

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

Meetings are held in wheelchair accessible facilities.

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

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



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

AGENDA

INVESTMENT COMMITTEE MEMBERS

Jaime T. Godfrey
Chairperson

R. Steven Wilkinson
Member

Robert W. Nichelini
Member

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

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

TUESDAY, FEBRUARY 25, 2025

10:00 AM

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

OBSERVE

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

PUBLIC COMMENTS

There are two ways to submit public comments.

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

If you have any questions, please email Maxine Visaya, Administrative Analyst I 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 29, 2025 Investment and Financial Matters Committee Meeting Minutes

2. **Subject:** PROSPECTIVE INVESTMENT STRATEGY MANAGER PRESENTATIONS: CORE FIXED INCOME

From: Meketa Investment Group

Recommendation: **RECEIVE** finalists’ presentations from investment management firms seeking to serve as a PFRS’ Core Fixed Income Investment Manager

 - a) Loomis, Sayles, & Company
 - b) Loop Capital Asset Management
 - c) Ramirez Asset Management

3. **Subject:** SELECTION OF INVESTMENT STRATEGY MANAGERS: CORE FIXED INCOME

From: PFRS Investment & Financial Matters Committee

Recommendation: **DISCUSS** Investment Management Firm Presentations, **SELECT** two investment management firms to serve as PFRS’ Core Fixed Income investment strategy managers and **RECOMMEND BOARD APPROVAL** of Committee’s selection

4. **Subject:** PROSPECTIVE INVESTMENT STRATEGY MANAGER PRESENTATIONS: CORE PLUS FIXED INCOME

From: Meketa Investment Group

Recommendation: **RECEIVE** finalists’ presentations from investment management firms seeking to serve as a PFRS’ Core Plus Fixed Income investment strategy manager

 - a) Income Research & Management
 - b) Reams Asset Management
 - c) Wellington Management Company

5. **Subject:** SELECTION OF INVESTMENT STRATEGY MANAGERS: CORE PLUS FIXED INCOME

From: PFRS Investment & Financial Matters Committee

Recommendation: **DISCUSS** Investment Management Firm Presentations, **SELECT** two investment management firms to serve as PFRS’ Core Plus Fixed Income investment strategy managers and **RECOMMEND BOARD APPROVAL** of Committee’s selection

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
INVESTMENT & FINANCIAL MATTERS COMMITTEE SPECIAL MEETING
FEBRUARY 25, 2025**

6. **Subject:** **ECONOMIC AND INVESTMENT MARKET OVERVIEW
AS OF JANUARY 31, 2025**
From: Meketa Investment Group
Recommendation: **ACCEPT** informational report regarding the Global Investment Markets as of January 31, 2025
7. **Subject:** **PFRS PRELIMINARY INVESTMENT FUND PERFORMANCE UPDATE
AS OF JANUARY 31, 2025**
From: Meketa Investment Group
Recommendation: **ACCEPT** informational report regarding PFRS Preliminary Investment Fund Performance as of January 31, 2025
8. **Subject:** **PFRS INVESTMENT FUND QUARTERLY PERFORMANCE UPDATE
AS OF DECEMBER 31, 2024**
From: Meketa Investment Group
Recommendation: **ACCEPT** PFRS Investment Fund Quarterly Performance Update as of December 31, 2024
9. **Subject:** **PFRS INVESTMENT POLICY UPDATE:
ASSET ALLOCATION IMPLEMENTATION (VERBAL REPORT)**
From: Meketa Investment Group
Recommendation: **RECEIVE** update regarding the status of the implementation of the new target asset allocation of the PFRS Investment Portfolio
10. **Subject:** **MANAGER SEARCH UPDATE & FINALIST RECOMMENDATIONS:
INTERNATIONAL EQUITY INVESTMENT STRATEGY**
From: Meketa Investment Group
Recommendation: **RECEIVE** informational report regarding the results of the Request for Proposals (RFP) for the International Equity investment strategy manager search. **DISCUSS and RECOMMEND BOARD APPROVAL** of Meketa Investment Group's recommendation regarding prospective candidates to interview to serve as PFRS International Equity investment strategy manager.
11. **Subject:** **INVESTMENT MANAGER PERFORMANCE REVIEW:
RICE HALL JAMES & ASSOCIATES , LLC**
From: Meketa Investment Group
Recommendation: **ACCEPT** Meketa Investment Group's review and evaluation regarding a firm overview and managerial assessment; peer ranking; and investment portfolio performance of PFRS' Domestic Equity Small-Cap Growth Investment Strategy Manager Rice Hall James & Associates, LLC

**OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
INVESTMENT & FINANCIAL MATTERS COMMITTEE SPECIAL MEETING
FEBRUARY 25, 2025**

12. **Subject:** RESOLUTION NO. 8122
RESOLUTION AUTHORIZING A ONE-YEAR EXTENSION OF PROFESSIONAL SERVICES AGREEMENT WITH RICE HALL JAMES & ASSOCIATES, LLC FOR THE PROVISION OF DOMESTIC EQUITY SMALL-CAP GROWTH INVESTMENT STRATEGY MANAGER SERVICES FOR THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
- From:** Staff of the PFRS Board
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 8122 authorizing the execution of a one-year extension of professional services agreement with Rice Hall James & Associates, LLC for the provision of Domestic Equity Small-Cap Growth Investment Strategy Manager Services for the City of Oakland Police and Fire Retirement System
13. **Subject:** INVESTMENT MANAGER PERFORMANCE REVIEW:
EARNEST PARTNERS, LLC
- From:** Meketa Investment Group
-
- Recommendation:** **ACCEPT** Meketa Investment Group's review and evaluation regarding a firm overview and managerial assessment; peer ranking; and investment portfolio performance of PFRS' Domestic Equity Mid-Cap Core Investment Strategy Manager Earnest Partners, LLC
14. **Subject:** RESOLUTION NO. 8123
RESOLUTION AUTHORIZING A ONE-YEAR EXTENSION OF PROFESSIONAL SERVICES AGREEMENT WITH EARNEST PARTNERS, LLC FOR THE PROVISION OF DOMESTIC EQUITY MID-CAP CORE INVESTMENT STRATEGY MANAGER SERVICES FOR THE CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM
- From:** Staff of the PFRS Board
-
- Recommendation:** **RECOMMEND BOARD APPROVAL** of Resolution No. 8123 authorizing the execution of a one-year extension of professional services agreement with Earnest Partners, LLC for the provision of Domestic Equity Mid-Cap Core Investment Strategy Manager Services for the City of Oakland Police and Fire Retirement System
15. SCHEDULE OF PENDING INVESTMENT COMMITTEE MEETING AGENDA ITEMS
16. NEW BUSINESS
17. OPEN FORUM
18. FUTURE SCHEDULING
19. ADJOURNMENT

A MEETING OF THE INVESTMENT AND FINANCIAL MATTERS COMMITTEE of the Oakland Police and Fire Retirement System (“PFRS”) was held Wednesday, January 29, 2025 at One Frank Ogawa Plaza, Hearing Room 2, Oakland, California.

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

The meeting was called to order at 10:30 a.m. Pacific

1. APPROVAL OF INVESTMENT & FINANCIAL MATTERS COMMITTEE MEETING MINUTES

Member Nichelini made a motion to approve the October 30, 2024, Investment & Financial Matters Committee Meeting Minutes as submitted, second by Member Wilkinson. Motion Passed.

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

2. ECONOMIC AND INVESTMENT MARKET OVERVIEW AS OF DECEMBER 31, 2024

David Sancewich of Meketa Investment Group (Meketa) presented an informational report regarding the economic and investment market overview as of December 31, 2024, and highlighted Index Returns; Foreign Equity Returns; and Equity Cyclically Adjusted Price to Earnings (P/E) Ratios and noted current factors impacting outcomes.

MOTION: Chairperson Godfrey made a motion to accept Meketa’s informational report and forward to the Board, second by Member Wilkinson. Motion passed.

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

3. PRELIMINARY INVESTMENT FUND PERFORMANCE UPDATE AS OF DECEMBER 31, 2024

David Sancewich of Meketa presented an informational report regarding a preliminary investment performance update of the PFRS Fund as of December 31, 2024, and highlighted Allocation vs. Targets and Policy and the PFRS Total Plan Asset Class Performance Summary and noted current factors impacting outcomes. Plan Administrator & Secretary Jones noted Meketa presented PFRS Quarterly Performance Report as of September 30, 2024 to the City Council Finance and Management Committee.

MOTION: Chairperson Godfrey made a motion to accept Meketa’s informational report and forward to the Board, second by Member Wilkinson. Motion passed.

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

4. PFRS INVESTMENT POLICY UPDATE:**TARGET ASSET ALLOCATION IMPLEMENTATION (VERBAL REPORT)**

David Sancewich of Meketa provided a verbal update regarding the status of the implementation of the new target asset allocation of the PFRS Investment Portfolio. It was noted Meketa and staff will work to escalate de-risking the PFRS Portfolio over the next six months, however no immediate decisions will be as we work to finalize the selection of the new Fixed Income investment strategy managers. Meketa advised the portfolio still continues to be de-risked by actions to withdraw monthly and quarterly cash flows from riskier portions of the portfolio to pay retirement benefits while we move forward towards settling the new asset allocations.

MOTION: Chairperson Godfrey made a motion to accept the verbal update regarding the status of the implementation of the new target asset allocation of the PFRS Investment Portfolio and forward to the Board, second by Member Nichelini. Motion passed.

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

5. PFRS INVESTMENT POLICY UPDATE:**INTERNATIONAL EQUITY INVESTMENT STRATEGY MANAGER SEARCH (VERBAL REPORT)**

David Sancewich of Meketa provided a verbal update regarding the status of the Request for Proposal (RFP) for International Equity investment strategy manager search. Meketa advised the RFP closed on January 15, 2025 and 42 responses were received for consideration. Meketa will evaluate responses and bring forward a memo regarding the outcome of the RFP and finalist recommendations at the next meeting. It was noted that PFRS' current International Equity investment strategy manager, SGA, submitted a response and will be included in the evaluation.

MOTION: Chairperson Godfrey made a motion to accept the verbal update regarding the status of the Request for Proposal (RFP) for International Equity investment strategy manager search and forward to the Board, second by Member Nichelini. Motion passed.

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

6. BENCHMARK UPDATE RECOMMENDATIONS: FIXED INCOME & CREDIT

David Sancewich of Meketa presented an informational report regarding a benchmark review of the Fixed Income & Credit asset class. Meketa recommended PFRS update from their current primary benchmark of the Bloomberg US Universal Index to the Bloomberg US Aggregate Index as it is more widely accepted among Fixed Income managers and pension plans as a policy benchmark and to align with PFRS objective to de-risk the portfolio.

MOTION: Chairperson Godfrey made a motion to accept the informational report regarding the benchmark review of the Fixed Income & Credit asset class and recommend Board approval of Meketa's proposed update to the primary benchmark to the Bloomberg US Aggregate Index, second by Member Nichelini. Motion passed.

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

**7. MANAGER SEARCH UPDATE & FINALIST RECOMMENDATIONS:
CORE FIXED INCOME INVESTMENT STRATEGY**

David Sancewich of Meketa presented an informational report regarding the results of the Request for Proposals (RFP) for the Core Fixed Income investment strategy manager search. Meketa recommended the following firms be invited to interview to serve as PFRS Core Fixed Income investment strategy managers: a) Loomis, Sayles, & Company; b) Loop Capital Asset Management; and c) Ramirez Asset Management and select two managers to serve as PFRS Core Fixed Income investment strategy managers in an effort to diversify holdings within the asset class.

MOTION: Chairperson Godfrey made a motion to accept the informational report regarding the results of the RFP for the Core Fixed Income investment strategy and recommended Board approval of Meketa's list of prospective candidates to participate in the interview process conducted by the Committee, second by Member Nichelini. Motion passed.

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

**8. MANAGER SEARCH UPDATE & FINALIST RECOMMENDATIONS:
CORE PLUS FIXED INCOME INVESTMENT STRATEGY**

David Sancewich of Meketa presented an informational report regarding the results of the Request for Proposals (RFP) for the Core Plus Fixed Income investment strategy manager search. Meketa recommended the following firms be invited to interview to serve as PFRS Core Fixed Income investment strategy managers: a) Income Research & Management; b) Reams Asset Management; and c) Wellington Management Company and select two managers to serve as PFRS Core Fixed Income investment strategy managers in an effort to diversify holdings within the asset class.

MOTION: Chairperson Godfrey made a motion to accept the informational report regarding the results of the RFP for the Core Plus Fixed Income investment strategy and recommended Board approval of Meketa's list of prospective candidates to participate in the interview process conducted by the Committee, second by Member Nichelini. Motion passed.

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

9. SCHEDULE OF PENDING INVESTMENT COMMITTEE MEETING AGENDA ITEMS

David Sancewich of Meketa presented the Strategic Planning Agenda for 2025 and welcomed the Committee to notify Meketa or PFRS Investment & Operations Manager Jenkins if they want to add items to the strategic plan moving forward.

10. NEW BUSINESS – None

11. OPEN FORUM – None

12. FUTURE SCHEDULING

A Special Meeting of the PFRS Investment Committee Meeting will be held in-person and is tentatively scheduled to occur Tuesday, February 25, 2025, at One Frank Ogawa Plaza, Hearing Room 2, Oakland, CA and the Committee will report out to the PFRS Board at the Wednesday, February 26, 2025 meeting.

13. ADJOURNMENT

Member Nichelini made a motion to adjourn, second by Member Wilkinson. Motion passed.

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

The meeting adjourned at 11:14 a.m. Pacific

JAIM T. GODFREY
COMMITTEE CHAIRPERSON

DATE

DRAFT

Oakland Police & Fire Retirement System

FEBRUARY 25, 2025



THINK BROADLY.
ACT DECISIVELY.

This marketing communication is provided for informational purposes only and should not be construed as investment advice. Investment decisions should consider the individual circumstances of the particular investor. Any opinions or forecasts contained herein, reflect the subjective judgments and assumptions of the authors only, and do not necessarily reflect the views of Loomis, Sayles & Company, L.P. Investment recommendations may be inconsistent with these opinions. There is no assurance that developments will transpire as forecasted and actual results will be different. Information, including that obtained from outside sources, is believed to be correct, but we cannot guarantee its accuracy. This information is subject to change at any time without notice.

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BOSTON CHICAGO DETROIT LONDON MINNEAPOLIS PARIS SAN FRANCISCO SINGAPORE UTRECHT

presented by:



LYNNE A. ROYER
Co-Head of Disciplined Alpha Fixed Income



JOHN MEYER, CFA, CAIA, FRM
Director of Public Fund Strategy & Development

the loomis sayles edge

STRIVING TO BE ONE OF THE MOST TRUSTED ACTIVE ASSET MANAGERS FOR NEARLY A CENTURY

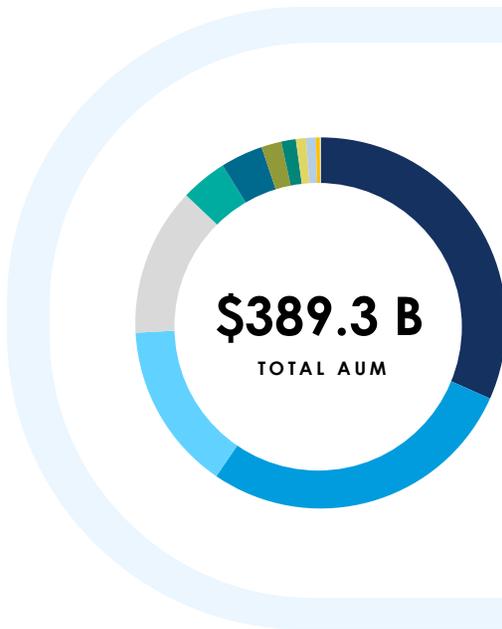
OUR MISSION. YOUR SUCCESS.

Our 15 investment teams, or **Alpha Engines**, are empowered to pursue superior investment opportunities using differentiated and time-tested investment processes.

All Loomis Sayles investment teams aim to help clients meet their financial goals through disciplined investment strategies and exceptional solutions.



Firm Overview



BROAD ASSET CLASS EXPERTISE.

- Investment Grade Corporates
- Equities
- Developed Country Treasurys
- Mortgage & Structured Finance
- Emerging Market Debt
- High Yield Corporates
- Municipals
- Bank Loans
- Other
- Government Related
- Convertible Bonds
- Private Credit

Our Alpha Engines are unified by our **Six Pillar** foundation.

- Sound Philosophy**
- Rigorous, Repeatable Process**
- Proprietary Research**
- Disciplined Portfolio Construction**
- Integrated Risk Management**
- Integrated Sustainability Factors**

Our **fully integrated, proprietary technology and operations infrastructure** enables customization that meets the distinct needs of a diverse, global client base.

**Other includes cash & equivalents and derivatives.*

As of 12/31/2024.

Total AUM includes the assets of both Loomis, Sayles & Co., LP, and Loomis Sayles Trust Company, LLC. (\$47.1 billion for the Loomis Sayles Trust Company). Loomis Sayles Trust Company is a wholly owned subsidiary of Loomis, Sayles & Company, L.P.



A GLOBAL PERSPECTIVE SINCE 1926.

- Boston** • Chicago • Detroit • London • Minneapolis • Paris • San Francisco • Singapore • Utrecht

FO0126
SAIFvkhhetzg
1563458834

investment capabilities

BREADTH OF STRATEGIES POWERED BY PROPRIETARY RESEARCH & INFRASTRUCTURE

Firm Overview

EQUITY

Large Cap (US)

- Large Cap Growth
- All Cap Growth

Small Cap (US)

- Small Cap Growth
- Small Cap Value

Small/Mid Cap (US)

- Mid Cap Growth
- Small/Mid Cap Growth
- Small/Mid Cap (Core)

Global*

- Global Equity Opportunities
- Global Growth

International*

- International Growth

Emerging Markets

- Global Emerging Markets

FIXED INCOME

US Broad Market

- Short Duration
- Intermediate Duration
- Core
- Core Plus
- Multisector

Corporates

- Investment Grade
- High Yield
- Senior Loans

Emerging Markets

- Corporate Debt
- Local Currency
- Short Duration Credit
- Asia Credit
- Blended

Euro Credit

- Sustainable Euro IG Credit
- Euro Investment Grade Credit
- Euro High Yield Credit

Global

- Bond
- Credit
- Unconstrained
- Sustainable
- High Yield

Liability Driven Strategies

- Corporates/Credit
- Government Credit

Municipals

- Short
- Intermediate
- Core
- Crossover

Mortgage & Structured Finance

- Agency MBS
- Core Securitized
- IG & Opportunistic Credit
- Dedicated CLOs
- Euro ABS

Treasury

- Active Treasury
- Inflation Protected

ALTERNATIVES

- Absolute Return
- Long/Short Equity
- Risk Premia
- Equity Buy/Write

MULTI-ASSET

- Multi-Asset Credit
- Multi-Asset Income
- Global Allocation

PRIVATE CREDIT

- Investment Grade

BESPOKE SOLUTIONS

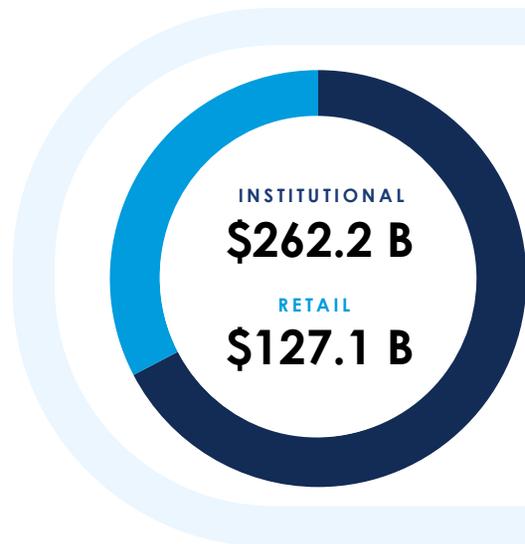
Our highly flexible investment infrastructure enables strategy customization for distinct client requirements and goals

- Insurance
- Cash Flow Matching
- Buy & Maintain
- LDI Solutions
- Managed Accounts
- Sustainability

**International excludes US holdings; Global includes all world assets.
As of 12/31/2024.*

client-focused. research powered.

15 ALPHA ENGINES



Equity Alpha Engines

USD BILLIONS

Growth Equity Strategies	\$89.5
Global Equity Opportunities	\$11.9
Specialty Growth Strategies	\$6.2
Small Cap Value	\$2.8
Global Emerging Markets Equity	\$384 M

Fixed Income Alpha Engines

USD BILLIONS

Relative Return	\$125.1	Municipal	\$6.4
Full Discretion	\$77.1	Emerging Markets Debt	\$3.8
Global	\$31.3	Euro Credit	\$2.7
Disciplined Alpha	\$20.7	Mortgage & Structured Finance	\$18.6*
Alpha Strategies	\$10.6*	Private Credit	\$291 M

LEADING RESEARCH AND INFRASTRUCTURE

Credit Research

Alpha generation through differentiated insights

Equity Research

Driving alpha through independent thinking

Macro Strategies

Focused insights for investment impact

Applied Integrated Quant

Connecting the art and science of investing

Mortgage & Structured Finance

Diversified alpha through global asset-based investing

Sustainable Investments

Research. Valuation. Engagement. Client-Focus

Trading

Beyond execution

Investment Strategy & Risk Management

Ensuring the SIX PILLAR foundation

NIM-os Technology**

Distinctive Capabilities. Custom Solutions.

*Includes accounts that may also be counted as part of other strategies.

**NIM-os, LLC is a wholly owned subsidiary of Loomis, Sayles & Company, L.P.

As of 12/31/2024.

a trusted steward of public funds

PUBLIC FUNDS ARE AN IMPORTANT PART OF OUR FIRM'S CLIENT BASE, AND WE ARE PROUD TO HAVE A ROBUST & EXPERIENCED TEAM TO REFLECT THAT FOCUS.

Public Funds Team by the Numbers:

\$41.9 B

US PUBLIC FUND ASSETS UNDER MANAGEMENT

247

US PUBLIC FUND ACCOUNTS

+55 Years

MANAGING PUBLIC FUND CLIENT ASSETS

+50

CLIENT SERVICE PROFESSIONALS

+20 / \$5.4 B

CALIFORNIA BASED ACCOUNTS / AUM



JOHN MEYER
Director of Public Fund
Strategy & Development



MATTHEW BUXTON
Director of Public Fund
Relationship Management



JAMES SIA
Head of Global
Relationship Management



KENNETH JOHNSON
Head of US Relationship
Management



STEPHANIE LORD
Director of Relationship
Manager



MARK GIURA
Director, Relationship
Management



JOSEPH BEUPARLANT
Director, Relationship
Management



LEVI DWYER
Relationship Manager



RENE LEFEVRE
Senior Relationship
Manager

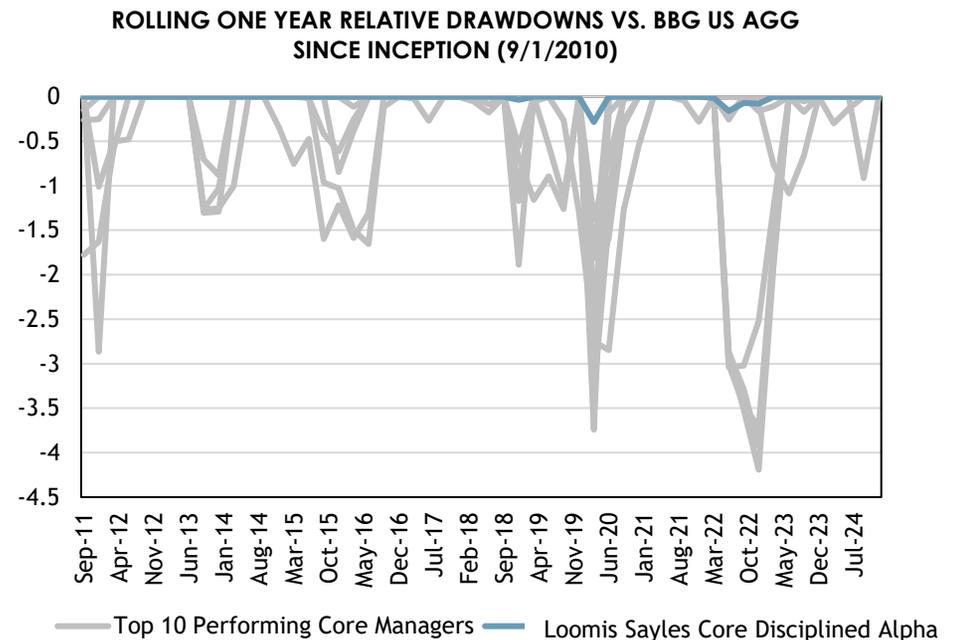
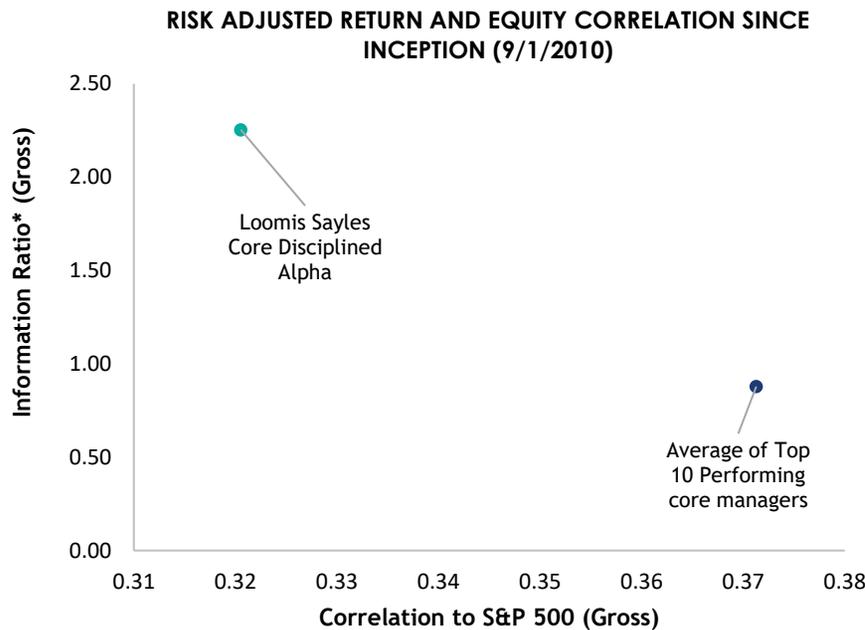


TERESA WOO
Relationship Manager

Data as of December 31st, 2024.

consistency is key

CORE DISCIPLINED ALPHA HAS PROVIDED CONSISTENT EXCESS RETURN AND EQUITY DIVERIFICATION



*IR = Information Ratio. Information Ratio is calculated vs. the benchmark (BBG US Agg).

Sources: eVestment, Bloomberg, Loomis Sayles as of 12/31/2024

Top 10 Core FI strategies were selected based on the top 10 performing strategies in eVestment since the Core Disciplined Alpha Composite inception date (9/1/2010)

The charts presented above are shown for illustrative purposes only.

Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

Diversification does not ensure a profit or guarantee against a loss.

Past performance is no guarantee of future results.

investment philosophy

INTENSE FOCUS ON RELATIVE VALUE INVESTING

- Aims to gain an edge through better research and use of market information
- Seeks to add value for clients through security selection
- Seeks to harvest value through continuous rotation to the best opportunities available to the team

RISK MANAGEMENT IS FUNDAMENTAL TO THE PROCESS

- Security selection decisions are made using the team's risk-adjusted framework concept of portfolio impact* (PI)
- Limited sector positioning helps reduce relative return noise
- Disciplined duration and curve positioning focuses investment process

**Portfolio Impact (PI) is a proprietary risk-adjusted duration measure. Durations are calculated by the Disciplined Alpha team using their own internal methodologies and may result in different calculations than are used by other investment teams at Loomis Sayles and by third parties.*

Please refer to the key investment risks at the end of this presentation for additional information

Any investment that has the possibility for profits also has the possibility of losses, including loss of principal.

There is no guarantee that the investment objective will be realized or that the strategy will generate positive or excess return.

investment team

HIGHLY EXPERIENCED, SEASONED TEAM OF INVESTMENT PROFESSIONALS

DISCIPLINED ALPHA TEAM / PORTFOLIO MANAGEMENT TEAM

Lynne Royer Co-Head of Disciplined Alpha			Seth Timen Co-Head of Disciplined Alpha		
Mirsada Durakovic Credit Portfolio Manager	Andrew Henwood Credit Portfolio Manager	Brad Stevens Credit Portfolio Manager	Sudhir Bhat Mortgage Portfolio Manager	Timi Ajibola Securitized Products Portfolio Manager	
Marc Frank Senior Credit Trader	Brian Gibbs Senior Credit Trader	Matthew Boynton Portfolio Manager	Philip Lok Securitized Products Trader	Camden Wang Quantitative Analyst	Bruce Saldinger Quantitative Analyst
Gabriela Servin-Cendejas Senior Investment Associate		Maggie Hanlon Investment Associate		Jonathan Kimbro Investment Director	

SECTOR TEAMS

- US Yield Curve
- Global Asset Allocation
- Developed Non-US Markets
- Mortgage & Structured Finance
- Investment Grade / Global Credit
- High Yield/Bank Loans
- Emerging Markets
- Convertibles

FIRM RESOURCES (as of 12/31/2024)

Macro Strategies	Credit Research	Mortgage & Structured Finance	Fixed Income Trading	Applied Integrated Quant	Equity Research
<ul style="list-style-type: none"> • 2 Co-Directors • Associate Director • Chief US Economist • 9 Global Macro Strategists • 3 Sovereign Analysts 	<ul style="list-style-type: none"> • 2 Co-Directors • Head of Municipal Research • Head of Convertibles Research • 40 Senior Analysts • 7 Analysts • 10 Research Senior Associates • 2 Research Associate 	<ul style="list-style-type: none"> • Head • 6 Portfolio Managers • 3 Strategists • 4 Senior Analysts • Director, MSF Trading • 4 MSF Traders/Tas 	<ul style="list-style-type: none"> • 27 Traders/TAs • Director, Portfolio Implementation • 18 Portfolio Specialists • Director, Operational Trading Risk Mgt. • Risk Analyst 	<ul style="list-style-type: none"> • Director • 2 Co-Directors • 6 Quantitative Analysts 	<ul style="list-style-type: none"> • 12 Senior Analysts • 9 Analysts • Senior Associate • 5 Research Associates
			Sustainability <ul style="list-style-type: none"> • Chief • Associate Director • Climate Analyst • Senior Sustainability Associate • Sustainability Associate 	Investment Strategy & Risk Management <ul style="list-style-type: none"> • Chief Inv. Risk Officer • Risk Engineer • Investment Risk Manager 	<ul style="list-style-type: none"> • 3 Senior Inv. Risk Analysts • 3 Inv. Risk Analysts • Inv. Risk Associate

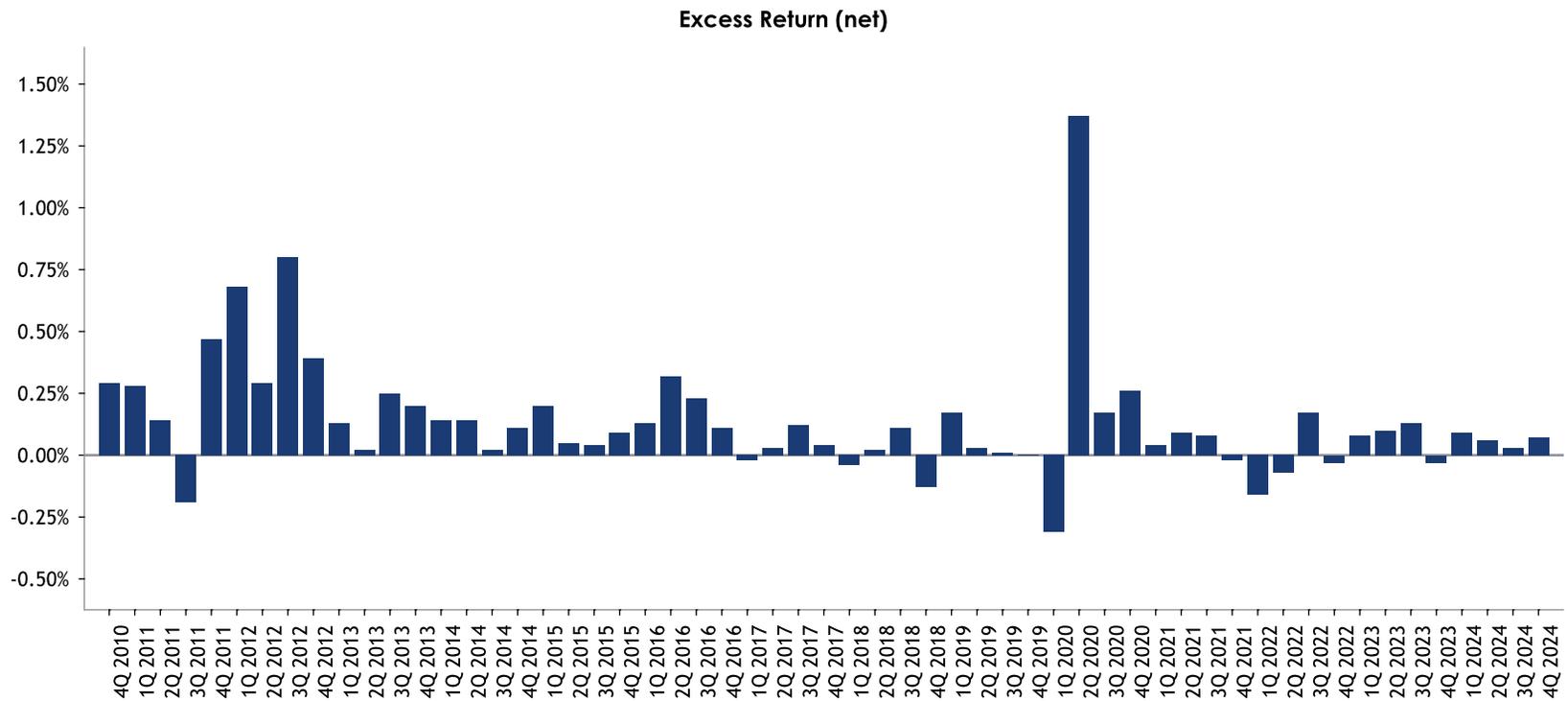
As of 2/1/2025.

portfolio review

QUARTERLY EXCESS RETURN HISTORY

Core Disciplined Alpha Composite

Core Disciplined Alpha



Source: Loomis Sayles and Bloomberg as of 12/31/2024.

Composite inception: 11/1/2010. Excess return is relative to the Bloomberg U.S. Aggregate Index. Net returns are gross returns less effective management fees.

Please see the GIPS Composite Report at the end of this presentation for a complete description, including performance dispersion, of the Loomis Sayles Core Disciplined Alpha Composite.

Past performance is no guarantee of future results.

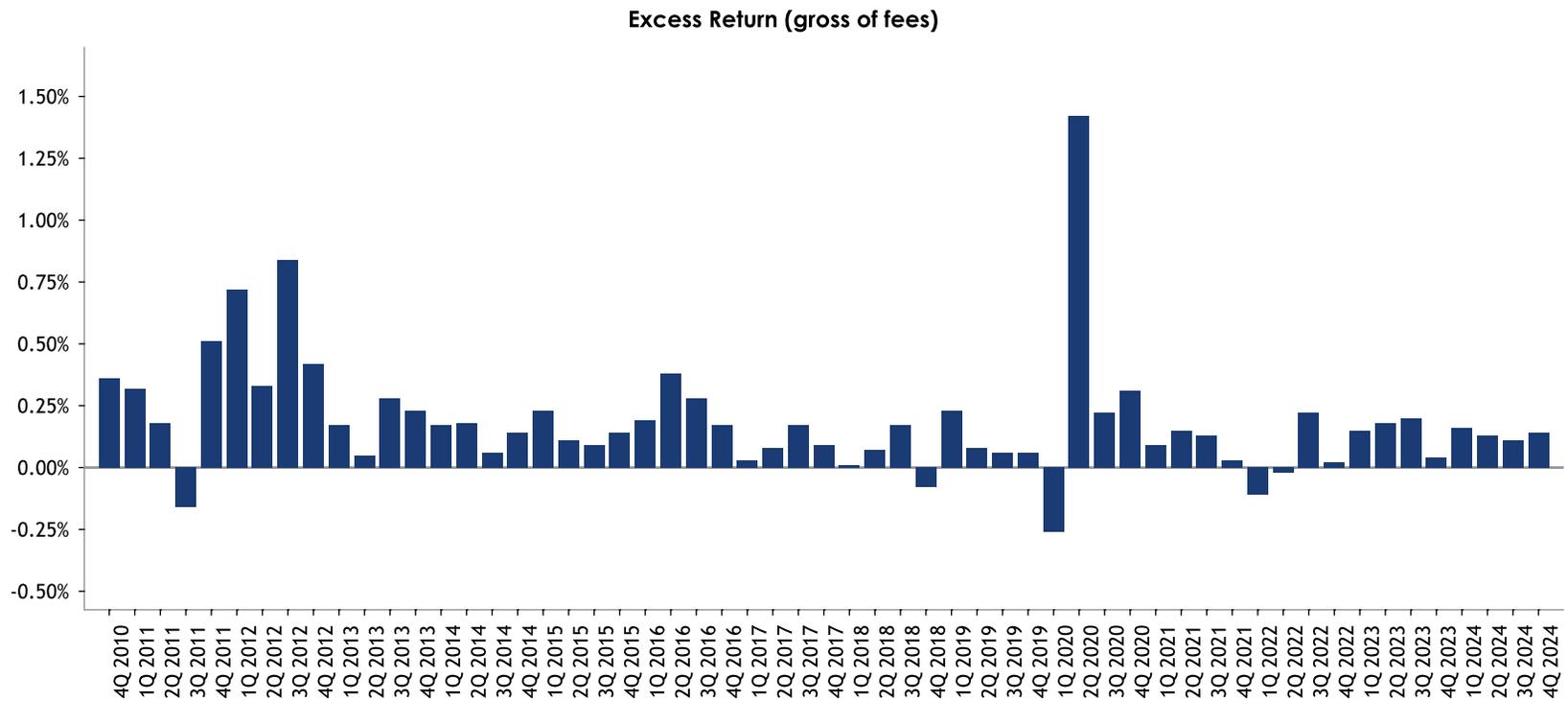


portfolio review

QUARTERLY EXCESS RETURN HISTORY

Core Disciplined Alpha Composite

Core Disciplined Alpha



Source: Loomis Sayles and Bloomberg as of 12/31/2024.

Composite inception: 11/1/2010. Excess return is relative to the Bloomberg U.S. Aggregate Index. Gross returns are net of trading costs but do not include management fees.

Please see the GIPS Composite Report at the end of this presentation for a complete description, including performance dispersion, of the Loomis Sayles Core Disciplined Alpha Composite.

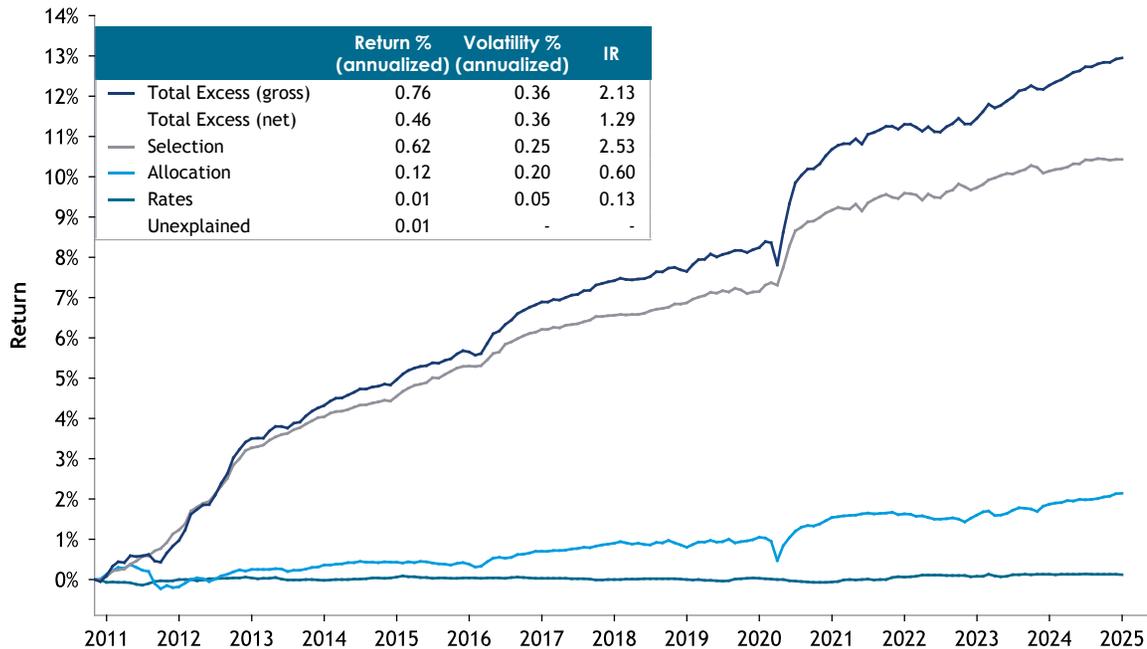
Past performance is no guarantee of future results.



portfolio review

SECURITY SELECTION DRIVES ALPHA

Representative Account Attribution 11/1/2010 through 12/31/2024



Core Disciplined Alpha

Source: Loomis Sayles and Bloomberg.

Excess return is relative to the Bloomberg U.S. Aggregate Index. Gross returns are net of trading costs but do not include management fees. Net returns are gross returns less effective management fees.

Characteristics are shown for a representative account. Due to system limitations, it is difficult to analyze this data on a composite basis. This representative account was selected because it closely reflects the Loomis Sayles Core Disciplined Alpha investment strategy. Due to guideline restrictions and other factors, there is some dispersion between the returns of this account and other accounts managed in the Core Disciplined Alpha investment style.

Please see the GIPS Composite Report at the end of this presentation for a complete description, including performance dispersion, of the Loomis Sayles Core Disciplined Alpha Composite.

Past performance is no guarantee of future results.



portfolio review

COMPOSITE CHARACTERISTICS AS OF 12/31/2024

	Core Disciplined Alpha Composite	Bloomberg U.S. Aggregate Index	Quality	% of Core Disciplined Alpha Composite	% of Bloomberg U.S. Aggregate Index
Average Duration (years)*	6.07	6.02	US Treasuries	32.2	44.0
Average Yield (%)	5.04	4.90	AAA	39.8	29.7
Average Maturity (years)	8.64	8.28	AA	3.5	4.3
Average Quality	AA2	AA2	A	12.3	11.1
Average OAS (bps)	46	34	BAA	12.5	10.4
Average Coupon (%)	4.19	3.41	BA & Lower	0.1	0.0
			NR	1.2	0.0
			Cash & Equivalents	-1.6	0.5

Sector	% of Core Disciplined Alpha Composite **	% of Bloomberg U.S. Aggregate Index ***	Relative PI †
ABS	9.2	0.4	14.8
Agency	0.2	0.7	-2.0
CMBS	1.4	1.5	-0.1
Credit	28.2	28.1	10.2
MBS (Agency)	27.3	24.8	16.5
MBS (Non-Agency)	2.8	0.0	12.9
US Treasury	32.2	44.0	-16.1
Cash & Equivalents	-1.6	0.5	N/A

†PI is a proprietary risk adjusted duration measure.

*Durations are calculated by the Disciplined Alpha team using their own internal methodologies and may result in different calculations than are used by other investment teams at Loomis Sayles and by third parties.

**Cash & Equivalents reflect unsettled trades and fees. Negative Cash & Equivalents reflect the market value of future trade commitments for the portfolio.

***Cash exposure for the Index represents accrued income provided by Bloomberg.

Source: Loomis Sayles and Bloomberg.

Due to active management, characteristics will evolve over time.

Please see the GIPS Composite Report at the end of this presentation for a complete description, including performance dispersion, of the Loomis Sayles Core Disciplined Alpha Composite.

Past performance is no guarantee of future results.

investment performance - supplemental

CORE DISCIPLINED ALPHA COMPOSITE - SINCE INCEPTION* AS OF 9/30/2024

Statistics & Rankings vs. Index



	Annualized Returns	Excess Return	Information Ratio	Standard Deviation	Tracking Error
● Core Disciplined Alpha (Gross)	2.98	0.77	2.25	4.44	0.34
% Ranking	30 th	30 th	1 st	46 th	2 nd
■ Bloomberg US Aggregate Index	2.21	0.00	n/a	4.40	0.00
% Ranking	97 th	97 th	n/a	35 th	1 st
Median	2.83	0.63	0.67	4.47	0.93
Observations	187	187	187	187	187
<hr/>					
Core Disciplined Alpha (Net)	2.78	0.57			

* Inception Date: 9/1/2010.

Source: eVestment; Nasdaq eVestment is the ranking agency. Universe: eVestment US Core Fixed Income. This marketing communication is provided as supplemental to a full product presentation book. Gross returns are net of trading costs. Net returns are gross returns less effective management fees. Annualized performance is calculated as the geometric mean of the product's returns with respect to one year. Rankings are based on gross returns and do not take into account management fees or other fees and expenses. The highest (or most favorable) percentile rank is 1, and the lowest (or least favorable) percentile rank is 100. Rankings are subject to change. Median is the value for the observations as of the end of each period shown. Although we believe it is reliable, we cannot guarantee the accuracy of data from a third-party source. This information cannot be copied, reproduced or redistributed without authorization in any form.

Please reference the GIPS Report for a complete description of the Loomis Sayles Composite shown, an integral part of this presentation.

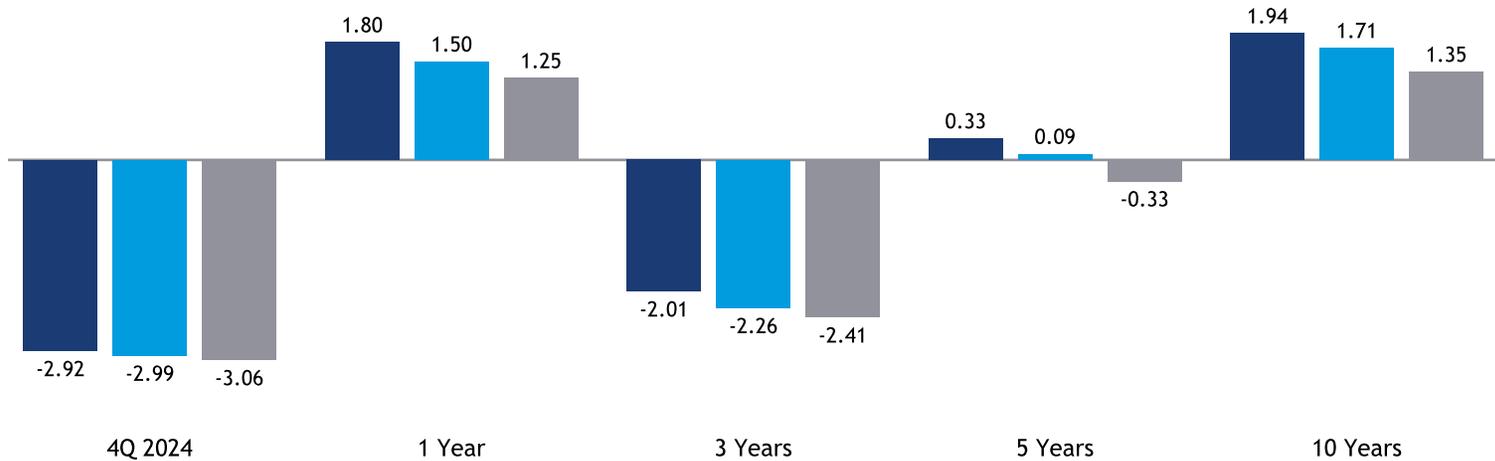
Past performance is no guarantee of future results.

portfolio review

COMPOSITE PERFORMANCE AS OF 12/31/2024 (%)

Trailing Returns

■ Core Disciplined Alpha (gross) ■ Core Disciplined Alpha (net) ■ Bloomberg U.S. Aggregate Index



Cumulative Total Return

Annualized Total Return

Excess Return	gross	+0.14	+0.55	+0.40	+0.65	+0.59
	net	+0.07	+0.25	+0.14	+0.42	+0.36

Source: Loomis Sayles and Bloomberg.

Returns for multi-year periods are annualized. Gross returns are net of trading costs. Net returns are gross returns less effective management fees. Returns may increase or decrease as a result of currency fluctuations. Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

Please see the GIPS Composite Report at the end of this presentation for a complete description, including performance dispersion, of the Loomis Sayles Core Disciplined Alpha Composite.

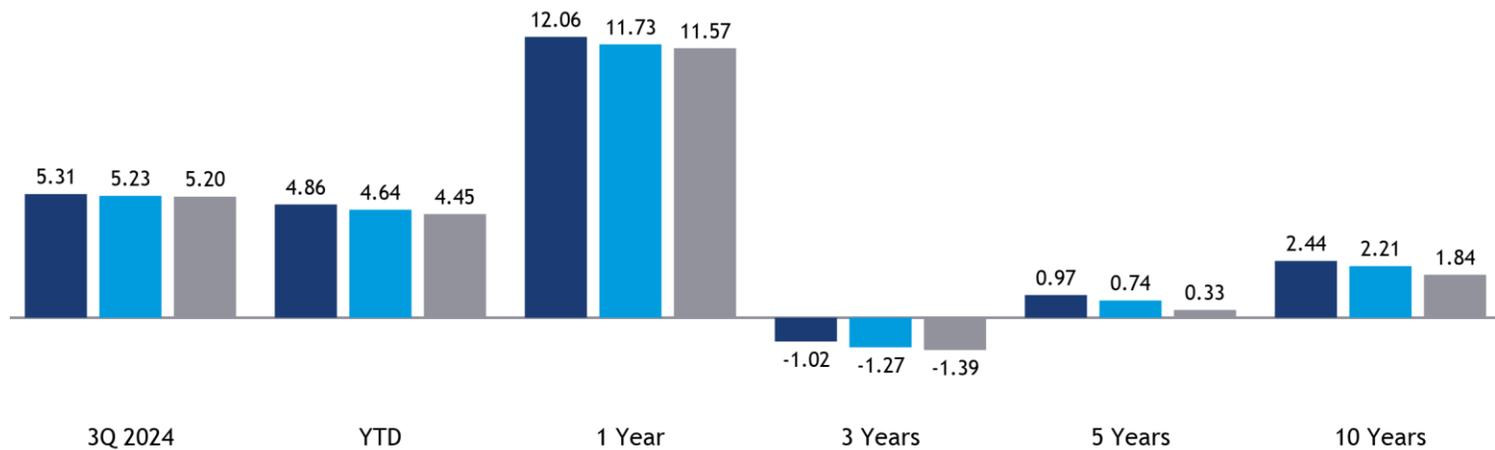
Past performance is no guarantee of future results.

portfolio review

COMPOSITE PERFORMANCE AS OF 9/30/2024 (%)

Trailing Returns

■ Core Disciplined Alpha (gross) ■ Core Disciplined Alpha (net) ■ Bloomberg U.S. Aggregate Index



Cumulative Total Return

Annualized Total Return

		3Q 2024	YTD	1 Year	3 Years	5 Years	10 Years
Excess Return	gross	+0.11	+0.41	+0.49	+0.37	+0.64	+0.59
	net	+0.03	+0.19	+0.17	+0.12	+0.41	+0.37

Source: Loomis Sayles and Bloomberg.

Returns for multi-year periods are annualized. Gross returns are net of trading costs. Net returns are gross returns less effective management fees. Returns may increase or decrease as a result of currency fluctuations.

Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

Please see GIPS Report at the end of this presentation for a complete description of the Loomis Sayles Core Disciplined Alpha Composite.

Past performance is no guarantee of future results.



Additional Information

diversity, equity and inclusion (DEI)

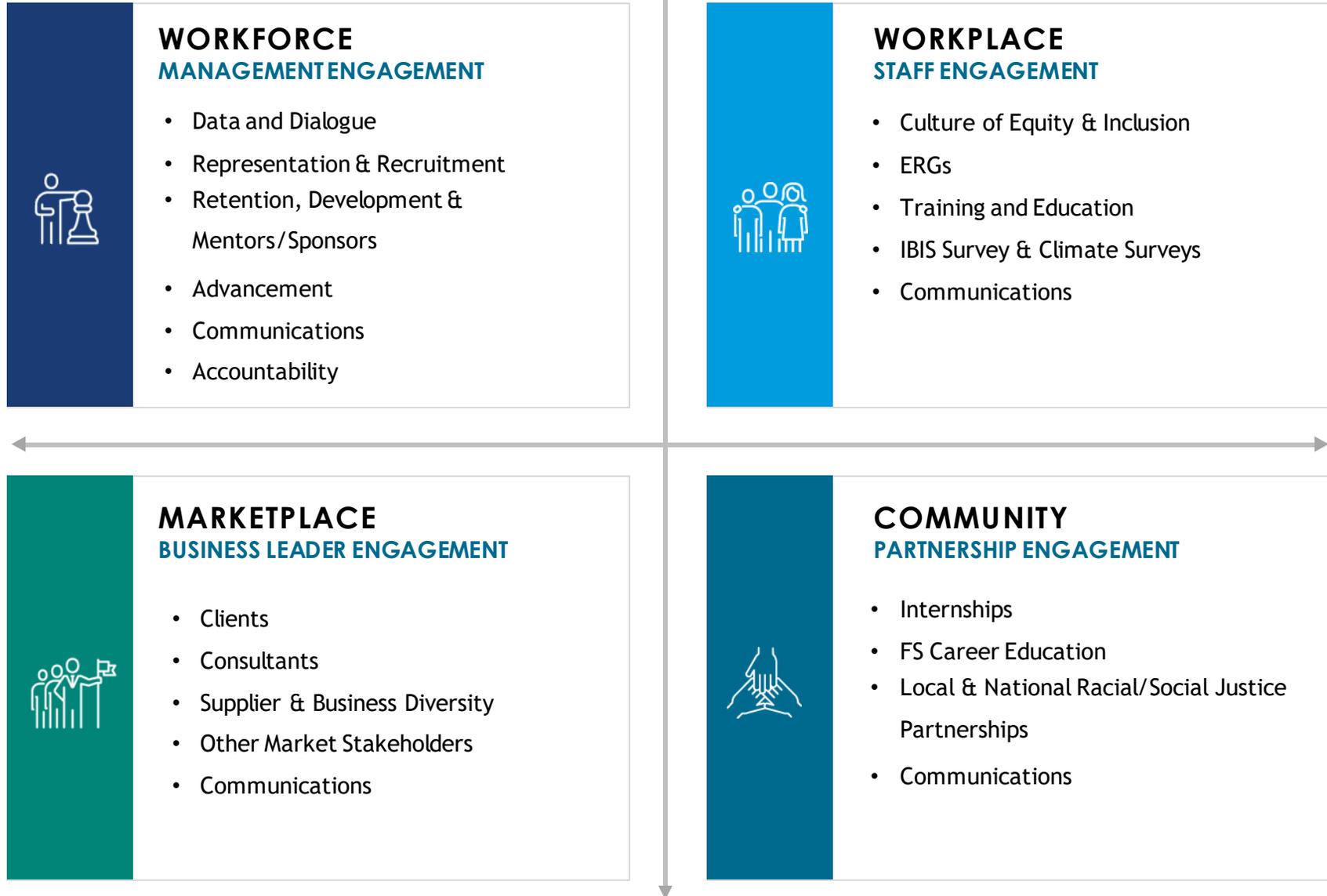
AT LOOMIS SAYLES, WE BELIEVE IN A WORKPLACE CULTURE THAT ACKNOWLEDGES, SUPPORTS, AND INVESTS IN THE DIVERSITY OF ALL ITS MEMBERS

THIS IS CRITICAL in order to fulfill the investment needs of our clients worldwide, manage the complexity of our dynamic and global business and build a community where all employees have an equal opportunity to expand on their potential.

WE DEFINE diversity as spanning all dimensions of identity, including but not limited to race, ethnicity, nationality, gender identity & expression, physical & mental ability, military status, sexual identity & orientation, marital status, religion, socioeconomic background and age.

WE RECOGNIZE the path toward diversity, equity and inclusion of all persons across all levels of our organization, and in the financial services industry, will be an ongoing and extensive process. Despite these challenges, we are committed to fostering an environment where all employees are represented, respected, valued and empowered to apply all of the dimensions of their identities to enrich Loomis Sayles as a whole.

DEI strategic focus areas



undergraduate women's investment network (UWIN)



MISSION: Inspire, develop and recruit undergraduate students who are underrepresented in the investment management industry by providing mentorship, internship experience, professional development and technical skills needed to succeed in the industry.

THE MENTORSHIP PROGRAM: matches undergraduate students with Loomis Sayles mentors to help connect the educational experience to a potential career in investment management.

THE INTERNSHIP PROGRAM: provides undergraduate students with on-the-job experience in investment management through two 10-week rotations in investment or client facing functions.

WHY CREATE UWIN?				PIPELINE OF SUCCESS		LOOMIS SAYLES ENGAGEMENT	
Women are underrepresented in investment management and at Loomis Sayles, and diversity is critical to the success of our firm and its employees				<p>250 participants from 22 colleges and universities in New England</p> <p>Loomis Sayles has hired 15 students as summer interns and 10 graduates in full time positions with 3 additional graduates joining in mid 2024</p>		<p>Over 150 employees have volunteered their time to this effort, including:</p> <p>96 employees as mentors</p> <p>27 departments with 70 UWIN interns</p> <p>Speaking at education and development workshops and participating in recruiting efforts</p>	
FUND MANAGERS		INV. PROFESSIONALS					
11%	23%	18%	25%				
Industry	Loomis Sayles	Industry	Loomis Sayles				

“ The program answers so many questions about what it is like to have a career in finance and which role you see yourself thriving in. I have learned so much and the program has really given me the confidence and passion to pursue a career in investment management after school. - 2021 Mentee

*As of 12/31/2023.
The UWIN trademark appearing herein is the property of Loomis Sayles & Co, LP.*

undergraduate summer internship development program (USID)

MISSION: to offer broad access and exposure to a career path in financial services by creating a candidate pool of first-generation college students and/or those underrepresented in the investment management industry.

Diversity, Equity and Inclusion



DIRECT EXPERIENCE

Interns spend 10 weeks in a professional setting, learning meaningful and practical skills through project-based work



ONGOING DEVELOPMENT

Interns receive personal development sessions and industry-specific content to promote career readiness in investment management



MENTORSHIP

Interns are matched with an employee who will foster a supportive relationship through meaningful connections, sharing experiences, and providing advice



LOOMIS SAYLES ENGAGEMENT

Over 200 employees have volunteered their time to this effort, including:

95 employees who have supervised interns across 40 departments

105 employees who served as mentors

SUCCESS STATS since inception (2015)

192 interns have participated

26 alumni have been hired as full-time employees



I enjoyed the emphasis placed on personal development. I enjoyed attending the various sessions, and I feel as if I have learned more about myself as an individual as a result. - 2022 Intern

Source: Vault, as of 3/31/2024.

To compile the 2024 Vault Top Internships Rankings, Vault surveyed thousands of current and former interns in the summer of 2023. To determine an overall score for each program, the ratings were assigned relative weights based on what interns told us they most value most in an internship. The overall scores are based on the following weighted formula: 30% career development, 20% employment prospects, 20% quality of life, 20% compensation, 5% diversity, and 5% interview process.



associate development program (ADP)

MISSION: ADP is a component of our strategy to attract, retain and develop early career talent by leveraging the pipeline created by UWIN and USID.



DIRECT EXPERIENCE

Associates spend eight months (per rotation) on a research, product or trading team gaining valuable experience to help develop their industry specific skills



ONGOING DEVELOPMENT

Associates receive personal development and industry-specific content education throughout their two years in the program



MENTORSHIP

Associates are matched with an employee who will foster a supportive relationship through meaningful connections, sharing experiences, and providing advice



LOOMIS SAYLES ENGAGEMENT

16 employees have volunteered their time to this effort, including:

7 employees who have supervised associates across 4 departments

9 employees who served as mentors

Stats Since Inception (2023):

7 associates currently participating with 4 more joining in July 2025.

“This program has helped me navigate through the difficult transitional period from college to the “real world” in ways like no other - the flexibility and nature of rotations at this firm allows you to learn from industry experts in all areas, while discovering your own passions and skills. By having the new things and stepping outside my comfort zone, I am building a skill set that will take me beyond just a successful career.

– 2023 Associate

As of 12/31/2024.

investment summary

STRATEGY HIGHLIGHTS

Style:

- Security selection based alpha
- Fundamental research based security selection
- Benchmark driven
- Historically below average tracking error

Characteristics:

- Diversified portfolio
- Highly integrated risk management
- Primarily benchmark-like securities
- Seek little duration or curve risk

Please refer to the key investment risks at the end of this presentation for additional information

Diversification does not ensure a profit or guarantee against loss.

There is no guarantee that the investment objective will be realized or that the strategy will generate excess return.

Any investment that has the possibility for profits also has the possibility of losses, including loss of principal.

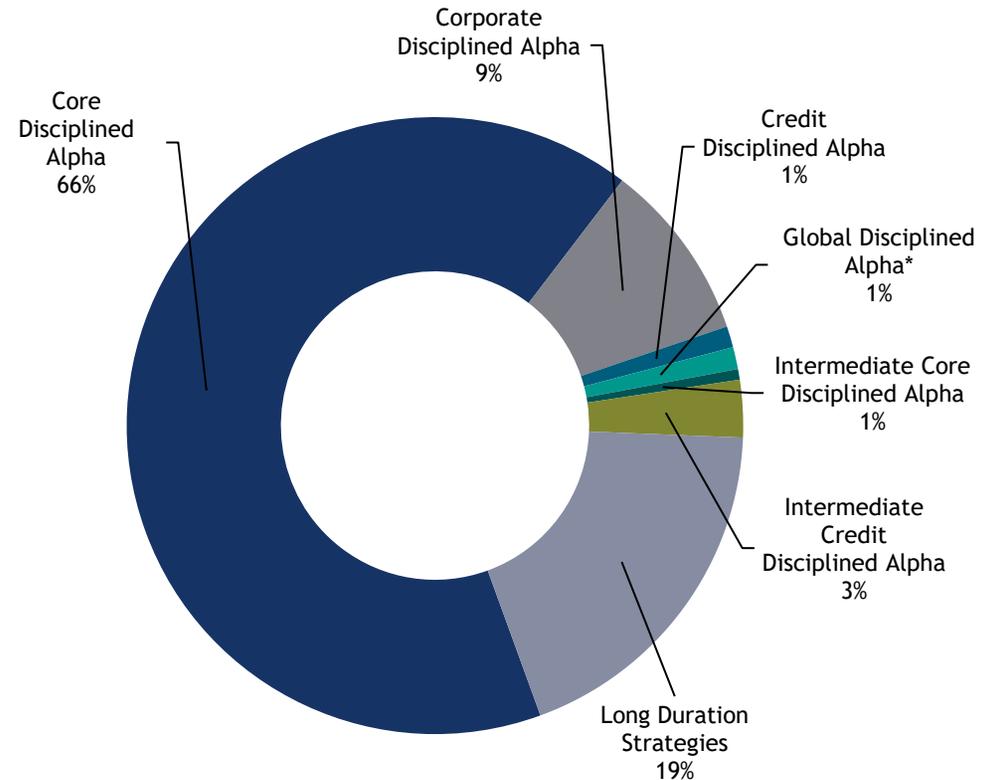
Past performance is no guarantee of future results.

disciplined alpha platform

TEAM ASSETS UNDER MANAGEMENT

\$20.7 billion as of December 31, 2024

	STRATEGY INCEPTION DATE	ASSETS (\$ BILLIONS)
Core Disciplined Alpha	7/28/2010	13.6
Corporate Disciplined Alpha	5/31/2013	1.9
Credit Disciplined Alpha	5/1/2023	0.2
Global Disciplined Alpha*	10/31/2013	0.2
Intermediate Core Disciplined Alpha	1/10/2019	0.1
Intermediate Credit Disciplined Alpha	10/1/2022	0.6
Long Duration Strategies		3.9
Long Corporate Disciplined Alpha	6/30/2013	2.5
Long Credit Disciplined Alpha	5/15/2017	0.7
Long Government Corporate Disciplined Alpha	2/16/2018	0.6
Total AUM		20.7



*Managed by Global Disciplined Alpha team, with Co-Heads Lynne Royer, Lynda Schweitzer, Scott Service and Seth Timen. The DA Team has day-to-day responsibility for the USD-denominated assets in the GDA strategy and Lynda Schweitzer and Scott Service and their team have day-to-day responsibility for the Non-USD assets in the GDA strategy. The split between USD and non-USD assets is determined by market weight in the benchmark and the team rebalances each month. As of 12/31/2024. Due to rounding, pie chart total may not equal 100%.

distributed decision-making

DRAWING ON FIRM-WIDE RESOURCES THROUGHOUT THE INVESTMENT PROCESS

Team Breakdown	<p>Co-Head of Disciplined Alpha</p> <p>Lynne Royer Seth Timen</p>	<p>Corporate Investment Team</p> <p>Mirsada Durakovic Marc Frank Brian Gibbs Maggie Hanlon Andrew Henwood Bradley Stevens</p>	<p>Securitized Investment Team</p> <p>Timi Ajibola Sudhir Bhat Gabriela Servin-Cendejas Philip Lok</p>	<p>Risk Management & Portfolio Support</p> <p>Matthew Boynton Bruce Saldinger Camden Wang</p>
Responsibilities	<ul style="list-style-type: none"> • Set target exposure with senior sector specialists* • Vet investment process and new strategies • Coach and guide investment team • Ultimate veto authority 	<ul style="list-style-type: none"> • Know bonds in investment universe • Collaborate with firm wide research • Fundamental analysis of credit and durations • Assess relative value • Identify buy/sell 	<ul style="list-style-type: none"> • Product and process development • Proprietary attribution • Risk monitoring • Create tools (DART) 	
Firm-wide Resources	<ul style="list-style-type: none"> • Macro Strategies • Sovereign Research • Applied IQ • Sector Teams 	<ul style="list-style-type: none"> • Credit Research • Sovereign Research • Fixed Income Trading • Sector Teams 	<ul style="list-style-type: none"> • Mortgage & Structured Finance Team • Fixed Income Trading • Sector Teams 	<ul style="list-style-type: none"> • CRD • Applied IQ • Compliance • Accounting

*Senior sector specialists responsible for setting target exposures are Sudhir Bhat, Andrew Henwood, Brad Stevens, Mirsada Durakovic and Timi Ajibola
As of 12/31/2024

sector responsibility

DRAWING ON THE RESOURCES OF FIRM-WIDE LOOMIS SAYLES RESEARCH TEAMS

Disciplined Alpha

Sector Specialist	Seth Timen	Mirsada Durakovic	Andrew Henwood	Brad Stevens	Marc Frank	Brian Gibbs
	Co-Head*	Credit Portfolio Manager	Credit Portfolio Manager	Credit Portfolio Manager	Senior Credit Trader	Senior Credit Trader
Industry Responsibility	Energy, Emerging Market Credit, Owned-No-Guarantee Sovereigns, Utilities	Emerging Market Credit, Industrial – Other, Metals & Mining, Owned-No-Guarantee Sovereigns, Taxable Municipals, Transportation, Utilities	Autos, Auto Parts, Chemicals, Paper, Consumer Products, Defense, Industrials, Energy, Homebuilders, REITs, Retail, Technology	Banking & Finance, Healthcare, Health Insurance, Media, Entertainment, P&C, Life Insurance, Pharmaceuticals, Telecom, Cable	Autos, Auto Parts, Chemicals, Paper, Consumer Products, Industrial – Other, Media, Entertainment, Metals & Mining, Taxable Municipals, Technology, Telecom, Cable	Banking & Finance, Defense, Industrials, Healthcare, Health Insurance, Homebuilders, P&C, Life Insurance, Pharmaceuticals, REITs, Retail, Transportation

Sector Specialist	Sudhir Bhat	Timi Ajibola	Philip Lok	Matthew Boynton
	Mortgage Portfolio Manager	Securitized Products Portfolio Manager	Securitized Products Trader	Portfolio Manager
Sector Responsibility	Agency MBS, Non-Agency MBS	ABS, Agency MBS, CMBS, Non-Agency MBS	ABS/CMBS	U.S. Treasurys

SUPPORTED BY LOOMIS SAYLES PROPRIETARY RESEARCH WORLDWIDE

MACRO STRATEGIES

CREDIT RESEARCH

MUNICIPAL RESEARCH

MORTGAGE AND STRUCTURED FINANCE

As of 12/31/2024

*In addition to his responsibilities as co-head, Seth Timen has trading responsibilities for several industries as shown.

security selection process

WE SOURCE IDEAS BY SEEKING THE BEST RELATIVE VALUE EVERY DAY

We focus primarily on liquid securities where we believe we have an analytic or informational advantage

- Fundamental research underpins our decisions
- Changing spreads and new information help create continuous opportunities

All opportunities evaluated in a Portfolio Impact (PI) framework

FUNDAMENTAL RESEARCH	CHANGING SPREADS
<p>Loomis firm-wide resources</p> <ul style="list-style-type: none">• Change in Loomis research views• Relative value recommendation (LRR)[†]• Industry analysis and research reports• Rising stars/fallen angels• Frequent interaction with LS Credit Research analysts regarding industry trends and related companies <p>External research</p> <ul style="list-style-type: none">• Rating Agency• Wall Street	<p>Trading desk</p> <ul style="list-style-type: none">• Street relationships• Market technicals• Trends• New Issues <p>Quantitative models</p> <ul style="list-style-type: none">• DART• PRISM• DALIA• URV (Unified Relative Value)

[†]Loomis Research Recommendation; Relative to the analyst's industry coverage in market segment (e.g., investment grade or high yield).

Portfolio Impact (PI) is a proprietary risk-adjusted duration measure. Durations are calculated by the Disciplined Alpha team using their own internal methodologies and may result in different calculations than are used by other investment teams at Loomis Sayles and by third parties.

There is no guarantee that the investment objective will be realized or that the strategy will generate positive or excess return.

security selection process

ESG INTEGRATION AND FINANCIAL MATERIALITY

We believe risks and opportunities associated with material ESG factors are inherent to investment decision-making and our clients' long-term financial success. In service of our fiduciary duty, we believe the best way to consider ESG is through integration that aims to identify the financial materiality of ESG factors.

Assessing ESG risk starts with deep fundamental research

- Loomis Sayles Credit Research provides forward-looking ESG issuer scores and industry analysis
- Proprietary materiality maps seek to highlight ESG related financial risks and opportunities
- Analysts routinely engage with issuers on material ESG factors

ESG factors are reflected in assessment of relative value

- Portfolio positioning reflects fundamental inputs combined with a spread-based view of relative value
- Proprietary risk system (DART) incorporates external ESG data and proprietary LS ESG scores
- External ESG research enables further analysis of our portfolio's carbon footprint, transition pathway, and stranded-asset risk

Scores do not have any predictive value, and do not indicate the probability of any level of future return.

risk management

HOW WE MEASURE RISKS IN THE PORTFOLIO

We believe our risk management measure can help lead to better security selection decisions and better portfolio construction

Portfolio Impact (PI)

- Risk decisions are evaluated based on their Portfolio Impact (PI)
- PI is based on the size, duration, and expected price volatility of each position
- PI is intuitive: a 10 PI position impacts portfolio returns by 10 basis points in a 100 basis point move
- Attribution is based on PI
- Position sizing guided by PI
- Sector risk measured by PI

PI is a proprietary risk adjusted duration measure. Durations are calculated by the Disciplined Alpha team using their own internal methodologies and may result in different calculations than are used by other investment teams at Loomis Sayles and by third parties.

Please refer to the key investment risks at the end of this presentation for additional information.

Any investment that has the possibility for profits also has the possibility of losses, including loss of principal.

risk management

PI: OUR RISK LANGUAGE

PI incorporates the size of the position, duration, and sensitivity to changes in sector spreads

	WEIGHT (%)	OAD	BETA	PI	RATING	OAS
AUTO COMPANY A	0.50	4.25	0.80	1.70	A3/A-	82
AUTO COMPANY B	0.50	4.10	1.50	3.10	Baa2/BBB	155

Same industry and portfolio weight, but different risk profile

- Company B has a higher beta (bonds trade wide to the credit index)
- Fully risk-adjusted, we view Company B as having 1.8x the amount of portfolio risk

PI is a proprietary risk adjusted duration measure. Durations are calculated by the Disciplined Alpha team using their own internal methodologies and may result in different calculations than are used by other investment teams at Loomis Sayles and by third parties.

Examples above are provided to illustrate the investment process for the strategy used by Loomis Sayles and should not be considered recommendations for action by investors. They may not be representative of the strategy's current or future investments and they have not been selected based on performance. Loomis Sayles makes no representation that they have had a positive or negative return during the holding period.

Please refer to the key investment risks at the end of this presentation for additional information.

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risk management process

WE BELIEVE OUR RISK MANAGEMENT PROCESS HELPS ENABLE BETTER SECURITY SELECTION DECISIONS

How our risk process is designed to work:

- Risk targets set by co-heads and senior sector specialists
- Risk measured relative to the benchmark
- Bi-weekly formal meeting to review risk targets
- DART: Real-time, PI-based risk management for continuous monitoring
- Applied Integrated Quant provides additional analytic perspective



Please refer to the key investment risks at the end of this presentation for additional information.

Any investment that has the possibility for profits also has the possibility of losses, including loss of principal.

disciplined alpha risk tool (DART)

PROPRIETARY TOOL FULLY INTEGRATES RISK MANAGEMENT

- Entire team sees real-time risk exposures
- Helps boost efficiency of the trading process
- Allows ability to target and manage portfolio exposures
- Reporting functionality highly customized to aid in portfolio construction

Disciplined Alpha



Charts are illustrative for presentation purposes only as a sampling of risk management tool output.

Some or all of this information on these charts may be dated, and, therefore, should not be the basis to purchase or sell any securities. The information is not intended to represent any actual portfolio. Views and opinions expressed reflect the current opinions of the [presenter, author, team name], and views are subject to change at any time without notice. Other industry analysts and investment personnel may have different views and opinions. Please refer to the key investment risks at the end of this presentation for additional information.

Any investment that has the possibility for profits also has the possibility of losses, including loss of principal.

Past market performance is no guarantee of future results.

product overview

INVESTMENT UNIVERSE

Benchmark: Bloomberg U.S. Aggregate Index

- Agencies
- Asset-backed securities
- Commercial mortgage-backed securities
- Investment grade credit
- Mortgage-backed securities
- US Treasurys
- US dollar-denominated bonds only
- Other investments up to 5% in aggregate

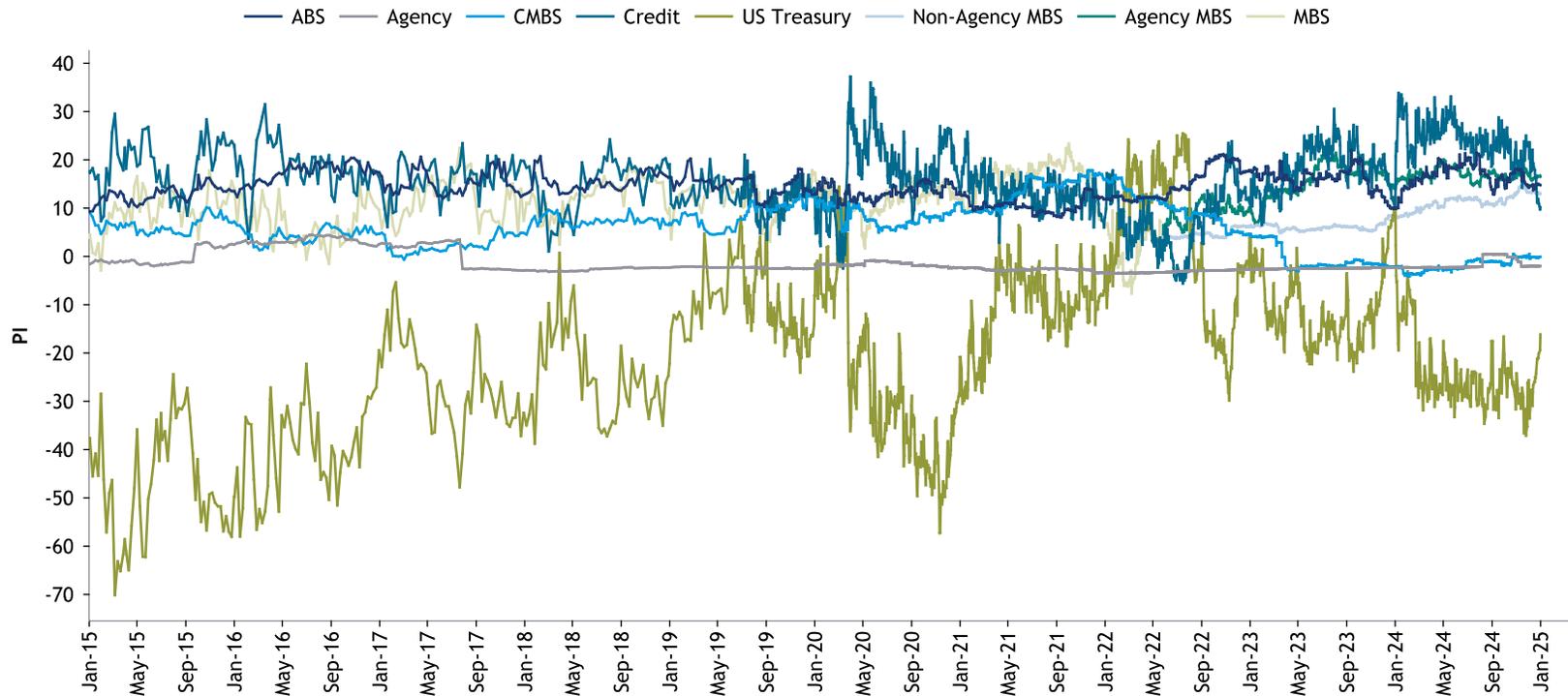
*Please refer to the key investment risks at the end of this presentation for additional information.
Any investment that has the possibility for profits also has the possibility of losses.*

portfolio review

HISTORICAL COMPOSITE SECTOR POSITIONING

Relative PI

Core Disciplined Alpha



Source: Loomis Sayles. As of 12/31/2024 based on daily calculations.

PI is a proprietary risk adjusted duration measure shown relative to the Bloomberg U.S. Aggregate Index. Durations are calculated by the Disciplined Alpha team using their own internal methodologies and may result in different calculations than are used by other investment teams at Loomis Sayles and by third parties.

Due to active management, characteristics will evolve over time.

Please see the GIPS Composite Report at the end of this presentation for a complete description, including performance dispersion, of the Loomis Sayles Core Disciplined Alpha Composite.

