI ACWI ex-U.S.[®] Index, rebounded by 14.4%. Emerging markets underperformed developed markets as the MSCI Emerging Markets Index rose by 9.8%, while the MSCI EAFE rose by 17.4% during the quarter.

During the quarter, equities initially continued their slide downwards and hit new lows before sharply rebounding in mid-October as Consumer Price Index (CPI) inflation readings came in lower than anticipated. The two consecutive lower-than-expected CPI datapoints of 7.7% in October and 7.1% in November gave confidence to investors who believed we passed “peak” inflation and the Fed could begin moderating its campaign to bring inflation down to its annual 2% target. Higher rates are especially threatening to high-growth sectors of the market such as Consumer Discretionary and Information Technology as these segments derive much of their valuation from expectations of future earnings rather than current cashflows. Additionally, they are heavily reliant on external financing and rising rates make it increasingly difficult for these businesses to borrow on favorable terms. Many of the high-multiple technology stocks continued to suffer as last years’ winners such as Tesla, Nvidia, and Facebook/Meta (among others) fell over 50% while many smaller unprofitable names in this space suffered even more significant declines. However, cashflow producing sectors such as Health Care, Utilities and Consumer Staples finished the year largely unscathed. Energy was a standout as it benefitted from higher oil prices and a rebound in demand following the resumption of travel, the outbreak of war in Eastern Europe and lifting of pandemic-era restrictions. Despite continued uncertainty within different sectors of the equity markets, the labor market continued to show strength as the unemployment rate hovered near a record-low reading of 3.7%.

Investors continued to focus on the Federal Reserve’s posture, which was expected to increase the federal funds rate to stave off generationally high inflation numbers. Following CPI readings of 7.7% in October and 7.1% in November, the Fed hiked rates by 75 bps in November and 50 bps in December to bring the fed funds rate to the range of 4.25% to 4.50%, ending a string of four 75-bp rate hikes in a row. Fed Chair Jerome Powell continued to be consistent in his stance that fighting inflation is the central bank’s main priority and continued to acknowledge that there is still a lot of work to do, unwilling to stray from the Fed’s long-term goal of 2% inflation and maximum employment.

Global currencies rebounded against the dollar this quarter after chaotic trading last quarter saw the Pound, Euro and Yen sharply decline. The Bank of Japan adjusted its bond purchase program to allow the yield on its 10-year bonds to move in a range of +/-0.5%, widening the range from +/- 0.25%, effectively tightening its rate policy as the world’s third-largest economy continues to deal with stagnant growth and a weakening currency. Japan is one of the last major economies that has negative-yielding debt.

Energy prices stabilized, and crude oil finished the year slightly up to settle at about \$80. Despite initial shock from Russian invasion of Ukraine, supply chains for agricultural commodities and energy adapted, and this ongoing geopolitical event has migrated to the background in the eyes of financial markets.

Fixed income markets rebounded although they continued to experience one of their worst years on record. The Bloomberg US Aggregate rose by about 2.0% during the fourth quarter, to finish the year down 13%. The intermediate portion of the yield curve shifted down and overall demand for fixed-income instruments increased as the Fed showed signs of slowing down its pace of short-term rate hikes. At the long end of the curve, the 30-year rose by about 20 basis points to finish the quarter at about 3.9%, well off last year’s lows, but indicating that investors continue to expect low to moderate long-term growth and inflation despite recent CPI readings, although these rates are still low compared to historical standards.



EARNEST Partners Mid Cap Core Portfolio Review

Oakland Police and Fire Retirement
Board
December 31, 2022

The U.S. mid cap equity market, as represented by the Russell Midcap® Index, gained over 9% in the fourth quarter. After generating losses in six of the final seven weeks to end the third quarter in negative territory, the Index generated positive returns in the fourth quarter, albeit with meaningful volatility along the way. The Index generated gains in only seven of the thirteen weeks in the fourth quarter as the market continued to react to interest rate hikes by the US Federal Reserve and elevated inflationary pressures. 10 of the 11 sectors in the Index generated positive returns. Energy and Health Care were the best performing sectors while Communication Services was the laggard as the lone sector to generate negative returns in the quarter. The EARNEST Partners Mid Cap Core strategy underperformed the Index, net of fees, in the quarter, in part due to relative underperformance in the Health Care and Materials sectors. That relative underperformance was somewhat offset by strength in the Industrials and Financials Sectors. Despite underperforming the Index, net of fees, in the quarter, the EARNEST Partners Mid Cap Core strategy outperformed the Index, net of fees, over the trailing one, three and five-year periods, largely as a function of stock selection. EARNEST Partners continues to focus on high-quality companies that we believe are well-positioned to benefit over the long term. Past performance is not a guarantee of future results. Performance data is preliminary.

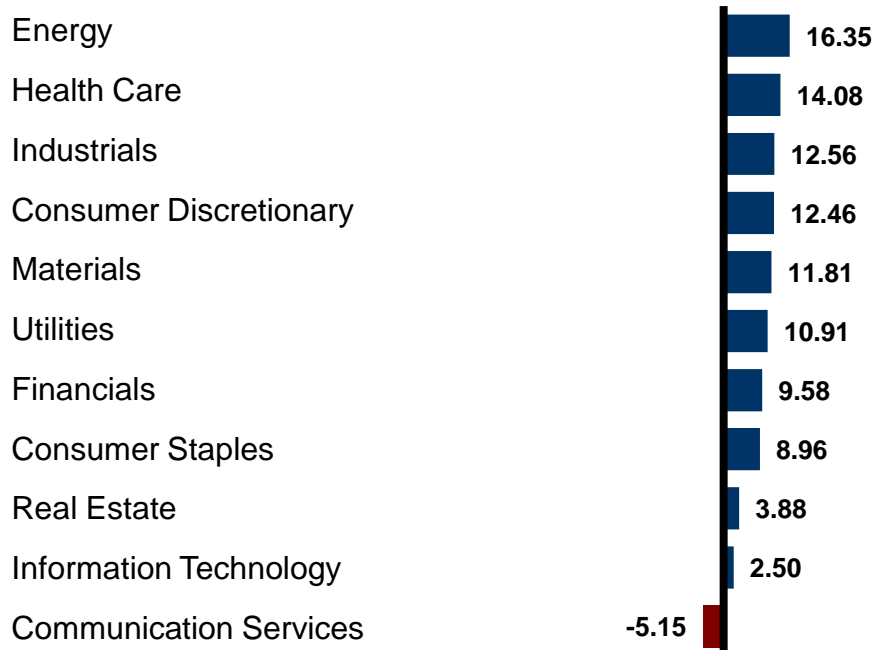
Contributing to performance was Woodward, Inc. Woodward designs, manufactures, and services energy control systems and components for aircraft and industrial engines and turbines. The Company's products and services are used in the aerospace, power generation, oil and gas processing, and transportation markets which include rail, marine, and light and heavy industrial applications. Woodward shares gained nearly 21% in the quarter as the company reported both revenue and earnings that exceeded consensus estimates. Sales grew 12% year-over-year with strength in both the company's aero and industrial business segments. Operating margins contracted in the quarter relative to the prior year period as the company continued to manage labor shortages plaguing the broader market. Recovery in the broader commercial aerospace segment combined with the company's leading technology position the company to continue to capture market share. Continued shifts toward higher margin components combined with stabilization in both the labor and supply chain are expected to result in incremental upside to the company's earnings profile.

Laboratory Corporation of America Holdings ("Labcorp") is a healthcare company that provides vital information to doctors, pharmaceutical companies, researchers and patients to make informed decisions. The company operates through two segments, Diagnostics, facilitating lab testing, and Drug Development, facilitating end-to-end drug development. Labcorp shares gained more than 15% in the quarter despite reporting mixed performance. Revenue missed analyst estimates however earnings exceeded consensus estimates. Diagnostics showed strength in the quarter while Drug Development faced a challenging environment including labor shortages and inflationary pressures, both viewed to be short term in nature. LabCorp continues to diversify its business from a singularly focused laboratory company. The company's contract research capabilities, which have grown to capture more than ~15% of market share, represent a significant organic growth catalyst in an industry that has grown between 5-7% annually. Continued market share capture combined with the mitigation of short-term operational headwinds continue to position the company well for earnings growth.

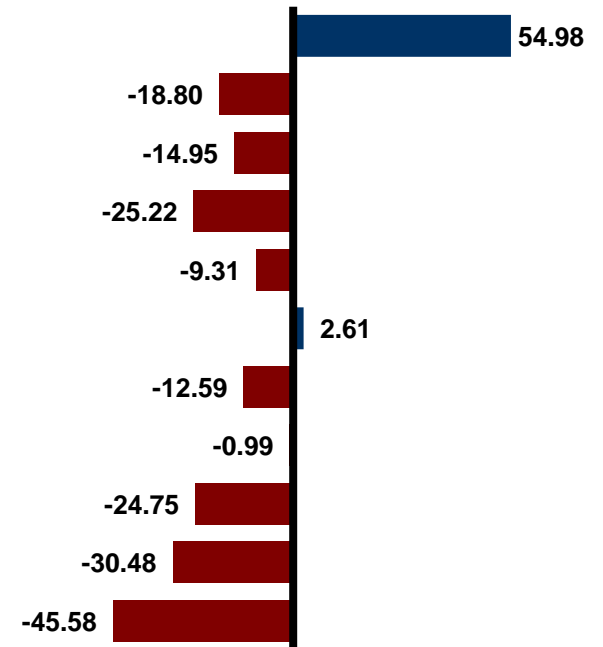
Detracting from performance was Akamai Technologies, Inc. Akamai provides cloud services used to deliver, optimize and secure content and business applications over the internet. Products include cloud solutions, web and mobile security solutions, media delivery solutions, and edge compute solutions. Founded in 1998, the company is headquartered in Cambridge, MA. Akamai shares gained only 5% in the quarter after the company reported mixed results. The company beat revenue, EBITDA and earnings estimates as the company saw continued growth in its security and compute businesses, up 19% and 77% annually, respectively. The company did, however, note slowing demand in the media delivery solutions business as media customers have been disproportionately impacted by the slowing economy. Despite facing near term headwinds due to slowing spend within the media delivery solutions unit, the company continues to shift growth investment to higher margin businesses like security and compute solutions that have large addressable markets. Market share capture in higher margin businesses position the company for sustained earnings growth.

Equity Market Performance By Sector

Russell Midcap® Index
4th Quarter 2022 Returns
Percent



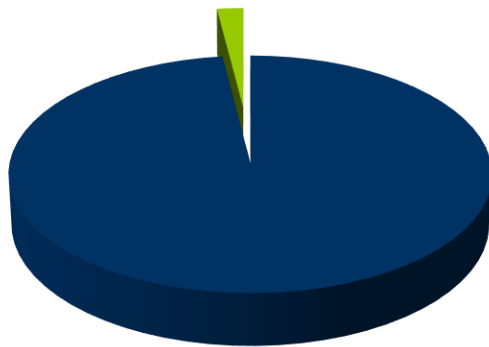
Russell Midcap® Index
YTD Returns
Percent



Fund Totals

Ending Portfolio Value	\$43,611,637
Estimated Annual Income	\$355,793
Yield on Equities	0.8%

Asset Distribution



	<u>Portfolio %</u>
Equities	98.0%
Short-term Investments	2.0%

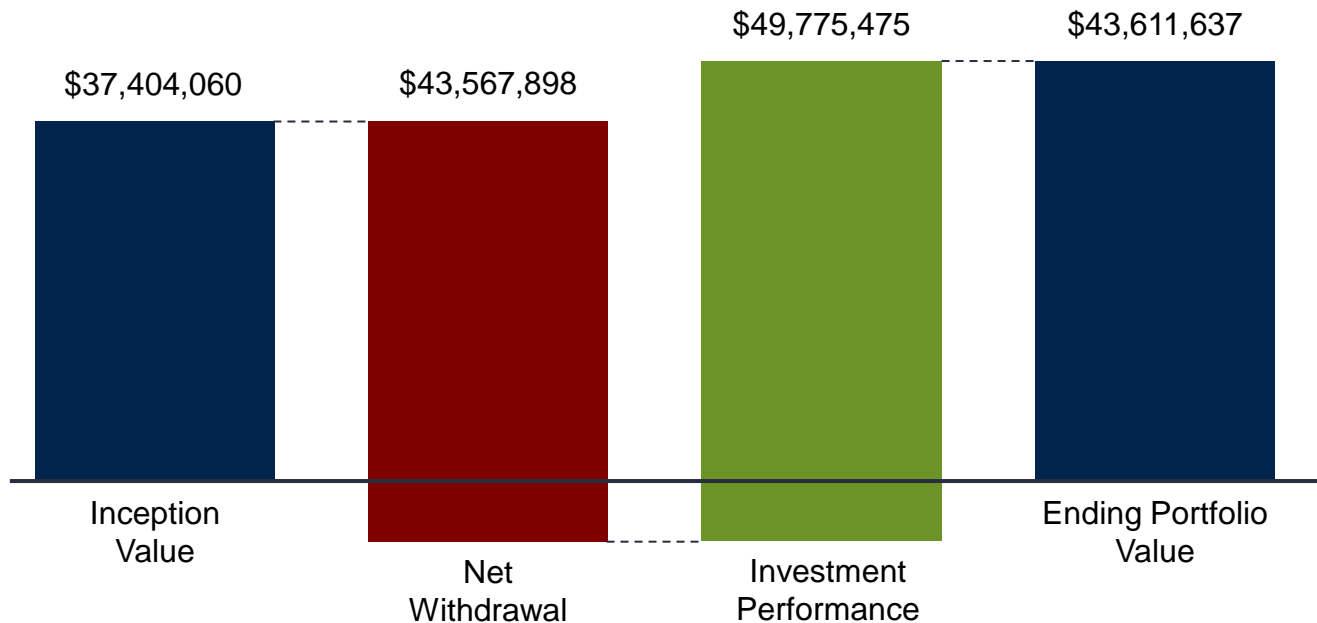
Performance

	<u>Total Portfolio</u>	<u>Equities</u>	<u>Russell Midcap[®] Index</u>	<u>Excess Return (Basis Points)</u>
1 Year	-15.33	-15.59	-17.32	199
3 Years	8.85	8.89	5.87	298
5 Years	10.03	10.13	7.09	294
10 Years	13.29	13.56	10.95	234
Since Inception	10.00	10.18	8.35	165

Performance Inception is 3/28/2006.
All returns stated for twelve months and longer are annualized



Asset Growth Since Inception



Woodward, Inc.



- Woodward, Inc. designs, manufactures, and services energy control systems and components for aircraft and industrial engines and turbines. The Company's products and services are used in the aerospace, power generation, oil and gas processing, and transportation markets which include rail, marine, and light and heavy industrial applications.
- Woodward shares gained nearly 21% in the quarter as the company reported both revenue and earnings that exceeded consensus estimates. Sales grew 12% year-over-year with strength in both the company's aero and industrial business segments. Operating margins contracted in the quarter relative to the prior year period as the company continued to manage labor shortages plaguing the broader market.
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Laboratory Corp of America Holdings



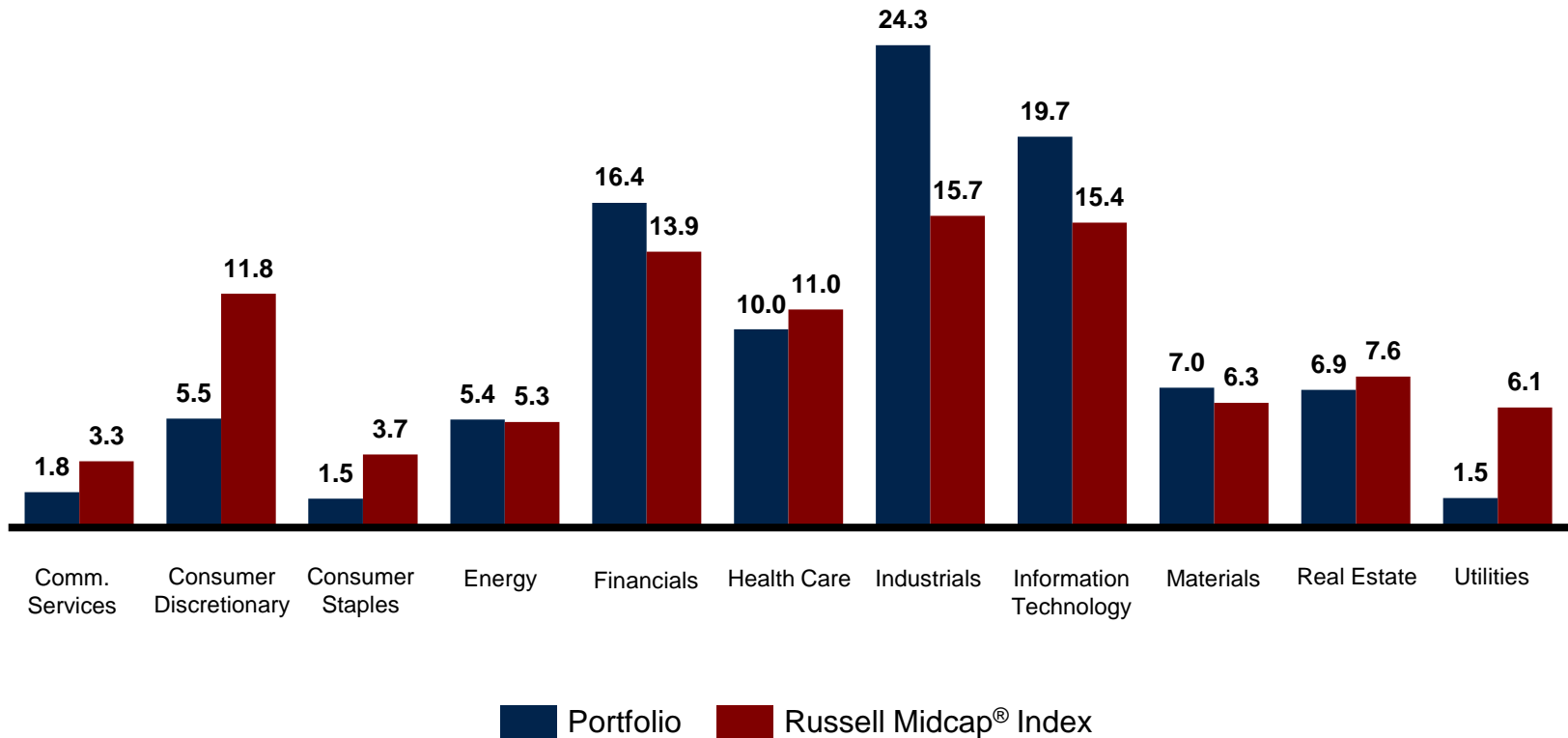
- Laboratory Corporation of America Holdings ("Labcorp") is a healthcare company that provides vital information to doctors, pharmaceutical companies, researchers and patients to make informed decisions. The company operates through two segments, Diagnostics, facilitating lab testing, and Drug Development, facilitating end-to-end drug development.
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- LabCorp continues to diversify its business from a singularly focused laboratory company. The company's contract research capabilities, which have grown to capture more than ~15% of market share, represent a significant organic growth catalyst in an industry that has grown between 5-7% annually. Continued market share capture combined with the mitigation of short-term operational headwinds continue to position the company well for earnings growth.

Akamai Technologies



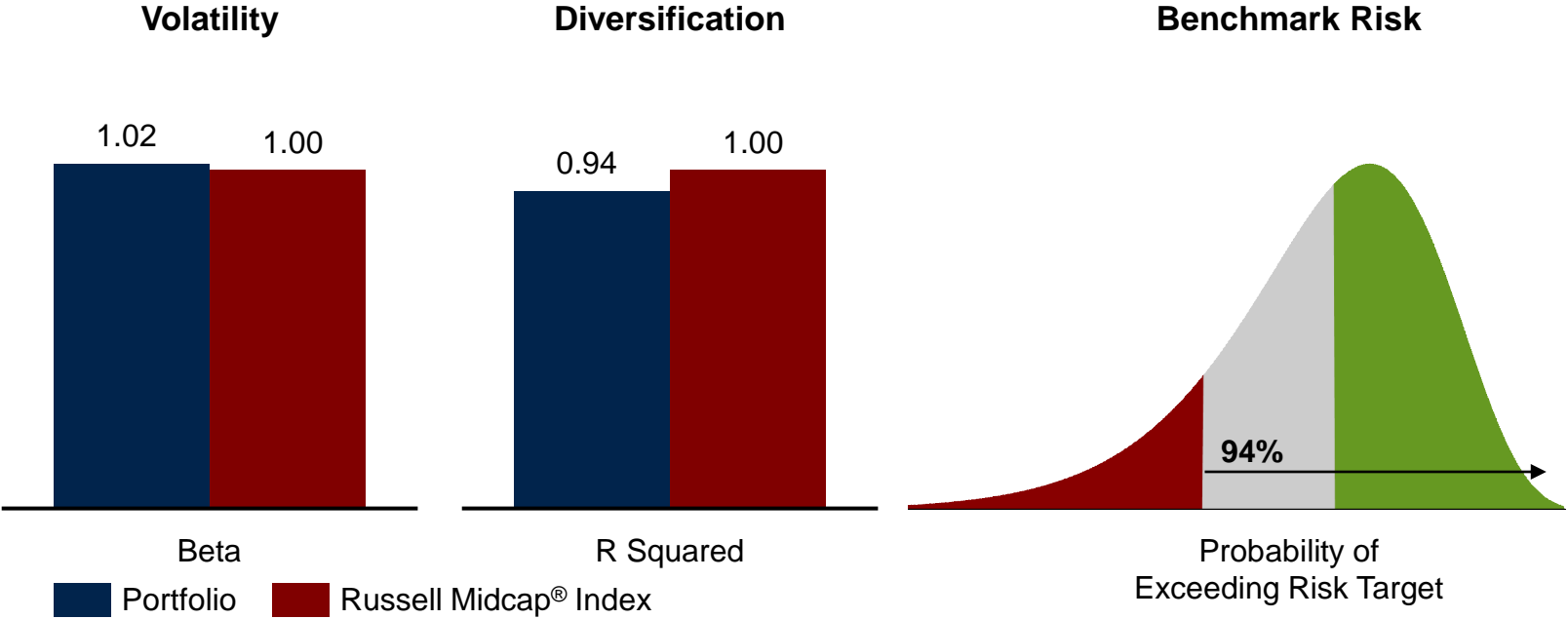
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- Despite facing near term headwinds due to slowing spend within the media delivery solutions unit, the company continues to shift growth investment to higher margin businesses like security and compute solutions that have large addressable markets. Market share capture in higher margin businesses position the company for sustained earnings growth.

Percentage Held





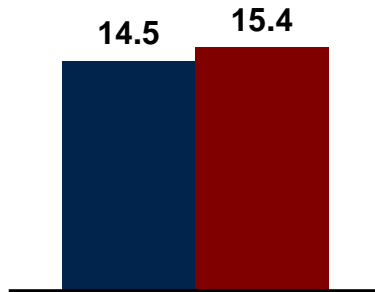
Risk Profile



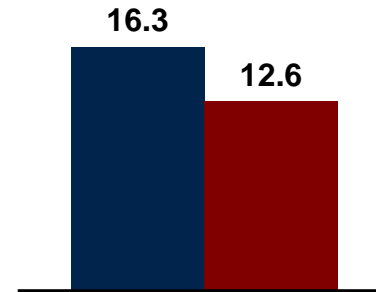


Equity Portfolio Characteristics

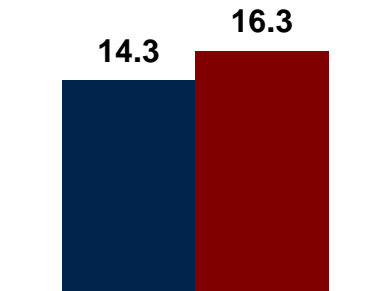
Price to Earnings



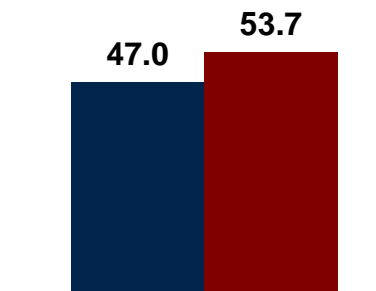
Earnings Growth



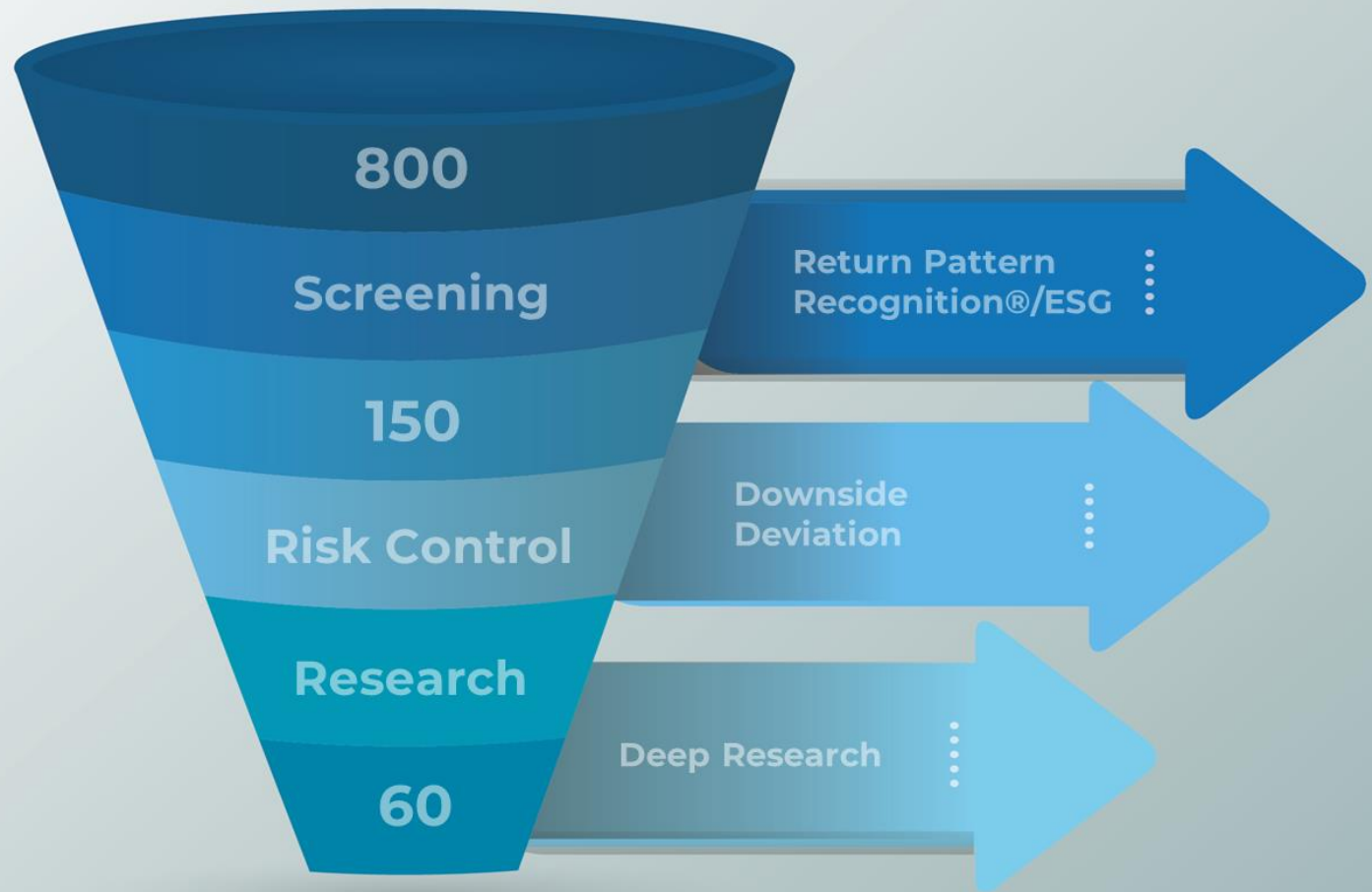
Return on Equity



Debt to Capitalization



■ Portfolio ■ Russell Midcap® Index



For those clients on whose behalf the Firm votes proxies, clients can elect to have the Firm utilize (a) the client's own proxy voting policies and procedures ("P&P") or (b) the Firm's P&P.

Proxy Policy-Overview

- As a general rule, the Firm will seek to vote the proxies received timely and in good order, in accordance with its then current proxy voting policies and procedures. A partial list of issues that may require special attention are as follows: classified boards, change of state of incorporation, poison pills, unequal voting rights plans, provisions requiring supermajority approval of a merger, executive severance agreements, and provisions limiting shareholder rights.
- In addition, the following will generally be adhered to:
 - The Firm will not (1) actively engage in conduct that involves an attempt to change or influence the control of a portfolio company, (2) announce its voting intentions or the reasons for a particular vote, (3) participate in a proxy solicitation or otherwise seek proxy voting authority from any other portfolio company shareholder, or (4) act in concert with any other portfolio company shareholders in connection with any proxy issue or other activity involving the control or management of a portfolio company.
 - All communications with portfolio companies or fellow shareholders will be for the sole purpose of expressing and discussing the Firm's concerns for its Clients' interests and not in an attempt to influence the control of management.

Proxy Procedures-Overview

The Firm has designated a Proxy Director. The Proxy Director, in consultation with the Firm's Investment Team, will consider each issue presented on each portfolio company proxy. The Proxy Director will also use available resources, including proxy evaluation services, to assist in the analysis of proxy issues. Absent any written direction from the Client, proxy issues presented to the Proxy Director will be voted in accordance with the judgment of the Proxy Director, taking into account the general policies outlined above and the Firm's Proxy Voting Guidelines. Therefore, it is possible that actual votes may differ from the general policies and the Firm's Proxy Voting Guidelines. In the case where the Firm believes it has a material conflict of interest with a Client, the Proxy Director will utilize the services of outside third party professionals (currently ISS) to assist in its analysis of voting issues and the actual voting of proxies to ensure that a decision to vote the proxies was based on the Client's best interest and was not the product of a conflict of interest. In the event the services of an outside third party professional are not available in connection with a conflict of interest, the Firm will seek the advice of the Client.

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
Common Stock						
Communication Services						
9,966.00	ACTIVISION BLIZZ	76.55	762,897.30	1.75	3,412.51	0.45
			762,897.30	1.75	3,412.51	0.45
Consumer Discretionary						
8,254.00	DR HORTON INC	89.14	735,761.56	1.69	9,092.46	1.24
7,079.00	DARDEN RESTAURANT	138.33	979,238.07	2.25	0.00	
7,942.00	TJX COS INC	79.60	632,183.20	1.45	10,345.18	1.64
			2,347,182.83	5.38	19,437.63	0.83
Consumer Staples						
8,135.00	SYSCO CORP	76.45	621,920.75	1.43	13,102.65	2.11
			621,920.75	1.43	13,102.65	2.11
Energy						
11,457.00	MURPHY OIL CORP	43.01	492,765.57	1.13	14,622.12	2.97
17,517.00	CHAMPIONX CORP	28.99	507,817.83	1.16	0.00	
31,933.00	CABOT OIL & GAS	24.57	784,593.81	1.80	7,958.69	1.01
10,901.00	HELMERICH & PAYN	49.57	540,362.57	1.24	0.00	
			2,325,539.78	5.33	22,580.81	0.97
Financials						
8,390.00	HOULIHAN LOKEY I	87.16	731,272.40	1.68	15,356.29	2.10
8,402.00	INTERCONTINENTAL	102.59	861,961.18	1.98	11,206.43	1.30

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
36,005.00	KEYCORP	17.42	627,207.10	1.44	15,360.17	2.45
9,236.00	PROGRESSIVE CORP	129.71	1,198,001.56	2.75	0.00	
7,602.00	REINSURANCE GROU	142.09	1,080,168.18	2.48	16,196.85	1.50
9,290.00	RAYMOND JAMES RENAISSANCERE HOLDINGS	106.85	992,636.50	2.28	0.00	
4,195.00	LTD	184.23	772,844.85	1.77	8,504.84	1.10
12,585.00	STIFEL FINANCIAL	58.37	734,586.45	1.68	0.00	
			6,998,678.22	16.05	66,624.59	0.95
Health Care						
7,046.00	AGILENT TECH INC	149.65	1,054,433.90	2.42	10,253.59	0.97
4,230.00	AMERISOURCEBERGE	165.71	700,953.30	1.61	12,374.55	1.77
1,731.00	BIO-RAD LABS-A	420.49	727,868.19	1.67	0.00	
8,195.00	CATALENT INC	45.01	368,856.95	0.85	0.00	
2,434.00	LABORATORY CP	235.48	573,158.32	1.31	0.00	
9,879.00	SYNEOS HEALTH IN	36.68	362,361.72	0.83	0.00	
15,083.00	DENTSPLY SIRONA	31.84	480,242.72	1.10	3,851.63	0.80
			4,267,875.10	9.79	26,479.77	0.62
Industrials						
18,731.00	AIR LEASE C	38.42	719,645.02	1.65	6,943.03	0.96
2,932.00	CUMMINS INC	242.29	710,394.28	1.63	23,032.90	3.24
21,972.00	CSX CORP	30.98	680,692.56	1.56	0.00	
4,392.00	DOVER CORP	135.41	594,720.72	1.36	15,364.50	2.58

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
5,632.00	GATX CORP	106.34	598,906.88	1.37	15,258.77	2.55
3,373.00	GENERAL DYNAMICS	248.11	836,875.03	1.92	16,608.91	1.98
13,026.00	HEXCEL CORP	58.85	766,580.10	1.76	0.00	
18,888.00	MASCO CORP	46.67	881,502.96	2.02	0.00	
9,226.00	REPUBLIC SVCS	128.99	1,190,061.74	2.73	23,853.09	2.00
3,338.00	SNAP-ON INC	228.49	762,699.62	1.75	15,442.31	2.02
21,300.00	SPIRIT AEROSYS-A	29.60	630,480.00	1.45	3,572.12	0.57
10,244.00	STERICYCLE INC	49.89	511,073.16	1.17	0.00	0.00
19,317.00	SENSATA TECHNOLO	40.38	780,020.46	1.79	0.00	0.00
7,579.00	WOODWARD INC	96.61	732,207.19	1.68	0.00	
			10,395,859.72	23.84	120,075.65	1.16
Information Technology						
7,571.00	AKAMAI TECHNOLOG	84.30	638,235.30	1.46	0.00	
5,133.00	APPLIED MATERIAL	97.38	499,851.54	1.15	8,829.35	1.77
3,245.00	ANSYS INC	241.59	783,959.55	1.80	0.00	
6,262.00	ARROW ELECTRONIC	104.57	654,817.34	1.50	0.00	
10,523.00	BLACK KNIGHT	61.75	649,795.25	1.49	0.00	
4,242.00	BROADRIDGE FINL	134.13	568,979.46	1.30	7,253.21	1.27
11,028.00	ENTEGRIS INC	65.59	723,326.52	1.66	0.00	
6,502.00	GLOBAL PAYMENTS	99.32	645,778.64	1.48	234.85	0.04
6,907.00	KEYSIGHT TEC	171.07	1,181,580.49	2.71	0.00	

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
9,596.00	LUMENTUM HOL	52.17	500,623.32	1.15	0.00	
2,863.00	SYNOPSIS INC	319.29	914,127.27	2.10	0.00	
7,289.00	SKYWORKS SOLUTIO	91.13	664,246.57	1.52	0.00	
			8,425,321.25	19.32	16,317.41	0.19
Materials						
3,824.00	ALBEMARLE CORP	216.86	829,272.64	1.90	11,866.99	1.43
5,122.00	EASTMAN CHEMICAL	81.44	417,135.68	0.96	9,371.96	2.25
3,964.00	PACKAGING CORP	127.91	507,035.24	1.16	14,295.43	2.82
14,115.00	SEALED AIR CORP	49.88	704,056.20	1.61	10,619.75	1.51
11,383.00	SCOTTS MIRACLE	48.59	553,099.97	1.27	0.00	
			3,010,599.73	6.90	46,154.13	1.53
Real Estate						
13,802.00	CBRE GROUP INC	76.96	1,062,201.92	2.44	0.00	
			1,062,201.92	2.44	0.00	0.00
Utilities						
6,722.00	WEC ENERGY GROUP	93.76	630,254.72	1.45	21,608.18	3.43
			630,254.72	1.45	21,608.18	3.43
			40,848,331.32	93.66	355,793.32	0.87
Real Estate Investment Trust						
Real Estate						
8,084.00	BOSTON PROPERTIE	67.58	546,316.72	1.25	0.00	

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
26,805.00	AMERICOLD REALTY	28.31	758,849.55	1.74	0.00	
2,144.00	SBA COMM CORP	280.31	600,984.64	1.38	0.00	
			1,906,150.91	4.37	0.00	0.00
			1,906,150.91	4.37	0.00	0.00
Cash and Equivalents						
814,382.88	U.S. DOLLARS	1.00	814,382.88	1.87	0.00	
42,772.35	USD - DIVIDENDSRECEIVABLE	1.00	42,772.35	0.10	0.00	
			857,155.23	1.97	0.00	0.00
			857,155.23	1.97	0.00	0.00
Total Portfolio			43,611,637.46	100.00	355,793.32	0.82

Statement Of Transactions

From 10/1/2022 to 12/31/2022

<u>Quantity</u>	<u>Security</u>	<u>Sec Symbol</u>	<u>Unit Price</u>	<u>Total Amount</u>
PURCHASES				
2,461.00	AIR LEASE C	AL	37.60	92,525.78
1,394.00	AKAMAI TECHNOLOG	AKAM	82.82	115,457.86
2,562.00	AMERICOLD REALTY	COLD	28.49	72,980.03
189.00	BIO-RAD LABS-A	BIO	411.25	77,726.67
4,224.00	DENTSPLY SIRONA	XRAY	31.69	133,844.67
2,689.00	ENTEGRIS INC	ENTG	64.02	172,148.43
4,224.00	SCOTTS MIRACLE	SMG	48.35	204,210.74
17,517.00	CHAMPIONX CORP	CHX	31.04	543,739.99
10,901.00	HELMERICH & PAYN	HP	52.06	567,459.72
11,457.00	MURPHY OIL CORP	626717102	46.93	537,642.71
				2,517,736.60
SALES				
1,757.00	ARROW ELECTRONIC	ARW	103.22	181,360.91
790.00	DARDEN RESTAURANT	DRI	137.94	108,969.71
6,209.00	DR HORTON INC	DHI	88.84	551,579.77
812.00	ALBEMARLE CORP	ALB	255.02	207,078.38
17,190.00	CABOT OIL & GAS	CTRA	26.61	457,500.82
8,726.00	CONTL RES INC/OK	CLR	74.07	646,326.01

Statement Of Transactions

From 10/1/2022 to 12/31/2022

<u>Quantity</u>	<u>Security</u>	<u>Sec Symbol</u>	<u>Unit Price</u>	<u>Total Amount</u>
649.00	KEYSIGHT TEC	KEYS	169.52	110,016.28
943.00	RAYMOND JAMES	RJF	120.71	113,825.88
868.00	REPUBLIC SVCS	RSG	129.48	112,390.23
				<u>2,489,047.99</u>

Performance

	<u>Total Portfolio</u>	<u>Russell Midcap® Index</u>
<i>Inception 3/28/2006</i>		
2006	3.56%	7.92%
2007	8.78	5.60
2008	-37.51	-41.46
2009	37.48	40.48
2010	27.22	25.47
2011	-0.79	-1.56
2012	16.36	17.29
2013	31.25	34.78
2014	10.32	13.22
2015	1.40	-2.44
2016	16.55	13.80
2017	26.22	18.52
2018	-9.63	-9.05

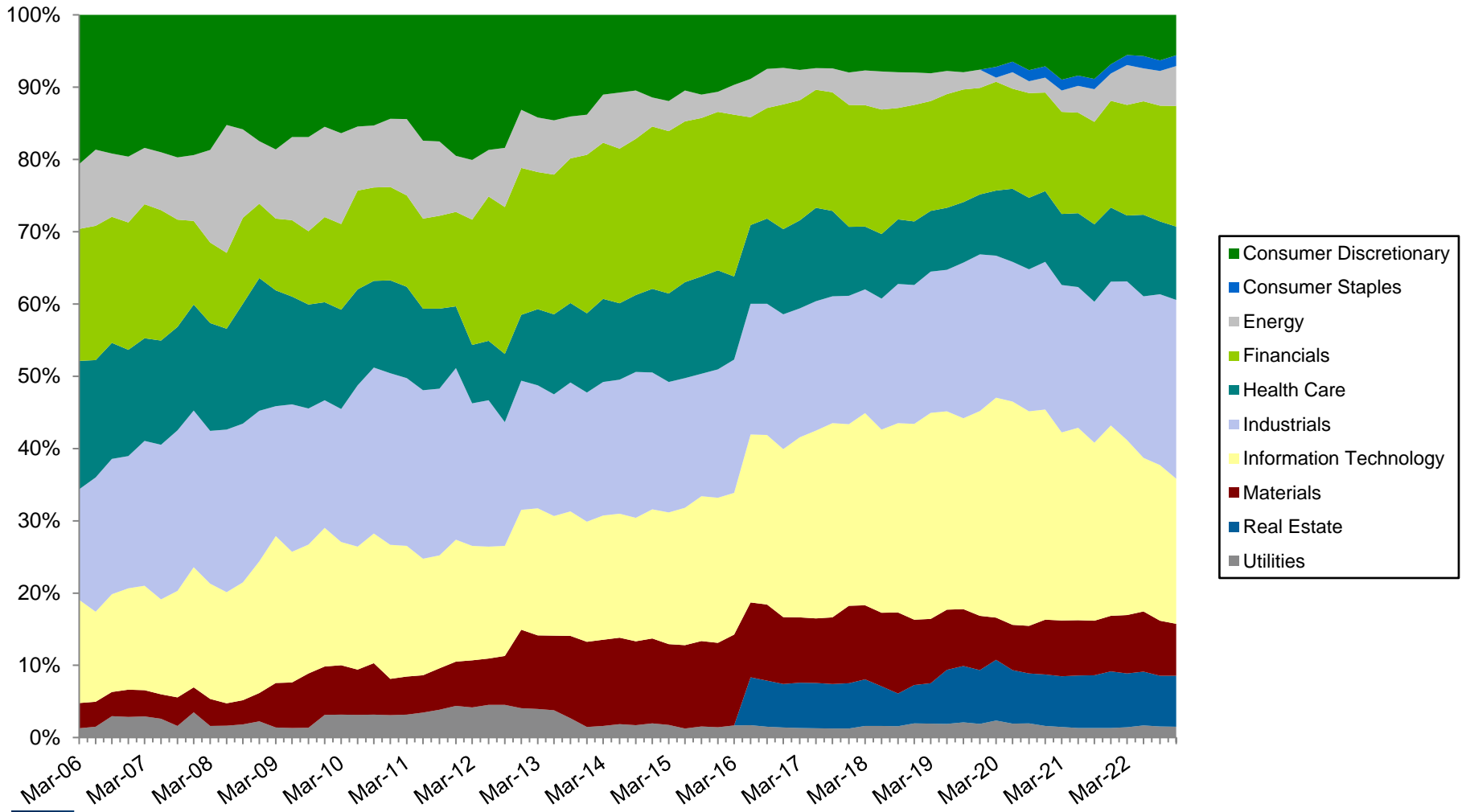


Historical Performance Measurement

Performance

	Total Portfolio	Russell Midcap® Index
2019	38.36	30.54
2020	21.20	17.10
2021	25.73	22.59
3/31/2022	-5.66	-5.68
6/30/2022	-11.74	-16.85
9/30/2022	-5.63	-3.44
12/31/2022	7.76	9.18
Year-to-Date	-15.32	-17.31
Since Inception		
-Annualized	10.00	8.35
-Cumulative	395.29	284.11

EARNEST Partners' Model Portfolio



Asset Growth

Period Ending	Ending Portfolio Value	Withdrawals	Contributions	Investment Change	
				Period	Since Inception
3/28/2006	\$37,404,060				
2006	\$38,599,735	\$0	\$0	\$1,195,675	\$1,195,675
2007	51,982,630	3,500,000	14,238,849	2,644,046	3,839,721
2008	26,001,788	10,000,000	0	-15,980,842	-12,141,121
2009	32,406,299	3,000,000	0	9,404,511	-2,736,610
2010	31,053,473	8,500,000	0	7,147,174	4,410,564
2011	23,758,477	7,500,000	0	205,004	4,615,568
2012	27,646,027	0	0	3,887,550	8,503,118
2013	40,899,931	0	3,802,146	9,451,898	17,955,016
2014	31,527,407	13,001,627	0	3,629,103	21,584,119
2015	29,934,966	2,000,704	0	408,263	21,992,382

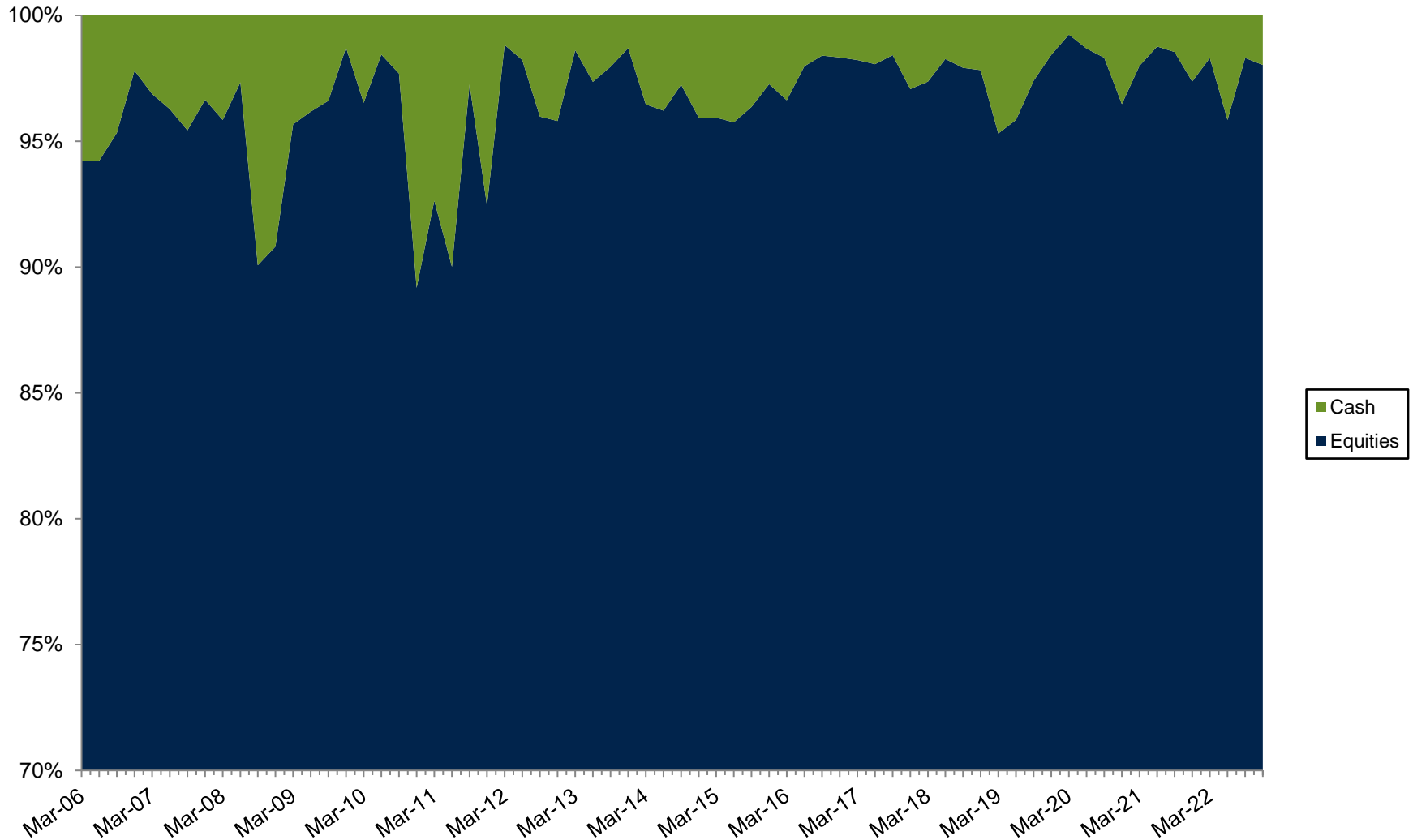
Asset Growth

Period Ending	Ending Portfolio Value	Withdrawals	Contributions	Investment Change	
				Period	Since Inception
2016	\$27,890,394	\$6,500,289	\$0	\$4,455,717	\$26,448,099
2017	29,426,736	5,000,733	0	6,537,075	32,985,174
2018	25,674,345	1,000,929	0	-2,751,462	30,233,712
2019	33,800,363	1,601,235	0	9,727,253	39,960,965
2020	40,963,482	0	0	7,163,875	47,124,840
2021	51,504,585	1,082	0	10,542,185	57,667,025
3/31/2022	48,590,595	0	0	-2,913,711	54,753,314
6/30/2022	42,885,909	0	0	-5,704,423	49,048,891
9/30/2022	40,472,084	0	0	-2,413,323	46,635,568
12/31/2022	\$43,611,637	0	0	3,139,894	\$49,775,476



Asset Allocation

Oakland Police and Fire Retirement Board
December 31, 2022



Broker Commission Report Oakland Police and Fire Retirement Board

Broker	Quantity	Commission Per Share	Commission Paid	% of Total Commission	Total Value of Trades	BP Cost Comm
BLAYLOCK BEAL VAN LLC (0443)	32,631	0.020	652.62	23.69	1,854,483.65	0.0004
CAPITAL INSTITUTIONAL SERVICES (161)	33,350	0.035	1,167.27	42.37	1,707,900.32	0.0007
CastleOak Securities (0443)	1,048	0.020	20.96	0.76	49,366.88	0.0004
JONES & ASSOCIATES (161)	5,877	0.035	205.70	7.47	179,745.70	0.0011
JP MORGAN (352)	6,873	0.035	240.57	8.73	214,908.48	0.0011
LIQUIDNET (005)	1,405	0.035	49.18	1.79	48,437.43	0.0010
LOOP CAPITAL MARKETS (443)	3,541	0.020	70.82	2.57	159,080.74	0.0004
MORGAN STANLEY & CO (00050)	7,391	0.035	258.69	9.39	463,085.36	0.0006
RAYMOND JAMES & ASSOCIATES (00725)	189	0.035	6.62	0.24	77,726.67	0.0001
Security Capital Brokerage, Inc. (443)	1,712	0.020	34.24	1.24	81,403.20	0.0004
StoneX Group (0161)	376	0.020	7.52	0.27	110,049.29	0.0001
TRUIST SECURITIES 226	1,169	0.035	40.92	1.49	60,596.87	0.0007
	95,562	0.029	2,755.11	100.00	5,006,784.59	



Russell Midcap® Index

The Russell Midcap® Index offers investors access to the mid-cap segment of the U.S. equity universe. It is constructed to provide a comprehensive and unbiased barometer for the mid-cap segment and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true mid-cap opportunity set. The Russell Midcap® Index includes the smallest 800 securities in the Russell 1000® Index. The index is unmanaged and it is not possible to invest directly in an index.

Nothing presented herein is intended to constitute investment advice and no investment decision should be made based on any information provided herein. Investments cited may not represent current or future holdings of EARNEST Partners, LLC (“EP”) investment products and nothing presented should be construed as a recommendation to purchase or sell a particular type of security or follow any investment technique or strategy. Information provided reflects EP’s views as of a particular time. Such views are subject to change at any point and EP shall not be obligated to provide any notice of such change. Any forward-looking statements or forecasts are based on assumptions and actual results are expected to vary from any such statements or forecasts. No reliance should be placed on any such statements or forecasts when making any investment decision. While EP has used reasonable efforts to obtain information from reliable sources, we make no representations or warranties as to the accuracy, reliability or completeness of third-party information presented herein. Performance assumes the reinvestment of dividends and capital gains. No guarantee of investment performance is being provided and no inference to the contrary should be made.

Sample Holdings Disclosures: Inclusion of references to individual securities are intended to illustrate contributors to and detractors from performance or market trends and to provide examples of thematic or security-specific catalysts identified by EARNEST Partners’ investment team as part of its investment process. References to specific securities should not be viewed as representative of an entire portfolio, nor should the performance of any particular security be viewed as representative of the performance experienced by any other security or portfolio. A complete listing of all EARNEST Partners investment selections for this strategy for the past 12 months is available upon request. It should not be assumed that future recommendations will be profitable or will equal the performance of securities included in these materials. Past specific investment advice does not guarantee future results.

MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: Meketa Investment Group (Meketa)
DATE: February 22, 2023
RE: EARNEST Partners—Manager Update

Manager: EARNEST Partners, LLC (“EARNEST”)

Inception Date:	April 2006	OPFRS AUM (01/31/2023):	\$47.6 million
Strategy:	Domestic Mid-Cap Equity	Firm-wide AUM (12/31/2022):	\$26.2 billion
Benchmark:	Russell Mid-Cap Index	Strategy AUM (12/31/2022):	\$1.9 billion

Summary & Recommendation

EARNEST Partners, LLC (“EARNEST”) has managed a part of OPFRS’s domestic equity portfolio since April 2006. As of 01/31/2023, the portfolio is approximately \$47.6 million or about 11% of OPFRS’s total plan. The strategy has performed 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 EARNEST and the Mid-Cap Core Equity strategy.**

Investment Performance Review Summary

As of 01/31/2023, EARNEST Mid-Cap Core strategy has outperformed its benchmark on both gross- and net-of-fees basis and ranks above average among peers, over almost all time periods measured. Over the 5-year trailing periods, it ranks within top-quartile amongst the Mid-Cap Equity managers.

OPFRS Portfolio Annualized Returns (as of 01/31/2023)¹

Portfolio	Market Value (\$000)	YTD	1 YR	3 YR	5 YR	Since Inception	Inception Date
EARNEST (Gross)	47,621	9.2	(-2.9)	12.4	11.0	10.5	04/2006
<i>Russell Mid-Cap Index</i>	---	8.3	(-3.3)	9	8.0	8.8	---
Excess Return (Gross)	---	0.9	0.4	3.4	3.0	1.7	---
EARNEST (Net)	---	9.1	(-3.6)	11.5	10.2	9.5	---
Excess Return (Net)	---	0.8	(-0.3)	2.5	2.2	0.7	---
Peer Group Ranking (Net) ²	---	38	51	28	16	---	---
Reference: Median Return (Net)	---	8.7	(-3.3)	9.9	8.6	---	---
Number of Peers in Peer Group	---	98	98	93	91	---	---

¹ Performance is annualized for periods longer than one year.

² Peer group is eVestment US Mid Cap Equity Managers Net.

Product and Organization Review Summary

EARNEST Partners, LLC	Areas of Potential Impact				
	Level of Concern	Investment process (Client Portfolio)	Investment Team	Performance Track Record	Team/Firm Culture
Product					
Key people changes	None				
Changes to team structure/individuals' roles	None				
Product client gain/losses	None				
Changes to the investment process	None				
Personnel turnover	None				
Organization					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
Recommended Action	None		Watch Status	Termination	

A review of EARNEST Partners, LLC and the Mid-Cap Core strategy revealed no concerning organizational issues or changes since last review in February 2022.

Investment Philosophy & Process, per Manager³

EARNEST Partners is a fundamental, bottom-up investment manager. The Firm's investment objective is to outperform the assigned benchmark while seeking to control volatility and risk. EARNEST Partners implements this philosophy using a screen developed in-house called Return Pattern Recognition®, thorough fundamental analysis, and risk management that seeks to minimize the likelihood of meaningfully underperforming the assigned benchmark.

EARNEST Partners does not target sector or industry weights. Instead, the weightings are an outgrowth of our bottom-up, fundamental stock selection process. The process is designed to put the client in the individual securities that the firm believes have the most attractive expected returns; relative overweights and underweights are an outgrowth of where the team is finding those individual opportunities. The risk management process also influences the weights taken in any one sector. As a general rule, larger sectors will not represent more than 2x the benchmark weight. No individual holding generally exceeds 5.0% of the portfolio's value.

DS/PN/JLC/mn

³ Source: eVestment. Abridged.

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 & Secretary

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

DATE: February 22, 2023

SUMMARY

The Service Contract for the following Investment Manager for the Oakland Police & Fire Retirement Systems (PFRS) is set to expire March 24, 2023. The PFRS Board is asked to consider acting to extend the agreement for this manager for one additional year pursuant to the professional service agreement.

BACKGROUND

The Professional 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	Inception Date	Contract Extension Expiration Date
Earnest Partners, LLC	Domestic Equity Mid-Cap Core	March 24, 2006	March 24, 2023

RECOMMENDATION

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

Respectfully submitted,

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

ATTACHMENT 1

Resolution No. 8074

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved to Form
and Legality



RESOLUTION NO. 8074

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION AUTHORIZING 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

WHEREAS, Oakland City Charter section 2601(e) states that the Board of the Oakland Police and Fire Retirement System (“PFRS Board”) shall possess power to make all necessary rules and regulation for its guidance and shall have exclusive control of the administration and investment of the funds established for the maintenance and operation of the system; and

WHEREAS, Oakland City Charter section 2601(e) also states that the PFRS Board may secure from competent investment counsel such counsel and advice as to investing the funds of the Retirement System as it deems necessary and that discretionary powers granted such investment counsel will be at the option of the Board; and

WHEREAS, at the November 30, 2005 Board meeting, the PFRS Board awarded a professional service agreement (“the Agreement”) to Earnest Partners, LLC (“Investment Counsel”) to provide advice and counsel regarding investments of the assets of the Police and Fire Retirement Fund (“Fund”) for a five-year term commencing March 24, 2006 and ending March 24, 2011; and

WHEREAS, Section XXVII of the Agreement allows for modification of the Agreement by written agreement of all parties; and

WHEREAS, Section IV(B) of the Agreement gave the PFRS Board the option to extend the initial term of the Agreement for three addition one-year terms; and

WHEREAS, on January 26, 2011, the Agreement with Investment Counsel was extended by Board motion for an additional five-year term, commencing March 24, 2011, and

WHEREAS, on March 30, 2016, the Agreement with Investment Counsel was extended by Board motion for an addition one-year term, effective March 24, 2016, and

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 8074

WHEREAS, on March 29, 2017, the PFRS Board passed Resolution No. 6957 which authorized amendment of Section IV(B) of the Agreement to provide the PFRS Board with unlimited one-year extension options, and

WHEREAS, on January 31, 2018, the PFRS Board passed Resolution No. 6993 which authorized a one-year extension of the Agreement with Investment Counsel commencing March 24, 2018, and

WHEREAS, on January 30, 2019, the PFRS Board passed Resolution No. 7036 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2019, and

WHEREAS, on January 29, 2020, the PFRS Board passed Resolution No. 7080 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2020, and

WHEREAS, on February 24, 2021, the PFRS Board passed Resolution No. 8011 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2021, and

WHEREAS, on February 23, 2022, the PFRS Board passed Resolution No. 8038 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2022, and

WHEREAS, the Board now wishes to exercise its option to renew the Agreement with Investment Counsel for an additional one-year term, commencing March 24, 2023 at the annual fee rate of 1.00 percent of the first \$10.0 million; 0.75% of the next \$15.0 million; and 0.60% thereafter of Fund assets under management (presently valued at approximately \$43.6 million dollars (\$43,600,000.00), which fees are estimated to be approximately Three Hundred Twenty Four Thousand Dollars (\$324,000.00); 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 Earnest Partners, LLC for the provision of Domestic Equity Mid-Cap Core Investment Strategy Manager Services, commencing March 24, 2023 and ending March 24, 2024; and be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 8074

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 Earnest Partners, LLC.

IN BOARD MEETING, VIA ZOOM TELE-CONFERENCE **FEBRUARY 22, 2023**

PASSED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

Economic and Market Update

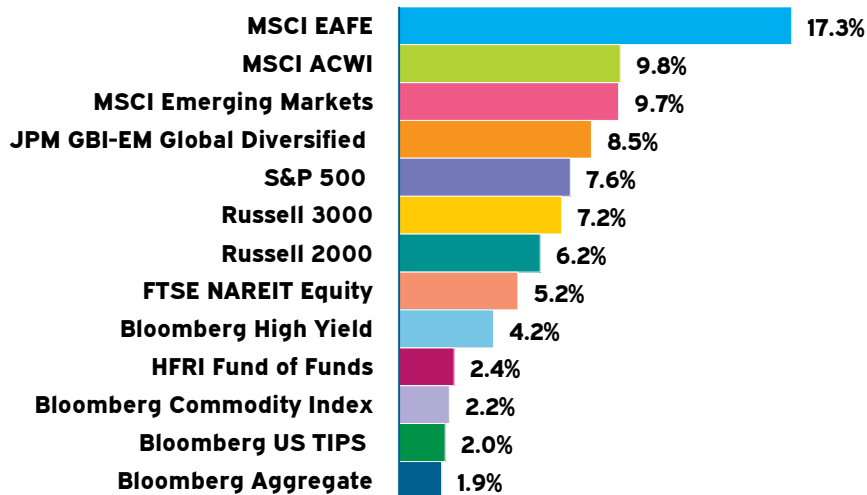
January 2023 Report

Commentary

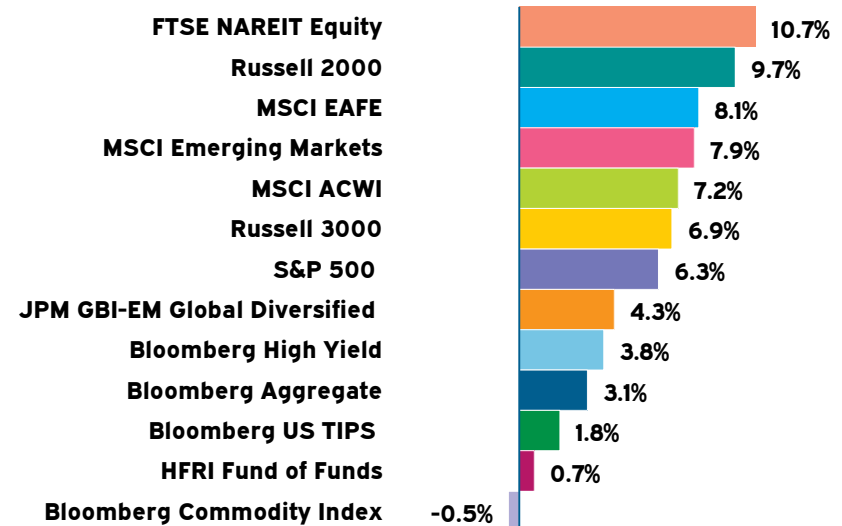
- After a very tough first three quarters of 2022, most asset classes posted gains in the fourth quarter and in January of 2023 on signs that policy tightening would slow, given cooling inflation.
- Chairman Powell's February press conference reiterated previous messaging on high and persistent inflation and the need for an extended period of high interest rates. However, he acknowledged that disinflationary forces were visible in some sectors of the economy but said they were not yet broad-based. Markets focused though on signs that inflation is falling and that the size of future Fed rate hikes could be lower.
 - US equity markets rallied in January 2023 with the Russell 3000 index up 6.9% and growth-oriented areas performing best.
 - Developed equity markets outside the US also had a strong January (+8.1%), as investor sentiment turned bullish. The weakening US dollar, falling inflation, and an improved economic outlook have all been supportive. In February the ECB signaled further rate hikes, but headline inflation has fallen more quickly than expected as energy costs and mild weather helped lift investor sentiment.
 - Emerging market equities enjoyed a very strong start to the year, returning 7.9% and outperforming the US. A weaker US dollar, declining inflation globally, and signs of China reopening its economy all contributed to the positive results.
 - In 2022, bonds experienced one of the worst years on record given inflation levels and the rapid rise in interest rates. Optimism over declining inflation and a slower pace of policy tightening benefited bonds in the fourth quarter, though, and supported positive fixed income returns in January 2023.
- This year, the path of inflation and monetary policy, slowing global growth, China reopening its economy, and the war in Ukraine will be key.

Index Returns¹

Fourth Quarter 2022



YTD 2023



- After broad declines in Q3 driven by expectations for further policy tightening, most major asset classes were up in the fourth quarter, a trend that has continued into 2023, on hopes of inflation and policy tightening peaking.
- Outside of commodities, all other public market asset classes declined in 2022. It was the first time since the 1960s that both stocks and bonds declined together in a calendar year.

¹ Source: Bloomberg and FactSet. Data is as of January 31, 2023.

Domestic Equity Returns¹

Domestic Equity	January (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	6.3	7.6	-8.2	9.9	9.5	12.7
Russell 3000	6.9	7.2	-8.2	9.5	9.1	12.3
Russell 1000	6.7	7.2	-8.5	9.6	9.4	12.5
Russell 1000 Growth	8.3	2.2	-16.0	9.9	11.2	14.5
Russell 1000 Value	5.2	12.4	-0.4	8.5	6.9	10.1
Russell MidCap	8.3	9.2	-3.3	9.0	8.0	11.1
Russell MidCap Growth	8.7	6.9	-8.5	6.5	8.3	11.7
Russell MidCap Value	8.1	10.5	-0.7	9.3	6.9	10.2
Russell 2000	9.7	6.2	-3.4	7.5	5.5	9.4
Russell 2000 Growth	9.9	4.1	-6.5	4.3	4.7	9.5
Russell 2000 Value	9.5	8.4	-0.5	9.9	5.8	8.8

US Equities: Russell 3000 Index rose 6.9% in January after gaining 7.2% for the fourth quarter. Historic inflation and rapidly rising interest rates led to significant declines (-19.2%) in 2022.

- US stocks rose sharply in January as investors expressed optimism that the Federal Reserve will moderate its rate hike schedule as inflation continues to decrease.
- Small cap stocks outperformed large cap stocks in January while growth stocks outperformed value stocks across the market capitalization spectrum.
- Consumer discretionary and communication services were the leading sectors in the Russell 3000 in January. Their resurgence marks a reversal from 2022 when they were the largest detractors amid fears of inflation and a potential recession.

¹ Source: Bloomberg. Data is as of January 31, 2023.

Foreign Equity Returns¹

Foreign Equity	January (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	8.1	14.3	-5.7	3.6	1.4	4.2
MSCI EAFE	8.1	17.3	-2.8	4.2	2.1	4.9
MSCI EAFE (Local Currency)	6.3	8.7	2.6	6.2	4.8	7.6
MSCI EAFE Small Cap	7.5	15.8	-8.9	2.5	0.4	6.4
MSCI Emerging Markets	7.9	9.7	-12.1	1.4	-1.5	2.1
MSCI Emerging Markets (Local Currency)	6.5	6.6	-8.4	3.4	1.2	5.1
MSCI China	11.8	13.5	-10.1	-2.4	-4.7	3.2

Developed international equities (MSCI EAFE) rose 8.1% in January after an impressive 17.3% gain in the fourth quarter. Emerging markets (MSCI EM) rallied 7.9% in January after returning 9.7% for the fourth quarter in 2022.

- International developed market equities had a solid start to the year, continuing their strong performance in Q4 helped by declining inflation, hope of avoiding a recession, and a weaker US dollar. Economically sensitive sectors like information technology and consumer discretionary helped growth outperform value stocks. China's reopening boosted the consumer discretionary sector (luxury goods, travel, and leisure).
- Emerging market equities started strongly, this year, too with optimism over developments in China, falling inflation, and a weaker dollar all contributing.
- In China, the ending of their zero COVID policy, continued monetary policy support, as well as support for the real estate sector, were all key.

¹ Source: Bloomberg. Data is as of January 31, 2023.

Fixed Income Returns¹

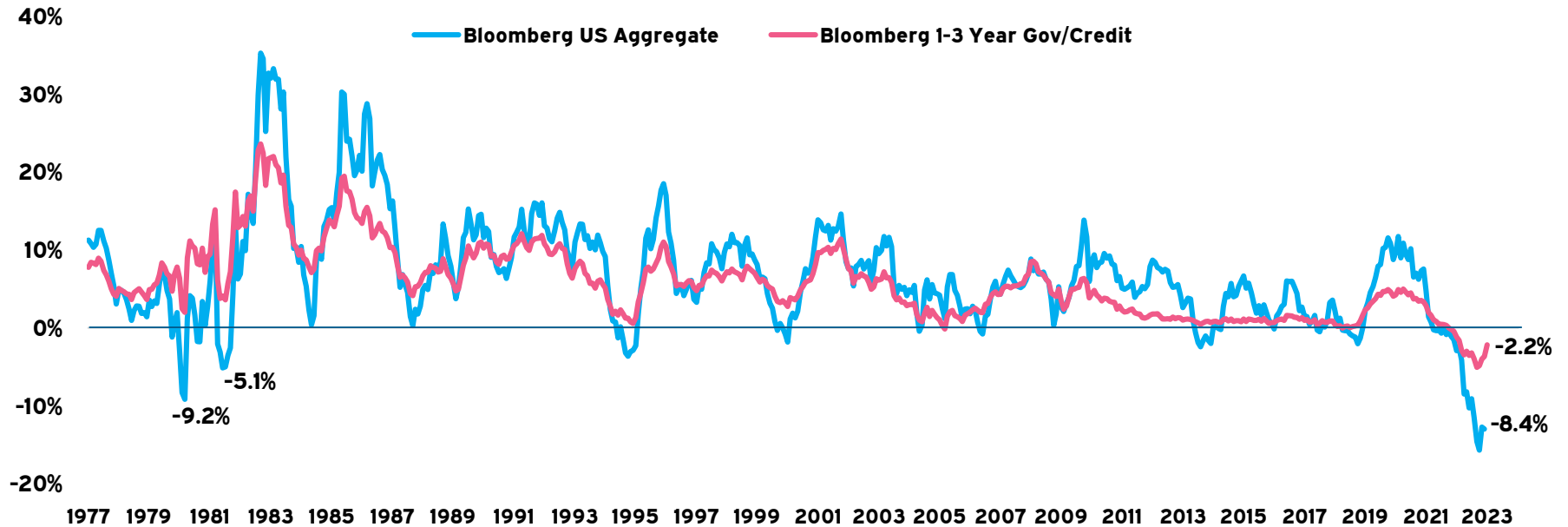
Fixed Income	January (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	3.1	2.2	-8.3	-2.1	1.0	1.7	4.7	6.3
Bloomberg Aggregate	3.1	1.9	-8.4	-2.3	0.9	1.4	4.3	6.5
Bloomberg US TIPS	1.8	2.0	-8.4	1.1	2.7	1.4	4.0	7.0
Bloomberg High Yield	3.8	4.2	-5.2	1.3	3.0	4.3	8.1	4.4
JPM GBI-EM Global Diversified (USD)	4.3	8.5	-7.9	-4.4	-2.5	-1.7	7.0	5.0

Fixed Income: The Bloomberg Universal rose 3.1% in January 2023 after posting a 2.2% gain for the fourth quarter of 2022. Last year was one of the worst on record, with the broad bond market declining 13%.

- Improvements in global inflation risks and generally positive economic updates drove rates lower on the expectation that policy might be easing later in the year and recession risks could be less than feared.
- TIPS trailed the broad US bond market (Bloomberg Aggregate) for the month on declining inflation fears.
- Riskier high yield bonds outperformed in January due to improving risk sentiment.

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

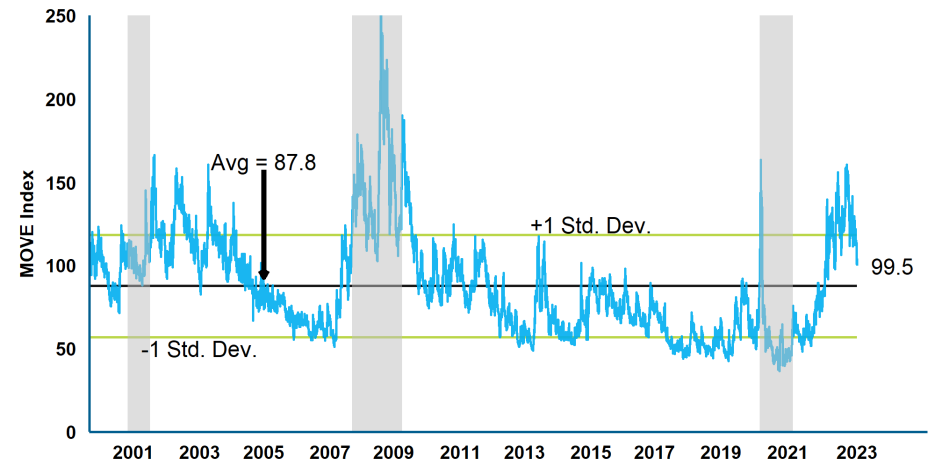
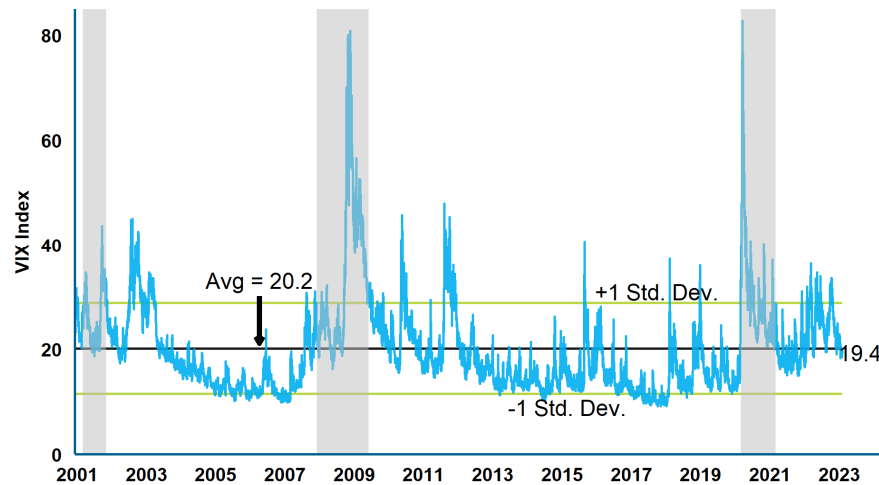
Fixed Income Rolling One-year Returns¹



- Last year was one of the worst return periods for the US bond market given the historic inflation levels and the corresponding rapid rise in interest rates.
- The broad bond market (Bloomberg US Aggregate) declined 13% in 2022 making it one of the worst periods on record. Short-term bonds declined less (-3.7%) but also experienced one of the worst years on record.
- With global inflation falling and the economic outlook improving, fixed income returns turned positive at the end of 2022 and in January 2023.

¹ Source: Bloomberg. Data is as of January 31, 2023.

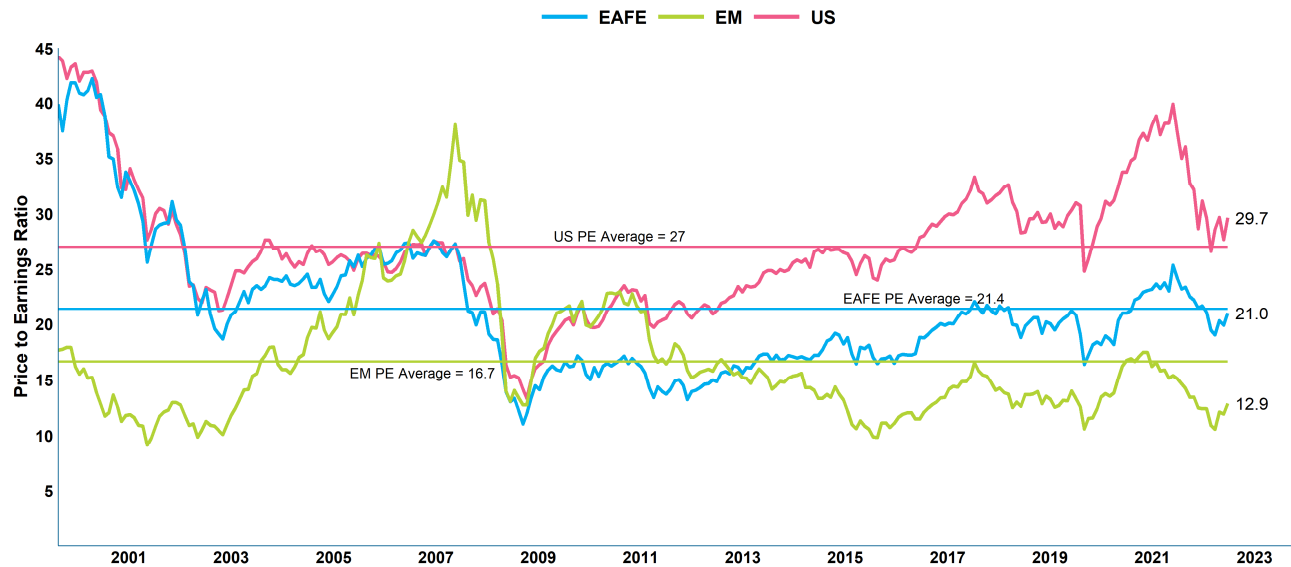
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) finished the year down from its highs and continued to decline in January to below the long run average as investors anticipated the potential end of Fed rate hikes this year.
- Fixed income volatility (MOVE) remained elevated and well above its long-run average at year-end due to the uncertain path of US interest rates as the Federal Reserve continues its hawkish stance on inflation. In January, implied rate volatility eased with a softening of that rate uncertainty.

