

PUBLIC SCHOOL FUND INVESTMENT BOARD

MEETING AGENDA

FEBRUARY 10, 2025, 12pm MT

VIDEO CONFERENCE VIA ZOOM LINK:

Join Zoom Meeting

<https://us02web.zoom.us/j/86746161048?pwd=D674s2Gu0mhlczffOtsbOyCzLTiyxU.1>

Meeting ID: 867 4616 1048 // Passcode: pQVCH1

Public School Fund Investment Board Members

Dave Young - Colorado State Treasurer – Board Chair

Jerome DeHerrera, Esq. - Achieve Law Group

Wendy Dominguez - Innovest Portfolio Solutions

Deb Froeb - State Land Board Commissioners

Lupe Gutierrez-Vasquez — City of Denver Cash and Capital Funding Division

- | | | |
|-------|-------------------|------------------------------------------------------------------------------------|
| I. | 12pm — 12:02pm | Call to Order
<i>Treasurer Dave Young</i> |
| II. | 12:02pm — 12:04pm | Roll Call
<i>Leah Marvin-Riley</i> |
| III. | 12:04pm — 12:10pm | Introduction of new Board Member
<i>Treasurer Young</i> |
| IV. | 12:10pm — 12:14pm | Introduction of Interim Land Board Director, Nick Massie
<i>Treasurer Young</i> |
| V. | 12:14pm — 12:16pm | Approval of Minutes from last meeting
<i>Leah Marvin-Riley</i> |
| VI. | 12:16pm — 12:35pm | Fund Manager Presentation
<i>Parametric Dan Ryan</i> |
| VII. | 12:35pm — 12:55pm | 2024 Q4 PSPF Board Report
<i>Callan</i> |
| VIII. | 12:55pm — 1:05pm | 2025 Asset Allocation Review
<i>Callan</i> |
| IX. | 1:05pm — 1:20pm | Other business
<i>Leah Marvin-Riley</i> |
| X. | 1:20pm — 1:25pm | Public Comment |
| XI. | 1:25pm | Board Adjournment |



Public School Fund Investment Board Meeting
Meeting Minutes November 18, 2024
Held Via Zoom

Board Members in Attendance:

Dave Young
Jerome DeHerrera
Wendy Dominguez
Deborah Froeb

11:01 – 11:02 PM Welcome, Roll call

11:02 – 11:04 PM Meeting minutes from the September 25, 2024, Board Meeting and October 16, Working Group Meeting Minutes.

Mr. DeHerrera moved to approve the September 25, 2024, meeting minutes. Ms. Dominguez seconded the motion.

- The motion passed without objection.

Ms. Dominguez made a motion to approve the October 16th Working Group meeting minutes. Mr. DeHerrera seconded the motion.

- The motion passed without objection.

11:04 – 11:09 PM Conflict of Interest

Mr. Baumann from the Attorney General's office explained the conflict of interest policy. The Board will be receiving an email with the policy.

11:09 – 11:13 PM Janus and Parametric Contract Extension

Two fund manager contracts expire in December 2024, and the Board needs to approve a one-year extension. Janus's contract expires on December 9th, and Parametric's contract expires on December 30th. The contract extensions are part of the standard contract. Callan is comfortable with both contracts being extended.

Ms. Dominguez moved to extend the Janus contract extension. Mr. DeHerrera seconded the motion.

- Dave Young – Yes
- Jerome DeHerrera – Yes
- Wendy Dominguez – Yes
- Deborah Froeb – Yes

Ms. Dominguez moved to extend the Parametric contract extension. Ms. Froeb seconded

the motion.

- Dave Young – Yes
- Jerome DeHerrera – Yes
- Wendy Dominguez – Yes
- Deborah Froeb – Yes

11:13 – 11:33 PM Proposed RFP Process

This involves the ability of the Board to use RFPs to pursue additional or new managers. In the past, the Board has been challenged by the state process but has found a way to simplify the process by going through Callan for the RFP process. The Attorney General's office has signed off on the process and has ensured it works with the State's procurement process. If the Board adopts this process, Callan's cost will go up \$10,000 annually. This will cover any searches that Callan does on the Board's behalf. The Board has the money in the budget to add this expense. Callan and Mr. Baumann will determine if a formal contract amendment needs to happen.

Ms. Dominguez made a motion to approve the proposed RFP process with the expense starting in the third quarter of the fiscal year/ the first quarter of the year. Ms. Froeb seconded the motion.

- Dave Young – Yes
- Jerome DeHerrera – Yes
- Wendy Dominguez – Yes
- Deborah Froeb – Yes

11:33-11:50 PM Market Update and Performance Report

Mr. Browning from Callan presented the update for Quarter 3 updates – Ending September 30, 2024 .

Ms. Becker-Wold from Callan presented the Fiscal Year Quarter 1 updates – Ending September 30, 2024 .

11:50 – 11:56 PM Cash Deployment/Asset Allocation Review

Ms. Becker-Wold from Callan will be retiring at the end of March. Callan will bring a proposal to the Board at the next meeting.

11:56 – 12:10 PM Fund Manager Presentation: Mackay Shields

Mr. Maietta from Mackay Shields presented for Mackay Shields

12:10 – 12:28 PM Fund Manager Presentation: Spectrum

Steven Solomson from Spectrum presented for Spectrum Preferred Securities

12:28 – 1:03 PM Community Investing Work Meeting Follow-up

Mary Wickersham and Jim Bunch discussed the community investments other states and businesses are making, their challenges, and what they think is the best approach. They answered questions from the Board. Mr. Bunch will share the slides with the Board.

1:03 – 1:04 PM Public comments

·Written Comments

There were no written comments

· Verbal Comments

There were no verbal comments

1:05 Meeting adjourned



Colorado Public School Fund Investment Board Portfolio Review

February 10, 2025

Dan Ryan

Executive Director – Relationship Management

Parametric Portfolio Associates® LLC

(206) 381-7036

Dan.ryan@parametricportfolio.com

Jim Reber

Managing Director - Portfolio Management

Parametric Portfolio Associates® LLC

(206) 694-4145

Jim.reber@parametricportfolio.com

A Different Type of Partner

An organization built from 30 years of problem solving via expertise, collaboration and client focus.

IMMERSED IN MARKETS

We execute millions of trades in markets around the world on behalf of our clients each year

130+ Global markets where we operate

PRACTICAL EXPERIENCE

We have guided our clients' portfolios across multiple market cycles and through every type of environment for decades

\$574Bn+ Assets under management¹

COHESIVE TEAM MINDSET

We are a cohesive and experienced group, not a collection of individual stars, working together to ensure results for our clients

25 Senior relationship managers **15** Global team of investment professionals **7** Assigned to each client²

Average years of industry experience *Investment professionals*

INTELLECTUALLY CURIOUS

Our large and diverse team is relentlessly thoughtful about investing, and solving our clients' challenges

198 Investment professionals **105** CFA Charterholders **10** PhDs

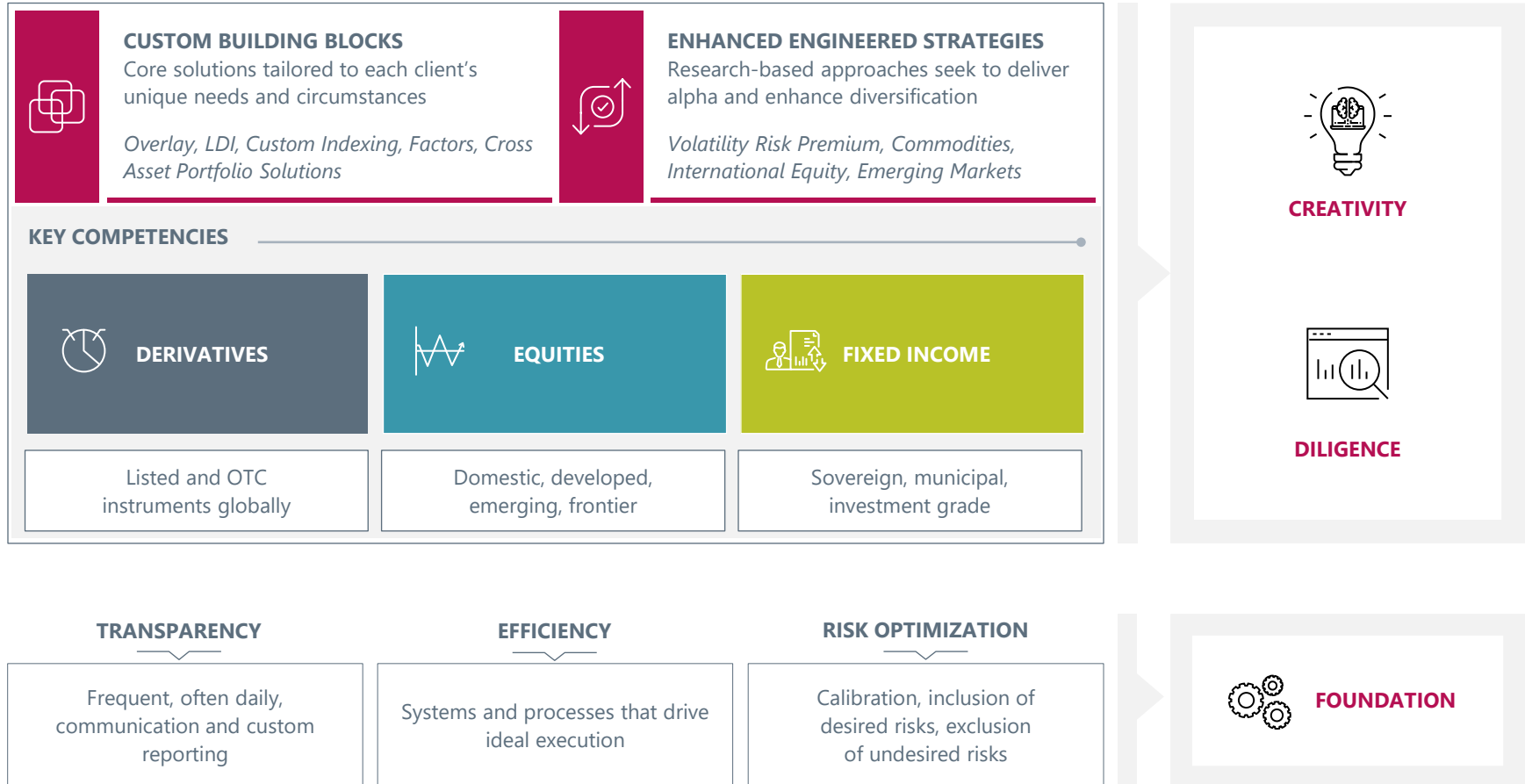
Figures are approximate as of 12/31/2024.

¹ AUM includes overlay exposure, and both discretionary and nondiscretionary assets of Parametric Portfolio Associates® LLC ("the Firm")

² Figure represents the average number of investment professionals assigned to current overlay clients.

Creative Customization. Precisely Delivered.

Our solutions blend creativity and diligence to deliver the ideas and execution today's investors need to solve their unique challenges.



Investing involves market- and program-specific risks. All investments are subject to loss.

A Powerful Partnership for Institutional Investors

Parametric offers the advantages of an independent, vibrant boutique and all the support of a world-class global financial institution.



PREMIER ACCESS

Clients supported by senior relationship professionals with direct engagement from investment experts.



TRUE COLLABORATION

We act as a true extension of your team with personalized service and communication.



DISTINCT CULTURE

Our close-knit internal culture extends into our business relationships and local communities.

Backed by Morgan Stanley's...

Financial strength

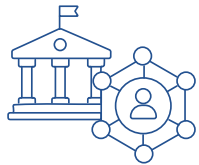
Broad resources

Comprehensive Infrastructure

Leading intellectual capital

Institutions We Serve

Our clients represent a diverse set of institutional investors with whom we build deep and long-lasting partnerships.



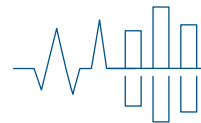
35%

Public, Corporate,
and Union Pensions



36%

Endowments,
Foundations, and
Faith-Based
Organizations



29%

Sub-advised Funds,
Health care, and
other investment
managers



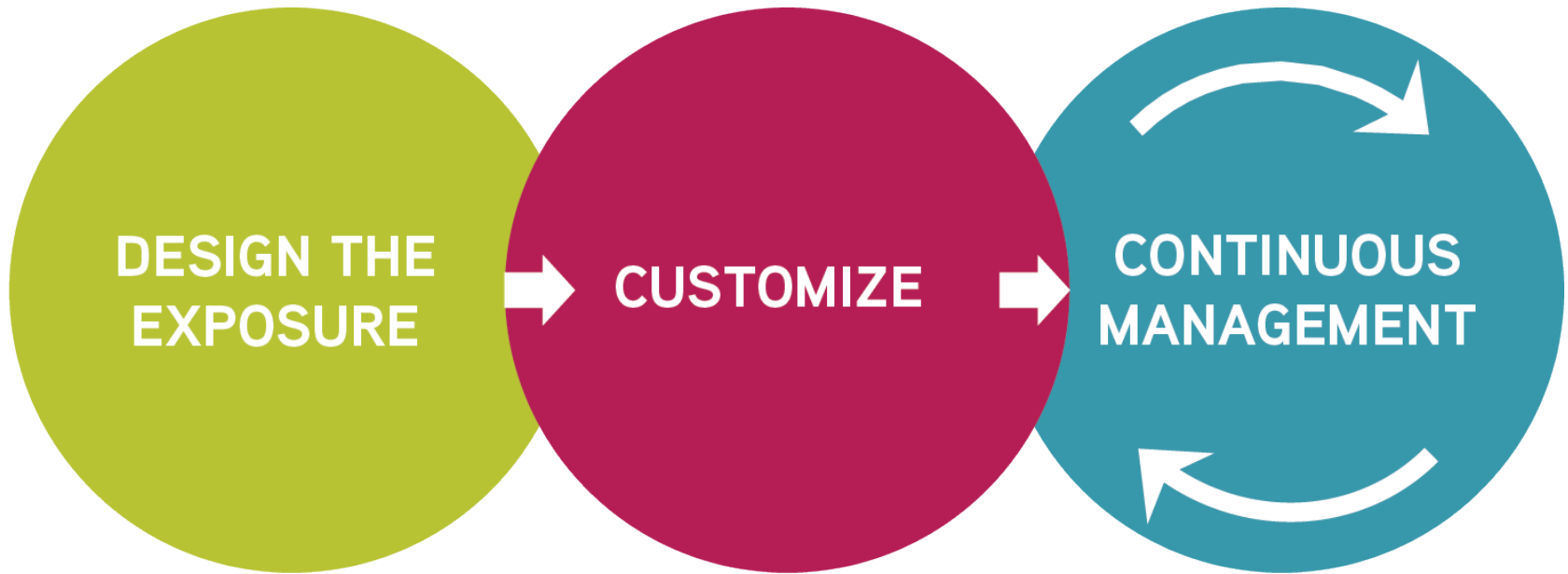
23

We partner with 23 of
the largest OCIOs

As of 12/31/2024. Figures are rounded and approximate and based on number of client accounts.

Portfolio Review

Custom Core[®] Equity Investment Process



Design the Exposure

Parametric offers over 100 benchmark and strategy options that can be blended to create a portfolio that represents a custom geographic exposure, investment style, or responsible investment goal. Examples include:

Licensed benchmarks

Cap-weighted benchmarks

- US, International, Global

Responsible investing benchmarks

- MSCI ESG
- KLD 400

Factor benchmarks

- MSCI Factor Indexes
- S&P® Factor Indexes

Parametric strategies

Responsible investing strategies

- FFV Catholic Values
- Fossil Fuel Free
- ESG
- Jewish Values
- Clean Technology

Factor strategies

- Value
- Dividend Yield
- Momentum
- Quality
- Low Volatility
- Value, Size, Profitability
- Value, Momentum, Profitability

Customization options vary by firm and platform.

Colorado Public School Fund Investment Board's Portfolio

Portfolio structure:

Objective: Provide global equity exposure while adhering to CPSFIB's gain/loss requirement

Custom benchmark: 60% Russell 3000 Index/40% MSCI ACWI ex-US Index

Instruments: Exchange Traded Funds (ETFs)

Target tracking error: +/- 1% per annum

Rebalancing: Coordinated with tracking error and gain/loss realization goals

CPSFIB Customizations:

Loss Avoidance: Managed to avoid realization of losses; Parametric rebalances back to policy weights if only a realized gain is assured

Individual equity securities prohibited: Utilize basket of ETFs

Dividends: Swept quarterly

Consultative management: Regular discussions with CPSFIB staff and Callan to review positioning, performance, gain/loss needs

Customizable: Will strive to realize gains to offset losses elsewhere in CPSFIB portfolio, when directed to do so

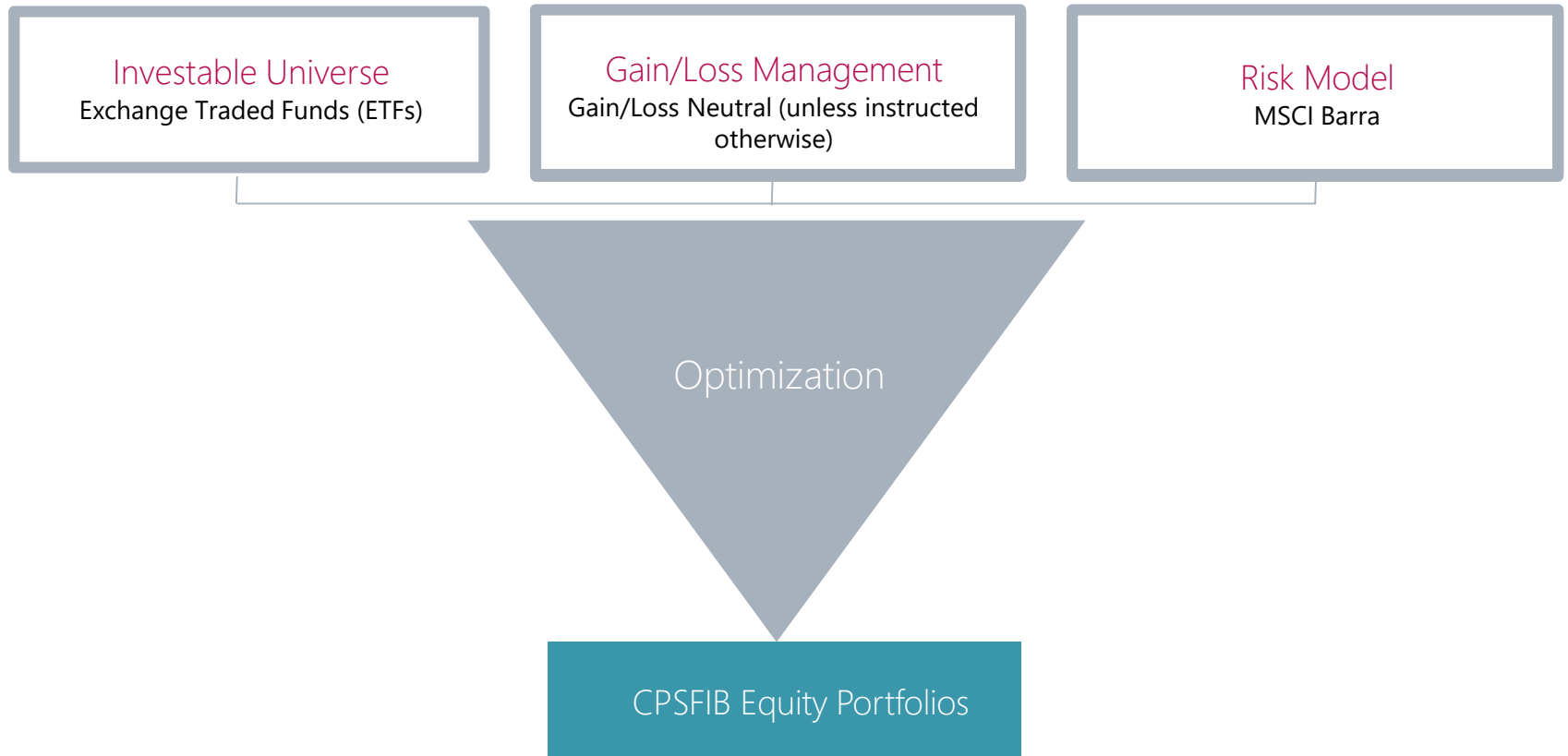
Customize

Parametric offers many customization options to help investors manage risk in their portfolios. Here are a few examples.

Exposure options	Tax management	Responsible investing
<ul style="list-style-type: none">> Index blending> Factor tilts> Management of in-kind assets> ETF management> Call-writing overlays> Sector and industry exclusions	<ul style="list-style-type: none">> Systematic tax management> Transition analysis> Staged diversification> Charitable gifting> Tax-efficient cash withdrawals> Client-directed gain/risk budgets	<ul style="list-style-type: none">> Screens> Integrations> Socially responsible indexes> Proxy voting> Shareholder resolutions

Customization options vary by firm and platform.

Equity Investment Process



Colorado Public School Fund Investment Board Relationship Review

December 12, 2017:	Initial investment of \$50,000,000
2018:	Additional investment of \$165,000,000
2019:	Additional investment of \$11,000,000
2020:	Net Additional investment of \$3,075,000
2021:	Net Additional investment of \$65,400,000
2022:	Additional investment of \$53,425,000
2023:	Additional investment of \$55,500,000
2024:	Additional investment of \$30,200,000
December 31, 2024:	\$ 607,032,610

Performance as of December 31, 2024

Periods over one year are annualized

	5 Year	QTD	1 Year	3 Year	2018	2019	2020	2021	2022	2023	2024	Since Inception *
Colorado Public School Fund Investment Board (Gross-of-Fees)	9.94	-1.43	16.00	5.05	-8.83	26.99	16.60	18.81	-18.05	21.95	16.00	9.41
Colorado Public School Fund Investment Board (Net-of-Fees)	9.86	-1.44	15.94	4.99	-8.90	26.87	16.51	18.72	-18.11	21.88	15.94	9.33
60% Russell 3000 / 40% ACWI ex US	9.96	-1.46	16.34	5.19	-8.83	27.15	17.13	18.30	-17.84	21.76	16.34	9.43

*Inception date: 12/12/2017

Performance reflects the deduction of brokerage commissions and the reinvestment of dividends and other earnings. Performance for periods of less than one year has not been annualized. Performance, cost basis, unrealized gain/losses, and realized gains/losses calculated and reported by Parametric may vary from official custodial statements based on different accounting procedures, reporting dates or valuation methodologies for certain securities. This information has not been audited and is subject to change without notice. Past performance is not indicative of future results. It is not possible to invest directly in an index; they are unmanaged and do not reflect the deduction of fees, taxes and expenses. See Disclosures for additional information.



Portfolio Characteristics

Colorado Public School Fund Investment Board As of December 31, 2024

Characteristics	Portfolio	Benchmark
Number Of Holdings	8,003	5,026
Dividend Yield	1.88	1.90
Weighted Avg. Cap. (millions)	\$625,911	\$620,684

Sector Weights (%)	Portfolio	Benchmark
Communication Services	7.46	7.70
Consumer Discretionary	11.31	11.31
Consumer Staples	5.84	5.89
Energy	3.88	4.00
Financials	17.42	18.03
Health Care	9.59	9.77
Industrials	11.56	11.23
Information Technology	23.73	23.37
Materials	4.07	3.89
Real Estate	2.61	2.25
Utilities	2.53	2.56

Source: Parametric as of 12/31/2024. Sectors, as of the date indicated, are based on weightings, not performance. Information is as of the date indicated and is subject to change at any time. It is not possible to invest directly in an index.

Portfolio Characteristics

Colorado Public School Fund Investment Board As of December 31, 2024

		Weight	Cost Basis	Market Value	Unrealized Gain/Loss	Dividend Yield
EWC	ISHARES MSCI CANADA	3.24%	\$16,793,111	\$19,682,802	\$2,889,691	2.8
ITOT	ISHARES CORE S&P TOTAL US STOCK MKT ETF	60.25%	\$223,014,736	\$365,739,330	\$142,724,595	1.2
IEMG	ISHARES CORE MSCI EMERGING	11.70%	\$73,379,945	\$71,009,330	-\$2,370,615	2.5
IEFA	ISHARES TR CORE MSCI EAFE	24.71%	\$145,451,169	\$150,021,164	\$4,569,995	3.0
	US Dollars	0.10%	\$579,983	\$579,983		
TOTAL		100%	\$459,218,943	\$607,032,610	\$147,813,666	1.9

Source: Parametric as of 12/31/2024. Sectors, as of the date indicated, are based on weightings, not performance. Information is as of the date indicated and is subject to change at any time. It is not possible to invest directly in an index.

Country Weights

Colorado Public School Fund Investment Board
As of December 31, 2024

Weights (%)	Portfolio	Benchmark
Argentina	0.00	0.01
Australia	1.95	1.88
Austria	0.08	0.05
Belgium	0.26	0.25
Brazil	0.45	0.53
Canada	3.27	3.26
Chile	0.05	0.05
China	2.89	3.25
Colombia	0.01	0.01
Cyprus	0.00	0.00
Czech Republic	0.01	0.02
Denmark	0.69	0.72
Egypt	0.01	0.01
Finland	0.25	0.24
France	2.49	2.77
Germany	2.09	2.31
Greece	0.06	0.06
Hong Kong	0.51	0.53
Hungary	0.03	0.03
India	2.43	2.31
Indonesia	0.18	0.18
Ireland	0.07	0.07
Israel	0.30	0.25
Italy	0.70	0.70
Japan	6.21	5.79
Kuwait	0.09	0.09

	Portfolio	Benchmark
Malaysia	0.20	0.18
Mexico	0.20	0.21
Netherlands	1.03	1.15
New Zealand	0.07	0.05
Norway	0.19	0.15
Peru	0.03	0.04
Philippines	0.07	0.06
Poland	0.10	0.10
Portugal	0.05	0.04
Qatar	0.10	0.10
Russia	0.00	0.00
Saudi Arabia	0.48	0.49
Singapore	0.45	0.42
South Africa	0.33	0.34
South Korea	1.07	1.07
Spain	0.68	0.68
Sweden	0.94	0.96
Switzerland	2.19	2.38
Taiwan	2.31	2.34
Thailand	0.19	0.17
Turkey	0.10	0.08
United Arab Emirates	0.15	0.16
United Kingdom	3.68	3.74
United States	60.31	59.73

Source: Parametric and FactSet as of 12/31/2024. Countries, as of the date indicated, are based on weightings, not performance. Information is as of the date indicated and is subject to change at any time. It is not possible to invest directly in an index.

Appendix

Parametric Custom Core[®] Committee:

Thomas Lee, CFA
Co-President & Chief Investment Officer

Brian Herscovici, CFA
Chief Operating Officer, Investments

Investment Strategy

Jennifer Sireklove, CFA
Managing Director, Investment Strategy

Jeremy Milleson (chair)
Director, Investment Strategy

Portfolio Management

Jennifer Mihara
Head of Equity Fund
Management

Gordon Wotherspoon
Head of Equity SMA

Research

Ben Davis, PhD
Global Head of Research

Biographies

Thomas Lee, CFA

Co-President & Chief Investment Officer

Tom is a member of Parametric's Executive Committee and leads Parametric's investment teams, including research, strategy, portfolio management, and trading. As co-president and CIO, he coordinates resources, aligns priorities, establishes processes for achieving clients' investment objectives, and acts as a voting member of all the firm's investment committees. Tom has authored many articles on topics ranging from liability-driven investing to the volatility risk premium. Prior to joining Parametric in 1994, he spent two years working for the board of governors of the Federal Reserve in Washington, DC. Tom is a member of the CFA Society of Minnesota.

Brian Herscovici, CFA

Chief Operating Officer, Investments

Brian joined Parametric as Chief Operating Officer of Investments in December 2022. Brian brings 25 years of experience across a range of institutions including pension funds, insurance companies and wealth management. He held a variety of positions for these companies overseeing portfolio management, investment operations, and strategic transactions. Prior to joining Parametric, Brian was the Senior Investment Officer at USAA responsible for oversight, governance, and performance of USAA's institutional investment portfolios. He was also responsible for the Investment Operations team which handled trading and securities operations. Prior to that role, he was Chief Investment Officer of the USAA Wealth Management Group responsible for \$23B of private assets across 120,000 high net worth member accounts. Before joining USAA in 1996, Brian was Senior Portfolio Manager at General Motors Asset Management, the investment group of General Motors responsible for overseeing the Pension fund and non-affiliated client assets. Brian received a Bachelor of Science in Finance from Boston University and is a CFA Charterholder. He is a member of the CFA Society of Seattle.

Jim Reber

Managing Director, Portfolio Management

James is responsible for portfolio management of Parametric's Private Client Direct Group, primarily serving Parametric's wealth management and family office client base. The Private Client Direct Group manages US, non-US, and global Custom Core® portfolios. Prior to joining Parametric in 2004, James was a senior associate with Standard and Poor's Corporate Value Consulting Group, providing financial valuation services to IT and technology industries. He earned an MBA from the University of Washington and a BS in chemical engineering from Michigan State University.

Jennifer Sireklove, CFA

Managing Director, Investment Strategy

Jennifer leads the Investment Strategy Team at Parametric, which is responsible for all aspects of Parametric's equity-based investment strategies. In addition, she has direct investment responsibility for Parametric's Emerging Markets and International Equity Strategies and chairs Parametric's Stewardship Committee. Previously she helped build Parametric's active ownership and custom ESG portfolio construction practices. Prior to joining Parametric in 2013, she worked in equity research, primarily covering the energy, utility, and industrial sectors at firms including D.A. Davidson and McAdams Wright Ragen. Jennifer earned an MBA in finance and accounting from the University of Chicago and a BA in economics from Reed College. A CFA charterholder since 2006, Jennifer is a member of the CFA Society of Seattle.

Jennifer Mihara

Head of Equity Fund Management

Jennifer is responsible for leading the Centralized Portfolio Management (CPM) Team. Prior to her current role, Jennifer was a supervisor on the Large Case Custom Core® Portfolio Management Team, primarily serving Parametric's wealth management, family office, and institutional client base. Before joining Parametric in 2005, Jennifer was an investment associate at Merrill Lynch for five years. She earned a BA in economics and a minor in mathematics from Colgate University.

Gordon Wotherspoon

Head of Equity SMA

Gordon is responsible for overseeing portfolio management of the Custom Core® product for the firm's brokerage and bank-sponsored channels. Prior to joining Parametric in 2004, Gordon led the investment manager due diligence effort for an institutional investment consulting group within UBS Financial Services. He earned an MBA and a BS in economics from the University of Washington.

Dan Ryan

Executive Director, Client Relationship Management

Dan is responsible for managing client relationships throughout the western US. Prior to joining Parametric in 2013, Dan was vice president and senior relationship manager at State Street Global Advisors. He earned a BA in history from the University of Michigan.

Disclosure

Parametric Portfolio Associates® LLC ("Parametric"), headquartered in Seattle, is registered as an investment advisor with the Securities and Exchange Commission under the Investment Advisors Act of 1940. Parametric is a leading global asset management firm, providing investment strategies and customized exposure management directly to institutional investors and indirectly to individual investors through financial intermediaries. Parametric offers a variety of rules-based investment strategies, including alpha-seeking equity, fixed-income, alternative and options strategies. Parametric also offers implementation services, including customized equity, traditional overlay and centralized portfolio management. Parametric is part of Morgan Stanley Investment Management, the asset management division of Morgan Stanley, and offers these capabilities through offices located in Seattle, Boston, Minneapolis, New York, and Westport. This material may not be forwarded or reproduced, in whole or in part, without the written consent of Parametric. Parametric and its affiliates are not responsible for its use by other parties.

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Client portfolio performance is presented gross of advisory fees. Advisory fees are deducted quarterly from a client's portfolio and would impact performance adversely. As an example, assuming (a) \$1,000,000 investment, (b) portfolio return of 5% per year, and (c) 1.00% annual investment advisory fee, the cumulative fees paid would be \$10,209.57 in the first year, \$55,254.43 over five years, and \$122,351.51 over ten years. Actual fees charged vary by portfolio due to various conditions, including account size. Parametric's investment advisory fees are described further in Part 2A of Form ADV, which is available upon request.

When calculating after-tax returns, Parametric applies the client's individual tax rate (which may include federal and state income taxes), if provided by the client. If the individual tax rate is not provided by the client, Parametric applies the highest U.S. federal tax rates. For short-term gains, the highest U.S. federal marginal income tax rate is 37% plus the 3.8% net investment income tax, for a combined rate of 40.8%. For long-term gains, the highest U.S. capital gains tax rate is 20% plus the 3.8% net investment income tax, for a combined rate of 23.8%. These assumed tax rates are applied to both net realized gains and losses in the portfolio. State and local taxes are not reflected unless provided by the client. Applying the highest rate may cause the after-tax performance shown to be different than an investor's actual experience. Investors' actual tax rates, the presence of current or future capital loss carry forwards, and other investor tax circumstances will cause an investor's actual after-tax performance to be over or under Parametric's estimates presented here. In periods when net realized losses exceed net realized gains, applying the highest tax rates to our calculations illustrates the highest after-tax return that could be expected of the portfolio, and assumes the maximum potential tax benefit was derived. Actual client after-tax returns will vary. As with all after-tax performance, the after-tax performance reported here is an estimate. In particular, it has been assumed that the investor has, or will have sufficient capital gains from sources outside of this portfolio to fully offset any net capital losses realized, and any resulting tax benefit has been included in Parametric's computation of after-tax performance.

Disclosures continue on next page.

Disclosures (Continued)

Performance, cost basis, unrealized gain/losses, and realized gains/losses calculated and reported by Parametric may vary from official custodial statements based on different accounting procedures, reporting dates or valuation methodologies for certain securities. Client performance summaries and any related data produced by Parametric are not audited. Clients are encouraged to carefully review and compare the official custodial records with the various data and performance statistics reported by Parametric.

Benchmark after-tax returns are simulated for each client portfolio using client-specific, after-tax benchmark portfolios. Performance of the after-tax benchmark is simulated using the same inception date, cash flows, cost basis, and tax rates as the client portfolio. The after-tax benchmark's capital gain realization rate is based on the average turnover rate of the pre-tax benchmark and ending gain or loss of the after-tax benchmark for each period. The dividend income is estimated using the pre-tax benchmark index's dividend return during the period. After-tax benchmark returns reflect the deduction of taxes, but do not include any other fees or expenses. After-tax benchmark returns are hypothetical, do not reflect actual trading, and may not be relied upon for investment decisions.

Benchmark/index information provided is for illustrative purposes only. Indexes are unmanaged and cannot be invested in directly. Deviations from the benchmarks provided herein may include, but are not limited to, factors such as: the purchase of higher risk securities, over/under-weighting specific sectors and countries, limitations in market capitalization, company revenue sources, and/or client restrictions. Parametric's proprietary investment process considers factors such as additional guidelines, restrictions, weightings, allocations, market conditions and other investment characteristics. Thus, returns may at times materially differ from the stated benchmark and/or other disciplines provided for comparison.

There is no assurance that a separately managed account ("SMA") will achieve its investment objective. SMAs are subject to market risk, which is the possibility that the market values of the securities in an account will decline and that the value of the securities may therefore be less than what you paid for them. Market values can change daily due to economic and other events (e.g., natural disasters, health crises, terrorism, conflicts and social unrest) that affect markets, countries, companies or governments. It is difficult to predict the timing, duration, and potential adverse effects (e.g., portfolio liquidity) of events. Accordingly, you can lose money investing in an SMA.

Investment strategies that seek to enhance after-tax performance may be unable to fully realize strategic gains or harvest losses due to various factors. Market conditions may limit the ability to generate tax losses. Tax-loss harvesting involves the risks that the new investment could perform worse than the original investment and that transaction costs could offset the tax benefit. Also, a tax-managed strategy may cause a client portfolio to hold a security in order to achieve more favorable tax treatment or to sell a security in order to create tax losses. Prospective investors should consult with a tax or legal advisor before making any investment decision.

An environmental, social and governance ("ESG") investment strategy limits the types and number of investment opportunities available to the investor and, as a result, the investor's portfolio may underperform other investment strategies that do not have an ESG focus. The ESG investment strategy may result in investments in securities or industry sectors that underperform the market as a whole or underperform other strategies which apply ESG standards. An issuer's ESG performance or the investment adviser's assessment of such performance may change over time, which could cause the investor to temporarily hold securities that do not comply with the investor's responsible investment criteria. In evaluating an investment, the investment adviser is dependent upon information and data that may be incomplete, inaccurate or unavailable, which could adversely affect the analysis of the ESG factors relevant to a particular investment. Successful application of the investor's responsible investment strategy will depend on the investment adviser's skill in properly identifying and analyzing material ESG issues.

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Callan

February 2025



**Colorado Public School Fund
Investment Board**

Fourth Quarter 2024

Janet Becker-Wold, CFA
Senior Vice President

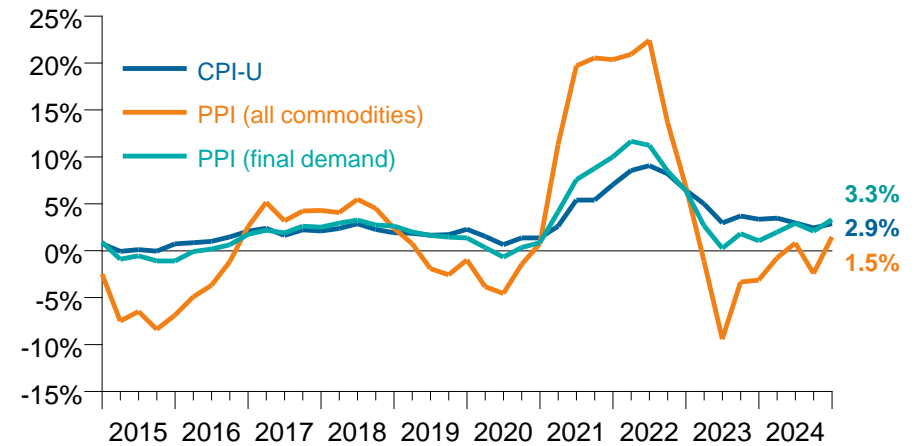
Alexander Browning
Senior Vice President

U.S. Economy—Summary

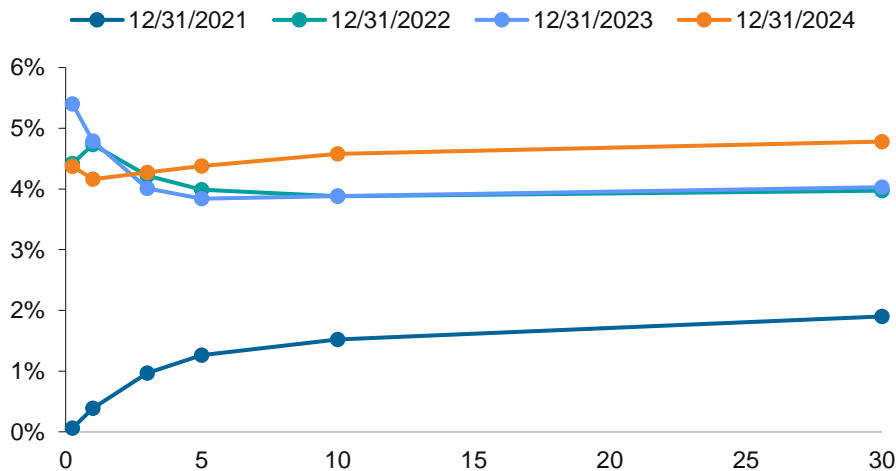
For periods ended 12/31/24

- The unemployment rate in December was 4.1%, down slightly from 4.2% in November and matching October's figure. This marks an increase from the 3.7% rate at the start of the year.
- GDP rose 3.1% in the 3Q according to the “third” estimate. An increase from the 2Q reading of 3.0%.
- Headline CPI increased 2.9% year-over-year in December, while core CPI (ex-food and energy) increased 3.2% over the same period.
- The Fed cut rates by 25 bps in both November and December, bringing the target rate to 4.25%-4.50%. This marks a one percentage point drop from the Fed Funds Rate at the start of the year.

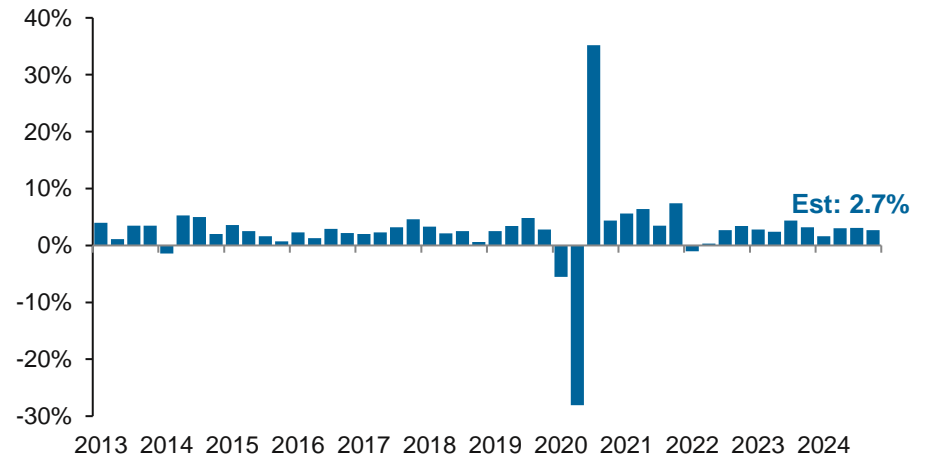
Inflation Year-Over-Year



U.S. Treasury Yield Curves



Quarterly Real GDP Growth



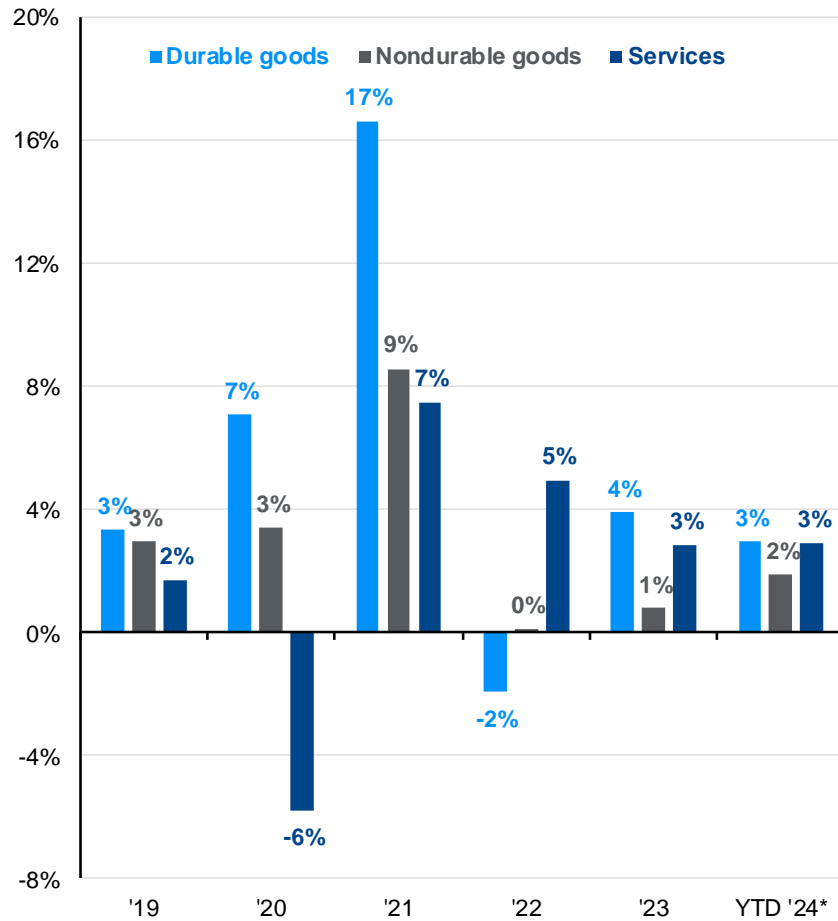
Sources: Bureau of Labor Statistics, Callan, Federal Reserve

Consumer Spending and Saving

Real consumer spendings evenly spread among categories, while savings rate is below average

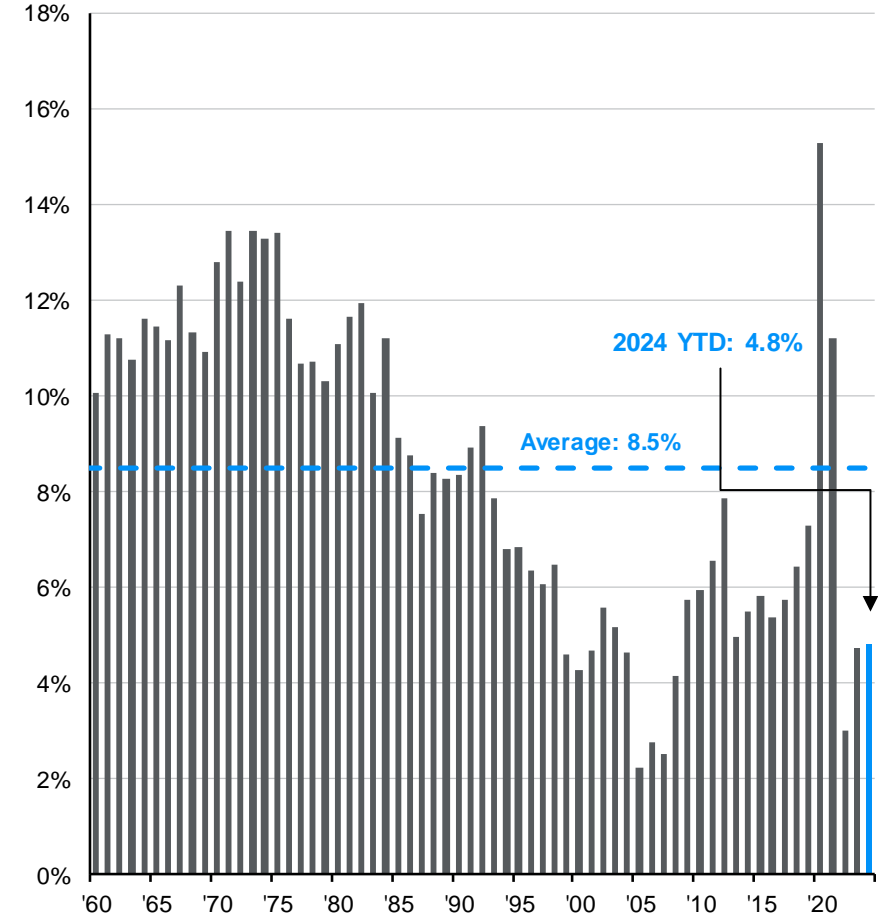
Real consumer spending by expenditure category

Y/y % change, average level of spending



Personal saving rate

Personal savings as a % of disposable personal income, annual



Source: BEA, Federal Reserve, J.P. Morgan Asset Management. *YTD figure for 2024 reflects the year-over-year % change in the average level of spending during the first eleven months of 2024 relative to the average level of spending during the first eleven months of 2023.