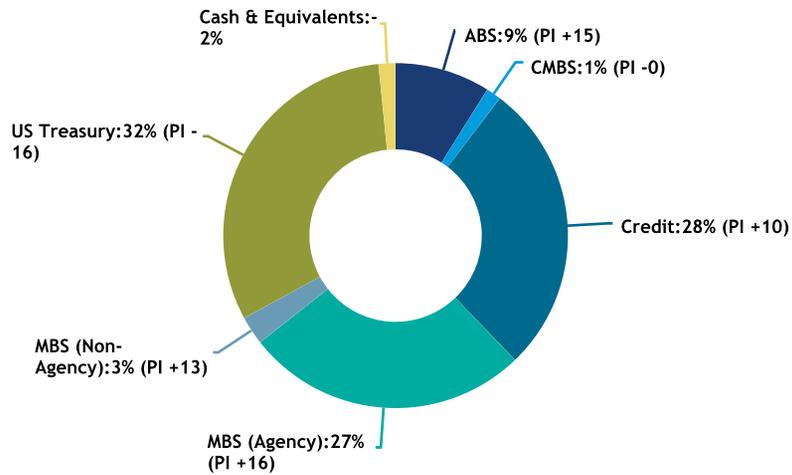


portfolio review

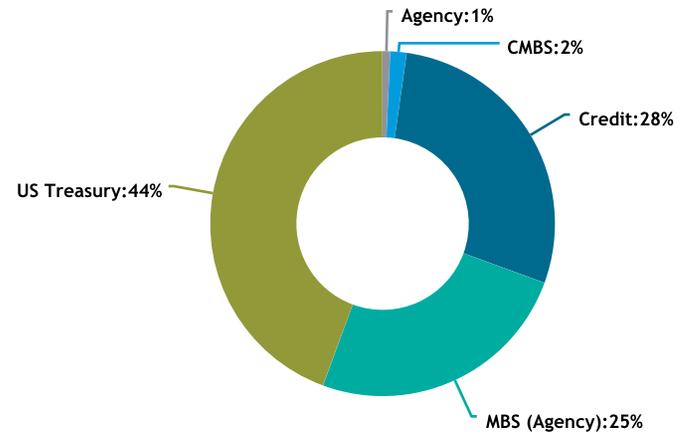
COMPOSITE SECTOR DISTRIBUTION AS OF 12/31/2024

Core Disciplined Alpha

Core Disciplined Alpha Composite



Bloomberg U.S. Aggregate Index



Source: Loomis Sayles and Bloomberg.

PI is a proprietary risk adjusted duration measure. Durations are calculated by the Disciplined Alpha team using their own internal methodologies and may result in different calculations than are used by other investment teams at Loomis Sayles and by third parties.

Due to active management, characteristics will evolve over time. Sector totals that do not round up to 1% are not shown in pie chart. Due to rounding, pie chart totals may not equal 100%.

Please see the GIPS Composite Report at the end of this presentation for a complete description, including performance dispersion, of the Loomis Sayles Core Disciplined Alpha Composite.

portfolio review

COMPOSITE CREDIT INDUSTRY DISTRIBUTION AS OF 12/31/2024

	% Core Disciplined Alpha Composite	% Bloomberg U.S. Aggregate Index	Relative PI †		% Core Disciplined Alpha Composite	% Bloomberg U.S. Aggregate Index	Relative PI †
Electric	5.8	2.1	14.7	Oil Field Services	0.0	0.1	-0.6
Independent	2.2	0.3	13.6	Pharmaceuticals	0.9	1.3	-0.6
Owned No Guarantee	1.4	0.2	9.5	Refining	0.1	0.1	-0.7
Midstream	2.2	0.9	7.8	Supranational	0.0	1.3	-0.7
Metals and Mining	1.1	0.2	6.8	Building Materials	0.0	0.1	-0.7
Local Authorities	1.5	0.7	4.3	Restaurants	0.0	0.1	-0.8
Automotive	1.4	0.6	3.4	Brokerage AssetManagers	0.1	0.4	-1.0
Health Insurance	0.5	0.4	3.1	Consumer Products	0.0	0.2	-1.1
Banking	5.6	5.6	2.3	Finance Companies	0.0	0.3	-1.9
Media Entertainment	0.5	0.5	1.9	Cable Satellite	0.2	0.4	-2.1
Life	0.7	0.3	1.9	Diversified Manufacturing	0.0	0.4	-2.1
Environmental	0.2	0.1	1.5	Chemicals	0.0	0.3	-2.6
Supermarkets	0.1	0.1	1.2	Railroads	0.0	0.3	-2.8
Government Guarantee	0.1	0.5	1.1	TELECOM	1.1	1.1	-3.3
Paper	0.2	0.1	1.0	P&C	0.0	0.5	-3.8
Transportation Services	0.1	0.1	0.3	Food and Beverage	0.1	0.8	-3.8
Industrial Other	0.2	0.1	0.2	REITS	0.0	0.7	-3.9
Integrated	0.2	0.4	0.1	Retailers	0.0	0.8	-4.0
Financial Other	0.0	0.0	-0.1	Healthcare	0.1	1.0	-7.1
Home Construction	0.0	0.0	-0.1	Sovereign	0.1	1.0	-8.7
Aerospace/Defense	0.4	0.5	-0.2	Technology	0.7	2.2	-8.9
Packaging	0.0	0.0	-0.2	Total	28.2	28.1	10.2
Airlines	0.0	0.1	-0.2				
Lodging	0.0	0.1	-0.3				
Natural Gas	0.2	0.2	-0.3				
Tobacco	0.2	0.3	-0.3				
Consumer Cyclical Services	0.0	0.1	-0.4				
Utility Other	0.0	0.0	-0.4				
Construction Machinery	0.0	0.2	-0.5				
Gaming	0.0	0.1	-0.5				

†PI is a proprietary risk adjusted duration measure. Durations are calculated by the Disciplined Alpha team using their own internal methodologies and may result in different calculations than are used by other investment teams at Loomis Sayles and by third parties.

Source: Loomis Sayles and Bloomberg.

Due to active management, characteristics will change over time.

Please see the GIPS Composite Report at the end of this presentation for a complete description, including performance dispersion, of the Loomis Sayles Core Disciplined Alpha Composite.

portfolio review

COMPOSITE SECURITIZED INDUSTRY DISTRIBUTION AS OF 12/31/2024

	% Core Disciplined Alpha Composite	% Bloomberg U.S. Aggregate Index	Relative PI †
Agency MBS	27.3	24.8	16.5
Conventional 30 Year	19.2	16.4	16.7
1.5	0.4	0.5	-0.3
2.0	3.9	3.9	0.4
2.5	3.1	3.0	1.0
3.0	2.1	1.8	2.8
3.5	1.7	1.3	3.3
4.0	1.4	1.1	2.3
4.5	1.1	0.8	1.7
5.0	1.5	0.9	2.8
5.5	1.7	1.2	2.1
6.0	1.3	1.1	0.3
6.5 and Above	0.9	0.8	0.1
GNMA 30 Year	5.1	5.8	-2.1
1.5	0.0	0.0	-0.1
2.0	0.9	0.9	0.2
2.5	1.1	1.0	0.4
3.0	0.9	0.8	0.8
3.5	0.6	0.6	0.3
4.0	0.4	0.4	0.2
4.5	0.4	0.4	0.0
5.0	0.2	0.5	-1.3
5.5	0.2	0.5	-1.2
6.0	0.2	0.4	-0.5
6.5 and Above	0.0	0.2	-0.8
Conventional 15 Year	2.0	1.9	0.5
1.0	0.0	0.0	-0.1
1.5	0.3	0.5	-0.5
2.0	0.8	0.7	0.1
2.5	0.6	0.3	1.2
3.0	0.2	0.2	0.4
3.5	0.0	0.1	-0.2
4.0 and Above	0.0	0.1	-0.5
Conventional 20 Year	0.3	0.7	-1.7
GNMA 15 Year	0.0	0.0	0.0
Agency CMO	0.8	0.0	3.2

	% Core Disciplined Alpha Composite	% Bloomberg U.S. Aggregate Index	Relative PI †
Non-Agency MBS	2.8	0.0	12.9
CRT	0.5	0.0	1.2
NPL	1.2	0.0	5.6
RPL	1.0	0.0	6.1
ABS	9.2	0.4	14.8
Auto	6.5	0.2	11.1
Senior Floorplan	0.7	0.0	2.3
Senior Prime Loan	3.3	0.2	5.7
Senior Subprime Loan	0.8	0.0	0.6
Subordinated Prime Loan	0.1	0.0	0.2
Subordinated Subprime Loan	0.1	0.0	0.1
Other	1.6	0.0	2.1
Credit Card	2.1	0.1	3.1
Senior Bank	1.8	0.1	2.6
Senior Retail	0.2	0.0	0.5
Other	0.6	0.1	0.6
CMBS	1.4	1.5	-0.1
Agency CMBS	1.0	0.8	1.9
Conduit	0.4	0.8	-2.8
2015 AAA LCF	0.1	0.0	0.1
2016 AAA LCF	0.1	0.1	0.2
2017 AAA LCF	0.0	0.1	-0.2
2018 AAA LCF	0.0	0.1	-0.2
2019 AAA LCF	0.0	0.1	-0.4
2020 AAA LCF	0.0	0.0	0.0
2021 AAA LCF	0.0	0.0	-0.2
2022 AAA LCF	0.0	0.0	-0.1
2023 AAA LCF	0.0	0.0	-0.1
2024 AAA LCF	0.1	0.0	0.9
AAA Non-LCF	0.0	0.2	-0.9
Mezzanine	0.0	0.1	-1.1

†PI is a proprietary risk adjusted duration measure. Durations are calculated by the Disciplined Alpha team using their own internal methodologies and may result in different calculations than are used by other investment teams at Loomis Sayles and by third parties.

Source: Loomis Sayles and Bloomberg.

Due to active management, characteristics will change over time.

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summary

WHY THE DISCIPLINED ALPHA TEAM?

Deep Resources

- The Disciplined Alpha team consists of 16 investment professionals dedicated to fundamental research-based security selection and integrated risk management
- Loomis Sayles' depth of resources across our fundamental and quantitative research platforms are an integral part of the Disciplined Alpha investment process

Distinct and Repeatable Investment Process

- The Disciplined Alpha team aims to produce consistent alpha by understanding where we believe bonds should trade at any given time and adjusting portfolio positioning within a structured process every day
- Portfolio managers, analysts and traders continually discuss investment ideas, risks and trading levels in their efforts to outperform their benchmarks while maintaining targeted risk levels across portfolios

Dedicated to Investment Excellence

- The Disciplined Alpha team's investment process has been in place for over 25 years*
- We believe our investment philosophy supports a process that can result in strong risk-adjusted outperformance for our clients

As of 12/31/2024.

**The Disciplined Alpha team joined Loomis Sayles in 2009. Experience prior to that date was at their prior firm.*

There is no guarantee that the investment objective will be realized or that the strategy will generate positive or excess return.



Biographies

team biographies



Lynne A. Royer

Lynne Royer is a portfolio manager and co-head of the Disciplined Alpha Team at Loomis, Sayles & Company. She began her investment industry career in 1985 and joined Loomis Sayles as co-head and co-founder of the Disciplined Alpha Team in 2010 from Wells Capital Management, where she was senior portfolio manager and co-head of the Montgomery Core fixed income investment team. Previously, Lynne was a lending officer with Morgan Guaranty Trust Company (J.P. Morgan). Earlier, she was a financial analyst in the equity research department at Barclays de Zoete Wedd, and an analyst in the corporate finance department at Drexel Burnham Lambert. Lynne is a Phi Beta Kappa graduate of Gettysburg College and earned an MBA from the Anderson Graduate School of Management at the University of California, Los Angeles.



Seth Timen

Seth Timen is a portfolio manager and co-head of the Disciplined Alpha Team at Loomis, Sayles & Company. He began his investment industry career in 2001 and joined Loomis Sayles in 2010 from Pequot Capital Management, where he was responsible for trading fixed income risk across investment grade, high yield, and structured products. Previously, Seth was an associate at Credit Suisse, where he assisted with corporate bond investment and strategy execution for institutional clients. He earned a BA from the University of Michigan.



Olurotimi Ajibola

Timi Ajibola is a securitized portfolio manager for the Disciplined Alpha Team at Loomis, Sayles & Company. He joined Loomis Sayles in 2019 as a senior mortgage trader and was promoted to portfolio manager in 2024. Previously, Timi was an MBS portfolio manager at Google, where he managed a portfolio of agency MBS and CMBS and was responsible for security selection, trading and risk management. Prior to this, he was an MBS strategist at BNP Paribas, where he was responsible for idea generation and trade recommendations in agency MBS. Timi has also held analyst roles at Barclays Global Investors and Deutsche Bank. He earned a BS in mathematics: actuarial science from the University of Texas at Austin.



Sudhir Bhat, CFA

Sudhir Bhat is a mortgage portfolio manager for the Disciplined Alpha Team at Loomis, Sayles & Company, where he is responsible for security selection and trading for the mortgage sector. Sudhir started his investment industry career in 1999. Prior to joining Loomis Sayles in 2010, he spent six years on the BNP Paribas MBS proprietary trading desk, trading agency and non-agency mortgage-backed securities. Previously, he was responsible for constructing fixed income analytics for Prudential Financial. Sudhir earned a bachelors degree in electrical engineering from Victoria Jubilee Technical Institute in Mumbai, India. He also earned a masters degree in electrical engineering from the Indian Institute of Technology in Kanpur, India and an MBA from the Leonard N. Stern School of Business at New York University. Sudhir is a CFA charterholder.

team biographies



Matthew Boynton

Matthew Boynton is a portfolio manager at Loomis, Sayles & Company, focusing on US Treasuries trading as well as supporting securitized trading. He joined Loomis Sayles in 2008 as a fixed income portfolio analyst, was promoted to trading assistant in 2010, and to junior trader in 2014. Previously, Matthew was lead operations specialist at Brown Brothers Harriman. He began his investment industry career in 2006. Matthew earned a BS in economics from The Pennsylvania State University.



Mirsada Durakovic

Mirsada Durakovic is a credit portfolio manager for the Disciplined Alpha Team at Loomis, Sayles & Company. She is responsible for idea generation and security selection using internal and external research to make buy/sell/hold recommendations based on relative value within her sectors. Mirsada joined Loomis in 2017 and began her investment industry career in 1998. Previously, she was fixed income investment manager at Shoreline Investments Management Co. at Hewlett Packard, Inc. where she provided oversight for fixed income, hedge fund and alternative assets. Prior to Hewlett Packard, Mirsada was an assistant portfolio manager at Driehaus Capital Management in Chicago. She has also held positions at Lotsoff Capital Management and JP Morgan Securities Corp. Mirsada earned a BS from Loyola University Chicago and an MBA from the University of Chicago Booth School of Business.



Andrew Henwood, CFA

Andrew Henwood is a credit portfolio manager for the Disciplined Alpha Team at Loomis, Sayles & Company. He is responsible for idea generation and security selection using internal and external research combined with an assessment of trade levels to determine optimal positioning based on risk-adjusted relative value within his sectors. Previously, Andrew was the lead credit analyst covering the aerospace and defense sector including investment grade, high yield and bank loans. He began his investment industry career in 2006, and joined Loomis Sayles in 2007. Andrew is a graduate of Sacramento State University and earned an MBA from the Massachusetts Institute of Technology. He is a CFA charterholder.



Marc Frank, CFA

Marc Frank is a senior credit trader for the Disciplined Alpha Team at Loomis, Sayles & Company. He joined Loomis Sayles in 2016 as a credit trader and was promoted to senior credit trader in 2020. Marc has 15 years of investment industry experience. Previously, Marc was a trader at Bank of America Merrill Lynch. Prior to this, he was a trader at Citigroup Global Markets. Marc earned a BS from Brown University. He is a CFA charterholder.

team biographies



Brian Gibbs, CFA

Brian Gibbs is a senior credit trader for the Disciplined Alpha Team at Loomis, Sayles & Company. He joined Loomis Sayles in 2014 as a trading assistant and was later promoted to junior trader. In 2020, Brian was promoted to credit trader and to senior credit trader in 2024. Previously, he was a portfolio operations analyst at Kaspick & Company (TIAA-CREF). Prior to this, Brian was an associate at S3 Partners where he provided counterparty risk and collateral management services to hedge funds. He began his investment industry career in 2009. Brian earned a BA from Canisius College. He is a CFA charterholder.



Marguerite Hanlon

Marguerite Hanlon is an investment associate on the Disciplined Alpha Team at Loomis, Sayles & Company, where she is responsible for research, portfolio reporting and market analysis. She began her investment career when she joined Loomis Sayles in 2024. Marguerite earned a BS in biomedical engineering from Purdue University.



Jonathan Kimbro, CAIA

Jonathan Kimbro is an investment director for the Disciplined Alpha Team at Loomis, Sayles & Company. He has 18 years of investment industry experience and joined Loomis Sayles in 2014 as a senior product marketing analyst. Previously, Jonathan was an investment analyst at Prime, Buchholz & Associates, where he conducted manager research and assisted clients with portfolio implementation across asset classes. He earned a BA from Wake Forest University and an MS in finance from Northeastern University. Jonathan holds the Chartered Alternative Investment Analyst (CAIA) designation.



Philip Lok

Philip Lok is a securitized products trader for the Disciplined Alpha Team at Loomis, Sayles & Company, where he is responsible for security selection and trading for ABS and CMBS. He joined Loomis Sayles in 2023 from Allspring Global Investments, where he was responsible for trading securitized products. Earlier in his career, Philip served as an analyst in the financial reporting group at Wells Fargo Asset Management. He began his investment industry career in 2012. Philip earned a BS in finance from the University of California, Riverside.

team biographies



Bruce Saldinger

Bruce Saldinger is a quantitative analyst at Loomis, Sayles & Company, where he helps integrate the research and technological strengths of the firm into the Disciplined Alpha Team's investment process. He joined Loomis Sayles in 2011 from Wells Capital Management, where he was director of quantitative development. In this role, Bruce was responsible for defining, architecting, creating and supporting proprietary software tools to support the fixed income investment process. He began his investment industry career in 2001. Bruce earned a BS from the University of California at Berkeley and an MBA from the Anderson Graduate School of Management at UCLA.



Gabriela Servin-Cendejas

Gabriela Servin-Cendejas is a senior investment associate on the Disciplined Alpha Team at Loomis, Sayles & Company. She is responsible for research, portfolio reporting and market analysis. Gabriela began her investment career when she joined Loomis Sayles in 2020. She previously worked with the Disciplined Alpha Team as an intern. Gabriela earned a BA in business management economics from the University of California, Santa Cruz.



Bradley Stevens, CFA

Brad Stevens is a credit portfolio manager for the Disciplined Alpha Team at Loomis, Sayles & Company. He is responsible for idea generation and security selection using internal and external research combined with an assessment of trade levels to determine optimal positioning based on risk-adjusted relative value within his sectors. Brad began his investment industry career in 2004. Prior to joining Loomis Sayles in 2010, he worked at the California Public Employees' Retirement System as an investment officer in credit. Prior to this, Brad traded equity options at Timber Hill LLC. He earned a BA in economics from Denison University and an MBA from Columbia Business School. Brad is a CFA charterholder.



Camden Wang, PhD

Camden Wang is a quantitative associate for the Disciplined Alpha Team at Loomis, Sayles & Company. He is responsible for assisting with the integration of research and technology for the team's investment process as well as the development and implementation of tools for attribution and risk management. Camden joined Loomis Sayles in 2020. Previously, he was a quantitative summer associate in the wholesale credit group at JP Morgan, where he implemented a wide range of machine learning and neural network methods to model defaults and credit downgrades for institutional loans. Camden began his investment industry career in 2019. He earned a BS from the University of Science and Technology of China and a PhD from the University of Pittsburgh.



Disclosures

additional notes – key investment risks

Credit Risk

The risk that the issuer or borrower will fail to make timely payments of interest and/or principal. This risk is heightened for lower rated or higher yielding fixed income securities and lower rated borrowers.

Issuer Risk

The risk that the value of securities may decline due to a number of reasons relating to the issuer or the borrower or their industries or sectors. This risk is heightened for lower rated fixed income securities or borrowers.

Liquidity Risk

The risk that the strategy may be unable to find a buyer for its investments when it seeks to sell them, which is heightened for high yield, mortgage-backed and asset-backed securities.

Interest Rate Risk

The risk that the value of a debt obligation falls as interest rates rise.

Non-U.S. Securities Risk

The risk that the value of non-U.S. investments will fall as a result of political, social, economic or currency factors or other issues relating to non-U.S. investing generally. Among other things, nationalization, expropriation or confiscatory taxation, currency blockage, political changes or diplomatic developments can negatively impact the value of investments. Non-U.S. securities markets may be relatively small or underdeveloped, and non-U.S. companies may not be subject to the same degree of regulation or reporting requirements as comparable U.S. companies. This risk is heightened for underdeveloped or emerging markets, which may be more likely to experience political or economic stability than larger, more established countries. Settlement issues may occur.

Currency Risk

The risk that the value of investments will fall as a result of changes in exchange rates, particularly for global portfolios.

Derivatives Risk (for portfolios that utilize derivatives)

The risk that the value of the Strategy's derivatives instruments will fall because of changes in the value of the underlying reference instrument, pricing difficulties or lack of correlation with the underlying investment.

Leverage Risk (for portfolios that utilize leverage)

The risk of increased loss in value or volatility due to the use of leverage or obtaining investment exposure greater than the value of an account.

Counterparty Risk

The risk that the counterparty to a swap or other derivatives contract will default on its obligations.

Prepayment Risk

The risk that debt securities, particularly mortgage-related securities, may be prepaid, resulting in reinvestment of proceeds in securities with lower yields. An investment may also incur a loss when there is a prepayment of securities purchased at a premium. Prepayments are likely to be greater during periods of declining interest rates.

Extension Risk

The risk that an unexpected rise in interest rates will extend the life of a mortgage or asset-backed security beyond the expected prepayment time, typically reducing the security's value.

Equity Risk

The risk that the value of stock may decline for issuer-related or other reasons.

Non-Diversified Strategies

Non-diversified strategies tend to be more volatile than diversified strategies and the market as a whole.

Municipal Securities Risk

The risk that municipal markets may be volatile and can be significantly affected by adverse tax, legislative or political changes and the financial condition of the issuers of municipal securities.

Models and Data Risk

The strategy may utilize quantitative model-based strategies. This is the risk that one or all of the quantitative or systematic models used may fail to identify profitable opportunities at any time. These models may incorrectly identify opportunities and these misidentified opportunities may lead to substantial losses. Models may be predictive in nature and may result in an incorrect assessment of future events. Data used in the construction of models may prove to be inaccurate or stale, which may result in investment losses.

General Risk

Any investment that has the possibility for profits also has the possibility of losses, including loss of principal.

GIPS Composite Report

AS OF 12/31/2024

Firm

Loomis, Sayles & Company, L.P. (“Loomis Sayles”) is an independently operated investment advisory firm registered under the Investment Advisers Act of 1940. Registration does not imply a certain level of skill or training.

Loomis Sayles claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. Loomis Sayles has been independently verified for the periods January 1, 1999 through December 31, 2023. The verification reports are available upon request.

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm’s policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein.

The firm’s list of composite and limited distribution pooled fund descriptions and list of broad distribution pooled funds are available upon request.

Selection Criteria for the Core Disciplined Alpha Composite (“Composite”)

The Composite includes all discretionary accounts with market values of at least \$40 million managed by Loomis Sayles that seek to add value for clients primarily through security selection, intending to gain an edge through analysis and market information and minimizing duration, curve, and large sector mismatches with the following additional considerations. The investment universe is primarily investment grade bonds, with a bias for liquidity. Accounts may allow up to 5% in securities below investment grade. Portfolio duration is tightly constrained and normally managed within 10% of the benchmark. Prior to May 1, 2018 the Composite minimum account size requirement was \$30 million. The Composite inception date is September 1, 2010. The Composite was created in September 2010.

Loomis Sayles adopted a significant cash flow policy since Composite inception where portfolios are removed from the Composite when net monthly cash flow exceeds 30% of the portfolio’s beginning market value.

Benchmark

The benchmark for the Composite is the Bloomberg U.S. Aggregate Index (“Index”). The Index represents securities that are SEC-registered, taxable, and dollar denominated. The Index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. These major sectors are subdivided into more specific indices that are calculated and reported on a regular basis. The investment portfolio underlying the Index is different from the investment portfolios of the accounts included in the Composite. The Index is used for comparative purposes only, is not intended to parallel the risk or investment style of the accounts in the Composite, and does not reflect the impact of fees and trading costs. The source of all data regarding the Index is Bloomberg.

Calculation Methodology

Gross of fee account returns are time-weighted rates of return, net of commissions and transaction costs. Net of fee account returns are the gross returns less the effective management fee for the measurement period. Beginning January 1, 2023 the effective fee for an account is derived by applying the highest applicable fee based on the current model fee schedule for the composite to calculate an annual fee amount. Beginning April 1, 2015 through December 31 2022 the effective fee for an account was derived by using beginning of measurement period assets and model fee schedule for the Composite to calculate an annual fee amount. Prior to April 1, 2015 the effective fee for an account was derived by using beginning of measurement period assets and the model fee schedule for each account to calculate an annual fee amount. The fee amount is divided by the assets for an annual effective fee. The monthly effective fee is based on 1/12 of the annual effective fee.

All performance results are expressed in US dollars. Performance results include the reinvestment of dividends and other earnings on holdings in the Composite and Index. Policies for valuing investments, calculating performance, and preparing GIPS reports are available upon request. Loomis Sayles’s advisory fees are presented below and may also be found in Part 2A of Form ADV.

Annual Rates Applied to Assets Under Management

0.29% on the first \$50 million; 0.25% on the next \$50 million; 0.20% on the next \$100 million; 0.18% on value over \$200 million; Minimum account size: \$50 million; Minimum annual fee: \$145,000. The maximum management fee and total expense ratio for the Core Disciplined Alpha New Hampshire Trust are 0.30%.

GIPS Composite Report

AS OF 12/31/2024

Core Disciplined Alpha Composite

Core Disciplined Alpha

Period	Composite Gross Return (%)	Composite Net Return (%)	Bloomberg U.S. Aggregate Index (%)	Composite 3-Yr St Dev* (%)	Benchmark 3-Yr St Dev* (%)	Number of Portfolios in Composite End of Period	Internal Dispersion of Returns** (%)	Composite Total Assets End of Period (USD M)	Total Firm Assets End of Period (USD M)
2024	1.80	1.50	1.25	7.73	7.72	12	0.04	7,445	359,555
2023	6.13	5.83	5.53	7.14	7.14	12	0.04	5,954	312,921
2022	-12.91	-13.09	-13.01	5.92	5.77	9	0.03	4,021	265,942
2021	-1.14	-1.34	-1.54	3.51	3.35	9	0.04	4,511	338,949
2020	9.29	9.07	7.51	3.49	3.36	9	0.06	3,154	325,173
2019	9.17	8.95	8.72	2.85	2.87	10	0.03	4,167	276,489
2018	0.18	-0.02	0.01	2.84	2.84	8	0.01	3,333	249,718
2017	3.93	3.71	3.54	2.80	2.78	8	0.05	2,706	268,086
2016	3.68	3.46	2.65	3.01	2.98	7	N/M	2,090	240,193
2015	1.12	0.93	0.55	2.95	2.88	≤ 5	N/M	1,701	229,126

*The three-year annualized standard deviation measures the variability of the gross composite returns and the benchmark returns over the preceding 36 month period.

**The internal dispersion of returns presented reflects the annual equal weighted standard deviation and is calculated as the average dispersion from the mean gross return of all accounts included in the Composite for the entire year.

N/M - Measures of internal dispersion with five or fewer accounts for the entire period are not considered meaningful.

Past performance is no guarantee of future results.



general disclosure

Past performance is no guarantee of future results.

There is no guarantee that the investment objective will be realized or that the strategy will generate positive or excess return.

Commodity, interest and derivative trading involves substantial risk of loss. **This is not an offer of, or a solicitation of an offer for, any investment strategy or product. Any investment that has the possibility for profits also has the possibility of losses, including the loss of principal.**

Diversification does not ensure a profit or guarantee against a loss.

Market conditions are extremely fluid and change frequently.

Gross returns are net of trading costs. Net returns are gross returns less effective management fees. Returns for multi-year periods are annualized.

Indices are unmanaged and do not incur fees. It is not possible to invest directly in an index.

Charts are illustrative for presentation purposes only as a sampling of tool output. Some or all of the information on charts shown may be dated, and, therefore, should not be the basis to purchase or sell any securities. The information is not intended to represent any actual portfolio. Any securities examples are provided to illustrate the investment process for the strategy used by Loomis Sayles and should not be considered recommendations for action by investors. They may not be representative of the strategy's current or future investments and they have not been selected based on performance.

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Principal Investment Risks: Investments in bonds can lose their value. When interest rates rise, bond prices usually fall and vice versa. High yield securities are subject to a high degree of market and credit risk, including risk of default. In addition, the secondary market for these securities may lack liquidity which, in turn, may adversely affect the value of these securities and that of the portfolio. Foreign investments involve special risks including greater economic, political and currency fluctuation risks, which may be even greater in emerging markets. Currency exchange rates between the US dollar and foreign currencies may cause the value of the investments to decline. Commodity-related investments, including derivatives, may be affected by a number of factors including commodity prices, world events, import controls and economic conditions and therefore may involve substantial risk of loss. Equity securities are volatile and can decline significantly in response to broad market and economic conditions.

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An electronic version of this presentation book is available upon request.

Presentation to Oakland Police and Fire Retirement System

Loop Capital Asset Management

1001 Brickell Bay Dr. Suite 2100
Miami, Florida 33131

Loopcapital.com\LCAM

Presenters:

Scott Kimball, CFA, Managing Director, Chief Investment Officer
Jackson Smith, Senior Vice President

February 25, 2025



Privileged & Confidential

Presenters



Scott M. Kimball, CFA®

Managing Director, Chief Investment Officer

Scott serves as the Chief Investment Officer for LCAM, reporting directly to the CEO of Loop Capital. In this role, he oversees the strategic management of LCAM and the implementation of the team's collaborative investment process. Emphasizing a team-based approach, he and the portfolio managers implement protocol for portfolio construction and risk budgeting of client accounts. He joined LCAM in 2007 and served as a research analyst prior to joining the portfolio management team in 2011 and has since served as a member of the team's management and investment committees. Scott previously held positions at Merrill Lynch and other boutique investment firms, beginning his career in the investment industry in 2003. He earned his bachelor's degree in international business from Stetson University and holds an M.B.A. from the University of Miami. He is a CFA® charterholder. Additionally, Scott frequently appears on CNBC and Bloomberg Television as well as being a regularly featured source for The Wall Street Journal and Barron's.



Jackson Smith

Senior Vice President

Jackson is a Senior Vice President at Loop Capital Asset Management. Jackson is a product specialist responsible for business development and managing relations with clients and consultants. Prior to joining LCAM 2022, Jackson served as Senior Vice President and Head of Marketing and Client Services at Smith Graham, & Co. Prior to Smith Graham Jackson worked as an Analyst for the Corporate and Investment Banking Group at KeyBanc Capital Markets. Before joining KeyBanc, Jackson began his career with Amegy Bank as a Private Banking Officer. Jackson began his career experience in the financial services industry in 2013. Jackson received his BBA in Finance from the University of Miami – Coral Gables and his MBA from New York University Stern School of Business.

Overview of Loop Capital

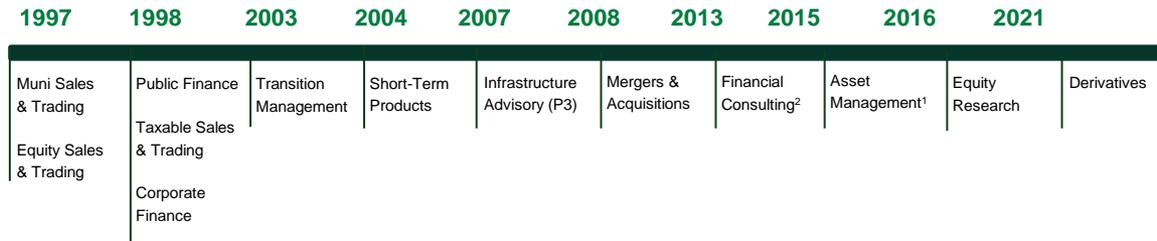
Firm Overview

- Loop Capital is a full-service investment bank, brokerage and advisory firm that provides creative capital solutions for corporate, governmental, and institutional entities across the globe.
- Loop Capital and its affiliates serve clients in asset management, corporate and public finance, financial advisory services, taxable, tax exempt and global equity sales, trading and research, analytical services and financial consulting services.
- Starting with a team of six in 1997, Loop Capital has grown into a global financial services firm with nearly 300 professionals.
- The Firm has established itself as a nationwide leader in the municipal finance industry with extensive experience serving the largest and most complex issuers throughout the country.
 - Since inception, the Firm has senior managed over \$60 billion in financings and participated in more than \$1.5 trillion of transactions for issuers in 49 states, as well as the District of Columbia and Puerto Rico.⁽¹⁾

Local Presence with a Global Reach



Since Inception in 1997, Our Growth Has Been Fueled by a Deep Commitment to Client Service¹



(1) Services provided by Loop Capital Financial Consulting Services LLC and Loop Capital Asset Management LLC, respectively, affiliates of Loop Capital Markets LLC; all other referenced services provided by Loop Capital Markets LLC

Ownership & Team

Loop Capital is a certified Minority Business Enterprise (“MBE”) and has a highly diverse team by race/ethnicity as well as by gender. Approximately 80% of Loop Capital is owned by persons who are racial or ethnic minorities. 60% of Loop Capital’s senior leadership are racial minorities and 34% are women. Approximately 49% of Loop Capital’s employee base are members of racial/minority groups and 24% are women.

Team Demographics

	% Minority	% Female
Loop Capital - Overall Firm	49%	24%
Loop Capital - Senior Leadership	60%	34%
LCAM Investment & Leadership Team	59%	18%
LCAM Full Team	64%	28%

Data as of January 31, 2025



Promoting Diversity

- **Jim Reynolds, Loop Capital Chairman and CEO is a visible champion for diversity, equity and inclusion. His efforts around these values lie at the core of the company's culture.**
 - In 2024, **Vault ranked Loop Capital #1 for “Best Banking Firms for Diversity”** for the fourth consecutive year.
- **Loop Capital is a founding member of the Financial Services Pipeline** whose mission is to increase the representation of Latinos and African Americans, at all levels, within the Chicago area financial services industry as well as improving the overall cultural competency with the Chicago area financial services industry.
- Loop Capital and its employees are active members in organizations such as:
 - National Association of Securities Professionals (NASP)
 - Association of Asian American Investment Managers
 - The Robert Toigo Foundation
 - The Investment Diversity Exchange (TIDE)
 - Investment Diversity Advisory Council (IDAC)
- Vendors & Partners – **Loop Capital regularly selects qualified minority and woman owned businesses as vendors** and partners to support our business.
 - Minority and woman owned businesses used as vendors and/or business partners by the Firm include, but are not limited to, attorneys, insurance and real estate brokers, architects, consultants and photographers.

LCAM Internship Programs

- **Loop Capital Internship Program** – Now in its 25th year, Loop Capital conducts an intensive 10-week internship program that exposes college students to the financial services industry and the various divisions in which we conduct business.
 - Our program has been recognized for its diversity, with consistently more than 75% of the interns being young persons of color.
- **The LCAM Internship Program** – provides students with an opportunity to enhance their classroom learning through practical career-oriented work experience. LCAM's Internship Program is designed to provide college students with an opportunity to gain knowledge, experience, and exposure in the investment management industry.

In partnership with **one of the nation's largest HBCU's, Texas Southern University**, Loop Capital Asset Management conducts an internship program that spans **one academic year** exposing college students to the **asset management industry**.

The internship program provides high-potential interns with invaluable experience in the following areas:

- **Investments:** Performing analytical work required by the Investment Team, including reviewing portfolio credit risk
- **Operations:** Helping to ensure compliance with client guidelines, laws and regulations & working with the team to produce compliance, risk management and performance reports
- **Marketing & Client Services:** Shadowing relationship managers in client and prospect meetings, preparing marketing and client presentations, assisting in prospect and business development research, & participating in quarterly portfolio review meetings

Upon completion of the departmental rotations, interns will demonstrate the knowledge and skills they have acquired throughout their internship by leading a quarterly portfolio review meeting with one of our clients.

Loop Capital Asset Management

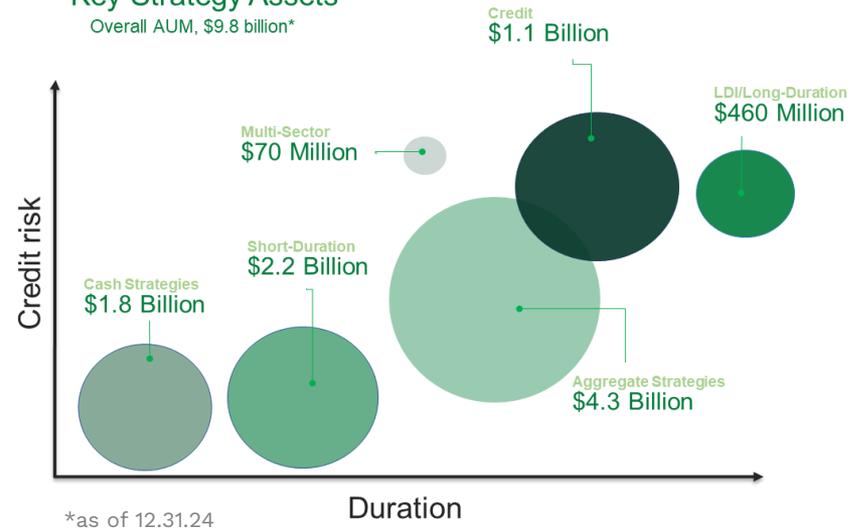
Overview

- Leadership & Portfolio Management team averages 23 years experience and 18 years tenure with the firm; supported by deep and diverse team.
- Team-based approach managing across the maturity/duration and credit quality spectrum with expertise in the government, securitized and credit sectors.
- 10+ year relationships with some of the largest and most prominent public and corporate plans.

Products

Key Strategy Assets

Overall AUM, \$9.8 billion*



Key Attributes and Differentiators

1. **Multi-dimensional alpha:** a diversified set of alpha sources drive returns, helping to create a differentiated return profile and successful track record across multiple market environments.
2. **High Conviction:** an active approach focused on investments we believe are most likely to add value for clients.
3. **Strict relative value discipline:** we invest in securities where we observe sectors or securities offer attractive risk-adjusted returns; nimble implementation designed to capture market dislocations and opportunities others may overlook.
4. **Commitment to partner with clients:** top tier client service with direct access to senior investment personnel and key decision makers; we tailor strategies to client needs.

Representative Clients*

Public

- Florida State Board of Administration
- City of Hialeah Employees' Retirement System
- Illinois Municipal Retirement Fund
- Teachers' Retirement System of the State of Illinois
- New York City Police Retirement System
- Police & Fire Retirement System of Detroit
- Houston Municipal Employees Pension System
- Tampa General Employees' Retirement Fund
- Village of Winnetka
- City of Miramar Consolidated Retirement Plan
- Park Employees' Annuity and Benefits Fund of Chicago
- New York State Deferred Compensation
- City of St. Louis Treasurer
- Hallandale Beach Police Officers & Firefighters Retirement Trust
- City of Largo Municipal Police Officers & Firefighters' Retirement Plan

Corporate

- American Orthodontics
- Eli Lilly and Company
- Mastercard, Inc
- Ryder System, Inc

Official Institutions

- Federal Reserve Employee Benefits System
- Nigeria Sovereign Investment Authority

Healthcare

- Memorial Healthcare System
- Public Health Trust of Miami-Dade County

Foundations

- MacArthur Foundation
- The Barack Obama Foundation
- The Rockefeller Foundation
- Illinois Children's Healthcare Foundation
- Rockefeller Brothers Fund
- Commonwealth Fund

Higher Education

- Indiana University
- Texas Southern University Endowment
- The University of Alabama System
- University of Houston System Endowment
- University of Illinois
- Florida International University
- Miami-Dade College
- UWM Foundation

Insurance

- California Wildfire Fund
- Maryland Auto Insured and Uninsured
- State Insurance Fund Corporation

Taft Hartley

- Laborers' District Council Construction Industry Pension Fund
- Joint Industry Board of the Electrical Industry
- Rhode Island Laborers Annuity Fund
- U.A. Local 322 Health and Welfare Fund
- Local 103 Joint Apprentice and Training Committee
- Local 3 General Funds
- SEIU Pension Plans Master Trust

Loop Capital Asset Management Investment Team & Leadership

17

members of investment and leadership team

18

years of average industry experience

11

years of average company tenure

13

members with advanced degrees or CFA® charterholders

59%

professionals from diverse backgrounds



James Reynolds, Jr, CFA®
Chairman and Chief Executive Officer
MBA
42 yrs. Industry / 28 yrs. LCAM



Frank Reda, CMT
Managing Director
MS
24 yrs. Industry / 24 yrs. LCAM



Maria Egee
Senior Vice President
BSE
15 yrs. Industry / <1 yr. LCAM



Adam Eccles
Vice President
MSF
21 yrs. Industry / 6 yrs. LCAM



Julie Kwok
Vice President
MBA, MS
19 yrs. Industry / 19 yrs. LCAM



Khalfani King
Associate
BBA
7 yrs. Industry / 4 yrs. LCAM



Scott Kimball, CFA®
Managing Director, Chief Investment Officer
MBA
22 yrs. Industry / 18 yrs. LCAM



Timothy Alt, CFA®, CMT
Managing Director
BA
19 yrs. Industry / 6 yrs. LCAM



George Liu
Senior Vice President
BS
17 yrs. Industry / 10 yrs. LCAM



Josu Elejabarrieta
Senior Vice President
MS
22 yrs. Industry / 6 yrs. LCAM



Joseph Magazine
Vice President
BA
19 yrs. Industry / 9 yrs. LCAM



Fermon Reid
Associate
MBA
2 yr. Industry / 2 yr. LCAM



Adam Phillips, CFA®
Managing Director
BA
21 yrs. Industry / 11 yrs. LCAM



Ronald Salinas, CFA®
Senior Vice President
MBA
21 yrs. Industry / 21 yrs. LCAM



Jackson Smith
Senior Vice President
MBA
12 yrs. Industry / 3 yrs. LCAM



Andre Villarreal, CFA®
Vice President
BBA
15 yrs. Industry / 10 yrs. LCAM



Daniesha Dawes
Associate
MBA
15 yrs. Industry / 5 yrs. LCAM

Non-Investment Team Members

Compliance (2) | Client Support (4) | Distribution (2)

Philosophy

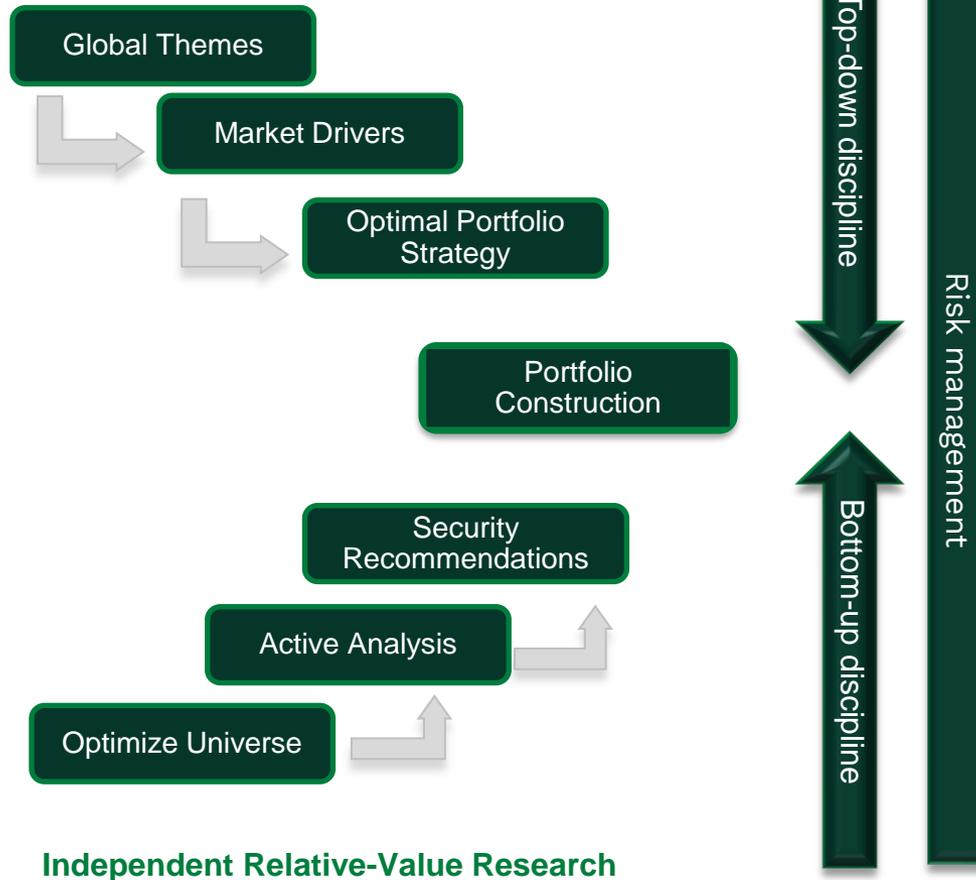
We believe fixed income markets are systemically inefficient and the most effective way to capture those inefficiencies is by leveraging a diversified set of alpha sources.

Approach to alpha generation:

- Our investment process combines top-down and bottom-up disciplines.
- Over full market cycles, we strive to deliver alpha from 3 sources:
 - sector & quality allocation
 - security selection strategies
 - yield curve construction
- Our process seeks to monetize independent relative-value research anchored on proprietary security evaluation methodology.

Investment Process

Global Investment Framework

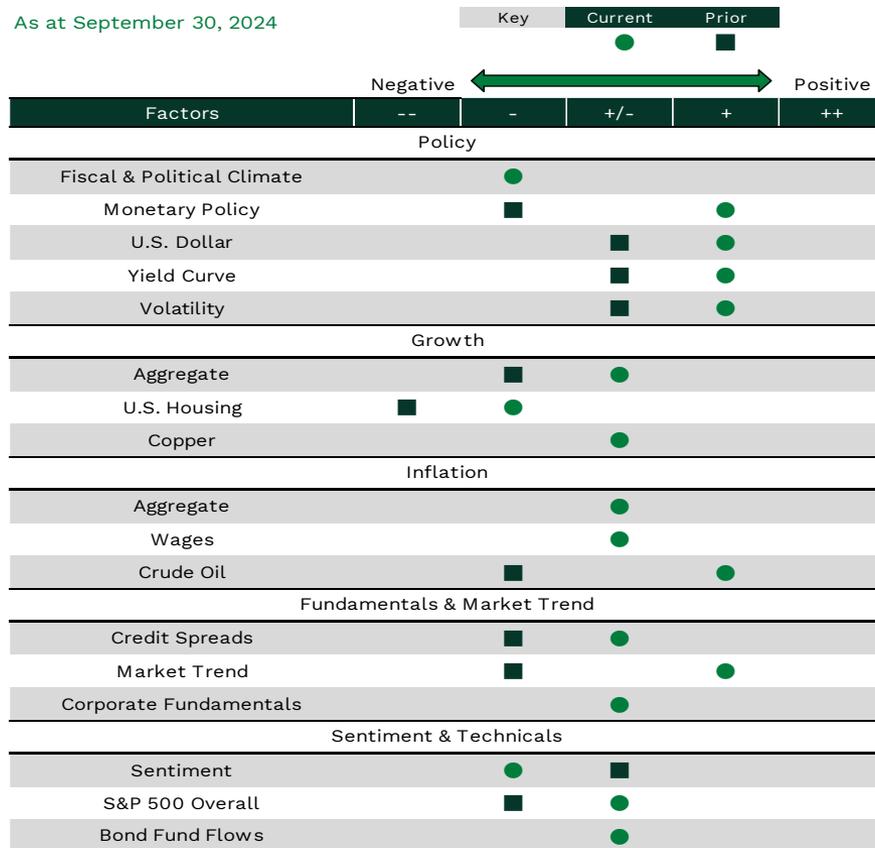


- Adaptable process seeks to deliver value at the cross-section of top-down and bottom-up disciplines
- Disciplined, long-term focused investing that seeks to ensure consistent returns over time
- Integrated, cross-functional approach to risk management

Outlook Summary

Investment Dashboard

As at September 30, 2024



*Sources: Bloomberg, Philadelphia Federal Reserve, VoteView, Matteoiacoviello.com

**Scores represent the factor's implication for market risk based on aggregated level, trend, & momentum inputs

- Monetary policy committed to offsetting labor market softening minimizes downside risks, however valuations may limit market performance.

Research Process

Deep Dive Fundamentals:



LCAM CORPORATE SCORING MODEL

BUSINESS FUNDAMENTALS																		
Total		Scale				Diversification				Market Share/Brand Strength				Competitive Environment				
Current	Forward	Current	Score	Forward	Score	Current	Score	Forward	Score	Current	Score	Forward	Score	Current	Score	Forward	Score	
XYZ Corp	0.38	0.50	58,752	2.00	64,159	2.00	Mostly a regiona	0.0	Expect them to +	0.0	Generally top 3	0.5	Top 3 market st	0.5	Moderate entr	-1.0	Moderate entr	-0.5

SECTOR FUNDAMENTALS																		
Total		Sector Outlook				Regulation				Innovation, Technology, Network Quality, Product E				Score Sector Trends				
Current	Forward	Current	Score	Forward	Score	Current	Score	Forward	Score	Current	Score	Forward	Score	Current	Score	Forward	Score	
XYZ Corp	-0.33	-0.33	Cost pres	-0.5	Cost pres	-0.5	Modest negative	-1.0	Modest negative	-1.0	Regional networ	0.5	Regional networ	0.5				

CYCLICALITY				
Cyclicality		Cyclicality		
Current	Score	Forward	Score	
XYZ Corp	Relatively	1.5	Relatively	1.5

OPERATING PERFORMANCE															
Total		Growth				EBITDA Margin				Return on Capital				Score Profitability	
Current	Forward	Current	Score	Forward	Score	Current	Score	Forward	Score	Current	Score	Forward	Score	Current	Score
XYZ Corp	1.70	0.98	14.0%	1.92	4.5%	0.78	20.3%	0.96	18.4%	0.82	33.9%	2.00	23.7%	1.56	1.48

MANAGEMENT, STRATEGY & OWNERSHIP				
Management, Strategy, Ownership		Management, Strategy, Ownership		
Current	Score	Forward	Score	
XYZ Corp	Tenured	1.5	Tenured	1.5

ESG				
ESG		ESG		
Current	Score	Forward	Score	
XYZ Corp	Scores w	1.5	Expect cc	1.5



LCAM CORPORATE FORECAST MODEL

	XYZ Corp				
	2019A	2020A	2021A	2022E	2023E
Revenues	51,336	51,533	58,752	61,396	64,159
Revenue growth	10.0%	0.4%	14.0%	4.5%	4.5%
EBITDA margin	18.1%	18.4%	20.3%	18.4%	18.4%
Return on Capital	21.0%	22.6%	33.9%	23.7%	23.7%
CFO/EBITDA	81.8%	97.4%	75.0%	71.5%	73.9%
EBITDA/Interest	5.09	5.98	7.63	6.10	6.46
FFO/Revenues	12.3%	8.5%	10.7%	13.2%	13.4%
(CFO-Capex)/EBITDA	37.1%	67.5%	45.0%	31.8%	34.2%
FCF/EBITDA	31.1%	65.9%	39.8%	27.6%	29.9%
FCF/Revenues	5.6%	12.1%	8.1%	5.1%	5.5%
TDF/EBITDA	3.58	3.51	2.86	2.89	2.75
FFO/ITD	18.4%	13.2%	18.4%	24.9%	26.4%
FCF/ND	8.6%	19.0%	14.2%	9.7%	11.1%
ND/EBITDA	3.61	3.46	2.81	2.84	2.69
Upcoming maturities				82.0	83.0
	2019A	2020A	2021A	2022E	2023E
INCOME STATEMENT					
Revenues	51,336.0	51,533.0	58,752.0	61,395.8	64,158.7
% growth	9.98%	0.38%	14.01%	4.50%	4.50%
Gross Profit	19,295	22,384	26,711	22,900.6	23,931.2
Gross margin	37.6%	43.4%	45.5%	37.30%	37.30%
Pre Adj EBITDA	9,664.0	9,735.0	14,252.0	11,910.79	12,446.78
% growth	3.16%	0.73%	46.40%	-16.43%	4.50%
EBITDA margin	18.82%	18.89%	24.26%	19.40%	19.40%
Exceptionals	(373.0)	(257.0)	(2,299.0)	-630.0	-650.0
Adj EBITDA	9,291.0	9,478.0	11,953.0	11,280.8	11,796.8
Adj EBITDA margin	18.10%	18.39%	20.34%	18.37%	18.39%
Depreciation & Amortization	2,596.0	2,721.0	2,853.0	2,916.3	3,047.5
% of sales	5.06%	5.28%	4.86%	4.75%	4.75%
Adj EBIT	7,068.0	7,014.0	11,399.0	8,364.5	8,749.2
Adj EBIT margin	13.77%	13.61%	19.40%	13.62%	13.64%
Adj Net Interest expense	1,824.0	1,584.0	1,566.0	1,850.0	1,825.0

- The factors in our scoring methodology are driven by a mix of both qualitative and quantitative metrics evaluated by our research team.
- Analysts maintain financial models for each issuer which drive the quantitative factors in our scoring methodology.

For illustrative purposes only. Charts above do not depict actual results. Future investment performance cannot be guaranteed.

Research Process

Communication:

- Research process and idea recommendation communication supported by broad suite of individual and team deliverables such as earnings reports, sector outlooks, and new issue updates.

The screenshot shows the Loop Capital research platform interface. At the top, there are navigation tabs for 'Actions', 'View Options', and 'Loop Capital'. Below this is a search bar with the text 'Enter search criteria'. A table lists various tickers and their corresponding headlines:

Ticker	Headline	
10	LOW US	LOW 2Q22 Earnings: Solid Quarter and FY22 Guidance
11	NEE US	2Q22 Strategic Update
12		2H22 Global Sector Outlook
13	HLF US	HLF Q2 FY22 Update
14	KHC US	KHC 2Q22 Update
15	PM US	PM 2Q22 Update
16	DKS US	DKS 2Q22: Better than Expected
17	TEN US	TEN 2Q22 Update
18	DAN US	DAN 2Q22 Update
19	ALSN US	ALSN 2Q22 Update
20	AXL US	AXL 2Q22 Update
21	ADNT US	ADNT 3Q22 Update
22	TMUS US	T-Mobile (TMUS): 1L collateral has been released, T
23	KSS US	KSS 2Q22 Disappoints
24	ADI US, ...	Analog Devices (ADI): good Q3, indications of mode
25	CSX US	CSX 2Q Earnings Beat, FY Guidance Reaffirmed
26	STAR US, ...	STAR + SAFE: plan to fully merge
27	INTC US, ...	Intel (INTC): weak Q2
28	TDG 6 ...	TransDigm (TDG): Q3 update
29	NCLH US	NCLH 2Q & 2H EBITDA guide disappoint
30	SBUX US	SBUX 3Q22 Update: Solid Performance
31	WTI US	WTI 2Q earnings beat
32	NDAQ US	2Q22 Earnings Beat; Valuations are fair
33	GPN US	GPN Benchmark Debt Offering in 4 Parts

Earnings Update

February 29, 2022

Healthcare

XYZ Corp (XYZ) 1Q22 Headwinds

Baa3 STABLE BB

Analyst Recommendation

I would use the recent pu... upgrade is just delayed a... tighten towards BBB leve

Loop Capital Logo

Ticker: XYZ Equity

New Issue Update

February 29, 2022

Building Materials

ABC Inc (ABC) New Issue 10NC5 IPT High 6%

Baa3 STABLE BB+ Stable

ESG: BBB

Loop Capital Logo

Ticker: ABC Equity

Analyst: Jane Doe

Analyst Recommendation:
 ABC new 10NC5 senior notes at IPT h6% look cheap and see fy ~6 3/8th area (refiling nearest 2027 maturity, leverage neutral). Leverage <1x already below mgt target so risk of large M&A could drive up (they're open to pushing past 2x for right target). FY21 \$20bn sales, \$6bn profit, \$3bn adj. EBITDA. Strong FCF profile though just introduced buy-back last month. Heavily exposed to 'new' construction vs. other building distributors but strategically positioned well with relatively high share of value-add products (commodity like lumber below <50% of sales). While refinance pushing maturities further out, pro-form will leave ~\$2bn of debt maturity wall in 2032 (slight negative).

Issuer Description: ABC Inc. (ABC) was founded in 1998 as 123 Holdings. It is the largest supplier of structural building products and services for new residential construction, repair, and remodeling in the United States. Based in Dallas, TX, ABC is active in more than 42 states with 585 stores/locations (serves ~85 of top 100 U.S. MSA). Its customers are homebuilders, sub-contractors, remodelers, and consumers, with its top 10 customers accounting for ~20% of sales (Lennar & PulteGroup are among largest customers). ABC's residential building products industry is driven primarily by the level of activity in both U.S. residential new construction and repair & remodeling market (ABC levered to the former). In early 2021, ABC completed its all-stock merger with XYZ Stock holdings. ABC markets its products and services through a locally focused sales team of ~2,300 members and ~2,500 coordinators and/or product specialist.

Operations, Earnings & Business Update: On the back of a strong housing environment, ABC focused FY2021 on executing its integration of XYZ merger. Net sales rose +132% to \$19.9bn, from \$8.6bn in FY2020 (BMC merger increased net sales +77% & commodity price inflation added ~+30%). Core organic growth supported sales growth, driven by expansion in single-family end demand. Net income increased to \$1.7bn from \$314mm YoY. ABC most recently reported Q1'22 earnings, which included a first on record ~\$1bn EBITDA, reflective of commodity inflation and acquisitions, though core organic growth contributed ~+15% YoY. ABC made two smaller acquisitions post XYZ merger including California TruFrame & National Lumber in late 2021 an early 2022, respectively, which helped increase top-line growth.

	Three Months Ended March 31,	
	2022	2021
	(in thousands)	
Lumber & lumber sheet goods	\$ 2,326,355	\$ 1,769,299
Manufactured products	1,354,587	860,913
Windows, doors & millwork	1,011,572	736,156
Specialty building products & services	989,617	807,407
Net sales	\$ 5,682,131	\$ 4,173,775

Global Sector Outlook IH22

Presented by:

Loop Capital Asset Management

1001 Brickell Bay Drive, Suite 2100
 Miami, FL 33131
Loopcapital.com

February 2022

For illustrative purposes only. Charts above do not depict actual results. Future investment performance cannot be guaranteed.

Integrated approach to risk management encompasses all investment and business functions.

Investment risk

Portfolio risk analysis

Security research

Scenario analysis

Process fidelity and attribution

Governance and compliance

Policies and procedures

Client guideline and ESG compliance

Independent audit and assessment

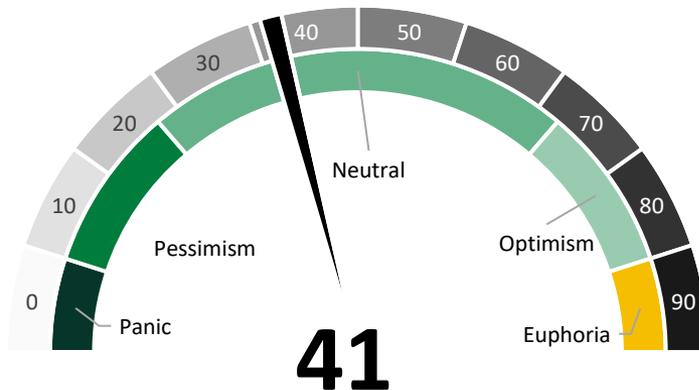
Cross-function oversight

Risk systems:

- BondEdge: third-party portfolio management, risk management and attribution system
- Bloomberg PORT: decompose risk, analyze positioning and simulate investment strategies
- Bloomberg AIM: third-party order management and pre-trade compliance system

Risk appetite moderates into yearend

Risk Premium Index



Risk Premium History



Source: Bloomberg, LCAM

- Risk appetite moderated in the final weeks of 2024, with commodities, currencies, and volatility the key drivers while U.S. equities and credit remained firm.

LCAM Core Fixed Income Characteristics

Strategy

Our core strategy is designed to deliver broad fixed income market exposure with outperformance above benchmark returns derived from our active portfolio decisions over full market cycles.

The LCAM Core Fixed Income Strategy generally invests in liquid segments of the U.S. bond market, including: US Governments and Agencies, corporate bonds, mortgage and asset-backed securities (ABS).

Our portfolios will typically hold between 100-250 securities depending on the size of the account, while maintaining duration within a narrow range of benchmark duration.

LCAM strategies are tailored to each clients' investment goals and objectives.

Strategy AUM: \$4.3 Billion
 Inception date: January 1, 2009
 Benchmark: Bloomberg U.S. Aggregate Bond Index

Key Characteristics

	Strategy	Benchmark
Yield to Worst	5.2%	4.9%
Coupon	3.9%	3.4%
Maturity	9.4 yrs	8.4 yrs
Average Quality	Aa3	Aa2
Effective Duration	6.0 yrs	5.9 yrs

Portfolio Allocation

Sector	Strategy	Benchmark
Credit	35.7%	27.5%
U.S. Government	25.2%	44.3%
Mortgage-Backed Securities	35.2%	26.3%
ABS & CMBS	2.8%	1.9%
Cash	1.1%	0.0%

Quality Allocation

Ratings	Strategy	Benchmark
AAA	3.8%	2.8%
AA	62.6%	74.0%
A	11.5%	11.0%
BBB	21.9%	12.2%
Below BBB	0.1%	0.0%

Key Rate Duration

Years	Strategy	Benchmark
6 Months	0.0	0.0
1 Year	0.1	0.1
2 Years	0.3	0.2
3 Years	0.4	0.5
5 Years	0.5	0.7
7 Years	0.7	0.8
10 Years	1.2	1.0
20 Years	1.4	1.6
30 Years	1.4	1.1

Investments cannot be made in an index.

Source for all data: BondEdge

As of 12.31.24

LCAM Core Fixed Income Performance Update

Gross and Net Performance As of December 31, 2024

	QTD	YTD	1-Year	3-Year	5-Year	7-Year	10-Year	Inception
Gross	-2.82%	2.22%	2.22%	-2.02%	0.00%	1.23%	1.67%	3.44%
Net	-2.85%	2.11%	2.11%	-2.20%	-0.23%	1.00%	1.44%	3.24%
Benchmark	-3.06%	1.25%	1.25%	-2.41%	-0.33%	0.97%	1.35%	2.59%

Benchmark:
Bloomberg U.S. Aggregate Bond Index

Source: Loop Capital Asset Management
All returns over one year are annualized.
Past performance does not guarantee future results.
Please see complete GIPS compliance presentation at the end of this report.
Investments cannot be made in an index.

Inception: January 1, 2009

Why LCAM?

Commitment to partner with clients and alignment of values

- LCAM offers direct access to key decision makers
- Preferred fee schedule based on Meketa relationship

Diverse and inclusive team committed to the public plan market

- Leverage the benefits of a highly diverse investment team to help achieve client objectives
- Strategic focus on the public plan market (50%+ of assets)

History of successful management of Core Fixed Income strategies

- Extensive experience with Police & Fire plans and California-based public plans
- 30-year history of successfully partnering with public plans on Core Fixed income strategies
- The LCAM Core Fixed Income strategy has delivered 85 basis points of annualized outperformance (gross) since strategy inception (65 basis points net)

Past performance is not indicative of future results.

LCAM Core Fixed Income Composite

Composite Performance
As of December 31, 2023

	Average Annual Returns For Periods Ended 12/31/2023					Inception 1/1/2009
	2023	1 Year	3 Years	5 Years	10 Years	
LCAM Core Fixed Income Composite (Gross)	6.00%	6.00%	-3.27%	1.38%	2.09%	3.52%
LCAM Core Fixed Income Composite (Net)	5.79%	5.79%	-3.51%	1.12%	1.84%	3.31%
Bloomberg U.S. Aggregate Bond Index	5.53%	5.53%	-3.31%	1.10%	1.81%	2.68%

Inception: January 1, 2009

Calendar Years	Calendar Year Total Return (Gross)	Calendar Year Total Return (Net)	Bloomberg U.S. Aggregate Bond Index	Number of Accounts	Composite Assets (\$ Millions)	Strategy Assets* (\$ Millions)	Annual Standard Deviation (Gross of Fees)	Composite 3-Year Ex Post Standard Deviation Calculation (Gross of Fees)	Benchmark 3-Year Ex Post Standard Deviation Calculation	Firm Assets (\$ Millions)
2023	6.00 %	5.79 %	5.53 %	12	\$458	\$3,546	0.15	7.13%	7.14%	\$8,491
2022	-13.18 %	-13.41 %	-13.01 %	9	302	3,255	0.18	5.94%	5.77%	8,313
2021	-1.63 %	-1.93 %	-1.54 %	8	222	3,325	0.21	3.55%	3.35%	6,213
2020	8.10 %	7.77 %	7.51 %	14	642	5,331	0.84	3.41%	3.36%	12,041
2019	9.43 %	9.20 %	8.72 %	15	611	5,230	0.55	2.74%	2.87%	11,775
2018	-0.45 %	-0.65 %	0.01 %	17	550	4,888	0.27	2.83%	2.84%	10,602
2017	4.53 %	4.31 %	3.54 %	19	619	4,857	0.41	2.88%	2.78%	11,272
2016	4.81 %	4.57 %	2.65 %	21	576	4,538	0.81	3.15%	2.98%	10,432
2015	-1.15 %	-1.39 %	0.55 %	25	619	4,966	0.61	3.28%	2.88%	10,374
2014	6.49 %	6.25 %	5.97 %	28	758	5,095	0.26	3.19%	2.63%	10,525
2013	-2.48 %	-2.63 %	-2.02 %	15	604	4,276	0.28	3.35%	2.71%	9,075

*Strategy assets included as supplemental information. Strategy assets are assets of similar composites and accounts specific to a broad market segment. The strategy for the LCAM Core Fixed Income Composite is the LCAM Aggregate strategy.

Continued on following page

LCAM Core Fixed Income Composite Disclosure

The LCAM Core Fixed Income Composite (typically measured versus the Bloomberg U.S. Aggregate Bond Index) is comprised of institutional aggregate fixed income accounts. Our philosophy in managing core fixed accounts is to add value above a benchmark index utilizing U.S. governments and agencies, corporate bonds, mortgage-backed, and asset-backed securities within a duration band of 75% to 125% of the benchmark index. The Bloomberg U.S. Aggregate Bond Index represents securities that are SEC-registered, taxable and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities, and asset-backed securities. The creation date of the LCAM Core Fixed Income Composite was January 2009.

Please contact us to receive a complete list and description of Loop Capital Asset Management – TCH, LLC (LCAM) composites and pooled funds.

The U.S. dollar is the currency used to express performance. Results are presented gross and net of management fees and include the reinvestments of all income. Net returns are reduced by investment advisory fees and other expenses that may be incurred in the management of the account. The annual composite dispersion presented is an equal-weighted standard deviation calculated for the accounts in the composite the entire year. Policies for valuing investments, calculating performance and preparing GIPS reports are available upon request. Prior to October 1, 2019 net-of-fee results were calculated by using the actual fees. After October 1, 2019 but prior to January 1, 2022 net-of-fee results were calculated by taking the highest fee a separately managed account would be charged applicable at the time and deducting one-twelfth of this annual fee from each monthly gross return. After January 1, 2022 net-of-fee results are calculated by using the actual fees. The fee schedule shown is the current fee schedule. Prior fee schedules are available upon request. Actual investment advisory fees incurred by clients may vary. Results are based on fully discretionary accounts under management, including those accounts no longer with the firm.

The investment management fee schedule for LCAM Core Fixed Income Composite segregated accounts is as follows: 0.30% - First \$25 million, 0.25% - Next \$75 million, 0.20% - Next \$100 million, 0.15% - Thereafter. The investment management fee schedule for the Core Fixed Income, LLC is as follows: 0.30% - First \$25 million, 0.25% - Next \$75 million, 0.20% - Next \$100 million, 0.15% Thereafter. The total expense ratio as of December 31, 2023 for the Core Fixed Income, LLC is as follows: 0.38% - First \$25 million, 0.33% - Next \$75 million, 0.28% - Next \$100 million, 0.23% Thereafter. Minimum account balance for Core Fixed Income, LLC is \$2 million.

Past performance is not an indication of future results.

LCAM claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS standards. LCAM has been independently verified for the periods January 1, 1990 through December 31, 2023. The verification report(s) is/are available upon request. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report. Composite 3-year ex-post standard deviation and annual standard deviation based on gross of fees returns.

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Loop Capital Asset Management LLC, and Loop Capital Markets LLC are affiliated companies.

Investment products are: **Not A Deposit | Not FDIC Insured | No Bank Guarantee | May Lose Value**

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Disclosures

All investments involve risk, including the possible loss of principal.

This is not intended to serve as a complete analysis of every material fact regarding any company, industry or security. The opinions expressed here reflect our judgment at this date and are subject to change. Information has been obtained from sources we consider to be reliable, but we cannot guarantee the accuracy. This publication is prepared for general information only. This material does not constitute investment advice and is not intended as an endorsement of any specific investment. It does not have regard to the specific investment objectives, financial situation and the particular needs of any specific person who may receive this report. Investors should seek advice regarding the appropriateness of investing in any securities or investment strategies discussed or recommended in this report and should understand that statements regarding future prospects may not be realized. Investment involves risk. Market conditions and trends will fluctuate. The value of an investment as well as income associated with investments may rise or fall. Accordingly, investors may receive back less than originally invested. Investments cannot be made in an index. **Past performance is not necessarily a guide to future performance.**

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The option-adjusted spread (OAS) is the measurement of the spread of a fixed-income security rate and the risk-free rate of return, which is adjusted to take into account an embedded option. Basis points (bps) represent 1/100th of a percent (for example: 50 bps equals 0.50%)

The Bloomberg US Aggregate Bond Index is a broad-based flagship benchmark that measures the investment grade, US dollar-denominated, fixed-rate taxable bond market. The Bloomberg Barclays US Mortgage Backed Securities (MBS) Index tracks fixed-rate agency mortgage backed pass-through securities guaranteed by Ginnie Mae (GNMA), Fannie Mae (FNMA), and Freddie Mac (FHLMC). Bloomberg Barclays U.S. Credit Index measures the investment grade, US dollar-denominated, fixed-rate, taxable corporate and government related bond markets. It is composed of the US Corporate Index and a non-corporate component that includes foreign agencies, sovereigns, supra-nationals and local authorities.

Investment products are: **Not A Deposit | Not FDIC Insured | No Bank Guarantee | May Lose Value**

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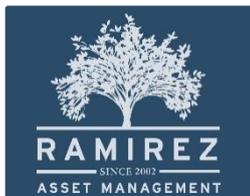
RAMIREZ ASSET MANAGEMENT



Core Finals Presentation

Materials Prepared For:

City of Oakland Police and Fire Retirement System (OPFRS)



Our Clients' Success is Essential to Ours
Experience ♦ Team Approach ♦ Client Service ♦ Transparency

Confidential and Not for Further Distribution

Presentation Participants



Samuel Ramirez, Jr.

President and CEO - Portfolio Manager; Municipals

212-248-0531

sam.jr@ramirezam.com

- Founded Ramirez Asset Management in 2002 as an SEC-registered RIA
- Responsible for overseeing the firm's strategic direction, maintaining culture, and fostering client relationships
- Manages the firm's municipal product securities and broader multi-sector fixed income strategies.
- Possesses over 32 years of fixed income experience.
- Graduated from University of Vermont with a B.A. in Economics.
- Series 7, 53, 63, and 65 licenses from the Financial Industry Regulatory Authority.



James Haddon

Managing Director - Head of Client Service

212-248-3887

james.haddon@ramirezam.com

- Joined RAM in January 2015; has over 43 years' experience in the asset management and investment banking industries.
- Responsible for marketing their fixed income products and services to pension funds, state and local governments, and corporations.
- Provides client service for select relationships and focuses on developing marketing strategies to grow the firm's asset management business.
- Graduated from Wesleyan University, BA, Economics and an MBA from Stanford University.
- Series 7, 53 and 63 licenses from the Financial Industry Regulatory Authority.

Firm Overview – Who We Are

- Ramirez Asset Management (“RAM”) was founded in 2002 and is a certified minority-owned fixed income and equity investment manager based in New York City
- RAM is an affiliate of Samuel A. Ramirez & Co. Inc., which was established in 1971, and is one of the oldest Hispanic-owned investment banks in the United States
- \$12.8 billion in firm-wide assets¹
- RAM has experienced 37% trailing 5-year annualized AUM growth
- RAM has 47 firm-wide employees with 35 fixed income professionals
- Product Expansion: Equities (July 2023), Mutual Funds (December 2023) and Private Credit (October 2024)

Relationship with OPFRS

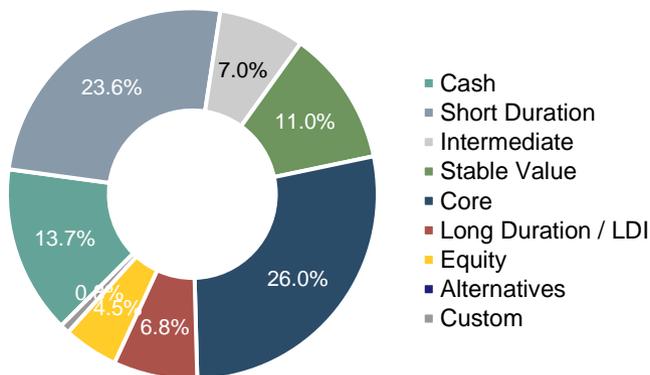
- RAM was hired in February 2017 as a Core Fixed Income Manager
- Since 2017, RAM has outperformed the benchmark by **+51 bps** for the OPFRS Core portfolio
- Since being hired, RAM has added **\$10.6 billion** in total assets and 30 employees

A Growing, Diverse List of Products and Clients

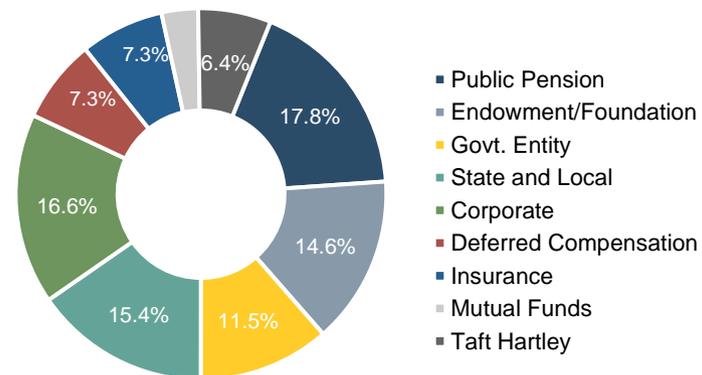
Fixed Income Overview

Number of Portfolios:	158
Average Client Size:	\$130M

Firm Products



Fixed Income Clients



¹Total is as of December 31, 2024 and includes AUM and Assets Under Advisement or AUA, which consists of assets from model portfolios for the primary equity strategies and Asset Based Financing or Early Buy Out or EBO loans. Assets defined as AUA are not included in regulatory assets under management.
Source: Internal as of 12/31/24, unless otherwise noted.

Highly Experienced and Dedicated Professionals

Portfolio Management Team



Samuel Ramirez Jr.
Taxable Municipals
Years of Experience: 32



Louis Sarno
Securitized Product
Years of Experience: 36



Helen Yee, CFA
Corporate Credit
Years of Experience: 33



Alex Bud, CFA
Taxable Municipals
Years of Experience: 25

- Portfolio Management Team utilizes a collaborative, team based approach to managing client portfolios
- Highly experienced sector specialists, RAM's portfolio managers average 30+ years of experience

Other Key Personnel

		Experience
Fixed Income Investment Team		
Research		
Janet Henry, CFA	Corporate Credit Analyst	44
Satyam Mallick, CFA	Corporate Credit Analyst	22
Kushal Modi, CFA	Corporate Credit Analyst	10
Brett Rodger	Corporate Credit Analyst	8
Karen Flores	Municipal Credit Analyst	27
Seth Evans	Municipal Credit Analyst	14
Emrys Jones	Municipal Credit Analyst	4
Zach Grob	Securitized Analyst	5
Wilson Tran	Securitized Analyst	8
Elaine Li	Credit and Portfolio Analyst	4
Rohan Aluka	Quantitative Credit Analyst	1
Additional Key Resources		
Peter Sigismondi	Chief Compliance Officer	34
Ira Isaguirre	Chief Risk Officer	19
Cheryl Fustinoni	Head of Operations	19
James Haddon	Head of Client Service and Marketing	43

Industry Leader in Social and Community Involvement

Employee Statistics¹

- **61%** of employees are minorities, women, or veterans
- **80%** of the investment team is composed of minorities, women, or veterans
- **100%** of 2024 interns have been minorities and/or women
- **75%** of senior leadership are minorities or women
- Average tenure of employees is **5** years

RAM is dedicated to being an industry leader in the inclusion of underrepresented communities. Our diverse array of talent and commitment to the communities in which we come from is an **essential** part of our current and future success.

The Next Generation

The Ramirez Summer Internship Program is a hands-on 8-week program for undergraduate students with an interest in finance.

- **83%** of the 46 interns over the past 5 years have been minorities and/or women

The RAM Fellowship Programs are 10-month long opportunities presented to HSF Scholars in partnership with two Fortune 100 Technology clients to offer students an understanding of the functions of an asset management firm.

New Jersey Institute of Technology - a scholarship and mentorship initiative for minority students at NJIT, an official Hispanic Serving Institute

Promoting DEI in the Industry



NASP aims to foster the growth and development of minorities and MWBE firms in the securities industry. James Haddon is a long standing member and officer on the NASP board.



New America Alliance is dedicated to advancing the economic development of the American Latino community. RAM is an active supporter and participant in the alliance.



SIFMA is the securities industry leading trade association. Ramirez is an active participant holding seats on both the board and D&I Council.



Angeles Investors is one of the largest and fastest-growing angel investing groups in America that is finding, funding, and growing the most promising Hispanic & Latino ventures. Ramirez is a partner in the fund.

Community Involvement



Hispanic Scholarship Fund empowers students to successfully complete a higher education, while providing support services and scholarships. Ramirez is proud to partner with the HSF on both intern and full time employment programs.