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

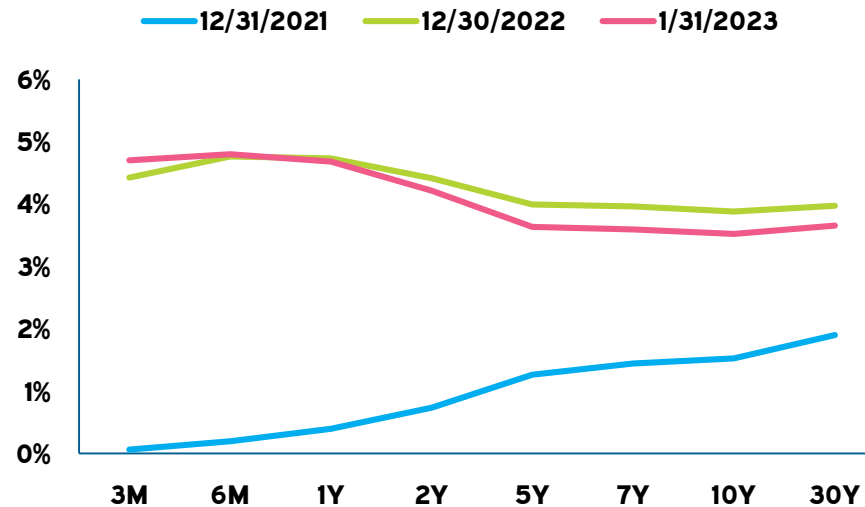
Equity Cyclically Adjusted P/E Ratios¹



- With January’s strong recovery, the US equity price-to-earnings ratio is slightly above its long-run (21st century) average.
- International developed market valuations rose but remain below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of December 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.

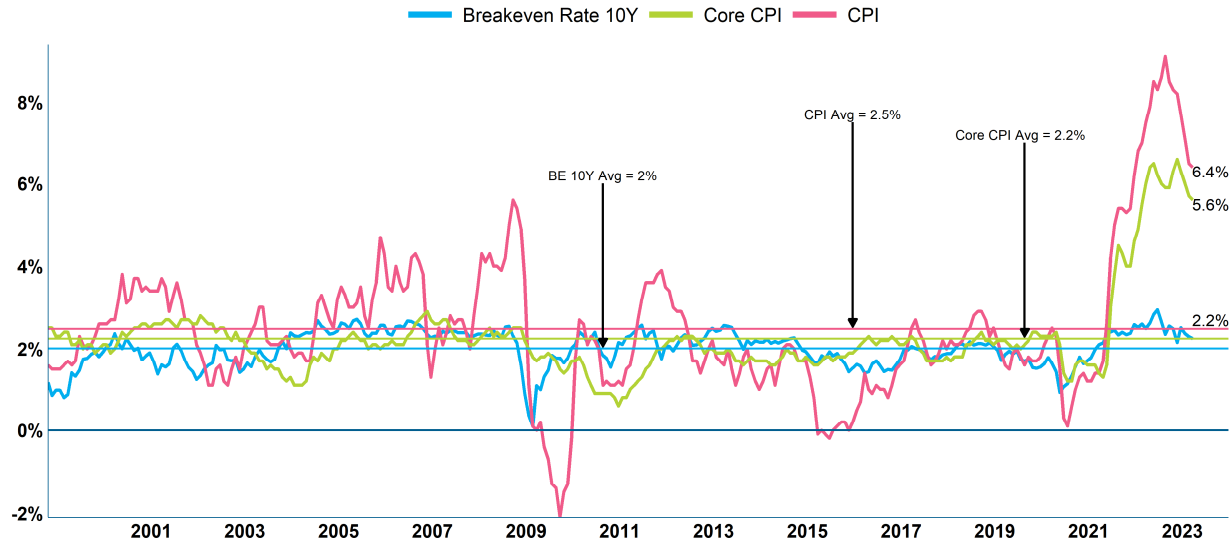
US Yield Curve¹



- In January, policy-sensitive interest rates at the front-end of the curve continued to decline, with the two-year Treasury yield falling from 4.4% to 4.2%. Longer dated ten-year Treasury yields also fell (3.9% to 3.5%). In 2022, the yield curve rose dramatically across maturities and moved from steep to inverted.
- The Fed remains committed to fighting inflation, as it increased rates another 25 basis points to a range of 4.5% to 4.75% at its February meeting.
- The yield spread between two-year and ten-year Treasuries widened to -0.69% in January 2023 after finishing December 2022 at -0.55%. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Inversions in the yield curve have often preceded recessions.

¹ Source: Bloomberg. Data is as of January 31, 2023.

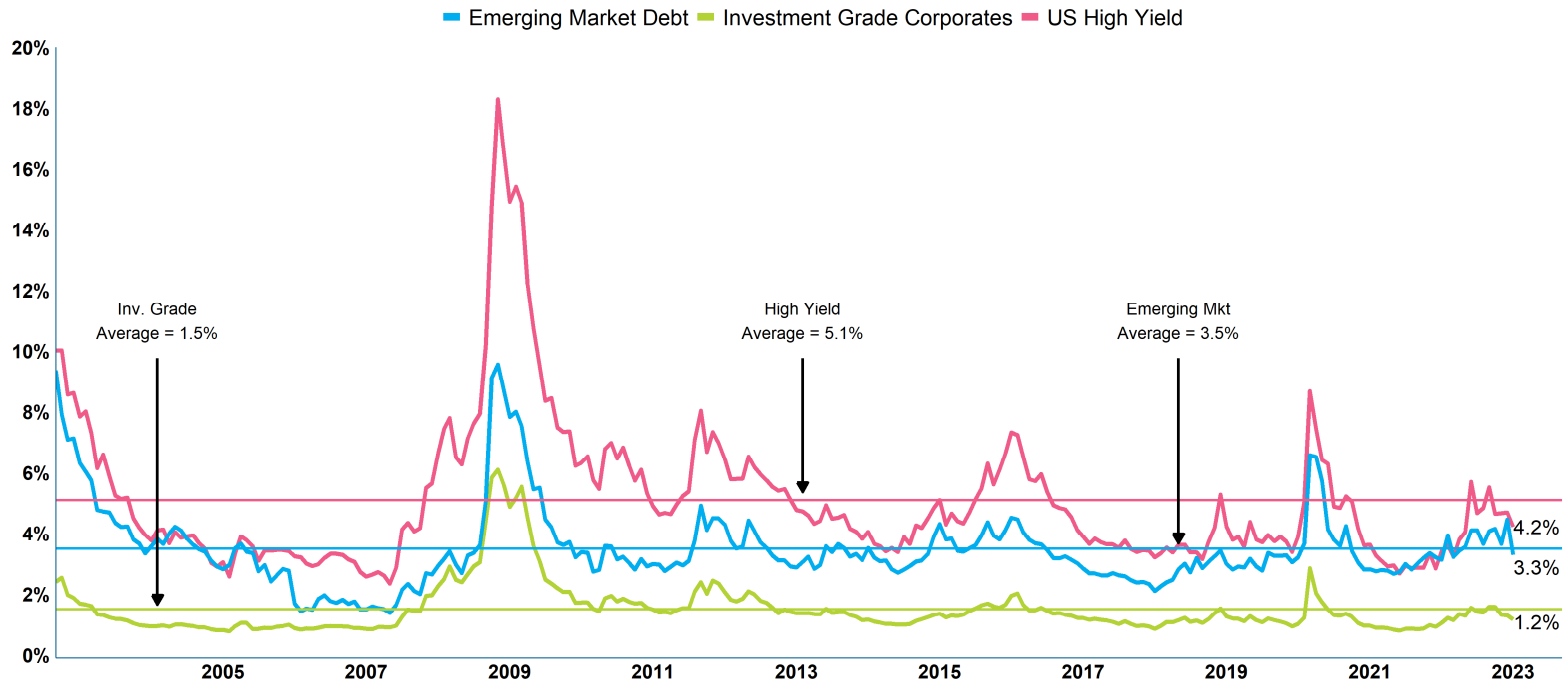
Ten-Year Breakeven Inflation and CPI¹



- The January reading of year over year inflation fell slightly (6.4% versus 6.5%) but came in above expectations, supporting further tightening by the Fed. Prices increased 0.5% from a month prior with shelter being the largest contributor. Energy and food prices rose too.
- Core inflation – excluding food and energy – also continued to decline year over year (5.6% versus 5.7%) but also came in above estimates.
- Inflation expectations (breakevens) largely were unchanged from the prior month and remain well below current inflation levels as investors anticipate a significant moderation in inflation.

¹ Source: Bloomberg. Data is as of January 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end respectively. Breakeven values represent month-end values for comparative purposes.

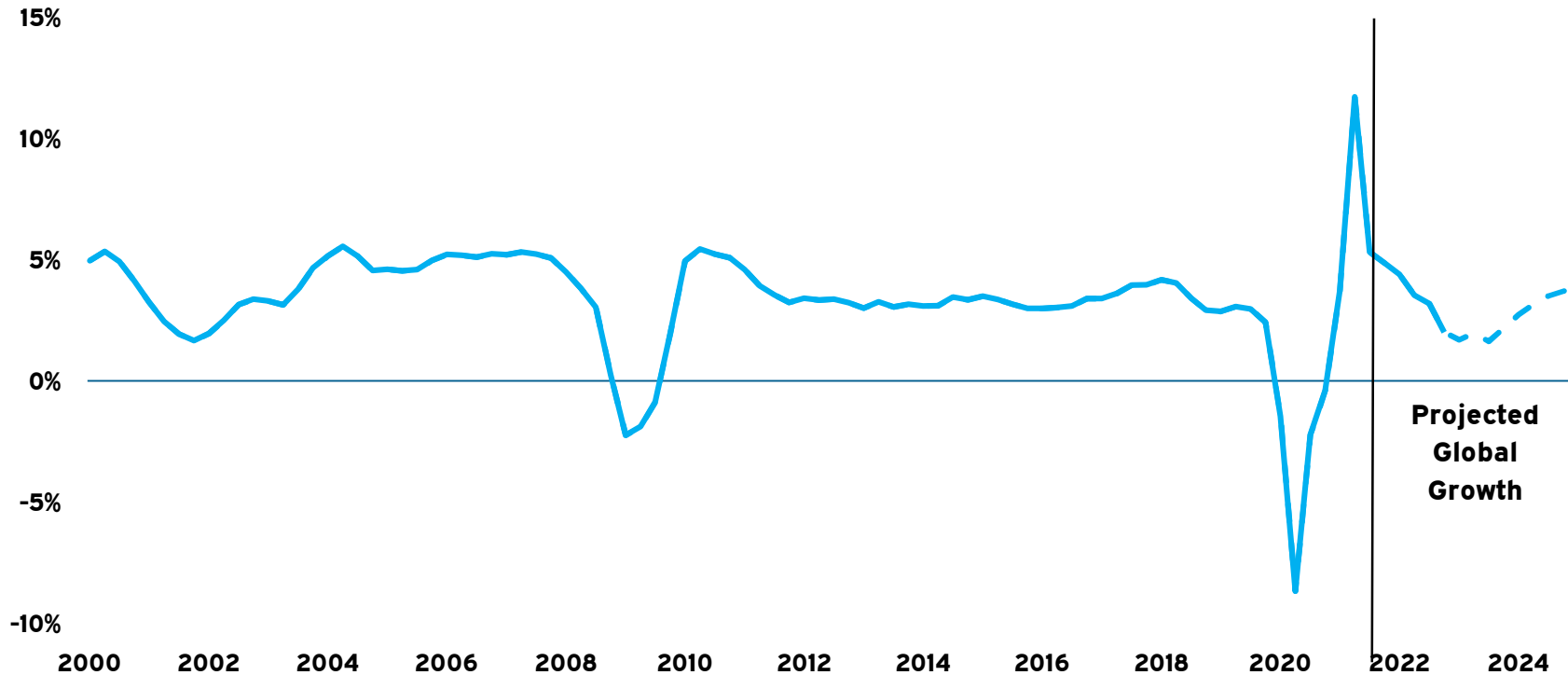
Credit Spreads vs. US Treasury Bonds¹



- Spreads (the added yield above a comparable maturity Treasury) largely fell in January as credit markets outperformed government bonds on improved risk sentiment given signs of slowing inflation.
- High yield spreads fell from 4.7% to 4.2% in January while investment grade spreads declined to 1.2% from 1.3%. Emerging market spreads fell the most (3.3% versus 4.5%) due to China’s reopening and falling inflation.

¹ Sources: Bloomberg. Data is as of January 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end respectively.

Global Real Gross Domestic Product (GDP) Growth¹

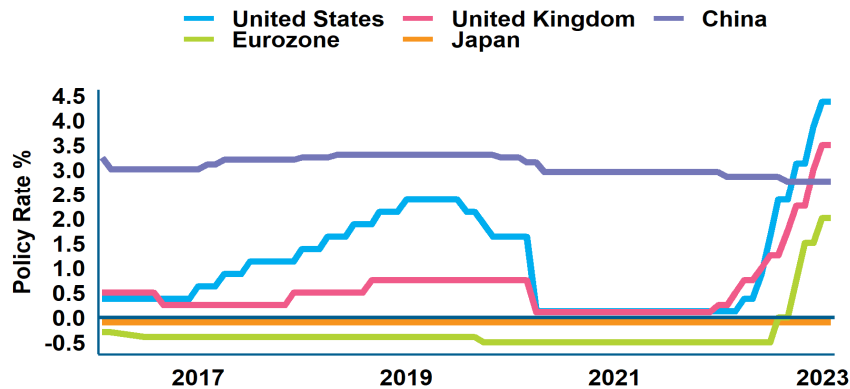


- Global economies are expected to slow in 2023 compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

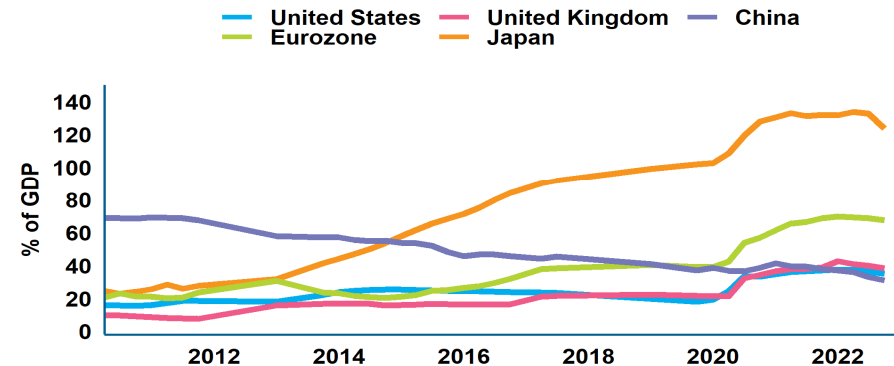
¹ Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated January 2023.

Central Bank Response¹

Policy Rates



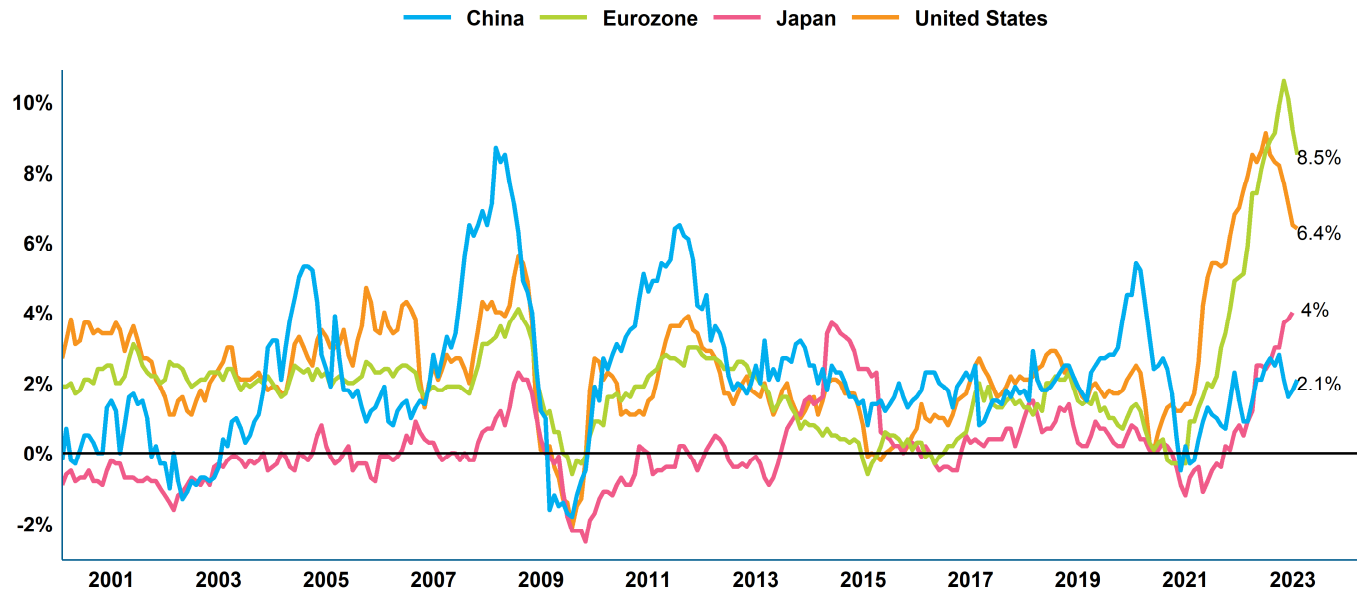
Balance Sheet as % of GDP



- In 2022 many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the US taking the most aggressive approach. However, global inflation has begun to moderate, and markets anticipate a slowing in the rate of policy tightening in the future.
- In December, the Bank of Japan relaxed its target yield for the 10-year bond which may mark an incremental step toward policy normalization after eight years of quantitative easing.
- China's central bank is expected to maintain its accommodative monetary stance to support consumer demand and investment as well as offer liquidity to the troubled real estate sector.
- The risk remains for a policy error, particularly overtightening, as record inflation and aggressive tightening to date could heavily weigh on global growth. The Federal Reserve's policy rate path could diverge from others this year given their strong early start to tightening.

¹ Source: Bloomberg. Policy rate data is as of January 31, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of December 31, 2022.

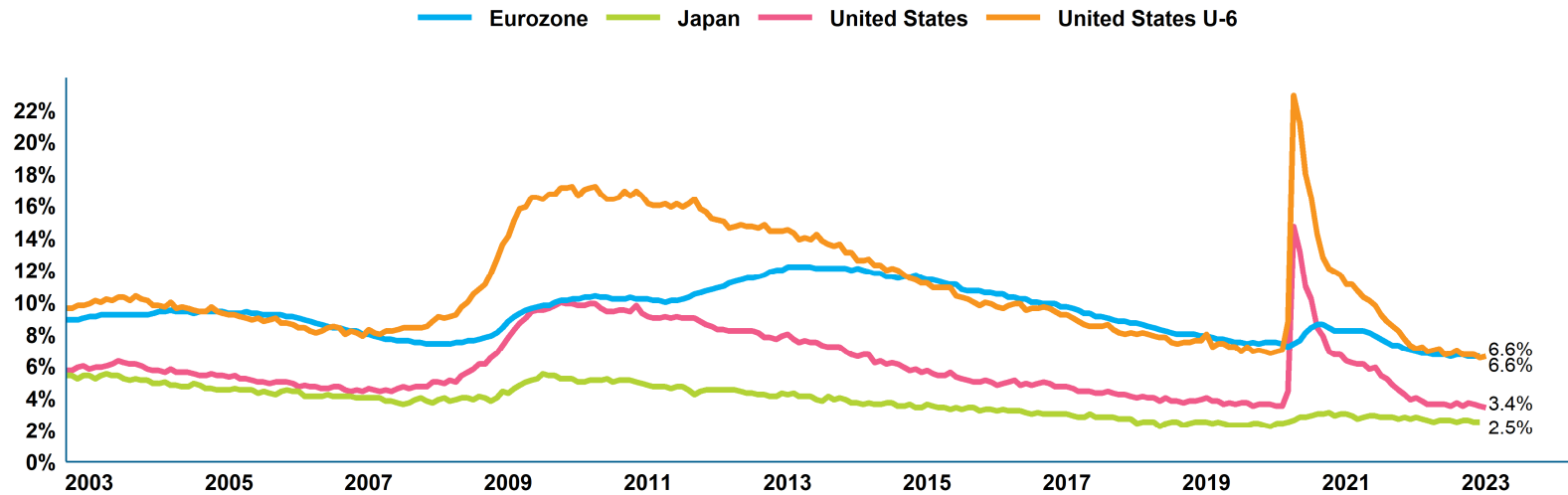
Inflation (CPI Trailing Twelve Months)¹



- Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it has reached levels not seen in many decades.
- Inflation pressures are slowly declining in the US as supply issues ease, but they remain elevated, while in Europe they have also started to fall but remain at historic levels due to skyrocketing energy prices and a weak euro.
- Supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

¹ Source: Bloomberg. Data is as of January 2023. The most recent Japanese inflation data is as of December 2022.

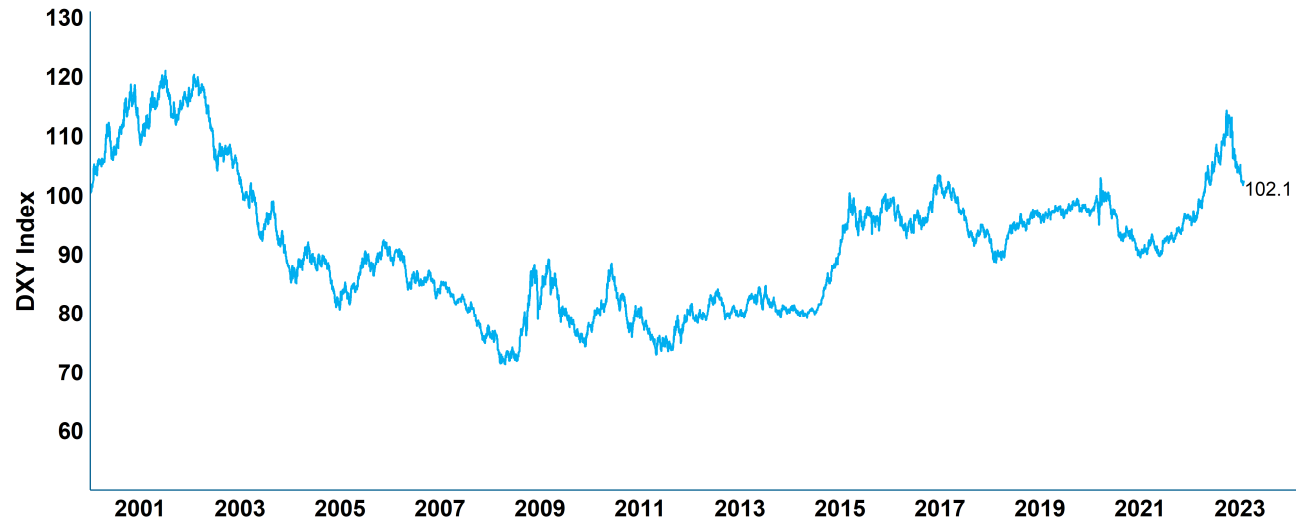
Unemployment¹



- As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market.
- Despite slowing growth and high inflation, the US labor market remains a bright spot. Unemployment in the US, which experienced the steepest rise from the pandemic, recently reached 3.4%, a level not seen in over 50 years.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed’s efforts to fight inflation, likely leading to higher unemployment.

¹ Source: Bloomberg. Data is as January 31, 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of December 31, 2022.

US Dollar versus Broad Currencies¹



- Overall, the US dollar continued to weaken in January from its recent peak as declining inflation supported the case for the Federal Reserve to slow its tightening.
- The dollar finished the year much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- This year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

¹ Source: Bloomberg. Data as of January 31, 2023.

Summary

Key Trends:

- The impacts of record high inflation will remain key, with market volatility likely to stay high.
- Global monetary policies could diverge in 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors in both directions remains.
- Growth will continue to slow globally this year, with many economies likely falling into recessions. Inflation, monetary policy, and the war will all be key.
- In the US the end of many fiscal programs is expected to put the burden of continued growth on consumers. Higher energy and food prices could weigh on consumer spending.
- Valuations have significantly declined in the US to around long-term averages, largely driven by price declines. The key going forward will be whether earnings can remain resilient if growth continues to slow.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

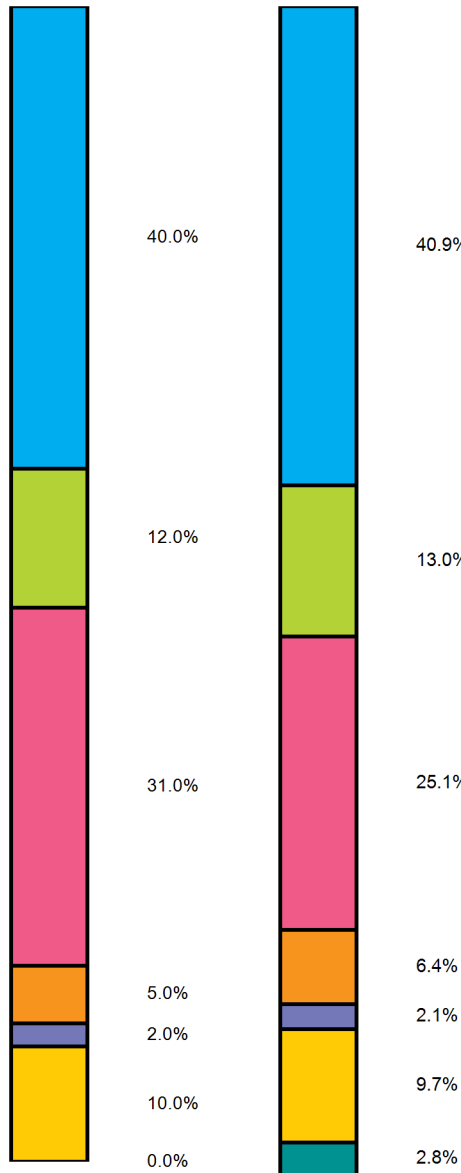
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Oakland Police and Fire Retirement System

February 22, 2023

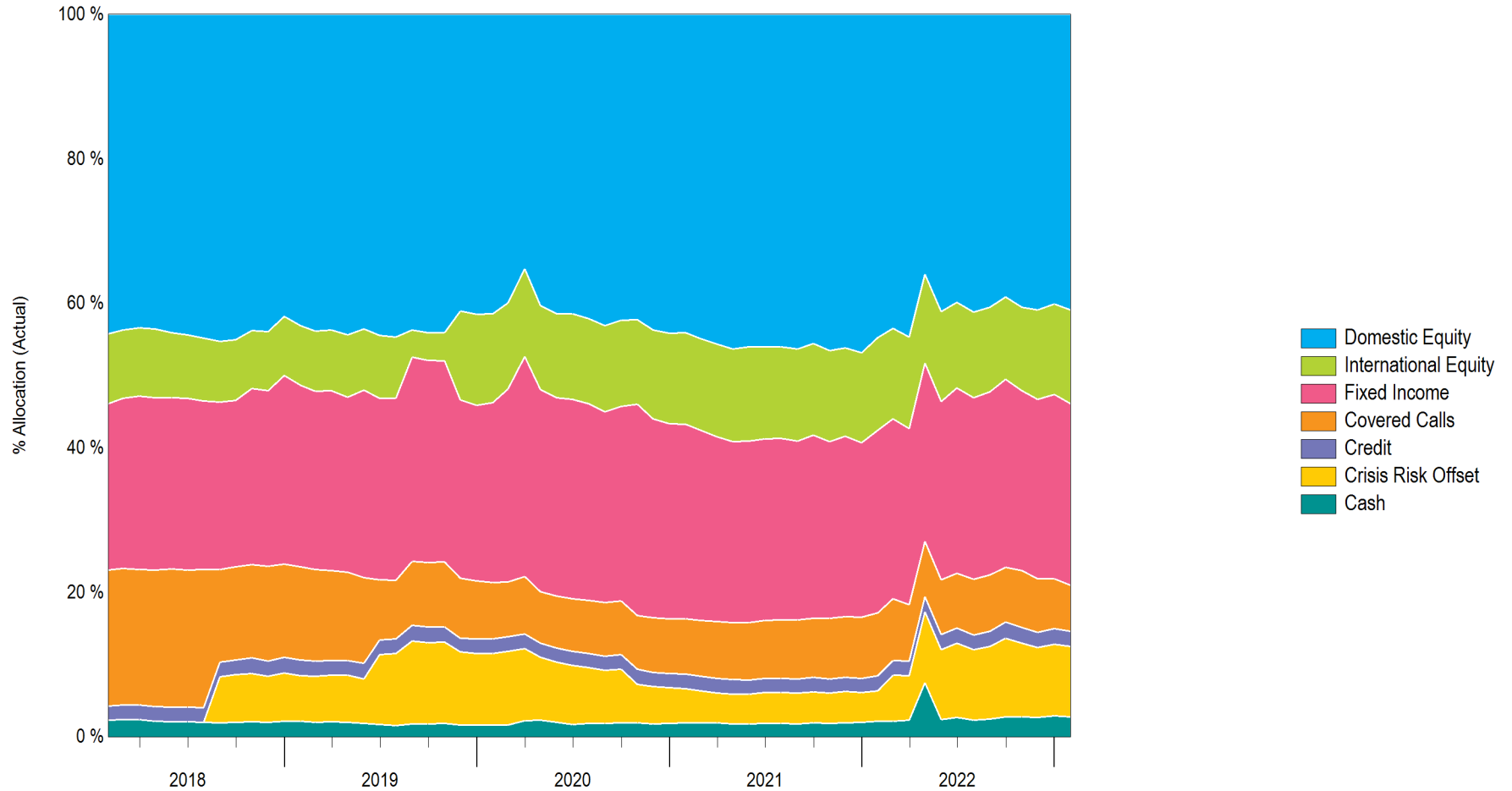
January Flash Report

As of January 31, 2023



Allocation vs. Targets and Policy							
	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?	
Domestic Equity	\$171,368,400	40.9%	40.0%	0.9%	30.0% - 50.0%	Yes	
International Equity	\$54,306,630	13.0%	12.0%	1.0%	8.0% - 14.0%	Yes	
Fixed Income	\$105,031,590	25.1%	31.0%	-5.9%	25.0% - 40.0%	Yes	
Covered Calls	\$26,689,182	6.4%	5.0%	1.4%	5.0% - 10.0%	Yes	
Credit	\$8,909,576	2.1%	2.0%	0.1%	0.0% - 100.0%	Yes	
Crisis Risk Offset	\$40,662,931	9.7%	10.0%	-0.3%	5.0% - 15.0%	Yes	
Cash	\$11,763,432	2.8%	0.0%	2.8%	0.0% - 5.0%	Yes	
Total	\$418,731,740	100.0%	100.0%				

Asset Allocation History
5 Years Ending January 31, 2023



As of January 31, 2023

Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
OPFRS Total Plan	418,731,740	100.0	5.6	6.4	-5.9	4.2	4.8	7.3	6.6	Dec-88
<i>OPFRS Policy Benchmark</i>			<u>5.0</u>	<u>6.2</u>	<u>-6.8</u>	<u>3.9</u>	<u>4.4</u>	<u>6.9</u>	<u>7.8</u>	<u>Dec-88</u>
Excess Return			0.6	0.2	0.9	0.3	0.4	0.4	-1.2	
Domestic Equity	171,368,400	40.9	7.3	10.5	-5.3	10.0	8.9	12.2	8.9	Jun-97
<i>Russell 3000 (Blend)</i>			<u>6.9</u>	<u>9.4</u>	<u>-8.2</u>	<u>9.5</u>	<u>9.1</u>	<u>12.3</u>	<u>8.9</u>	<u>Jun-97</u>
Excess Return			0.4	1.1	2.9	0.5	-0.2	-0.1	0.0	
International Equity	54,306,630	13.0	8.9	13.4	-4.9	4.0	2.3	5.6	5.3	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			<u>8.1</u>	<u>11.3</u>	<u>-5.7</u>	<u>3.6</u>	<u>1.4</u>	<u>4.2</u>	<u>5.0</u>	<u>Jan-98</u>
Excess Return			0.8	2.1	0.8	0.4	0.9	1.4	0.3	
Fixed Income	105,031,590	25.1	3.4	0.7	-8.1	-1.7	1.4	2.0	4.8	Dec-93
<i>Bloomberg Universal (Blend)</i>			<u>3.1</u>	<u>0.7</u>	<u>-8.3</u>	<u>-2.1</u>	<u>1.0</u>	<u>1.7</u>	<u>4.6</u>	<u>Dec-93</u>
Excess Return			0.3	0.0	0.2	0.4	0.4	0.3	0.2	
Credit	8,909,576	2.1	3.6	5.1	-3.8	3.8	3.3	--	5.1	Feb-15
<i>Bloomberg US High Yield TR</i>			<u>3.8</u>	<u>7.4</u>	<u>-5.2</u>	<u>1.3</u>	<u>3.0</u>	<u>4.3</u>	<u>4.2</u>	<u>Feb-15</u>
Excess Return			-0.2	-2.3	1.4	2.5	0.3		0.9	
Covered Calls	26,689,182	6.4	4.6	7.0	-4.7	8.4	7.8	--	8.6	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<u>4.2</u>	<u>2.8</u>	<u>-5.3</u>	<u>3.0</u>	<u>3.5</u>	<u>6.0</u>	<u>5.3</u>	<u>Apr-14</u>
Excess Return			0.4	4.2	0.6	5.4	4.3		3.3	
Crisis Risk Offset	40,662,931	9.7	3.1	-2.0	-8.5	-13.6	-7.7	--	-8.5	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>			<u>0.5</u>	<u>2.9</u>	<u>4.4</u>	<u>-1.3</u>	<u>--</u>	<u>--</u>	<u>-0.4</u>	<u>Aug-18</u>
Excess Return			2.6	-4.9	-12.9	-12.3			-8.1	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

As of January 31, 2023

	Market Value (\$)	% of Portfolio	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Cash	11,763,432	2.8	0.0	0.0	0.0	0.3	1.1	0.7	0.6	Mar-11
<i>FTSE T-Bill 3 Months TR</i>			<i>0.4</i>	<i>1.7</i>	<i>1.9</i>	<i>0.8</i>	<i>1.3</i>	<i>0.8</i>	<i>0.7</i>	<i>Mar-11</i>
Excess Return			-0.4	-1.7	-1.9	-0.5	-0.2	-0.1	-0.1	

As of January 31, 2023

Performance Summary											
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
OPFRS Total Plan	418,731,740	100.0	--	5.6	6.4	-5.9	4.2	4.8	7.3	6.6	Dec-88
<i>OPFRS Policy Benchmark</i>				<u>5.0</u>	<u>6.2</u>	<u>-6.8</u>	<u>3.9</u>	<u>4.4</u>	<u>6.9</u>	<u>7.8</u>	<u>Dec-88</u>
Excess Return				0.6	0.2	0.9	0.3	0.4	0.4	-1.2	
Domestic Equity	171,368,400	40.9	40.9	7.3	10.5	-5.3	10.0	8.9	12.2	8.9	Jun-97
<i>Russell 3000 (Blend)</i>				<u>6.9</u>	<u>9.4</u>	<u>-8.2</u>	<u>9.5</u>	<u>9.1</u>	<u>12.3</u>	<u>8.9</u>	<u>Jun-97</u>
Excess Return				0.4	1.1	2.9	0.5	-0.2	-0.1	0.0	
Northern Trust Russell 1000	74,412,427	17.8	43.4	6.7	9.1	-8.7	9.5	9.3	12.5	13.0	Jun-10
<i>Russell 1000</i>				<u>6.7</u>	<u>9.2</u>	<u>-8.5</u>	<u>9.7</u>	<u>9.4</u>	<u>12.5</u>	<u>13.1</u>	<u>Jun-10</u>
Excess Return				0.0	-0.1	-0.2	-0.2	-0.1	0.0	-0.1	
EARNEST Partners	47,621,448	11.4	27.8	9.2	11.0	-2.9	12.4	11.0	13.6	10.5	Apr-06
<i>Russell MidCap</i>				<u>8.3</u>	<u>14.2</u>	<u>-3.3</u>	<u>9.0</u>	<u>8.0</u>	<u>11.1</u>	<u>8.8</u>	<u>Apr-06</u>
Excess Return				0.9	-3.2	0.4	3.4	3.0	2.5	1.7	
Wellington Select Quality Equity	22,376,261	5.3	13.1	0.8	7.9	--	--	--	--	1.7	May-22
<i>Russell 1000</i>				<u>6.7</u>	<u>9.2</u>	<u>-8.5</u>	<u>9.7</u>	<u>9.4</u>	<u>12.5</u>	<u>-0.1</u>	<u>May-22</u>
Excess Return				-5.9	-1.3					1.8	
Brown Fundamental Small Cap Value	11,802,575	2.8	6.9	8.1	19.6	5.2	--	--	--	6.1	Apr-21
<i>Russell 2000 Value</i>				<u>9.5</u>	<u>13.3</u>	<u>-0.5</u>	<u>9.9</u>	<u>5.8</u>	<u>8.8</u>	<u>-0.5</u>	<u>Apr-21</u>
Excess Return				-1.4	6.3	5.7				6.6	
Rice Hall James	15,155,688	3.6	8.8	14.0	12.7	-5.4	8.7	6.0	--	8.5	Jul-17
<i>Russell 2000 Growth</i>				<u>9.9</u>	<u>14.8</u>	<u>-6.5</u>	<u>4.3</u>	<u>4.7</u>	<u>9.5</u>	<u>6.9</u>	<u>Jul-17</u>
Excess Return				4.1	-2.1	1.1	4.4	1.3		1.6	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding.

As of January 31, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
International Equity	54,306,630	13.0	13.0	8.9	13.4	-4.9	4.0	2.3	5.6	5.3	Jan-98
<i>MSCI ACWI ex US (Blend)</i>				<u>8.1</u>	<u>11.3</u>	<u>-5.7</u>	<u>3.6</u>	<u>1.4</u>	<u>4.2</u>	<u>5.0</u>	<u>Jan-98</u>
Excess Return				0.8	2.1	0.8	0.4	0.9	1.4	0.3	
Vanguard Developed Markets ETF	15,323,422	3.7	28.2	9.0	13.8	-4.0	5.3	--	--	7.1	Sep-19
<i>FTSE Developed All Cap Ex US TR USD</i>				<u>8.2</u>	<u>13.9</u>	<u>-3.6</u>	<u>5.0</u>	<u>2.5</u>	<u>5.4</u>	<u>7.1</u>	<u>Sep-19</u>
Excess Return				0.8	-0.1	-0.4	0.3			0.0	
SGA ACWI ex-U.S. Equity	38,983,207	9.3	71.8	8.9	13.2	-5.3	3.6	--	--	3.1	Dec-19
<i>MSCI ACWI ex USA</i>				<u>8.1</u>	<u>11.3</u>	<u>-5.7</u>	<u>3.6</u>	<u>1.4</u>	<u>4.2</u>	<u>3.9</u>	<u>Dec-19</u>
Excess Return				0.8	1.9	0.4	0.0			-0.8	
Fixed Income	105,031,590	25.1	25.1	3.4	0.7	-8.1	-1.7	1.4	2.0	4.8	Dec-93
<i>Bloomberg Universal (Blend)</i>				<u>3.1</u>	<u>0.7</u>	<u>-8.3</u>	<u>-2.1</u>	<u>1.0</u>	<u>1.7</u>	<u>4.6</u>	<u>Dec-93</u>
Excess Return				0.3	0.0	0.2	0.4	0.4	0.3	0.2	
Ramirez	71,321,528	17.0	67.9	3.3	0.4	-8.3	-2.1	1.3	--	1.7	Jan-17
<i>Bloomberg US Aggregate TR</i>				<u>3.1</u>	<u>0.0</u>	<u>-8.4</u>	<u>-2.3</u>	<u>0.9</u>	<u>1.4</u>	<u>1.1</u>	<u>Jan-17</u>
Excess Return				0.2	0.4	0.1	0.2	0.4		0.6	
Wellington Core Bond	6,778,017	1.6	6.5	3.8	0.6	-9.1	--	--	--	-5.3	Apr-21
<i>Bloomberg US Aggregate TR</i>				<u>3.1</u>	<u>0.0</u>	<u>-8.4</u>	<u>-2.3</u>	<u>0.9</u>	<u>1.4</u>	<u>-4.8</u>	<u>Apr-21</u>
Excess Return				0.7	0.6	-0.7				-0.5	
Reams	26,932,045	6.4	25.6	3.6	1.6	-7.1	2.0	3.7	2.9	5.2	Feb-98
<i>Bloomberg Universal (Blend)</i>				<u>3.1</u>	<u>0.7</u>	<u>-8.3</u>	<u>-2.1</u>	<u>1.0</u>	<u>1.7</u>	<u>4.2</u>	<u>Feb-98</u>
Excess Return				0.5	0.9	1.2	4.1	2.7	1.2	1.0	

Though Vanguard Developed Markets ETF is a passive strategy, short-term performance may appear to diverge from the index it tracks more than what would be expected. This is due to Fair Value Pricing (FVP) adjustments that address the pricing discrepancies that may arise from time-zone differences among global securities markets. The resulting temporary divergence is expected to correct itself when the foreign markets reopen."

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding.

As of January 31, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Credit	8,909,576	2.1	2.1	3.6	5.1	-3.8	3.8	3.3	--	5.1	Feb-15
<i>Bloomberg US High Yield TR</i>				<u>3.8</u>	<u>7.4</u>	<u>-5.2</u>	<u>1.3</u>	<u>3.0</u>	<u>4.3</u>	<u>4.2</u>	<u>Feb-15</u>
Excess Return				-0.2	-2.3	1.4	2.5	0.3		0.9	
Polen Capital	8,909,576	2.1	100.0	3.6	5.1	-3.8	3.8	3.3	--	5.1	Feb-15
<i>ICE BofA High Yield Master TR</i>				<u>3.9</u>	<u>7.3</u>	<u>-5.1</u>	<u>1.1</u>	<u>2.8</u>	<u>4.2</u>	<u>4.1</u>	<u>Feb-15</u>
Excess Return				-0.3	-2.2	1.3	2.7	0.5		1.0	
Covered Calls	26,689,182	6.4	6.4	4.6	7.0	-4.7	8.4	7.8	--	8.6	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<u>4.2</u>	<u>2.8</u>	<u>-5.3</u>	<u>3.0</u>	<u>3.5</u>	<u>6.0</u>	<u>5.3</u>	<u>Apr-14</u>
Excess Return				0.4	4.2	0.6	5.4	4.3		3.3	
Parametric BXM	13,373,131	3.2	50.1	3.3	4.6	-3.8	5.7	5.5	--	6.7	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<u>4.2</u>	<u>2.8</u>	<u>-5.3</u>	<u>3.0</u>	<u>3.5</u>	<u>6.0</u>	<u>5.3</u>	<u>Apr-14</u>
Excess Return				-0.9	1.8	1.5	2.7	2.0		1.4	
Parametric DeltaShift	13,316,051	3.2	49.9	6.0	9.5	-5.6	10.7	9.8	--	10.7	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<u>4.2</u>	<u>2.8</u>	<u>-5.3</u>	<u>3.0</u>	<u>3.5</u>	<u>6.0</u>	<u>5.3</u>	<u>Apr-14</u>
Excess Return				1.8	6.7	-0.3	7.7	6.3		5.4	

Polen Capital market value is as of 12/31/2022.

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding.

As of January 31, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Crisis Risk Offset	40,662,931	9.7	9.7	3.1	-2.0	-8.5	-13.6	-7.7	--	-8.5	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>				<u>0.5</u>	<u>2.9</u>	<u>4.4</u>	<u>-1.3</u>	--	--	<u>-0.4</u>	<u>Aug-18</u>
Excess Return				2.6	-4.9	-12.9	-12.3			-8.1	
Kecos Alternative Risk Premia	10,068,926	2.4	24.8	2.4	5.9	1.4	--	--	--	1.4	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>				<u>0.5</u>	<u>2.9</u>	<u>4.4</u>	<u>-1.3</u>	--	--	<u>4.4</u>	<u>Feb-22</u>
Excess Return				1.9	3.0	-3.0				-3.0	
Versor Trend Following	15,908,714	3.8	39.1	0.0	-4.2	--	--	--	--	6.1	Apr-22
<i>SG Trend Index</i>				<u>-1.3</u>	<u>-2.4</u>	<u>29.7</u>	<u>15.6</u>	<u>8.1</u>	<u>6.0</u>	<u>14.1</u>	<u>Apr-22</u>
Excess Return				1.3	-1.8					-8.0	
Vanguard Long-Term Treasury ETF	14,685,291	3.5	36.1	7.1	-4.4	-21.4	-7.7	--	--	-3.7	Jul-19
<i>Bloomberg US Govt Long TR</i>				<u>6.4</u>	<u>-4.4</u>	<u>-21.4</u>	<u>-7.5</u>	<u>-0.3</u>	<u>1.6</u>	<u>-3.7</u>	<u>Jul-19</u>
Excess Return				0.7	0.0	0.0	-0.2			0.0	
Cash	11,763,432	2.8	2.8	0.0	0.0	0.0	0.3	1.1	0.7	0.6	Mar-11
<i>FTSE T-Bill 3 Months TR</i>				<u>0.4</u>	<u>1.7</u>	<u>1.9</u>	<u>0.8</u>	<u>1.3</u>	<u>0.8</u>	<u>0.7</u>	<u>Mar-11</u>
Excess Return				-0.4	-1.7	-1.9	-0.5	-0.2	-0.1	-0.1	
Cash	3,888,432	0.9	33.1	0.0	0.0	0.0	0.5	1.2	0.8	0.6	Mar-11
<i>FTSE T-Bill 3 Months TR</i>				<u>0.4</u>	<u>1.7</u>	<u>1.9</u>	<u>0.8</u>	<u>1.3</u>	<u>0.8</u>	<u>0.7</u>	<u>Mar-11</u>
Excess Return				-0.4	-1.7	-1.9	-0.3	-0.1	0.0	-0.1	
Cash - Treasury	7,875,000	1.9	66.9								

Versor Trend Following market value is as of 12/31/2022.

Cash - Treasury market value is as of 12/31/2022.

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding.

As of January 31, 2023

Cash Flow Summary

Month to Date

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Brown Fundamental Small Cap Value	\$10,924,340	\$0	\$878,235	\$11,802,575
Cash	\$3,817,108	\$71,324	\$0	\$3,888,432
Cash - Treasury	\$7,875,000	\$0	\$0	\$7,875,000
EARNEST Partners	\$43,615,104	\$0	\$4,006,344	\$47,621,448
Kepos Alternative Risk Premia	\$9,837,006	\$0	\$231,920	\$10,068,926
Northern Trust Russell 1000	\$69,741,287	\$0	\$4,671,141	\$74,412,427
Parametric BXM	\$13,942,810	-\$1,000,000	\$430,320	\$13,373,131
Parametric DeltaShift	\$13,560,909	-\$1,000,000	\$755,142	\$13,316,051
Polen Capital	\$8,603,832	\$0	\$305,744	\$8,909,576
Ramirez	\$69,021,211	\$0	\$2,300,317	\$71,321,528
Reams	\$26,000,599	\$0	\$931,446	\$26,932,045
Rice Hall James	\$13,299,736	\$0	\$1,855,952	\$15,155,688
Securities Lending Northern Trust	\$0	-\$9,138	\$9,138	\$0
SGA ACWI ex-U.S. Equity	\$35,797,379	\$0	\$3,185,828	\$38,983,207
Vanguard Developed Markets ETF	\$14,054,284	\$0	\$1,269,138	\$15,323,422
Vanguard Long-Term Treasury ETF	\$13,706,568	\$0	\$978,723	\$14,685,291
Versor Trend Following	\$15,908,714	\$0	\$0	\$15,908,714
Wellington Core Bond	\$6,531,106	\$0	\$246,912	\$6,778,017
Wellington Select Quality Equity	\$22,198,719	\$0	\$177,542	\$22,376,261
Total	\$398,435,711	-\$1,937,814	\$22,233,842	\$418,731,740

Benchmark History
As of January 31, 2023

OPFRS Total Plan

6/1/2022	Present	40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield TR
1/1/2019	5/31/2022	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
12/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR

Benchmark History
As of January 31, 2023

Domestic Equity

1/1/2005	Present	Russell 3000
4/1/1998	12/31/2004	28.57% Russell 1000 / 57.14% Russell 1000 Value / 14.29% Russell MidCap
6/1/1997	3/31/1998	S&P 500

International Equity

1/1/2005	Present	MSCI ACWI ex USA
1/1/1998	12/31/2004	MSCI EAFE Gross

Fixed Income

4/1/2006	Present	Bloomberg US Universal TR
12/31/1993	3/31/2006	Bloomberg US Aggregate TR

Covered Calls

4/1/2014	Present	CBOE S&P 500 BuyWrite USD
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Crisis Risk Offset

8/1/2018	Present	SG Multi Alternative Risk Premia Index
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Cash

3/1/2011	Present	FTSE T-Bill 3 Months TR
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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 22, 2023

Quarterly Performance Report
as of December 31, 2022

Agenda

1. Executive Summary
2. Economic and Market Update as of December 31, 2022
3. 4Q 2022 Performance as of December 31, 2022
4. Manager Monitoring / Probation Status
5. Disclaimer, Glossary, and Notes

Executive Summary

Total Portfolio Review

The Oakland Police and Fire Retirement System (OPFRS) portfolio finished the 2022 calendar year with a market value of \$398.4 million. This represents a \$21.2 million capital appreciation in investment value after \$5.2 million in net outflows over the quarter. In the calendar year 2022, the OPFRS Total Portfolio faced a \$69.1 million depreciation, after withdrawals totaling \$15.7 million for net outflows including benefit payments.

→ As of 12/31/2022, all the asset classes were within acceptable allocation ranges relative to policy targets.¹

Investment Performance

→ During the most recent quarter, the OPFRS portfolio generated an absolute return of 5.6%, gross of fees, underperforming its policy benchmark² by (-0.4%). It kept pace with the benchmark over the trailing 1- and 3-year periods, though it has maintained a slight outperformance over the 5-year period.

	Quarter	FYTD	1 Year	3 Year	5 Year
Total Portfolio (Gross)	5.6	0.7	(-14.5)	2.3	4.3
Policy Benchmark	6.0	1.1	(-14.5)	2.3	4.0
Excess Return	(-0.4)	(-0.4)	0	0	0.1
Reference: Total Portfolio (Net) ³	5.5	0.6	(-14.7)	2.0	4.0

¹ Asset allocation as of 12/31/2022. Target weightings reflect the interim phase (where Crisis Risk Offset component is set to 10%) of the Plan's previously approved asset allocation (effective 5/31/2017).

² Evolving Policy Benchmark consists of 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% Bloomberg Universal, 5% CBOE BXM, 6.7% SG Multi Asset Risk Premia, 3.3% Bloomberg Long Treasury from 1/1/2019 through 5/31/2022; and 40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield thereafter.

³ Longer-term (>1 year) Net of fee returns include estimates based on OPFRS manager fee schedule (approximately 34 bps).

Total Portfolio Review (Continued)

The primary factors of the Total Plan’s underperformance against the Policy Benchmark during the quarter were the underperformance within the Crisis Risk Offset segment, which surpassed the positive contributions made by the Domestic and International Equity segments.

Peer Comparison

→ In comparison to its peer group¹, the portfolio has lagged the median fund’s return over the quarter as well as the 1-, 3-, and 5-year periods.

	Quarter	FYTD	1 Year	3 Year	5 Year
Total Portfolio (Gross)	5.6	0.7	(-14.5)	2.3	4.3
Peer Group Median Fund	5.8	1.2	(-13.4)	4.0	5.2
vs. Peer Median Fund	(-0.2)	(-0.5)	(-1.1)	(-1.7)	(-0.9)
<i>Reference: Total Portfolio (Net)</i> ²	5.5	0.6	(-14.7)	2.0	4.0

¹ Source: Investment Metrics peer universe, Public Defined Benefit plans with \$250 million to \$1 billion in assets as of 12/31/2022.

² Longer-term (>1 year) Net of fee returns include estimates based on OPFRS manager fee schedule (approximately 34 bps).

Asset Class & Manager Highlights

- **Domestic equity** outperformed the Russell 3000 Index for all periods measured except for the longer 5-year trailing period.
- Among the active managers, **Earnest Partners** and **Rice Hall James** trailed their respective benchmarks for the quarter while maintaining outperformance over the 1-year and longer periods. **Wellington Select Quality** and **Brown Advisory** both outperformed their benchmarks for all the available time periods.¹
- **International equity** outperformed the MSCI ACWI ex US Index for all time periods measured. Reflecting the positive market conditions during the fourth quarter, both managers—one active and one passive—generated double-digit positive absolute returns for the quarter.
- The Plan’s active international equity manager, **SGA MSCI ACWI ex US**, outperformed its benchmark for all time periods available.¹
 - The passive **Vanguard** posted underperformance over the 1- and 3-year periods, due to a large deviation from its tracked index in December. This is due to Vanguard’s fair-value pricing methodology, that may cause deviations from its tracked index that are expected to equalize over the longer term.

¹ Due to their recent inception, Wellington Select Quality has less than 1-year of performance history and Brown Fundamental Small Cap Value has less than 3-year of performance history. SGA MSCI ACWI ex US and Vanguard Developed Markets ETF have less than 5-year of performance history.

Asset Class & Manager Highlights (Continued)

- **Fixed income** trailed the Bloomberg Universal Index over the quarter, while it outperformed the benchmark across all other time periods. The managers' quarterly relative performance is mixed.
 - **Ramirez** underperformed, **Reams** outperformed, and **Wellington Core Bond** tracked their respective benchmarks for the quarter. **Ramirez** and **Reams**, which have longer 3- and 5-year performance history, both maintained their outperformance over their respective benchmarks for these periods.
- The **Credit** segment, with **Polen Capital** as its only manager, underperformed the asset class's benchmark, Bloomberg US High Yield Index, during the quarter though it has maintained their excess return above their respective benchmarks over the 1-, 3-, and 5-year periods.
- **Covered Calls** and both of its underlying strategies outperformed its CBOE S&P 500 Buy-Write Index over the quarter and the longer 3- and 5-year periods, while trailing in the 1-year period.
- The **Crisis Risk Offset** segment trailed its benchmark SG Multi Alternative Risk Premia Index over the quarter as well as other time periods measured.
 - Even though the portfolio has trailed across all time periods, as a long-term-oriented segment of the Plan and given the recency of funding for two¹ of the three underlying managers, the underperformance ought not to be overly scrutinized.
 - Due to the addition of Kepos and Versor as Alternative Risk Premia and Systematic Trend Following managers within this segment in 2022, the current benchmark does not accurately reflect its components. We will be recommending an update to this benchmark for the Committee to consider in the following meetings.

¹ Kepos Alternative Risk Premia and Versor Trend Following were incepted within the first half of 2022 and therefore have less than 1-year of performance history.

Economic and Market Update

Data as of December 31, 2022

Commentary

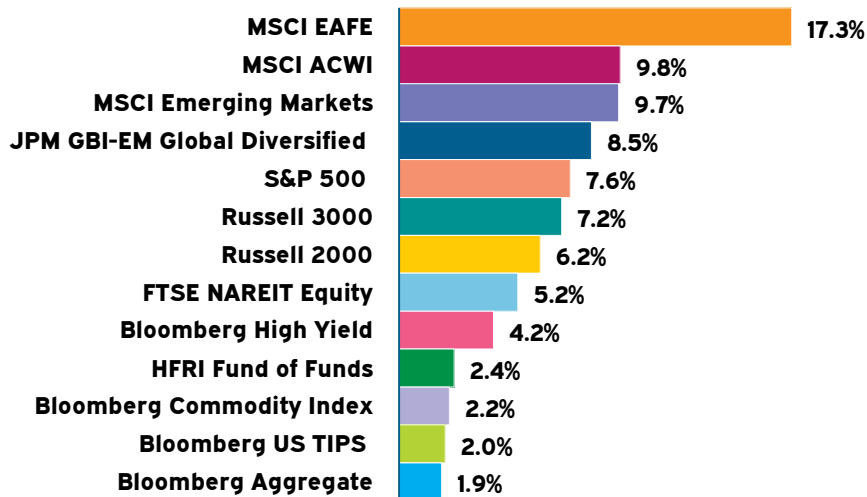
→ Ending a very tough year, most asset classes posted gains in the fourth quarter on signs that policy tightening would slow given cooling inflation.

- Chairman Powell's testimony in November reiterated previous messaging on persistent and high inflation and the need for an extended period of monetary tightening weighing on assets in December. Markets remained focused though on signs that inflation is falling and that the size of future Fed rate hikes could be lower.
- US equity markets sold off (-5.9%) in December but returned 7.2% in the fourth quarter as investors balanced the Fed's caution with improving inflation data.
- In developed equity markets outside the US, sentiment deteriorated somewhat in December, but they posted a strong fourth quarter return of 17.3% driven by a falling US dollar and results in Europe where inflation started to slow.
- Emerging market equities declined in December too (-1.4%) but less than the US and also had a strong fourth quarter (+9.7%). A weaker US dollar, declining inflation globally, and signs of China reopening its economy all contributed to the results.
- Bonds experienced one of the worst years on record given inflation levels and the rapid rise in interest rates. Optimism over declining inflation and a slower pace of policy tightening benefited bonds overall in the fourth quarter though.

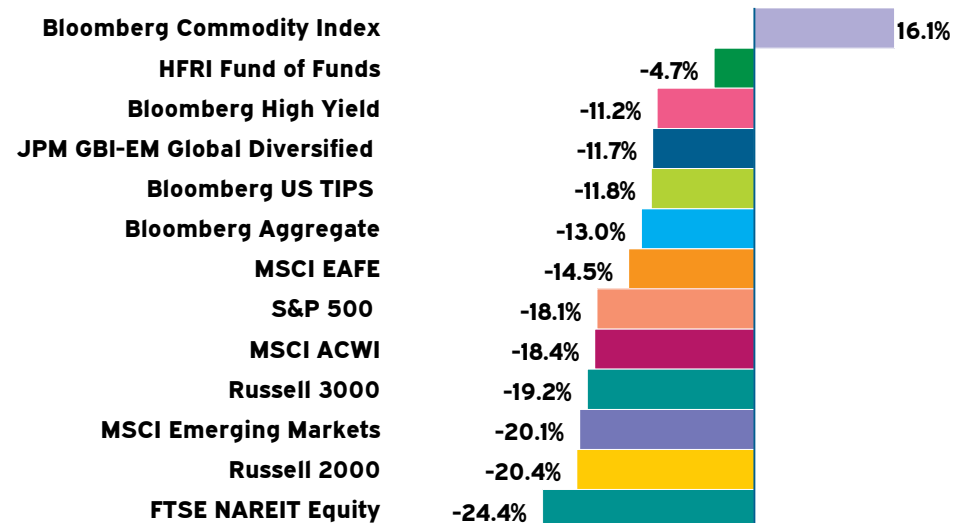
→ Looking to 2023, the path of inflation and monetary policy, slowing growth globally, China reopening its economy, and the war in Ukraine will all be key.

Index Returns¹

Fourth Quarter



2022



→ After broad declines in Q3 driven by expectations for further policy tightening, most major asset classes were up in the fourth quarter on hopes of inflation and policy tightening peaking.

→ Outside of commodities, all other public market asset classes declined in 2022. It was the first time since the 1960s that both stocks and bonds declined together in a calendar year.

¹ Source: Bloomberg and FactSet. Data is as of December 31, 2022.

Domestic Equity Returns¹

Domestic Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-5.8	7.6	-18.1	7.7	9.4	12.6
Russell 3000	-5.9	7.2	-19.2	7.1	8.8	12.1
Russell 1000	-5.8	7.2	-19.1	7.3	9.1	12.4
Russell 1000 Growth	-7.7	2.2	-29.1	7.8	11.0	14.1
Russell 1000 Value	-4.0	12.4	-7.5	6.0	6.7	10.3
Russell MidCap	-5.4	9.2	-17.3	5.9	7.1	11.0
Russell MidCap Growth	-6.0	6.9	-26.7	3.9	7.6	11.4
Russell MidCap Value	-5.1	10.5	-12.0	5.8	5.7	10.1
Russell 2000	-6.5	6.2	-20.4	3.1	4.1	9.0
Russell 2000 Growth	-6.4	4.1	-26.4	0.6	3.5	9.2
Russell 2000 Value	-6.6	8.4	-14.5	4.7	4.1	8.5

US Equities: Russell 3000 Index declined 5.9% for December but gained 7.2% for the quarter. Historic inflation and rapidly rising interest rates led to significant declines (-19.2%) for the full year.

- US stocks fell broadly in December on the Federal Reserve signaling its continued resolve to raise rates but gained overall for the quarter on hopes that interest rates could be peaking soon given slowing inflation.
- All sectors declined during December, led by consumer discretionary and technology with defensive sectors declining less. For the quarter though, most sectors were up led by energy and industrials.
- In a continuation on the overall trend in 2022 value stocks outperformed growth stocks in the fourth quarter given higher interest rates and slowing growth.

¹ Source: Bloomberg. Data is as of December 31, 2022.

Foreign Equity Returns¹

Foreign Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-0.7	14.3	-16.0	0.1	0.9	3.8
MSCI EAFE	0.1	17.3	-14.5	0.9	1.5	4.7
MSCI EAFE (Local Currency)	-3.0	8.7	-7.0	3.6	3.8	7.6
MSCI EAFE Small Cap	1.1	15.8	-21.4	-0.9	0.0	6.2
MSCI Emerging Markets	-1.4	9.7	-20.1	-2.7	-1.4	1.4
MSCI Emerging Markets (Local Currency)	-2.0	6.6	-15.5	0.1	1.3	4.6
MSCI China	5.2	13.5	-21.9	-7.5	-4.5	2.4

Developed international equities (MSCI EAFE) rose 0.1% in December and an impressive 17.3% in the fourth quarter. Emerging markets (MSCI EM) fell -1.4% in December but gained 9.7% for the quarter. Inflation and rising rates also weighed on international equities last year, as well as a strong US dollar for most of the year.

- International developed market equities, specifically Europe, held up better relative to the rest of the world in December with the MSCI EAFE up 0.1%. In the fourth quarter, they returned a significant 17.3% due in part to the recent weakness in the US dollar (they returned only 8.7% in local terms) leading to lower declines for the year.
- In December emerging markets outperformed the US but trailed developed market equities as China’s rally was not enough to offset weakness elsewhere (e.g., India -5.5%). For the quarter, a weakening US dollar and China reopening led to strong results (+9.7%), but emerging markets remained the weakest for 2022 due to China.
- Like the US, value outpaced growth globally in 2022.

¹ Source: Bloomberg. Data is as of December 31, 2022.

Fixed Income Returns¹

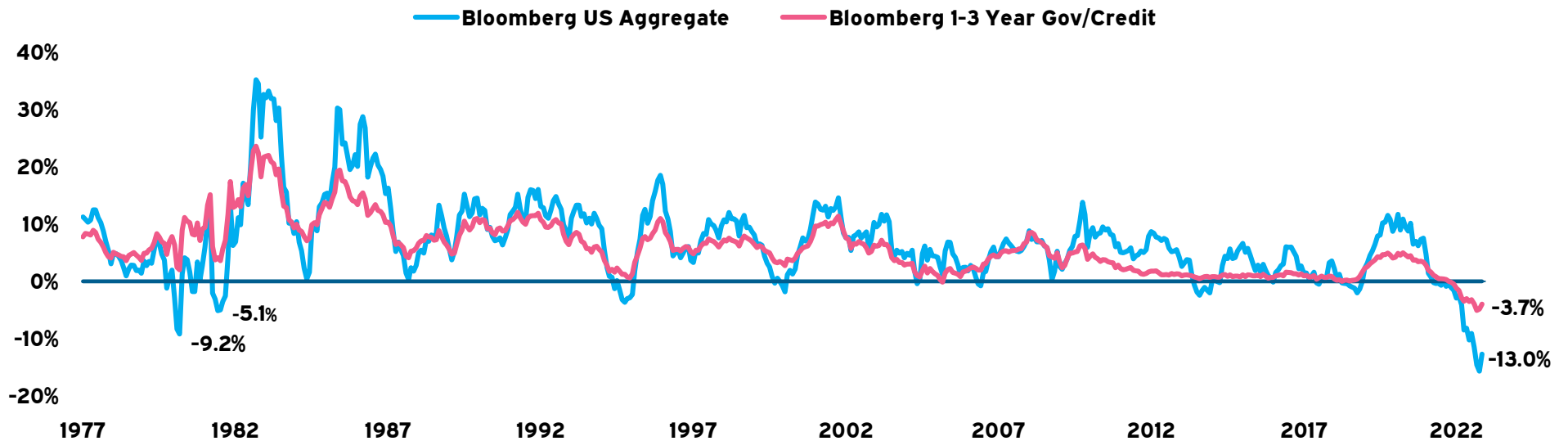
Fixed Income	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-0.3	2.2	-13.0	-2.5	0.2	1.3	5.1	6.2
Bloomberg Aggregate	-0.5	1.9	-13.0	-2.7	0.0	1.1	4.7	6.4
Bloomberg US TIPS	-1.0	2.0	-11.8	1.2	2.1	1.1	4.4	6.7
Bloomberg High Yield	-0.6	4.2	-11.2	0.0	2.3	4.0	9.0	4.4
JPM GBI-EM Global Diversified (USD)	2.2	8.5	-11.7	-6.1	-2.5	-2.0	5.8	4.9

Fixed Income: The Bloomberg Universal fell -0.3% in December but rose 2.2% for the fourth quarter. Last year was one of the worst on record, with the broad bond market declining 13%.

- The Federal Reserve reconfirming its commitment to tighten policy in the face of high inflation weighed on US fixed income in December. For the quarter though the broad US bond market (Bloomberg Aggregate) was up 1.9% on hopes that inflation would continue to decline and corresponding expectations for the slowing of policy rate hikes.
- TIPS produced similar results to the broad US bond market for the quarter but outperformed for the year given their inflation adjustment.
- Riskier bonds outperformed for the quarter due to improving risk sentiment with emerging market bonds performing particularly well.

¹ Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of December 31, 2022. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

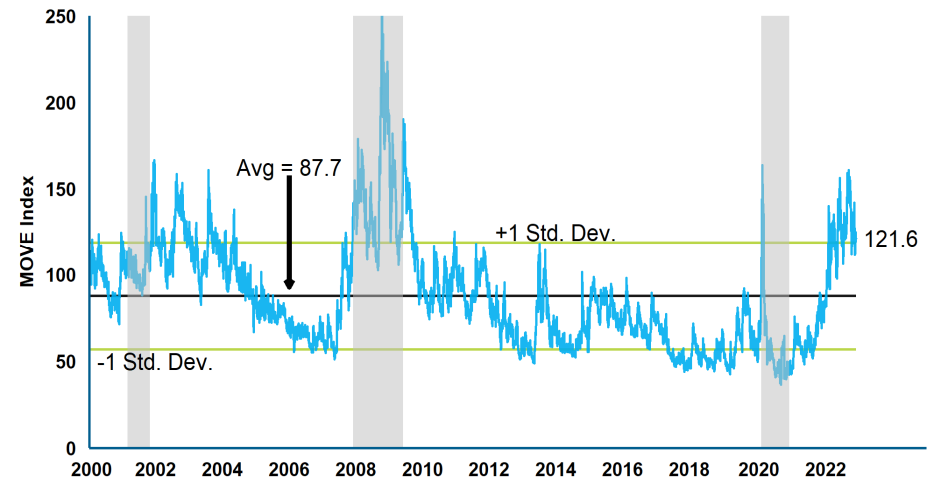
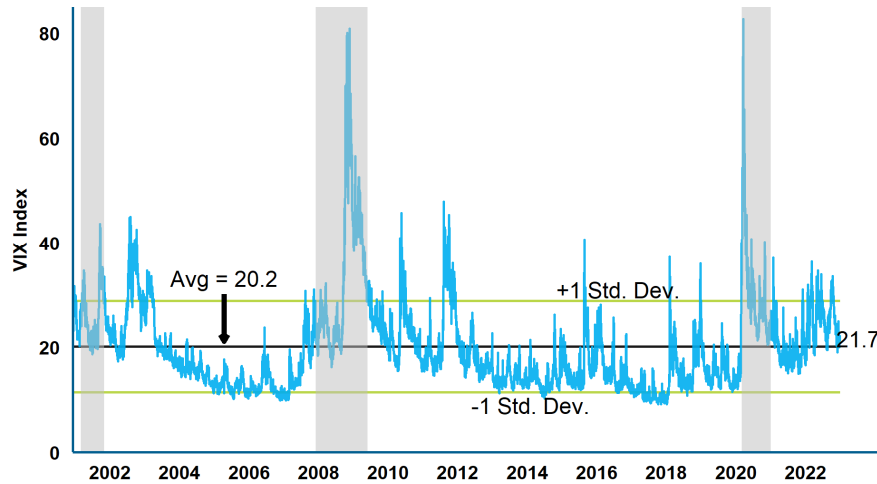
**Fixed Income
Rolling One-year Returns¹**



- Last year was one of the worst return periods for the US bond market given the historic inflation levels and the corresponding rapid rise in interest rates.
- The broad bond market (Bloomberg US Aggregate) declined 13% in 2022 making it one of the worst periods on record.
- Short-term bond declines were far smaller (-3.7%) last year, but also were one of the worst on record.

¹ Source: Bloomberg. Data is as of December 31, 2022.

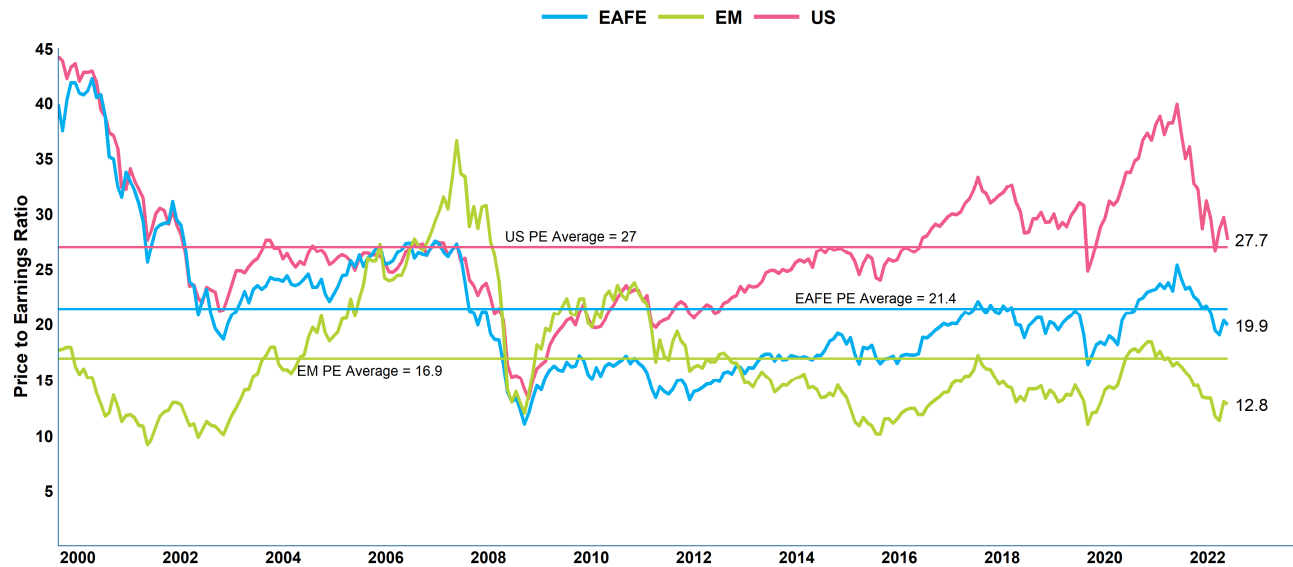
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) finished the year down from its highs and near its long run average as investors anticipated the potential end of Fed rate hikes this year.
- Fixed income (MOVE) remained elevated and well above its long-run average at year-end due to the uncertain path of US interest rates as the Federal Reserve continues its hawkish stance on inflation.

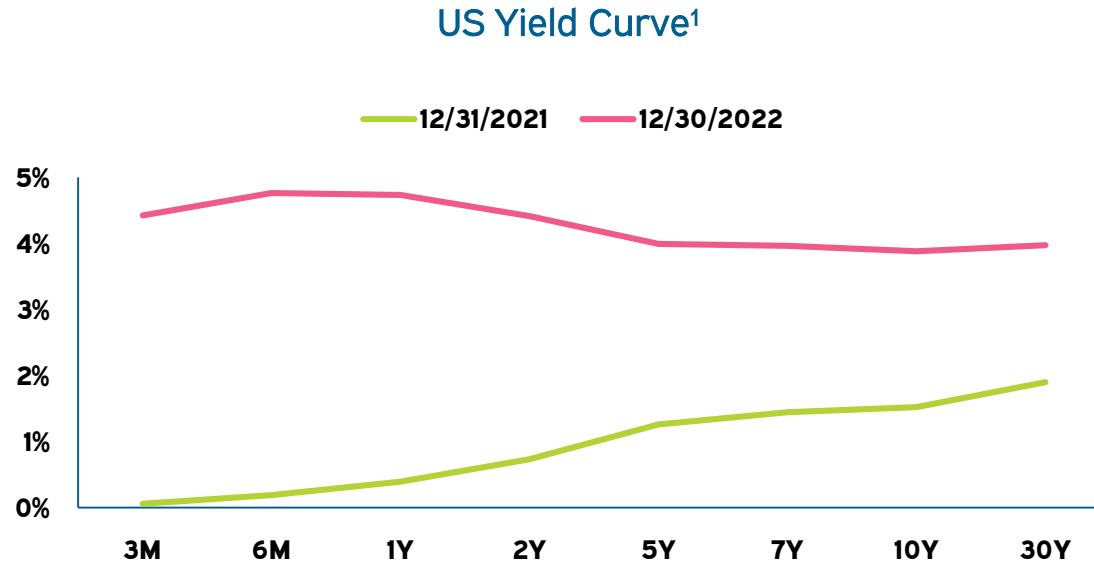
¹ Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of December 2022. The average line indicated is the average of the VIX and MOVE values between January 2000 and the recent month-end respectively.

Equity Cyclically Adjusted P/E Ratios¹



- After December’s sell-off, US equity price-to-earnings ratio finished the year near its long-term (21st century) average.
- International developed market valuations rose but remain below their own long-term average, with those for emerging markets the lowest and well under the long-term average.
- Price declines have been the main driver of recent multiple compression as earnings have remained resilient. Concerns remain over whether earnings strength will continue in the face of slowing growth.