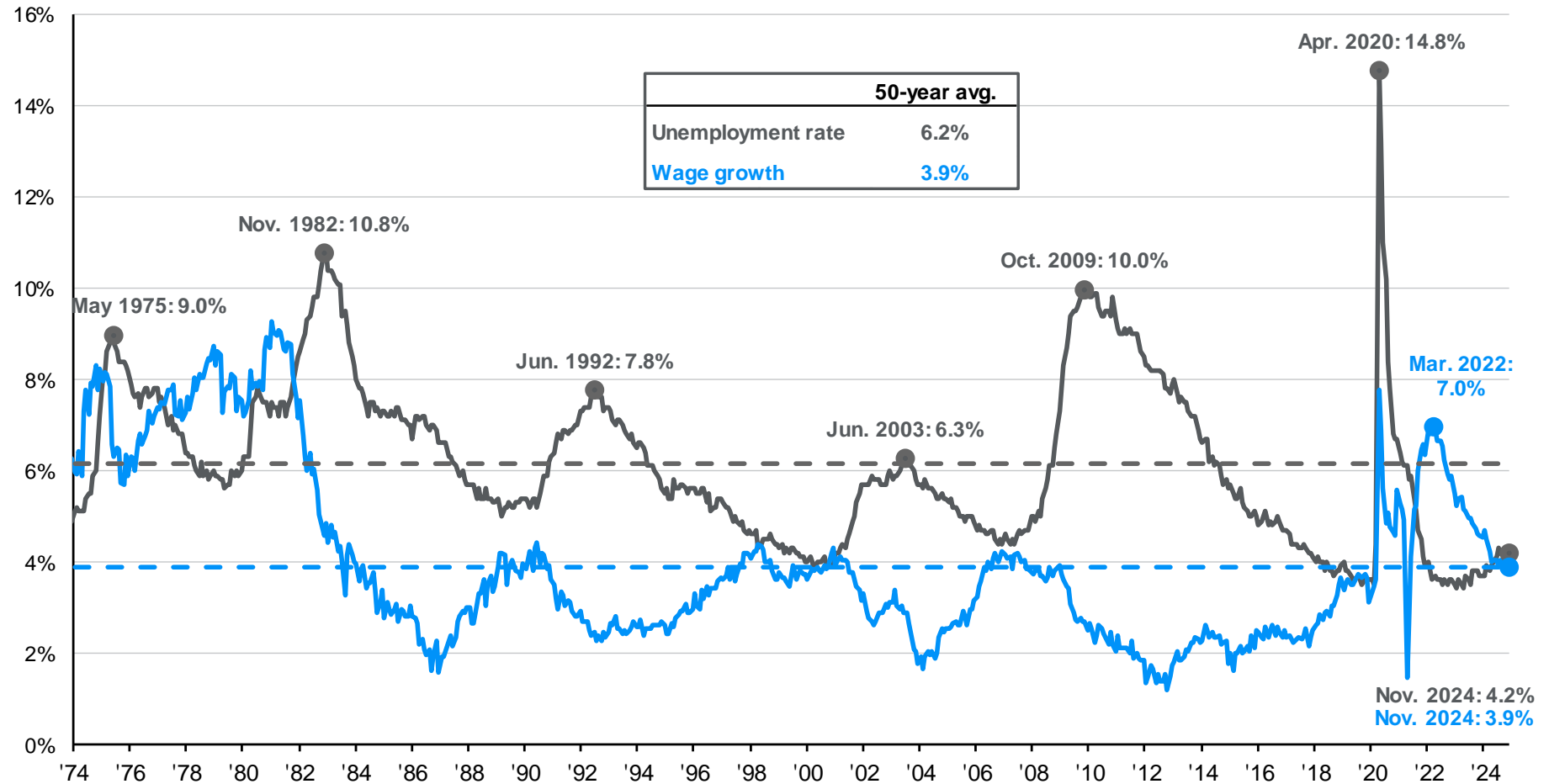
Guide to the Markets – U.S. Data are as of December 31, 2024.

Unemployment and Wages

The unemployment rate remains below historic levels, but is seemingly trending upward

Civilian unemployment rate and year-over-year wage growth

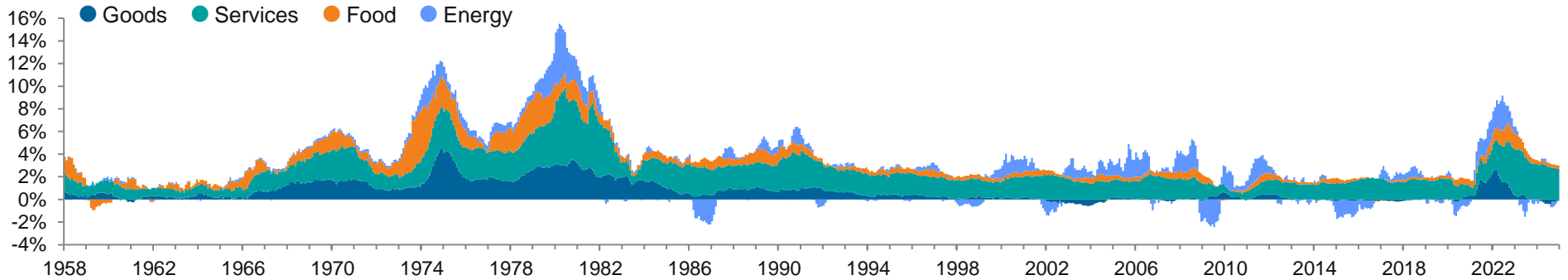
Private production and non-supervisory workers, seasonally adjusted, percent



Sources: BLS, FactSet, J.P. Morgan Asset Management. Private production and non-supervisory jobs represent just over 80% of total private nonfarm jobs. Guide to the Markets – U.S. Data are as of December 31, 2024.

Broad Components of Inflation

Contribution to Inflation by Broad Component



Category	Category Weight	Year-over-Year Change											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Headline CPI	100.0%	3.1%	3.2%	3.5%	3.4%	3.3%	3.0%	2.9%	2.5%	2.4%	2.6%	2.7%	2.9%
Food	13.6%	2.6%	2.2%	2.2%	2.2%	2.1%	2.2%	2.2%	2.1%	2.3%	2.1%	2.4%	2.5%
Energy	6.7%	-4.6%	-1.9%	2.1%	2.6%	3.7%	1.0%	1.1%	-4.0%	-6.8%	-4.9%	-3.2%	-0.5%
Core CPI	79.8%	3.9%	3.8%	3.8%	3.6%	3.4%	3.3%	3.2%	3.2%	3.3%	3.3%	3.3%	3.2%
Goods Less Food and Energy	18.9%	-0.3%	-0.3%	-0.7%	-1.3%	-1.7%	-1.8%	-1.9%	-1.9%	-1.0%	-1.0%	-0.6%	-0.5%
Services Less Energy	60.9%	5.4%	5.2%	5.4%	5.3%	5.3%	5.1%	4.9%	4.9%	4.7%	4.8%	4.6%	4.4%

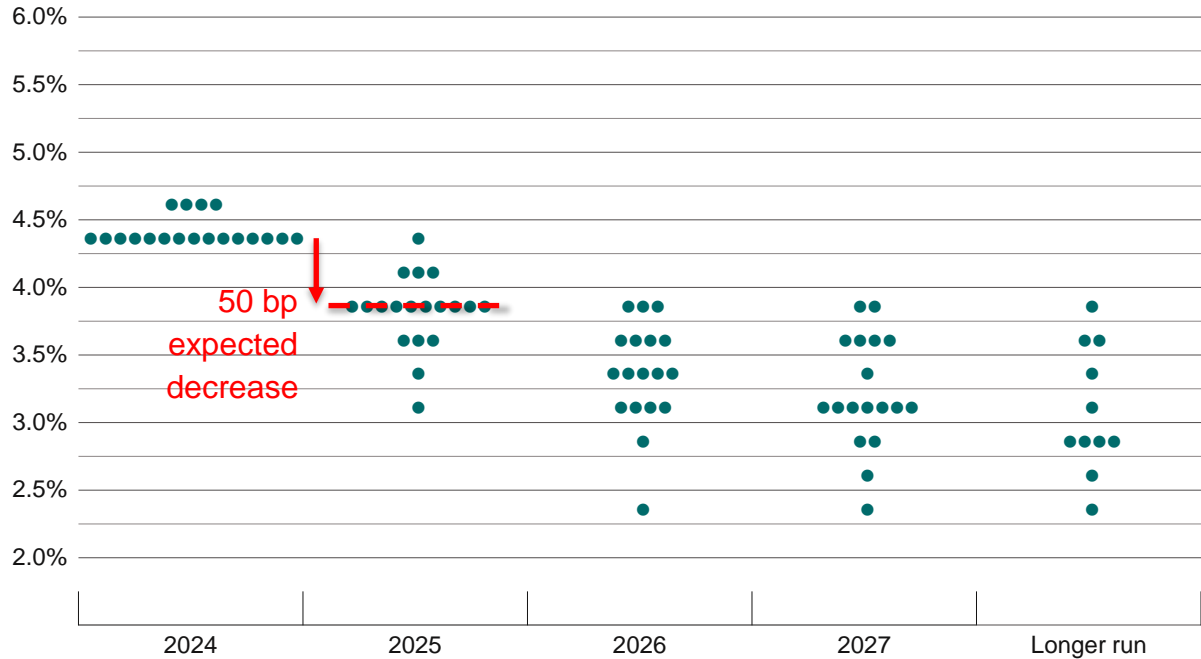
Source: U.S. Bureau of Labor Statistics. Note: Goods excludes food and energy goods while Services excludes energy services.

The Fed's 'Dot Plot'

December 2024 (latest)

Federal Open Market Committee (FOMC) participants' assessments of appropriate monetary policy

- Median year-end in 2025 = 3.9% (up from 3.4% projection at September meeting)
- “Longer run” median up 10 basis points to 3.0%
 - Bias is toward higher rates; lower bound is 2.4% but higher bound is 3.9%.
- Dispersion of views widens in 2025 and beyond.
- Market expects fewer cuts in 2025 based on CME FedWatch as of January; Fed Funds expectations for 2025:
 - Majority expect no cuts through May
 - One cut by end of year has 34% probability
 - Two cuts by end of year has 31% probability



Source: Federal Reserve. Market expectation as of January 7, 2025 from CME Fed Watch.

Equity Markets Up Sharply in 2024

Stocks have recovered losses of 2022; fixed income still lags

S&P 500 climbed 25% in 2024

- U.S. large cap substantially outperformed U.S. small cap, developed ex-U.S. markets, and emerging markets. Technology and AI drove the S&P 500.

Weak 4Q for core fixed income

- The Bloomberg Aggregate fell 3.1%. Long duration and non-U.S. bonds saw even greater declines.
- Interest rates remain volatile as the markets assess how the Fed will continue with easing.
- CPI-U came in at 2.9% (year-over-year) through December, up from 3Q, but with a welcome decline in the core figure, which rose 3.2%.

Solid economic growth through 2024

- 3Q GDP came in at a surprisingly strong 3.1%, after another surprise in 2Q, and is expected to see 2.7% growth in 4Q. Consumer spending continues to drive GDP growth.

Returns for Periods ended 12/31/24

	Quarter	1 Year	1/1/22 - Current	5 Years	10 Years	25 Years
U.S. Equity						
Russell 3000	2.63	23.81	8.01	13.86	12.55	7.84
S&P 500	2.41	25.02	8.94	14.53	13.10	7.70
Russell 2000	0.33	11.54	1.24	7.40	7.82	7.55
Global ex-U.S. Equity						
MSCI World ex USA	-7.43	4.70	1.91	5.10	5.26	3.78
MSCI Emerging Markets	-8.01	7.50	-1.92	1.70	3.64	--
MSCI ACWI ex USA Small Cap	-7.66	3.36	-1.47	4.30	5.66	6.23
Fixed Income						
Bloomberg Aggregate	-3.06	1.25	-2.41	-0.33	1.35	3.94
90-day T-Bill	1.17	5.25	3.89	2.46	1.77	1.91
Bloomberg Long Gov/Credit	-7.42	-4.15	-9.20	-3.26	0.99	5.36
Bloomberg Global Agg ex-US	-6.84	-4.22	-6.28	-3.37	-0.90	2.45
Real Estate						
NCREIF Property*	0.78	-3.47	0.87	3.26	5.88	7.67
FTSE Nareit Equity	-6.21	8.73	-2.20	4.27	5.73	9.84
Alternatives						
Cambridge Private Equity*	1.00	4.62	3.71	13.84	13.10	12.73
Cambridge Senior Debt*	1.19	7.51	6.07	6.92	6.76	4.33
HFRI Fund Weighted	1.65	10.01	4.47	7.03	5.28	5.58
Bloomberg Commodity	-0.45	5.38	4.05	6.77	1.28	2.15
CPI-U	0.10	2.89	4.22	4.20	3.00	2.54

*Cambridge Private Equity and Cambridge Senior Debt data as of 6/30/24. NCREIF Property as of 9/30/24. Returns greater than one year are annualized.

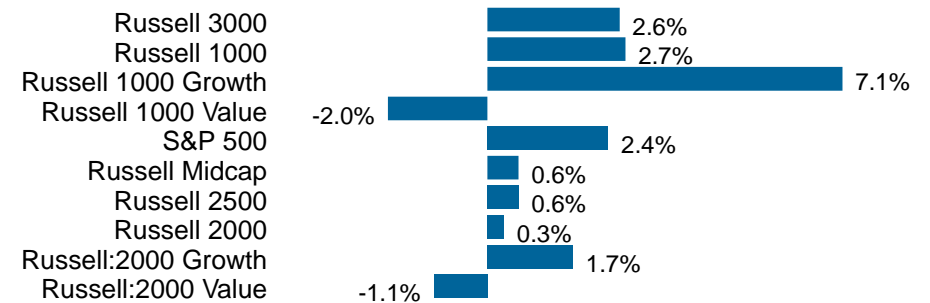
Sources: Bloomberg, Callan, Cambridge, FTSE Russell, HFRI, MSCI, NCREIF, S&P Dow Jones Indices

U.S. Equity Performance: 4Q24

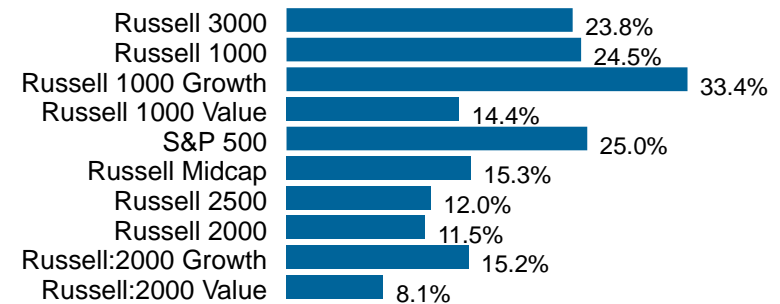
U.S. market ends on a high note, though with some volatility

- The U.S. equity market ended on a positive note as the S&P 500 Index was up over 2%. However, the quarter was marked by volatility, particularly during October and December. Negative returns in October were driven by investor anxiety around the U.S. presidential election, uncertainty with the Fed's approach to interest rate cuts, and some misses to corporate earnings expectations. December returns, while initially buoyed by the Fed's third consecutive rate cut, cooled after the Fed announced no additional rate cuts until the second half of 2025.
- Sector performance was mixed; only 4 (Communication Services, Consumer Discretionary, Financials, and Information Technology) posted gains.
- During 4Q24, large cap stocks outperformed small caps. Growth outperformed value across the market cap spectrum.
- Market concentration remains elevated; the share of companies outperforming the S&P 500 is at historic lows and there remains a large gap between S&P 500 and S&P 500 ex-Mag 7 returns.

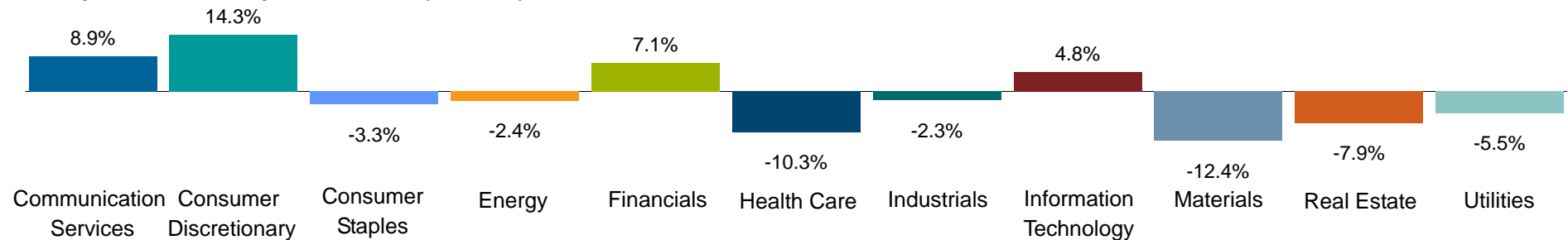
U.S. Equity: Quarter Ended 12/31/24



U.S. Equity: One Year Ended 12/31/24



Industry Sector Quarterly Performance (S&P 500) as of 12/31/24



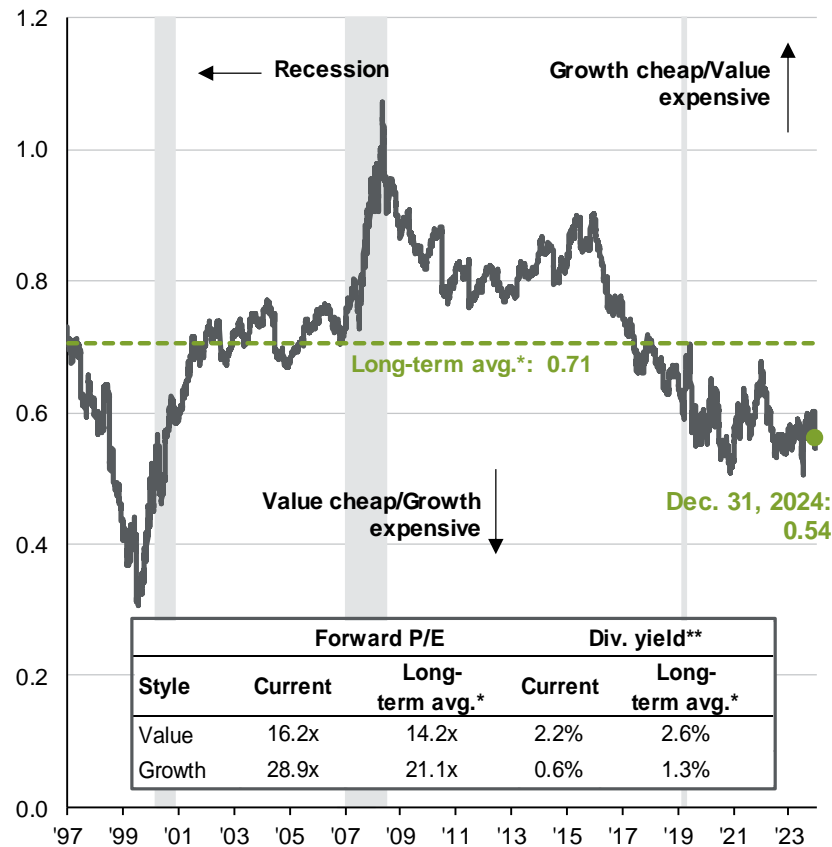
Sources: FTSE Russell, S&P Dow Jones Indices

U.S. Equity – Value vs growth

- Growth stocks trade at higher valuations (28.9x P/E) but offer lower yields (0.6%) than value stocks (16.2x P/E, 2.2% yield).
- Growth tends to outperform value in different rate environments, noting value outperformed growth when 10-year Treasury yield ranges were above 5%.

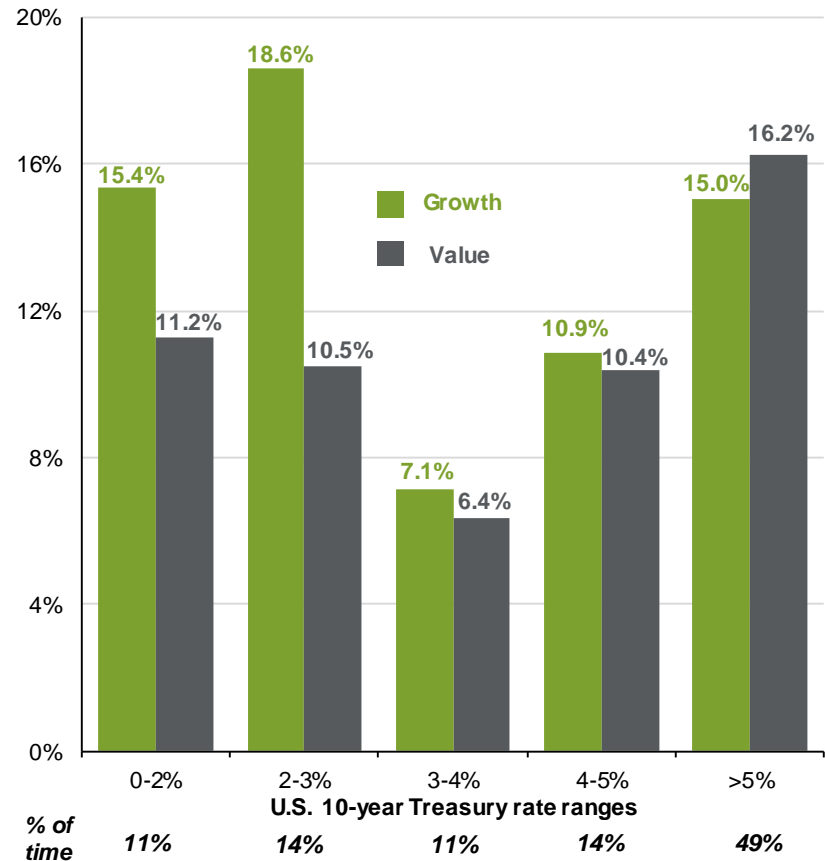
Value vs. Growth relative valuations

Rel. fwd. P/E ratio of Value vs. Growth, 1997 - present



Value vs. Growth in different interest rate environments

Annualized total return by 10-year Treasury rate ranges, 1979 - present



Source: FactSet, FTSE Russell, NBER, J.P. Morgan Asset Management.

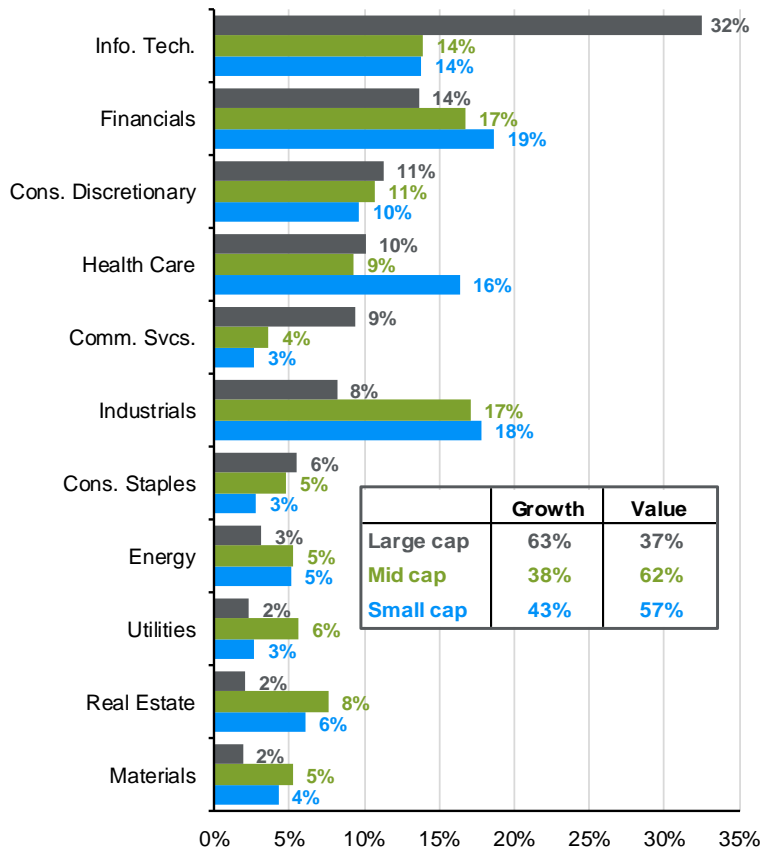
Growth is represented by the Russell 1000 Growth Index and Value is represented by the Russell 1000 Value Index. (Left) *Long-term averages are calculated monthly since December 1997. **Dividend yield is calculated as the next 12-month consensus dividend divided by most recent price. (Right) Returns are calculated by annualizing the average monthly performance during each interest rate range. *Guide to the Markets – U.S.* Data are as of December 31, 2024.

U.S. Equity – Small, mid and large caps

- Large caps maintain the highest allocation in growth strategies (63%), while small caps are more evenly split between growth and value.
- During major market crashes, small caps have the highest percentage of unprofitable companies, with unprofitability steadily decreasing as market cap increases. Currently, there is a greater divergence in unprofitability across small, mid, and large-cap companies.

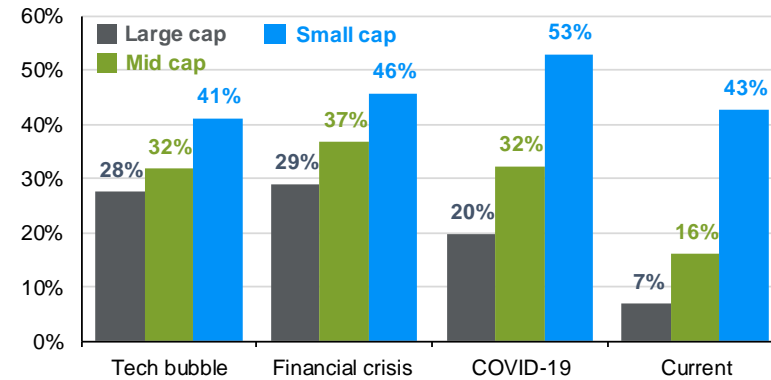
Sector composition

% of index market capitalization



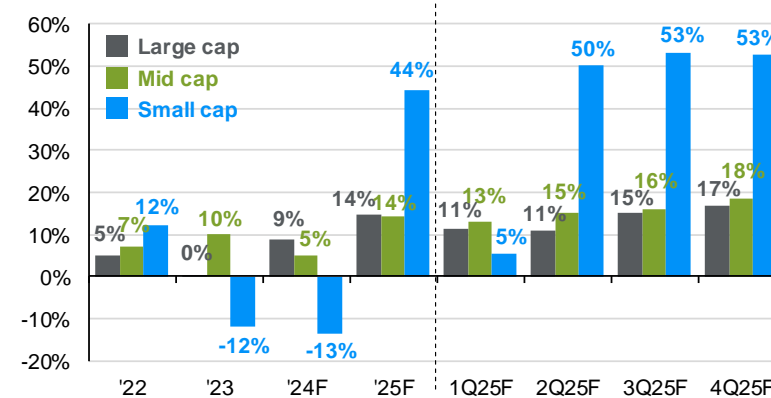
Percent of unprofitable companies

Pro forma EPS



Earnings growth

Pro forma EPS, y/y



Source: Compustat, FactSet, FTSE Russell, NBER, J.P. Morgan Asset Management.

The S&P 500 is used for large cap. The Russell Mid Cap is used for mid cap. The Russell 2000 is used for small cap. Data for the percent of unprofitable companies in each index are from the following quarters: Tech bubble = 4Q01, Financial crisis = 4Q08, COVID-19 = 1Q20 and Current = 3Q24.

Guide to the Markets – U.S. Data are as of December 31, 2024.

Global/Global ex-U.S. Equity Performance: 4Q24

Non-U.S. markets pull back at year-end

Broad market

- Global equity markets had a rough end to the year as concerns around Trump tariffs weighed on Europe and China.
- Europe was one of the worst-performing regions, plagued by political uncertainty and continued economic woes.
- While still negative, Japan's decline over the quarter was stemmed by the approval of a new economic stimulus plan focused on issues such as wage stability and deflation.

Emerging markets

- Emerging markets declined on the heels of poor results out of China and India. Although Chinese stocks initially gained from the announced stimulus, they later declined due to expected tariffs. Economic growth in India fell short of expectations.

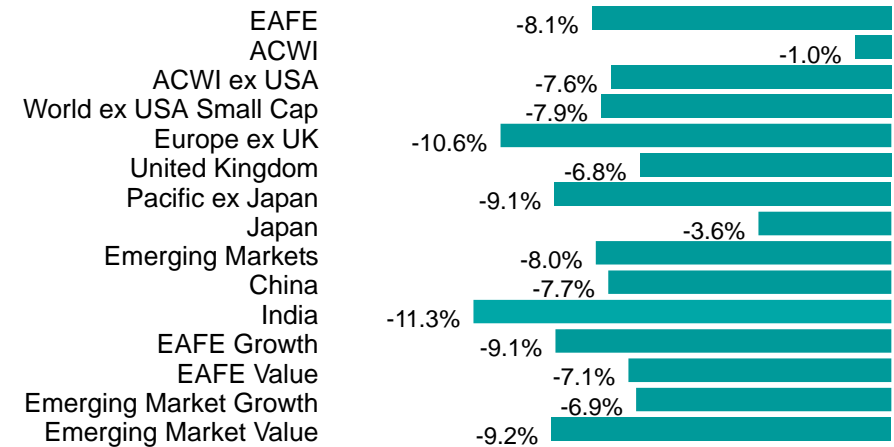
Growth vs. value

- In developed markets outside the U.S., the influence of technology and AI is comparatively more muted, which makes the trend of growth stocks, especially those from the "Magnificent Seven," outperforming value stocks less pronounced.

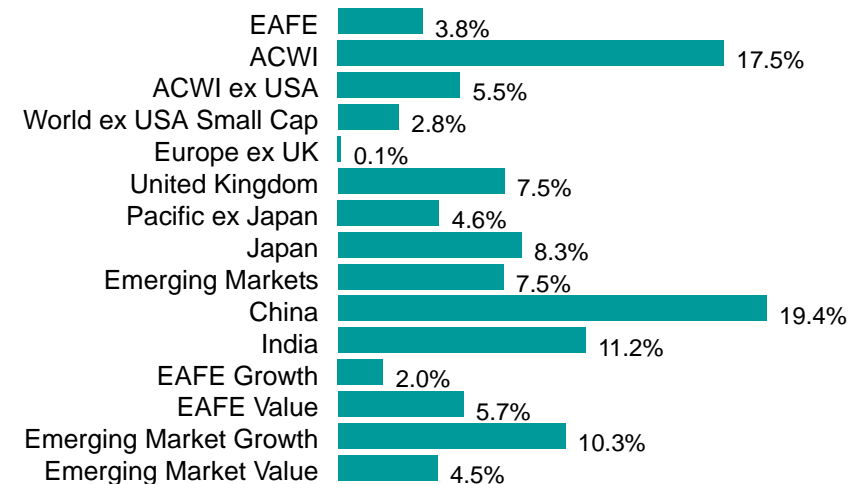
U.S. dollar strength

- The U.S. dollar shifted direction from the last quarter as expectations for interest rate cuts faded, along with the anticipated beneficial effects of the Trump administration on the U.S. economy; in total the U.S. Dollar Index rose over 7% during the quarter.

Global Equity Returns: Quarter Ended 12/31/24



Global Equity Returns: One Year Ended 12/31/24



Source: MSCI

U.S. Fixed Income Performance: 4Q24

Uncertainty resumes, hurting 4Q fixed income performance

Macro environment

- The Fed continued the rate cutting cycle, most recently in December, bringing the target range to 4.25%-4.50%.
- The yield curve steepened, with rates rising for Treasuries one year and longer. The 10-year rose 77 bps from 3.81% to 4.58%.
- Inflation concerns resurfaced, with the breakeven inflation rate rising by 19 bps to 2.30% over the course of the quarter.

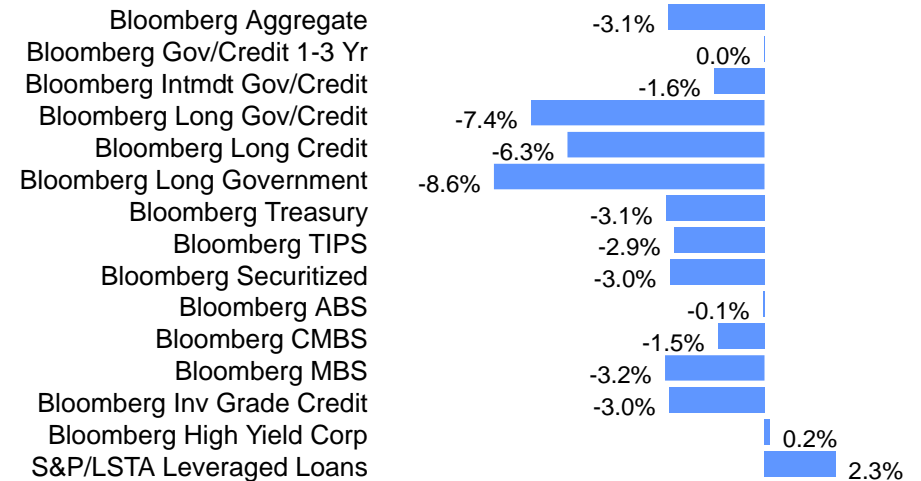
Performance and drivers

- The Bloomberg US Aggregate Bond Index fell 3.1% due to the rise in rates.
- With the steepening yield curve, long government bonds fared the worst among sectors.
- Leveraged finance sectors (High yield: +0.2%, leveraged loans: +2.3%) were the only positive fixed income sectors as spreads tightened.

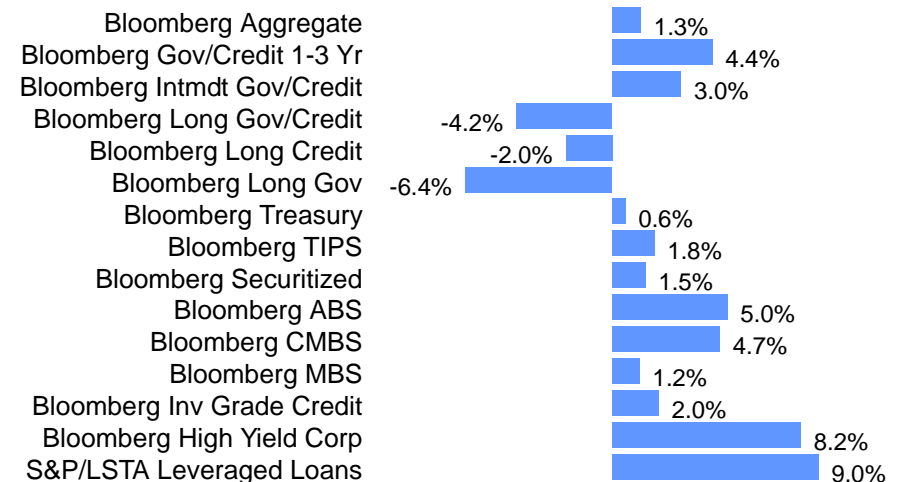
Valuations

- Corporate credit spreads across both investment grade and leveraged finance tightened, with both being “priced to perfection.”
- New issuance continued to be strong, with 2024 totals for both IG and HY outpacing 2023.

U.S. Fixed Income Returns: Quarter Ended 12/31/24



U.S. Fixed Income Returns: One Year Ended 12/31/24



Sources: Bloomberg, Callan, S&P Dow Jones Indices, J.P. Morgan, SIFMA

Recent Activity and Plan Performance

Quarterly Total Fund Highlights

As of December 31, 2024

▶ **CO PSPF ended the quarter with \$1.7 billion in assets, down \$13.4 million from Q3 2024 including investment returns and net new investments.**

- Net investment losses were \$28.9 million while net cash inflows were \$15.5 million during the quarter.

▶ **The Total Fund lost 1.79% for the quarter and rose 7.61% for the trailing year. The Total Equity Composite returned -1.41% for the quarter and gained 16.04% for the trailing year.**

- U.S. Equity outperformed International Equity for the quarter with a return of 2.77% vs -7.49%, respectively. Both had positive returns for the trailing year: US Equity, 16.04%; Non-US Equity, 5.29%.
- For the year, the US equity portfolio ranks in the 6th percentile against Callan's Endowment and Foundation – Domestic Equity peer group. International ranks in the 44th.

▶ **The Fixed Income Composite lead its benchmark by 33 basis points with a return of -2.35%. For the trailing year, the portfolio was up 2.47%, ahead of the benchmark by 83 basis points.**

- The Market Duration bond portfolio lead its benchmark with a return of -2.83% vs the benchmark return of -3.06% for the quarter. The portfolio rose 1.97% for the year. The portfolio ranks 68th percentile relative to Core Bond peers over three years.
- The JanusHenderson Short Duration bond portfolio lead its benchmark by 85 basis points with a return of 0.83%. The portfolio gained 5.79% for the year.

▶ **The High Income Strategies Composite lead its benchmark for the quarter by 0.28% with a return of 0.18%. For the year, the Composite returned 8.03%, 0.38% behind the benchmark.**

- The MacKay Shields' high yield bond portfolio lead its benchmark for the quarter but lagged the one year with returns of 0.20% and 7.53%, respectively.
- The Principal Spectrum preferred securities portfolio lead its benchmark for the quarter and year with returns of 0.06% and 10.85%, respectively.

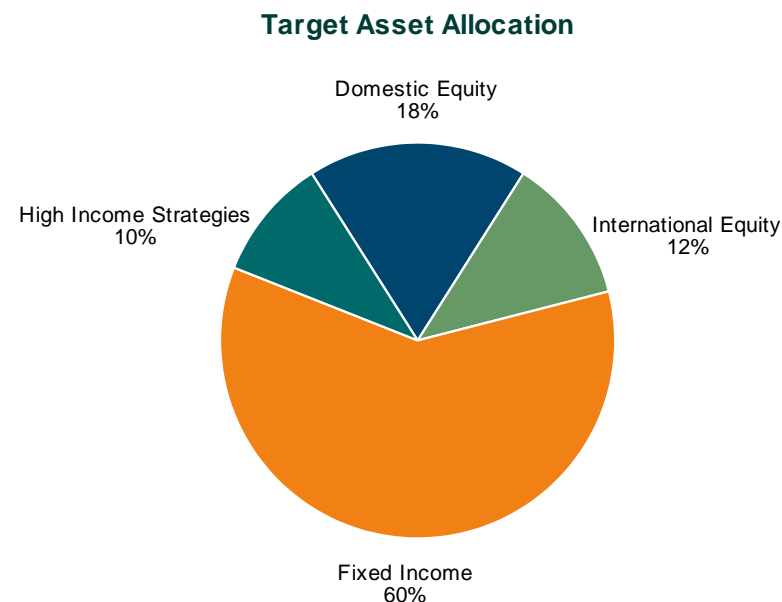
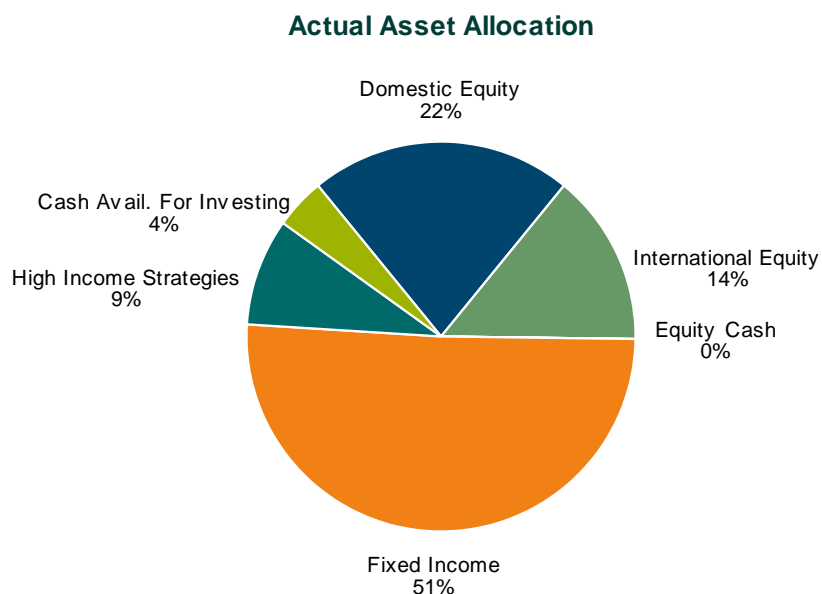
Asset Allocation Change Implementation Update

As of December 31st, 2024

- ▶ **The Board approved a new asset allocation at the September 25, 2024, meeting.**
 - The new asset allocation is 50% equity (30% US/20% Non-US); 32% core bonds; 10% High Income Strategies; and 8% short duration fixed income.
- ▶ **Implementation plan is to deploy roughly 12.5% of the total amount over eight quarter.**
- ▶ **LOD was sent to Parametric on November 8th directing them to invest \$27.2 million with a trade date of November 13. Dollar amounts will be adjusted quarterly.**
- ▶ **Parametric implements with the following ETFs:**
 - US Equity: iShares Core S&P Total US Stock Market
 - Non-US: iShares Core MSCI EAFE ETF; iShares MSCI Canada; iShares MSCI Emerging Markets
- ▶ **The next trade amount will be determined based on year end fund market values and executed early in the first quarter of 2025.**
- ▶ **Interim targets for performance will be implemented for 1Q 2025 reporting.**

Total Fund Asset Allocation

As of December 31st, 2024



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity	365,739	21.8%	18.0%	3.8%	63,274
International Equity	240,713	14.3%	12.0%	2.3%	39,070
Equity Cash	584	0.0%	0.0%	0.0%	584
Fixed Income	852,973	50.8%	60.0%	(9.2%)	(155,244)
High Income Strategies	149,363	8.9%	10.0%	(1.1%)	(18,673)
Cash Avail. For Investing	70,989	4.2%	0.0%	4.2%	70,989
Total	1,680,361	100.0%	100.0%		

Asset Distribution

	December 31, 2024				September 30, 2024	
	Market Value	Weight	Net New Inv.	Inv. Return	Market Value	Weight
Total Equity (1)	\$607,036,172	36.13%	\$20,281,897	\$(8,897,758)	\$595,652,033	35.17%
Domestic Equity	\$365,739,330	21.77%	\$(120,058)	\$9,618,780	\$356,240,608	21.03%
iShares S&P 1500 ETF	365,739,330	21.77%	(120,058)	9,618,780	356,240,608	21.03%
International Equity	\$240,713,296	14.33%	\$21,355,304	\$(18,523,279)	\$237,881,272	14.04%
iShares MSCI Emerging ETF	71,009,330	4.23%	6,567,971	(5,095,240)	69,536,599	4.11%
iShares MSCI Canada ETF	19,682,802	1.17%	1,661,009	(352,301)	18,374,095	1.08%
iShares Core MSCI EAFE ETF	150,021,164	8.93%	13,126,325	(13,075,738)	149,970,577	8.85%
Equity Cash	583,545	0.03%	(953,349)	6,741	1,530,154	0.09%
Total Fixed Income	\$852,972,619	50.76%	\$(8,666,596)	\$(20,763,295)	\$882,402,511	52.10%
Market Duration	\$737,865,139	43.91%	\$(7,349,463)	\$(21,670,302)	\$766,884,903	45.28%
Colorado Treasurer's Portfolio	737,865,139	43.91%	(7,349,463)	(21,670,302)	766,884,903	45.28%
Short Duration	\$115,107,481	6.85%	\$(1,317,133)	\$907,006	\$115,517,607	6.82%
Janus Henderson (2)	115,107,481	6.85%	(1,317,133)	907,006	115,517,607	6.82%
High Income Strategies	\$149,363,281	8.89%	\$(2,249,021)	\$220,688	\$151,391,615	8.94%
High Yield Fixed Income	\$127,082,773	7.56%	\$(1,893,026)	\$253,024	\$128,722,775	7.60%
Mackay Shield US High Yield (3)	127,082,773	7.56%	(1,893,026)	253,024	128,722,775	7.60%
Preferred Securities	\$22,280,509	1.33%	\$(355,995)	\$(32,336)	\$22,668,840	1.34%
Principal Preferred Securities (3)	22,280,509	1.33%	(355,995)	(32,336)	22,668,840	1.34%
Cash Available For Investing	\$70,988,615	4.22%	\$6,156,182	\$475,412	\$64,357,021	3.80%
Total Fund	\$1,680,360,688	100.0%	\$15,522,462	\$(28,964,953)	\$1,693,803,179	100.0%

(1) Funded in December 2017.