ASPIRA is dedicated to the social advancement of the Latino community by supporting its youth in the pursuit of educational excellence. Ramirez has been a proud supporter of ASPIRA for over 10 years



Latin American Youth Center empowers a diverse population of youth to achieve a successful transition to adulthood. Ramirez has been an active supporter of LAYC for over 10 years

Firm Overview – Fixed Income Representative Client List

State and Local Governments

- ❖ City of Chicago 10
- ❖ Cook County 10
- ❖ City of Philadelphia 5
 - ❖ Philadelphia Airport 5
 - ❖ Philadelphia Gas Works 5
- ❖ Battery Park City Authority 5
- ❖ Missouri Public Utilities Authority 10
- ❖ Illinois State Treasurers' Office 5
- ❖ Port Authority of NY & NJ
- ❖ California Earthquake Authority
- ❖ Chicago Housing Authority *
- ❖ St. Louis Treasurers' Office

Public Pension Plans

- ❖ Illinois Municipal Retirement Fund 10
- ❖ Chicago Teachers' Pension Fund 10
- ❖ State Universities Retirement System (IL) 10
- ❖ Oakland Police and Fire Retirement System (CA) 5
- ❖ Maryland State Retirement and Pension System (Terra Maria)* 5
- ❖ Pennsylvania State Employees' Retirement System 5
- ❖ Laborers' & Retirement Board Employees' Annuity & Benefit Fund of Chicago 5
- ❖ Connecticut Retirement Plans and Trust Funds * 5
- ❖ Metropolitan Water Reclamation District of Greater Chicago Retirement Fund 5
- ❖ New York State Common Retirement Fund
- ❖ New York City Employee Retirement System*
- ❖ Kansas City Public School Retirement System

Insurance

- ❖ AEELA (PR) 10
- ❖ Automobile Accident Compensation Administration (PR) 10
- ❖ Captive Insurance Company 5
- ❖ Independence Blue Cross

Taft-Hartley

- ❖ International Brotherhood of Electrical Workers 10
- ❖ Communications Workers of America 10
- ❖ New York Typographical Union 10

Federal Organizations

- ❖ FreddieMac 5
- ❖ Pension Benefit Guaranty Corporation (PBGC)

Corporations

- ❖ Dow Chemical 10
- ❖ The Northern Trust Company 10
- ❖ Nationwide 10
- ❖ Micron Technologies, Inc.
- ❖ Meta Platforms, Inc.
- ❖ The National Football League
- ❖ Braeburn Capital (Apple)
- ❖ Microsoft Corporation
- ❖ The Coca-Cola Company

Endowments & Foundations

- ❖ American University
- ❖ The Board of Directors of City Trusts 5
- ❖ The California Endowment
- ❖ Buck Foundation
- ❖ Congressional Hispanic Caucus Institute 10
- ❖ Connecticut Health Foundation
- ❖ The Irving Harris Foundation
- ❖ Knight Foundation
- ❖ The Nathan Cummings Foundation
- ❖ The National Urban League
- ❖ Princeton University
- ❖ The Silicon Valley Community Foundation
- ❖ The Target Foundation
- ❖ Southeast Alaska Regional Health Consortium
- ❖ Wyckoff Family YMCA, Inc. 10
- ❖ Wisconsin Alumni Research Foundation

Fixed Income Clients by Relationship Tenure

	Timeframe	# Accts.	Assets (\$M)	%
10	10+ Years	14	\$ 2,577	23%
5	5 - 10 Years	15	\$ 2,962	26%
	3 - 5 Years	17	\$ 2,512	22%
	< 3 Years	35	\$ 3,356	29%

Disclaimer: Please note that the above information is **confidential and not for further distribution**.

The representative client list is for informational purposes only and not to be viewed as an endorsement of our services.

* indicates clients under an Emerging Manager of Manager Program

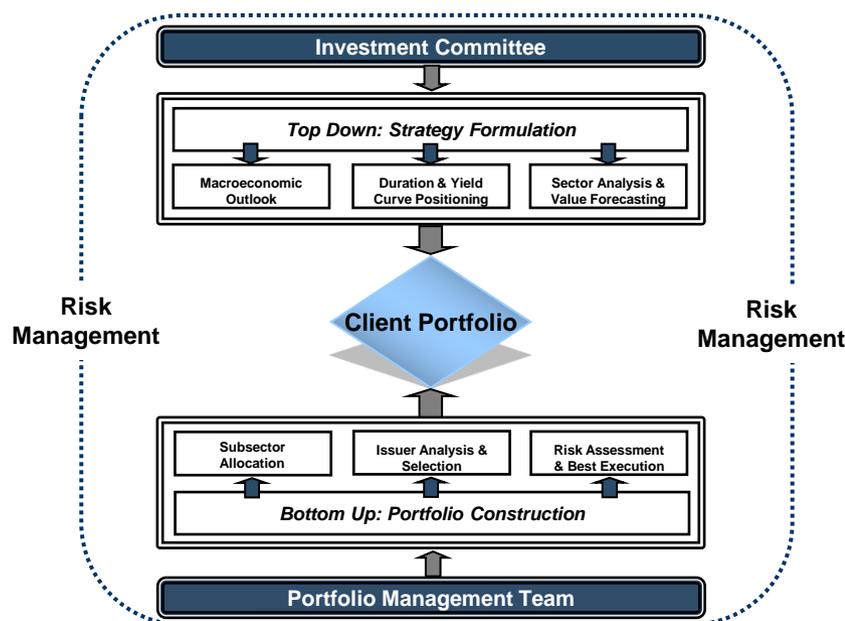
Investment Philosophy and Process – Disciplined and Repeatable

Investment Philosophy

RAM utilizes a **disciplined and repeatable investment process** driven by sector and subsector rotation and security selection. Within a risk framework, we believe this approach will produce consistent risk-adjusted returns over a full market cycle. RAM seeks to add value by:

- Taking a longer-term view on investing
- Closely regulating relative duration and term structure positioning
- Combining quantitative and qualitative factors into bottom-up and top-down processes
- Constructing portfolios that are benchmark aware, but not constrained
- Focusing on yield-generating anomalies within credit sectors

Investment Process Contributors



Top-Down – 20%

- Yield Curve Positioning: 10%
- Duration Management: 10%

Bottom-Up – 80%

- Sector Allocation: 40%
- Security Selection: 40%

Portfolio Risk Management – Independent Compliance and Risk Functions

Portfolio Risk Management Process

Portfolio Onboarding

- Investment guidelines hardcoded into Rules Manager
- Real time, automated pre- and post-trade portfolio compliance
- **Systems:** SS&C Advent Platform and Rules Manager

Portfolio Construction Parameters

- Target allocation and risk parameters
- Optimal relative value and best idea generation achieved via benchmark segmentation
- **Systems:** Advent Rules Manager, Moxy

Portfolio Monitoring

- Monitors: Portfolio vs. benchmark; interest rate and term structure; “What-If” scenarios
- Real-time portfolio monitoring and account valuation review
- **Systems:** ICE BondEdge Platform, Advent Rules Manager and APX

Return Attribution

- GIPS compliance portfolio returns/portfolio attribution
- RAM’s primary accounting, performance, and reporting system
- **Systems:** ICE BondEdge Platform, Advent Rules Manager and APX

Ramirez Core Strategy Risk Parameters

Top-Down Risk Management

Duration	+/-10%**
Key Rates	+/- 25**

Sector Allocation Limits

U.S. Treasury Securities	0 - 100%
Inflation Protected Securities	0 - 10%
U.S. Agencies	0 - 50%
Agency Mortgage Backed Securities (MBS)	0 - 50%
Commercial Mortgage Backed Securities (CMBS)	0 - 20%
Asset Backed Securities (ABS)	0 - 20%
Municipal Securities	0 - 30%
Corporate Bonds	0 - 50%

Issuer Level Limits

Single Issuer	< 3%*
Single Issuer - BBB Rated Securities	<2%

Quality Limits

Maximum Allocation to BBB Rated Securities	15%
Portfolio Minimum Quality	A+

* Excluding U.S. Government Securities

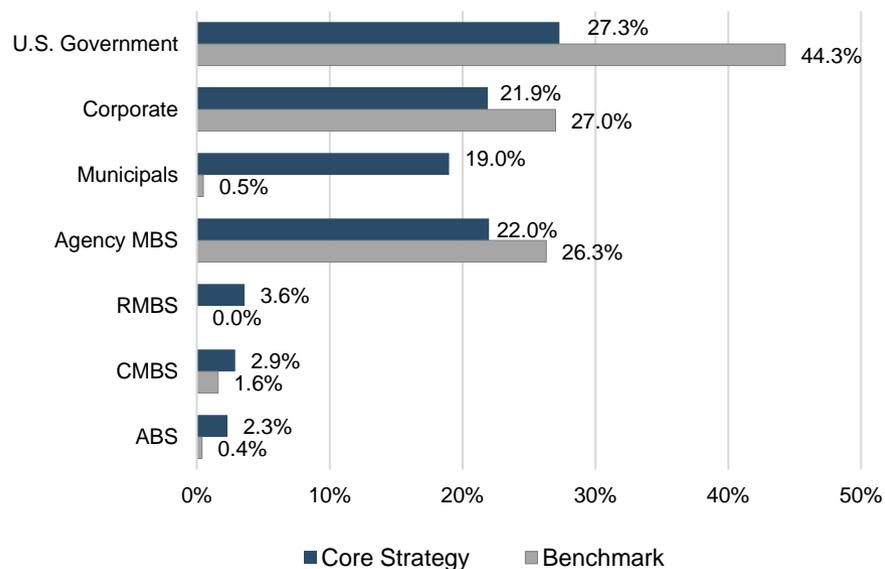
** Relative to the Benchmark (typical range)

Ramirez Core Strategy – Strategy Overview

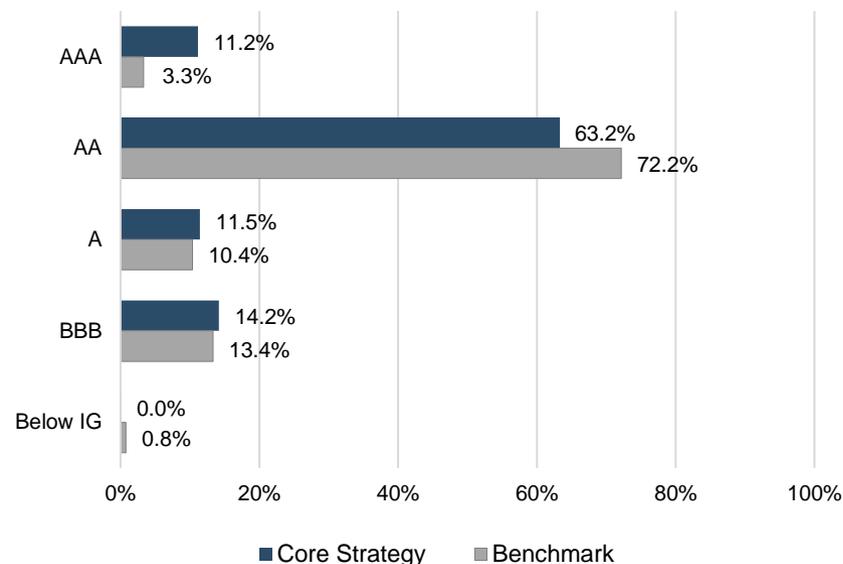
Description:	A total rate of return investment strategy that generates alpha through a broad exposure to 0 – 30+ years investment grade spread sectors
Alpha Target:	+50- 75 bps, gross-of-fees, annualized over a complete market cycle
Benchmark	Bloomberg U.S. Aggregate Bond Index
Inception:	September 1, 2008
Vehicles:	Separately Managed Account (SMA)

Characteristics	Core Strategy	Index	Difference
Yield-to-Worst (%)	5.12	4.92	+0.20
Eff. Duration (Yrs)	6.27	5.93	+0.34
Avg. Quality	Aa2	Aa2	---
Avg. Coupon (%)	4.18	3.44	+0.75
Avg. Maturity (Yrs)	9.98	8.39	+1.59
Convexity	0.25	0.26	-0.01

Sector Allocation



Quality Allocation¹

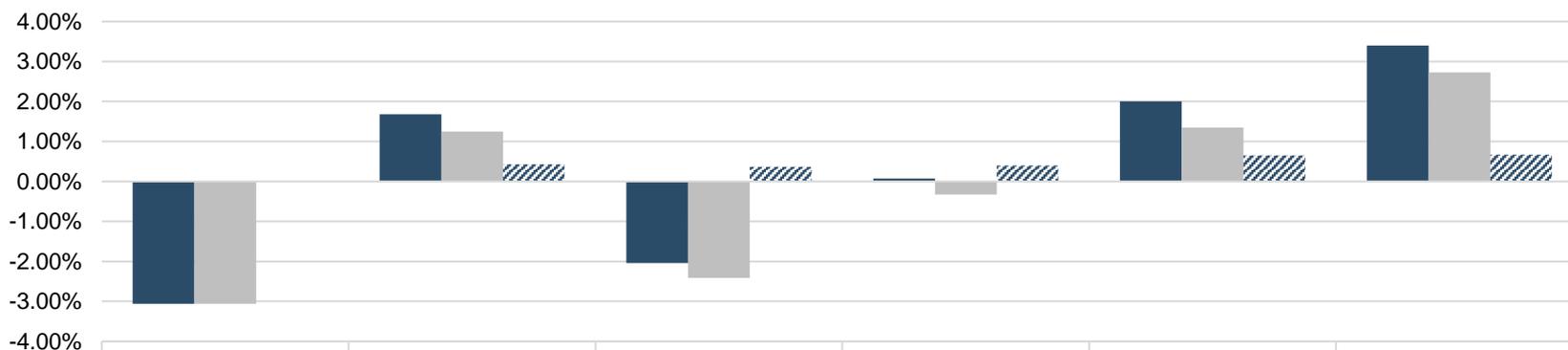


Disclaimer: The inception date for the Ramirez Strategic Core Strategy is September 1, 2008. Year-to-date returns are provided through December 31, 2024. A GIPS compliant annual disclosure is available upon request. Performance is presented gross-of-fees and annualized in periods greater than 12 months. Past performance is not a guarantee of future results. Sector allocations and Characteristics above are provided as of December 31, 2024 by BondEdge Next Generation and Bloomberg.

¹ BondEdge Next-Generation uses the lower of NRSRO Ratings when determining credit quality.

Ramirez Core Strategy – Performance Track Record

Historical Performance



	Quarter-to-Date	1 Year	3 Years	5 Years	10 Years	Inception: 09/01/08
■ Gross Return	-3.06%	1.68%	-2.04%	0.07%	2.00%	3.40%
■ Benchmark	-3.06%	1.25%	-2.41%	-0.33%	1.35%	2.73%
▨ Excess (Gross)	0.00%	0.43%	0.37%	0.40%	0.65%	0.67%

■ Gross Return

■ Benchmark

▨ Excess (Gross)

Calendar Year Performance

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Ramirez Core Strategy – Gross (%)	9.94	7.24	7.33	4.77	-1.28	6.86	1.19	3.98	5.00	0.20	9.72	7.12	0.22	-12.92	6.15	1.68
Bloomberg US Aggregate (%)	5.93	6.54	7.84	4.22	-2.02	5.97	0.55	2.65	3.54	0.01	8.72	7.51	-1.54	-13.01	5.53	1.25
Excess Return – Gross (bps)	+401	+70	-51	+55	+75	+89	+64	+133	+145	+19	+101	-39	+119	+10	+62	+43

- Since inception, the strategy has outperformed the benchmark in **14 of 16** calendar year
- We are a credit-focused manager with a proven and repeatable investment process focused on sector allocation and bottom-up security selection



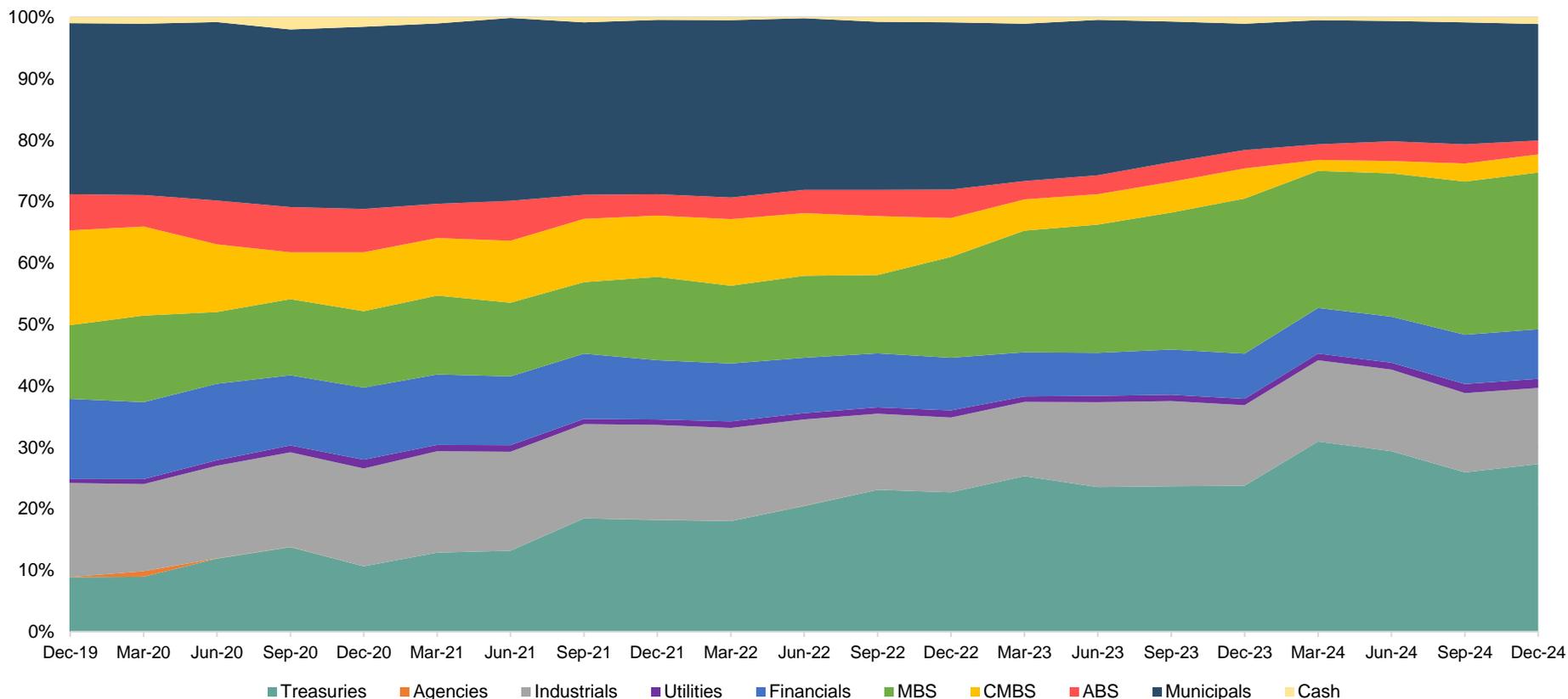
Disclaimer: The inception date for the Ramirez Core Strategy is September 1, 2008. Year-to-date returns are provided through December 31, 2024.

A GIPS compliant annual disclosure is available upon request. Performance is presented gross-of-fees and annualized in periods greater than 12 months.

Past performance is not a guarantee of future results.

Ramirez Core Strategy – Historical Sector Allocations

Ramirez Core Strategy Historical Sector Allocations



Date	U.S. Governments	Treasuries	Agencies	Corporates	Industrials	Utilities	Financials	Securitized Product	MBS	CMBS	ABS	Municipals	Cash
Current Allocation	27.3%	27.3%	0.0%	21.9%	12.4%	1.5%	8.1%	30.7%	25.5%	2.9%	2.3%	19.0%	1.1%
Average	19.6%	19.6%	0.1%	24.6%	14.2%	1.1%	9.5%	28.9%	16.8%	7.8%	4.4%	25.9%	0.8%
5Y High	31.0%	31.0%	0.9%	29.1%	16.5%	1.5%	13.1%	33.7%	25.5%	15.4%	7.3%	29.7%	2.0%
5Y Low	8.9%	8.9%	0.0%	20.2%	12.1%	0.6%	7.0%	25.9%	11.7%	1.8%	2.3%	19.0%	0.1%



Source: BondEdge, as of 12/31/2024

Portfolio Construction Risk Framework – Core Strategy

- Sector weightings are driven by Investment Committee outlook
- Sector allocations and security selection driven by Portfolio Management and Investment Teams

Core Strategy Risk Comparison

	% Held (MV)			Yield-to-Worst (%)			Effective Duration (Yrs.)			Quality	
	Core Strategy	Index	Difference	Core Strategy	Index	Difference	Core Strategy	Index	Difference	Core Strategy	Index
Cash	1.09	0.00	1.09	4.44	0.00	4.44	0.08	0.00	0.08	AAA	---
U.S. Govt./Credit/Municipals	68.19	71.82	-3.63	5.03	4.77	0.26	6.82	6.13	0.69	Aa3	AA2/AA3
U.S. Government	27.30	44.31	-17.01	4.52	4.45	0.06	7.31	5.79	1.52	AA1	AA1/AA1
Treasury	27.30	43.64	-16.34	4.52	4.45	0.06	7.31	5.82	1.49	AA1	AA1/AA1
Agency	0.00	0.67	-0.67	0.00	4.54	-4.54	0.00	3.36	-3.36	---	AA1/AA1
Credit	21.91	27.02	-5.11	5.27	5.29	-0.02	5.66	6.63	-0.97	BAA1	A2/A3
Corporate	21.91	23.93	-2.02	5.27	5.33	-0.06	5.66	6.83	-1.17	BAA1	A3/BAA1
Industrial	12.37	13.72	-1.35	5.30	5.35	-0.04	6.17	7.50	-1.33	BAA1	A3/BAA1
Finance	8.05	7.98	0.07	5.22	5.27	-0.05	4.78	5.29	-0.50	BAA1	A2/A3
Utility	1.49	2.23	-0.74	5.22	5.43	-0.21	6.23	8.30	-2.06	BAA1	A3/BAA1
Non-Corporate	0.00	3.09	-3.09	0.00	4.96	-4.96	0.00	5.05	-5.05	---	AA2/AA3
Municipal	18.97	0.48	18.49	5.51	5.41	0.10	7.44	9.05	-1.60	AA2	AA2/AA3
Taxable Municipal	18.97	0.48	18.49	5.51	5.41	0.10	7.44	9.05	-1.60	AA2	AA2/AA3
Securitized	30.74	28.19	2.55	5.33	5.27	0.06	5.29	5.43	-0.15	AA1	AAA/AA1
MBS Pass-throughs	21.99	26.25	-4.26	5.31	5.29	0.02	5.87	5.56	0.32	AA1	AAA/AA1
RMBS	3.55	0.00	3.55	5.72	0.00	5.72	5.30	0.00	5.30	AAA	---
ABS	2.28	0.36	1.92	4.74	4.70	0.04	2.05	1.99	0.06	AAA	AAA/AA1
CMBS	2.92	1.58	1.34	5.49	5.21	0.29	3.37	4.15	-0.78	AAA	AAA/AA1
Total:	100.0	100.0	0.01	5.12	4.92	0.20	6.27	5.93	0.34	AA2/AA3	AA2/AA3

- The Ramirez Core Strategy is currently generating **+20 basis points of yield** versus the benchmark while maintaining a slightly longer duration position relative to the index

Municipal Sector Positioning – Core Strategy

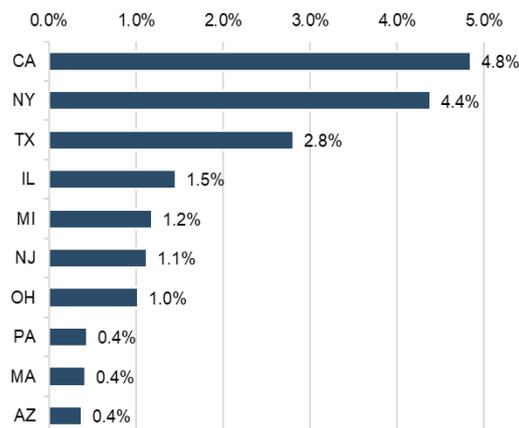
Core Strategy	
% of Strategy	18.97
Yield-to-Worst (%)	5.51
Eff. Duration (Yrs.)	7.44
Quality Rating	Aa2
Coupon (%)	5.61
# of Credits	60-80
# of Issues	80-100

Top 5 Issuers

Issuer	Mdy	S&P	% Port	Cpn (%)	Dur (yr)	Yld (%)	Spd (bp)
STATE OF CALIFORNIA	Aa2	AA-	1.62%	7.446	8.56	5.686	110
CITY OF NEW YORK NY	Aa2	AA	1.09%	5.460	4.31	5.450	112
MICHIGAN STATE UNIVERSITY	Aa2	AA	0.99%	5.936	8.95	5.644	7
TEXAS TRANSPORT COMM. ST HWAYFUND	Aaa	AAA	0.96%	5.180	3.46	4.909	62
NYC TRANSIT FINANCE AUTH TAX SECURED REV	Aa1	AAA	0.72%	4.053	6.96	5.365	88

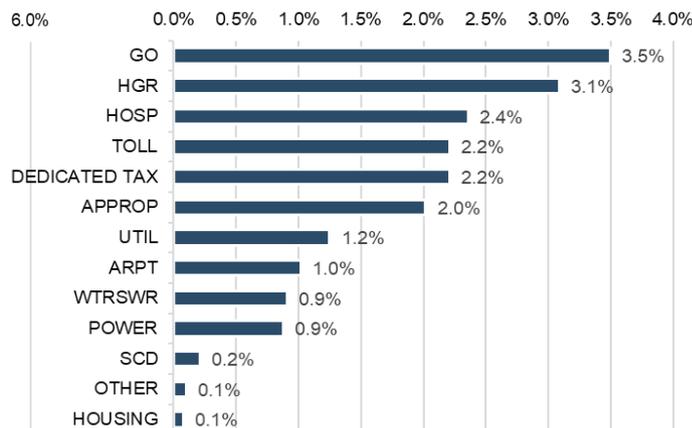
- Overweight issuers with broad and diverse economies
- These issuers represent the largest entities within their respective sector

Exposure by State (Top 10)



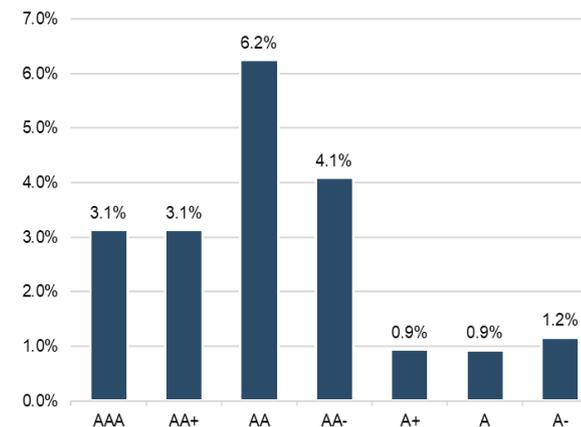
- Concentrate on large issuance States
- Top 10 States total 91% of municipal allocation

Exposure by Sector



- 15.4% allocated to essential service revenue sectors and 4.6% to general obligation / appropriation
- Favor high credit quality issuers in the school district, higher education, and general obligation sectors and securities secured by dedicated tax

Exposure by Rating



- The portfolio has a diverse rating distribution to leverage RAM's credit expertise in selecting mid investment grade credits for alpha opportunities.

Taxable Municipals – Strong Market Characteristics

Facts Supporting the Taxable Municipal Asset Class:

Historical Strong Returns and Yields

- Yield pick-up versus corporate credit is compelling
- A top long-term performing asset class versus other Aggregate sectors

Correlation to Corporate Debt

- Low correlation to U.S. Corporate credit
- Utilization in multi-sector credit portfolio provides complementary factors

High Credit Quality

- Superior historical rating stability and default statistics versus corporate credit with essentially a 0% historical default rate

Liquidity and Growth of Market

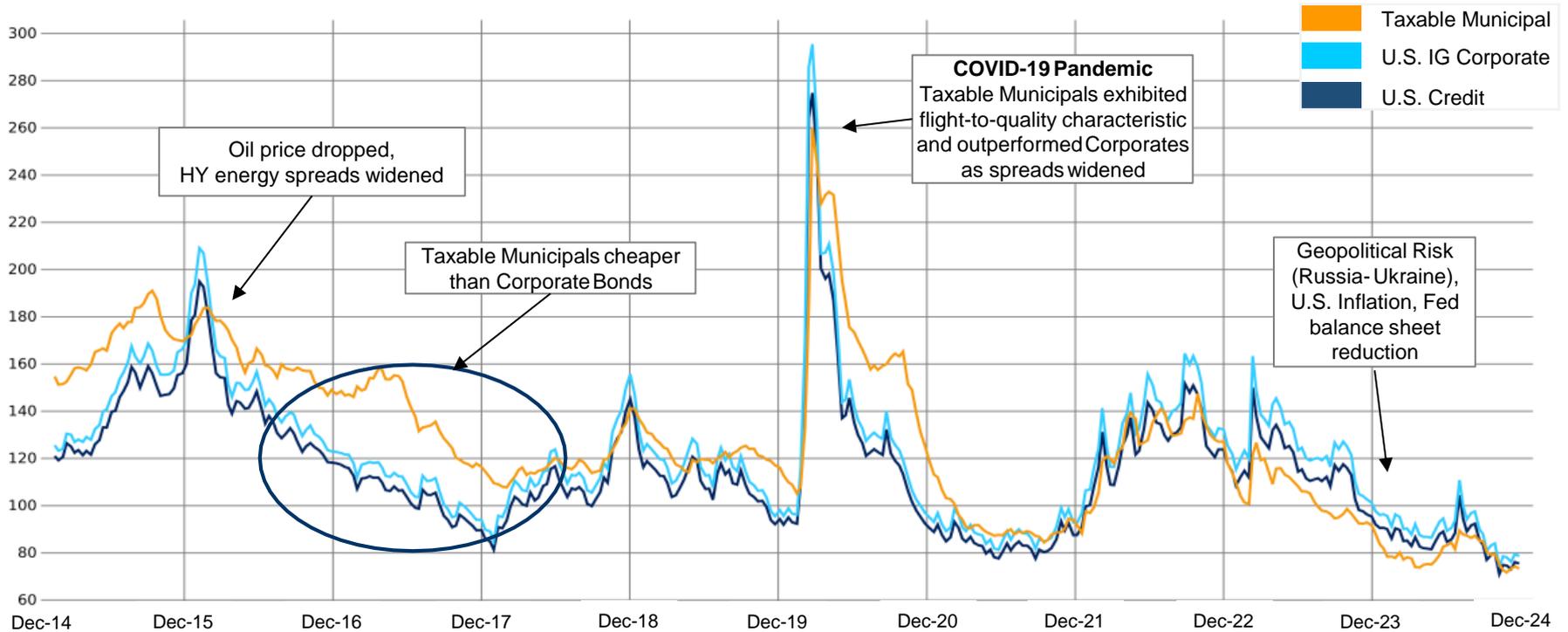
- Significant U.S. and Overseas demand
- Access to credits with broad and diverse economies
- Domestic taxable municipals offer higher relative value vs. sovereign credit:
i.e.: California +242 bps vs. France

Essential Infrastructure and ESG Qualities

- Hospitals, bridges, tunnels, water/sewer, school systems and other projects for the public good
- Most obligors have a stated purpose that involves a combination of environmental, social, and governance (ESG) qualities

Taxable Municipals – Historical Strong Returns and Yields

Taxable Municipals v. Corporates
Historical 10-Year OAS



- The Ramirez Core Strategy’s multi-sector approach, including the utilization of the Taxable Municipal asset class, makes us an ideal partner within a multi-manager fixed income roster
- Our Taxable Municipal overweight is a unique source of alpha generation and offers both complementary and low-correlation factors versus our peers in the core fixed income universe
- Historically, Taxable Municipals have traded tighter than Corporates while having higher risk-adjusted spreads with lower volatility and a near-zero default rate¹
- With credit spreads near 10-year tights, Taxable Municipals provide the opportunity for continued strong performance while locking in attractive yields



Source: Bloomberg, data as of 12/31/2024

1: Moody’s “Special Comment: US Municipal Bond Defaults and Recoveries, 1970-20 (04/21/22)

Corporate Sector Positioning – Core Strategy

Core Strategy	
% of Strategy	21.91
Yield-to-Worst (%)	5.27
Eff. Duration (Yrs.)	5.67
Quality Rating	Baa1
Coupon (%)	4.94
# of Issuers	60 – 100
# of Issues	80 – 120

Sector (Corporate)	% Held (MV)			Quality		Eff Dur		OAS		Coupon		YTW	
	Core	Index	Diff	Core	Index	Core	Index	Core	Index	Core	Index	Core	Index
Industrial	12.37	13.72		Baa1	A3	6.17	7.50	79	79	4.82	4.22	5.30	5.35
Basic Industry	0.85	0.59		Baa2	Baa1	5.93	7.45	53	91	3.88	4.74	5.00	5.48
Capital Goods	1.40	1.35		Baa2	Baa1	5.17	6.68	74	72	4.28	4.16	5.18	5.23
Aerospace/Defense	0.70	0.49		Baa2	Baa1	6.03	7.72	88	88	4.88	4.49	5.37	5.44
Building Materials	0.57	0.09		Baa2	Baa2	4.79	7.27	64	84	3.61	4.24	5.08	5.39
Communications	2.27	1.71		Baa2	Baa2	5.51	8.21	85	103	4.58	4.29	5.32	5.61
Consumer Cyclical	1.68	2.00		Baa2	A3	3.88	6.36	73	71	5.22	4.07	5.12	5.20
Consumer Non-Cyclical	2.69	3.61		A2	A3	10.09	7.90	85	75	5.24	4.17	5.60	5.32
Energy	1.98	1.73		Baa1	Baa1	6.17	7.38	93	98	5.40	4.88	5.46	5.55
Technology	1.22	2.12		Baa2	A2	4.03	7.32	63	65	4.31	3.82	5.02	5.18
Transportation	0.22	0.46		Baa1	A3	2.49	9.70	60	74	4.04	4.21	4.89	5.38
Other Industrial	0.05	0.15		A2	Aa3	4.09	9.81	166	70	5.56	3.79	6.09	5.33
Finance	8.05	7.98		A3	A3	4.78	5.29	79	83	5.20	4.35	5.22	5.27
Banking	5.56	5.34		A3	A2	4.65	4.70	81	81	5.40	4.37	5.23	5.22
Brokerage/Asset Managers	0.00	0.26		--	A3	0.00	6.13	0	75	0.00	4.26	0.00	5.23
Finance Companies	0.31	0.28		Baa1	Baa2	2.76	3.95	68	97	4.16	4.22	4.99	5.34
Insurance	1.15	1.12		Baa2	Baa1	5.87	8.24	86	88	4.29	4.47	5.36	5.47
Life Insurance	0.13	0.24		A2	Baa1	6.33	7.33	71	100	6.14	4.86	5.21	5.56
P&C Insurance	0.33	0.47		Baa2	A3	4.66	8.49	68	80	3.23	4.40	5.10	5.40
Health Insurance	0.69	0.41		Baa3	Baa1	6.35	8.49	97	90	4.50	4.34	5.51	5.50
REITS	0.39	0.67		A3	Baa1	6.96	5.61	85	82	5.81	3.83	5.40	5.28
Other Finance	0.64	0.30		A2	Baa1	3.67	4.55	58	102	5.45	5.03	4.93	5.42
Utility	1.49	2.23		A3	A3	6.23	8.30	71	83	4.56	4.36	5.22	5.43
Electric	1.49	2.01		A3	A3	6.23	8.33	71	83	4.56	4.36	5.22	5.42
Other Utility	0.00	0.22		--	Baa1	0.00	8.03	0	90	0.00	4.42	0.00	5.49
Corporate	21.91	23.93	-2.02	Baa1	A3	5.67	6.84	79	81	4.94	4.28	5.27	5.33

Current Outlook:

- **Aerospace and Defense** – Long Cycle business with strong demand as backlogs continue to grow in all segments. Impact of DOGE will be a story to watch but continue to view the sector as defensive with some individual credit comeback stories.
- **Building Materials** – Expected stronger cadence for Infrastructure and Non-residential construction versus residential construction. Select geographically diverse credits
- **Banking** – Deregulation in the new regime will help credit card players and no major impact on other banks. Credit quality is holding up well with strong economic growth and potentially lower corporate taxes. No negative drivers in the near term
- **Insurance** – P&C's benefiting from premium rate increases; Health Insurers face less risk from a Trump administration 2.0 attempting to "Repeal & Replace" the ACA given its popularity; focus on renewal of Marketplace subsidies after YE25
- **REITs** – Solid operating profiles and profitability; stable-to-improving occupancy rates
- **Utilities** – Benefit from strong business risk profile given regulated operations which provides stable cash flows

Securitized Sector Positioning – Core Strategy

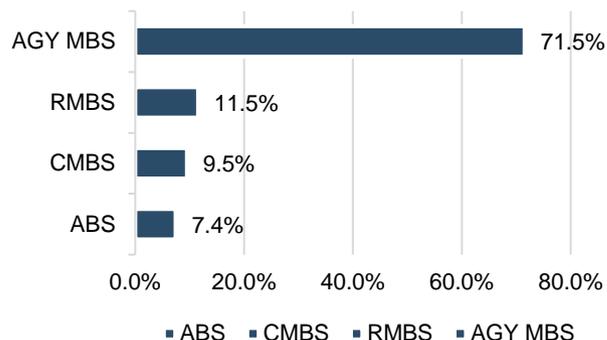
	Total	AGY MBS	RMBS	CMBS	ABS
% MV of Port	30.74	21.99	3.55	2.92	2.28
Duration (Yrs.)	5.25	5.87	5.30	3.37	2.05
Quality	Aaa	Aaa	Aaa	Aaa	Aaa
Yield (%)	5.33	5.31	5.72	5.49	4.74
# of Issues	198	125	45	14	14

- Underweight Agency MBS in favor of other securitized sectors
- Favor Prime Jumbo RMBS and SASB CMBS, reducing ABS as risk premiums too narrow in certain categories

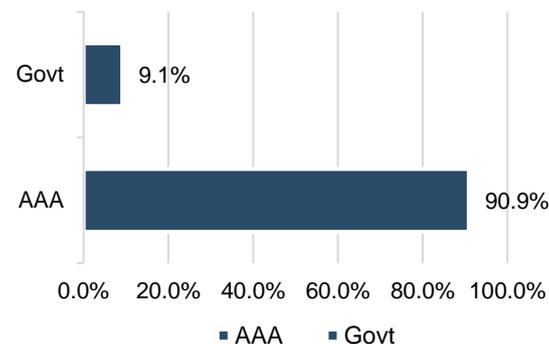
Subsectors	UMBS (FN / FR)	Prime Jumbo	SASB	Prime Owner/ Lease Trust Auto Floorplan Device Receivable

Top 3 Holdings	Issuer	Yield	Dur.	Issuer	Yield	Dur.	Issuer	Yield	Dur.	Issuer	Yield	Dur.
	FN - MA5072	5.7	3.8	CHASE 2024-5	5.9	3.4	CGCMT 2023-PRM3	5.4	3.2	NALT 2024-B	4.8	2.0
	FN - MA4732	5.3	5.9	JPMMT 2024-12	6.0	3.8	NXPT 2024-STOR	5.4	4.3	VFET 2024-1A	4.7	2.0
	FN - MA4512	5.2	7.3	SEQU TR 2021	5.2	7.3	EQT 2024-EXTR	5.4	4.0	WOART 2023-B	4.7	2.2

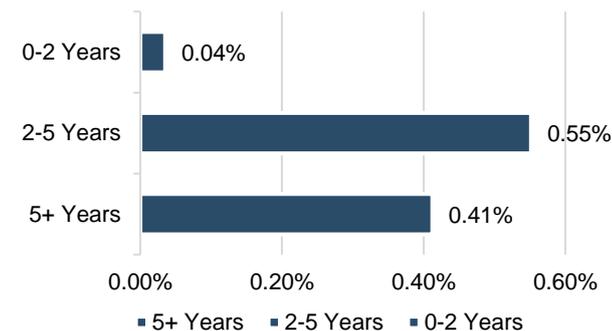
Exposure by Sector



Exposure by Rating



Exposure by Duration



- Maintain higher than benchmark WAC favoring 4% and higher coupons in Agency MBS
- Find fixed rate AAA SASB within specific collateral groups attractive in the 5 year and less maturity profile
- In ABS emphasize high quality names from programmatic issuers in auto and small ticket receivables sectors

- RAM is staying at the top of the waterfall structure as spreads have moved tighter

- We continue to view securitized product as most attractive in the front end of the term structure, with deep discount RMBS providing intermediate maturity exposure



Source: BondEdge, data as of 12/31/2024

City of Oakland Police and Fire Retirement System (OPFRS)

Core Fixed Income

Ramirez Core Strategy Standard Fee Schedule	
First \$50 million	0.25%
Next \$100 million	0.20%
Balance	0.15%

OPFRS Current Fee Schedule	
Full Mandate	0.24%

OPFRS Proposed Fee Schedule	
First \$100 million	0.22%
Balance	0.20%

- The proposed fee is an all-in fee that will cover all investment management services
- The proposed fee schedule represents a 2 basis point reduction in the current OPFRS Fee Schedule, negotiated in 2019, with further reduction tied to portfolio growth

Fixed Income Investment Process – Unique Approach

A Differentiated and Focused Approach

- We are a credit-focused manager with a proven and repeatable investment process focused on sector allocation and bottom-up security selection
- We seek to identify pockets of relative value within the corporate, municipal and securitized credit sectors
- Our experienced portfolio managers work collaboratively to make meaningful allocations to these pockets of relative value without significant deviations in duration or credit quality from the benchmark
- We generate value on the term structure by sector, analyzing cross-sector spread per unit of duration by quality, and allocating accordingly
- Our differentiated and focused approach has enabled RAM to generate long-term track records of outperformance

Ramirez Advantage



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MEMORANDUM

TO: Oakland Police and Fire Retirement System (“PFRS” or “the Board”)
FROM: Meketa Investment Group (“Meketa”)
DATE: February 26, 2025
RE: Selection of New Core Fixed Income Investment

At the July 2024 meeting, the Board approved a search process to identify the most attractive candidates to manage PFRS’s two Core and two Core Plus mandates. At the January 2025 meeting, the Board approved Meketa’s recommended list of three finalist firms for interviews and delegated to the Investment Committee to conduct them.

This document serves to further implement the Board’s decision and to provide an overview of the candidates and their strategies. Meketa recommends that the Board select two managers for the Core Fixed Income mandate at the completion of the search process.

Overview of Finalists

The three Core Fixed Income finalist candidates are as follows, in alphabetical order:

- Loomis, Sayles & Company
- Loop Capital Asset Management
- Ramirez Asset Management¹

All three managers and their products possess the abilities to provide PFRS with the appropriate services. The following table summarizes their key information about the firms and the proposed products. Summary profiles are also included in the following pages.

	Loomis	Loop	Ramirez
Firm Location	Boston, MA	Miami, FL	New York, NY
Firm Inception	1926	1985	2002
Firm AUM²	\$389.3 billion	\$9.8 billion	\$12.8 billion
Ownership Structure	100% Parent-Owned by Natixis	100% Parent-Owned by Loop Capital LLC	100% Parent-Owned by SAR Holdings
Strategy Name	Core Disciplined Alpha	Core Fixed Income	Core Fixed Income
Strategy Inception	August 2010	January 2009	September 2008
Strategy AUM²	\$13.6 billion	\$4.3 billion	\$3.2 billion
Investment Vehicle	Commingled	Separate Account or Commingled	Separate Account
Liquidity	Daily	Daily	Daily
Fee Schedule³	0.225% on the first \$100M, 0.18% thereafter.	0.20%	0.22% on the first \$100M, 0.20% on the next \$100M, 0.15% thereafter
Minimum Account Size	\$5 million	\$25 million (Separate Account)	--

¹ Ramirez is an incumbent manager with a Core Fixed Income mandate.

² Firm and Strategy AUM (Asset Under Management) are as of December 31, 2024. Source: eVestment.

³ Fee schedules are as proposed in the RFP responses. Those of Loop and Ramirez include discounted fee schedule for Meketa clients and/or PFRS.

Loomis, Sayles, & Company

Organization

→ The firm was established in 1926 by founders Robert H. Loomis and Ralph T. Sayles. It is a wholly owned subsidiary of Natixis Investment Managers, LLC, which is an indirect subsidiary of Natixis IM, an international asset management group based in Paris, France. Natixis IM is in turn owned by BPCE, France's second largest banking group. The firm provides investment advisory or sub-advisory services to institutional clients through its separate account management services as well as to a variety of investment funds. As of 2024 year-end, the firm has approximately \$389.3 billion in assets under management (AUM).

Investment Team

- Lynne Royer and Seth Timen serves as Co-Heads of the Disciplined Alpha team; both have been with the strategy since its inception. They lead a team of sector-specialist investment professionals with responsibility for researching, selecting, and trading securities. The team has a dedicated group of traders to implement buy and sell decisions.
- The Disciplined Alpha team also draw on the firm's broader resources of the centralized sector and research teams within the firm for specialized knowledge and analytics, as well as the resources of the firm's credit research analysts, who develop proprietary ratings and research rating agency communications to anticipate future credit downgrades and upgrades.

Philosophy

→ The Disciplined Alpha focuses on relative value investing on a risk-adjusted basis. The Core Disciplined Alpha strategy is benchmark-driven and managed against the Bloomberg US Aggregate Bond Index. The portfolios primarily contain benchmark-like securities with little duration or yield curve risk. Security selection is expected to be the primary source of excess returns and analysis and measurement of risk are important components of the investment strategy.

Process

- The Disciplined Alpha investment process seeks to deliver alpha versus the benchmark by focusing the team's efforts on research, relative value across bonds and sectors, and consistent, systematic risk management. The investment process is applied primarily to high-grade bonds and builds portfolios whose alpha is expected to be derived principally from security selection rather than exposures to duration, yield curve, or sector positions.
- Sector specialists on the Disciplined Alpha team are responsible for accessing the research of the Loomis Sayles credit research and securitized sector teams to help generate investment ideas. The sector specialists are dedicated to credit, structured products (such as asset-backed and commercial mortgage-backed securities), and mortgage-backed securities.
- Within their areas of responsibility, the investment professionals select securities to buy and sell, and allocate risk within agreed upon guidelines. Daily conversations among its members are conducted including regular team meetings to review information about sectors and ongoing discussions with the co-heads about positions, risks, and trading.
- Risk is analyzed and measured by evaluating many measures of risk bond by bond, including duration, sector, yield curve, prepayment, spread volatility and credit exposure by using proprietary risk management tools intended to gain a real-time view of the portfolio and the incremental risks of any given bond.

Loop Capital Asset Management (LCAM)

Organization

- LCAM began operations in 1985 as a women/minority-owned business. After a period of parent-owned structure from December 2008 to January 2022, it has become once again a minority-owned boutique fixed income manager since then. As of 2024 year-end, the firm has about \$9.8 billion in assets under management.

Investment Team

- LCAM operates as one investment team covering all strategies. The portfolio managers use a team-based approach and are supported by research analysts. The investment team is composed of four portfolio managers, seven research analysts, and a trader.
- Four portfolio managers utilize a team-based approach and are generalists operating across strategies.
- The research analysts are sector specialists, evaluating credit across qualities and geographies. The analysts have on average 13 years of experience.
- The trader role is tasked with not only investment execution but also with alpha generation through knowledge and utilization of transaction activity, pricing, flow information, and supply expectations.

Philosophy

- The investment philosophy is based on the belief that the fixed income markets are systematically inefficient and the most effective way to capture those inefficiencies is by leveraging a diversified set of alpha sources, and that market timing is not feasible and thus the strategy seeks to outperform over market cycles by focusing on fundamentals and long-term economic trends rather than shorter-term data and market sentiment.

Process

- The investment process seeks to identify mispricings across the yield curve, across sectors and the quality spectrum, and at the idiosyncratic issuer level. As a high conviction investor, LCAM seeks to making meaningful allocations to areas with perceived value within the context of a diversified portfolio.
- The strategy invests primarily in marketable, US dollar denominated fixed income securities and debt instruments, including all types of fixed, floating rate, and inflation-indexed securities and instruments.
- Security selection is the output of our bottom-up research combined with a strict relative-value discipline that seeks to identify dislocations in security valuations. The relative value component is derived by comparing the proprietary issuer score (both current and future) with related issuers to ascertain which offers better spread per unit risk. Not only is the issuer compared, but the valuation is determined at the security level, considering such factors as tranche liquidity, collateral, maturity calendars, call features, fixed/float characteristics, green/sustainable triggers, etc.
- The analyst decision and recommendation are intended to be solely based on the security level analysis without regard to portfolio structure, whereas portfolio managers factor in our macro-economic outlook, portfolio positioning and risk-budgeting to the ultimate buy/sell decisions.

Ramirez Asset Management

Organization

- Ramirez Asset Management was founded in 2002. It is a wholly owned subsidiary of SAR Holdings, Inc. (“SAR”) group of financial services companies, which is 100% active employee-owned and an affiliate of Samuel A. Ramirez & Co. (“Ramirez & Co.”). Ramirez & Co., founded in 1971, is one of the oldest and largest minority-owned investment banks in the country.
- Samuel A. Ramirez and Samuel A. Ramirez, Jr. own approximately 95% of SAR, with the remaining balance owned by employees of the organization, none of which is greater than 5%.
- As of 2024 year-end, the firm has about \$12.8 billion in assets under management.

Investment Team

- The Ramirez Core Strategy is managed by a 14-member Investment Team, utilizing a collaborative, team-based approach.
- This team is led by four portfolio managers who average of 31+ years of investment experience and specialize in specific sectors of the fixed income market. Samuel Ramirez, Jr. (Municipals), Alex Bud (Municipals) Louis Sarno (Securitized Product) and Helen Yee, CFA (Credit) as portfolio managers are supported by a team of nine sector-specific credit analysts.
- RAM’s corporate credit, municipal, and securitized research analysts are sector specialists that drive the overall research process, which includes screening and monitoring the investible universe at both the subsector and individual issuer levels.
- The portfolio team is responsible for client portfolio performance, with supporting credit research that engages in continual relative value analysis and make desired portfolio adjustments.

Philosophy

- As a credit-focused fixed income manager, RAM seeks active relative value credit opportunities to add incremental yield and total return.
- The investment philosophy is based on the belief that utilizing credit expertise in sector rotation and security selection within a risk-controlled framework will produce consistent risk-adjusted returns over time.

Process

- The Ramirez Core Strategy is an actively managed, total rate of return US dollar-denominated fixed income strategy designed to provide excess returns through meaningful exposure to the credit markets.
- RAM approach adheres to overall benchmark duration, term structure, and credit quality risk framework though not constrained by credit segmentation within the benchmark. The portfolios are managed using a blend of top-down macroeconomic analysis and bottom-up fundamental research.
- The value on the term structure by sector is emphasized with an analysis on cross-sector spread per unit of duration by quality to allocate accordingly.
- The process blends non-correlated and higher credit quality sectors with an active management style between intra-sector allocations based on the firm’s market views.

DS/PN/JLC/mn

INCOME RESEARCH + MANAGEMENT
OAKLAND POLICE & FIRE
RETIREMENT SYSTEM

February 25, 2025

Presented by: Lyniese Harrison, CFA
Eric Mueller, CFA
Mike Sheldon, CFA





Lyniese Harrison, CFA

Portfolio Manager, 16 years of experience

Lyniese joined IR+M in April 2021. Prior to joining IR+M, Lyniese was a Director, High Yield & CLOs at Genworth Financial. Lyniese has a BS in Management Science and Engineering from Stanford University.



Eric Mueller, CFA

Senior Client Portfolio Manager, 23 years of experience

Eric joined IR+M in December 2006. Prior to IR+M, Eric was a Trading Associate in the Global Macro Group at Eaton Vance. Eric has a BA in English from the University of Puget Sound.



Mike Sheldon, CFA

Deputy Chief Investment Officer, 34 years of experience

Mike joined IR+M in November 2007. Prior to joining IR+M, Mike was an Institutional Fixed Income Bond Sales Representative and Vice President with HSBC. Mike has a BS in Business Administration from Northeastern University.

IR+M OVERVIEW

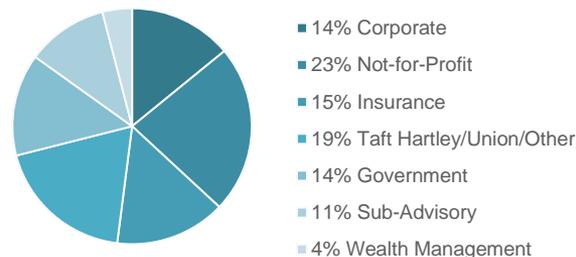
KEY DIFFERENTIATORS

+ INDEPENDENT FIRM + VALUE ORIENTED APPROACH + COLLABORATIVE CULTURE + CLIENT FOCUS

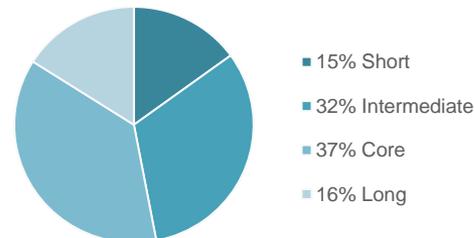
FIRM FACTS

- 38 years since firm's inception
- \$111 billion in assets under management
- Exclusively US dollar-denominated fixed income
- Consistent, team-oriented, bottom-up investment approach
 - 14-year average portfolio manager tenure
- Privately owned with 76 employee shareholders

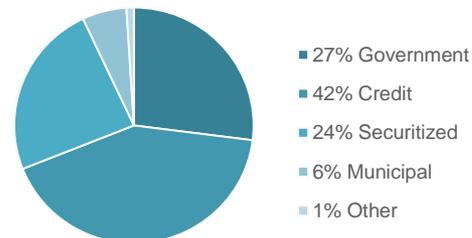
ASSETS BY CLIENT TYPE



ASSETS BY STRATEGY



ASSETS BY SECTOR



AUM and Assets data as of 1/31/25.

Other category in Assets by Sector Chart includes Cash and Convertibles.

Firm inception, Average portfolio manager tenure and Employee shareholders as of 1/2/25.

IR+M OVERVIEW WHO WE ARE

SENIOR MANAGEMENT

Bill O'Malley, CFA*
CEO, Co-CIO
37 years experience

Matt Cannata
Senior Vice President, General Counsel
21 years experience

Sarah Kilpatrick*
Chief of Staff
23 years experience

Rick Kizik, CFA
Chief Compliance Officer
33 years experience

Jack Sommers, CFA
Executive Chairperson
40 years experience

Max DeSantis, CFA*
Chief Operating Officer
26 years experience

Annemarie Ellicott
Head of Human Capital Management and
Corporate Responsibility
14 years of experience

Bill O'Neill, CFA*
Senior Portfolio Manager,
Director of Portfolio Management
25 years experience

Jim Gubitosi, CFA*
Co-CIO
21 years experience

Meghan Driscoll*
Chief Financial Officer, Co-Head of Client Team
18 years experience

Erinn King, CFA*
Chief Strategy Officer, Co-Head of Client Team
22 years experience

Mike Sheldon, CFA
Deputy Chief Investment Officer
34 years experience

TAKING CARE OF OUR CLIENTS, COMMUNITY, AND COLLEAGUES

Serving Our Clients

- Dedicated client service
- Portfolio Manager access
- Tailored client solutions

Giving Back to Our Community

- Annual IR+M Gives B.A.C.K. Week
- Paid personal volunteering days
- Generous charitable donation matching

Commitment to Our Colleagues

- CFA Institute DEI Code signatory
- IR+M Topical Meet-Ups
- Active network of affinity groups



As of 1/31/25 unless otherwise stated. *Members of the Management Committee. IR+M participates in a workplace survey conducted by Pensions & Investments ("P&I") in which results are analyzed and measured independently by P&I. For a complete list of the 2024 P&I winners and details on P&I's methodology for determining leaders, please visit P&I's The Best Places to Work in Money Management. Participation in the survey is voluntary and IR+M pays P&I for the ability to broadly market results. IR+M submitted a diversity and inclusion initiative entry into the Insurance Asset Risk Americas Awards. Entry materials are reviewed and scored by a panel of industry experts. Participation is voluntary and IR+M pays Insurance Asset Risk for the ability to broadly market results.



IR+M OVERVIEW EVOLUTION

Governance

- Sommers family maintains majority control through the ownership of voting shares, which control the Board
- Three-person Board of Directors (John Sommers, Jack Sommers, Bill O'Malley) expanded in 2021 to include 5 independent advisory members to provide outside perspectives and inform on best practices
- As of January 1st 2024, the Board consists of only fiduciary members:
 - Jack Sommers will remain Executive Chairperson
 - John Sommers has retired from the Board
 - Bill O'Malley will remain CEO, Co-CIO and Director
 - 5 independent Board Members joined as Directors

Independent Fiduciary Board Members



Debbie Goldstein
Managing Partner, Triad Consulting Group, Lecturer on Law, Harvard Law School, Lecturer on Education, Harvard Graduate School of Education



Bill Lawrence, CFA
*Adjunct Professor of Finance, Villanova University
 Former CIO of Traditional Assets, SEI Investments*



Mike Miles
Former Global Human Resources Manager, Acadian Asset Management



Kate Taylor
Founder and Partner, Alderbrook Advisors



Dune Thorne, CTFA, CWS
Chief Strategy Officer, Partner, and Team Member, Brown Advisory



IR+M founded by John and Jack Sommers

First employee shareholder

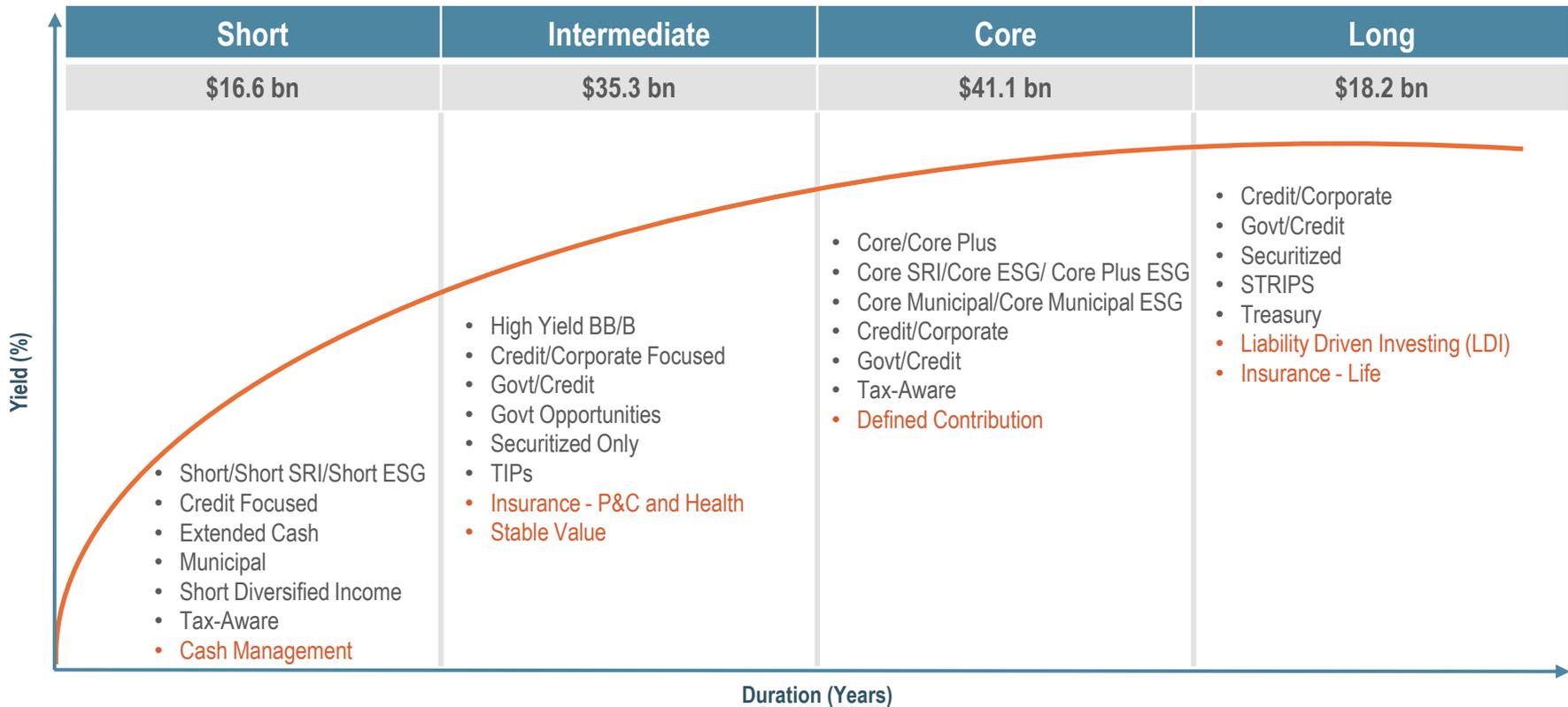
Product Team formed; Jack transitions leadership of Investment Team to Bill

Management Committee formed

Advisory Board Formed

IR+M STRATEGY OVERVIEW SOLUTIONS SPECTRUM

- IR+M manages custom **solutions** and strategies across the yield curve



AUM by Strategy

	Short	Intermediate	Core	Long
Broad	\$9.7 bn	\$17.3 bn	\$33.8 bn	\$6.8 bn
Government/TIPs	\$2.2 bn	\$1.4 bn	\$2.1 bn	\$439.5 mm
Corporate-focus	\$3.0 bn	\$8.9 bn	\$1.6 bn	\$11.0 bn
Municipal/Tax-Aware	\$1.7 bn	\$7.7 bn	\$3.5 bn	\$11.2 mm

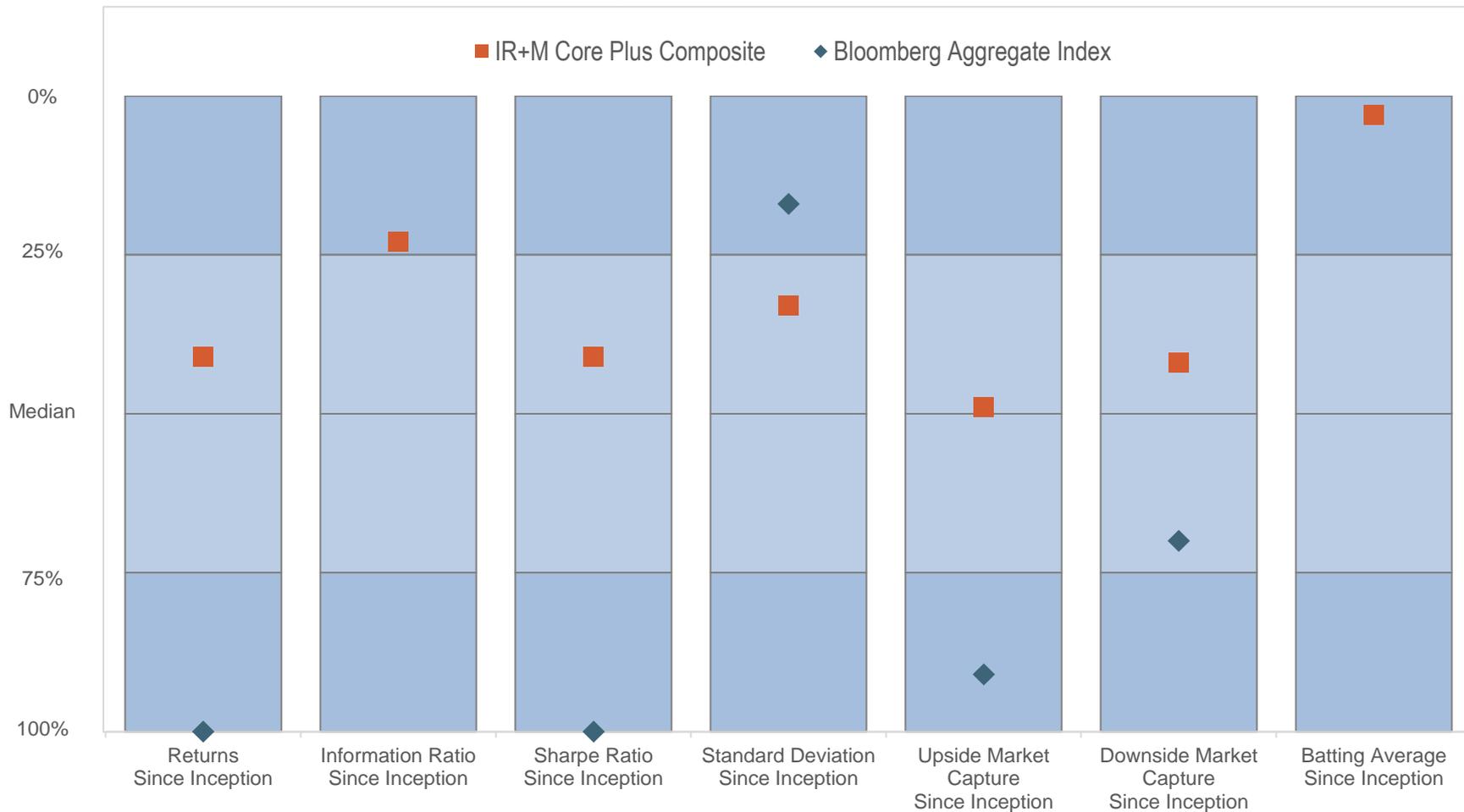
Data as of 1/31/25. Client solutions are in orange font.

The above Yield/Duration curve is for illustrative purposes only. Actual results may differ.

Totals may not sum due to rounding.

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Strong Risk Metrics Relative to Peers



Source: eVestment. All data in the above chart is as of 12/31/24 and was retrieved from eVestment on 2/13/25. IR+M Core Plus Composite Inception 7/31/17. Percentiles based on the US Core Plus Fixed Income Universe in eVestment. Metrics and returns shown are the ones IR+M feel are most commonly used when comparing risk relative to peers. All metrics are based on monthly returns and, if an index is used in the calculation, use the Bloomberg Aggregate Index, with the exception of the Sharpe Ratio which uses the FTSE 3-Month T-Bill Index. The IR+M Core Plus Composite information is supplemental to the IR+M composite disclosures at the end of this presentation.

PROCESS AND
PHILOSOPHY

IR+M OVERVIEW INVESTMENT PROFESSIONALS

INVESTMENT COMMITTEE

YRS EXP / YRS at IR+M

Bill O'Malley, CFA	CEO, Co-CIO	37 / 30
Jim Gubitosi, CFA	Co-CIO	21 / 18
Mike Sheldon, CFA	Deputy CIO	34 / 17
Allysen Mattison, CFA	Director of Investment Risk, Vice Chair of the IC	20 / 16
Bill O'Neill, CFA	Senior PM, Director of Portfolio Management	25 / 20
Jake Remley, CFA	Senior PM, Director of Investment Strategy	24 / 19
Matt Walker, CFA	Senior PM, Director of Credit	22 / 18
Rachel Campbell	PM, Director of Securitized	19 / 16

TRADERS

YRS EXP / YRS at IR+M

Lucas Murray	SVP, Senior Trader (Credit)	21 / 17
Andy Tenczar	SVP, Senior Trader (Securitized)	27 / 13
Brodie Martin	Senior Trader (Credit)	8 / 3
Jeffrey Nutt, CFA	Senior Trader (Securitized)	26 / 2
Jason Ku, CFA	Trader (Securitized)	8 / 4

PORTFOLIO MANAGERS & STRATEGISTS

YRS EXP / YRS at IR+M

Carrie Mermelstein, CFA	Senior Portfolio Manager	24 / 6
Wesly Pate, CFA	Senior Portfolio Manager	17 / 14
Scott Pike, CFA	Senior Portfolio Manager	28 / 18
Justin Quattrini, CFA	Senior Portfolio Manager	22 / 19
Tucker Rothmann, CFA	Senior Portfolio Manager	12 / 8
Ginny Schiappa, CFA	Senior Portfolio Manager	14 / 10
Isha Chanana, CFA	Portfolio Manager	18 / 10
Lyniese Harrison, CFA	Portfolio Manager	16 / 4
Nate Hollingsworth, CFA	Portfolio Manager	19 / 16
Jeremy Holtz, CFA	Portfolio Manager	20 / 15
Mark Riordan, CFA	Portfolio Manager	16 / 13
Kathleen Barton, CFA	Associate Portfolio Manager	15 / 4
Theresa Roy, FSA, EA, CFA	SVP, Investment Strategist ¹	16 / 5
Allison Walsh, CFA	SVP, Investment Strategist ²	22 / 9
Dan Comiskey, CFA	VP, Investment Strategist	12 / 10
Erinn King, CFA	Chief Strategy Officer, Co-Head of Client Team	22 / 2

PORTFOLIO ANALYSIS

YRS EXP / YRS at IR+M

Samantha McDonough, CFA	VP, Portfolio Risk	13 / 10
Hicham Haioued	Senior Portfolio Analyst	9 / 6
James Loftus, CFA	Senior Portfolio Analyst	16 / 12
Elektra Savilonis	Senior Portfolio Analyst	20 / 5
Carlos Andrade	Portfolio Associate	10 / 4
Sabin Pudasaini	Portfolio Associate	5 / 4
Jordan Thomas	Portfolio Associate	1 / 1
Hannah Willy	Portfolio Associate	<1 / <1

RESEARCH

YRS EXP / YRS at IR+M

Kristoff Nelson, CFA	Director of Credit Research	17 / 14
Luke Ferriter, CFA	SVP, Senior Research Analyst (Credit)	19 / 11
Rob Nuccio, CFA	SVP, Senior Research Analyst (Credit)	17 / 13
Kevin Burk, CFA	SVP, Senior Research Analyst (High Yield Credit)	18 / 4
John Costello, CFA	SVP, Senior Research Analyst (High Yield Credit)	13 / 12
Harrison Ameen	Senior Research Analyst (Credit)	10 / 6
Michael Bronson, CFA	Senior Research Analyst (Credit)	12 / 9
Beth Fiore	Senior Research Analyst (Credit)	16 / 3
Scott Hofer, CFA	Senior Research Analyst (Securitized)	16 / 4
Mark Paulson	Senior Research Analyst (Securitized)	19 / 16
Mohammed Bhuiyan	Research Analyst (Securitized)	9 / 4
Christopher Ennis	Research Analyst (High Yield Credit)	5 / 2
Emily O'Toole	Research Analyst (Credit)	8 / 6
Valérie Salmon	Research Analyst (Credit)	6 / 6
Lu Yang, CFA	Research Analyst (Securitized)	12 / 1
Makhissa Bracy	Research Associate (Securitized)	14 / 4
Jason Wong	Research Associate (Credit)	5 / 4
Graham Campbell	Junior Research Associate (Credit)	2 / 2

INVESTMENT RISK & ANALYSIS

YRS EXP / YRS at IR+M

Kyle Waldron, CFA	Investment Risk Analyst	7 / 7
Cailly Carroll	Senior Investment Analyst	13 / 4
Bohdan Chushak, CFA	Senior Investment Analyst, ESG Specialist	6 / 2
Miraj Patel	Senior Investment Analyst, ESG Specialist	4 / 2
Sarah Wu	Senior Investment Analyst	11 / 1
Susmit Pudasaini	Investment Analyst, LDI Specialist	7 / 2

As of 1/31/25

¹ Full title is SVP, Investment Strategist, Head of LDI & Pension Solutions

² Full title is SVP, Investment Strategist, Head of ESG & Corporate Sustainability



IR+M INVESTMENT PHILOSOPHY + PROCESS

INVESTMENT PHILOSOPHY

- + Bottom-up security selection
- + Duration neutral
- + Active risk management

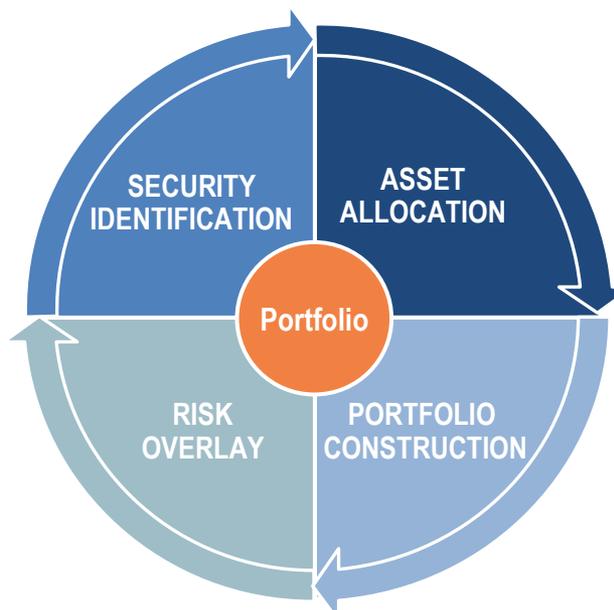
INVESTMENT PROCESS

Sector Management

Fundamental and relative value analysis incorporating **Credit, Structure, and Price**

Investment Risk

Surveillance to ensure portfolio risks are aligned across strategies with quantitative risk metrics and practical overlay



Investment Committee

Determine risk posture and desired asset allocation using best risk-adjusted ideas given cross-sector opportunities and market conditions

Portfolio Management

Strategic portfolio positioning with input from Investment Committee targets, Sector Management recommendations, and portfolio need/guidelines

"Take what the market gives you..."

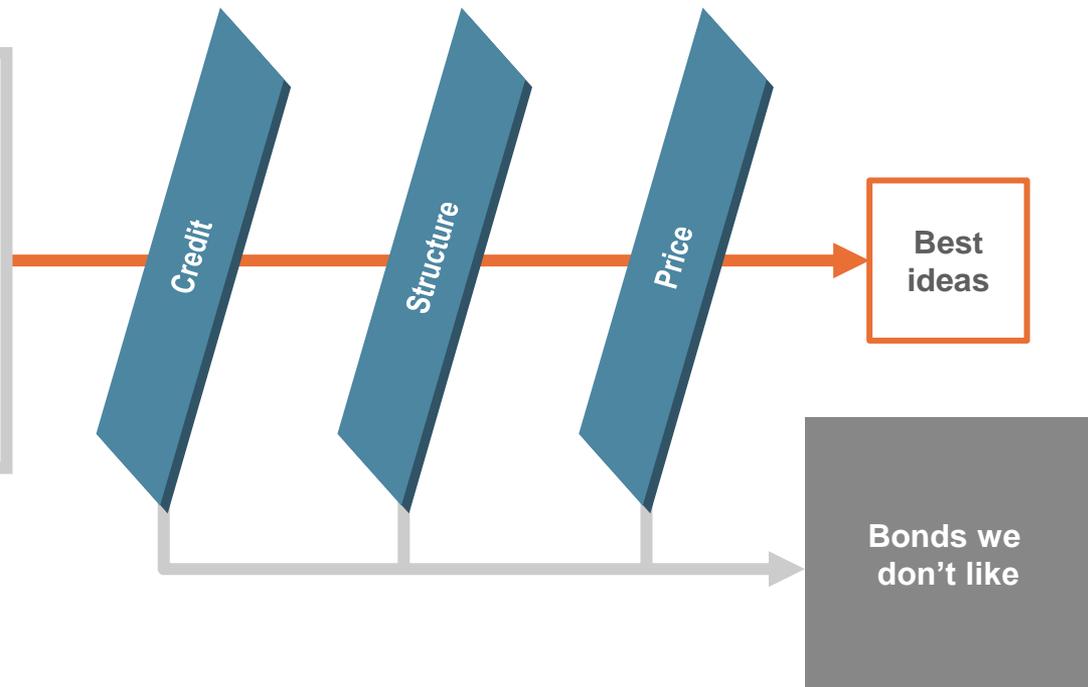
IDEA GENERATION

- Securities considered must pass three decision filters
- Selectivity is a key differentiator

FIXED INCOME SECTORS



ISSUE SELECTION



IR+M INVESTMENT PROCESS CORPORATES

CREDIT ANALYSIS

- Fundamental analysis
 - Leverage, coverage, cashflow
 - Management
- Focus on durable, sustainable issuers
- Evaluate material ESG risks

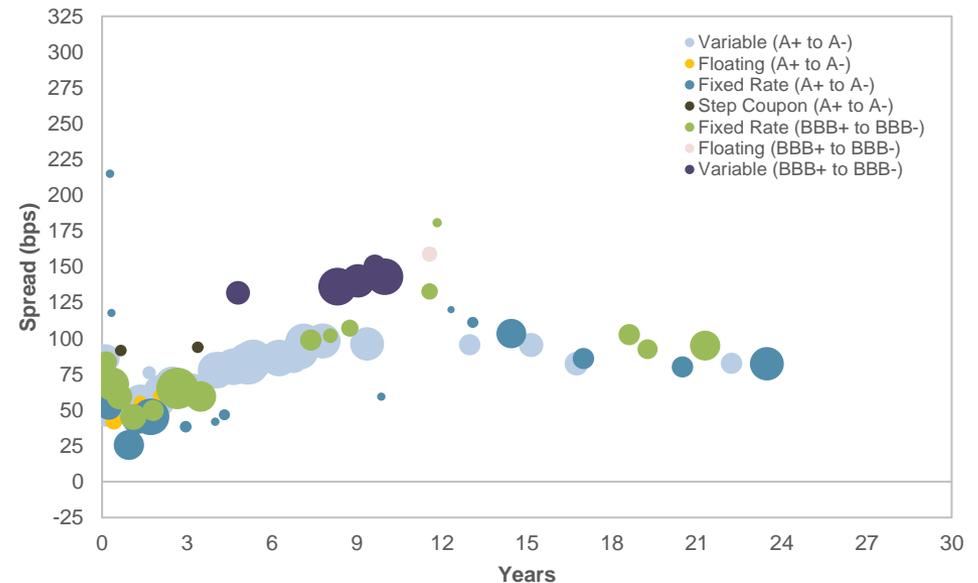
SECURITY SELECTION FACTORS

- + Sector
- + Maturity
- + Coupon/Price
- + Deal size
- + Company Debt Structure
- + Vintage
- + Liquidity
- + Credit Curve
- + Rolldown
- + Benchmark exposure

STRUCTURE AND PRICE ANALYSIS

- Evaluate specific security characteristics
- Ensure appropriate compensation for liquidity, optionality, technicals
- Market conventions combined with trading acumen facilitate attractive execution levels

Large Financial Company Example:
Issue nuances can lead to overlooked ideas



Source: Bloomberg as of 1/31/25. IR+M's ESG analysis includes all assets except cash and cash equivalents, such as Treasuries. Large Financial Company Example offers 50+ index-eligible bonds and 500+ out-of-index bonds, bonds shown represent all of the USD-denominated bonds issued. Spread example is for illustrative purposes only. This is not a recommendation to purchase or sell any specific security. The size of each bubble is relative to the amount outstanding of each issue as of the referenced date.