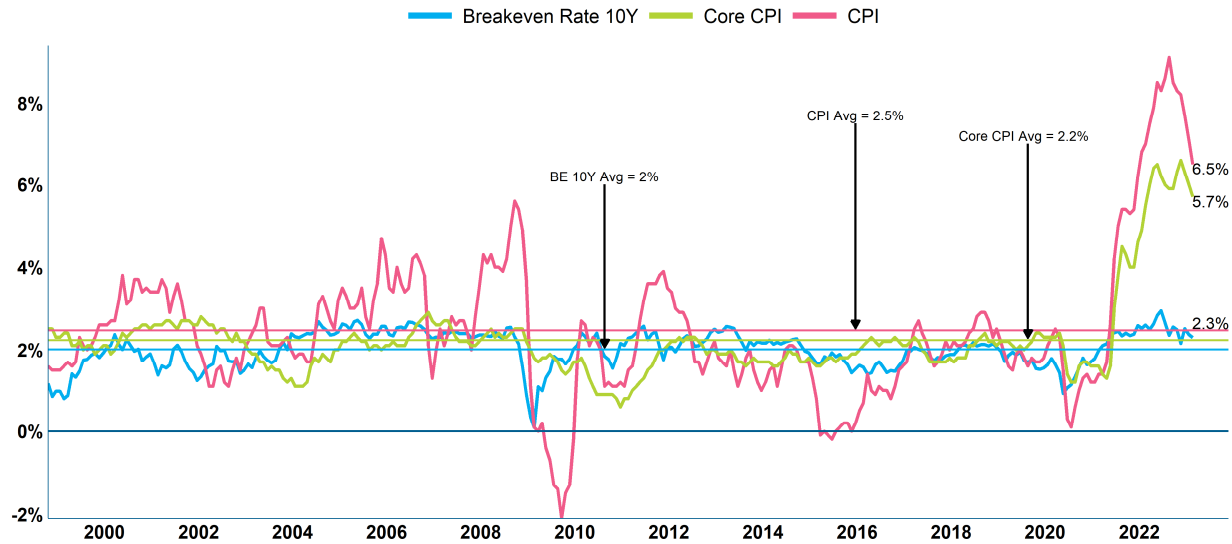
¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of December 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



- In December, policy-sensitive interest rates at the front-end of the curve continued to rise with the two-year Treasury yield increasing from 4.3% to 4.4%. Longer dated ten-year Treasury yields also increased (3.6% to 3.9%). For the year, the yield curve rose dramatically across maturities and moved from steep to inverted.
- The Fed remains strongly committed to fighting inflation, as it increased rates another 50 basis points to a range of 4.0% to 4.5% at its December meeting. This brought the total number of increases for 2022 to seven.
- The yield spread between two-year and ten-year Treasuries narrowed somewhat to -0.54% after finishing November at -0.70%. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Historically, inversions in the yield curve have often preceded recessions.

¹ Source: Bloomberg. Data is as of December 31, 2022.

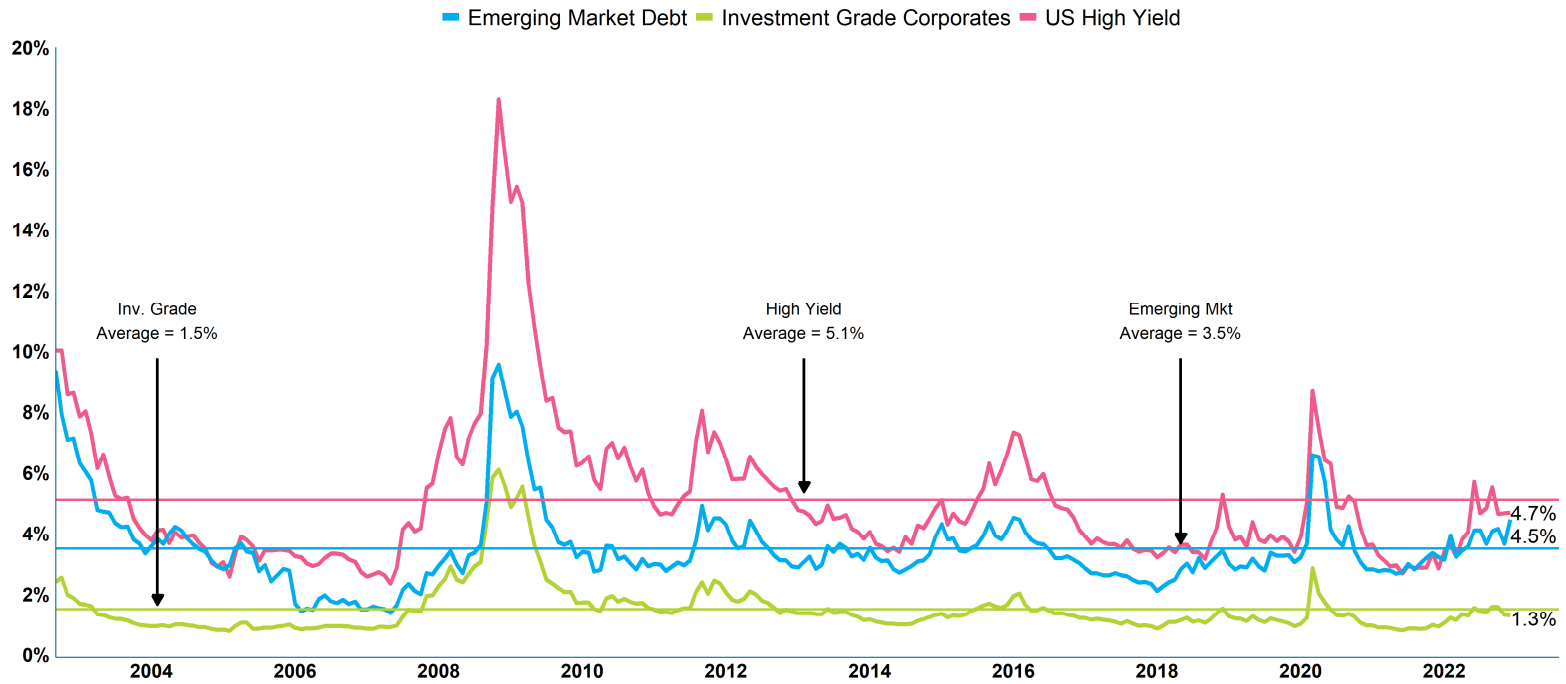
Ten-Year Breakeven Inflation and CPI¹



- In December inflation continued to decline (6.5% versus 7.1%) matching expectations and providing support for the Fed to slow the pace of policy tightening. Energy prices fell again for the month but remain up 7.3% from a year prior, while food prices fell slightly, and stickier service prices continued to increase.
- Core inflation – excluding food and energy – also continued to decline in December (5.7% versus 6.0%) and matched estimates.
- Inflation expectations (breakevens) declined slightly for the month (2.3% versus 2.4%) and remain well below current inflation levels as investors anticipate a significant moderation in inflation.

¹ Source: Bloomberg. Data is as of December 2022. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end respectively. Breakeven values represent month-end values for comparative purposes.

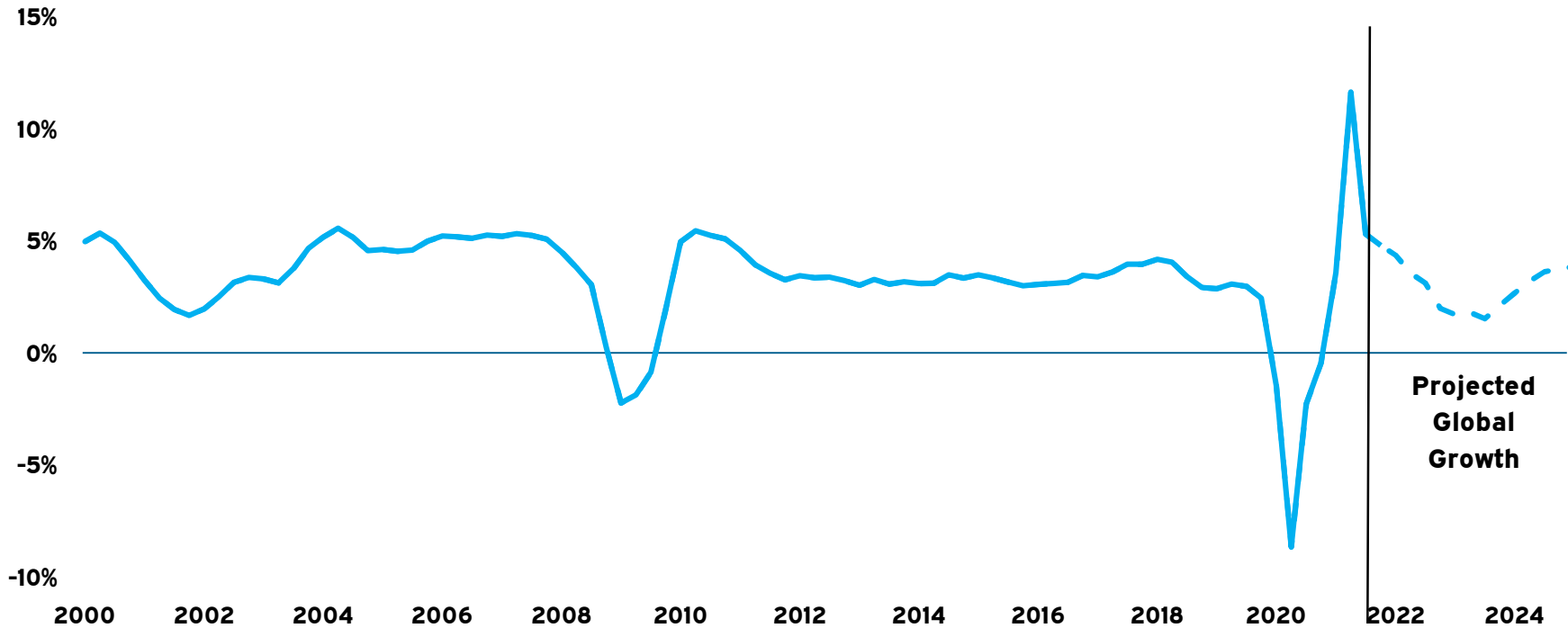
Credit Spreads vs. US Treasury Bonds¹



- High yield spreads (the added yield above a comparable maturity Treasury) finished December at 4.7% (the same as the end of November) remaining below their long-run average.
- Investment grade spreads also held steady at 1.3% as attractive yields and strong balance sheets continued to attract investors, while emerging market spreads rose (4.5% versus 3.6%) due to concerns regarding slower growth and lower commodity prices.

¹ Sources: Bloomberg. Data is as of December 31, 2022. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end respectively.

Global Real Gross Domestic Product (GDP) Growth¹

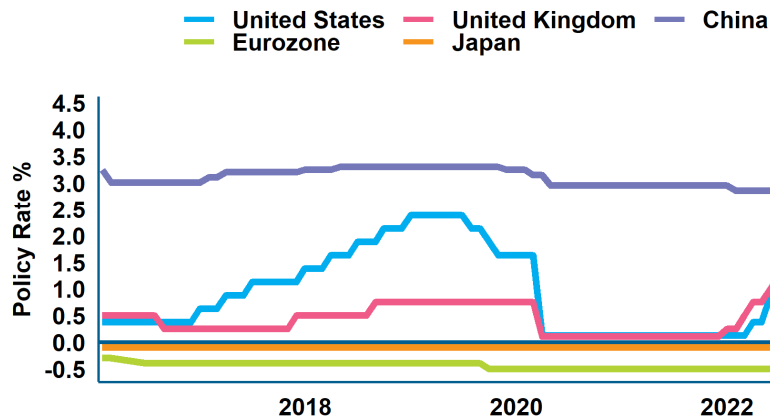


- Global economies are expected to slow in 2023 compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

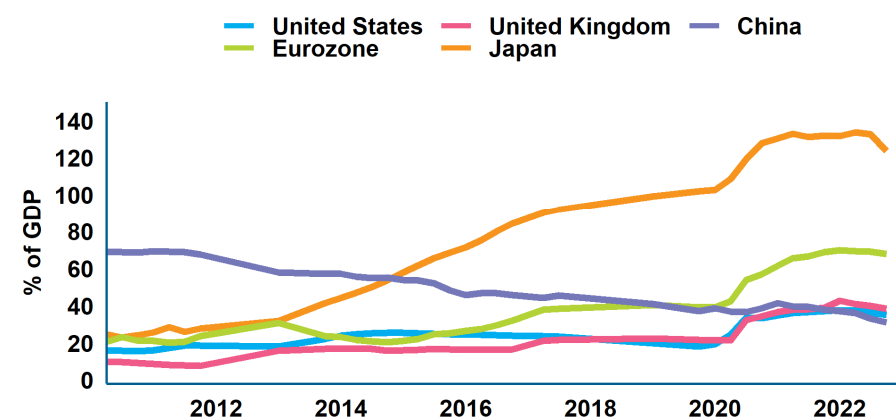
¹ Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated December 2022.

Central Bank Response¹

Policy Rates



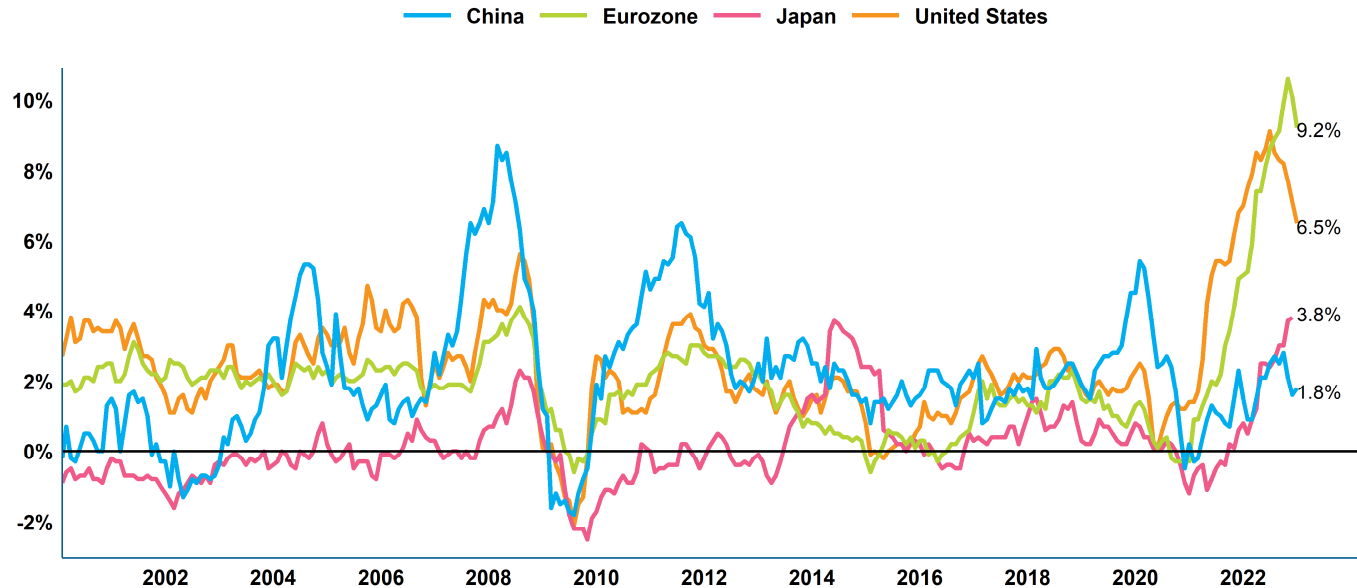
Balance Sheet as % of GDP



- In 2022 many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the US taking a more aggressive approach.
- In December, the Bank of Japan relaxed its target yield for the 10-year bond which may mark an incremental step toward policy normalization after eight years of quantitative easing.
- The one notable central bank outlier is China, where the central bank has lowered rates and reserve requirements in response to slowing growth.
- The risk remains for a policy error, particularly overtightening, as record inflation and aggressive tightening to date could heavily weigh on global growth. The Federal Reserve's policy rate path could diverge from others this year given their strong early start to tightening.

¹ Source: Bloomberg. Policy rate data is as of December 31, 2022. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of December 31, 2022.

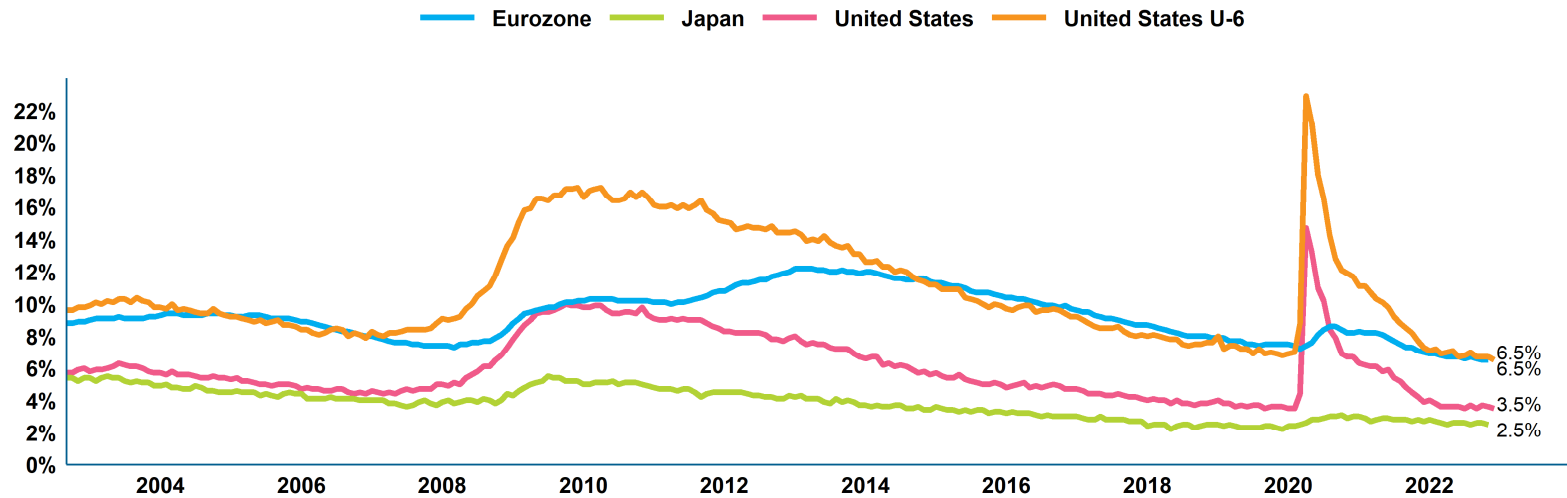
Inflation (CPI Trailing Twelve Months)¹



- Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it has reached levels not seen in many decades.
- Inflation pressures are slowly declining in the US, but they remain elevated, while in Europe they have reached historic levels due to skyrocketing energy prices and a weak euro.
- Supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

¹ Source: Bloomberg. Data is as of December 2022. The most recent Japanese inflation data is as of November 2022.

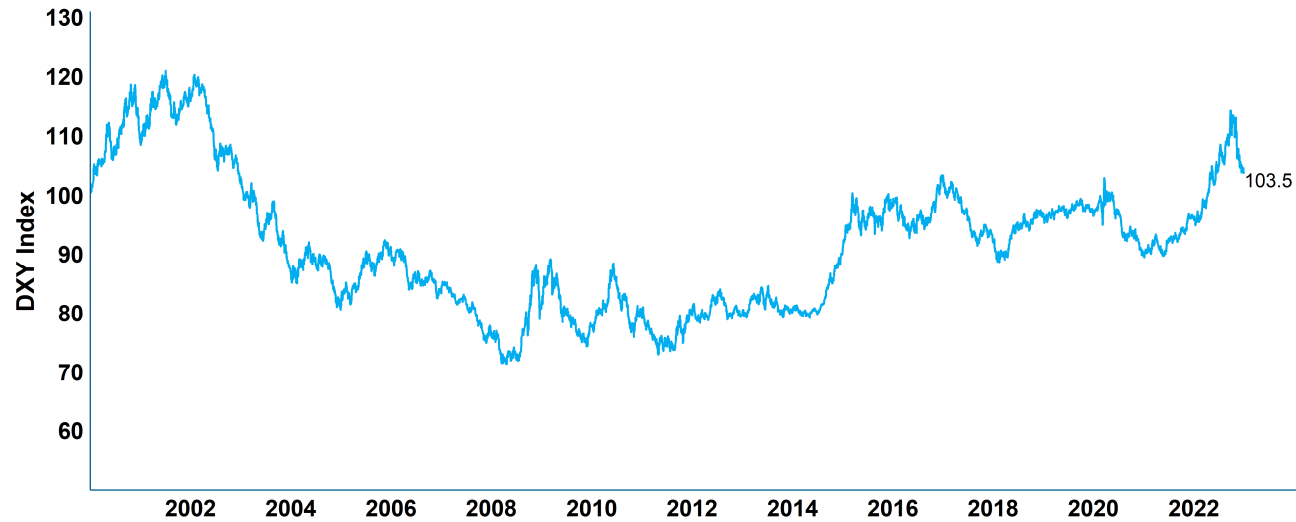
Unemployment¹



- As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market.
- Despite slowing growth and high inflation, the US labor market remains a bright spot. Unemployment in the US, which experienced the steepest rise from the pandemic, has remained in a tight 3.5%-3.7% range for most of the year.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.

¹ Source: Bloomberg. Data is as December 31, 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of November 30, 2022.

US Dollar versus Broad Currencies¹



- Overall, the US dollar continued to weaken from its recent peak in December as declining inflation supported the case for the Federal Reserve to slow its tightening.
- The dollar finished the year much higher than it started though due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- As we look to 2023, the track of inflation across economies and the corresponding monetary policy will likely be key drivers of currency moves.

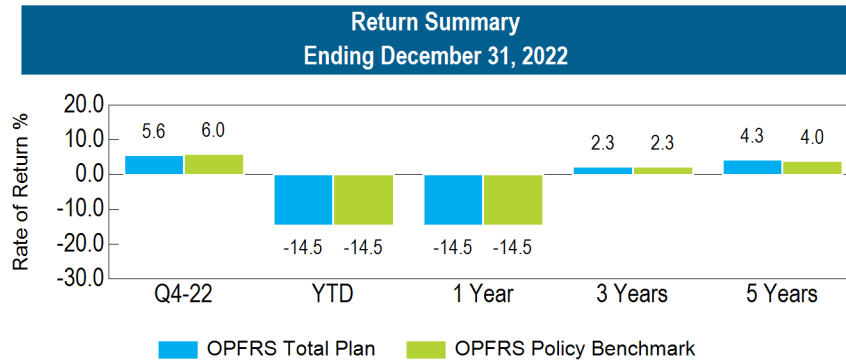
¹ Source: Bloomberg. Data as of December 31, 2022.

Summary

Key Trends:

- The impacts of record high inflation will remain key, with market volatility likely to stay high.
- Monetary policy could diverge in 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors in both directions remains.
- Growth will continue to slow globally next year, with many economies likely falling into recessions. Inflation, monetary policy, and the war will all be key.
- In the US the end of many fiscal programs is expected to put the burden of continued growth on consumers. Higher energy and food prices could weigh on consumer spending.
- Valuations have significantly declined in the US to around long-term averages, largely driven by price declines. The key going forward will be whether earnings can remain resilient if growth continues to slow.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

4Q 2022 Performance
as of December 31, 2022



Summary of Cash Flows

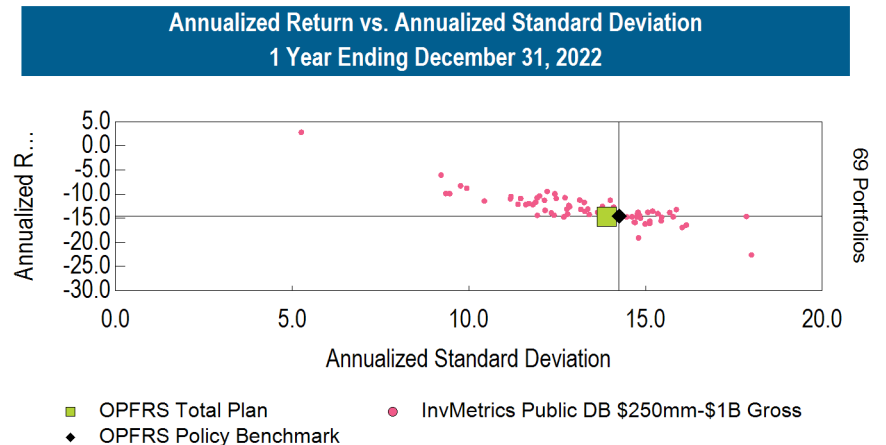
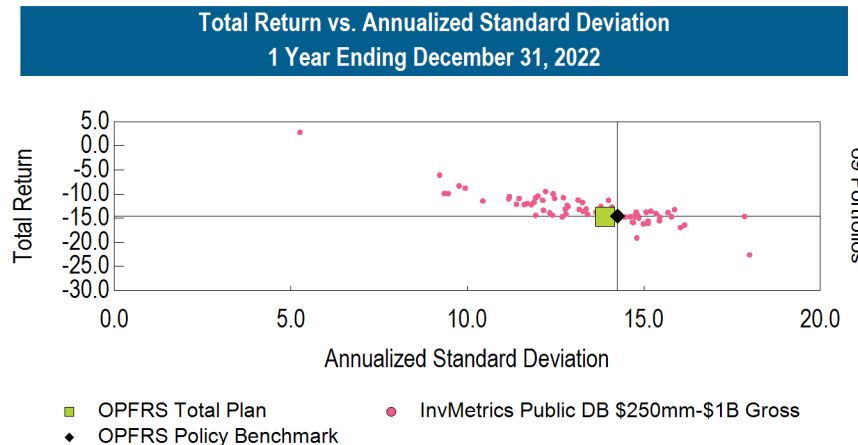
	Quarter-To-Date	One Year
Beginning Market Value	\$382,458,040	\$483,220,978
Net Cash Flow	-\$5,217,746	-\$15,709,585
Capital Appreciation	\$21,195,418	-\$69,075,682
Ending Market Value	\$398,435,711	\$398,435,711

YTD Ending December 31, 2022

	Total Return	Anlzd Standard Deviation
OPFRS Total Plan	-14.5%	13.9%
OPFRS Policy Benchmark	-14.5%	14.3%

1 Year Ending December 31, 2022

	Anlzd Return	Anlzd Standard Deviation
OPFRS Total Plan	-14.5%	13.9%
OPFRS Policy Benchmark	-14.5%	14.3%

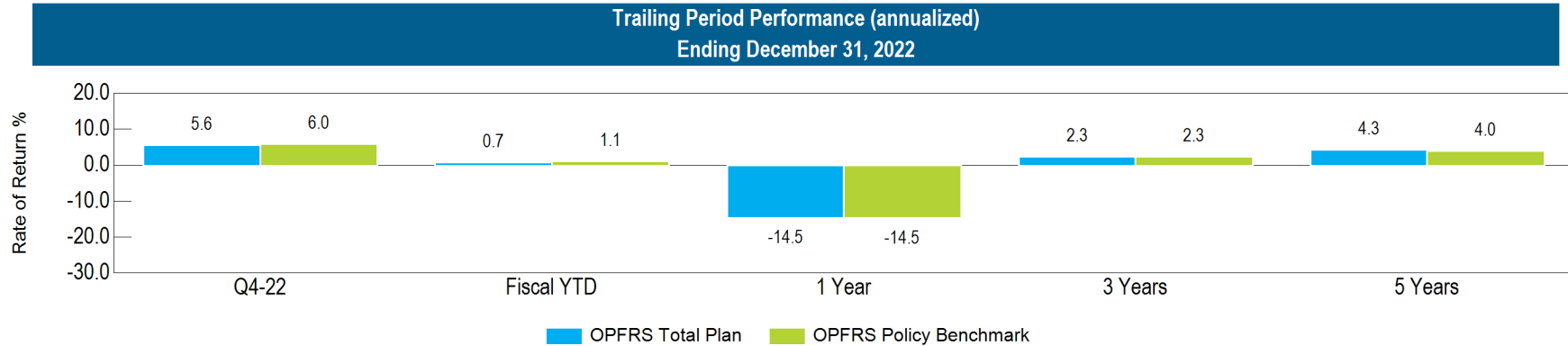


Performance shown is Gross-of-Fees.

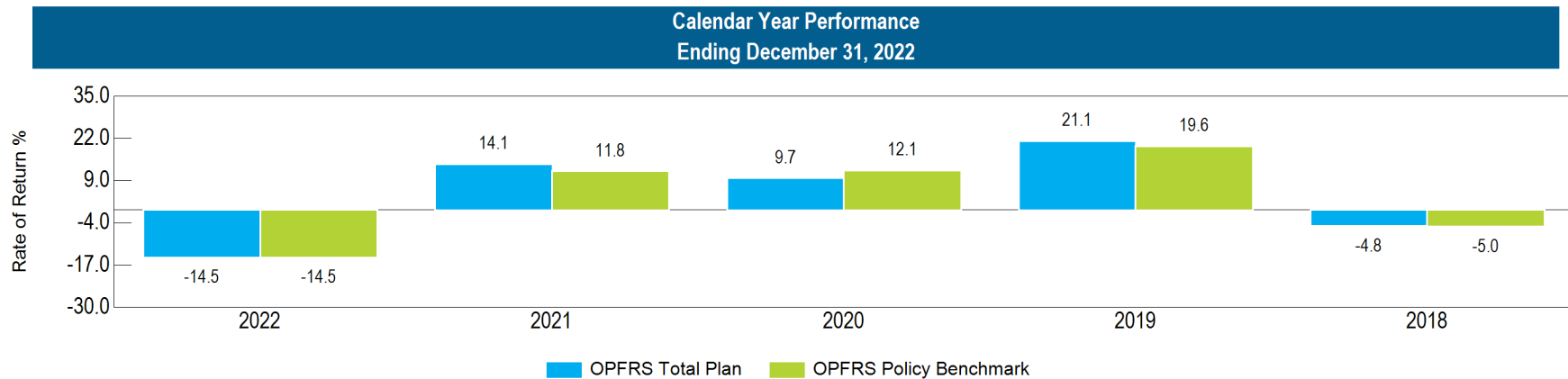
Asset Class Performance (gross of fees) | As of December 31, 2022

	Market Value (\$)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
OPFRS Total Plan	398,435,711	5.6	0.7	-14.5	2.3	4.3	6.8	7.0
<i>OPFRS Policy Benchmark</i>		<u>6.0</u>	<u>1.1</u>	<u>-14.5</u>	<u>2.3</u>	<u>4.0</u>	<u>6.5</u>	<u>6.5</u>
Excess Return		-0.4	-0.4	0.0	0.0	0.3	0.3	0.5
<i>InvMetrics Public DB \$250mm-\$1B Gross Median</i>		5.8	1.2	-13.4	4.0	5.2	7.1	7.3
Domestic Equity	159,779,185	8.2	3.0	-16.7	7.2	8.5	11.0	12.0
<i>Russell 3000 (Blend)</i>		<u>7.2</u>	<u>2.4</u>	<u>-19.2</u>	<u>7.1</u>	<u>8.8</u>	<u>11.0</u>	<u>12.1</u>
Excess Return		1.0	0.6	2.5	0.1	-0.3	0.0	-0.1
International Equity	49,851,663	15.1	4.1	-15.7	0.3	1.7	5.6	5.2
<i>MSCI ACWI ex US (Blend)</i>		<u>14.3</u>	<u>3.0</u>	<u>-16.0</u>	<u>0.1</u>	<u>0.9</u>	<u>4.8</u>	<u>3.8</u>
Excess Return		0.8	1.1	0.3	0.2	0.8	0.8	1.4
Fixed Income	101,552,915	2.1	-2.6	-12.9	-2.1	0.5	1.8	1.6
<i>Bloomberg Universal (Blend)</i>		<u>2.2</u>	<u>-2.3</u>	<u>-13.0</u>	<u>-2.5</u>	<u>0.2</u>	<u>1.3</u>	<u>1.3</u>
Excess Return		-0.1	-0.3	0.1	0.4	0.3	0.5	0.3
Credit	8,603,832	1.9	1.5	-7.6	3.0	3.0	6.0	--
<i>Bloomberg US High Yield TR</i>		<u>4.2</u>	<u>3.5</u>	<u>-11.2</u>	<u>0.0</u>	<u>2.3</u>	<u>5.0</u>	<u>--</u>
Excess Return		-2.3	-2.0	3.6	3.0	0.7	1.0	--
Covered Calls	27,503,720	7.7	2.2	-12.5	6.7	7.2	8.8	--
<i>CBOE S&P 500 BuyWrite USD</i>		<u>6.8</u>	<u>-1.3</u>	<u>-11.4</u>	<u>1.3</u>	<u>2.9</u>	<u>4.9</u>	<u>--</u>
Excess Return		0.9	3.5	-1.1	5.4	4.3	3.9	--
Crisis Risk Offset	39,452,288	-4.9	-4.9	-14.5	-14.6	-8.2	--	--
<i>SG Multi Alternative Risk Premia Index</i>		<u>1.5</u>	<u>2.4</u>	<u>4.8</u>	<u>-1.3</u>	<u>--</u>	<u>--</u>	<u>--</u>
Excess Return		-6.4	-7.3	-19.3	-13.3	--	--	--
Cash	11,692,108	0.0	0.0	0.0	0.4	1.1	1.0	0.7
<i>FTSE T-Bill 3 Months TR</i>		<u>0.9</u>	<u>1.3</u>	<u>1.5</u>	<u>0.7</u>	<u>1.2</u>	<u>1.0</u>	<u>0.7</u>
Excess Return		-0.9	-1.3	-1.5	-0.3	-0.1	0.0	0.0

Performance shown is gross-of-fees. Fiscal year begins on July 1.



	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	2018 (%)	2019 (%)	2020 (%)	2021 (%)	2022 (%)
OPFRS Total Plan	5.6	0.7	-14.5	2.3	4.3	-4.8	21.1	9.7	14.1	-14.5
<i>OPFRS Policy Benchmark</i>	<i>6.0</i>	<i>1.1</i>	<i>-14.5</i>	<i>2.3</i>	<i>4.0</i>	<i>-5.0</i>	<i>19.6</i>	<i>12.1</i>	<i>11.8</i>	<i>-14.5</i>
<i>InvMetrics Public DB \$250mm-\$1B Gross Median</i>	<i>5.8</i>	<i>1.2</i>	<i>-13.4</i>	<i>4.0</i>	<i>5.2</i>	<i>-4.1</i>	<i>18.6</i>	<i>13.1</i>	<i>13.6</i>	<i>-13.4</i>

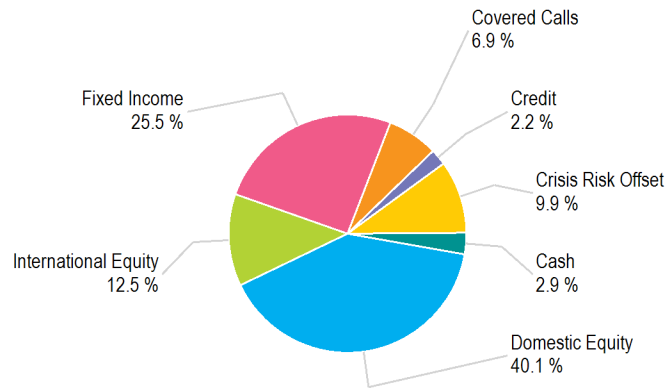


Fiscal year begins on July 1.

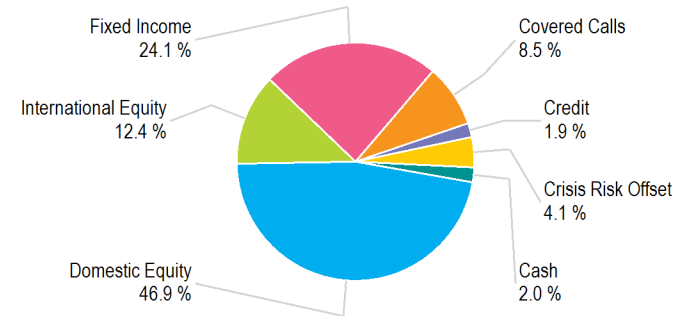
Asset Allocation vs. Target As Of December 31, 2022

	Current	%	Policy	Difference*
Domestic Equity	\$159,779,185	40.1%	40.0%	0.1%
International Equity	\$49,851,663	12.5%	12.0%	0.5%
Fixed Income	\$101,552,915	25.5%	31.0%	-5.5%
Covered Calls	\$27,503,720	6.9%	5.0%	1.9%
Credit	\$8,603,832	2.2%	2.0%	0.2%
Crisis Risk Offset	\$39,452,288	9.9%	10.0%	-0.1%
Cash	\$11,692,108	2.9%	0.0%	2.9%
Total	\$398,435,711	100.0%	100.0%	

December 31, 2022: \$382,458,040



December 31, 2021: \$449,834,415



Cash account market value includes cash balances held in ETF accounts at the custodian and residuals from terminated managers.

Target weightings reflect the Plan's evolving asset allocation (effective 5/31/2017.)

Oakland Police and Fire Retirement System Total Plan

Manager Performance - Gross of Fees | As of December 31, 2022

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Domestic Equity	159,779,185	100.0	8.2	-16.7	7.2	8.5	8.6	Jun-97
<i>Russell 3000 (Blend)</i>			<i>7.2</i>	<i>-19.2</i>	<i>7.1</i>	<i>8.8</i>	<i>8.7</i>	<i>Jun-97</i>
Excess Return			1.0	2.5	0.1	-0.3	-0.1	
Northern Trust Russell 1000	69,741,287	43.6	7.2	-19.4	7.2	9.1	12.6	Jun-10
<i>Russell 1000</i>			<i>7.2</i>	<i>-19.1</i>	<i>7.3</i>	<i>9.1</i>	<i>12.6</i>	<i>Jun-10</i>
Excess Return			0.0	-0.3	-0.1	0.0	0.0	
EARNEST Partners	43,615,104	27.3	7.8	-15.3	8.9	10.0	10.0	Apr-06
<i>Russell MidCap</i>			<i>9.2</i>	<i>-17.3</i>	<i>5.9</i>	<i>7.1</i>	<i>8.3</i>	<i>Apr-06</i>
Excess Return			-1.4	2.0	3.0	2.9	1.7	
<i>eV US Mid Cap Core Equity Gross Rank</i>			<i>80</i>	<i>60</i>	<i>17</i>	<i>21</i>	<i>32</i>	<i>Apr-06</i>
Wellington Select Quality Equity	22,198,719	13.9	13.7	--	--	--	0.9	May-22
<i>Russell 1000</i>			<i>7.2</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-6.4</i>	<i>May-22</i>
Excess Return			6.5				7.3	
<i>eV US Large Cap Core Equity Gross Rank</i>			<i>3</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>8</i>	<i>May-22</i>
Brown Fundamental Small Cap Value	10,924,340	6.8	12.5	-6.9	--	--	1.8	Apr-21
<i>Russell 2000 Value</i>			<i>8.4</i>	<i>-14.5</i>	<i>--</i>	<i>--</i>	<i>-5.5</i>	<i>Apr-21</i>
Excess Return			4.1	7.6			7.3	
<i>eV US Small Cap Value Equity Gross Rank</i>			<i>29</i>	<i>22</i>	<i>--</i>	<i>--</i>	<i>22</i>	<i>Apr-21</i>
Rice Hall James	13,299,736	8.3	3.3	-23.7	3.4	4.2	6.1	Jul-17
<i>Russell 2000 Growth</i>			<i>4.1</i>	<i>-26.4</i>	<i>0.6</i>	<i>3.5</i>	<i>5.2</i>	<i>Jul-17</i>
Excess Return			-0.8	2.7	2.8	0.7	0.9	
<i>eV US Small Cap Growth Equity Gross Rank</i>			<i>62</i>	<i>25</i>	<i>70</i>	<i>91</i>	<i>89</i>	<i>Jul-17</i>

Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
International Equity	49,851,663	100.0	15.1	-15.7	0.3	1.7	5.0	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			<i>14.3</i>	<i>-16.0</i>	<i>0.1</i>	<i>0.9</i>	<i>4.7</i>	<i>Jan-98</i>
Excess Return			0.8	0.3	0.2	0.8	0.3	
Vanguard Developed Markets ETF	14,054,284	28.2	16.8	-15.4	1.3	--	4.6	Sep-19
<i>FTSE Developed All Cap Ex US TR USD</i>			<i>16.3</i>	<i>-15.3</i>	<i>1.5</i>	--	<i>4.8</i>	<i>Sep-19</i>
Excess Return			0.5	-0.1	-0.2		-0.2	
SGA ACWI ex-U.S. Equity	35,797,379	71.8	14.4	-15.6	0.2	--	0.4	Dec-19
<i>MSCI ACWI ex USA</i>			<i>14.3</i>	<i>-16.0</i>	<i>0.1</i>	--	<i>1.5</i>	<i>Dec-19</i>
Excess Return			0.1	0.4	0.1		-1.1	
<i>eV ACWI ex-US All Cap Core Eq Gross Rank</i>			<i>52</i>	<i>36</i>	<i>83</i>	--	<i>95</i>	<i>Dec-19</i>

Performance shown is gross-of-fees.

Oakland Police and Fire Retirement System Total Plan

Manager Performance - Gross of Fees | As of December 31, 2022

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Fixed Income	101,552,915	100.0	2.1	-12.9	-2.1	0.5	4.7	Dec-93
<i>Bloomberg Universal (Blend)</i>			<i>2.2</i>	<i>-13.0</i>	<i>-2.5</i>	<i>0.2</i>	<i>4.5</i>	<i>Dec-93</i>
Excess Return			-0.1	0.1	0.4	0.3	0.2	
Ramirez	69,021,211	68.0	1.7	-13.0	-2.4	0.4	1.2	Jan-17
<i>Bloomberg US Aggregate TR</i>			<i>1.9</i>	<i>-13.0</i>	<i>-2.7</i>	<i>0.0</i>	<i>0.6</i>	<i>Jan-17</i>
Excess Return			-0.2	0.0	0.3	0.4	0.6	
<i>eV US Core Fixed Inc Gross Rank</i>			<i>66</i>	<i>67</i>	<i>78</i>	<i>64</i>	<i>37</i>	<i>Jan-17</i>
Wellington Core Bond	6,531,106	6.4	1.9	-14.4	--	--	-7.5	Apr-21
<i>Bloomberg US Aggregate TR</i>			<i>1.9</i>	<i>-13.0</i>	--	--	<i>-6.7</i>	<i>Apr-21</i>
Excess Return			0.0	-1.4			-0.8	
<i>eV US Core Fixed Inc Gross Rank</i>			<i>50</i>	<i>96</i>	--	--	<i>98</i>	<i>Apr-21</i>
Reams	26,000,599	25.6	3.2	-12.0	1.4	2.8	5.1	Feb-98
<i>Bloomberg Universal (Blend)</i>			<i>2.2</i>	<i>-13.0</i>	<i>-2.5</i>	<i>0.2</i>	<i>4.1</i>	<i>Feb-98</i>
Excess Return			1.0	1.0	3.9	2.6	1.0	
<i>eV US Core Plus Fixed Inc Gross Rank</i>			<i>10</i>	<i>21</i>	<i>1</i>	<i>2</i>	<i>40</i>	<i>Feb-98</i>

Performance shown is gross-of-fees.

Oakland Police and Fire Retirement System Total Plan

Manager Performance - Gross of Fees | As of December 31, 2022

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Credit	8,603,832	100.0	1.9	-7.6	3.0	3.0	4.7	Feb-15
<i>Bloomberg US High Yield TR</i>			<i>4.2</i>	<i>-11.2</i>	<i>0.0</i>	<i>2.3</i>	<i>3.8</i>	<i>Feb-15</i>
Excess Return			-2.3	3.6	3.0	0.7	0.9	
Polen Capital	8,603,832	100.0	1.9	-7.6	3.0	3.0	4.7	Feb-15
<i>ICE BofA High Yield Master TR</i>			<i>4.0</i>	<i>-11.2</i>	<i>-0.2</i>	<i>2.1</i>	<i>3.7</i>	<i>Feb-15</i>
Excess Return			-2.1	3.6	3.2	0.9	1.0	
<i>eV US High Yield Fixed Inc Gross Rank</i>			<i>93</i>	<i>26</i>	<i>6</i>	<i>36</i>	<i>14</i>	<i>Feb-15</i>

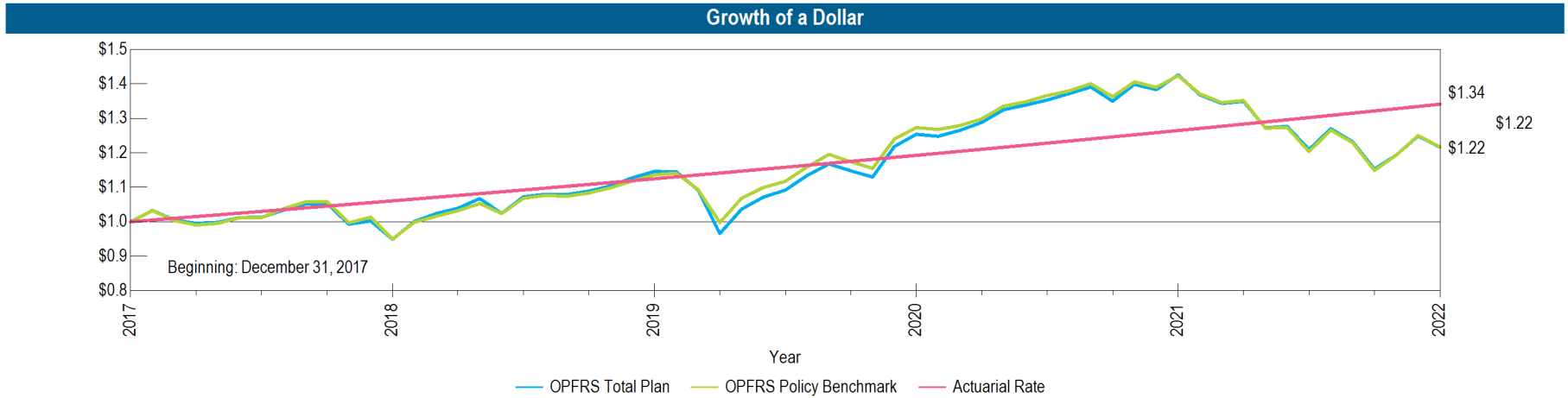
Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Covered Calls	27,503,720	100.0	7.7	-12.5	6.7	7.2	8.1	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<i>6.8</i>	<i>-11.4</i>	<i>1.3</i>	<i>2.9</i>	<i>4.9</i>	<i>Apr-14</i>
Excess Return			0.9	-1.1	5.4	4.3	3.2	
Parametric BXM	13,942,810	50.7	7.1	-9.7	4.5	5.1	6.4	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<i>6.8</i>	<i>-11.4</i>	<i>1.3</i>	<i>2.9</i>	<i>4.9</i>	<i>Apr-14</i>
Excess Return			0.3	1.7	3.2	2.2	1.5	
Parametric DeltaShift	13,560,909	49.3	8.3	-15.1	8.4	9.1	10.0	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<i>6.8</i>	<i>-11.4</i>	<i>1.3</i>	<i>2.9</i>	<i>4.9</i>	<i>Apr-14</i>
Excess Return			1.5	-3.7	7.1	6.2	5.1	
<i>eV US Large Cap Core Equity Gross Rank</i>			<i>56</i>	<i>42</i>	<i>38</i>	<i>58</i>	<i>65</i>	<i>Apr-14</i>

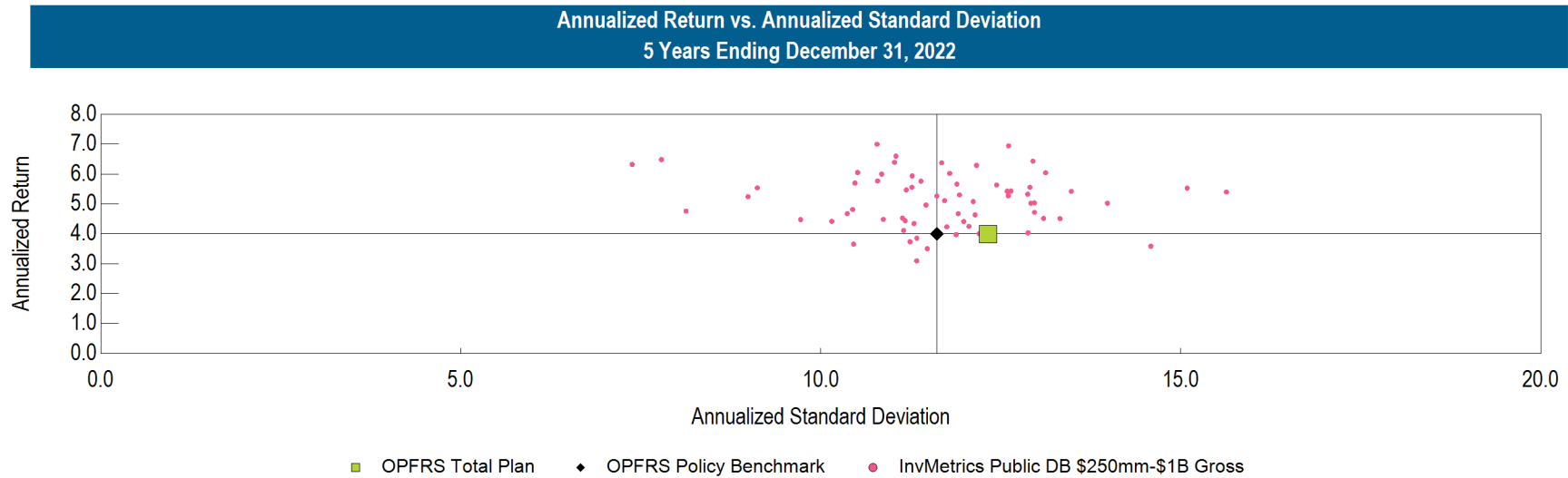
Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Crisis Risk Offset	39,452,288	100.0	-4.9	-14.5	-14.6	-8.2	-9.3	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.5</i>	<i>4.8</i>	<i>-1.3</i>	<i>--</i>	<i>-0.5</i>	<i>Aug-18</i>
Excess Return			-6.4	-19.3	-13.3		-8.8	
Versor Trend Following	15,908,714	40.3	-11.2	--	--	--	6.1	Apr-22
<i>SG Trend Index</i>			<i>-6.1</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>15.6</i>	<i>Apr-22</i>
Excess Return			-5.1				-9.5	
Vanguard Long-Term Treasury ETF	13,706,568	34.7	-1.1	-29.4	-7.6	--	-5.7	Jul-19
<i>Bloomberg US Govt Long TR</i>			<i>-0.6</i>	<i>-29.2</i>	<i>-7.4</i>	<i>--</i>	<i>-5.5</i>	<i>Jul-19</i>
Excess Return			-0.5	-0.2	-0.2		-0.2	
Kepos Alternative Risk Premia	9,837,006	24.9	1.1	--	--	--	-1.0	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>3.9</i>	<i>Feb-22</i>
Excess Return			-0.4				-4.9	

Performance shown is gross-of-fees.

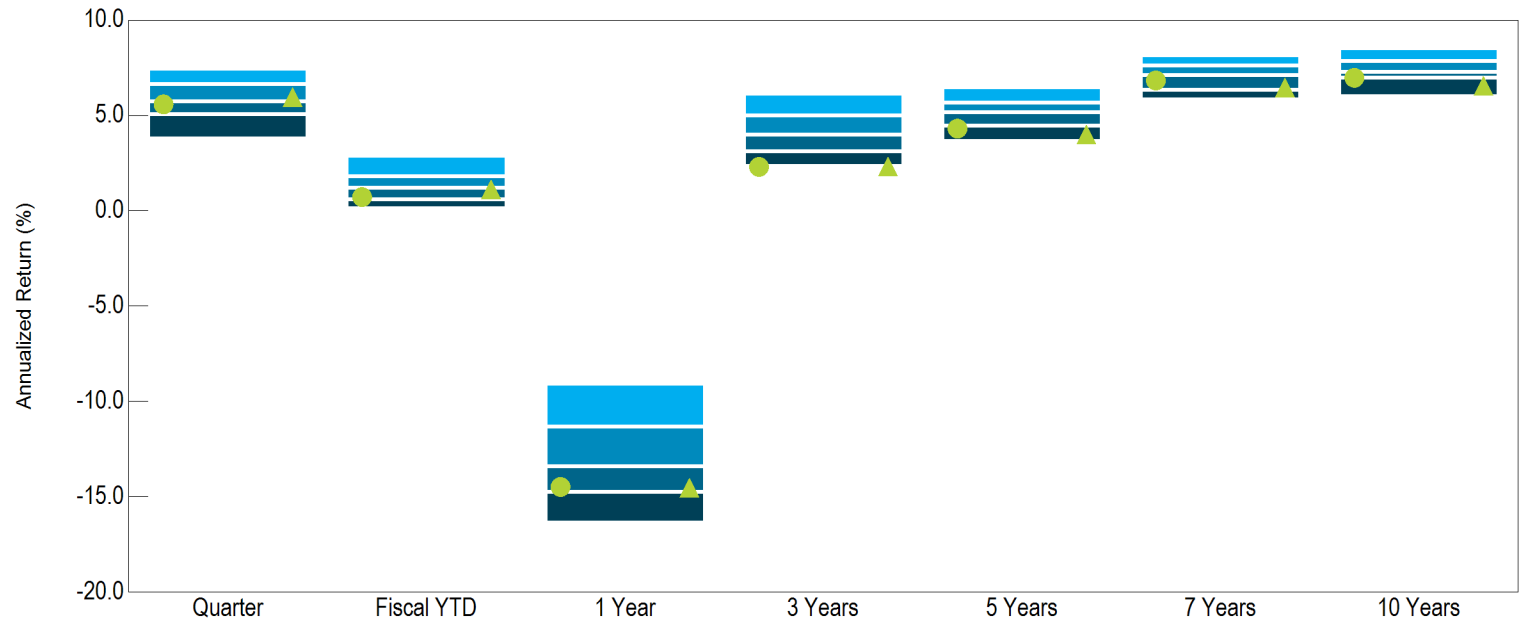


The actuarial expected rate of return was 8% through 6/30/2009, 7.5% through 6/30/2010, 7% through 6/30/2011, 6.75% through 6/30/2014, 6.5% through 2/31/2017 and 6.0% currently



Performance shown is gross-of-fees.

InvMetrics Public DB \$250mm-\$1B Gross Return Comparison



	Quarter		Fiscal YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	7.4	2.9	-9.1	6.1	6.5	8.1	8.5							
25th Percentile	6.6	1.8	-11.3	5.0	5.7	7.6	7.9							
Median	5.8	1.2	-13.4	4.0	5.2	7.1	7.3							
75th Percentile	5.1	0.6	-14.7	3.1	4.5	6.4	7.0							
95th Percentile	3.8	0.1	-16.3	2.4	3.7	5.9	6.0							
# of Portfolios	69	69	69	68	66	64	61							
OPFRS Total Plan	5.6 (56)	0.7 (71)	-14.5 (73)	2.3 (98)	4.3 (83)	6.8 (63)	7.0 (77)							
OPFRS Policy Benchmark	6.0 (43)	1.1 (54)	-14.5 (73)	2.3 (97)	4.0 (90)	6.5 (72)	6.5 (79)							

Fiscal year begins on July 1.

Manager Monitoring / Probation Status

Manager Monitoring/Probation Status

Return vs. Benchmark since Corrective Action

Portfolio	Status	Concern Triggering the Watch Status	Months Since Corrective Action	Performance ¹ Since Corrective Action	Peer Group Percentile Ranking ²	Date of Corrective Action ³
Polen Capital ⁴	On Watch	Performance/Organization	42	2.8	32	5/29/2019
ICE BofAML US High Yield				1.6		
Rice Hall James	On Watch	Performance/Organization	42	6.1	72	5/29/2019
Russell 2000 Growth				4.5		

Investment Performance Criteria for Manager Monitoring/Probation Status

Asset Class	Short-term (Rolling 12 months)	Medium-term (Rolling 36 months)	Long-term (60 + months)
Active Domestic Equity	Fund return < benchmark return by 3.5%	Annualized Fund return < benchmark return by 1.75% for 6 consecutive months	VRR ⁵ < 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

¹ Annualized performance if over one year. Performance shown is gross-of-fees.

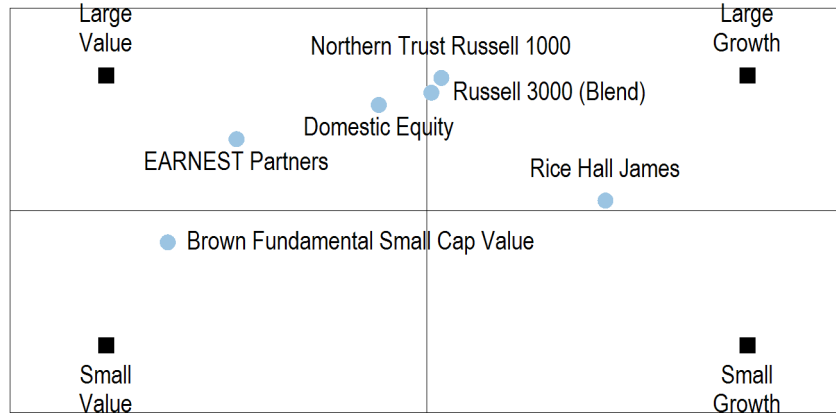
² Ranking over most recent quarter if on watch for less than 1 year, or over 1 year if on watch for more than a year. Peer group comparison is gross-of-fees.

³ Approximate date based on when the Board voted to either monitor a manager at a heightened level or place it on probation.

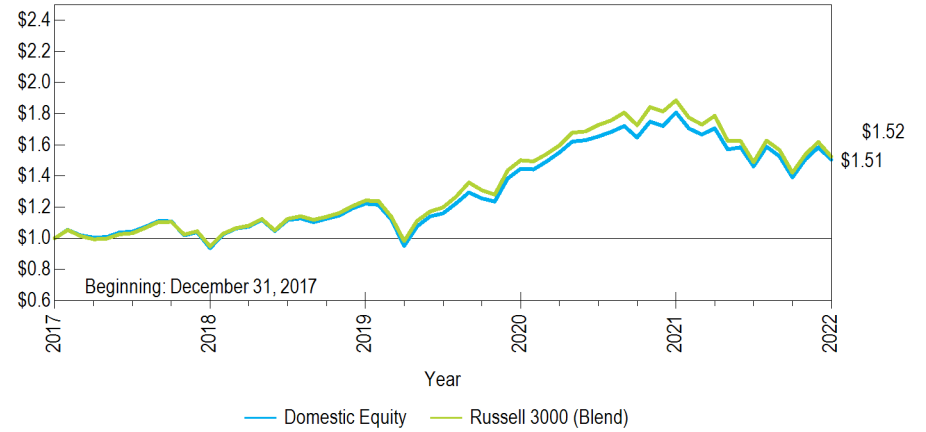
⁴ Polen Capital High Yield strategy was formerly known as DDJ High Yield prior to 2022.

⁵ VRR (Value Relative Ratio) is calculated as manager cumulative return/ benchmark return.

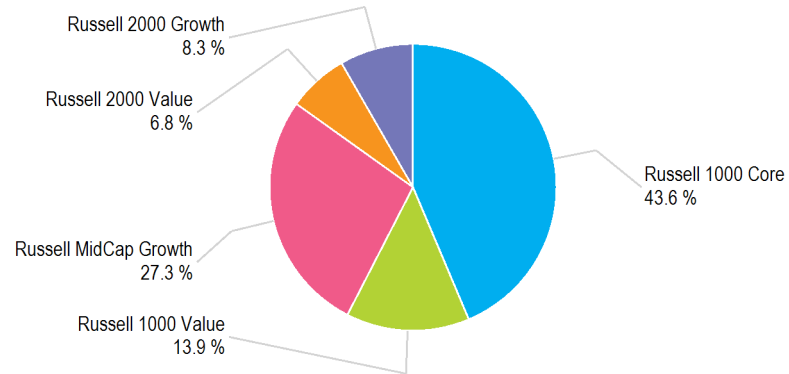
U.S. Effective Style Map



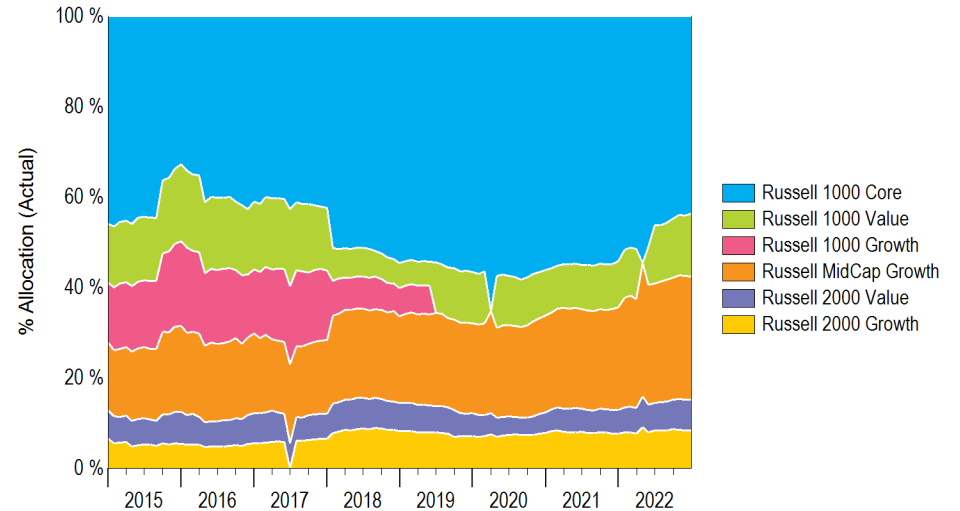
Growth of a Dollar



Style Exposure

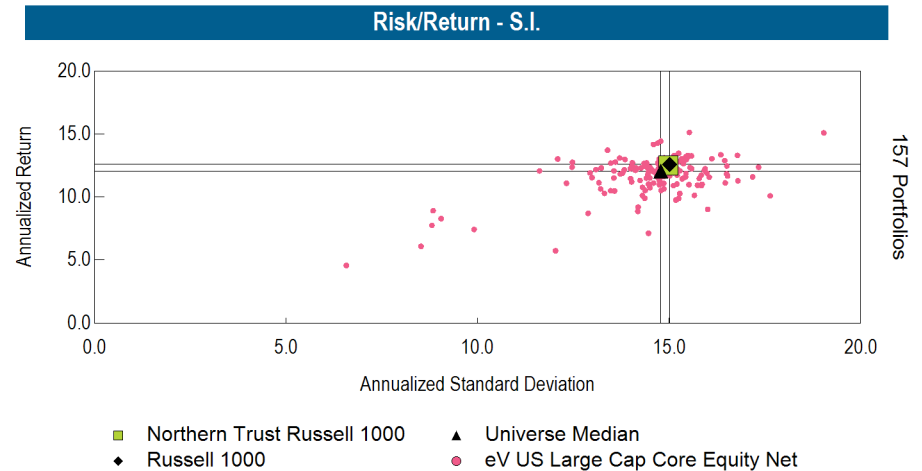
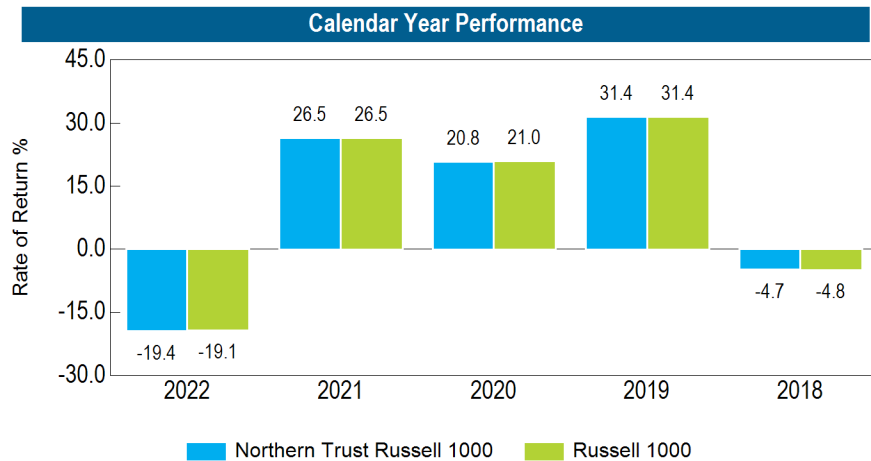
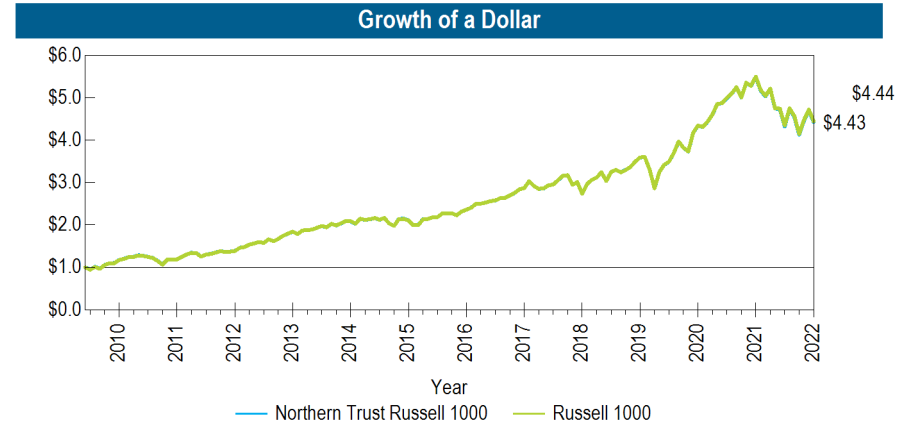
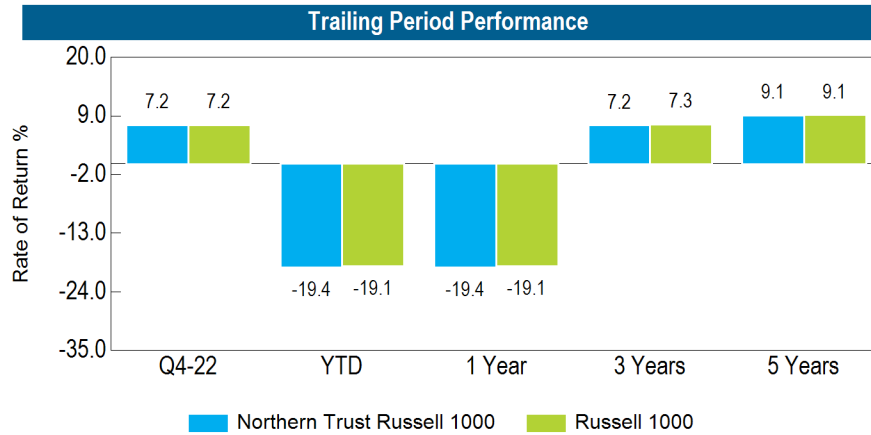


Style History (5-Year)



Northern Trust Russell 1000 | As of December 31, 2022

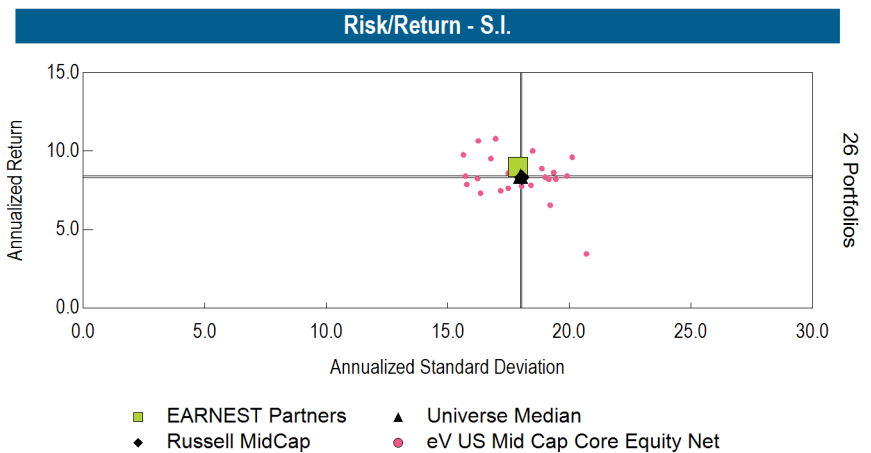
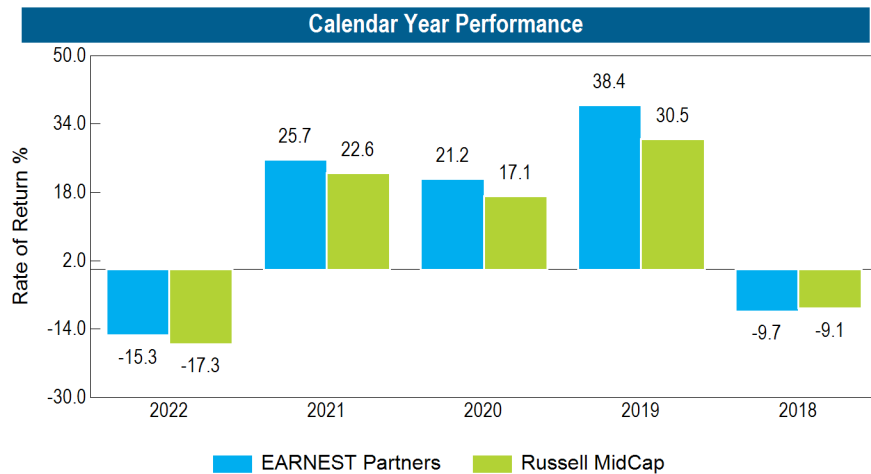
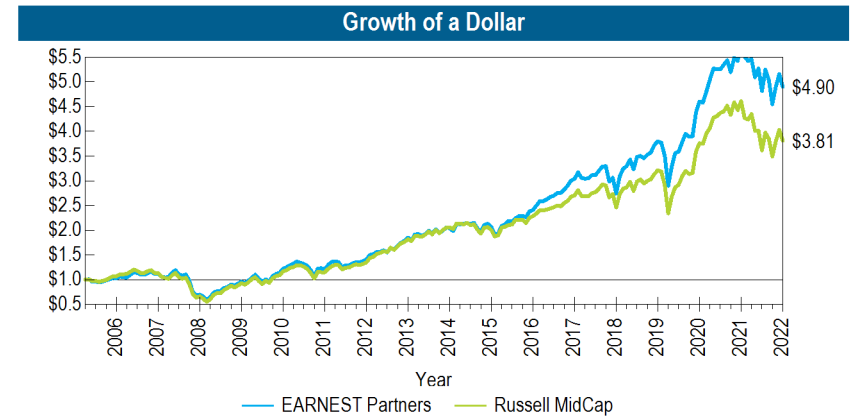
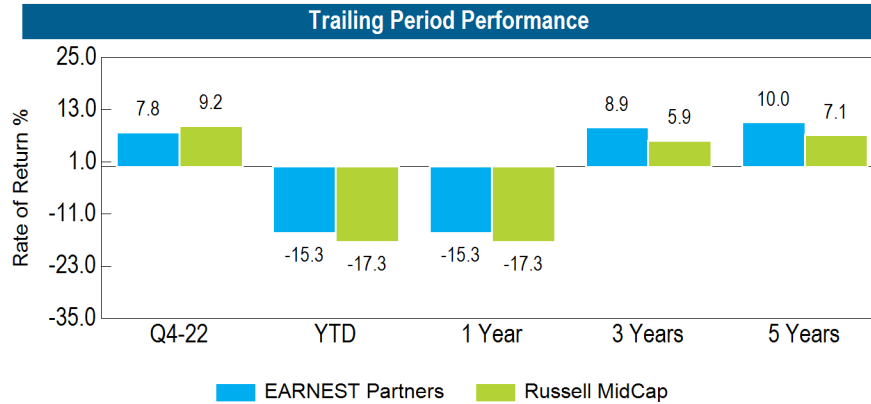
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Northern Trust Russell 1000	12.5%	15.0%	0.0%	1.0	-0.6	0.2%	98.5%	100.0%
Russell 1000	12.6%	15.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

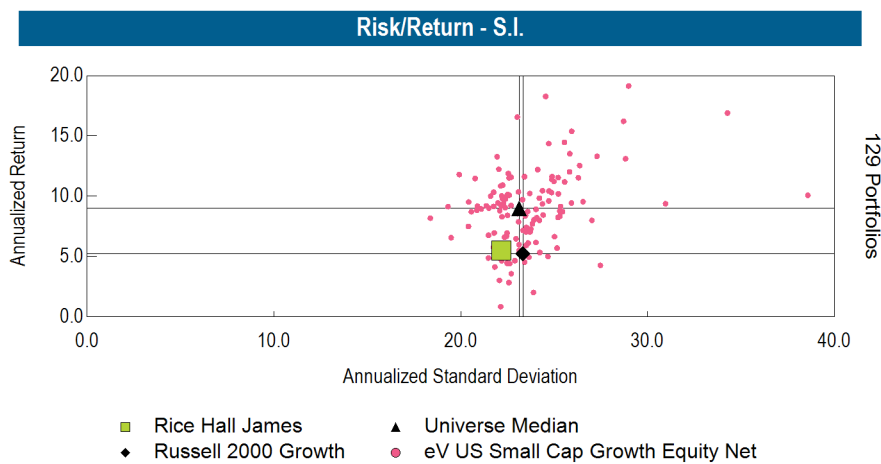
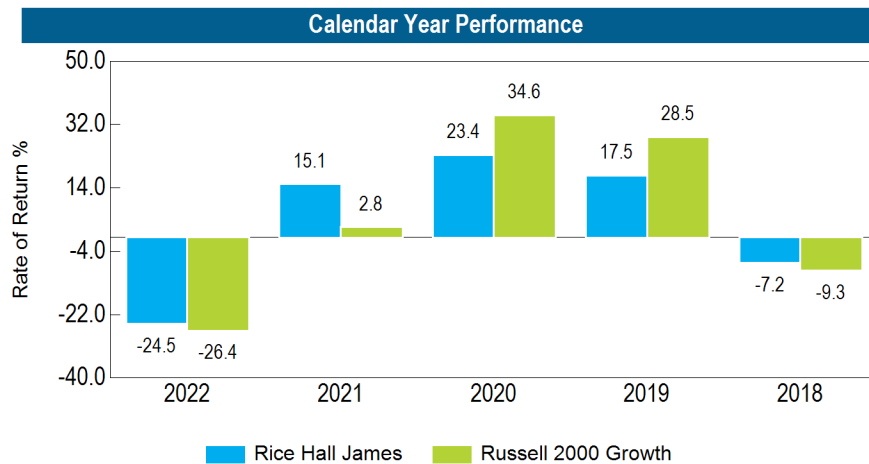
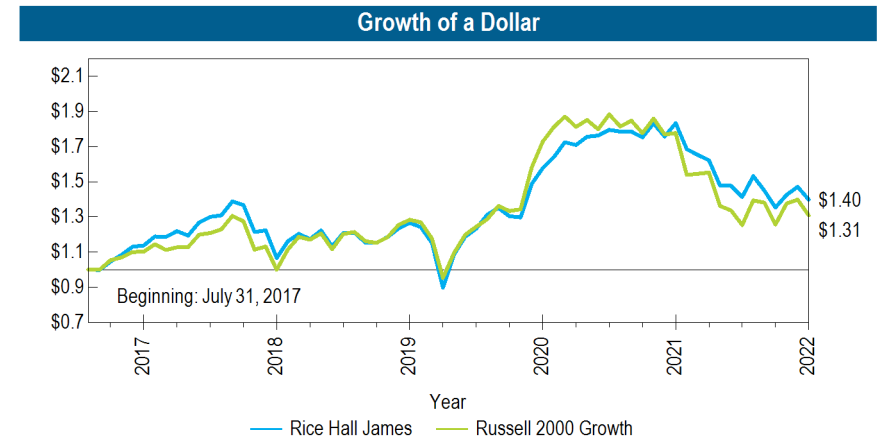
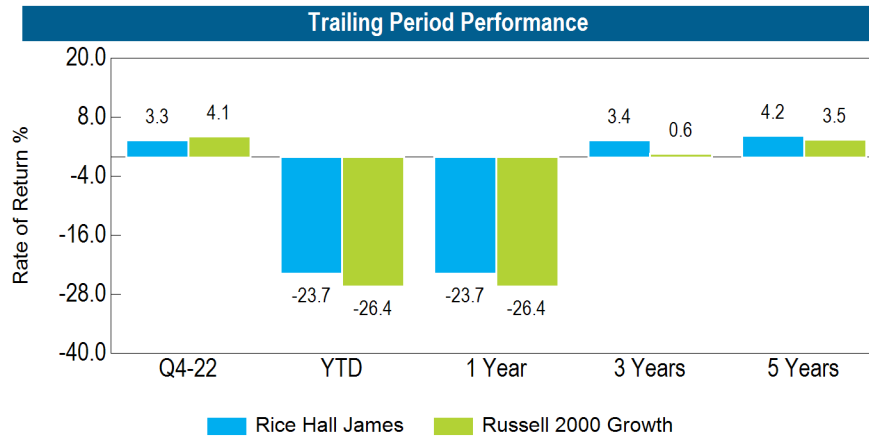
EARNEST Partners | As of December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
EARNEST Partners	9.0%	17.9%	0.1%	1.0	0.2	3.6%	93.5%	99.2%
Russell MidCap	8.3%	18.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