(2) Funded in November 2018.

(3) Funded in July 2020.

Manager & Composite Cumulative Returns

As of December 31st, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Equity	(1.41%)	16.04%	5.12%	9.99%	-
60% Russell 3000/40% ACWI ex US	(1.46%)	16.34%	5.19%	9.96%	9.46%
Domestic Equity	2.77%	23.85%	8.01%	13.86%	-
Russell 3000 Index	2.63%	23.81%	8.01%	13.86%	12.55%
International Equity	(7.49%)	5.29%	0.76%	4.31%	-
MSCI ACWI ex US	(7.60%)	5.53%	0.82%	4.10%	4.80%
Total Fixed Income	(2.35%)	2.47%	(1.46%)	0.28%	1.72%
Total Fixed Income Benchmark (1)	(2.68%)	1.64%	(1.89%)	(0.07%)	1.37%
Market Duration	(2.83%)	1.97%	(2.07%)	(0.08%)	1.58%
Colorado Treasurer's Portfolio (2)	(2.83%)	1.97%	(2.07%)	(0.08%)	1.58%
PSPF Custom Benchmark (3)	(3.06%)	1.25%	(2.41%)	(0.33%)	1.29%
Short Duration	0.83%	5.79%	2.61%	2.61%	-
Janus Henderson Short Duration	0.83%	5.79%	2.61%	2.61%	-
Bimbg Gov/Cred 1-3 Yr	(0.02%)	4.36%	1.69%	1.58%	1.63%
85% 1-3YR G/C; 15% 1-3YR BB (4)	0.10%	4.70%	2.04%	1.98%	2.05%
High Income Strategies	0.18%	8.03%	3.59%	-	-
High Income Strategies Benchmark (5)	(0.10%)	8.41%	2.58%	3.98%	5.08%
High Yield Fixed Income	0.20%	7.53%	3.80%	-	-
Mackay Shield US High Yield	0.20%	7.53%	3.80%	-	-
Bimbg High Yield	0.17%	8.19%	2.92%	4.21%	5.17%
Preferred Securities	0.06%	10.85%	2.34%	-	-
Principal Preferred Securities	0.06%	10.85%	2.34%	-	-
ICE BofA US All Cap Secs	(1.65%)	9.61%	0.67%	2.57%	4.51%
Total Fund w/o CAI (6)	(1.79%)	7.61%	1.32%	3.43%	3.41%
Total Fund Benchmark (6)	(2.06%)	6.62%	0.76%	3.16%	3.17%

Performance footnotes are detailed after the performance attribution exhibits.

Manager & Composite Fiscal Year Returns

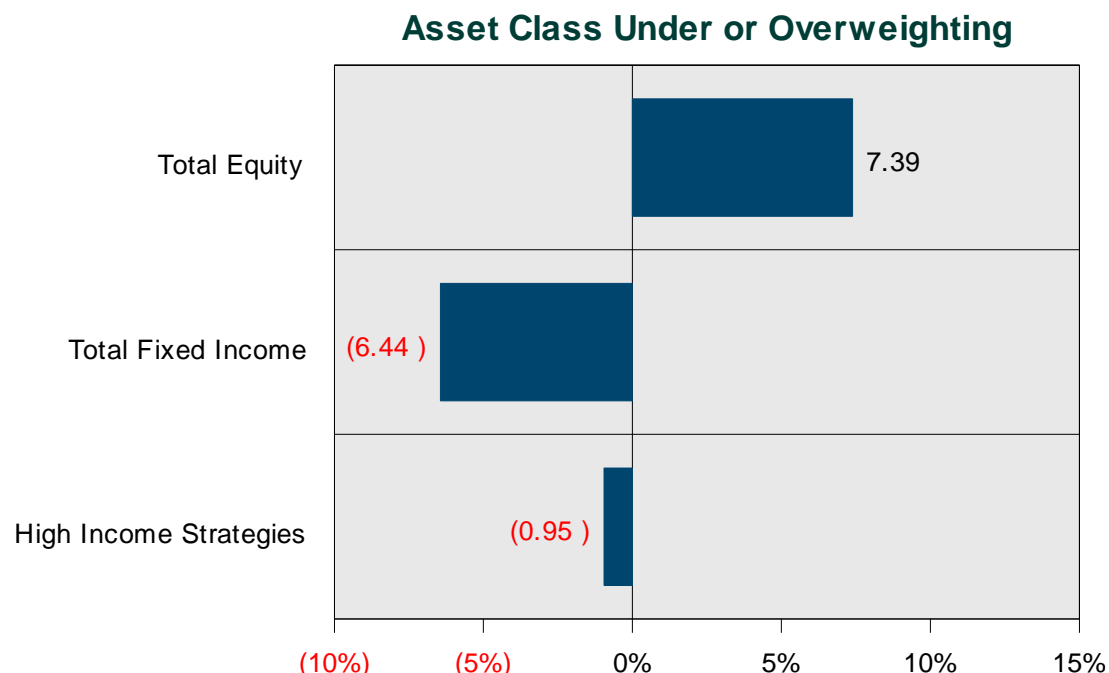
As of December 31st, 2024

	6/2024- 12/2024	FY 2024	FY 2023	FY 2022	FY 2021
Total Equity	5.26%	18.33%	16.33%	(15.85%)	41.59%
60% Russell 3000/40% ACWI ex US	5.40%	18.44%	16.57%	(16.06%)	40.77%
Domestic Equity	9.10%	23.24%	18.83%	(13.95%)	44.30%
Russell 3000 Index	9.03%	23.13%	18.95%	(13.87%)	44.16%
International Equity	(0.16%)	11.26%	12.28%	(18.97%)	37.78%
MSCI ACWI ex US	(0.15%)	11.62%	12.72%	(19.42%)	35.72%
Total Fixed Income	2.38%	3.47%	(0.04%)	(9.76%)	(0.27%)
Total Fixed Income Benchmark (1)	2.10%	2.93%	(0.75%)	(9.46%)	(0.26%)
Market Duration	2.24%	3.06%	(0.53%)	(10.55%)	(0.55%)
Colorado Treasurer's Portfolio (2)	2.24%	3.06%	(0.53%)	(10.55%)	(0.55%)
PSPF Custom Benchmark (3)	1.98%	2.63%	(0.94%)	(10.29%)	(0.33%)
Short Duration	3.36%	6.13%	2.92%	(4.33%)	2.33%
Janus Henderson Short Duration	3.36%	6.13%	2.92%	(4.33%)	2.33%
BImbg Gov/Cred 1-3 Yr	2.94%	4.87%	0.52%	(3.56%)	0.44%
85% 1-3YR G/C; 15% 1-3YR BB (4)	3.06%	5.35%	1.49%	(3.83%)	1.70%
High Income Strategies	4.35%	10.47%	8.18%	(9.38%)	-
High Income Strategies Benchmark (5)	5.30%	10.62%	7.93%	(12.89%)	15.13%
High Yield Fixed Income	4.25%	10.00%	9.23%	(9.09%)	-
Mackay Shield US High Yield	4.25%	10.00%	9.23%	(9.09%)	-
BImbg High Yield	5.47%	10.44%	9.06%	(12.81%)	15.37%
Preferred Securities	4.90%	13.18%	2.29%	(11.11%)	-
Principal Preferred Securities	4.90%	13.18%	2.29%	(11.11%)	-
ICE BofA US All Cap Secs	4.34%	11.63%	1.66%	(13.33%)	13.67%
Total Fund w/o CAI (6)	3.59%	9.09%	5.66%	(11.58%)	8.30%
Total Fund Benchmark (6)	3.41%	8.24%	5.18%	(11.64%)	7.98%

Performance footnotes are detailed after the performance attribution exhibits.

One Quarter Performance Attribution

As of December 31st, 2024



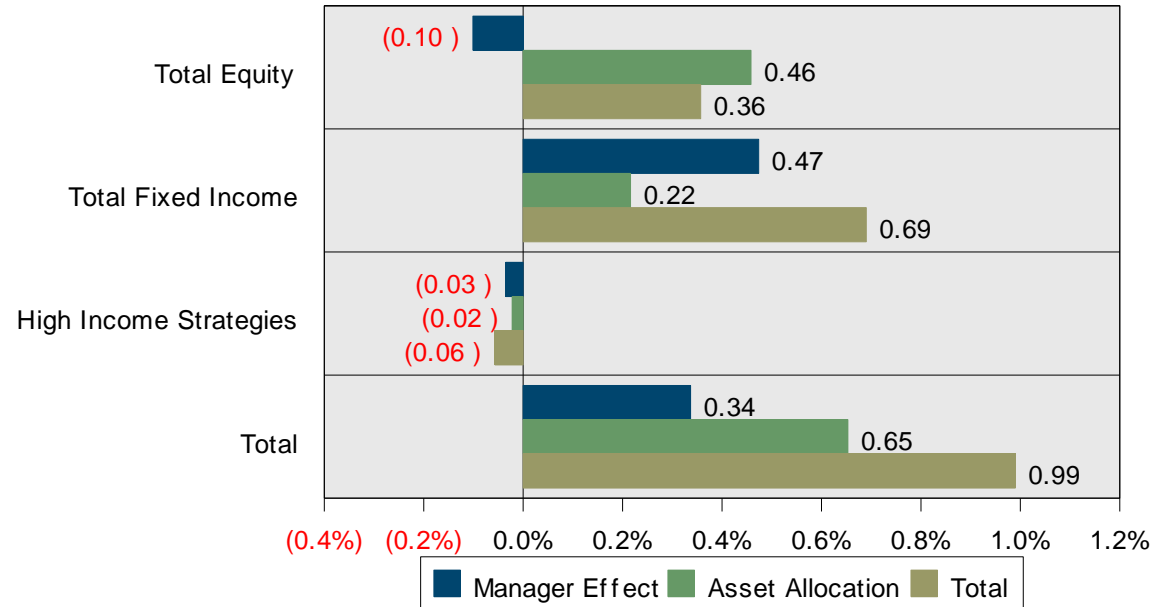
Relative Attribution Effects for Quarter ended December 31, 2024

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	37%	30%	(1.41%)	(1.46%)	0.02%	0.04%	0.06%
Total Fixed Income	54%	60%	(2.35%)	(2.68%)	0.18%	0.03%	0.21%
High Income Strategies	9%	10%	0.18%	(0.10%)	0.03%	(0.02%)	0.00%
Total			(1.79%)	(2.06%)	+ 0.22%	+ 0.05%	0.27%

One Year Performance Attribution

As of December 31st, 2024

One Year Relative Attribution Effects



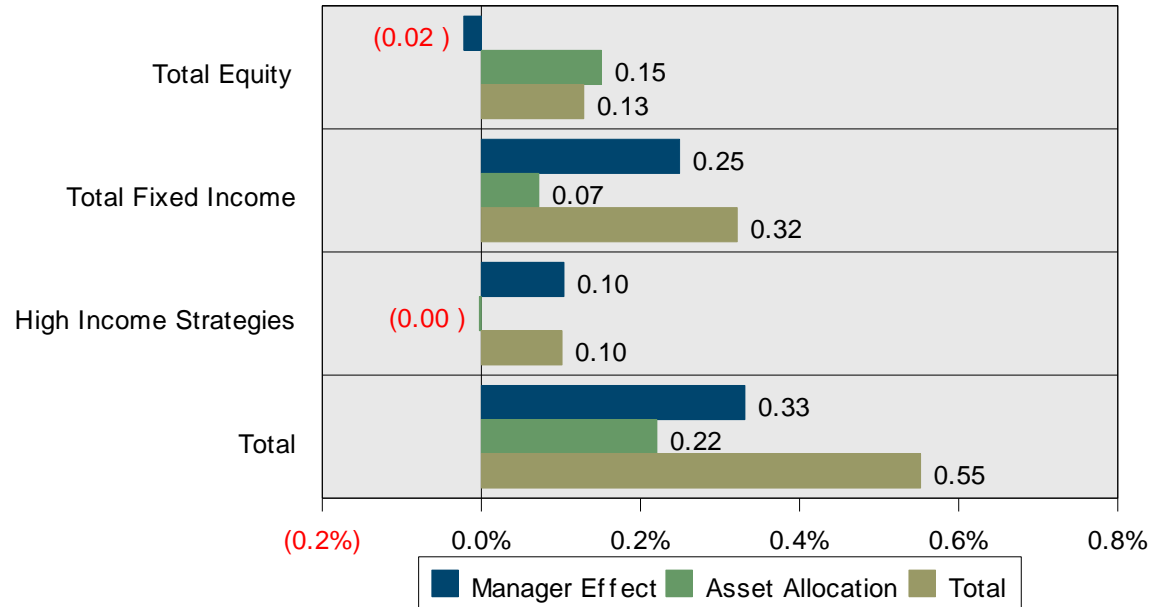
One Year Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	36%	30%	16.04%	16.34%	(0.10%)	0.46%	0.36%
Total Fixed Income	55%	60%	2.47%	1.64%	0.47%	0.22%	0.69%
High Income Strategies	9%	10%	8.03%	8.41%	(0.03%)	(0.02%)	(0.06%)
Total			7.61%	6.62%	+ 0.34%	+ 0.65%	0.99%

One Year Performance Attribution

As of December 31st, 2024

Three Year Annualized Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return	
Total Equity	33%	30%	5.12%	5.19%	(0.02%)	0.15%	0.13%	
Total Fixed Income	58%	60%	(1.46%)	(1.89%)	0.25%	0.07%	0.32%	
High Income Strategies	10%	10%	3.59%	2.58%	0.10%	(0.00%)	0.10%	
Total			1.32%		= 0.76%	+ 0.33%	+ 0.22%	0.55%

Performance Footnotes

- (1) Current quarter's Total Fixed Income Benchmark consists of 87.5% Bloomberg U.S. Aggregate and 12.5% Bloomberg Gov/Credit 1-3 Yrs.
 - (2) Includes cash returns starting July 2017.
 - (3) The PSPF Fixed Income Portfolio Custom Benchmark consisted of 37% U.S. Treasury 1-10 Year Index, 34% Mortgages 0-10 Year WAL Index, 19% AAA U.S. Agencies 1-10 Year Index and 10% U.S. Corporates AAA Rated 1-10 Years Index through March 31, 2017, 100% Bloomberg U.S. Aggregate, thereafter.
 - (4) Benchmark consists of 85% Bloomberg 1-3 Year Government/Credit Index and 15% BofAML 1-3 Year BB US Cash Pay High Yield Index.
 - (5) Benchmark consists of 85% Blmbg High Yield Index and 15% ICE BofA US All Cap Secs Index.
 - (6) Current quarter's Total Fund Benchmark consists of 18.0% Russell 3000, 12.0% MSCI ACWI ex US, 52.5% Bloomberg U.S. Aggregate, 7.5% Bloomberg Gov/Credit 1-3 Yrs, 8.5% Bloomberg US High Yield and 1.5% ICE BofA U.S. All Capital Securities Index.
- *All composites and manager returns are shown gross-of-fees.

Callan Update

Published Research Highlights: 4Q24

2024 Real Assets Fees and Terms Study



2024 ESG Survey



3Q24 Market Intelligence Report (clients-only)



Coming Soon: 2025 Capital Markets Assumptions



Recent Blog Posts

**IRS Guidance:
How Reliable
Is it?**

Jana Steele

**Public DB Plan
Trends (and
Some That Will
Be)**

Weston Lewis

**Are Equity
Returns More
Volatile in an
Election Year?
It Depends!**

Ric Ford and Drew
Beiger

Additional Reading

Active vs. Passive quarterly charts
Capital Markets Review quarterly newsletter
Monthly Updates to the Periodic Table
Market Pulse Flipbook quarterly markets update
Market Intelligence (clients-only)
Real Estate Indicators market outlook

Callan Institute Events

Upcoming conferences, workshops, and webinars

2025 National Conference

Mark your calendars for this event in Scottsdale on April 27-29, 2025

Our annual conference will feature mainstage speakers and Callan-led workshops on a variety of topics.

This year we welcome Zanny Minton Beddoes to the stage.

Registration for this event will open in January 2025!

Please visit our website at callan.com/events-education as we add dates to our 2025 calendar!



Mark Your Calendar

2025 Regional Workshops

June 3, 2025 – Denver

June 5, 2025 – New York

October 28, 2025 – Chicago

October 30, 2025 – San Francisco

Watch your email for further details and an invitation.

Upcoming Webinars

January 23, 2025

Research Café featuring Callan's 2024 Real Assets Fees and Terms Study

January 24, 2025

Market Intelligence Report and Webinar

February 20, 2025

Research Café: ESG Interview Series

March 28, 2025

STAR Webinar

Introducing Callan On-Demand Education (CODE)

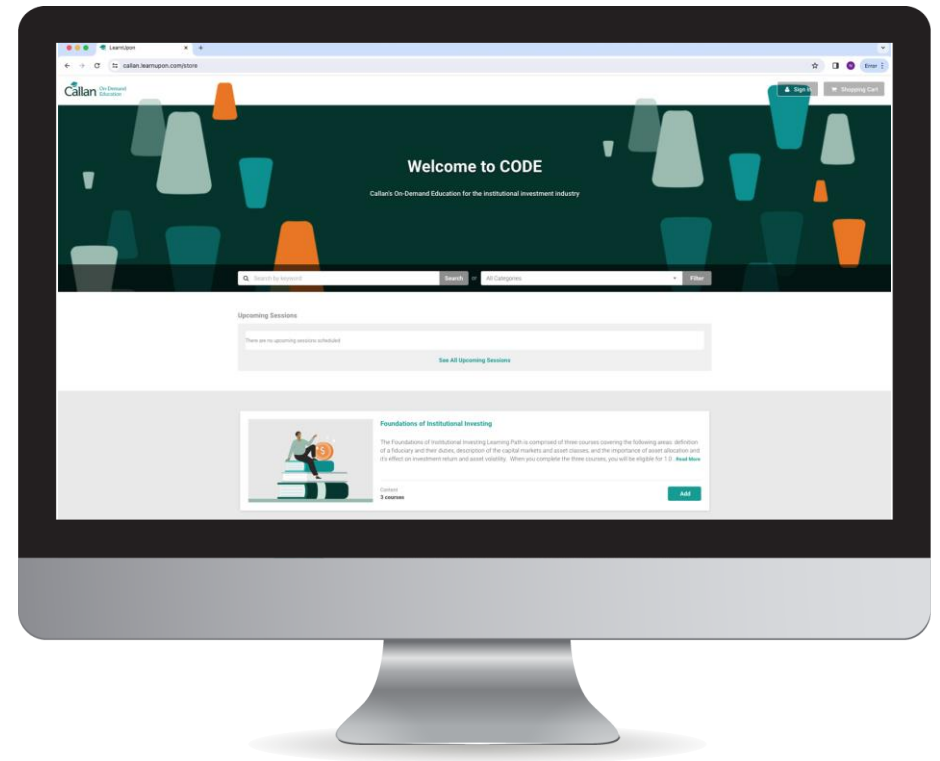


- ▶ Variety of educational courses
- ▶ Interactive and engaging
- ▶ Self-guided modules
- ▶ Eligible for continuing education credits
- ▶ Learning at your own pace

CODE courses are designed for investment professionals of all levels—and they're self-guided. Access them anytime, from anywhere, and get continuing education credits for each completed course.

CODE is for you, your colleagues, your new hires, and your interns. It's for anyone interested in learning about institutional investing.

callan.com/code



3 Reasons to Take CODE Courses

- 1 Become a better fiduciary
- 2 Showcase your skills and knowledge
- 3 Learn from Callan's investment experts

Callan Updates

Firm updates by the numbers, as of Dec. 31, 2024

Total Associates: ~200

Company Ownership:

- ▶ 100% employees
- ▶ ~70% of employees are equity owners
- ▶ ~55% of shareholders identify as women or minority

Total Investment Consultants: 50+

Total Specialty and Research Consultants: 65+

Total CFA/CAIA/FRMs: 60+

Total Institutional Investor Clients: 475+

Provides advisory services to institutional investor clients with assets over \$4+ trillion

NEW ON CODE: The Framework of Alternative Investments

Our newest online learning course series, the Framework of Alternative Investments, is live on **CODE**, the Callan On-Demand Education portal. Topics covered include private equity, private credit, hedge funds, and real assets. Callan clients have full access to all CODE courses for free.

“CODE is aimed at educating client and non-client, investment and non-investment professional board members alike in how institutional investment portfolios are constructed and maintained across asset classes, including alternatives.”

— Greg Allen, CEO, Chief Research Officer in a June 2024 *FundFire* story about CODE



Diversity, Equity & Belonging (DEB)

Building a diverse workforce, pursuing equitable outcomes, and creating a sense of belonging

Five-Year Strategic Plan: Key Areas



DEB Leadership:

Greg Allen, Executive Sponsor, and Lauren Mathias, Champion

DEB Council:

Citlali Cuevas, Laura Dawson, Ruth Duque, Mike Joecken, Lindsay Jones, Paola Cardenales, Erik Partida, Juan Pablo Piz, Avery Robinson, Jeff Salyer, Alvaro Vega, Nicole Wubbena

Client DEB projects: *Investment manager Callan DEI Score trends, investment manager team and employee demographics review versus peers, diverse-owned manager searches, incorporating diversity in an IPS, and review of DEI in DC plans.*

Accomplishments



- ▶ Inclusive culture education for all
- ▶ Engagement surveys
- ▶ Inclusive interviewing and resume review guides
- ▶ Equitable policies for promotion and partnership
- ▶ Enhanced pay equity and supplier diversity policies
- ▶ Pronoun education
- ▶ DEB Awareness Calendar
- ▶ Buddy program
- ▶ Employee resource groups (CallanUnites ERGs)
- ▶ 2024 Asset Manager DEI Study
- ▶ 2024 DEB Advancement Report

Near-Term Plans



- ▶ Ongoing education
- ▶ Mentorship program

Important Disclosures

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Callan's performance measurement service may report on illiquid asset classes, including, but not limited to, private real estate, private equity, private credit, hedge funds and infrastructure. The final valuation reports, which Callan receives from third parties, for of these types of asset classes may not be available at the time a Callan performance report is issued. As a result, the estimated returns and market values reported for these illiquid asset classes, as well as for any composites including these illiquid asset classes, including any total fund composite prepared, may not reflect final data, and therefore may be subject to revision in future quarters.

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Important Disclosures (continued)

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Unless Callan has been specifically engaged to do so, Callan does not conduct background checks or in-depth due diligence of the operations of any investment manager search candidate or investment vehicle, as may be typically performed in an operational due diligence evaluation assignment and in no event does Callan conduct due diligence beyond what is described in its report to the client.

Any decision made on the basis of this document is sole responsibility of the client, as the intended recipient, and it is incumbent upon the client to make an independent determination of the suitability and consequences of such a decision.

Callan undertakes no obligation to update the information contained herein except as specifically requested by the client.

Past performance is no guarantee of future results.

December 31, 2024

CO Public School Permanent Fund



**Investment Measurement Service
Quarterly Review**

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December 31, 2024

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U.S. EQUITIES

U.S. market reaches record high after spike in volatility

- The U.S. equity market ended with the S&P 500 Index up over 2%. However, the quarter was marked by volatility, particularly during October and December.
- Negative returns in October were driven by investor anxiety around the U.S. presidential election, uncertainty with the Fed’s approach to interest rate cuts, and some misses to corporate earnings expectations. December returns, while initially buoyed by the Fed’s third consecutive rate cut, cooled after the Fed announced no additional rate cuts until the second half of 2025.
- Sector performance was mixed; only four (Communication Services, Consumer Discretionary, Financials, and Information Technology) posted gains.
- During 4Q24, large cap stocks outperformed small caps. Growth outperformed value across the market cap spectrum.

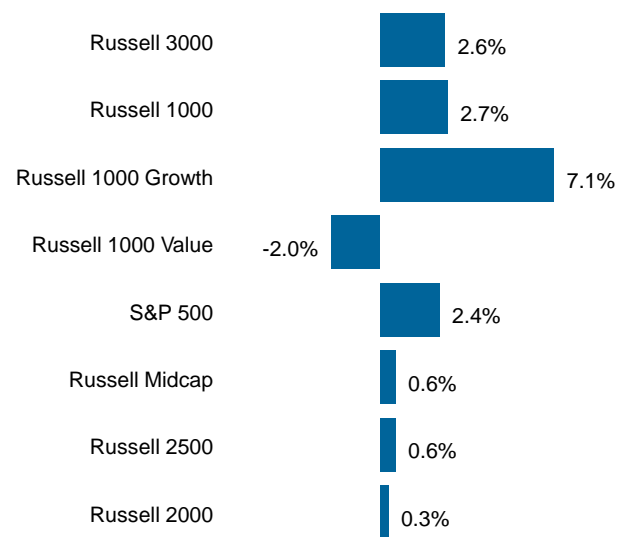
Large caps continue to drive narrow markets

- Concentration and performance contribution of the Magnificent Seven stocks within the large cap benchmarks remain outsized relative to the aggregate of benchmark constituents. In 2024, the S&P 500’s return was 25%; the S&P 500 ex-Mag 7 return was 16%.
- For the second year in a row, less than 30% of S&P 500 stocks have outperformed the S&P 500 itself.

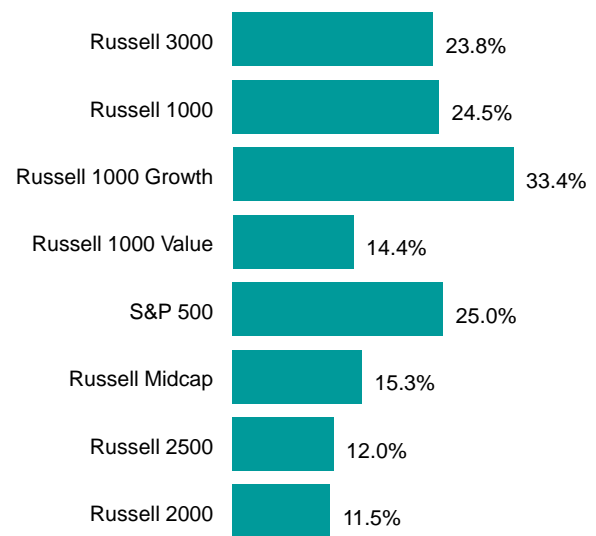
Fundamentals critical to success of large caps

- In recent years, themes—like “work from home” stocks and AI—as well as momentum have been attributed to the prolonged success of the Magnificent Seven.
- However, Magnificent Seven valuations have been supported by strong earnings, low debt, and high cash levels. Consensus and forward-looking EPS growth expectations also remain high for large cap companies.

U.S. Equity: Quarterly Returns

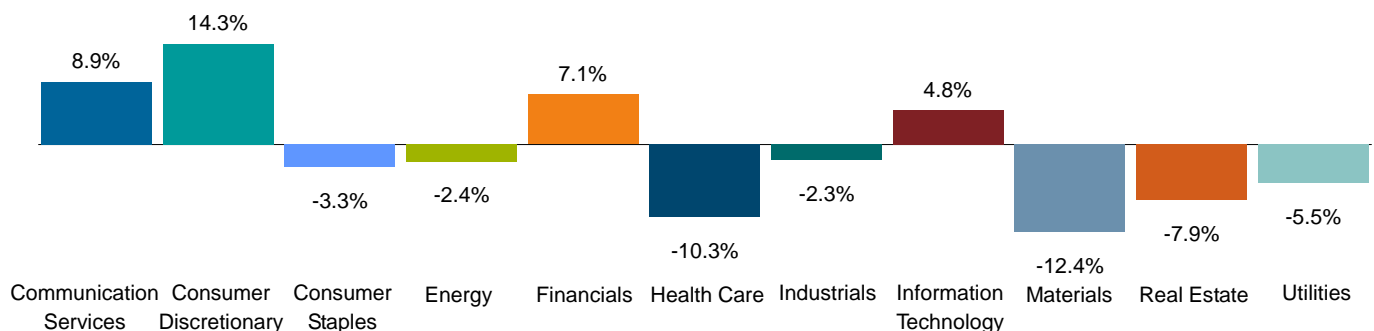


U.S. Equity: One-Year Returns



Sources: FTSE Russell, S&P Dow Jones Indices

S&P Sector Returns, Quarter Ended 12/31/24



Source: S&P Dow Jones Indices

GLOBAL EQUITIES

Trump tariffs weigh on markets

- Global equity markets had a rough end to the year as proposed Trump tariffs weighed on Europe and China.
- Europe was one of the worst-performing regions, plagued by political uncertainty and continued economic woes.
- While still negative, Japan's decline over the quarter was stemmed by the approval of a new economic stimulus plan focused on issues such as wage stability and deflation.

Emerging markets: China, India fall short

- Emerging markets declined on the heels of poor results out of China and India. Although Chinese stocks initially gained from the announced stimulus, they later declined due to expected tariffs. Economic growth in India fell short of expectations.

Growth vs. value: Muted tech influence on growth

- In developed ex-U.S. markets, the influence of technology and AI is comparatively more muted, which makes the trend of growth stocks, especially those from the Magnificent Seven, outperforming value stocks less pronounced.

U.S. dollar: Strength from beneficial effects of Trump

- The U.S. dollar shifted direction from the last quarter as expectations for interest rate cuts faded, along with the anticipated beneficial effects of the Trump administration on the U.S. economy; in total the U.S. Dollar Index rose over 7% during the quarter.

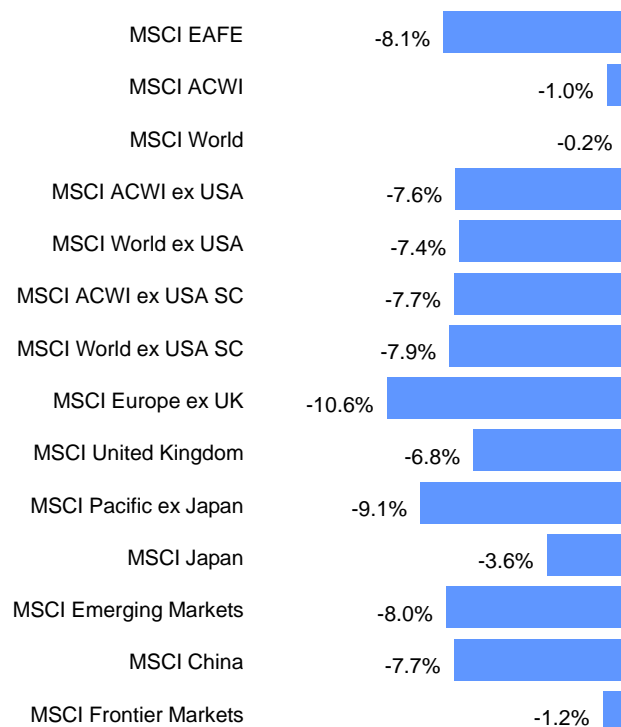
Global equity market concentration continues higher

- The U.S. share of global market capitalization in global indices is at all-time highs as U.S. technology companies lead markets higher.
- Market capitalization-weighted global benchmarks are providing lower diversification benefits than historically at not only the country level but also the security level as the top five constituents of the MSCI ACWI Index currently comprise over 17% of the benchmark.

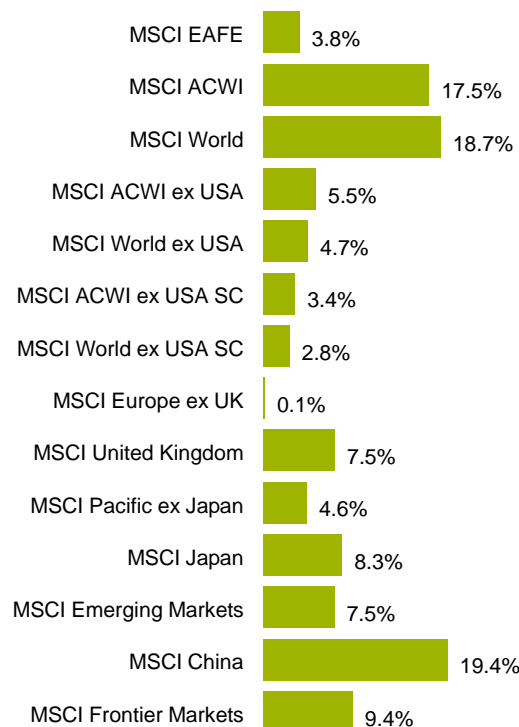
U.S. dollar strength has been a headwind

- Recent U.S. dollar strength has been a notable headwind for non-U.S. equities as local currency revenues of companies continue to weaken against the U.S. dollar.
- Some contributing factors to U.S. dollar strength have been higher interest rate policy by the Federal Reserve compared to other central banks, U.S. economic and market strength, and recent rhetoric regarding potentially higher tariff rates on U.S. imports.

Global Equity: Quarterly Returns



Global Equity: One-Year Returns



Source: MSCI

Inflation concerns resurface

- The Fed continued the rate cutting cycle, most recently in December, bringing the target range to 4.25%-4.50%.
- The yield curve steepened, with rates rising for Treasuries one year and longer. The 10-year rose 77 bps to 4.58%.
- Inflation concerns resurfaced, with the breakeven inflation rate rising by 19 bps to 2.30% over the course of the quarter.

Performance drivers

- The Bloomberg US Aggregate Bond Index fell 3.1% due to the rise in rates.
- With the steepening yield curve, long government bonds fared the worst among sectors.
- Leveraged finance sectors (High yield: +0.2%, leveraged loans: +2.3%) were the only positive fixed income sectors as spreads tightened.

Credit spreads tighten

- Corporate credit spreads across both investment grade and leveraged finance tightened, with both being “priced to perfection.”
- New issuance continued to be strong, with 2024 totals for both IG and HY outpacing 2023.

MUNICIPAL BONDS

Negative returns in 4Q

- The muni AAA-rated curve shifted upward across the curve and the curve steepened.
- The spreads between the AAA 2s/10s key rates (24 bps) ended the year slightly tighter than Treasuries (33 bps).

Low dispersion across quality in 4Q and for the year

- AAA: -1.3%; +1.4%
- AA: -1.2%; +1.5%
- A: -1.2%; +1.5%
- BBB: -1.3%; +1.6%

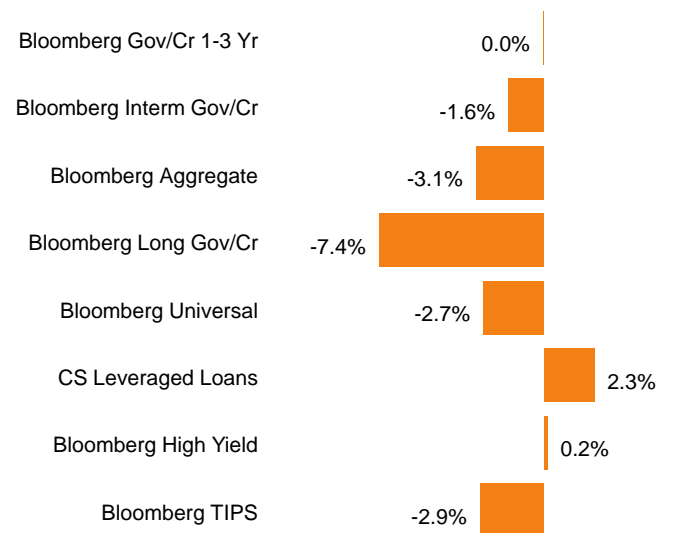
Robust issuance through 4Q, demand softened slightly

- Total issuance in 2024 was \$508 billion, beating the previous high of \$485 billion in 2020 and up 32% year over year.
- Demand absorbed issuance most of the quarter, but December exhibited three weeks of fund outflows, after 23 weeks of consecutive net inflows.

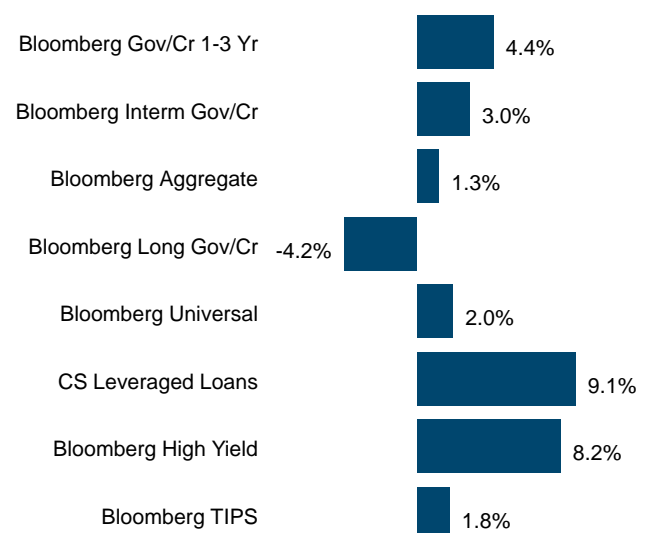
Muni valuations vs. U.S. Treasuries remain rich

- 10-year AAA muni/10-year U.S. Treasury yield ratio was rich relative to the 10-year median (67% now vs. 80% historical).

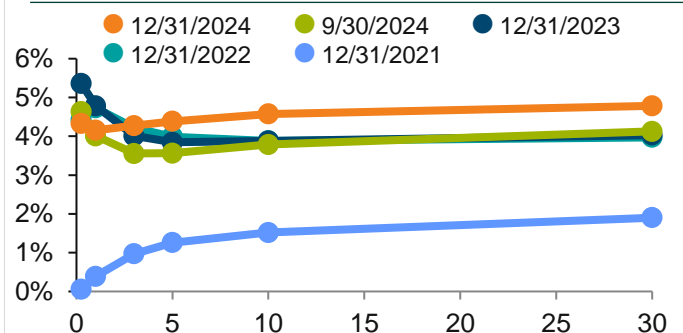
U.S. Fixed Income: Quarterly Returns



U.S. Fixed Income: One-Year Returns



U.S. Treasury Yield Curves



Sources: Bloomberg, Credit Suisse

GLOBAL FIXED INCOME

Political controversy dogs euro zone

- The euro zone was marred with political controversy in 4Q, specifically in Germany and France.
- GDP growth in the euro zone rose modestly (+0.4%), while the ECB cut rates in December.
- Japan’s GDP grew 1.2% on the back of strong exports and a weaker yen.

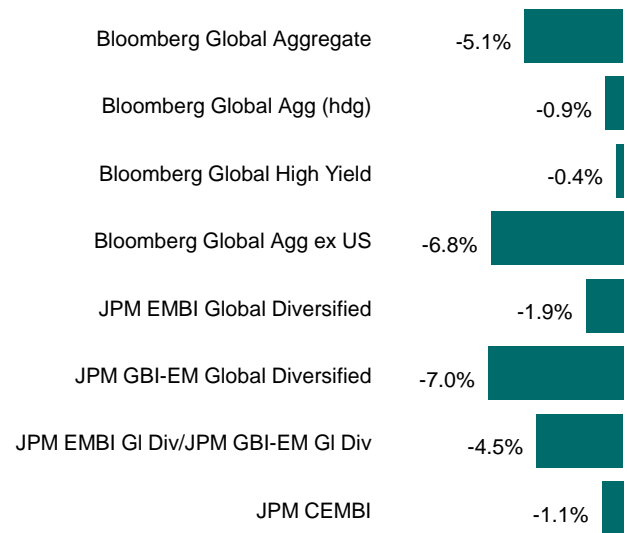
U.S. dollar surges

- The U.S. dollar rose 8% versus a basket of six developed market currencies.
- Global fixed income returns varied based on currency exposure, with the Bloomberg Global Aggregate ex US Hedged Index rising 0.7%, while the Bloomberg Global Aggregate ex US Unhedged Index fell by 6.8%.

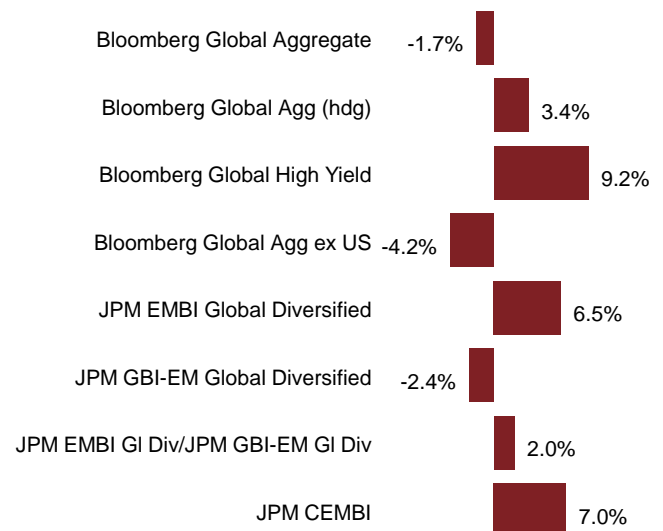
Emerging market debt faced similar challenges

- Both EM local and hard currency bonds posted negative returns on the quarter, weighed down by the strength of the dollar and geopolitical risk. Hard currency spreads narrowed at the tail end of the quarter, partially offsetting an early quarter drawdown.
- Brazil increased its policy rate by 150 bps in 4Q, resulting in the Brazilian real depreciating by 13.4% versus the U.S. dollar.