IR+M INVESTMENT PROCESS SECURITIZED

CREDIT ANALYSIS

- Favor issues that are senior in the capital structure with stable and predictable cash flows
- Focus on collateral with significant embedded credit enhancement
- Consider material ESG risks

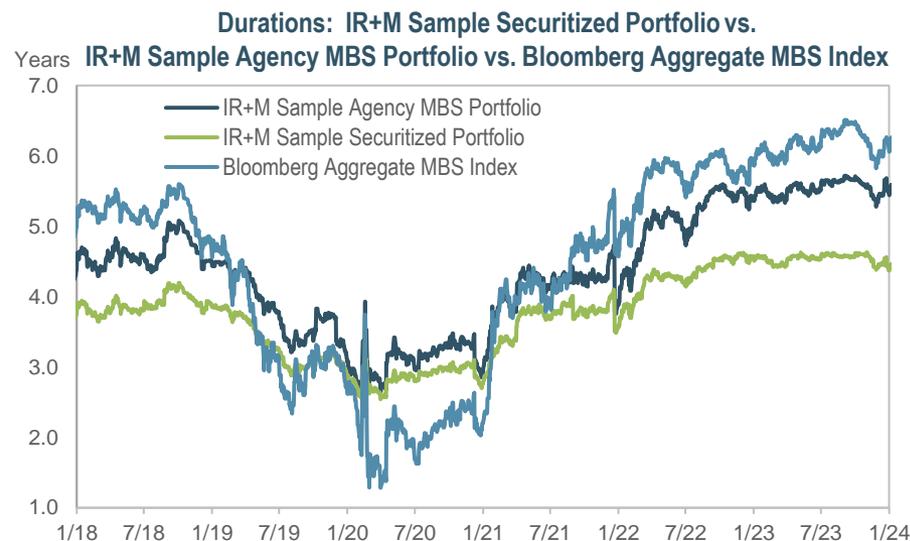
SUBSECTOR UNIVERSE

- + Agency Mortgage-Backed Securities (MBS)
- + Agency Multi-Family Commercial MBS (Agency CMBS)
- + Small Business Administration (SBA) Certificates
- + Non-Agency Fixed-Rate Mortgage-Backed Securities (Non-Agency MBS)
- + Commercial Mortgage-Backed Securities (CMBS)
- + Asset-Backed Securities (ABS)
- + Collateralized Loan Obligations (CLOs)

STRUCTURE AND PRICE EVALUATION

- Seek securities with attractive option-adjusted spread (OAS) and convexity profiles
- Build a securitized portfolio with a duration profile more stable than that of the Index

1/31/25 Characteristics	IR+M Sample Securitized Portfolio	Bloomberg Securitized Index
OAS (bps)	60	37
Effective Duration (yrs)	4.52	6.03
Convexity	0.07	(0.09)



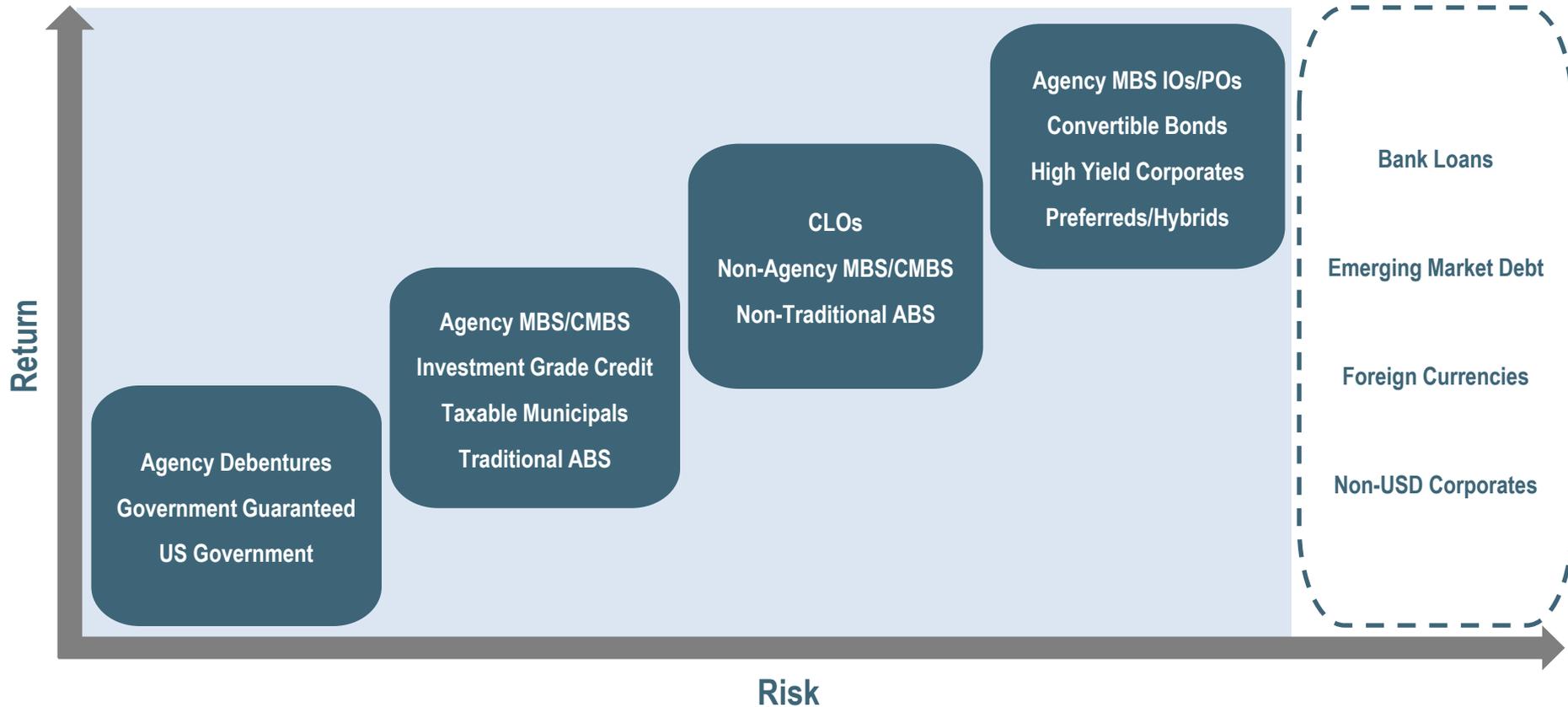
As of 1/31/25.

IR+M Sample Securitized Portfolio includes Small Business Administration Bonds (SBAs). Bloomberg updated the fixed-rate MBS prepayment model used in Bloomberg US Mortgage Back Securities Indices on 1/21/22.

IR+M's ESG analysis includes all assets except cash and cash equivalents, such as Treasuries. Source: Bloomberg

CORE PLUS PORTFOLIO

IR+M Core Plus Strategy's Primary Drivers of Performance

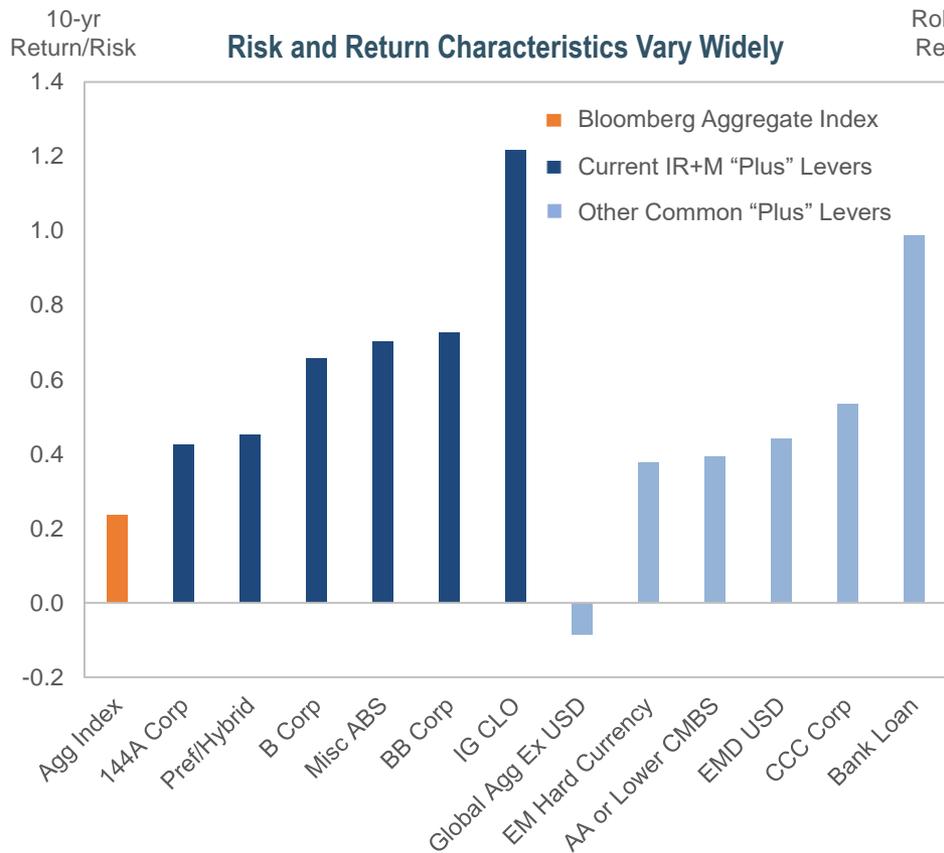


We focus on sectors with analyzable and compensated risks within our fixed income portfolios.

As of 1/31/25. The above list includes some sectors, but not all sectors that are typically permissible within the strategy. Sectors within the blue box represent those that we believe will be the primary driver of relative returns. Sectors within the dotted lined box are those that we believe will not be a meaningful driver of relative returns. The above chart is for illustrative purposes only. It is not a recommendation to purchase or sell any securities in the sectors listed. Actual results may differ.

IR+M CORE PLUS STRATEGY UNIVERSE + PHILOSOPHY

- + Varying fundamentals and unique characteristics of plus sectors creates opportunities for active managers
- + Not all “plus” sectors are created equal; some sectors offer more attractive risk-return characteristics than others



Sources: Bloomberg, ICE, and JPMorgan as of 1/31/25. 10-yr Return/Risk is calculated by taking the 10-year annualized return divided by the monthly standard deviation (annualized). "Plus" sectors and levers listed are those we believe to be most common, not all "plus" sectors and levers are listed. Listed sectors are based on Bloomberg Index data except for Preferred/Hybrid (the ICE BofA Investment Grade Preferred & Hybrid Securities Index (PHGS)), Bank Loan (Morningstar LSTA US Leveraged Loan 100 Index (SPBDLL Index)), CLO IG (sourced from JPMorgan) and Misc ABS (the ICE BofA US Fixed Rate Miscellaneous ABS Index (R000 Index)). The lines on the right-hand chart represent equal weighted averages across of the corresponding sector categories from the left-hand chart. The Bloomberg Aggregate Index is a weighted average. The CLO IG and Pref/Hybrid data was only available back to 1/31/12 and 1/31/07, respectively, and therefore was only used in the average calculation back to those dates.

IR+M CORE PLUS STRATEGY PARAMETERS

Factors	IR+M Core Plus Strategy Parameters
Benchmark	+ Bloomberg Aggregate Index
Duration / Yield Curve	+ Duration and key rate neutral to benchmark
Yield	+ Target a yield advantage versus the benchmark
Sector Allocation	+ Security selection and relative value drive exposures + Maximum 30% in HY, ETFs, and non-AAA RMBS, CMBS, and CLOs
Quality	+ At least 75% rated investment-grade at time of purchase
Liquidity	+ Provide liquidity when well-compensated
Tracking Error	+ Tracking error reflects available opportunities
Derivatives	+ Cash bonds; mortgage derivatives limited
Leverage	+ None

IR+M CORE PLUS STRATEGY CHARACTERISTICS

Characteristics	IR+M Core Plus Portfolio (1/31/25)	Bloomberg Aggregate Index (1/31/25)
Yield (%)	5.30	4.86
Spread to Tsy (bp)	76	30
Effective Duration (yrs)	6.07	6.08
Convexity	0.58	0.54
Number Of Issues	268	13,659
Average Quality (M/S&P)	Aa3/A+	Aa2/AA

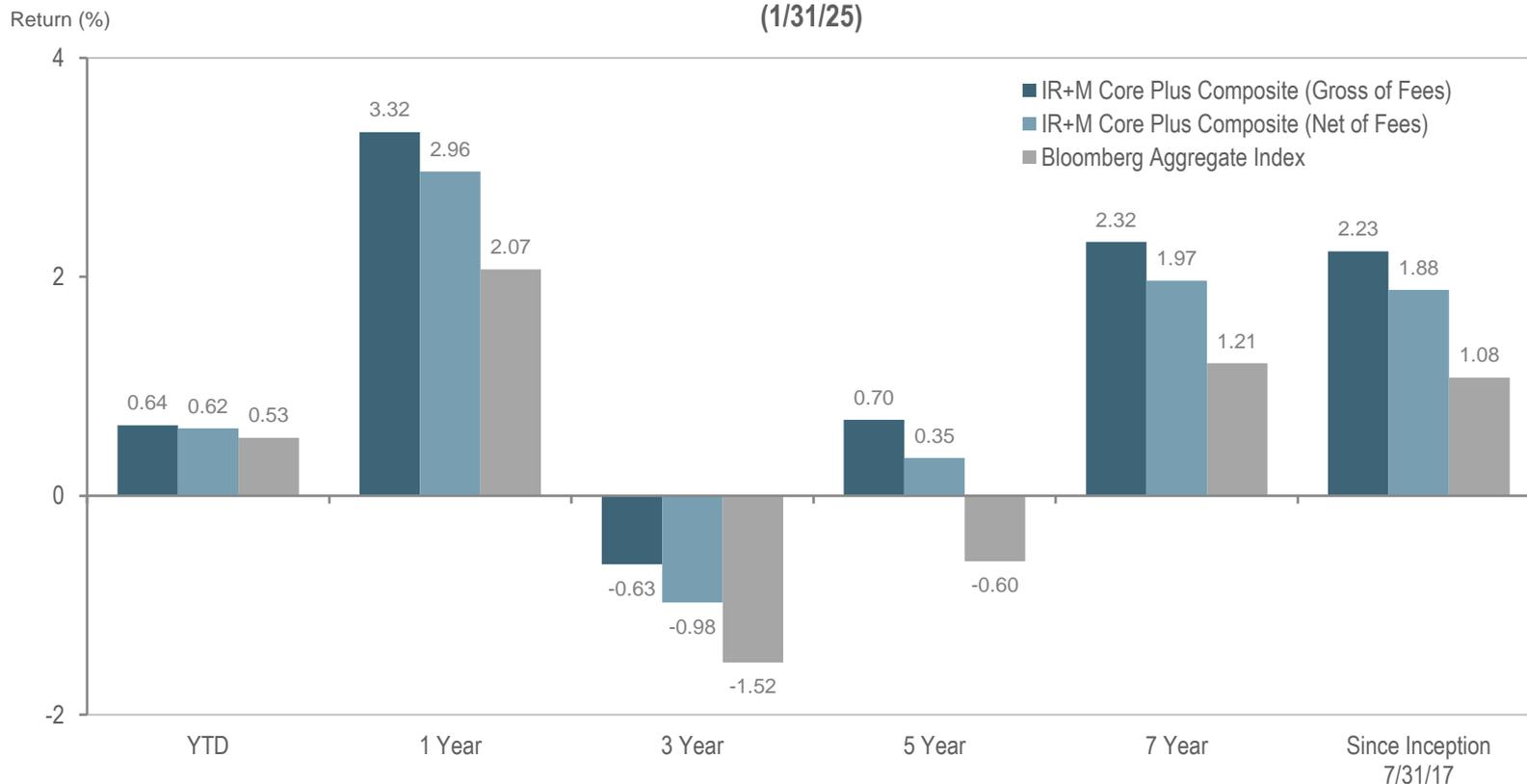
Ratings Distribution (%)		
Aaa	15.8	3.4
Aa	48.3	73.2
A	7.0	11.2
Baa	22.7	12.3
Ba	5.1	0.0
Cash	1.0	0.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>

Sector Distribution (%)	IR+M Core Plus Portfolio (1/31/25)	Bloomberg Aggregate Index (1/31/25)
Government	21.3	45.2
Treasury	19.8	44.5
Agency	0.0	0.7
Govt Guaranteed	1.6	0.0
Credit	29.1	27.4
Finance	14.3	8.2
Industrial	11.8	13.8
Utility	3.0	2.2
Credit Non-Corporate	0.0	3.2
Securitized	48.4	26.9
RMBS	4.4	0.0
Agency RMBS	26.9	25.0
ABS	9.6	0.5
CMBS	7.5	0.7
Agency CMBS	0.1	0.8
Municipal	0.2	0.5
GO	0.2	0.1
Revenue	0.0	0.3
Cash	1.0	0.0
<i>Total</i>	<i>100.0</i>	<i>100.0</i>

Some statistics require assumptions for calculations which can be disclosed upon request.
 Yields are represented as of the above date(s) and are subject to change.
 Totals may not sum to 100 due to rounding.
 Source: Bloomberg

IR+M CORE PLUS STRATEGY PERFORMANCE

IR+M Core Plus Composite vs. Bloomberg Aggregate Index Investment Results (1/31/25)



There was one non-fee paying account in the composite from 7/31/17-9/30/21. Net-of-fee performance returns are calculated using the highest fee of the two scenarios: 1) fee charged to a current portfolio within the composite or 2) the standard fee schedule. We use whichever fee is highest for a given year. Periods over one year are annualized. Past performance is not indicative of future results. A similar analysis can be provided for any time period since inception. Please refer to the GIPS® composite disclosures at the end of this presentation.

Source: Bloomberg



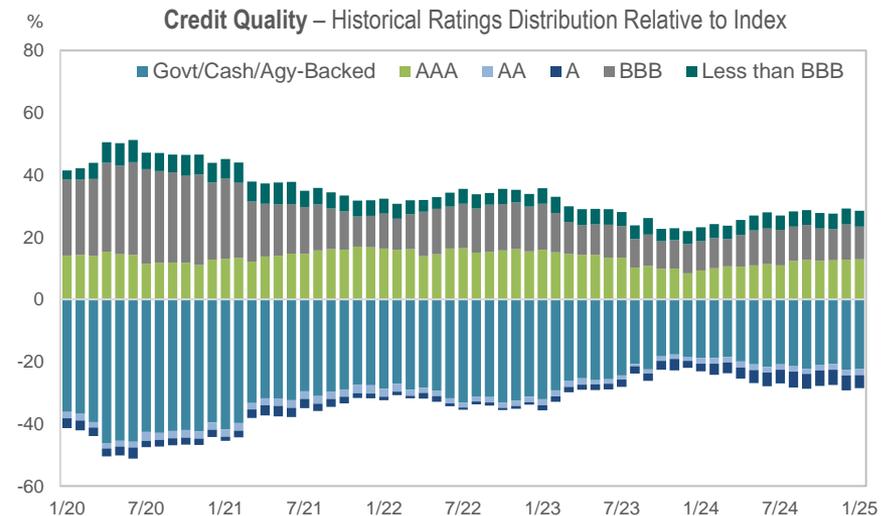
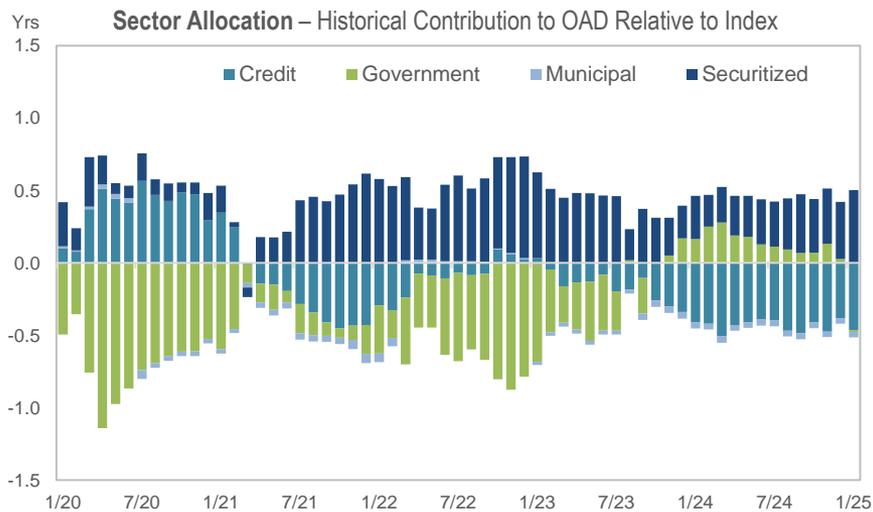
IR+M CORE PLUS STRATEGY RISK CHARACTERISTICS

RISK TYPES

- + Interest Rate Risk
- + Sector Allocation
- + Credit Quality/ESG Risks
- + Security Selection
- + Liquidity
- + Tracking Error

INTEREST RATE RISK

- + Duration-neutral position versus benchmark
 - Duration +/- 0.25 years
- + Neutral exposure to key rates versus benchmark
 - Key rates +/- 0.25 years
- + Convexity aware



Some statistics require assumptions for calculations which can be disclosed upon request. Sector Allocation and Credit Quality shown for the IR+M Core Plus Representative Portfolio. Credit Quality ratings shown are calculated using average quality. IR+M's ESG analysis includes all assets except cash and cash equivalents, such as Treasuries. Index is Bloomberg Aggregate Index. Source: Bloomberg as of 1/31/25

IR+M CORE PLUS STRATEGY RISK CHARACTERISTICS

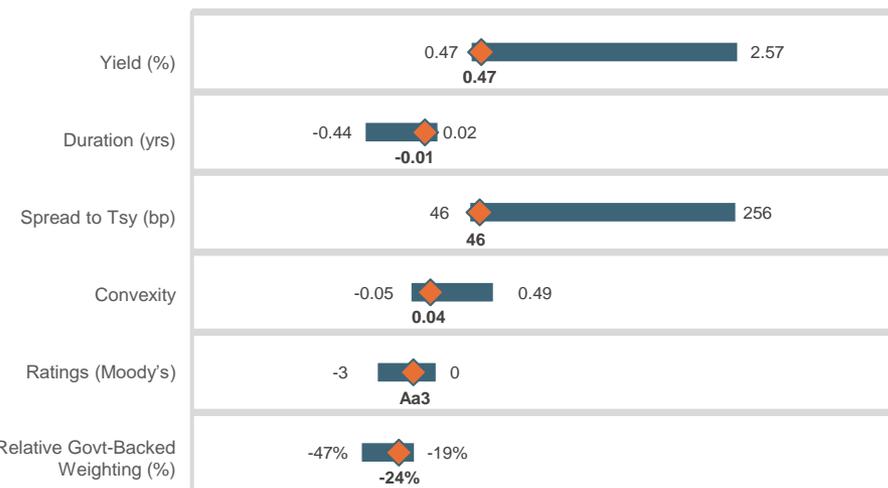
Sector Allocation – Top 10 OASD Differences vs. Index by Spread Sectors

Overweight (yrs)		Underweight (yrs)	
Sector	OASD	Sector	OASD
Brokerage	0.24	Consumer Non-Cyclical	-0.25
Other ABS	0.19	Banking	-0.13
Non Agency CMBS	0.16	Communication	-0.10
Non Agy CMO	0.14	Sovereign	-0.09
Finance Co	0.11	Agy FxRt PT	-0.06
SBA DCPC	0.10	Technology	-0.06
CLO	0.08	Energy	-0.06
Consumer Cyclical	0.05	Supranational	-0.05
Agy FxRt CMO	0.05	Basic	-0.04
Agy VarRt CMO	0.04	Insurance	-0.03

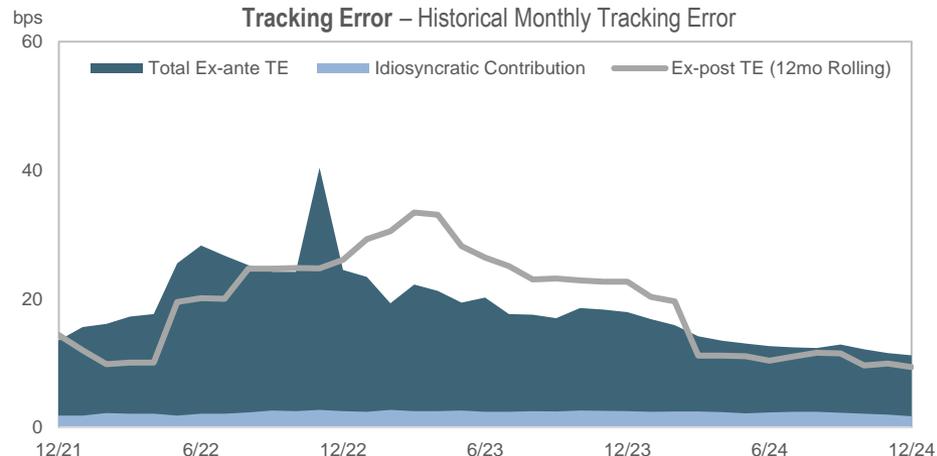
Security Selection – Top 10 OASD Differences vs. Index by Credit Ticker

Overweight (yrs)		Underweight (yrs)	
Ticker	OASD	Ticker	OASD
BNCN	0.08	BAC	-0.03
BX	0.06	MS	-0.03
KKR	0.04	T	-0.02
GBLATL	0.04	GS	-0.02
APTIV	0.04	WFC	-0.02
AYR	0.03	UNH	-0.02
D	0.03	CMCSA	-0.02
UBS	0.03	VZ	-0.02
AHTLN	0.03	MEX	-0.02
TFC	0.03	APPL	-0.02

5-Year Historical Characteristics Relative to Index



Tracking Error – Historical Monthly Tracking Error



IR+M Core Plus Composite is used for historical monthly tracking error. Tracking Error as of 12/31/24.
Sector Allocation and Security Selection are as of 1/31/25.

Some statistics require assumptions for calculations which can be disclosed upon request.

Index is Bloomberg Aggregate Index. Yields are represented as of the above date and are subject to change.

This is not a recommendation to purchase or sell any specific security listed in the above chart.

The blue bars show the 5-year historical ranges and the orange diamond represents the difference relative to the index as of 1/31/25.

Ratings (Moody's) shows the number of rating notch differences between the portfolio and index. Moody's ratings shown are calculated using average quality.

The relative gov't-backed weighting is the aggregate weighting for Treasuries, Agency, Govt Guaranteed, Agency RMBS and Agency CMBS versus the benchmark weighting for those sectors.

Sources: Bloomberg, IR+M Analytics, and Bloomberg PORT+

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CONCLUSION

FIRM PERSPECTIVE

- Independent and privately owned with 76 employee shareholders
- Able to align firm goals with client priorities
- Collaborative culture with a commitment to exceptional client service
- \$111 billion AUM with 38 years of experience

INVESTMENT PERSPECTIVE

- Experienced team of research analysts with deep sector expertise and focus on bottom-up security selection
- Team-oriented investment approach with consistent process and return profile, no surprises
- Focused on quality and reducing downside potential through active risk management, as return of principal is paramount
- Robust technology and systems – transparency of exposures

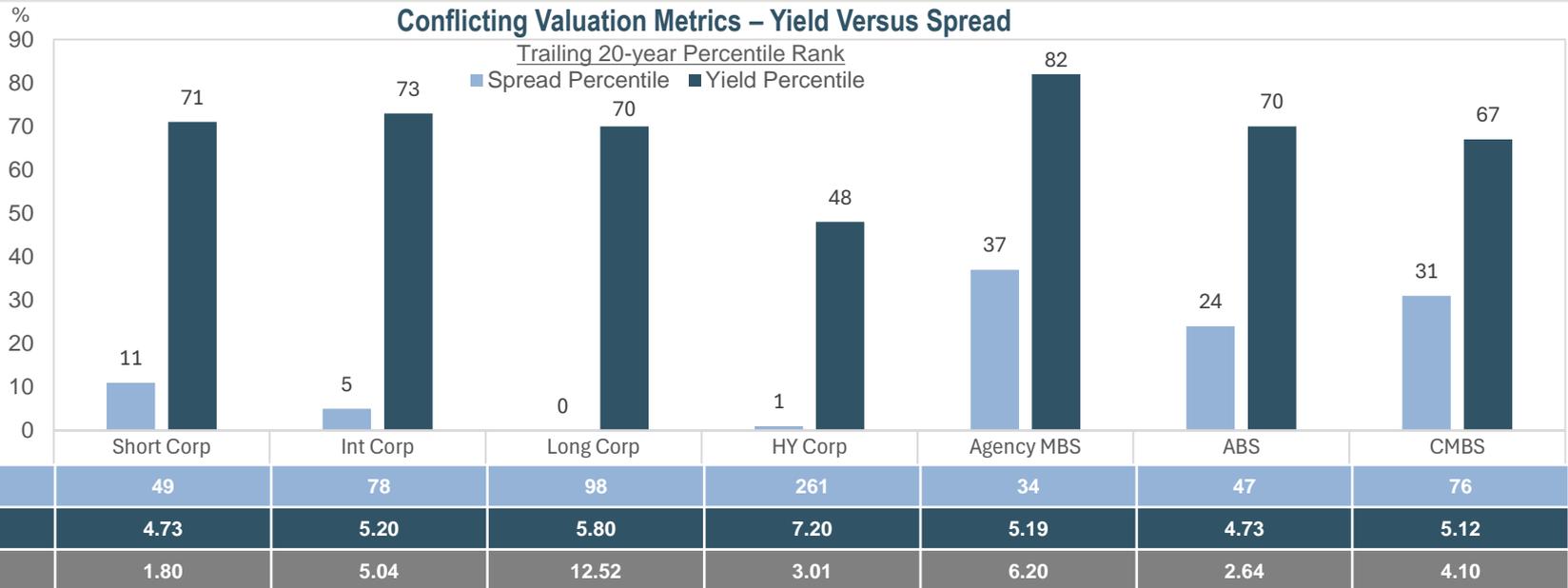
PUBLIC PENSION PERSPECTIVE

- \$15.4 billion in public pension client assets as of 1/31/2025, including California specific entities
- Dedicated Client Service members responsible for providing tailored and timely communication and reporting
- Accessibility and presence at committee meetings and beyond

As of 1/31/25. The views contained in this report are those of IR+M as of 2/25/25 and are based on information obtained by IR+M from sources that are believed to be reliable but IR+M makes no guarantee as to the accuracy or completeness of the underlying third-party data used to form IR+M's views and opinions.

MARKET UPDATE

RELATIVE VALUE + POSITIONING 2025 OUTLOOK



MARKET THEMES AND OUTLOOK

- Broad fiscal and policy uncertainty heading into the year with a new administration in place and ongoing geo-political threats
- Monitoring intentional re-leveraging and increased M&A under an easing regulatory environment
- Record supply has been met with unwavering demand for yield, resulting in historically tight spreads
- The Fed has the not-so-easy task of evaluating the impact of stubborn inflation, stable growth, and a changing political and regulatory environment

PORTFOLIO POSITIONING THEMES

- Cautious risk posture given economic backdrop and tighter spreads
- Maintaining ample liquidity while deploying capital to take advantage of attractive opportunities within select sectors
- Selectively overweight spread sectors with an emphasis on higher-quality income
- Mindful of strong technicals given resilient equity market performance and significant cash in money market funds

Source: Bloomberg as of 1/31/25. Each category based on Bloomberg Indices (Short = Bloomberg 1-3yr Corporate Index, Intermediate = Bloomberg 3-10yr Corporate Index, Long = Bloomberg Long Corporate Index, Bloomberg US High Yield Index, Bloomberg US MBS Index, Bloomberg ABS Index, and Bloomberg CMBS Index, respectively). Percentiles calculated using monthly spread and yields going back 20 years. The views contained in this report are those of Income Research + Management ("IR+M") and are based on information obtained by IR+M from sources that are believed to be reliable but IR+M makes no guarantee as to the accuracy or completeness of the underlying third-party data used to form IR+M's views and opinions.



Post Election Policy Implications

Policy Area	Direction
Tariffs	↑
Immigration	↓
Fed Independence	↓
Taxes	↓
Deficits	?
Regulation	↓

- With the election behind us, investors now have more visibility into the next administration's likely policy changes

Policy Changes Will Likely Have an Uneven Impact Across Sectors

Sector	Impact	Implication
Banking	+	We believe US Banks will benefit from a friendlier regulatory environment and from increased capital markets activity related to M&A and IPOs
Pharmaceuticals	-	Increased M&A concern in a decreased regulatory environment and bipartisan support for drug pricing reform
Midstream	+	Permitting reform could spur more long-haul pipeline projects coupled with lifting the LNG permitting pause could facilitate further growth of natural gas production, transportation, storage, and LNG export
Technology	-	Big Tech criticism likely to increase under incoming FTC and Department of Justice nominees

- Any impact will likely be felt over time, not immediately, and could result in winners and losers across subsectors

IR+M COMPOSITE DISCLOSURES – 12/31/23

Core Plus Composite

August 1, 2017 through December 31, 2023

Year	Returns (%)			3-Yr St Dev (%)		Number of Portfolios	Dispersion (%)	Y/E Assets (USD, mm)	
	Gross	Net	Benchmark	Composite	Benchmark		Composite	Composite	Firm
8/1/2017 – 12/31/2017	1.34	1.19	0.81	N/A ¹	N/A	<5	N/A	5	69,256
2018	0.04	(0.31)	0.01	N/A ¹	N/A	<5	N/A	135	71,882
2019	10.12	9.74	8.72	N/A ¹	N/A	<5	N/A	166	75,105
2020	9.88	9.50	7.51	4.31	3.36	<5	N/A	346	88,335
2021	0.11	(0.24)	(1.54)	4.32	3.35	6	N/A	469	95,995
2022	(13.07)	(13.39)	(13.01)	6.42	5.77	6	N/A	1,355	88,998
2023	7.07	6.71	5.53	7.09	7.14	6	N/A	1,651	96,990

¹The composite does not have 36 months of returns available to calculate 3 Year annualized gross Ex Post Standard Deviation figures.

The three-year annualized gross ex-post standard deviation of the composite and benchmark is as of year end.

The Core Plus Composite includes one pooled fund within the composite. The fee schedule for the pooled fund is as follows: 0.44% on the first \$10 million, 0.40% on the next \$10 million, 0.35% on the next \$10 million, 0.30% on the next \$20 million, 0.275% on the next \$50 million, 0.25% on amounts over \$100 million. The expense ratio for these funds is 0%.

Core Plus Composite Continued

Income Research + Management (“IR+M”) is an independent investment management firm with approximately \$97 billion in assets under management. IR+M has no subsidiaries or divisions, all business is done at IR+M and all assets are managed by IR+M. A complete list of composite descriptions is available upon request. The firm’s list of pooled fund descriptions for limited distribution pooled funds is available upon request. Global Investment Performance Standards (GIPS®) is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. IR+M claims compliance with the GIPS standards and has prepared and presented this report in compliance with the GIPS standards. IR+M has been independently verified for the period January 1, 2000 through December 31, 2023 by ACA Group, Performance Services Division. A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm’s policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. The Core Plus Composite has had a performance examination for the periods from August 1, 2017 through December 31, 2023. The verification and performance examination reports are available upon request.

Valuations are computed, performance is reported, and fees are based on U.S. dollars. Gross-of-fee performance returns are presented before management and custodial fees but after all trading expenses. Net-of-fee performance returns are calculated using the highest fee of the two scenarios: 1) fee charged to a current portfolio within the composite or 2) the standard fee schedule. Therefore, we use whichever fee is highest for a given year. The fees are deducted quarterly, using one-fourth of the annual fee rate. Fees disclosed are the standard management fee for that strategy. Actual management fees may be different than those illustrated in this disclosure. Additional information regarding valuing investments, calculating performance and preparing GIPS reports are available upon request.

Dispersion is calculated using the equal-weighted standard deviation of all portfolios gross returns that were included in the composite for the entire year. Dispersion is not calculated for years with five or fewer portfolios in the composite for the entire year.

This composite utilizes a Significant Cash Flow Policy, which is described as follows. Prior to 1/1/10, if cash flows exceeded 5%, IR+M removed the portfolio from the composite, effective as of the last full month of management prior to the cash flow, if the impact to the performance of the composite was greater than the absolute value of 0.02%. For periods beginning 1/1/10 or later, IR+M will remove a portfolio from a composite if an external contribution or withdrawal (flow) is significant. The portfolio will be removed as of the last full month of management prior to the flow. IR+M defines a flow (either cash or securities) as significant by mandate according to the following criteria: Government mandates: No level – all portfolios left in regardless of size of flow; Corporate/Broad market/TIPS: 25% of beginning portfolio value; Convertibles/Municipals: 10% of beginning portfolio value. Portfolios will re-enter the composite according to the Entering Composites criteria detailed in the IR+M GIPS Policy Manual. Additional information regarding the treatment of significant cash flows is available on request.

Derivatives, if used in those accounts whose guidelines permit their use, are primarily engaged as hedging instruments. Interest Rate Swaps and Treasury-bond futures may be used to manage a portfolio’s duration, and Credit Default Swaps may be used in strategies to isolate a particular issuer’s credit risk.

From 8/1/2017 to 12/31/2017, there was one non-fee paying account in the Core Plus Composite which accounts for 100% of the assets in the composite. As of 12/31/2018, 12/31/2019, 12/31/2020, and 12/31/2021 there was one non-fee paying account in the composite, accounting for 3.8%, 1.9%, 0.3% and 0.00% of the assets in the composite.

The Core Plus Composite is comprised of separately managed institutional portfolios invested primarily in core fixed income sectors with opportunistic allocations to extended sectors which may include but are not limited to: non-investment grade securities, preferred securities, non-U.S. dollar denominated foreign securities, exchange-traded funds, bank loans, TBAs, CLOs, and derivatives. The objective of the mandate is to outperform the benchmark on a total return basis while staying within the boundaries of individual client guidelines. The securities’ typical maturity range is between 0-30 years. The benchmark for the composite is the Bloomberg Aggregate Index. Benchmark returns are not covered by the report of independent verifiers. Past performance is not a guarantee of future results. Current and future portfolio holdings are subject to risk. The standard management fee schedule is 0.35% on the initial \$50mm, 0.30% on the next \$50mm, 0.25% on the next \$100mm, and 0.20% on amounts over \$200mm. The composite was created on 7/31/2017.

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It should not be assumed that the yields or any other data presented exist today or will in the future. Past performance is not a guarantee of future results and current and future portfolio holdings are subject to risk. Securities listed in this presentation are for illustrative purposes only and are not a recommendation to purchase or sell any of the securities listed. Forward looking analyses are based on assumptions and may change. It should not be assumed that recommendations made in the future will be profitable or will equal the performance of the securities listed. Some statistics require assumptions for calculations which can be disclosed upon request.

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Please see additional disclosures for important composite performance information such as inception date and historical index changes.

If applicable, please refer to your investment management agreement ("IMA") for additional information including, but not limited to, investment advisory fee information.

Characteristics:

Unless otherwise noted, characteristics and holdings are from the representative portfolio of the applicable composite or specific to the client account included in this presentation. The representative portfolio information is supplemental to the GIPS® Composite Disclosures. Some statistics require assumptions for calculations which can be disclosed upon request. Yields are represented as of the aforementioned dates and are subject to change. A similar analysis can be provided for any portfolio we manage. Totals may not sum due to rounding.

Sample Portfolios:

All sample portfolios are represented as of the aforementioned dates. There are limitations in sample results, including the fact that such results neither represent trading nor reflect the impact that economic market factors might have had on the management of the account if the adviser had been managing an actual clients money. Actual results may differ. A similar analysis can be provided of any portfolio we manage.



Presented to:

City of Oakland Police and Fire Retirement System

February 25, 2025

Presented by:

Scott Rosener, CFA
Head of Trading

Steve Singleton
Senior Vice President, Head of Portfolio and Investment Risk

Nathan Wong, CFA
Senior Vice President, Client Portfolio Manager

Presenter Biography



Scott Rosener, CFA
Head of Trading

Scott Rosener is Head of Trading at Reams Asset Management. In this role, he is responsible for trading across all sectors in addition to security research for the Reams' credit team. Scott has over 25 years of experience in investment research and analysis. Prior to joining Reams in 2005, Scott was an investment analyst at the Lincoln Financial Group. Mr. Rosener earned his master's and bachelor's degrees from Indiana University. He holds the Chartered Financial Analyst (CFA) designation and is a member of the CFA Institute.



Presenter Biography



Steve Singleton

Senior Vice President, Head of Portfolio and Investment Risk

Steve Singleton is Head of Portfolio and Investment Risk for Raymond James Investment Management. In this role, he and his team are responsible for analyzing the risk profiles (factor, sector, security) for each of the affiliate team portfolios. Steve has over 35 years of experience in investment research, analysis and risk management. Prior to joining RJIM in 2020, Steve was Director of Research and Trading for Blaylock Van and Chief Investment Officer for its asset management affiliate SPI Strategies. He holds a bachelor's degree from Claremont McKenna College in Mathematics/Economics.



Presenter Biography



Nathan Wong, CFA

Senior Vice President, Client Portfolio Manager

Nathan Wong is a senior vice president and client portfolio manager at Raymond James Investment Management responsible for representing Reams Asset Management. Prior to joining the firm, Mr. Wong spent 19 years in manager research at Callan LLC and Aspiriant Wealth Management. His primary coverage responsibilities included traditional fixed income, alternative credit, and real assets. Mr. Wong earned his bachelor's degree in international business from the University of San Francisco. He has also earned the right to use the Chartered Financial Analyst (CFA) designation.



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- 1 Firm Overview
- 2 Investment Philosophy & Process
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- 4 Current Views & Investment Theme
- 5 City of Oakland Police and Fire Portfolio Update
- 6 Working with Reams
- 7 Definitions
- 8 Disclosures



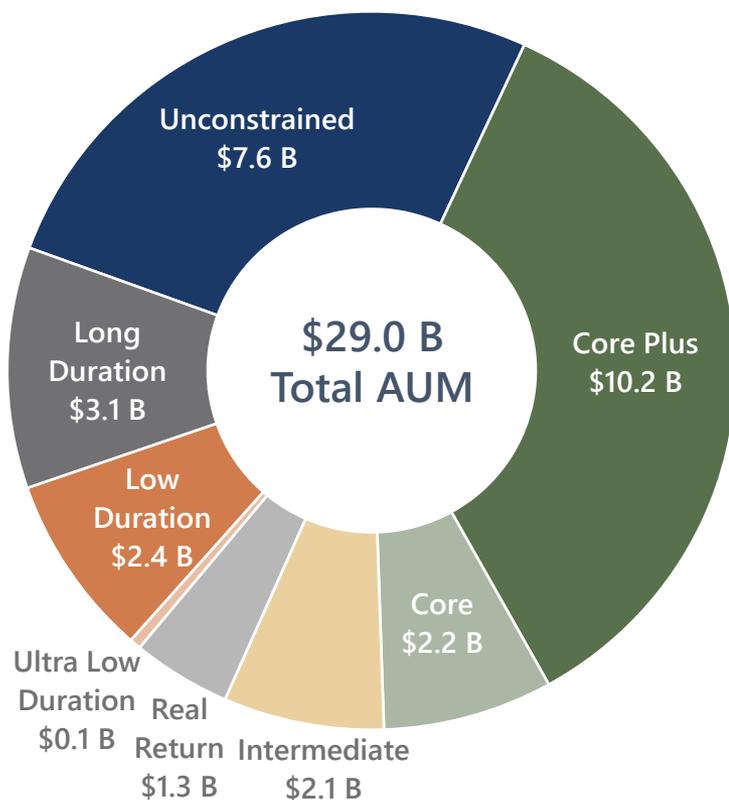
Firm Overview

Reams at a Glance

- Founded in 1981
- Headquartered in Indianapolis, Indiana
- \$29.0 billion in assets under management
- 8 fixed income strategies along with extensive custom separate account capabilities
- Affiliate of Raymond James Investment Management, a subsidiary of Raymond James Financial, since November 2017

Firm Overview

Strategy Lineup



Available Investment Vehicles

Separate Accounts

- All Strategies

U.S. Institutional Commingled Funds:

- Columbus Core Plus Bond Fund
- Columbus Unconstrained Bond Fund

U.S. Institutional Mutual Funds (sub-advised):

- Core Strategy
- Core Plus Strategy
- Unconstrained Strategy

Non-U.S. Commingled Fund (sub-advised):

- Raymond James Funds Reams Unconstrained Bond SICAV (Class A USD | SCUCBDA LX)

Collective Investment Trust (CIT):

- Core Plus Strategy

Data as of
December 31, 2024

Firm Overview

Representative Client List

Corporate

American Honda Motor Company
Cummins Inc.
Emerson Electric Company
Meritor, Inc.
Omaha Public Power District

Health Care

University of Colorado Health
Northwestern Memorial HealthCare
OhioHealth Corporation
Shirley Ryan AbilityLab

Non-Profit

American Heart Association
Archdiocese of Miami
Board of Pensions/Presbyterian Church, USA
Cleveland Museum of Art
Diocese of Gary
Veterans of Foreign Wars of the U.S.

Sub-Advisory

Prudential Retirement Insurance & Annuity Co.
Russell Investment Management Company

Public

Arkansas Teacher Retirement System
Employees' Retirement System of Baltimore County
Indiana State Police Pension Trust
Los Angeles Fire & Police Pensions
City of Milwaukee Employees' Retirement System
City of Oakland Police & Fire Retirement System
Sacramento County Employees Retirement System
San Francisco Bay Area Rapid Transit District
Sonoma County Employees' Retirement Association
Spokane Firefighters' Pension Fund
Ventura County Employees' Retirement Association

Taft-Hartley

Carpenters District Council of Kansas City Pension Fund
Carpenters Pension Fund of Illinois
Southern District UBC Health Trust
IBEW 8th District Electrical Pension Trust
Teamster Members Retirement Plan
Ohio Operating Engineers Pension Plan

University/Endowment/Foundation

Trustees of Indiana University
University of Kentucky
Purdue University
Regents of the University of Minnesota

Data as of
December 31, 2024

This Representative Client List includes institutional clients whose permission has been received for inclusion. No specific selection criteria were used. It is not known whether or not the listed clients approve of the advisory services provided by Reams Asset Management or Scout Investments.

Firm Overview

Investment Team

Investment Committee

Mark Egan, CFA

*Chief Investment Officer
Managing Director
(38 years / 34 years)*

Todd Thompson, CFA

*Deputy Chief Investment Officer
Managing Director
(30 years / 23 years)*

Dimitri Silva, CFA

*Managing Director
Global Rates & Currencies Team
Leader
(17 years / 3 years)*

Senior Advisor

Bob Crider, CFA

*Co-Founder
(47 years / 43 years)*

Credit Team

Todd Thompson, CFA

Jason Hoyer, CFA
*Portfolio Manager
Credit Team Leader
(21 years / 9 years)*

Clark Holland, CFA

*Portfolio Manager
(30 years / 22 years)*

Scott Rosener, CFA

*Head of Trading
(27 years / 19 years)*

Trey Harrison, CFA, ASA

*Fixed Income Analyst/Actuary
(30 years / 14 years)*

Reed Clark, CFA

*Fixed Income Analyst
(5 years / 3 years)*

Sydney Owen, CFA

*Fixed Income Analyst
(6 years / 2 years)*

Securitized Team

Neil Aggarwal

*Portfolio Manager
Securitized Team Leader
(21 years / 2 years)*

Kevin Salsbery, CFA

*Fixed Income Analyst
(23 years / 19 years)*

Patrick Laughlin

*Fixed Income Analyst
(29 years / 20 years)*

Ben Byrd, CFA

*Fixed Income Analyst
(4 years / 2 years)*

Global Rates & Currencies Team

Dimitri Silva, CFA

Antonina Tarassiouk

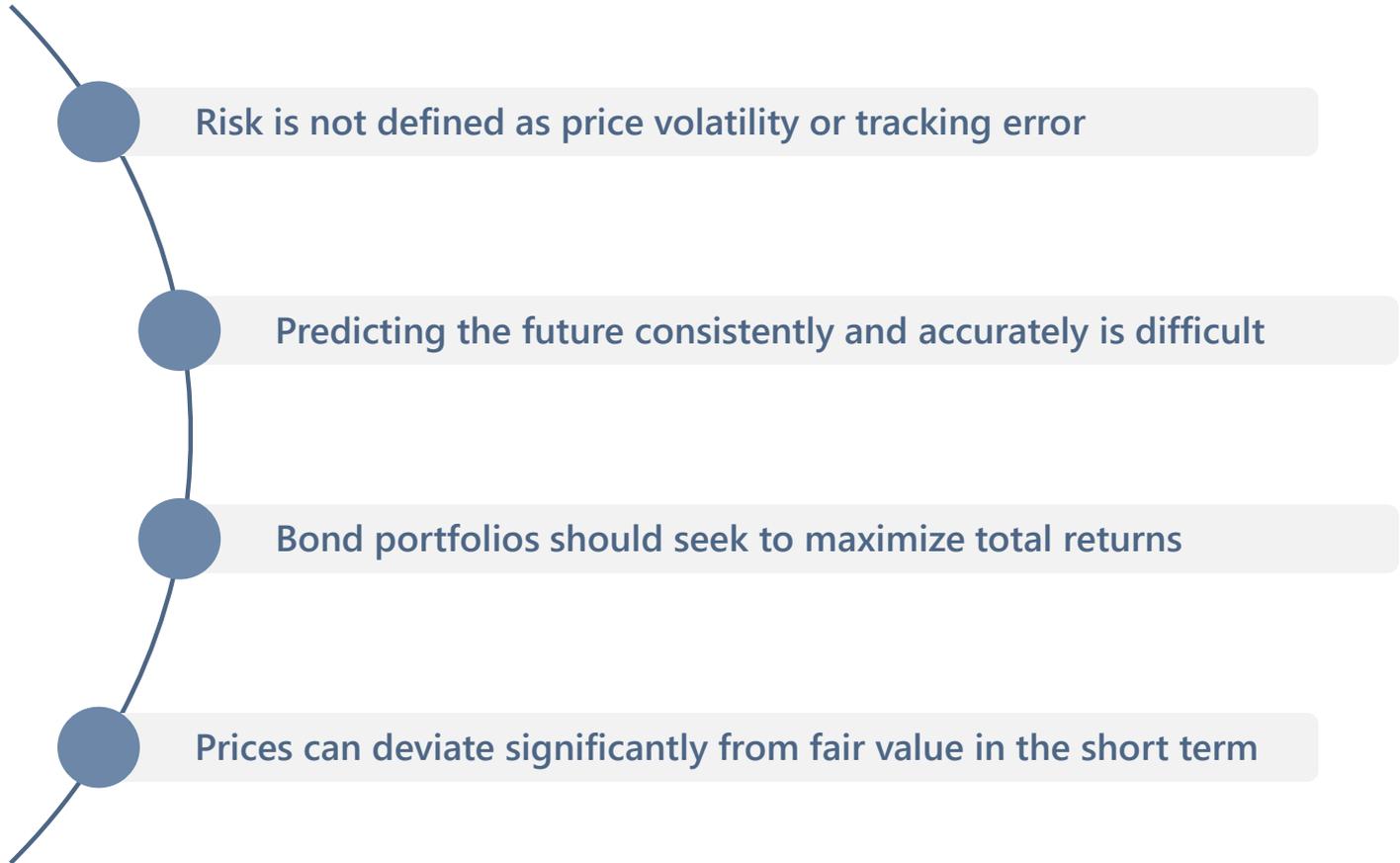
*Fixed Income Analyst
(10 years / 2 years)*

(Years of Industry Experience / Reams Tenure)

Please see Investment Professional Biographies section for detailed biographies

Investment Philosophy

What We Believe



Investment Philosophy

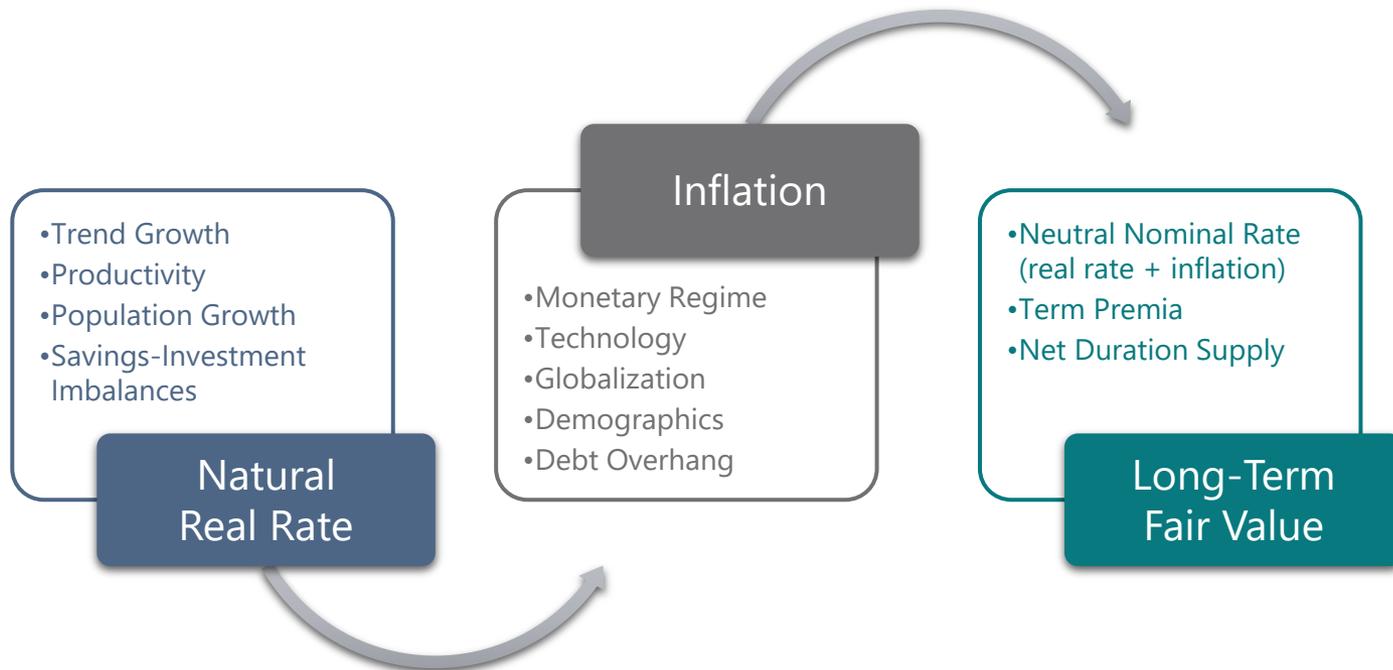
How We Seek to Add Value



Investment Process

Duration & Yield Curve Positioning

- Make duration decisions using a long-term valuation framework, not predictions about interest rates
- Establish active duration positions when rates appear mispriced and seek to capitalize on yield curve opportunities



Investment Process

Sector Allocation

- Assess relative value based on quantitative analysis of spreads across sectors, sub-sectors, and individual credits
- Incorporate a qualitative overlay based on:
 - Monetary conditions
 - Capital market environment
 - Credit cycle analysis

Bloomberg U.S. Investment Grade Corporate Option-Adjusted Spread (OAS) Z-Score



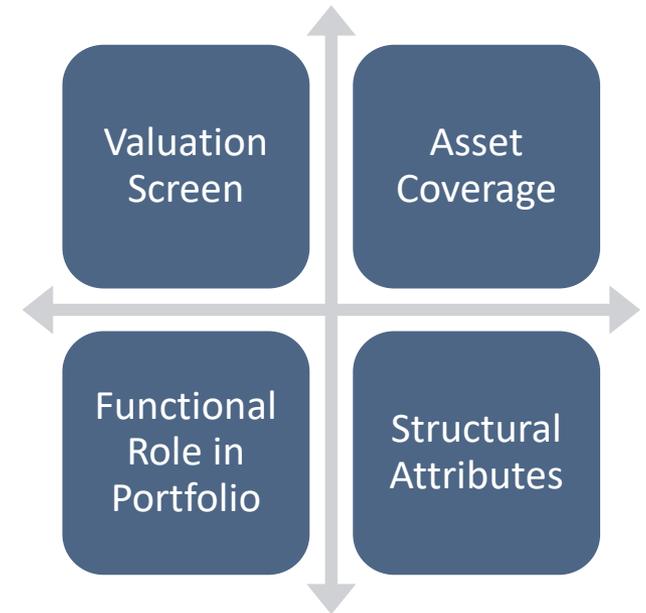
Data as of
December 31, 2024

Source: Reams Asset Management; Bloomberg Index Services Limited; Bloomberg L.P. as of 12/31/2024

Investment Process

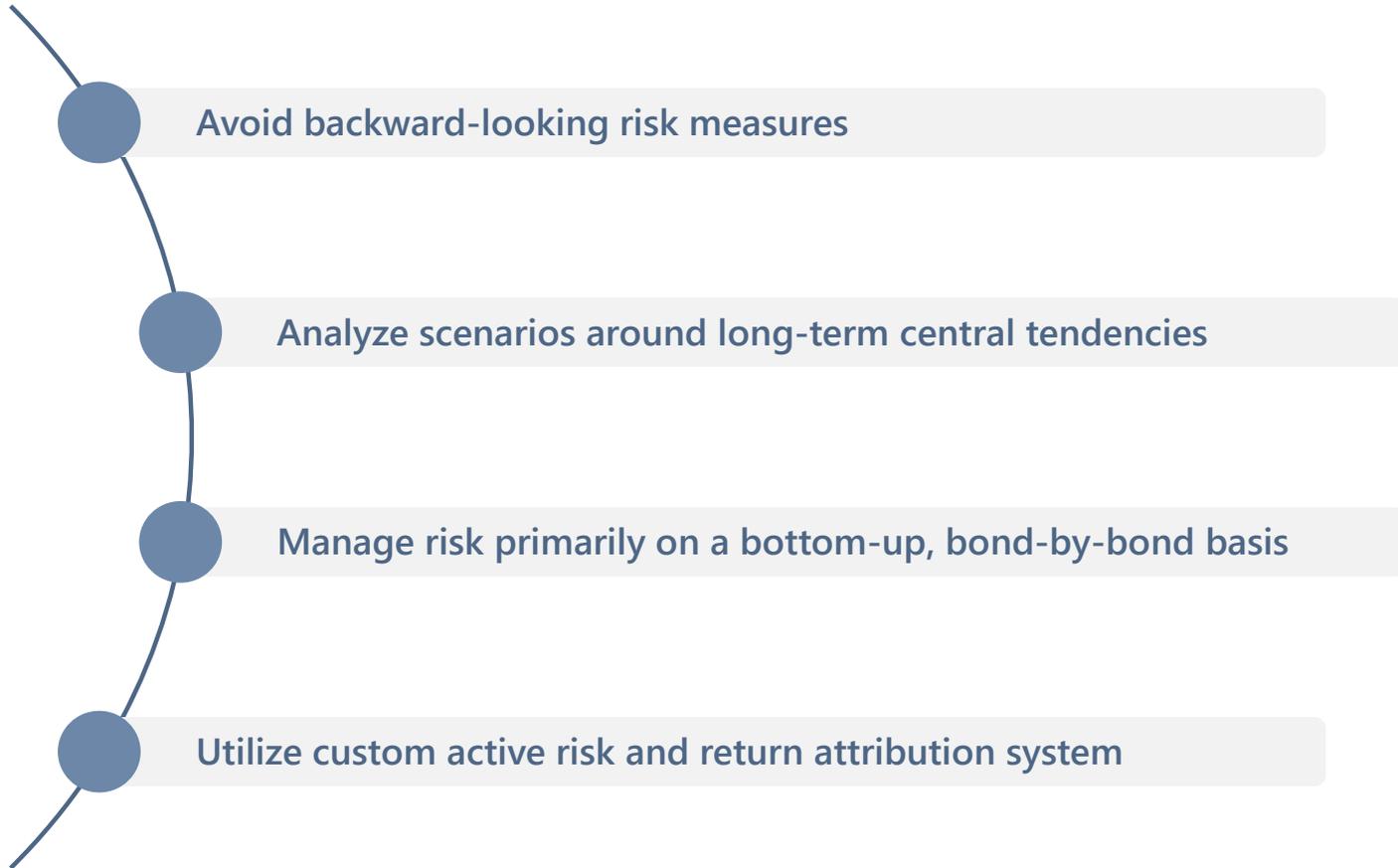
Security Selection

- Approach security selection from a total return standpoint
- Emphasize asset value and target senior positions with strong collateral protection and structural characteristics
- Focus on bonds with favorable risk/reward profiles across a variety of environments
- Avoid bonds with unacceptable downside return potential in *any* environment



Investment Process

Risk Management

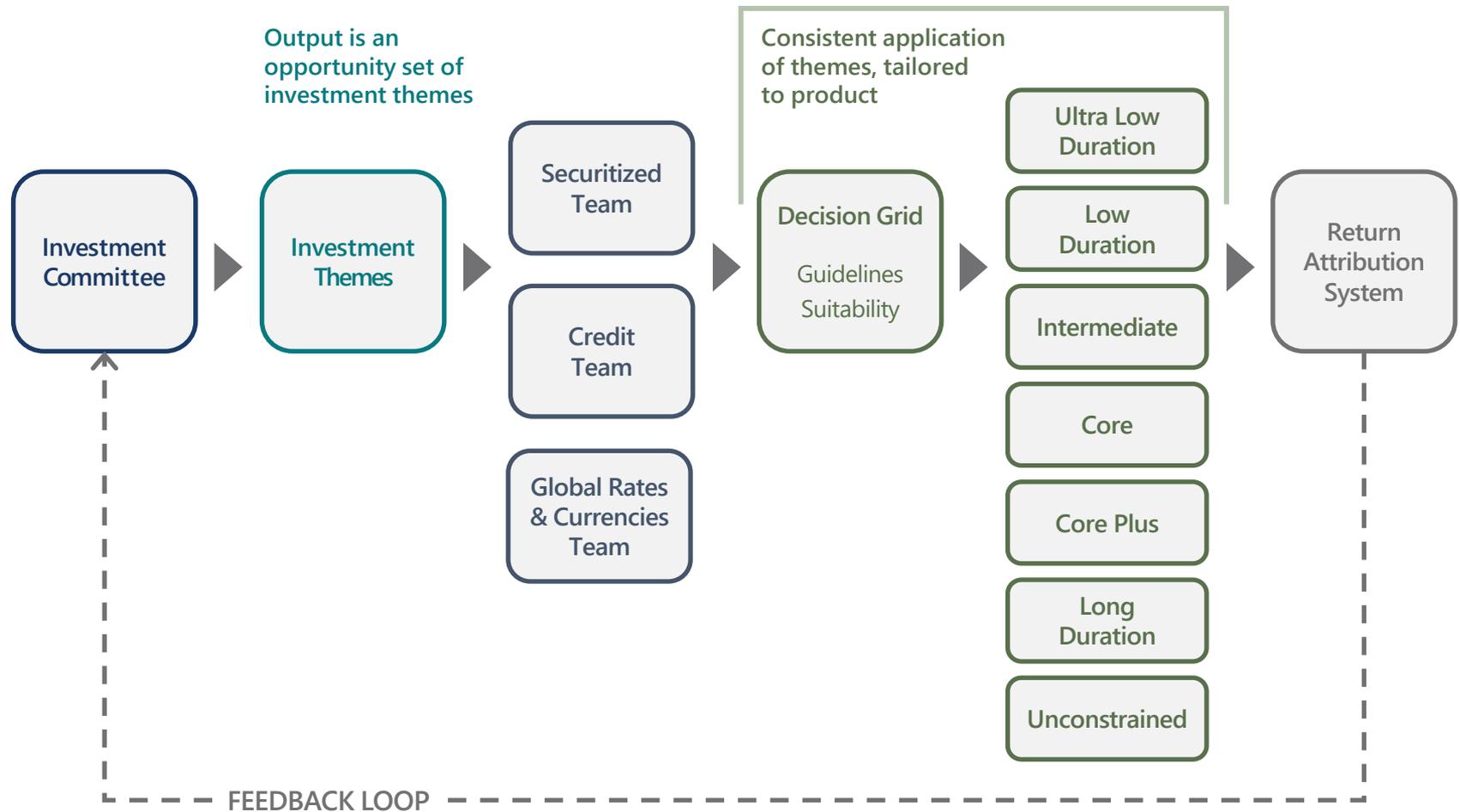


Investment Process Overview

Committee formulates strategy with specialists' input

With themes set, teams identify individual issues

Real-time feedback on sources of risk and return



Idea Generation & Decision Making Process

Idea Generation

- CIO / Portfolio Managers
- Global Rates & Currencies Team
- Credit Team
- Securitized Team

Investment Review

- Downside Scenario Analysis
- Assess Risk-Reward
- Contribution to Portfolio VaR
- Correlation with Macro Themes
- Liquidity

Implementation Strategy

- Optimal Instrument
- Position Sizing
- Risk Layering Plan
- Establish Exit Price

Post-Trade

- Review Attribution
- Monitor Thesis
- Add/Trim/Exit

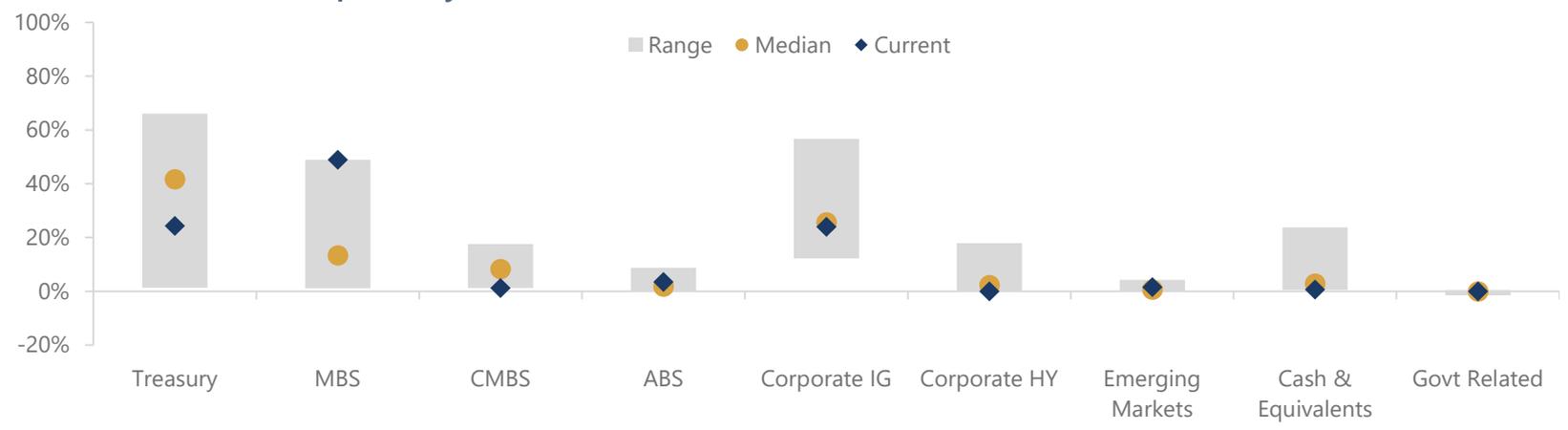


CORE PLUS FIXED INCOME

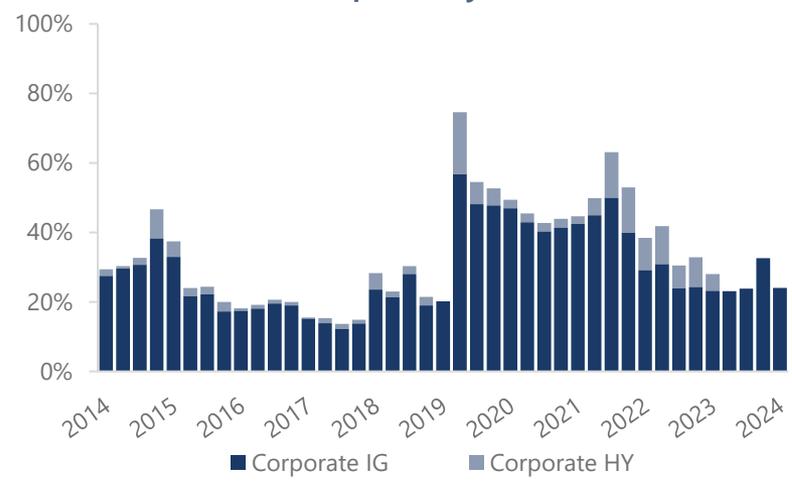


Historical Sector Allocations

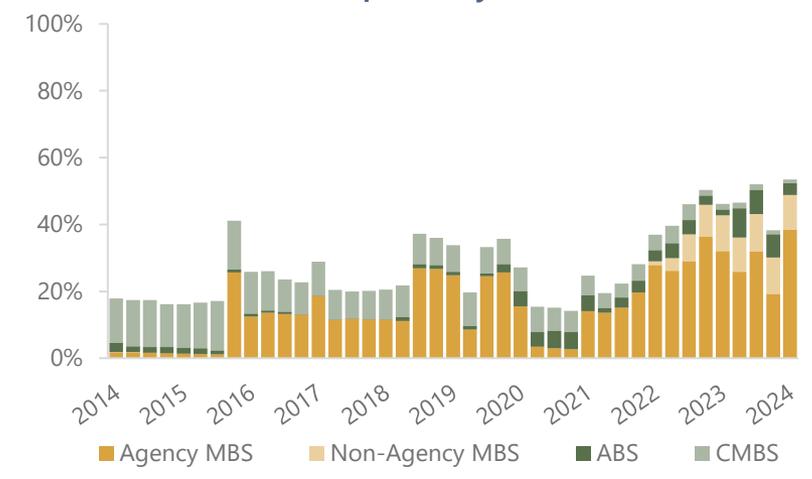
Sector Allocations, Percent of Portfolio
Dec 2014 – Dec 2024 (quarterly)



Corporate Exposure, Percent of Portfolio
Dec 2014 – Dec 2024 (quarterly)



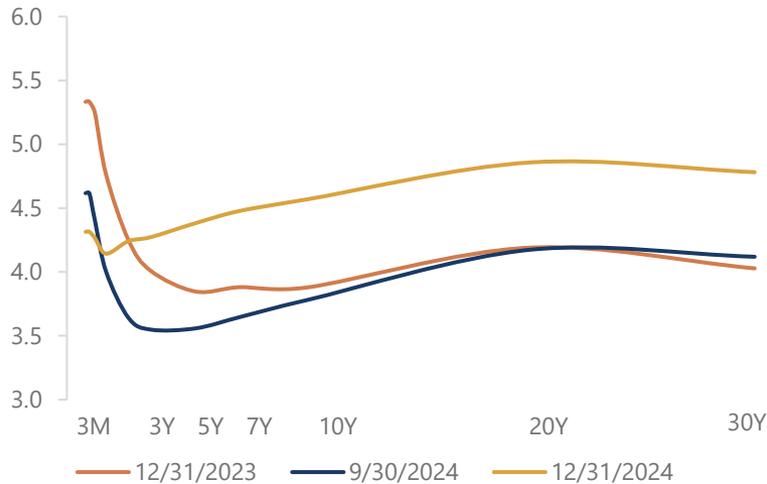
Securitized Exposure, Percent of Portfolio
Dec 2014 – Dec 2024 (quarterly)



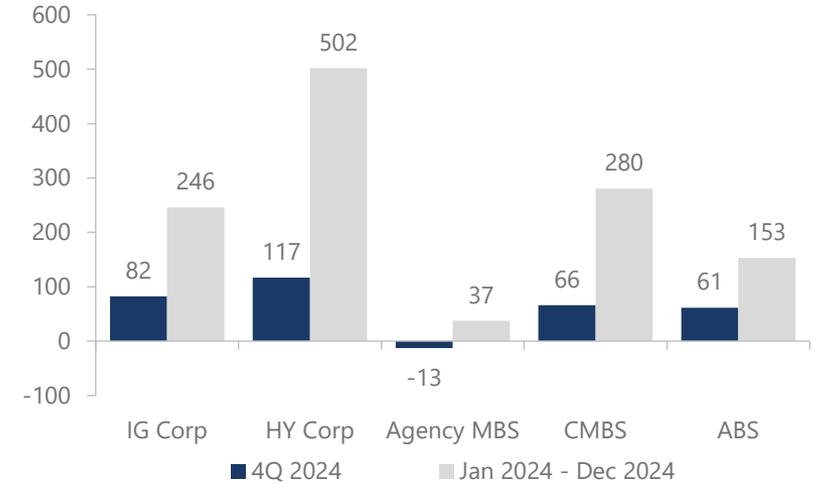
Source: Reams Core Plus Fixed Income Composite as of 12/31/2024

Fixed Income Dashboard

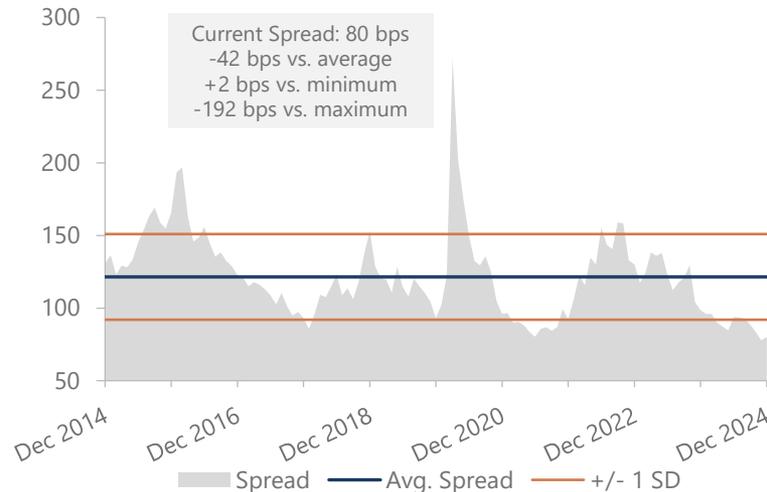
U.S. Treasury Yield Curves (%)



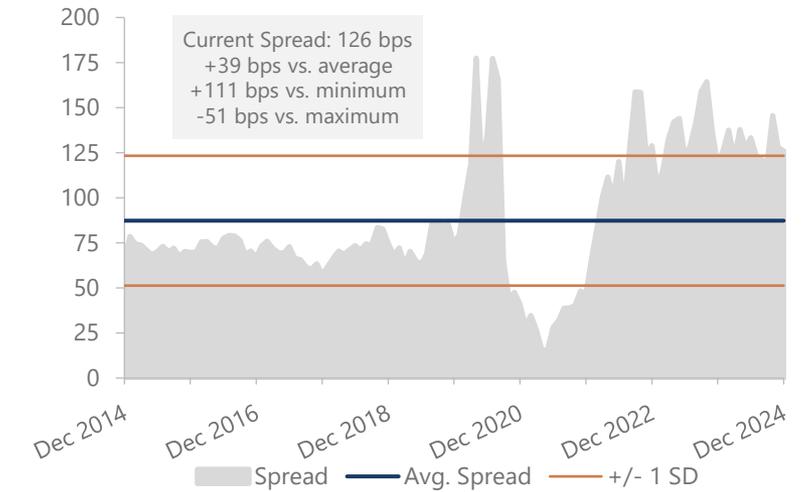
Sector Excess Returns vs. U.S. Treasuries (bps)



Investment Grade Corporate OAS (bps)



Agency MBS 30Yr CC Zero-Volatility Spread (bps)

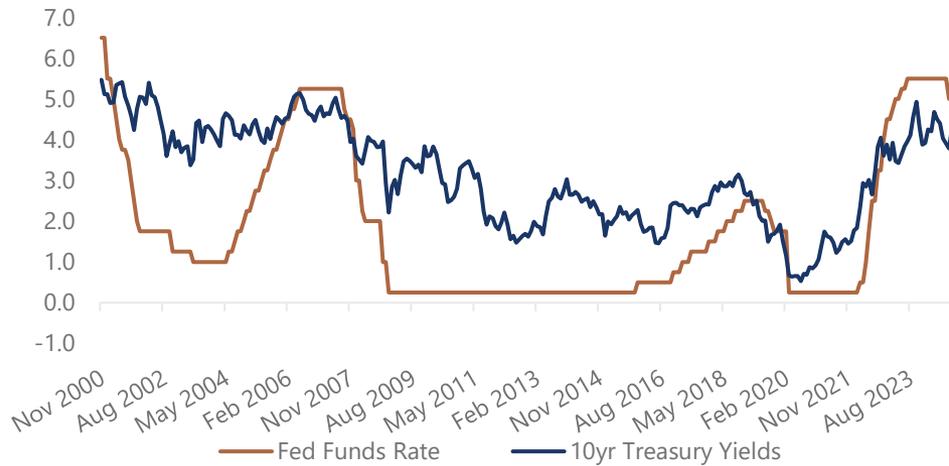


Data as of
December 31, 2024

Source: Bloomberg Index Services Limited; Bloomberg L.P. as of 12/31/2024

Market Insights

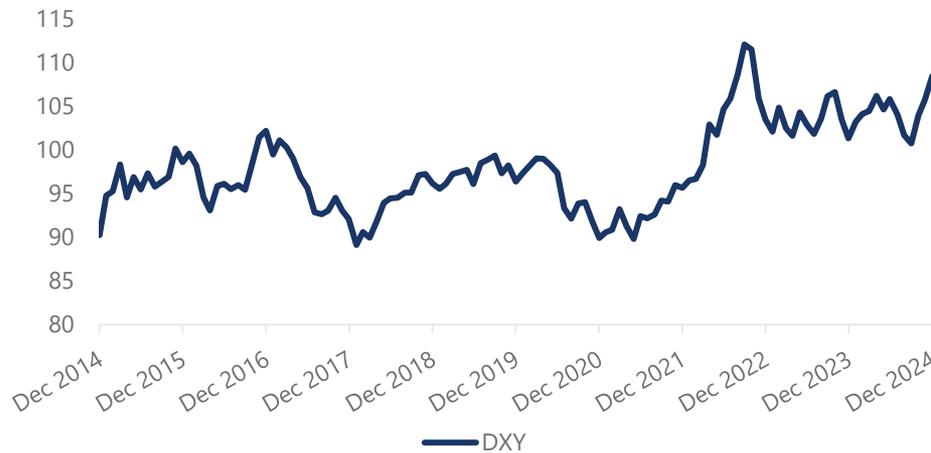
Fed Funds Rate vs. 10yr Treasury (%)



Source: Bloomberg as of 12/31/2024

The Federal Funds rate has consistently exceeded the 10-year Treasury rate for over two years (now reversing) as the Fed's restrictive policy helped to bring inflation back toward the targeted 2% level. Given the recent diminished expectations for Fed rate cuts, capital markets may need to contend with elevated nominal rates for an extended period.

U.S. Dollar Index



Source: Bloomberg as of 12/31/2024

The Federal Reserve's rate hikes over the past two years propelled the dollar index to multi-decade highs. While recent rate cuts by the Fed would typically weaken the dollar, the election of President Trump and comparatively weaker economic growth among major U.S. trading partners buoyed the dollar late in 2025.

Data as of
December 31, 2024

Market Insights

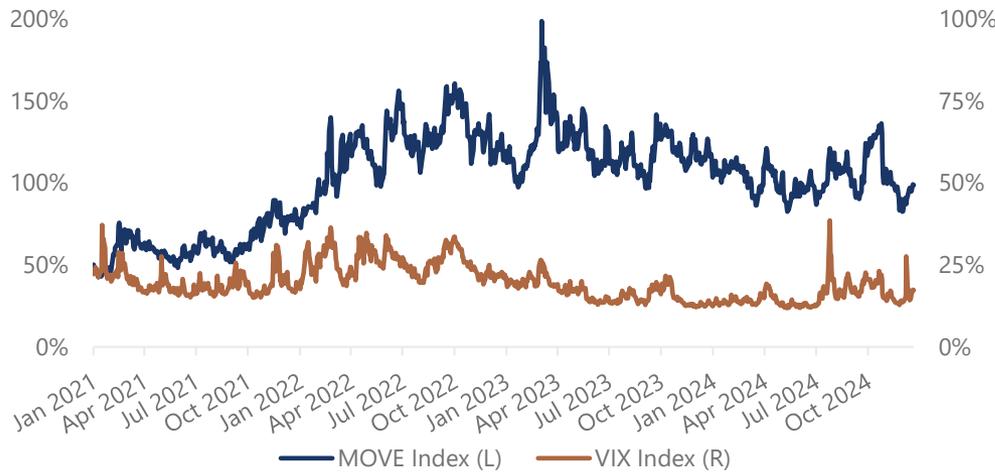
Real Rates (10yr TIPS, %)



Source: Bloomberg as of 12/31/2024

Real interest rates have ascended to levels we consider attractive. Until recently, the 10-year Treasury Inflation-Protected Securities (TIPS) yield had not exceeded 2% since the financial crisis of 2008.

U.S. Treasury vs Equity Volatility



Source: Bloomberg as of 12/31/2024

While equity volatility has experienced occasional spikes over the past year, it has not sustained elevated levels in the same way Treasury volatility has. Uncertainty in interest rates has impacted mortgage-backed securities, maintaining spreads at elevated levels.

Data as of
December 31, 2024

Investment Themes

What happened

- Despite an uncontested election outcome, market uncertainty has expanded to implementation of the new administration's policies, particularly in areas such as tariffs, immigration, fiscal policy, and deregulation.
- Risk markets experienced a post-election rally but moderated towards year-end as the Federal Reserve's outlook for future rate cuts diminished.
- The Federal Reserve's inconsistent messaging, from a larger-than-expected 50bps cut in September to a "hawkish" 25bps cut in December, appears to have undermined the institution's credibility.

What we think

- The future trajectory of inflation will be influenced by the Trump administration's policies, particularly in terms of fiscal stimulus and tariff implementation. Despite the potential moderation in monetary policy impact compared to historical norms, the Federal Reserve's actions will remain "data dependent" and will impact market expectations for future inflation trends.
- Discussions on U.S. "exceptionalism" have become more frequent. However, achieving sustainable domestic growth without elevated inflation is highly unlikely to occur in isolation from global economic conditions.
- Public dissatisfaction with austerity measures, most notably in both developed (France) and developing (Brazil) markets will continue to complicate governance in a world burdened by excessive debt.