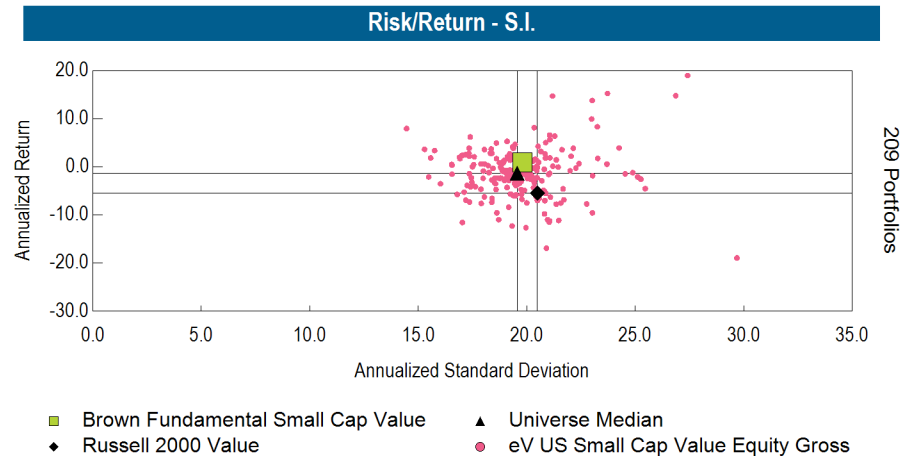
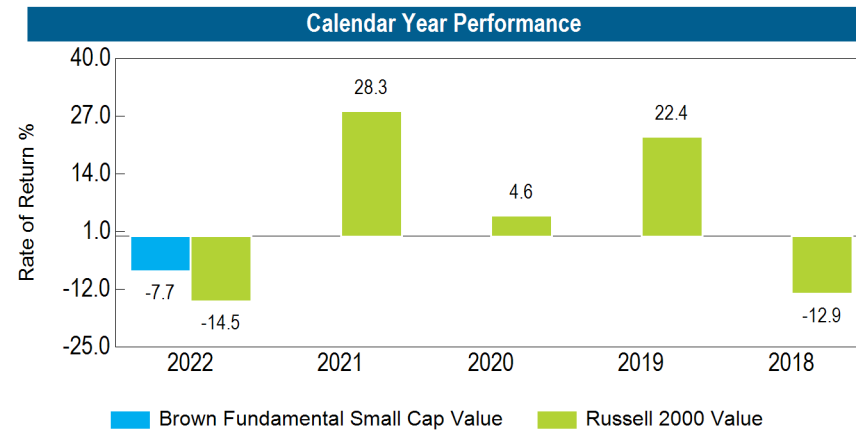
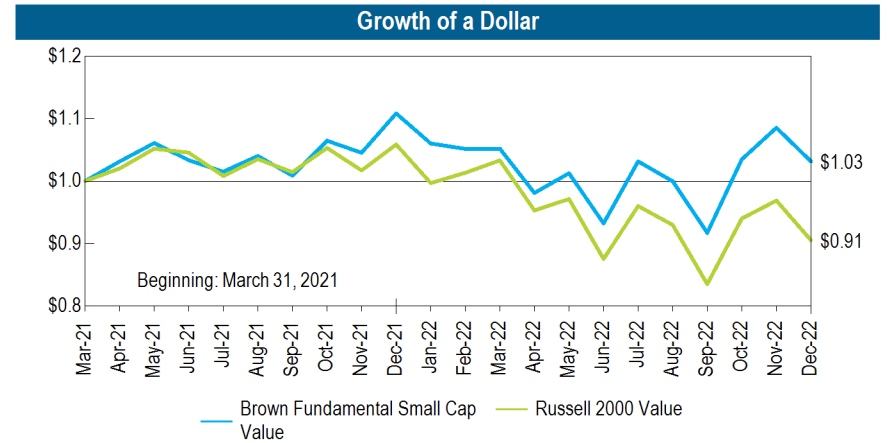
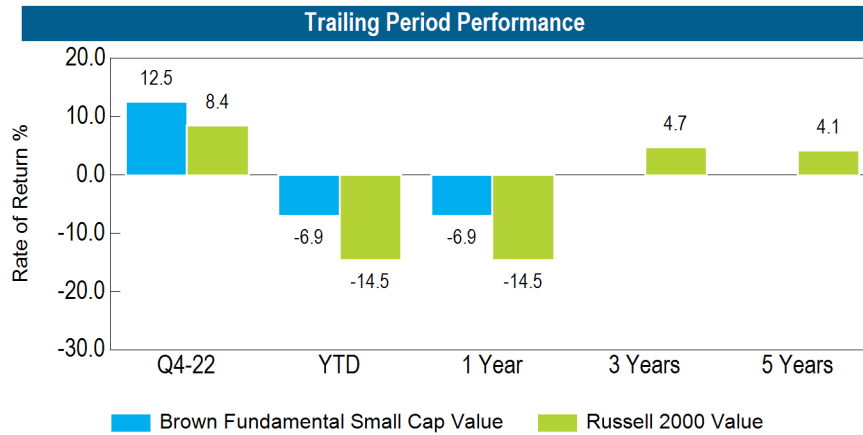
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Rice Hall James	5.3%	22.0%	0.1%	0.9	0.0	7.7%	79.5%	93.6%
Russell 2000 Growth	5.1%	23.1%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

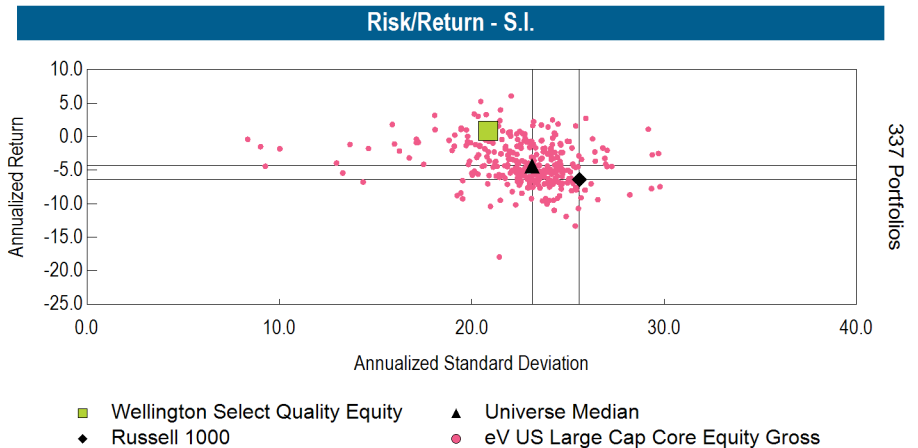
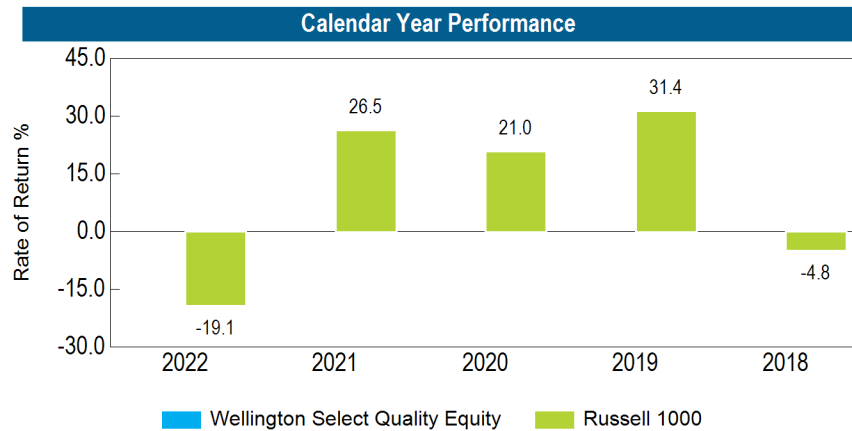
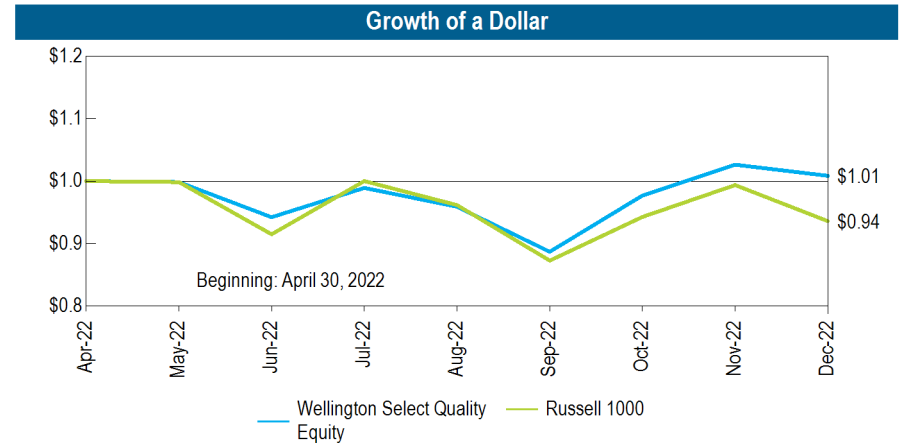
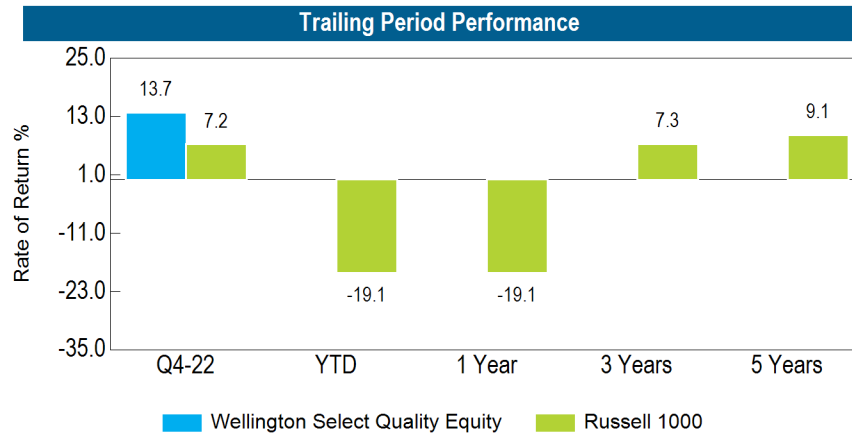
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Brown Fundamental Small Cap Value	0.9%	19.8%	0.5%	0.9	1.3	4.9%	108.9%	88.0%
Russell 2000 Value	-5.5%	20.5%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

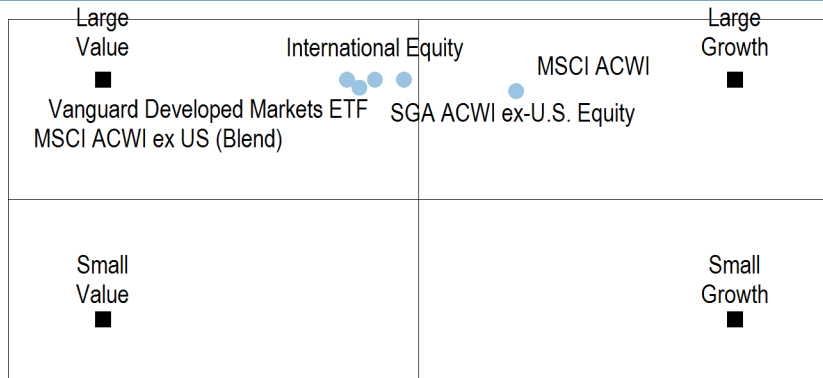
Wellington Select Quality Equity | As of December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wellington Select Quality Equity	0.9%	20.8%	0.7%	0.8	0.8	8.8%	87.8%	68.4%
Russell 1000	-6.4%	25.6%	0.0%	1.0	--	0.0%	100.0%	100.0%

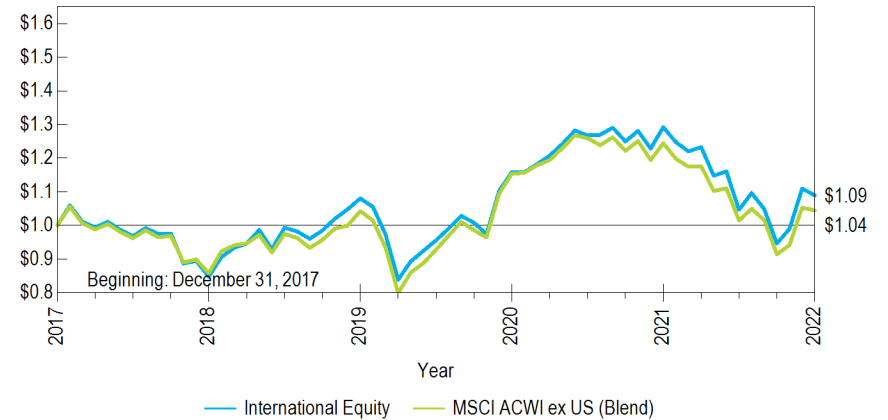


Performance shown is net-of-fees and since inception. Annualized Return is not available for managers without a history longer than one year.

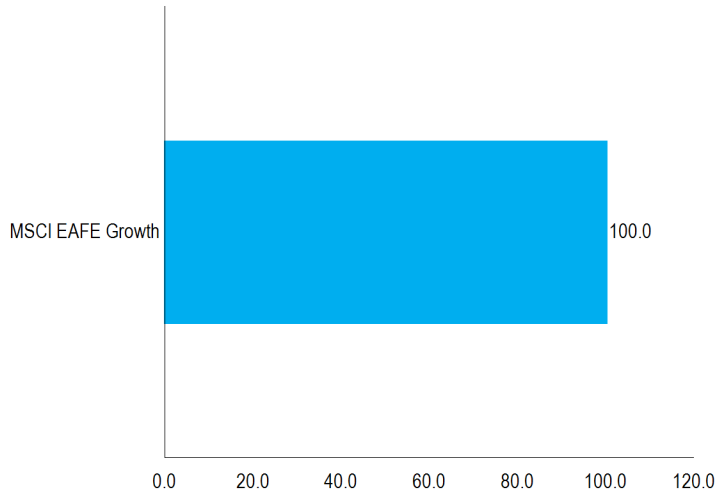
Non U.S. Effective Style Map vs. EAFE



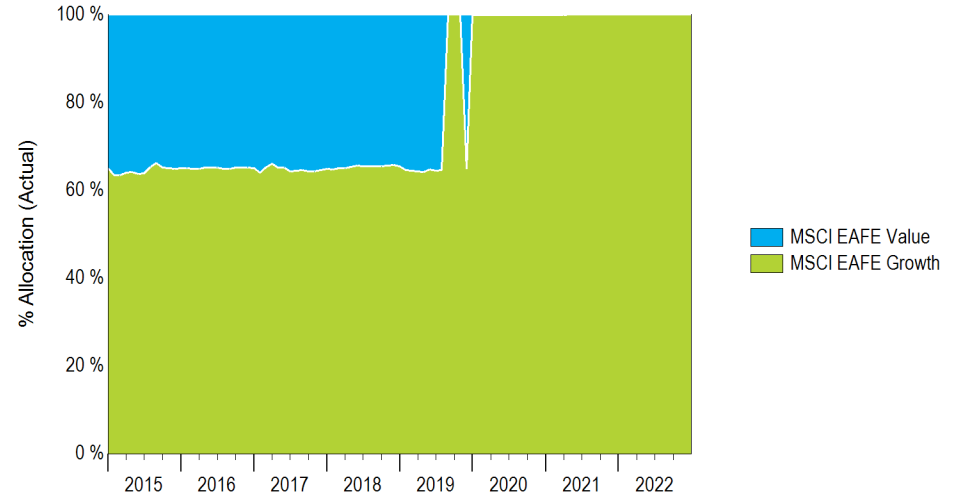
Growth of a Dollar 5 Years Ending December 31, 2022



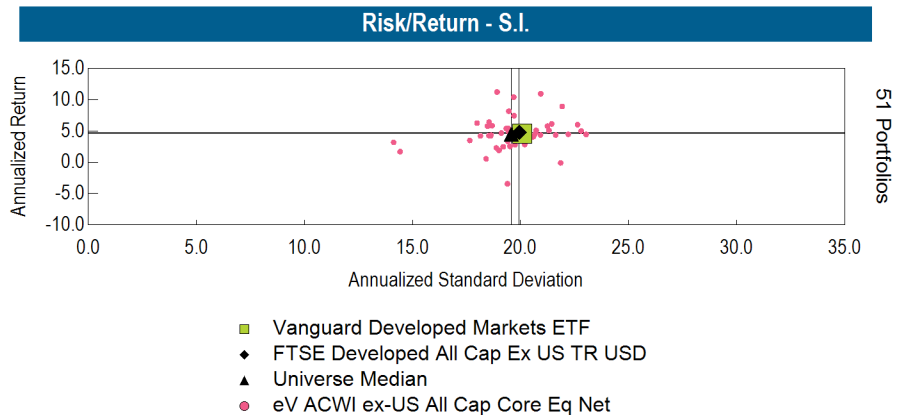
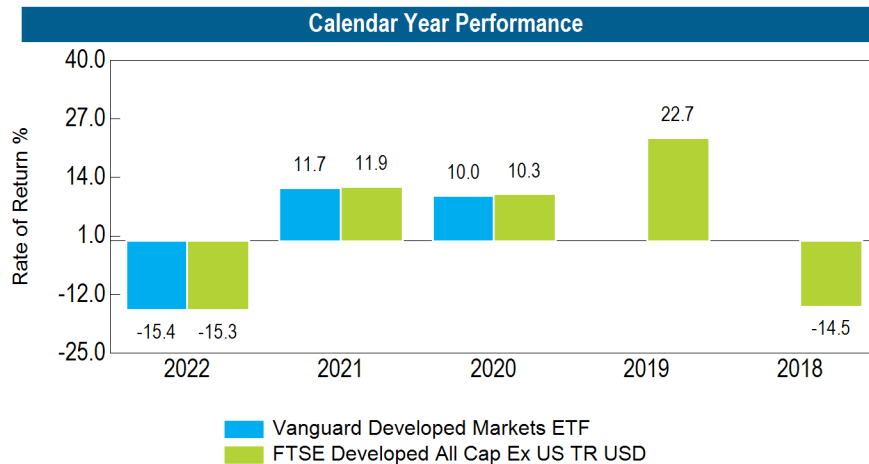
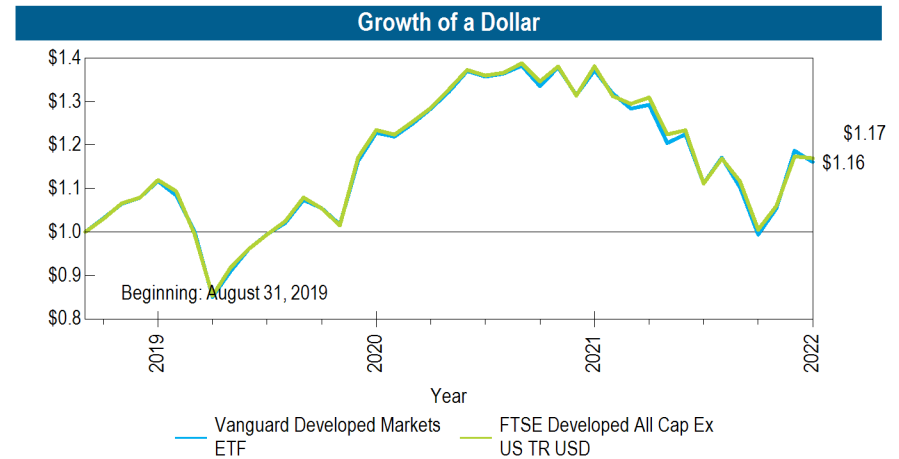
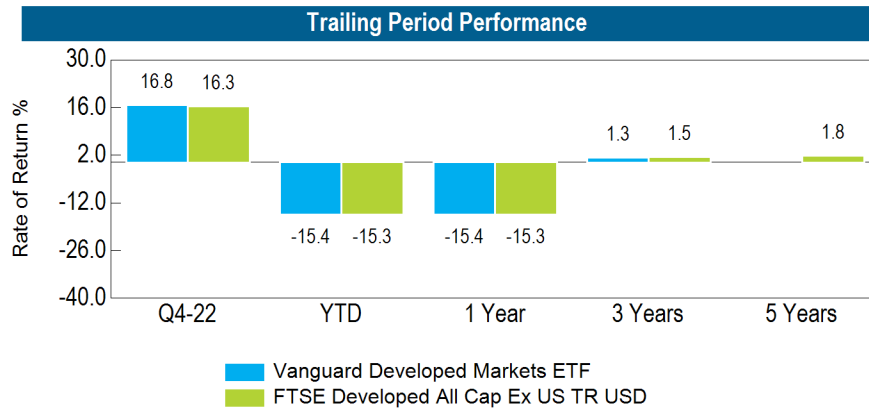
Style Exposure



Style History (5-Year)



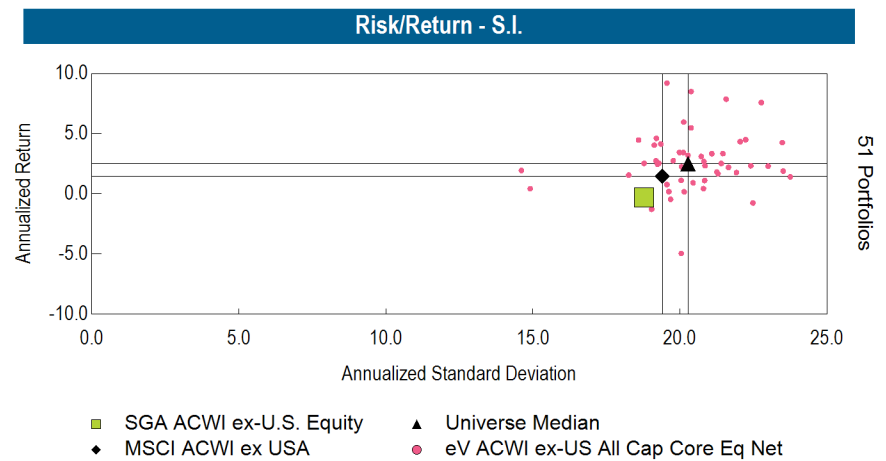
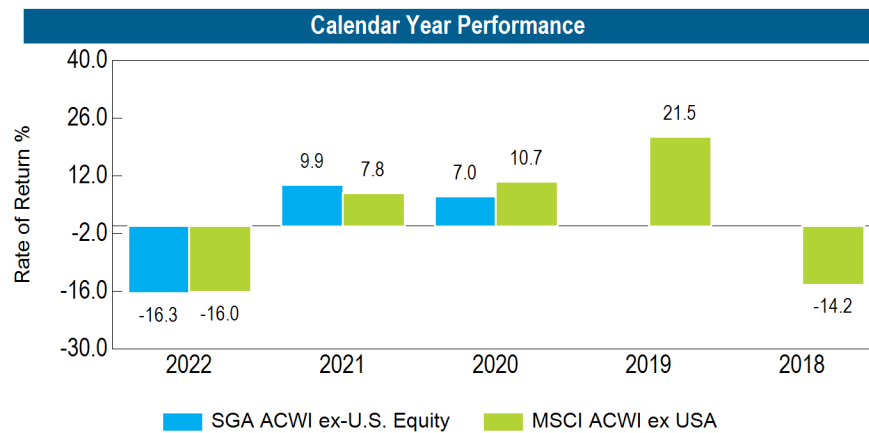
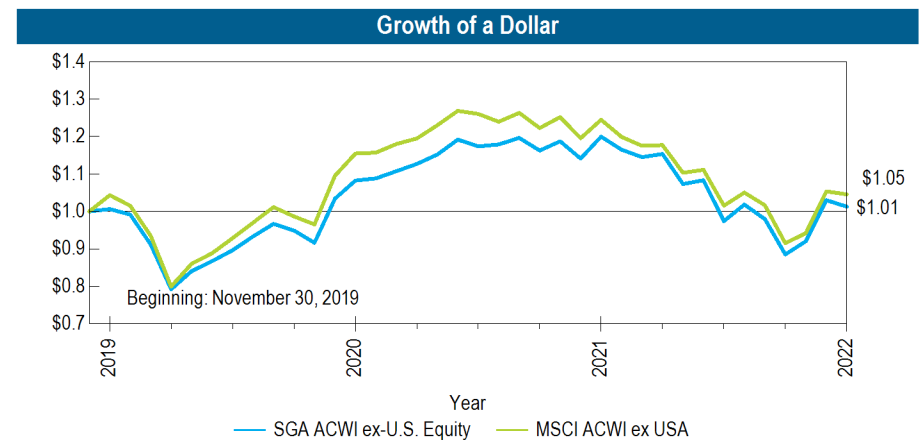
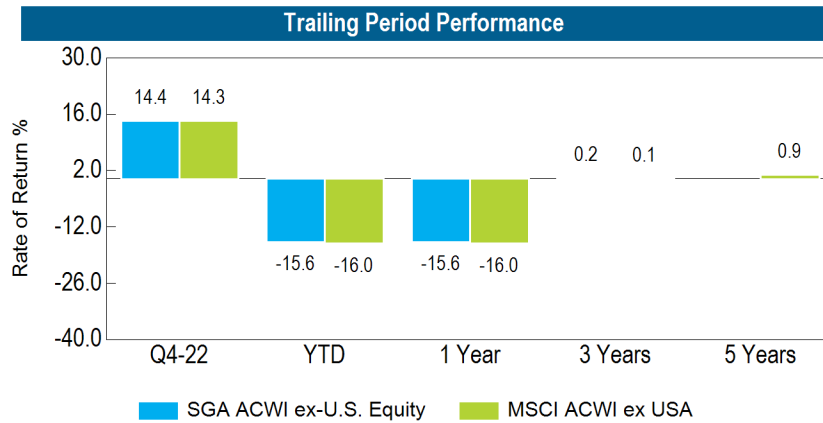
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Developed Markets ETF	4.6%	20.1%	0.0%	1.0	-0.1	2.5%	102.4%	101.7%
FTSE Developed All Cap Ex US TR USD	4.8%	19.9%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

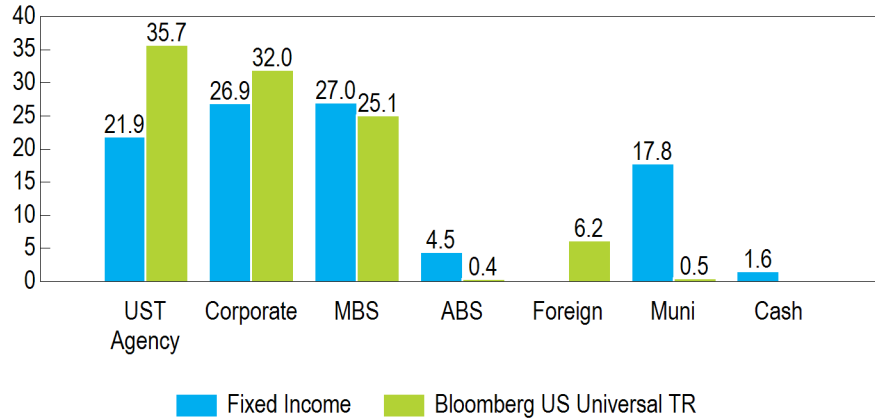
SGA ACWI ex-U.S. Equity | As of December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
SGA ACWI ex-U.S. Equity	-0.3%	18.8%	-0.1%	1.0	-0.5	3.6%	89.1%	99.2%
MSCI ACWI ex USA	1.5%	19.4%	0.0%	1.0	--	0.0%	100.0%	100.0%



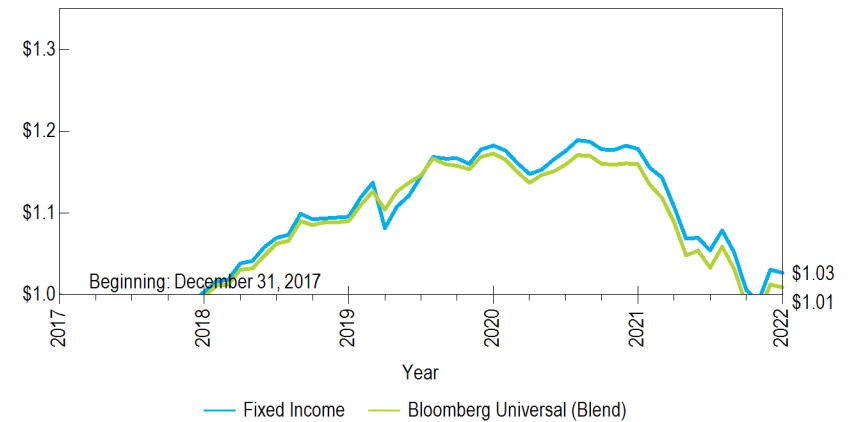
Performance shown is net-of-fees and since inception.

US Sector Allocation

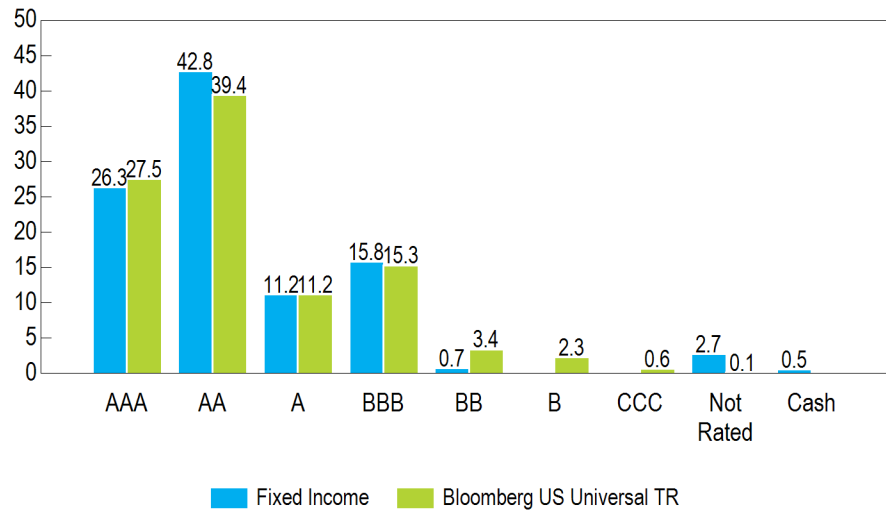


Growth of a Dollar

5 Years Ending December 31, 2022



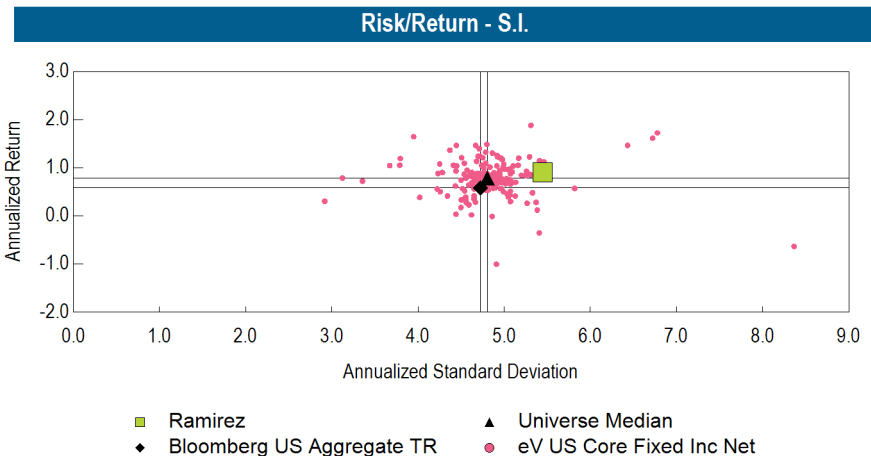
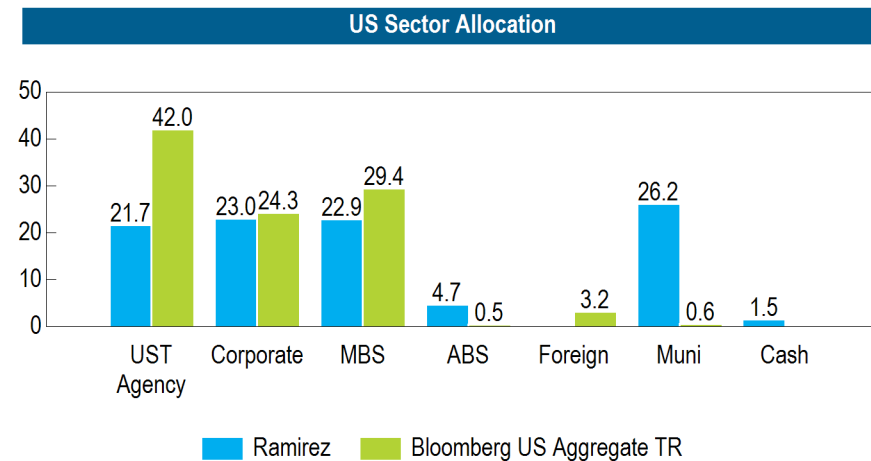
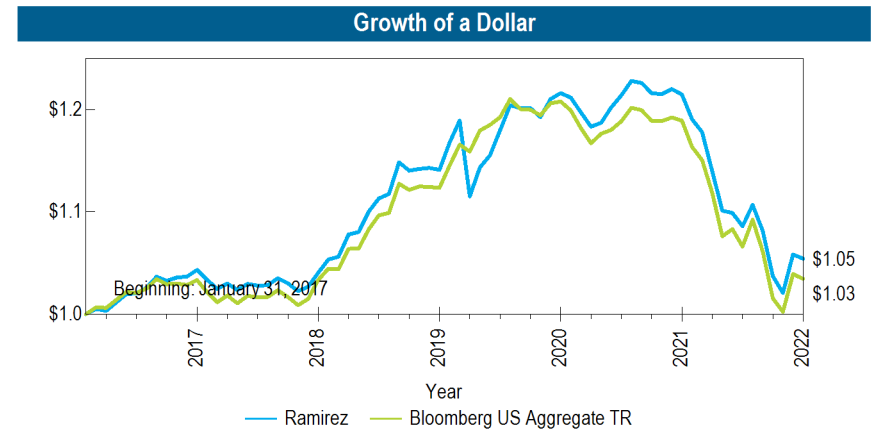
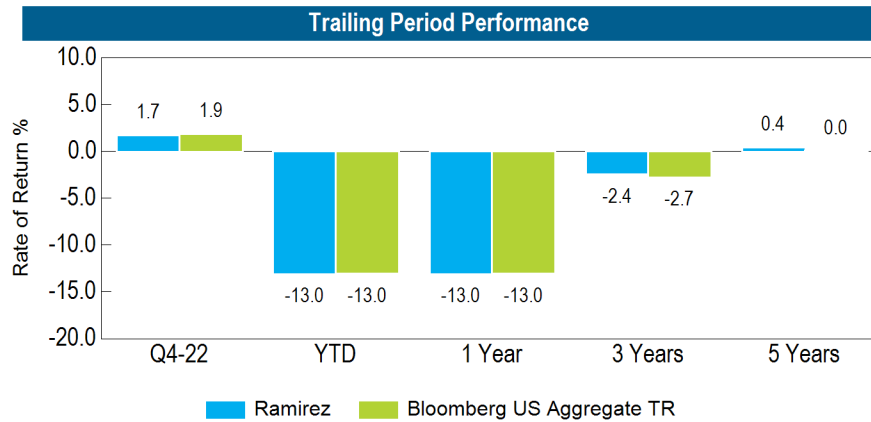
Credit Quality Allocation



Fixed Income Fixed Income Characteristics vs. Bloomberg US Universal TR

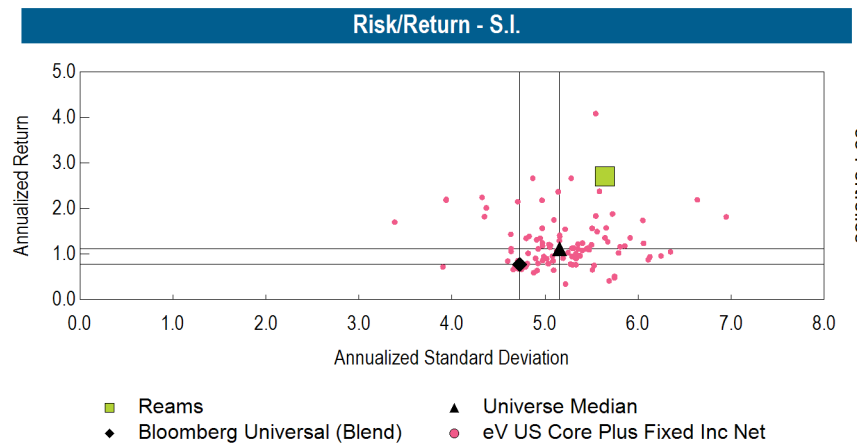
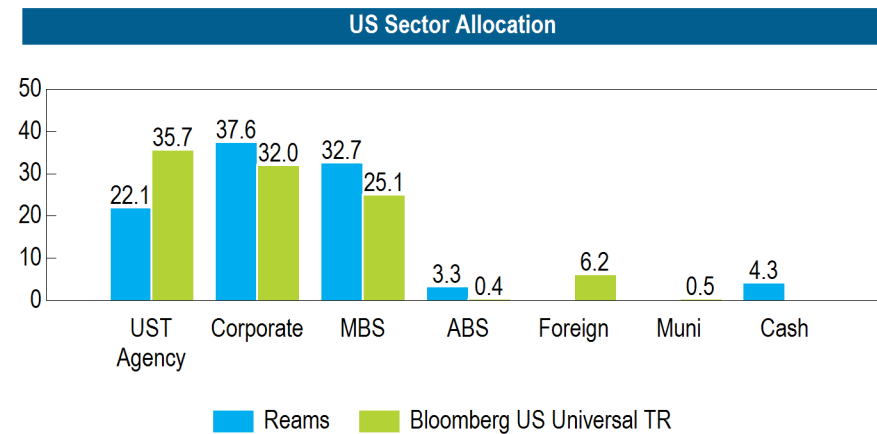
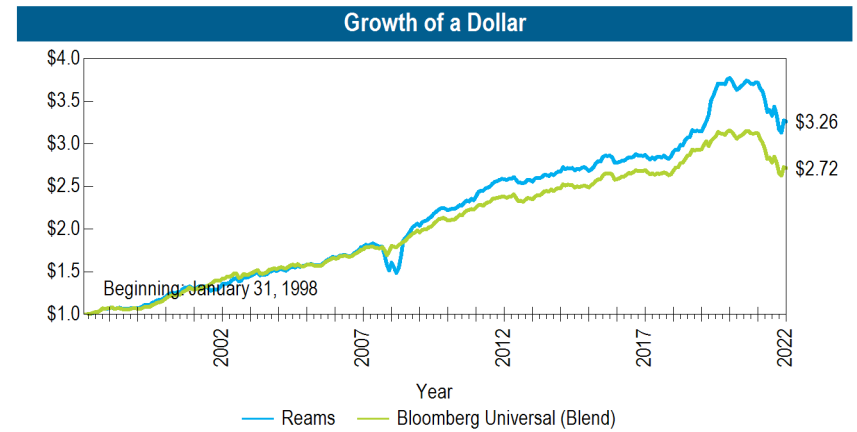
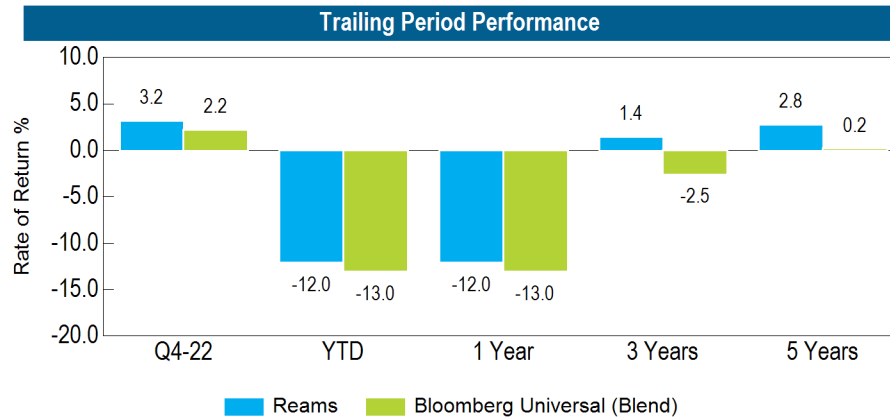
	Portfolio Q4-22	Index Q4-22
Fixed Income Characteristics		
Yield to Maturity	5.25	5.11
Average Duration	6.22	6.00
Average Quality	AA	AA
Weighted Average Maturity	8.99	12.20

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Ramirez	0.9%	5.4%	0.0%	1.0	0.1	2.6%	115.3%	106.7%
Bloomberg US Aggregate TR	0.6%	4.7%	0.0%	1.0	--	0.0%	100.0%	100.0%



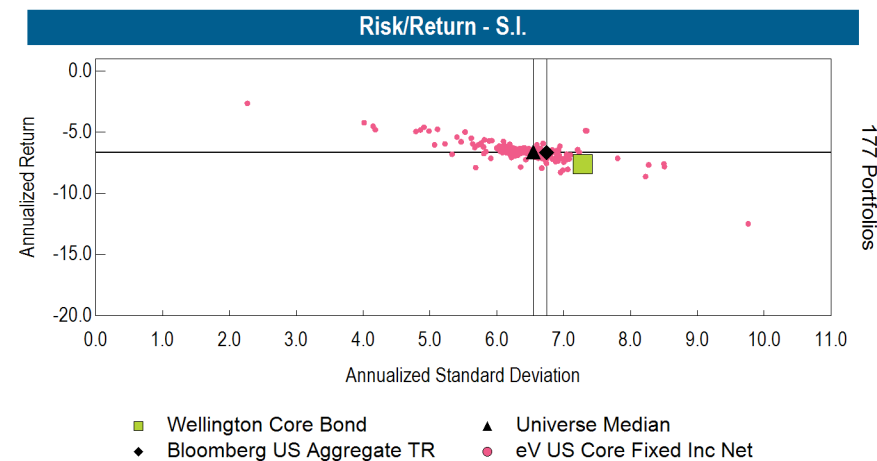
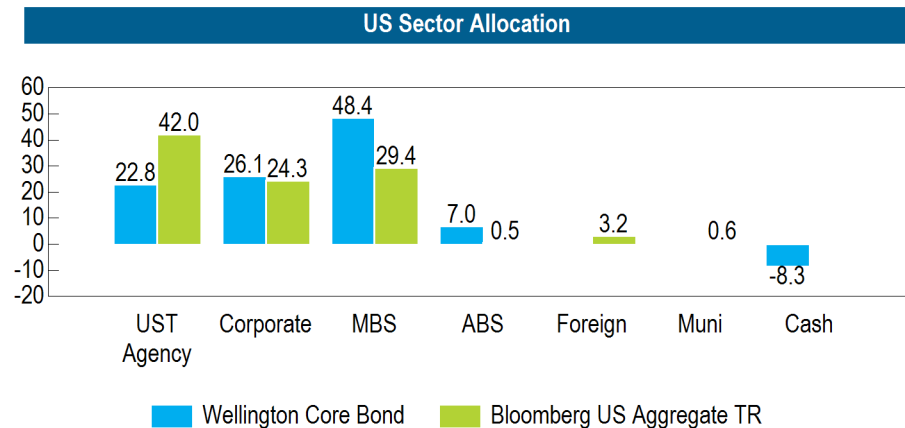
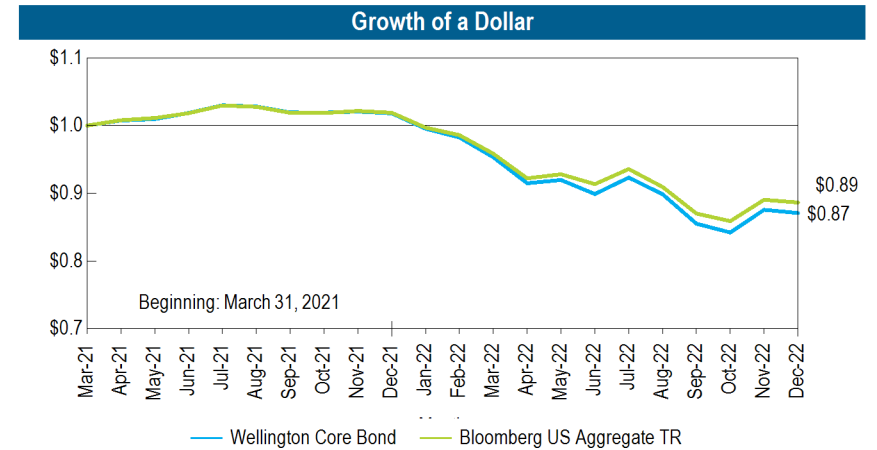
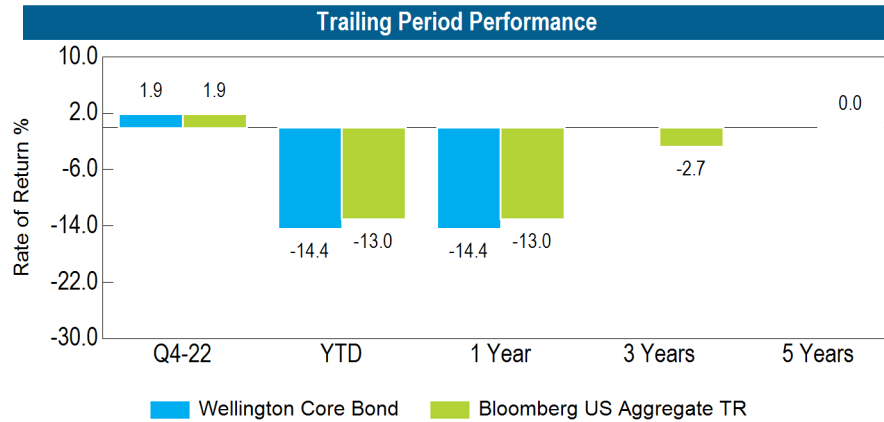
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Reams	4.9%	5.6%	0.0%	1.1	0.2	3.8%	124.3%	100.2%
Bloomberg Universal (Blend)	4.1%	3.8%	0.0%	1.0	--	0.0%	100.0%	100.0%



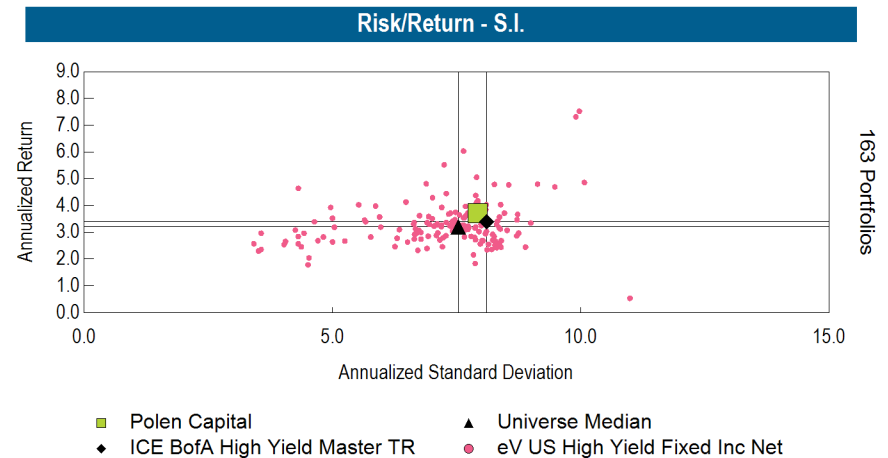
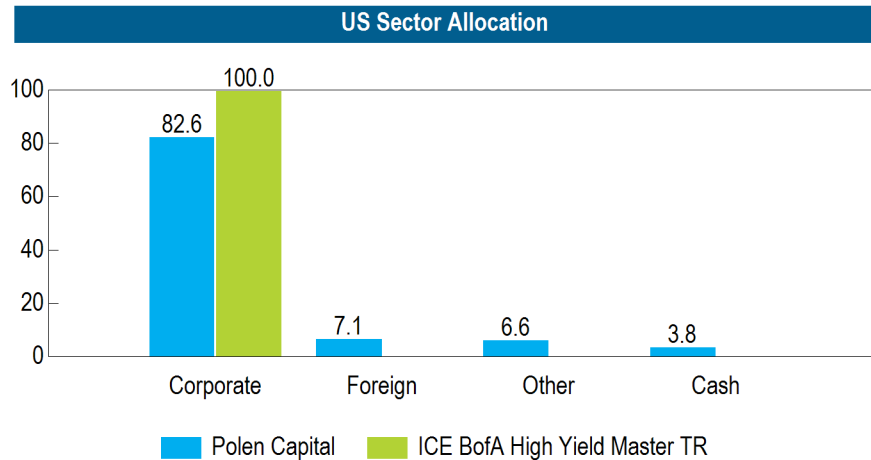
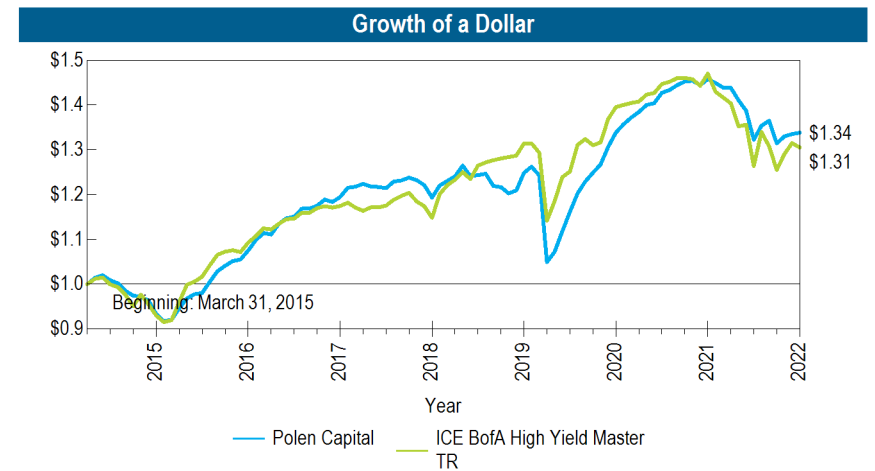
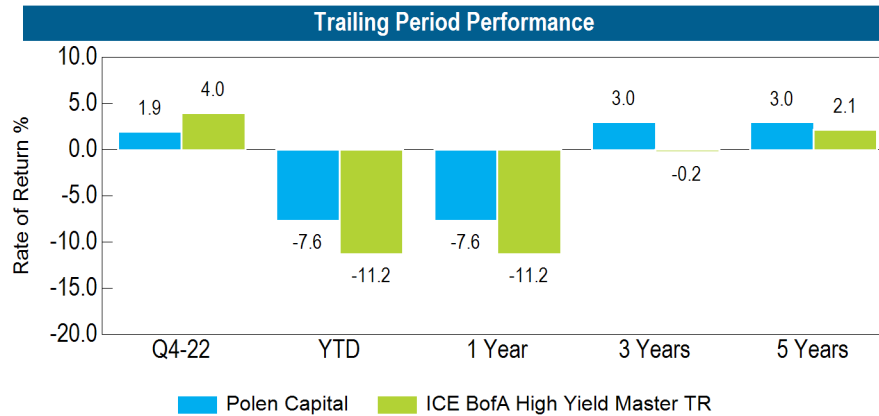
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wellington Core Bond	-7.6%	7.3%	0.0%	1.1	-1.2	0.8%	103.2%	108.3%
Bloomberg US Aggregate TR	-6.7%	6.7%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

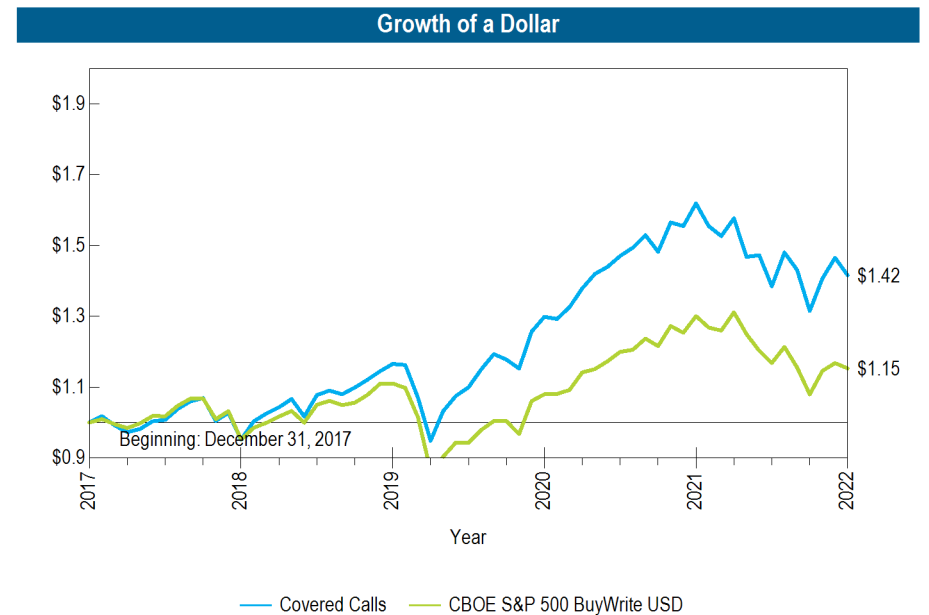
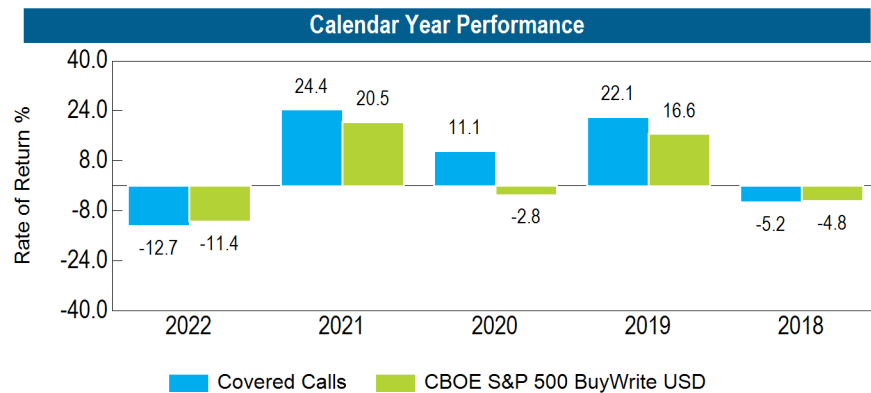
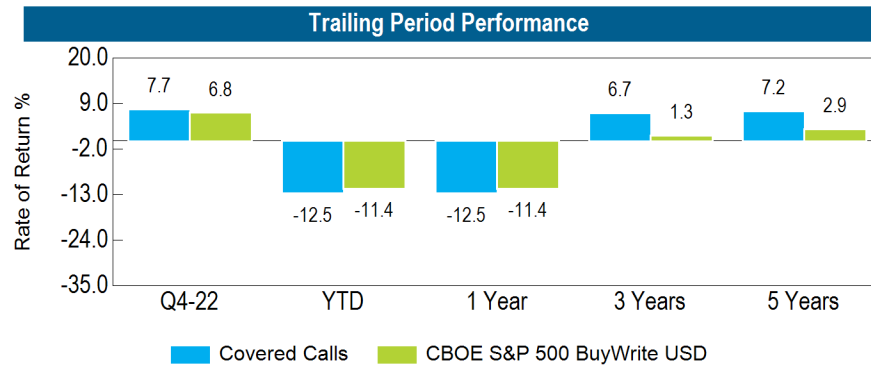
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Polen Capital	4.0%	7.9%	0.1%	0.8	0.1	4.3%	77.7%	78.6%
ICE BofA High Yield Master TR	3.7%	8.1%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

Covered Calls | As of December 31, 2022

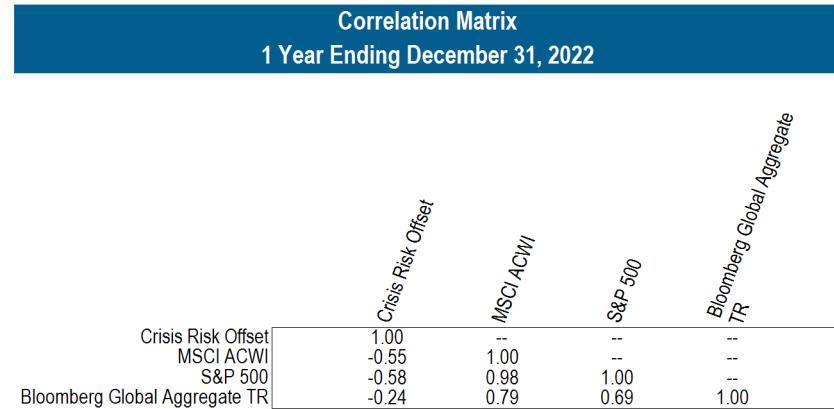
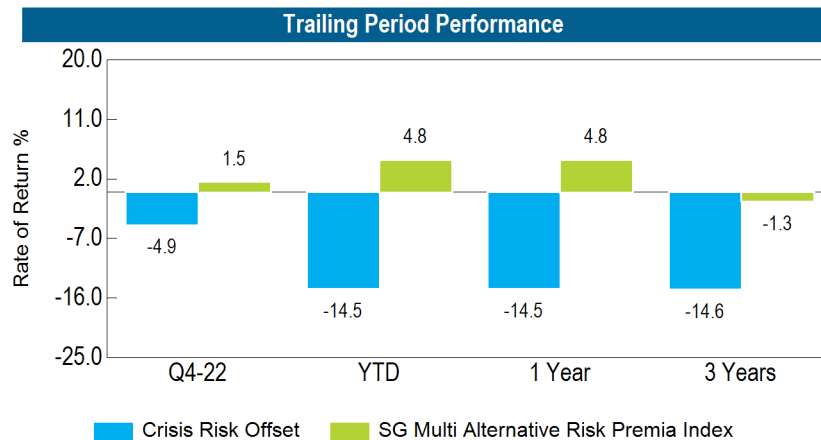
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Covered Calls	7.9%	11.8%	0.2%	1.0	0.7	4.1%	144.2%	102.3%
CBOE S&P 500 BuyWrite USD	4.9%	10.9%	0.0%	1.0	--	0.0%	100.0%	100.0%
Parametric BXM	6.2%	9.7%	0.2%	0.9	0.4	3.3%	96.5%	91.1%
CBOE S&P 500 BuyWrite USD	4.9%	10.9%	0.0%	1.0	--	0.0%	100.0%	100.0%
Parametric DeltaShift	9.7%	14.1%	0.3%	1.2	0.8	6.3%	205.3%	110.5%
CBOE S&P 500 BuyWrite USD	4.9%	10.9%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

Crisis Risk Offset | As of December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Crisis Risk Offset	-10.92%	11.54%	-0.87%	0.57	-0.89	11.31%	-36.38%	98.57%
SG Multi Alternative Risk Premia Index	-0.84%	6.03%	0.00%	1.00	--	0.00%	100.00%	100.00%
Kepos Alternative Risk Premia	--	--	--	--	--	--	--	--
SG Multi Alternative Risk Premia Index	-0.84%	6.03%	0.00%	1.00	--	0.00%	100.00%	100.00%
Versor Trend Following	--	--	--	--	--	--	--	--
SG Trend Index	14.45%	12.82%	0.00%	1.00	--	0.00%	100.00%	100.00%
Vanguard Long-Term Treasury ETF	-5.68%	14.71%	-0.01%	1.01	-0.19	1.17%	101.45%	101.21%
Bloomberg US Govt Long TR	-5.46%	14.52%	0.00%	1.00	--	0.00%	100.00%	100.00%



Performance shown is net-of-fees and since inception.

Benchmark History As of December 31, 2022

OPFRS Total Plan

6/1/2022	Present	40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield TR
1/1/2019	5/31/2022	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
12/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR

Benchmark History As of December 31, 2022

Domestic Equity

1/1/2005	Present	Russell 3000
4/1/1998	12/31/2004	28.57% Russell 1000 / 57.14% Russell 1000 Value / 14.29% Russell MidCap
6/1/1997	3/31/1998	S&P 500

International Equity

1/1/2005	Present	MSCI ACWI ex USA
1/1/1998	12/31/2004	MSCI EAFE Gross

Fixed Income

4/1/2006	Present	Bloomberg US Universal TR
12/31/1993	3/31/2006	Bloomberg US Aggregate TR

Covered Calls

4/1/2014	Present	CBOE S&P 500 BuyWrite USD
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Crisis Risk Offset

8/1/2018	Present	SG Multi Alternative Risk Premia Index
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Cash

3/1/2011	Present	FTSE T-Bill 3 Months TR
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Disclaimer, Glossary, and Notes

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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 22, 2023
RE: 2023 Ongoing Strategic Investment Agenda

On an ongoing (monthly) basis, Meketa develops a list of projects that we expect to work closely with OPFRS to complete over throughout the calendar year (see table below). In an attempt to coordinate the scheduling of these tasks, this memo details a Preliminary Investment Project Agenda by calendaring and prioritizing the expected tasks and deliverables that would be required to fulfill the Agenda. Meketa welcomes any suggestions and/or modifications to the proposed timeline.

2023 Preliminary Investment Project Agenda

Expected Completion Date	Task
March 2023	Flash Performance (2023 Feb) Cash Flow Report (2Q 2023) Informational: 2023 Meketa Capital Market Assumptions Watchlist Review & Manager Update: Polen Capital
April 2023	Flash Performance (2023 Mar) Watchlist Review & Manager Update: Rice Hall James
May 2023	Flash Performance (2023 Apr) Quarterly Performance Report (1Q 2023) Annual Diversity Survey Results as of 12/31/2022 Manager Update: Wellington Core Bonds
June 2023	Flash Performance (2023 May) Cash Flow Report (3Q 2023) Informational Item: TBD Manager Update: Brown Advisory
July 2023	Flash Performance (2023 Jun) Manager Update: Wellington Select Equity Manager Update: Northern Trust Asset Management



Expected Completion Date	Task
August 2023	Flash Performance (2023 Jul) Quarterly Performance Report (2Q 2023) Manager Update: Kepos
September 2023	Flash Performance (2023 Aug) Cash Flow Report (4Q 2023) Thermal Coal List Update: 2023 Manager Update: Versor
October 2023	Flash Performance (2023 Sep) Informational Item: TBD Manager Update: Parametric Contract Renewal: Parametric
November 2023	Flash Performance (2023 Oct) Quarterly Performance Report (3Q 2023) Manager Update: Strategic Global Advisors
December 2023	Flash Performance (2023 Nov) Cash Flow Report (1Q 2024) Manager Update: Ramirez Informational Item: TBD

This agenda includes only major strategic items. Meketa also expects to work with the Staff and Board to complete more routine tasks and projects, as expected.

DS/PN/JLC/mn

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Pursuant to California Government Code section 54953(e), the Oakland Police & Fire Retirement System Board and Committee Members, as well as City staff, will participate via phone/video conference, and no physical teleconference locations are required.

Please see the agenda to participate in the meeting. For additional information, contact the Retirement Unit by calling (510) 238-7295.



AGENDA

RETIREMENT BOARD MEMBERS

Walter L. Johnson, Sr.
President

Jaime T. Godfrey
Vice President

Martin J. Melia
Member

Robert W. Nichelini
Member

John C. Speakman
Member

R. Steven Wilkinson
Member

Erin Roseman
Member

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

WEDNESDAY, FEBRUARY 22, 2023
11:30 AM
TELE-CONFERENCE BOARD MEETING
VIA ZOOM WEBINAR

OBSERVE

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- 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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PUBLIC COMMENTS

There are three ways to submit public comments.

- eComment. To send your comment directly to staff BEFORE the meeting starts, please email to mvisaya@oaklandca.gov with “PFRS Board Meeting” in the subject line for the corresponding meeting. Please note that eComment submission **closes two (2) hours before posted meeting time.**

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
FEBRUARY 22, 2023**

- To comment by Zoom video conference, click the “Raise Your Hand” button to request to speak when Public Comment is being taken on an eligible agenda item at the beginning of the meeting. You will be permitted to speak during your turn, allowed to comment, and after the allotted time, re-muted. Instructions on how to “Raise Your Hand” is available at: <https://support.zoom.us/hc/en-us/articles/205566129> - Raise-Hand-In-Webinar.
- To comment by phone, please call on one of the above listed phone numbers. You will be prompted to “Raise Your Hand” by pressing “*9” to speak when Public Comment is taken. You will be permitted to speak during your turn, allowed to comment, and after the allotted time, re-muted. Please unmute yourself by pressing “*6.”

If you have any questions, please email Maxine Visaya, Administrative Assistant II at mvisaya@oaklandca.gov.

ORDER OF BUSINESS

A. Report of PFRS Board Action from the January 25, 2023 Closed Session (if any)

B. Subject: Police and Fire Retirement System (“PFRS”) Board of Administration Meeting Minutes
From: Staff of the PFRS Board

Recommendation: **APPROVE** the January 25, 2023 PFRS Board of Administration Special Meeting Minutes

C. Subject: Police and Fire Retirement System (“PFRS”) Board of Administration Meeting Minutes
From: Staff of the PFRS Board

Recommendation: **APPROVE** the January 25, 2023 PFRS Board of Administration Regular Meeting Minutes

D. **AUDIT & OPERATIONS COMMITTEE AGENDA – FEBRUARY 22, 2023**

D1. Subject: Informational Overview Regarding Management Audits
From: Macias Gini & O’Connell, LLP

Recommendation: **ACCEPT** informational overview regarding management audits

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
FEBRUARY 22, 2023

E. INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA – FEBRUARY 22, 2023

- E1. **Subject:** Investment Manager Performance Update – Earnest Partners, LLC
From: Earnest Partners, LLC
-
- Recommendation:** **ACCEPT** informational report regarding Earnest Partners, LLC , a PFRS Domestic Equity Mid-Cap Core Investment Strategy Manager, firm overview and managerial assessment; diversity and inclusion policy and practices; investment strategy and portfolio performance; and local brokerage usage
- E2. **Subject:** Investment Manager Performance Review – Earnest Partners, LLC
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** Meketa Investment Group’s review and evaluation of Earnest Partners, LLC, a PFRS Domestic Equity Mid-Cap Core Investment Strategy Manager regarding a firm overview and managerial assessment; investment portfolio performance; peer ranking, and recommendation to extend/terminate the current professional services agreement. **DISCUSS** and **APPROVE** the Committees recommended course of action with regard to Earnest Partners, LLC
- E3. **Subject:** Resolution 8074 – Resolution Authorizing a One-Year Extension of the Professional Services Agreement with Earnest Partners, LLC for the Provision of Domestic Equity Mid-Cap Core Investment Strategy Manager Services
From: Staff of the PFRS Board
-
- Recommendation:** **APPROVE** Resolution No. 8074 authorizing a one-year extension of the 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
- E4. **Subject:** Investment Market Overview as of January 31, 2023
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** informational report regarding the Global Investment Markets as of January 31, 2023
- E5. **Subject:** Preliminary Investment Fund Performance Update as of January 31, 2023
From: Meketa Investment Group
-
- Recommendation:** **ACCEPT** informational report regarding the Preliminary Investment Fund Performance Update as of January 31, 2023

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
 REGULAR BOARD MEETING
 FEBRUARY 22, 2023

- E6. **Subject:** Investment Fund Quarterly Performance Update as of December 31, 2022
From: Meketa Investment Group

Recommendation: **ACCEPT** the Investment Fund Quarterly Performance Update as of December 31, 2022
- E7. **Subject:** Asset Class Reviews (VERBAL)
From: Meketa Investment Group

Recommendation: **ACCEPT** verbal informational report regarding the upcoming scheduled asset class reviews. **DISCUSS** and **APPROVE** the Committee's recommended course of action regarding asset class reviews
- E8. **Subject:** July 1, 2026 Actuarial Funding Date (VERBAL)
From: Meketa Investment Group

Recommendation: **ACCEPT** verbal informational report regarding the July 1, 2026 Actuarial Funding Date. **DISCUSS** and **APPROVE** the Committee's recommended course of action regarding the July 1, 2026 Actuarial Funding Date
- F. **Subject:** Return to In-Person Board Meetings
From: Staff of the PFRS Board

Recommendation: **ACCEPT** informational update regarding the return to In-Person Board Meetings
- G. **Subject:** Update Regarding PFRS Legal Counsel (VERBAL)
From: PFRS Legal Counsel

Recommendation: **ACCEPT** verbal update regarding PFRS Legal Counsel
- H. **Subject:** Member Resolution No. 8075
From: Staff of the PFRS Board

Recommendation: **APPROVE** Member Resolution No. 8075
- Resolution No. 8075** | 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 members of the Oakland Police and Fire Retirement System:
- Wilford Fugler
 - Kenneth L. Lewis
 - John J. Lucich Jr.

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
REGULAR BOARD MEETING
FEBRUARY 22, 2023**

- I. PENDING ITEMS**
- J. NEW BUSINESS**
- K. OPEN FORUM**
- L. FUTURE SCHEDULING**
- M. ADJOURNMENT**

A SPECIAL MEETING of the Oakland Police and Fire Retirement System (“PFRS”) Board of Administration was held on Wednesday, January 25, 2023 via Zoom Webinar.

- 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 (EXCUSED)
 - Téir Jenkins PFRS Investment & Operations Manager and Acting Secretary
 - Mitesh Bhakta PFRS Legal Counsel
 - Maxine Visaya PFRS Staff Member

The meeting was called to order at 9:55 a.m. Pacific

A. Resolution No. 8073 – Resolution Determining that Conducting In-Person Meetings of the Police And Fire Retirement System (PFRS) Board and its Committees Would Present Imminent Risk to Health or Safety of Attendees and Electing to Continue to Conduct PFRS Board and Committee Meetings Using Teleconferencing in Accordance with California Government Code Section 54953(E) as Amended by California Assembly Bill No. 361 (September 16, 2021)

Legal Counsel Bhakta noted this will be the final finding the Board will need make before the current State of Emergency related to the COVID-19 Pandemic expires on February 28, 2023 and Board and Committee meetings will be required to resume in-person meetings beginning in March 2023.

MOTION: Member Melia made a motion to approve Resolution No. 8073, 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)

B. Open Forum – No Report

C. Adjournment – Member Speakman made a motion to adjourn, second by Member Wilkinson. 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 10:00 a.m. Pacific

TÉIR JENKINS
ACTING SECRETARY

DATE

A REGULAR MEETING of the Oakland Police and Fire Retirement System (“PFRS”) Board of Administration was held on Wednesday, January 25, 2023 via Zoom Webinar.

- | | | |
|-----------------------|------------------------|---|
| 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 (EXCUSED) |
| | ▪ Téir Jenkins | PFRS Investment & Operations Manager and Acting Secretary |
| | ▪ Mitesh Bhakta | PFRS Legal Counsel |
| | ▪ Maxine Visaya | PFRS Staff Member |
| | ▪ David Sancewich | Meketa Investment Group |
| | ▪ Jason Leong Campbell | Meketa Investment Group |

The meeting was called to order at 11:30 a.m. Pacific

- A. **CLOSED SESSION** – President Johnson moved the Closed Session to the end of the meeting. The Board convened into Closed Session at 12:07 p.m. and adjourned at 12:31 p.m. Pacific.
- B. **Report of PFRS Board Action from Closed Session** – A report of any Board Action during Closed Session will be presented at the next Board Meeting.
- C. **PFRS Board Meeting Minutes** – Member Speakman made a motion to approve the December 14, 2022 Board of Administration Special Meeting Minutes, second by Member Nichelini. Motion passed.

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

- D. **AUDIT AND OPERATIONS COMMITTEE AGENDA – JANUARY 25, 2023**
- D1. **Administrative Expenses Report** – Investment & Operations Manager Jenkins presented an informational report regarding PFRS administrative expenditures as of November 30, 2022. PFRS has an approved annual budget of approximately \$3.6 million and have expensed approximately \$700,000.00 to date for fiscal year 2022-2023. Membership consisted of 676 retired members, which included 417 Police Members and 259 Fire Members.

MOTION: Member Speakman made a motion to accept the administrative expenses report as of November 30, 2022, 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)

E. INVESTMENT & FINANCIAL MATTERS COMMITTEE AGENDA – JANUARY 25, 2023

- E1. Investment Manager Performance Update – Reams Asset Management (Reams)** – Member Wilkinson provided an overview of the presentation by Reams, a PFRS Core Plus Fixed Income Investment Strategy Manager. Member Wilkinson highlighted the firm overview; portfolio performance; investment strategy; and the firm’s Diversity, Equity, & Inclusion practices. Member Wilkinson noted this portion of the portfolio has not been reviewed in some time and it would be fiscally responsible to conduct a review.

MOTION: Member Speakman made a motion to accept the informational report regarding Reams, second by Member Wilkinson. 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)

- E2. Investment Manager Performance Review – Reams Asset Management (Reams)** – David Sancewich of Meketa Investment Group (“Meketa”) presented an overview memo regarding Reams, a PFRS Core Plus Fixed Income Investment Strategy Manager. D. Sancewich noted Reams has outperformed the benchmark and done better than the median peer universe. Meketa has no concerns from an investment standpoint; however, Meketa will conduct a review of Reams in the context of the Fixed Income Portfolio in the second half of 2023.

MOTION: Member Nichelini made a motion to accept Meketa’s performance review regarding Reams, 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)

- E3. Investment Market Overview as of December 31, 2022** – David Sancewich of Meketa presented an informational report regarding the Investment Market Overview as of December 31, 2022 and highlighted Equity Cyclically Adjusted Price to Earnings Ratios and Ten-Year Breakeven Inflation and current factors impacting outcomes.

MOTION: Member Nichelini made a motion to accept the informational report provided by Meketa regarding the Investment Market Overview as of December 31, 2022, 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)

E4. **Preliminary Investment Fund Performance Update as of December 31, 2022** – David Sancewich of Meketa provided a summary of the Preliminary Investment Fund Performance Update as of December 31, 2022 and highlighted Allocation vs. Targets and Policy and the Asset Class Performance Summary.

MOTION: Member Nichelini made a motion to accept the informational report provided by Meketa regarding the Preliminary Investment Fund Performance Update as of December 31, 2022, 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)

F. **Member Resolution 8071 – 8072**

F1. **Resolution No. 8071** – Resolution Fixing the Monthly Allowances of Surviving Spouse of the following Retired Members of the Police and Fire Retirement System in the amount indicated:

<u>Deceased Member</u>	<u>Surviving Spouse</u>	<u>Monthly Allowance</u>
▪ Daryl W. Hylton	Carol Hylton	\$3,899.62
▪ Larry J. Rodrigue	Karen Rodrigue	\$7,591.43
Barry Whalley	Suzanne Whalley	\$4,946.09
James M. Williams	Mary A. Williams	\$4,902.60
▪ Leland Williams	Clare Williams	\$5,580.23

MOTION: Member Nichelini made a motion to approve Resolution No. 8071, 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)

F2. **Resolution No. 8072** – Resolution Approving Death Benefit Payment and Directing Warrants Thereunder in the Total Sum of \$1,000.00 Payable to the Beneficiaries of the following Deceased Member of the Police and Fire Retirement System:

- John Tashjian

MOTION: Member Nichelini made a motion to approve Resolution No. 8072, 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)

- G. Cure and Correct for December 14, 2022 Agenda Item D6: \$14.2 Million Drawdown for Member Retirement Allowances** – PFRS Legal Counsel Bhakta advised the Board to reapprove a \$14.2 million drawdown, \$8.2 million as a contribution from the City of Oakland, and \$6 million from the PFRS Investment Fund as recommended by Meketa Investment Group at the December 14, 2022 Special Meeting of the PFRS Board and this is a validation action to cure and correct potential Brown Act infirmities and will not result in additional funds being withdrawn other than those discussed during the December 14, 2022 Special Meeting

MOTION: Member Nichelini made a motion to reapprove the December 14, 2022 \$14.2 million drawdown, second by Martin 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)

- H. Pending Items** – No Report

- I. New Business** – Member Speakman carried Audit Committee pending agenda item regarding options for the frequency and manner of Board & Committee meetings forward to the Full Board for discussion. PFRS Legal Counsel Bhakta noted the PFRS Charter requirement is for the Board to have a regularly scheduled meeting once per month, however the frequency of Committee meetings is at the discretion of the Board. President Johnson directed Legal Counsel to move forward with researching the matter as it relates to Committee meetings and to agendize the matter for discussion at a future Board meeting.

- J. Open Forum** – Kevin R. Traylor, President of the ROPOA, inquired if Plan Administrator Jones had the opportunity to share the letter sent via email regarding the June 30, 2024 settlement agreement and the June 30, 2026 MOU between the City of Oakland and the Oakland Police Officer Association and the Oakland Police Management Association. Investment & Operations Manager Jenkins advised the matter will be discussed during the closed session.

President Johnson thanked the Board for all the cards, phone calls, and words of comfort over the past few months, and also for the nice floral arrangement.

- K. Future Scheduling** – The next regular Board meeting is tentatively scheduled to occur Wednesday, February 22, 2023.