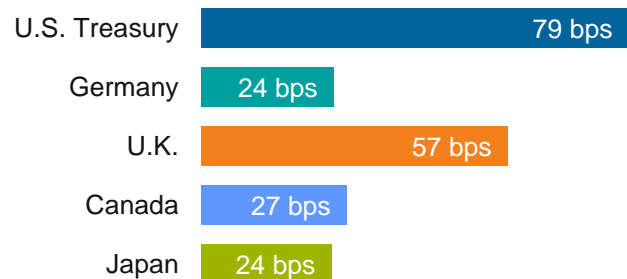
Global Fixed Income: Quarterly Returns



Global Fixed Income: One-Year Returns



Change in 10-Year Global Government Bond Yields

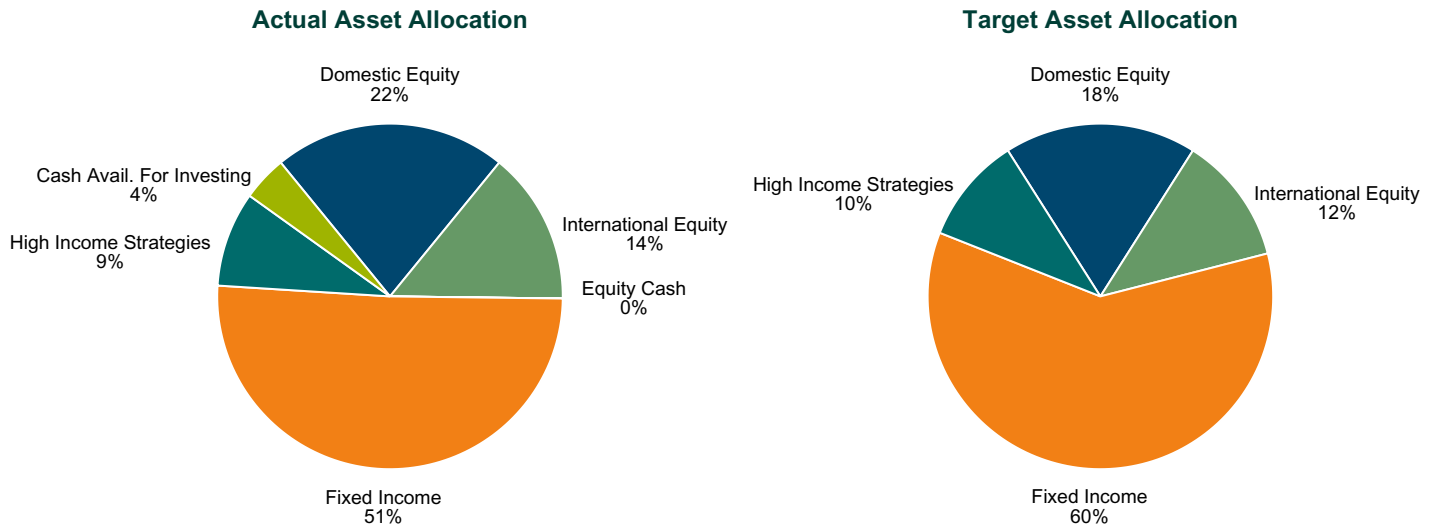


Sources: Bloomberg, JP Morgan

Actual vs. Target
Asset Allocation

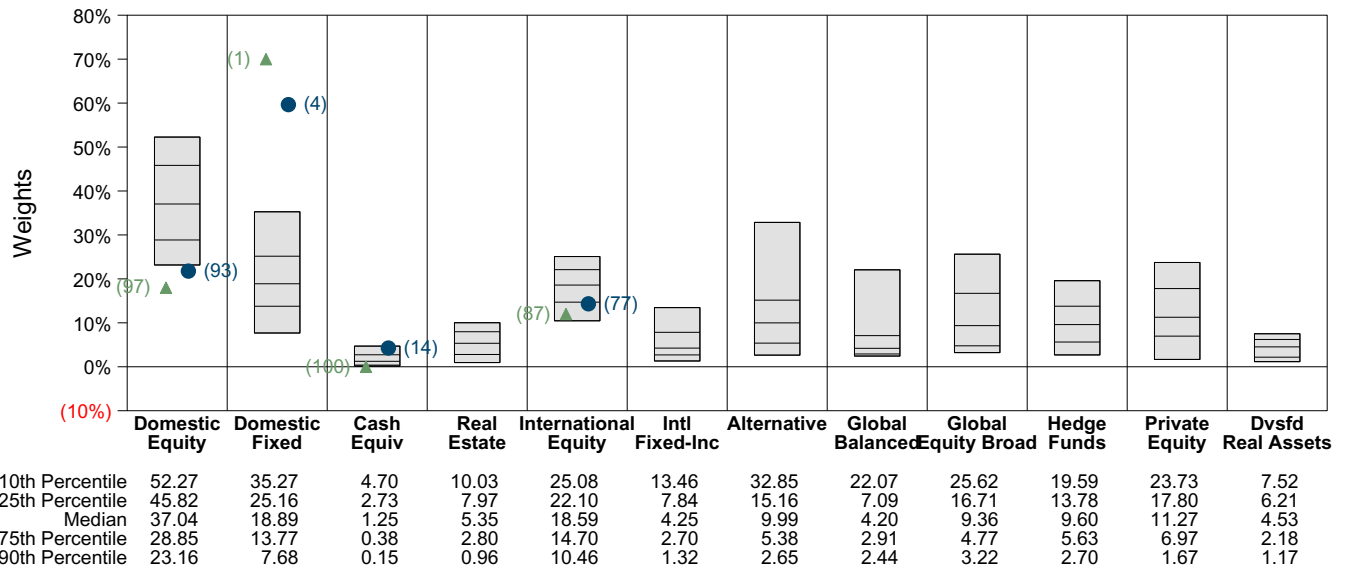
Actual vs Target Asset Allocation As of December 31, 2024

The top left chart shows the Fund's asset allocation as of December 31, 2024. The top right chart shows the Fund's target asset allocation as outlined in the investment policy statement. The bottom chart ranks the fund's asset allocation and the target allocation versus the Callan Endow/Foundation - Mid (100M-1B).



Asset Class	\$000s Actual	Weight Actual	Target	Percent Difference	\$000s Difference
Domestic Equity	365,739	21.8%	18.0%	3.8%	63,274
International Equity	240,713	14.3%	12.0%	2.3%	39,070
Equity Cash	584	0.0%	0.0%	0.0%	584
Fixed Income	852,973	50.8%	60.0%	(9.2%)	(155,244)
High Income Strategies	149,363	8.9%	10.0%	(1.1%)	(18,673)
Cash Avail. For Investing	70,989	4.2%	0.0%	4.2%	70,989
Total	1,680,361	100.0%	100.0%		

Asset Class Weights vs Callan Endow/Foundation - Mid (100M-1B)



10th Percentile	52.27	35.27	4.70	10.03	25.08	13.46	32.85	22.07	25.62	19.59	23.73	7.52
25th Percentile	45.82	25.16	2.73	7.97	22.10	7.84	15.16	7.09	16.71	13.78	17.80	6.21
Median	37.04	18.89	1.25	5.35	18.59	4.25	9.99	4.20	9.36	9.60	11.27	4.53
75th Percentile	28.85	13.77	0.38	2.80	14.70	2.70	5.38	2.91	4.77	5.63	6.97	2.18
90th Percentile	23.16	7.68	0.15	0.96	10.46	1.32	2.65	2.44	3.22	2.70	1.67	1.17
Fund	● 21.77	59.65	4.26	-	14.33	-	-	-	-	-	-	-
Target	▲ 18.00	70.00	0.00	-	12.00	-	-	-	-	-	-	-
% Group Invested	97.45%	96.82%	86.62%	49.68%	91.72%	30.57%	53.89%	6.37%	43.95%	42.68%	57.32%	31.85%

* Current Quarter Target = 52.5% Blmbg:Aggregate, 18.0% Russell 3000 Index, 12.0% MSCI ACWI xUS (Net), 8.5% Blmbg HY Corp, 7.5% Blmbg Gov/Cred 1-3 Yr and 1.5% ICE All US Cap Secs.

Investment Manager Asset Allocation

The table below contrasts the distribution of assets across the Fund's investment managers as of December 31, 2024, with the distribution as of September 30, 2024. The change in asset distribution is broken down into the dollar change due to Net New Investment and the dollar change due to Investment Return.

Asset Distribution Across Investment Managers

	December 31, 2024		Net New Inv.	Inv. Return	September 30, 2024	
	Market Value	Weight			Market Value	Weight
Total Equity (1)	\$607,036,172	36.13%	\$20,281,897	\$(8,897,758)	\$595,652,033	35.17%
Domestic Equity	\$365,739,330	21.77%	\$(120,058)	\$9,618,780	\$356,240,608	21.03%
iShares S&P 1500 ETF	365,739,330	21.77%	(120,058)	9,618,780	356,240,608	21.03%
International Equity	\$240,713,296	14.33%	\$21,355,304	\$(18,523,279)	\$237,881,272	14.04%
iShares MSCI Emerging ETF	71,009,330	4.23%	6,567,971	(5,095,240)	69,536,599	4.11%
iShares MSCI Canada ETF	19,682,802	1.17%	1,661,009	(352,301)	18,374,095	1.08%
iShares Core MSCI EAFE ETF	150,021,164	8.93%	13,126,325	(13,075,738)	149,970,577	8.85%
Equity Cash	583,545	0.03%	(953,349)	6,741	1,530,154	0.09%
Total Fixed Income	\$852,972,619	50.76%	\$(8,666,596)	\$(20,763,295)	\$882,402,511	52.10%
Market Duration	\$737,865,139	43.91%	\$(7,349,463)	\$(21,670,302)	\$766,884,903	45.28%
Colorado Treasurer's Portfolio	737,865,139	43.91%	(7,349,463)	(21,670,302)	766,884,903	45.28%
Short Duration	\$115,107,481	6.85%	\$(1,317,133)	\$907,006	\$115,517,607	6.82%
Janus Henderson (2)	115,107,481	6.85%	(1,317,133)	907,006	115,517,607	6.82%
High Income Strategies	\$149,363,281	8.89%	\$(2,249,021)	\$220,688	\$151,391,615	8.94%
High Yield Fixed Income	\$127,082,773	7.56%	\$(1,893,026)	\$253,024	\$128,722,775	7.60%
Mackay Shield US High Yield (3)	127,082,773	7.56%	(1,893,026)	253,024	128,722,775	7.60%
Preferred Securities	\$22,280,509	1.33%	\$(355,995)	\$(32,336)	\$22,668,840	1.34%
Principal Preferred Securities (3)	22,280,509	1.33%	(355,995)	(32,336)	22,668,840	1.34%
Cash Available For Investing	\$70,988,615	4.22%	\$6,156,182	\$475,412	\$64,357,021	3.80%
Total Fund	\$1,680,360,688	100.0%	\$15,522,462	\$(28,964,953)	\$1,693,803,179	100.0%

(1) Funded in December 2017.

(2) Funded in November 2018.

(3) Funded in July 2020.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended December 31, 2024. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

Returns for Periods Ended December 31, 2024

	Last Quarter	Last Year	Last 3 Years	Last 5 Years	Last 10 Years
Total Equity	(1.41%)	16.04%	5.12%	9.99%	-
60% Russell 3000/40% ACWI ex US	(1.46%)	16.34%	5.19%	9.96%	9.46%
Domestic Equity	2.77%	23.85%	8.01%	13.86%	-
Russell 3000 Index	2.63%	23.81%	8.01%	13.86%	12.55%
International Equity	(7.49%)	5.29%	0.76%	4.31%	-
MSCI ACWI ex US	(7.60%)	5.53%	0.82%	4.10%	4.80%
Total Fixed Income	(2.35%)	2.47%	(1.46%)	0.28%	1.72%
Total Fixed Income Benchmark (1)	(2.68%)	1.64%	(1.89%)	(0.07%)	1.37%
Market Duration	(2.83%)	1.97%	(2.07%)	(0.08%)	1.58%
Colorado Treasurer's Portfolio (2)	(2.83%)	1.97%	(2.07%)	(0.08%)	1.58%
PSPF Custom Benchmark (3)	(3.06%)	1.25%	(2.41%)	(0.33%)	1.29%
Short Duration	0.83%	5.79%	2.61%	2.61%	-
Janus Henderson Short Duration	0.83%	5.79%	2.61%	2.61%	-
Blmbg Gov/Cred 1-3 Yr	(0.02%)	4.36%	1.69%	1.58%	1.63%
85% 1-3YR G/C; 15% 1-3YR BB (4)	0.10%	4.70%	2.04%	1.98%	2.05%
High Income Strategies	0.18%	8.03%	3.59%	-	-
High Income Strategies Benchmark (5)	(0.10%)	8.41%	2.58%	3.98%	5.08%
High Yield Fixed Income	0.20%	7.53%	3.80%	-	-
Mackay Shield US High Yield	0.20%	7.53%	3.80%	-	-
Blmbg High Yield	0.17%	8.19%	2.92%	4.21%	5.17%
Preferred Securities	0.06%	10.85%	2.34%	-	-
Principal Preferred Securities	0.06%	10.85%	2.34%	-	-
ICE BofA US All Cap Secs	(1.65%)	9.61%	0.67%	2.57%	4.51%
Total Fund w/o CAI (6)	(1.79%)	7.61%	1.32%	3.43%	3.41%
Total Fund Benchmark (6)	(2.06%)	6.62%	0.76%	3.16%	3.17%

(1) Current quarter's Total Fixed Income Benchmark consists of 87.5% Bloomberg U.S. Aggregate and 12.5% Bloomberg Gov/Credit 1-3 Yrs.

(2) Includes cash returns starting July 2017.

(3) The PSPF Fixed Income Portfolio Custom Benchmark consisted of 37% U.S. Treasury 1-10 Year Index, 34% Mortgages 0-10 Year WAL Index, 19% AAA U.S. Agencies 1-10 Year Index and 10% U.S. Corporates AAA Rated 1-10 Years Index through March 31, 2017, 100% Bloomberg U.S. Aggregate, thereafter.

(4) Benchmark consists of 85% Bloomberg 1-3 Year Government/Credit Index and 15% BofAML 1-3 Year BB US Cash Pay High Yield Index.

(5) Benchmark consists of 85% Blmbg High Yield Index and 15% ICE BofA US All Cap Secs Index.

(6) Current quarter's Total Fund Benchmark consists of 18% Russell 3000, 12% MSCI ACWI ex US, 52.5% Bloomberg U.S. Aggregate, 7.5% Bloomberg Gov/Credit 1-3 Yrs, 8.5% Bloomberg US High Yield and 1.5% ICE BofA U.S. All Capital Securities Index. See pg. 22 for full benchmark history.

The Total Fund return calculations do not include Cash Available for Investing.

*All composites and manager returns are shown gross-of-fees.

Investment Manager Returns

The table below details the rates of return for the Fund's investment managers over various time periods ended June 30. Negative returns are shown in red, positive returns in black. Returns for one year or greater are annualized. The first set of returns for each asset class represents the composite returns for all the fund's accounts for that asset class.

	6/2024- 12/2024	FY 2024	FY 2023	FY 2022	FY 2021
Total Equity	5.26%	18.33%	16.33%	(15.85%)	41.59%
60% Russell 3000/40% ACWI ex US	5.40%	18.44%	16.57%	(16.06%)	40.77%
Domestic Equity	9.10%	23.24%	18.83%	(13.95%)	44.30%
Russell 3000 Index	9.03%	23.13%	18.95%	(13.87%)	44.16%
International Equity	(0.16%)	11.26%	12.28%	(18.97%)	37.78%
MSCI ACWI ex US	(0.15%)	11.62%	12.72%	(19.42%)	35.72%
Total Fixed Income	2.38%	3.47%	(0.04%)	(9.76%)	(0.27%)
Total Fixed Income Benchmark (1)	2.10%	2.93%	(0.75%)	(9.46%)	(0.26%)
Market Duration	2.24%	3.06%	(0.53%)	(10.55%)	(0.55%)
Colorado Treasurer's Portfolio (2)	2.24%	3.06%	(0.53%)	(10.55%)	(0.55%)
PSPF Custom Benchmark (3)	1.98%	2.63%	(0.94%)	(10.29%)	(0.33%)
Short Duration	3.36%	6.13%	2.92%	(4.33%)	2.33%
Janus Henderson Short Duration	3.36%	6.13%	2.92%	(4.33%)	2.33%
Blmbg Gov/Cred 1-3 Yr	2.94%	4.87%	0.52%	(3.56%)	0.44%
85% 1-3YR G/C; 15% 1-3YR BB (4)	3.06%	5.35%	1.49%	(3.83%)	1.70%
High Income Strategies	4.35%	10.47%	8.18%	(9.38%)	-
High Income Strategies Benchmark (5)	5.30%	10.62%	7.93%	(12.89%)	15.13%
High Yield Fixed Income	4.25%	10.00%	9.23%	(9.09%)	-
Mackay Shield US High Yield	4.25%	10.00%	9.23%	(9.09%)	-
Blmbg High Yield	5.47%	10.44%	9.06%	(12.81%)	15.37%
Preferred Securities	4.90%	13.18%	2.29%	(11.11%)	-
Principal Preferred Securities	4.90%	13.18%	2.29%	(11.11%)	-
ICE BofA US All Cap Secs	4.34%	11.63%	1.66%	(13.33%)	13.67%
Total Fund w/o CAI (6)	3.59%	9.09%	5.66%	(11.58%)	8.30%
Total Fund Benchmark (6)	3.41%	8.24%	5.18%	(11.64%)	7.98%

(1) Current quarter's Total Fixed Income Benchmark consists of 87.5% Bloomberg U.S. Aggregate and 12.5% Bloomberg Gov/Credit 1-3 Yrs.

(2) Includes cash returns starting July 2017.

(3) The PSPF Fixed Income Portfolio Custom Benchmark consisted of 37% U.S. Treasury 1-10 Year Index, 34% Mortgages 0-10 Year WAL Index, 19% AAA U.S. Agencies 1-10 Year Index and 10% U.S. Corporates AAA Rated 1-10 Years Index through March 31, 2017, 100% Bloomberg U.S. Aggregate, thereafter.

(4) Benchmark consists of 85% Bloomberg 1-3 Year Government/Credit Index and 15% BofAML 1-3 Year BB US Cash Pay High Yield Index.

(5) Benchmark consists of 85% Blmbg High Yield Index and 15% ICE BofA US All Cap Secs Index.

(6) Current quarter's Total Fund Benchmark consists of 18% Russell 3000, 12% MSCI ACWI ex US, 52.5% Bloomberg U.S. Aggregate, 7.5% Bloomberg Gov/Credit 1-3 Yrs, 8.5% Bloomberg US High Yield and 1.5% ICE BofA U.S. All Capital Securities Index. See pg. 22 for full benchmark history.

The Total Fund return calculations do not include Cash Available for Investing.

*All composites and manager returns are shown gross-of-fees.

Total Fund Benchmark Definition

Inception to Dec 31, 2017		
Market Duration	PFSF Fixed Income Benchmark	100%

January 1st, 2018 - December 31th, 2018		
US Equity	Russell 3000 Index	12.00%
International Equity	MSCI ACWI ex US	8.00%
Market Duration	Bloomberg Barclays Aggregate	72.00%
Short Duration	Bloomberg Barclays Gov/Cred 1-3 Yr	8.00%

January 1st, 2019 - September 30th, 2020		
US Equity	Russell 3000 Index	12.00%
International Equity	MSCI ACWI ex US	8.00%
Market Duration	Bloomberg Barclays Aggregate	72.00%
Short Duration	Bloomberg Barclays Gov/Cred 1-3 Yr	8.00%

October 1st, 2020 - March 31st, 2021		
US Equity	Russell 3000 Index	12.00%
International Equity	MSCI ACWI ex US	8.00%
Market Duration	Bloomberg Barclays Aggregate	67.50%
Short Duration	Bloomberg Barclays Gov/Cred 1-3 Yr	7.50%
High Yield	Bloomberg Barclays US High Yield	4.25%
Preferred Securities	ICE BofA U.S. All Capital Securities Index	0.75%

April 1st, 2021 - June 30th, 2021		
US Equity	Russell 3000 Index	14.70%
International Equity	MSCI ACWI ex US	9.80%
Market Duration	Bloomberg Barclays Aggregate	61.50%
Short Duration	Bloomberg Barclays Gov/Cred 1-3 Yr	7.50%
High Yield	Bloomberg Barclays US High Yield	5.50%
Preferred Securities	ICE BofA U.S. All Capital Securities Index	1.00%

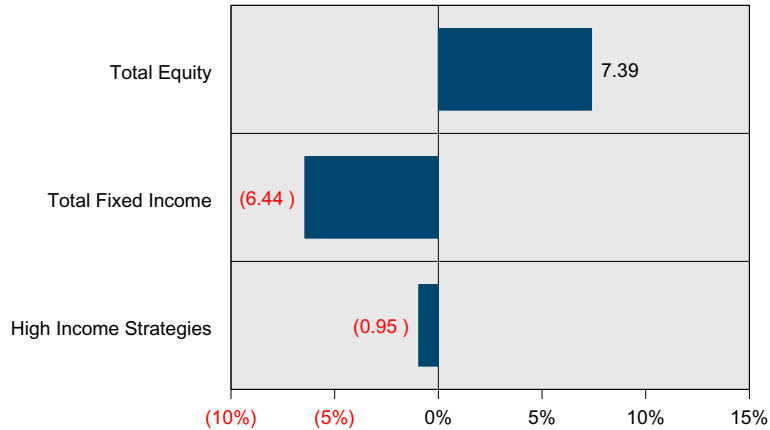
July 1st, 2021 - September 30, 2021		
US Equity	Russell 3000 Index	16.35%
International Equity	MSCI ACWI ex US	10.90%
Market Duration	Bloomberg Barclays Aggregate	57.00%
Short Duration	Bloomberg Barclays Gov/Cred 1-3 Yr	7.50%
High Yield	Bloomberg Barclays US High Yield	7.00%
Preferred Securities	ICE BofA U.S. All Capital Securities Index	1.25%

October 1st, 2021 - Current		
US Equity	Russell 3000 Index	18.00%
International Equity	MSCI ACWI ex US	12.00%
Market Duration	Bloomberg Barclays Aggregate	52.50%
Short Duration	Bloomberg Barclays Gov/Cred 1-3 Yr	7.50%
High Yield	Bloomberg Barclays US High Yield	8.50%
Preferred Securities	ICE BofA U.S. All Capital Securities Index	1.50%

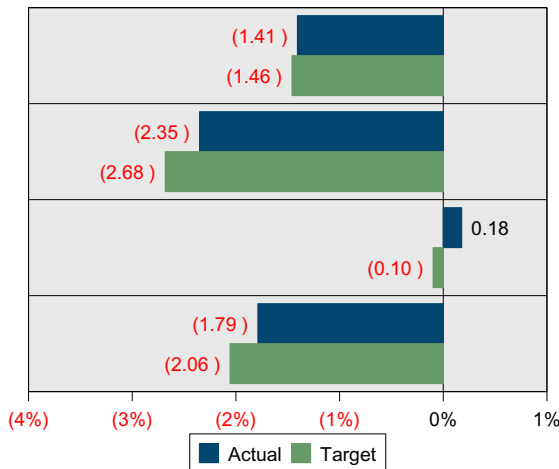
Quarterly Total Fund Relative Attribution - December 31, 2024

The following analysis approaches Total Fund Attribution from the perspective of relative return. Relative return attribution separates and quantifies the sources of total fund excess return relative to its target. This excess return is separated into two relative attribution effects: Asset Allocation Effect and Manager Selection Effect. The Asset Allocation Effect represents the excess return due to the actual total fund asset allocation differing from the target asset allocation. Manager Selection Effect represents the total fund impact of the individual managers excess returns relative to their benchmarks.

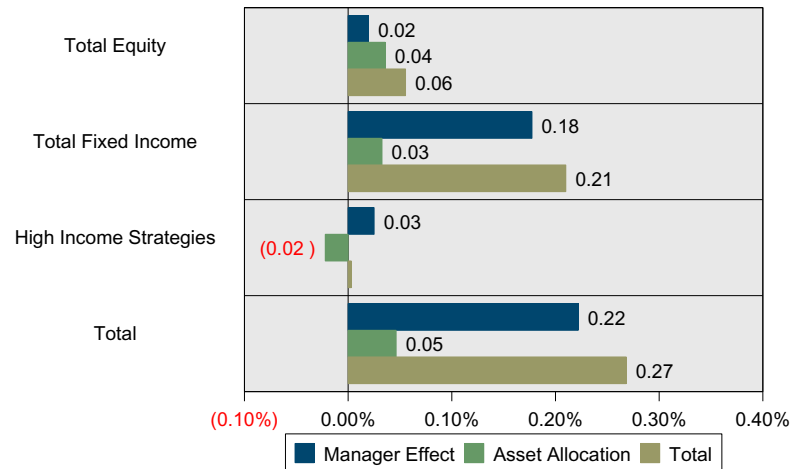
Asset Class Under or Overweighting



Actual vs Target Returns



Relative Attribution by Asset Class



Relative Attribution Effects for Quarter ended December 31, 2024

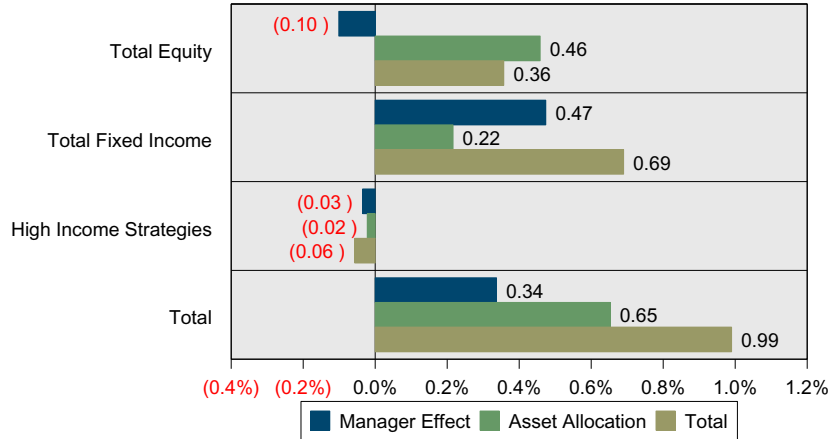
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	37%	30%	(1.41%)	(1.46%)	0.02%	0.04%	0.06%
Total Fixed Income	54%	60%	(2.35%)	(2.68%)	0.18%	0.03%	0.21%
High Income Strategies	9%	10%	0.18%	(0.10%)	0.03%	(0.02%)	0.00%
Total			(1.79%)	(2.06%)	+ 0.22%	+ 0.05%	0.27%

* Current Quarter Target = 52.5% Blmbg:Aggregate, 18.0% Russell 3000 Index, 12.0% MSCI ACWI xUS (Net), 8.5% Blmbg HY Corp, 7.5% Blmbg Gov/Cred 1-3 Yr and 1.5% ICE All US Cap Secs.

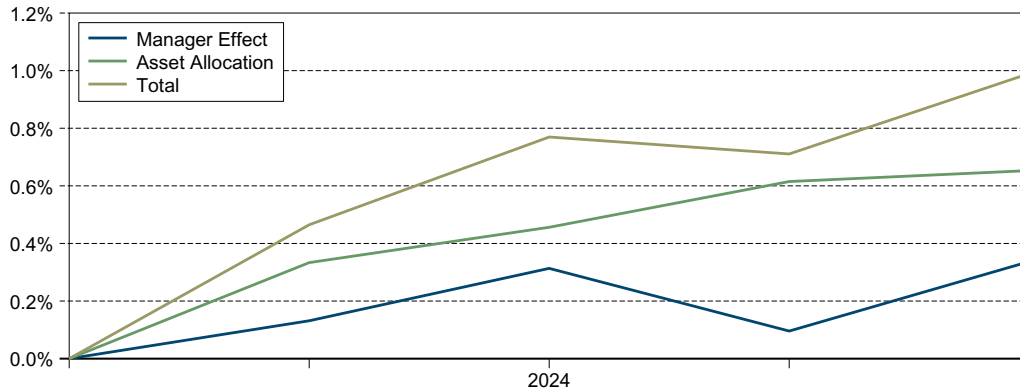
Cumulative Total Fund Relative Attribution - December 31, 2024

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

One Year Relative Attribution Effects



Cumulative Relative Attribution Effects



One Year Relative Attribution Effects

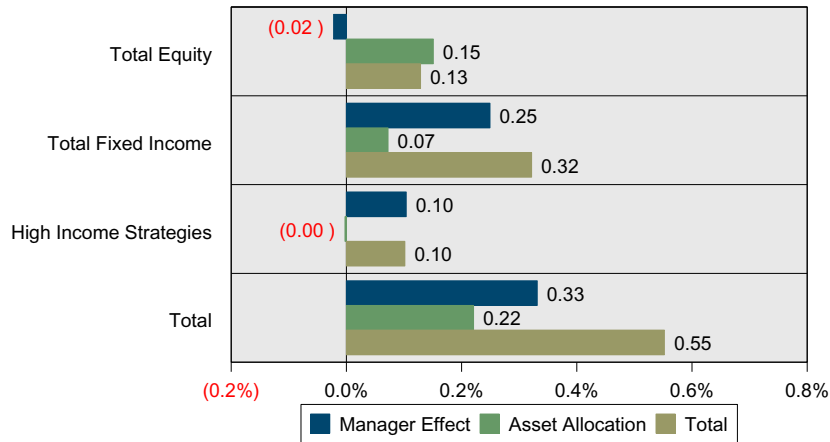
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	36%	30%	16.04%	16.34%	(0.10%)	0.46%	0.36%
Total Fixed Income	55%	60%	2.47%	1.64%	0.47%	0.22%	0.69%
High Income Strategies	9%	10%	8.03%	8.41%	(0.03%)	(0.02%)	(0.06%)
Total			7.61%	6.62%	+ 0.34%	+ 0.65%	0.99%

* Current Quarter Target = 52.5% Blmbg:Aggregate, 18.0% Russell 3000 Index, 12.0% MSCI ACWI xUS (Net), 8.5% Blmbg HY Corp, 7.5% Blmbg Gov/Cred 1-3 Yr and 1.5% ICE All US Cap Secs.

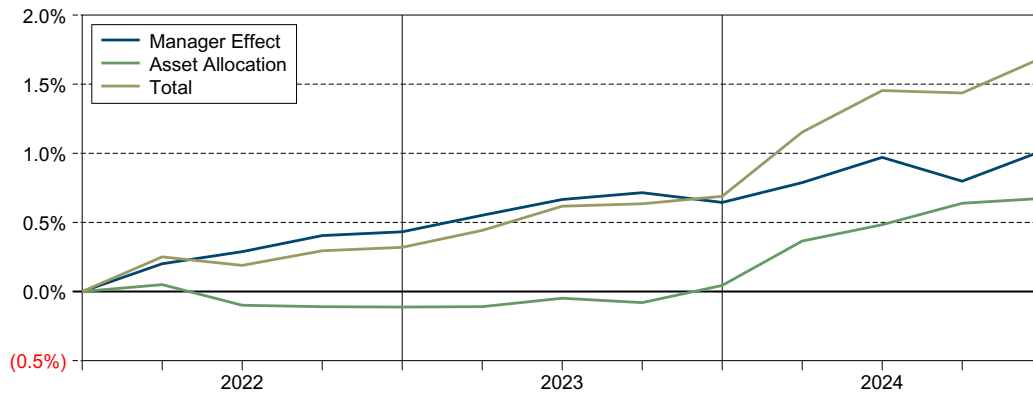
Cumulative Total Fund Relative Attribution - December 31, 2024

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Three Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Three Year Annualized Relative Attribution Effects

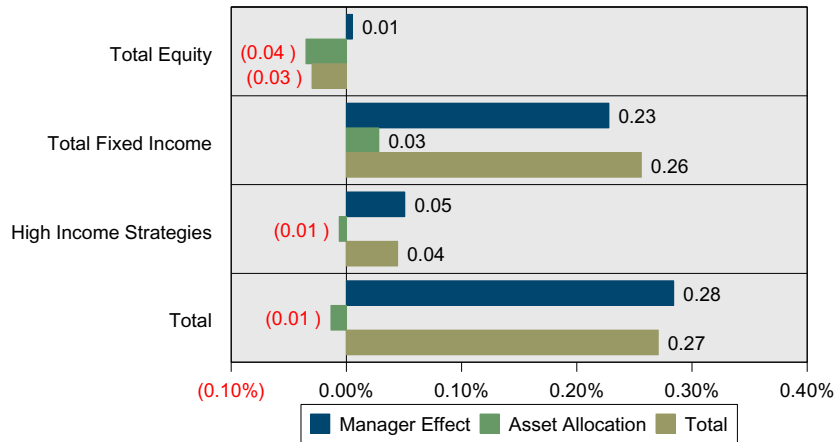
Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return	
Total Equity	33%	30%	5.12%	5.19%	(0.02%)	0.15%	0.13%	
Total Fixed Income	58%	60%	(1.46%)	(1.89%)	0.25%	0.07%	0.32%	
High Income Strategies	10%	10%	3.59%	2.58%	0.10%	(0.00%)	0.10%	
Total			1.32%		= 0.76%	+ 0.33%	+ 0.22%	0.55%

* Current Quarter Target = 52.5% Blmbg:Aggregate, 18.0% Russell 3000 Index, 12.0% MSCI ACWI xUS (Net), 8.5% Blmbg HY Corp, 7.5% Blmbg Gov/Cred 1-3 Yr and 1.5% ICE All US Cap Secs.

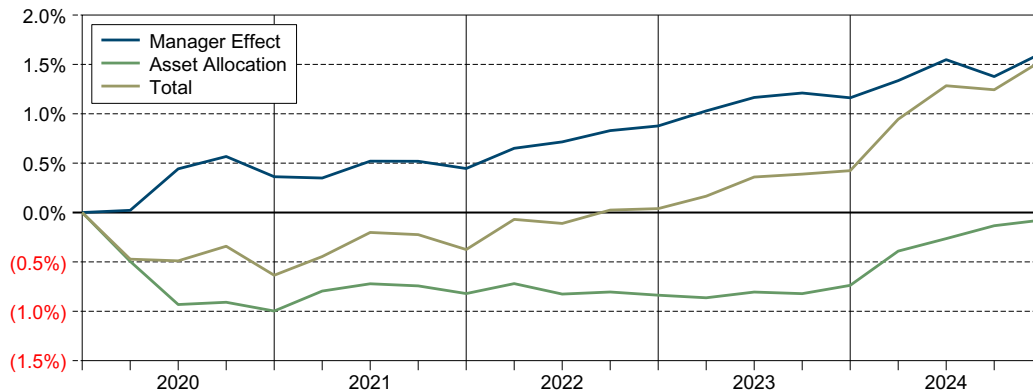
Cumulative Total Fund Relative Attribution - December 31, 2024

The charts below accumulate the Total Fund Attribution Analysis (shown earlier) over multiple periods to examine the cumulative sources of excess total fund performance relative to target. These cumulative results quantify the longer-term sources of total fund excess return relative to target by asset class. These relative attribution effects separate the cumulative sources of total fund excess return into Asset Allocation Effect and Manager Selection Effect.

Five Year Annualized Relative Attribution Effects



Cumulative Relative Attribution Effects



Five Year Annualized Relative Attribution Effects

Asset Class	Effective Actual Weight	Effective Target Weight	Actual Return	Target Return	Manager Effect	Asset Allocation	Total Relative Return
Total Equity	29%	27%	9.99%	9.96%	0.01%	(0.04%)	(0.03%)
Total Fixed Income	64%	65%	0.28%	(0.07%)	0.23%	0.03%	0.26%
High Income Strategies	8%	8%	-	-	0.05%	(0.01%)	0.04%
Total			3.43%	3.16%	+ 0.28%	+ (0.01%)	0.27%

* Current Quarter Target = 52.5% Blmbg:Aggregate, 18.0% Russell 3000 Index, 12.0% MSCI ACWI xUS (Net), 8.5% Blmbg HY Corp, 7.5% Blmbg Gov/Cred 1-3 Yr and 1.5% ICE All US Cap Secs.

Total Equity

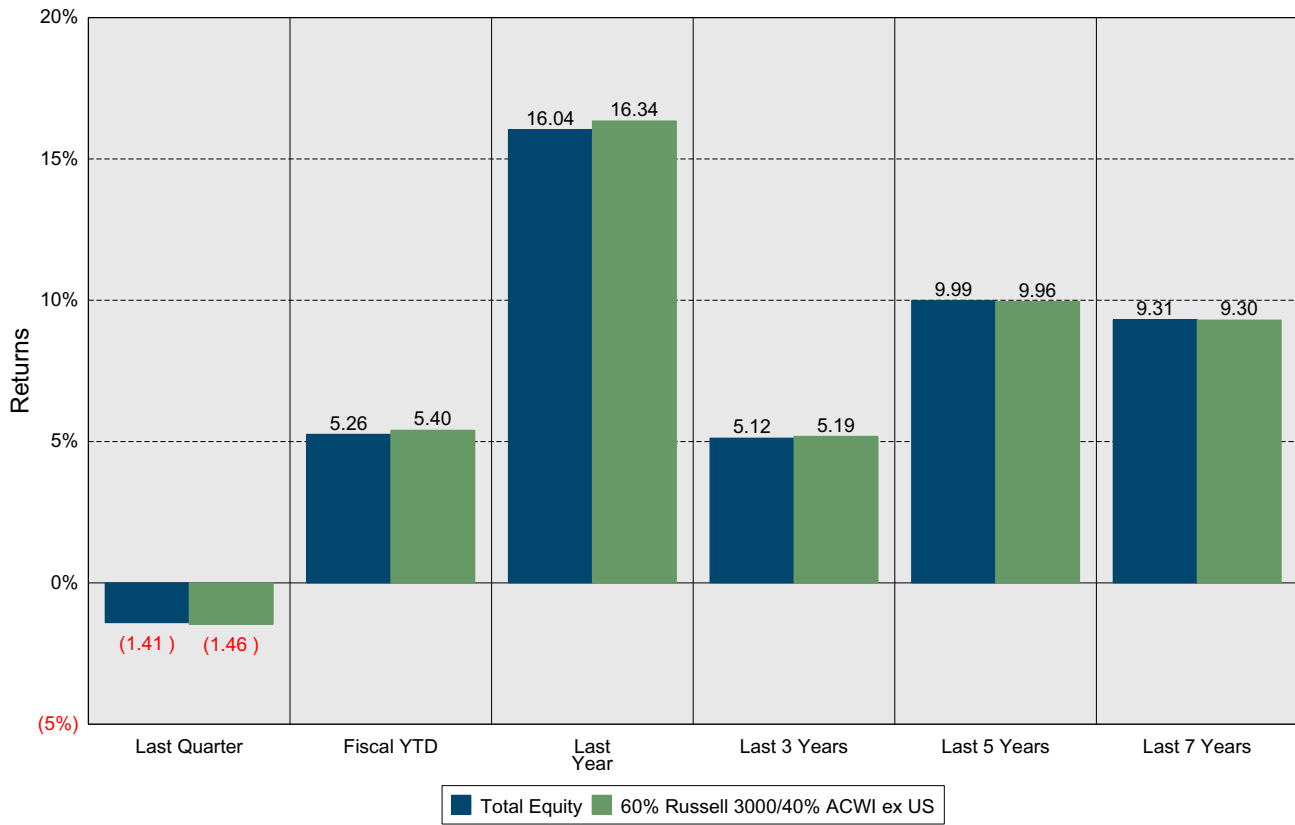
Period Ended December 31, 2024

Inception Date

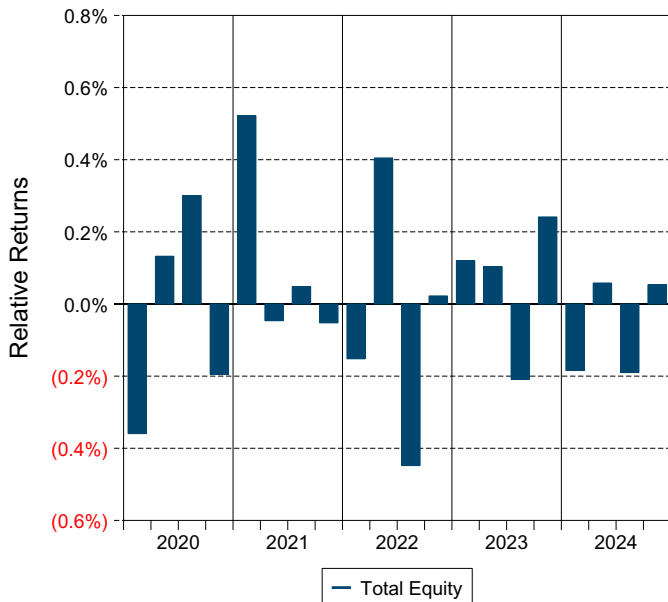
Parametric was funded December 12th, 2017.

Quarterly Summary and Highlights

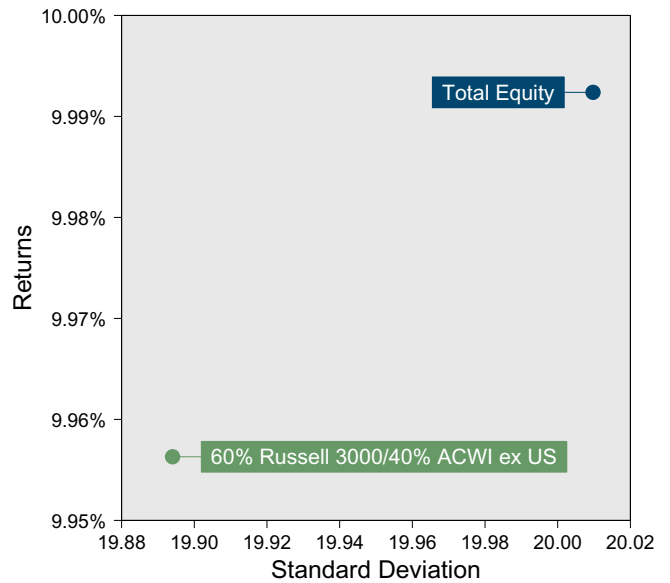
- Total Equity's portfolio outperformed the 60% Russell 3000/40% ACWI ex US by 0.05% for the quarter and underperformed the 60% Russell 3000/40% ACWI ex US for the year by 0.31%.



Relative Returns vs 60% Russell 3000/40% ACWI ex US



Annualized Five Year Risk vs Return

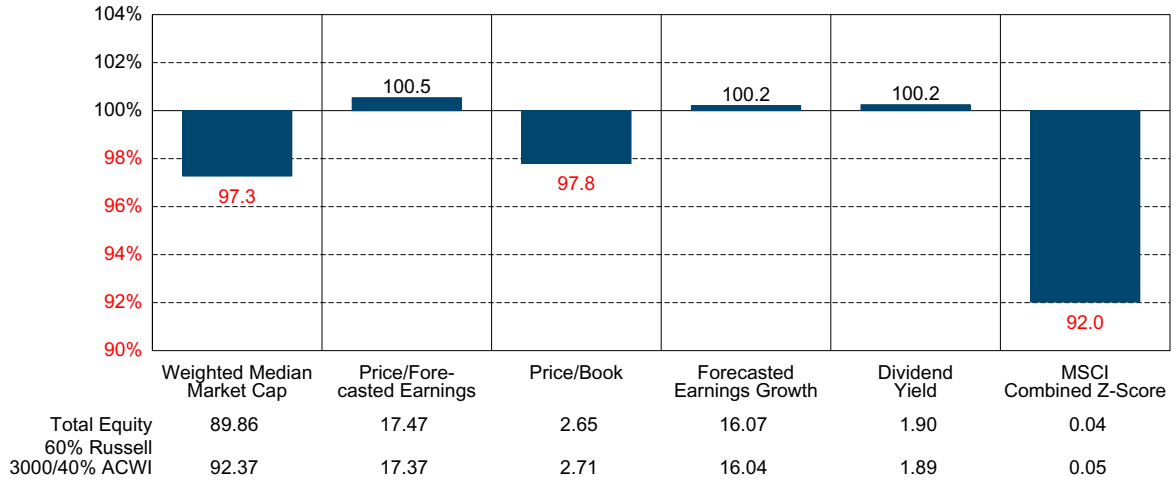


Total Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

This graph compares the manager's portfolio characteristics relative to the benchmark's portfolio characteristics.