What we did

- As equity volatility has been largely docile since August and credit spreads have continued to tighten, we reduced exposure in investment grade credit and remain defensive.
- We increased positions in Mortgage-Backed Securities (MBS) as valuations were relatively attractive in this sector.
- In strategies that allow for currency holdings, we hold a basket of higher carry currencies.
- We view real and nominal rates as elevated and are biased slightly longer on duration as a result.



CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM



Investment Objective and Guidelines

Objective

- To exceed the Bloomberg Universal Index, net of fees, over a complete market cycle.

Investment Guidelines

- Maximum average portfolio duration is 10 years with a targeted average portfolio duration in the range of 3 to 8 years.
- Maximum remaining term to maturity (per single issue) is 31 years at purchase.
- No single issue shall exceed 10% of the portfolio, excluding government and agency issues.
- No single issue shall account for more than 10% of the outstanding issue, excluding government and agency issuers.
- The portfolio must have an overall weighted average quality of at least BBB-.
- All securities must have a rating of B- or higher (S&P, Moody's or Fitch), using the middle of three or lower of two ratings.
- Credit default swaps are limited to a notional value of 10% of the portfolio.
- Coal-Related Companies are restricted from purchase in the portfolio.

Source: OPFRS Investment Guidelines (Rev. 9/1/2016)



Relationship Summary

City of Oakland Police and Fire Retirement System

Relationship Inception	February 1, 1998
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Investment Style	Core Plus Fixed Income
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Performance Benchmark	Bloomberg Universal Index
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Financial Data as of December 31, 2024

Initial Investment	\$97.5 million
Contributions	\$146.0 million
(Withdrawals)	(\$338.2 million)
Portfolio Gains	\$123.0 million
Portfolio Value	\$28.3 million



Performance Review

For Periods Ending December 31, 2024

	Percent Gain or Loss						
	Quarter Ending	Last 12 Months	Two Years (annualized)	Three Years (annualized)	Five Years (annualized)	Ten Years (annualized)	Since Inception* (annualized)
City of Oakland Police and Fire Retirement System (a)	(2.98)	2.12	4.51	(1.41)	2.60	3.04	5.04
City of Oakland Police and Fire Retirement System (b)	(3.03)	1.91	4.30	(1.61)	2.41	2.84	4.84
Benchmark**	(2.73)	2.04	4.08	(1.95)	0.06	1.73	4.09

* Inception Date: 2/1/1998

**The benchmark consists of the Bloomberg Barclays U.S. Aggregate Index from 2/1/1998 - 6/30/2006 and the Bloomberg Universal Index as of 7/1/2006.

(a) Gross of Investment Management Fees

(b) Net of Investment Management Fees (recorded on cash basis)



Excess Return Detail

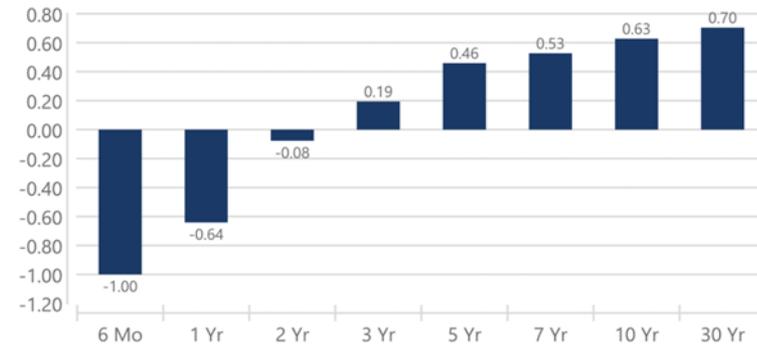
CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

1/1/2024 - 12/31/2024

Return Summary (%)

Total Return	2.12
Index Return	2.04
Excess Return	0.08
Duration	-0.24
Curve	0.20
Total Macro	-0.04
Sector Selection	-0.27
Security Selection	0.39
Total Selection	0.12

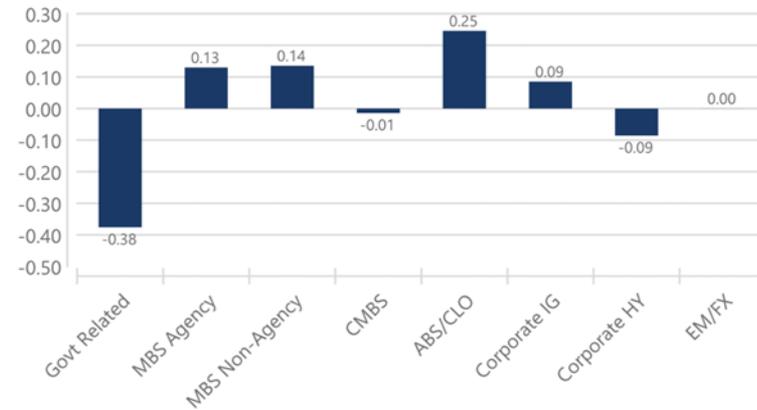
U.S. Treasury Curve Yield Change (%)



Sector/Security Impact (%)

	Sector	Security	Total
Govt Related	-0.38	0.00	-0.38
MBS Agency	0.13	0.00	0.13
MBS Non-Agency	0.00	0.14	0.14
CMBS	0.00	-0.01	-0.01
ABS/CLO	0.12	0.12	0.25
Corporate IG	-0.11	0.19	0.09
Corporate HY	-0.04	-0.05	-0.09
EM/FX	0.00	0.00	0.00
Total	-0.27	0.39	0.12

Total Sector and Security Impact (%)



Portfolio Characteristics

CITY OF OAKLAND POLICE AND FIRE RETIREMENT SYSTEM

12/31/2024

Portfolio Characteristics

	Portfolio	Index	Prior
Market Value (\$)	28,326,121	32,993 B	29,195,660
Duration (Yrs)	6.6	5.8	6.1
Spread Duration (Yrs)	4.1	3.6	3.5
Convexity	0.1	0.5	0.3
Yield to Worst (%)	5.4	5.1	4.6
Maturity (Yrs)	9.5	8.1	8.7
Quality	Aa2	Aa3	Aa3

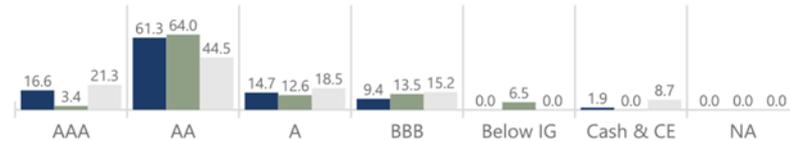
Corporate Industry Exposure (%)

	Portfolio	Index	Prior
Industrials	11.5	16.6	17.6
Utilities	7.0	2.3	6.9
Financials	6.9	9.4	9.2

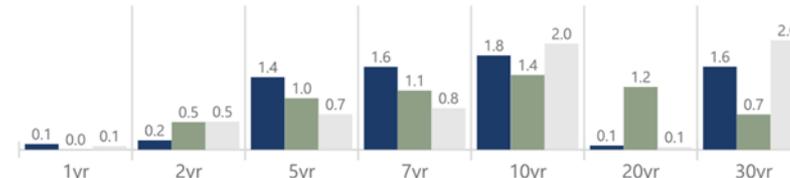
Currency Exposure (%)

	Portfolio	Prior
USD	100.0	100.0
G10	0.0	0.0
EM-Asia	0.0	0.0
EM-LATAM	0.0	0.0
EM-EMEA	0.0	0.0

Quality Exposure (%)

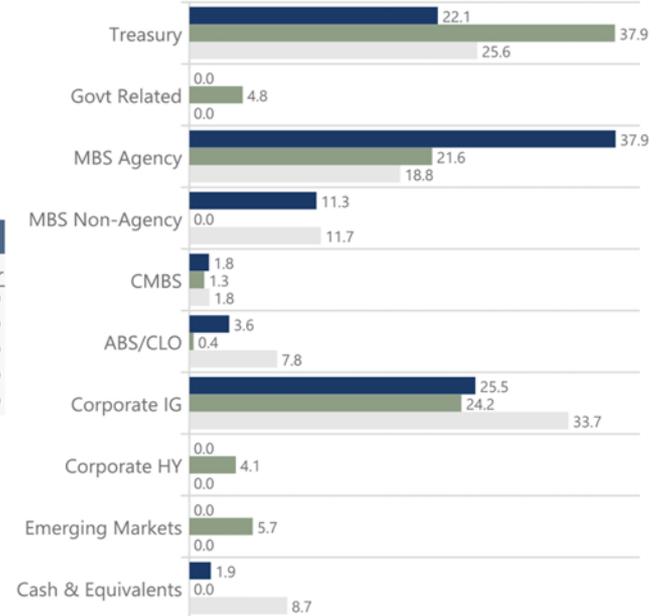


Interest Rate Duration Exposure (Years)



Current Index Prior Qtr

Sector Exposure (%)



Spread Duration Exposure (Years)

	Portfolio	Index	Prior
Govt Related	0.0	0.2	0.0
MBS Agency	2.0	1.3	0.6
MBS Non-Agency	0.7	0.0	0.9
CMBS	0.0	0.1	0.0
ABS/CLO	0.1	0.0	0.2
Corporate IG	1.3	1.6	1.7
Corporate HY	0.0	0.1	0.0
Emerging Markets	0.0	0.3	0.0
Cash & Equivalents	0.1	0.0	0.1

Working with Reams

Differentiating Features

- Fixed income specialist with a focused product lineup
- Experienced and stable investment team
- Opportunistic investment style driven by long-term value and risk-adjusted total returns
- Flexible, benchmark-agnostic portfolio construction
- Distinct risk management framework
- High-touch client service model



Definitions

Upside / Downside Market Capture: the proportion of the annualized, compounded total rate of return “captured” by the product versus given benchmark, with benchmark returns grouped by positive (upside) and negative (downside) observations

Portfolio Duration: the weighted average duration of all securities held in a portfolio, whereby duration represents the average life of a bond’s cash flows

Portfolio Convexity: the weighted average convexity of all securities held in a portfolio, whereby convexity represents the expected change in a bond’s duration for a given change in interest rates

Avg Yield to Worst: the weighted average yield to worst of all securities held in a portfolio, whereby yield to worst represents the expected internal rate of return of a bond that equilibrates the current price to all future anticipated cash flows, assuming the most disadvantageous retirement date

Avg Maturity: the weighted average maturity of all securities held in a portfolio, whereby maturity represents the final principle cash flow retirement date

Avg Quality: the weighted credit quality of all securities held in a portfolio, whereby credit quality represents a security’s aggregated rating assigned by the Nationally Recognized Statistical Rating Organizations (“NRSROs”)

Contribution to Duration: measurement of how much a risk factor contributes to the portfolio’s total duration, calculated as factor weight times factor duration

Spread Duration: the amount of total duration that is derived from spread sector exposure; alternatively read as the portfolio’s exposure to general spread movements

Excess Return: total return of a risky security relative to like-duration U.S. Treasury returns

Basis Points: industry nomenclature for referencing performance, expressed as hundredths of 1%

Yield Curve: the term structure of interest rates depicted in a linear curve format, from shortest tenor to longest

Government Related: the sector designation that includes Agency, Supranational, Sovereign and Foreign Agencies

MBS: the sector designation that includes both residential and commercial mortgage pass-through securities

ABS: the sector designation that includes secured debt of non-first mortgage home loans, including credit card, auto, home equity and auto dealer inventory

IG Credit: the sector designation that includes investment grade corporate debt

HY Credit: the sector designation that includes corporate debt rated below investment grade, as measured by the ratings from NRSROs

Non USD: the class designation that includes non-dollar debt and currency forwards

Spread Sector: nongovernmental fixed income investments with higher yields at greater risk than governmental instruments

TIPS: the class designation for Treasury Inflation Protected Securities

Disclosures

Reams Asset Management is a division of Scout Investments, Inc., a registered investment adviser that offers investment management services for both managed accounts and subadvised mutual funds. Scout Investments is a wholly-owned subsidiary of Carillon Tower Advisers, doing business as Raymond James Investment Management, which in turn is a wholly-owned subsidiary of Raymond James Financial.

The firm was previously defined as UMB Institutional Asset Management, a subsidiary of UMB Bank, which managed both institutional and high net worth, trust, and estate assets. On July 1, 2009 the firm transitioned from UMB Bank and became a subsidiary of UMB Financial Corporation in order to focus on institutional investment management. On November 30, 2010, the firm acquired the advisory business of Reams Asset Management Company, LLC. On December 28, 2010, the firm changed its name from Scout Investment Advisors to Scout Investments. On November 17, 2017, Scout Investments was acquired by Carillon Tower Advisers.

Scout Investments claims compliance with the Global Investment Performance Standards (GIPS®). GIPS® is a registered trademark of CFA Institute. CFA Institute does not endorse or promote this organization, nor does it warrant the accuracy or quality of the content contained herein. The Core Plus Fixed Income Composite invests primarily in investment grade securities with investments in high-yield and foreign securities, while maintaining an average portfolio duration of generally between three and six years. The Core Plus Full Discretion Fixed Income Composite includes commingled fund accounts and invests primarily in investment grade securities with investments in high-yield and foreign securities, while maintaining an average portfolio duration of generally between three and six years. The Core Fixed Income Composite invests primarily in investment grade securities, while maintaining an average portfolio duration of generally between three and six years. The Core Full Discretion Fixed Income Composite includes commingled fund accounts and invests primarily in investment grade securities, while maintaining an average portfolio duration of generally between three and six years. The Intermediate Fixed Income Composite invests primarily in investment grade securities, while maintaining an average portfolio duration of generally between two and a half and five years. The Long Duration Fixed Income Composite invests primarily in investment grade securities, while maintaining an average portfolio duration of generally above eight years. The Long Credit Focus Fixed Income Composite invests in the types of securities represented in its benchmark and permits below investment grade and non-dollar denominated securities. The Long Government Credit Focus Fixed Income Composite invests in the types of securities represented in its benchmark and permits investment grade and non-dollar denominated securities. The Low Duration Fixed Income Composite invests primarily in investment grade securities, while maintaining an average portfolio duration of generally between one and three years. The Ultra Low Duration Fixed Income Composite invests primarily in investment grade securities, while maintaining an average portfolio duration of generally between 0.5 and 1.2 years. The Unconstrained Fixed Income Composite invests in all sectors of the fixed income markets, including investment grade securities, high yield securities and foreign securities. The strategy can maintain an average portfolio duration of any length.

The Bloomberg U.S. Aggregate Bond Index is an unmanaged, market-value-weighted index of taxable investment-grade fixed-rate debt issues, including government, corporate, asset-backed, and mortgage backed securities, with maturities of one year or more. The Bloomberg U.S. Intermediate Government/Credit Bond Index is an unmanaged index comprised of US Treasury notes, federal agency bonds, US corporate debentures and dollar denominated foreign issues with maturities ranging between one and ten years. The Bloomberg U.S. Long Government/Credit Bond Index is an unmanaged index of U.S. government or investment grade credit securities having a maturity of 10 years or more. The Bloomberg U.S. Long Credit Bond Index is an unmanaged index of U.S. investment grade credit securities having a maturity of 10 years or more. The Bloomberg Global Aggregate Index is a flagship measure of global investment grade debt from twenty-four local currency markets. This multi-currency benchmark includes treasury, government-related, corporate and securitized fixed-rate bonds from both developed and emerging markets issuers. The Bloomberg Multiverse Index provides a broad based measure of the global fixed income bond market. The index is the union of the Global Aggregate Index and the Global High Yield Index as it represents investment grade and high yield bonds in all eligible currencies. The Bloomberg US Corporate Bond Index measures the investment grade, fixed-rate, taxable corporate bond market. It includes USD denominated securities publicly issued by US and non-US industrial, utility and financial issuers. The Bloomberg Global Aggregate - Corporate Index is a flagship measure of global investment grade, fixed-rate corporate debt. This multi-currency benchmark includes bonds from developed and emerging markets issuers within the industrial, utility and financial sectors. The Bloomberg U.S. Universal Index represents the union of the U.S. Aggregate Index, the U.S. High-Yield Corporate Index, the 144A Index, the Eurodollar Index, the Emerging Markets Index, and the non-ERISA portion of the CMBS Index. Municipal debt, private placements, and non-dollar-denominated issues are excluded from the Universal Index. The ICE BAML 1-3 Year U.S. Treasury Index is an unmanaged index that tracks the performance of the direct Sovereign debt of the U.S. Government having a maturity of at least 1 year and less than 3 years. The ICE BAML 9-12 Month U.S. Treasury Bill Index is a subset of the ICE BAML U.S. Treasury Bill Index including all securities with a remaining term to final maturity greater than or equal to 9 months and less than 12 months. The ICE® BofA® US 3-Month Treasury Index measures the performance of a single issue of outstanding treasury bill which matures closest to, but not beyond, three months from the rebalancing date. The issue is purchased at the beginning of the month and held for a full month; at the end of the month that issue is sold and rolled into a newly selected issue.

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Derivative securities are instruments or contracts the value of which is derived from the performance of an underlying financial instrument, asset, index or obligation. Credit default swaps and other types of derivative securities may involve greater risks than if a portfolio invested in the obligation directly. These instruments are subject to general market risks, liquidity risks and credit risks (including counter-party risks), and may result in a loss of value to your portfolio. The derivative securities market may also be subject to additional regulations in the future. Derivatives used are strictly constrained by client investment policy.

The bond quality ratings indicated are assigned by credit rating agencies Standard & Poor's, Moody's, and Fitch as an indication of an issuer's creditworthiness. Unless specified by client investment guidelines, the middle of three or highest of two credit quality ratings available from these rating agencies is used. Credit quality is subject to change. Ratings are measured on a scale that generally ranges from AAA (highest) to D (lowest). Ratings information from Standard & Poor's ("S&P") may not be reproduced. S&P credit ratings are statements of opinion and are not statements of fact or recommendations to purchase, hold, or sell securities, nor do they address the appropriateness of securities for investment purposes, and should not be relied on as investment advice. S&P does not guarantee the accuracy, completeness, timeliness or availability of any information, including ratings, and is not responsible for errors or omissions (negligent or otherwise). S&P gives no express or implied warranties, including but not limited to any warranties of merchantability or fitness for a particular purpose or use. S&P shall not be liable for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including lost income or profits and opportunity costs) in connection with any use of ratings.

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Disclosures

Core

Historically, bonds have provided less volatility and less risk of loss of capital than has equity investing. However, there are many factors which may affect the risk and return profile of a fixed income portfolio. The two most prominent factors are interest-rate movements and the creditworthiness of the bond issuer. Investors should pay careful attention to the types of fixed-income securities which comprise their portfolio, and remember that, as with all investments, there is the risk of the loss of capital.

Mortgage- and Asset-Backed Securities are subject to prepayment risk and the risk of default on the underlying mortgages or other assets. Foreign investments present additional risks due to currency fluctuations, economic and political factors, government regulations, differences in accounting standards and other factors.

Bonds issued by the U.S. Government have significantly less risk of default than those issued by corporations and municipalities. However, the overall return on Government bonds tends to be less than these other types of fixed-income securities.

Derivatives such as credit default swap agreements and futures contracts may involve greater risks. Derivatives are subject to risks such as market risk, liquidity risk, interest rate risk, credit risk and management risk. Derivative investments could lose more than the principal amount invested. The use of leverage and derivatives investments could accelerate losses. These losses could exceed the amount originally invested.

Core Plus

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Mortgage- and Asset-Backed Securities are subject to prepayment risk and the risk of default on the underlying mortgages or other assets. Foreign investments present additional risks due to currency fluctuations, economic and political factors, government regulations, differences in accounting standards and other factors.

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High-yield securities involve greater risk than investment grade securities and tend to be more sensitive to economic conditions and credit risk.

Intermediate

Historically, bonds have provided less volatility and less risk of loss of capital than has equity investing. However, there are many factors which may affect the risk and return profile of a fixed income portfolio. The two most prominent factors are interest-rate movements and the creditworthiness of the bond issuer. Investors should pay careful attention to the types of fixed-income securities which comprise their portfolio, and remember that, as with all investments, there is the risk of the loss of capital.

Mortgage- and Asset-Backed Securities are subject to prepayment risk and the risk of default on the underlying mortgages or other assets. Foreign investments present additional risks due to currency fluctuations, economic and political factors, government regulations, differences in accounting standards and other factors.

Bonds issued by the U.S. Government have significantly less risk of default than those issued by corporations and municipalities. However, the overall return on Government bonds tends to be less than these other types of fixed-income securities.

Long Duration

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Bonds issued by the U.S. Government have significantly less risk of default than those issued by corporations and municipalities. However, the overall return on Government bonds tends to be less than these other types of fixed-income securities.

Derivatives such as credit default swap agreements and futures contracts may involve greater risks. Derivatives are subject to risks such as market risk, liquidity risk, interest rate risk, credit risk and management risk. Derivative investments could lose more than the principal amount invested. The use of leverage and derivatives investments could accelerate losses. These losses could exceed the amount originally invested.

Disclosures

Low Duration

Historically, bonds have provided less volatility and less risk of loss of capital than has equity investing. However, there are many factors which may affect the risk and return profile of a fixed income portfolio. The two most prominent factors are interest-rate movements and the creditworthiness of the bond issuer. Investors should pay careful attention to the types of fixed-income securities which comprise their portfolio, and remember that, as with all investments, there is the risk of the loss of capital.

Mortgage- and Asset-Backed Securities are subject to prepayment risk and the risk of default on the underlying mortgages or other assets. Foreign investments present additional risks due to currency fluctuations, economic and political factors, government regulations, differences in accounting standards and other factors.

Bonds issued by the U.S. Government have significantly less risk of default than those issued by corporations and municipalities. However, the overall return on Government bonds tends to be less than these other types of fixed-income securities.

Ultra Low Duration

Historically, bonds have provided less volatility and less risk of loss of capital than has equity investing. However, there are many factors which may affect the risk and return profile of a fixed income portfolio. The two most prominent factors are interest-rate movements and the creditworthiness of the bond issuer. Investors should pay careful attention to the types of fixed-income securities which comprise their portfolio, and remember that, as with all investments, there is the risk of the loss of capital.

Mortgage- and Asset-Backed Securities are subject to prepayment risk and the risk of default on the underlying mortgages or other assets. Foreign investments present additional risks due to currency fluctuations, economic and political factors, government regulations, differences in accounting standards and other factors.

Bonds issued by the U.S. Government have significantly less risk of default than those issued by corporations and municipalities. However, the overall return on Government bonds tends to be less than these other types of fixed-income securities.

Unconstrained

The strategy employs an unconstrained investment approach which creates considerable exposure to certain types of securities that present significant volatility in the performance, particularly over short periods of time.

Historically, bonds have provided less volatility and less risk of loss of capital than has equity investing. However, there are many factors which may affect the risk and return profile of a fixed income portfolio. The two most prominent factors are interest-rate movements and the creditworthiness of the bond issuer. Investors should pay careful attention to the types of fixed-income securities which comprise their portfolio, and remember that, as with all investments, there is the risk of the loss of capital.

Bonds issued by the U.S. Government have significantly less risk of default than those issued by corporations and municipalities. However, the overall return on Government bonds tends to be less than these other types of fixed-income securities.

Mortgage- and Asset-Backed Securities are subject to prepayment risk and the risk of default on the underlying mortgages or other assets. Foreign investments present additional risks due to currency fluctuations, economic and political factors, government regulations, differences in accounting standards and other factors.

Derivatives such as credit default swap agreements and futures contracts may involve greater risks. Derivatives are subject to risks such as market risk, liquidity risk, interest rate risk, credit risk and management risk. Derivative investments could lose more than the principal amount invested. The use of leverage and derivatives investments could accelerate losses. These losses could exceed the amount originally invested.

High-yield securities involve greater risk than investment grade securities and tend to be more sensitive to economic conditions and credit risk.

Short-sale risk includes the potential loss of more money than the actual cost of the investment, and the risk that the third party to the short sale may fail to honor its contract terms, causing a loss.





AGENDA REPORT

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

FROM: David F. Jones
PFRS Plan Administrator &
Secretary

SUBJECT: Request to Remove/Omit Vendor Agenda
Information from Website

DATE: February 26, 2025

By request of Wellington Management, the electronic versions of the firm's Diversity, Equity, & Inclusion (DEI) information and 2023 Global Diversity, Equity, and Inclusion Transparency Report has been removed/omitted from the electronic version of the agenda packages for the Special PFRS Investment Committee scheduled to occur Tuesday, February 25, 2025 and the Special Board meeting scheduled to occur Wednesday, February 26, 2025.

Members of the public may obtain a copy of these materials by submitting a request via email at mvisaya@oaklandca.gov following the February 26, 2025, meeting.

For questions regarding this report, please contact Maxine Visaya, Administrative Analyst I, at (510) 238-7295.

Respectfully submitted,

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

Oakland Police and Fire Retirement System

WELLINGTON
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Core Bond Plus

25 February 2025

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Our distinctive strengths

A singular focus on investment management

Long-term perspective of a partnership structure

Comprehensive capabilities

Rigorous proprietary research

Open, collaborative culture

A commitment to bringing the right resources to each client



Our mission is simple: We seek to exceed the investment objectives and service expectations of our clients worldwide.

Wellington Management today

Diversified asset base

USD 1,237 billion in client assets under management

46.5% equity, 37.3% fixed income, 16.2% multi-strategy – including ~ USD 39.1 billion in alternatives

Global resources

2,890 employees

824 investment professionals

18 offices with investment and relationship personnel in key financial centers

Globally integrated research since 1972



We serve as a trusted adviser and strategic partner to investors worldwide.

WELLINGTON
MANAGEMENT®

Oakland Police and Fire Retirement System

Bay Area Based Relationship Team



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Relationship Manager
Vice President
Phone: +14156271837
Email: SPatel@wellington.com

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Drawing on our sector experts

To build enduring partnerships with our clients

INTERMEDIATE BOND/PLUS

\$5.4B in Assets

Across **20+** mandates

CORE BOND

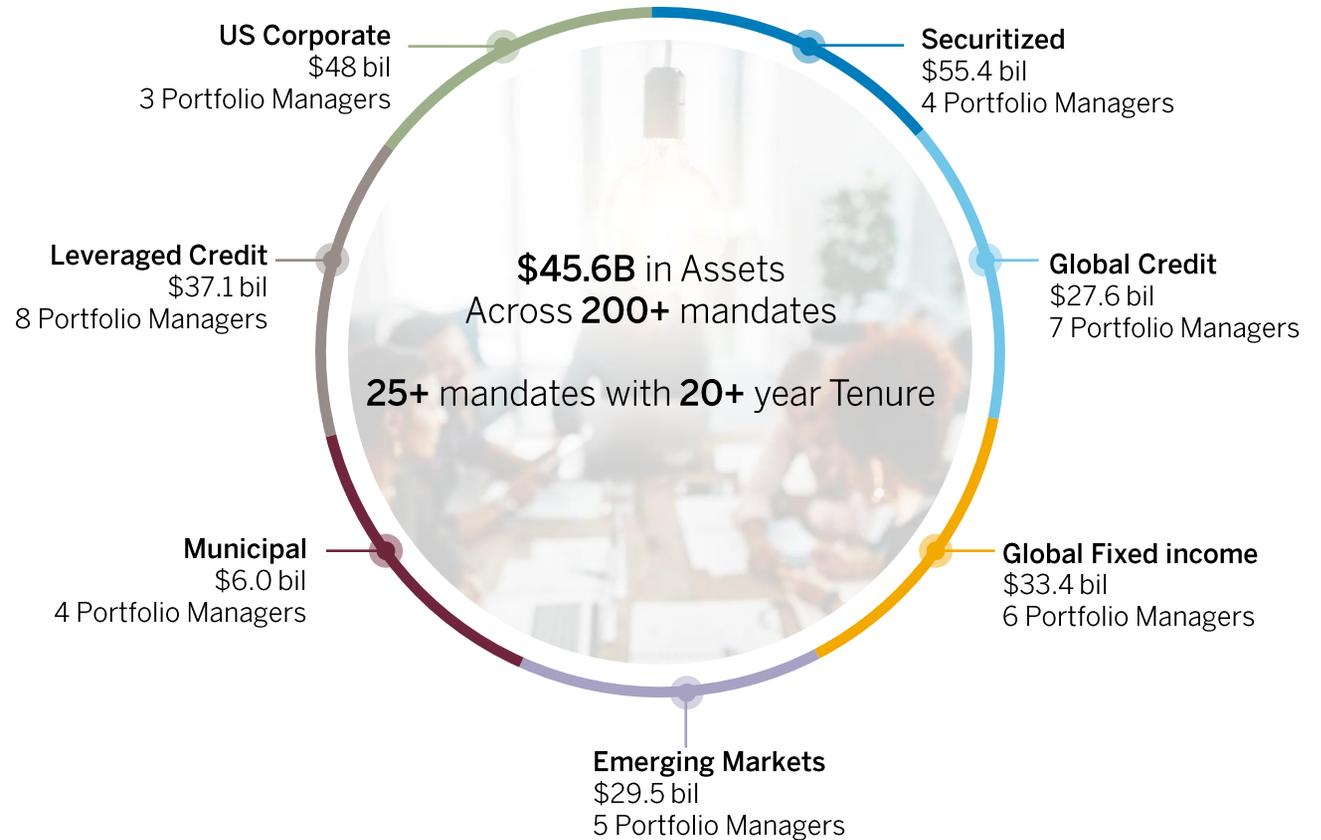
\$18.6B in Assets

Across **90+** mandates

CORE BOND PLUS

\$21.4B in Assets

Across **90+** mandates



Wellington Management Research Resources

42 Fixed Income
Credit Analysts

17 Macro
Strategists

12 Quantitative
Analysts

57 Global Industry
Analysts

FIXED INCOME RESEARCH

INVESTMENT GRADE CORPORATES	Yrs	MUNICIPAL CREDIT	Yrs
Alice Chen, CFA	20	Kate Chanoux, CFA	20
Kira Connors, CFA	15	Brad Libby	28
Amy Finnegan	10	Jessica Mayer, CFA	12
Craig Gainey, CFA	33	Conor McEachern	20
Chuck Goring	20	Jennifer Soule	30
Martin Lukac	19	STRATEGISTS¹	Yrs
Jimmy Mace, CFA	9	Andrea Alecci	13
Chris Melendes, CFA	36	Marlyn Anthonyrajah	13
Reena Patel	19	John Butler	30
Alvaro Sanchez	8	Brian Decker	44
Ben Swanson, CFA	20	Juhi Dhawan, PhD	30
Shrut Vakil, CFA	19	Gillian Edgeworth	22
Peter Yu	14	Matt Hildebrandt	21
HIGH YIELD CORPORATES	Yrs	Kazim Kazimov, PhD	23
Jing Chen, CFA	10	Steve Lee	9
John Davy	26	Roger Liao	13
Chris Durlacher	20	Michael Medeiros, CFA	17
Dan Gilbert, CFA	30	Thomas Mucha	33
Kelsey Gottschall	13	Eoin O'Callaghan	19
Kunal Gupta	14	Tushar Poddar, PhD	24
Brian Hough, CFA	25	Yi Wang, PhD	21
Blake Huynh	28	Nicolas Wylenzek, CFA	13
Ela Kurtoglu	21	Johnny Yu, CFA	16
Eamon O'Malley, CFA	34	QUANTITATIVE	Yrs
Kyle Pita, CFA	11	Peter Ballaro	3
Kenta Shimojo, CFA	18	Andy Gossard	19
Shomit Vaid	14	Mikhail Lev	15
EMERGING MARKETS CORPORATES	Yrs	Figo Liu, CFA	12
Manuj Jain	17	Xiang Long, PhD	24
Desmond Lee, CFA	22	Luis Lopez-Oliveros, PhD	13
Dmitry Sentchoukov	29	Vasiliki Mavrou-Lagoudaki	14
Alejandro Velasco	17	Sergio Ortiz Orendain, CFA	12
Tiansi Wang	20	Eugene Reznik	30
Dan Bucsa, PhD	20	Christine Wang, CFA	10
SECURITIZED CREDIT	Yrs	Victor Xie, CFA	8
Karthik Chetty, CFA	8	Zhenzhen Zhang, CFA	20
Neil Delap, CFA	13		
Carolyn Natale, CFA	34		
Patrick Wacker	15		

GLOBAL INDUSTRY ANALYSTS

INDUSTRIALS/ MATERIALS	Yrs	CONSUMER	Yrs
Andrew Byrne	22	Amit Desai, CFA	28
Catherine Gunn, CFA	19	Wayne Drayton	18
Rob Hayes, CFA	28	Josh Goldman, CFA	18
Takuma Kamimura	17	Jolene Lee	9
Gautam Kaul	6	Jason Nacca, CFA	13
Nathan Kieffer	21	Prachi Shah, CFA	14
Bill Ogrodnick	22	Tina Sun, CFA	12
Saul Rubín	30	ENERGY	Yrs
Rupinder Vig	21	George Burshteyn	23
TECHNOLOGY AND COMMUNICATION SERVICES	Yrs	Tom Levering	30
John Averill, CFA	37	Liam McIntyre	11
Brian Barbetta	18	Juanjuan Niska, CFA	20
Alex Bayman	9	HEALTHCARE	Yrs
Tom DeLong, CFA	21	Sam Bitetti	18
Jeremy Hartman	24	David Khtikian, CFA	24
Michael Masdea	27	Luca Pancratov	19
James McNay	7	Mark Sevecka, PhD	19
Halsey Morris, CFA	21	Ronak Shah	22
Lily Orlin, CFA	10	Wen Shi, PhD	21
Angel Pan, CFA	8	Jun-Han Su, PhD	8
Yash Patodia	21	Sue Su	12
Terence Tow	19	Rebecca Sykes, CFA	19
FINANCE	Yrs	Blake Tye, PhD	6
Jonathan Ashe, CFA	31	HEALTHCARE	Yrs
Jennifer Berg, CFA	28	Sara Carpi, CFA	28
Devashish Chopra	30	Lihui Chen	17
Lexie Elgart	8	Xiaobo Ma, CFA	15
Alan Gu	17		
Angela Gu	13		
Olivia Hurley	9		
Ben Krause	9		
Thibault Nardin	18		
Robert E Wydenbach	27		
Jonathan Ashe, CFA	31		
Jennifer Berg, CFA	28		

¹Includes both dedicated fixed income and shared firm resources across asset classes | As of 31 December 2024

Core Bond Plus

Distinguishing features



Experience and stability

- The investment team is led by multiple partners of the firm, reducing key person risk and ensuring proactive attention to succession planning
- Guiding portfolios through over 20 years of economic cycles, our seasoned investors actively compare value across sectors to identify investment grade fixed income opportunities



Combining broad specialist expertise with clear accountability

- The investment team has demonstrated success at leveraging Wellington's breadth of specialist expertise – spanning both fixed income and equities – to identify sector- and security-level market inefficiencies throughout the investment universe
- At the same time, the lead portfolio manager Joe Marvan is ultimately accountable for performance, positioning and risk management across the entire portfolio



Trading Expertise

- Scale is critical to accessing liquidity in fixed income markets and our long-term partnership with dealers gives us a competitive edge
- Our breath and presence in the secondary market allows us access to myriad resources, pricing power on large deal, and the first look at liquidity opportunities.
- Our syndicate team provides leadership and feedback for dealers on pricing and structures of new issues to attain differentiated allocations



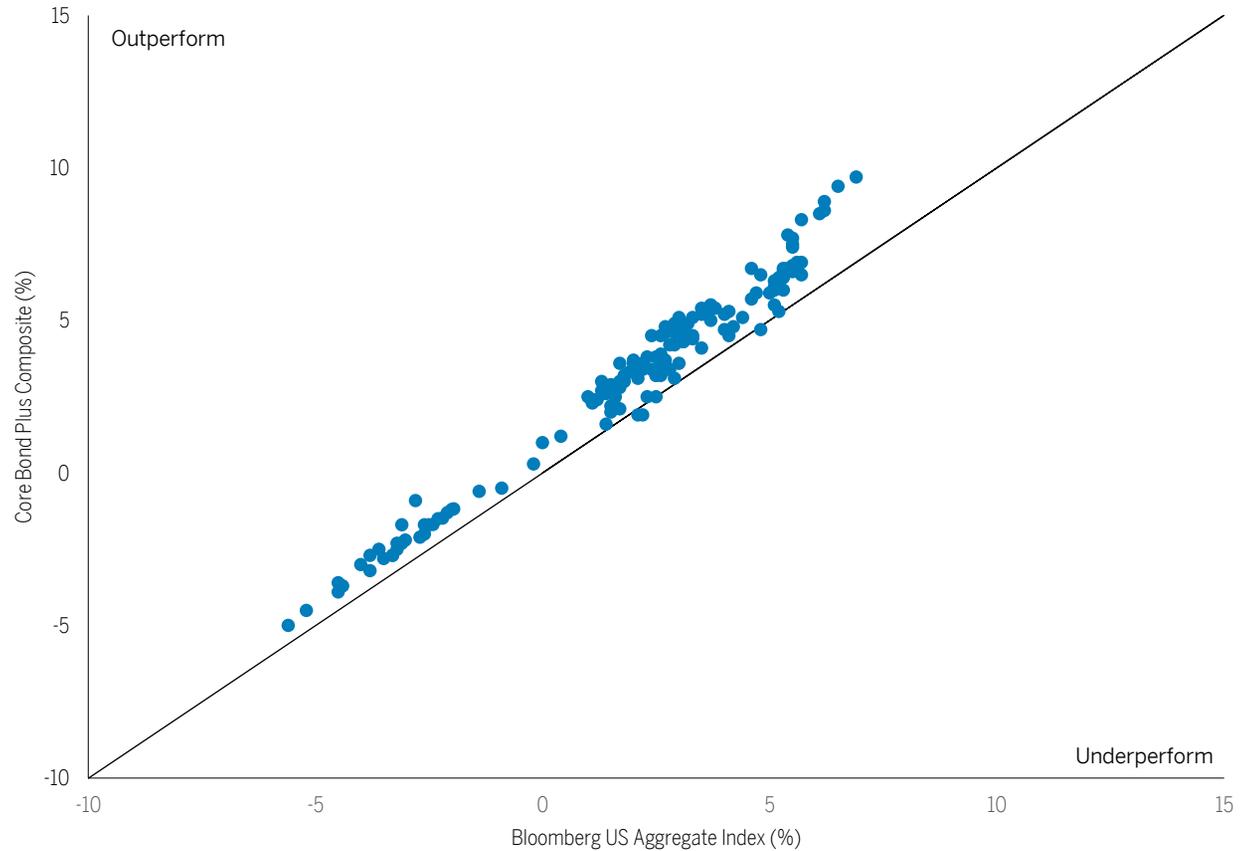
High-quality orientation

- Below investment grade and non-USD sectors are opportunistic rather than structural and are only made when we believe they contribute to a risk-return profile consistent with a high-quality bond portfolio
- We believe this higher-quality orientation can mitigate downside exposure that clients may not want or expect from a Core fixed income allocation

Core Bond Plus

Consistent historical performance

3 years trailing Total Return Core Bond Plus Composite vs Bloomberg US Aggregate Index 10 years ended 31 December 2024



Performance returns for periods one year or less are not annualized. | **PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. AN INVESTMENT CAN LOSE VALUE.** Net performance results are based on the highest published US advisory fee for this product, include reinvestment of dividends and other earnings, and are net of advisory fees, commissions, and other direct expenses, but before custody charges, withholding taxes, and other indirect expenses. Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. Composite returns have the potential to be adjusted until reviewed and finalized 30 days following each calendar quarter end period. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

Core Bond Plus

Key characteristics

Benchmark	Bloomberg US Aggregate Bond Index
Average duration	Within ± 1.5 years of Index
Diversification	Broad (by coupon, industry, issuer)
Vehicles	Separate account Commingled pools
Investment universe	Primarily US dollar denominated investment grade securities Up to 20% in below investment grade Up to 20% in non-US dollar denominated Up to 30% in non-US dollar denominated and below investment grade in total

Sector exposure	Historic portfolio ranges (%)	Bloomberg US Aggregate Bond Index (%)
US treasuries and agencies	0 – 50	40
Corporate credit	10 – 60	30
Agency MBS	20 – 70	30
Structured finance (non-agency RMBS, CMBS, ABS, CLOs)	20 – 40	< 5
High yield and bank loans	0 – 20	0
Non-US dollar denominated, including EMD	0 – 20	0

The characteristics presented are sought during the portfolio management process. Actual experience may not reflect all of these characteristics, or may be outside of stated ranges.

Broad Markets Investment team

PORTFOLIO MANAGEMENT



Joe Marvan, CFA
Portfolio Manager
37 years of experience



Connor Fitzgerald, CFA
Portfolio Manager
18 years of experience



Campe Goodman, CFA
Portfolio Manager
26 years of experience



Kyra Fecteau, CFA
Portfolio Manager
16 years of experience



Jeremy Forster
Portfolio Manager
20 years of experience



Rob Burn, CFA
Portfolio Manager
24 years of experience



Caroline Casavant
Fixed Income Analyst
8 years of experience

PORTFOLIO IMPLEMENTATION

Adam Chrissis, CFA, FRM
Senior Portfolio Analyst
13 years of experience

Aaron Mayo, CFA
Senior Portfolio Analyst
9 years of experience

Mihir Shah, CFA
Senior Portfolio Analyst
12 years of experience

Evelyn Chen, CFA
Portfolio Analyst
6 years of experience

RISK MANAGEMENT

Bill Schmitt, PhD
Director, Fixed Income Risk Oversight
22 years of experience

PRODUCT MANAGEMENT

Brian Doherty, CFA
Investment Director
26 years of experience

Cara Early, CFA
Investment Specialist
12 years of experience

As of 31 December 2024

SECTOR SPECIALIST PORTFOLIO MANAGERS

Brian Conroy, CFA
Agency Mortgages
18 years of experience

Samuel Epee-Bounya
Emerging Markets
25 years of experience

Jeff Heuer, CFA
Bank Loans
36 years of experience

Sean Lamkin, CFA
Investment Grade Credit
15 years of experience

Michael Barry
Global High Yield
22 years of experience

Kevin Murphy
Emerging Markets
38 years of experience

Cory D. Perry, CFA
Securitized Credit
27 years of experience

Scott St. John, CFA
Investment Grade Credit
32 years of experience

Brij Khurana, CFA
Global Rates and Credit
17 years of experience

ADDITIONAL RESOURCES

Macro Strategists 13

Global Industry Analysts 57

ESG/Sustainability Research 8

Risk Professionals 31

Multi-Asset Analysts 26

RESEARCH

Investment Grade Corporates
14 Credit Analysts

High Yield Corporates
13 Credit Analysts

Municipals
6 Credit Analysts

Structured Finance
4 Credit Analysts

Emerging Markets Corporate
5 Credit Analysts

TRADING

Fixed Income Syndicate
2 Traders

Secondary Trading
41 Traders

Core Bond Plus

Investment process

Cycle risk decision



Sector allocation

- US Treasuries and Agencies
 - Agency MBS
 - Investment Grade Credit
 - Structured Finance (RMBS, CMBS, ABS)
 - High Yield, Bank Loans, Emerging Market Debt as permitted
-
- Opportunistic positions, including
 - Single names and sectors
 - Security-specific relative value trades
-
- Interest rate and yield curve exposure

Security selection

- Multiple inputs on individual securities
 - Lead portfolio managers
 - Sector specialist portfolio managers
 - Analysts
 - Traders
-
- Close collaboration with specialist investment teams, including
 - Investment Grade Credit
 - Securitized
 - High Yield and Bank Loans
 - Emerging Market Debt

Portfolio construction



Risk management

Broad risk allocation

Rates
Sectors

Specialist collaboration

Alpha/tracking risk
Drawdown

Risk oversight

Ex-ante active risk
Ex-post attribution

Fixed Income Risk Management

Comprehensive risk management process evaluates risk through multiple dimensions and from several perspectives around the firm

INVESTOR LINE MANAGEMENT

Provide fiduciary oversight, manager evaluation and talent development

INVESTMENT PRODUCTS AND FUND STRATEGIES

Monitors integrity of investment process and reviews risk exposures with portfolio management team

GUIDELINE MONITORING

Monitors adherence to portfolio and regulatory guidelines

PORTFOLIO MANAGEMENT TEAM

Establish and support the core tenets of the portfolio

- Philosophy
- Process
- Risk approach

Ongoing evaluation of portfolio's exposures and active risk

- Credit Risk
- Currency Risk
- Interest Rate Risk
- Liquidity Risk
- Prepayment Risk

INVESTMENT SCIENCE

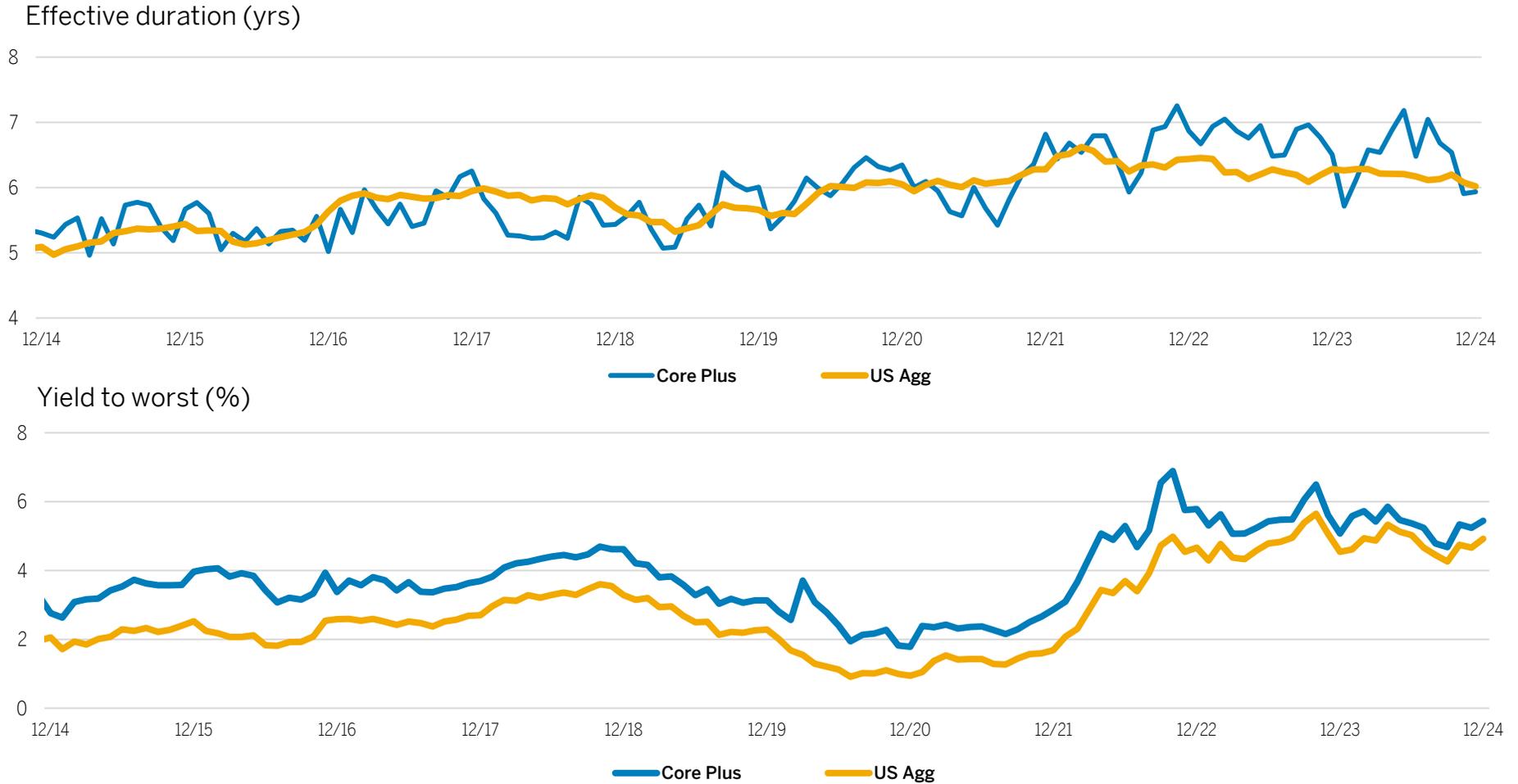
Models market risks and evaluates portfolio sensitivities with portfolio management team

INVESTMENT RISK REVIEW GROUP

Provides oversight of portfolio performance and risk, as well as consistency with investment philosophy and process

Core Bond Plus

Effective Duration and Yield to Worst: 10 years as of 31 December 2024

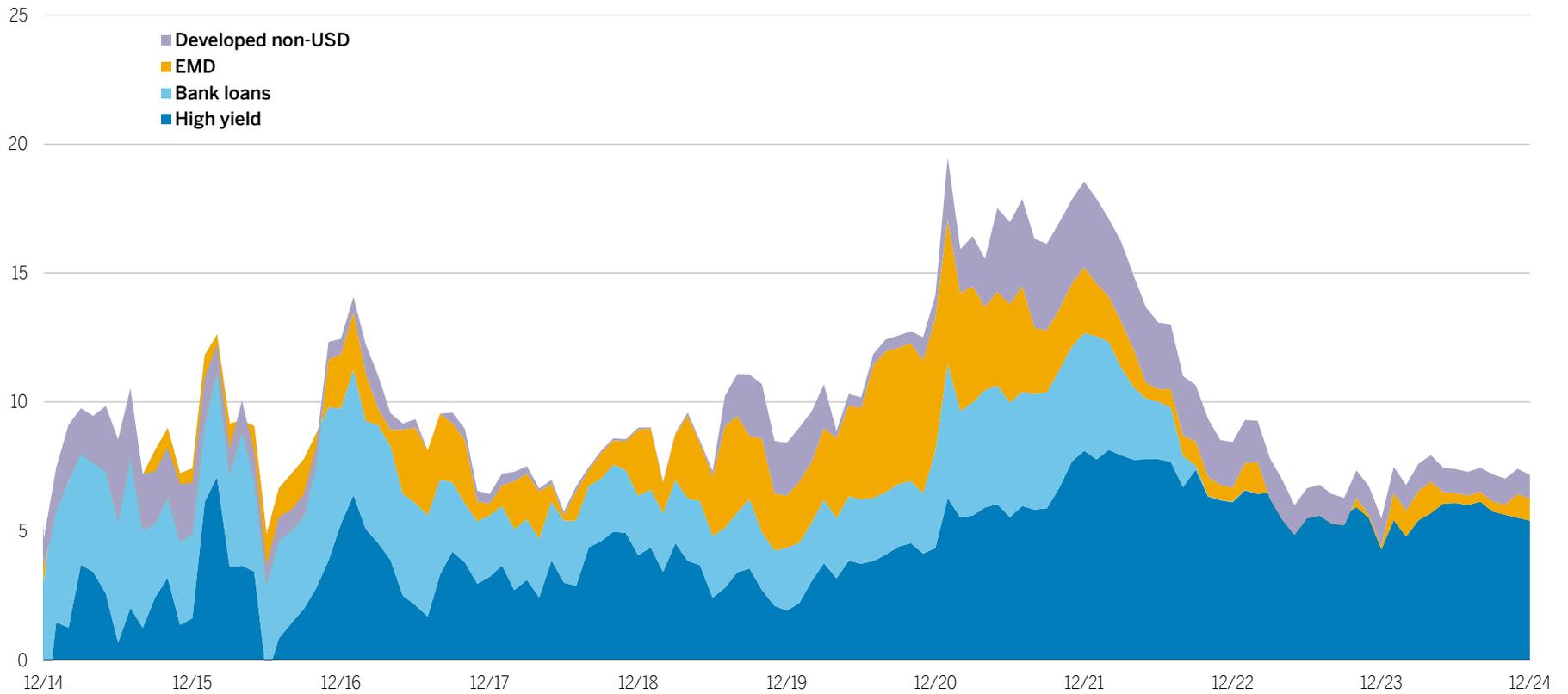


Benchmark: Bloomberg US Aggregate Bond. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Please refer to the Important Disclosures page for additional information. | 31 October 2014 – 31 December 2024

Core Bond Plus

Historical plus sector allocation: Ten years as of 31 December 2024

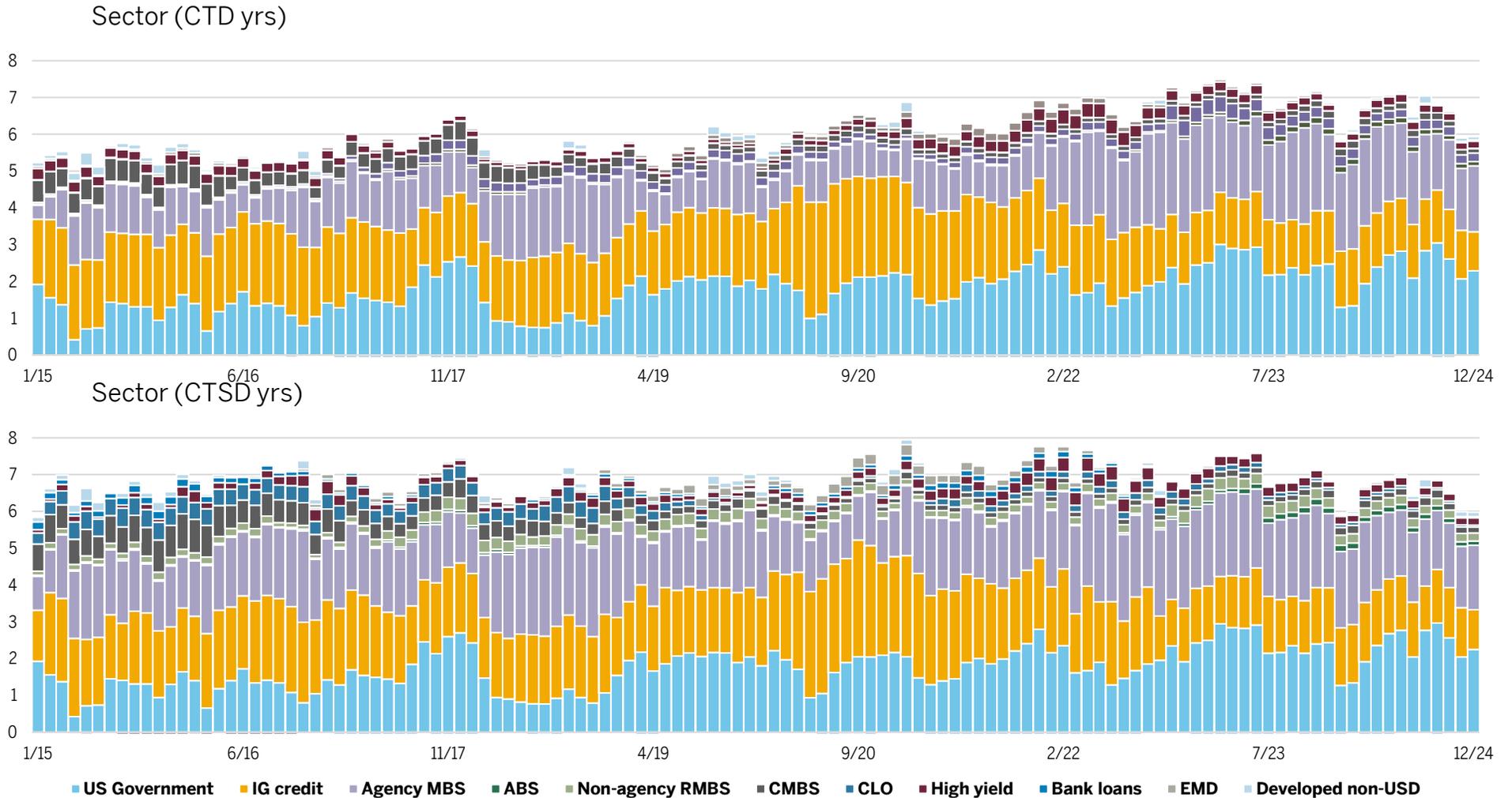
Plus sector weights (MV%)



Benchmark: Bloomberg US Aggregate Bond | "Other" within Sector (when applicable) includes security types that do not fall within the displayed categories. | Inception date: 31 May 2000 | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Please refer to the Important Disclosures page for additional information. Chart data: 31 October 2014 – 31 December 2024.

Core Bond Plus

Historical sector allocation: Ten years as of 31 December 2024



Benchmark: Bloomberg US Aggregate Bond | "Other" within Sector (when applicable) includes security types that do not fall within the displayed categories. | Inception date: 31 May 2000 | Chart data: 31 January 2015 – 31 December 2024

Core Bond Plus

Investment returns

	As of 31 December 2024 (% , USD)				
	3 mos	1 yr	3 yrs	5 yrs	10 yrs
Core Bond Plus Composite (net)	-3.16	2.37	-1.98	0.42	2.05
Core Bond Plus Composite (gross)	-3.08	2.68	-1.68	0.72	2.37
Bloomberg US Aggregate Bond	-3.06	1.25	-2.41	-0.33	1.35

	2024	2023	2022	2021	2020	2019
Core Bond Plus Composite (net)	2.37	7.13	-14.12	-0.84	9.32	10.31
Core Bond Plus Composite (gross)	2.68	7.45	-13.86	-0.54	9.65	10.65
Bloomberg US Aggregate Bond	1.25	5.53	-13.01	-1.54	7.51	8.72

	2018	2017	2016	2015
Core Bond Plus Composite (net)	-0.54	5.05	4.48	-0.42
Core Bond Plus Composite (gross)	-0.19	5.42	4.85	-0.07
Bloomberg US Aggregate Bond	0.01	3.54	2.65	0.55

Performance returns for periods one year or less are not annualized. | **PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. AN INVESTMENT CAN LOSE VALUE.** Net performance results are based on the highest published US advisory fee for this product, include reinvestment of dividends and other earnings, and are net of advisory fees, commissions, and other direct expenses, but before custody charges, withholding taxes, and other indirect expenses. Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. Composite returns have the potential to be adjusted until reviewed and finalized 30 days following each calendar quarter end period. This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

Core Bond Plus

Performance review (USD): Representative account as of
31 December 2024

1 Year

Annualized total alpha 140 bps
Information ratio 2.28

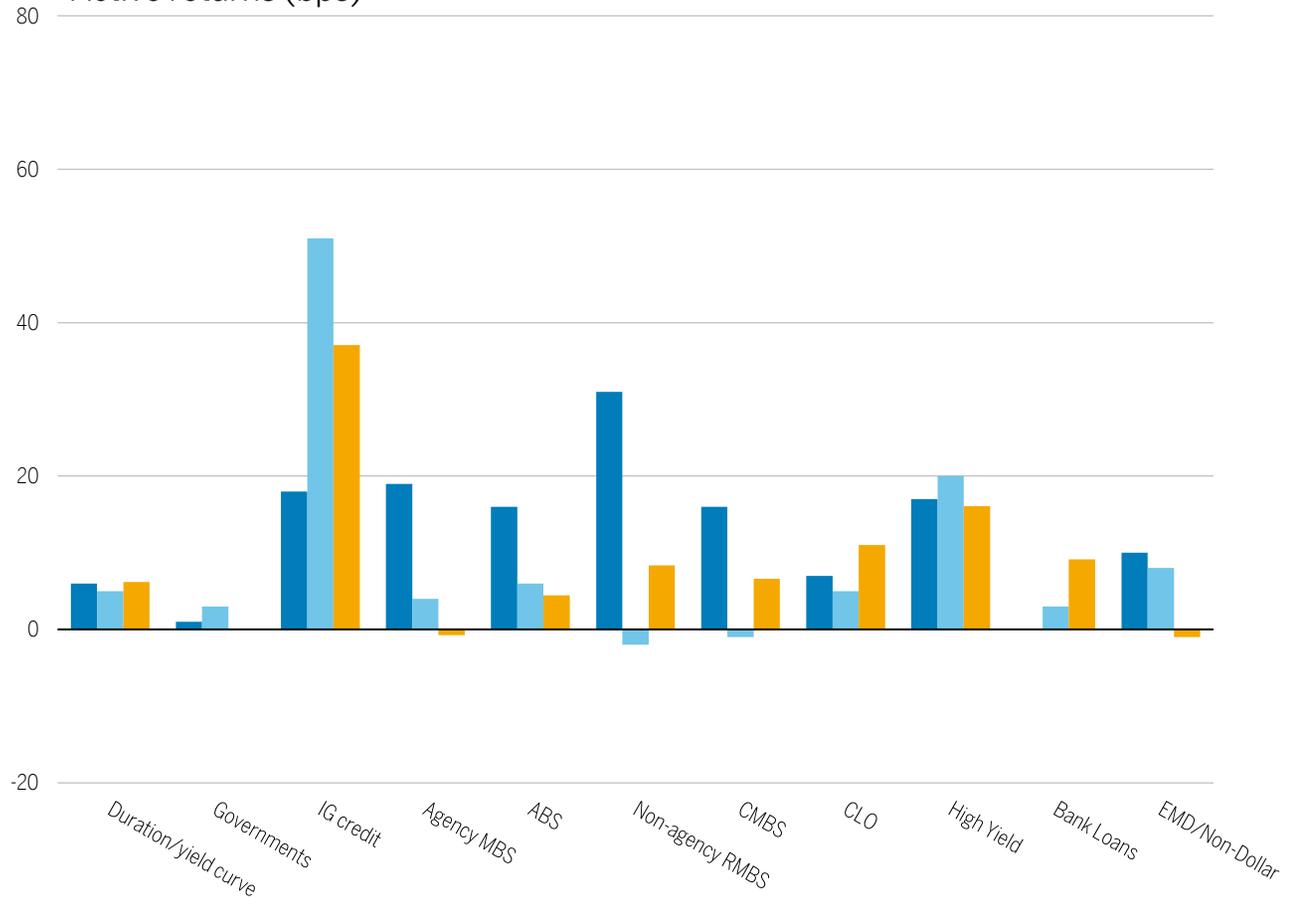
5 Year

Annualized total alpha 103 bps
Information ratio 0.59

10 Year

Annualized total alpha 101 bps
Information ratio 0.70

Active returns (bps)



Benchmark used in the calculation of attribution data: Bloomberg US Aggregate Bond. Chart contribution effects may not sum to total alpha due to exclusion of 'Other' and 'Cash and cash equivalents' totaling -1 bps for 10 years 1 bps for 5 year and 0 bps for 1 year.

'Other' may include litigation payments, preferred stock, warrants etc. | Results shown for periods greater than one year are annualized. | **PAST PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. AN INVESTMENT CAN LOSE VALUE.** |

The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. | Gross performance results are net of commissions and other direct expenses, but before (gross of) advisory fees, custody charges, withholding taxes, and other indirect expenses, and include reinvestment of dividends and other earnings. If all expenses were reflected, performance shown would be lower. This information complements the required net of fee returns included elsewhere in these materials.

Historical returns based risk characteristics are calculated versus the benchmark(s) used for performance comparison purposes, which may be different than the benchmark(s) displayed on this page. Please see the investment returns page for additional information. | This information complements the GIPS® Composite Report included at the end of the materials. Please refer to the Important Disclosures page for additional information.

Core Bond Plus

Outlook and strategy – First quarter 2025

OUTLOOK

ECONOMY / INTEREST RATES

- The US economy is poised for a year of solid growth, powered by continued fiscal stimulus and investment spending on equipment and artificial intelligence. Consumers continue to show healthy balance sheets.
- Inflation is unlikely to sufficiently moderate to the Fed's 2% target given the persistent strength of the labor market. Prospective policy changes around trade, immigration, and fiscal policy are generally forces for higher inflation.
- Easing financial conditions allow some stressed borrowers time to heal balance sheets

CORPORATE BONDS

- Corporate fundamentals remain healthy across most sectors. Credit spreads, however, are compressed relative to history, with limited potential for further tightening.
- Securitized credit offers more attractive risk/reward opportunities than corporates

MBS

- MBS fundamentals remain positive and the majority of mortgages are far out of the money to refinance; expect rate cuts and deregulation initiatives to trigger renewed demand from banks to protect their net interest margins, although a Fed pause may dampen near-term buying activity
- More certainty on the Fed's rate path would continue to lend support to lower volatility and tighter MBS spreads

STRUCTURED FINANCE

- Consumer lending standards are tighter, growth in consumer debt is slowing, and loan structures are generally more robust
- We believe CLOs have strong structural features and are benefiting from resilient bank loan backdrop

HIGH YIELD

- Strong earnings and interest coverage provide ample cushion for deterioration; quality composition remains strong relative to history

EMD

- EM country fundamentals remain largely constructive, supported by manageable balance of payment positions, improving or steady fiscal deficits, supportive commodity prices, and waning inflation
- Many EM corporates continue to exhibit considerable financial strength amid rising cost pressures and elevated refinancing costs

STRATEGY

- Close to neutral risk posture
- Position with slightly short duration and modest flattening bias
- Preserve high-quality, liquid assets to take advantage of market dislocations

- Underweight IG corporate bonds in favor of better opportunities in other sectors
- Focus on identifying inefficiencies in the pricing of risk

- Overweight to agency pass-throughs, focusing on relative value opportunities and enhancing cashflow stability
- We have an up-in-coupon bias and favor conventionals versus GNMA due to better prepayment risk profile of the former

- Avoid new issues and favor seasoned RMBS, which embed substantial home price appreciation and can withstand price declines, in our view
- Focus on income and manager quality

- Maintain up in quality bias; expect better opportunities to increase exposure at wider spreads

- Sovereign hard currency spreads appear very tight; limit exposure to high conviction turnaround stories
- Allocate to EM corporate issuers with prudent balance sheet management

Information contained within Outlook section contains estimates and forecasts. Actual results may differ significantly from information shown. Forecasts rely upon assumptions and other expectations of future outcomes and is therefore subject to numerous limitations and biases. Future occurrences and results, which may also be formulated based on subjective inputs (i.e., strategist/analyst judgment), will differ, perhaps significantly, from those reflected in the charts and/or graphs within.

Core Bond Plus

Representative account portfolio positioning as of 31 December 2024

Characteristics

	Portfolio	Benchmark	Difference
YTW (%)	5.44	4.92	0.52
Duration (Years)	5.93	6.02	-0.08

Sector (MV%)

	Portfolio	Benchmark	Difference
US Treasury	27.64	43.94	-16.29
TIPS	1.16	0.00	1.16
Govt Related	1.60	4.64	-3.04
Agency	0.10	1.36	-1.26
Local Authorities	0.50	1.01	-0.51
Sovereigns	1.00	2.26	-1.27
IG Credit	15.55	23.94	-8.39
Financials	5.99	8.13	-2.15
Industrials	7.08	13.55	-6.47
Utilities	2.49	2.26	0.23
Securitized	51.80	26.85	24.95
Agency MBS	32.16	24.83	7.33
Non-Agency MBS	6.85	0.00	6.85
CMBS	4.68	1.52	3.16
ABS	5.87	0.50	5.37
CLO	2.23	0.00	2.23
Plus Sectors	7.26	0.10	7.16
High Yield Credit	5.29	0.00	5.29
Developed Non-US	1.11	0.00	1.11
Bank Loans	0.00	0.00	0.00
EMD	0.86	0.09	0.76
Cash & CE	-5.02	0.54	-5.55
Total	100.00	100.00	

Benchmark: Bloomberg US Aggregate Bond. | Quality ratings are based on the highest of Moody's, S&P, and Fitch. "Other" within Sector (when applicable) includes security types that do not fall within the displayed categories. The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Please refer to the Important Disclosures page for additional information.

Investment Grade Corporate Allocation (%)

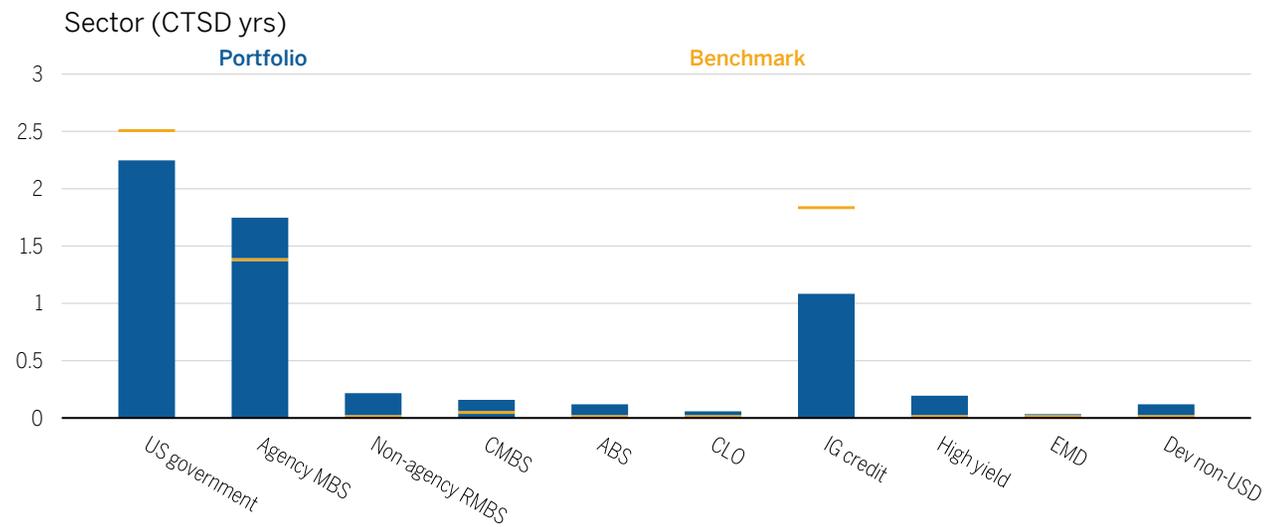
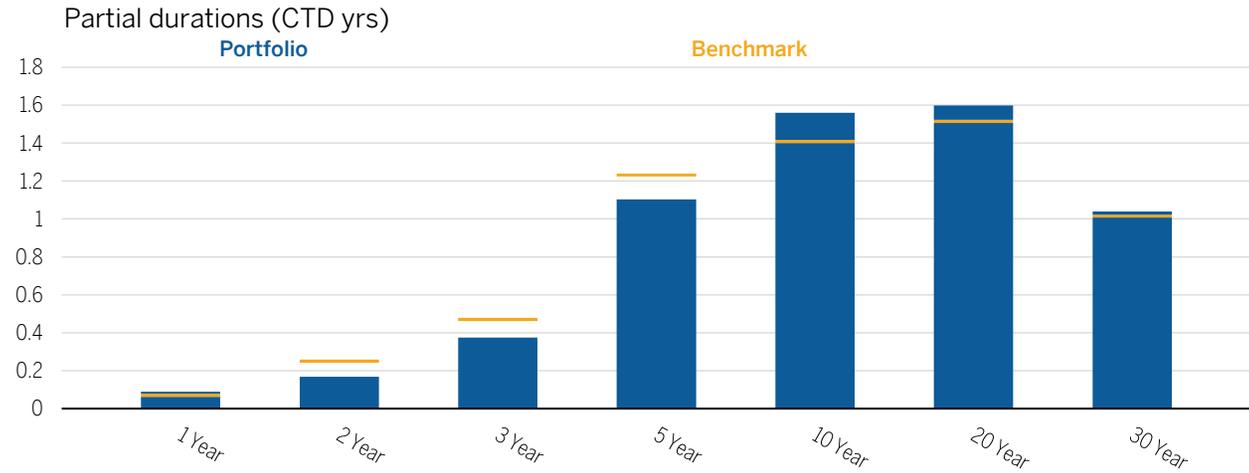
	Portfolio	Benchmark	Difference
Banking	5.01	5.55	-0.54
Brokerage	0.00	0.38	-0.38
Finance Companies	0.19	0.34	-0.14
Insurance	0.78	1.20	-0.42
Other	0.00	0.08	-0.08
REITs	0.00	0.66	-0.66
Basic Industry	0.20	0.57	-0.36
Capital Goods	0.91	1.35	-0.44
Communications	1.48	1.96	-0.47
Consumer Cyclical	0.26	1.71	-1.45
Consumer Non-Cyclical	1.40	3.43	-2.03
Energy	1.79	1.76	0.03
Technology	1.01	2.25	-1.24
Transportation	0.04	0.50	-0.46
Electric Utility	2.26	2.03	0.23
Natural Gas	0.22	0.18	0.04
Total	15.55	23.94	

Ratings Allocation

	Portfolio	Benchmark	Difference
AAA	65.62	74.12	-8.51
AA	6.32	4.31	2.01
A	8.31	11.14	-2.84
BBB	11.02	10.42	0.61
BB	6.56	0.00	6.56
B	0.18	0.00	0.18
<B	0.00	0.00	0.00
NR/Other	1.99	0.00	1.99
Total	100.00	100.00	

Core Bond Plus

Portfolio positioning as of 31 December 2024



Benchmark: Bloomberg US Aggregate Bond. | "Other" within Sector (when applicable) includes security types that do not fall within the displayed categories. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Please refer to the Important Disclosures page for additional information.

Core Bond Plus

Portfolio characteristics

Statistics

	As of 31 December 2024		
	Portfolio	Benchmark	Difference
Yield to worst (%)	5.44	4.92	0.52
Option-adjusted spread (bps)	71	33	38
Average quality	AA	AA+	
Duration - effective (yrs)	5.93	6.02	-0.08
Duration - spread (yrs)	5.98	5.84	0.13
Duration - inflation-linked (yrs)	0.30	0	0.30
Convexity - effective	0.18	0.34	-0.16
% TBAs (%)	6.8	0	6.8
% CoCos (%)	0	0.1	-0.1
% Emerging (%)	4.5	1.4	3.0
Below investment grade (%)	6.7	0	6.7
Non-USD currency exposure (%)	0	0	0
Non-USD denominated holdings (%)	1.7	0	1.7

Benchmark: Bloomberg US Aggregate Bond. | Quality ratings are based on the highest of Moody's, S&P, and Fitch. | The data shown is of a representative account, is for informational purposes only, is subject to change, and is not indicative of future portfolio characteristics or returns. Please refer to the Important Disclosures page for additional information.

Core Bond Plus

Investment risks

PRINCIPAL RISKS

Asset/Mortgage-Backed Securities Risk – Mortgage-related and asset-backed securities are subject to prepayment risk, which is the possibility that the principal of the loans underlying the securities may prepay differently than anticipated at purchase. Because of prepayment risk, the duration of mortgage-related and asset-backed securities may be difficult to predict.

Commingled Fund Risk – Investments in funds or other pooled vehicles generally will indirectly incur a portion of that fund's operating expenses and/or fees and will inherit a proportion of the fund's investment risks. Funds may have different liquidity profiles based on their dealing terms, and the types of instruments in the fund. In the event a fund holds illiquid instruments, it is possible that a full redemption from the fund could result in taking custody of illiquid instruments that could not be sold in the market.

Credit Risk – The value of a fixed income security may decline due to an increased risk that the issuer or guarantor of that security may fail to pay interest or principal when due, as a result of adverse changes to the issuer's or guarantor's financial status and/or business. In general, lower-rated securities carry a greater degree of credit risk than higher-rated securities.

Derivatives Risk – Derivatives can be volatile and involve various degrees of risk. The value of derivative instruments may be affected by changes in overall market movements, the business or financial condition of specific companies, index volatility, changes in interest rates, or factors affecting a particular industry or region. Derivative instruments may provide more market exposure than the money paid or deposited when the transaction is entered into. As a result, a relatively small adverse market movement can not only result in the loss of the entire investment, but may also expose a portfolio to the possibility of a loss exceeding the original amount invested. Derivatives may also be imperfectly correlated with the underlying securities or indices it represents, and may be subject to additional liquidity and counterparty risk. Examples include futures, options and swaps.

Fixed Income Securities Risk – Fixed income security market values are subject to many factors, including economic conditions, government regulations, market sentiment, and local and international political events. In addition, the market value of fixed income securities will fluctuate in response to changes in interest rates, and the creditworthiness of the issuer.

Interest Rate Risk – Generally, the value of fixed income securities will change inversely with changes in interest rates, all else equal. The risk that changes in active interest rates will adversely affect fixed income investments will be greater for longer-term fixed income securities than for shorter-term fixed income securities.

ADDITIONAL RISKS

Bank Loan Risk – Bank loans involve risks, including the risk of nonpayment of principal and interest by the borrower. In the event of a default, bank loans contain the risk that any loan collateral may be impaired and that the investor may obtain less than the full value for the collateral sold. An investment in bank loans may also be in the form of an assignment or a participation of all or a portion of a loan from a third party. A participation may involve counterparty exposure to the original bank.

Core Bond Plus Investment risks

Contingent Convertible Securities Risk – Contingent capital securities (CoCos) are fixed income securities that, under certain circumstances, either convert into common stock of the issuer or undergo a principal write-down by a predetermined percentage if the issuer's capital ratio falls below a predetermined trigger level. Due to contingent write-down, write-off, and conversion features of contingent capital and contingent convertible securities, such high-yielding instruments may have substantially greater risk than other forms of securities in times of credit stress. This action could result in a partial or complete loss even if the issuer remains in existence. In full principal write-downs of CoCos, for instance, bondholders could theoretically lose the value of their investment completely, even though the common equity of the bank retains (and perhaps eventually recovers) some value.

Convertible Securities Risk – Convertible securities are hybrid securities that combine the investment characteristics of bonds and common stocks, and may be exchanged or converted into a predetermined number of the issuer's underlying shares, the shares of another company, or shares that are indexed to an unmanaged market index at the option of the holder during a specified time period. Although to a lesser extent than with fixed income securities generally, the market value of convertible securities tends to decline as interest rates rise. Because of the conversion feature, the market value of convertible securities also tends to vary with fluctuations in the market value of the underlying shares and thus is subject to equity market risk as well.

Credit Derivatives Risk – Credit derivatives transfer price, spread and/or default risks from one party to another and are subject to additional risks including liquidity, loss of value, and counterparty risk. Payments under credit derivatives are generally triggered by credit events such as bankruptcy, default, restructuring, failure to pay, or acceleration. The market for credit derivatives may be illiquid, and there are considerable risks that it may be difficult to either buy or sell the instruments as needed or at reasonable prices. The value and risks of a credit derivative instrument depends largely the underlying credit asset. These risks may include price, spread, default, and counterparty.

Currency Risk – Active investments in currencies are subject to the risk that the value of a particular currency will change in relation to one or more other currencies. Active currency risk may be taken in an absolute, or a benchmark relative basis. Currency markets can be volatile, and may fluctuate over short periods of time.

Emerging Markets Risk – Investments in emerging and frontier countries may present risks such as changes in currency exchange rates; less liquid markets and less available information; less government supervision of exchanges, brokers, and issuers; increased social, economic, and political uncertainty; and greater price volatility. These risks are likely greater relative to developed markets.

Leverage Risk – Use of leverage increases portfolio exposure and may result in a higher degree of risk, including (i) greater volatility, (ii) greater losses from investments than would otherwise have been the case had leverage not been used to make the investments, (iii) margin calls that may force premature liquidations of investment positions.

Liquidity Risk – Investments with low liquidity may experience market value volatility because they are thinly traded (such as small cap and private equity or private placement bonds). Since there is no guarantee that these securities could be sold at fair value, sales may occur at a discount. In the event of a full liquidation, these securities may need to be held after liquidation date.

Model Risk – Model risk occurs when systematic and/or quantitative investment models used in investment decision making fail. These models may evolve over time and have risks related to mistakes in software or data inputs that could go undetected for a period of time before rectified. Models may fail to adequately measure or predict market risks or outcomes and could result in a loss of value or opportunity cost.

Core Bond Plus

Investment risks

Non-Investment Grade Risk – Lower rated securities have a greater risk of default in payments of interest and/or principal than the risk of default for investment grade securities. The secondary market for lower rated securities is typically less liquid than the market for investment grade securities, frequently with more volatile prices and larger spreads between bid and asked price in trading.