- L. Adjournment** – Member Nichelini made a motion to adjourn, 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)

The regular meeting adjourned at 12:07 p.m. Pacific and convened into a Closed Session.



mgo.

OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

ORGANIZATIONAL ASSESSMENTS

Presented by MACIAS GINI & O'CONNELL LLP

February 22, 2023

Contents

- 01 PFRS @ June 30, 2022
- 02 PERS organizational structure
- 03 Types of assessments
- 04 The process



OBJECTIVES

PFRS @ June 30, 2022

686

Plan
Participants

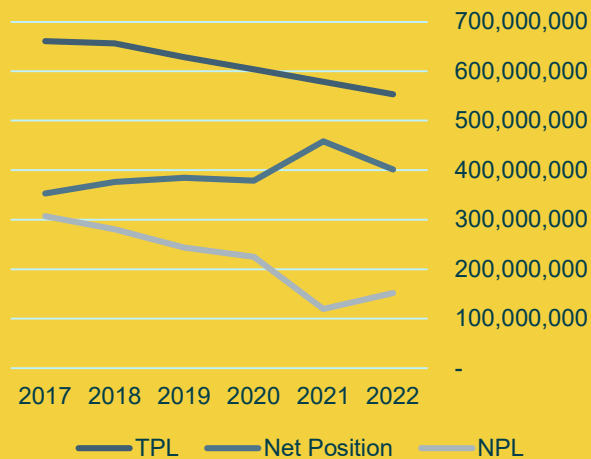
\$553M

Total Pension
Liability

\$401M

Net Position

Closed Plan



\$152M

Net Pension
Liability

PERS org structure

Board of Administration Treasurer/Plan Administrator

Investment Activities

Investment Policies

Portfolio Management

- Custodian/Banking
- Investment Managers
- Investment Consultant

Benefit Administration

Customer Relations

Benefit Payments

Beneficiary Eligibility

Death Audits

Actuarial Services

- Assumptions
- Funding/City Contributions
- Net Pension Liabilities

General Operations

General Accounting

- Financial Reporting
- Payroll
- Disbursements/Vendor Payments
- Budget

Procurement

Compliance/Legal

Information Systems

Internal Audit

Public Relations/Communications

Types of assessments

Operational Audit

- Evaluation of effectiveness, efficiency and economy of operations, including internal controls.
- Focus: Policies and Achievements Related to Objectives; Internal Control Gap Analysis; On-going Internal Control Testing

Risk Management Plan Assessment

- Assessment of Management's Plan – assumptions, actions, procedures and risk analysis
- Focus: Management's Risk Assessment

GRC Assessment

- Assessment of Governance, Risk Management and Compliance objectives, policies, and achievements.
- Focus: Organizational Strategy, Processes, Technology and People.

IT & Security Assessment Audit

- Evaluation of IT governance, policies and procedures, ITGC, and cybersecurity risks.
- Focus: Governance; Policies and Procedures; Incident Response

AICPA

- Statement on Standards for Consulting Services
- Statements on Standards for Attest Engagements

AICPA

- Statement on Standards for Consulting Services

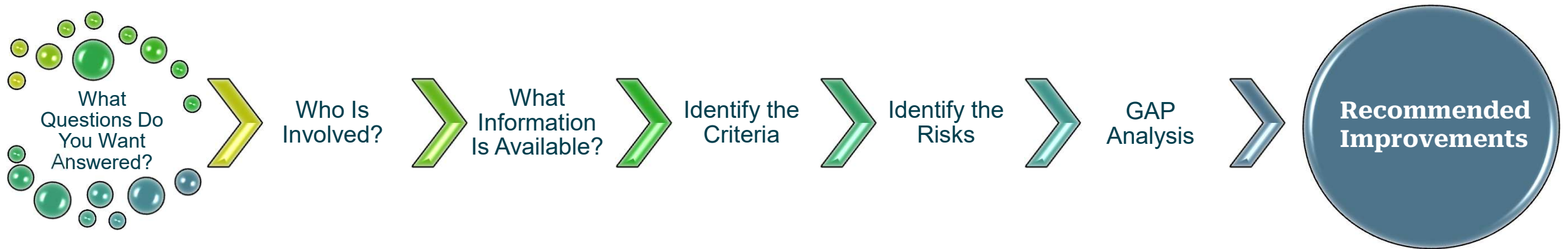
AICPA

- Statement on Standards for Consulting Services

AICPA

- Statement on Standards for Consulting Services

The process



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+

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and Fire
Retirement
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mgocpa.com



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***Oakland Police and Fire Retirement Board
December 31, 2022***

Dinkar Singh, Ph.D.
Partner

Dr. Singh is co-head of the equity investment team at EARNEST Partners. Prior to joining EARNEST Partners, he worked at the IBM Watson Research Center in the Silicon Technology group. Leading a team of Ph.D.s/engineers, he helped develop semiconductor technology for next-generation electronic chips, resulting in the first demonstration of an advanced memory and world record chip speed and was awarded five U.S. patents with four additional patent applications pending. Dr. Singh has a Ph.D. from Stanford University in Applied Physics, an MBA with high honors from the University of Chicago, and studied previously at the Indian Institute of Technology. Dr. Singh is fluent in Hindi.

Jeffrey Jackson
Director

Mr. Jackson is a member of the product management team at EARNEST Partners. Prior to joining EARNEST Partners, he worked for the global investment bank, Evercore, in New York where he helped lead their Real Estate advisory practice as a Managing Director. His extensive background also includes experience in acquisitions, development and debt restructuring within Real Estate. He is a graduate of the Tuck School of Business at Dartmouth where he holds an MBA and was a Consortium Fellow and he holds a BS in Finance from Hampton University where he was a Presidential Scholar. Mr. Jackson was a member of the SEO Career Program and later served as a member of the SEO Junior Leadership Board. Mr. Jackson is a former collegiate basketball player and maintains an active lifestyle with his passion for cycling.



Guidelines and Investment Policy Audit

	Yes	No
• Benchmark: Exceed Russell Midcap [®] Index over a full market cycle	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Cash position is less than 10% of total portfolio value*	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• No industry sector weight greater than 25% of total portfolio	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• No security held is greater than 5% of total portfolio value* or 8% at market	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• Proxies voted in accordance with guidelines	<input checked="" type="checkbox"/>	<input type="checkbox"/>
• No prohibited securities held	<input checked="" type="checkbox"/>	<input type="checkbox"/>

EARNEST Partners believes that the attached information, along with other submissions, represents all the required reporting information. Please notify us immediately if any required information is missing.

**Threshold may be temporarily exceeded due to market conditions.*

Diversity Representation Survey for Oakland Police and Fire

DATA AS OF 01/31/2023

Firm Name	EARNEST Partners
Product Name	Mid Cap Core
Total Number of Employees	44

	Percentage (%) of Board of Directors / Managing Members	Percentage(%) of Firm (Entire Staff)	Percentage (%) of Firm (Investment Professionals)
Race and Ethnicity*			
African American/Black	12.50%	23%	20%
Asian/Hawaiian/Pacific Islander	25.00%	23%	30%
Latino/Hispanic	0.00%	0%	0%
White	62.50%	54%	50%
American Indian/Alaska Native	0.00%	0%	0%
Other			
Gender			
Male	87.5%	59%	80%
Female	12.5%	41%	20%
Non-Identified/Other			

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

Global equities were generally positive in the fourth quarter of 2022 as investors regained confidence in risk assets following the easing of supply chain concerns and encouraging inflation data. The S&P 500[®] rose 7.6% during the quarter, rebounding from a drawdown of about 25% in October. The U.S. large cap market, as represented by the Russell 1000[®] Index, rose 7.2%. The U.S. midcap market, as represented by the Russell Midcap[®] index, rose by 9.2%. Small cap equities, as represented by the Russell 2000[®], rose 6.2%. International equity markets, as represented by the MSCI ACWI ex-U.S.[®] Index, rebounded by 14.4%. Emerging markets underperformed developed markets as the MSCI Emerging Markets Index rose by 9.8%, while the MSCI EAFE rose by 17.4% during the quarter.

During the quarter, equities initially continued their slide downwards and hit new lows before sharply rebounding in mid-October as Consumer Price Index (CPI) inflation readings came in lower than anticipated. The two consecutive lower-than-expected CPI datapoints of 7.7% in October and 7.1% in November gave confidence to investors who believed we passed “peak” inflation and the Fed could begin moderating its campaign to bring inflation down to its annual 2% target. Higher rates are especially threatening to high-growth sectors of the market such as Consumer Discretionary and Information Technology as these segments derive much of their valuation from expectations of future earnings rather than current cashflows. Additionally, they are heavily reliant on external financing and rising rates make it increasingly difficult for these businesses to borrow on favorable terms. Many of the high-multiple technology stocks continued to suffer as last years’ winners such as Tesla, Nvidia, and Facebook/Meta (among others) fell over 50% while many smaller unprofitable names in this space suffered even more significant declines. However, cashflow producing sectors such as Health Care, Utilities and Consumer Staples finished the year largely unscathed. Energy was a standout as it benefitted from higher oil prices and a rebound in demand following the resumption of travel, the outbreak of war in Eastern Europe and lifting of pandemic-era restrictions. Despite continued uncertainty within different sectors of the equity markets, the labor market continued to show strength as the unemployment rate hovered near a record-low reading of 3.7%.

Investors continued to focus on the Federal Reserve’s posture, which was expected to increase the federal funds rate to stave off generationally high inflation numbers. Following CPI readings of 7.7% in October and 7.1% in November, the Fed hiked rates by 75 bps in November and 50 bps in December to bring the fed funds rate to the range of 4.25% to 4.50%, ending a string of four 75-bp rate hikes in a row. Fed Chair Jerome Powell continued to be consistent in his stance that fighting inflation is the central bank’s main priority and continued to acknowledge that there is still a lot of work to do, unwilling to stray from the Fed’s long-term goal of 2% inflation and maximum employment.

Global currencies rebounded against the dollar this quarter after chaotic trading last quarter saw the Pound, Euro and Yen sharply decline. The Bank of Japan adjusted its bond purchase program to allow the yield on its 10-year bonds to move in a range of +/-0.5%, widening the range from +/- 0.25%, effectively tightening its rate policy as the world’s third-largest economy continues to deal with stagnant growth and a weakening currency. Japan is one of the last major economies that has negative-yielding debt.

Energy prices stabilized, and crude oil finished the year slightly up to settle at about \$80. Despite initial shock from Russian invasion of Ukraine, supply chains for agricultural commodities and energy adapted, and this ongoing geopolitical event has migrated to the background in the eyes of financial markets.

Fixed income markets rebounded although they continued to experience one of their worst years on record. The Bloomberg US Aggregate rose by about 2.0% during the fourth quarter, to finish the year down 13%. The intermediate portion of the yield curve shifted down and overall demand for fixed-income instruments increased as the Fed showed signs of slowing down its pace of short-term rate hikes. At the long end of the curve, the 30-year rose by about 20 basis points to finish the quarter at about 3.9%, well off last year’s lows, but indicating that investors continue to expect low to moderate long-term growth and inflation despite recent CPI readings, although these rates are still low compared to historical standards.



EARNEST Partners Mid Cap Core Portfolio Review

Oakland Police and Fire Retirement
Board
December 31, 2022

The U.S. mid cap equity market, as represented by the Russell Midcap® Index, gained over 9% in the fourth quarter. After generating losses in six of the final seven weeks to end the third quarter in negative territory, the Index generated positive returns in the fourth quarter, albeit with meaningful volatility along the way. The Index generated gains in only seven of the thirteen weeks in the fourth quarter as the market continued to react to interest rate hikes by the US Federal Reserve and elevated inflationary pressures. 10 of the 11 sectors in the Index generated positive returns. Energy and Health Care were the best performing sectors while Communication Services was the laggard as the lone sector to generate negative returns in the quarter. The EARNEST Partners Mid Cap Core strategy underperformed the Index, net of fees, in the quarter, in part due to relative underperformance in the Health Care and Materials sectors. That relative underperformance was somewhat offset by strength in the Industrials and Financials Sectors. Despite underperforming the Index, net of fees, in the quarter, the EARNEST Partners Mid Cap Core strategy outperformed the Index, net of fees, over the trailing one, three and five-year periods, largely as a function of stock selection. EARNEST Partners continues to focus on high-quality companies that we believe are well-positioned to benefit over the long term. Past performance is not a guarantee of future results. Performance data is preliminary.

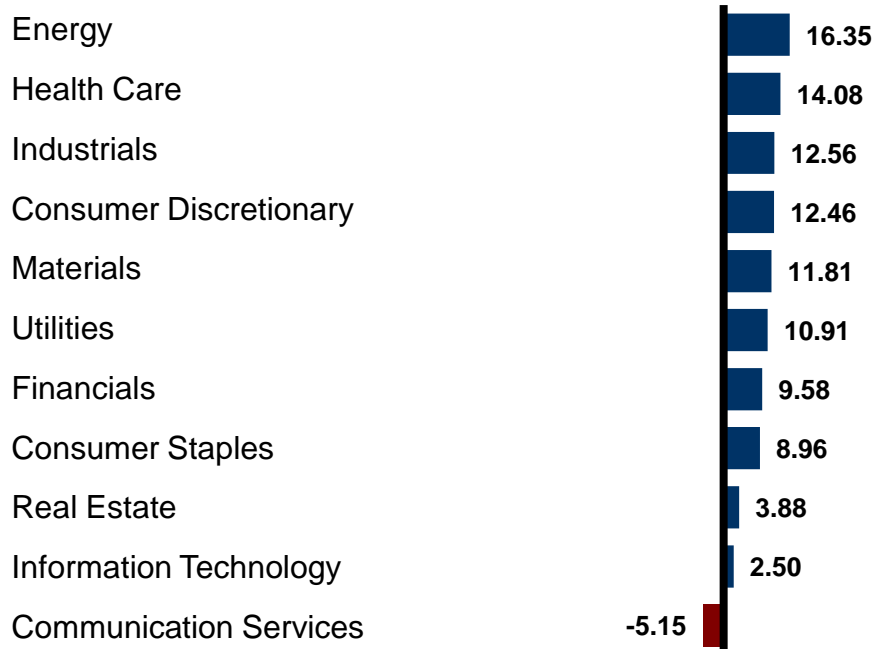
Contributing to performance was Woodward, Inc. Woodward designs, manufactures, and services energy control systems and components for aircraft and industrial engines and turbines. The Company's products and services are used in the aerospace, power generation, oil and gas processing, and transportation markets which include rail, marine, and light and heavy industrial applications. Woodward shares gained nearly 21% in the quarter as the company reported both revenue and earnings that exceeded consensus estimates. Sales grew 12% year-over-year with strength in both the company's aero and industrial business segments. Operating margins contracted in the quarter relative to the prior year period as the company continued to manage labor shortages plaguing the broader market. Recovery in the broader commercial aerospace segment combined with the company's leading technology position the company to continue to capture market share. Continued shifts toward higher margin components combined with stabilization in both the labor and supply chain are expected to result in incremental upside to the company's earnings profile.

Laboratory Corporation of America Holdings ("Labcorp") is a healthcare company that provides vital information to doctors, pharmaceutical companies, researchers and patients to make informed decisions. The company operates through two segments, Diagnostics, facilitating lab testing, and Drug Development, facilitating end-to-end drug development. Labcorp shares gained more than 15% in the quarter despite reporting mixed performance. Revenue missed analyst estimates however earnings exceeded consensus estimates. Diagnostics showed strength in the quarter while Drug Development faced a challenging environment including labor shortages and inflationary pressures, both viewed to be short term in nature. LabCorp continues to diversify its business from a singularly focused laboratory company. The company's contract research capabilities, which have grown to capture more than ~15% of market share, represent a significant organic growth catalyst in an industry that has grown between 5-7% annually. Continued market share capture combined with the mitigation of short-term operational headwinds continue to position the company well for earnings growth.

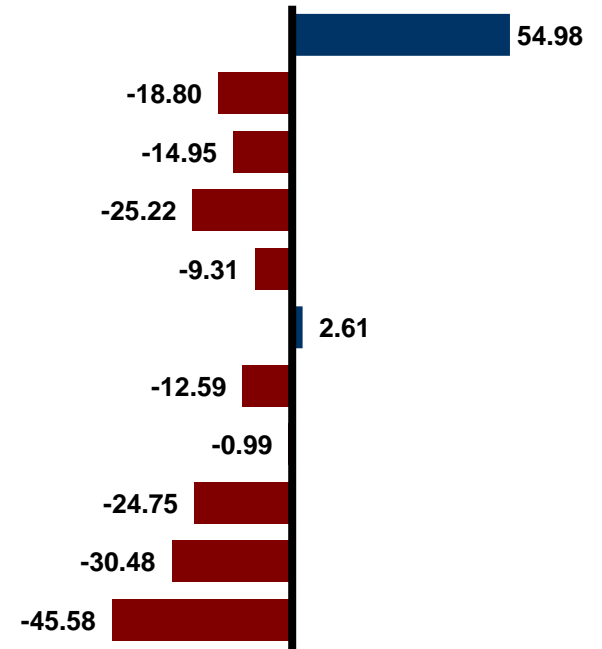
Detracting from performance was Akamai Technologies, Inc. Akamai provides cloud services used to deliver, optimize and secure content and business applications over the internet. Products include cloud solutions, web and mobile security solutions, media delivery solutions, and edge compute solutions. Founded in 1998, the company is headquartered in Cambridge, MA. Akamai shares gained only 5% in the quarter after the company reported mixed results. The company beat revenue, EBITDA and earnings estimates as the company saw continued growth in its security and compute businesses, up 19% and 77% annually, respectively. The company did, however, note slowing demand in the media delivery solutions business as media customers have been disproportionately impacted by the slowing economy. Despite facing near term headwinds due to slowing spend within the media delivery solutions unit, the company continues to shift growth investment to higher margin businesses like security and compute solutions that have large addressable markets. Market share capture in higher margin businesses position the company for sustained earnings growth.

Equity Market Performance By Sector

Russell Midcap® Index
4th Quarter 2022 Returns
Percent



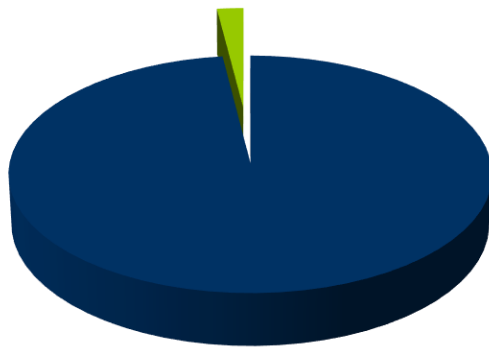
Russell Midcap® Index
YTD Returns
Percent



Fund Totals

Ending Portfolio Value	\$43,611,637
Estimated Annual Income	\$355,793
Yield on Equities	0.8%

Asset Distribution



	<u>Portfolio %</u>
Equities	98.0%
Short-term Investments	2.0%

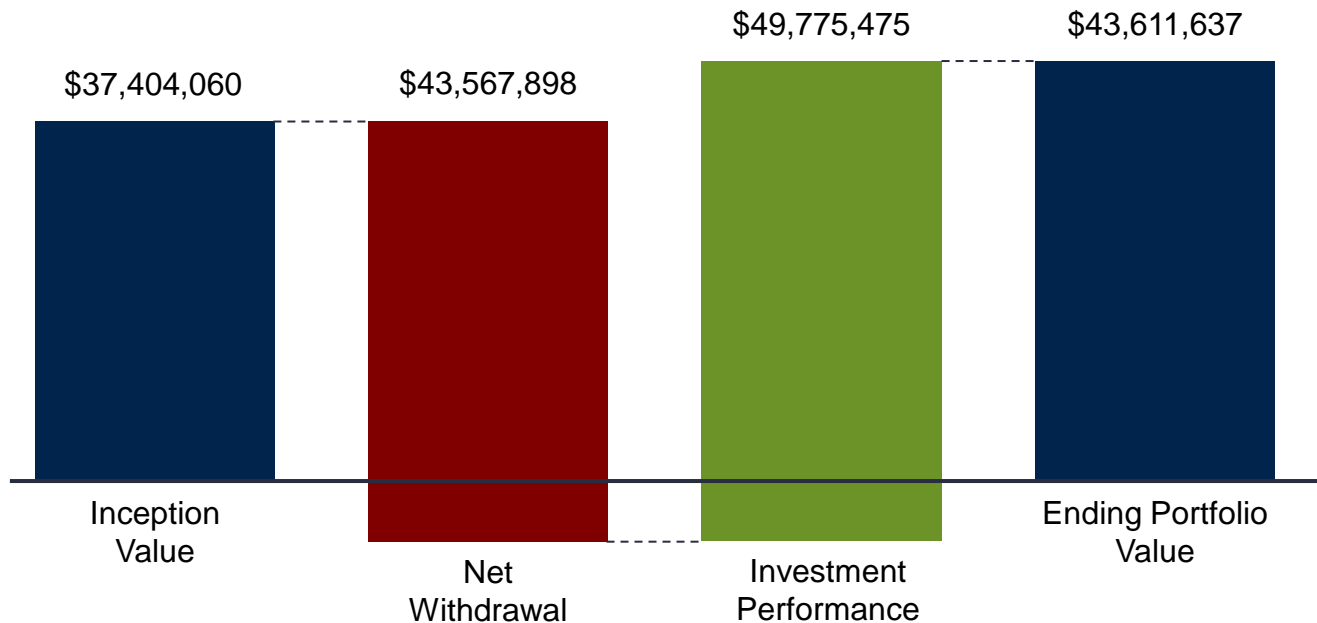
Performance

	<u>Total Portfolio</u>	<u>Equities</u>	<u>Russell Midcap[®] Index</u>	<u>Excess Return (Basis Points)</u>
1 Year	-15.33	-15.59	-17.32	199
3 Years	8.85	8.89	5.87	298
5 Years	10.03	10.13	7.09	294
10 Years	13.29	13.56	10.95	234
Since Inception	10.00	10.18	8.35	165

Performance Inception is 3/28/2006.
All returns stated for twelve months and longer are annualized



Asset Growth Since Inception



Woodward, Inc.



- Woodward, Inc. designs, manufactures, and services energy control systems and components for aircraft and industrial engines and turbines. The Company's products and services are used in the aerospace, power generation, oil and gas processing, and transportation markets which include rail, marine, and light and heavy industrial applications.
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Laboratory Corp of America Holdings



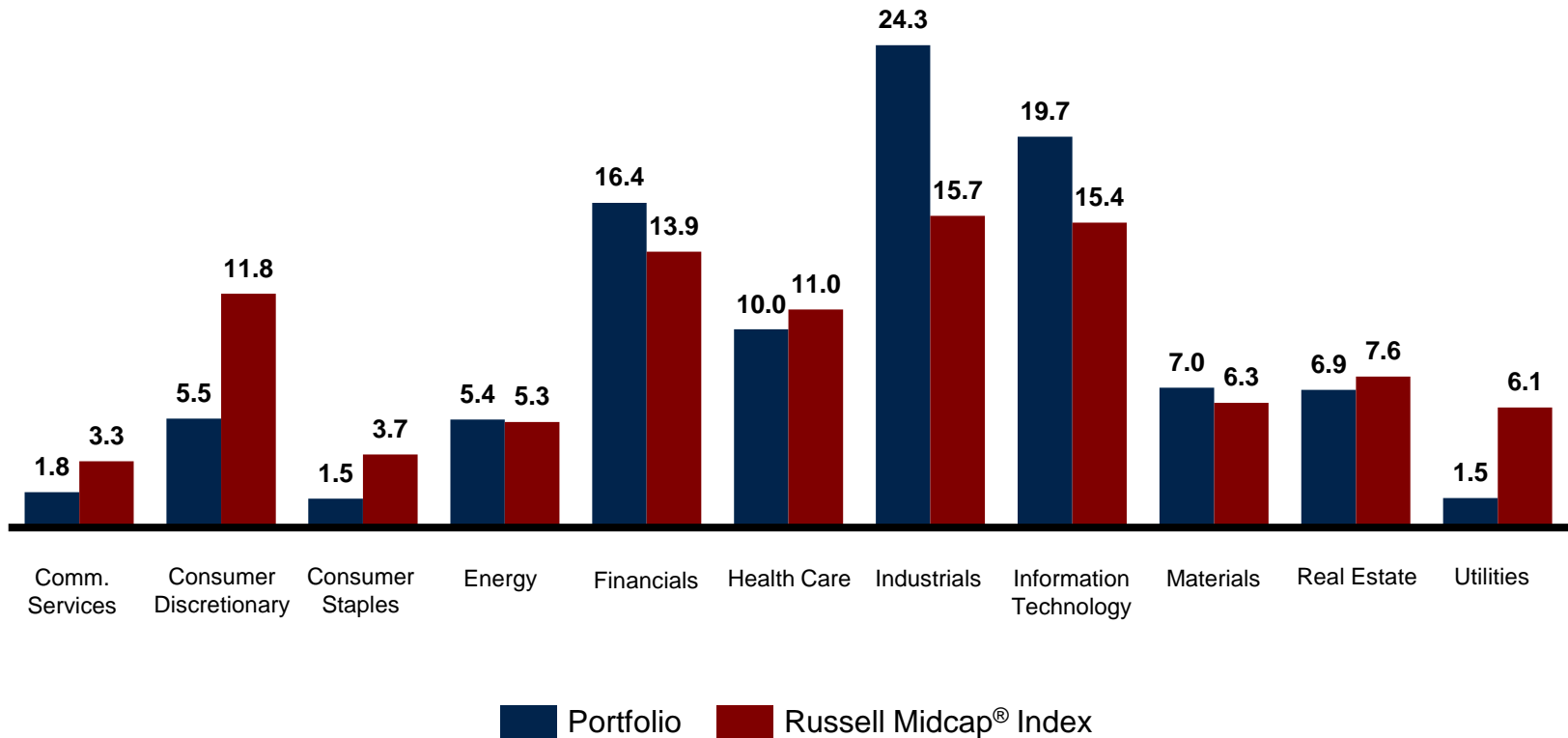
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Akamai Technologies



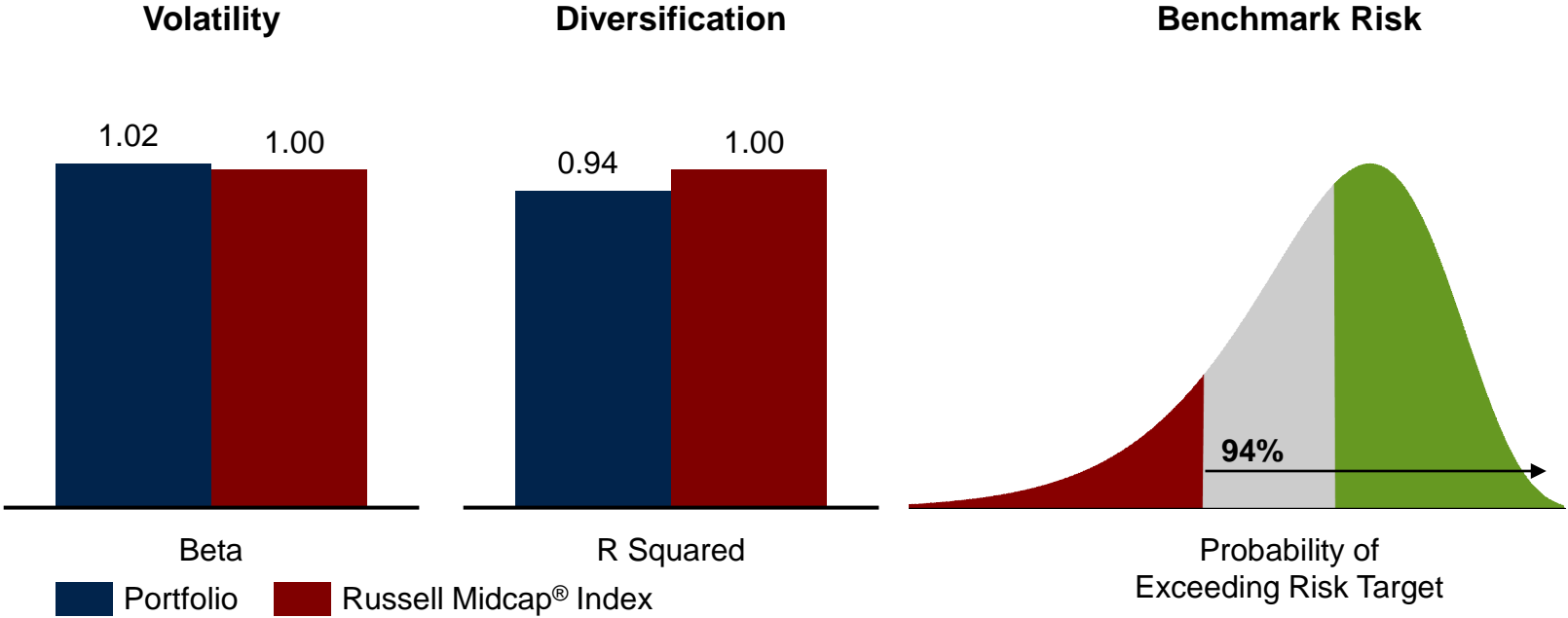
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Percentage Held





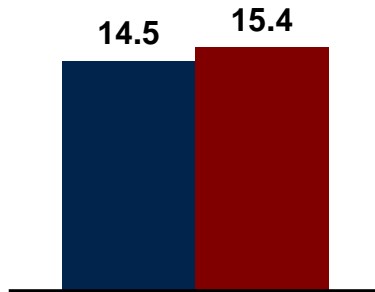
Risk Profile



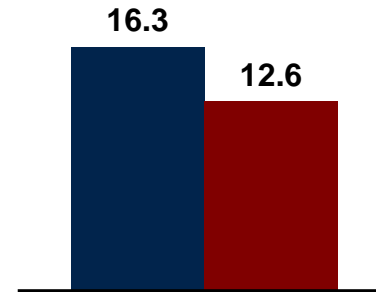


Equity Portfolio Characteristics

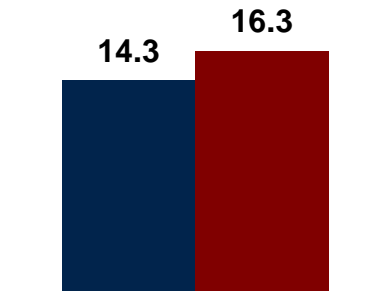
Price to Earnings



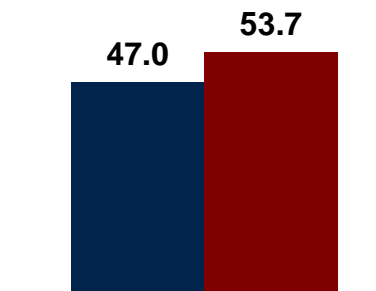
Earnings Growth



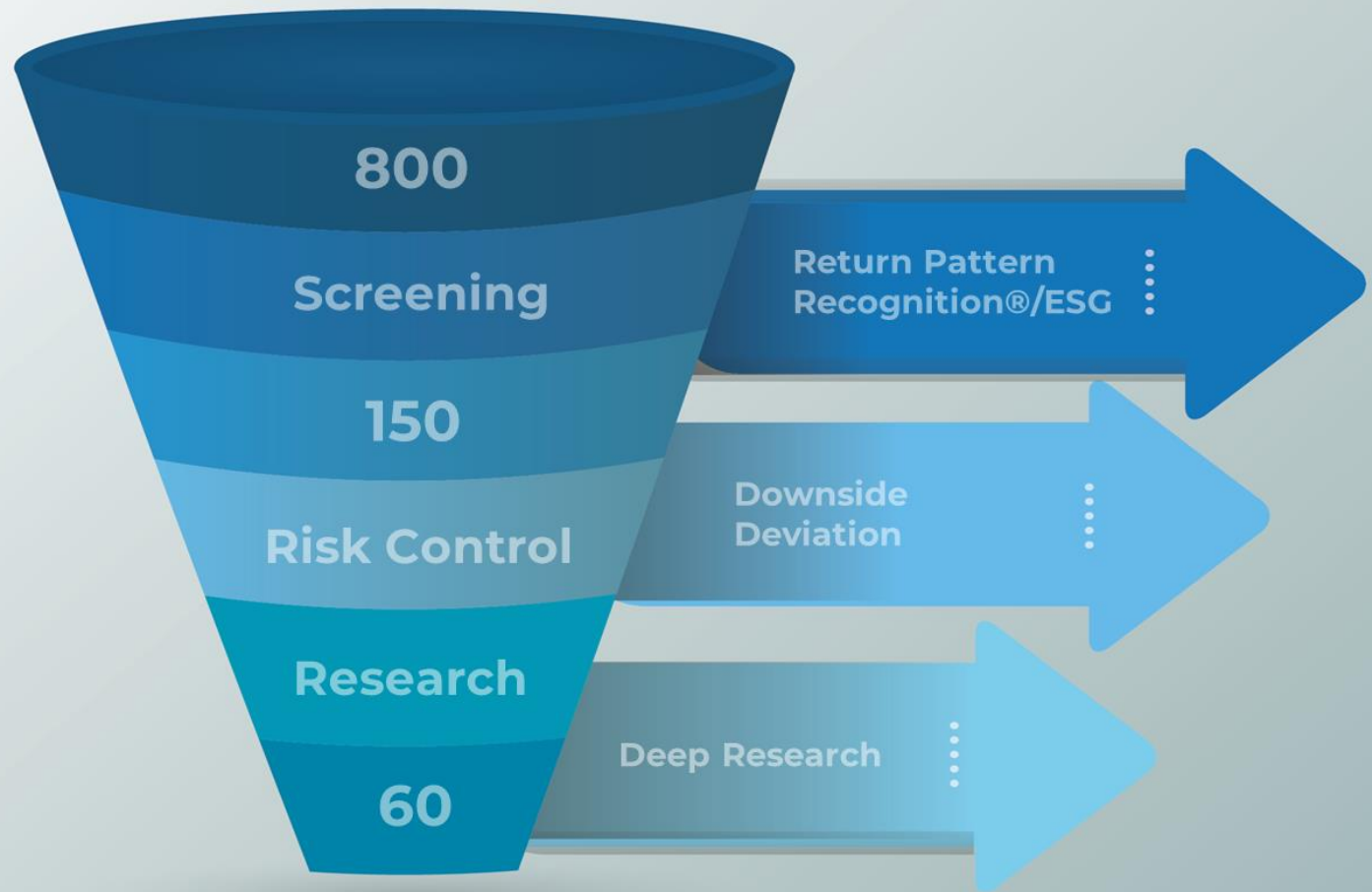
Return on Equity



Debt to Capitalization



■ Portfolio ■ Russell Midcap® Index



For those clients on whose behalf the Firm votes proxies, clients can elect to have the Firm utilize (a) the client's own proxy voting policies and procedures ("P&P") or (b) the Firm's P&P.

Proxy Policy-Overview

- As a general rule, the Firm will seek to vote the proxies received timely and in good order, in accordance with its then current proxy voting policies and procedures. A partial list of issues that may require special attention are as follows: classified boards, change of state of incorporation, poison pills, unequal voting rights plans, provisions requiring supermajority approval of a merger, executive severance agreements, and provisions limiting shareholder rights.
- In addition, the following will generally be adhered to:
 - The Firm will not (1) actively engage in conduct that involves an attempt to change or influence the control of a portfolio company, (2) announce its voting intentions or the reasons for a particular vote, (3) participate in a proxy solicitation or otherwise seek proxy voting authority from any other portfolio company shareholder, or (4) act in concert with any other portfolio company shareholders in connection with any proxy issue or other activity involving the control or management of a portfolio company.
 - All communications with portfolio companies or fellow shareholders will be for the sole purpose of expressing and discussing the Firm's concerns for its Clients' interests and not in an attempt to influence the control of management.

Proxy Procedures-Overview

The Firm has designated a Proxy Director. The Proxy Director, in consultation with the Firm's Investment Team, will consider each issue presented on each portfolio company proxy. The Proxy Director will also use available resources, including proxy evaluation services, to assist in the analysis of proxy issues. Absent any written direction from the Client, proxy issues presented to the Proxy Director will be voted in accordance with the judgment of the Proxy Director, taking into account the general policies outlined above and the Firm's Proxy Voting Guidelines. Therefore, it is possible that actual votes may differ from the general policies and the Firm's Proxy Voting Guidelines. In the case where the Firm believes it has a material conflict of interest with a Client, the Proxy Director will utilize the services of outside third party professionals (currently ISS) to assist in its analysis of voting issues and the actual voting of proxies to ensure that a decision to vote the proxies was based on the Client's best interest and was not the product of a conflict of interest. In the event the services of an outside third party professional are not available in connection with a conflict of interest, the Firm will seek the advice of the Client.

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
Common Stock						
Communication Services						
9,966.00	ACTIVISION BLIZZ	76.55	762,897.30	1.75	3,412.51	0.45
			762,897.30	1.75	3,412.51	0.45
Consumer Discretionary						
8,254.00	DR HORTON INC	89.14	735,761.56	1.69	9,092.46	1.24
7,079.00	DARDEN RESTAURANT	138.33	979,238.07	2.25	0.00	
7,942.00	TJX COS INC	79.60	632,183.20	1.45	10,345.18	1.64
			2,347,182.83	5.38	19,437.63	0.83
Consumer Staples						
8,135.00	SYSCO CORP	76.45	621,920.75	1.43	13,102.65	2.11
			621,920.75	1.43	13,102.65	2.11
Energy						
11,457.00	MURPHY OIL CORP	43.01	492,765.57	1.13	14,622.12	2.97
17,517.00	CHAMPIONX CORP	28.99	507,817.83	1.16	0.00	
31,933.00	CABOT OIL & GAS	24.57	784,593.81	1.80	7,958.69	1.01
10,901.00	HELMERICH & PAYN	49.57	540,362.57	1.24	0.00	
			2,325,539.78	5.33	22,580.81	0.97
Financials						
8,390.00	HOULIHAN LOKEY I	87.16	731,272.40	1.68	15,356.29	2.10
8,402.00	INTERCONTINENTAL	102.59	861,961.18	1.98	11,206.43	1.30

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
36,005.00	KEYCORP	17.42	627,207.10	1.44	15,360.17	2.45
9,236.00	PROGRESSIVE CORP	129.71	1,198,001.56	2.75	0.00	
7,602.00	REINSURANCE GROU	142.09	1,080,168.18	2.48	16,196.85	1.50
9,290.00	RAYMOND JAMES RENAISSANCERE HOLDINGS	106.85	992,636.50	2.28	0.00	
4,195.00	LTD	184.23	772,844.85	1.77	8,504.84	1.10
12,585.00	STIFEL FINANCIAL	58.37	734,586.45	1.68	0.00	
			6,998,678.22	16.05	66,624.59	0.95
Health Care						
7,046.00	AGILENT TECH INC	149.65	1,054,433.90	2.42	10,253.59	0.97
4,230.00	AMERISOURCEBERGE	165.71	700,953.30	1.61	12,374.55	1.77
1,731.00	BIO-RAD LABS-A	420.49	727,868.19	1.67	0.00	
8,195.00	CATALENT INC	45.01	368,856.95	0.85	0.00	
2,434.00	LABORATORY CP	235.48	573,158.32	1.31	0.00	
9,879.00	SYNEOS HEALTH IN	36.68	362,361.72	0.83	0.00	
15,083.00	DENTSPLY SIRONA	31.84	480,242.72	1.10	3,851.63	0.80
			4,267,875.10	9.79	26,479.77	0.62
Industrials						
18,731.00	AIR LEASE C	38.42	719,645.02	1.65	6,943.03	0.96
2,932.00	CUMMINS INC	242.29	710,394.28	1.63	23,032.90	3.24
21,972.00	CSX CORP	30.98	680,692.56	1.56	0.00	
4,392.00	DOVER CORP	135.41	594,720.72	1.36	15,364.50	2.58

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
5,632.00	GATX CORP	106.34	598,906.88	1.37	15,258.77	2.55
3,373.00	GENERAL DYNAMICS	248.11	836,875.03	1.92	16,608.91	1.98
13,026.00	HEXCEL CORP	58.85	766,580.10	1.76	0.00	
18,888.00	MASCO CORP	46.67	881,502.96	2.02	0.00	
9,226.00	REPUBLIC SVCS	128.99	1,190,061.74	2.73	23,853.09	2.00
3,338.00	SNAP-ON INC	228.49	762,699.62	1.75	15,442.31	2.02
21,300.00	SPIRIT AEROSYS-A	29.60	630,480.00	1.45	3,572.12	0.57
10,244.00	STERICYCLE INC	49.89	511,073.16	1.17	0.00	0.00
19,317.00	SENSATA TECHNOLO	40.38	780,020.46	1.79	0.00	0.00
7,579.00	WOODWARD INC	96.61	732,207.19	1.68	0.00	
			10,395,859.72	23.84	120,075.65	1.16
Information Technology						
7,571.00	AKAMAI TECHNOLOG	84.30	638,235.30	1.46	0.00	
5,133.00	APPLIED MATERIAL	97.38	499,851.54	1.15	8,829.35	1.77
3,245.00	ANSYS INC	241.59	783,959.55	1.80	0.00	
6,262.00	ARROW ELECTRONIC	104.57	654,817.34	1.50	0.00	
10,523.00	BLACK KNIGHT	61.75	649,795.25	1.49	0.00	
4,242.00	BROADRIDGE FINL	134.13	568,979.46	1.30	7,253.21	1.27
11,028.00	ENTEGRIS INC	65.59	723,326.52	1.66	0.00	
6,502.00	GLOBAL PAYMENTS	99.32	645,778.64	1.48	234.85	0.04
6,907.00	KEYSIGHT TEC	171.07	1,181,580.49	2.71	0.00	

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
9,596.00	LUMENTUM HOL	52.17	500,623.32	1.15	0.00	
2,863.00	SYNOPSIS INC	319.29	914,127.27	2.10	0.00	
7,289.00	SKYWORKS SOLUTIO	91.13	664,246.57	1.52	0.00	
			8,425,321.25	19.32	16,317.41	0.19
Materials						
3,824.00	ALBEMARLE CORP	216.86	829,272.64	1.90	11,866.99	1.43
5,122.00	EASTMAN CHEMICAL	81.44	417,135.68	0.96	9,371.96	2.25
3,964.00	PACKAGING CORP	127.91	507,035.24	1.16	14,295.43	2.82
14,115.00	SEALED AIR CORP	49.88	704,056.20	1.61	10,619.75	1.51
11,383.00	SCOTTS MIRACLE	48.59	553,099.97	1.27	0.00	
			3,010,599.73	6.90	46,154.13	1.53
Real Estate						
13,802.00	CBRE GROUP INC	76.96	1,062,201.92	2.44	0.00	
			1,062,201.92	2.44	0.00	0.00
Utilities						
6,722.00	WEC ENERGY GROUP	93.76	630,254.72	1.45	21,608.18	3.43
			630,254.72	1.45	21,608.18	3.43
			40,848,331.32	93.66	355,793.32	0.87
Real Estate Investment Trust						
Real Estate						
8,084.00	BOSTON PROPERTIE	67.58	546,316.72	1.25	0.00	

Statement of Assets

Quantity	Security	Price	Market Value	Pct. Asset	Annual Income	Yield
26,805.00	AMERICOLD REALTY	28.31	758,849.55	1.74	0.00	
2,144.00	SBA COMM CORP	280.31	600,984.64	1.38	0.00	
			1,906,150.91	4.37	0.00	0.00
			1,906,150.91	4.37	0.00	0.00
Cash and Equivalents						
814,382.88	U.S. DOLLARS	1.00	814,382.88	1.87	0.00	
42,772.35	USD - DIVIDENDSRECEIVABLE	1.00	42,772.35	0.10	0.00	
			857,155.23	1.97	0.00	0.00
			857,155.23	1.97	0.00	0.00
Total Portfolio			43,611,637.46	100.00	355,793.32	0.82

Statement Of Transactions

From 10/1/2022 to 12/31/2022

<u>Quantity</u>	<u>Security</u>	<u>Sec Symbol</u>	<u>Unit Price</u>	<u>Total Amount</u>
PURCHASES				
2,461.00	AIR LEASE C	AL	37.60	92,525.78
1,394.00	AKAMAI TECHNOLOG	AKAM	82.82	115,457.86
2,562.00	AMERICOLD REALTY	COLD	28.49	72,980.03
189.00	BIO-RAD LABS-A	BIO	411.25	77,726.67
4,224.00	DENTSPLY SIRONA	XRAY	31.69	133,844.67
2,689.00	ENTEGRIS INC	ENTG	64.02	172,148.43
4,224.00	SCOTTS MIRACLE	SMG	48.35	204,210.74
17,517.00	CHAMPIONX CORP	CHX	31.04	543,739.99
10,901.00	HELMERICH & PAYN	HP	52.06	567,459.72
11,457.00	MURPHY OIL CORP	626717102	46.93	537,642.71
				2,517,736.60
SALES				
1,757.00	ARROW ELECTRONIC	ARW	103.22	181,360.91
790.00	DARDEN RESTAURANT	DRI	137.94	108,969.71
6,209.00	DR HORTON INC	DHI	88.84	551,579.77
812.00	ALBEMARLE CORP	ALB	255.02	207,078.38
17,190.00	CABOT OIL & GAS	CTRA	26.61	457,500.82
8,726.00	CONTL RES INC/OK	CLR	74.07	646,326.01

Statement Of Transactions

From 10/1/2022 to 12/31/2022

<u>Quantity</u>	<u>Security</u>	<u>Sec Symbol</u>	<u>Unit Price</u>	<u>Total Amount</u>
649.00	KEYSIGHT TEC	KEYS	169.52	110,016.28
943.00	RAYMOND JAMES	RJF	120.71	113,825.88
868.00	REPUBLIC SVCS	RSG	129.48	112,390.23
				<u>2,489,047.99</u>

Performance

	<u>Total Portfolio</u>	<u>Russell Midcap® Index</u>
<i>Inception 3/28/2006</i>		
2006	3.56%	7.92%
2007	8.78	5.60
2008	-37.51	-41.46
2009	37.48	40.48
2010	27.22	25.47
2011	-0.79	-1.56
2012	16.36	17.29
2013	31.25	34.78
2014	10.32	13.22
2015	1.40	-2.44
2016	16.55	13.80
2017	26.22	18.52
2018	-9.63	-9.05

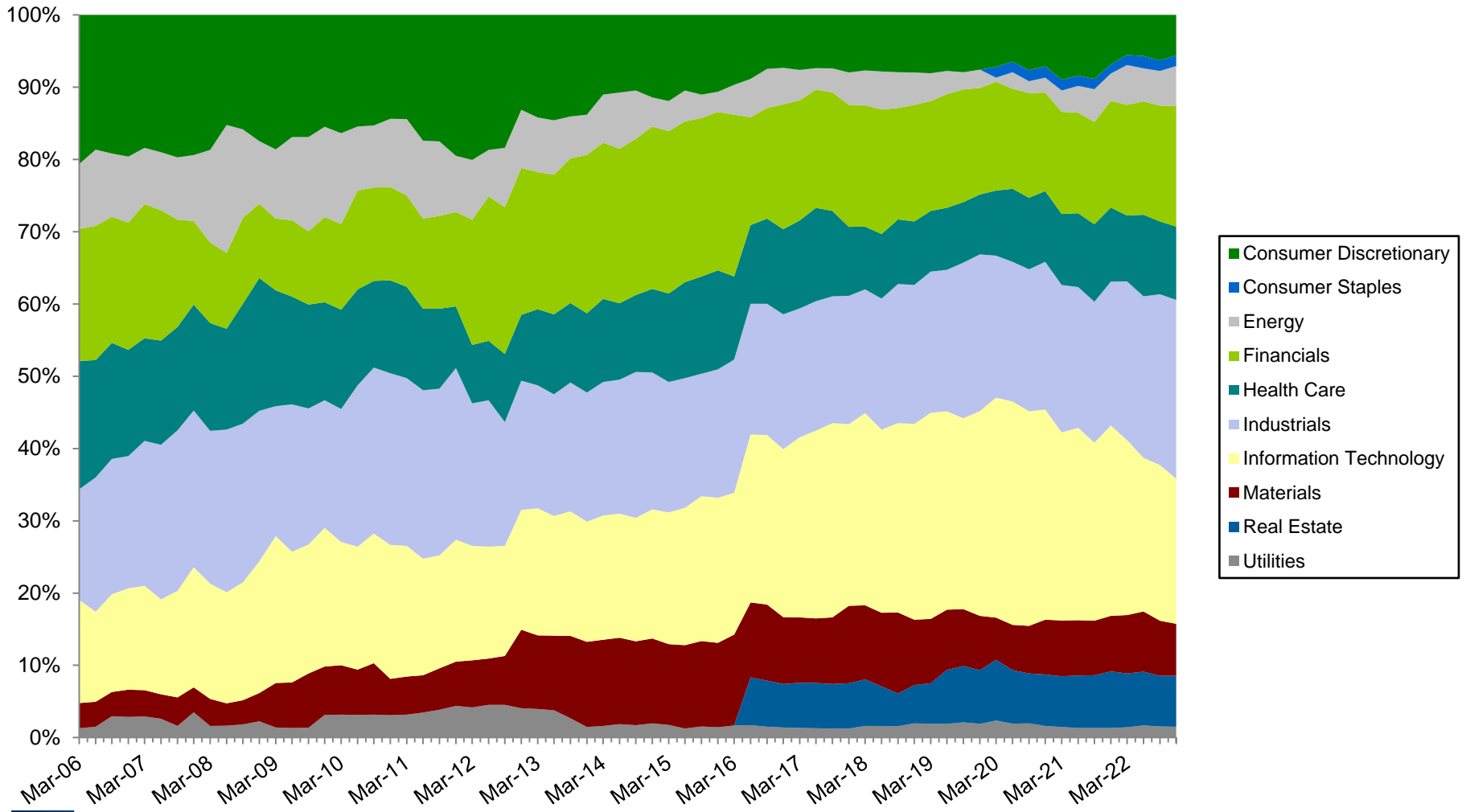


Historical Performance Measurement

Performance

	Total Portfolio	Russell Midcap® Index
2019	38.36	30.54
2020	21.20	17.10
2021	25.73	22.59
3/31/2022	-5.66	-5.68
6/30/2022	-11.74	-16.85
9/30/2022	-5.63	-3.44
12/31/2022	7.76	9.18
Year-to-Date	-15.32	-17.31
Since Inception		
-Annualized	10.00	8.35
-Cumulative	395.29	284.11

EARNEST Partners' Model Portfolio



Asset Growth

Period Ending	Ending Portfolio Value	Withdrawals	Contributions	Investment Change	
				Period	Since Inception
3/28/2006	\$37,404,060				
2006	\$38,599,735	\$0	\$0	\$1,195,675	\$1,195,675
2007	51,982,630	3,500,000	14,238,849	2,644,046	3,839,721
2008	26,001,788	10,000,000	0	-15,980,842	-12,141,121
2009	32,406,299	3,000,000	0	9,404,511	-2,736,610
2010	31,053,473	8,500,000	0	7,147,174	4,410,564
2011	23,758,477	7,500,000	0	205,004	4,615,568
2012	27,646,027	0	0	3,887,550	8,503,118
2013	40,899,931	0	3,802,146	9,451,898	17,955,016
2014	31,527,407	13,001,627	0	3,629,103	21,584,119
2015	29,934,966	2,000,704	0	408,263	21,992,382

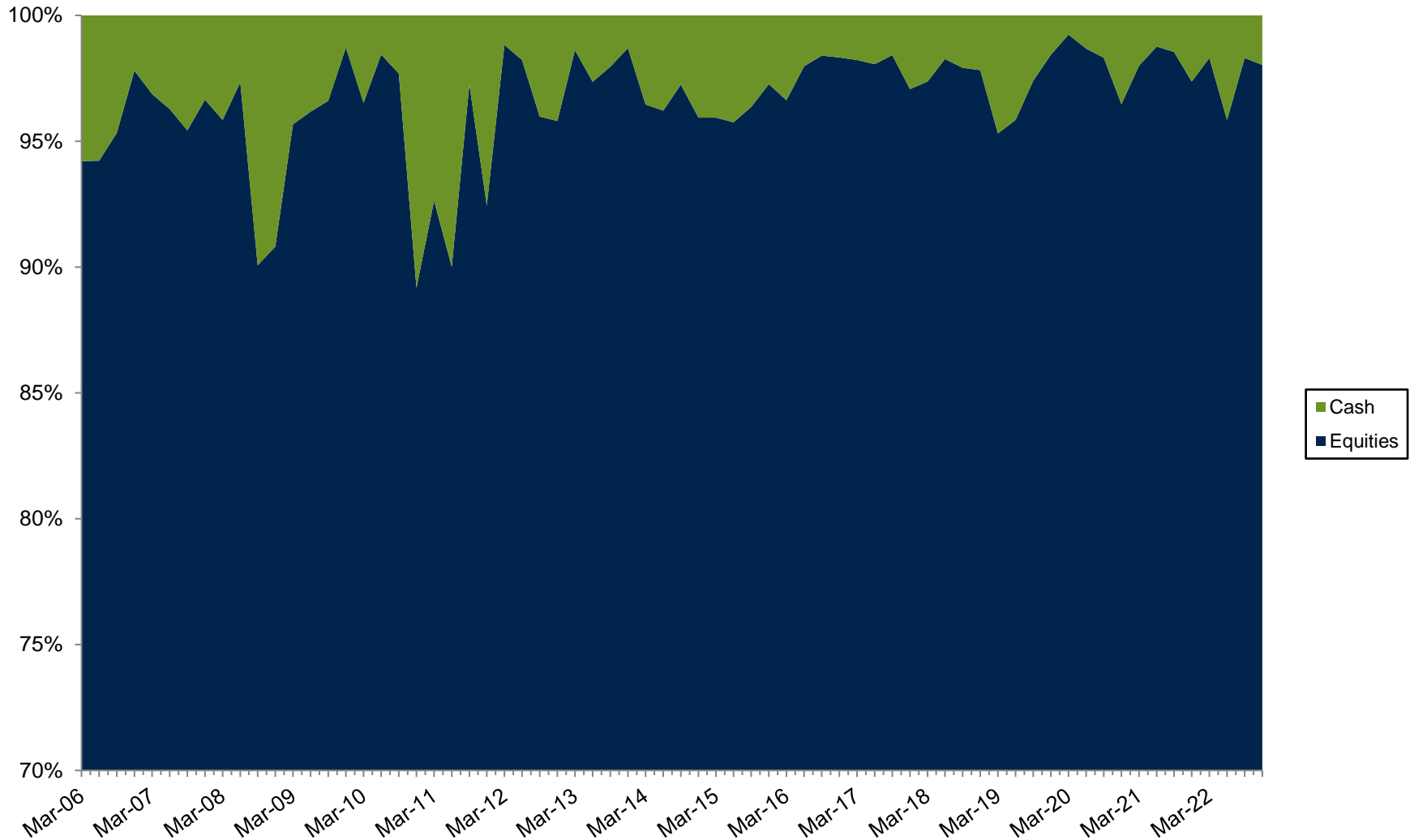
Asset Growth

Period Ending	Ending Portfolio Value	Withdrawals	Contributions	Investment Change	
				Period	Since Inception
2016	\$27,890,394	\$6,500,289	\$0	\$4,455,717	\$26,448,099
2017	29,426,736	5,000,733	0	6,537,075	32,985,174
2018	25,674,345	1,000,929	0	-2,751,462	30,233,712
2019	33,800,363	1,601,235	0	9,727,253	39,960,965
2020	40,963,482	0	0	7,163,875	47,124,840
2021	51,504,585	1,082	0	10,542,185	57,667,025
3/31/2022	48,590,595	0	0	-2,913,711	54,753,314
6/30/2022	42,885,909	0	0	-5,704,423	49,048,891
9/30/2022	40,472,084	0	0	-2,413,323	46,635,568
12/31/2022	\$43,611,637	0	0	3,139,894	\$49,775,476



Asset Allocation

Oakland Police and Fire Retirement Board
December 31, 2022



Broker Commission Report Oakland Police and Fire Retirement Board

Broker	Quantity	Commission Per Share	Commission Paid	% of Total Commission	Total Value of Trades	BP Cost Comm
BLAYLOCK BEAL VAN LLC (0443)	32,631	0.020	652.62	23.69	1,854,483.65	0.0004
CAPITAL INSTITUTIONAL SERVICES (161)	33,350	0.035	1,167.27	42.37	1,707,900.32	0.0007
CastleOak Securities (0443)	1,048	0.020	20.96	0.76	49,366.88	0.0004
JONES & ASSOCIATES (161)	5,877	0.035	205.70	7.47	179,745.70	0.0011
JP MORGAN (352)	6,873	0.035	240.57	8.73	214,908.48	0.0011
LIQUIDNET (005)	1,405	0.035	49.18	1.79	48,437.43	0.0010
LOOP CAPITAL MARKETS (443)	3,541	0.020	70.82	2.57	159,080.74	0.0004
MORGAN STANLEY & CO (00050)	7,391	0.035	258.69	9.39	463,085.36	0.0006
RAYMOND JAMES & ASSOCIATES (00725)	189	0.035	6.62	0.24	77,726.67	0.0001
Security Capital Brokerage, Inc. (443)	1,712	0.020	34.24	1.24	81,403.20	0.0004
StoneX Group (0161)	376	0.020	7.52	0.27	110,049.29	0.0001
TRUIST SECURITIES 226	1,169	0.035	40.92	1.49	60,596.87	0.0007
	95,562	0.029	2,755.11	100.00	5,006,784.59	



Russell Midcap® Index

The Russell Midcap® Index offers investors access to the mid-cap segment of the U.S. equity universe. It is constructed to provide a comprehensive and unbiased barometer for the mid-cap segment and is completely reconstituted annually to ensure larger stocks do not distort the performance and characteristics of the true mid-cap opportunity set. The Russell Midcap® Index includes the smallest 800 securities in the Russell 1000® Index. The index is unmanaged and it is not possible to invest directly in an index.

Nothing presented herein is intended to constitute investment advice and no investment decision should be made based on any information provided herein. Investments cited may not represent current or future holdings of EARNEST Partners, LLC (“EP”) investment products and nothing presented should be construed as a recommendation to purchase or sell a particular type of security or follow any investment technique or strategy. Information provided reflects EP’s views as of a particular time. Such views are subject to change at any point and EP shall not be obligated to provide any notice of such change. Any forward-looking statements or forecasts are based on assumptions and actual results are expected to vary from any such statements or forecasts. No reliance should be placed on any such statements or forecasts when making any investment decision. While EP has used reasonable efforts to obtain information from reliable sources, we make no representations or warranties as to the accuracy, reliability or completeness of third-party information presented herein. Performance assumes the reinvestment of dividends and capital gains. No guarantee of investment performance is being provided and no inference to the contrary should be made.

Sample Holdings Disclosures: Inclusion of references to individual securities are intended to illustrate contributors to and detractors from performance or market trends and to provide examples of thematic or security-specific catalysts identified by EARNEST Partners’ investment team as part of its investment process. References to specific securities should not be viewed as representative of an entire portfolio, nor should the performance of any particular security be viewed as representative of the performance experienced by any other security or portfolio. A complete listing of all EARNEST Partners investment selections for this strategy for the past 12 months is available upon request. It should not be assumed that future recommendations will be profitable or will equal the performance of securities included in these materials. Past specific investment advice does not guarantee future results.

MEMORANDUM

TO: Oakland Police and Fire Retirement System (OPFRS)
FROM: Meketa Investment Group (Meketa)
DATE: February 22, 2023
RE: EARNEST Partners—Manager Update

Manager: EARNEST Partners, LLC (“EARNEST”)

Inception Date:	April 2006	OPFRS AUM (01/31/2023):	\$47.6 million
Strategy:	Domestic Mid-Cap Equity	Firm-wide AUM (12/31/2022):	\$26.2 billion
Benchmark:	Russell Mid-Cap Index	Strategy AUM (12/31/2022):	\$1.9 billion

Summary & Recommendation

EARNEST Partners, LLC (“EARNEST”) has managed a part of OPFRS’s domestic equity portfolio since April 2006. As of 01/31/2023, the portfolio is approximately \$47.6 million or about 11% of OPFRS’s total plan. The strategy has performed 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 EARNEST and the Mid-Cap Core Equity strategy.**

Investment Performance Review Summary

As of 01/31/2023, EARNEST Mid-Cap Core strategy has outperformed its benchmark on both gross- and net-of-fees basis and ranks above average among peers, over almost all time periods measured. Over the 5-year trailing periods, it ranks within top-quartile amongst the Mid-Cap Equity managers.

OPFRS Portfolio Annualized Returns (as of 01/31/2023)¹

Portfolio	Market Value (\$000)	YTD	1 YR	3 YR	5 YR	Since Inception	Inception Date
EARNEST (Gross)	47,621	9.2	(-2.9)	12.4	11.0	10.5	04/2006
<i>Russell Mid-Cap Index</i>	---	8.3	(-3.3)	9	8.0	8.8	---
Excess Return (Gross)	---	0.9	0.4	3.4	3.0	1.7	---
EARNEST (Net)	---	9.1	(-3.6)	11.5	10.2	9.5	---
Excess Return (Net)	---	0.8	(-0.3)	2.5	2.2	0.7	---
Peer Group Ranking (Net) ²	---	38	51	28	16	---	---
Reference: Median Return (Net)	---	8.7	(-3.3)	9.9	8.6	---	---
Number of Peers in Peer Group	---	98	98	93	91	---	---

¹ Performance is annualized for periods longer than one year.

² Peer group is eVestment US Mid Cap Equity Managers Net.

Product and Organization Review Summary

EARNEST Partners, LLC	Areas of Potential Impact				
	Level of Concern	Investment process (Client Portfolio)	Investment Team	Performance Track Record	Team/Firm Culture
Product					
Key people changes	None				
Changes to team structure/individuals' roles	None				
Product client gain/losses	None				
Changes to the investment process	None				
Personnel turnover	None				
Organization					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
Recommended Action	None		Watch Status	Termination	

A review of EARNEST Partners, LLC and the Mid-Cap Core strategy revealed no concerning organizational issues or changes since last review in February 2022.

Investment Philosophy & Process, per Manager³

EARNEST Partners is a fundamental, bottom-up investment manager. The Firm's investment objective is to outperform the assigned benchmark while seeking to control volatility and risk. EARNEST Partners implements this philosophy using a screen developed in-house called Return Pattern Recognition®, thorough fundamental analysis, and risk management that seeks to minimize the likelihood of meaningfully underperforming the assigned benchmark.

EARNEST Partners does not target sector or industry weights. Instead, the weightings are an outgrowth of our bottom-up, fundamental stock selection process. The process is designed to put the client in the individual securities that the firm believes have the most attractive expected returns; relative overweights and underweights are an outgrowth of where the team is finding those individual opportunities. The risk management process also influences the weights taken in any one sector. As a general rule, larger sectors will not represent more than 2x the benchmark weight. No individual holding generally exceeds 5.0% of the portfolio's value.

DS/PN/JLC/mn

³ Source: eVestment. Abridged.

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 & Secretary

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

DATE: February 22, 2023

SUMMARY

The Service Contract for the following Investment Manager for the Oakland Police & Fire Retirement Systems (PFRS) is set to expire March 24, 2023. The PFRS Board is asked to consider acting to extend the agreement for this manager for one additional year pursuant to the professional service agreement.

BACKGROUND

The Professional 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	Inception Date	Contract Extension Expiration Date
Earnest Partners, LLC	Domestic Equity Mid-Cap Core	March 24, 2006	March 24, 2023

RECOMMENDATION

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

Respectfully submitted,

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

ATTACHMENT 1

Resolution No. 8074

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

Approved to Form
and Legality



RESOLUTION NO. 8074

ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

RESOLUTION AUTHORIZING 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

WHEREAS, Oakland City Charter section 2601(e) states that the Board of the Oakland Police and Fire Retirement System (“PFRS Board”) shall possess power to make all necessary rules and regulation for its guidance and shall have exclusive control of the administration and investment of the funds established for the maintenance and operation of the system; and

WHEREAS, Oakland City Charter section 2601(e) also states that the PFRS Board may secure from competent investment counsel such counsel and advice as to investing the funds of the Retirement System as it deems necessary and that discretionary powers granted such investment counsel will be at the option of the Board; and

WHEREAS, at the November 30, 2005 Board meeting, the PFRS Board awarded a professional service agreement (“the Agreement”) to Earnest Partners, LLC (“Investment Counsel”) to provide advice and counsel regarding investments of the assets of the Police and Fire Retirement Fund (“Fund”) for a five-year term commencing March 24, 2006 and ending March 24, 2011; and

WHEREAS, Section XXVII of the Agreement allows for modification of the Agreement by written agreement of all parties; and

WHEREAS, Section IV(B) of the Agreement gave the PFRS Board the option to extend the initial term of the Agreement for three addition one-year terms; and

WHEREAS, on January 26, 2011, the Agreement with Investment Counsel was extended by Board motion for an additional five-year term, commencing March 24, 2011, and

WHEREAS, on March 30, 2016, the Agreement with Investment Counsel was extended by Board motion for an addition one-year term, effective March 24, 2016, and

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 8074

WHEREAS, on March 29, 2017, the PFRS Board passed Resolution No. 6957 which authorized amendment of Section IV(B) of the Agreement to provide the PFRS Board with unlimited one-year extension options, and

WHEREAS, on January 31, 2018, the PFRS Board passed Resolution No. 6993 which authorized a one-year extension of the Agreement with Investment Counsel commencing March 24, 2018, and

WHEREAS, on January 30, 2019, the PFRS Board passed Resolution No. 7036 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2019, and

WHEREAS, on January 29, 2020, the PFRS Board passed Resolution No. 7080 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2020, and

WHEREAS, on February 24, 2021, the PFRS Board passed Resolution No. 8011 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2021, and

WHEREAS, on February 23, 2022, the PFRS Board passed Resolution No. 8038 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2022, and

WHEREAS, the Board now wishes to exercise its option to renew the Agreement with Investment Counsel for an additional one-year term, commencing March 24, 2023 at the annual fee rate of 1.00 percent of the first \$10.0 million; 0.75% of the next \$15.0 million; and 0.60% thereafter of Fund assets under management (presently valued at approximately \$43.6 million dollars (\$43,600,000.00), which fees are estimated to be approximately Three Hundred Twenty Four Thousand Dollars (\$324,000.00); 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 Earnest Partners, LLC for the provision of Domestic Equity Mid-Cap Core Investment Strategy Manager Services, commencing March 24, 2023 and ending March 24, 2024; and be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 8074

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 Earnest Partners, LLC.

IN BOARD MEETING, VIA ZOOM TELE-CONFERENCE FEBRUARY 22, 2023

PASSED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

Economic and Market Update

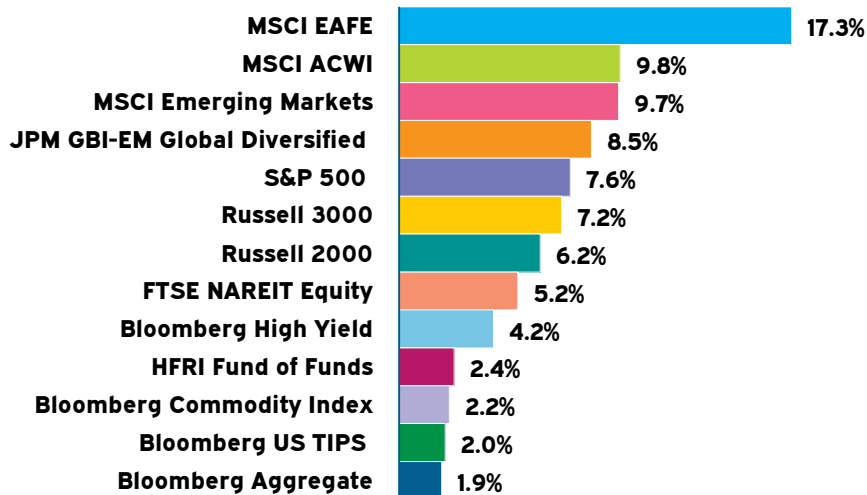
January 2023 Report

Commentary

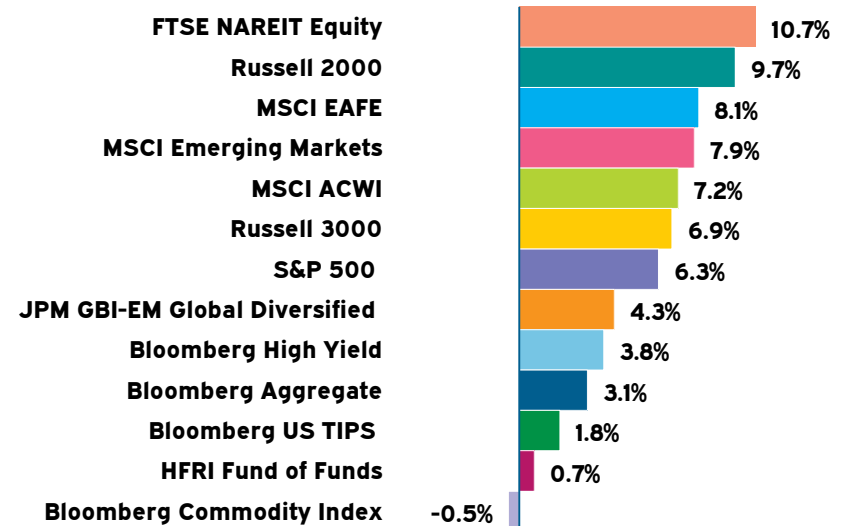
- After a very tough first three quarters of 2022, most asset classes posted gains in the fourth quarter and in January of 2023 on signs that policy tightening would slow, given cooling inflation.
- Chairman Powell's February press conference reiterated previous messaging on high and persistent inflation and the need for an extended period of high interest rates. However, he acknowledged that disinflationary forces were visible in some sectors of the economy but said they were not yet broad-based. Markets focused though on signs that inflation is falling and that the size of future Fed rate hikes could be lower.
 - US equity markets rallied in January 2023 with the Russell 3000 index up 6.9% and growth-oriented areas performing best.
 - Developed equity markets outside the US also had a strong January (+8.1%), as investor sentiment turned bullish. The weakening US dollar, falling inflation, and an improved economic outlook have all been supportive. In February the ECB signaled further rate hikes, but headline inflation has fallen more quickly than expected as energy costs and mild weather helped lift investor sentiment.
 - Emerging market equities enjoyed a very strong start to the year, returning 7.9% and outperforming the US. A weaker US dollar, declining inflation globally, and signs of China reopening its economy all contributed to the positive results.
 - In 2022, bonds experienced one of the worst years on record given inflation levels and the rapid rise in interest rates. Optimism over declining inflation and a slower pace of policy tightening benefited bonds in the fourth quarter, though, and supported positive fixed income returns in January 2023.
- This year, the path of inflation and monetary policy, slowing global growth, China reopening its economy, and the war in Ukraine will be key.

Index Returns¹

Fourth Quarter 2022



YTD 2023



- After broad declines in Q3 driven by expectations for further policy tightening, most major asset classes were up in the fourth quarter, a trend that has continued into 2023, on hopes of inflation and policy tightening peaking.
- Outside of commodities, all other public market asset classes declined in 2022. It was the first time since the 1960s that both stocks and bonds declined together in a calendar year.

¹ Source: Bloomberg and FactSet. Data is as of January 31, 2023.

Domestic Equity Returns¹

Domestic Equity	January (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	6.3	7.6	-8.2	9.9	9.5	12.7
Russell 3000	6.9	7.2	-8.2	9.5	9.1	12.3
Russell 1000	6.7	7.2	-8.5	9.6	9.4	12.5
Russell 1000 Growth	8.3	2.2	-16.0	9.9	11.2	14.5
Russell 1000 Value	5.2	12.4	-0.4	8.5	6.9	10.1
Russell MidCap	8.3	9.2	-3.3	9.0	8.0	11.1
Russell MidCap Growth	8.7	6.9	-8.5	6.5	8.3	11.7
Russell MidCap Value	8.1	10.5	-0.7	9.3	6.9	10.2
Russell 2000	9.7	6.2	-3.4	7.5	5.5	9.4
Russell 2000 Growth	9.9	4.1	-6.5	4.3	4.7	9.5
Russell 2000 Value	9.5	8.4	-0.5	9.9	5.8	8.8

US Equities: Russell 3000 Index rose 6.9% in January after gaining 7.2% for the fourth quarter. Historic inflation and rapidly rising interest rates led to significant declines (-19.2%) in 2022.

- US stocks rose sharply in January as investors expressed optimism that the Federal Reserve will moderate its rate hike schedule as inflation continues to decrease.
- Small cap stocks outperformed large cap stocks in January while growth stocks outperformed value stocks across the market capitalization spectrum.
- Consumer discretionary and communication services were the leading sectors in the Russell 3000 in January. Their resurgence marks a reversal from 2022 when they were the largest detractors amid fears of inflation and a potential recession.

¹ Source: Bloomberg. Data is as of January 31, 2023.

Foreign Equity Returns¹

Foreign Equity	January (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	8.1	14.3	-5.7	3.6	1.4	4.2
MSCI EAFE	8.1	17.3	-2.8	4.2	2.1	4.9
MSCI EAFE (Local Currency)	6.3	8.7	2.6	6.2	4.8	7.6
MSCI EAFE Small Cap	7.5	15.8	-8.9	2.5	0.4	6.4
MSCI Emerging Markets	7.9	9.7	-12.1	1.4	-1.5	2.1
MSCI Emerging Markets (Local Currency)	6.5	6.6	-8.4	3.4	1.2	5.1
MSCI China	11.8	13.5	-10.1	-2.4	-4.7	3.2

Developed international equities (MSCI EAFE) rose 8.1% in January after an impressive 17.3% gain in the fourth quarter. Emerging markets (MSCI EM) rallied 7.9% in January after returning 9.7% for the fourth quarter in 2022.

- International developed market equities had a solid start to the year, continuing their strong performance in Q4 helped by declining inflation, hope of avoiding a recession, and a weaker US dollar. Economically sensitive sectors like information technology and consumer discretionary helped growth outperform value stocks. China's reopening boosted the consumer discretionary sector (luxury goods, travel, and leisure).
- Emerging market equities started strongly, this year, too with optimism over developments in China, falling inflation, and a weaker dollar all contributing.
- In China, the ending of their zero COVID policy, continued monetary policy support, as well as support for the real estate sector, were all key.

¹ Source: Bloomberg. Data is as of January 31, 2023.

Fixed Income Returns¹

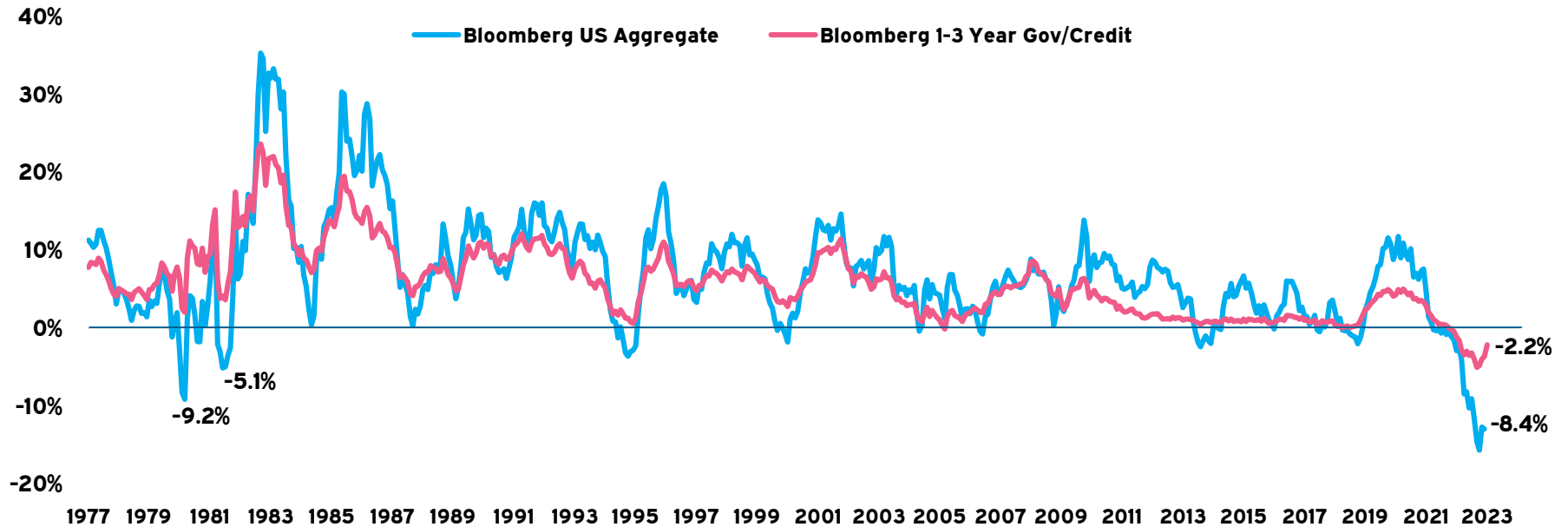
Fixed Income	January (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	3.1	2.2	-8.3	-2.1	1.0	1.7	4.7	6.3
Bloomberg Aggregate	3.1	1.9	-8.4	-2.3	0.9	1.4	4.3	6.5
Bloomberg US TIPS	1.8	2.0	-8.4	1.1	2.7	1.4	4.0	7.0
Bloomberg High Yield	3.8	4.2	-5.2	1.3	3.0	4.3	8.1	4.4
JPM GBI-EM Global Diversified (USD)	4.3	8.5	-7.9	-4.4	-2.5	-1.7	7.0	5.0

Fixed Income: The Bloomberg Universal rose 3.1% in January 2023 after posting a 2.2% gain for the fourth quarter of 2022. Last year was one of the worst on record, with the broad bond market declining 13%.