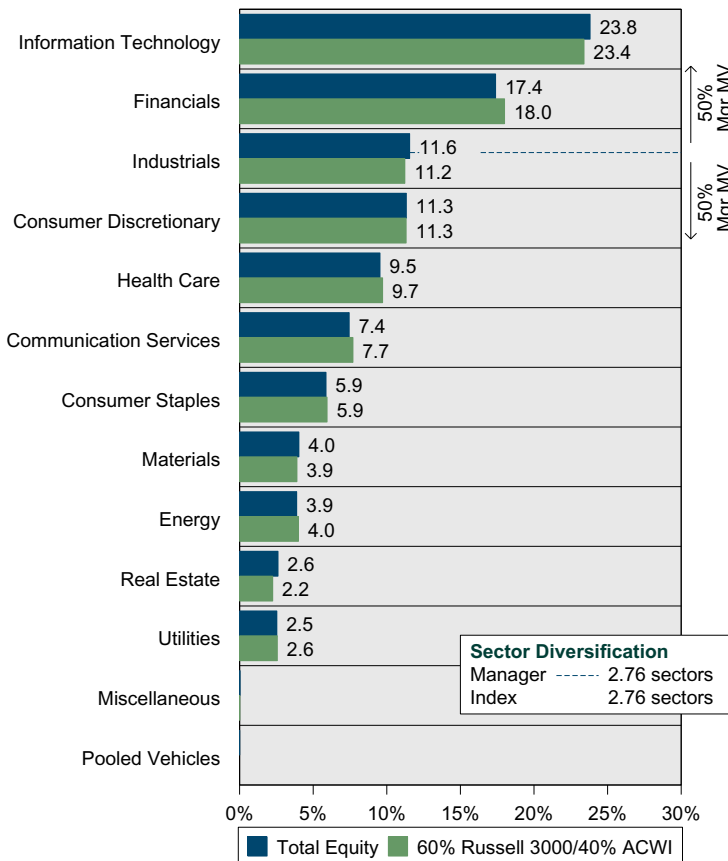
Portfolio Characteristics Relative to 60% Russell 3000/40% ACWI as of December 31, 2024



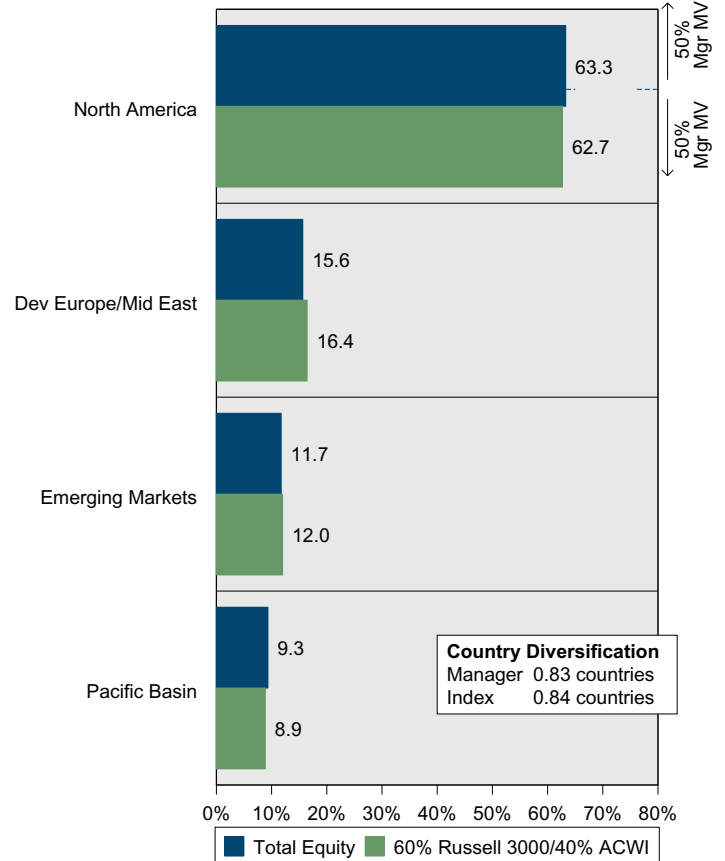
Sector Weights

The graph below contrasts the manager's sector weights for the most recent quarter with those of the benchmark. The regional allocation chart also compares the manager's geographical region weights with those of the benchmark.

Sector Allocation December 31, 2024



Regional Allocation December 31, 2024



Domestic Equity

Period Ended December 31, 2024

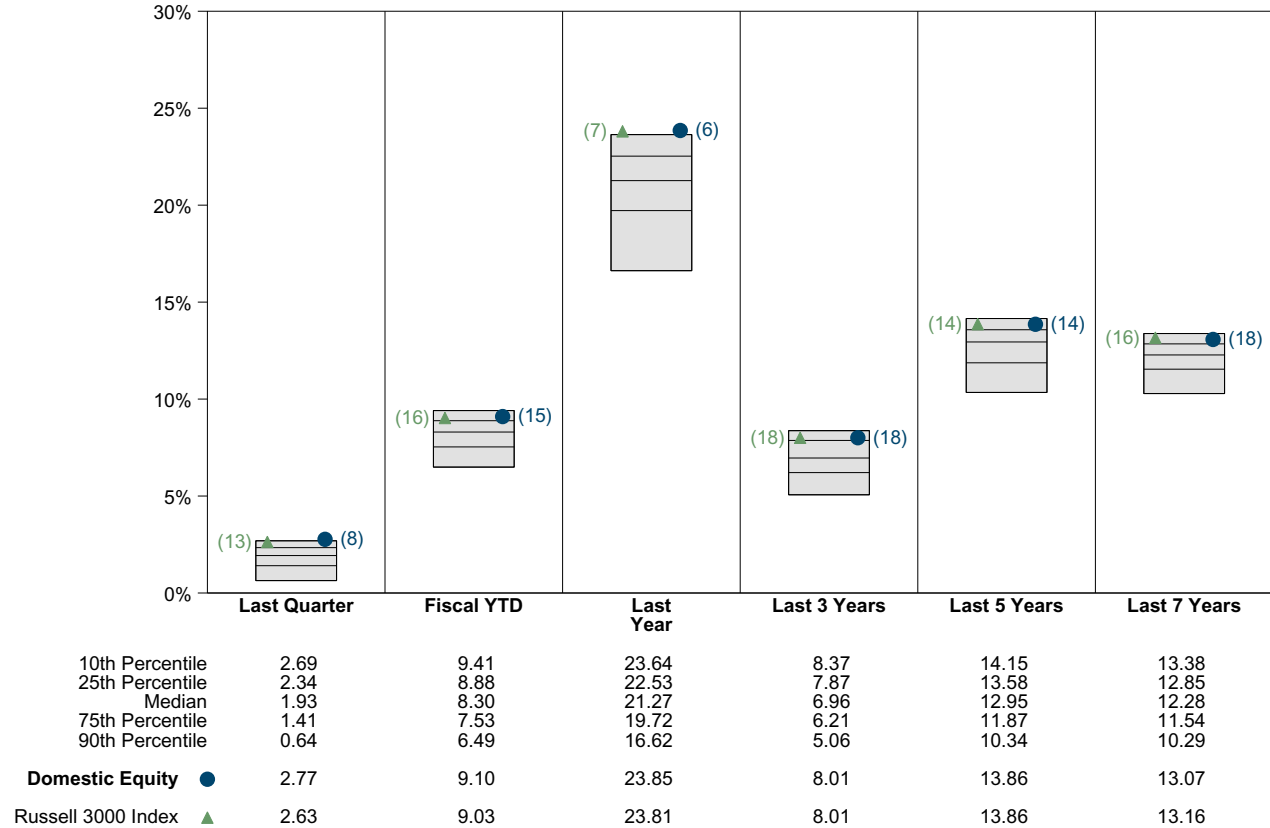
Inception Date

Parametric was funded December 12th, 2017.

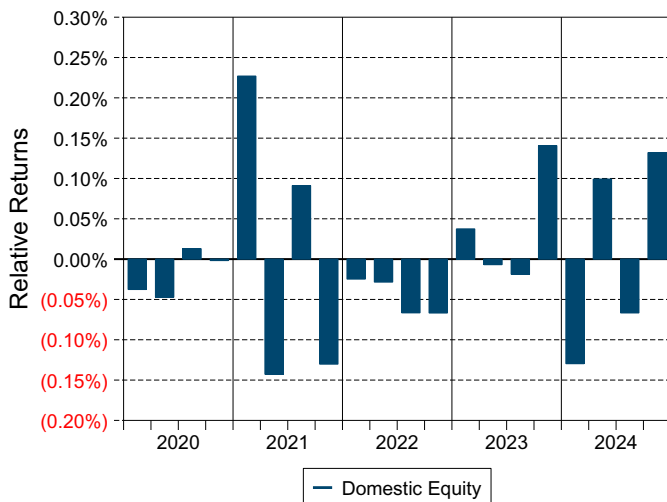
Quarterly Summary and Highlights

- Domestic Equity's portfolio posted a 2.77% return for the quarter placing it in the 8 percentile of the EF- Domestic Equity group for the quarter and in the 6 percentile for the last year.
- Domestic Equity's portfolio outperformed the Russell 3000 Index by 0.14% for the quarter and outperformed the Russell 3000 Index for the year by 0.04%.

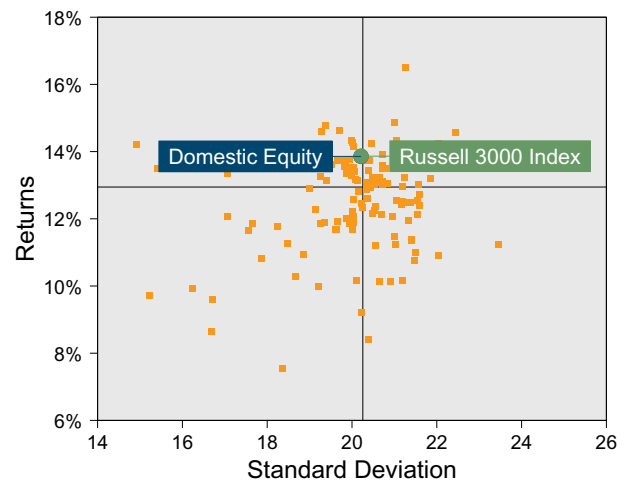
Performance vs EF- Domestic Equity (Gross)



Relative Return vs Russell 3000 Index



EF- Domestic Equity (Gross)
Annualized Five Year Risk vs Return

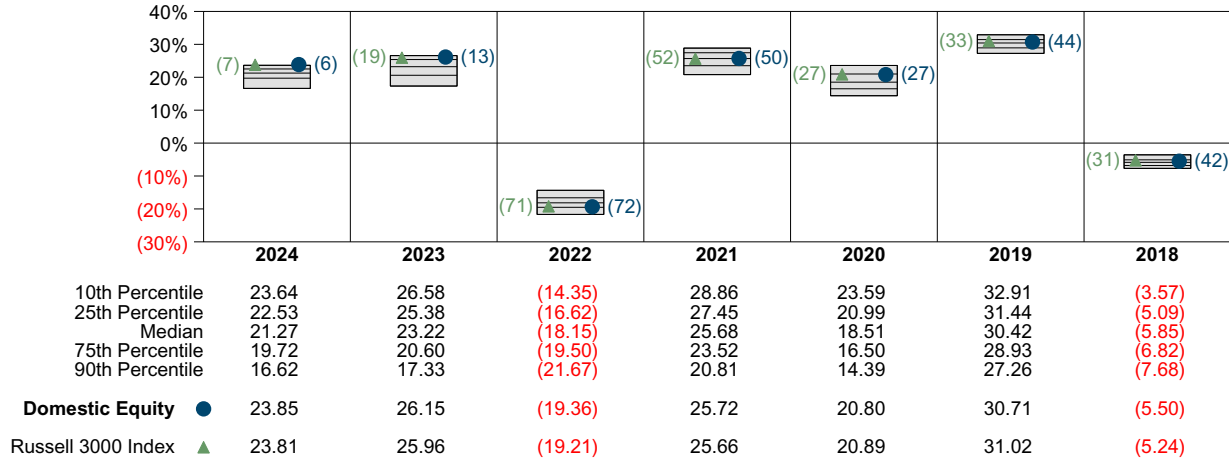


Domestic Equity Return Analysis Summary

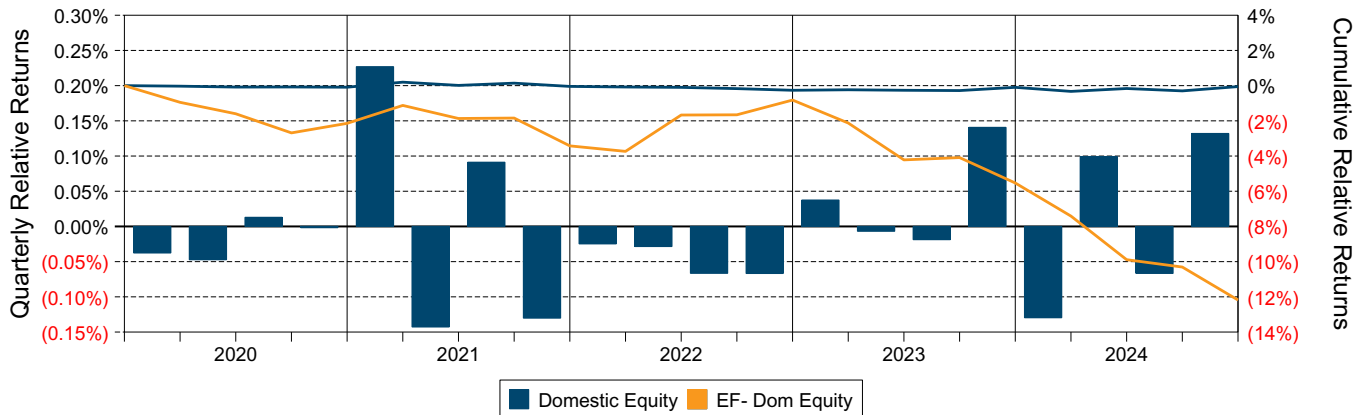
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

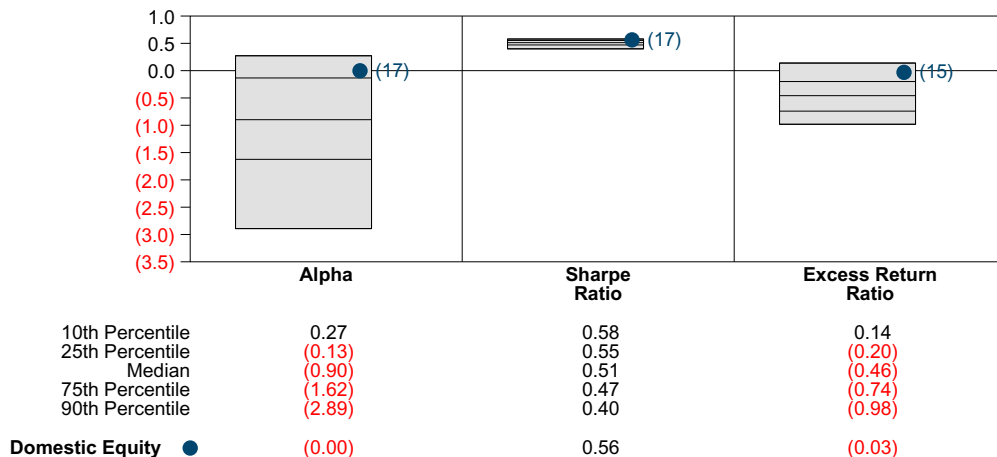
Performance vs EF- Domestic Equity (Gross)



Cumulative and Quarterly Relative Returns vs Russell 3000 Index



Risk Adjusted Return Measures vs Russell 3000 Index Rankings Against EF- Domestic Equity (Gross) Five Years Ended December 31, 2024

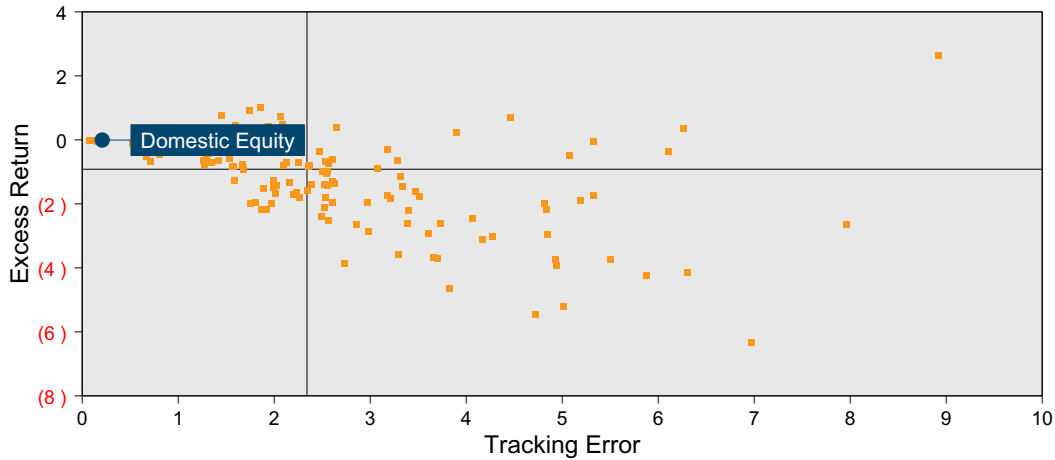


Domestic Equity Risk Analysis Summary

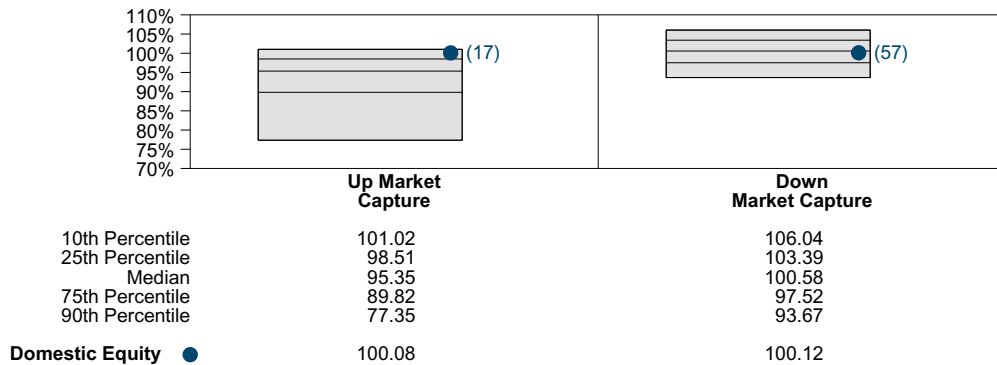
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

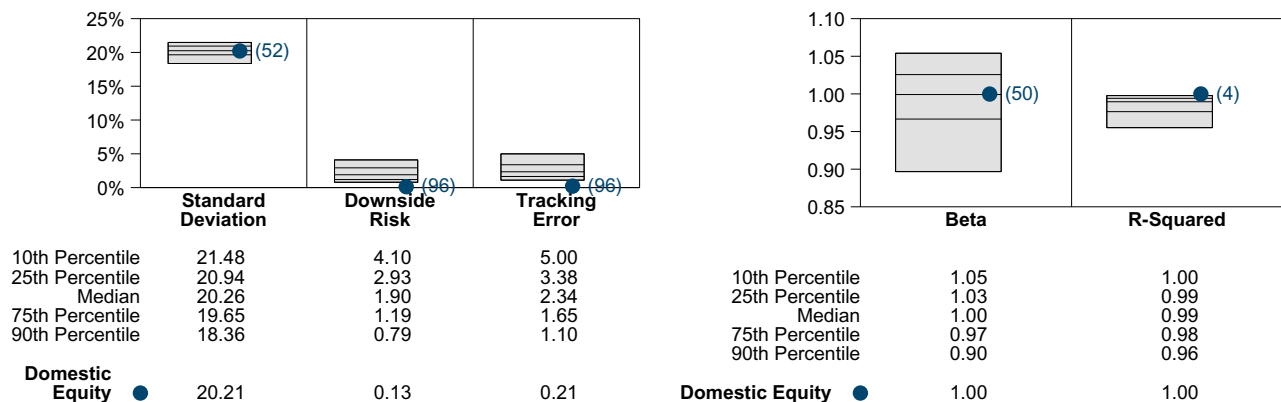
Risk Analysis vs EF- Domestic Equity (Gross) Five Years Ended December 31, 2024



Market Capture vs Russell 3000 Index Rankings Against EF- Domestic Equity (Gross) Five Years Ended December 31, 2024



Risk Statistics Rankings vs Russell 3000 Index Rankings Against EF- Domestic Equity (Gross) Five Years Ended December 31, 2024

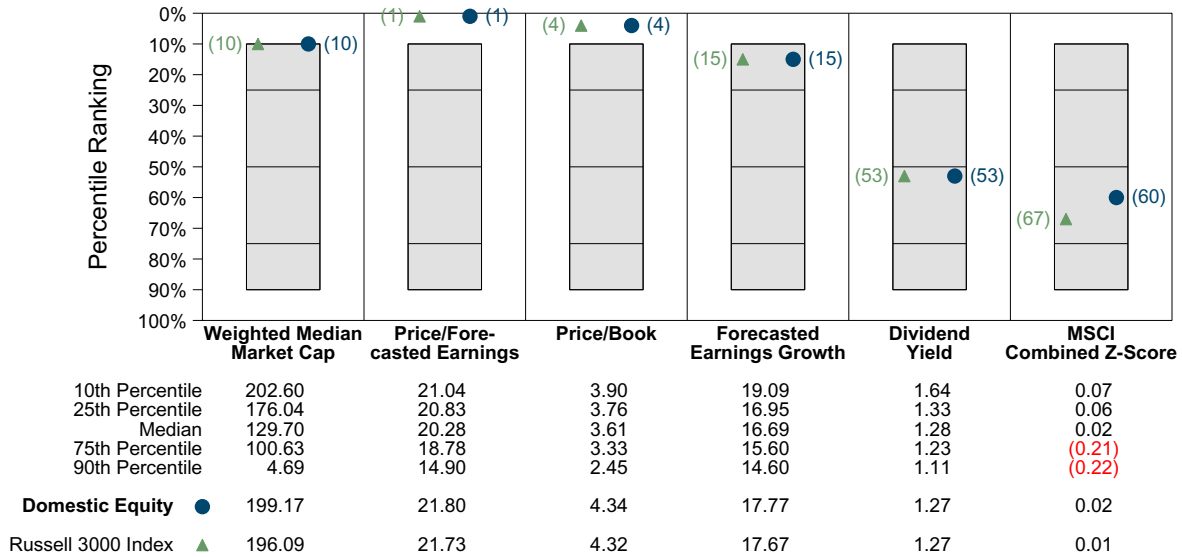


Domestic Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

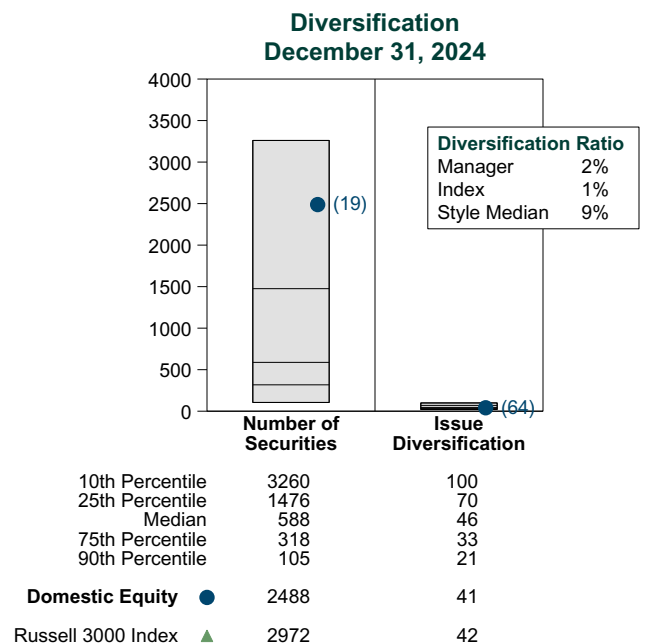
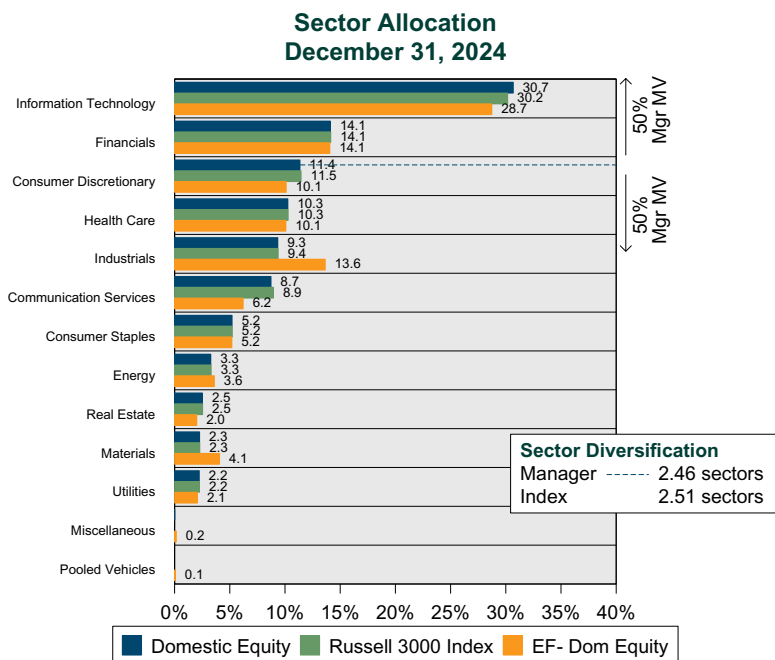
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against EF- Domestic Equity as of December 31, 2024



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. Diversification by number and concentration of holdings are also compared to the benchmark and peer group. Issue Diversification represents by count, and Diversification Ratio by percent, the number of holdings that account for half of the portfolio's market value.



International Equity

Period Ended December 31, 2024

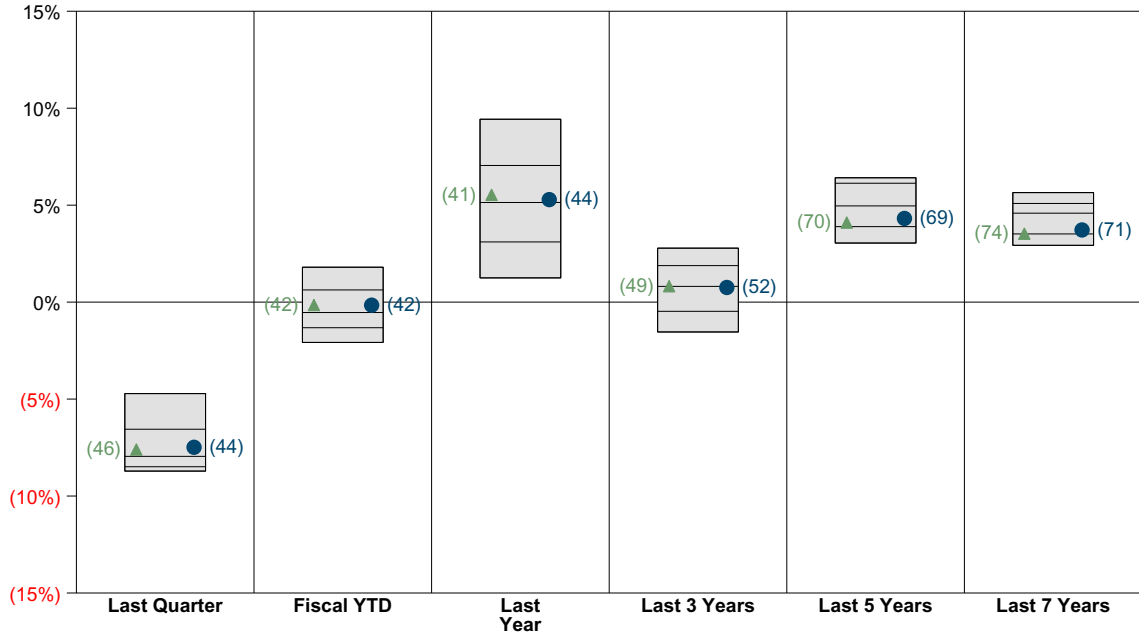
Inception Date

Parametric was funded December 12th, 2017.

Quarterly Summary and Highlights

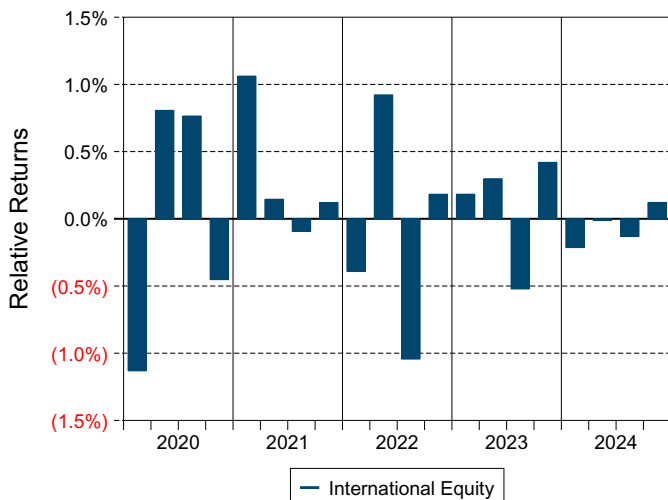
- International Equity's portfolio posted a (7.49)% return for the quarter placing it in the 44 percentile of the EF-International Equity group for the quarter and in the 44 percentile for the last year.
- International Equity's portfolio outperformed the MSCI ACWI ex US by 0.11% for the quarter and underperformed the MSCI ACWI ex US for the year by 0.25%.

Performance vs EF- International Equity (Gross)

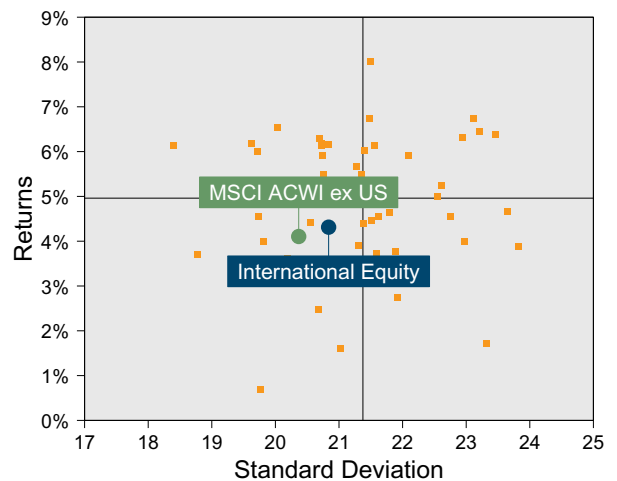


10th Percentile	(4.72)	1.80	9.43	2.78	6.41	5.65
25th Percentile	(6.55)	0.63	7.05	1.88	6.13	5.09
Median	(7.95)	(0.54)	5.14	0.81	4.96	4.59
75th Percentile	(8.49)	(1.32)	3.10	(0.47)	3.89	3.52
90th Percentile	(8.71)	(2.08)	1.25	(1.54)	3.05	2.93
International Equity	● (7.49)	(0.16)	5.29	0.76	4.31	3.72
MSCI ACWI ex US	▲ (7.60)	(0.15)	5.53	0.82	4.10	3.53

Relative Return vs MSCI ACWI ex US



EF- International Equity (Gross) Annualized Five Year Risk vs Return

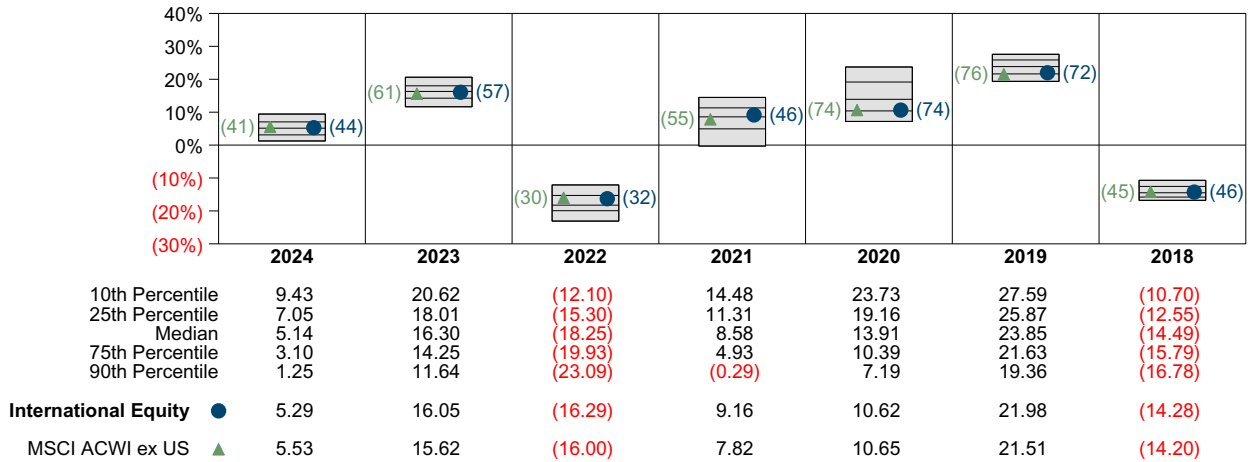


International Equity Return Analysis Summary

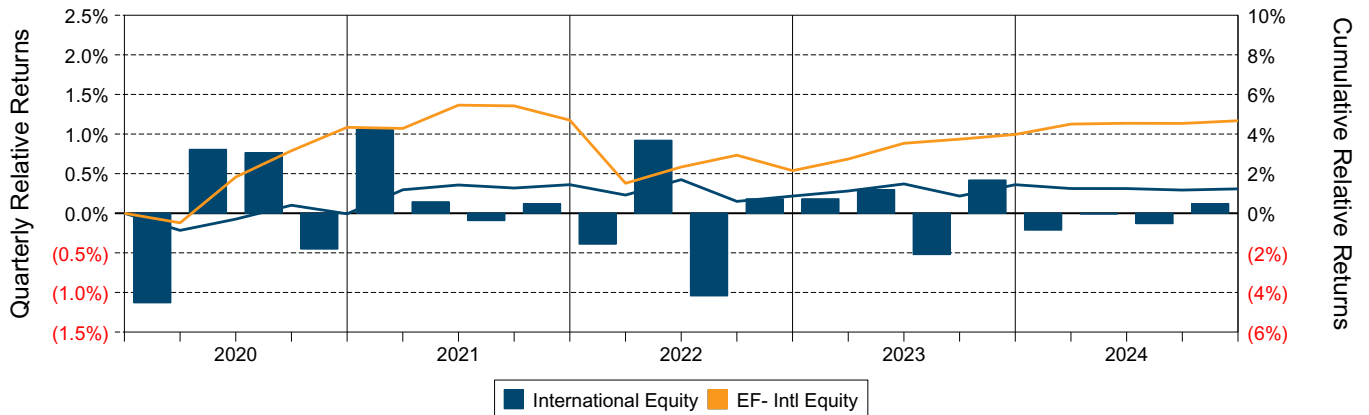
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

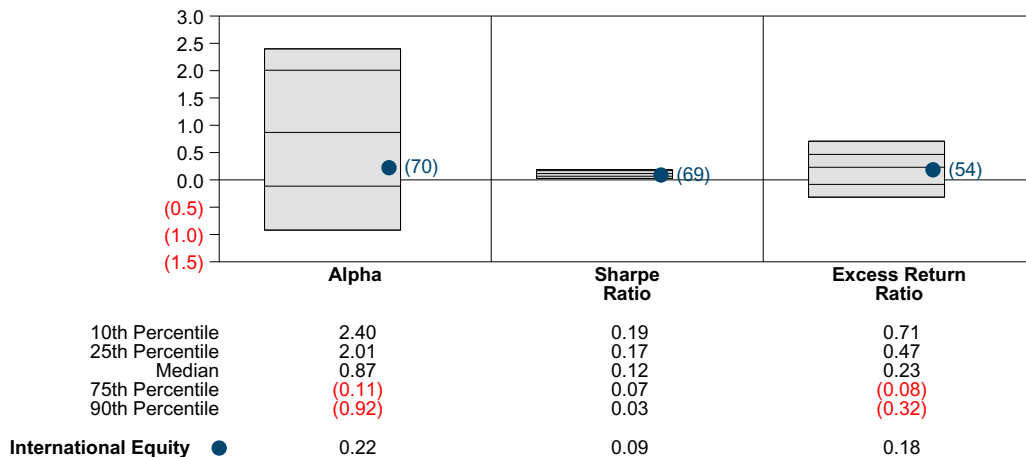
Performance vs EF- International Equity (Gross)



Cumulative and Quarterly Relative Returns vs MSCI ACWI ex US



Risk Adjusted Return Measures vs MSCI ACWI ex US Rankings Against EF- International Equity (Gross) Five Years Ended December 31, 2024

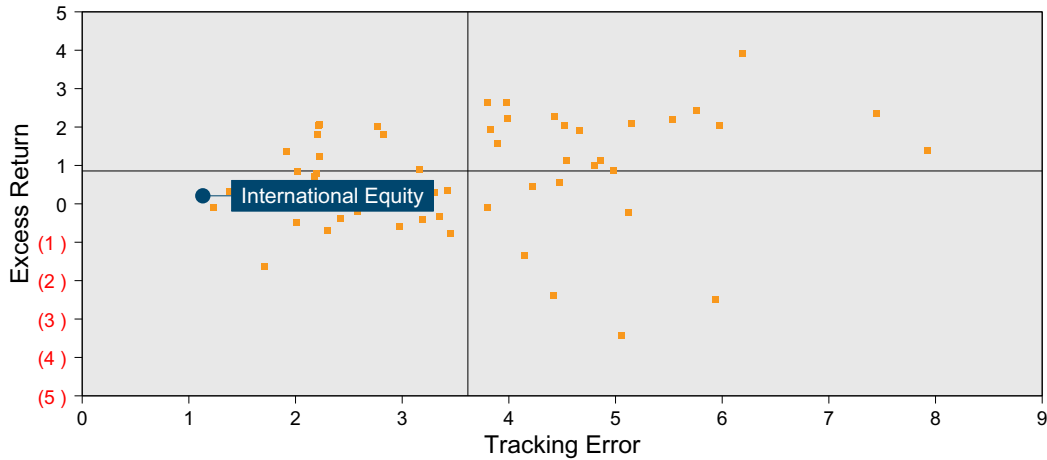


International Equity Risk Analysis Summary

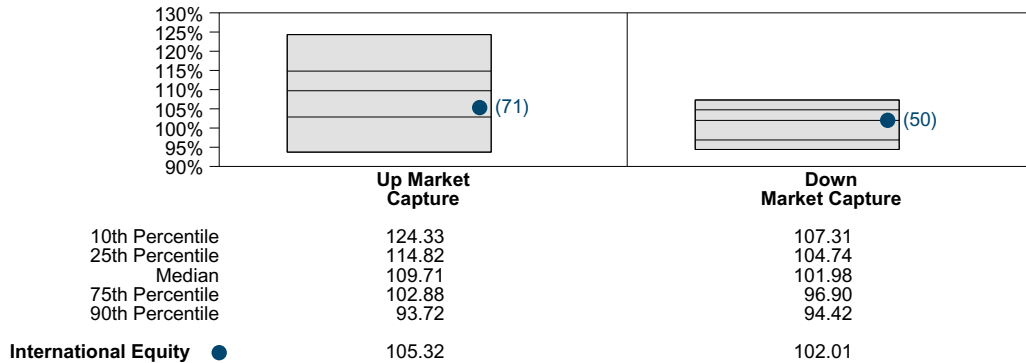
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows Up and Down Market Capture. The last two charts show the ranking of the manager's risk statistics versus the peer group.

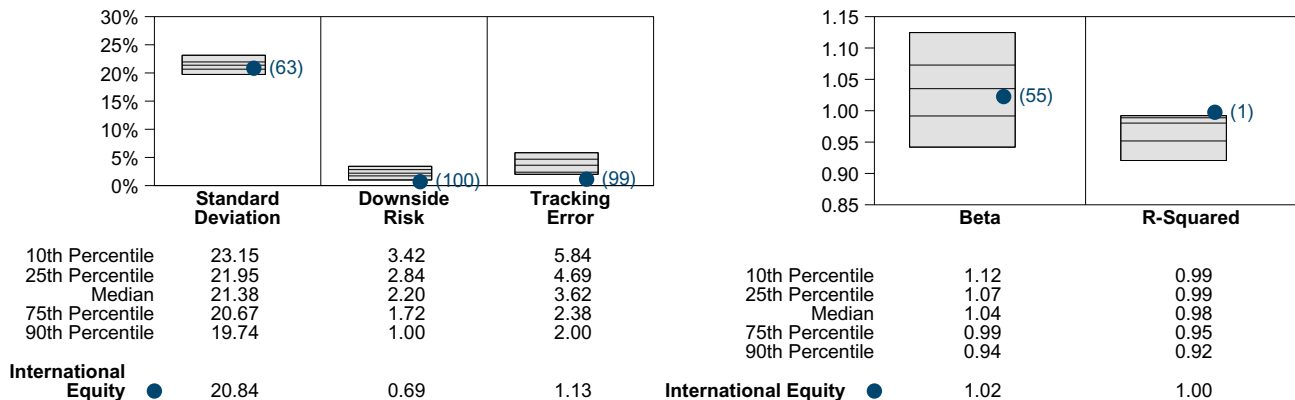
Risk Analysis vs EF- International Equity (Gross) Five Years Ended December 31, 2024



Market Capture vs MSCI ACWI ex US Rankings Against EF- International Equity (Gross) Five Years Ended December 31, 2024



Risk Statistics Rankings vs MSCI ACWI ex US Rankings Against EF- International Equity (Gross) Five Years Ended December 31, 2024

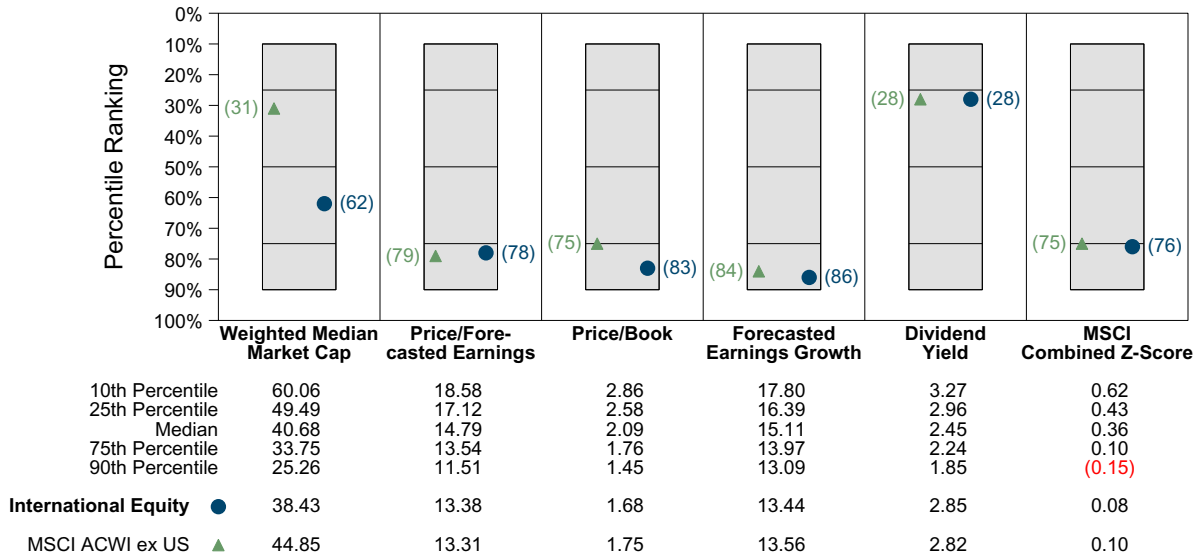


International Equity Equity Characteristics Analysis Summary

Portfolio Characteristics

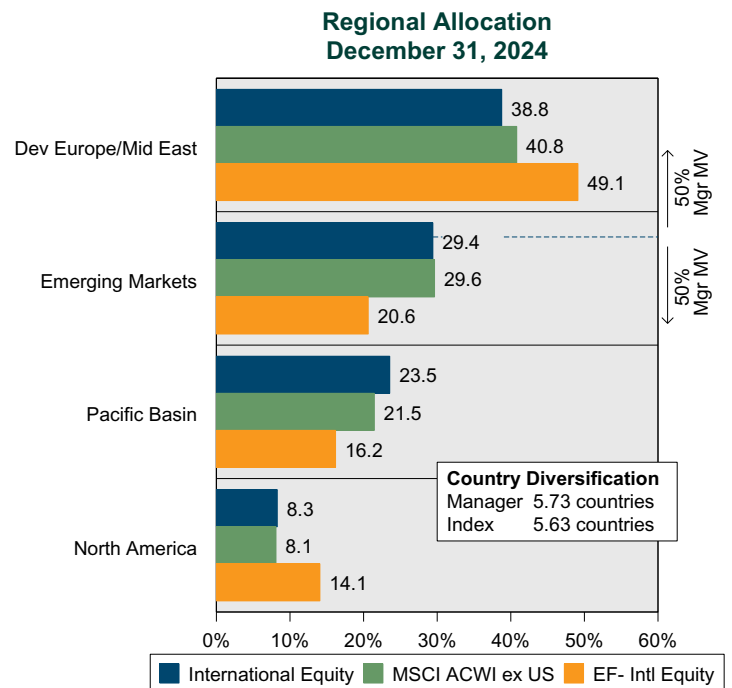
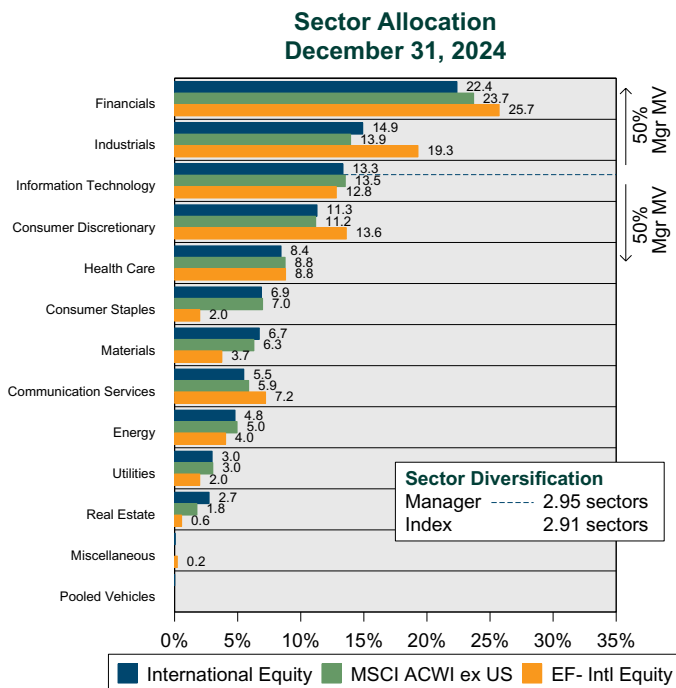
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Portfolio Characteristics Percentile Rankings Rankings Against EF- International Equity as of December 31, 2024



Sector Weights

The graph below contrasts the manager's sector weights with those of the benchmark and median sector weights across the members of the peer group. The magnitude of sector weight differences from the index and the manager's sector diversification are also shown. The regional allocation chart compares the manager's geographical region weights with those of the benchmark as well as the median region weights of the peer group.