Options Risk – An option on a security (or index) is a derivative contract that gives the holder of the option, in return for the payment of a “premium,” the right, but not the obligation, to buy from (in the case of a call option) or sell to (in the case of a put option) the writer of the option the security underlying the option (or the cash value of the index) at a specified exercise price prior to the expiration date of the option. Purchasing an option involves the risk that the underlying instrument will not change price in the manner expected, so that the investor loses the premium paid. However, the seller of an option takes on the potentially greater risk of the actual price movement in the underlying instrument, which could result in a potentially unlimited loss rather than only the loss of the premium payment received. Over-the-counter options also involve counterparty risk.

Repo & Reverse Repo Risk – Both repurchase and reverse repurchase transactions involve counterparty risk. A reverse repurchase transaction also involves the risk that the market value of the securities the investor is obligated to repurchase may decline below the repurchase price.

Core Bond Plus

Important disclosures

Additional performance information

PAST INDEX OR THIRD PARTY PERFORMANCE DOES NOT PREDICT FUTURE RETURNS. There can be no assurance nor should it be assumed that future investment performance of any strategy will conform to any performance examples set forth in this material or that the portfolio's underlying investments will be able to avoid losses. The investment results and any portfolio compositions set forth in this material are provided for illustrative purposes only and may not be indicative of the future investment results or future portfolio composition. The composition, size of, and risks associated with an investment in the strategy may differ substantially from the examples set forth in this material. An investment can lose value.

Impact of fees

Illustration of impact of fees: If USD100,000 was invested and experienced a 10% annual return compounded monthly for ten years, its ending value, without giving effect to the deduction of advisory fees, would be USD270,704 with an annualized compounded return of 10.47%. If an advisory fee of 0.95% of average net assets per year were deducted monthly for the ten-year period, the annualized compounded return would be 9.43% and the ending USD value would be USD246,355. Information regarding the firm's advisory fees is available upon request.

Selection of representative account

The current representative account became effective on 1 October 2014 because it was the least restrictive account at the time of selection. For data shown prior to the current representative account effective date, data of the representative account(s) deemed appropriate for the time period was used. Further information regarding former representative accounts can be provided upon request. Each client account is individually managed; individual holdings will vary for each account and there is no guarantee that a particular account will have the same characteristics as described. Actual results may vary for each client due to specific client guidelines, holdings, and other factors. In limited circumstances, the designated representative account may have changed over time, for reasons including, but not limited to, account termination, imposition of significant investment restrictions, or material asset size fluctuations.

Access products

If access products are held by the portfolio they may not be included in the calculation of characteristic data. Access products are instruments used to gain access to equity markets not otherwise available and may include (but are not limited to) instruments such as warrants, total return swaps, p-notes, or zero strike options.

Additional disclosures

Securities indices are unmanaged and are not subject to fees and expenses typically associated with managed accounts or investment funds. Investments cannot be made directly into an index.

Risk model

Noether is an internal proprietary system that comprises a risk model, a stress testing and scenario framework, associated software and infrastructure to calibrate the model, and to perform risk calculations. Noether provides comprehensive and internally calibrated absolute return and benchmark relative ex ante risk measurement across all portfolios managed at Wellington along with an integrated stress testing and scenario analysis capability that leverages Noether's statistical risk model, which is a multi-asset class, globally specified multi factor risk model and covers all asset classes managed at Wellington, including equity, fixed income, multi-asset, and commodities. The projected tracking risk for portfolios is estimated by calculating the exposures of portfolios to the risk factors in the model, which include factors such as currency, yield curve, and credit spreads, based on the historical volatilities and correlations of these risk factors. Additional information is available upon request.

Benchmark definition

Bloomberg US Aggregate Bond: The Index measures the performance of the U.S. investment grade bond market.

Wellington Management
Composite: Core Bond Plus
Schedule of Performance Returns from 01 January 2014 to 31 December 2023

<i>Period</i>	<i>Gross Return (%)</i>	<i>Net Return (%)</i>	<i>Benchmark Return (%)</i>	<i>Number of Portfolios</i>	<i>Internal Dispersion (%)</i>	<i>Composite Mkt. Value (USD Mil)</i>	<i>Total Firm Assets (USD Mil)</i>
2014	6.17	5.80	5.97	14	0.2	9,208	914,109
2015	-0.07	-0.42	0.55	15	0.1	9,416	926,949
2016	4.85	4.48	2.65	15	0.3	8,691	979,210
2017	5.42	5.05	3.54	14	0.3	7,697	1,080,307
2018	-0.19	-0.54	0.01	15	0.1	7,911	1,003,389
2019	10.65	10.31	8.72	15	0.3	9,074	1,154,735
2020	9.65	9.32	7.51	14	0.4	11,185	1,291,419
2021	-0.54	-0.84	-1.54	15	0.1	11,908	1,425,481
2022	-13.86	-14.12	-13.01	15	0.3	9,320	1,149,360
2023	7.45	7.13	5.53	16	0.1	11,296	1,219,910

Benchmark: Bloomberg US Aggregate Bond

Composite Description: Portfolios included in the Core Bond Plus Composite seek to achieve a long-term total rate of return in excess of a broad US investment-grade fixed income benchmark such as the Bloomberg US Aggregate Bond Index by investing primarily in traditional US investment-grade fixed income securities, such as government bonds, corporate bonds, asset-backed securities and mortgage-backed securities. In addition, Core Bond Plus portfolios may make opportunistic investments in below investment grade and non-US dollar denominated instruments. The average duration of portfolios included in this composite generally range within +/- 1.5 years of the index duration. In times of increased market volatility, the composite characteristics may change significantly due to various risk factors. Key risks of this composite, in no particular order, include, but are not limited to, Asset/Mortgage-Backed Securities Risk, Commingled Fund Risk, Credit Risk, Derivatives Risk, Fixed Income Securities Risk, and Interest Rate Risk.

Composite Inception Date: The composite inception date is 31 March 1990.

Composite Creation Date: The composite creation date is April 1998.

Composite Membership: All fully discretionary, fee paying portfolios with at least US\$5.0 million in net assets are eligible for inclusion in the composite.

Composite Membership Change: As of November 2010 the account minimum for this composite changed to US\$5 million from no minimum.

Fee Schedule: Effective 1 March 2019 the institutional separate account fee schedule for this product is:

<u>Market Value</u>	<u>Annual Fee</u>
On the first US\$100 million	0.30%
Over US\$100 million	0.20

Benchmark Definition: Bloomberg US Aggregate Bond measures the performance of the U.S. investment grade bond market.

Derivatives/Leverage/Shorts: Derivative instruments are used only when and as client guidelines permit. When permitted by client guidelines, portfolios may use exchange-traded and over-the-counter derivative instruments, including interest rate, credit, index and currency futures; interest rate, total rate of return, credit default and currency swaps; currency, bond and swap options; deliverable and non-deliverable currency forward contracts; to-be-announced (TBA) securities, bonds for forward settlement, forward rate agreements and other derivative instruments for risk management purposes and otherwise in pursuit of the investment objective of the portfolios in the composite.

Typically, portfolios in the composite will use derivative instruments for hedging purposes or as substitutes for underlying cash positions, in pursuit of the approved investment strategy. In particular, derivative instruments are used as an efficient alternative to cash bonds in the implementation of duration, yield curve, security selection, sector rotation, country rotation and currency strategies. The net market value of derivative instruments typically does not exceed 25% of the assets of a portfolio in the composite.

Firm: For purposes of GIPS® compliance, the Firm is defined as all portfolios managed by Wellington Management Company LLP, an independently owned, SEC-registered investment adviser, as well as its affiliates (collectively, Wellington Management). Wellington Management provides investment advisory services to institutions around the world.

GIPS®: Wellington Management claims compliance with the Global Investment Performance Standards (GIPS®) and has prepared and presented this report in compliance with the GIPS® standards. Wellington Management has been independently verified for the periods 1 January 1993 to 31 December 2022. The verification reports are available upon request.

A firm that claims compliance with the GIPS standards must establish policies and procedures for complying with all the applicable requirements of the GIPS standards. Verification provides assurance on whether the firm's policies and procedures related to composite and pooled fund maintenance, as well as the calculation, presentation, and distribution of performance, have been designed in compliance with the GIPS standards and have been implemented on a firm-wide basis. Verification does not provide assurance on the accuracy of any specific performance report.

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Performance Calculation: Gross performance results are net of trading expenses. Returns are gross of withholding taxes on dividends, interest and capital gains and include reinvestment of any earnings. Returns, market values, and assets are reported in USD except when otherwise noted. Returns, market values and assets reported in currencies other than USD are calculated by converting the USD monthly return and assets using the appropriate exchange rate (official 4:00 p.m. London closing spot rates). Policies for valuing investments, calculating performance, and preparing GIPS composite reports are available upon request.

Net of fees performance reflects the deduction of the highest tier investment management fee ("model fee") that would be charged based on the fee schedule appropriate to you for this mandate, without the benefit of breakpoints and is calculated by subtracting 1/12th of the model fee from monthly gross composite returns. In certain instances Wellington Management may charge certain clients a fee in excess of the standard model fee, such as to legacy clients or clients receiving additional investment services. Performance net of model fees is intended to provide the most appropriate example of the impact management fees would have for you.

Pool investors will experience costs in excess of investment management fees, such as operating expenses and custodial fees. These indirect costs are not reflected in the model fee, or net of fees performance.

Wellington Management
Composite: Core Bond Plus
Schedule of Performance Returns from 01 January 2014 to 31 December 2023

Internal Dispersion: The dispersion measure presented is the asset-weighted standard deviation. The asset-weighted standard deviation measures the dispersion of individual portfolio gross returns relative to the asset-weighted composite return. Only portfolios that have been included in the composite for the full period are included in the standard deviation calculation. Limitations imposed by client guidelines or by law on a portfolio's ability to invest in certain securities or instruments, such as IPO securities, and/or implementation of the firm's Trade Allocation Policies and Procedures, may cause the portfolio's performance to differ from that of the composite.

External Dispersion: The dispersion measure presented is the three-year annualized ex-post standard deviation. It measures the variability of the composite gross returns and the benchmark(s) over the preceding 36-month period. For periods prior to 1 January 2011, the Firm was not required to present the three-year annualized ex-post standard deviation.

3-Year Standard Deviation (%)										
Year	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Composite	3.05	3.13	3.04	2.80	2.71	2.60	4.04	4.13	6.82	7.77
Benchmark	2.63	2.88	2.98	2.78	2.84	2.87	3.36	3.35	5.77	7.14

Composite Listing: Wellington Management's list of composite descriptions is available upon request.

Pooled Fund Listing: Wellington Management's list of pooled fund descriptions is available upon request.

Other Matters: This material contains summary information regarding the investment approach described herein and is not a complete description of the investment objectives, policies, guidelines, or portfolio management and research that supports this investment approach. Any decision to engage Wellington Management should be based upon a review of the terms of the investment management agreement and the specific investment objectives, policies, and guidelines that apply under the terms of such agreement.

Past Performance: Past performance does not predict future returns. An investment can lose value.

Important Notice

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MEMORANDUM

TO: Oakland Police and Fire Retirement System (“PFRS” or “the Board”)
FROM: Meketa Investment Group (“Meketa”)
DATE: February 26, 2025
RE: Selection of New Core Plus Fixed Income Investment

At the July 2024 meeting, the Board approved a search process to identify the most attractive candidates to manage PFRS’s two Core and two Core Plus mandates. At the January 2025 meeting, the Board approved Meketa’s recommended list of three finalist firms for interviews and delegated to the Investment Committee to conduct them.

This document serves to further implement the Board’s decision and to provide an overview of the candidates and their strategies. Meketa recommends that the Board select two managers for the Core Plus Fixed Income mandate at the completion of the search process.

Overview of Finalists

The three Core Plus Fixed Income finalist candidates are as follows, in alphabetical order:

- Income Research & Management
- Reams Asset Management¹
- Wellington Management Company²

All three managers and their products possess the abilities to provide PFRS with the appropriate services. The following table summarizes their key information about the firms and the proposed products. Summary profiles are also included in the following pages.

	IR+M	Reams	Wellington
Firm Location	Boston, MA	Indianapolis, IN	Boston, MA
Firm Inception	1987	1981	1982
Firm AUM³	\$109.0 billion	\$28.6 billion	\$1.2 trillion
Ownership Structure	Employee-owned	Publicly Traded	Limited Liability Partnership
Strategy Name	Core Plus	Core Plus	Core Bond Plus
Strategy Inception	July 2017	June 1981	March 1990
Strategy AUM²	\$2.3 billion	\$9.8 billion	\$21.4 billion
Investment Vehicle	Commingled (Private Investment Fund) or Separate Account	Separate Account	Commingled Fund
Liquidity	Daily	Daily	Daily
Fee Schedule⁴	0.19% for the first \$250M, 0.16% on the next \$250M, 0.13% on the next \$250M, 0.10% thereafter	0.20% for the first \$150M, 0.15% thereafter	0.20% (0.15% Management Fee on AUM plus Operating Expense capped at 0.05%)

¹ Reams is an incumbent manager with a Core Plus Fixed Income mandate

² Wellington is an incumbent manager with a Core Fixed Income mandate.

³ Firm and Strategy AUM (Asset Under Management) are as of December 31, 2024. Source: eVestment.

⁴ Ream’s fee schedule is the current fee schedule in place which would continued under a new contract for a Core Plus account. Wellington’s fee schedule is the discounted fee schedule for the commingled fund vehicle available to Meketa’s clients. Wellington Operating Expenses are capped at 5bps but was about 1.4bps as of 09/30/2024.

**Minimum Account Size**\$50 million (Separate Account)
\$5 million (Commingled)

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Income Research & Management

Organization

→ Income Research + Management (“IR+M”) was founded in 1987 by John and Jack Sommers to specialize in the US dollar-denominated fixed income market. The firm is independent and privately owned since the firm’s inception in 1987. IR+M is currently owned by 73 employees (90% ownership) and members of the Sommers family (10% ownership). As of 2024 year-end, the firm has about \$109.0 billion in assets under management.

Investment Team

- IR+M takes a team approach to managing portfolios involving all members of the Investment Team in a strategy to the extent that their sector of expertise is utilized within the portfolio’s guidelines. Portfolio Managers, Directors, Strategists, Analysts, and Trader’s work within their respective specialties—Sector Management, Portfolio Management, Investment Risk, and Investment Product Management - to manage portfolios.
- Many of the sector-specialist research team members have been at the firm and working within their assigned sectors for many years.
- Credit Research Team consists of the Director of Credit Research and twelve Research Analysts. Each analyst covers between 40–50 core credits depending on their sector coverage, which is assigned at the industry level. Analyst coverage includes current investments as well as credits that are a meaningful part of the benchmark or have potential to be an attractive future investment opportunity, including out of benchmark securities.
- Securitized Research Team consists of the Director of Securitized Research and four Research Analysts. The Securitized Research Analysts cover between 20–35 unique core shelves within each sector (ABS, CMBS, RMBS and US Agency-backed). Analyst coverage includes current investments along with those that have the potential to be part of the investment strategy in the future.
- Investment Team also includes 5 dedicated Traders who are responsible for trading activity within their assigned sectors. The trade execution process is fully integrated into the overall investment process.

Philosophy

→ The investment philosophy is applied consistently across all of IR+M strategies and is based on the belief that careful security selection and active portfolio risk management will lead to superior returns over the long-term (e.g., a market cycle). IR+M believes that predicting the timing, direction, and magnitude of future interest rate changes is very difficult to consistently predict, and therefore the investment process keeps duration and yield curve exposure neutral to the benchmark.

Process

- Portfolios are constructed to meet client objectives by using a disciplined, bottom-up approach to selecting securities from US-dollar denominated fixed income sectors. The bottom-up security selection-driven process provides consistency over time relative to potentially more volatile macro decisions.
- With a team-based approach to constructing portfolios by employing a bottom-up security selection process with a disciplined risk overlay, IR+M aims to selectively purchase attractive, inefficiently priced securities that, when combined together in a portfolio, provide attractive expected return, reasonable risk exposures, and necessary liquidity.
- In analyzing each bond for potential investment, three key attributes are focused: Credit, Structure, and Price.

Reams Asset Management

Organization

- Reams Asset Management was established in 1981 as an independent, employee-owned investment management firm. Since the firm's inception, Reams has managed domestic fixed income portfolios for institutional clients.
- Reams is a subsidiary of Scout Investments which in turn is ultimately owned by Raymond James Financial, Inc. (NYSE: RJF), a financial holding company, whose principal subsidiaries include brokerage, a bank, investment banking/advisory, public finance, asset management.
- As of 2024 year-end, the firm has about \$28.6 billion in assets under management.

Investment Team

- Reams uses a model portfolio and "team" approach toward management of its fixed income assets. Using the model portfolio process, accounts with similar objectives will be nearly identical in terms of holding and weight.
- Mark Egan, Todd Thompson, and Dimitri Silva, in their roles as managing directors of the fixed income investment team, are primarily responsible for overseeing all bond-related investment research conducted by the firm's fixed income investment staff. The managing directors, together with Neil Aggarwal, Jason Hoyer, and Clark Holland, the firm's other fixed income portfolio managers, head up all research and portfolio management efforts, perform research on individual securities, and implement decisions on a team basis with respect to portfolio structure and issue selection. Reams views trading as an integral part of the portfolio management process, so all investment team members participate in trading activities.
- In the corporate sector, credit analysts are assigned specific industries for coverage. Within each industry, analysts cover both investment grade and high yield rated companies and all investment and security vehicles represented by the companies, including credit default swaps, term loans and convertible debt. Each of the five rotating credit analyst positions cover 100-125 industry leading issuers in depth. A thorough understanding of these multi-line companies provides insights that enhance research on opportunities in smaller, specialty issuers.

Philosophy

- Reams' investment philosophy is based on the premise that volatility is a key driver of performance in the fixed income market. Volatility is usually higher than commonly perceived and is often mispriced in the marketplace.
- From this core belief, Reams adopts a focus on long-term value and "total return," employ macro and bottom-up strategies to uncover unique opportunities and react opportunistically to valuation discrepancies and volatility in the bond market.

Process

- Reams manages fixed income portfolios in three steps with a combination of top-down and bottom-up.
- The first step is the duration decision, which is based on a model in which current inflation-adjusted interest rates are evaluated relative to historical norms. With this step, the portfolio's overall duration and yield curve characteristics are established.
- The second step of the investment process is to consider sector exposures. A bottom-up issue selection process is the major determinant of sector exposure, as the availability of attractive securities in each sector determines their underweighting or overweighting in the portfolio subject to sector exposure constraints. However, for the more generic parts of the portfolio, such as agency notes and mortgage pass-throughs, top-down considerations will drive the sector allocation process on the basis of overall measurements of sector value such as yield spreads or price levels.
- The third step in the investment process is individual security selection. Bottom-up issue selection is based on a scenario analysis to identify what bonds might be likely to perform best under possible interest rate and credit scenarios. The investment team then compares investment opportunities and the portfolio is assembled from the best values.

Wellington Management Company

Organization

- Wellington Management Group is an independent, private partnership. The firm is owned by 193 partners as of July 1, 2024, all of whom are fully active in the firm. New partners are elected annually, and current partners withdraw in either June or December, after pre-notification to the Managing Partners and development of a succession plan. The Managing Partners are responsible for the governance of the partnership. Oversight of the business of the company is currently the responsibility of Jean Hynes, Chief Executive Officer, and the firm's Executive Committee. No further changes are currently planned.
- As of 2024 year-end, the firm has about \$1.2 trillion in assets under management.

Investment Team

- Wellington has managed dedicated Core Bond portfolios since 1984 and dedicated Core Bond Plus portfolios since 1990. Joe Marvan leads portfolio manager on the approach and has worked on these strategies since he joined the firm in 2003.
- The Broad Markets Team responsible for the Core Bond Plus approach comprises four senior portfolio managers Joe Marvan, Campe Goodman, Rob Burn, Brij Khurana, and Jeremy Forster who are also involved in managing Core Bond, Intermediate Bond, Multi-Sector Credit, and Inflation-Linked portfolios.
- As research resources and ideas are shared throughout the firm, the Investment Team also makes use of Wellington Management's investment professionals engaged in global research and portfolio management. Included among these resources are 42 fixed income credit analysts, 58 global industry analysts, 13 macro strategists, and 41 fixed income traders as of 30 September 2024. A variety of other resources from around the firm, such as the bi-weekly Macro Meeting, are also utilized.

Philosophy

- The Core Bond Plus philosophy is based on three key tenets: diversification, specialization, and risk control.
- **Diversification:** that the best results are achieved when multiple active positions are in the portfolio, all of which can help add to returns, but no one of which should dominate the portfolio's alpha over time.
- **Specialization:** that the investors are successful when they are focused on a particular area and are given clear precise objectives. As such, the portfolio uses many specialist investors looking closely across the market.
- **Risk Control:** that an emphasis on risk-control with a particular focus on drawdown management throughout the investment process is essential. Risk is viewed from many different dimension perspectives and have a systematic process for managing risks as they evolve.

Process

- Wellington uses both top-down and bottom-up approaches.
- The Broad Market Team uses a common process to arrive at their fundamental investment views across all strategies it manages, though positioning and overall risk exposure vary depending on each strategy's investment universe and return and risk objectives.
- The team develops a shared view on interest rates and sector strategies implemented across products as appropriate to the mandates. The expertise of sector specialist portfolio managers are leveraged for security selection ideas within each of the sector allocations.
- Each portfolio is assigned both a lead portfolio manager and a backup portfolio manager who are responsible for blending the top-down strategies set by the Broad Markets Team with the bottom-up strategies and security selection driven by the sector specialists within individual client portfolios. The lead portfolio manager is ultimately accountable to clients for all risks in their portfolios and works to ensure that portfolio construction aligns with individual client objectives and guidelines.
- Risk is monitored throughout the process and managed at the security, sector, and total portfolio level.

DS/PN/JLC/mn

Economic and Market Update

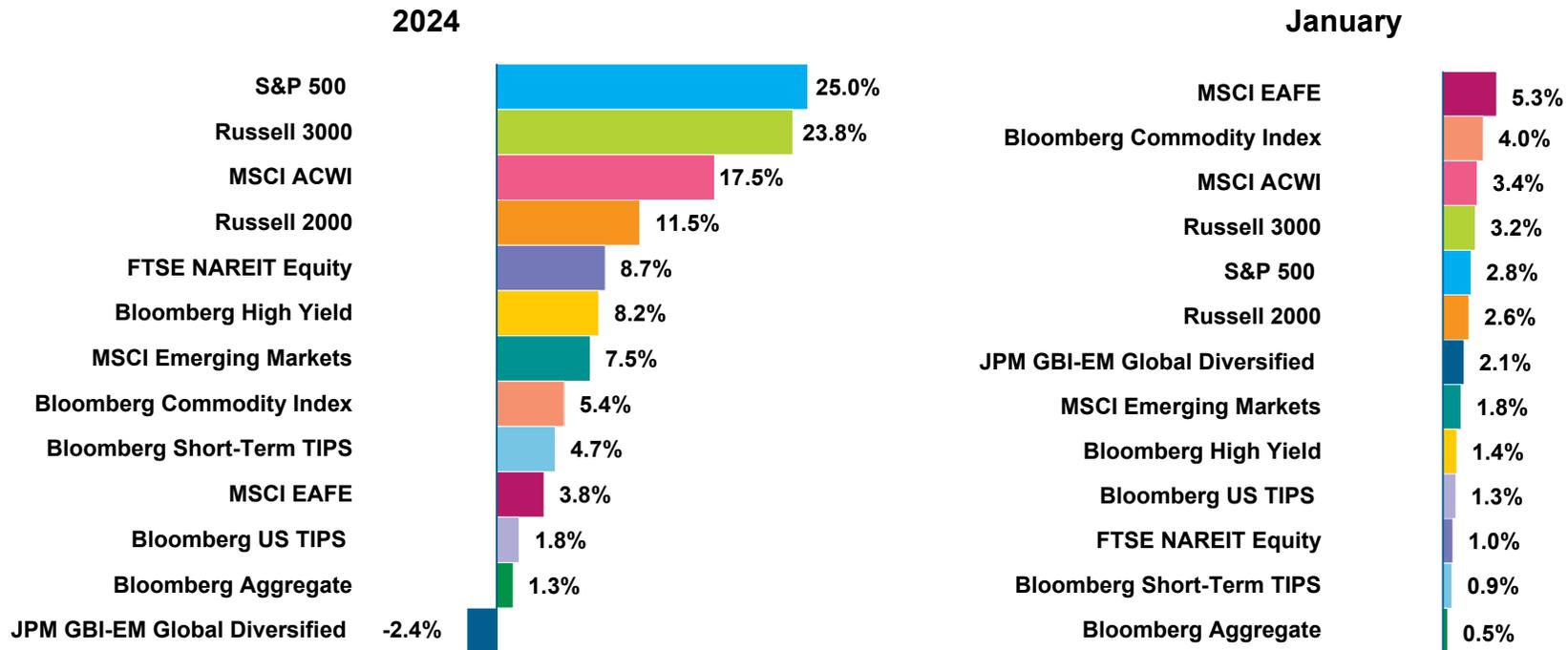
January 2025 Report

Commentary

Equity and bond markets posted gains in the first month of 2025 after a largely positive 2024.

- Domestic equity markets (Russell 3000) returned 3.2% in January. Technology stocks sold off, then recovered in the last week of the month as the release of Chinese AI application – DeepSeek-R1 – challenged market expectations for US technology stocks.
- Non-US developed market stocks (MSCI EAFE +5.3%) led the way in January, supported by rate cuts from the ECB and a rotation out of the US tech sector.
- Emerging market equities returned +1.8% for the month, underperforming developed markets given tariff risks from the US, particularly toward China.
- The Federal Reserve held policy rates steady in January as inflation remains above the target level and the labor market continues to be relatively healthy.
- Most fixed income markets posted positive returns to start the year, with high yield bonds (+1.4%) and TIPS (+1.3%) outperforming the broad US bond market (Bloomberg Aggregate +0.5%).
- Looking ahead, uncertainty related to the Trump Administration’s policies and their impact on the economy, inflation, and Fed policy will be key. The path of China’s economy and concerns over elevated valuations and technology-driven concentration in the US equity market will also be important focuses of 2025.

Index Returns¹



→ In 2024, most major assets classes appreciated, led by the S&P 500's 25.0% return.

→ To start the year, all asset classes posted gains with equities generally leading the way. In a reversal of the prior trend, non-US developed markets were the top performer` given pressures on the tech sector in the US.

¹ Source: Bloomberg. Data is as of January 31, 2025.

Domestic Equity Returns¹

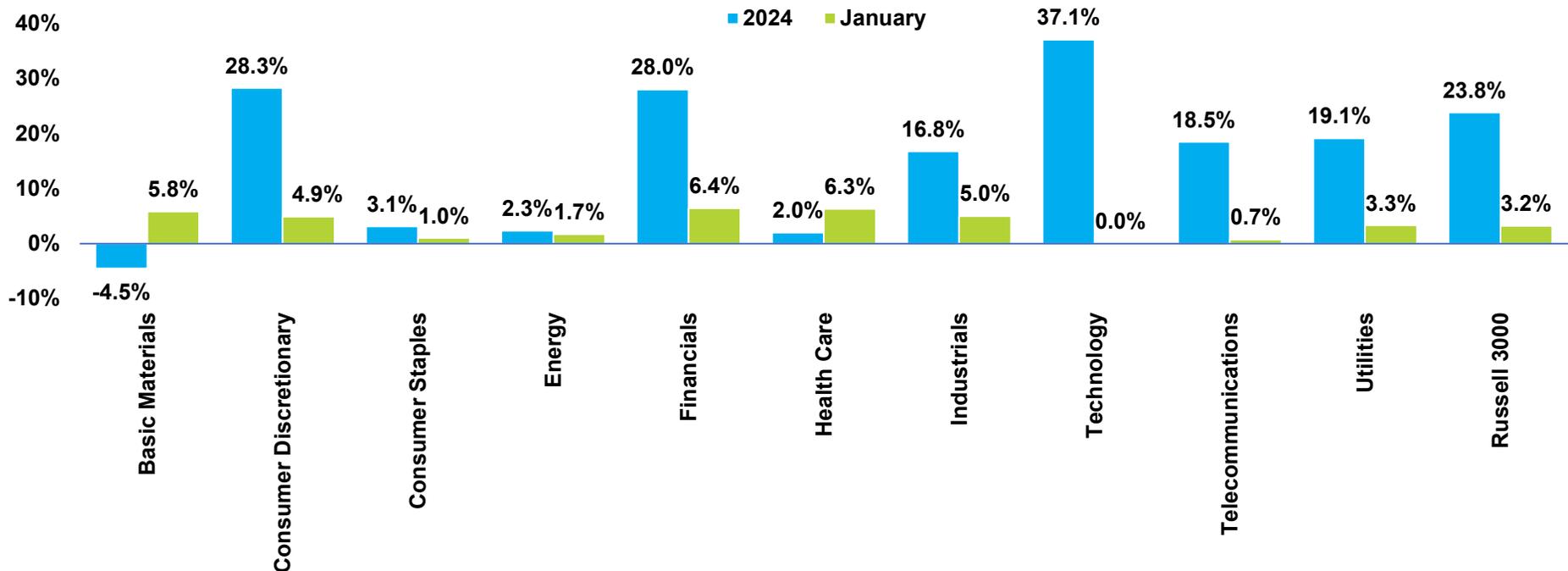
Domestic Equity	January (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	2.8	26.4	11.9	15.1	13.7
Russell 3000	3.2	26.3	11.3	14.6	13.2
Russell 1000	3.2	26.7	11.7	15.0	13.5
Russell 1000 Growth	2.0	32.7	14.6	18.9	17.2
Russell 1000 Value	4.6	19.5	8.1	10.1	9.4
Russell MidCap	4.3	22.0	8.0	11.0	10.2
Russell MidCap Growth	6.4	30.6	11.2	12.6	12.4
Russell MidCap Value	3.5	19.2	6.6	9.8	8.6
Russell 2000	2.6	19.1	5.6	8.7	8.4
Russell 2000 Growth	3.2	22.7	6.2	7.8	8.7
Russell 2000 Value	2.1	15.5	4.7	8.9	7.8

US Equities: The Russell 3000 rose 3.2% in January, bringing the one-year return to +26.3%.

- US stocks rose 3.2% for the month, driven in part by bank earnings. JP Morgan, Wells Fargo, and Citigroup all advanced more than 10% after reporting strong quarters.
- The “Magnificent 7” stocks diverged during January amid a disruption to the AI narrative by Chinese firm DeepSeek. Meta, Amazon, and Alphabet were the top performers in the Russell 3000 index for the month. Microsoft, Apple, and NVIDIA were among the largest detractors.
- Growth stocks continued to outperform value stocks within the mid cap and small cap markets, but trailed in large cap given the issues in the tech sector. While large cap stocks continued to outperform small cap stocks, mid cap stocks outperformed both groups. These stocks benefitted versus the large cap sector due to the lower exposure to the weaker “Magnificent 7” stocks. Relative performance against small cap was driven by increased exposure to select software and capital markets companies.

¹ Source: Bloomberg. Data is as of January 31, 2025.

Russell 3000 Sector Returns¹



- The release of the Chinese AI Model (DeepSeek-R1) in late January roiled US technology stocks with Nvidia losing 16% of its market share in a single day; technology stocks recovered after their sell-off but still lagged other sectors in January.
- Outside of technology, all sectors rose in January on continued US consumer and economic strength.
- Financials (+6.4%) led the way, driven by strong earnings reports from large banks. Health care (+6.3%) and basic materials (+5.8%) also posted strong returns.

¹ Source: Bloomberg. Data is as of January 31, 2025.

Foreign Equity Returns¹

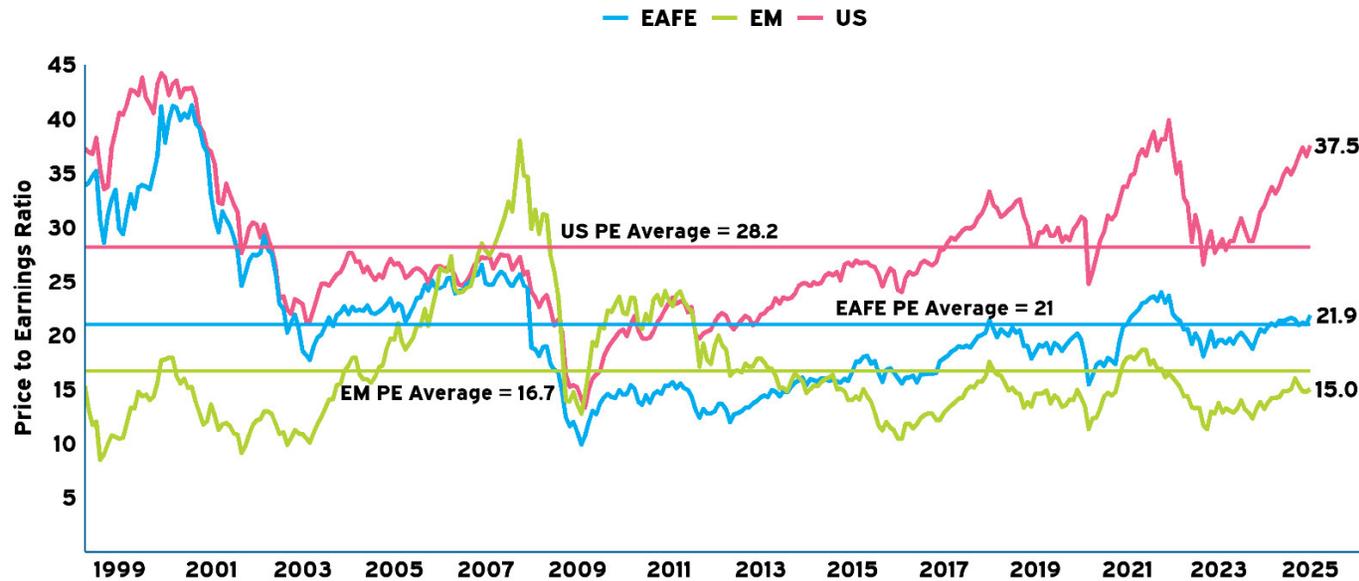
Foreign Equity	January (%)	1 YR (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI Ex US	4.0	10.9	3.4	5.5	5.2
MSCI EAFE	5.3	8.7	5.1	6.2	5.7
MSCI EAFE (Local Currency)	4.8	13.7	9.3	8.8	7.3
MSCI EAFE Small Cap	3.4	7.1	0.4	3.6	5.9
MSCI Emerging Markets	1.8	14.8	-0.7	3.0	3.8
MSCI Emerging Markets (Local Currency)	1.6	19.1	2.8	5.6	6.0
MSCI EM ex China	2.1	8.5	1.3	5.9	4.9
MSCI China	0.9	34.8	-4.9	-2.3	1.7

Foreign Equity: Developed international equities (MSCI EAFE) returned 5.3% in January and emerging market equities (MSCI Emerging Markets) rose 1.8%.

- Developed equities outperformed US and emerging market peers in January. Eurozone equities saw the highest returns globally, bolstered by rate reductions from the ECB and a lower weight to the tech sector. UK equities followed shortly behind, also benefiting from the rotation out of large cap tech stocks in the US. Japan was the weakest performer in January, at 0.1%, due in part to concerns over potential tariffs from the US given it has an export-focused economy.
- Emerging markets saw modest gains but lagged international developed market and US peers for the month given tariff concerns from the US. China saw slightly positive returns as dynamics in the tech sector and economic stimulus were balanced by ongoing tensions with the US and a sluggish economy. South Korea saw strong returns as political turmoil ebbed, while India faced its fourth consecutive month of declines given growth concerns.

¹ Source: Bloomberg. Data is as of January 31, 2025.

Equity Cyclically Adjusted P/E Ratios¹



- Valuations in US stocks remained at a significant premium to non-US developed and emerging market stocks at the start of 2025.
- US stocks, priced at 37.5 times earnings, continue to trade well above their long-run P/E average of 28.2.
- Non-US developed market valuations (21.9 times) are trading near their long-term average. Emerging market stock valuations (15.0 times) are below their long-run 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: Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of January 2025. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end, respectively.

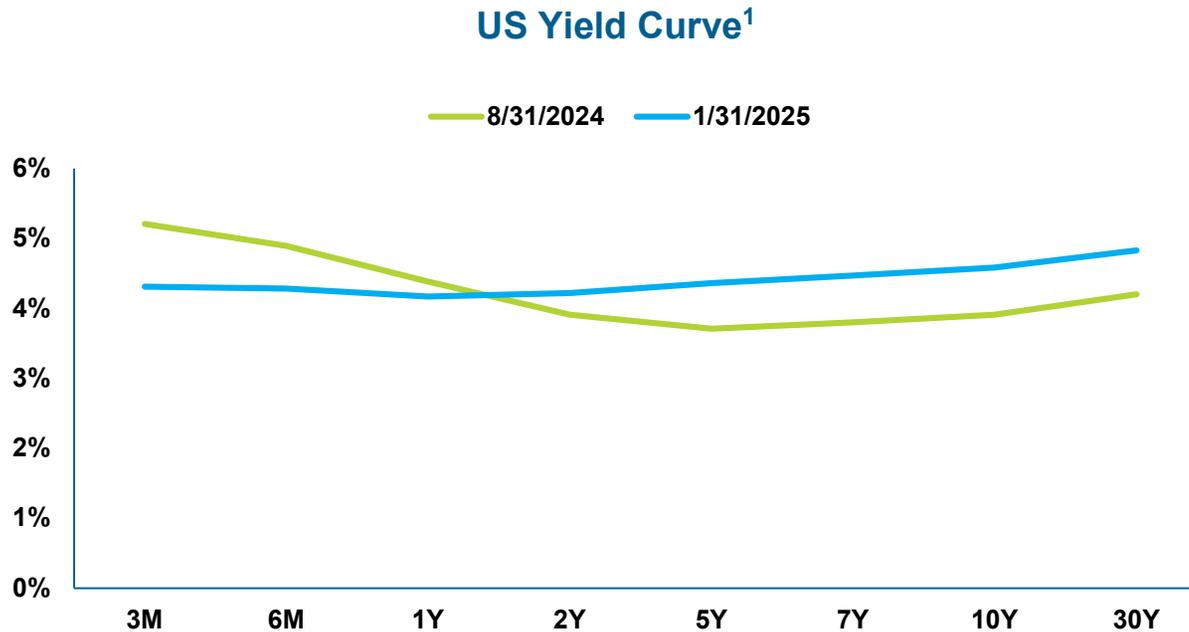
Fixed Income Returns¹

Fixed Income	January (%)	1 Yr (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	0.6	2.9	-1.0	-0.2	1.6	5.1	5.9
Bloomberg Aggregate	0.5	2.1	-1.5	-0.6	1.2	4.9	6.1
Bloomberg US TIPS	1.3	3.0	-1.2	1.7	2.1	4.6	6.8
Bloomberg Short-term TIPS	0.9	5.2	2.6	3.4	2.6	4.4	2.6
Bloomberg US Long Treasury	0.4	-3.9	-10.6	-6.4	-1.4	4.9	14.8
Bloomberg High Yield	1.4	9.7	4.3	4.5	5.2	7.2	3.3
JPM GBI-EM Global Diversified (USD)	2.1	1.2	-0.3	-1.2	0.6	--	--

Fixed Income: The Bloomberg Universal index rose 0.6% in January.

- After an initial increase in rates at the start of the month, they fell after and fixed income indexes provided positive returns for the month. This dynamic was driven by initial concerns over the potential inflationary impacts of the new administration's policies followed by a flight to quality on the news of Chinese AI technology.
- The broad US bond market (Bloomberg Aggregate) rose 0.5% in January, with TIPS outperforming as inflation risks remain elevated.
- High yield bonds and emerging market debt outperformed as investor risk appetite remained robust.

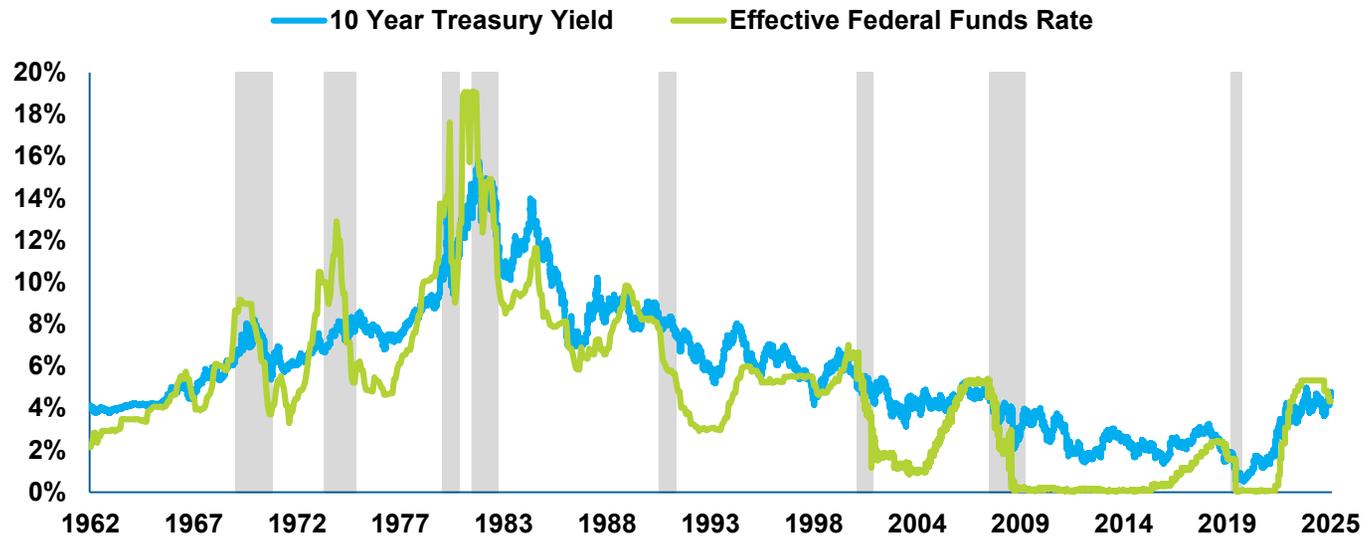
¹ Source: Bloomberg. Data is as of January 31, 2025. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration, respectively. JPM GBI-EM data is from J.P. Morgan. Current yield and duration data is not available.



- With the exception of the very shortest maturities, US Treasury yields declined slightly over the month.
- The more policy sensitive 2-year Treasury yield moved from 4.24% to 4.20%, while the 10-year Treasury yield declined from 4.57% to 4.54%.
- After the Fed started reducing interest rates in September 2024, the yield curve stopped being inverted (short-term interest rates higher than long-term interest rates) given expectations for the Fed to continue to reduce rates amid resilient economic growth and persistent inflation.

¹ Source: Bloomberg. Data is as of January 31, 2025. The August 2024 Treasury yields are shown as a reference before the first interest rate cut.

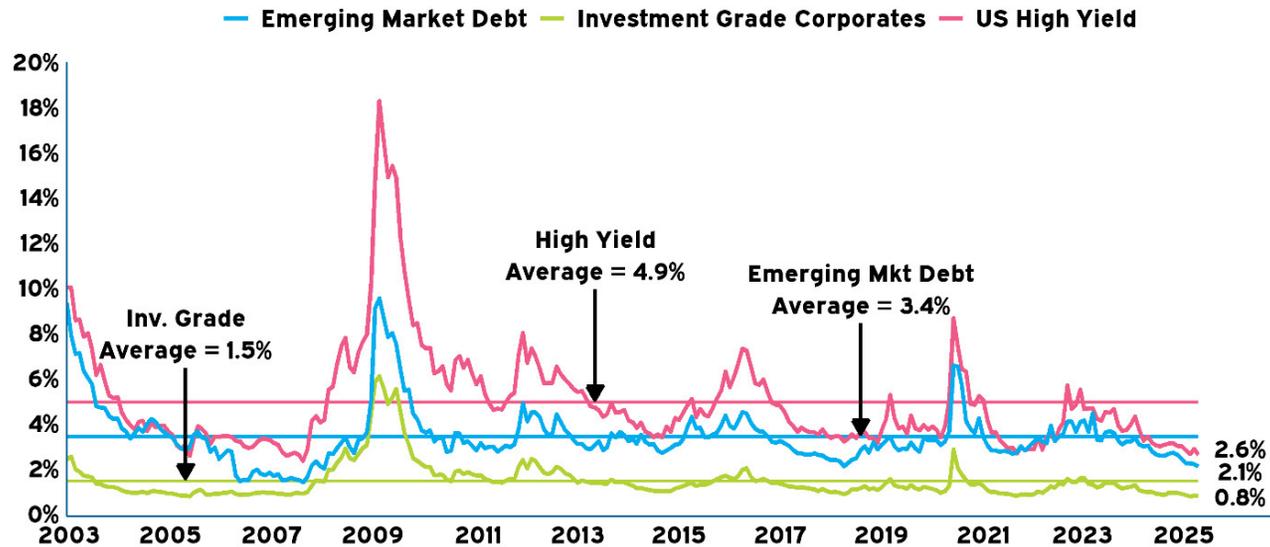
10-Year Treasury Yield versus Fed Funds Rate¹



- Typically, when the Fed cuts interest rates, the yield on the ten-year Treasury follows, as rate cuts often come in an environment of falling inflation and rising unemployment.
- The recent dynamic has been very unusual with the Fed cutting interest rates by a total of 1.0% since September and the 10-year Treasury increasing by a similar amount over the same period.
- Inflation concerns and broad uncertainty about the future path of interest rates (also known as “term premium”) are the key factors driving this dynamic.

¹ Source: FRED. Data is as of January 31, 2025.

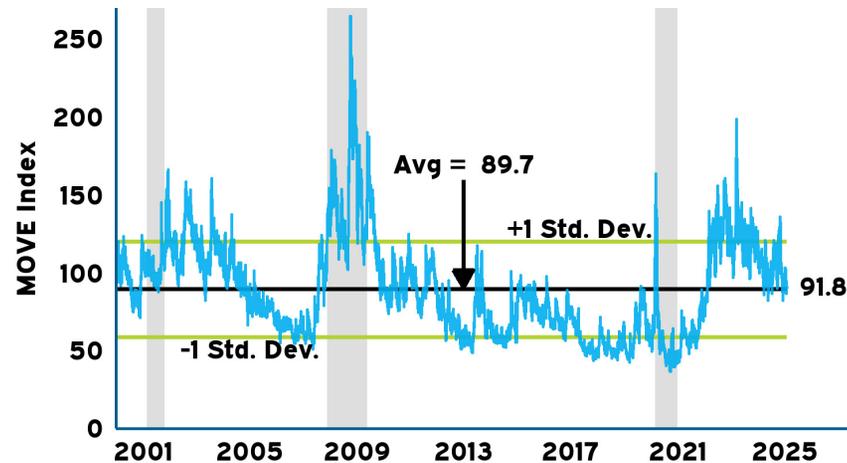
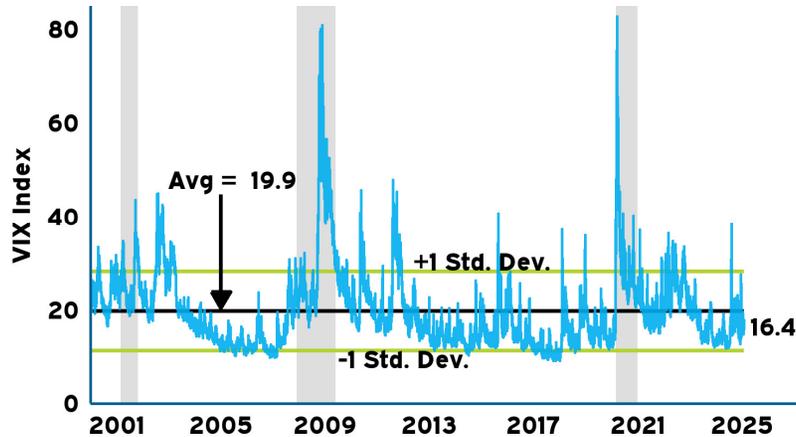
Credit Spreads vs. US Treasury Bonds¹



- Spreads (the yield above a comparable maturity Treasury) continued to tighten in January for riskier bonds, and were stable for investment grade issues.
- All yield spreads remained below their respective long-run averages, particularly high yield (2.6% versus 4.9%).
- Although spreads are tight, absolute yields remain at above-average levels compared to the last two decades.

¹ Source: Bloomberg. Data is as January 31, 2025. Average lines denote the average of the investment grade, high yield, and emerging market spread values from September 2002 to the recent month-end, respectively.

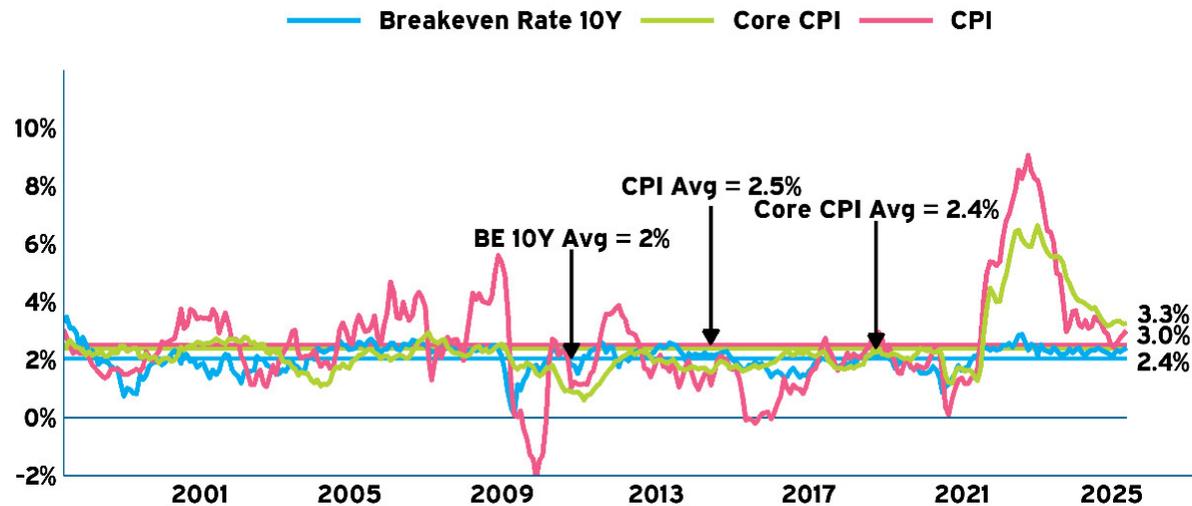
Equity and Fixed Income Volatility¹



- Bond and equity volatility declined in January despite tech stock volatility and policy uncertainty.
- Volatility levels (VIX) in the US stock market finished January below its long-run average, while volatility in the bond market (MOVE) finished the month slightly above its long-run average.

¹ Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of January 31, 2025. The average line indicated is the average of the VIX and MOVE values between January 2000 and January 2025.

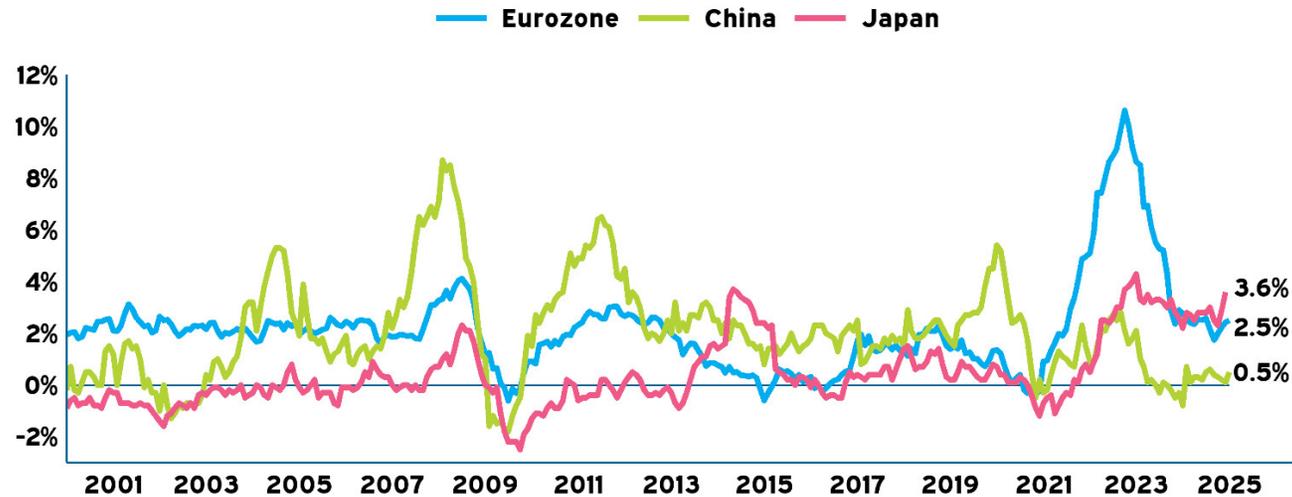
US Ten-Year Breakeven Inflation and CPI¹



- In January, inflation surprised to the upside across most categories. Month-over-month (mom) inflation came in at 0.5% compared to a 0.3% expectation, while 12-month inflation was expected to stay stable at 2.9% but increased to 3.0%.
- Shelter (+0.4% mom) accounted for 30% of the monthly gain and contributed to the surprise in inflation. Energy prices also rose (+1.1% for the month), while food increased 0.4% over the same period.
- In January, core inflation (excluding food and energy) rose 0.4% lifting the 12-month gain to 3.3%, slightly above December's year-over-year 3.2% reading and expectations of a decline to 3.1%.
- Inflation expectations (breakevens) rose over the quarter from the September lows of 2.0%, on continued uncertainty regarding the likelihood and magnitude of the new administration's policies.

¹ Source: FRED. Data is as of January 2025. The CPI and 10 Year Breakeven average lines denote the average values from February 1997 to the present month-end, respectively. Breakeven values represent month-end values for comparative purposes.

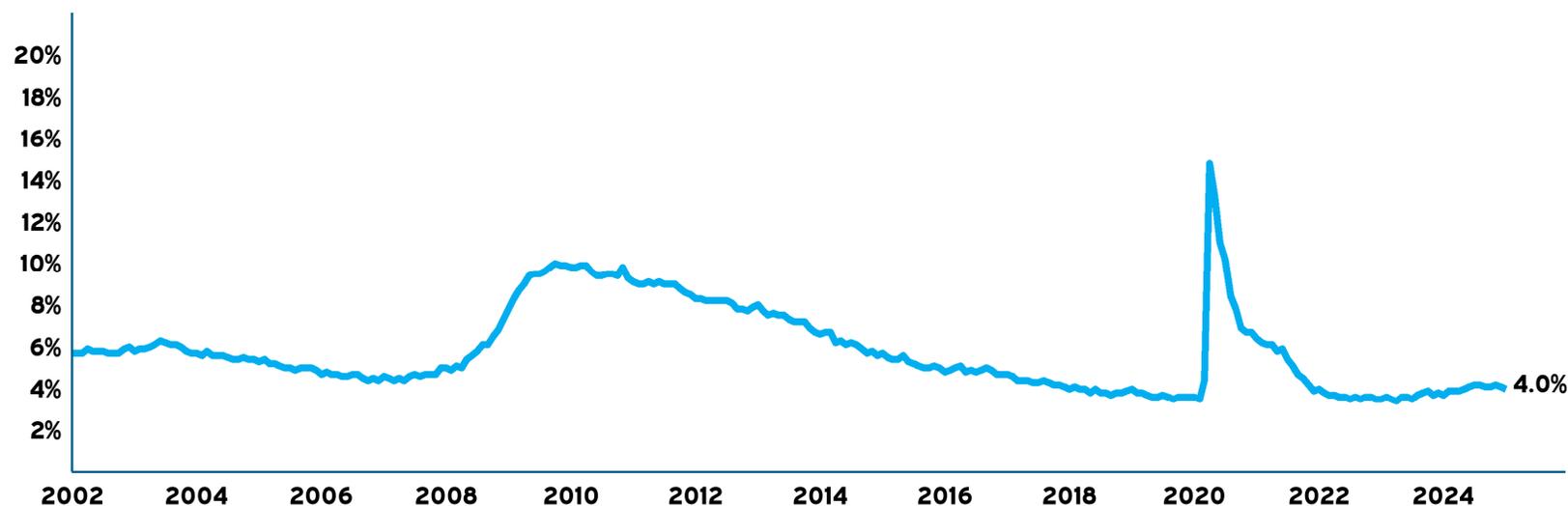
Global Inflation (CPI Trailing Twelve Months)¹



- In the eurozone, inflation increased each month since last September, but levels remain below the US. The increase has been largely driven by last year's significant fall in energy prices no longer being included in the calculation.
- In the latest reading of inflation in Japan, it rose from 2.9% to 3.6% due in part to an increase in food prices and the end of energy subsidies driving electricity and gas prices higher.
- After four months of declines, inflation in China increased in January from 0.1% to 0.5% (above expectations) driven by the Lunar New Year and recent stimulus. Despite the rise, inflation levels remain only slightly positive in China as the economy slows and consumers pulls back.

¹ Source: Bloomberg. Data is as January 2025, except Japan which is as of December 2024.

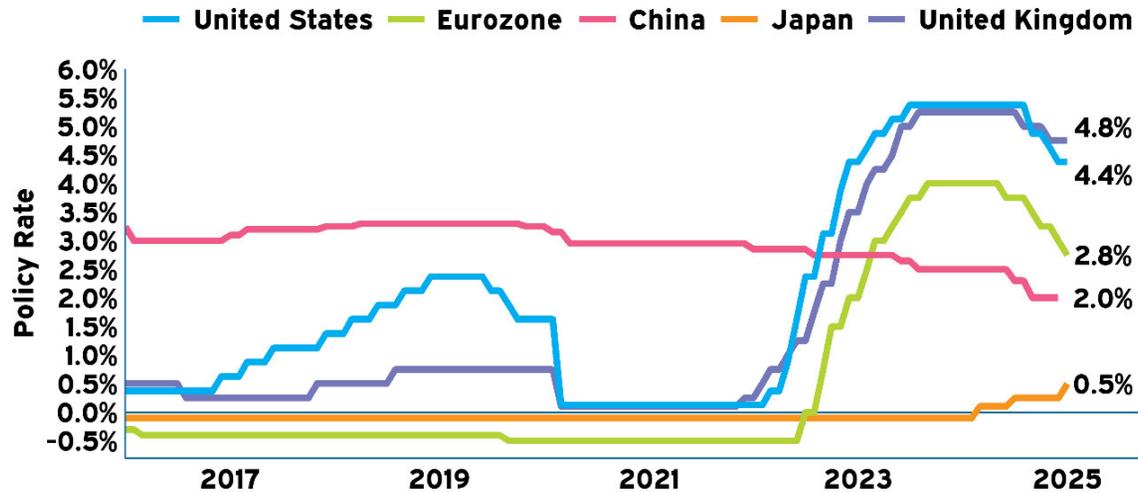
US Unemployment¹



- The unemployment rate fell slightly in January to 4.0% (it was expected to stay at 4.1%) as the annual population adjustment was made. The economy added 143,000 jobs, below expectations of 175,000, but prior month job gains were revised higher by 51,000 jobs to 307,000 jobs added in December 2024.
- In January, the health care (+44K), retail (+34K), and government (+32K) sectors added the most jobs.
- The last reading of job openings fell from 8.1M to 7.6M, a level well below the pandemic highs (>12M); the number of openings exceeds the number of unemployed workers looking for work (6.9M).
- Separations (5.3M) and hires (5.5M) remained steady and average hourly wages continued to grow at approximately 4.2% a year.

¹ Source: FRED and BLS. Data is as of January 31, 2025.

Policy Rates¹



- In the US, the Fed kept interest rates steady at their January meeting after reducing interest rates by 0.25% twice over the final quarter of 2024 to a range of 4.25% to 4.50%. Going forward, questions remain about the timing and amount of additional cuts (if any) given the strength of the economy and persistent above-target inflation.
- After month-end, the Bank of England cut interest rates for the third time by 0.25%, while the European Central Bank cut rates by another 0.25% in January. The People's Bank of China also continues to maintain measures to try to stimulate the economy.
- In contrast to many other central banks, the Bank of Japan increased interest rates in January, in the face of persistent inflation. Rate cutting by other major central banks are complicating prospects for further policy rate hikes in Japan.

¹ Source: Bloomberg. Data is as of January 31, 2025 except China Rate is as of December 31, 2024. United States rate is the mid-point of the Federal Funds Target Rate range. Eurozone rate is the ECB Deposit Facility Announcement Rate. Japan rate is the Bank of Japan Unsecured Overnight Call Rate Expected. China rate is the China Central Bank 1-Year Medium Term Interest Rate. UK rate is the UK Bank of England Official Bank Rate.

US Dollar vs. Broad Currencies¹



- The strength of the US dollar persisted in the first month of 2025 as the Fed paused its rate cutting while other central banks continued to cut interest rates.
- A rise in interest rates driven by potential inflationary impacts of proposed higher tariffs, lower taxes, and immigration policies from the new US administration has led to the dollar's recent gains.

¹ Source: Bloomberg. Data as of January 31, 2025.

Summary

Key Trends:

- According to the International Monetary Fund's (IMF) October report, global growth in 2025 is expected to be similar to 2024 at around 3.2%, with most major economies predicted to avoid a recession.
- Questions remain about what policies will be implemented by the new administration in the US. Although deregulation and tax cuts could support growth, these policies, along with higher tariffs and restrictive immigration, could fan inflation. This will likely lead to additional uncertainty regarding the timing and pace of interest rate cuts in the coming year.
- US consumers could feel pressure as certain components of inflation (e.g., shelter) remain high, borrowing costs stay elevated, and the job market may weaken further.
- A focus for US equities going forward will be whether earnings can remain resilient if growth slows. Also, the future paths of the large technology companies that have driven market gains will be important.
- We have started to see divergence in monetary policies. The Fed is likely going to cut interest rates at a much slower pace than previously expected with the chance of no further cuts in 2025. On the other hand, additional rate cuts are expected from the European Central Bank and the Bank of England, while the Bank of Japan has increased interest rates. This disparity will likely influence capital flows and currencies.
- China appears to have shifted focus to more policy support for the economy/asset prices with a suite of fiscal and financial policy stimulus measures. Thus far, these efforts have not increased weak consumer spending or helped the lingering trouble in the real estate sector. It is not clear what the long-term impact of these policies will be on the economy and if policy makers will remain committed to these efforts.

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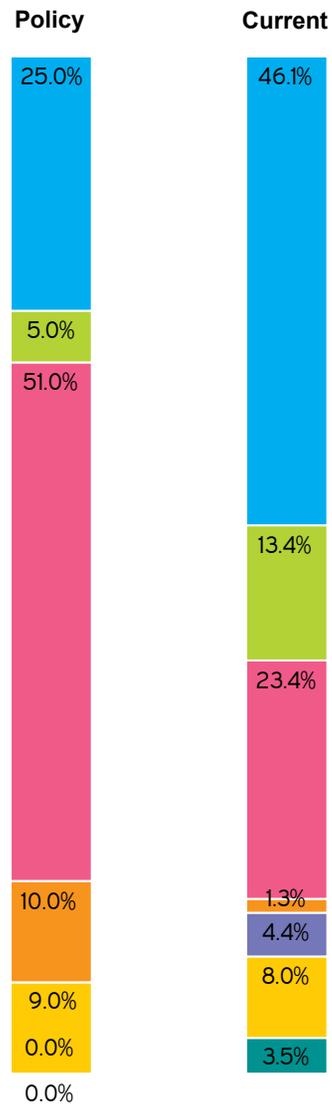
PERFORMANCE DATA CONTAINED HEREIN REPRESENT PAST PERFORMANCE. PAST PERFORMANCE IS NO GUARANTEE OF FUTURE RESULTS.

Oakland Police and Fire Retirement System

February 26, 2025

January Flash Report

As of January 31, 2025



Allocation vs. Targets and Policy							
	Balance (\$)	Current (%)	Long-Term Policy (%)	Difference (%)	Interim Policy (%)	Policy Range (%)	Within IPS Range?
Domestic Equity	217,982,081	46.1	25.0	21.1	34.0	15.0 - 35.0	No
International Equity	63,190,207	13.4	5.0	8.4	12.0	2.0 - 22.0	Yes
Fixed Income	110,544,296	23.4	51.0	-27.6	44.0	31.0 - 71.0	No
Credit	5,989,978	1.3	10.0	-8.7	0.0	0.0 - 16.0	Yes
Covered Calls	20,680,095	4.4	0.0	4.4	0.0	0.0 - 5.0	Yes
Crisis Risk Offset	38,043,070	8.0	9.0	-1.0	10.0	4.0 - 14.0	Yes
Cash	16,543,353	3.5	0.0	3.5	0.0	0.0 - 5.0	Yes
Total	472,973,079	100.0	100.0	0.0	100.0		

The new asset allocation policy established after the completion of the 2023 Asset-Liability Study became effective in July 2024. The asset classes may be out of policy ranges due to pending transitions.

Asset Class Performance Summary | As of January 31, 2025

Asset Class Performance Summary										
	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
OPFRS Total Plan	472,973,079	100.0	2.4	6.4	11.6	4.1	6.2	7.2	6.7	Dec-88
<i>OPFRS Policy Benchmark</i>			1.9	5.8	12.5	5.1	6.8	7.4	8.0	
Excess Return			0.5	0.6	-0.9	-0.9	-0.6	-0.2	-1.3	
Domestic Equity	217,982,081	46.1	3.3	11.5	20.6	8.5	12.3	11.8	9.3	Jun-97
<i>Russell 3000 (Blend)</i>			3.2	12.5	26.3	11.4	14.6	13.2	9.9	
Excess Return			0.2	-0.9	-5.7	-2.8	-2.3	-1.4	-0.5	
International Equity	63,190,207	13.4	4.0	4.8	11.8	5.1	6.3	6.5	5.6	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			4.0	3.9	10.9	3.4	5.5	5.2	5.3	
Excess Return			-0.1	1.0	1.0	1.6	0.8	1.2	0.3	
Fixed Income	110,544,296	23.4	0.6	2.5	2.2	-1.3	-0.2	1.7	4.4	Jan-94
<i>Fixed Income & Credit Benchmark</i>			0.5	2.9	2.8	-1.0	-0.2	1.6	4.5	
Excess Return			0.0	-0.4	-0.7	-0.2	0.0	0.1	-0.1	
Credit	5,989,978	1.3	1.0	4.7	8.0	4.3	5.4	5.3	5.3	Feb-15
<i>Blmbg. U.S. Corp: High Yield Index</i>			1.4	6.9	9.7	4.3	4.5	5.2	5.2	
Excess Return			-0.4	-2.2	-1.7	-0.1	0.9	0.0	0.0	
Covered Calls	20,680,095	4.4	2.4	10.2	19.6	9.8	12.0	10.6	10.0	Apr-14
<i>Cboe S&P 500 Buy Write Index</i>			2.2	14.1	20.6	7.7	7.6	7.3	6.9	
Excess Return			0.2	-3.9	-1.1	2.1	4.4	3.3	3.1	
Crisis Risk Offset	38,043,070	8.0	1.3	-4.0	-2.5	-4.4	-9.3	--	-6.7	Aug-18
<i>Crisis Risk Offset Benchmark</i>			0.7	-1.1	2.1	3.0	0.1	--	0.4	
Excess Return			0.6	-2.8	-4.6	-7.4	-9.4	--	-7.2	
Cash	16,543,353	3.5	0.1	0.6	0.9	0.3	0.4	0.8	0.6	Mar-11

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

Asset Class & Manager Performance | As of January 31, 2025

	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
OPFRS Total Plan	472,973,079	100.0	2.4	6.4	11.6	4.1	6.2	7.2	6.7	Dec-88
<i>OPFRS Policy Benchmark</i>			<i>1.9</i>	<i>5.8</i>	<i>12.5</i>	<i>5.1</i>	<i>6.8</i>	<i>7.4</i>	<i>8.0</i>	
Excess Return			0.5	0.6	-0.9	-0.9	-0.6	-0.2	-1.3	
Domestic Equity	217,982,081	46.1	3.3	11.5	20.6	8.5	12.3	11.8	9.3	Jun-97
<i>Russell 3000 (Blend)</i>			<i>3.2</i>	<i>12.5</i>	<i>26.3</i>	<i>11.4</i>	<i>14.6</i>	<i>13.2</i>	<i>9.9</i>	
Excess Return			0.2	-0.9	-5.7	-2.8	-2.3	-1.4	-0.5	
Northern Trust Russell 1000	113,324,976	24.0	3.2	12.4	26.6	11.6	14.9	13.5	14.3	Jun-10
<i>Russell 1000 Index</i>			<i>3.2</i>	<i>12.5</i>	<i>26.7</i>	<i>11.7</i>	<i>15.0</i>	<i>13.5</i>	<i>14.4</i>	
Excess Return			0.0	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	
EARNEST Partners	43,301,851	9.2	4.3	9.2	12.6	4.8	10.6	11.7	9.5	Apr-06
<i>Russell Midcap Index</i>			<i>4.3</i>	<i>14.6</i>	<i>22.0</i>	<i>8.0</i>	<i>11.0</i>	<i>10.3</i>	<i>9.3</i>	
Excess Return			0.0	-5.3	-9.4	-3.1	-0.4	1.4	0.2	
Wellington Select Quality Equity	27,582,871	5.8	2.2	7.9	11.5	--	--	--	8.6	May-22
<i>Russell 1000 Index</i>			<i>3.2</i>	<i>12.5</i>	<i>26.7</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>16.5</i>	
Excess Return			-1.0	-4.6	-15.2	--	--	--	-7.9	
Brown Fundamental Small Cap Value	14,926,652	3.2	2.2	11.3	16.7	9.3	--	--	8.7	Apr-21
<i>Russell 2000 Value Index</i>			<i>2.1</i>	<i>11.2</i>	<i>15.5</i>	<i>4.7</i>	<i>--</i>	<i>--</i>	<i>3.6</i>	
Excess Return			0.1	0.1	1.2	4.6	--	--	5.1	
Rice Hall James	18,845,731	4.0	4.8	17.6	23.6	4.5	8.7	--	8.5	Aug-17
<i>Russell 2000 Growth Index</i>			<i>3.2</i>	<i>13.7</i>	<i>22.7</i>	<i>6.2</i>	<i>7.8</i>	<i>--</i>	<i>8.5</i>	
Excess Return			1.6	3.8	0.8	-1.7	0.9	--	-0.1	

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

Asset Class & Manager Performance | As of January 31, 2025

	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
International Equity	63,190,207	13.4	4.0	4.8	11.8	5.1	6.3	6.5	5.6	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			4.0	3.9	10.9	3.4	5.5	5.2	5.3	
Excess Return			-0.1	1.0	1.0	1.6	0.8	1.2	0.3	
Vanguard Developed Markets ETF	16,723,158	3.5	4.4	2.9	8.9	3.8	6.3	--	7.4	Sep-19
<i>FTSE Developed All Cap ex-U.S. Index</i>			4.8	3.9	9.0	4.6	6.6	--	7.8	
Excess Return			-0.3	-1.0	-0.1	-0.8	-0.2	--	-0.4	
SGA ACWI ex-U.S. Equity	46,467,049	9.8	3.8	5.6	13.0	5.6	6.4	--	6.0	Dec-19
<i>MSCI AC World ex USA (Net)</i>			4.0	3.9	10.9	3.4	5.5	--	5.6	
Excess Return			-0.2	1.7	2.1	2.2	0.9	--	0.4	
Fixed Income	110,544,296	23.4	0.6	2.5	2.2	-1.3	-0.2	1.7	4.4	Jan-94
<i>Fixed Income & Credit Benchmark</i>			0.5	2.9	2.8	-1.0	-0.2	1.6	4.5	
Excess Return			0.0	-0.4	-0.7	-0.2	0.0	0.1	-0.1	
Ramirez	74,852,772	15.8	0.6	2.4	1.9	-1.5	-0.5	--	1.7	Jan-17
<i>Blmbg. U.S. Aggregate Index</i>			0.5	2.5	2.1	-1.5	-0.6	--	1.3	
Excess Return			0.0	-0.1	-0.2	0.0	0.1	--	0.4	
Wellington Core Bond	7,197,552	1.5	0.5	2.7	3.0	-1.2	--	--	-1.1	Apr-21
<i>Blmbg. U.S. Aggregate Index</i>			0.5	2.5	2.1	-1.5	--	--	-1.3	
Excess Return			0.0	0.2	0.9	0.3	--	--	0.2	
Reams	28,493,972	6.0	0.5	2.7	2.6	-0.8	2.1	2.7	4.8	Feb-98
<i>Fixed Income & Credit Benchmark</i>			0.5	2.9	2.8	-1.0	-0.2	1.6	4.1	
Excess Return			0.0	-0.2	-0.2	0.3	2.3	1.1	0.7	

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

Asset Class & Manager Performance | As of January 31, 2025

	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Credit	5,989,978	1.3	1.0	4.7	8.0	4.3	5.4	5.3	5.3	Feb-15
<i>Blmbg. U.S. Corp: High Yield Index</i>			1.4	6.9	9.7	4.3	4.5	5.2	5.2	
Excess Return			-0.4	-2.2	-1.7	-0.1	0.9	0.0	0.0	
Polen Capital	5,989,978	1.3	1.0	4.7	8.0	4.3	5.4	5.3	5.3	Feb-15
<i>ICE BofA U.S. High Yield Index</i>			1.4	6.9	9.7	4.3	4.3	5.2	5.2	
Excess Return			-0.4	-2.2	-1.7	-0.1	1.1	0.1	0.1	
Covered Calls	20,680,095	4.4	2.4	10.2	19.6	9.8	12.0	10.6	10.0	Apr-14
<i>Cboe S&P 500 Buy Write Index</i>			2.2	14.1	20.6	7.7	7.6	7.3	6.9	
Excess Return			0.2	-3.9	-1.1	2.1	4.4	3.3	3.1	
Parametric BXM	9,844,571	2.1	2.1	9.8	17.5	8.7	9.5	8.7	8.1	Apr-14
<i>Cboe S&P 500 Buy Write Index</i>			2.2	14.1	20.6	7.7	7.6	7.3	6.9	
Excess Return			-0.1	-4.3	-3.1	1.0	1.9	1.3	1.2	
Parametric DeltaShift	10,835,523	2.3	2.7	10.6	21.5	10.8	14.3	12.3	12.1	Apr-14
<i>Cboe S&P 500 Buy Write Index</i>			2.2	14.1	20.6	7.7	7.6	7.3	6.9	
Excess Return			0.5	-3.5	0.9	3.2	6.7	4.9	5.2	

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

Asset Class & Manager Performance | As of January 31, 2025

	Market Value (\$)	% of Portfolio	1 Mo (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	S.I. (%)	Inception Date
Crisis Risk Offset	38,043,070	8.0	1.3	-4.0	-2.5	-4.4	-9.3	--	-6.7	Aug-18
<i>Crisis Risk Offset Benchmark</i>			<i>0.7</i>	<i>-1.1</i>	<i>2.1</i>	<i>3.0</i>	<i>0.1</i>	<i>--</i>	<i>0.4</i>	
Excess Return			0.6	-2.8	-4.6	-7.4	-9.4	--	-7.2	
Kepos Alternative Risk Premia	12,952,698	2.7	3.4	6.9	15.1	9.0	--	--	9.0	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.5</i>	<i>2.8</i>	<i>7.9</i>	<i>7.1</i>	<i>--</i>	<i>--</i>	<i>7.1</i>	
Excess Return			1.9	4.0	7.2	1.9	--	--	1.9	
Versor Trend Following	12,707,305	2.7	0.0	-15.3	-14.5	--	--	--	-5.7	Apr-22
<i>SG Trend Index</i>			<i>0.2</i>	<i>-5.5</i>	<i>1.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>2.3</i>	
Excess Return			-0.2	-9.8	-16.0	--	--	--	-8.0	
Vanguard Long-Term Treasury ETF	12,383,068	2.6	0.6	-1.1	-4.0	-10.6	-6.5	--	-4.0	Jul-19
<i>Blmbg. U.S. Gov Long Index</i>			<i>0.4</i>	<i>-1.0</i>	<i>-3.9</i>	<i>-10.5</i>	<i>-6.3</i>	<i>--</i>	<i>-4.0</i>	
Excess Return			0.2	0.0	-0.2	-0.1	-0.1	--	0.0	
Cash	16,543,353	3.5	0.1	0.6	0.9	0.3	0.4	0.8	0.6	Mar-11

Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see the Benchmark History for custom benchmark compositions. Versor Trend Following reflects the rolled forward 12/31/2024 market value with a 0% return due to statement availability.

**Cash Flow Summary
Month to Date**

	Beginning Market Value(\$)	Net Cash Flow(\$)	Net Investment Change(\$)	Ending Market Value(\$)
Northern Trust Russell 1000	109,837,244	-	3,487,732	113,324,976
EARNEST Partners	41,511,365	-	1,790,486	43,301,851
Wellington Select Quality Equity	26,998,936	-	583,936	27,582,871
Brown Fundamental Small Cap Value	14,767,286	-166,925	326,291	14,926,652
Rice Hall James	17,971,578	-	874,153	18,845,731
Vanguard Developed Markets ETF	16,013,244	-	709,914	16,723,158
SGA ACWI ex-U.S. Equity	44,366,111	374,184	1,726,755	46,467,049
Ramirez	74,416,688	-	436,084	74,852,772
Wellington Core Bond	7,160,521	-	37,031	7,197,552
Reams	28,334,617	-	159,355	28,493,972
Polen Capital	7,433,085	-1,500,000	56,893	5,989,978
Parametric BXM	9,642,261	-	202,310	9,844,571
Parametric DeltaShift	10,549,483	-	286,040	10,835,523
Kepos Alternative Risk Premia	12,522,581	-	430,117	12,952,698
Versor Trend Following	12,707,305	-	-	12,707,305
Vanguard Long-Term Treasury ETF	12,311,888	-	71,180	12,383,068
Cash - Money Market	6,614,606	-65,237	19,983	6,569,353
Cash - Treasury	9,811,000	163,000	-	9,974,000
Securities Lending Northern Trust	-	-11,456	11,456	-
OPFRS Total Plan	462,969,798	-1,206,434	11,209,715	472,973,079

Benchmark History

From Date	To Date	Benchmark
OPFRS Total Plan		
01/01/2025	Present	34.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 44.0% Blmbg. U.S. Aggregate Index, 10.0% Crisis Risk Offset Benchmark
07/01/2024	01/01/2025	34.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 44.0% Blmbg. U.S. Universal Index, 10.0% Crisis Risk Offset Benchmark
06/01/2022	07/01/2024	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 31.0% Blmbg. U.S. Universal Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 5.0% Cboe S&P 500 Buy Write Index, 10.0% Crisis Risk Offset Benchmark
01/01/2019	06/01/2022	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 31.0% Blmbg. U.S. Universal Index, 5.0% Cboe S&P 500 Buy Write Index, 2.0% Blmbg. U.S. Treasury: Long, 10.0% Crisis Risk Offset Benchmark
05/01/2016	01/01/2019	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 20.0% CBOE BXM
10/01/2015	05/01/2016	43.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 15.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
01/01/2014	10/01/2015	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 10.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
03/01/2013	01/01/2014	40.0% Russell 3000 Index, 10.0% MSCI AC World ex USA index, 17.0% Blmbg. U.S. Universal Index, 33.0% ICE BofA 3 Month U.S. T-Bill
08/01/2012	03/01/2013	20.0% Russell 3000 Index, 7.0% MSCI AC World ex USA index, 18.0% Blmbg. U.S. Universal Index, 55.0% ICE BofA 3 Month U.S. T-Bill
10/01/2007	08/01/2012	53.0% Russell 3000 Index, 17.0% MSCI AC World ex USA index, 30.0% Blmbg. U.S. Universal Index
04/01/2006	10/01/2007	35.0% Russell 3000 Index, 15.0% MSCI AC World ex USA index, 50.0% Blmbg. U.S. Universal Index
01/01/2005	04/01/2006	35.0% Russell 3000 Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI AC World ex USA index
04/01/1998	01/01/2005	20.0% Russell 1000 Value Index, 10.0% Russell 1000 Index, 5.0% Russell Midcap Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI EAFE (Net)
01/01/1978	04/01/1998	40.0% S&P 500 Index, 55.0% Blmbg. U.S. Aggregate Index, 5.0% FTSE 3 Month T-Bill

Benchmark History

From Date	To Date	Benchmark
Domestic Equity		
01/01/2005	Present	100.0% Russell 3000 Index
04/01/1998	01/01/2005	57.1% Russell 1000 Value Index, 28.6% Russell 1000 Index, 14.3% Russell Midcap Index
09/01/1988	04/01/1998	100.0% S&P 500 Index
International Equity		
01/01/2005	Present	100.0% MSCI AC World ex USA (Net)
01/01/1998	01/01/2005	100.0% MSCI EAFE Index
Fixed Income		
01/01/2025	Present	100.0% Blmbg. U.S. Aggregate Index
04/01/2006	01/01/2025	100.0% Blmbg. U.S. Universal Index
01/01/1976	04/01/2006	100.0% Blmbg. U.S. Aggregate Index
Covered Calls		
04/01/2014	Present	Cboe S&P 500 Buy Write Index
Crisis Risk Offset		
01/01/2023	Present	33.3% SG Trend Index, 33.3% SG Multi Alternative Risk Premia Index, 33.3% Blmbg. U.S. Government: Long Term Bond Index
08/01/2018	01/01/2023	100.0% SG Multi Alternative Risk Premia Index
Cash		
03/01/2011	Present	FTSE 3 Month T-Bill

Additional Information

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

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

Fiscal Year: Fiscal year begins on July 1.