- Improvements in global inflation risks and generally positive economic updates drove rates lower on the expectation that policy might be easing later in the year and recession risks could be less than feared.
- TIPS trailed the broad US bond market (Bloomberg Aggregate) for the month on declining inflation fears.
- Riskier high yield bonds outperformed in January due to improving risk sentiment.

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

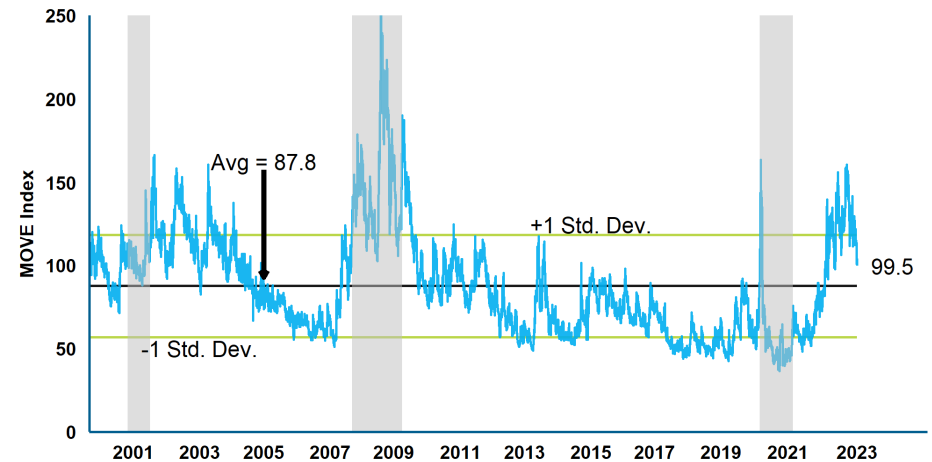
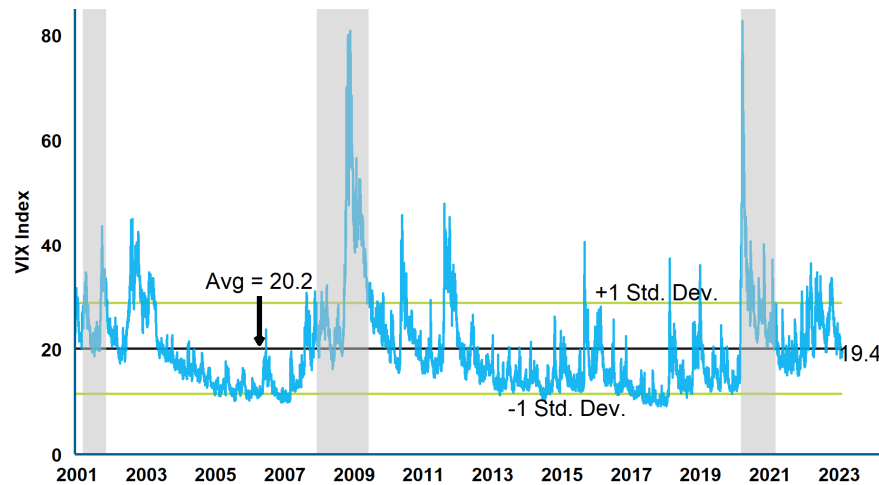
Fixed Income Rolling One-year Returns¹



- Last year was one of the worst return periods for the US bond market given the historic inflation levels and the corresponding rapid rise in interest rates.
- The broad bond market (Bloomberg US Aggregate) declined 13% in 2022 making it one of the worst periods on record. Short-term bonds declined less (-3.7%) but also experienced one of the worst years on record.
- With global inflation falling and the economic outlook improving, fixed income returns turned positive at the end of 2022 and in January 2023.

¹ Source: Bloomberg. Data is as of January 31, 2023.

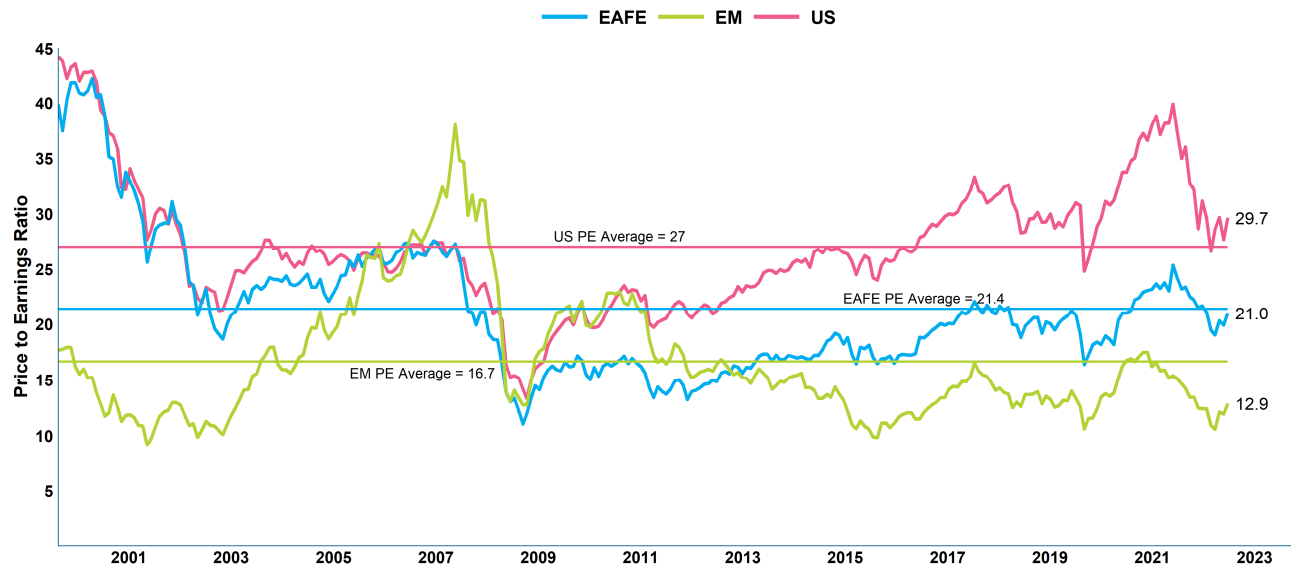
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) finished the year down from its highs and continued to decline in January to below the long run average as investors anticipated the potential end of Fed rate hikes this year.
- Fixed income volatility (MOVE) remained elevated and well above its long-run average at year-end due to the uncertain path of US interest rates as the Federal Reserve continues its hawkish stance on inflation. In January, implied rate volatility eased with a softening of that rate uncertainty.

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

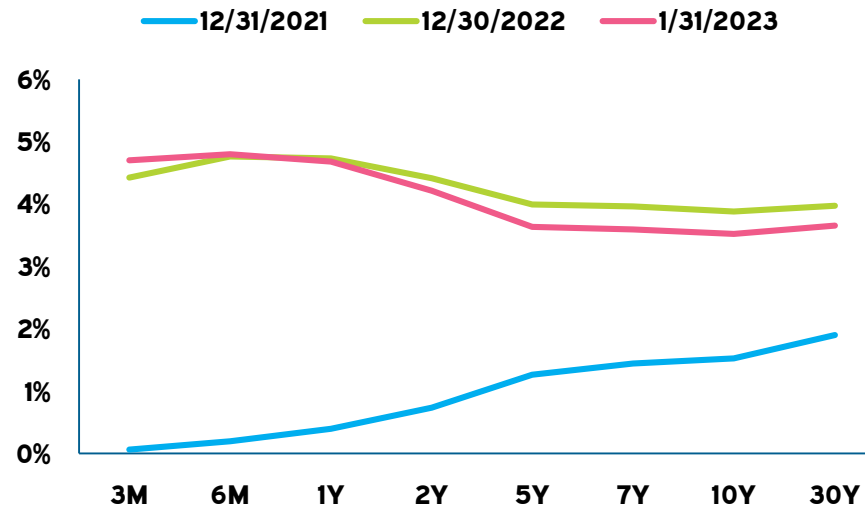
Equity Cyclically Adjusted P/E Ratios¹



- With January’s strong recovery, the US equity price-to-earnings ratio is slightly above its long-run (21st century) average.
- International developed market valuations rose but remain below their own long-term average, with those for emerging markets the lowest and well under the long-term average.

¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of December 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.

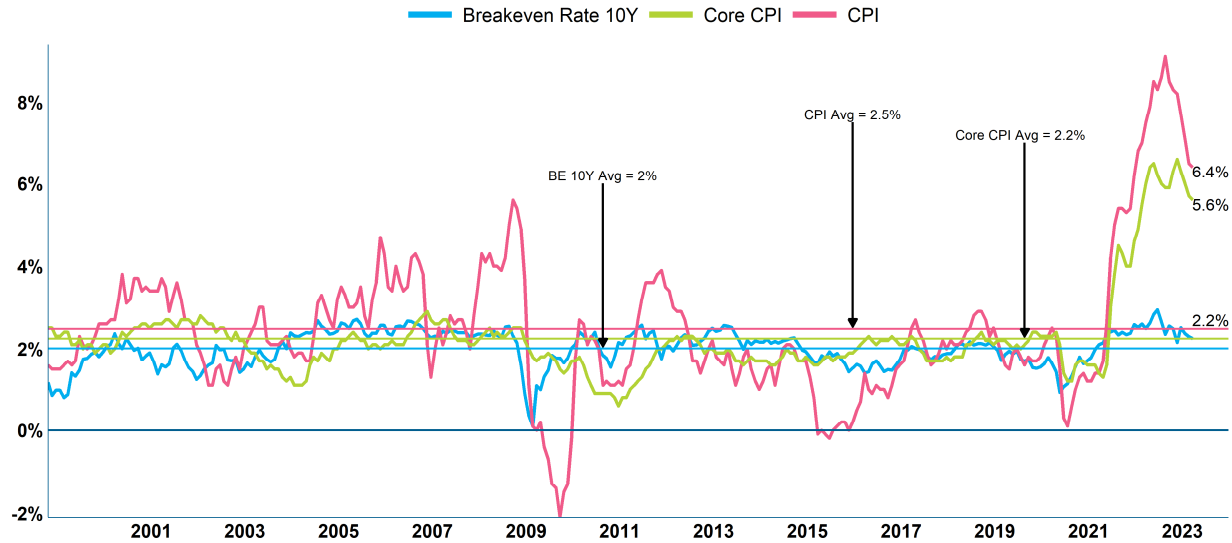
US Yield Curve¹



- In January, policy-sensitive interest rates at the front-end of the curve continued to decline, with the two-year Treasury yield falling from 4.4% to 4.2%. Longer dated ten-year Treasury yields also fell (3.9% to 3.5%). In 2022, the yield curve rose dramatically across maturities and moved from steep to inverted.
- The Fed remains committed to fighting inflation, as it increased rates another 25 basis points to a range of 4.5% to 4.75% at its February meeting.
- The yield spread between two-year and ten-year Treasuries widened to -0.69% in January 2023 after finishing December 2022 at -0.55%. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Inversions in the yield curve have often preceded recessions.

¹ Source: Bloomberg. Data is as of January 31, 2023.

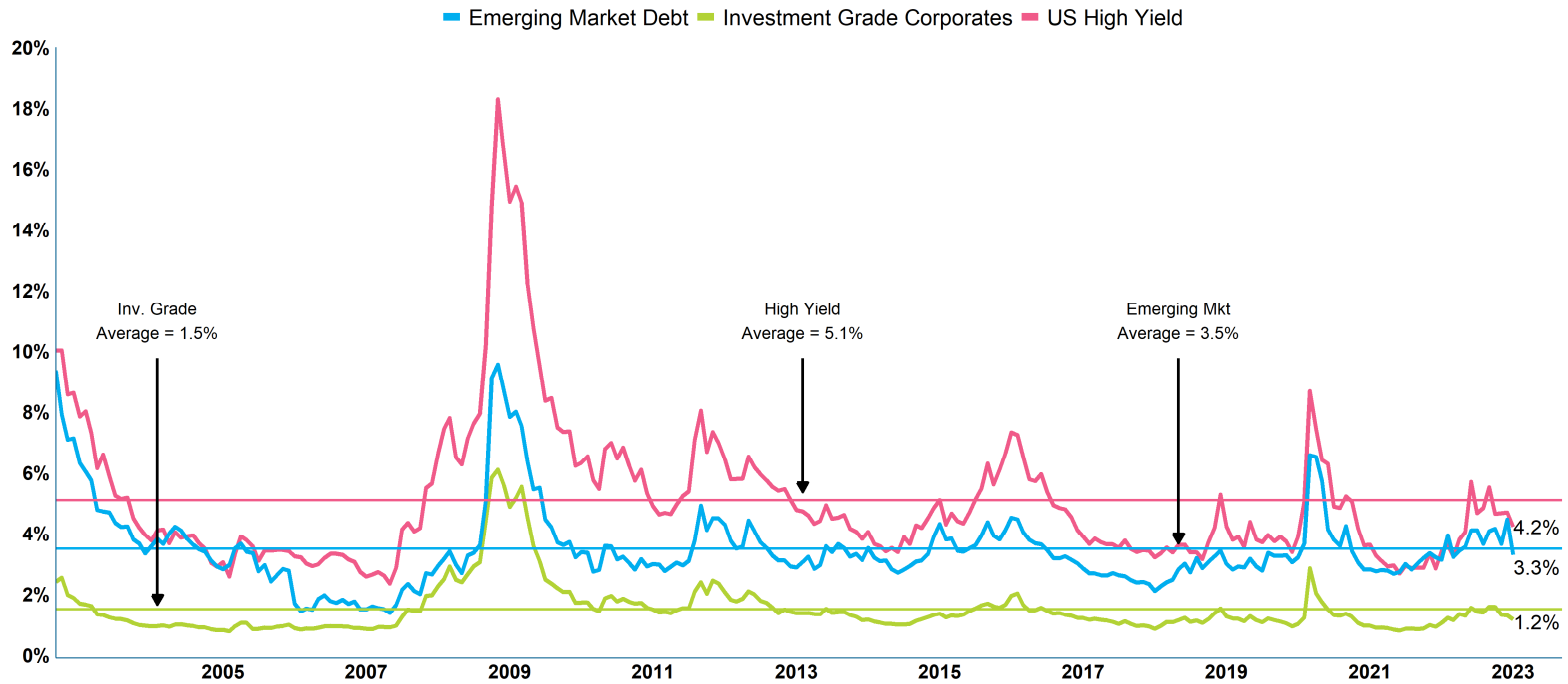
Ten-Year Breakeven Inflation and CPI¹



- The January reading of year over year inflation fell slightly (6.4% versus 6.5%) but came in above expectations, supporting further tightening by the Fed. Prices increased 0.5% from a month prior with shelter being the largest contributor. Energy and food prices rose too.
- Core inflation – excluding food and energy – also continued to decline year over year (5.6% versus 5.7%) but also came in above estimates.
- Inflation expectations (breakevens) largely were unchanged from the prior month and remain well below current inflation levels as investors anticipate a significant moderation in inflation.

¹ Source: Bloomberg. Data is as of January 2023. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end respectively. Breakeven values represent month-end values for comparative purposes.

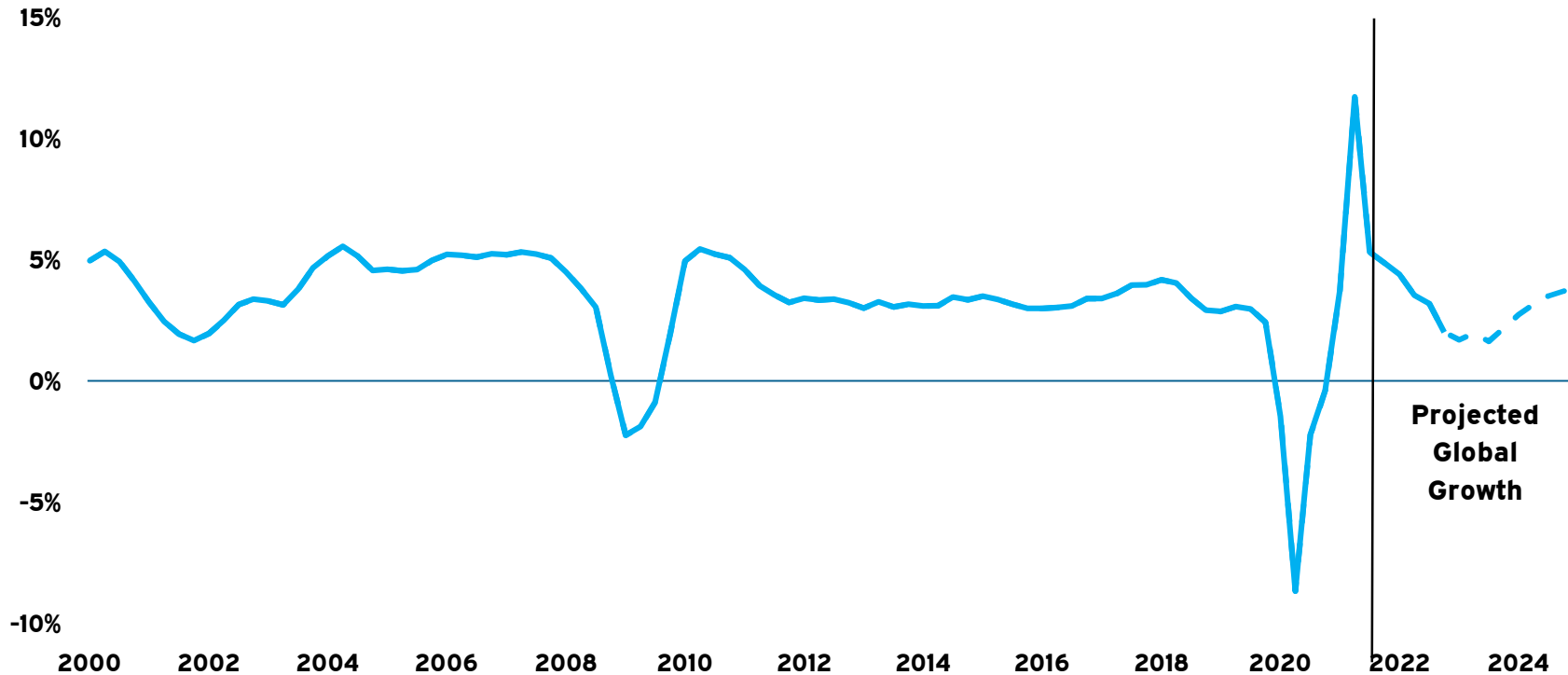
Credit Spreads vs. US Treasury Bonds¹



- Spreads (the added yield above a comparable maturity Treasury) largely fell in January as credit markets outperformed government bonds on improved risk sentiment given signs of slowing inflation.
- High yield spreads fell from 4.7% to 4.2% in January while investment grade spreads declined to 1.2% from 1.3%. Emerging market spreads fell the most (3.3% versus 4.5%) due to China’s reopening and falling inflation.

¹ Sources: Bloomberg. Data is as of January 31, 2023. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end respectively.

Global Real Gross Domestic Product (GDP) Growth¹

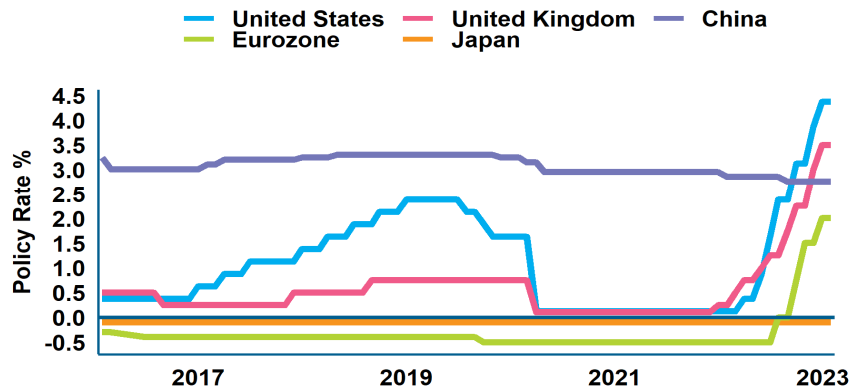


- Global economies are expected to slow in 2023 compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

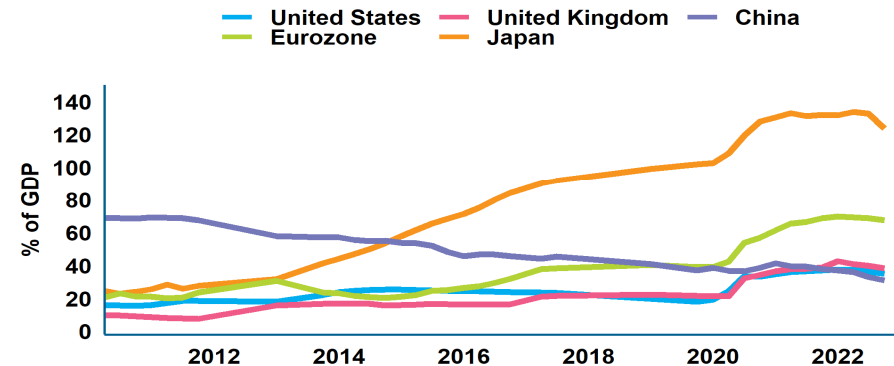
¹ Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated January 2023.

Central Bank Response¹

Policy Rates



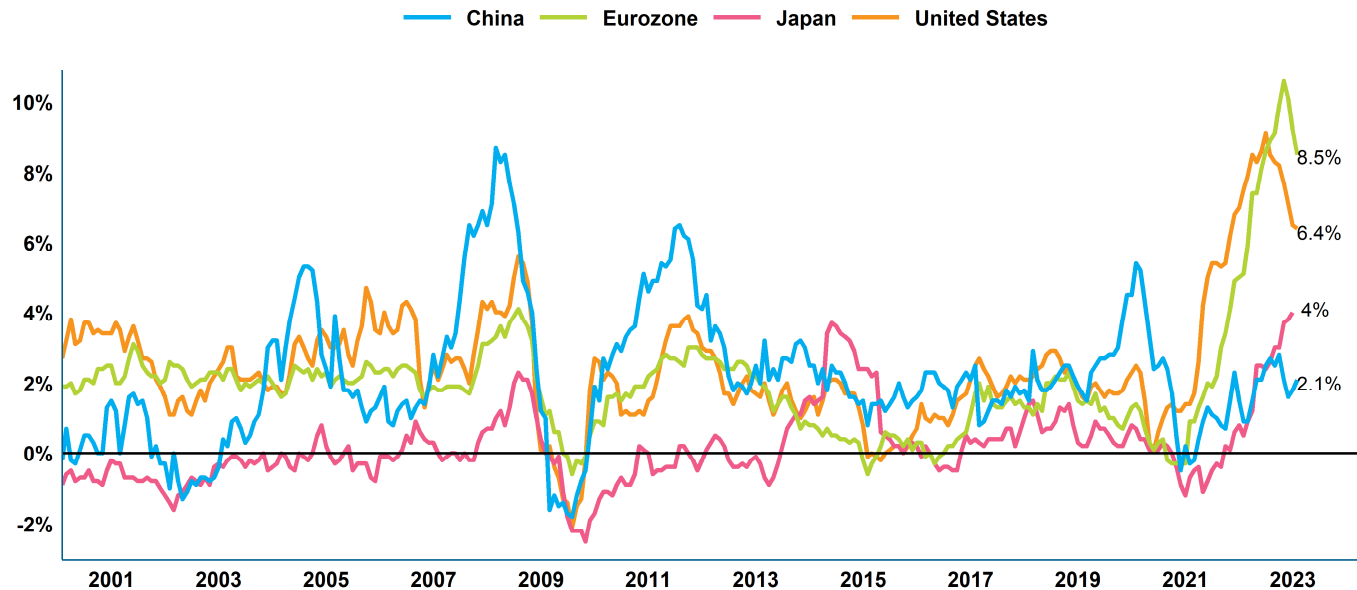
Balance Sheet as % of GDP



- In 2022 many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the US taking the most aggressive approach. However, global inflation has begun to moderate, and markets anticipate a slowing in the rate of policy tightening in the future.
- In December, the Bank of Japan relaxed its target yield for the 10-year bond which may mark an incremental step toward policy normalization after eight years of quantitative easing.
- China's central bank is expected to maintain its accommodative monetary stance to support consumer demand and investment as well as offer liquidity to the troubled real estate sector.
- The risk remains for a policy error, particularly overtightening, as record inflation and aggressive tightening to date could heavily weigh on global growth. The Federal Reserve's policy rate path could diverge from others this year given their strong early start to tightening.

¹ Source: Bloomberg. Policy rate data is as of January 31, 2023. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of December 31, 2022.

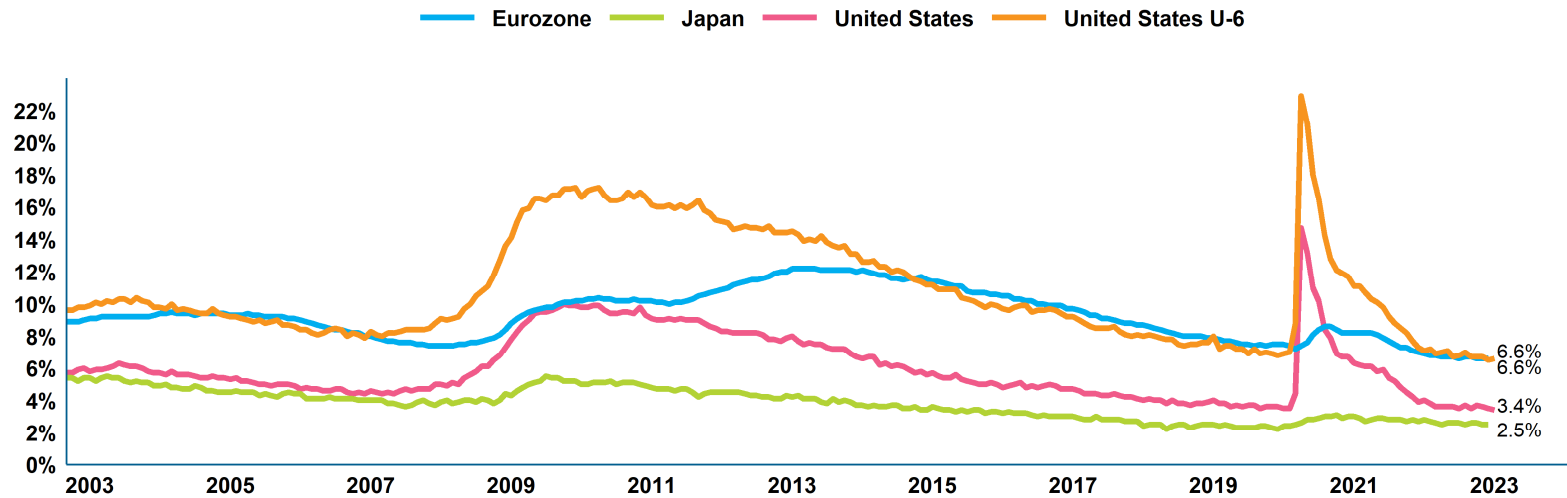
Inflation (CPI Trailing Twelve Months)¹



- Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it has reached levels not seen in many decades.
- Inflation pressures are slowly declining in the US as supply issues ease, but they remain elevated, while in Europe they have also started to fall but remain at historic levels due to skyrocketing energy prices and a weak euro.
- Supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

¹ Source: Bloomberg. Data is as of January 2023. The most recent Japanese inflation data is as of December 2022.

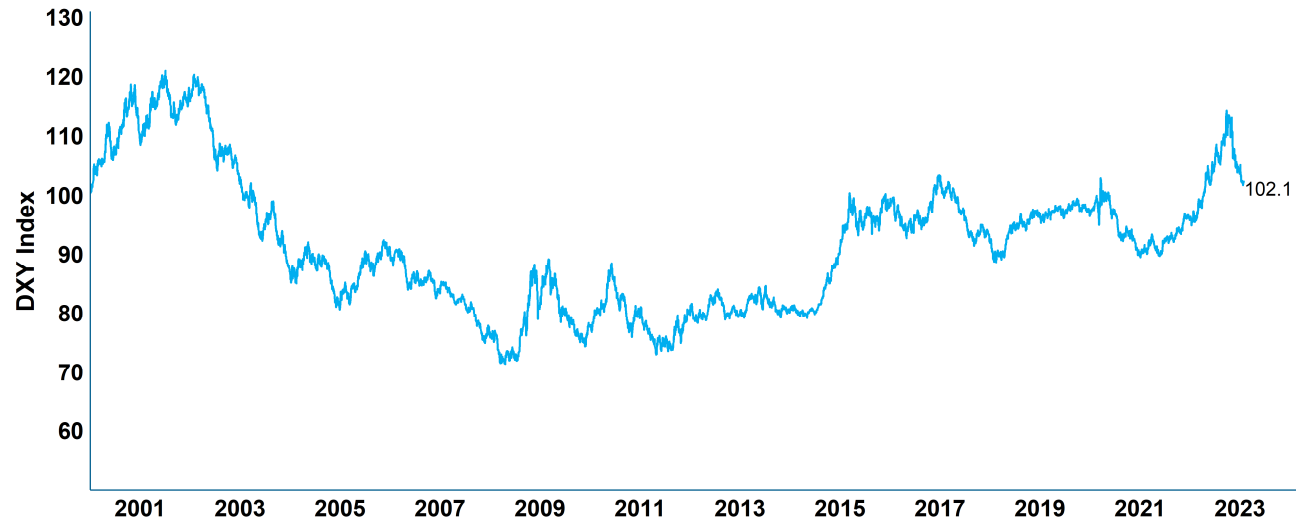
Unemployment¹



- As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market.
- Despite slowing growth and high inflation, the US labor market remains a bright spot. Unemployment in the US, which experienced the steepest rise from the pandemic, recently reached 3.4%, a level not seen in over 50 years.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed’s efforts to fight inflation, likely leading to higher unemployment.

¹ Source: Bloomberg. Data is as January 31, 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of December 31, 2022.

US Dollar versus Broad Currencies¹



- Overall, the US dollar continued to weaken in January from its recent peak as declining inflation supported the case for the Federal Reserve to slow its tightening.
- The dollar finished the year much higher than it started, due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- This year, the track of inflation across economies and the corresponding monetary policies will likely be key drivers of currency moves.

¹ Source: Bloomberg. Data as of January 31, 2023.

Summary

Key Trends:

- The impacts of record high inflation will remain key, with market volatility likely to stay high.
- Global monetary policies could diverge in 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors in both directions remains.
- Growth will continue to slow globally this year, with many economies likely falling into recessions. Inflation, monetary policy, and the war will all be key.
- In the US the end of many fiscal programs is expected to put the burden of continued growth on consumers. Higher energy and food prices could weigh on consumer spending.
- Valuations have significantly declined in the US to around long-term averages, largely driven by price declines. The key going forward will be whether earnings can remain resilient if growth continues to slow.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

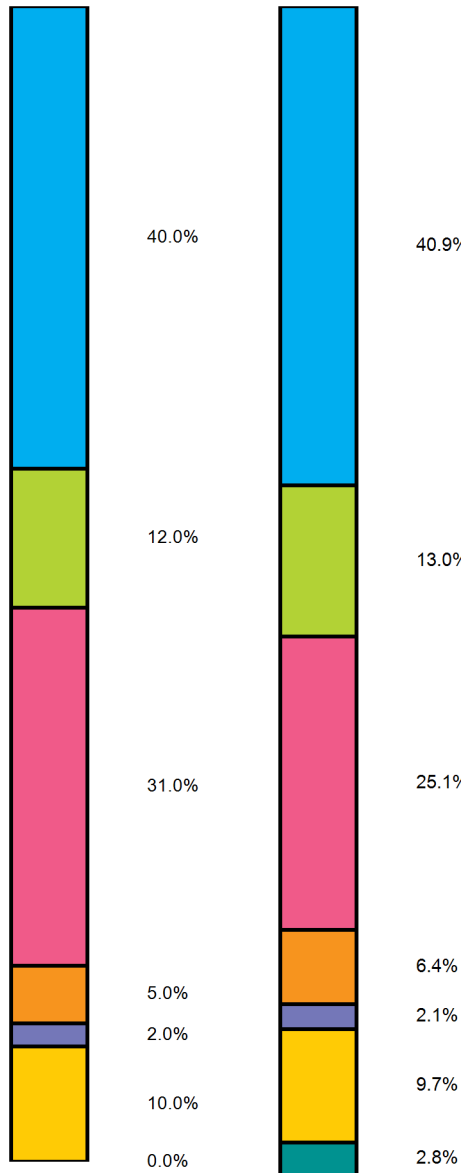
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Oakland Police and Fire Retirement System

February 22, 2023

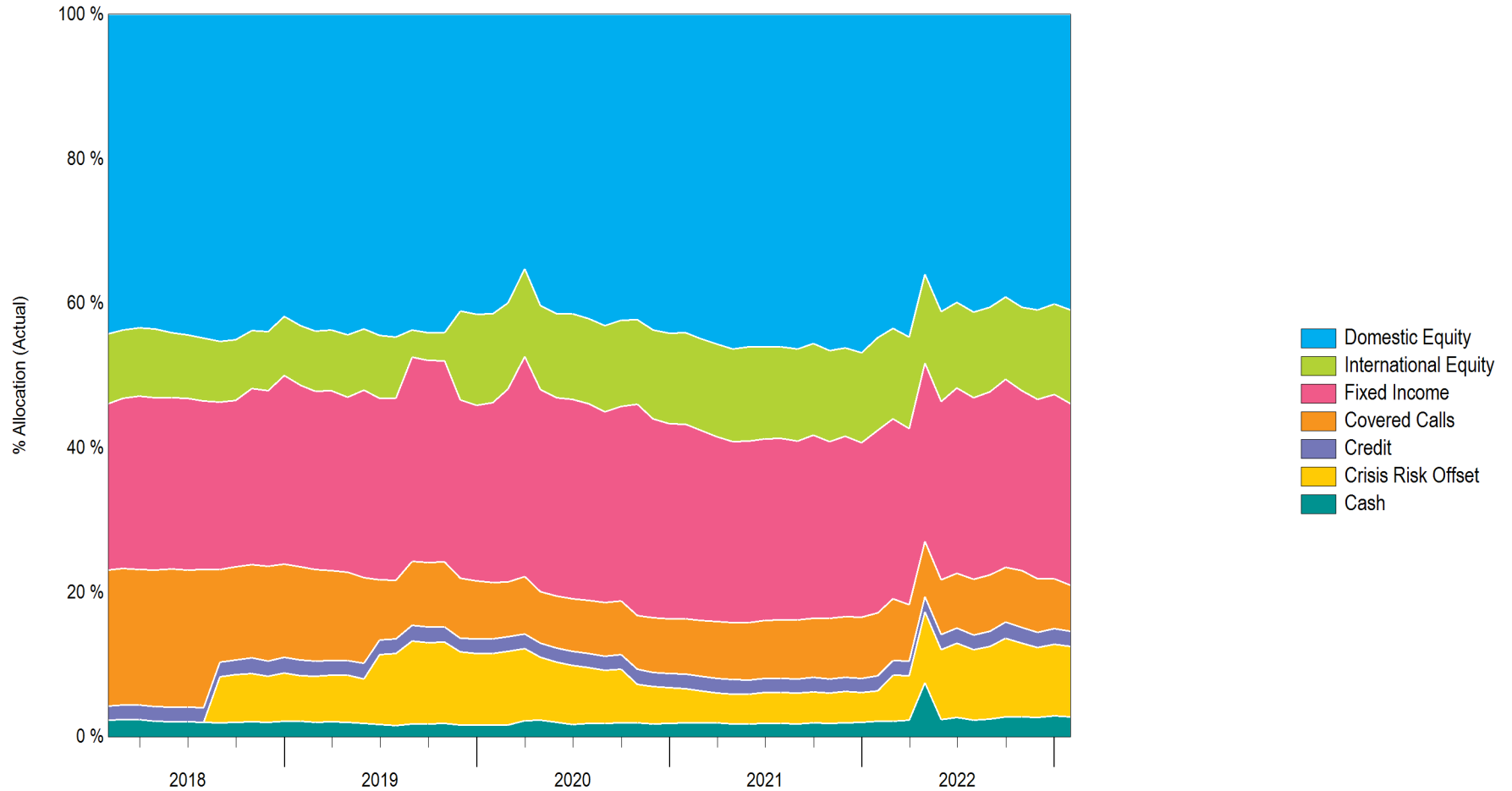
January Flash Report

As of January 31, 2023



Allocation vs. Targets and Policy							
	Current Balance	Current Allocation	Policy	Difference	Policy Range	Within IPS Range?	
Domestic Equity	\$171,368,400	40.9%	40.0%	0.9%	30.0% - 50.0%	Yes	
International Equity	\$54,306,630	13.0%	12.0%	1.0%	8.0% - 14.0%	Yes	
Fixed Income	\$105,031,590	25.1%	31.0%	-5.9%	25.0% - 40.0%	Yes	
Covered Calls	\$26,689,182	6.4%	5.0%	1.4%	5.0% - 10.0%	Yes	
Credit	\$8,909,576	2.1%	2.0%	0.1%	0.0% - 100.0%	Yes	
Crisis Risk Offset	\$40,662,931	9.7%	10.0%	-0.3%	5.0% - 15.0%	Yes	
Cash	\$11,763,432	2.8%	0.0%	2.8%	0.0% - 5.0%	Yes	
Total	\$418,731,740	100.0%	100.0%				

Asset Allocation History
5 Years Ending January 31, 2023



As of January 31, 2023

Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
OPFRS Total Plan	418,731,740	100.0	5.6	6.4	-5.9	4.2	4.8	7.3	6.6	Dec-88
<i>OPFRS Policy Benchmark</i>			<u>5.0</u>	<u>6.2</u>	<u>-6.8</u>	<u>3.9</u>	<u>4.4</u>	<u>6.9</u>	<u>7.8</u>	<u>Dec-88</u>
Excess Return			0.6	0.2	0.9	0.3	0.4	0.4	-1.2	
Domestic Equity	171,368,400	40.9	7.3	10.5	-5.3	10.0	8.9	12.2	8.9	Jun-97
<i>Russell 3000 (Blend)</i>			<u>6.9</u>	<u>9.4</u>	<u>-8.2</u>	<u>9.5</u>	<u>9.1</u>	<u>12.3</u>	<u>8.9</u>	<u>Jun-97</u>
Excess Return			0.4	1.1	2.9	0.5	-0.2	-0.1	0.0	
International Equity	54,306,630	13.0	8.9	13.4	-4.9	4.0	2.3	5.6	5.3	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			<u>8.1</u>	<u>11.3</u>	<u>-5.7</u>	<u>3.6</u>	<u>1.4</u>	<u>4.2</u>	<u>5.0</u>	<u>Jan-98</u>
Excess Return			0.8	2.1	0.8	0.4	0.9	1.4	0.3	
Fixed Income	105,031,590	25.1	3.4	0.7	-8.1	-1.7	1.4	2.0	4.8	Dec-93
<i>Bloomberg Universal (Blend)</i>			<u>3.1</u>	<u>0.7</u>	<u>-8.3</u>	<u>-2.1</u>	<u>1.0</u>	<u>1.7</u>	<u>4.6</u>	<u>Dec-93</u>
Excess Return			0.3	0.0	0.2	0.4	0.4	0.3	0.2	
Credit	8,909,576	2.1	3.6	5.1	-3.8	3.8	3.3	--	5.1	Feb-15
<i>Bloomberg US High Yield TR</i>			<u>3.8</u>	<u>7.4</u>	<u>-5.2</u>	<u>1.3</u>	<u>3.0</u>	<u>4.3</u>	<u>4.2</u>	<u>Feb-15</u>
Excess Return			-0.2	-2.3	1.4	2.5	0.3		0.9	
Covered Calls	26,689,182	6.4	4.6	7.0	-4.7	8.4	7.8	--	8.6	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<u>4.2</u>	<u>2.8</u>	<u>-5.3</u>	<u>3.0</u>	<u>3.5</u>	<u>6.0</u>	<u>5.3</u>	<u>Apr-14</u>
Excess Return			0.4	4.2	0.6	5.4	4.3		3.3	
Crisis Risk Offset	40,662,931	9.7	3.1	-2.0	-8.5	-13.6	-7.7	--	-8.5	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>			<u>0.5</u>	<u>2.9</u>	<u>4.4</u>	<u>-1.3</u>	<u>--</u>	<u>--</u>	<u>-0.4</u>	<u>Aug-18</u>
Excess Return			2.6	-4.9	-12.9	-12.3			-8.1	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding. Fiscal year begins on July 1.

As of January 31, 2023

	Market Value (\$)	% of Portfolio	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Cash	11,763,432	2.8	0.0	0.0	0.0	0.3	1.1	0.7	0.6	Mar-11
<i>FTSE T-Bill 3 Months TR</i>			<i>0.4</i>	<i>1.7</i>	<i>1.9</i>	<i>0.8</i>	<i>1.3</i>	<i>0.8</i>	<i>0.7</i>	<i>Mar-11</i>
Excess Return			-0.4	-1.7	-1.9	-0.5	-0.2	-0.1	-0.1	

As of January 31, 2023

Performance Summary											
	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
OPFRS Total Plan	418,731,740	100.0	--	5.6	6.4	-5.9	4.2	4.8	7.3	6.6	Dec-88
<i>OPFRS Policy Benchmark</i>				<u>5.0</u>	<u>6.2</u>	<u>-6.8</u>	<u>3.9</u>	<u>4.4</u>	<u>6.9</u>	<u>7.8</u>	<u>Dec-88</u>
Excess Return				0.6	0.2	0.9	0.3	0.4	0.4	-1.2	
Domestic Equity	171,368,400	40.9	40.9	7.3	10.5	-5.3	10.0	8.9	12.2	8.9	Jun-97
<i>Russell 3000 (Blend)</i>				<u>6.9</u>	<u>9.4</u>	<u>-8.2</u>	<u>9.5</u>	<u>9.1</u>	<u>12.3</u>	<u>8.9</u>	<u>Jun-97</u>
Excess Return				0.4	1.1	2.9	0.5	-0.2	-0.1	0.0	
Northern Trust Russell 1000	74,412,427	17.8	43.4	6.7	9.1	-8.7	9.5	9.3	12.5	13.0	Jun-10
<i>Russell 1000</i>				<u>6.7</u>	<u>9.2</u>	<u>-8.5</u>	<u>9.7</u>	<u>9.4</u>	<u>12.5</u>	<u>13.1</u>	<u>Jun-10</u>
Excess Return				0.0	-0.1	-0.2	-0.2	-0.1	0.0	-0.1	
EARNEST Partners	47,621,448	11.4	27.8	9.2	11.0	-2.9	12.4	11.0	13.6	10.5	Apr-06
<i>Russell MidCap</i>				<u>8.3</u>	<u>14.2</u>	<u>-3.3</u>	<u>9.0</u>	<u>8.0</u>	<u>11.1</u>	<u>8.8</u>	<u>Apr-06</u>
Excess Return				0.9	-3.2	0.4	3.4	3.0	2.5	1.7	
Wellington Select Quality Equity	22,376,261	5.3	13.1	0.8	7.9	--	--	--	--	1.7	May-22
<i>Russell 1000</i>				<u>6.7</u>	<u>9.2</u>	<u>-8.5</u>	<u>9.7</u>	<u>9.4</u>	<u>12.5</u>	<u>-0.1</u>	<u>May-22</u>
Excess Return				-5.9	-1.3					1.8	
Brown Fundamental Small Cap Value	11,802,575	2.8	6.9	8.1	19.6	5.2	--	--	--	6.1	Apr-21
<i>Russell 2000 Value</i>				<u>9.5</u>	<u>13.3</u>	<u>-0.5</u>	<u>9.9</u>	<u>5.8</u>	<u>8.8</u>	<u>-0.5</u>	<u>Apr-21</u>
Excess Return				-1.4	6.3	5.7				6.6	
Rice Hall James	15,155,688	3.6	8.8	14.0	12.7	-5.4	8.7	6.0	--	8.5	Jul-17
<i>Russell 2000 Growth</i>				<u>9.9</u>	<u>14.8</u>	<u>-6.5</u>	<u>4.3</u>	<u>4.7</u>	<u>9.5</u>	<u>6.9</u>	<u>Jul-17</u>
Excess Return				4.1	-2.1	1.1	4.4	1.3		1.6	

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding.

As of January 31, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
International Equity	54,306,630	13.0	13.0	8.9	13.4	-4.9	4.0	2.3	5.6	5.3	Jan-98
<i>MSCI ACWI ex US (Blend)</i>				<u>8.1</u>	<u>11.3</u>	<u>-5.7</u>	<u>3.6</u>	<u>1.4</u>	<u>4.2</u>	<u>5.0</u>	<u>Jan-98</u>
Excess Return				0.8	2.1	0.8	0.4	0.9	1.4	0.3	
Vanguard Developed Markets ETF	15,323,422	3.7	28.2	9.0	13.8	-4.0	5.3	--	--	7.1	Sep-19
<i>FTSE Developed All Cap Ex US TR USD</i>				<u>8.2</u>	<u>13.9</u>	<u>-3.6</u>	<u>5.0</u>	<u>2.5</u>	<u>5.4</u>	<u>7.1</u>	<u>Sep-19</u>
Excess Return				0.8	-0.1	-0.4	0.3			0.0	
SGA ACWI ex-U.S. Equity	38,983,207	9.3	71.8	8.9	13.2	-5.3	3.6	--	--	3.1	Dec-19
<i>MSCI ACWI ex USA</i>				<u>8.1</u>	<u>11.3</u>	<u>-5.7</u>	<u>3.6</u>	<u>1.4</u>	<u>4.2</u>	<u>3.9</u>	<u>Dec-19</u>
Excess Return				0.8	1.9	0.4	0.0			-0.8	
Fixed Income	105,031,590	25.1	25.1	3.4	0.7	-8.1	-1.7	1.4	2.0	4.8	Dec-93
<i>Bloomberg Universal (Blend)</i>				<u>3.1</u>	<u>0.7</u>	<u>-8.3</u>	<u>-2.1</u>	<u>1.0</u>	<u>1.7</u>	<u>4.6</u>	<u>Dec-93</u>
Excess Return				0.3	0.0	0.2	0.4	0.4	0.3	0.2	
Ramirez	71,321,528	17.0	67.9	3.3	0.4	-8.3	-2.1	1.3	--	1.7	Jan-17
<i>Bloomberg US Aggregate TR</i>				<u>3.1</u>	<u>0.0</u>	<u>-8.4</u>	<u>-2.3</u>	<u>0.9</u>	<u>1.4</u>	<u>1.1</u>	<u>Jan-17</u>
Excess Return				0.2	0.4	0.1	0.2	0.4		0.6	
Wellington Core Bond	6,778,017	1.6	6.5	3.8	0.6	-9.1	--	--	--	-5.3	Apr-21
<i>Bloomberg US Aggregate TR</i>				<u>3.1</u>	<u>0.0</u>	<u>-8.4</u>	<u>-2.3</u>	<u>0.9</u>	<u>1.4</u>	<u>-4.8</u>	<u>Apr-21</u>
Excess Return				0.7	0.6	-0.7				-0.5	
Reams	26,932,045	6.4	25.6	3.6	1.6	-7.1	2.0	3.7	2.9	5.2	Feb-98
<i>Bloomberg Universal (Blend)</i>				<u>3.1</u>	<u>0.7</u>	<u>-8.3</u>	<u>-2.1</u>	<u>1.0</u>	<u>1.7</u>	<u>4.2</u>	<u>Feb-98</u>
Excess Return				0.5	0.9	1.2	4.1	2.7	1.2	1.0	

Though Vanguard Developed Markets ETF is a passive strategy, short-term performance may appear to diverge from the index it tracks more than what would be expected. This is due to Fair Value Pricing (FVP) adjustments that address the pricing discrepancies that may arise from time-zone differences among global securities markets. The resulting temporary divergence is expected to correct itself when the foreign markets reopen."

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding.

As of January 31, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Credit	8,909,576	2.1	2.1	3.6	5.1	-3.8	3.8	3.3	--	5.1	Feb-15
<i>Bloomberg US High Yield TR</i>				<u>3.8</u>	<u>7.4</u>	<u>-5.2</u>	<u>1.3</u>	<u>3.0</u>	<u>4.3</u>	<u>4.2</u>	<u>Feb-15</u>
Excess Return				-0.2	-2.3	1.4	2.5	0.3		0.9	
Polen Capital	8,909,576	2.1	100.0	3.6	5.1	-3.8	3.8	3.3	--	5.1	Feb-15
<i>ICE BofA High Yield Master TR</i>				<u>3.9</u>	<u>7.3</u>	<u>-5.1</u>	<u>1.1</u>	<u>2.8</u>	<u>4.2</u>	<u>4.1</u>	<u>Feb-15</u>
Excess Return				-0.3	-2.2	1.3	2.7	0.5		1.0	
Covered Calls	26,689,182	6.4	6.4	4.6	7.0	-4.7	8.4	7.8	--	8.6	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<u>4.2</u>	<u>2.8</u>	<u>-5.3</u>	<u>3.0</u>	<u>3.5</u>	<u>6.0</u>	<u>5.3</u>	<u>Apr-14</u>
Excess Return				0.4	4.2	0.6	5.4	4.3		3.3	
Parametric BXM	13,373,131	3.2	50.1	3.3	4.6	-3.8	5.7	5.5	--	6.7	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<u>4.2</u>	<u>2.8</u>	<u>-5.3</u>	<u>3.0</u>	<u>3.5</u>	<u>6.0</u>	<u>5.3</u>	<u>Apr-14</u>
Excess Return				-0.9	1.8	1.5	2.7	2.0		1.4	
Parametric DeltaShift	13,316,051	3.2	49.9	6.0	9.5	-5.6	10.7	9.8	--	10.7	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>				<u>4.2</u>	<u>2.8</u>	<u>-5.3</u>	<u>3.0</u>	<u>3.5</u>	<u>6.0</u>	<u>5.3</u>	<u>Apr-14</u>
Excess Return				1.8	6.7	-0.3	7.7	6.3		5.4	

Polen Capital market value is as of 12/31/2022.

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding.

As of January 31, 2023

	Market Value (\$)	% of Portfolio	% of Sector	1 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	S.I. Date
Crisis Risk Offset	40,662,931	9.7	9.7	3.1	-2.0	-8.5	-13.6	-7.7	--	-8.5	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>				<u>0.5</u>	<u>2.9</u>	<u>4.4</u>	<u>-1.3</u>	--	--	<u>-0.4</u>	<u>Aug-18</u>
Excess Return				2.6	-4.9	-12.9	-12.3			-8.1	
Kepos Alternative Risk Premia	10,068,926	2.4	24.8	2.4	5.9	1.4	--	--	--	1.4	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>				<u>0.5</u>	<u>2.9</u>	<u>4.4</u>	<u>-1.3</u>	--	--	<u>4.4</u>	<u>Feb-22</u>
Excess Return				1.9	3.0	-3.0				-3.0	
Versor Trend Following	15,908,714	3.8	39.1	0.0	-4.2	--	--	--	--	6.1	Apr-22
<i>SG Trend Index</i>				<u>-1.3</u>	<u>-2.4</u>	<u>29.7</u>	<u>15.6</u>	<u>8.1</u>	<u>6.0</u>	<u>14.1</u>	<u>Apr-22</u>
Excess Return				1.3	-1.8					-8.0	
Vanguard Long-Term Treasury ETF	14,685,291	3.5	36.1	7.1	-4.4	-21.4	-7.7	--	--	-3.7	Jul-19
<i>Bloomberg US Govt Long TR</i>				<u>6.4</u>	<u>-4.4</u>	<u>-21.4</u>	<u>-7.5</u>	<u>-0.3</u>	<u>1.6</u>	<u>-3.7</u>	<u>Jul-19</u>
Excess Return				0.7	0.0	0.0	-0.2			0.0	
Cash	11,763,432	2.8	2.8	0.0	0.0	0.0	0.3	1.1	0.7	0.6	Mar-11
<i>FTSE T-Bill 3 Months TR</i>				<u>0.4</u>	<u>1.7</u>	<u>1.9</u>	<u>0.8</u>	<u>1.3</u>	<u>0.8</u>	<u>0.7</u>	<u>Mar-11</u>
Excess Return				-0.4	-1.7	-1.9	-0.5	-0.2	-0.1	-0.1	
Cash	3,888,432	0.9	33.1	0.0	0.0	0.0	0.5	1.2	0.8	0.6	Mar-11
<i>FTSE T-Bill 3 Months TR</i>				<u>0.4</u>	<u>1.7</u>	<u>1.9</u>	<u>0.8</u>	<u>1.3</u>	<u>0.8</u>	<u>0.7</u>	<u>Mar-11</u>
Excess Return				-0.4	-1.7	-1.9	-0.3	-0.1	0.0	-0.1	
Cash - Treasury	7,875,000	1.9	66.9								

Versor Trend Following market value is as of 12/31/2022.

Cash - Treasury market value is as of 12/31/2022.

Performance shown is gross-of-fees. Since inception date and performance begins in the month following an investments initial funding.

As of January 31, 2023

Cash Flow Summary

Month to Date

	Beginning Market Value	Net Cash Flow	Net Investment Change	Ending Market Value
Brown Fundamental Small Cap Value	\$10,924,340	\$0	\$878,235	\$11,802,575
Cash	\$3,817,108	\$71,324	\$0	\$3,888,432
Cash - Treasury	\$7,875,000	\$0	\$0	\$7,875,000
EARNEST Partners	\$43,615,104	\$0	\$4,006,344	\$47,621,448
Kepos Alternative Risk Premia	\$9,837,006	\$0	\$231,920	\$10,068,926
Northern Trust Russell 1000	\$69,741,287	\$0	\$4,671,141	\$74,412,427
Parametric BXM	\$13,942,810	-\$1,000,000	\$430,320	\$13,373,131
Parametric DeltaShift	\$13,560,909	-\$1,000,000	\$755,142	\$13,316,051
Polen Capital	\$8,603,832	\$0	\$305,744	\$8,909,576
Ramirez	\$69,021,211	\$0	\$2,300,317	\$71,321,528
Reams	\$26,000,599	\$0	\$931,446	\$26,932,045
Rice Hall James	\$13,299,736	\$0	\$1,855,952	\$15,155,688
Securities Lending Northern Trust	\$0	-\$9,138	\$9,138	\$0
SGA ACWI ex-U.S. Equity	\$35,797,379	\$0	\$3,185,828	\$38,983,207
Vanguard Developed Markets ETF	\$14,054,284	\$0	\$1,269,138	\$15,323,422
Vanguard Long-Term Treasury ETF	\$13,706,568	\$0	\$978,723	\$14,685,291
Versor Trend Following	\$15,908,714	\$0	\$0	\$15,908,714
Wellington Core Bond	\$6,531,106	\$0	\$246,912	\$6,778,017
Wellington Select Quality Equity	\$22,198,719	\$0	\$177,542	\$22,376,261
Total	\$398,435,711	-\$1,937,814	\$22,233,842	\$418,731,740

Benchmark History
As of January 31, 2023

OPFRS Total Plan

6/1/2022	Present	40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield TR
1/1/2019	5/31/2022	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
12/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR

Benchmark History
As of January 31, 2023

Domestic Equity

1/1/2005	Present	Russell 3000
4/1/1998	12/31/2004	28.57% Russell 1000 / 57.14% Russell 1000 Value / 14.29% Russell MidCap
6/1/1997	3/31/1998	S&P 500

International Equity

1/1/2005	Present	MSCI ACWI ex USA
1/1/1998	12/31/2004	MSCI EAFE Gross

Fixed Income

4/1/2006	Present	Bloomberg US Universal TR
12/31/1993	3/31/2006	Bloomberg US Aggregate TR

Covered Calls

4/1/2014	Present	CBOE S&P 500 BuyWrite USD
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Crisis Risk Offset

8/1/2018	Present	SG Multi Alternative Risk Premia Index
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Cash

3/1/2011	Present	FTSE T-Bill 3 Months TR
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Oakland Police and Fire Retirement System

February 22, 2023

Quarterly Performance Report
as of December 31, 2022

Agenda

1. Executive Summary
2. Economic and Market Update as of December 31, 2022
3. 4Q 2022 Performance as of December 31, 2022
4. Manager Monitoring / Probation Status
5. Disclaimer, Glossary, and Notes

Executive Summary

Total Portfolio Review

The Oakland Police and Fire Retirement System (OPFRS) portfolio finished the 2022 calendar year with a market value of \$398.4 million. This represents a \$21.2 million capital appreciation in investment value after \$5.2 million in net outflows over the quarter. In the calendar year 2022, the OPFRS Total Portfolio faced a \$69.1 million depreciation, after withdrawals totaling \$15.7 million for net outflows including benefit payments.

→ As of 12/31/2022, all the asset classes were within acceptable allocation ranges relative to policy targets.¹

Investment Performance

→ During the most recent quarter, the OPFRS portfolio generated an absolute return of 5.6%, gross of fees, underperforming its policy benchmark² by (-0.4%). It kept pace with the benchmark over the trailing 1- and 3-year periods, though it has maintained a slight outperformance over the 5-year period.

	Quarter	FYTD	1 Year	3 Year	5 Year
Total Portfolio (Gross)	5.6	0.7	(-14.5)	2.3	4.3
Policy Benchmark	6.0	1.1	(-14.5)	2.3	4.0
Excess Return	(-0.4)	(-0.4)	0	0	0.1
Reference: Total Portfolio (Net) ³	5.5	0.6	(-14.7)	2.0	4.0

¹ Asset allocation as of 12/31/2022. Target weightings reflect the interim phase (where Crisis Risk Offset component is set to 10%) of the Plan's previously approved asset allocation (effective 5/31/2017).

² Evolving Policy Benchmark consists of 40% Russell 3000, 12% MSCI ACWI ex U.S., 33% Bloomberg Universal, 5% CBOE BXM, 6.7% SG Multi Asset Risk Premia, 3.3% Bloomberg Long Treasury from 1/1/2019 through 5/31/2022; and 40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield thereafter.

³ Longer-term (>1 year) Net of fee returns include estimates based on OPFRS manager fee schedule (approximately 34 bps).

Total Portfolio Review (Continued)

The primary factors of the Total Plan’s underperformance against the Policy Benchmark during the quarter were the underperformance within the Crisis Risk Offset segment, which surpassed the positive contributions made by the Domestic and International Equity segments.

Peer Comparison

→ In comparison to its peer group¹, the portfolio has lagged the median fund’s return over the quarter as well as the 1-, 3-, and 5-year periods.

	Quarter	FYTD	1 Year	3 Year	5 Year
Total Portfolio (Gross)	5.6	0.7	(-14.5)	2.3	4.3
Peer Group Median Fund	5.8	1.2	(-13.4)	4.0	5.2
vs. Peer Median Fund	(-0.2)	(-0.5)	(-1.1)	(-1.7)	(-0.9)
<i>Reference: Total Portfolio (Net)</i> ²	5.5	0.6	(-14.7)	2.0	4.0

¹ Source: Investment Metrics peer universe, Public Defined Benefit plans with \$250 million to \$1 billion in assets as of 12/31/2022.

² Longer-term (>1 year) Net of fee returns include estimates based on OPFRS manager fee schedule (approximately 34 bps).

Asset Class & Manager Highlights

- **Domestic equity** outperformed the Russell 3000 Index for all periods measured except for the longer 5-year trailing period.
- Among the active managers, **Earnest Partners** and **Rice Hall James** trailed their respective benchmarks for the quarter while maintaining outperformance over the 1-year and longer periods. **Wellington Select Quality** and **Brown Advisory** both outperformed their benchmarks for all the available time periods.¹
- **International equity** outperformed the MSCI ACWI ex US Index for all time periods measured. Reflecting the positive market conditions during the fourth quarter, both managers—one active and one passive—generated double-digit positive absolute returns for the quarter.
- The Plan’s active international equity manager, **SGA MSCI ACWI ex US**, outperformed its benchmark for all time periods available.¹
 - The passive **Vanguard** posted underperformance over the 1- and 3-year periods, due to a large deviation from its tracked index in December. This is due to Vanguard’s fair-value pricing methodology, that may cause deviations from its tracked index that are expected to equalize over the longer term.

¹ Due to their recent inception, Wellington Select Quality has less than 1-year of performance history and Brown Fundamental Small Cap Value has less than 3-year of performance history. SGA MSCI ACWI ex US and Vanguard Developed Markets ETF have less than 5-year of performance history.

Asset Class & Manager Highlights (Continued)

- **Fixed income** trailed the Bloomberg Universal Index over the quarter, while it outperformed the benchmark across all other time periods. The managers' quarterly relative performance is mixed.
 - **Ramirez** underperformed, **Reams** outperformed, and **Wellington Core Bond** tracked their respective benchmarks for the quarter. **Ramirez** and **Reams**, which have longer 3- and 5-year performance history, both maintained their outperformance over their respective benchmarks for these periods.
- The **Credit** segment, with **Polen Capital** as its only manager, underperformed the asset class's benchmark, Bloomberg US High Yield Index, during the quarter though it has maintained their excess return above their respective benchmarks over the 1-, 3-, and 5-year periods.
- **Covered Calls** and both of its underlying strategies outperformed its CBOE S&P 500 Buy-Write Index over the quarter and the longer 3- and 5-year periods, while trailing in the 1-year period.
- The **Crisis Risk Offset** segment trailed its benchmark SG Multi Alternative Risk Premia Index over the quarter as well as other time periods measured.
 - Even though the portfolio has trailed across all time periods, as a long-term-oriented segment of the Plan and given the recency of funding for two¹ of the three underlying managers, the underperformance ought not to be overly scrutinized.
 - Due to the addition of Kepos and Versor as Alternative Risk Premia and Systematic Trend Following managers within this segment in 2022, the current benchmark does not accurately reflect its components. We will be recommending an update to this benchmark for the Committee to consider in the following meetings.

¹ Kepos Alternative Risk Premia and Versor Trend Following were incepted within the first half of 2022 and therefore have less than 1-year of performance history.

Economic and Market Update

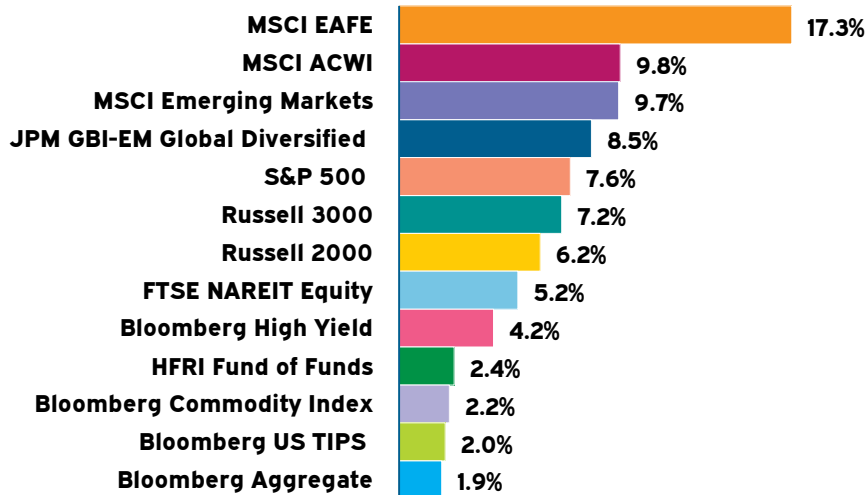
Data as of December 31, 2022

Commentary

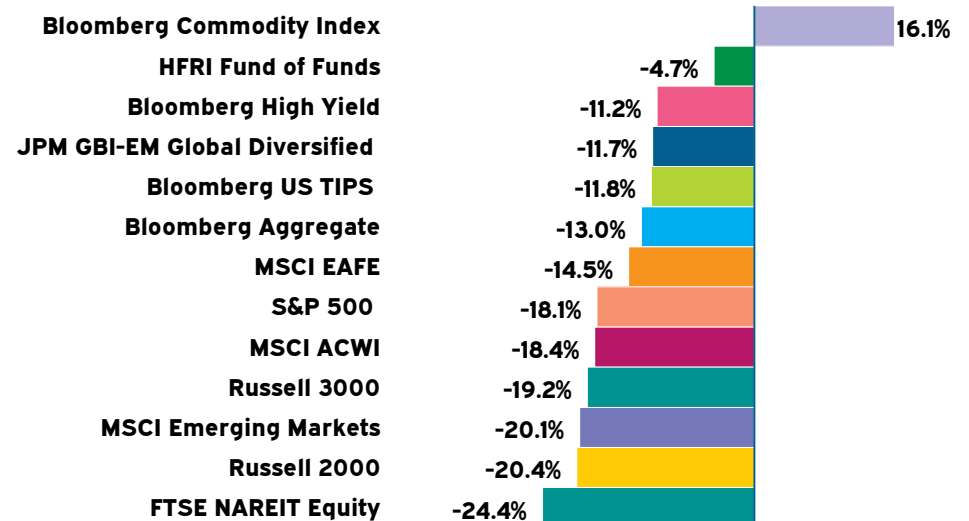
- Ending a very tough year, most asset classes posted gains in the fourth quarter on signs that policy tightening would slow given cooling inflation.
- Chairman Powell's testimony in November reiterated previous messaging on persistent and high inflation and the need for an extended period of monetary tightening weighing on assets in December. Markets remained focused though on signs that inflation is falling and that the size of future Fed rate hikes could be lower.
 - US equity markets sold off (-5.9%) in December but returned 7.2% in the fourth quarter as investors balanced the Fed's caution with improving inflation data.
 - In developed equity markets outside the US, sentiment deteriorated somewhat in December, but they posted a strong fourth quarter return of 17.3% driven by a falling US dollar and results in Europe where inflation started to slow.
 - Emerging market equities declined in December too (-1.4%) but less than the US and also had a strong fourth quarter (+9.7%). A weaker US dollar, declining inflation globally, and signs of China reopening its economy all contributed to the results.
 - Bonds experienced one of the worst years on record given inflation levels and the rapid rise in interest rates. Optimism over declining inflation and a slower pace of policy tightening benefited bonds overall in the fourth quarter though.
- Looking to 2023, the path of inflation and monetary policy, slowing growth globally, China reopening its economy, and the war in Ukraine will all be key.

Index Returns¹

Fourth Quarter



2022



→ After broad declines in Q3 driven by expectations for further policy tightening, most major asset classes were up in the fourth quarter on hopes of inflation and policy tightening peaking.

→ Outside of commodities, all other public market asset classes declined in 2022. It was the first time since the 1960s that both stocks and bonds declined together in a calendar year.

¹ Source: Bloomberg and FactSet. Data is as of December 31, 2022.

Domestic Equity Returns¹

Domestic Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-5.8	7.6	-18.1	7.7	9.4	12.6
Russell 3000	-5.9	7.2	-19.2	7.1	8.8	12.1
Russell 1000	-5.8	7.2	-19.1	7.3	9.1	12.4
Russell 1000 Growth	-7.7	2.2	-29.1	7.8	11.0	14.1
Russell 1000 Value	-4.0	12.4	-7.5	6.0	6.7	10.3
Russell MidCap	-5.4	9.2	-17.3	5.9	7.1	11.0
Russell MidCap Growth	-6.0	6.9	-26.7	3.9	7.6	11.4
Russell MidCap Value	-5.1	10.5	-12.0	5.8	5.7	10.1
Russell 2000	-6.5	6.2	-20.4	3.1	4.1	9.0
Russell 2000 Growth	-6.4	4.1	-26.4	0.6	3.5	9.2
Russell 2000 Value	-6.6	8.4	-14.5	4.7	4.1	8.5

US Equities: Russell 3000 Index declined 5.9% for December but gained 7.2% for the quarter. Historic inflation and rapidly rising interest rates led to significant declines (-19.2%) for the full year.

- US stocks fell broadly in December on the Federal Reserve signaling its continued resolve to raise rates but gained overall for the quarter on hopes that interest rates could be peaking soon given slowing inflation.
- All sectors declined during December, led by consumer discretionary and technology with defensive sectors declining less. For the quarter though, most sectors were up led by energy and industrials.
- In a continuation on the overall trend in 2022 value stocks outperformed growth stocks in the fourth quarter given higher interest rates and slowing growth.

¹ Source: Bloomberg. Data is as of December 31, 2022.

Foreign Equity Returns¹

Foreign Equity	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI ex. US	-0.7	14.3	-16.0	0.1	0.9	3.8
MSCI EAFE	0.1	17.3	-14.5	0.9	1.5	4.7
MSCI EAFE (Local Currency)	-3.0	8.7	-7.0	3.6	3.8	7.6
MSCI EAFE Small Cap	1.1	15.8	-21.4	-0.9	0.0	6.2
MSCI Emerging Markets	-1.4	9.7	-20.1	-2.7	-1.4	1.4
MSCI Emerging Markets (Local Currency)	-2.0	6.6	-15.5	0.1	1.3	4.6
MSCI China	5.2	13.5	-21.9	-7.5	-4.5	2.4

Developed international equities (MSCI EAFE) rose 0.1% in December and an impressive 17.3% in the fourth quarter. Emerging markets (MSCI EM) fell -1.4% in December but gained 9.7% for the quarter. Inflation and rising rates also weighed on international equities last year, as well as a strong US dollar for most of the year.

- International developed market equities, specifically Europe, held up better relative to the rest of the world in December with the MSCI EAFE up 0.1%. In the fourth quarter, they returned a significant 17.3% due in part to the recent weakness in the US dollar (they returned only 8.7% in local terms) leading to lower declines for the year.
- In December emerging markets outperformed the US but trailed developed market equities as China’s rally was not enough to offset weakness elsewhere (e.g., India -5.5%). For the quarter, a weakening US dollar and China reopening led to strong results (+9.7%), but emerging markets remained the weakest for 2022 due to China.
- Like the US, value outpaced growth globally in 2022.

¹ Source: Bloomberg. Data is as of December 31, 2022.

Fixed Income Returns¹

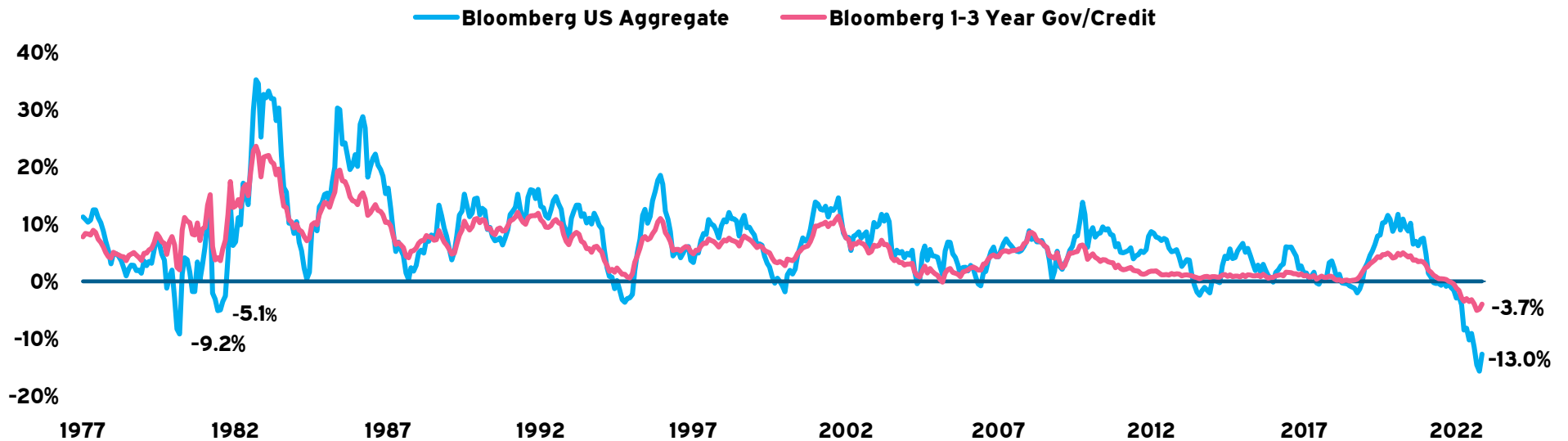
Fixed Income	December (%)	Q4 (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-0.3	2.2	-13.0	-2.5	0.2	1.3	5.1	6.2
Bloomberg Aggregate	-0.5	1.9	-13.0	-2.7	0.0	1.1	4.7	6.4
Bloomberg US TIPS	-1.0	2.0	-11.8	1.2	2.1	1.1	4.4	6.7
Bloomberg High Yield	-0.6	4.2	-11.2	0.0	2.3	4.0	9.0	4.4
JPM GBI-EM Global Diversified (USD)	2.2	8.5	-11.7	-6.1	-2.5	-2.0	5.8	4.9

Fixed Income: The Bloomberg Universal fell -0.3% in December but rose 2.2% for the fourth quarter. Last year was one of the worst on record, with the broad bond market declining 13%.

- The Federal Reserve reconfirming its commitment to tighten policy in the face of high inflation weighed on US fixed income in December. For the quarter though the broad US bond market (Bloomberg Aggregate) was up 1.9% on hopes that inflation would continue to decline and corresponding expectations for the slowing of policy rate hikes.
- TIPS produced similar results to the broad US bond market for the quarter but outperformed for the year given their inflation adjustment.
- Riskier bonds outperformed for the quarter due to improving risk sentiment with emerging market bonds performing particularly well.

¹ Source: Bloomberg. JPM GBI-EM data is from InvestorForce. Data is as of December 31, 2022. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration respectively.

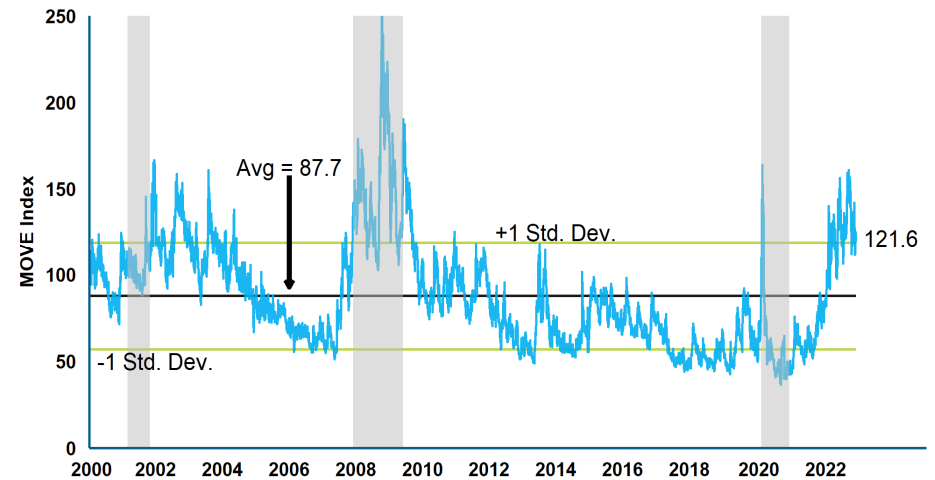
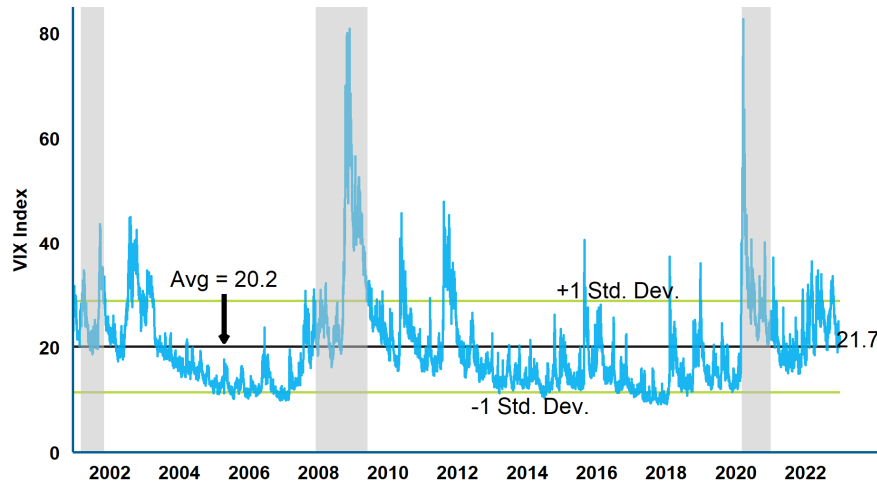
**Fixed Income
Rolling One-year Returns¹**



- Last year was one of the worst return periods for the US bond market given the historic inflation levels and the corresponding rapid rise in interest rates.
- The broad bond market (Bloomberg US Aggregate) declined 13% in 2022 making it one of the worst periods on record.
- Short-term bond declines were far smaller (-3.7%) last year, but also were one of the worst on record.