Total Fixed Income

Period Ended December 31, 2024

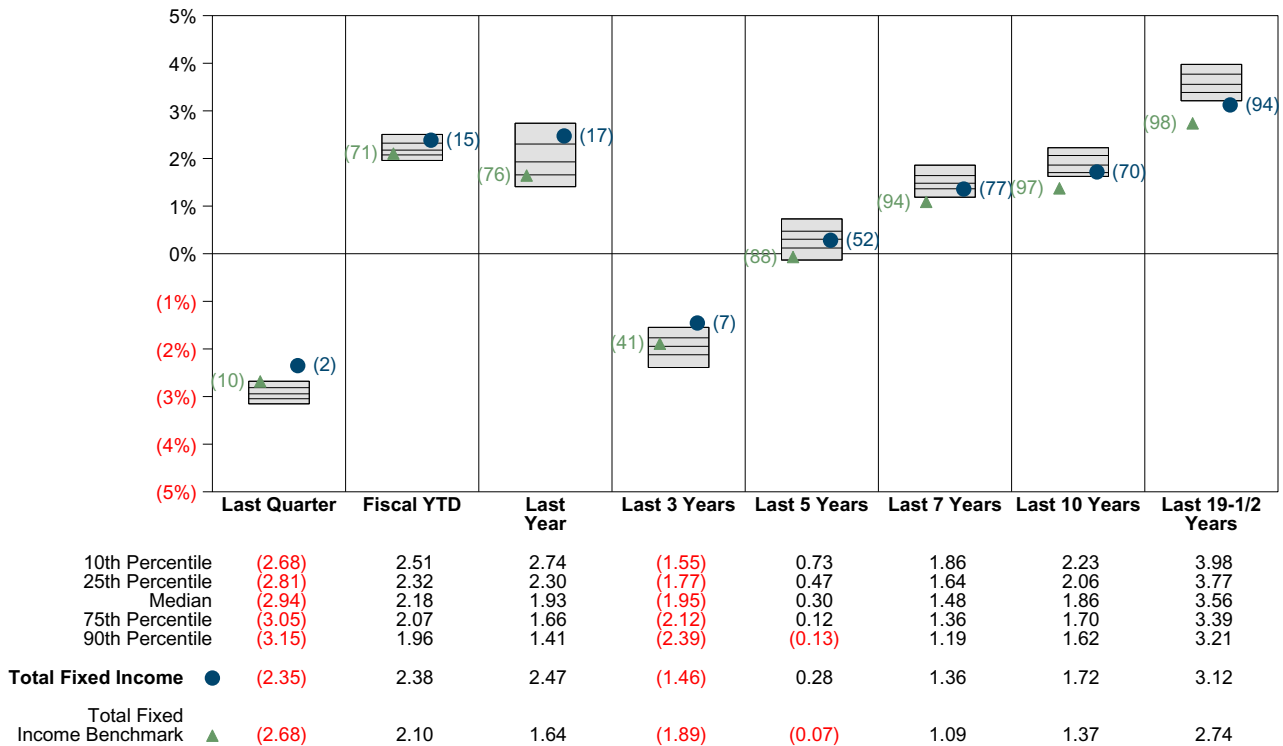
Benchmark Definition

Total Fixed Income Benchmark consists of 100% PFSF Fixed Income Benchmark through December 31, 2018, 90% Bloomberg U.S. Aggregate and 10% Bloomberg Gov/Credit 1-3 Yrs through March 31, 2021, 89% Bloomberg U.S. Aggregate and 11% Bloomberg Gov/Credit 1-3 Yrs through June 30, 2021 and 87.5% Bloomberg U.S. Aggregate and 12.5% Bloomberg Gov/Credit 1-3 Yrs, thereafter.

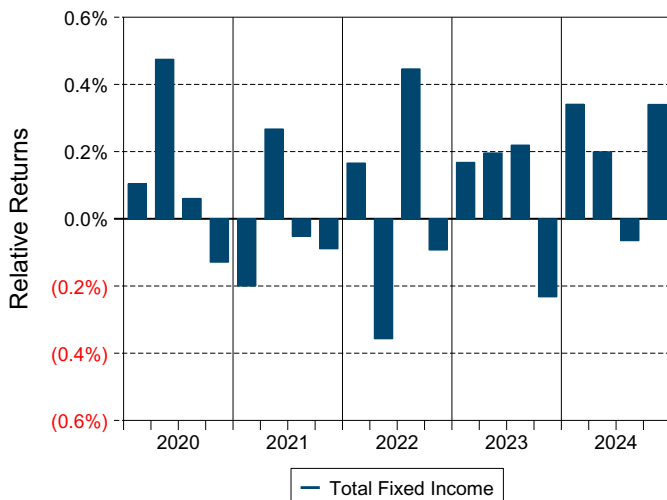
Quarterly Summary and Highlights

- Total Fixed Income's portfolio posted a (2.35)% return for the quarter placing it in the 2 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 17 percentile for the last year.
- Total Fixed Income's portfolio outperformed the Total Fixed Income Benchmark by 0.33% for the quarter and outperformed the Total Fixed Income Benchmark for the year by 0.83%.

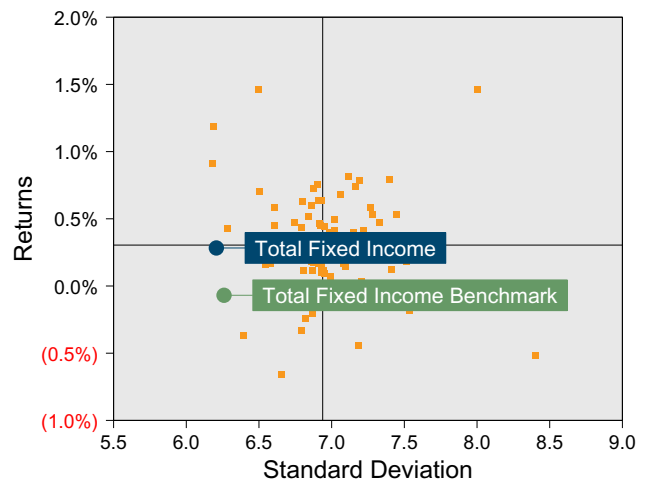
Performance vs Callan Core Bond Fixed Income (Gross)



Relative Returns vs Total Fixed Income Benchmark



Callan Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return

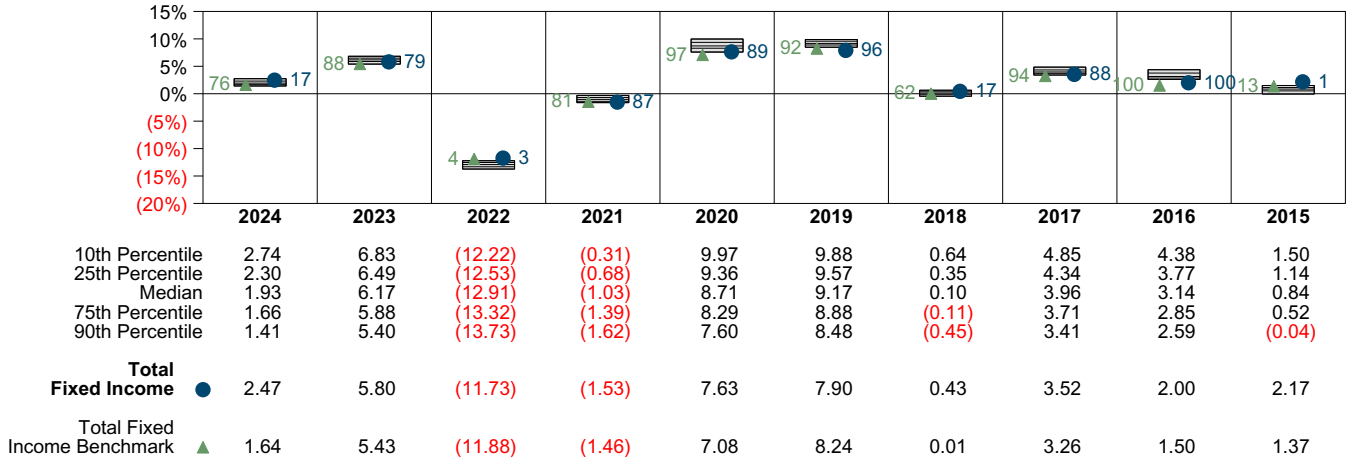


Total Fixed Income Return Analysis Summary

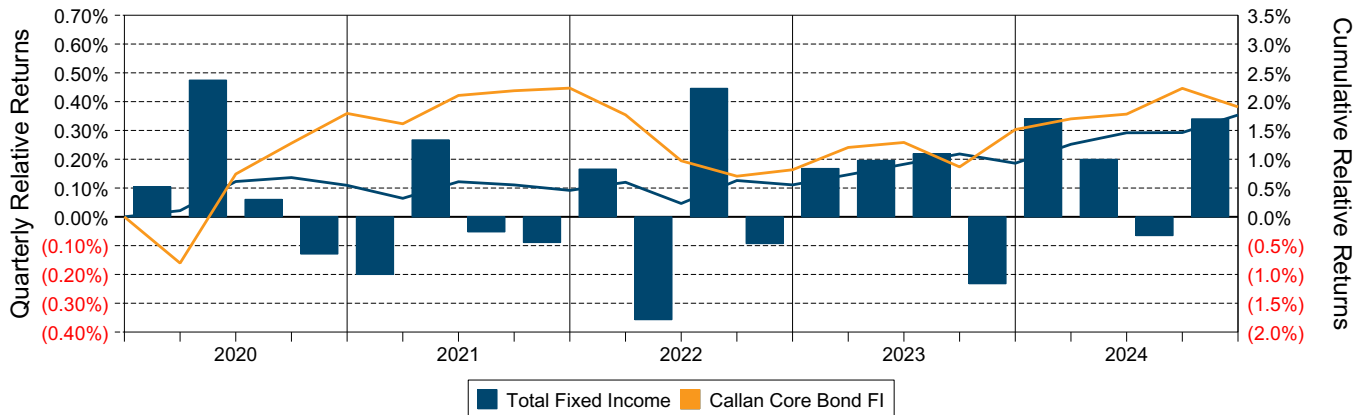
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

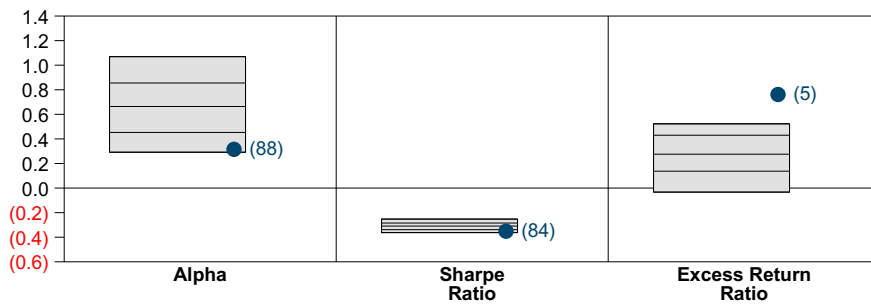
Performance vs Callan Core Bond Fixed Income (Gross)



Cumulative and Quarterly Relative Returns vs Total Fixed Income Benchmark



Risk Adjusted Return Measures vs Total Fixed Income Benchmark Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended December 31, 2024

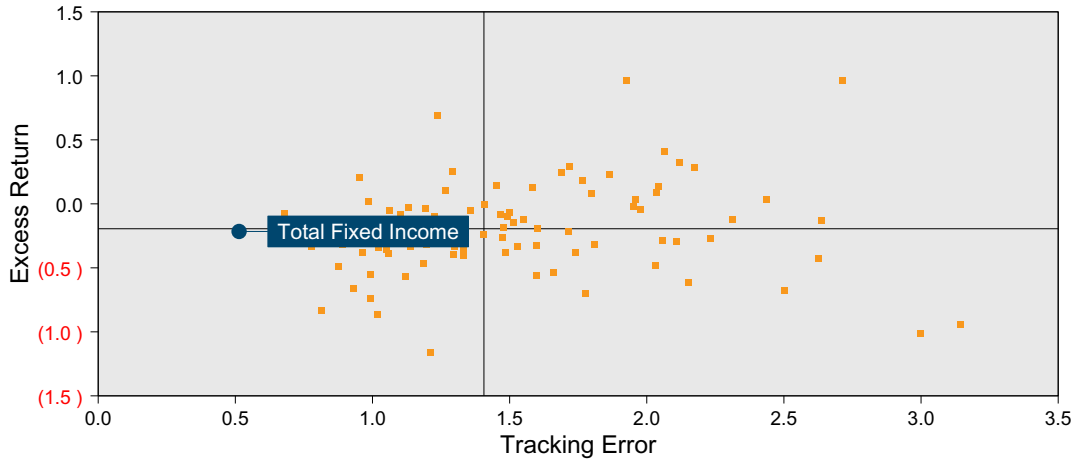


Total Fixed Income Risk Analysis Summary

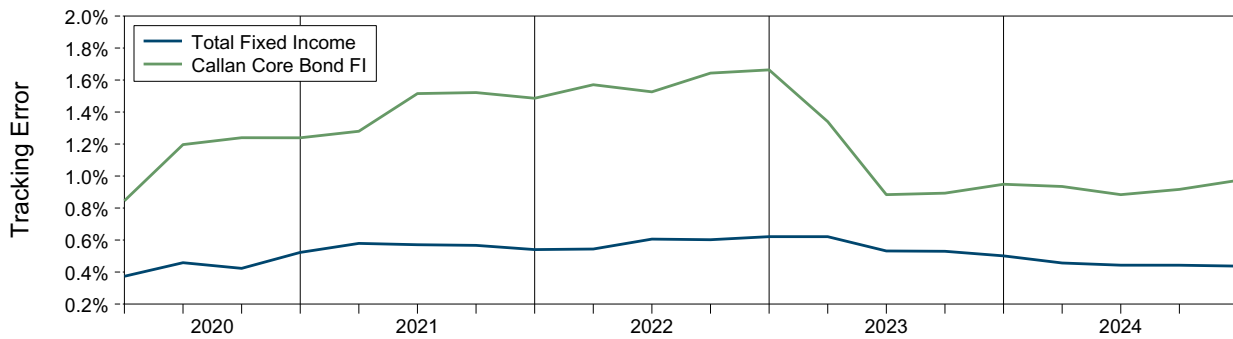
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

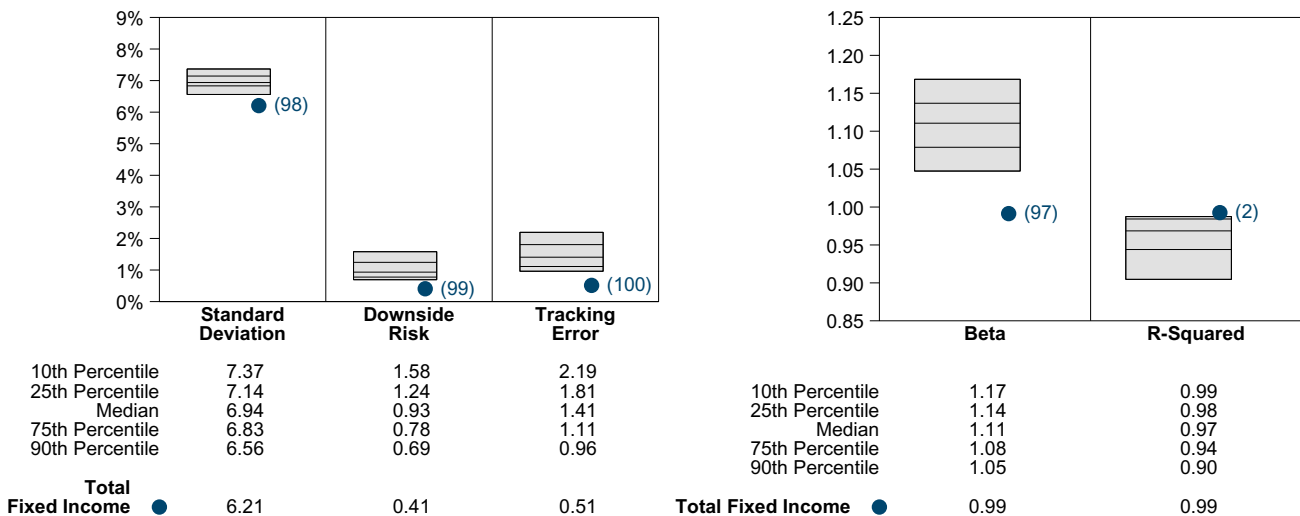
Risk Analysis vs Callan Core Bond Fixed Income (Gross) Five Years Ended December 31, 2024



Rolling 12 Quarter Tracking Error vs Total Fixed Income Benchmark



Risk Statistics Rankings vs Total Fixed Income Benchmark Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended December 31, 2024

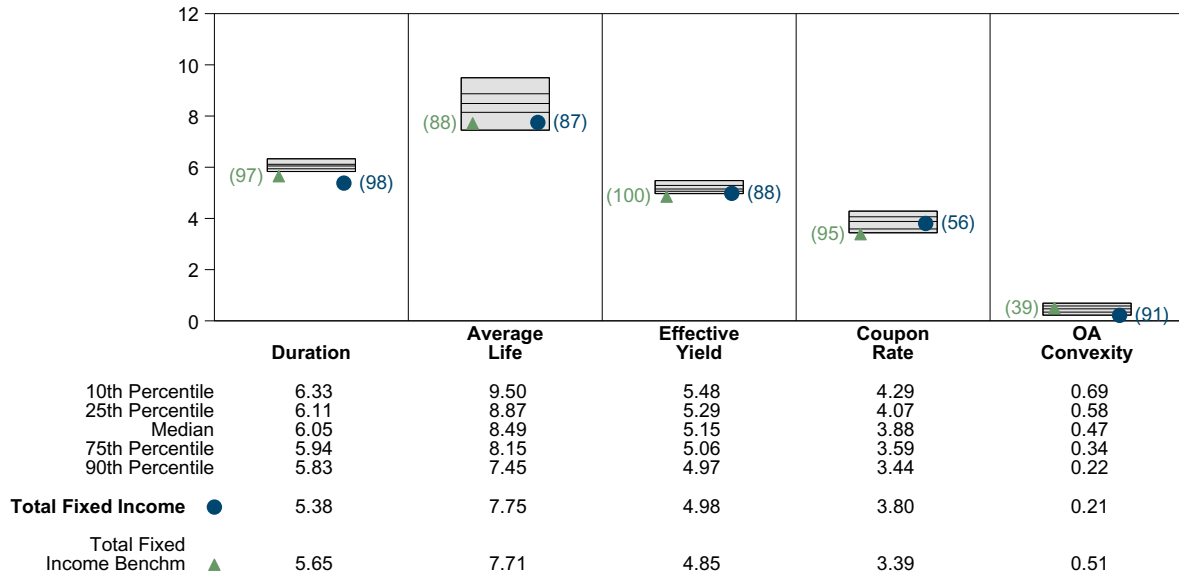


Total Fixed Income Bond Characteristics Analysis Summary

Portfolio Characteristics

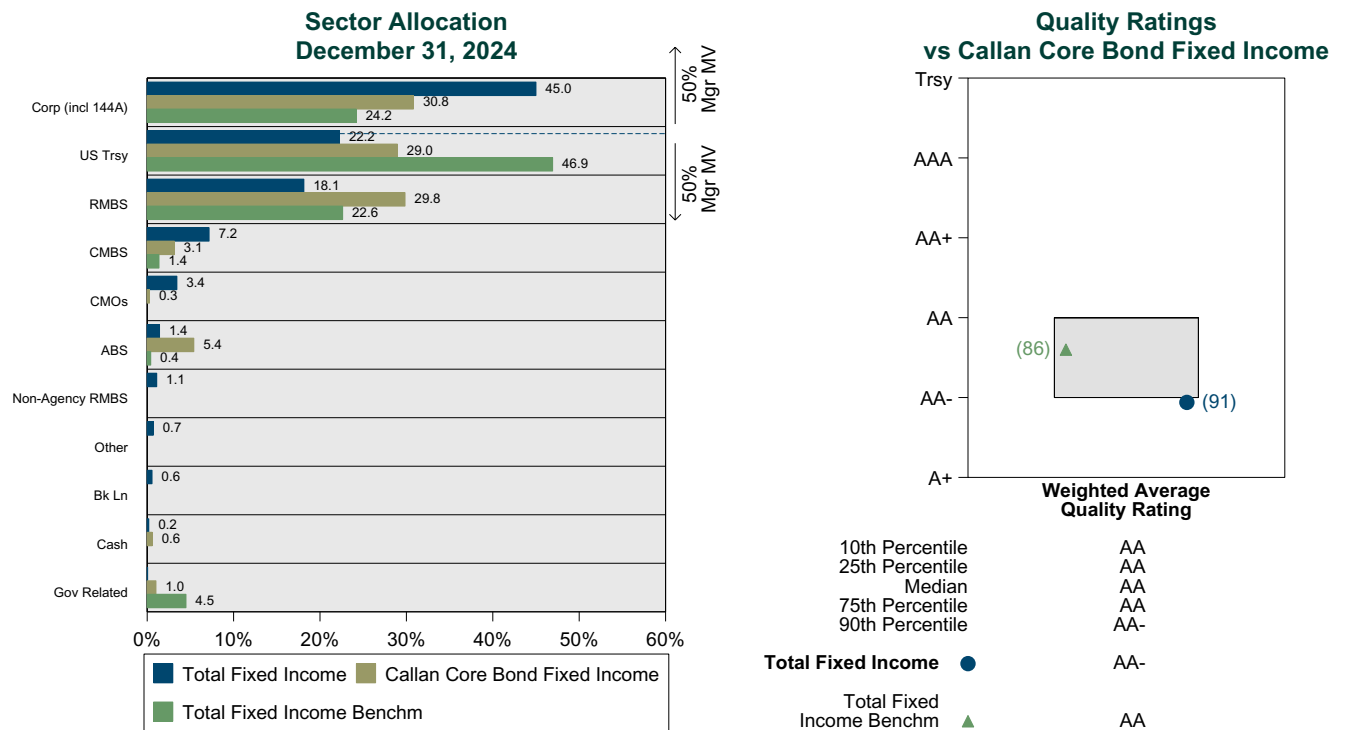
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of December 31, 2024



Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

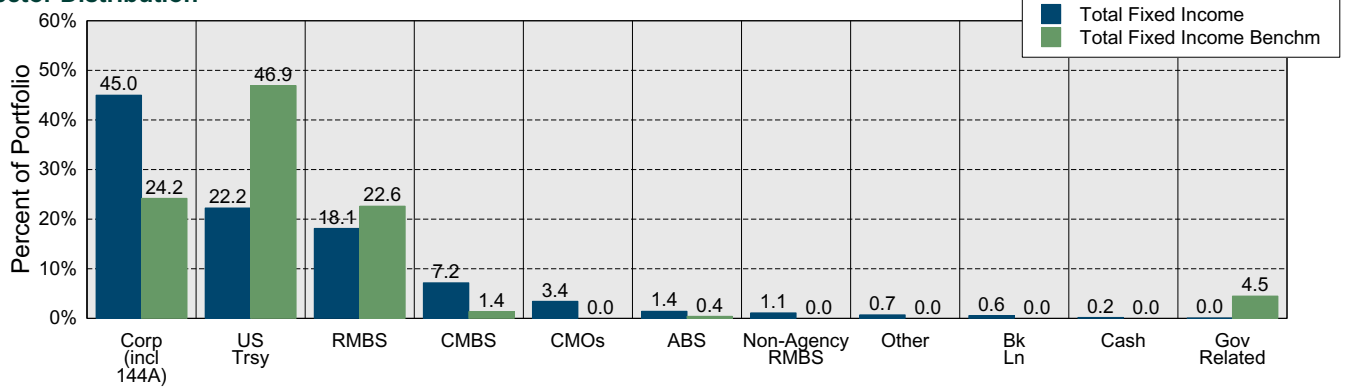


Total Fixed Income Portfolio Characteristics Summary As of December 31, 2024

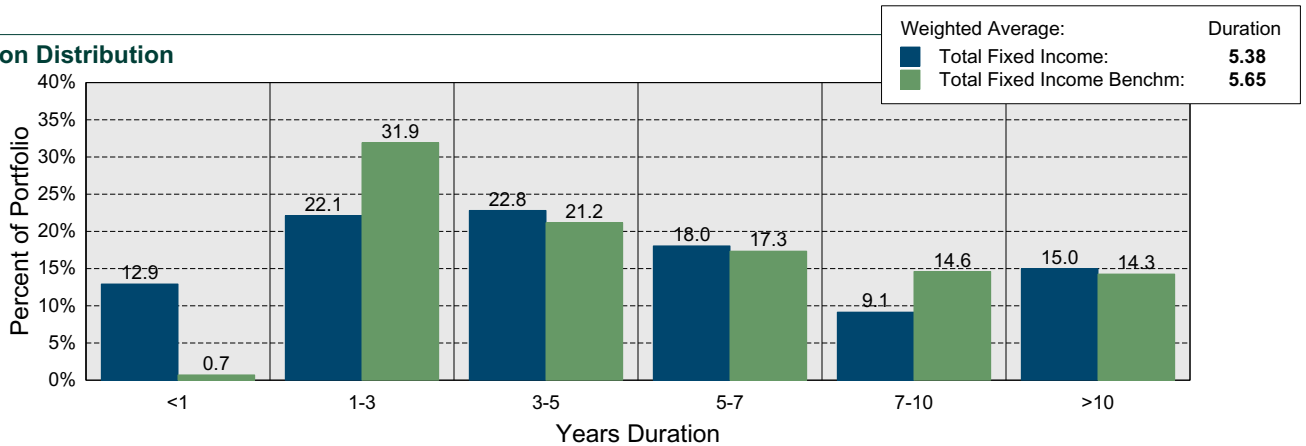
Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

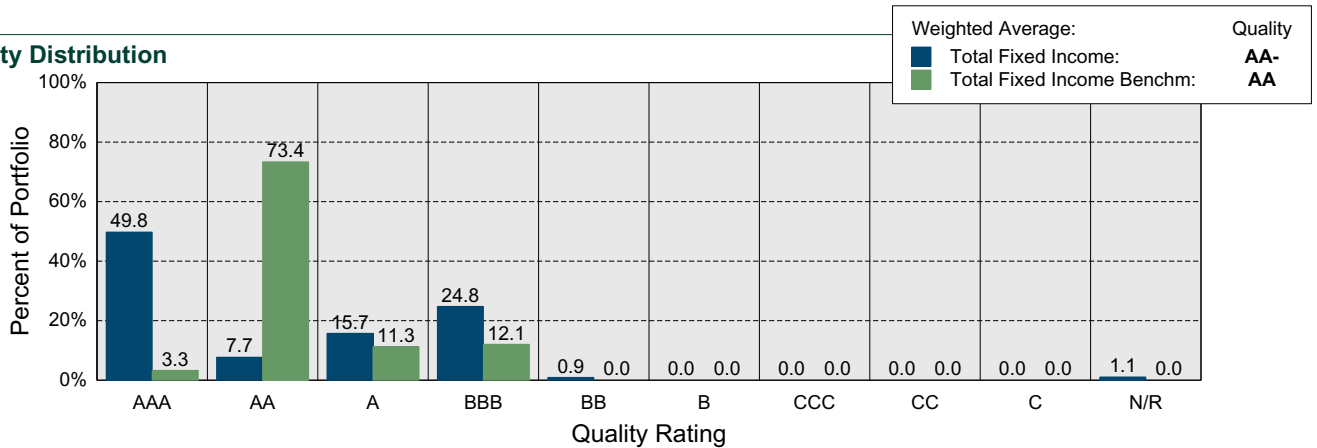
Sector Distribution



Duration Distribution



Quality Distribution



Colorado Treasurer's Portfolio

Period Ended December 31, 2024

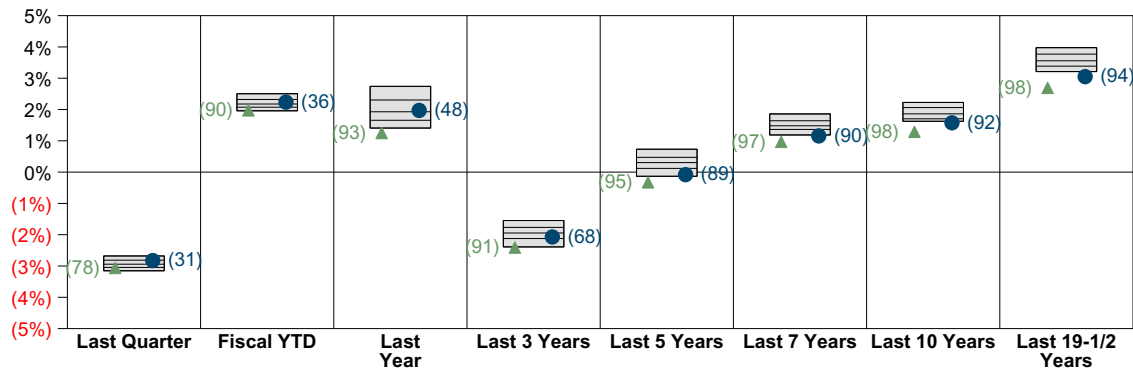
Investment Philosophy

The Fixed Income Portfolio is managed by the Colorado State Treasury and was initially funded in 3Q 2005. The PSPF Custom Benchmark consisted of 37% U.S. Treasury 1-10 Year Index, 34% Mortgages 0-10 Year WAL Index, 19% AAA U.S. Agencies 1-10 Year Index and 10% U.S. Corporates AAA Rated 1-10 Years Index through March 31, 2017 and the Bloomberg U.S. Aggregate thereafter. It is important to note that the Fixed Income Portfolio has historically been managed under a buy and hold mandate for investment yield. The Callan Core Bond Fixed Income Manager Universe used to construct the floating bar chart exhibit below, representing 77 core fixed income managers and products, is largely composed of products following a total return mandate. The School Fund bond portfolio is subject to statutorily imposed net loss restrictions. As such, relative performance comparison of the Fixed Income Portfolio to this universe may not be entirely representative of relative performance.

Quarterly Summary and Highlights

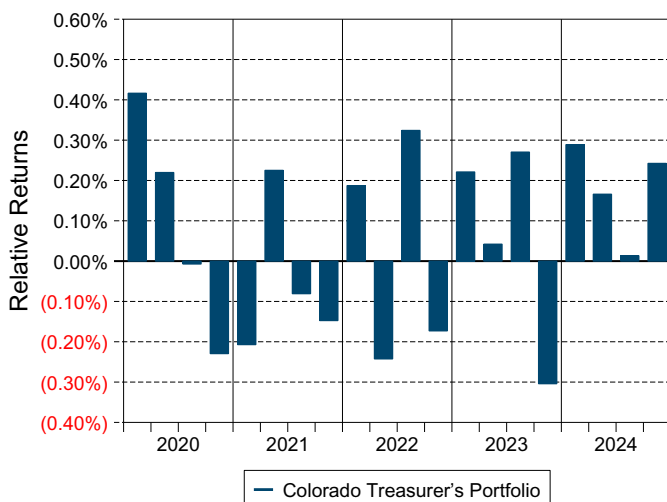
- Colorado Treasurer's Portfolio's portfolio posted a (2.83)% return for the quarter placing it in the 31 percentile of the Callan Core Bond Fixed Income group for the quarter and in the 48 percentile for the last year.
- Colorado Treasurer's Portfolio's portfolio outperformed the PSPF Bond Custom Benchmark by 0.23% for the quarter and outperformed the PSPF Bond Custom Benchmark for the year by 0.72%.

Performance vs Callan Core Bond Fixed Income (Gross)

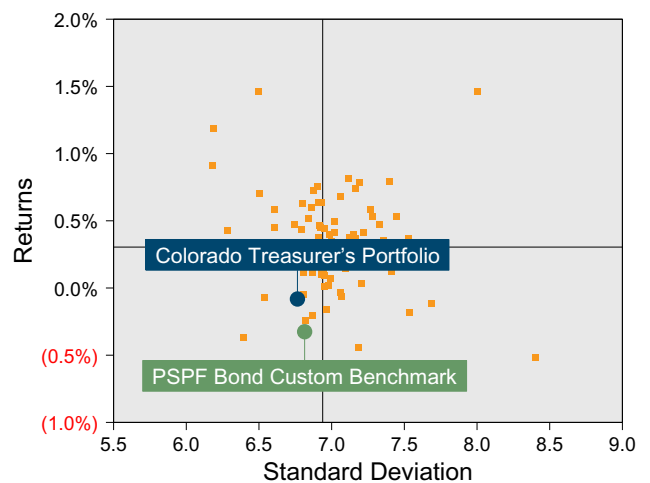


Period	10th Percentile	25th Percentile	Median	75th Percentile	90th Percentile	Colorado Treasurer's Portfolio	PSPF Bond Custom Benchmark
Last Quarter	(2.68)	(2.81)	(2.94)	(3.05)	(3.15)	(2.83)	(3.06)
Fiscal YTD	2.51	2.32	2.18	2.07	1.96	2.24	1.98
Last Year	2.74	2.30	1.93	1.66	1.41	1.97	1.25
Last 3 Years	(1.55)	(1.77)	(1.95)	(2.12)	(2.39)	(2.07)	(2.41)
Last 5 Years	0.73	0.47	0.30	0.12	(0.13)	(0.08)	(0.33)
Last 7 Years	1.86	1.64	1.48	1.36	1.19	1.16	0.97
Last 10 Years	2.23	2.06	1.86	1.70	1.62	1.58	1.29
Last 19-1/2 Years	3.98	3.77	3.56	3.39	3.21	3.05	2.69

Relative Returns vs PSPF Bond Custom Benchmark



Callan Core Bond Fixed Income (Gross) Annualized Five Year Risk vs Return

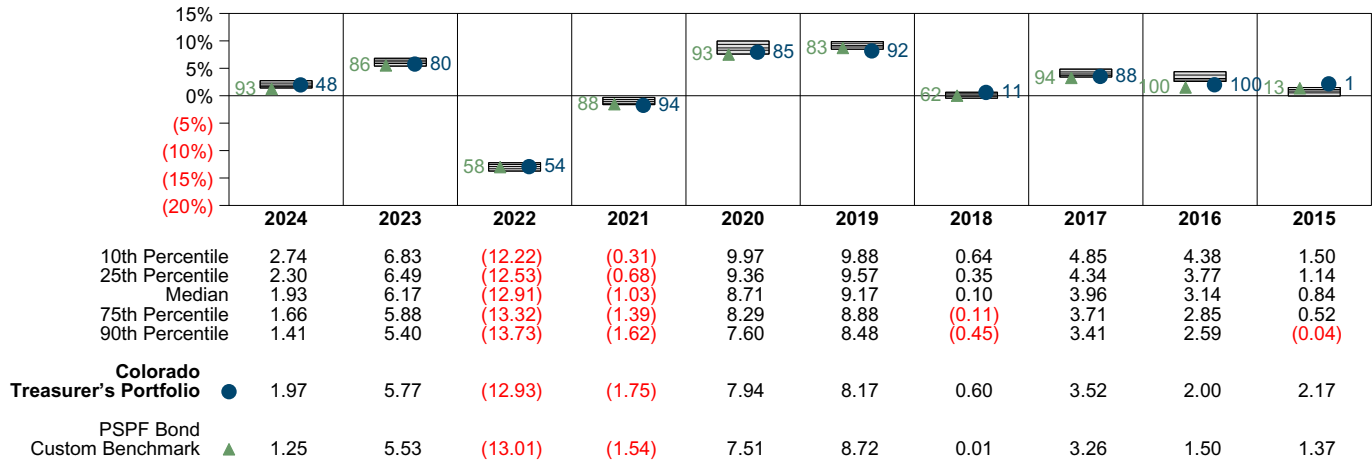


Colorado Treasurer's Portfolio Return Analysis Summary

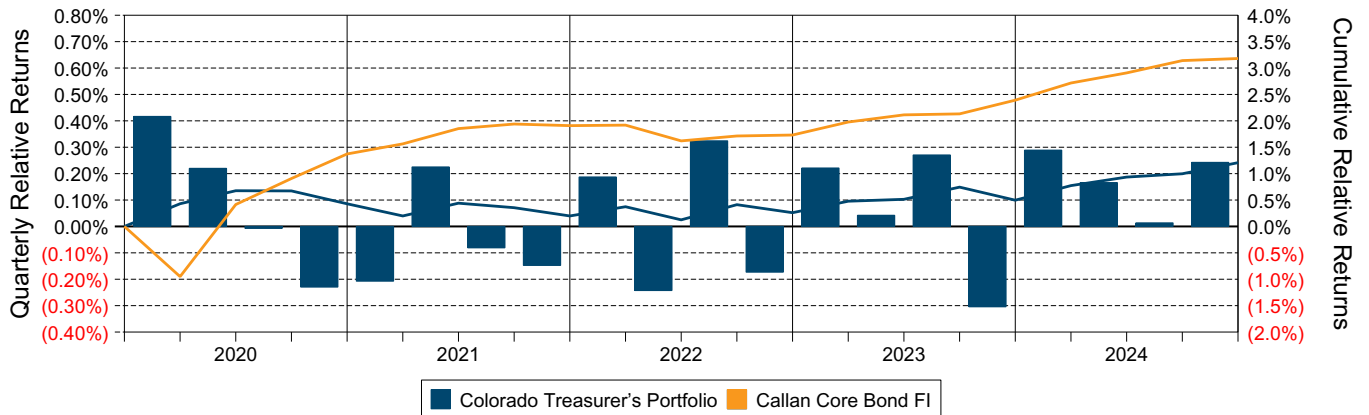
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

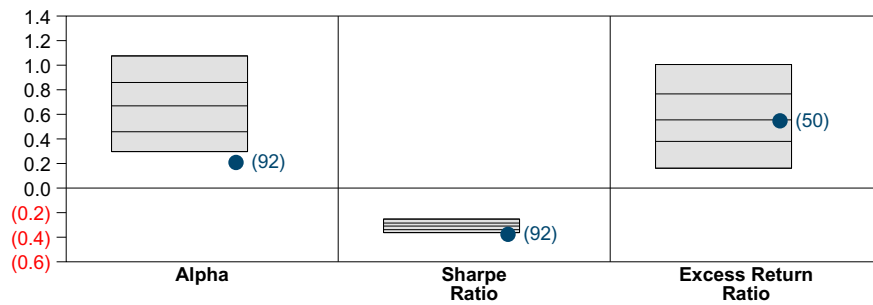
Performance vs Callan Core Bond Fixed Income (Gross)



Cumulative and Quarterly Relative Returns vs PSPF Bond Custom Benchmark



Risk Adjusted Return Measures vs PSPF Bond Custom Benchmark Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended December 31, 2024

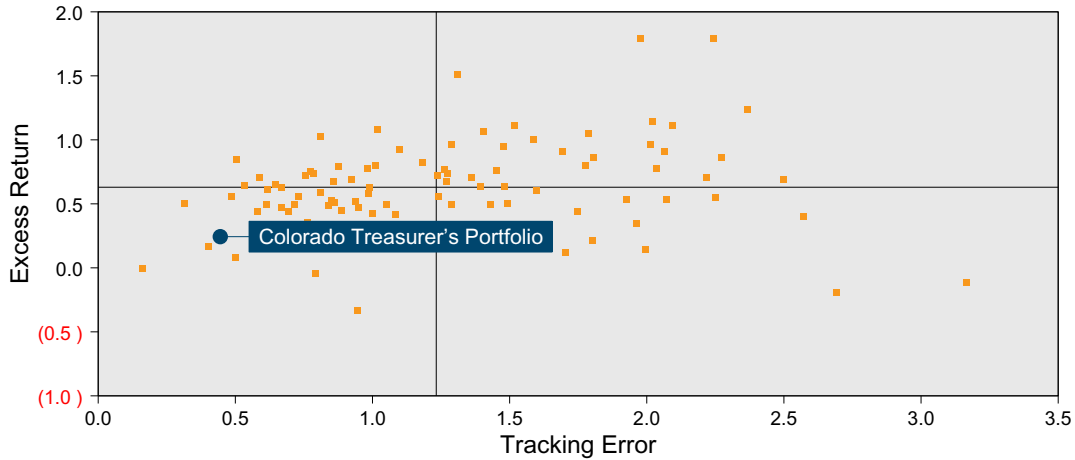


Colorado Treasurer's Portfolio Risk Analysis Summary

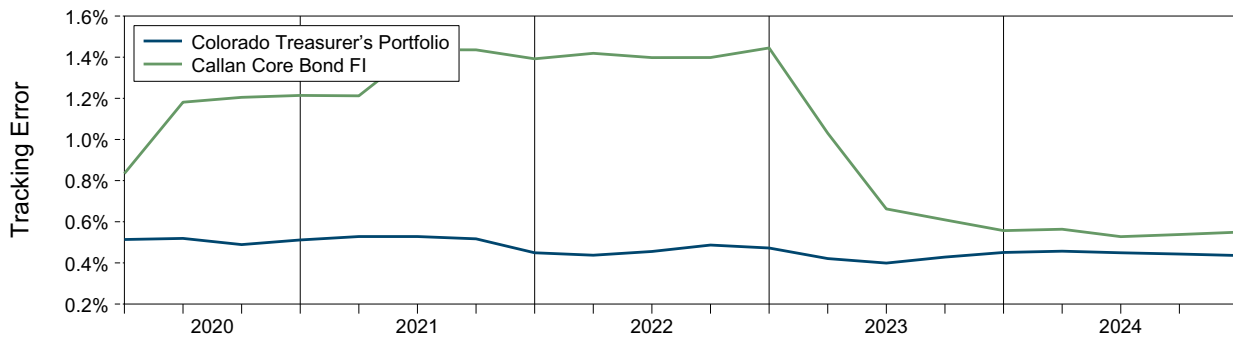
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

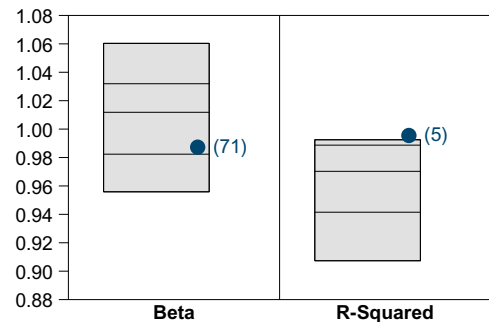
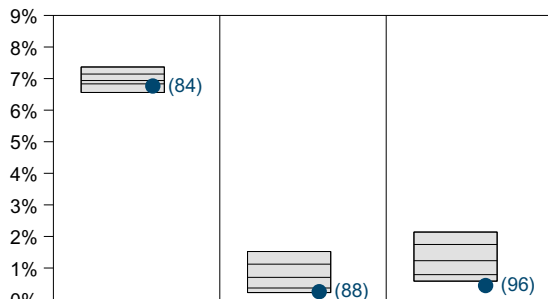
Risk Analysis vs Callan Core Bond Fixed Income (Gross) Five Years Ended December 31, 2024



Rolling 12 Quarter Tracking Error vs PSPF Bond Custom Benchmark



Risk Statistics Rankings vs PSPF Bond Custom Benchmark Rankings Against Callan Core Bond Fixed Income (Gross) Five Years Ended December 31, 2024



10th Percentile 7.37
25th Percentile 7.14
Median 6.94
75th Percentile 6.83
90th Percentile 6.56

10th Percentile 1.52
25th Percentile 1.12
Median 0.70
75th Percentile 0.37
90th Percentile 0.22

10th Percentile 2.14
25th Percentile 1.75
Median 1.23
75th Percentile 0.79
90th Percentile 0.58

10th Percentile 1.06
25th Percentile 1.03
Median 1.01
75th Percentile 0.98
90th Percentile 0.96

10th Percentile 0.99
25th Percentile 0.99
Median 0.97
75th Percentile 0.94
90th Percentile 0.91

Colorado Treasurer's Portfolio ● 6.76 0.25 0.45

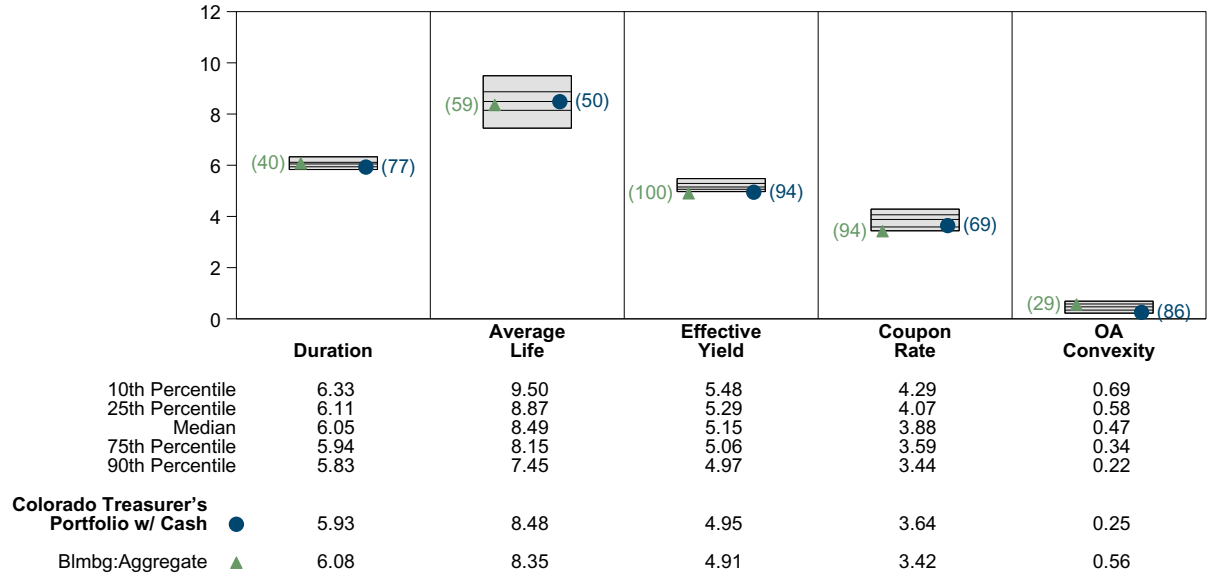
Colorado Treasurer's Portfolio ● 0.99 1.00

Colorado Treasurer's Portfolio w/ Cash Bond Characteristics Analysis Summary

Portfolio Characteristics

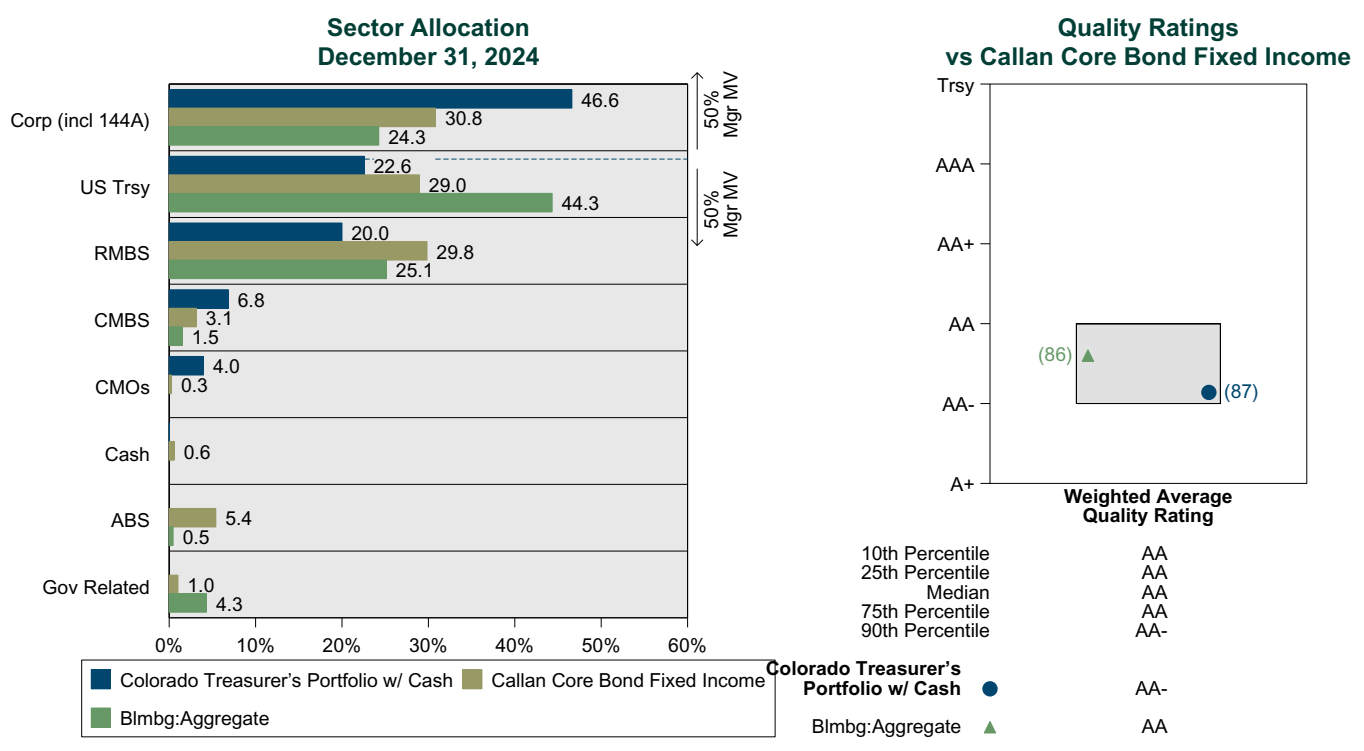
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style. Fixed Income Portfolio characteristics includes Cash Pool allocation.