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

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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. Portfolio Return- [Risk Free Rate+Beta*(market return-Risk Free Rate)].

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

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

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

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

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

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.

Oakland Police and Fire Retirement System

February 26, 2025

Quarterly Performance Report as
of December 31, 2024

- 1. Executive Summary**
- 2. Economic and Market Update as of December 31, 2024**
- 3. Quarterly Performance as of December 31, 2024**
- 4. Manager Monitoring / Probation Status**
- 5. Appendix**
- 6. Disclaimer, Glossary, and Notes**

Executive Summary

Total Portfolio Review

The Oakland Police and Fire Retirement System (OPFRS) finished the calendar year with \$463.0 million in assets after net cash flows including monthly benefit payments.

→ As of December 31, 2024, most asset classes, except Domestic Equity and Fixed Income, were within their long-term target allocation ranges of the new asset allocation policy that became effective on July 1.

Cash Flow Summary (\$ Millions)	Quarter	1 Year
Beginning Market Value	475.2	436.0
Net Cash Flows (including Benefit Payments)	-4.3	-14.5
Net Investment Change (Gain/Loss)	-8.0	41.5
Ending Market Value	463.0	463.0

Investment Performance¹

	QTD	FYTD	1 Year	3 Year	5 Year
Total Plan (Gross)	-1.7	4.1	9.6	2.2	6.0
Total Plan (Net)	-1.8	3.9	9.3	1.9	5.7
<i>Policy Benchmark</i>	<i>-1.5</i>	<i>3.9</i>	<i>10.9</i>	<i>3.2</i>	<i>6.5</i>
Excess Return	-0.3	0.1	-1.6	-1.3	-0.8
<i>Public DB (\$250M-\$1B) Median Fund</i>	<i>-1.0</i>	<i>4.3</i>	<i>10.4</i>	<i>2.6</i>	<i>6.9</i>
Total Plan (Net) vs. Peer Median Fund	-0.7	-0.4	-1.1	-0.8	-1.2
<i>Peer Group Percentile Rank</i>	<i>91</i>	<i>66</i>	<i>70</i>	<i>76</i>	<i>86</i>

¹ Fiscal year begins on July 1. Peer group is Investment Metrics Public Defined Benefit plans with \$250 million to \$1 billion in assets. The number of peers is between 104–107 portfolios in each time period. Please see the Benchmark History section for the Policy Benchmark's current and historical compositions.

Asset Class and Manager Highlights¹

- On both gross- and net-of-fees basis, the **Total Plan** lagged its Policy Benchmark during the quarter as well as over the 1-, 3-, and 5-year trailing periods.
 - The Plan's underperformance during the quarter was primarily due to the underperformance within the Domestic Equity segment as large- and mid-cap growth stocks appreciated the most while the value stocks declined.
 - On the other hand, despite a decline in the broad bond market, the Fixed Income asset class contributed positively to the Total Plan's relative performance and partially offset Domestic Equity's negative contribution due to its under-allocation relative to its interim target.
- **Domestic Equity** underperformed the Russell 3000 Index over all time periods. All active Domestic Equity managers except the growth-oriented Rice Hall James underperformed their respective benchmarks for the quarter.
- **International Equity** and its only active manager, SGA, outperformed MSCI ACWI ex US (Net) for all time periods.
- **Fixed Income** slightly underperformed its custom benchmark² over the quarter. Among its underlying managers, Wellington Core Bond outperformed its Bloomberg US Aggregate benchmark across all time periods.
- The **Credit** segment, with Polen Capital as its sole manager, slightly outperformed its benchmark, the Bloomberg US Corporate High Yield Index, during the quarter and over the 3- and 5-year trailing periods. **Covered Calls**, as well as both the passive BXM and the active DeltaShift strategies, underperformed the CBOE S&P 500 Buy Write Index during the quarter and over the 1-year period.
 - Please note that the Credit and Covered Calls asset classes are undergoing gradual withdrawals as no longer have a target allocation since July 2024.
- The **Crisis Risk Offset** segment underperformed its custom benchmark over all time periods measured. Kepos Alternative Risk Premia outperformed its benchmark across all time periods while Versor Trend Following lagged its benchmark.

¹ Fiscal year begins on July 1. Please see the Benchmark History section for the custom benchmarks' current and historical compositions.

² The custom benchmark is Bloomberg US Universal Index since 04/2006.

Economic and Market Update

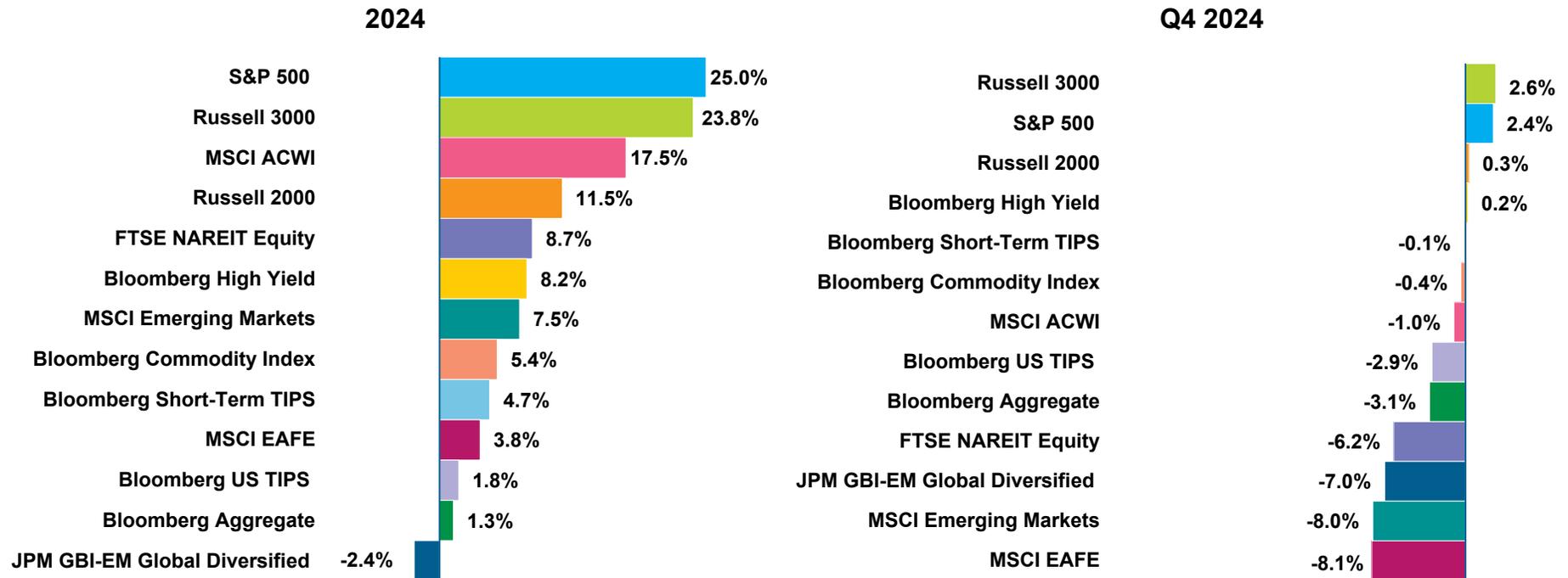
Data as of December 31, 2024

Commentary

Although most major markets finished 2024 in positive territory, in the fourth quarter, with the exception of US stocks, the majority of markets declined.

- Trump's victory along with a now Republican controlled Congress, supported US equity markets in the fourth quarter on anticipation of pro-growth policies. Domestic equity markets (Russell 3000) posted a return of 2.6% in the quarter and an impressive 23.8% for the year driven by large cap technology stocks.
- Non-US developed stocks sold-off in the fourth quarter (MSCI EAFE: -8.1%) largely driven by the strength of the US dollar, as well as slowing growth in Europe and the potential for trade wars. For the year, they trailed US equities by a wide 20% margin (3.8% versus 23.8%).
- Emerging market stocks also fell (MSCI Emerging Markets: -8.0%) in the fourth quarter, again driven by the strong dollar and concerns about US tariffs. In 2024, emerging markets beat developed international markets (7.5% versus 3.8%) but significantly trailed the US.
- The Federal Reserve cut its policy rate another 0.25% in December, but its Summary of Economic Projections and hawkish comments provoked a repricing of future rate cuts and their timing.
- Most fixed income markets fell for the quarter with interest rates rising given fears of inflation from the proposed policies of the incoming US administration. The broad US bond market (Bloomberg Aggregate) declined 3.1% for the quarter, reducing its 2024 gain to 1.3%. For the year, most major bond markets delivered positive returns on cooling global inflation.
- Looking ahead, uncertainty related to the policies of the new Trump Administration and its impact on the economy, inflation, and Fed policy will be key. The path of China's economy and concerns over elevated valuations and technology driven concentration in the US equity market will also be important focuses of 2025.

Index Returns¹



- In 2024, most major assets classes posted gains, led by the S&P 500's 25.0% return.
- Markets had mixed returns in the fourth quarter. US equities rose on optimism over potential pro-growth policies from the incoming administration while inflation concerns and a strong dollar, respectively, weighed on bonds and international equities.

¹ Source: Bloomberg. Data is as of December 31, 2024.

Domestic Equity Returns¹

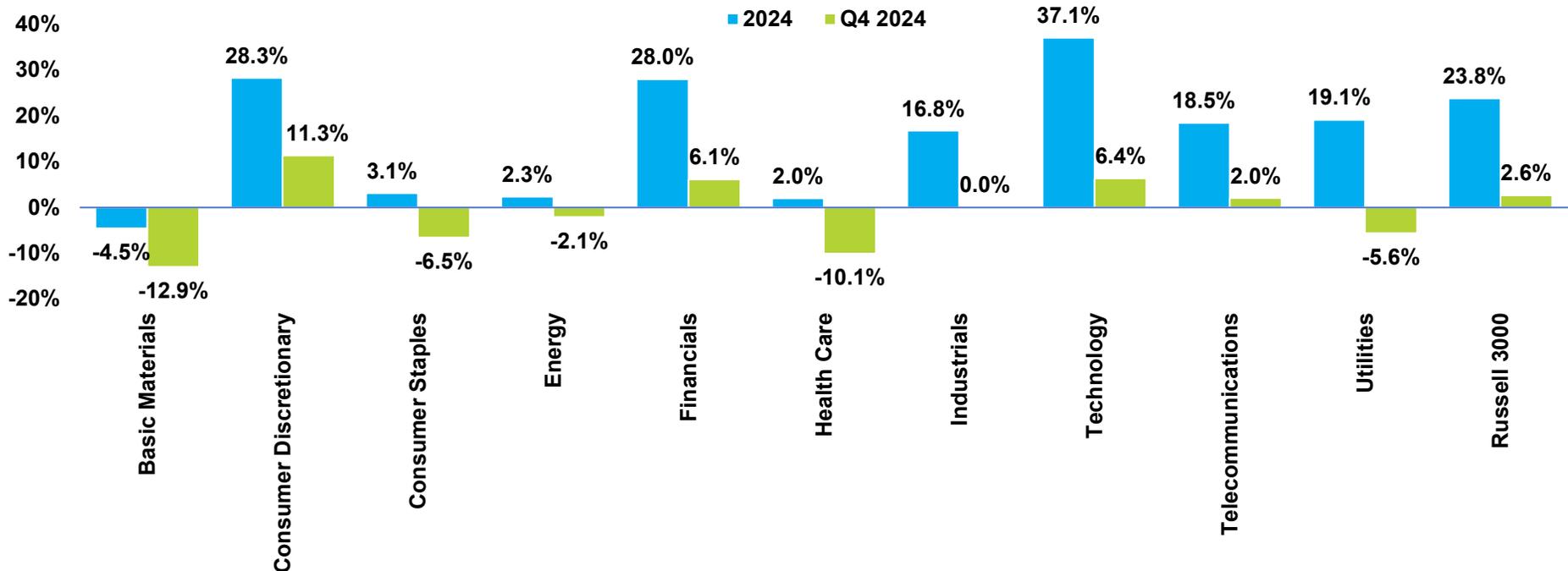
Domestic Equity	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)
S&P 500	-2.4	2.4	25.0	8.9	14.5	13.1
Russell 3000	-3.1	2.6	23.8	8.0	13.9	12.5
Russell 1000	-2.8	2.7	24.5	8.4	14.3	12.9
Russell 1000 Growth	0.9	7.1	33.4	10.5	19.0	16.8
Russell 1000 Value	-6.8	-2.0	14.4	5.6	8.7	8.5
Russell MidCap	-7.0	0.6	15.3	3.8	9.9	9.6
Russell MidCap Growth	-6.2	8.1	22.1	4.0	11.5	11.5
Russell MidCap Value	-7.3	-1.7	13.1	3.9	8.6	8.1
Russell 2000	-8.3	0.3	11.5	1.2	7.4	7.8
Russell 2000 Growth	-8.2	1.7	15.2	0.2	6.9	8.1
Russell 2000 Value	-8.3	-1.1	8.1	1.9	7.3	7.1

US Equities: The Russell 3000 rose 2.6% in the fourth quarter, bringing the year-to-date results to +23.8%.

- US stocks rose broadly in the fourth quarter on a post-election rally. However, value stocks did not participate and ended the quarter lower. In the large cap space, the Russell 1000 Value index’s omission of several “Magnificent 7” stocks, such as NVIDIA, Amazon, and Tesla, drove much of the divergence.
- For the full year, US equities gained 23.8%. NVIDIA was the leading contributor among all stocks in the Russell 3000 index. The stock appreciated 171% during the year and was responsible for 20% of total index gains. The “Magnificent 7” stocks contributed just under 50% of the 2024 index gains.
- Growth stocks outperformed value stocks across the market cap spectrum in 2024, which was more pronounced in the large cap space. Larger companies (Russell 1000) produced more than double the returns of smaller companies (Russell 2000) for the year.

¹ Source: Bloomberg. Data is as of December 31, 2024.

Russell 3000 Sector Returns¹



- US equity sectors experienced mixed results in the final quarter of the year but all sectors except materials, experienced gains in 2024.
- Technology stocks rose 37.1% last year, which led all sectors. Within technology, NVIDIA and Broadcom accounted for more than half of the sector's contribution to overall index gains.
- After technology, consumer discretionary (+28.3%) and financials (+28.0%) were next driven by Amazon and Tesla and a steepening yield curve/strong economy, respectively.

¹ Source: Bloomberg. Data is as of December 31, 2024.

Foreign Equity Returns¹

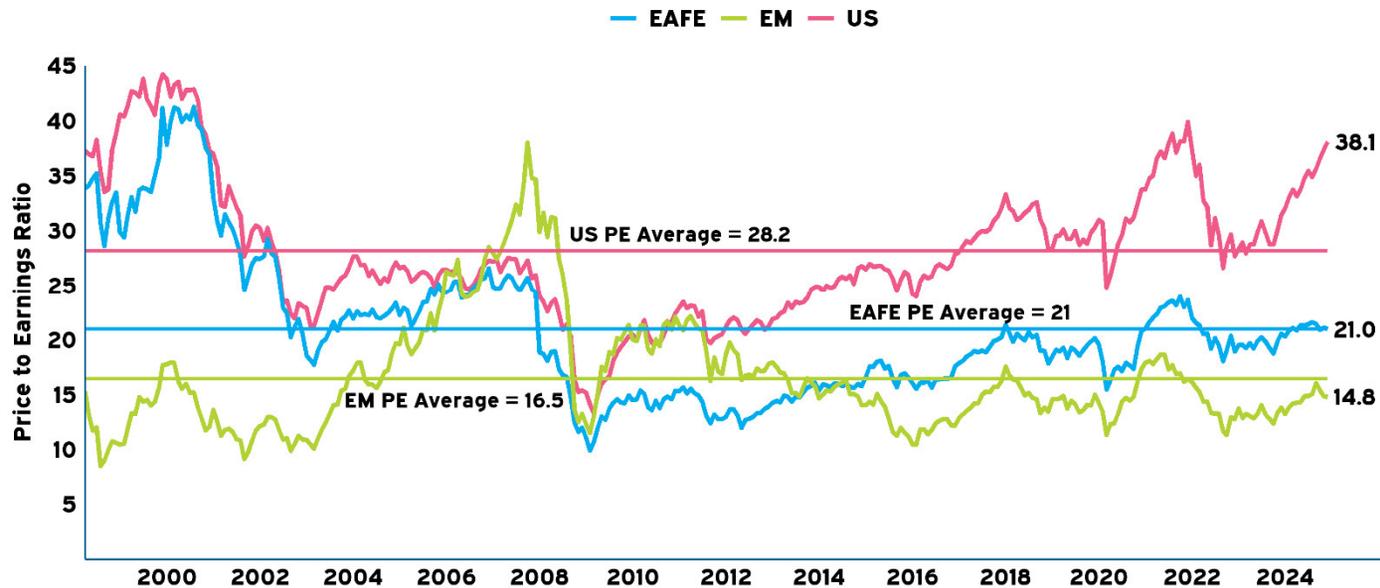
Foreign Equity	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)
MSCI ACWI Ex US	-1.9	-7.6	5.5	0.8	4.1	4.8
MSCI EAFE	-2.3	-8.1	3.8	1.6	4.7	5.2
MSCI EAFE (Local Currency)	0.4	-0.6	11.3	6.3	7.5	7.1
MSCI EAFE Small Cap	-2.3	-8.4	1.8	-3.2	2.3	5.5
MSCI Emerging Markets	-0.1	-8.0	7.5	-1.9	1.7	3.6
MSCI Emerging Markets (Local Currency)	1.2	-4.4	13.1	1.6	4.5	6.0
MSCI EM ex China	-1.2	-8.1	3.6	0.1	4.4	4.7
MSCI China	2.7	-7.7	19.4	-6.1	-3.4	1.9

Foreign Equity: Developed international equities (MSCI EAFE) fell -8.1% in the fourth quarter but rose 3.8% for the year, while emerging market equities (MSCI Emerging Markets) fell -8.0% in the quarter but returned 7.5% for the year.

- Continued strength in the US dollar weighed on developed market shares, with declines in local terms significantly lower (-0.6% versus -8.1%). An unstable political environment, potential tariffs from the US, and weak growth all weighed on eurozone equities. Japan was a bright spot, outperforming the US for the quarter, with renewed yen weakness boosting the outlook for exporters.
- Emerging markets reacted poorly to Mr. Trump's win in the fourth quarter, due largely to tariff fears and the Fed's decreased likelihood of reducing rates in 2025. A strong dollar also weighed on results but not as much as in developed markets. China declined less than the broader index for the quarter (-7.7% versus -8.0%).
- Over the full 2024 calendar year, international equities significantly trailed US equities.

¹ Source: Bloomberg. Data is as of December 31, 2024.

Equity Cyclically Adjusted P/E Ratios¹



- Valuations in US stocks continued to move higher over the quarter while valuations for international equities fell.
- US stocks, priced at 38.1 times earnings, continue to trade well above their long-run PE average of 28.2.
- Non-US developed market valuations are trading at their long-term average. Emerging market stock valuations declined the most over the quarter (16.1 to 14.8) and remain below their 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: Bloomberg. Earnings figures represent the average of monthly "as reported" earnings over the previous ten years. Data is as of December 2024. The average line is the long-term average of the US, EM, and EAFE PE values from April 1998 to the recent month-end, respectively.

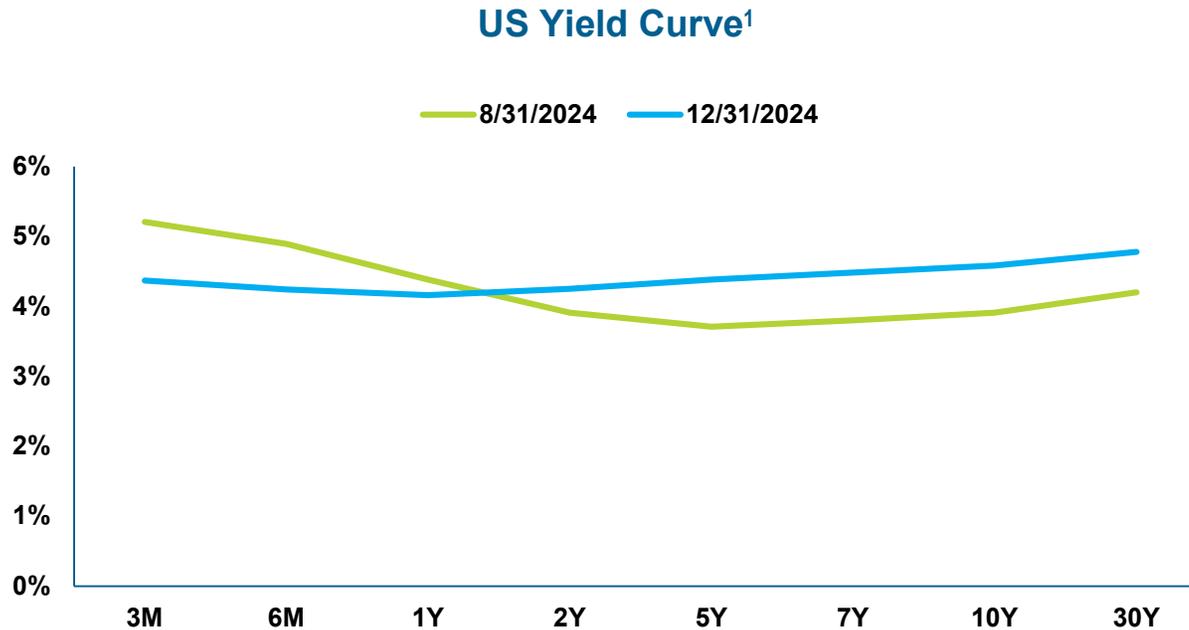
Fixed Income Returns¹

Fixed Income	December (%)	Q4 2024 (%)	2024 (%)	3 YR (%)	5 YR (%)	10 YR (%)	Current Yield (%)	Duration (Years)
Bloomberg Universal	-1.5	-2.7	2.0	-1.9	0.1	1.7	5.1	5.9
Bloomberg Aggregate	-1.6	-3.1	1.3	-2.4	-0.3	1.3	4.9	6.1
Bloomberg US TIPS	-1.6	-2.9	1.8	-2.3	1.9	2.2	4.6	6.5
Bloomberg Short-term TIPS	-0.1	-0.1	4.7	2.1	3.3	2.6	4.4	2.4
Bloomberg US Long Treasury	-5.3	-8.6	-6.4	-12.0	-5.2	-0.6	4.9	14.9
Bloomberg High Yield	-0.4	0.2	8.2	2.9	4.2	5.2	7.5	3.5
JPM GBI-EM Global Diversified (USD)	-1.9	-7.0	-2.4	-1.0	-1.9	-0.4	--	--

Fixed Income: The Bloomberg Universal index fell 2.7% in the quarter, bringing the year-to-date return to +2.0%.

- Fixed income indexes largely declined over the quarter due to rising interest rates as investors considered proposed policies like tariffs and deportations and their respective risks to inflation.
- The broad US bond market (Bloomberg Aggregate) fell 3.1% over the quarter, with TIPS performing similarly at longer maturities. Long-term Treasury bonds experienced the largest declines, with a drop of 8.6%.
- High yield bonds outperformed as investor risk appetite remained robust, while emerging market debt weakened on uncertainty about the path of proposed US tariffs by the incoming administration as well as by higher US interest rates.

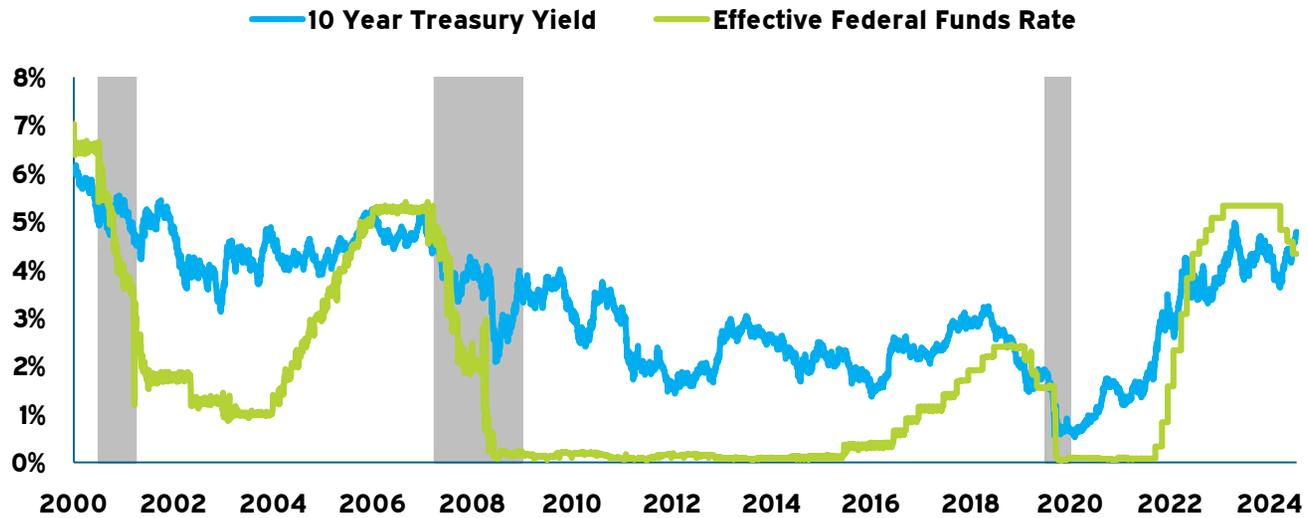
¹ Source: Bloomberg. Data is as of December 31, 2024. The yield and duration data from Bloomberg is defined as the index's yield to worst and modified duration, respectively. JPM GBI-EM data is from J.P. Morgan. Current yield and duration data is not available.



- With the exception of the very shortest maturities, US Treasury yields rose in the fourth quarter driven by resilient growth and increased inflation expectations. Term premium (a measure of interest rate uncertainty) spiking over the quarter was a key driver of higher rates.
- Over the quarter, the more policy sensitive 2-year Treasury yield rose from 3.64% to 4.24%, while the 10-year Treasury yield rose from 3.78% to 4.57%.
- The yield curve was no longer inverted (short-term interest rates higher than long-term interest rates) at year-end given expectations for the Fed to continue to reduce rates and resilient economic growth and persistent inflation.

¹ Source: Bloomberg. Data is as of December 31, 2024. The August 2024 Treasury yields are shown as a reference before the first interest rate cut.

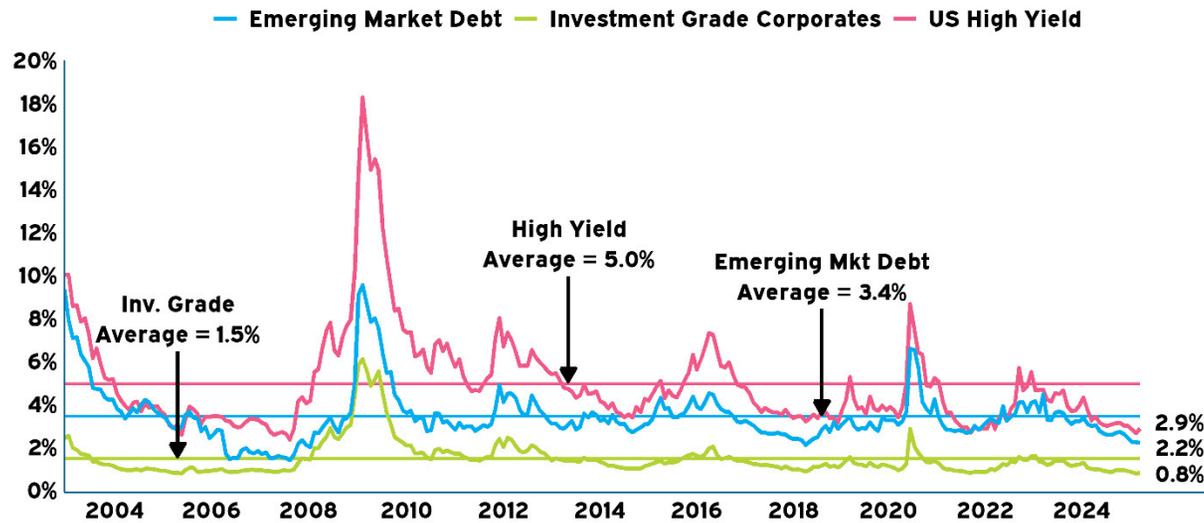
10-Year Treasury Yield versus Fed Funds Rate¹



- Typically, when the Fed cuts interest rates, the yield on the ten-year Treasury follows as rate cuts often come in an environment of falling inflation and rising unemployment.
- The recent dynamic has been very unusual with the Fed cutting interest rates by a total of 1.0% since September and the ten-year Treasury increasing by a similar amount over the same time period.
- Questions remain about why this is happening with some saying it is related to fiscal concerns and others pointing to lower demand for our debt from overseas. It is also possible the market feels the Fed has overcut rates already.

¹ Source: FRED. Data is as of January 15, 2025.

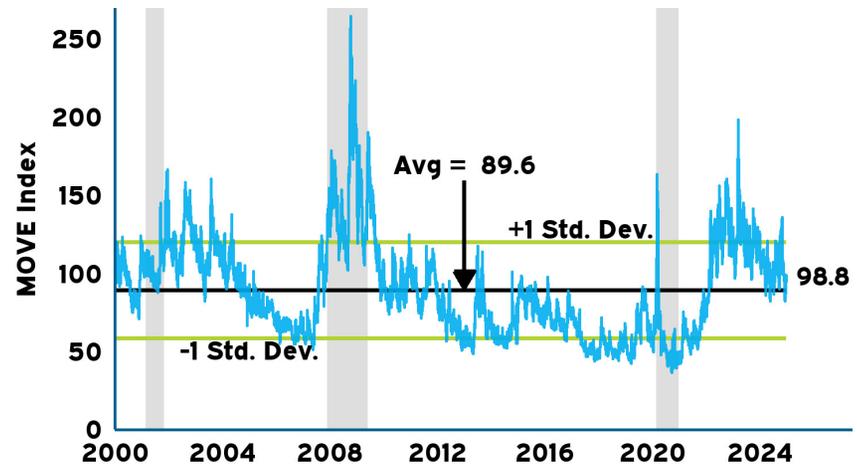
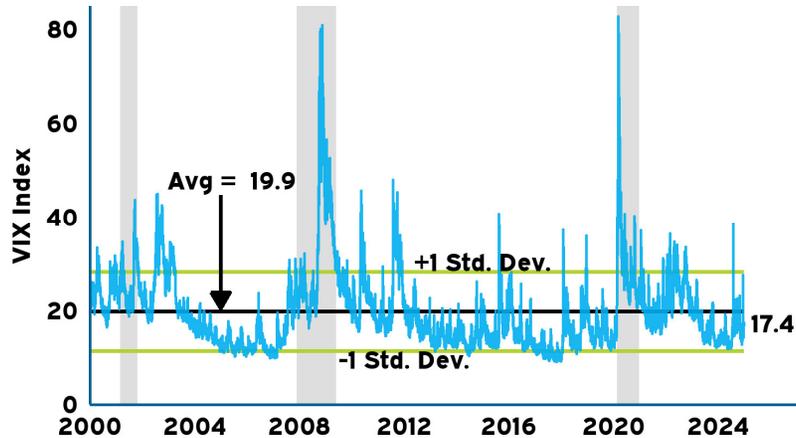
Credit Spreads vs. US Treasury Bonds¹



- Spreads (the yield above a comparable maturity Treasury) all continued to tighten over the quarter.
- All yield spreads remained below their respective long-run averages, particularly high yield (2.9% versus 5.0%).
- Although spreads are tight, absolute yields remain at above-average levels compared to the last two decades.

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

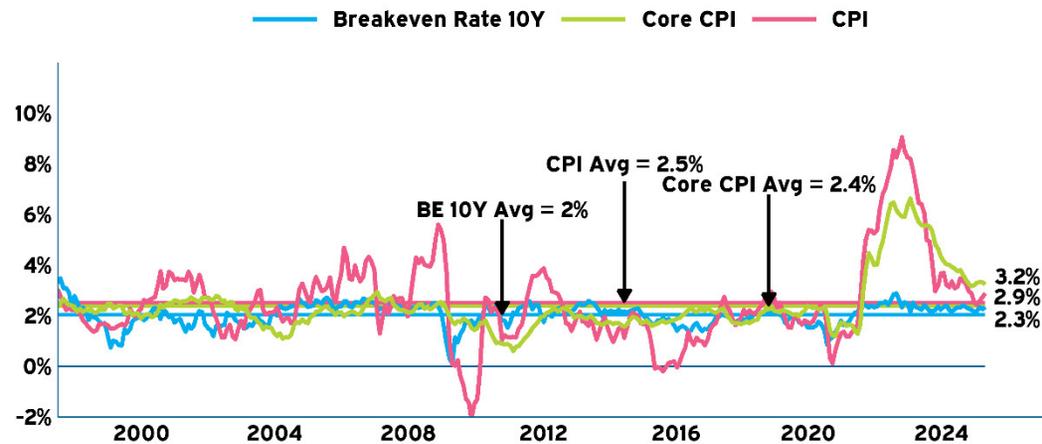
Equity and Fixed Income Volatility¹



- Bond and equity volatility experienced several spikes over the quarter ahead of the election but finished lower after the clear results.
- Volatility levels (VIX) in the US stock market finished the quarter below its long-run average, while volatility in the bond market (MOVE) ended December above its long-run average.

¹ Equity Volatility – Source: FRED. Fixed Income Volatility – Source: Bloomberg. Implied volatility as measured using VIX Index for equity markets and the MOVE Index to measure interest rate volatility for fixed income markets. Data is as of December 31, 2024. The average line indicated is the average of the VIX and MOVE values between January 2000 and December 2024.

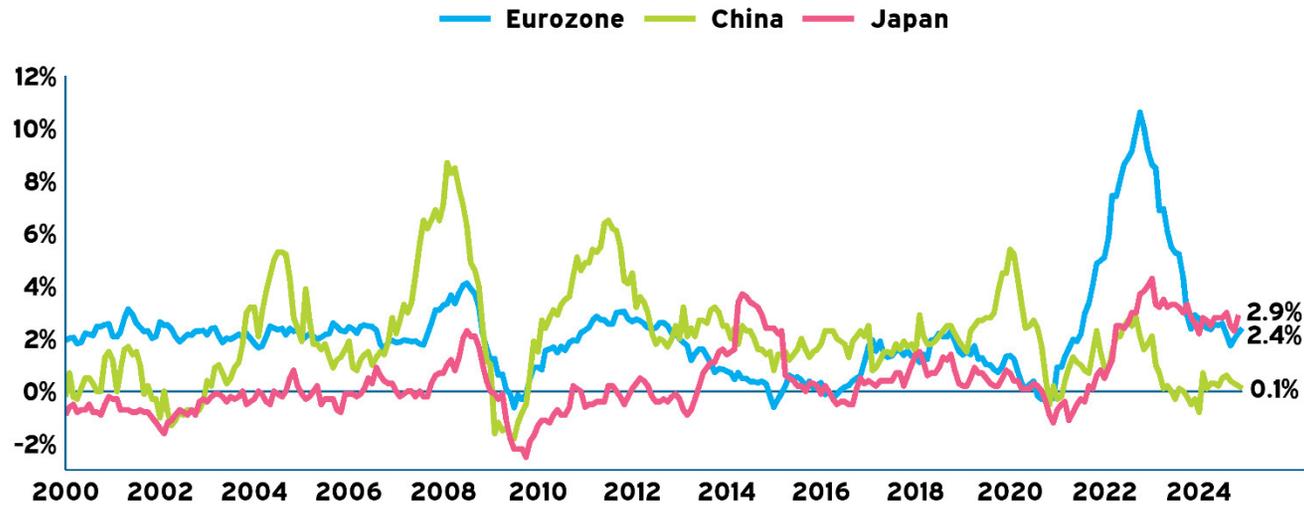
US Ten-Year Breakeven Inflation and CPI¹



- In December, inflation rose 0.4% month-over-month with energy prices accounting for 40% of the monthly increase.
- Year-over-year inflation increased from 2.4% to 2.9% over the quarter largely driven by base year effects. In the December reading shelter (+4.6%), transportation (+7.3%), and medical care (+3.4%) contributed to the annual gain while energy prices (-0.5%) fell over the past year despite the December (+2.6%) gains.
- Year-over-year core inflation (excluding food and energy) fell slightly over the quarter (3.3% to 3.2%).
- Inflation expectations (breakevens) rose over the quarter from the September lows of 2.0%, on continued uncertainty regarding the likelihood and magnitude of potential policies of the next US president.

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

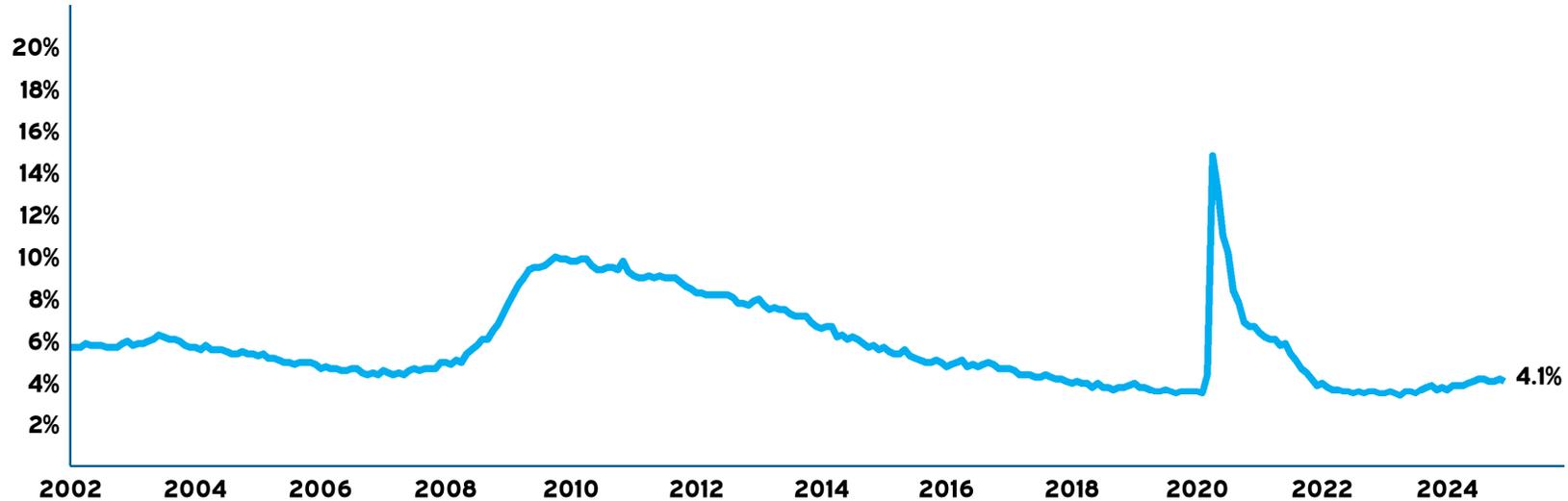
Global Inflation (CPI Trailing Twelve Months)¹



- In the eurozone, inflation rose each month over the quarter (1.7% to 2.4%) but levels remain below the US. The increase was largely driven by last year’s significant fall in energy prices no longer being included in the calculation.
- Inflation in Japan rose over the quarter due in part to an increase in food prices and the end of energy subsidies driving electricity and gas prices higher.
- Inflation in China grinded lower in the fourth quarter (0.4% to 0.1%). China continues to experience deflationary pressures despite recent stimulus measures.

¹ Source: Bloomberg. Data is as December 2024, except Japan which is as of November 2024.

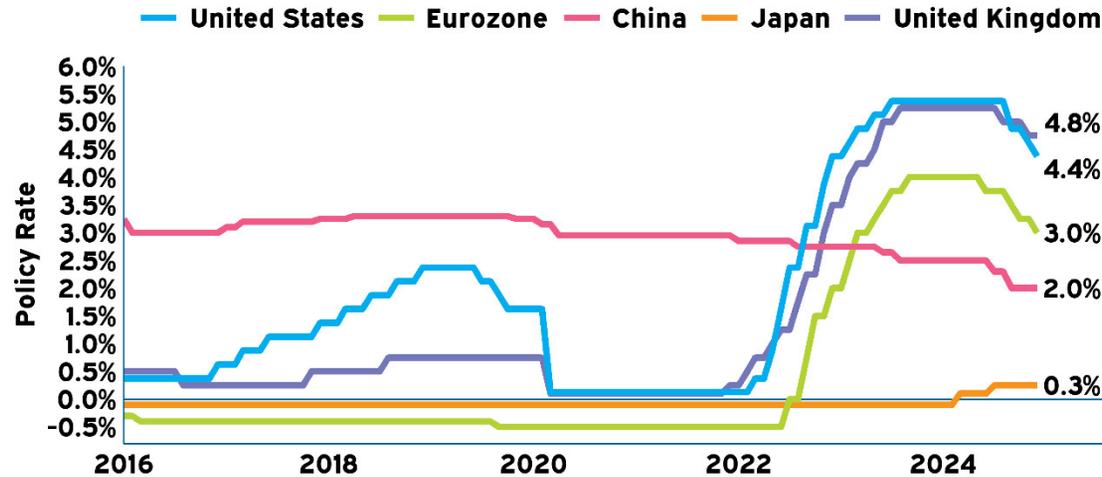
US Unemployment¹



- The unemployment rate stayed stable over the quarter at 4.1% with close to 500k jobs added to the economy since the end of September.
- In December, the health care (+46K), retail (+43k), and government (+33K) sectors added jobs, while retail – which lost jobs in November – rebounded (+43K) jobs.
- Job openings (8.1M) rose over last month’s openings (7.7M) but are well below pandemic highs (>12M); the number of openings exceeds the number of unemployed workers looking for work (6.9M).
- Separations (5.1M) and hires (5.3M) remain steady and average hourly wages continue to grow at approximately 3.9% a year.

¹ Source: FRED and BLS. Data is as of December 31, 2024.

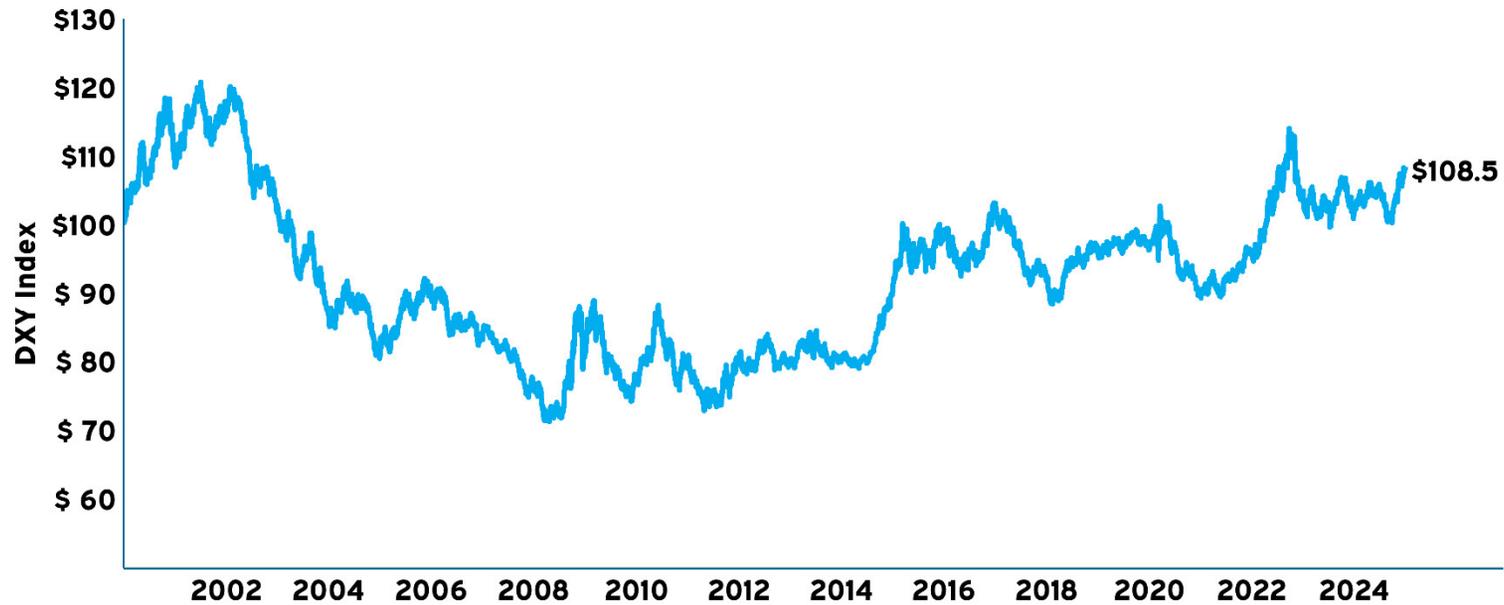
Policy Rates¹



- In the US, the Fed reduced interest rates by 0.25% twice over the quarter to a range of 4.25% to 4.50%, in moves largely expected by investors. Going forward, questions remain about the timing and amount of additional cuts given the strength of the economy and persistent above-target inflation.
- The Bank of England left rates unchanged in December after their November 0.25% cut, while the European Central Bank cut rates by another 0.25% in early December.
- After exiting negative interest rates in 2024 and making several rate increases, rate cutting by other major central banks are complicating prospects for further policy rate hikes in Japan.

¹ Source: Bloomberg. Data is as of December 31, 2024. United States rate is the mid-point of the Federal Funds Target Rate range. Eurozone rate is the ECB Deposit Facility Announcement Rate. Japan rate is the Bank of Japan Unsecured Overnight Call Rate Expected. China rate is the China Central Bank 1-Year Medium Term Interest Rate. UK rate is the UK Bank of England Official Bank Rate.

US Dollar vs. Broad Currencies¹



- Over the quarter, the US dollar sharply strengthened (+8.0%) versus other currencies.
- A rise in interest rates driven by potential inflationary impacts of proposed higher tariffs, lower taxes, and immigration policies from candidate, and now president-elect Trump, drove the dollar's gains.

¹ Source: Bloomberg. Data as of December 31, 2024.

Summary

Key Trends:

- According to the International Monetary Fund's (IMF) October report, global growth in 2025 is expected to be similar to 2024 at around 3.2% with most major economies predicted to avoid a recession.
- Questions remain about what policies will be implemented by the new administration in the US. Although deregulation and tax cuts could support growth, these policies, along with higher tariffs and restrictive immigration, could fan inflation. This will likely lead to additional uncertainty regarding the timing and pace of interest rate cuts in the coming year.
- US consumers could feel pressure as certain components of inflation (e.g., shelter) remain high, borrowing costs stay elevated, and the job market may weaken further.
- A focus for US equities going forward will be whether earnings can remain resilient if growth slows. Also, the future paths of the large technology companies that have driven market gains will be important.
- We have started to see divergences in monetary policy. Some central banks, such as the Fed, European Central Bank, and the Bank of England, have started to cut interest rates and others, like the Bank of Japan, have increased interest rates. This disparity will likely influence capital flows and currencies.
- China appears to have shifted focus to more policy support for the economy/asset prices with a suite of fiscal and financial policy stimulus measures. Thus far, these efforts have not increased weak consumer spending or helped the lingering trouble in the real estate sector. It is still not clear what the long-term impact of these policies will be on the economy and if policy makers will remain committed to these efforts.

Quarterly Performance
as of December 31, 2024

Summary of Cash Flows

	QTD (\$)	1 Year (\$)
OPFRS Total Plan		
Beginning Market Value	475,224,987	435,955,522
Net Cash Flow	-4,291,089	-14,514,580
Net Investment Change	-7,964,099	41,528,857
Ending Market Value	462,969,798	462,969,798

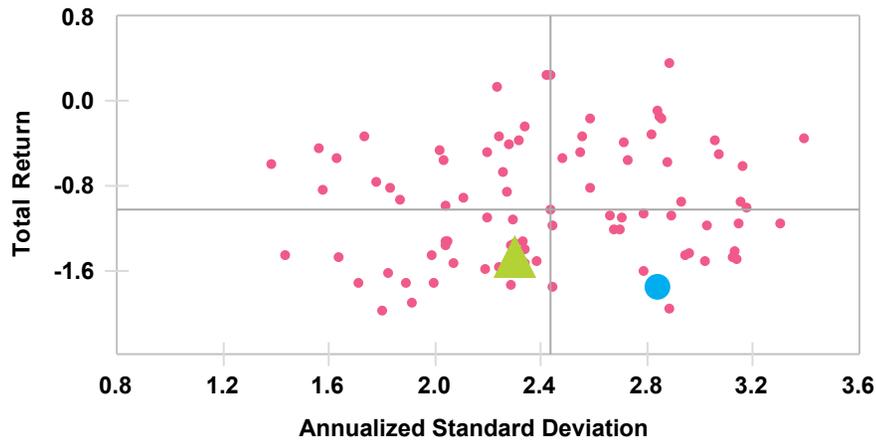
Return Summary Ending December 31, 2024



Total Plan performance shown is net of fees.

Total Plan Risk/Return Summary | As of December 31, 2024

Risk-Return Summary QTD Ending December 31, 2024

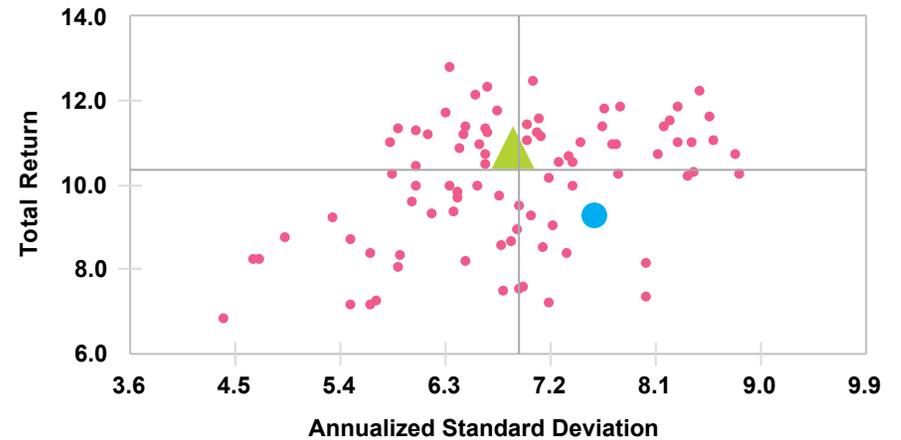


- IM Public DB \$250M-\$1B
- OPFRS Total Plan
- ▲ OPFRS Policy Benchmark

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

OPFRS Total Plan	-1.8	2.8
OPFRS Policy Benchmark	-1.5	2.3
Median	-1.0	2.4

Risk-Return Summary 1 Yr Ending December 31, 2024



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

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

OPFRS Total Plan	9.3	7.6
OPFRS Policy Benchmark	10.9	6.9
Median	10.4	6.9

Performance shown is net of fees. Calculation is based on monthly periodicity. Plan Sponsor Peer Group shown is net of fees.

Asset Class Performance: Gross of Fees | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
OPFRS Total Plan (Gross)	462,969,798	100.0	-1.7	4.1	9.6	2.2	6.0	7.1	6.8	Dec-88
<i>OPFRS Policy Benchmark</i>			<i>-1.5</i>	<i>3.9</i>	<i>10.9</i>	<i>3.2</i>	<i>6.5</i>	<i>7.1</i>	<i>8.0</i>	
Excess Return			-0.2	0.2	-1.3	-1.0	-0.5	0.0	-1.2	
Domestic Equity (Gross)	211,086,408	45.6	0.4	8.1	17.6	5.6	11.7	11.4	9.3	Jun-97
<i>Russell 3000 (Blend)</i>			<i>2.6</i>	<i>9.0</i>	<i>23.8</i>	<i>8.0</i>	<i>13.9</i>	<i>12.5</i>	<i>9.8</i>	
Excess Return			-2.3	-0.9	-6.2	-2.4	-2.1	-1.1	-0.4	
International Equity (Gross)	60,379,355	13.0	-6.6	1.2	8.1	3.1	5.6	6.6	5.6	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			<i>-7.6</i>	<i>-0.1</i>	<i>5.5</i>	<i>0.8</i>	<i>4.1</i>	<i>4.8</i>	<i>5.1</i>	
Excess Return			1.0	1.3	2.6	2.3	1.5	1.8	0.5	
Fixed Income (Gross)	109,911,826	23.7	-3.1	2.0	1.8	-1.9	0.3	2.0	4.7	Jan-94
<i>Bloomberg Universal (Blend)</i>			<i>-2.7</i>	<i>2.3</i>	<i>2.0</i>	<i>-2.0</i>	<i>0.1</i>	<i>1.7</i>	<i>4.5</i>	
Excess Return			-0.4	-0.3	-0.2	0.0	0.2	0.3	0.2	
Credit (Gross)	7,433,085	1.6	0.9	4.0	8.5	4.3	6.1	--	5.9	Feb-15
<i>Blmbg. U.S. Corp: High Yield Index</i>			<i>0.2</i>	<i>5.5</i>	<i>8.2</i>	<i>2.9</i>	<i>4.2</i>	<i>--</i>	<i>5.1</i>	
Excess Return			0.8	-1.4	0.3	1.4	1.9	--	0.7	
Covered Calls (Gross)	20,191,744	4.4	3.0	7.7	18.7	7.7	11.6	10.4	10.2	Apr-14
<i>Cboe S&P 500 Buy Write Index</i>			<i>5.8</i>	<i>11.6</i>	<i>20.1</i>	<i>6.0</i>	<i>6.9</i>	<i>6.9</i>	<i>6.7</i>	
Excess Return			-2.7	-3.9	-1.4	1.7	4.8	3.5	3.4	
Crisis Risk Offset (Gross)	37,541,773	8.1	-4.2	-5.1	-3.4	-5.8	-9.5	--	-6.8	Aug-18
<i>Crisis Risk Offset Benchmark</i>			<i>-2.4</i>	<i>-1.8</i>	<i>2.0</i>	<i>3.1</i>	<i>0.1</i>	<i>--</i>	<i>0.3</i>	
Excess Return			-1.7	-3.3	-5.4	-8.9	-9.5	--	-7.1	
Cash (Gross)	16,425,606	3.5	0.2	0.5	0.8	0.3	0.4	0.8	0.6	Mar-11

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

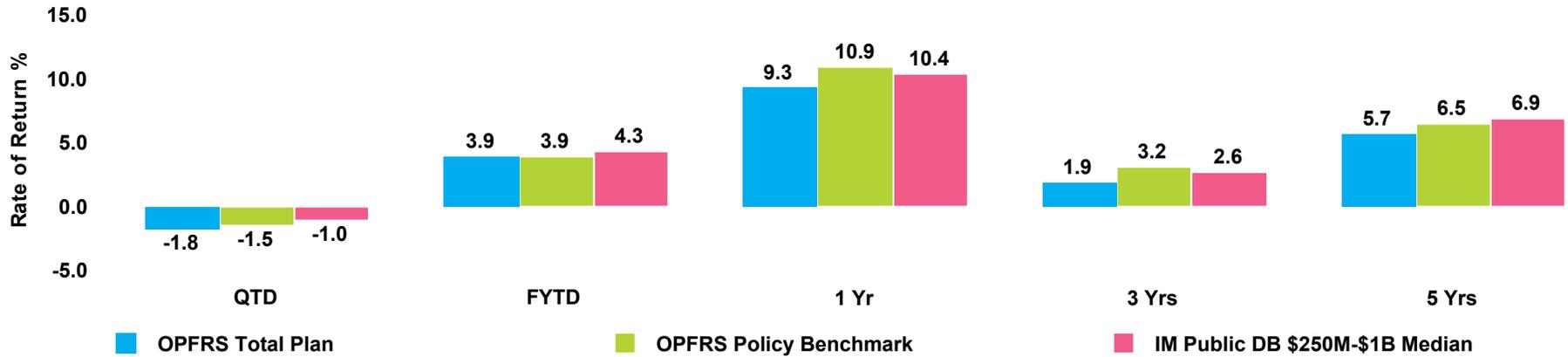
Asset Class Performance: Net of Fees | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
OPFRS Total Plan (Net)	462,969,798	100.0	-1.8	3.9	9.3	1.9	5.7	6.8	6.7	Dec-88
<i>OPFRS Policy Benchmark</i>			<i>-1.5</i>	<i>3.9</i>	<i>10.9</i>	<i>3.2</i>	<i>6.5</i>	<i>7.1</i>	<i>8.0</i>	
Excess Return			<i>-0.3</i>	<i>0.1</i>	<i>-1.6</i>	<i>-1.3</i>	<i>-0.8</i>	<i>-0.3</i>	<i>-1.3</i>	
<i>IM Public DB \$250M-\$1B Median (Net)</i>			<i>-1.0</i>	<i>4.3</i>	<i>10.4</i>	<i>2.6</i>	<i>6.9</i>	<i>7.0</i>	<i>8.1</i>	
Peer Group Rank			91	66	70	76	86	58	100	
Domestic Equity (Net)	211,086,408	45.6	0.3	7.9	17.2	5.3	11.4	11.1	9.2	Jun-97
<i>Russell 3000 (Blend)</i>			<i>2.6</i>	<i>9.0</i>	<i>23.8</i>	<i>8.0</i>	<i>13.9</i>	<i>12.5</i>	<i>9.8</i>	
Excess Return			<i>-2.3</i>	<i>-1.1</i>	<i>-6.6</i>	<i>-2.7</i>	<i>-2.5</i>	<i>-1.4</i>	<i>-0.5</i>	
International Equity (Net)	60,379,355	13.0	-6.7	0.8	7.5	2.5	5.0	6.1	5.4	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			<i>-7.6</i>	<i>-0.1</i>	<i>5.5</i>	<i>0.8</i>	<i>4.1</i>	<i>4.8</i>	<i>5.1</i>	
Excess Return			<i>0.9</i>	<i>1.0</i>	<i>1.9</i>	<i>1.7</i>	<i>0.9</i>	<i>1.3</i>	<i>0.3</i>	
Fixed Income (Net)	109,911,826	23.7	-3.2	1.9	1.6	-2.1	0.1	1.8	4.4	Jan-94
<i>Bloomberg Universal (Blend)</i>			<i>-2.7</i>	<i>2.3</i>	<i>2.0</i>	<i>-2.0</i>	<i>0.1</i>	<i>1.7</i>	<i>4.5</i>	
Excess Return			<i>-0.4</i>	<i>-0.4</i>	<i>-0.4</i>	<i>-0.2</i>	<i>0.0</i>	<i>0.1</i>	<i>-0.1</i>	
Credit (Net)	7,433,085	1.6	0.8	3.7	7.9	3.7	5.4	--	5.2	Feb-15
<i>Blmbg. U.S. Corp: High Yield Index</i>			<i>0.2</i>	<i>5.5</i>	<i>8.2</i>	<i>2.9</i>	<i>4.2</i>	<i>--</i>	<i>5.1</i>	
Excess Return			<i>0.6</i>	<i>-1.7</i>	<i>-0.3</i>	<i>0.8</i>	<i>1.2</i>	<i>--</i>	<i>0.1</i>	
Covered Calls (Net)	20,191,744	4.4	3.0	7.6	18.4	7.5	11.4	10.2	9.9	Apr-14
<i>Cboe S&P 500 Buy Write Index</i>			<i>5.8</i>	<i>11.6</i>	<i>20.1</i>	<i>6.0</i>	<i>6.9</i>	<i>6.9</i>	<i>6.7</i>	
Excess Return			<i>-2.8</i>	<i>-4.0</i>	<i>-1.7</i>	<i>1.5</i>	<i>4.5</i>	<i>3.2</i>	<i>3.1</i>	
Crisis Risk Offset (Net)	37,541,773	8.1	-4.2	-5.2	-3.6	-6.0	-9.6	--	-7.0	Aug-18
<i>Crisis Risk Offset Benchmark</i>			<i>-2.4</i>	<i>-1.8</i>	<i>2.0</i>	<i>3.1</i>	<i>0.1</i>	<i>--</i>	<i>0.3</i>	
Excess Return			<i>-1.8</i>	<i>-3.4</i>	<i>-5.6</i>	<i>-9.1</i>	<i>-9.7</i>	<i>--</i>	<i>-7.4</i>	
Cash (Net)	16,425,606	3.5	0.2	0.5	0.8	0.3	0.4	0.8	0.6	Mar-11

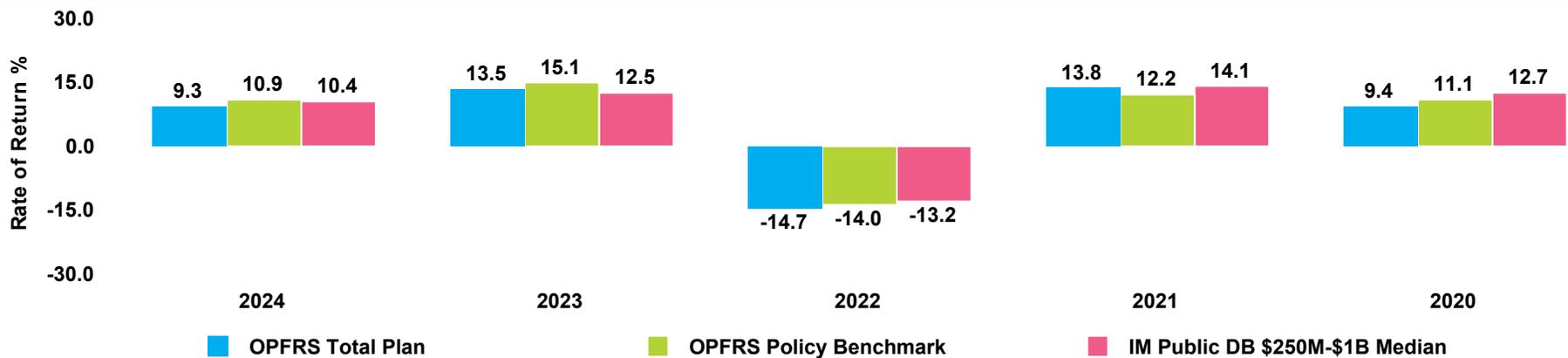
Performance shown is net of fees, except for Total Plan, Domestic Equity, and International Equity composites which have a mix of gross and net of fees performance. Please see the Addendum for more details. Since inception date and performance begin in the month following an investments initial funding.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

Portfolio Relative Performance Results | As of December 31, 2024

Trailing Period Performance Ending December 31, 2024



Calendar Year Performance Ending December 31, 2024



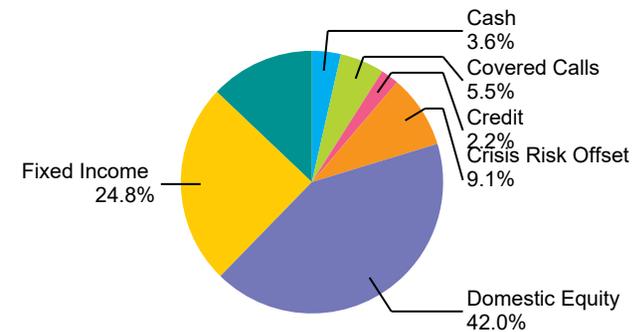
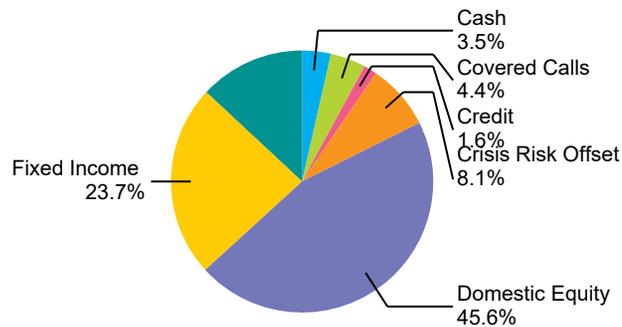
Total Plan performance is a mix of gross and net of fees; performance is gross of fees prior to January 2016 and thereafter. Fiscal year begins on July 1.

Asset Allocation | As of As of December 31, 2024

	Balance (\$)	Current Allocation (%)	Policy (%)	Difference (%)	Interim Policy (%)	Policy Range (%)	Within IPS Range?
Domestic Equity	211,086,408	45.6	25.0	20.6	34.0	15.0 - 35.0	No
International Equity	60,379,355	13.0	5.0	8.0	12.0	2.0 - 22.0	Yes
Fixed Income	109,911,826	23.7	51.0	-27.3	44.0	31.0 - 71.0	No
Credit	7,433,085	1.6	10.0	-8.4	0.0	0.0 - 16.0	Yes
Covered Calls	20,191,744	4.4	0.0	4.4	0.0	0.0 - 5.0	Yes
Crisis Risk Offset	37,541,773	8.1	9.0	-0.9	10.0	4.0 - 14.0	Yes
Cash	16,425,606	3.5	0.0	3.5	0.0	0.0 - 5.0	Yes
Total	462,969,798	100.0	100.0	0.0	100.0		

December 31, 2024: \$462,969,797.9

December 31, 2023: \$406,308,110.42



Cash account market value includes cash balances held in ETF accounts at the custodian and residuals from terminated managers.
Policy (%) column reflects the long-term allocation targets starting July 1, 2024.

Manager Performance - Net of Fees | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Domestic Equity	211,086,408	100.0	0.3	7.9	17.2	5.3	11.4	11.1	9.2	Jun-97
<i>Russell 3000 (Blend)</i>			<i>2.6</i>	<i>9.0</i>	<i>23.8</i>	<i>8.0</i>	<i>13.9</i>	<i>12.5</i>	<i>9.8</i>	
Excess Return			-2.3	-1.1	-6.6	-2.7	-2.5	-1.4	-0.5	
Northern Trust Russell 1000	109,837,244	52.0	2.7	9.0	24.4	8.3	14.2	12.8	14.2	Jun-10
<i>Russell 1000 Index</i>			<i>2.7</i>	<i>9.0</i>	<i>24.5</i>	<i>8.4</i>	<i>14.3</i>	<i>12.9</i>	<i>14.3</i>	
Excess Return			0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.1	
EARNEST Partners	41,511,365	19.7	-3.2	4.8	7.1	1.7	9.5	10.9	9.3	Apr-06
<i>Russell Midcap Index</i>			<i>0.6</i>	<i>9.9</i>	<i>15.3</i>	<i>3.8</i>	<i>9.9</i>	<i>9.6</i>	<i>9.1</i>	
Excess Return			-3.8	-5.1	-8.2	-2.1	-0.4	1.3	0.2	
eV US Mid Cap Core Equity Rank			88	94	86	74	63	22	47	
Wellington Select Quality Equity	26,998,936	12.8	-4.1	5.6	10.4	--	--	--	8.0	May-22
<i>Russell 1000 Index</i>			<i>2.7</i>	<i>9.0</i>	<i>24.5</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>15.7</i>	
Excess Return			-6.9	-3.4	-14.1	--	--	--	-7.7	
eV US Large Cap Core Equity Rank			99	75	96	--	--	--	95	
Brown Fundamental Small Cap Value	14,767,286	7.0	-1.4	9.0	12.7	6.9	--	--	8.2	Apr-21
<i>Russell 2000 Value Index</i>			<i>-1.1</i>	<i>9.0</i>	<i>8.1</i>	<i>1.9</i>	<i>--</i>	<i>--</i>	<i>3.1</i>	
Excess Return			-0.3	0.0	4.7	5.0	--	--	5.1	
eV US Small Cap Value Equity Rank			73	40	30	19	--	--	19	
Rice Hall James	17,971,578	8.5	2.5	12.2	16.1	0.0	7.3	--	7.9	Aug-17
<i>Russell 2000 Growth Index</i>			<i>1.7</i>	<i>10.3</i>	<i>15.2</i>	<i>0.2</i>	<i>6.9</i>	<i>--</i>	<i>8.2</i>	
Excess Return			0.8	1.9	0.9	-0.2	0.4	--	-0.3	
eV US Small Cap Growth Equity Rank			31	20	37	36	69	--	87	

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

Manager Performance - Net of Fees | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
International Equity	60,379,355	100.0	-6.7	0.8	7.5	2.5	5.0	6.1	5.4	Jan-98
<i>MSCI ACWI ex US (Blend)</i>			-7.6	-0.1	5.5	0.8	4.1	4.8	5.1	
Excess Return			0.9	1.0	1.9	1.7	0.9	1.3	0.3	
Vanguard Developed Markets ETF	16,013,244	26.5	-8.1	-1.5	3.2	1.0	4.8	--	6.7	Sep-19
<i>FTSE Developed All Cap ex-U.S. Index</i>			-7.9	-0.8	3.7	1.3	5.1	--	7.0	
Excess Return			-0.2	-0.7	-0.5	-0.3	-0.3	--	-0.3	
SGA ACWI ex-U.S. Equity	44,366,111	73.5	-6.2	1.7	9.1	3.3	5.3	--	5.3	Dec-19
<i>MSCI AC World ex USA (Net)</i>			-7.6	-0.1	5.5	0.8	4.1	--	4.9	
Excess Return			1.4	1.9	3.6	2.4	1.2	--	0.4	
eV ACWI ex-US All Cap Core Eq Rank			34	18	22	19	36	--	52	

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

Manager Performance - Net of Fees | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Fixed Income	109,911,826	100.0	-3.2	1.9	1.6	-2.1	0.1	1.8	4.4	Jan-94
<i>Bloomberg Universal (Blend)</i>			-2.7	2.3	2.0	-2.0	0.1	1.7	4.5	
Excess Return			-0.4	-0.4	-0.4	-0.2	0.0	0.1	-0.1	
Ramirez	74,416,688	67.7	-3.3	1.8	1.4	-2.3	-0.2	--	1.6	Jan-17
<i>Blmbg. U.S. Aggregate Index</i>			-3.1	2.0	1.3	-2.4	-0.3	--	1.3	
Excess Return			-0.2	-0.2	0.1	0.1	0.2	--	0.4	
eV US Core Fixed Inc Rank			90	79	76	68	76	--	41	
Wellington Core Bond	7,160,521	6.5	-3.0	2.2	2.4	-2.1	--	--	-1.2	Apr-21
<i>Blmbg. U.S. Aggregate Index</i>			-3.1	2.0	1.3	-2.4	--	--	-1.4	
Excess Return			0.1	0.2	1.1	0.3	--	--	0.2	
eV US Core Fixed Inc Rank			52	27	19	44	--	--	53	
Reams	28,334,617	25.8	-3.0	2.1	1.9	-1.6	2.4	2.9	4.8	Feb-98
<i>Bloomberg Universal (Blend)</i>			-2.7	2.3	2.0	-2.0	0.1	1.7	4.1	
Excess Return			-0.3	-0.2	-0.1	0.4	2.3	1.1	0.7	
eV US Core Plus Fixed Inc Rank			70	66	75	37	4	13	31	

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

Manager Performance - Net of Fees | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Credit	7,433,085	100.0	0.8	3.7	7.9	3.7	5.4	--	5.2	Feb-15
<i>Bimbg. U.S. Corp: High Yield Index</i>			0.2	5.5	8.2	2.9	4.2	--	5.1	
Excess Return			0.6	-1.7	-0.3	0.8	1.2	--	0.1	
Polen Capital	7,433,085	100.0	0.8	3.7	7.9	3.7	5.4	--	5.2	Feb-15
<i>ICE BofA U.S. High Yield Index</i>			0.2	5.4	8.2	2.9	4.0	--	5.1	
Excess Return			0.6	-1.7	-0.3	0.8	1.4	--	0.2	
eV US High Yield Fixed Inc Rank			19	86	44	26	13	--	21	

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

Manager Performance - Net of Fees | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Covered Calls	20,191,744	100.0	3.0	7.6	18.4	7.5	11.4	10.2	9.9	Apr-14
<i>Cboe S&P 500 Buy Write Index</i>			5.8	11.6	20.1	6.0	6.9	6.9	6.7	
Excess Return			-2.8	-4.0	-1.7	1.5	4.5	3.2	3.1	
Parametric BXM	9,642,261	47.8	3.4	7.6	16.9	6.9	9.0	8.3	8.0	Apr-14
<i>Cboe S&P 500 Buy Write Index</i>			5.8	11.6	20.1	6.0	6.9	6.9	6.7	
Excess Return			-2.4	-4.1	-3.3	0.9	2.1	1.3	1.2	
Parametric DeltaShift	10,549,483	52.2	2.6	7.7	19.9	8.1	13.6	11.7	11.9	Apr-14
<i>Cboe S&P 500 Buy Write Index</i>			5.8	11.6	20.1	6.0	6.9	6.9	6.7	
Excess Return			-3.2	-3.9	-0.2	2.1	6.7	4.7	5.1	

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

Manager Performance - Net of Fees | As of December 31, 2024

	Market Value (\$)	% of Portfolio	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Since Inception	Inception Date
Crisis Risk Offset	37,541,773	100.0	-4.2	-5.2	-3.6	-6.0	-9.6	--	-7.0	Aug-18
<i>Crisis Risk Offset Benchmark</i>			<i>-2.4</i>	<i>-1.8</i>	<i>2.0</i>	<i>3.1</i>	<i>0.1</i>	<i>--</i>	<i>0.3</i>	
Over/Under			<i>-1.8</i>	<i>-3.4</i>	<i>-5.6</i>	<i>-9.1</i>	<i>-9.7</i>	<i>--</i>	<i>-7.4</i>	
Kepos Alternative Risk Premia	12,522,581	33.4	2.0	3.3	15.0	--	--	--	8.0	Feb-22
<i>SG Multi Alternative Risk Premia Index</i>			<i>1.0</i>	<i>1.3</i>	<i>9.4</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>6.8</i>	
Over/Under			<i>1.0</i>	<i>2.0</i>	<i>5.6</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>1.3</i>	
Versor Trend Following	12,707,305	33.8	-5.4	-15.3	-14.7	--	--	--	-5.9	Apr-22
<i>SG Trend Index</i>			<i>0.3</i>	<i>-5.6</i>	<i>2.6</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>2.3</i>	
Over/Under			<i>-5.7</i>	<i>-9.7</i>	<i>-17.3</i>	<i>--</i>	<i>--</i>	<i>--</i>	<i>-8.2</i>	
Vanguard Long-Term Treasury ETF	12,311,888	32.8	-8.8	-1.7	-6.3	-11.9	-5.2	--	-4.2	Jul-19
<i>Bimbg. US Govt: Long Term Bond Index</i>			<i>-8.6</i>	<i>-1.5</i>	<i>-6.4</i>	<i>-11.9</i>	<i>-5.2</i>	<i>--</i>	<i>-4.1</i>	
Over/Under			<i>-0.2</i>	<i>-0.2</i>	<i>0.1</i>	<i>0.0</i>	<i>-0.1</i>	<i>--</i>	<i>-0.1</i>	

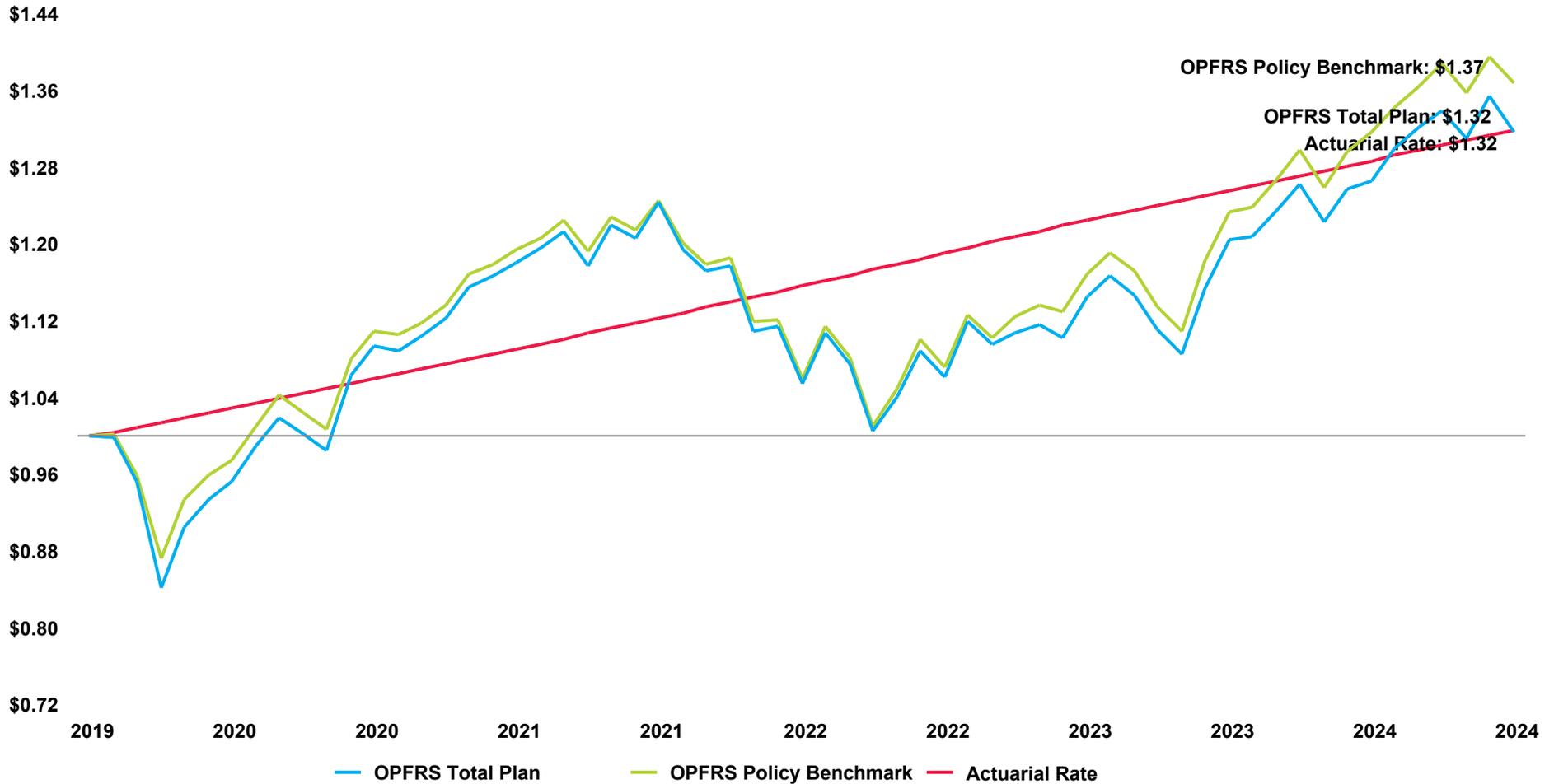
Performance shown is net of fees. Since inception date and performance begin in the month following an investments initial funding. Fiscal year begins on July 1. Please see Benchmark History section for custom benchmark compositions.