¹ Source: Bloomberg. Data is as of December 31, 2022.

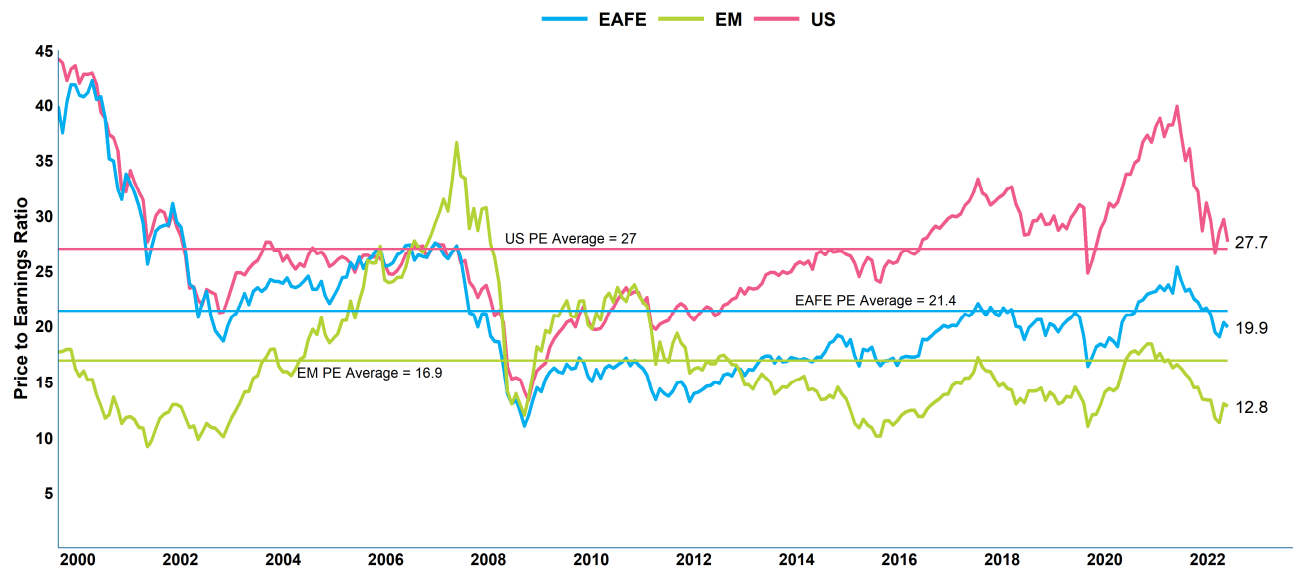
Equity and Fixed Income Volatility¹



- Volatility in equities (VIX) finished the year down from its highs and near its long run average as investors anticipated the potential end of Fed rate hikes this year.
- Fixed income (MOVE) remained elevated and well above its long-run average at year-end due to the uncertain path of US interest rates as the Federal Reserve continues its hawkish stance on inflation.

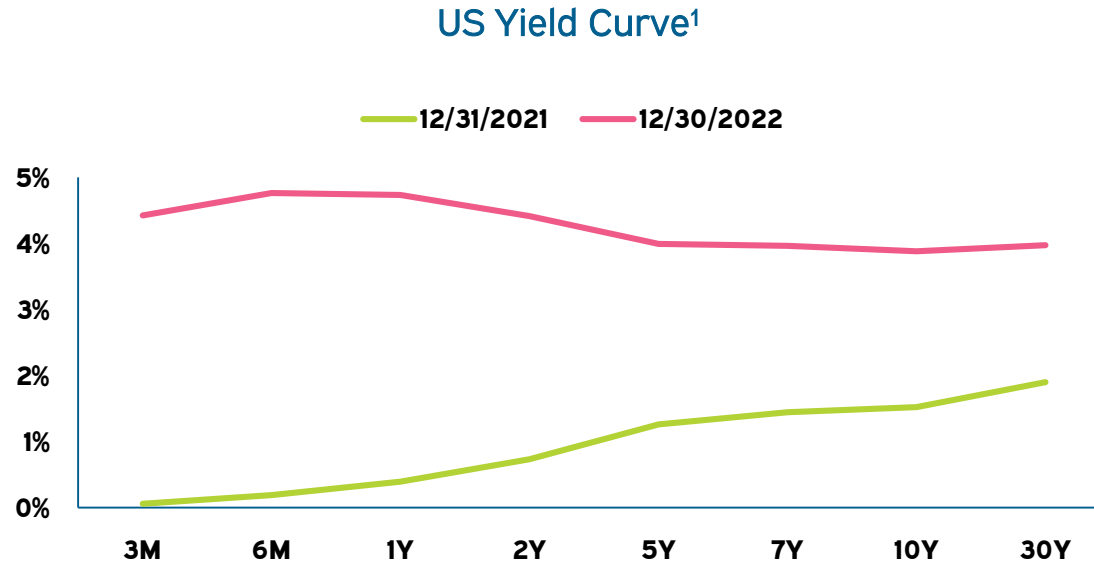
¹ Equity and Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of December 2022. The average line indicated is the average of the VIX and MOVE values between January 2000 and the recent month-end respectively.

Equity Cyclically Adjusted P/E Ratios¹



- After December’s sell-off, US equity price-to-earnings ratio finished the year near its long-term (21st century) average.
- International developed market valuations rose but remain below their own long-term average, with those for emerging markets the lowest and well under the long-term average.
- Price declines have been the main driver of recent multiple compression as earnings have remained resilient. Concerns remain over whether earnings strength will continue in the face of slowing growth.

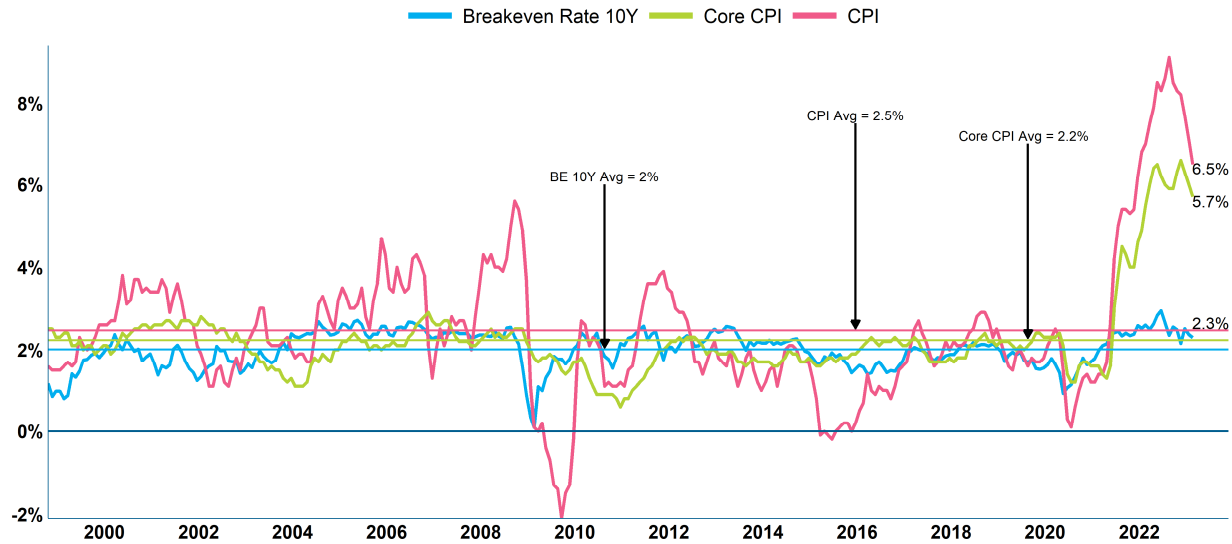
¹ US Equity Cyclically Adjusted P/E on S&P 500 Index. Source: Robert Shiller, Yale University, and Meketa Investment Group. Developed and Emerging Market Equity (MSCI EAFE and EM Index) Cyclically Adjusted P/E – Source: MSCI and Bloomberg. Earnings figures represent the average of monthly “as reported” earnings over the previous ten years. Data is as of December 2022. The average line is the long-term average of the US, EM, and EAFE PE values from December 1999 to the recent month-end respectively.



- In December, policy-sensitive interest rates at the front-end of the curve continued to rise with the two-year Treasury yield increasing from 4.3% to 4.4%. Longer dated ten-year Treasury yields also increased (3.6% to 3.9%). For the year, the yield curve rose dramatically across maturities and moved from steep to inverted.
- The Fed remains strongly committed to fighting inflation, as it increased rates another 50 basis points to a range of 4.0% to 4.5% at its December meeting. This brought the total number of increases for 2022 to seven.
- The yield spread between two-year and ten-year Treasuries narrowed somewhat to -0.54% after finishing November at -0.70%. The more closely watched measure by the Fed of three-month and ten-year Treasuries also remained inverted. Historically, inversions in the yield curve have often preceded recessions.

¹ Source: Bloomberg. Data is as of December 31, 2022.

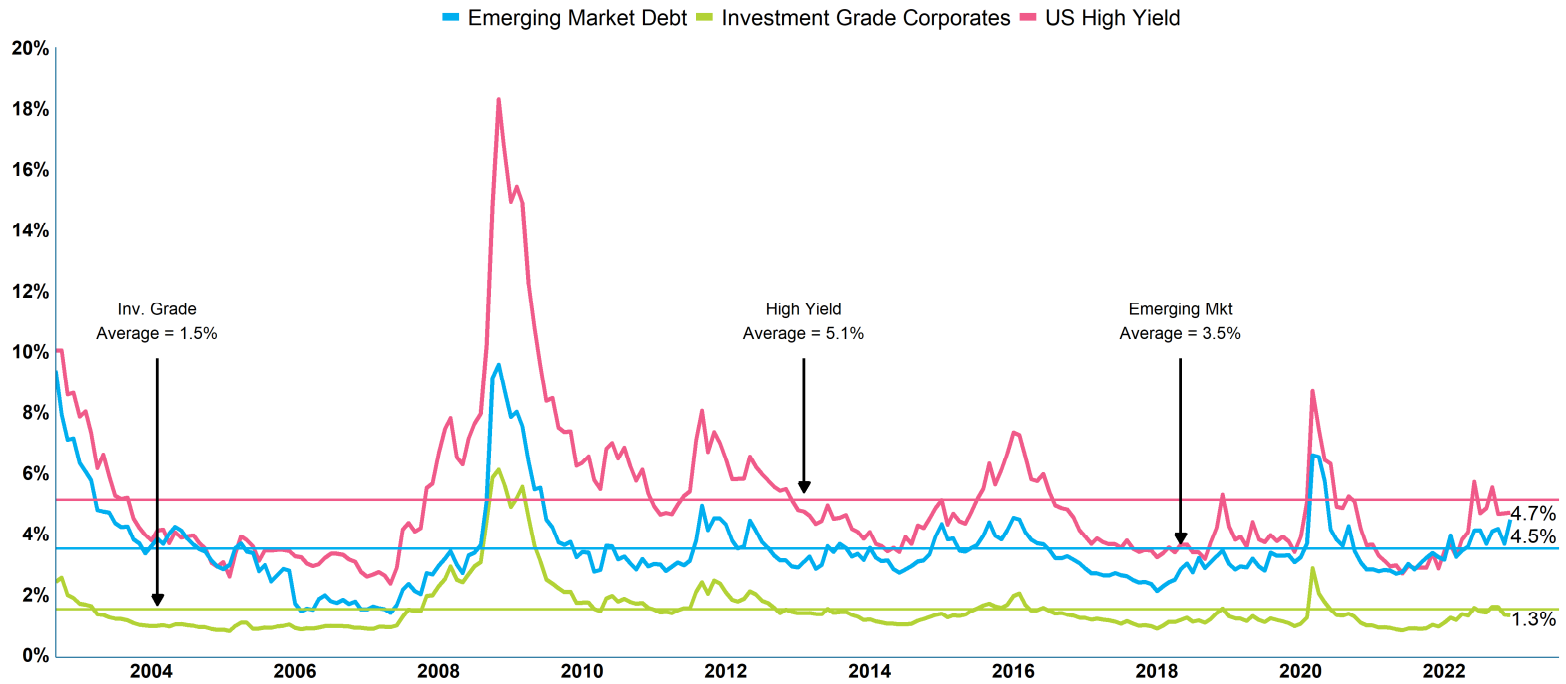
Ten-Year Breakeven Inflation and CPI¹



- In December inflation continued to decline (6.5% versus 7.1%) matching expectations and providing support for the Fed to slow the pace of policy tightening. Energy prices fell again for the month but remain up 7.3% from a year prior, while food prices fell slightly, and stickier service prices continued to increase.
- Core inflation – excluding food and energy – also continued to decline in December (5.7% versus 6.0%) and matched estimates.
- Inflation expectations (breakevens) declined slightly for the month (2.3% versus 2.4%) and remain well below current inflation levels as investors anticipate a significant moderation in inflation.

¹ Source: Bloomberg. Data is as of December 2022. The CPI and 10 Year Breakeven average lines denote the average values from August 1998 to the present month-end respectively. Breakeven values represent month-end values for comparative purposes.

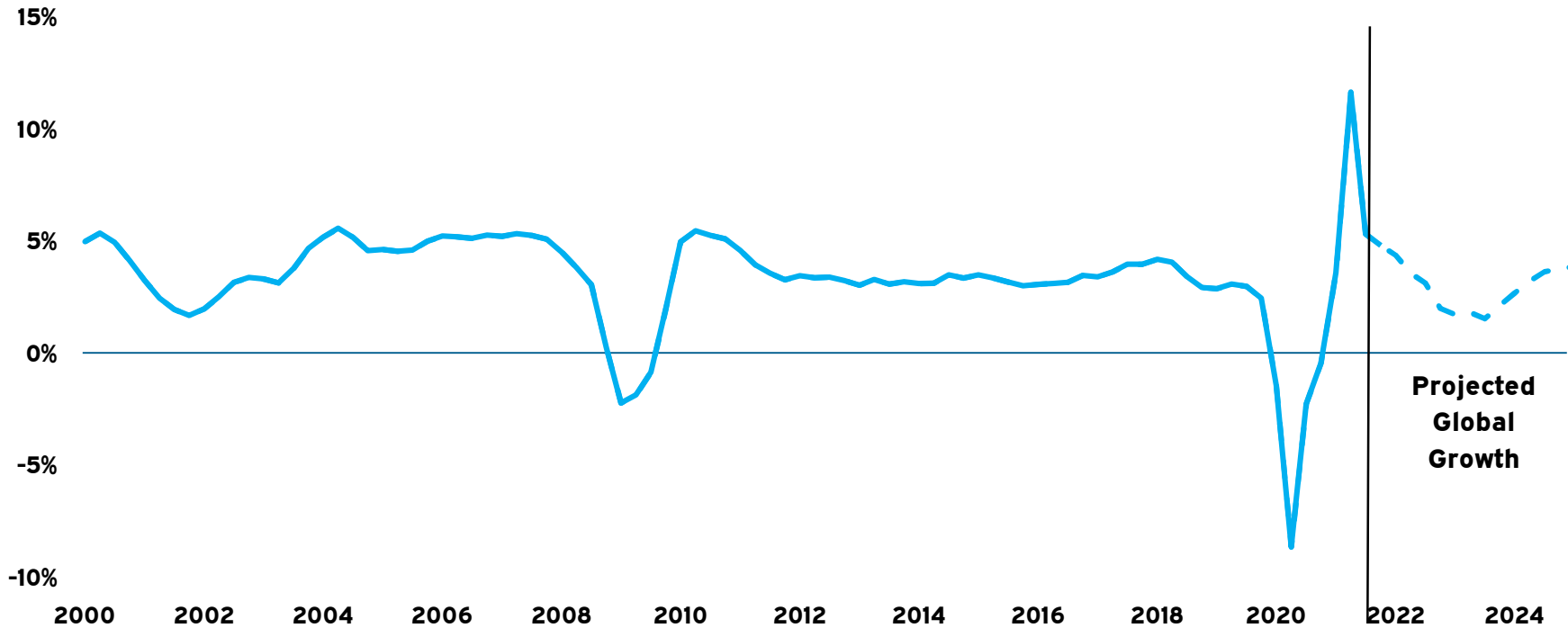
Credit Spreads vs. US Treasury Bonds¹



- High yield spreads (the added yield above a comparable maturity Treasury) finished December at 4.7% (the same as the end of November) remaining below their long-run average.
- Investment grade spreads also held steady at 1.3% as attractive yields and strong balance sheets continued to attract investors, while emerging market spreads rose (4.5% versus 3.6%) due to concerns regarding slower growth and lower commodity prices.

¹ Sources: Bloomberg. Data is as of December 31, 2022. Average lines denote the average of the investment grade, high yield, and emerging market spread values from August 2000 to the recent month-end respectively.

Global Real Gross Domestic Product (GDP) Growth¹

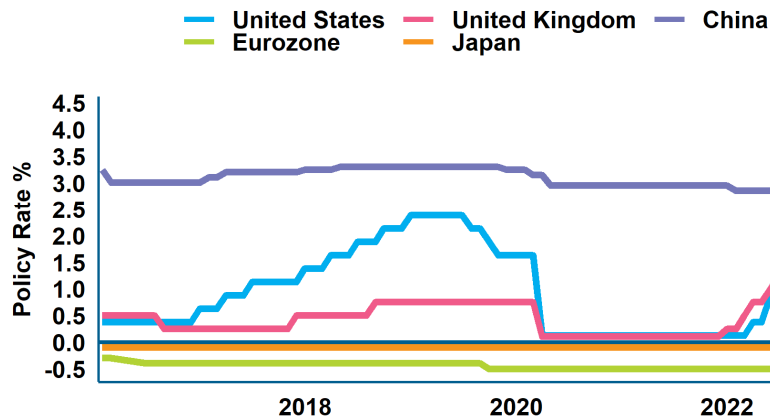


- Global economies are expected to slow in 2023 compared to 2022, with risks of recession increasing given persistently high inflation and related tighter monetary policy.
- The delicate balancing act of central banks trying to reduce inflation without dramatically impacting growth will remain key.

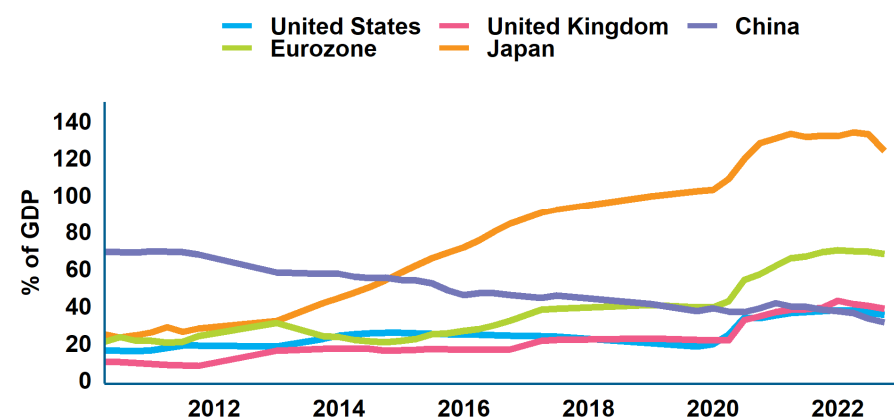
¹ Source: Oxford Economics (World GDP, US\$ prices & PPP exchange rate, real, % change YoY). Updated December 2022.

Central Bank Response¹

Policy Rates



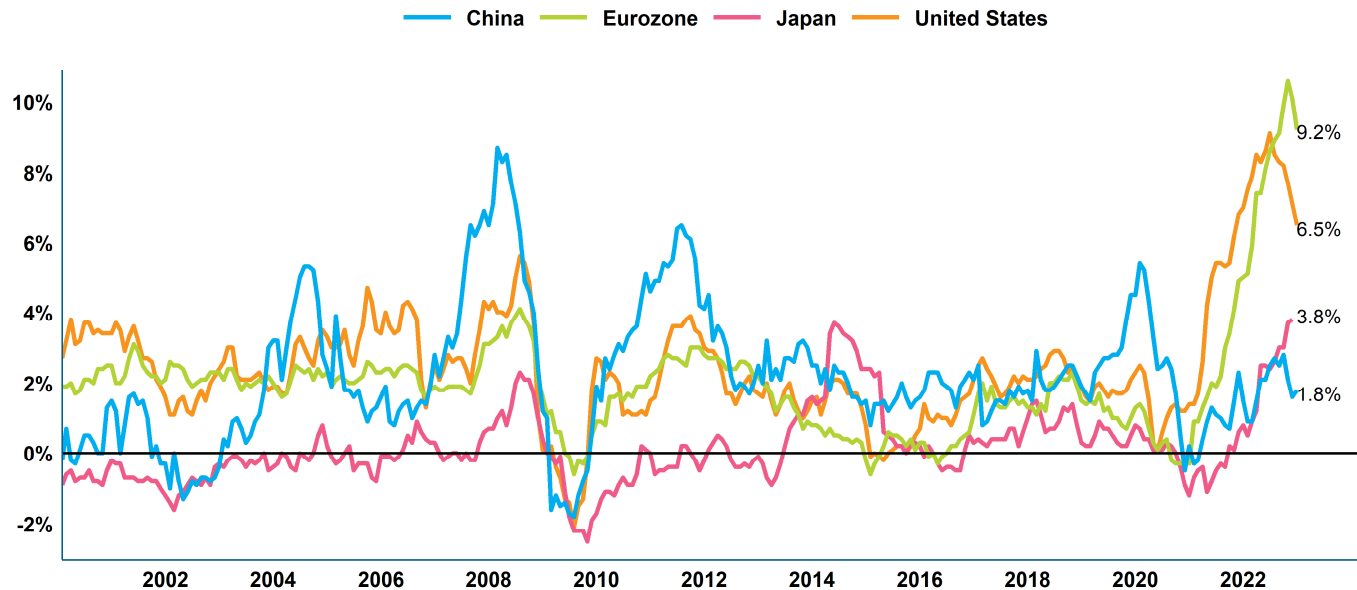
Balance Sheet as % of GDP



- In 2022 many central banks aggressively reduced pandemic-era policy support in the face of high inflation with the US taking a more aggressive approach.
- In December, the Bank of Japan relaxed its target yield for the 10-year bond which may mark an incremental step toward policy normalization after eight years of quantitative easing.
- The one notable central bank outlier is China, where the central bank has lowered rates and reserve requirements in response to slowing growth.
- The risk remains for a policy error, particularly overtightening, as record inflation and aggressive tightening to date could heavily weigh on global growth. The Federal Reserve's policy rate path could diverge from others this year given their strong early start to tightening.

¹ Source: Bloomberg. Policy rate data is as of December 31, 2022. China policy rate is defined as the medium-term lending facility 1 year interest rate. Balance sheet as % of GDP is based on quarterly data and is as of December 31, 2022.

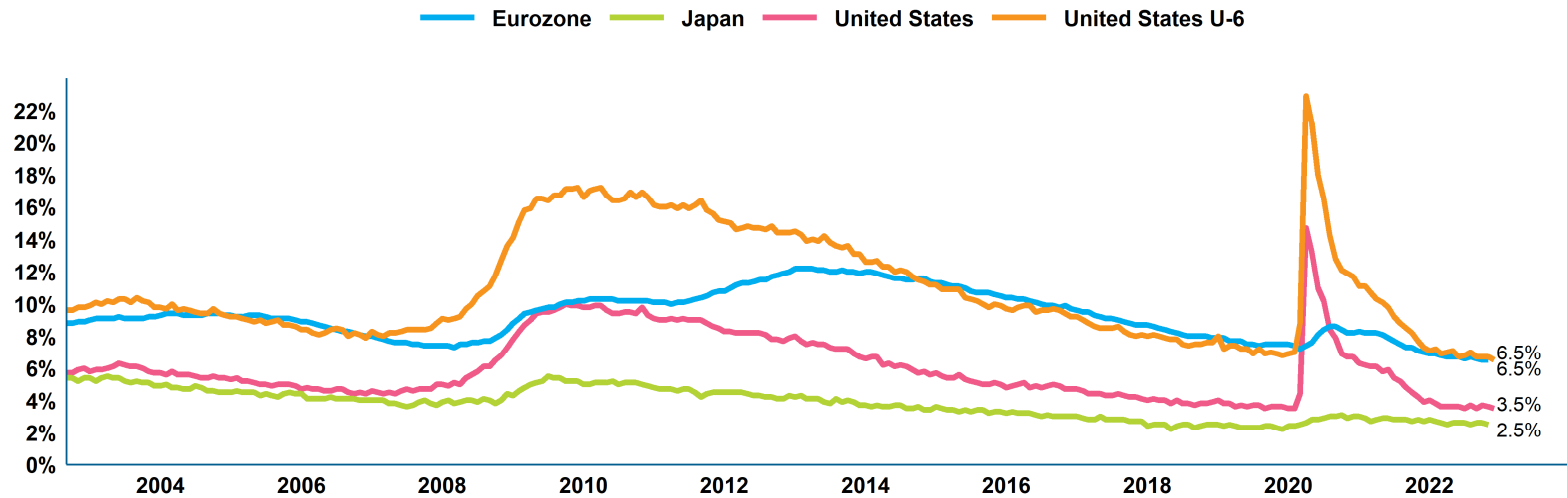
Inflation (CPI Trailing Twelve Months)¹



- Inflation increased dramatically from the lows of the pandemic, particularly in the US and Eurozone where it has reached levels not seen in many decades.
- Inflation pressures are slowly declining in the US, but they remain elevated, while in Europe they have reached historic levels due to skyrocketing energy prices and a weak euro.
- Supply issues related to the pandemic, record monetary and fiscal stimulus, strict COVID-19 restrictions in China, and higher commodity prices driven by the war in Ukraine have been key global drivers of inflation.

¹ Source: Bloomberg. Data is as of December 2022. The most recent Japanese inflation data is as of November 2022.

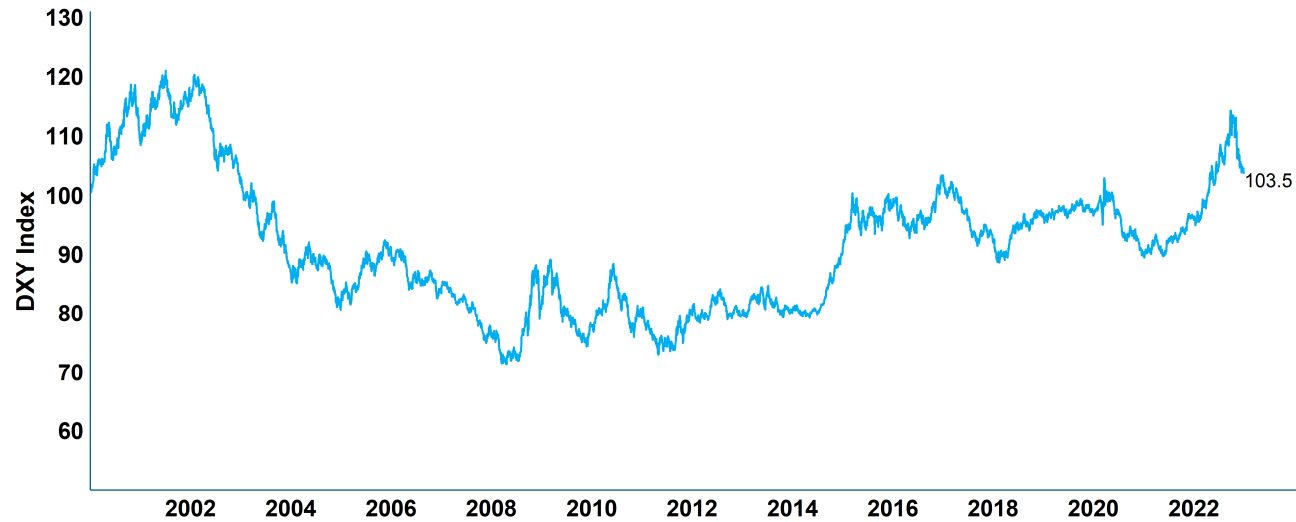
Unemployment¹



- As economies have largely reopened, helped by vaccines for the virus, improvements have been seen in the labor market.
- Despite slowing growth and high inflation, the US labor market remains a bright spot. Unemployment in the US, which experienced the steepest rise from the pandemic, has remained in a tight 3.5%-3.7% range for most of the year.
- The strong labor market and higher wages, although beneficial for workers, motivates the Fed's efforts to fight inflation, likely leading to higher unemployment.

¹ Source: Bloomberg. Data is as December 31, 2022, for the US. The most recent data for Eurozone and Japanese unemployment is as of November 30, 2022.

US Dollar versus Broad Currencies¹



- Overall, the US dollar continued to weaken from its recent peak in December as declining inflation supported the case for the Federal Reserve to slow its tightening.
- The dollar finished the year much higher than it started though due to the increased pace of policy tightening, stronger relative growth, and safe-haven flows.
- As we look to 2023, the track of inflation across economies and the corresponding monetary policy will likely be key drivers of currency moves.

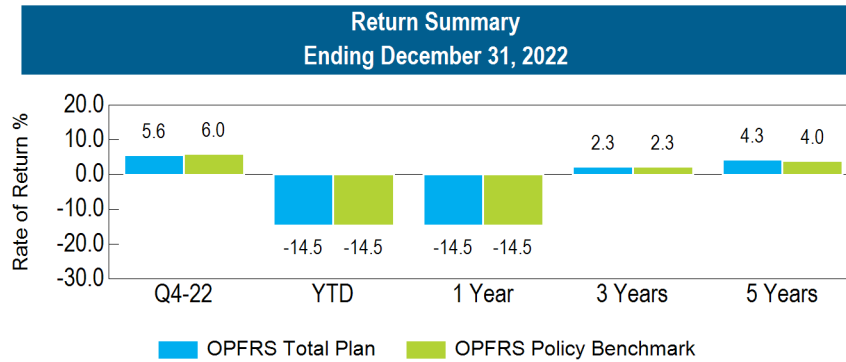
¹ Source: Bloomberg. Data as of December 31, 2022.

Summary

Key Trends:

- The impacts of record high inflation will remain key, with market volatility likely to stay high.
- Monetary policy could diverge in 2023 with the Fed pausing and others continuing to tighten. The risk of policy errors in both directions remains.
- Growth will continue to slow globally next year, with many economies likely falling into recessions. Inflation, monetary policy, and the war will all be key.
- In the US the end of many fiscal programs is expected to put the burden of continued growth on consumers. Higher energy and food prices could weigh on consumer spending.
- Valuations have significantly declined in the US to around long-term averages, largely driven by price declines. The key going forward will be whether earnings can remain resilient if growth continues to slow.
- Outside the US, equity valuations remain lower in both emerging and developed markets, but risks remain, including potential continued strength in the US dollar, higher inflation particularly weighing on Europe, and China's rushed exit from COVID-19 restrictions and on-going weakness in the real estate sector.

4Q 2022 Performance
as of December 31, 2022



Summary of Cash Flows

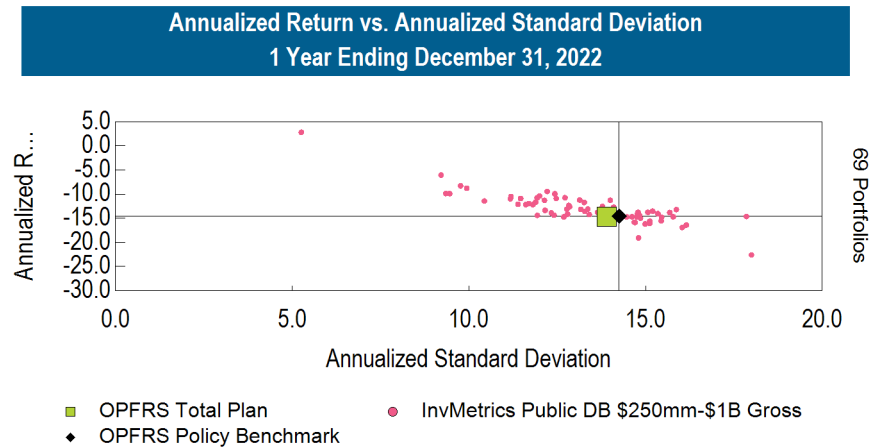
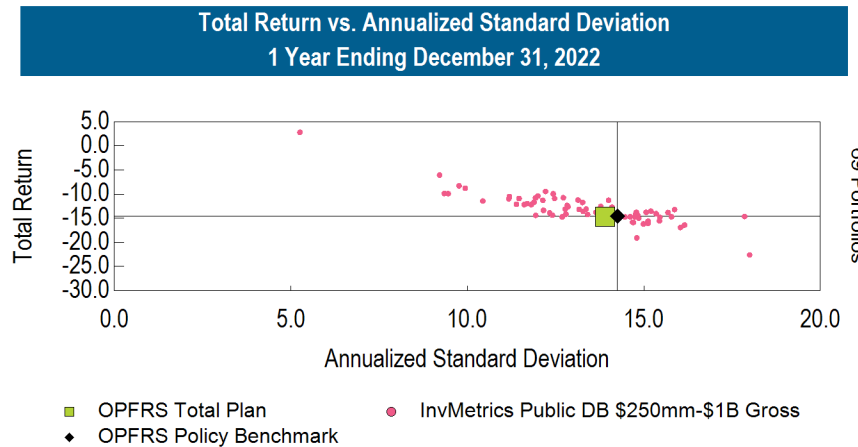
	Quarter-To-Date	One Year
Beginning Market Value	\$382,458,040	\$483,220,978
Net Cash Flow	-\$5,217,746	-\$15,709,585
Capital Appreciation	\$21,195,418	-\$69,075,682
Ending Market Value	\$398,435,711	\$398,435,711

YTD Ending December 31, 2022

	Total Return	Anlzd Standard Deviation
OPFRS Total Plan	-14.5%	13.9%
OPFRS Policy Benchmark	-14.5%	14.3%

1 Year Ending December 31, 2022

	Anlzd Return	Anlzd Standard Deviation
OPFRS Total Plan	-14.5%	13.9%
OPFRS Policy Benchmark	-14.5%	14.3%

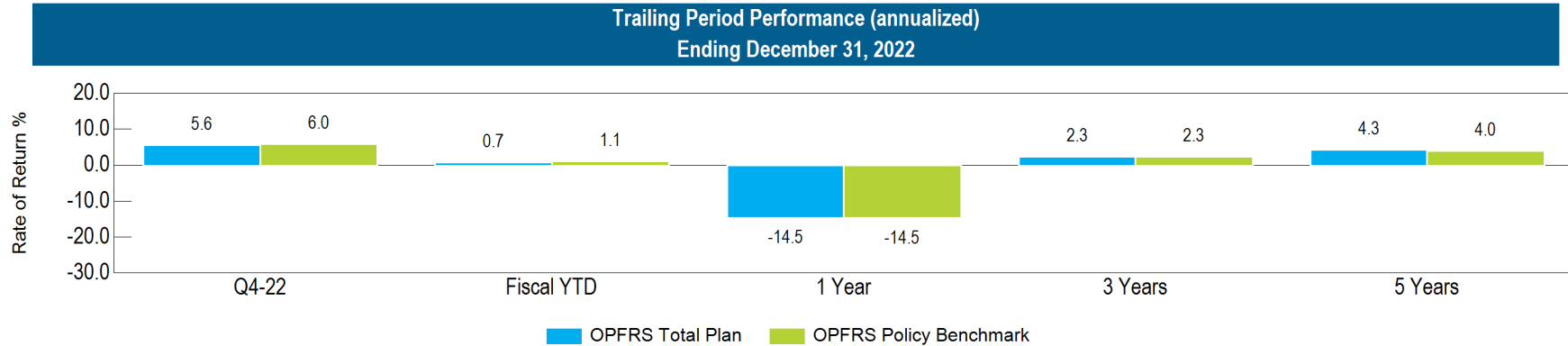


Performance shown is Gross-of-Fees.

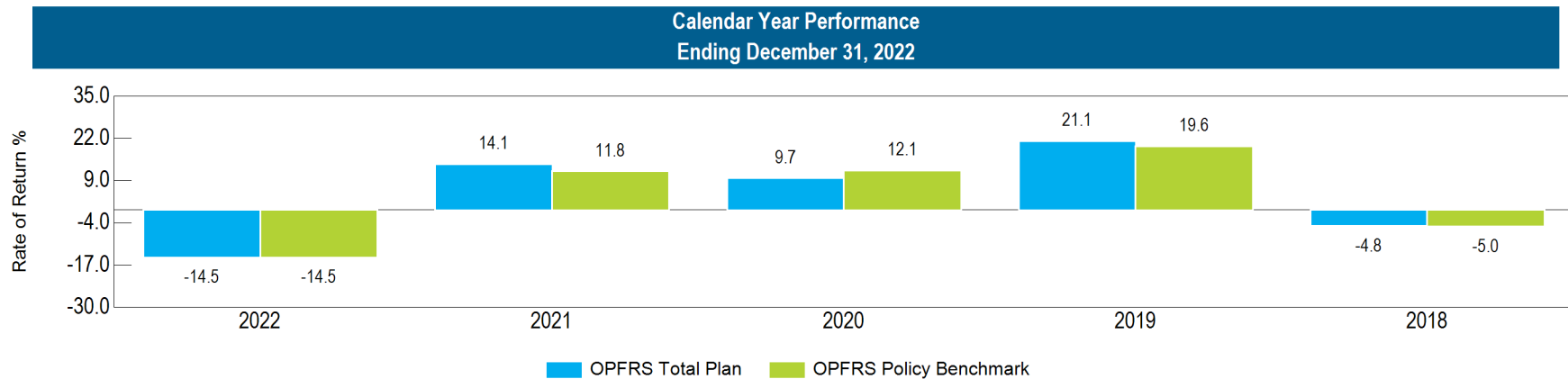
Asset Class Performance (gross of fees) | As of December 31, 2022

	Market Value (\$)	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	7 Yrs (%)	10 Yrs (%)
OPFRS Total Plan	398,435,711	5.6	0.7	-14.5	2.3	4.3	6.8	7.0
<i>OPFRS Policy Benchmark</i>		<u>6.0</u>	<u>1.1</u>	<u>-14.5</u>	<u>2.3</u>	<u>4.0</u>	<u>6.5</u>	<u>6.5</u>
Excess Return		-0.4	-0.4	0.0	0.0	0.3	0.3	0.5
<i>InvMetrics Public DB \$250mm-\$1B Gross Median</i>		5.8	1.2	-13.4	4.0	5.2	7.1	7.3
Domestic Equity	159,779,185	8.2	3.0	-16.7	7.2	8.5	11.0	12.0
<i>Russell 3000 (Blend)</i>		<u>7.2</u>	<u>2.4</u>	<u>-19.2</u>	<u>7.1</u>	<u>8.8</u>	<u>11.0</u>	<u>12.1</u>
Excess Return		1.0	0.6	2.5	0.1	-0.3	0.0	-0.1
International Equity	49,851,663	15.1	4.1	-15.7	0.3	1.7	5.6	5.2
<i>MSCI ACWI ex US (Blend)</i>		<u>14.3</u>	<u>3.0</u>	<u>-16.0</u>	<u>0.1</u>	<u>0.9</u>	<u>4.8</u>	<u>3.8</u>
Excess Return		0.8	1.1	0.3	0.2	0.8	0.8	1.4
Fixed Income	101,552,915	2.1	-2.6	-12.9	-2.1	0.5	1.8	1.6
<i>Bloomberg Universal (Blend)</i>		<u>2.2</u>	<u>-2.3</u>	<u>-13.0</u>	<u>-2.5</u>	<u>0.2</u>	<u>1.3</u>	<u>1.3</u>
Excess Return		-0.1	-0.3	0.1	0.4	0.3	0.5	0.3
Credit	8,603,832	1.9	1.5	-7.6	3.0	3.0	6.0	--
<i>Bloomberg US High Yield TR</i>		<u>4.2</u>	<u>3.5</u>	<u>-11.2</u>	<u>0.0</u>	<u>2.3</u>	<u>5.0</u>	<u>--</u>
Excess Return		-2.3	-2.0	3.6	3.0	0.7	1.0	--
Covered Calls	27,503,720	7.7	2.2	-12.5	6.7	7.2	8.8	--
<i>CBOE S&P 500 BuyWrite USD</i>		<u>6.8</u>	<u>-1.3</u>	<u>-11.4</u>	<u>1.3</u>	<u>2.9</u>	<u>4.9</u>	<u>--</u>
Excess Return		0.9	3.5	-1.1	5.4	4.3	3.9	--
Crisis Risk Offset	39,452,288	-4.9	-4.9	-14.5	-14.6	-8.2	--	--
<i>SG Multi Alternative Risk Premia Index</i>		<u>1.5</u>	<u>2.4</u>	<u>4.8</u>	<u>-1.3</u>	<u>--</u>	<u>--</u>	<u>--</u>
Excess Return		-6.4	-7.3	-19.3	-13.3	--	--	--
Cash	11,692,108	0.0	0.0	0.0	0.4	1.1	1.0	0.7
<i>FTSE T-Bill 3 Months TR</i>		<u>0.9</u>	<u>1.3</u>	<u>1.5</u>	<u>0.7</u>	<u>1.2</u>	<u>1.0</u>	<u>0.7</u>
Excess Return		-0.9	-1.3	-1.5	-0.3	-0.1	0.0	0.0

Performance shown is gross-of-fees. Fiscal year begins on July 1.



	QTD (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	2018 (%)	2019 (%)	2020 (%)	2021 (%)	2022 (%)
OPFRS Total Plan	5.6	0.7	-14.5	2.3	4.3	-4.8	21.1	9.7	14.1	-14.5
<i>OPFRS Policy Benchmark</i>	<i>6.0</i>	<i>1.1</i>	<i>-14.5</i>	<i>2.3</i>	<i>4.0</i>	<i>-5.0</i>	<i>19.6</i>	<i>12.1</i>	<i>11.8</i>	<i>-14.5</i>
<i>InvMetrics Public DB \$250mm-\$1B Gross Median</i>	<i>5.8</i>	<i>1.2</i>	<i>-13.4</i>	<i>4.0</i>	<i>5.2</i>	<i>-4.1</i>	<i>18.6</i>	<i>13.1</i>	<i>13.6</i>	<i>-13.4</i>

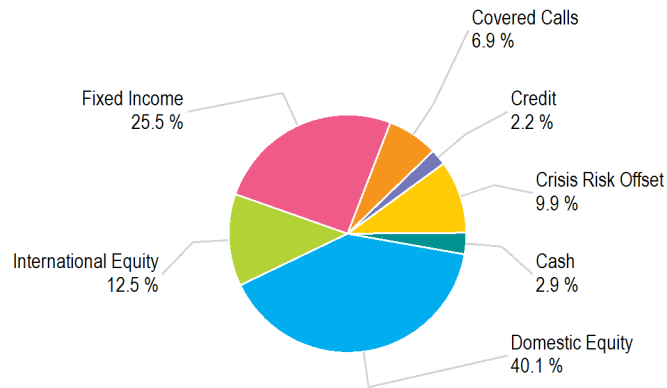


Fiscal year begins on July 1.

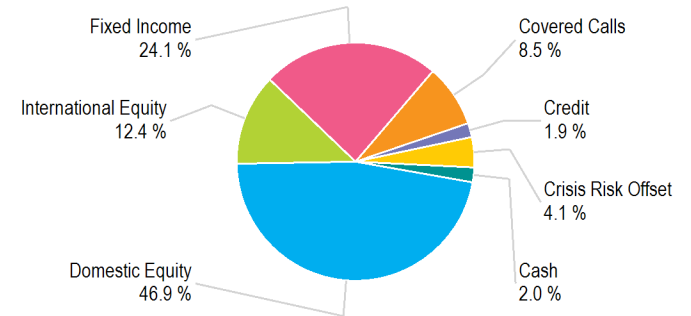
Asset Allocation vs. Target As Of December 31, 2022

	Current	%	Policy	Difference*
Domestic Equity	\$159,779,185	40.1%	40.0%	0.1%
International Equity	\$49,851,663	12.5%	12.0%	0.5%
Fixed Income	\$101,552,915	25.5%	31.0%	-5.5%
Covered Calls	\$27,503,720	6.9%	5.0%	1.9%
Credit	\$8,603,832	2.2%	2.0%	0.2%
Crisis Risk Offset	\$39,452,288	9.9%	10.0%	-0.1%
Cash	\$11,692,108	2.9%	0.0%	2.9%
Total	\$398,435,711	100.0%	100.0%	

December 31, 2022: \$382,458,040



December 31, 2021: \$449,834,415



Cash account market value includes cash balances held in ETF accounts at the custodian and residuals from terminated managers.

Target weightings reflect the Plan's evolving asset allocation (effective 5/31/2017.)

Oakland Police and Fire Retirement System Total Plan

Manager Performance - Gross of Fees | As of December 31, 2022

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Domestic Equity	159,779,185	100.0	8.2	-16.7	7.2	8.5	8.6	Jun-97
<i>Russell 3000 (Blend)</i>			<i>7.2</i>	<i>-19.2</i>	<i>7.1</i>	<i>8.8</i>	<i>8.7</i>	<i>Jun-97</i>
Excess Return			1.0	2.5	0.1	-0.3	-0.1	
Northern Trust Russell 1000	69,741,287	43.6	7.2	-19.4	7.2	9.1	12.6	Jun-10
<i>Russell 1000</i>			<i>7.2</i>	<i>-19.1</i>	<i>7.3</i>	<i>9.1</i>	<i>12.6</i>	<i>Jun-10</i>
Excess Return			0.0	-0.3	-0.1	0.0	0.0	
EARNEST Partners	43,615,104	27.3	7.8	-15.3	8.9	10.0	10.0	Apr-06
<i>Russell MidCap</i>			<i>9.2</i>	<i>-17.3</i>	<i>5.9</i>	<i>7.1</i>	<i>8.3</i>	<i>Apr-06</i>
Excess Return			-1.4	2.0	3.0	2.9	1.7	
<i>eV US Mid Cap Core Equity Gross Rank</i>			<i>80</i>	<i>60</i>	<i>17</i>	<i>21</i>	<i>32</i>	<i>Apr-06</i>
Wellington Select Quality Equity	22,198,719	13.9	13.7	--	--	--	0.9	May-22
<i>Russell 1000</i>			<i>7.2</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-6.4</i>	<i>May-22</i>
Excess Return			6.5				7.3	
<i>eV US Large Cap Core Equity Gross Rank</i>			<i>3</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>8</i>	<i>May-22</i>
Brown Fundamental Small Cap Value	10,924,340	6.8	12.5	-6.9	--	--	1.8	Apr-21
<i>Russell 2000 Value</i>			<i>8.4</i>	<i>-14.5</i>	<i>--</i>	<i>--</i>	<i>-5.5</i>	<i>Apr-21</i>
Excess Return			4.1	7.6			7.3	
<i>eV US Small Cap Value Equity Gross Rank</i>			<i>29</i>	<i>22</i>	<i>--</i>	<i>--</i>	<i>22</i>	<i>Apr-21</i>
Rice Hall James	13,299,736	8.3	3.3	-23.7	3.4	4.2	6.1	Jul-17
<i>Russell 2000 Growth</i>			<i>4.1</i>	<i>-26.4</i>	<i>0.6</i>	<i>3.5</i>	<i>5.2</i>	<i>Jul-17</i>
Excess Return			-0.8	2.7	2.8	0.7	0.9	
<i>eV US Small Cap Growth Equity Gross Rank</i>			<i>62</i>	<i>25</i>	<i>70</i>	<i>91</i>	<i>89</i>	<i>Jul-17</i>

Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
International Equity	49,851,663	100.0	15.1	-15.7	0.3	1.7	5.0	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			<i>14.3</i>	<i>-16.0</i>	<i>0.1</i>	<i>0.9</i>	<i>4.7</i>	<i>Jan-98</i>
Excess Return			0.8	0.3	0.2	0.8	0.3	
Vanguard Developed Markets ETF	14,054,284	28.2	16.8	-15.4	1.3	--	4.6	Sep-19
<i>FTSE Developed All Cap Ex US TR USD</i>			<i>16.3</i>	<i>-15.3</i>	<i>1.5</i>	--	<i>4.8</i>	<i>Sep-19</i>
Excess Return			0.5	-0.1	-0.2		-0.2	
SGA ACWI ex-U.S. Equity	35,797,379	71.8	14.4	-15.6	0.2	--	0.4	Dec-19
<i>MSCI ACWI ex USA</i>			<i>14.3</i>	<i>-16.0</i>	<i>0.1</i>	--	<i>1.5</i>	<i>Dec-19</i>
Excess Return			0.1	0.4	0.1		-1.1	
<i>eV ACWI ex-US All Cap Core Eq Gross Rank</i>			<i>52</i>	<i>36</i>	<i>83</i>	--	<i>95</i>	<i>Dec-19</i>

Performance shown is gross-of-fees.

Oakland Police and Fire Retirement System Total Plan

Manager Performance - Gross of Fees | As of December 31, 2022

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Fixed Income	101,552,915	100.0	2.1	-12.9	-2.1	0.5	4.7	Dec-93
<i>Bloomberg Universal (Blend)</i>			<i>2.2</i>	<i>-13.0</i>	<i>-2.5</i>	<i>0.2</i>	<i>4.5</i>	<i>Dec-93</i>
Excess Return			-0.1	0.1	0.4	0.3	0.2	
Ramirez	69,021,211	68.0	1.7	-13.0	-2.4	0.4	1.2	Jan-17
<i>Bloomberg US Aggregate TR</i>			<i>1.9</i>	<i>-13.0</i>	<i>-2.7</i>	<i>0.0</i>	<i>0.6</i>	<i>Jan-17</i>
Excess Return			-0.2	0.0	0.3	0.4	0.6	
<i>eV US Core Fixed Inc Gross Rank</i>			<i>66</i>	<i>67</i>	<i>78</i>	<i>64</i>	<i>37</i>	<i>Jan-17</i>
Wellington Core Bond	6,531,106	6.4	1.9	-14.4	--	--	-7.5	Apr-21
<i>Bloomberg US Aggregate TR</i>			<i>1.9</i>	<i>-13.0</i>	--	--	<i>-6.7</i>	<i>Apr-21</i>
Excess Return			0.0	-1.4			-0.8	
<i>eV US Core Fixed Inc Gross Rank</i>			<i>50</i>	<i>96</i>	--	--	<i>98</i>	<i>Apr-21</i>
Reams	26,000,599	25.6	3.2	-12.0	1.4	2.8	5.1	Feb-98
<i>Bloomberg Universal (Blend)</i>			<i>2.2</i>	<i>-13.0</i>	<i>-2.5</i>	<i>0.2</i>	<i>4.1</i>	<i>Feb-98</i>
Excess Return			1.0	1.0	3.9	2.6	1.0	
<i>eV US Core Plus Fixed Inc Gross Rank</i>			<i>10</i>	<i>21</i>	<i>1</i>	<i>2</i>	<i>40</i>	<i>Feb-98</i>

Performance shown is gross-of-fees.

Oakland Police and Fire Retirement System Total Plan

Manager Performance - Gross of Fees | As of December 31, 2022

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Credit	8,603,832	100.0	1.9	-7.6	3.0	3.0	4.7	Feb-15
<i>Bloomberg US High Yield TR</i>			<i>4.2</i>	<i>-11.2</i>	<i>0.0</i>	<i>2.3</i>	<i>3.8</i>	<i>Feb-15</i>
Excess Return			-2.3	3.6	3.0	0.7	0.9	
Polen Capital	8,603,832	100.0	1.9	-7.6	3.0	3.0	4.7	Feb-15
<i>ICE BofA High Yield Master TR</i>			<i>4.0</i>	<i>-11.2</i>	<i>-0.2</i>	<i>2.1</i>	<i>3.7</i>	<i>Feb-15</i>
Excess Return			-2.1	3.6	3.2	0.9	1.0	
<i>eV US High Yield Fixed Inc Gross Rank</i>			<i>93</i>	<i>26</i>	<i>6</i>	<i>36</i>	<i>14</i>	<i>Feb-15</i>

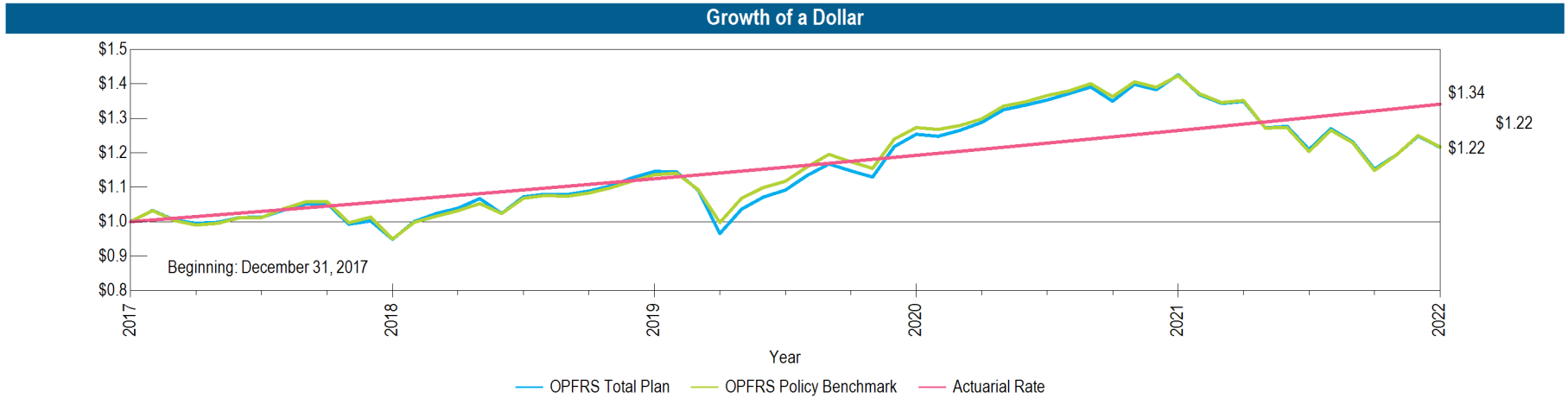
Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Covered Calls	27,503,720	100.0	7.7	-12.5	6.7	7.2	8.1	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<i>6.8</i>	<i>-11.4</i>	<i>1.3</i>	<i>2.9</i>	<i>4.9</i>	<i>Apr-14</i>
Excess Return			0.9	-1.1	5.4	4.3	3.2	
Parametric BXM	13,942,810	50.7	7.1	-9.7	4.5	5.1	6.4	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<i>6.8</i>	<i>-11.4</i>	<i>1.3</i>	<i>2.9</i>	<i>4.9</i>	<i>Apr-14</i>
Excess Return			0.3	1.7	3.2	2.2	1.5	
Parametric DeltaShift	13,560,909	49.3	8.3	-15.1	8.4	9.1	10.0	Apr-14
<i>CBOE S&P 500 BuyWrite USD</i>			<i>6.8</i>	<i>-11.4</i>	<i>1.3</i>	<i>2.9</i>	<i>4.9</i>	<i>Apr-14</i>
Excess Return			1.5	-3.7	7.1	6.2	5.1	
<i>eV US Large Cap Core Equity Gross Rank</i>			<i>56</i>	<i>42</i>	<i>38</i>	<i>58</i>	<i>65</i>	<i>Apr-14</i>

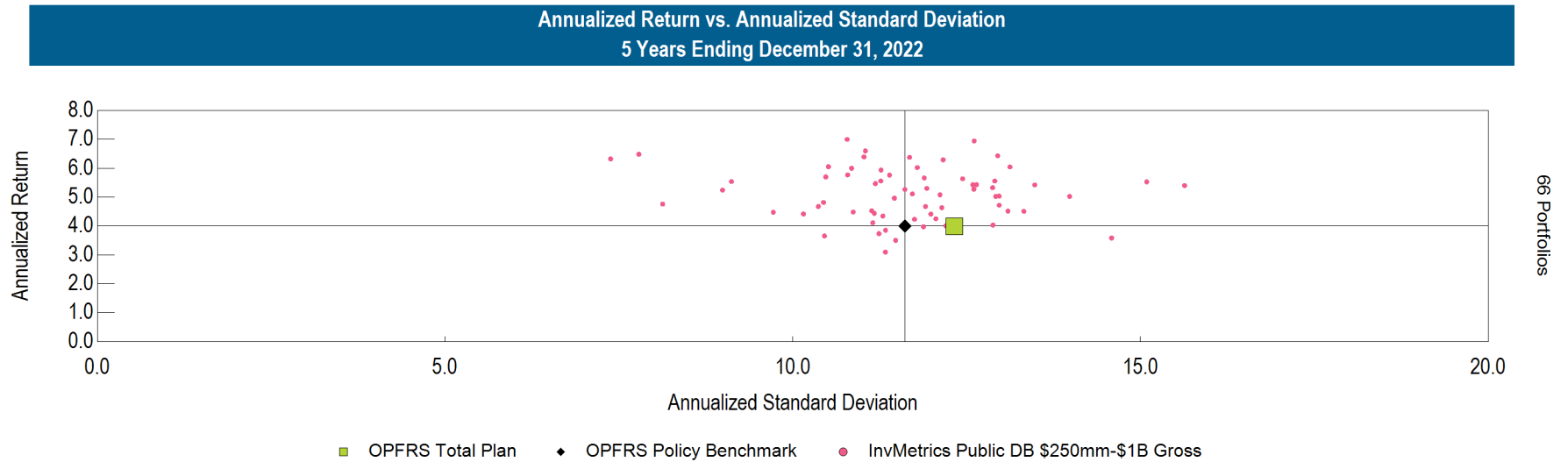
Performance shown is gross-of-fees.

	Market Value	% of Portfolio	QTD	1 Yr	3 Yrs	5 Yrs	S.I.	S.I. Date
Crisis Risk Offset	39,452,288	100.0	-4.9	-14.5	-14.6	-8.2	-9.3	Aug-18
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.5</i>	<i>4.8</i>	<i>-1.3</i>	<i>--</i>	<i>-0.5</i>	<i>Aug-18</i>
Excess Return			-6.4	-19.3	-13.3		-8.8	
Versor Trend Following	15,908,714	40.3	-11.2	--	--	--	6.1	Apr-22
<i>SG Trend Index</i>			<i>-6.1</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>15.6</i>	<i>Apr-22</i>
Excess Return			-5.1				-9.5	
Vanguard Long-Term Treasury ETF	13,706,568	34.7	-1.1	-29.4	-7.6	--	-5.7	Jul-19
<i>Bloomberg US Govt Long TR</i>			<i>-0.6</i>	<i>-29.2</i>	<i>-7.4</i>	<i>--</i>	<i>-5.5</i>	<i>Jul-19</i>
Excess Return			-0.5	-0.2	-0.2		-0.2	
Kepos Alternative Risk Premia	9,837,006	24.9	1.1	--	--	--	-1.0	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>3.9</i>	<i>Feb-22</i>
Excess Return			-0.4				-4.9	

Performance shown is gross-of-fees.

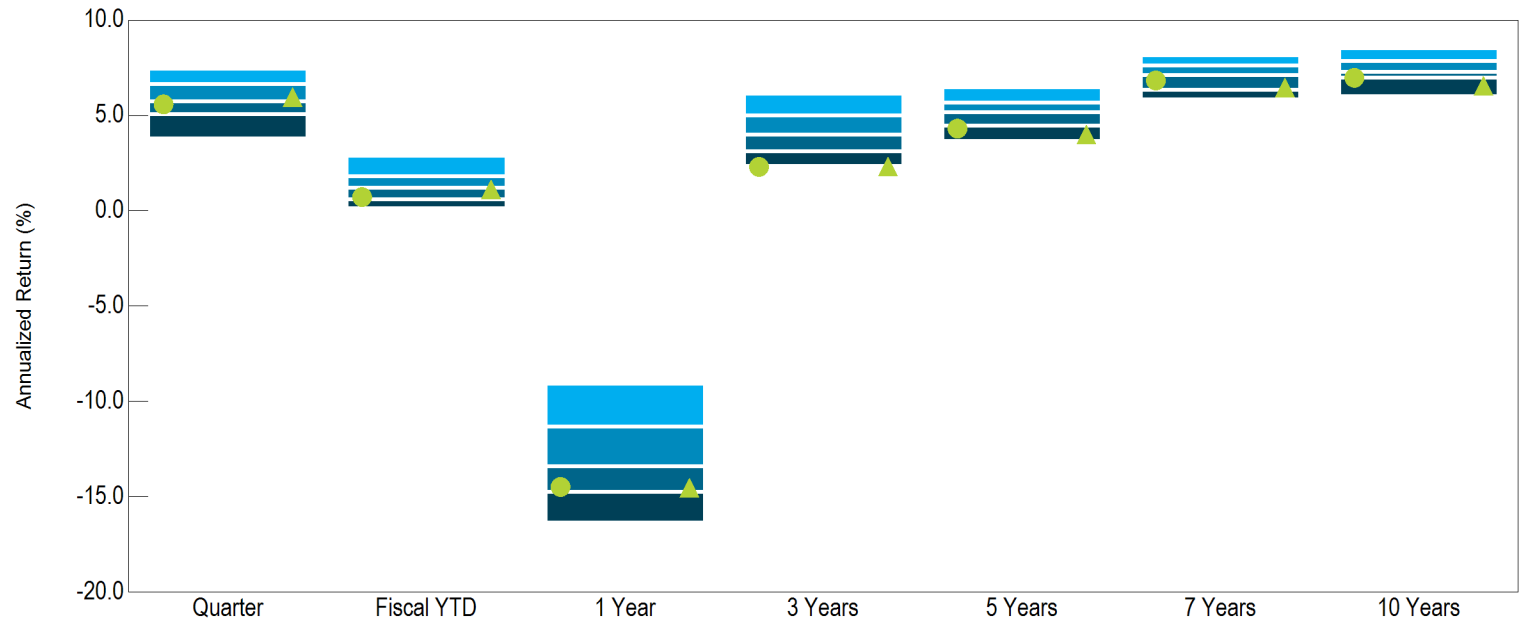


The actuarial expected rate of return was 8% through 6/30/2009, 7.5% through 6/30/2010, 7% through 6/30/2011, 6.75% through 6/30/2014, 6.5% through 2/31/2017 and 6.0% currently



Performance shown is gross-of-fees.

InvMetrics Public DB \$250mm-\$1B Gross Return Comparison



	Quarter		Fiscal YTD		1 Year		3 Years		5 Years		7 Years		10 Years	
5th Percentile	7.4	2.9	-9.1	6.1	6.5	8.1	8.5							
25th Percentile	6.6	1.8	-11.3	5.0	5.7	7.6	7.9							
Median	5.8	1.2	-13.4	4.0	5.2	7.1	7.3							
75th Percentile	5.1	0.6	-14.7	3.1	4.5	6.4	7.0							
95th Percentile	3.8	0.1	-16.3	2.4	3.7	5.9	6.0							
# of Portfolios	69	69	69	68	66	64	61							
OPFRS Total Plan	5.6 (56)	0.7 (71)	-14.5 (73)	2.3 (98)	4.3 (83)	6.8 (63)	7.0 (77)							
OPFRS Policy Benchmark	6.0 (43)	1.1 (54)	-14.5 (73)	2.3 (97)	4.0 (90)	6.5 (72)	6.5 (79)							

Fiscal year begins on July 1.

Manager Monitoring / Probation Status

Manager Monitoring/Probation Status

Return vs. Benchmark since Corrective Action

Portfolio	Status	Concern Triggering the Watch Status	Months Since Corrective Action	Performance ¹ Since Corrective Action	Peer Group Percentile Ranking ²	Date of Corrective Action ³
Polen Capital ⁴	On Watch	Performance/Organization	42	2.8	32	5/29/2019
ICE BofAML US High Yield				1.6		
Rice Hall James	On Watch	Performance/Organization	42	6.1	72	5/29/2019
Russell 2000 Growth				4.5		

Investment Performance Criteria for Manager Monitoring/Probation Status

Asset Class	Short-term (Rolling 12 months)	Medium-term (Rolling 36 months)	Long-term (60 + months)
Active Domestic Equity	Fund return < benchmark return by 3.5%	Annualized Fund return < benchmark return by 1.75% for 6 consecutive months	VRR ⁵ < 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

¹ Annualized performance if over one year. Performance shown is gross-of-fees.

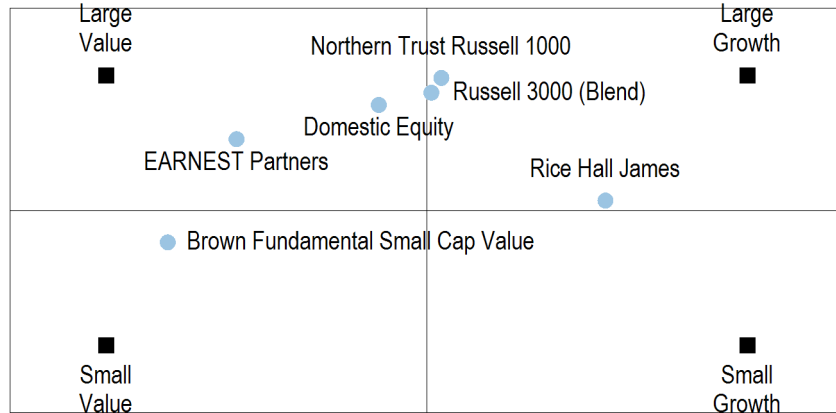
² Ranking over most recent quarter if on watch for less than 1 year, or over 1 year if on watch for more than a year. Peer group comparison is gross-of-fees.

³ Approximate date based on when the Board voted to either monitor a manager at a heightened level or place it on probation.

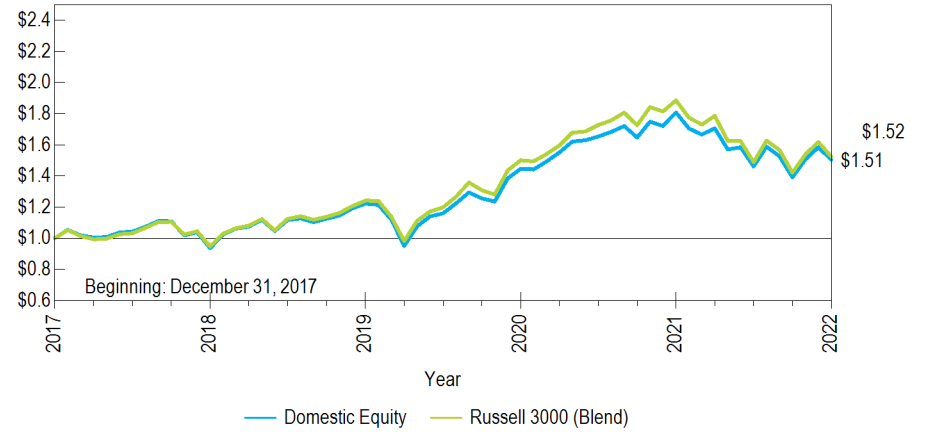
⁴ Polen Capital High Yield strategy was formerly known as DDJ High Yield prior to 2022.

⁵ VRR (Value Relative Ratio) is calculated as manager cumulative return/ benchmark return.