Fixed Income Portfolio Characteristics Rankings Against Callan Core Bond Fixed Income as of December 31, 2024



Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

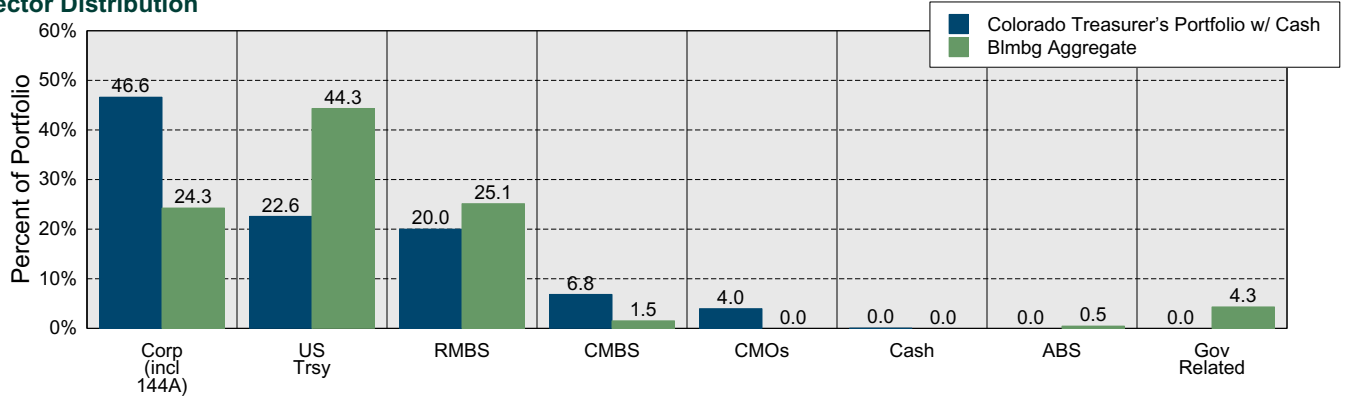


Colorado Treasurer's Portfolio w/ Cash Portfolio Characteristics Summary As of December 31, 2024

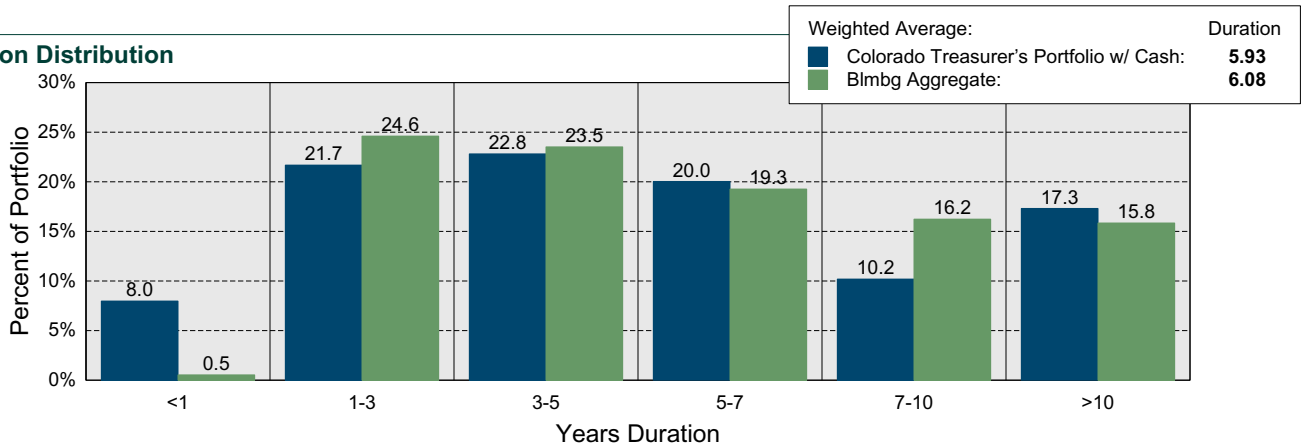
Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

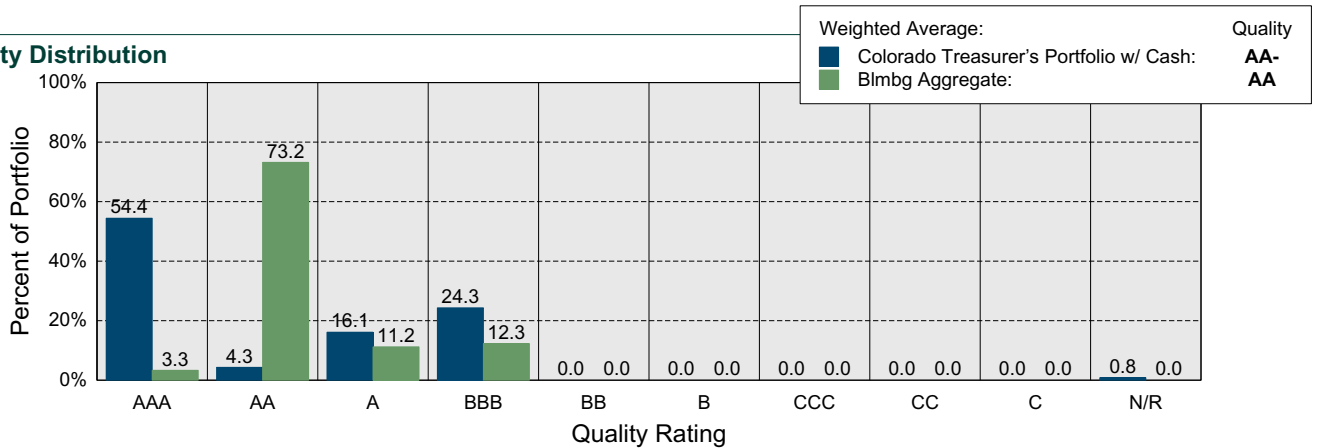
Sector Distribution



Duration Distribution



Quality Distribution



Janus Henderson Short Duration Period Ended December 31, 2024

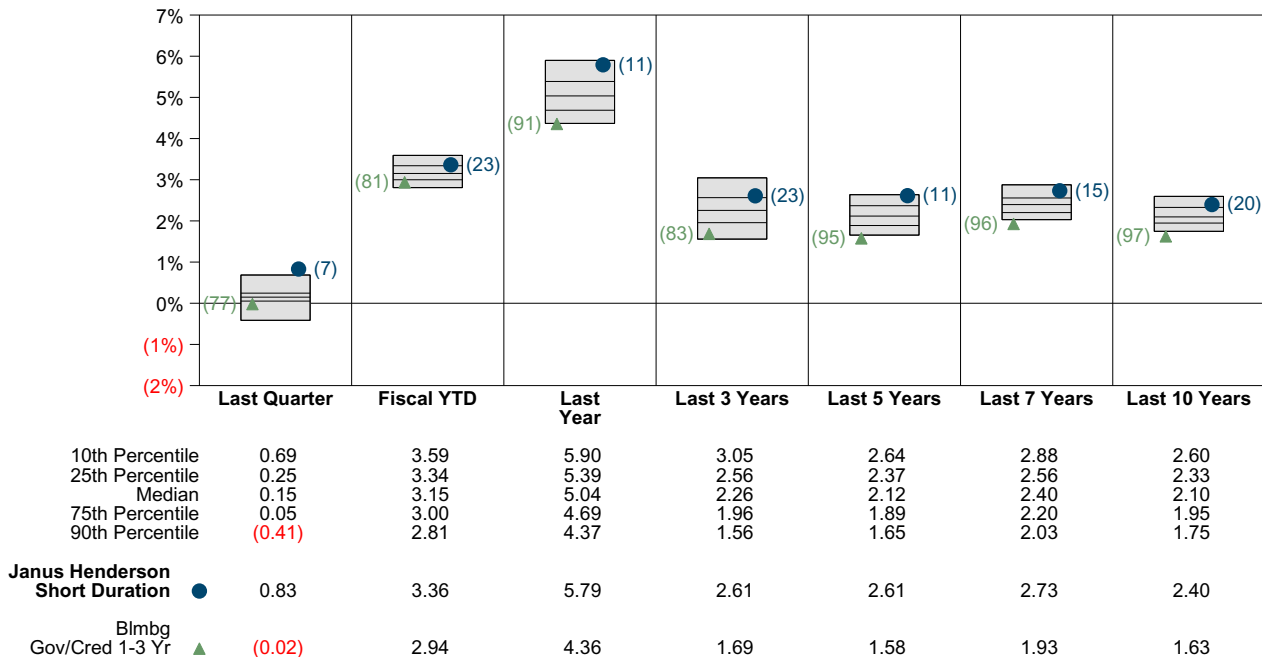
Investment Philosophy

Janus Henderson believes a bottom-up, fundamentally driven investment process that focuses on credit-oriented investments can generate risk-adjusted outperformance over time. A comprehensive bottom-up view drives decision-making at a macro level, enabling them to make informed decisions about allocations to all sectors of the fixed income universe. The Short Duration Fixed Income strategy emphasizes risk-adjusted performance and capital preservation with value generated principally from prudent credit selection and credit sector positioning. The Janus Henderson short duration portfolio was funded November 9th, 2018. Prior returns represent the manager's composite returns.

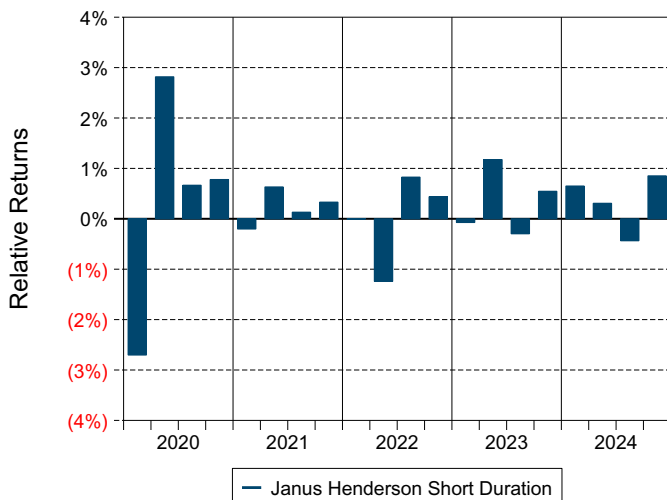
Quarterly Summary and Highlights

- Janus Henderson Short Duration's portfolio posted a 0.83% return for the quarter placing it in the 7th percentile of the Callan Short Term Fixed Income group for the quarter and in the 11th percentile for the last year.
- Janus Henderson Short Duration's portfolio outperformed the Blmbg Gov/Cred 1-3 Yr by 0.85% for the quarter and outperformed the Blmbg Gov/Cred 1-3 Yr for the year by 1.44%.

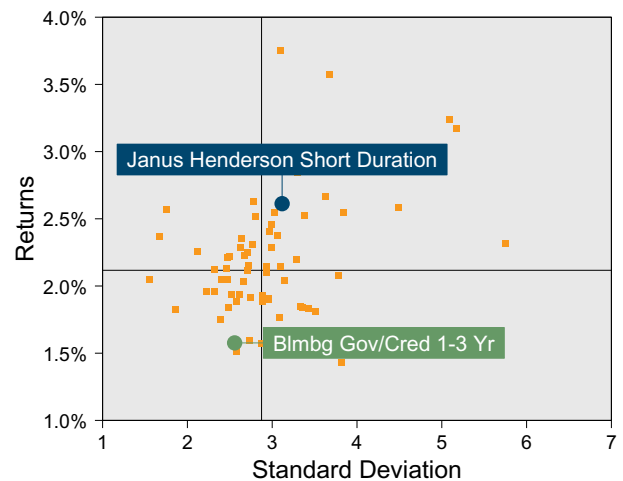
Performance vs Callan Short Term Fixed Income (Gross)



Relative Return vs Blmbg Gov/Cred 1-3 Yr



Callan Short Term Fixed Income (Gross) Annualized Five Year Risk vs Return

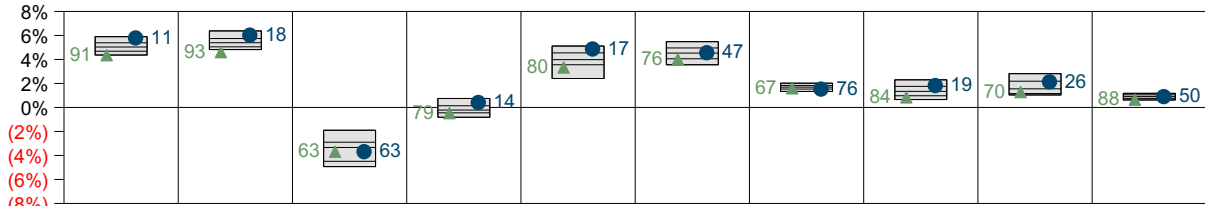


Janus Henderson Short Duration Return Analysis Summary

Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

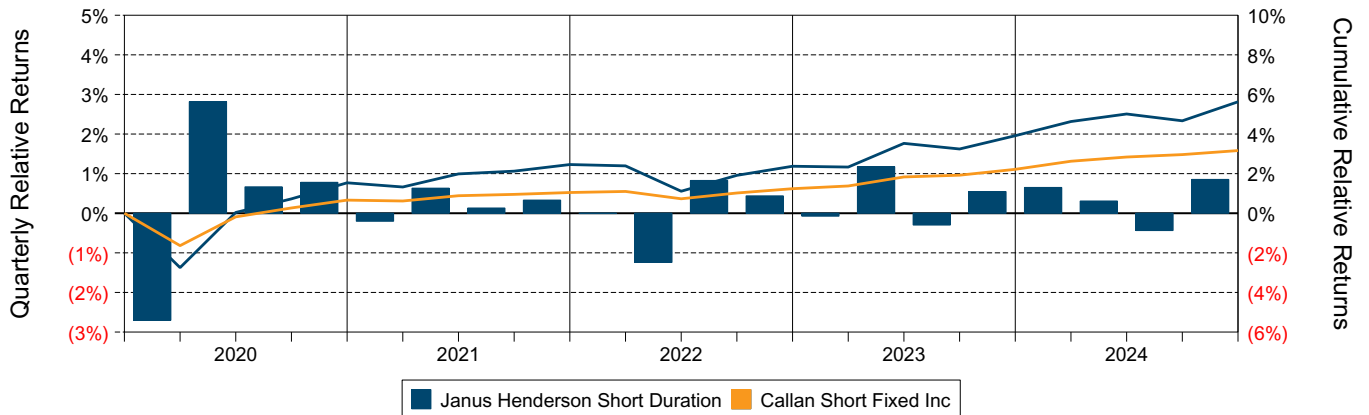
Performance vs Callan Short Term Fixed Income (Gross)



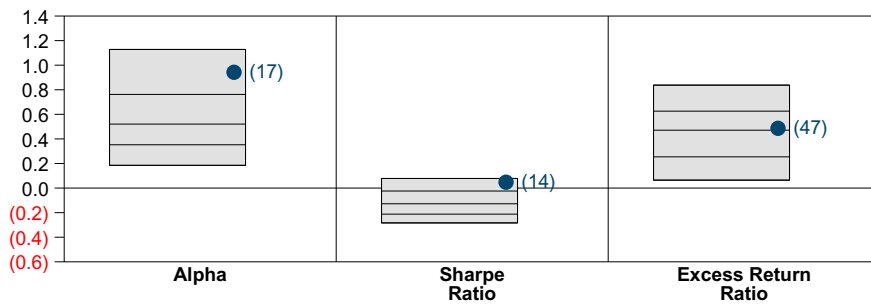
	2024	2023	2022	2021	2020	2019	2018	2017	2016	2015
10th Percentile	5.90	6.38	(1.90)	0.75	5.12	5.48	2.02	2.30	2.81	1.18
25th Percentile	5.39	5.74	(2.90)	0.14	4.55	4.96	1.83	1.76	2.19	1.05
Median	5.04	5.39	(3.34)	(0.22)	3.98	4.53	1.69	1.34	1.55	0.90
75th Percentile	4.69	5.05	(4.49)	(0.45)	3.56	4.06	1.53	0.97	1.16	0.76
90th Percentile	4.37	4.82	(4.93)	(0.82)	2.41	3.56	1.33	0.66	1.04	0.62

Janus Henderson Short Duration	●	5.79	6.02	(3.68)	0.41	4.87	4.56	1.53	1.82	2.13	0.90
Blmbg Gov/Cred 1-3 Yr	▲	4.36	4.61	(3.69)	(0.47)	3.33	4.03	1.60	0.84	1.28	0.65

Cumulative and Quarterly Relative Returns vs Blmbg Gov/Cred 1-3 Yr



Risk Adjusted Return Measures vs Blmbg Gov/Cred 1-3 Yr Rankings Against Callan Short Term Fixed Income (Gross) Five Years Ended December 31, 2024



	Alpha	Sharpe Ratio	Excess Return Ratio
10th Percentile	1.13	0.08	0.84
25th Percentile	0.76	(0.02)	0.63
Median	0.52	(0.13)	0.47
75th Percentile	0.35	(0.21)	0.25
90th Percentile	0.18	(0.28)	0.06

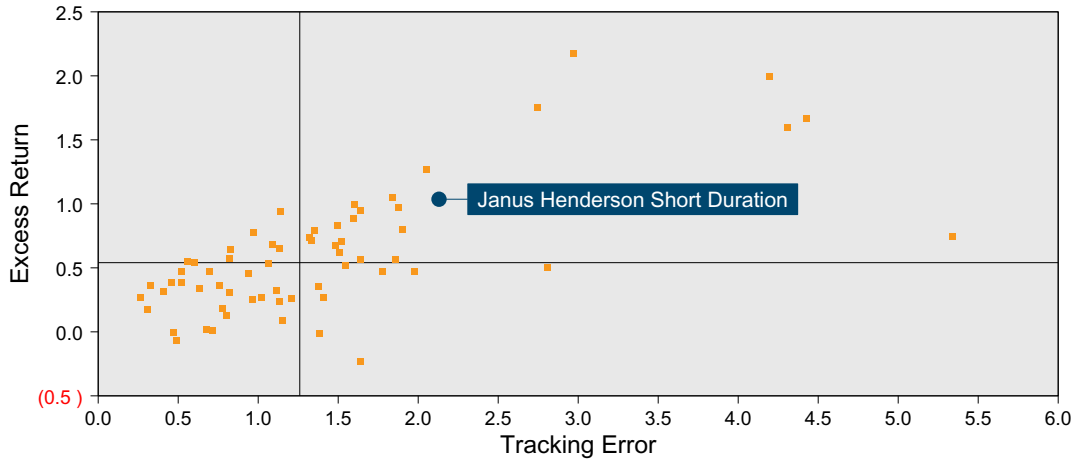
Janus Henderson Short Duration	●	0.94	0.05	0.49
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Janus Henderson Short Duration Risk Analysis Summary

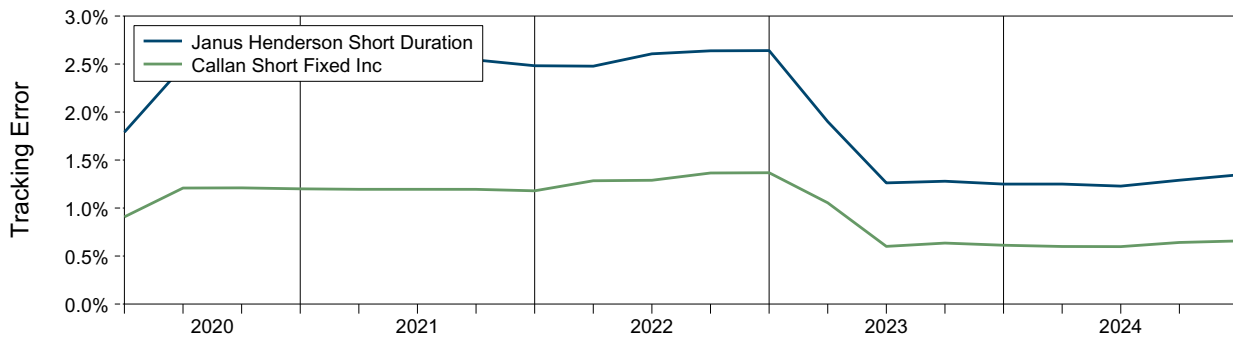
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

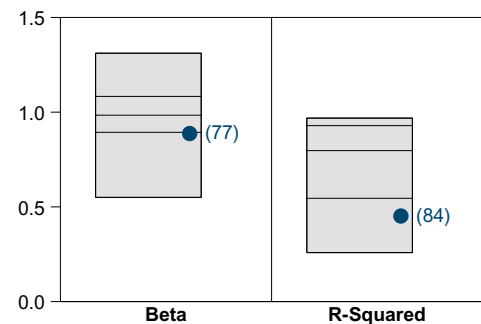
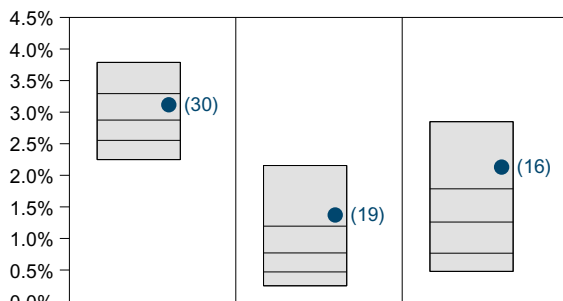
Risk Analysis vs Callan Short Term Fixed Income (Gross) Five Years Ended December 31, 2024



Rolling 12 Quarter Tracking Error vs Blmbg Gov/Cred 1-3 Yr



Risk Statistics Rankings vs Blmbg Gov/Cred 1-3 Yr Rankings Against Callan Short Term Fixed Income (Gross) Five Years Ended December 31, 2024



	Standard Deviation	Downside Risk	Tracking Error	Beta	R-Squared
10th Percentile	3.79	2.16	2.85	1.31	0.97
25th Percentile	3.29	1.19	1.79	1.08	0.93
Median	2.87	0.77	1.26	0.98	0.80
75th Percentile	2.55	0.47	0.77	0.89	0.55
90th Percentile	2.25	0.25	0.48	0.55	0.26
Janus Henderson Short Duration	3.12	1.37	2.13	0.89	0.45

Janus Henderson Short Duration Bond Characteristics Analysis Summary

Portfolio Characteristics

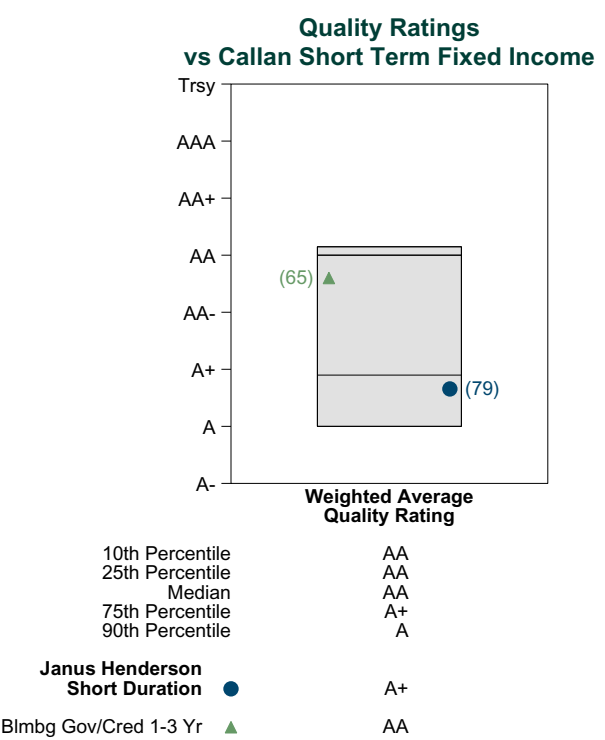
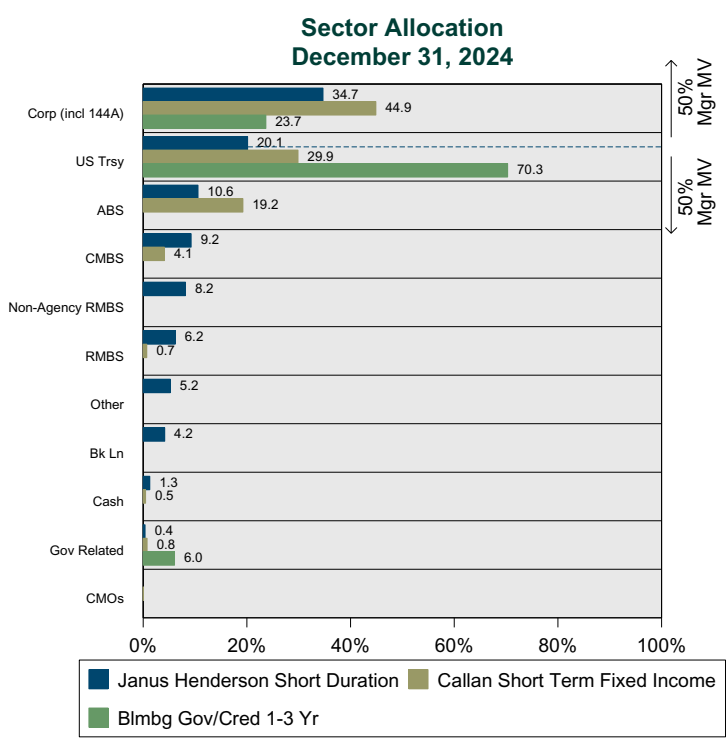
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style. Fixed Income Portfolio characteristics includes Cash Pool allocation.

Fixed Income Portfolio Characteristics Rankings Against Callan Short Term Fixed Income as of December 31, 2024



Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

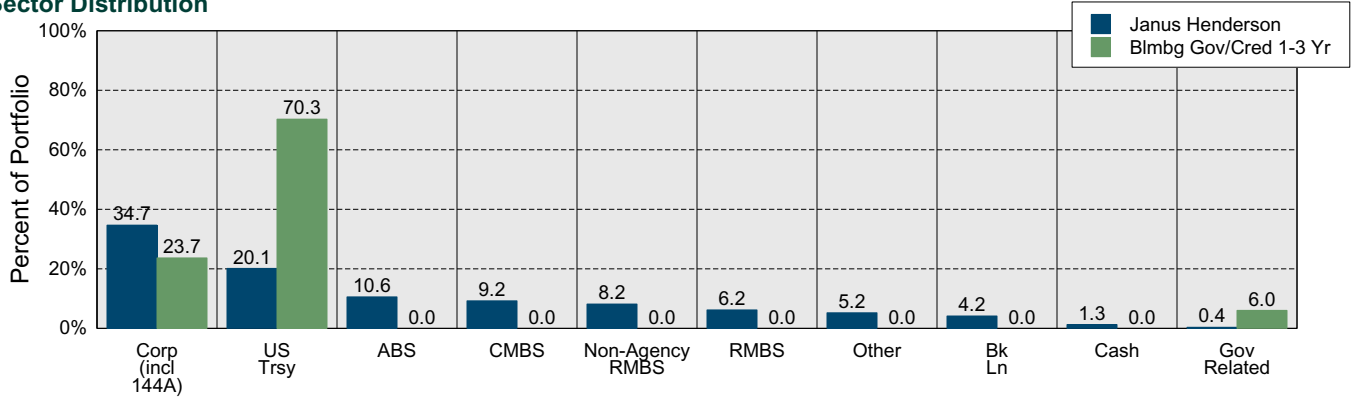


Janus Henderson Portfolio Characteristics Summary As of December 31, 2024

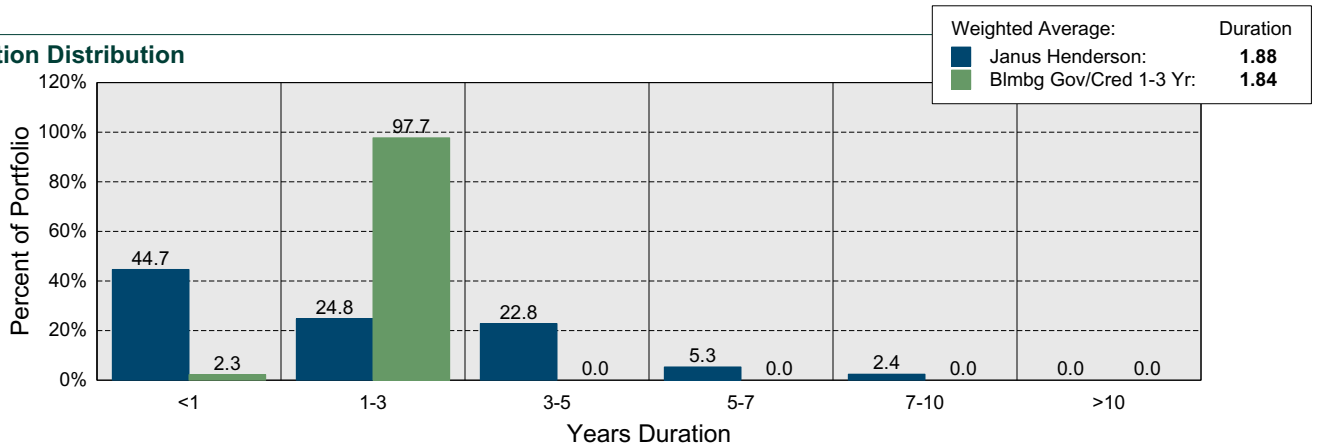
Portfolio Structure Comparison

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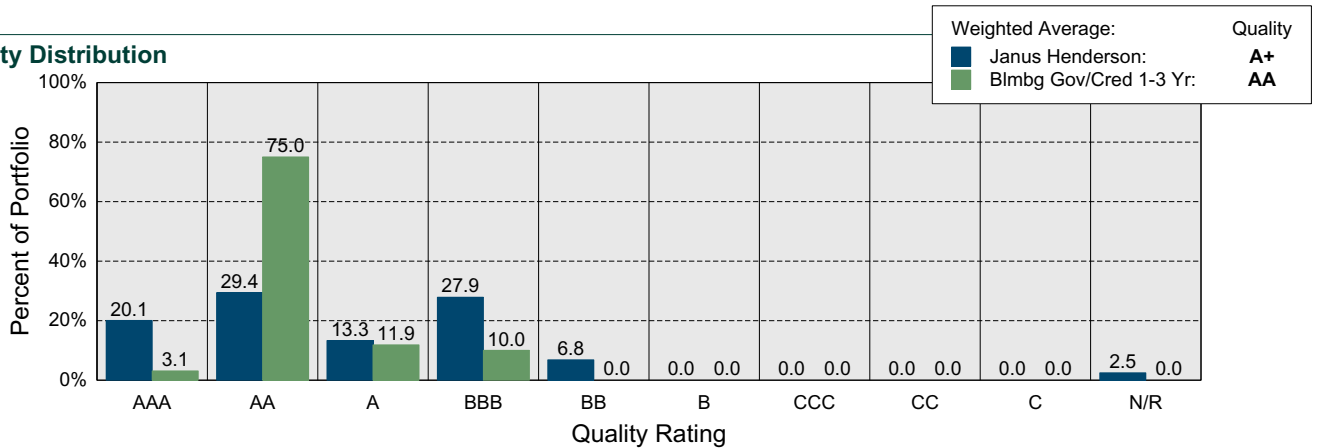
Sector Distribution



Duration Distribution



Quality Distribution



High Income Strategies Period Ended December 31, 2024

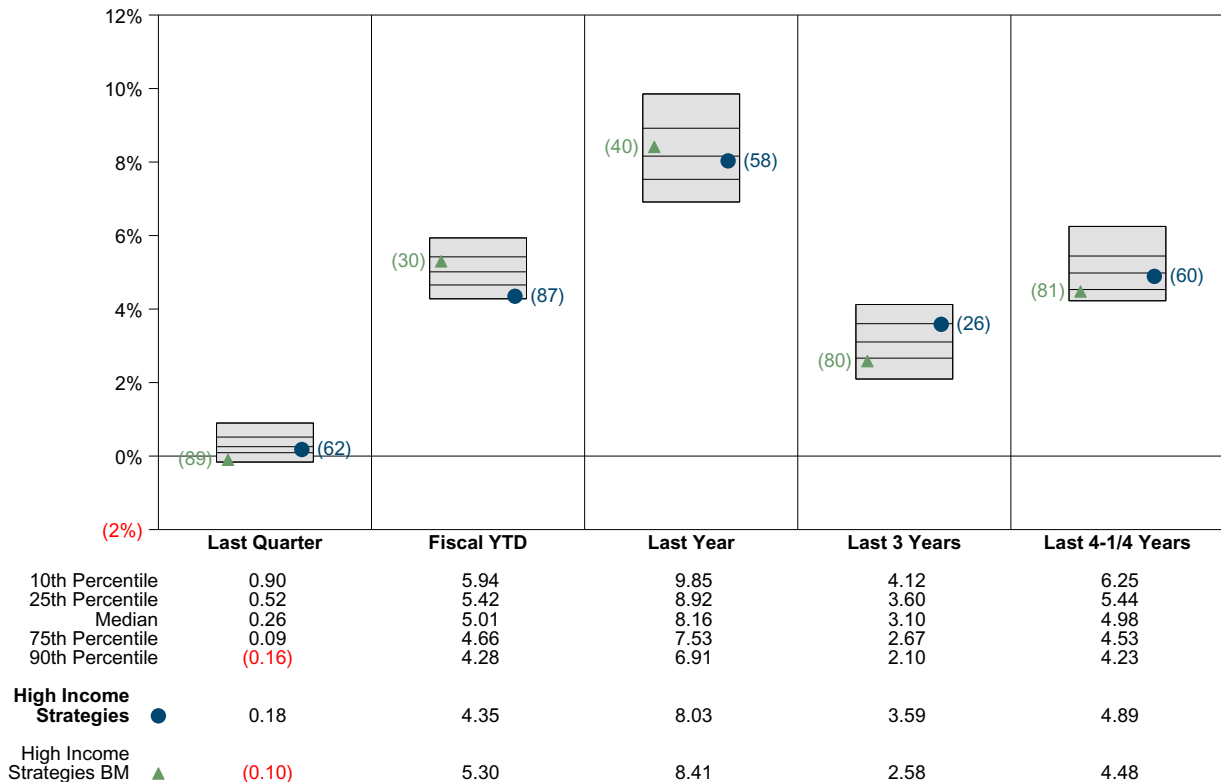
Benchmark Definition

The High Income Strategies Benchmark consists of 85% Blmbg High Yield Index and 15% ICE BofA US All Cap Secs Index.

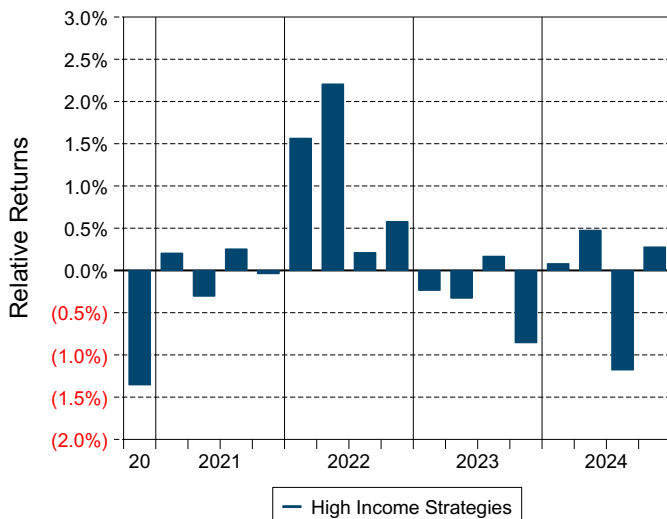
Quarterly Summary and Highlights

- High Income Strategies's portfolio posted a 0.18% return for the quarter placing it in the 62 percentile of the Callan High Yield Fixed Income group for the quarter and in the 58 percentile for the last year.
- High Income Strategies's portfolio outperformed the High Income Strategies BM by 0.28% for the quarter and underperformed the High Income Strategies BM for the year by 0.38%.

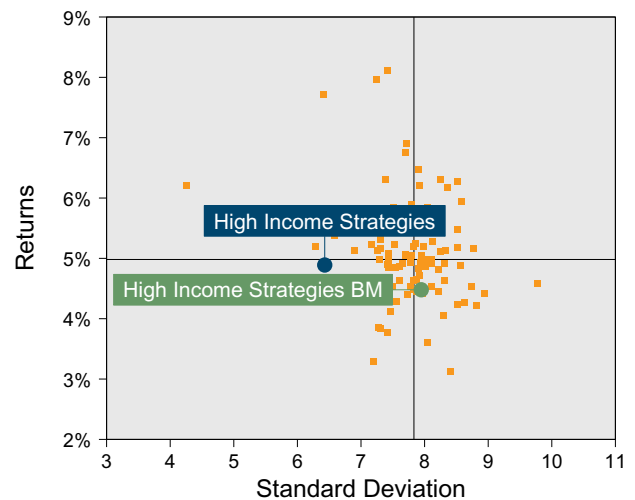
Performance vs Callan High Yield Fixed Income (Gross)



Relative Return vs High Income Strategies BM



Callan High Yield Fixed Income (Gross) Annualized Four and One-Quarter Year Risk vs Return

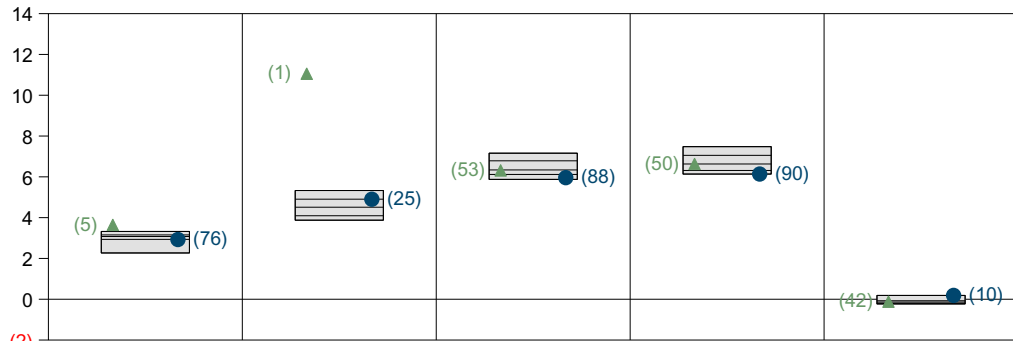


High Income Strategies Bond Characteristics Analysis Summary

Portfolio Characteristics

This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style. Fixed Income Portfolio characteristics includes Cash Pool allocation.