**Cash Flow Summary
Quarter To Date**

	Beginning Market Value(\$)	Net Cash Flow(\$)	Net Investment Change(\$)	Ending Market Value(\$)
Northern Trust Russell 1000	106,908,322	-	2,928,922	109,837,244
EARNEST Partners	42,722,324	72,901	-1,283,860	41,511,365
Wellington Select Quality Equity	28,167,816	-	-1,168,880	26,998,936
Brown Fundamental Small Cap Value	14,693,257	249,201	-175,172	14,767,286
Rice Hall James	17,481,481	-	490,096	17,971,578
Vanguard Developed Markets ETF	17,684,221	-238,625	-1,432,352	16,013,244
SGA ACWI ex-U.S. Equity	47,191,363	-	-2,825,252	44,366,111
Ramirez	76,882,860	-	-2,466,172	74,416,688
Wellington Core Bond	7,381,307	-	-220,787	7,160,521
Reams	29,200,698	-	-866,081	28,334,617
Polen Capital	10,380,969	-3,000,000	52,116	7,433,085
Parametric BXM	10,071,437	-750,000	320,824	9,642,261
Parametric DeltaShift	11,023,268	-750,000	276,215	10,549,483
Kepos Alternative Risk Premia	12,271,394	-	251,186	12,522,581
Versor Trend Following	13,429,347	-	-722,043	12,707,305
Vanguard Long-Term Treasury ETF	13,688,773	-185,713	-1,191,172	12,311,888
Cash - Money Market	6,160,148	417,291	37,167	6,614,606
Cash - Treasury	9,886,000	-75,000	-	9,811,000
Securities Lending Northern Trust	-	-31,144	31,144	-
OPFRS Total Plan	475,224,987	-4,291,089	-7,964,099	462,969,798

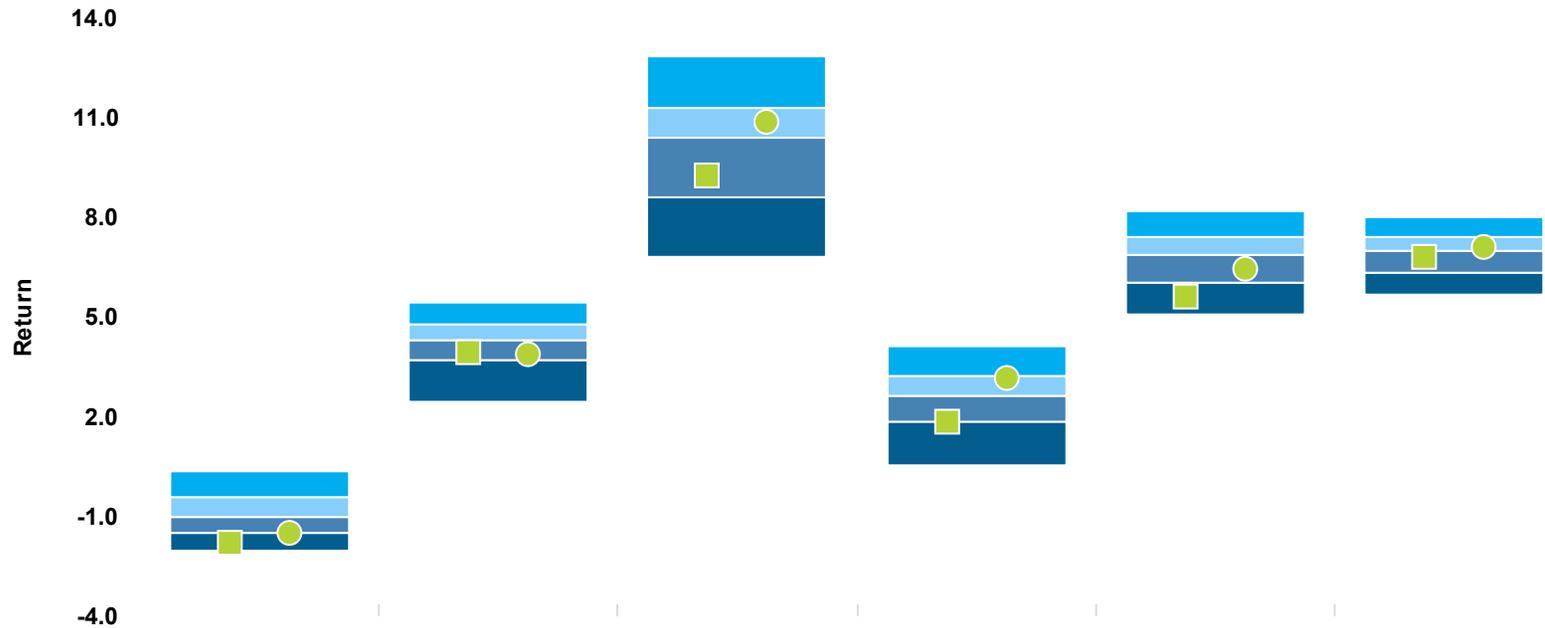
Total Portfolio 5-Year Performance | As of December 31, 2024

Growth of a Dollar 5 Years ending December 31, 2024



The actuarial assumed rate is 8% through June 2009, 7.5% through June 2010, 7% through June 2011, 6.75% through June 2014, 6.5% through December 2017, 6.0% through June 2023, and 5.0% since July 2023.

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



	QTD (%)	FYTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)
■ OPFRS Total Plan	-1.8 (91)	3.9 (66)	9.3 (70)	1.9 (76)	5.7 (86)	6.8 (58)
● OPFRS Policy Benchmark	-1.5 (75)	3.9 (70)	10.9 (41)	3.2 (28)	6.5 (67)	7.1 (42)
5th Percentile	0.4	5.5	12.8	4.1	8.2	8.0
1st Quartile	-0.4	4.8	11.3	3.3	7.4	7.4
Median	-1.0	4.3	10.4	2.6	6.9	7.0
3rd Quartile	-1.5	3.7	8.6	1.9	6.0	6.4
95th Percentile	-2.0	2.5	6.8	0.5	5.1	5.7
Population	111	110	108	106	105	93

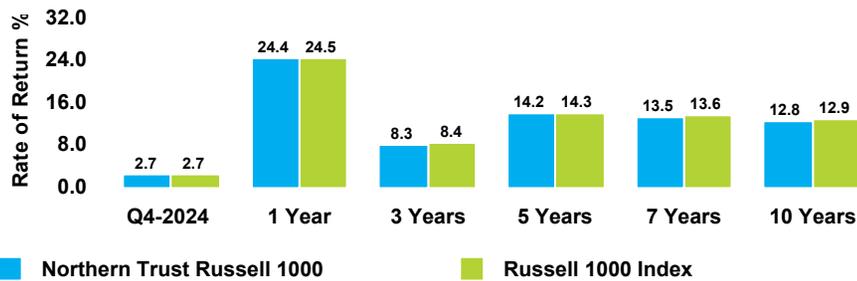
Total Plan performance is a mix of gross and net of fees; performance is gross of fees prior to January 2016 and net of fees thereafter. Parentheses contain percentile rankings. Calculation based on monthly periodicity. Fiscal year begins on July 1.

Portfolio Characteristics & Manager Profiles

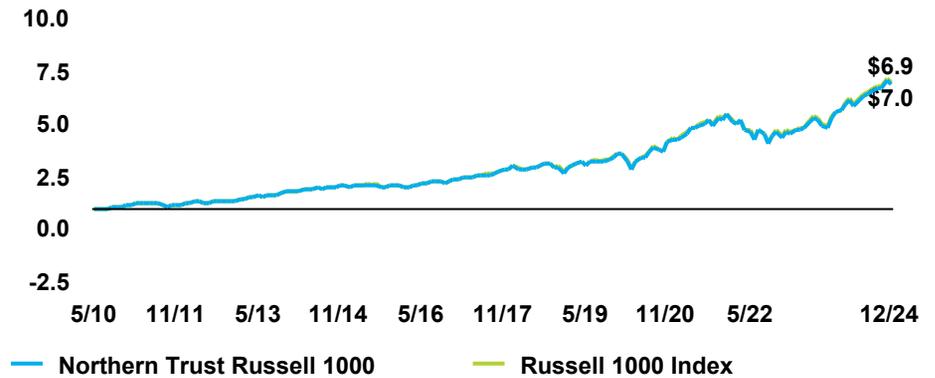
Northern Trust Russell 1000 | As of December 31, 2024

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Northern Trust Russell 1000	0.00	1.00	-0.60	0.15	0.01	1.00	99.77	99.96
Russell 1000 Index	0.00	1.00	-	0.15	0.00	1.00	100.00	100.00

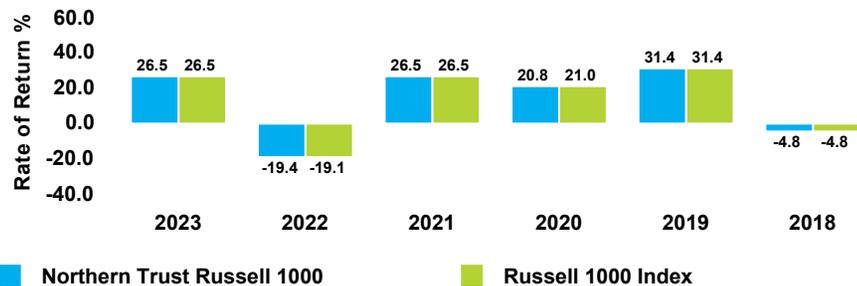
Trailing Performance



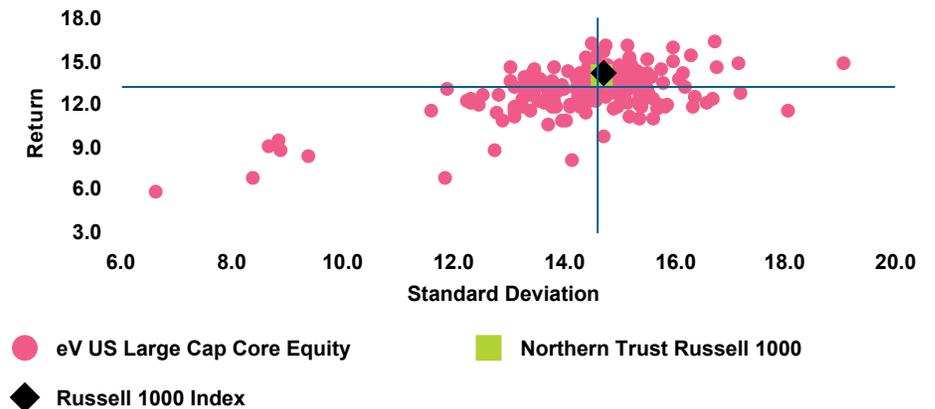
Growth of \$1 - Since Inception



Calendar Year Returns



Risk/Return - Since Inception

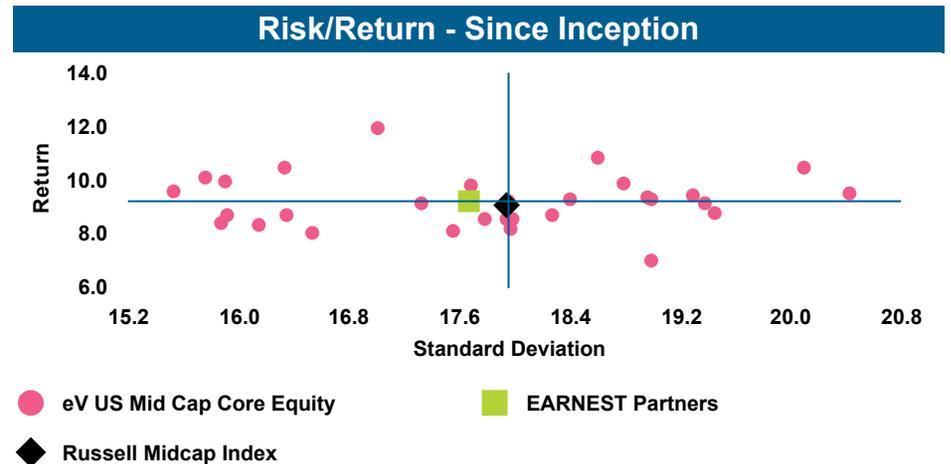
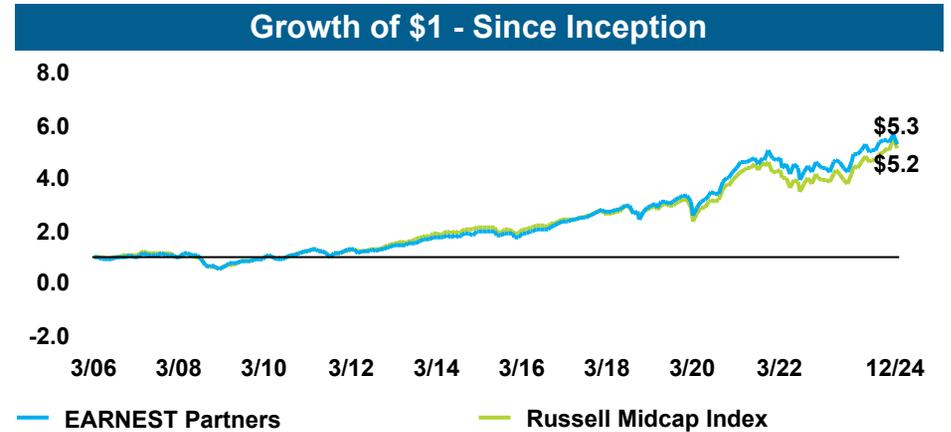


	QTD Return	QTD Risk
Northern Trust Russell 1000	2.73	3.94
Russell 1000 Index	2.75	3.95

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

EARNEST Partners | As of December 31, 2024

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
EARNEST Partners	-1.27	0.80	-1.03	-0.25	1.32	1.00	66.29	114.38
Russell Midcap Index	0.00	1.00	-	0.00	0.00	1.00	100.00	100.00

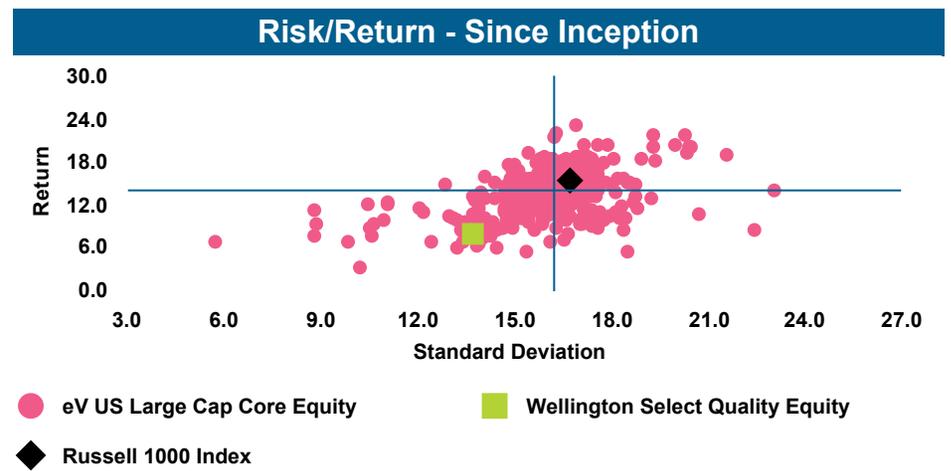
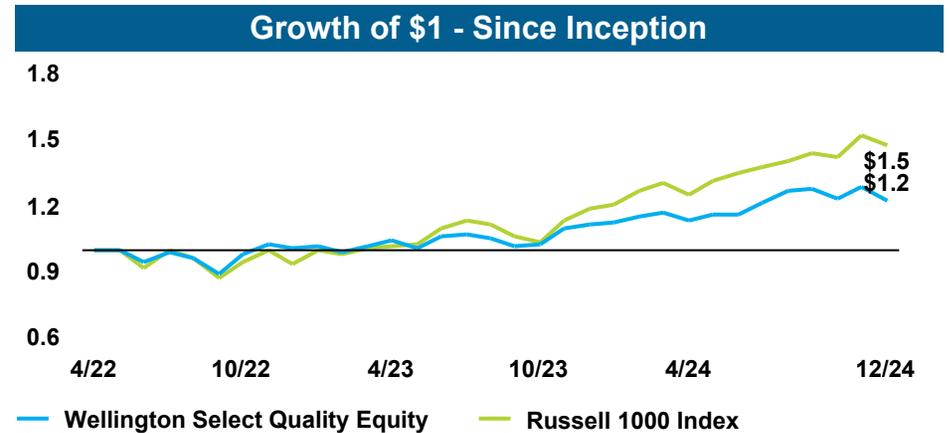
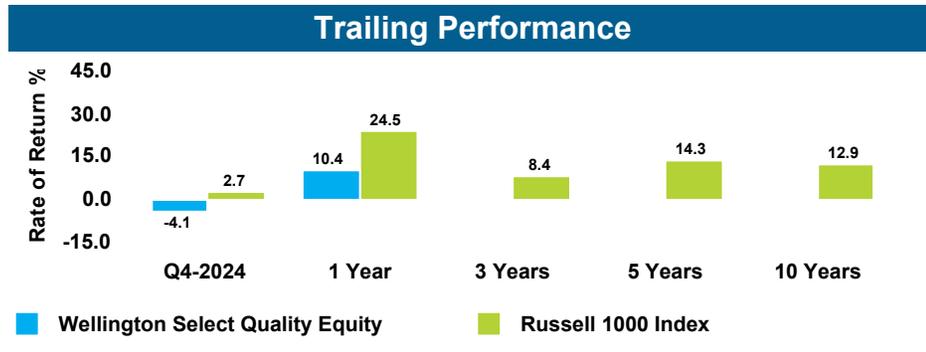


	QTD Return	QTD Risk
EARNEST Partners	-3.19	5.20
Russell Midcap Index	0.62	6.51

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

Wellington Select Quality Equity | As of December 31, 2024

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Wellington Select Quality Equity	-2.29	0.98	-3.81	-0.44	0.61	0.98	65.66	235.30
Russell 1000 Index	0.00	1.00	-	0.15	0.00	1.00	100.00	100.00



	QTD Return	QTD Risk
Wellington Select Quality Equity	-4.15	3.93
Russell 1000 Index	2.75	3.95

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

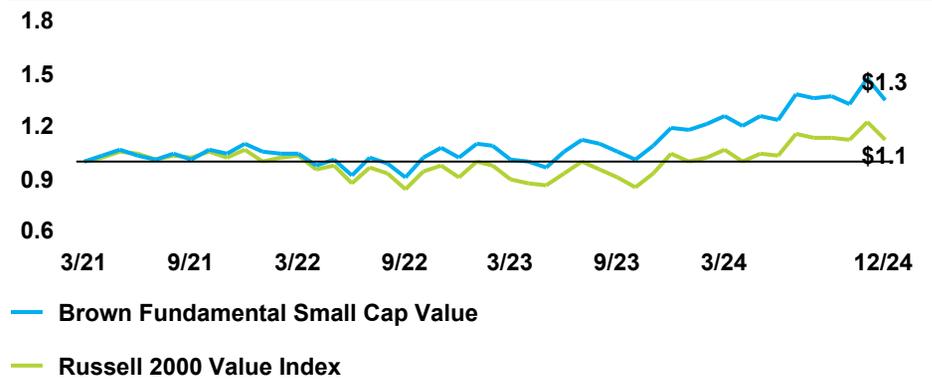
Brown Fundamental Small Cap Value | As of December 31, 2024

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Brown Fundamental Small Cap Value	-0.05	1.10	-0.04	-0.06	1.36	0.98	115.78	117.01
Russell 2000 Value Index	0.00	1.00	-	-0.06	0.00	1.00	100.00	100.00

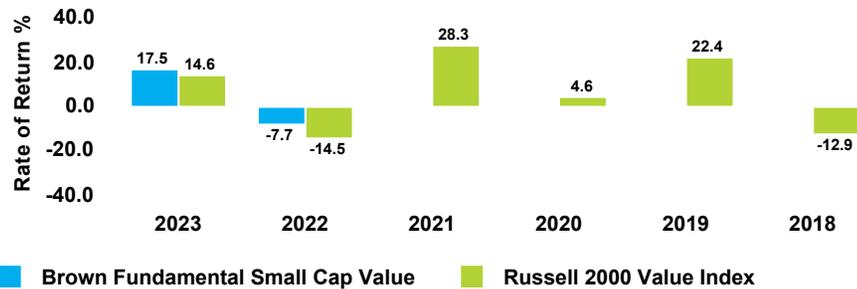
Trailing Performance



Growth of \$1 - Since Inception



Calendar Year Returns



Risk/Return - Since Inception



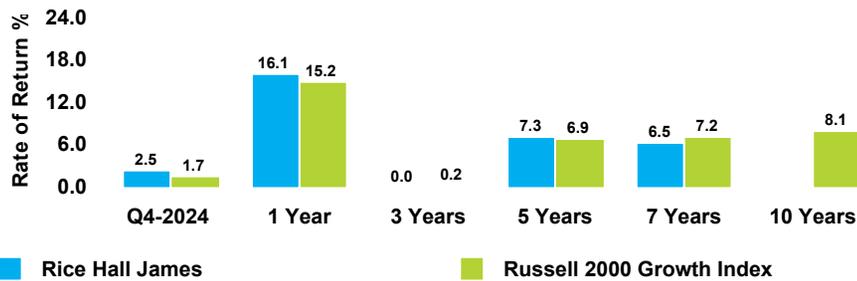
	QTD Return	QTD Risk
Brown Fundamental Small Cap Value	-1.40	8.23
Russell 2000 Value Index	-1.06	7.41

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

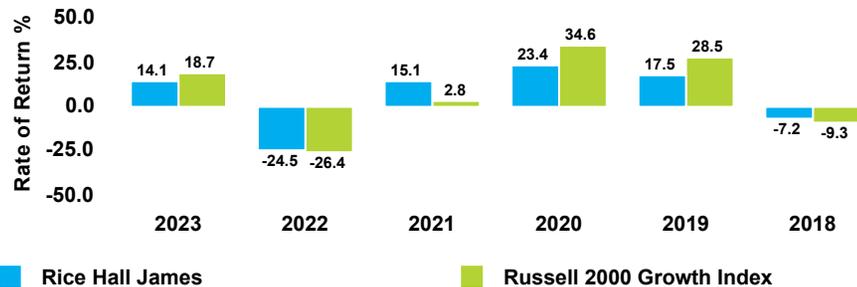
Rice Hall James | As of December 31, 2024

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Rice Hall James	0.42	0.60	0.02	0.11	3.41	0.99	65.91	54.30
Russell 2000 Growth Index	0.00	1.00	-	0.06	0.00	1.00	100.00	100.00

Trailing Performance



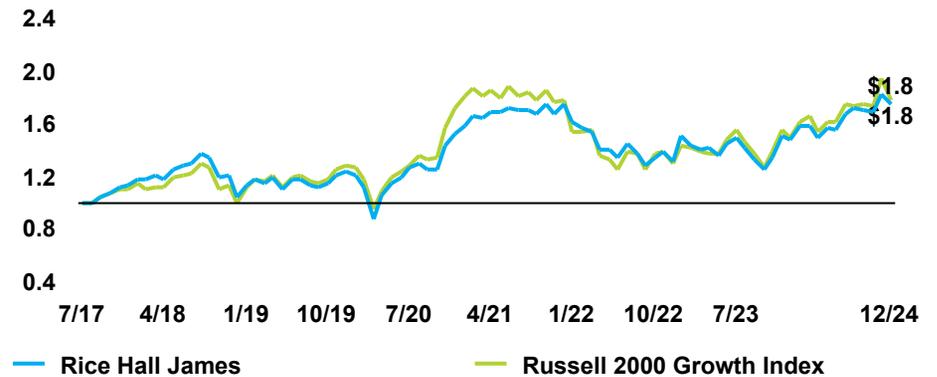
Calendar Year Returns



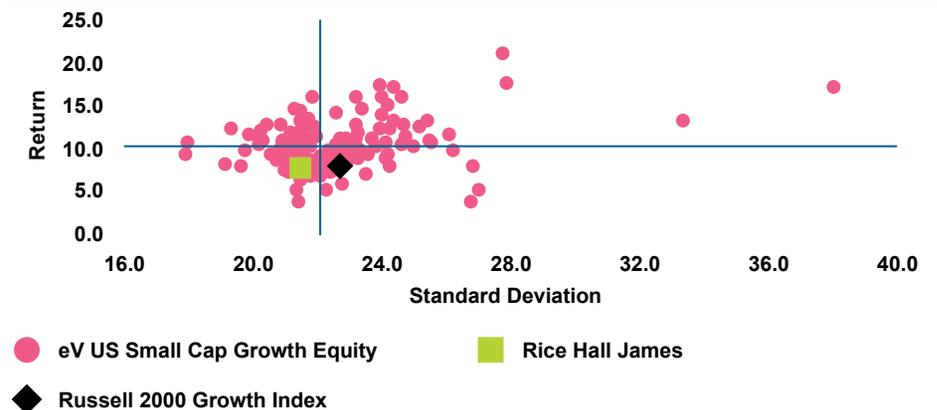
QTD Return QTD Risk

Rice Hall James	2.55	5.16
Russell 2000 Growth Index	1.70	8.50

Growth of \$1 - Since Inception



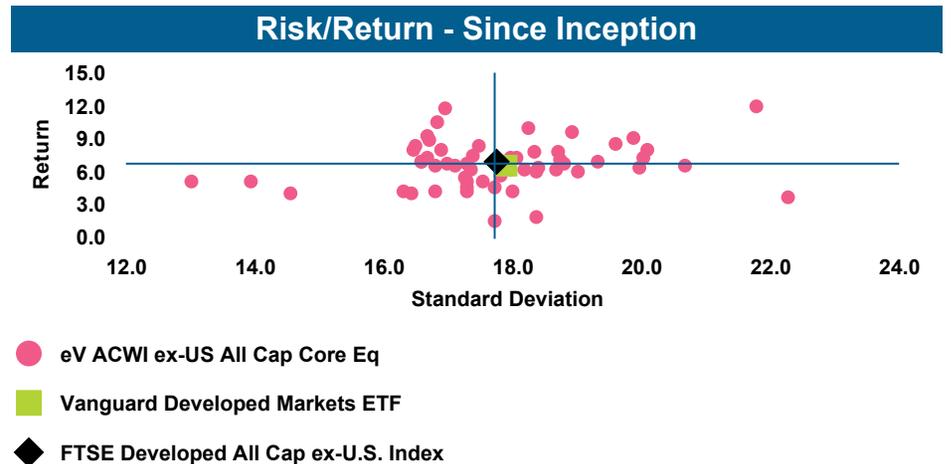
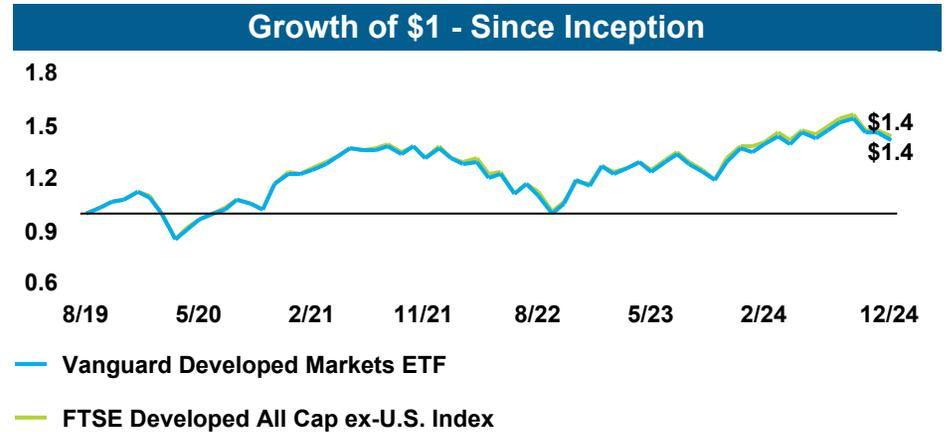
Risk/Return - Since Inception



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

Vanguard Developed Markets ETF | As of December 31, 2024

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
Vanguard Developed Markets ETF	0.07	1.06	-0.17	-1.35	0.47	0.96	1,279.49	107.58
FTSE Developed All Cap ex-U.S. Index	0.00	1.00	-	-1.42	0.00	1.00	100.00	100.00



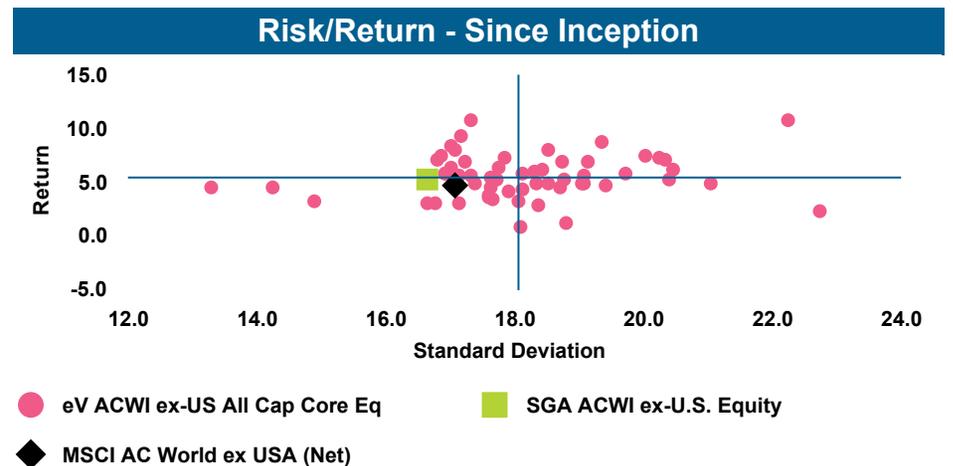
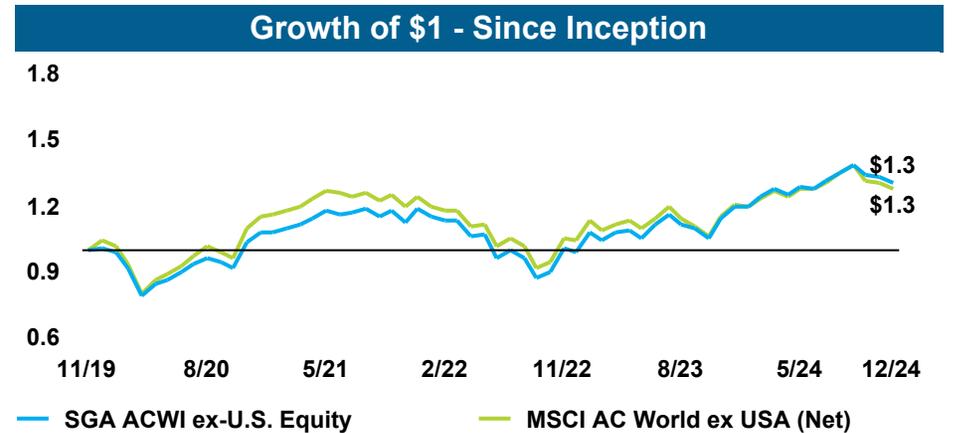
	QTD Return	QTD Risk
Vanguard Developed Markets ETF	-8.09	2.32
FTSE Developed All Cap ex-U.S. Index	-7.85	2.16

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

	Alpha	Beta	Information Ratio	Sharpe Ratio	Tracking Error	R-Squared	Up Capture	Down Capture
SGA ACWI ex-U.S. Equity	-0.31	0.69	0.85	-2.09	0.57	0.97	-	81.26
MSCI AC World ex USA (Net)	0.00	1.00	-	-1.76	0.00	1.00	-	100.00



	QTD Return	QTD Risk
SGA ACWI ex-U.S. Equity	-6.19	1.19
MSCI AC World ex USA (Net)	-7.60	1.70



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

Ramirez | As of December 31, 2024

Account Information

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

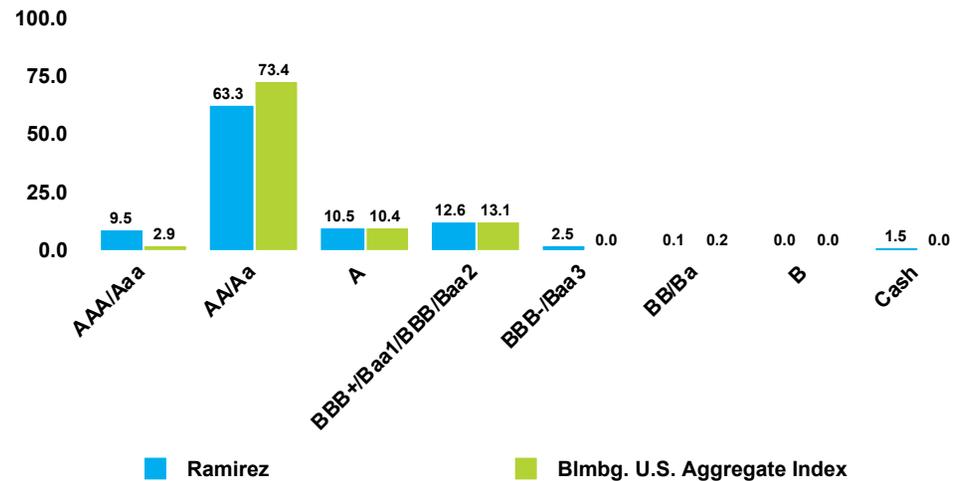
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Ramirez	-3.3	1.4	-2.3	-0.2
Blmbg. U.S. Aggregate Index	-3.1	1.3	-2.4	-0.3

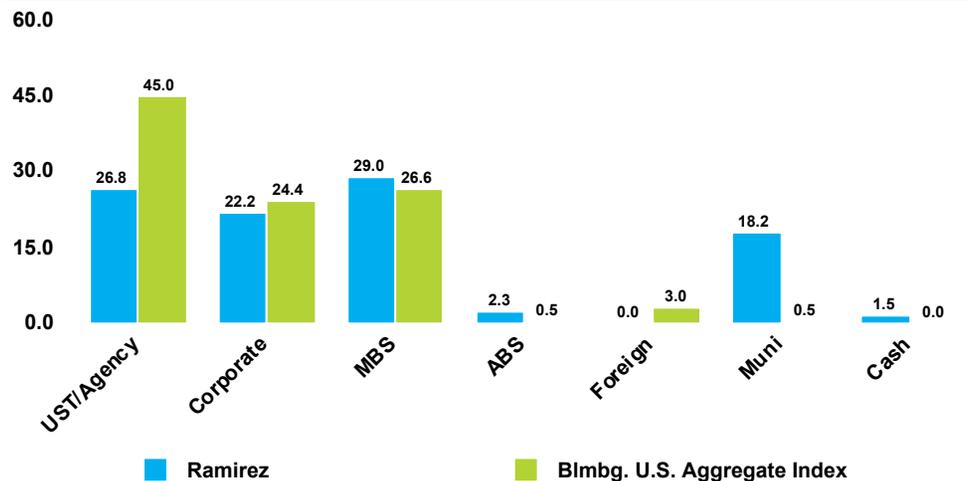
Portfolio Fixed Income Characteristics

	Q4-24 Portfolio	Q3-24 Portfolio
Yield To Maturity	5.2	5.5
Average Duration	6.3	6.3
Average Quality	AA	AA
Weighted Average Maturity	9.3	9.0

Credit Quality Allocation



Sector Allocation



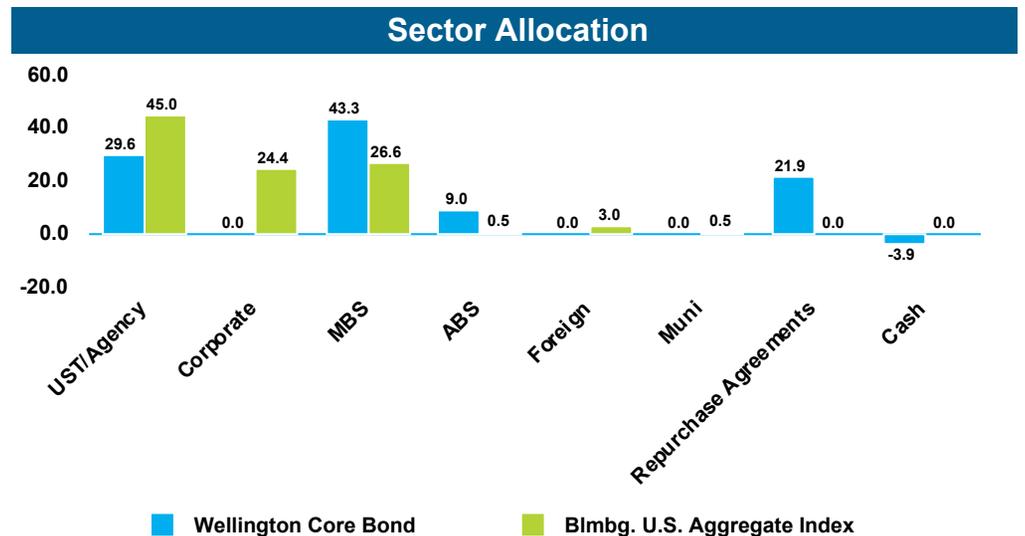
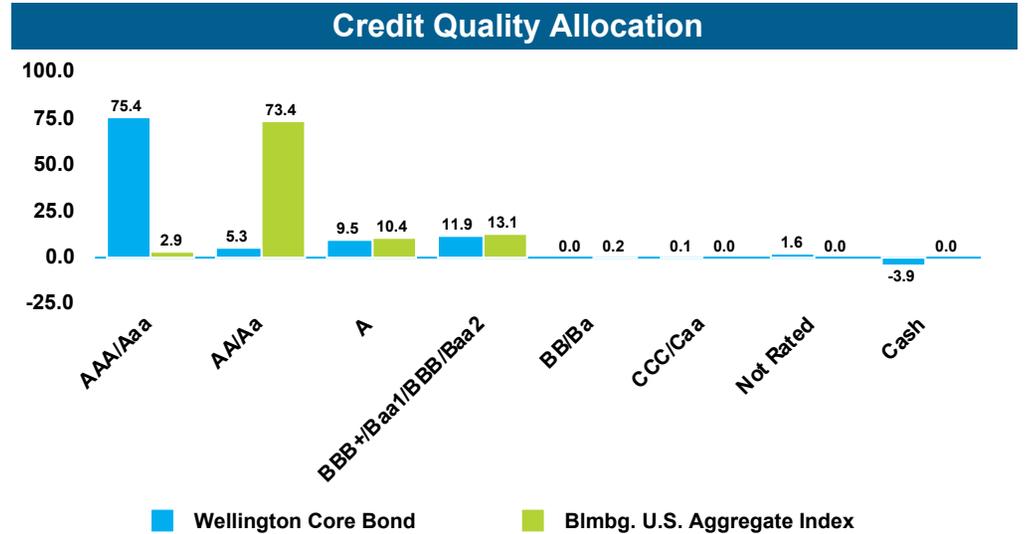
Performance shown is net of fees.

Wellington Core Bond | As of December 31, 2024

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

Portfolio Performance Summary				
	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Wellington Core Bond	-3.0	2.4	-2.1	-
Blmbg. U.S. Aggregate Index	-3.1	1.3	-2.4	-0.3

Portfolio Fixed Income Characteristics		
	Q4-24 Portfolio	Q3-24 Portfolio
Yield To Maturity	5.3	5.1
Average Duration	6.0	6.4
Average Quality	AA	AA
Weighted Average Maturity	-	-



Performance shown is net of fees.

Reams | As of December 31, 2024

Account Information

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

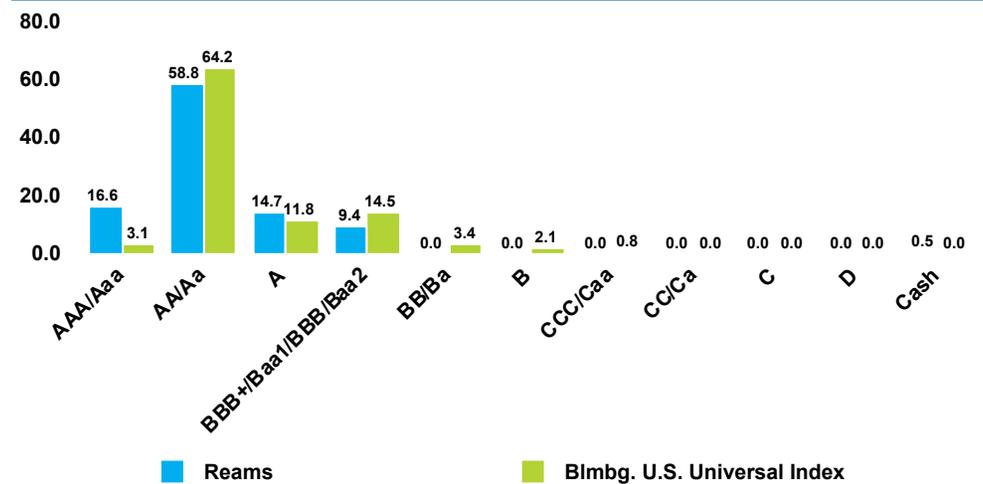
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Reams	-3.0	1.9	-1.6	2.4
Blmbg. U.S. Universal Index	-2.7	2.0	-2.0	0.1

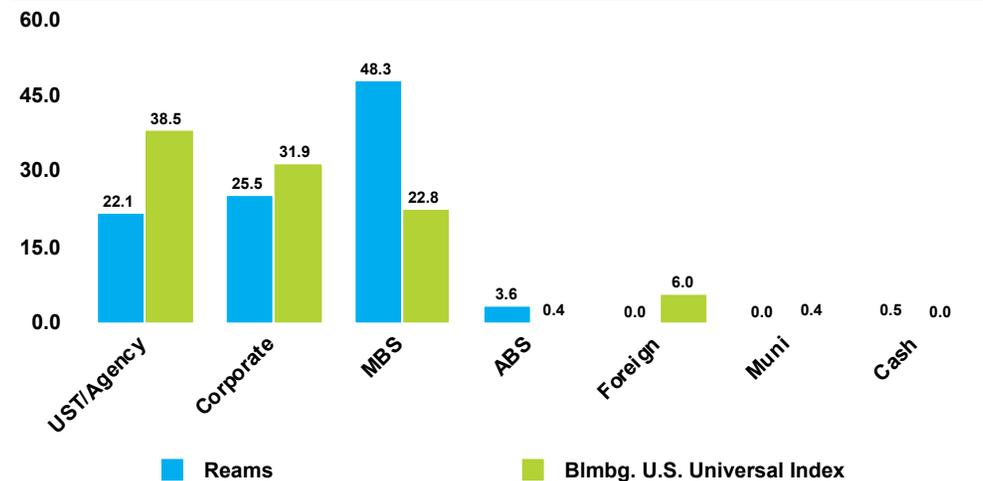
Portfolio Fixed Income Characteristics

	Q4-24 Portfolio	Q3-24 Portfolio
Yield To Maturity	5.4	4.6
Average Duration	6.6	6.1
Average Quality	AA	AA
Weighted Average Maturity	9.5	8.7

Credit Quality Allocation



Sector Allocation



Performance shown is net of fees.

Polen Capital | As of December 31, 2024

Account Information

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

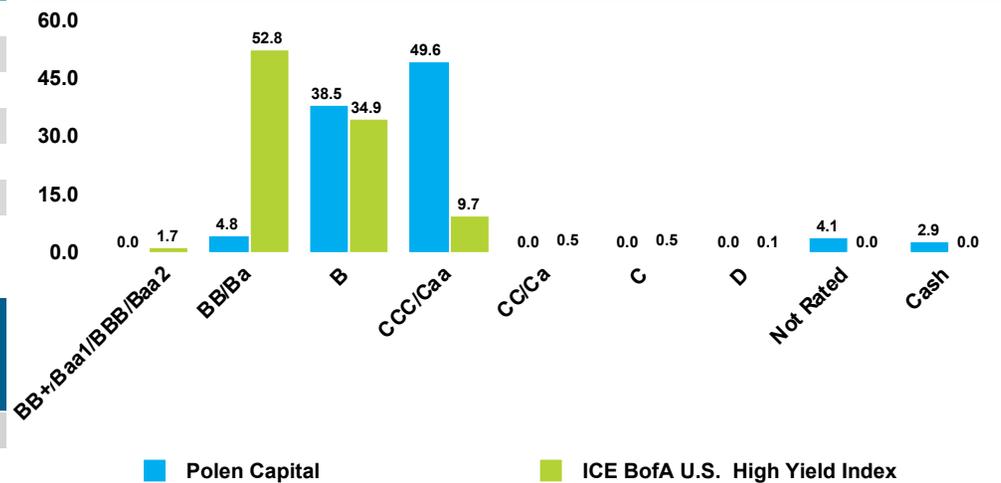
Portfolio Performance Summary

	QTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)
Polen Capital	0.8	7.9	3.7	5.4
ICE BofA U.S. High Yield Index	0.2	8.2	2.9	4.0

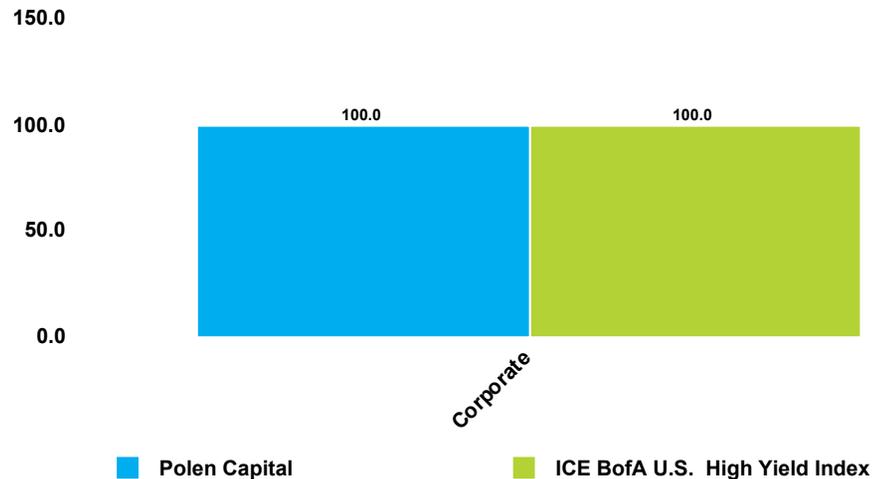
Portfolio Fixed Income Characteristics

	Q4-24 Portfolio	Q3-24 Portfolio
Yield To Maturity	9.6	9.0
Average Duration	2.2	2.0
Average Quality	B	B
Weighted Average Maturity	4.7	4.8

Credit Quality Allocation



Sector Allocation

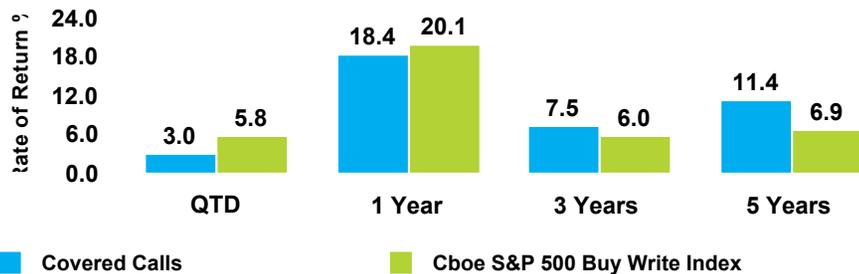


Performance shown is net of fees.

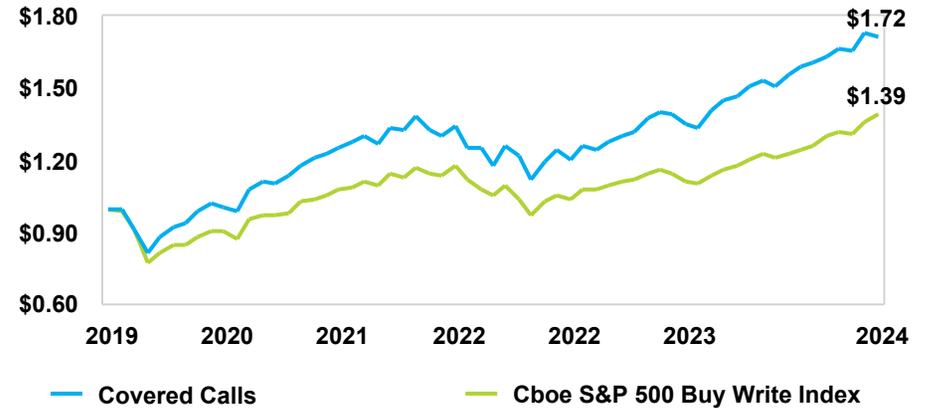
Covered Calls | As of December 31, 2024

	Return	Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Capture	Down Capture	Inception Date
Covered Calls	9.9	11.2	2.9	1.0	0.7	4.1	121.3	105.1	04/01/2014
Cboe S&P 500 Buy Write Index	6.7	10.1	0.0	1.0	-	0.0	100.0	100.0	
Parametric BXM	8.0	9.1	2.1	0.9	0.3	3.3	98.1	85.3	04/01/2014
Cboe S&P 500 Buy Write Index	6.7	10.1	0.0	1.0	-	0.0	100.0	100.0	
Parametric DeltaShift	11.9	13.4	3.8	1.2	0.8	6.2	143.7	122.1	04/01/2014
Cboe S&P 500 Buy Write Index	6.7	10.1	0.0	1.0	-	0.0	100.0	100.0	

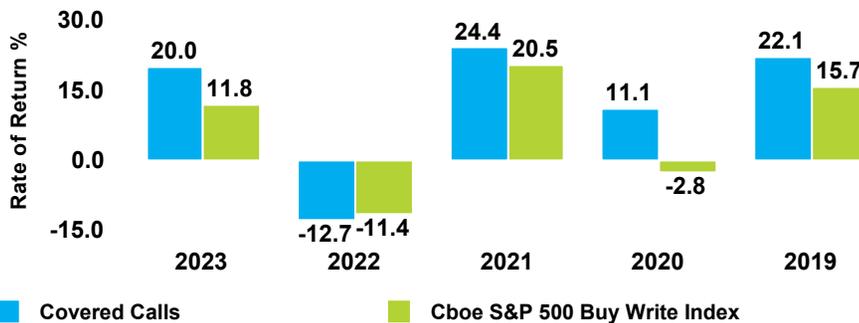
Trailing Period Performance



Growth of a Dollar



Calendar Year Performance



Performance shown is net of fees.

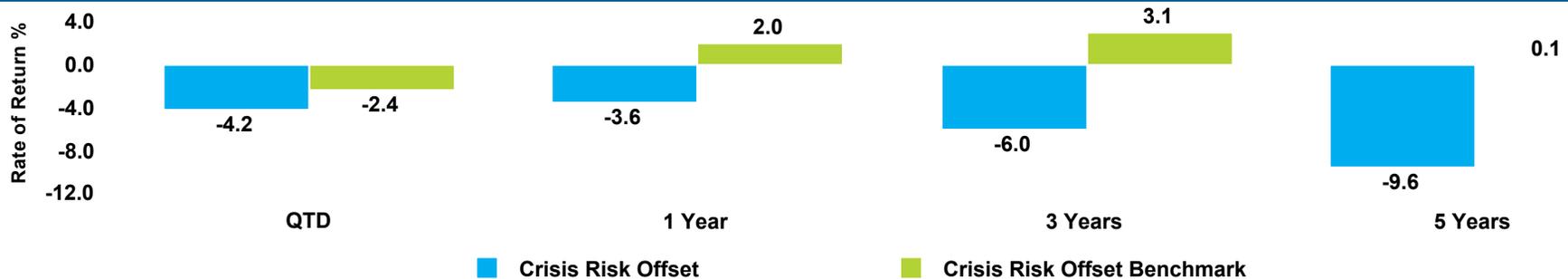
Crisis Risk Offset | As of December 31, 2024

	Return	Standard Deviation	Alpha	Beta	Information Ratio	Tracking Error	Up Capture	Down Capture	Inception Date
Crisis Risk Offset	-7.0	10.4	-6.9	0.8	-0.8	9.5	32.7	128.8	08/01/2018
Crisis Risk Offset Benchmark	0.3	5.4	0.0	1.0	-	0.0	100.0	100.0	
Kepos Alternative Risk Premia	8.0	6.2	2.1	0.9	0.3	4.6	102.6	74.3	02/01/2022
SG Multi Alternative Risk Premia Index	6.8	4.8	0.0	1.0	-	0.0	100.0	100.0	
Versor Trend Following	-5.9	14.3	-7.8	1.0	-1.2	6.6	73.5	118.8	04/01/2022
SG Trend Index	2.3	12.3	0.0	1.0	-	0.0	100.0	100.0	
Vanguard Long-Term Treasury ETF	-4.2	14.9	0.0	1.0	-0.1	1.0	101.0	101.1	07/01/2019
Blmbg. U.S. Government: Long Term Bond Index	-4.1	14.8	0.0	1.0	-	0.0	100.0	100.0	

Correlation Matrix 3 Months Ending December 31, 2024

	Crisis Risk Offset	MSCI AC World Index Value	S&P 500 Index	Blmbg. Global Aggregate Index
Crisis Risk Offset	1.00			
MSCI AC World Index Value	0.55	1.00		
S&P 500 Index	0.68	0.99	1.00	
Blmbg. Global Aggregate Index	0.95	0.79	0.88	1.00

Trailing Period Performance



Performance shown is net of fees.

Benchmark History

From Date	To Date	Benchmark
OPFRS Total Plan		
07/01/2024	Present	34.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 44.0% Blmbg. U.S. Universal Index, 10.0% Crisis Risk Offset Benchmark
06/01/2022	07/01/2024	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA (Net), 31.0% Blmbg. U.S. Universal Index, 2.0% Blmbg. U.S. Corp: High Yield Index, 5.0% Cboe S&P 500 Buy Write Index, 10.0% Crisis Risk Offset Benchmark
01/01/2019	06/01/2022	40.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 31.0% Blmbg. U.S. Universal Index, 5.0% Cboe S&P 500 Buy Write Index, 2.0% Blmbg. U.S. Treasury: Long, 10.0% Crisis Risk Offset Benchmark
05/01/2016	01/01/2019	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 20.0% CBOE BXM
10/01/2015	05/01/2016	43.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 15.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
01/01/2014	10/01/2015	48.0% Russell 3000 Index, 12.0% MSCI AC World ex USA index, 20.0% Blmbg. U.S. Universal Index, 10.0% CBOE BXM, 10.0% CPI - All Urban Consumers (unadjusted) +3%
03/01/2013	01/01/2014	40.0% Russell 3000 Index, 10.0% MSCI AC World ex USA index, 17.0% Blmbg. U.S. Universal Index, 33.0% ICE BofA 3 Month U.S. T-Bill
08/01/2012	03/01/2013	20.0% Russell 3000 Index, 7.0% MSCI AC World ex USA index, 18.0% Blmbg. U.S. Universal Index, 55.0% ICE BofA 3 Month U.S. T-Bill
10/01/2007	08/01/2012	53.0% Russell 3000 Index, 17.0% MSCI AC World ex USA index, 30.0% Blmbg. U.S. Universal Index
04/01/2006	10/01/2007	35.0% Russell 3000 Index, 15.0% MSCI AC World ex USA index, 50.0% Blmbg. U.S. Universal Index
01/01/2005	04/01/2006	35.0% Russell 3000 Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI AC World ex USA index
04/01/1998	01/01/2005	20.0% Russell 1000 Value Index, 10.0% Russell 1000 Index, 5.0% Russell Midcap Index, 50.0% Blmbg. U.S. Aggregate Index, 15.0% MSCI EAFE (Net)
01/01/1978	04/01/1998	40.0% S&P 500 Index, 55.0% Blmbg. U.S. Aggregate Index, 5.0% FTSE 3 Month T-Bill

Benchmark History

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

Manager Monitoring

Managers on Watch / Probation Status

Manager & Strategy	Concern Triggering Watch Status	Date of Corrective Action ¹	Months Since Placement	Performance ² Since Placement	Peer Group Rank Since Placement
Versor Trend Following	Organization / Performance	9/27/2023	15	-17.5	N/A
<i>Benchmark: SG Trend Index</i>	--	--	--	-2.1	--

Investment Manager Monitoring Criteria³

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

Asset Class	Short-term (Rolling 12 months)	Medium-term (Rolling 36 months)	Long-term (60 + months)
Active US Equity	Fund return < benchmark return by 3.5%	Annualized Fund return < benchmark return by 1.75% for 6 consecutive months	VRR ⁴ < 0.97 for 6 consecutive months
Active Non-US 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 Non-US 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

As of December 31, 2024, all public equity and fixed income managers pass the monitoring criteria.

¹ Date when the Board voted to either monitor a manager at a heightened level or place it on probation.

² Performance Since Placement starts at the beginning of the full month following the date of corrective action. Performance shown is net of fees and annualized after one year mark.

³ Per Investment Policy Statement and Manager Guidelines ("IPS"), Revised 5/31/2023, section H. Currently, only Domestic Equity, International Equity, and Fixed Income have stated quantitative monitoring criteria in the IPS.

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

Appendix

Additional Information

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

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

Fiscal Year: Fiscal year begins on July 1.

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

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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. Portfolio Return- [Risk Free Rate+Beta*(market return-Risk Free Rate)].

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

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

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

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

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

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 (“PFRS”)
FROM: Meketa Investment Group (“Meketa”)
DATE: February 26, 2025
RE: International Equity Manager Search Update & Finalist Recommendations

This memorandum provides the PFRS Board with an update of the Request For Proposal (RFP) process for International Equity managers along with an overview of the recommended finalists for further consideration.

Background

At the July 2024 meeting, the Board approved a search process to identify the most attractive candidates to manage PFRS’s International (non-US) Equity mandate. These managers will be benchmarked to MSCI All Country World ex US Index (Net) with an allocation of approximately \$25 to \$30 million¹.

Meketa released an RFP in December 2024 with a due date of January 10, 2025 for all prospective manager responses. The RFP contained a wide spectrum of questions that seek specific answers from the manager candidates on several topics related to the investment management of an International Equity portfolio on behalf of PFRS. As a result of the RFP, Meketa received responses from 42 investment managers for 43 International Equity strategies including the current active International Equity manager in the PFRS portfolio.

Meketa evaluated the RFPs and analyzed performance, risk data, and other qualitative factors from each of the responding firms. Based on both qualitative and quantitative analysis, Meketa narrowed the field to a shortlist of eight managers for further consideration. Upon further analysis, the shortlist is narrowed down to three finalists for consideration and an interview by PFRS. Additional details on this process, including the list of all respondents, are included in the following pages.

Recommendation

Meketa recommends that the PFRS Board select the three following International Equity managers as finalists to be interviewed by PFRS, based on our review of the managers’ RFP responses.

Recommended Finalists ²	Product
Acadian Asset Management	Non-US Equity ³
C Worldwide Asset Management	International Equities
Strategic Global Advisors ⁴	International ACWI ex-US Equity

Upon completion of the search process, Meketa recommends that the Board select one manager to be allocated approximately \$25 to \$30 million.

¹ Estimated based on PFRS portfolio market values and the International (Non-US) Equity’s 5% target allocation.

² The manager list is in alphabetical order.

³ While Acadian proposed the Non-US Equity (EAFE) strategy in their RFP response, given the mandate’s nature, Acadian’s ACWI ex US strategy is presented in this document.

⁴ Strategic Global Advisors (SGA) is an incumbent manager with an ACWI ex US mandate.

Manager Search Process

The following table contains the list of 43 respondents and their proposed products.

Firm	Product	Firm	Product
Acadian	Non-US Equity	Lazard	ACW ex-US Equity Advantage
Altrinsic Global Advisors	International Equity	Loomis Sayles & Company	International Growth Equity
Aristotle	International Equity	LSV	Intl Large Cap Value (ACWI Ex US)
Artisan Partners	Non-US Growth Equity	Mawer	International Equity Strategy
Ativo Capital Management	International ADR	MFS	International Equity
Axiom Investors	International Equity	Northern Trust	MSCI ACWI Ex US Index Strategy
Boston Partners	International Equity	Oldfield Partners	International All Cap Select
C Worldwide	International Equities	Pyrford International	International Equity
CapVest Equity Partners	CapVest Equity Partners V	RhumbLine Advisers	MSCI ACWI ex US Index Strategy
Connor, Clark & Lunn	CC&L Q International Equity	RhumbLine Advisers	MSCI EAFE Index Strategy
Channing Global Advisors	ACWI ex USA	Schroder	International Growth
City of London Company	Global Developed CEF Intl Equity	Setanta	EAFE Equity Strategy
ClearBridge Investments	International Growth ACWI ex US	Strategic Global Advisors	International ACWI ex-US Equity
Fayez Sarofim & Co.	International Equity	Shubh	Broken Angels Strategy
First Eagle	International Value Strategy	Silchester International	International Value Equity
Fisher Investments	All Foreign Equity	Smead Capital	International Value Fund
Grantham, Mayo, Van Otterloo	International Equity Strategy	Sprucegrove	All Country World ex US Value Equities
Harding Loevner	International Equity	Thornburg	International Equity Strategy
J O Hambro	International Opportunities	Vontobel	Quality Growth - International Equity
Janus Henderson Investors	International Alpha Equity	Wellington	Focused International Opportunities
Jennison Associates	International Equity Opportunities	William Blair	International Growth
Kornitzer Capital	Buffalo International Fund		

Shortlisted Managers

To narrow the list to the eight managers below, respondents were removed for the following reasons:

- Consistency with scope of manager search,
- Ownership structure,
- Level of conviction in manager strategy/process,
- Track record and consistency of risk-adjusted returns, and
- Correlation with existing manager and/or other candidates.

Eight Shortlisted International Equity Managers

Acadian Non-US Equity

Altrinsic International Equity

Axiom International Equity

C Worldwide International Equities

LSV International Large Cap Value Equity (ACWI Ex US)

Northern Trust MSCI ACWI Ex US Index Strategy

SGA International ACWI ex US Equity

Silchester International Value Equity

These eight firms were then analyzed on a quantitative and qualitative basis to determine a recommended list of finalists. The major areas of focus for each considered manager were:

- **Organization:** Focuses on the capacity of the firm to provide the required services. Also includes consideration of issues that may impact a firm’s operational stability, such as litigation brought against the firm.
- **Investment Professionals:** Explores the experience, capacity, and depth of the firm’s professionals, particularly with respect to the mandate under consideration.
- **Investment Strategy:** Review of investment philosophy, approach, strategy, and risk management to ensure they are consistent with the considered mandate.
- **Client Base/Services:** Seeks to identify whether the manager has experience servicing mandates similar in size and type to the one considered by PFRS.
- **Quantitative Analysis of Historical Performance and Characteristics:** An analysis of portfolio performance and characteristics to determine whether actual management of the portfolio has been consistent with results expected under the considered mandate and if the proposed strategy is complementary to the plan’s existing investments.
- **Fees:** The costs of implementing the mandate deserve separate consideration and can vary substantially across a subset of candidates. Fees were computed based on an assumed mandate size of \$25 million⁵.

⁵ The assumed mandate size of \$25 million is estimated based on PFRS’s allocation target for International Equity component (5%) applied to the Total Plan market value as of 12/31/2024 (\$463 million).

All three of the recommended finalists were identified as possessing the ability to provide PFRS with the appropriate services.

Finalist Manager Candidates⁶

	Acadian	C Worldwide	SGA
Firm Location	Boston, MA	Copenhagen, Denmark	Newport Beach, CA
Firm Inception	1986	1986	2005
Ownership Structure	100% Parent Owned	20% Employee Owned/ 80% PE Firm (Altor)	56% Employee Owned/ 44% Horvanian and Nile
Firm AUM	\$115.8 billion	\$18.0 billion	\$2.5 billion
Strategy Name	All Country World ex US	International Equities	International ACWI ex US
Strategy Inception	November 1998	September 1986	June 2015
Strategy AUM	\$13.7 billion	\$1.6 billion	\$44.6 million

Finalist Manager Candidates: Fees and Terms

	Acadian	C Worldwide	SGA
Investment Vehicle	Commingled (CIT)	Commingled (CIT)	Separate Account
Liquidity	Daily	Daily	Daily
All-in-Fee	65 bps	40 bps	65 bps
Peer Percentile Rank⁷	36 – Commingled Fund	14 – Commingled Fund	38 – Separate Account

Finalist Manager Candidates Performance (Gross of Fees), as of December 31, 2024⁸:

	Acadian	C Worldwide	SGA	MSCI ACWI ex US (Net)
Trailing Period Returns (%):				
YTD	14.2	-0.4	10.2	5.5
1 Year	4.0	1.0	4.0	0.8
3 Years	8.3	7.3	6.2	4.1
5 Years	6.1	6.2	5.0	3.5
7 Years	8.0	7.5	---	4.8
10 Years	14.2	-0.4	10.2	5.5
Calendar Year Returns (%)				
2023	17.0	21.5	21.6	15.6
2022	-15.7	-14.9	-16.1	-16.0
2021	16.3	10.0	12.2	7.8
2020	13.9	25.7	6.9	10.7
2019	19.1	28.0	22.1	21.5
2018	-14.8	-16.3	-14.7	-14.2
2017	35.7	33.6	29.6	27.2
2016	9.5	-1.9	1.6	4.5
2015	-3.9	2.9	---	-5.7
2014	-1.2	-0.2	---	-3.9

DS/PN/JLC/mn

⁶ The manager list is sorted alphabetically. Strategic Global Advisors (SGA) is an incumbent manager with an ACWI ex US mandate.

⁷ Peer group rankings displayed represent lowest fees as 1 to highest fees as 100. Rankings compare effective fees from manager RFP responses against the eVestment All EAFE Equity Universe for mandate size of \$25 million.

⁸ Manager performance displayed as gross of fees composite returns provided by manager.

MEMORANDUM

TO: Oakland Police and Fire Retirement System (“OPFRS”)
FROM: Meketa Investment Group (“Meketa”)
DATE: February 26, 2025
RE: Rice Hall James — Manager Update

Manager: Rice Hall James

Inception Date:	August 2017	OPFRS AUM (01/31/2025):	\$18.8 million
Strategy:	Small Cap Opportunities	Strategy AUM (12/31/2024):	\$1.0 billion
Benchmark:	Russell 2000 Growth	Firm-wide AUM (12/31/2024):	\$1.8 billion

Summary

Rice Hall James has managed a part of OPFRS’s domestic equity portfolio since August 2017. As of January 31, 2025, the portfolio is approximately \$18.8 million or about 4% of OPFRS’s Total Fund. Since last review in February 2024, the strategy has continued to perform within expectations and guidelines for the portfolio, and no major organizational changes or personnel turnover in the portfolio management team have been observed since the last review. **Therefore, Meketa does not have any major concerns with Rice Hall James and the Small Cap Opportunities strategy.**

Investment Performance Review Summary

As of January 31, 2025, Rice Hall James Small Cap Opportunities strategy has outperformed or matched its benchmark (Russell 2000 Growth Index) across all time periods except over the 3-year trailing period on both gross- and net-of-fees basis.

In comparison with its peers in the eVestment US Small Cap Growth Equity (Net) universe, it has ranked average or above average during the most recent quarter and over the 1-year trailing period while below median for the longer trailing periods.

Portfolio Performance (as of 01/31/2025)¹

	QTD	1 Yr	3 Yrs	5 Yrs	Since Inception
Rice Hall James (Gross)	4.9	24.8	5.5	9.8	9.5
<i>Russell 2000 Growth</i>	<i>3.2</i>	<i>22.7</i>	<i>6.2</i>	<i>7.8</i>	<i>8.5</i>
Excess Return	1.7	2.1	-0.7	2.0	1.0
Rice Hall James (Net)	4.8	23.6	4.5	8.7	8.5
<i>Russell 2000 Growth</i>	<i>3.2</i>	<i>22.7</i>	<i>6.2</i>	<i>7.8</i>	<i>8.5</i>
Excess Return	1.6	0.8	-1.7	0.9	0.0
Peer Group Rank (Net) ²	33	40	54	54	85

¹ Performance is annualized for periods longer than one year. Inception date is August 2017.

² Peer group is eVestment US Small Cap Growth (Net) as of 01/31/2025.

Product and Organization Review Summary

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

A review of Rice Hall James and the Small Cap Opportunities strategy revealed no concerning organizational issues or changes since last review in February 2024.

Investment Summary, Philosophy, & Approach³

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

The philosophy is rooted in historical analysis indicating the high relative return potential of these factors in combination. The team believes that superior results can be achieved by owning companies that exhibit not only high earnings growth, but also the ability to sustainably generate high ROIC over long periods of time. The investment universe consists of companies with market capitalizations between \$100 million and \$5.5 billion at the time of purchase.

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

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

Since strong relative results tend to manifest over longer holding periods, they focus on long-term sustainability factors rather than short-term data points and market movements; as such, low turnover is a notable characteristic of the portfolio. This feature is consistent with their inclusion of only high - conviction, long-term ideas, and lower turnover could potentially mitigate unnecessary cost and transaction risk for clients within the scope of the mandate.

DS/PN/JLC/mn

³ Source: eVestment, as of 12/31/2024.



AGENDA REPORT

TO: Oakland Police & Fire Retirement System (PFRS) Audit & Operations Committee

FROM: David F. Jones
PFRS Plan Administrator & Secretary

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

DATE: February 26, 2025

SUMMARY

The Service Contract for the following Investment Manager for the Oakland Police & Fire Retirement Systems (PFRS) is set to expire March 1, 2025. The PFRS Board is asked to consider acting to extend the service agreement for this manager for one additional year pursuant to their service agreement.

BACKGROUND

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

Investment Manager	Investment Strategy	Date Entered Into Contract	Contract/Extension Expiration Date
Rice Hall James & Associates	Domestic Equity Small-Cap Growth	March 1, 2017	March 01, 2025

RECOMMENDATION

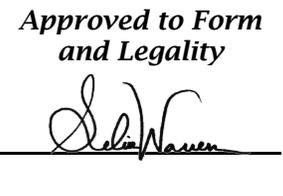
Staff recommends that the PFRS Board approve the implementation of the relevant service agreement provision for the manager to extend the service agreement between the above mentioned PFRS Investment Manager and PFRS.

Respectfully submitted,

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

Attachment:(1) Resolution No. 8122

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA
RESOLUTION No. 8122



ON MOTION OF MEMBER _____ SECONDED BY MEMBER _____

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

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

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

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

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

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

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

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

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION No. 8122

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

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

WHEREAS, on February 28, 2024, the Board approved Resolution 8093 which authorized a one-year extension of the professional services agreement for the provision of domestic equity small-cap growth investment manager services for the City of Oakland Police and Fire Retirement System; and

WHEREAS, the PFRS Board now wishes to exercise its option to renew the Agreement with Investment Counsel for an additional one-year term, commencing March 1, 2025, at the annual fee rate of 0.80 percent of the Fund assets under management (presently valued at approximately \$18.8 Million Dollars (\$18,800,000.00) as of January 31,2025, which fees are estimated to be approximately One Hundred Fifty-One Thousand Dollars (\$151,000.00); now, therefore, be it

RESOLVED: That the Board hereby authorizes a one-year extension of the professional service agreement between the City of Oakland Police and Fire Retirement System and Rice Hall James & Associates, LLC for the provision of Domestic Equity Small-Cap Growth Investment Manager Services, commencing March 1, 2025 and ending March 1, 2026; and be it

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

IN BOARD MEETING, CITY HALL, OAKLAND, CA _____ **FEBRUARY 26, 2025**

PASSED BY THE FOLLOWING VOTE:

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

NOES:

ABSTAIN:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

MEMORANDUM

TO: Oakland Police and Fire Retirement System (“OPFRS”)
FROM: Meketa Investment Group (“Meketa”)
DATE: February 26, 2025
RE: EARNEST Partners— Manager Update

Manager: EARNEST Partners, LLC (“EARNEST”)

Inception Date:	April 2006	OPFRS AUM (01/31/2025):	\$43.3 million
Strategy:	Domestic Mid Cap Equity	Strategy AUM (12/31/2024):	\$3.3 billion
Benchmark:	Russell Mid Cap Index	Firm-wide AUM (12/31/2024):	\$34.3 billion

Summary

EARNEST Partners has managed a part of OPFRS’s domestic equity portfolio since April 2006. As of January 31, 2025, the portfolio is approximately \$43.3 million or about 10% of OPFRS’s Total Fund. 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 in January 2024. **Therefore, Meketa does not have any major concerns with EARNEST and the Mid Cap Core Equity strategy.**

Investment Performance Review Summary

As of January 31, 2025, EARNEST Mid Cap Core strategy has outperformed its benchmark (Russell Mid Cap Index) quarter-to-date and over the 5-year and since inception periods on gross-of-fees basis. On a net-of-fees basis, it has matched or outperformed the benchmark quarter-to-date and since inception in April 2006. In comparison with its peers in the eVestment US Mid Cap Core Equity (Net) universe, it has ranked above average since inception while ranking below median for all other periods.

Portfolio Performance (as of 01/31/2025)¹

	QTD	1 Yr	3 Yrs	5 Yrs	Since Inception
EARNEST (Gross)	4.3	13.4	5.6	11.5	10.4
<i>Russell Mid Cap Index</i>	<i>4.3</i>	<i>22.0</i>	<i>8.0</i>	<i>11.0</i>	<i>9.3</i>
Excess Return	0.1	-8.5	-2.4	0.5	1.1
EARNEST (Net)	4.3	12.6	4.8	10.6	9.5
<i>Russell Mid Cap Index</i>	<i>4.3</i>	<i>22.0</i>	<i>8.0</i>	<i>11.0</i>	<i>9.3</i>
Excess Return	0.0	-9.4	-3.1	-0.4	0.2
Peer Group Rank (Net) ²	58	84	85	67	43

¹ Performance is annualized for periods longer than one year. Inception date is April 2006.

² Peer group is eVestment US Mid Cap Core (Net) as of 01/31/2025.

Product and Organization Review Summary

EARNEST Partners, LLC	Areas of Potential Impact				
	Level of Concern	Investment Process	Investment Team	Performance Track Record	Team/Firm Culture
Product					
Key people changes	None				
Changes to team structure or individuals' roles	None				
Product client gain/losses	None				
Changes to investment process	None				
Personnel turnover	None				
Organization					
Ownership changes	None				
Key people changes	None				
Firm wide client gain/losses	None				
Recommended Action	None - X	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 January 2024.

Investment Summary, Philosophy, & Approach³

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 system of beliefs form our philosophy.

- We believe equity markets are inefficient and that creates opportunities to find alpha.
- We believe an investigative team with deep subject matter knowledge is key to identifying alpha.
- We believe that an intimate knowledge of the culture and preferences where you invest is essential to producing alpha.
- We believe that the proper approach to risk management does not eliminate your alpha.
- We believe that hard work matters.

EARNEST Partners utilizes a team approach to portfolio management that encourages the regular interaction between all investment professionals. This approach enables all investment professionals to focus their efforts on fundamental research and to make portfolio decisions as a team.

We believe all markets are inextricably linked.

DS/PN/JLC/mn

³ Source: eVestment, as of 12/31/2024.



AGENDA REPORT

TO: Oakland Police & Fire Retirement System (PFRS) Audit & Operations Committee

FROM: David F. Jones
PFRS Plan Administrator & Secretary

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

DATE: February 26, 2025

SUMMARY

The Service Contract for the following Investment Manager for the Oakland Police & Fire Retirement Systems (PFRS) is set to expire March 24, 2025. The PFRS Board is asked to consider acting to extend the service agreement for this manager for one additional year pursuant to their service agreement.

BACKGROUND

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

Investment Manager	Investment Strategy	Date Entered Into Contract	Contract/Extension Expiration Date
EARNEST Partners, LLC	Domestic Equity Mid-Cap Core	March 16, 2006	March 24, 2025

RECOMMENDATION

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

Respectfully submitted,

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

Attachment: (1) Resolution No. 8123

PFRS Audit & Operations Committee
February 26, 2025
Agenda Item: C12

OAKLAND POLICE AND FIRE RETIREMENT BOARD
CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 8123

Approved to Form
and Legality



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. 8123

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, on February 22, 2023, the PFRS Board passed Resolution No. 8074 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2022; and

WHEREAS, on January 31, 2024 the PFRS Board passed Resolution No. 8090 which authorized a one-year extension of the Agreement with Investment Counsel, commencing March 24, 2023; 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, 2025 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% of the next \$25.0 million; and 0.50% thereafter of Fund assets under management (presently valued at approximately \$43.3 million dollars (\$43,300,000.00) as of January 31, 2025, which fees are estimated to be approximately Three Hundred Twenty Two Thousand Dollars (\$322,000.00); now, therefore, be it

OAKLAND POLICE AND FIRE RETIREMENT BOARD

CITY OF OAKLAND, CALIFORNIA

RESOLUTION NO. 8123

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, 2025 and ending March 24, 2026; and be it

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

IN BOARD MEETING, CITY HALL, OAKLAND, CA FEBRUARY 26, 2025

PASSED BY THE FOLLOWING VOTE:

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

NOES:

ABSTAIN:

EXCUSED:

ABSENT:

ATTEST: _____
PRESIDENT

ATTEST: _____
SECRETARY

MEMORANDUM

TO: Oakland Police and Fire Retirement System (“PFRS”)
FROM: Meketa Investment Group (“Meketa”)
DATE: February 26, 2025
RE: 2025 Preliminary Investment Program Agenda

On an ongoing (monthly) basis, Meketa develops a list of projects that we expect to work closely with OPFRS to complete over the calendar year (see table below). In an attempt to coordinate the scheduling of these tasks, this memo details a Preliminary Investment Program 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.

2025 Preliminary Investment Program Agenda

Date	Task
March 2025	→ Flash Performance (February 2025)
	→ Cash Flow Recommendations (2025 Q2)
	→ Total Portfolio Expected Return Update: 2025 Assumptions
	→ Informational: 2025 Meketa Capital Market Assumptions
	→ Manager Finalist Interviews: International Equity ¹
	→ Manager Watch Update: Versor
April 2025	→ Flash Performance (March 2025)
	→ Annual Diversity Survey Results
	→ Information/Educational: TBD
May 2025	→ Flash Performance (April)
	→ Quarterly Performance Report (2025 Q1)
June 2025	→ Flash Performance (May 2025)
	→ Cash Flow Recommendations (2025 Q3)
	→ Investment Policy Statement (IPS) Annual Review
July 2025	→ Flash Performance (June 2025)
	→ Information/Educational: TBD
August 2025	→ Flash Performance (July 2025)
	→ Quarterly Performance Report (2025 Q2)
September 2025	→ Flash Performance (August 2025)
	→ Cash Flow Recommendations (2025 Q4)

Date	Task
October 2025	→ Flash Performance (September 2025) → Thermal Coal List Update: 2025
November 2025	→ Flash Performance (October 2025) → Quarterly Performance Report (2025 Q3) → Information/Educational: TBD
December 2025	→ Flash Performance (November 2025) → Cash Flow Recommendations (2026 Q1) → 2026 Preliminary Investment Program Agenda

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