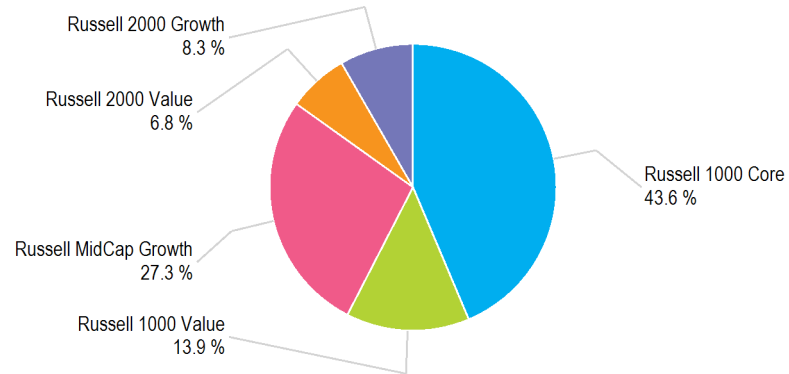
U.S. Effective Style Map



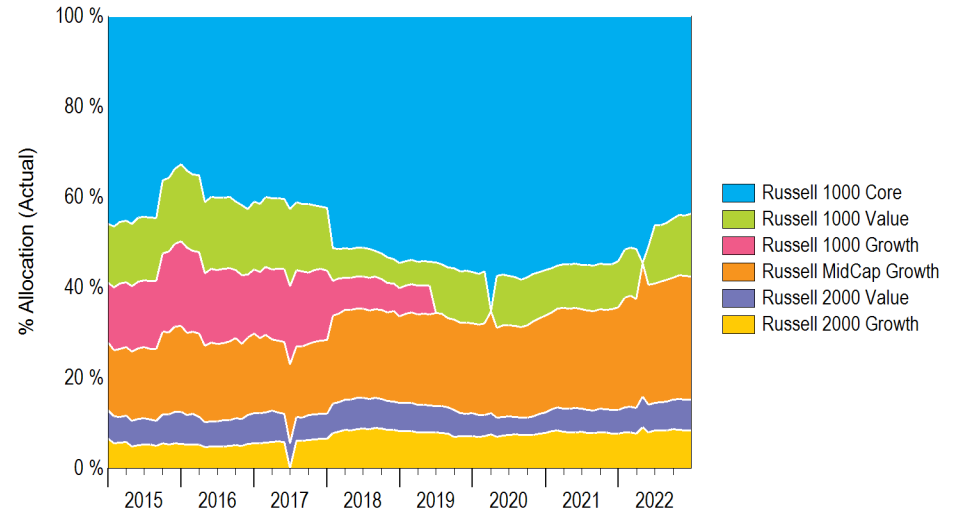
Growth of a Dollar



Style Exposure

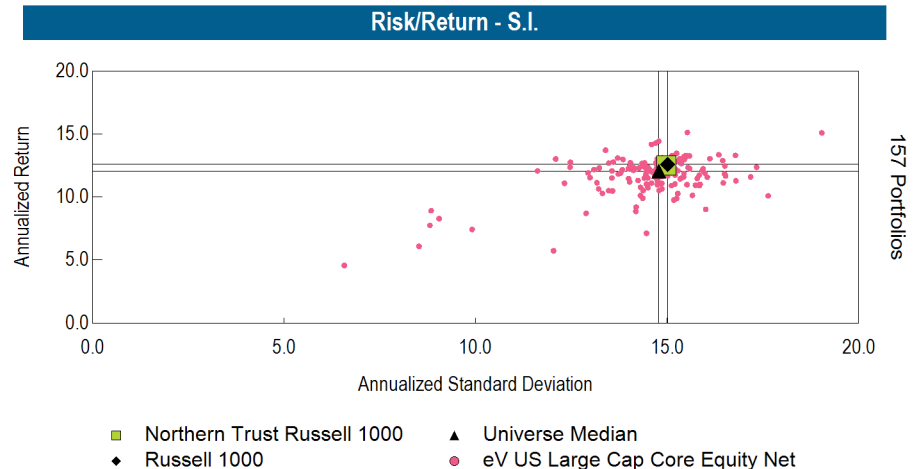
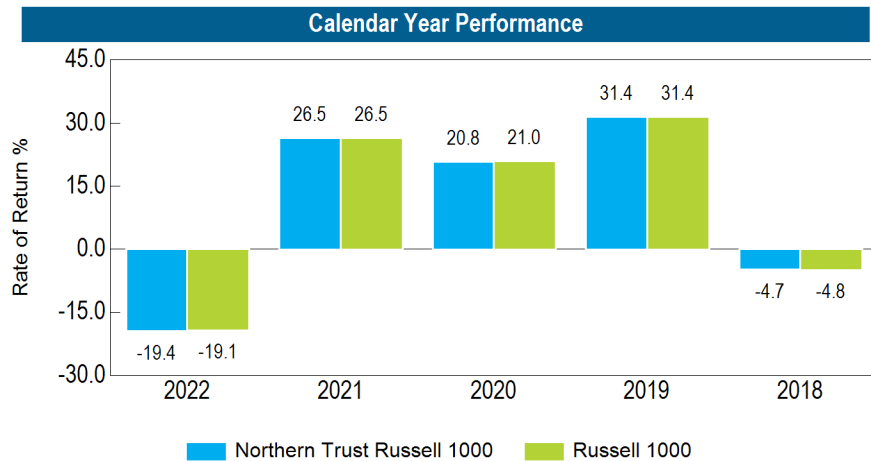
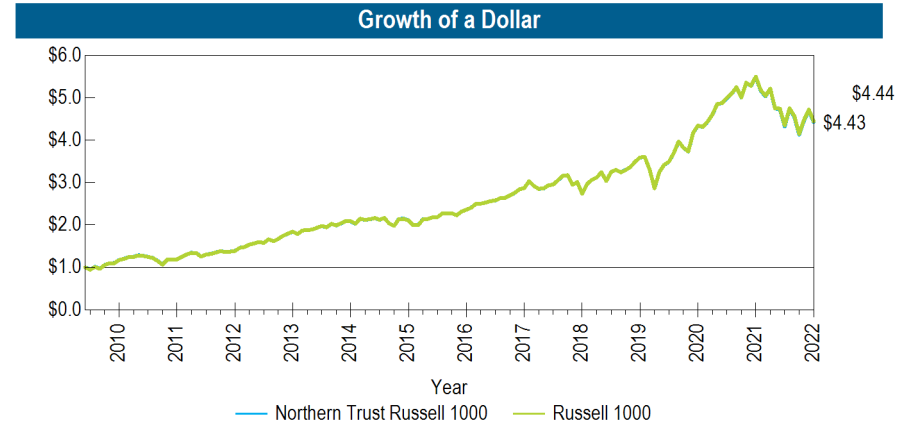
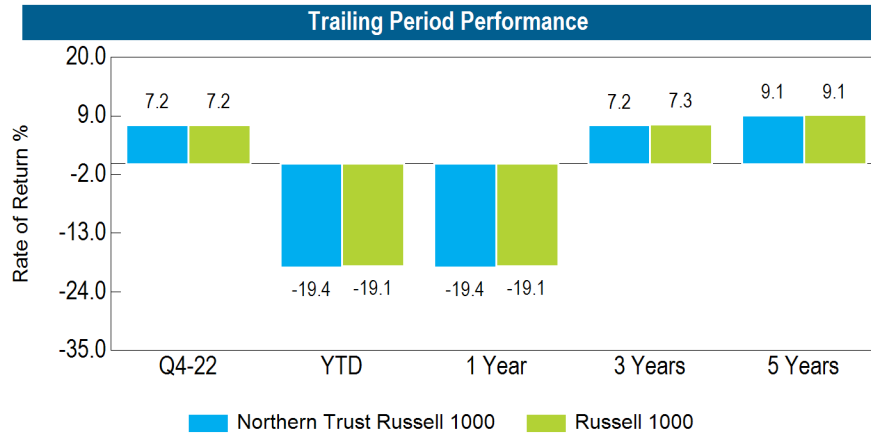


Style History (5-Year)



Northern Trust Russell 1000 | As of December 31, 2022

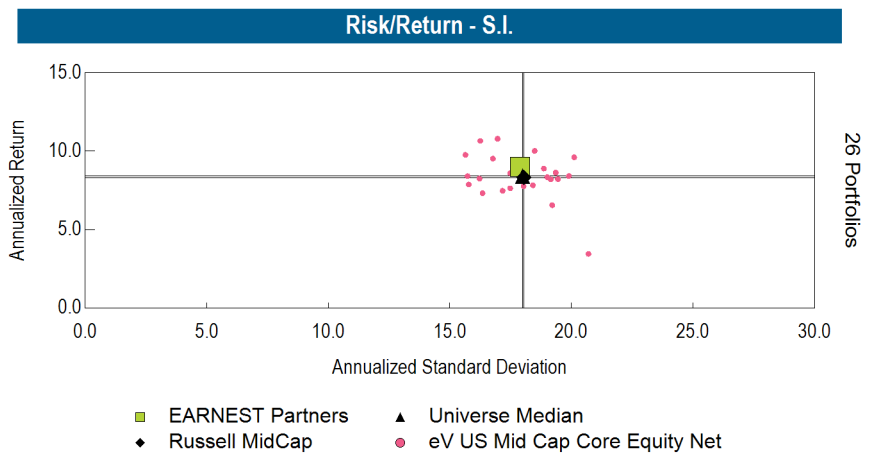
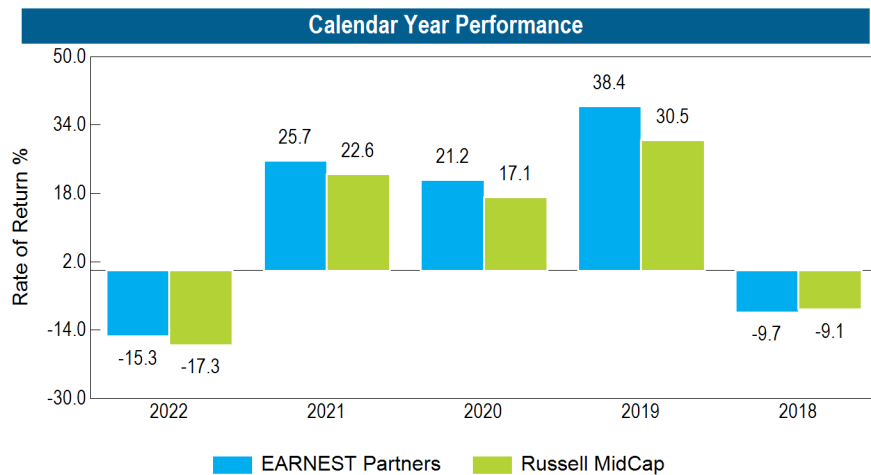
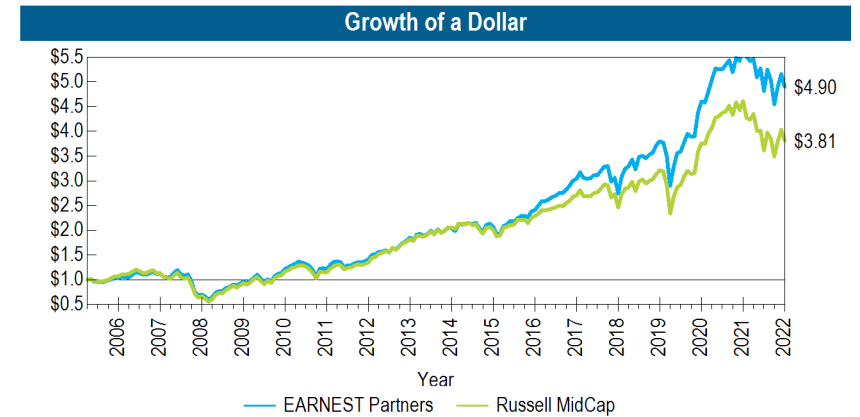
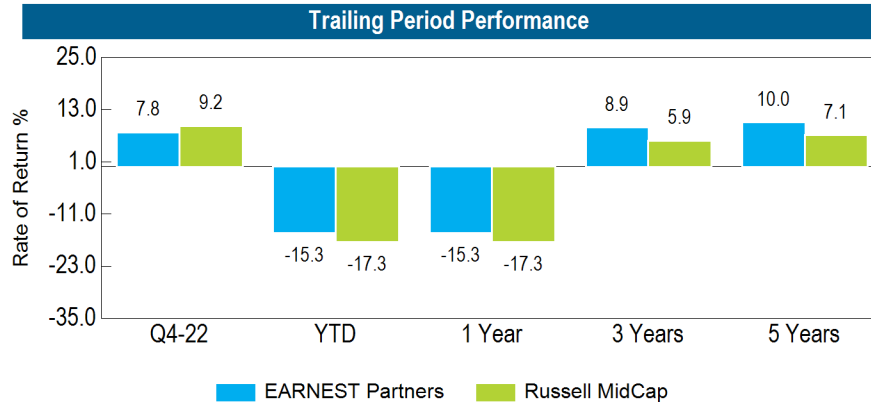
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Northern Trust Russell 1000	12.5%	15.0%	0.0%	1.0	-0.6	0.2%	98.5%	100.0%
Russell 1000	12.6%	15.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

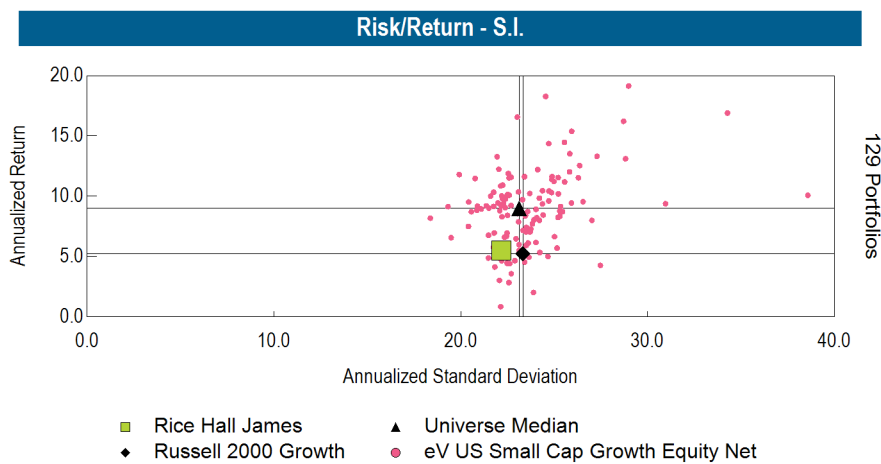
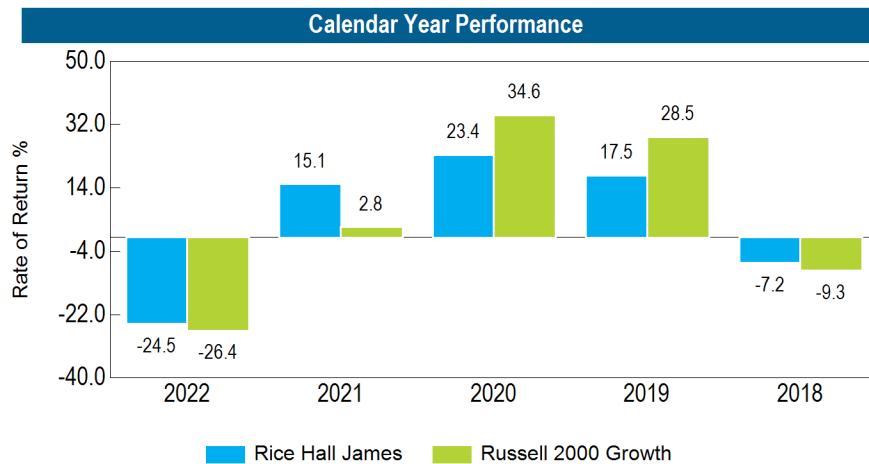
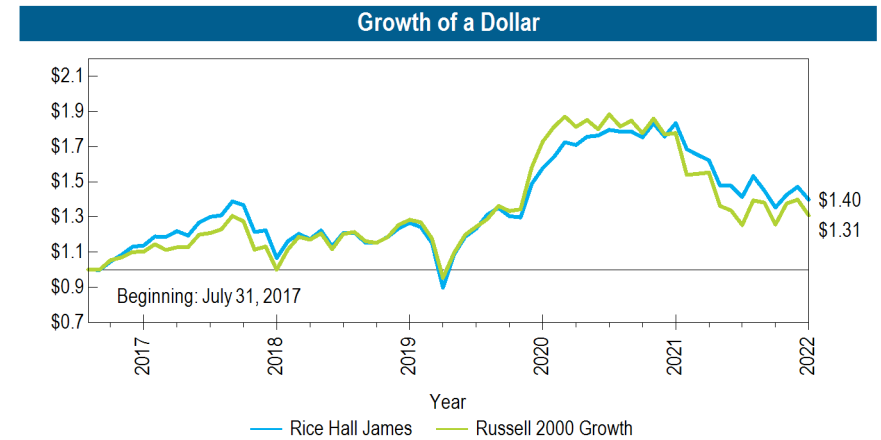
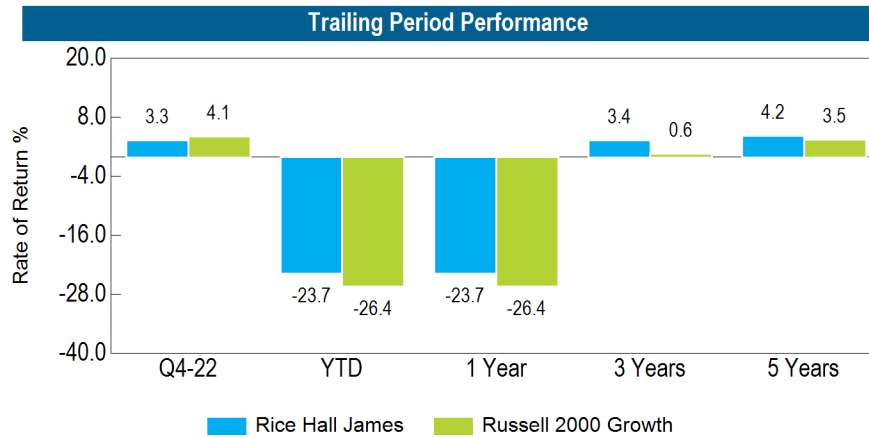
EARNEST Partners | As of December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
EARNEST Partners	9.0%	17.9%	0.1%	1.0	0.2	3.6%	93.5%	99.2%
Russell MidCap	8.3%	18.0%	0.0%	1.0	--	0.0%	100.0%	100.0%



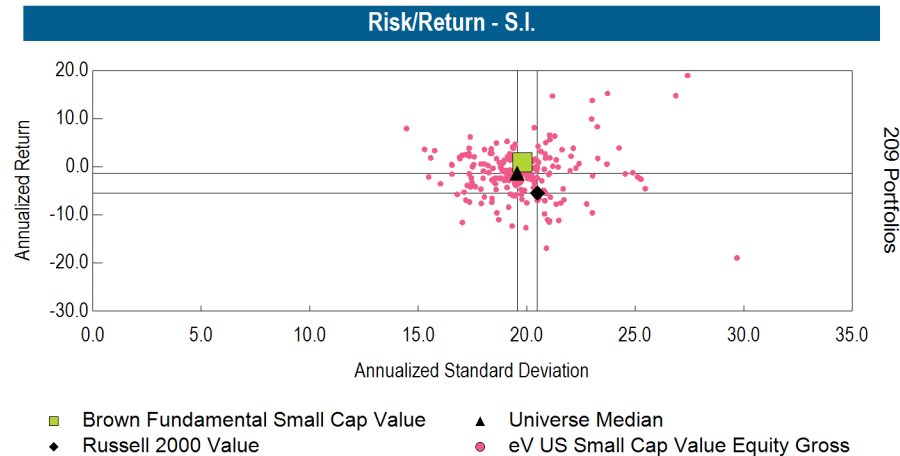
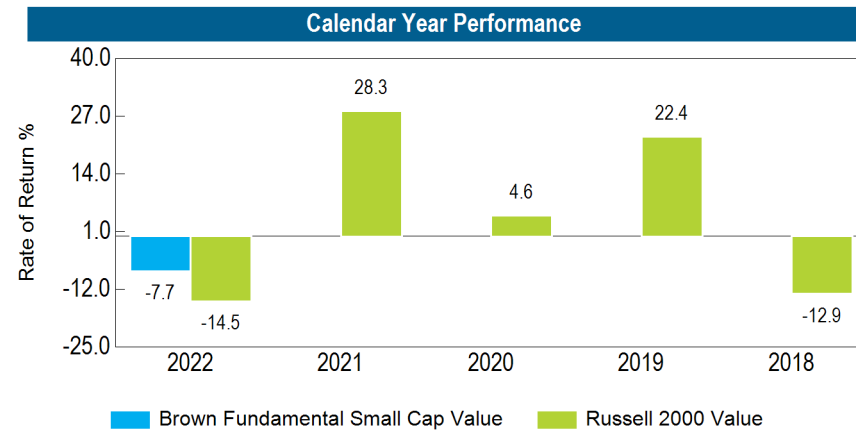
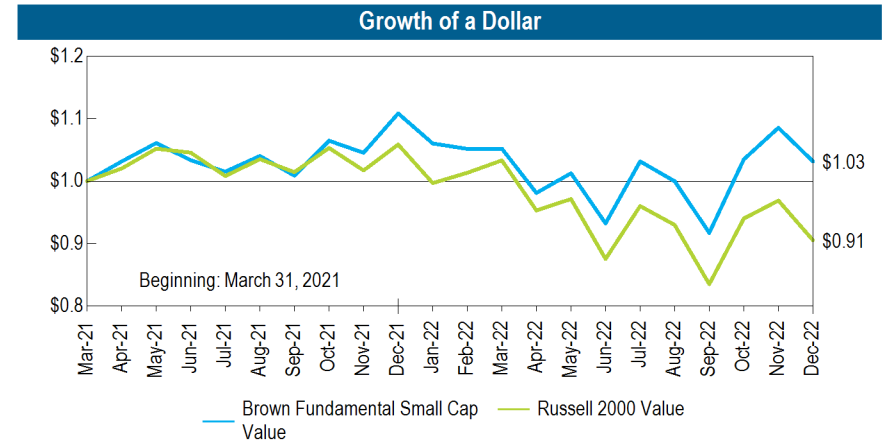
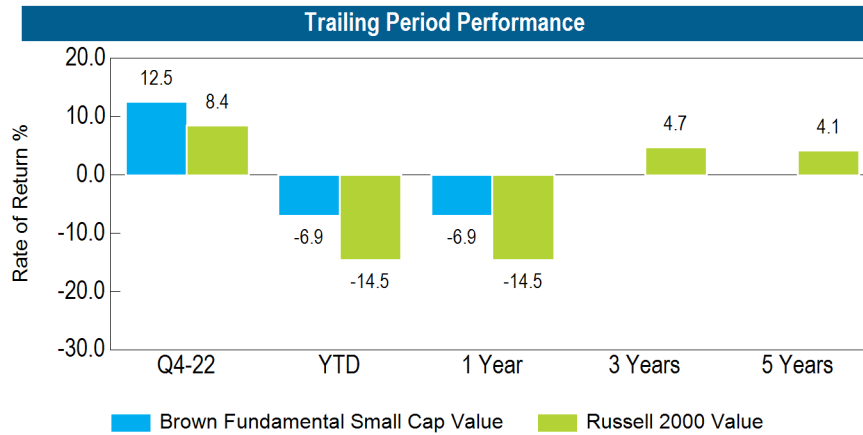
Performance shown is net-of-fees and since inception.

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Rice Hall James	5.3%	22.0%	0.1%	0.9	0.0	7.7%	79.5%	93.6%
Russell 2000 Growth	5.1%	23.1%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

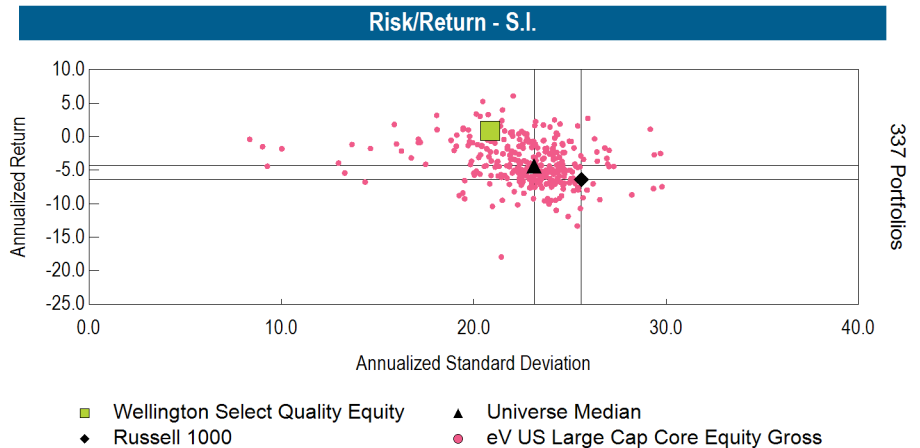
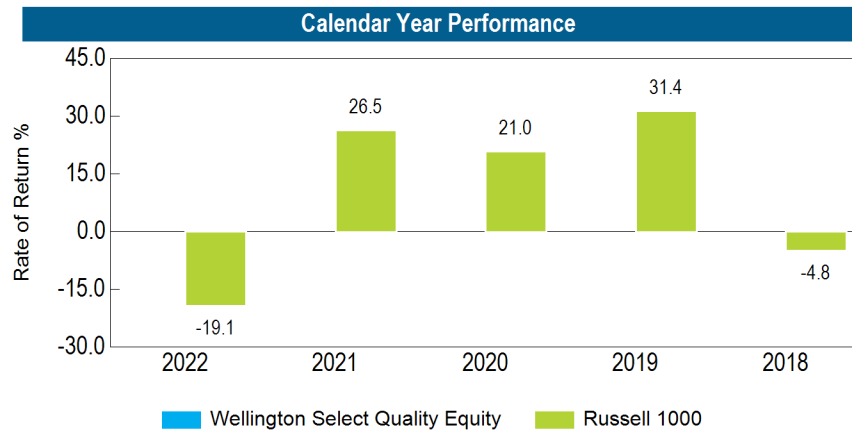
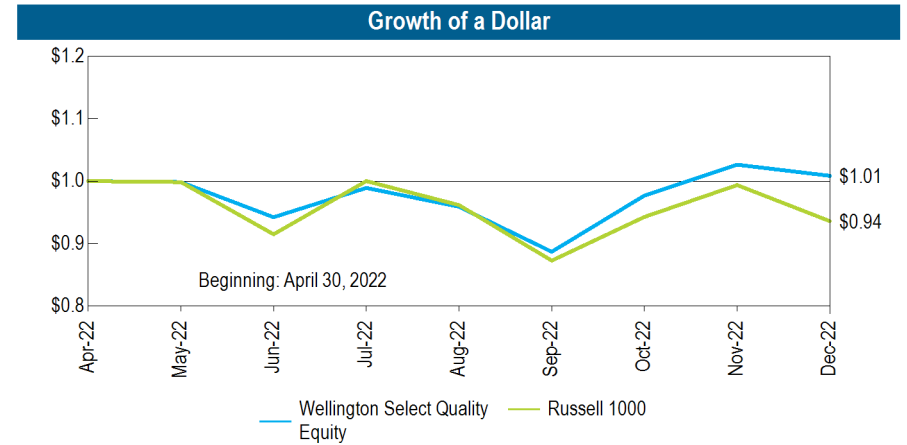
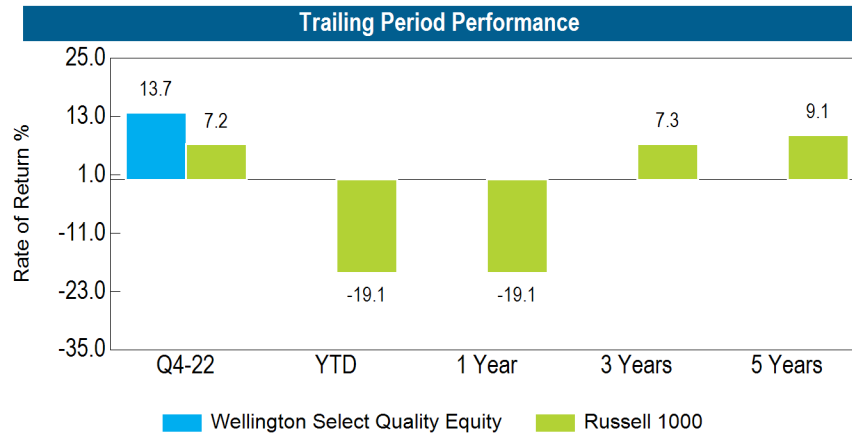
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Brown Fundamental Small Cap Value	0.9%	19.8%	0.5%	0.9	1.3	4.9%	108.9%	88.0%
Russell 2000 Value	-5.5%	20.5%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

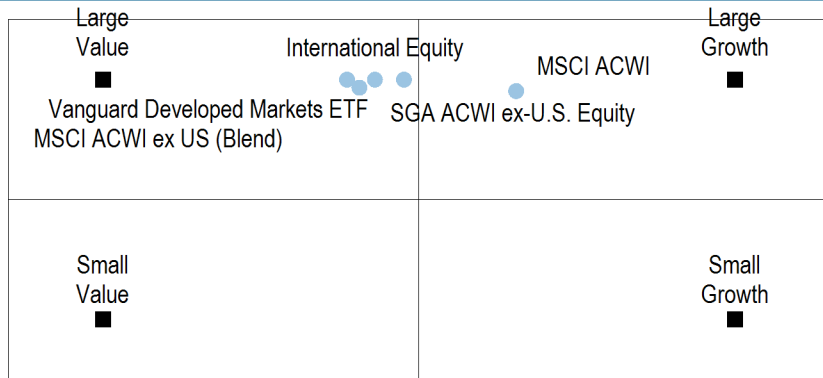
Wellington Select Quality Equity | As of December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wellington Select Quality Equity	0.9%	20.8%	0.7%	0.8	0.8	8.8%	87.8%	68.4%
Russell 1000	-6.4%	25.6%	0.0%	1.0	--	0.0%	100.0%	100.0%

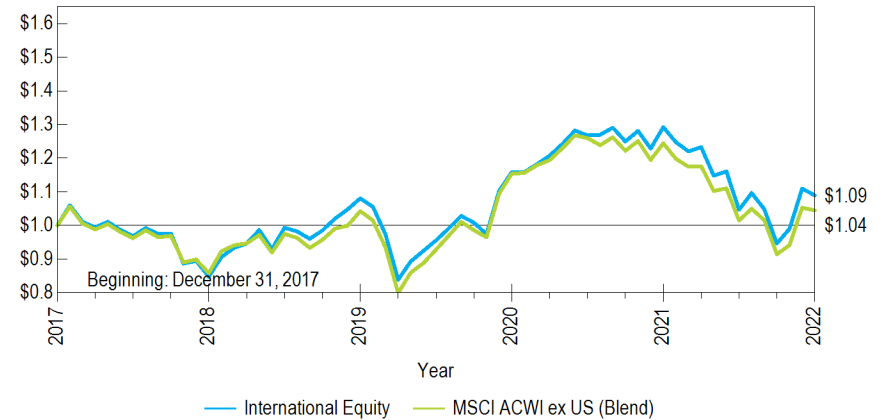


Performance shown is net-of-fees and since inception. Annualized Return is not available for managers without a history longer than one year.

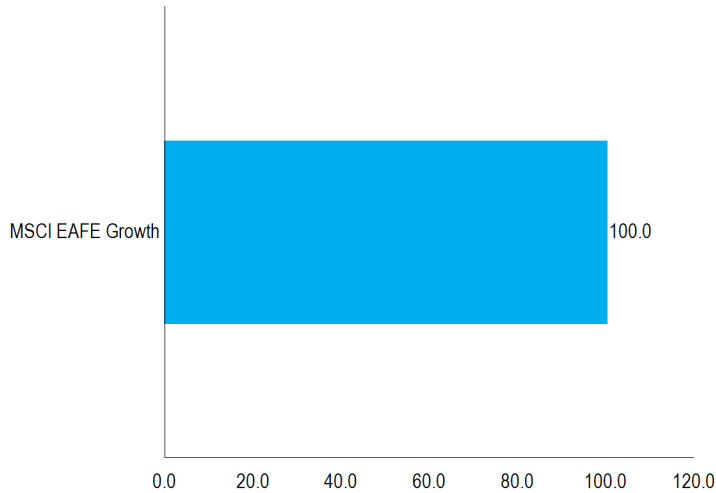
Non U.S. Effective Style Map vs. EAFE



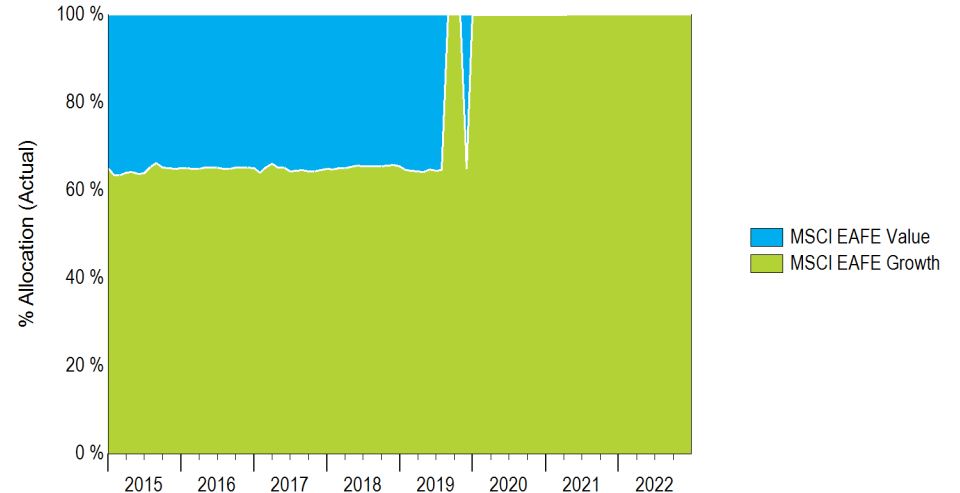
Growth of a Dollar 5 Years Ending December 31, 2022



Style Exposure

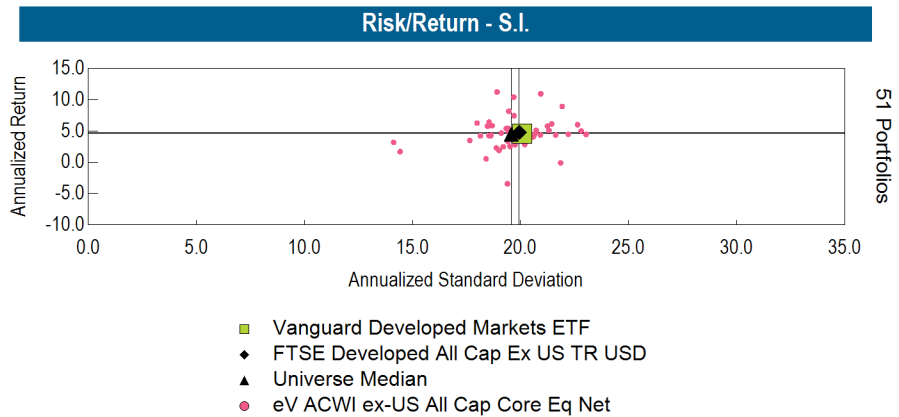
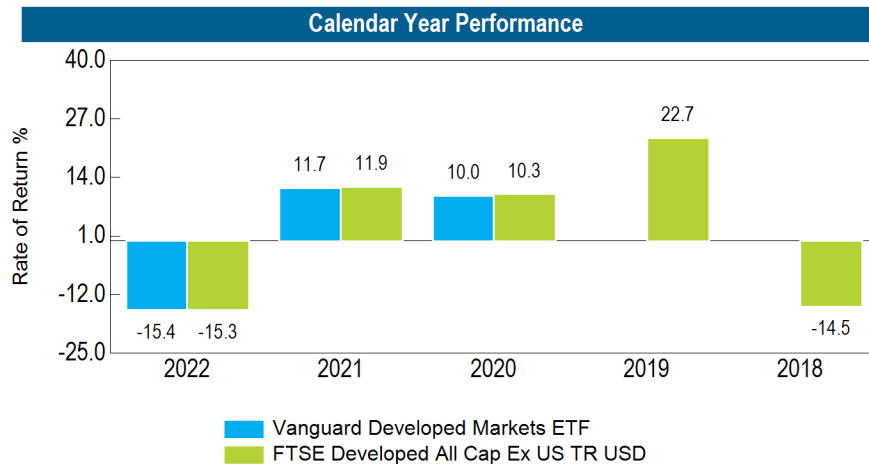
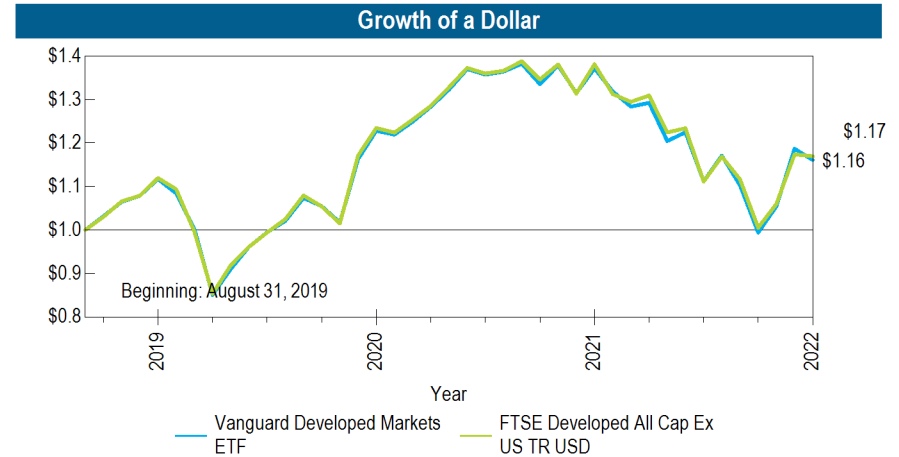
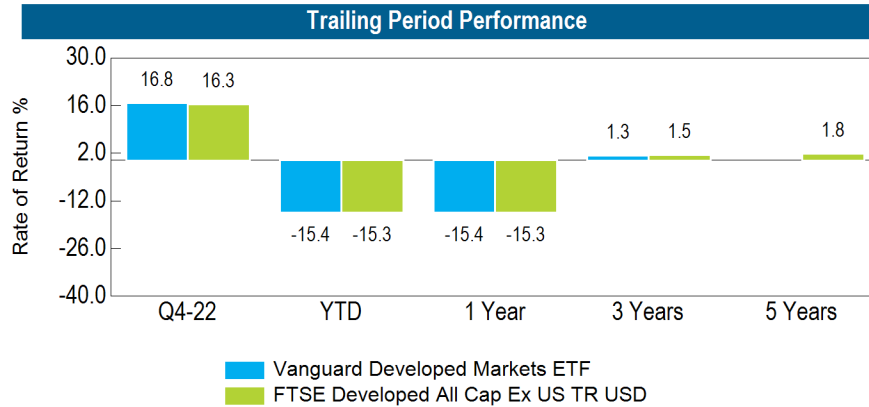


Style History (5-Year)



Vanguard Developed Markets ETF | As of December 31, 2022

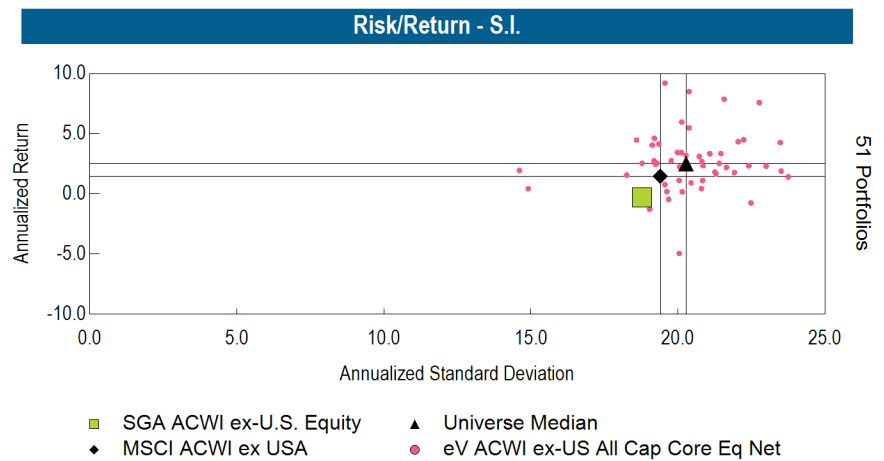
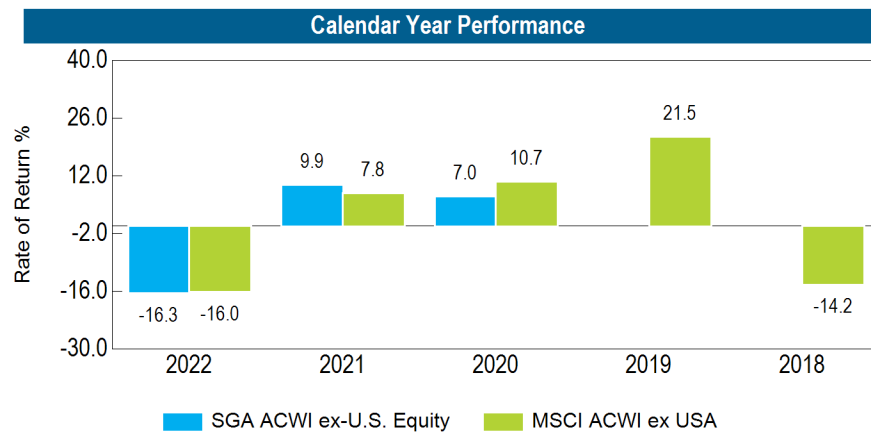
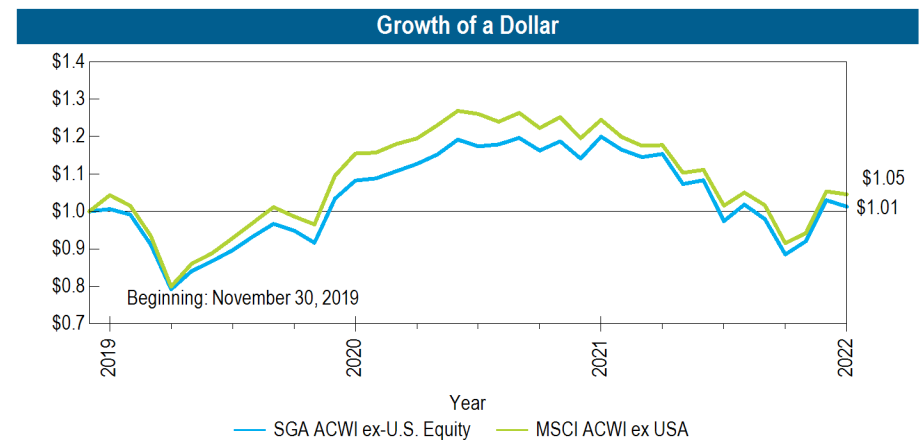
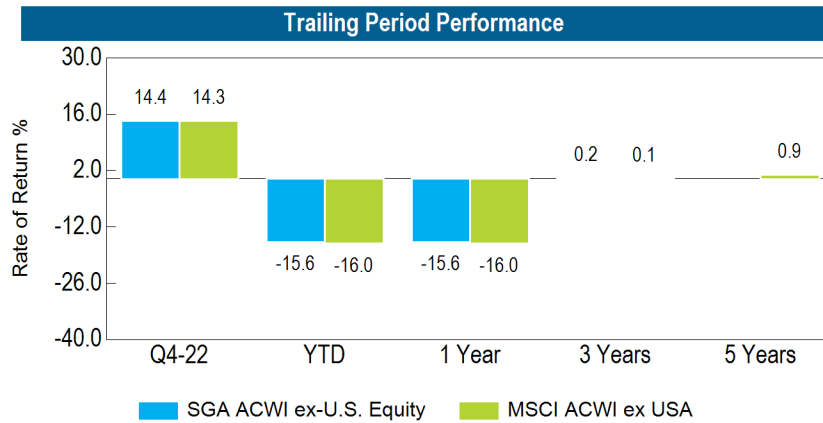
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Vanguard Developed Markets ETF	4.6%	20.1%	0.0%	1.0	-0.1	2.5%	102.4%	101.7%
FTSE Developed All Cap Ex US TR USD	4.8%	19.9%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

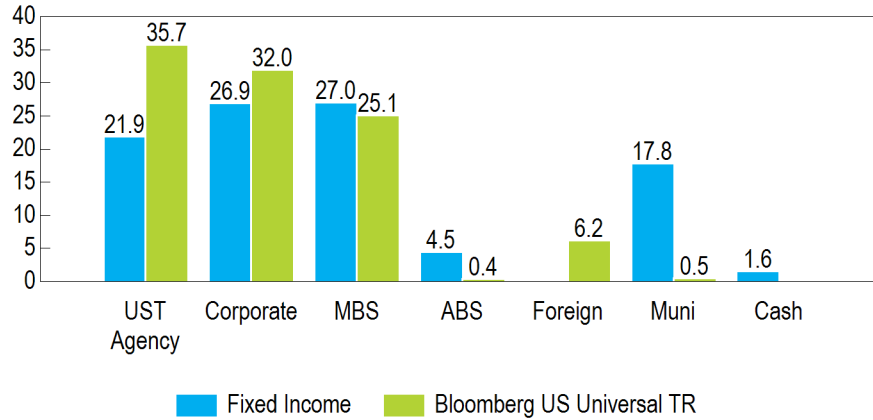
SGA ACWI ex-U.S. Equity | As of December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
SGA ACWI ex-U.S. Equity	-0.3%	18.8%	-0.1%	1.0	-0.5	3.6%	89.1%	99.2%
MSCI ACWI ex USA	1.5%	19.4%	0.0%	1.0	--	0.0%	100.0%	100.0%



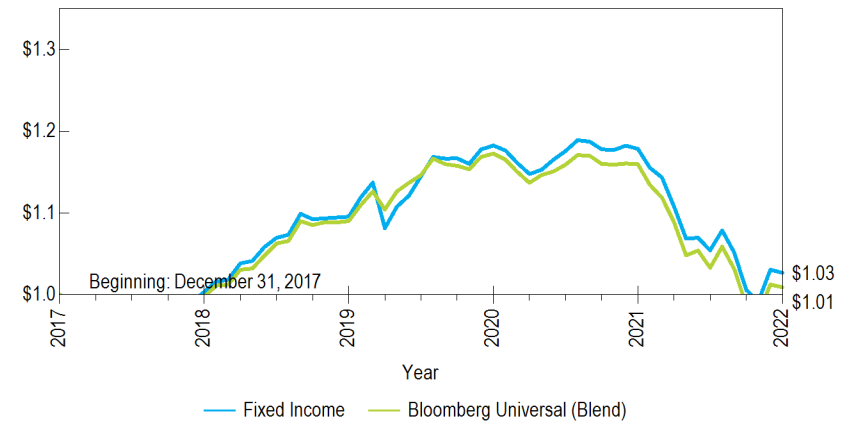
Performance shown is net-of-fees and since inception.

US Sector Allocation

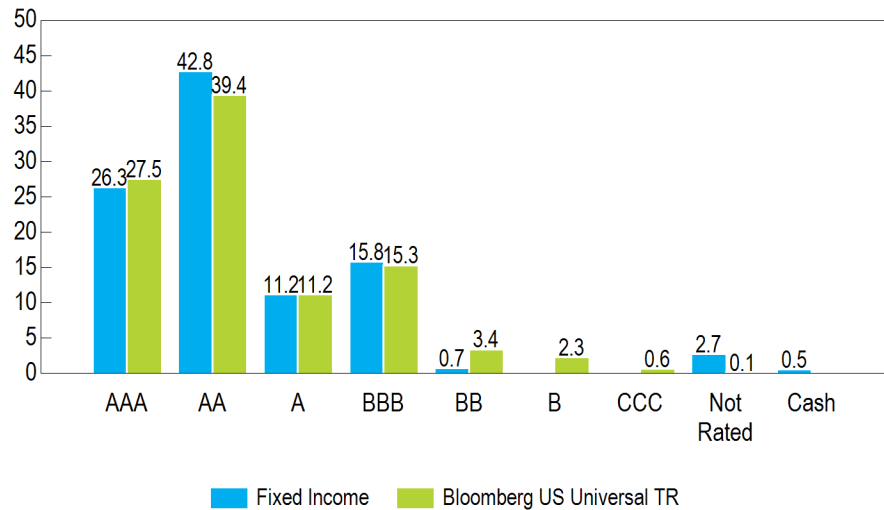


Growth of a Dollar

5 Years Ending December 31, 2022



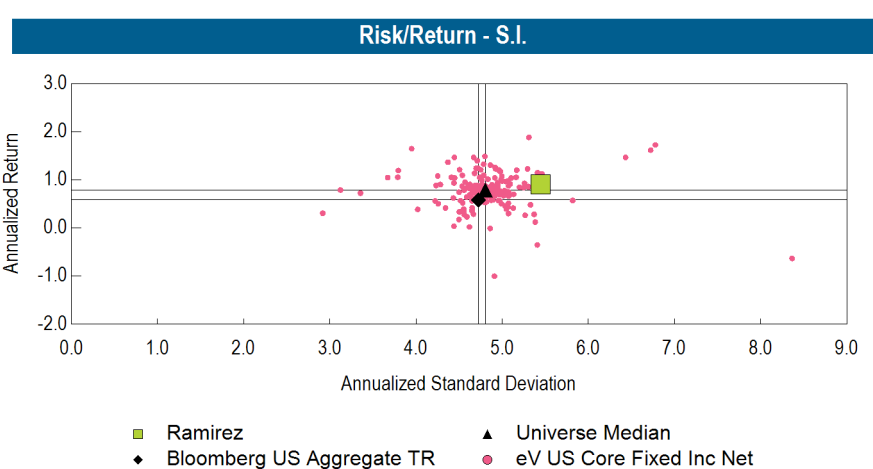
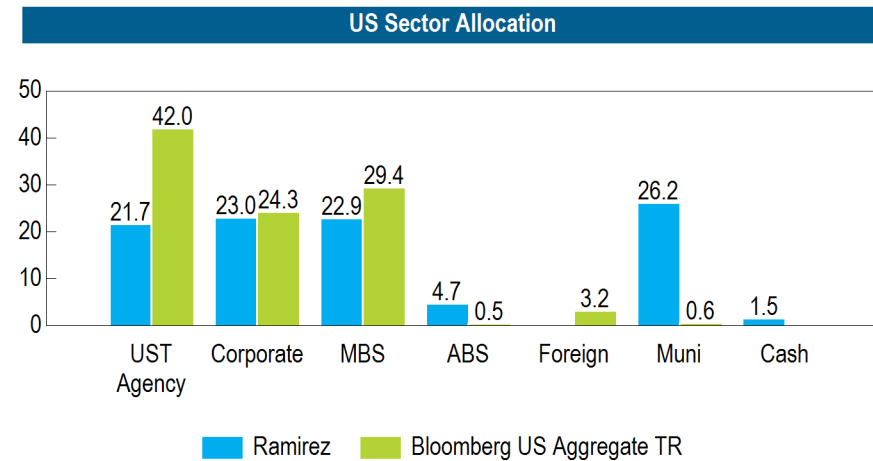
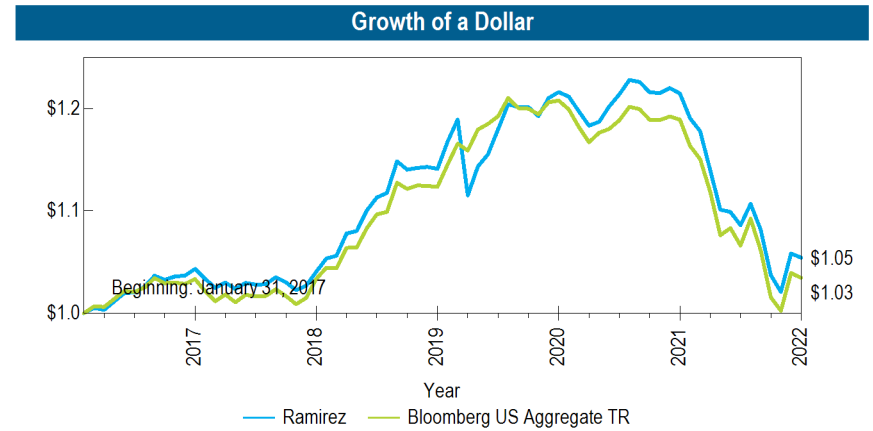
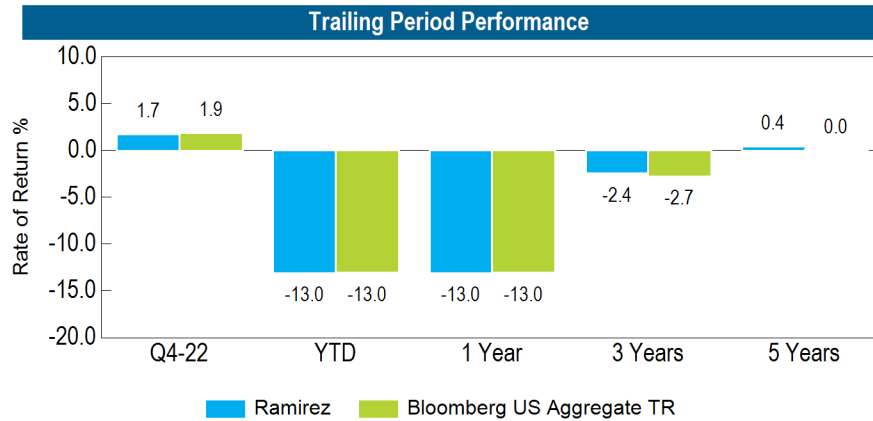
Credit Quality Allocation



Fixed Income Fixed Income Characteristics vs. Bloomberg US Universal TR

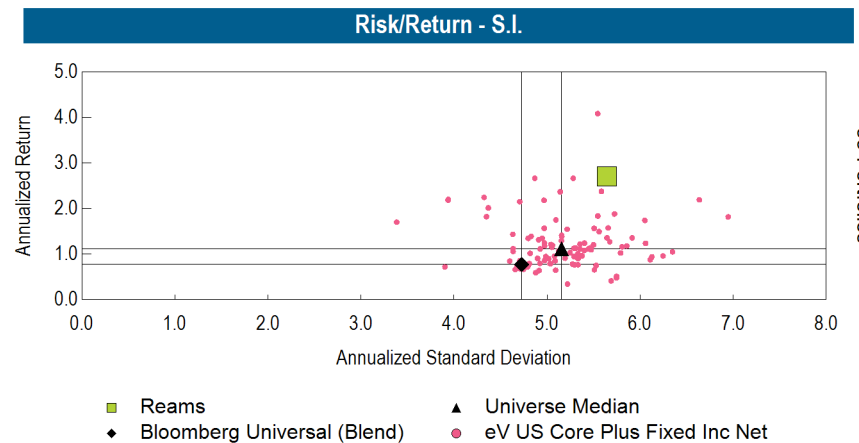
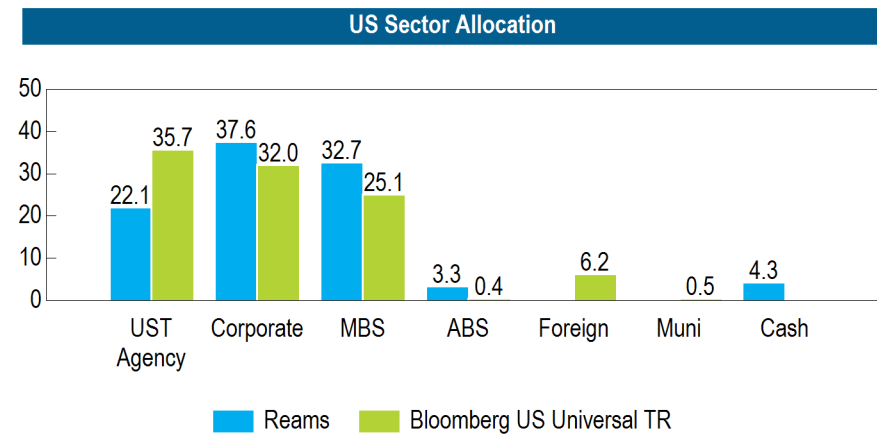
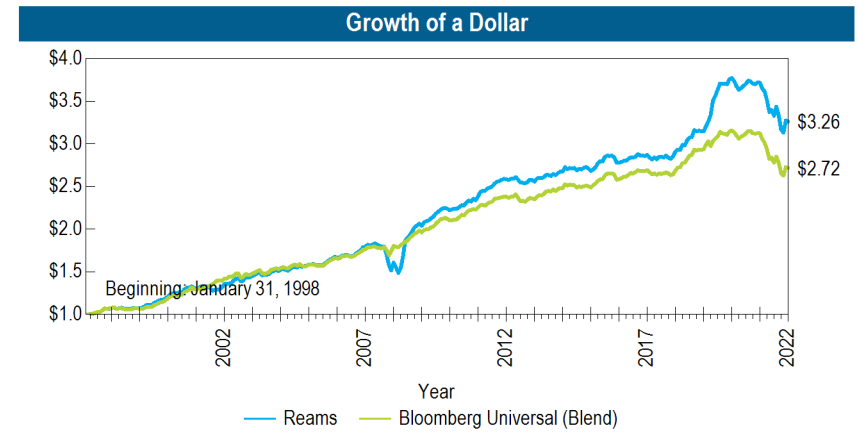
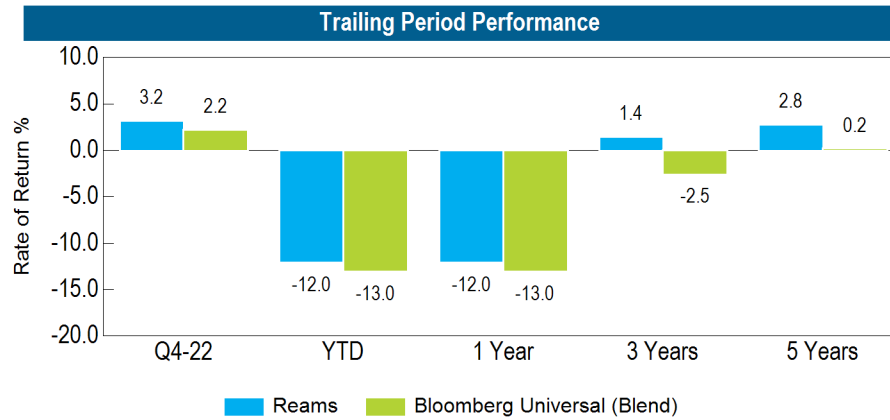
	Portfolio Q4-22	Index Q4-22
Fixed Income Characteristics		
Yield to Maturity	5.25	5.11
Average Duration	6.22	6.00
Average Quality	AA	AA
Weighted Average Maturity	8.99	12.20

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Ramirez	0.9%	5.4%	0.0%	1.0	0.1	2.6%	115.3%	106.7%
Bloomberg US Aggregate TR	0.6%	4.7%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

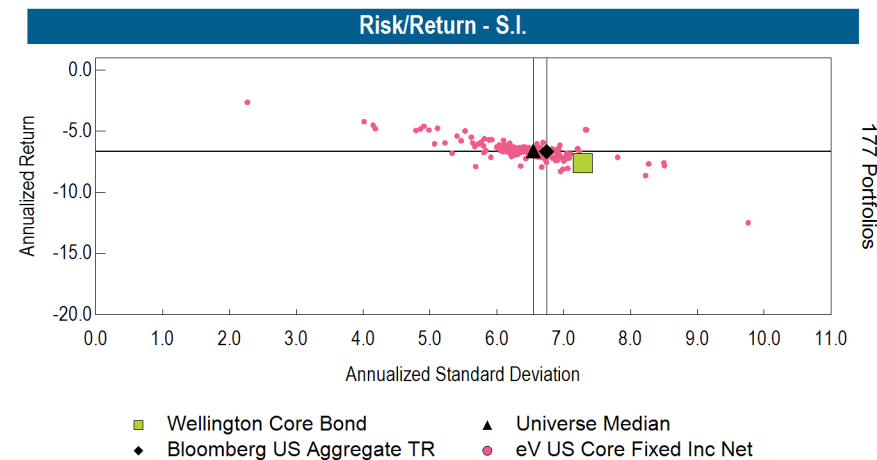
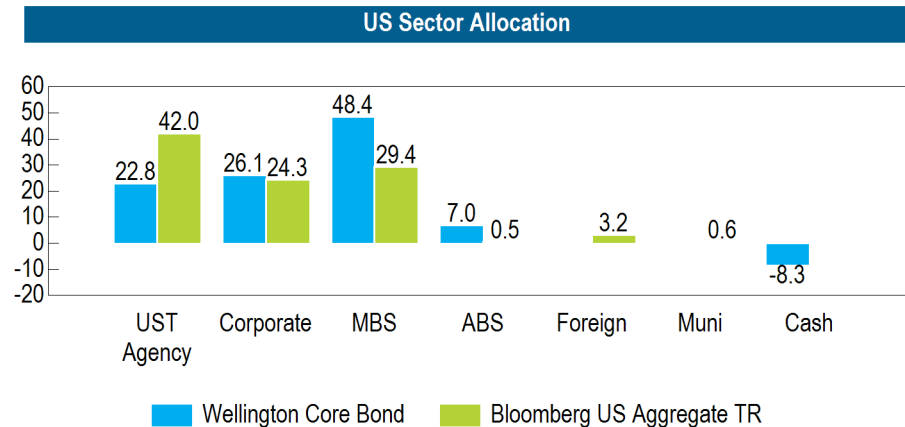
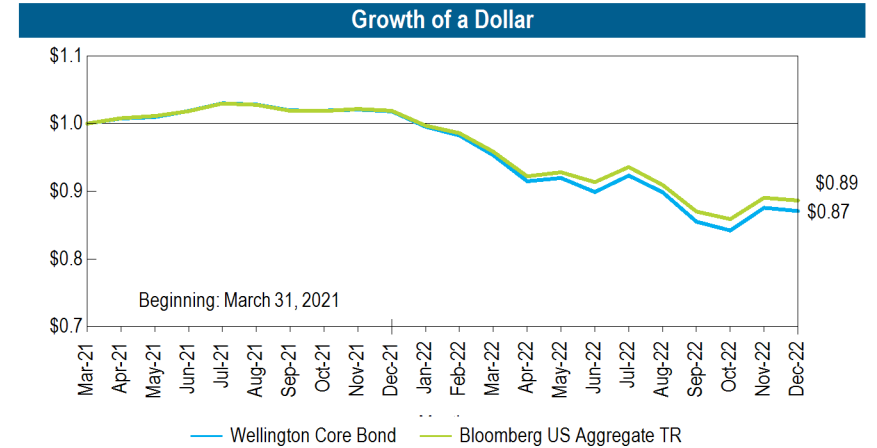
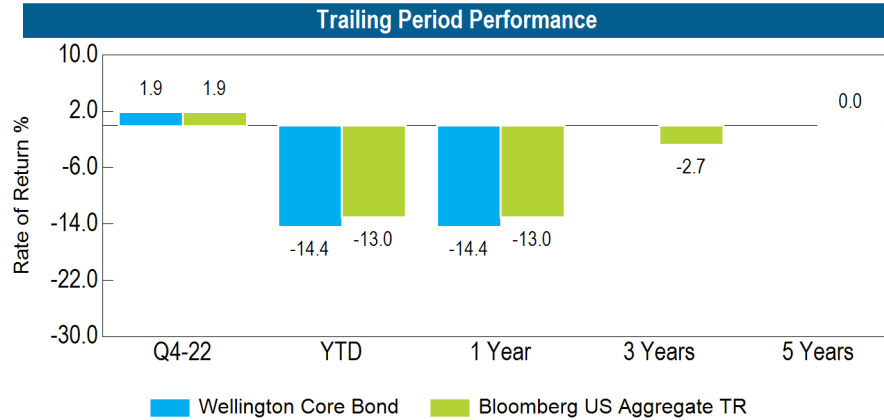
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Reams	4.9%	5.6%	0.0%	1.1	0.2	3.8%	124.3%	100.2%
Bloomberg Universal (Blend)	4.1%	3.8%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

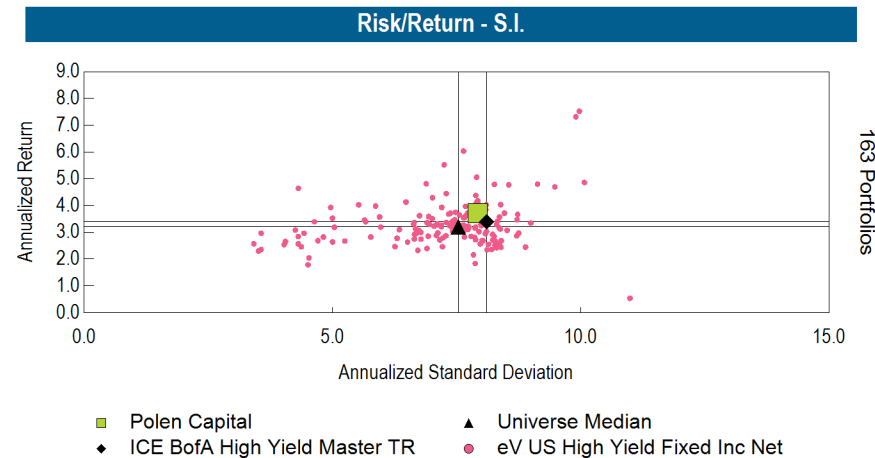
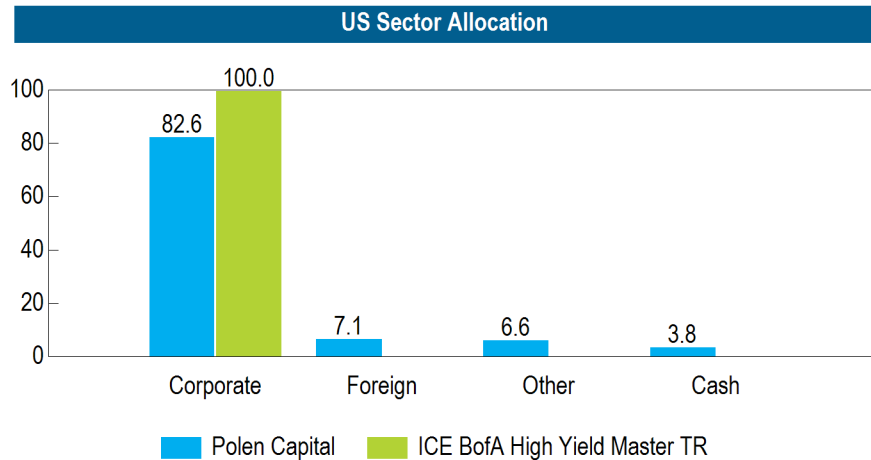
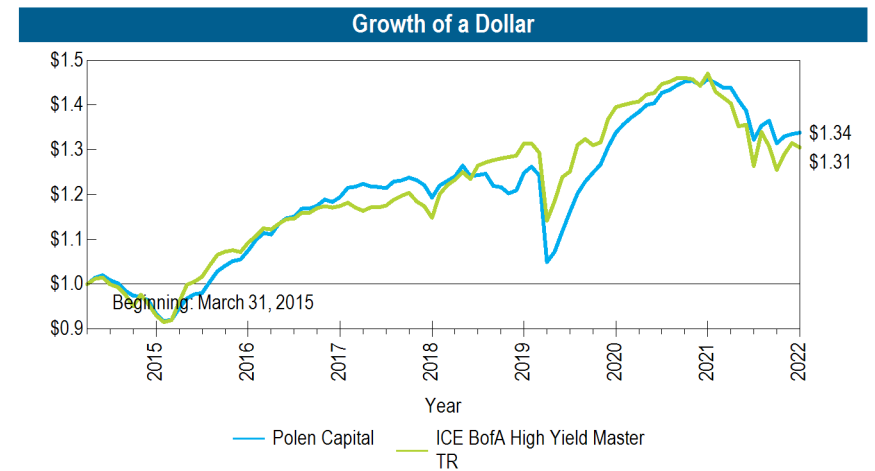
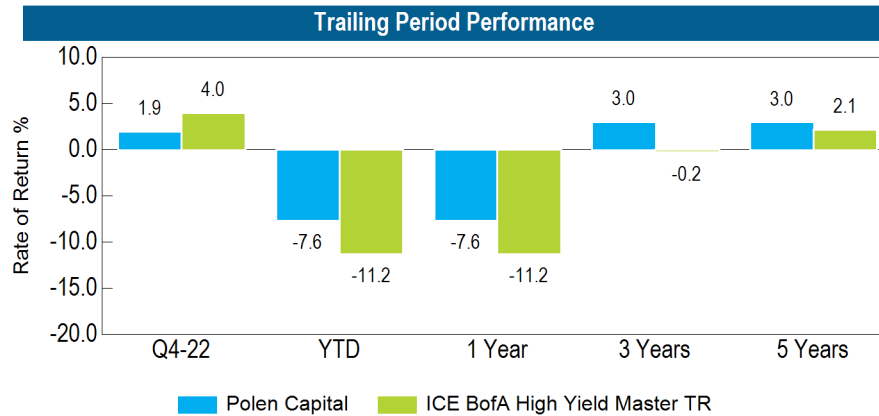
Wellington Core Bond | As of December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Wellington Core Bond	-7.6%	7.3%	0.0%	1.1	-1.2	0.8%	103.2%	108.3%
Bloomberg US Aggregate TR	-6.7%	6.7%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

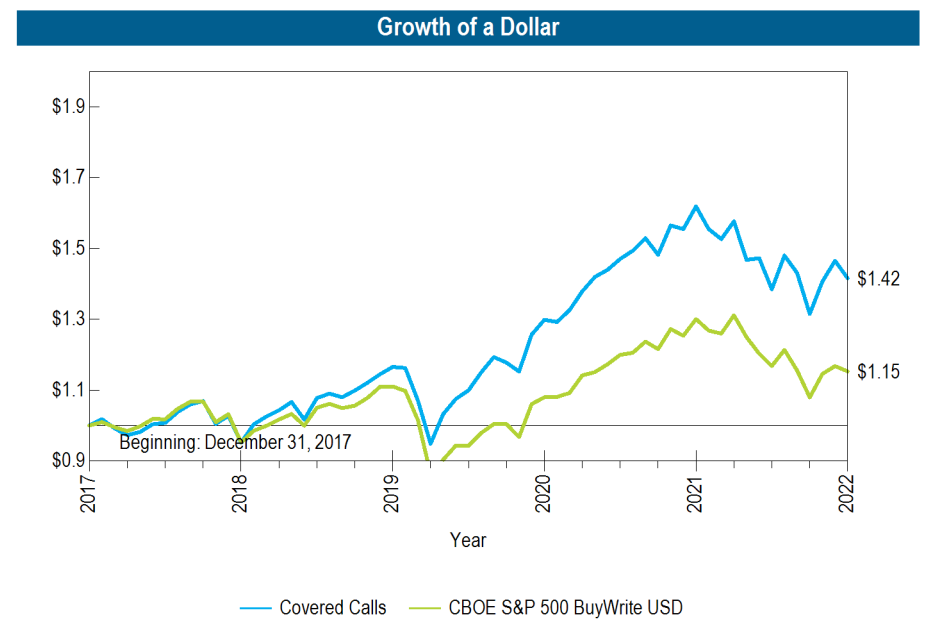
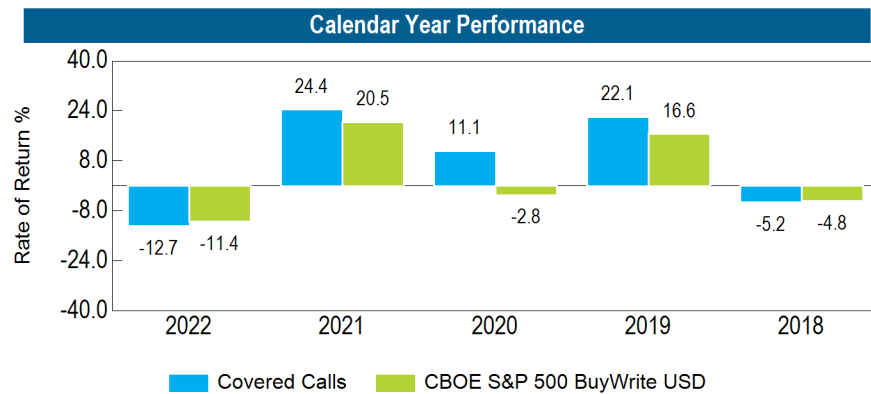
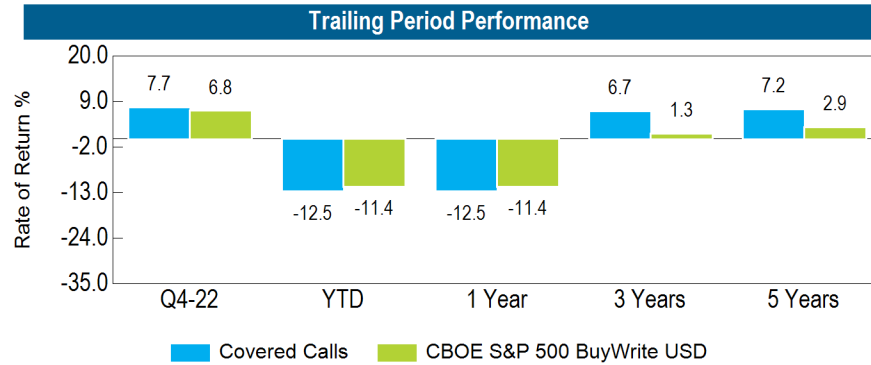
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Polen Capital	4.0%	7.9%	0.1%	0.8	0.1	4.3%	77.7%	78.6%
ICE BofA High Yield Master TR	3.7%	8.1%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

Covered Calls | As of December 31, 2022

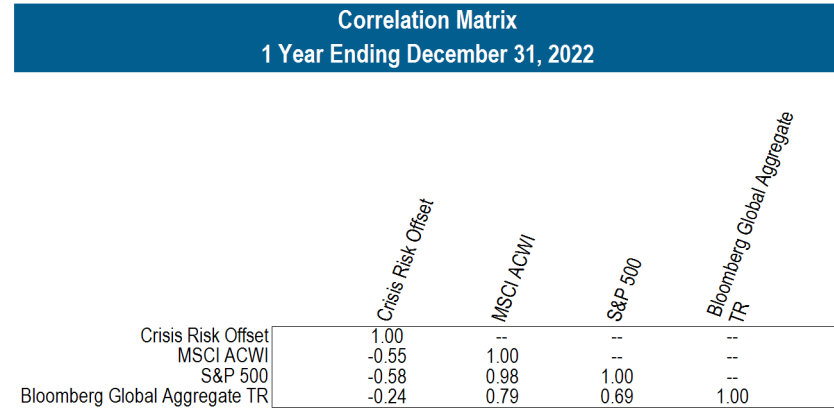
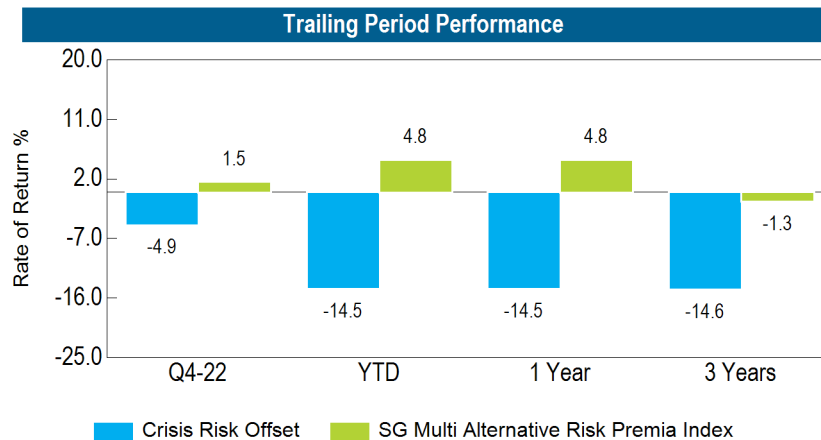
	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Covered Calls	7.9%	11.8%	0.2%	1.0	0.7	4.1%	144.2%	102.3%
CBOE S&P 500 BuyWrite USD	4.9%	10.9%	0.0%	1.0	--	0.0%	100.0%	100.0%
Parametric BXM	6.2%	9.7%	0.2%	0.9	0.4	3.3%	96.5%	91.1%
CBOE S&P 500 BuyWrite USD	4.9%	10.9%	0.0%	1.0	--	0.0%	100.0%	100.0%
Parametric DeltaShift	9.7%	14.1%	0.3%	1.2	0.8	6.3%	205.3%	110.5%
CBOE S&P 500 BuyWrite USD	4.9%	10.9%	0.0%	1.0	--	0.0%	100.0%	100.0%



Performance shown is net-of-fees and since inception.

Crisis Risk Offset | As of December 31, 2022

	Anlzd Return	Anlzd Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Mkt Capture Ratio	Down Mkt Capture Ratio
Crisis Risk Offset	-10.92%	11.54%	-0.87%	0.57	-0.89	11.31%	-36.38%	98.57%
SG Multi Alternative Risk Premia Index	-0.84%	6.03%	0.00%	1.00	--	0.00%	100.00%	100.00%
Kepos Alternative Risk Premia	--	--	--	--	--	--	--	--
SG Multi Alternative Risk Premia Index	-0.84%	6.03%	0.00%	1.00	--	0.00%	100.00%	100.00%
Versor Trend Following	--	--	--	--	--	--	--	--
SG Trend Index	14.45%	12.82%	0.00%	1.00	--	0.00%	100.00%	100.00%
Vanguard Long-Term Treasury ETF	-5.68%	14.71%	-0.01%	1.01	-0.19	1.17%	101.45%	101.21%
Bloomberg US Govt Long TR	-5.46%	14.52%	0.00%	1.00	--	0.00%	100.00%	100.00%



Performance shown is net-of-fees and since inception.

Benchmark History As of December 31, 2022

OPFRS Total Plan

6/1/2022	Present	40% Russell 3000 / 12% MSCI ACWI ex USA / 31% Bloomberg US Universal TR / 5% CBOE BXM / 10% SG Multi Alternative Risk Premia Index / 2% Bloomberg US High Yield TR
1/1/2019	5/31/2022	40% Russell 3000 / 12% MSCI ACWI ex USA Gross / 33% Bloomberg US Universal TR / 5% CBOE BXM / 6.7% SG Multi Alternative Risk Premia Index / 3.3% Bloomberg US Treasury Long TR
5/1/2016	12/31/2018	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 20% CBOE BXM
10/1/2015	4/30/2016	43% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 15% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
1/1/2014	9/30/2015	48% Russell 3000 / 12% MSCI ACWI ex USA Gross / 20% Bloomberg US Universal TR / 10% CBOE BXM / 10% CPI - All Urban Consumers (unadjusted) +3%
3/1/2013	12/31/2013	40% Russell 3000 / 10% MSCI ACWI ex USA Gross / 17% Bloomberg US Universal TR / 33% ICE BofA 3M US Treasury TR USD
8/1/2012	2/28/2013	20% Russell 3000 / 7% MSCI ACWI ex USA Gross / 18% Bloomberg US Universal TR / 55% ICE BofA 3M US Treasury TR USD
10/1/2007	7/31/2012	53% Russell 3000 / 17% MSCI ACWI ex USA Gross / 30% Bloomberg US Universal TR
4/1/2006	9/30/2007	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Universal TR
1/1/2005	3/31/2006	35% Russell 3000 / 15% MSCI ACWI ex USA Gross / 50% Bloomberg US Aggregate TR
4/1/1998	12/31/2004	50% Bloomberg US Aggregate TR / 10% Russell 1000 / 20% Russell 1000 Value / 5% Russell MidCap / 15% MSCI EAFE
12/1/1988	3/31/1998	40% S&P 500 / 55% Bloomberg US Aggregate TR / 5% FTSE T-Bill 3 Months TR

Benchmark History		
As of December 31, 2022		
Domestic Equity		
1/1/2005	Present	Russell 3000
4/1/1998	12/31/2004	28.57% Russell 1000 / 57.14% Russell 1000 Value / 14.29% Russell MidCap
6/1/1997	3/31/1998	S&P 500
International Equity		
1/1/2005	Present	MSCI ACWI ex USA
1/1/1998	12/31/2004	MSCI EAFE Gross
Fixed Income		
4/1/2006	Present	Bloomberg US Universal TR
12/31/1993	3/31/2006	Bloomberg US Aggregate TR
Covered Calls		
4/1/2014	Present	CBOE S&P 500 BuyWrite USD
Crisis Risk Offset		
8/1/2018	Present	SG Multi Alternative Risk Premia Index
Cash		
3/1/2011	Present	FTSE T-Bill 3 Months TR

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.



AGENDA REPORT

TO:	Oakland Police and Fire Retirement System Board (PFRS)	FROM:	David F. Jones Plan Administrator & Secretary
SUBJECT:	Return to In-Person Board & Commission Meetings	DATE:	February 22, 2023

SUMMARY

All public bodies subject to the [Brown Act](#) were temporarily allowed by [Assembly Bill 361](#) to have online-only meetings during the state of emergency. As the emergency order is lifted by the State of California on February 28, 2023, all public meetings including Oakland City Council and Boards and Commission meetings will be required to be held in-person again per State law.

UPDATE FROM CITY ADMINISTRATOR'S OFFICE

In-Person Board and Commission Meetings

Effective March 1, 2023, pursuant to the Brown Act's pre-existing, default requirements, all public meetings, including those of our boards and commissions, must be held in person.

After March 1, Board and Committee members, along with presenters will have to appear in person.

Community members and Board members attending meetings in City Hall must go through the screening stations for access into the building from the 14th Street entrance and will be required to sign in at the security desk. Parking is available at the Dalziel Garage (250 Frank H. Ogawa Plaza) for all meetings and staff is able to validate parking.

Hybrid Meetings

The City plans to use Zoom to allow members of the public to continue to observe meetings. However, remote participation (i.e. providing public comment) is not currently planned because existing equipment, facilities, and staffing cannot provide equitable access at this time. Members of the public wishing to comment must appear in person. The City will be developing solutions and welcomes input and ideas from board and commission members, constituents, and staff liaisons.

RECOMMENDATION


The next regular PFRS Board & Committee meetings will be held in-person at Oakland City Hall and are tentatively scheduled to occur Wednesday, March 29, 2023. Please plan accordingly and bring your PFRS issued iPad, a laptop, tablet or cellphone to the meeting that will enable you to login to a Zoom webinar. The device should have a camera so that your image and voice can be captured during the meeting and support remote observation. Staff submitted the necessary reservation requests to conduct in-person PFRS Board & Committee meetings at City Hall and will provide an update once the location is confirmed.

Respectfully submitted,



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

OAKLAND POLICE AND FIRE RETIREMENT BOARD
 CITY OF OAKLAND, CALIFORNIA
RESOLUTION No. 8075

*Approved to
Form
and Legality*


ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

**RESOLUTION APPROVING DEATH BENEFIT PAYMENT
 AND DIRECTING WARRANTS THEREUNDER IN THE
 AMOUNT OF \$1,000.00 PAYABLE TO THE
 BENEFICIARIES OF DECEASED CITY OF OAKLAND
 POLICE AND FIRE RETIREMENT SYSTEM MEMBERS
 WILFORD FUGLER; KENNETH L. LEWIS; AND JOHN J.
 LUCICH JR.**

WHEREAS, due proof having been received in accordance with Article XXVI of the Charter of the City of Oakland of the death of the retired members of the Oakland Police or Fire Department identified in Column (1) below; and

WHEREAS, the beneficiaries to whom the death benefit provided in Charter Section 2612 is payable, is the person whose name is stated in Column (2) opposite the name of the deceased retired member; and

WHEREAS, the amount of said death benefit is stated in Column (3) opposite the name of the beneficiary; now, therefore, be it

RESOLVED: That the Police and Fire Retirement System Board does hereby approve the Death Benefit payment to the persons named in Column (2); and be it

FURTHER RESOLVED: That the Director of Finance, be and is hereby directed to draw and sign warrants for the amount in Column (3) payable to the persons whose names appears in Column (2):

(1)	(2)	(3)
Name of Deceased Member	Name of Beneficiary	Death Benefit Amount
Wilford Fugler	Dana L. Fugler & Janice L. Fugler	\$1,000.00
Kenneth L. Lewis	Estate of Kenneth L. Lewis	\$1,000.00
John J. Lucich Jr.	Tamara Lucich, Aaron Lucich & Jon Lucich	\$1,000.00

IN BOARD MEETING, VIA ZOOM CONFERENCE _____ **FEBRUARY 22, 2023** _____

PASSED BY THE FOLLOWING VOTE:

AYES:

NOES:

ABSENT:

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 22, 2023

	SUBJECT	TENTATIVE SCHEDULED MTG DATE	STATUS
1	Review Options Regarding Frequency & Manner of Committee & Board Meetings	TBD	Ongoing

Respectfully submitted,

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