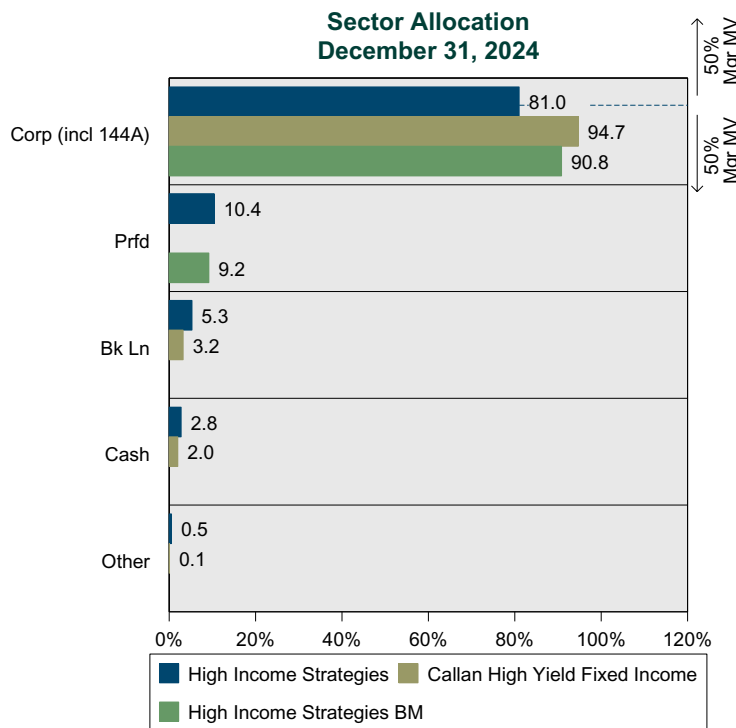
Fixed Income Portfolio Characteristics Rankings Against Callan High Yield Fixed Income as of December 31, 2024



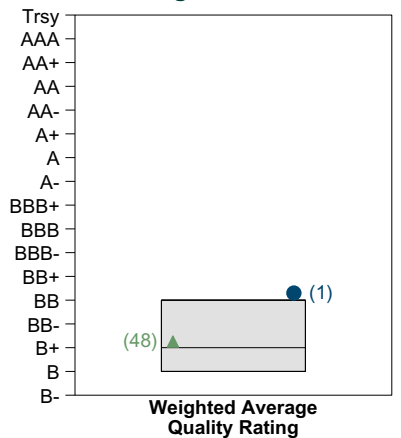
	Duration	Average Life	Coupon Rate	Current Yield	OA Convexity
10th Percentile	3.32	5.33	7.16	7.48	0.19
25th Percentile	3.15	4.91	6.78	7.05	(0.07)
Median	3.07	4.51	6.34	6.63	(0.14)
75th Percentile	2.93	4.09	6.12	6.31	(0.20)
90th Percentile	2.27	3.87	5.87	6.14	(0.23)
High Income Strategies ●	2.93	4.90	5.96	6.14	0.19
High Income Strategies BM ▲	3.65	11.06	6.32	6.63	(0.12)

Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.



Quality Ratings vs Callan High Yield Fixed Income



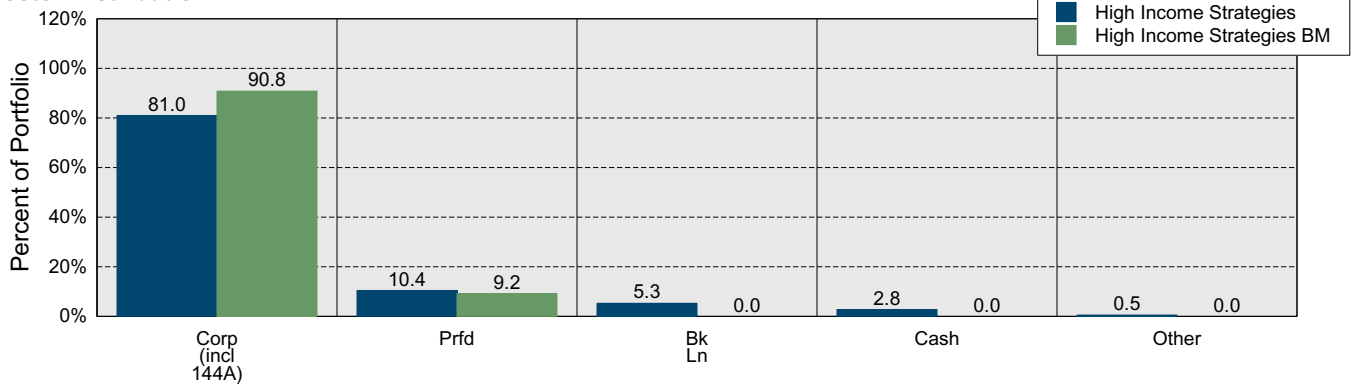
10th Percentile	BB
25th Percentile	BB
Median	B+
75th Percentile	B
90th Percentile	B
High Income Strategies ●	BB
High Income Strategies BM ▲	B+

High Income Strategies Portfolio Characteristics Summary As of December 31, 2024

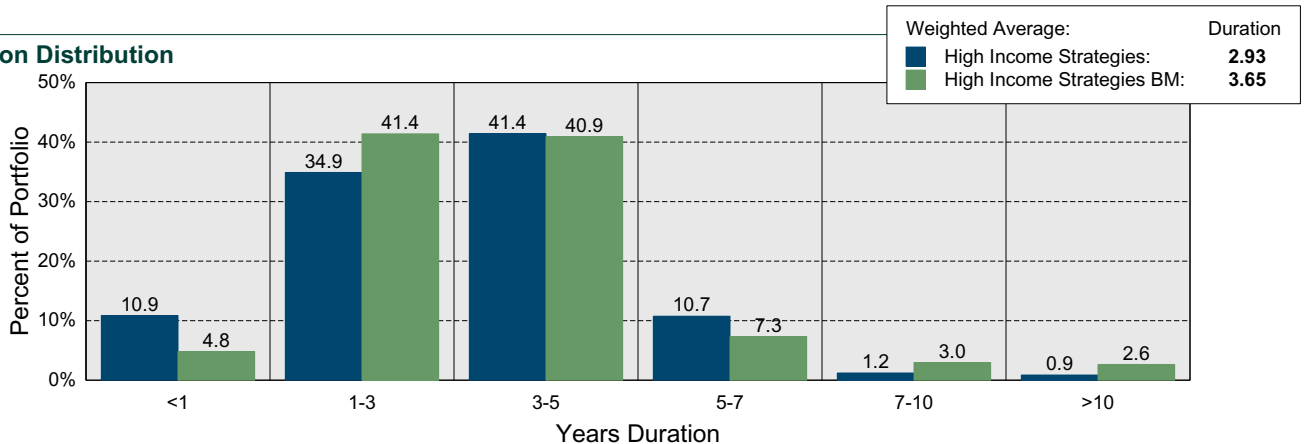
Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

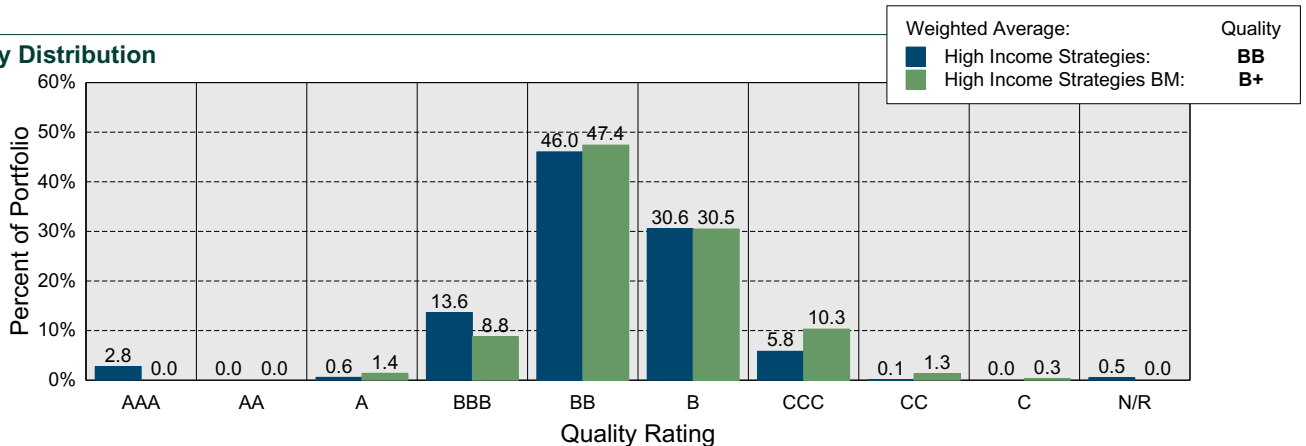
Sector Distribution



Duration Distribution



Quality Distribution



Mackay Shield US High Yield Period Ended December 31, 2024

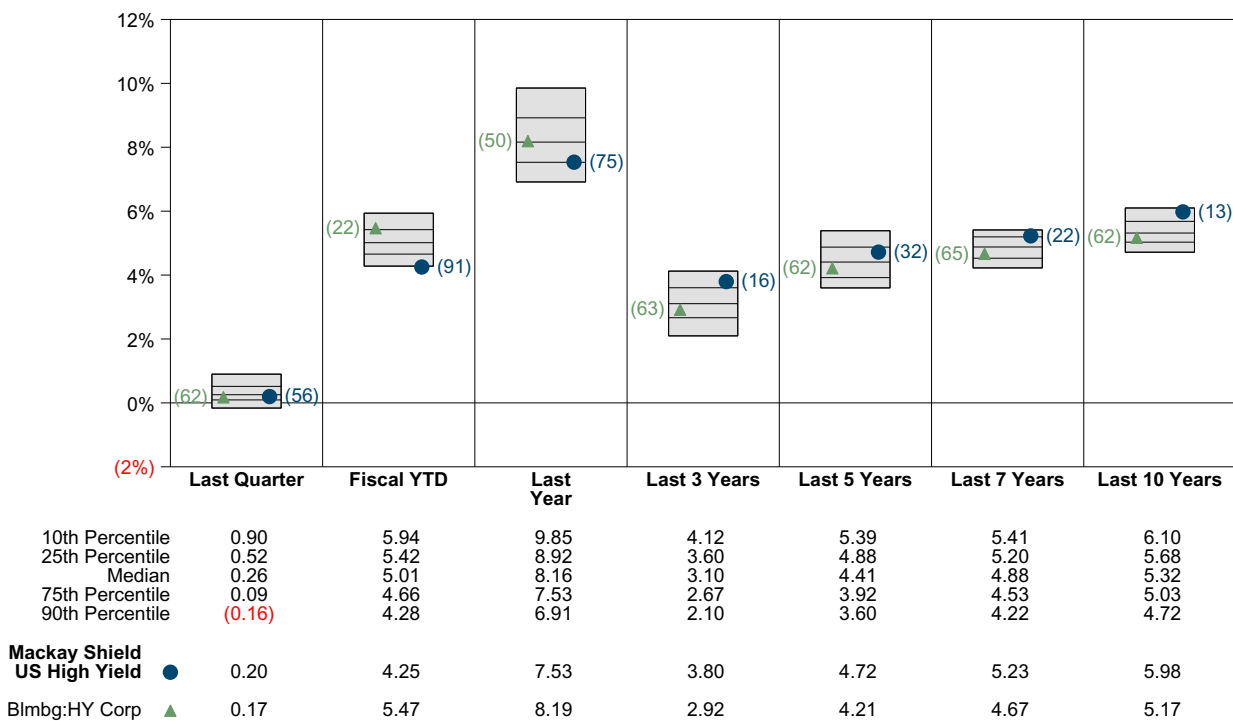
Investment Philosophy

Mackay relies on rigorous fundamental analysis to select companies with strong free cash flow and asset coverage in its quest to maximize yield, adjusted for default risk. The strategy is well diversified with sector and quality weights a residual of the security selection process. Mackay believes that long-term value is best created by avoiding downside risk (i.e. defaults) while selecting companies with attractive valuations and a catalyst for spread compression. Mackay Shield US High Yield was funded July 24, 2020. Returns prior to inception reflect the manager's high yield composite returns.

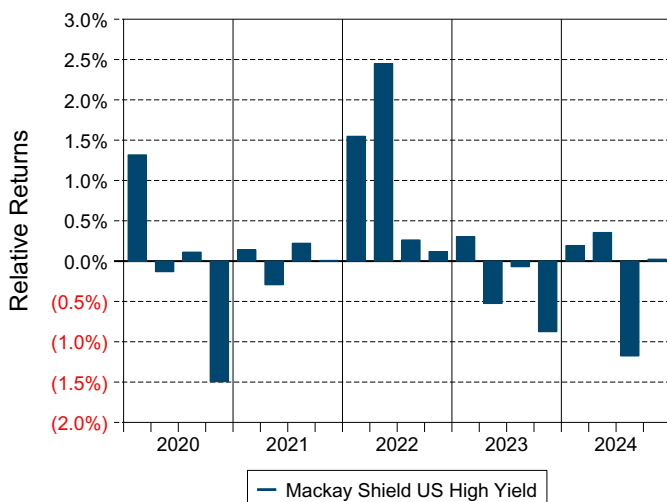
Quarterly Summary and Highlights

- Mackay Shield US High Yield's portfolio posted a 0.20% return for the quarter placing it in the 56 percentile of the Callan High Yield Fixed Income group for the quarter and in the 75 percentile for the last year.
- Mackay Shield US High Yield's portfolio outperformed the Blmbg:HY Corp by 0.02% for the quarter and underperformed the Blmbg:HY Corp for the year by 0.66%.

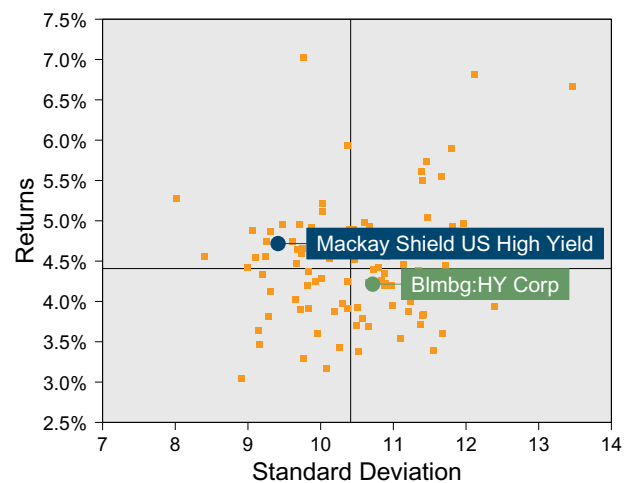
Performance vs Callan High Yield Fixed Income (Gross)



Relative Return vs Blmbg:HY Corp



Callan High Yield Fixed Income (Gross) Annualized Five Year Risk vs Return

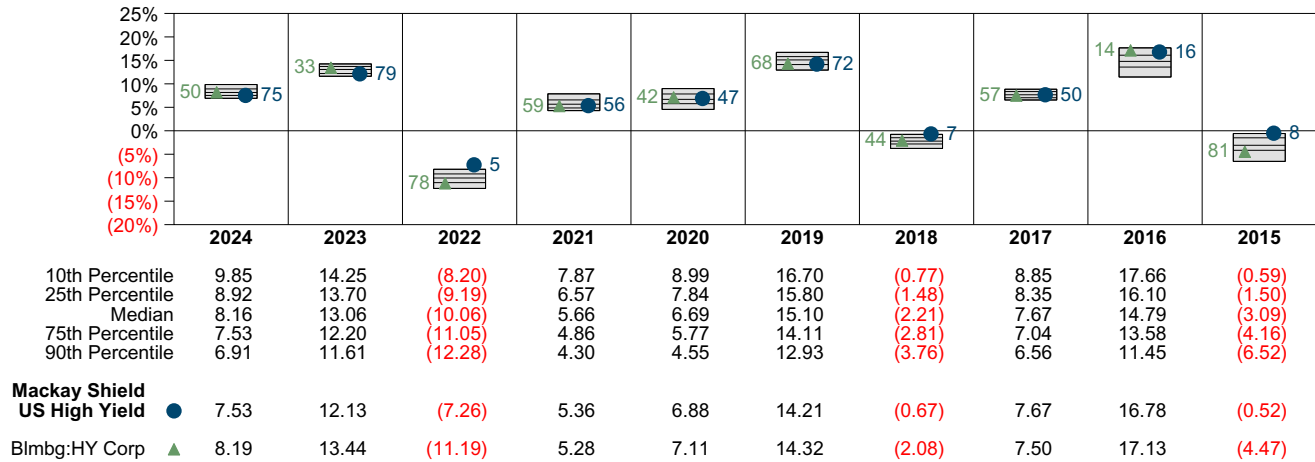


Mackay Shield US High Yield Return Analysis Summary

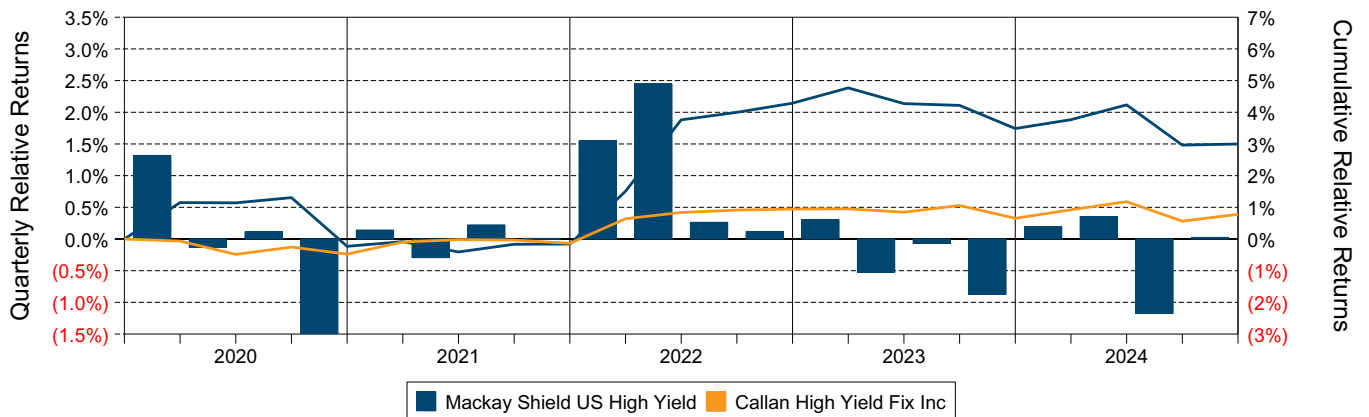
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

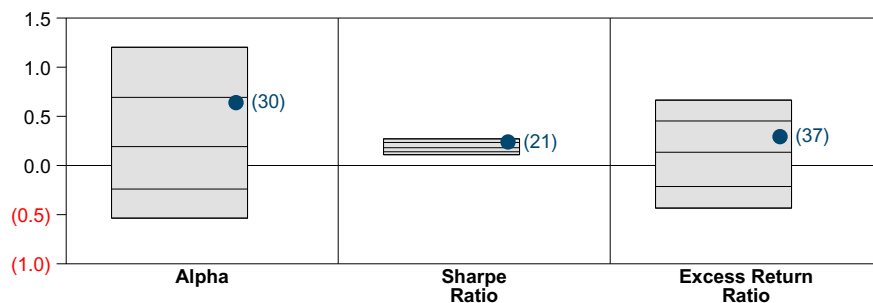
Performance vs Callan High Yield Fixed Income (Gross)



Cumulative and Quarterly Relative Returns vs Blmbg:HY Corp



Risk Adjusted Return Measures vs Blmbg:HY Corp Rankings Against Callan High Yield Fixed Income (Gross) Five Years Ended December 31, 2024

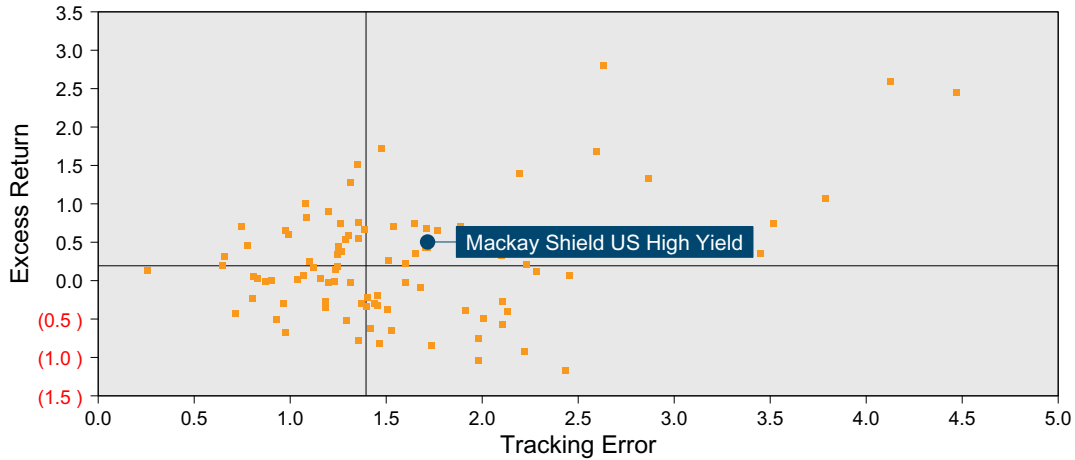


Mackay Shield US High Yield Risk Analysis Summary

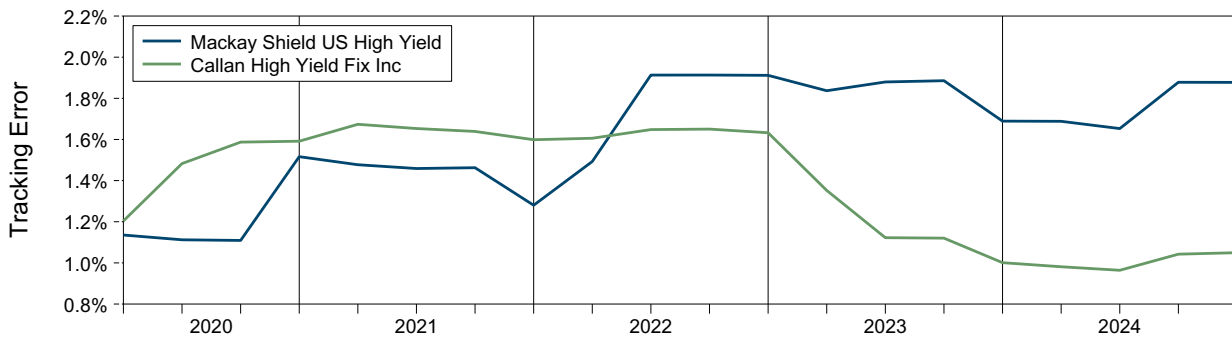
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

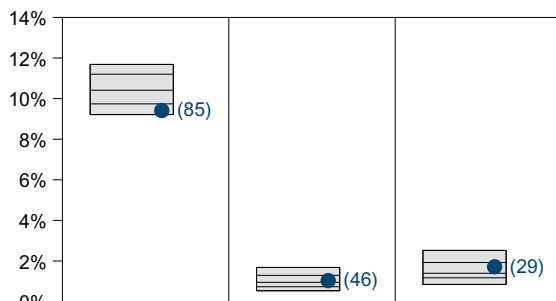
Risk Analysis vs Callan High Yield Fixed Income (Gross) Five Years Ended December 31, 2024



Rolling 12 Quarter Tracking Error vs Blmbg:HY Corp

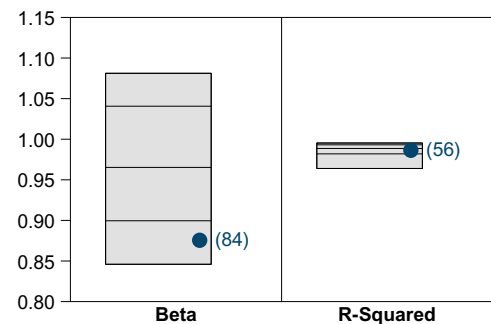


Risk Statistics Rankings vs Blmbg:HY Corp Rankings Against Callan High Yield Fixed Income (Gross) Five Years Ended December 31, 2024



	Standard Deviation	Downside Risk	Tracking Error
10th Percentile	11.69	1.68	2.52
25th Percentile	11.20	1.29	1.93
Median	10.41	0.95	1.39
75th Percentile	9.74	0.73	1.17
90th Percentile	9.21	0.54	0.85

Mackay Shield US High Yield ● 9.41 1.03 1.72



	Beta	R-Squared
10th Percentile	1.08	1.00
25th Percentile	1.04	0.99
Median	0.97	0.99
75th Percentile	0.90	0.98
90th Percentile	0.85	0.96

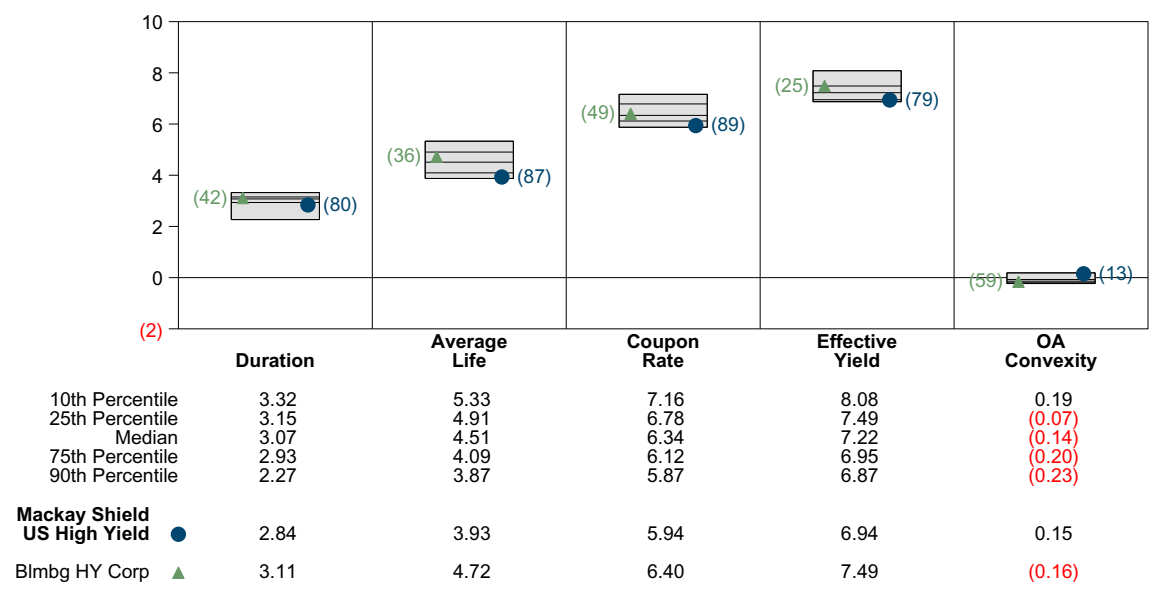
Mackay Shield US High Yield ● 0.88 0.99

Mackay Shield US High Yield Bond Characteristics Analysis Summary

Portfolio Characteristics

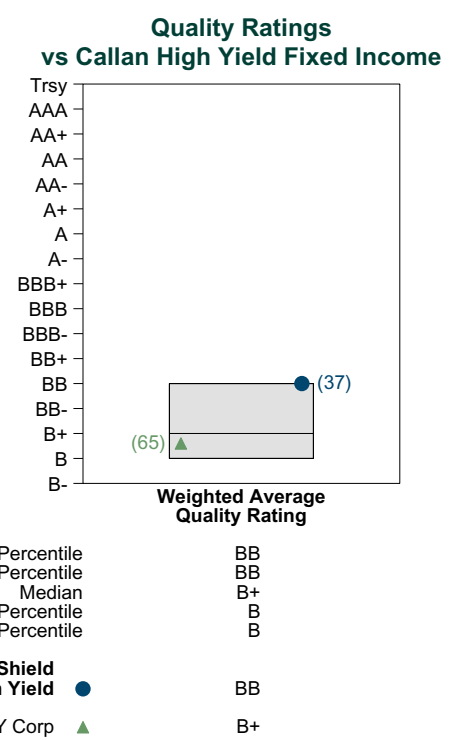
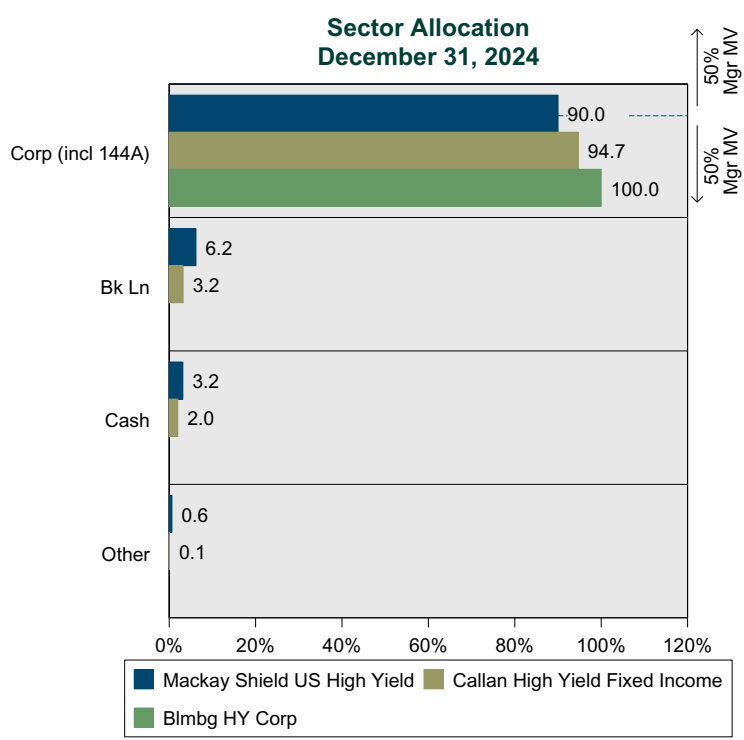
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style. Fixed Income Portfolio characteristics includes Cash Pool allocation.

Fixed Income Portfolio Characteristics Rankings Against Callan High Yield Fixed Income as of December 31, 2024



Sector Allocation and Quality Ratings

The first graph compares the manager's sector allocation with the average allocation across all the members of the manager's style. The second graph compares the manager's weighted average quality rating with the range of quality ratings for the style.

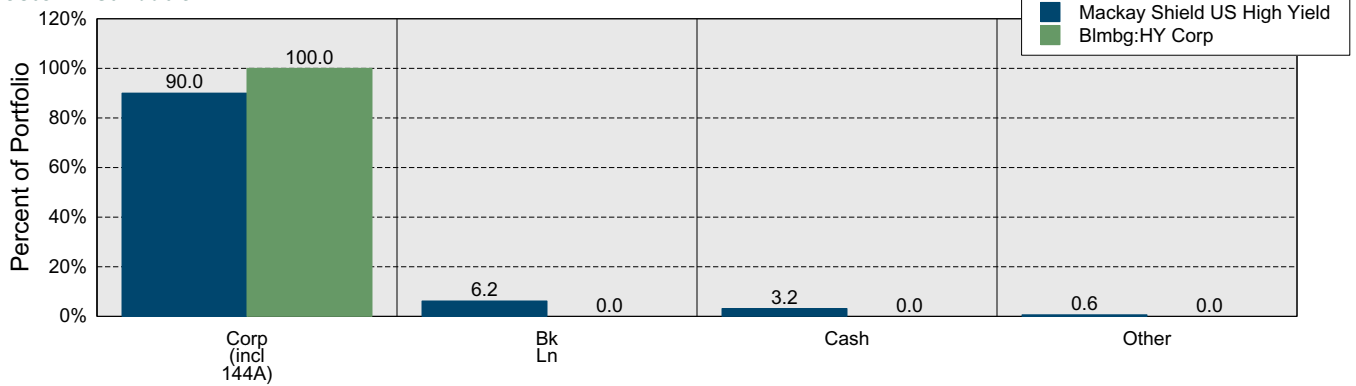


Mackay Shield US High Yield Portfolio Characteristics Summary As of December 31, 2024

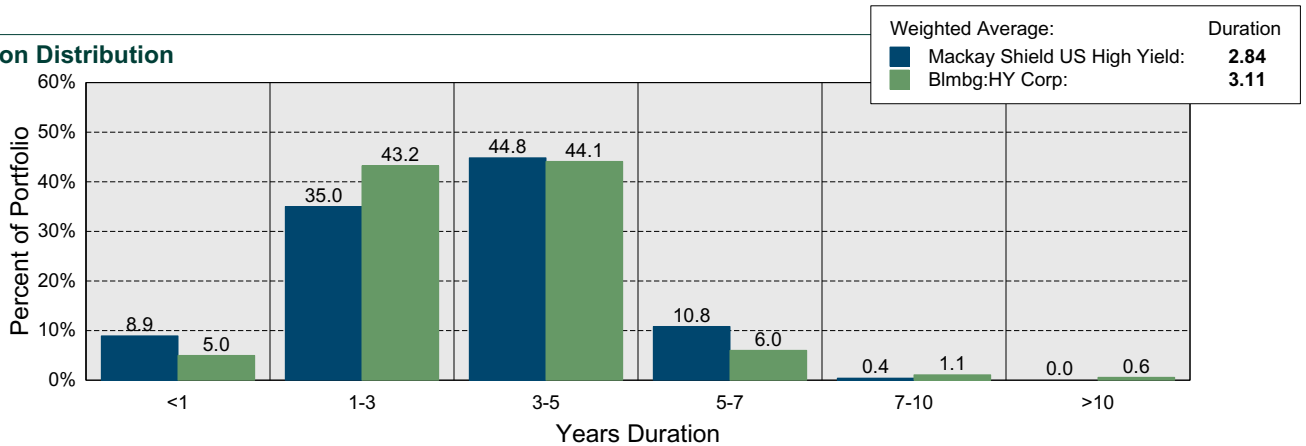
Portfolio Structure Comparison

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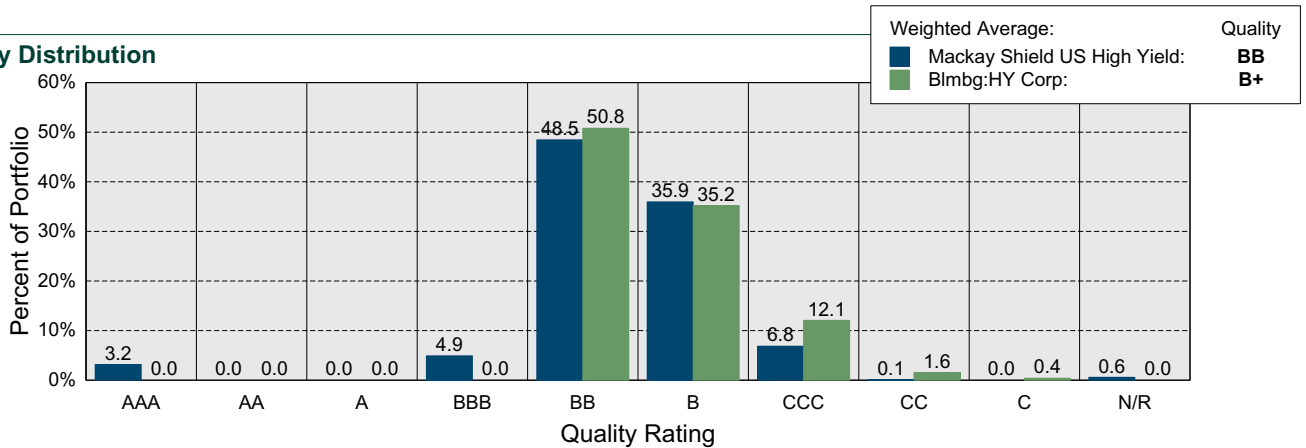
Sector Distribution



Duration Distribution



Quality Distribution



Principal Preferred Securities Period Ended December 31, 2024

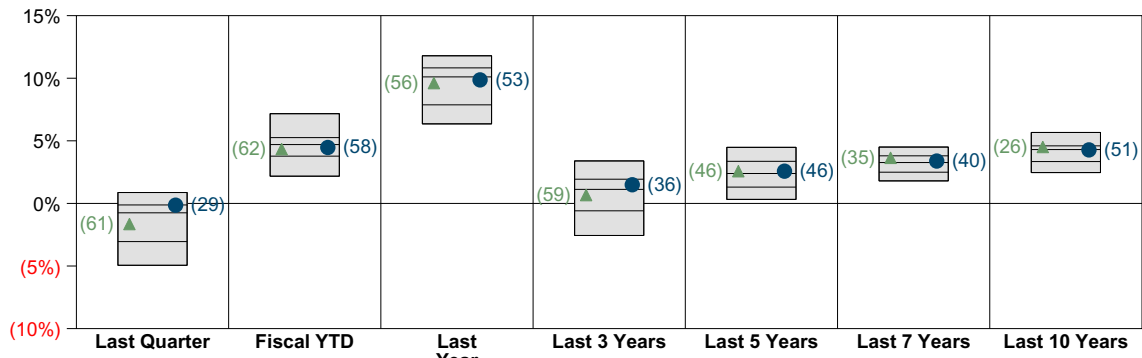
Investment Philosophy

Spectrum is a wholly owned subsidiary of Principal Global Investors. The firm has an exclusive focus on preferred securities globally. The firm employs an active approach to managing this sector with an emphasis on income as well as total return. Preferred securities are structurally subordinated fixed income investments that come in many flavors, each with unique structures and with many different labels. Common characteristics, however, are that they are subordinate to senior investment grade debt, pay a specified coupon, and are callable by the issuer. Credit quality typically ranges from BBB+ to BB. Coupon payments can be deferrable, non-deferrable and cumulative or non-cumulative. These attributes make the instruments complex and active management requires skill and experience in this sector. Principal Preferred Securities was funded July 30, 2020. Returns prior to inception reflect the Principal Preferred Securities mutual fund historical returns. Calculated returns may include the impact of cash movements.

Quarterly Summary and Highlights

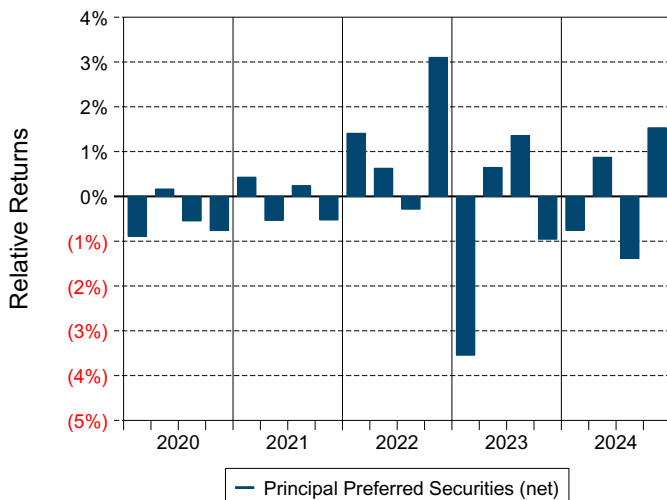
- Principal Preferred Securities (net)'s portfolio posted a (0.14)% return for the quarter placing it in the 29 percentile of the Morningstar Preferred Stock Funds group for the quarter and in the 53 percentile for the last year.
- Principal Preferred Securities (net)'s portfolio outperformed the ICE BofA US All Cap Secs by 1.51% for the quarter and outperformed the ICE BofA US All Cap Secs for the year by 0.25%.

Performance vs Morningstar Preferred Stock Funds (Net)

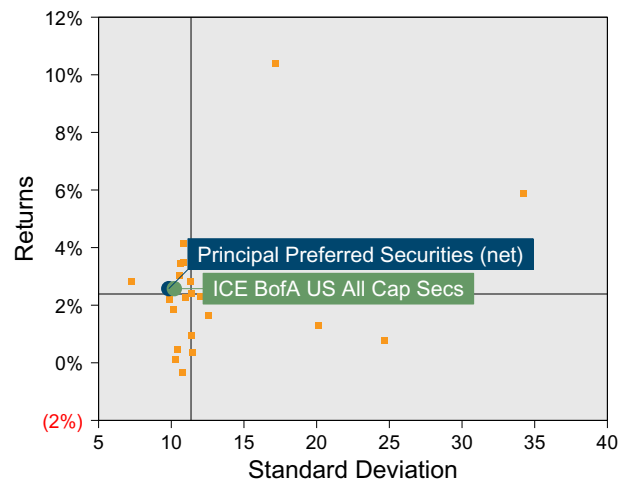


10th Percentile	0.87	7.17	11.80	3.40	4.48	4.50	5.67
25th Percentile	(0.12)	5.26	10.83	1.93	3.36	3.80	4.60
Median	(0.75)	4.70	10.11	1.12	2.39	3.27	4.30
75th Percentile	(3.05)	3.78	7.87	(0.59)	1.30	2.49	3.34
90th Percentile	(4.94)	2.17	6.35	(2.56)	0.32	1.80	2.46

Relative Return vs ICE BofA US All Cap Secs



Morningstar Preferred Stock Funds (Net) Annualized Five Year Risk vs Return

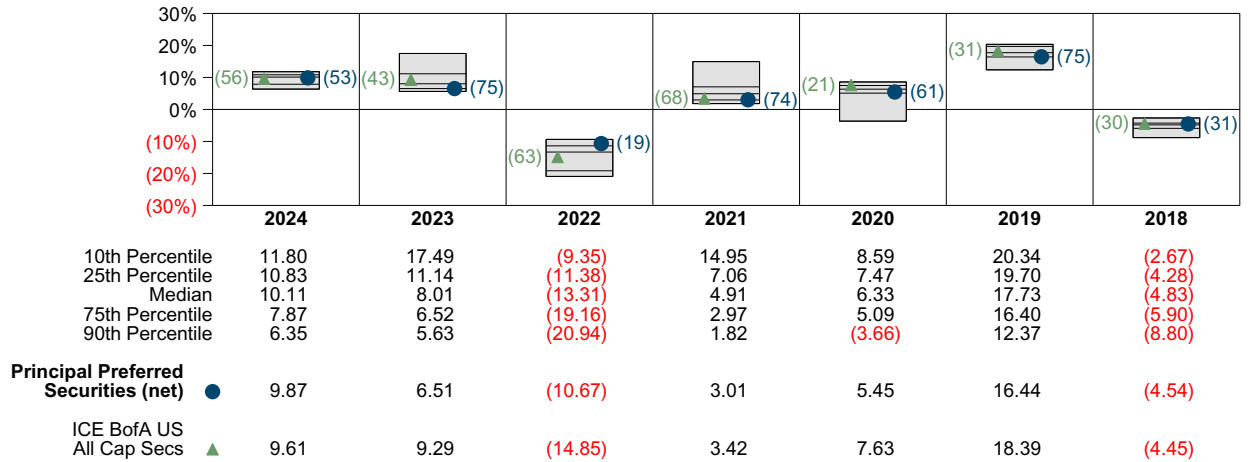


Principal Preferred Securities Return Analysis Summary

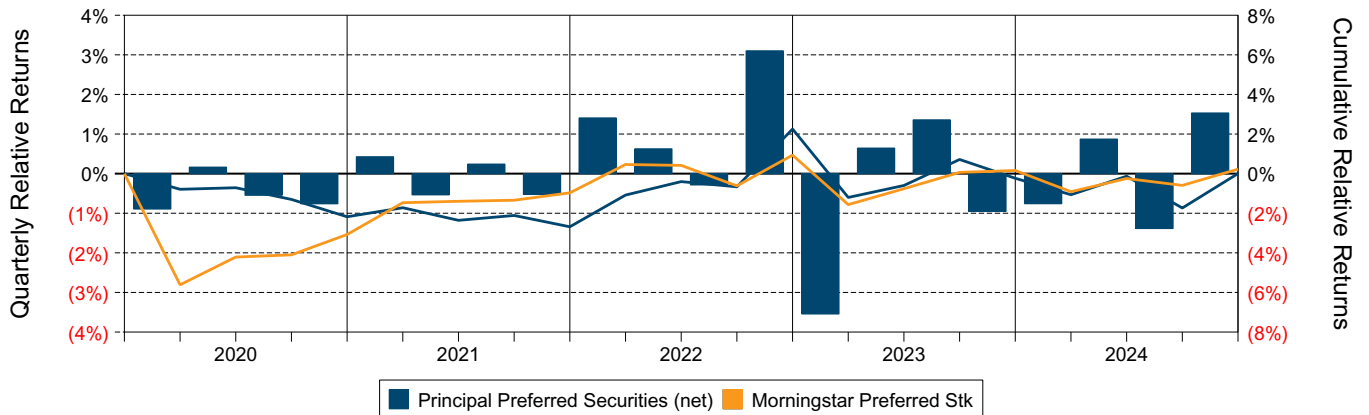
Return Analysis

The graphs below analyze the manager's return on both a risk-adjusted and unadjusted basis. The first chart illustrates the manager's ranking over different periods versus the appropriate style group. The second chart shows the historical quarterly and cumulative manager returns versus the appropriate market benchmark. The last chart illustrates the manager's ranking relative to their style using various risk-adjusted return measures.

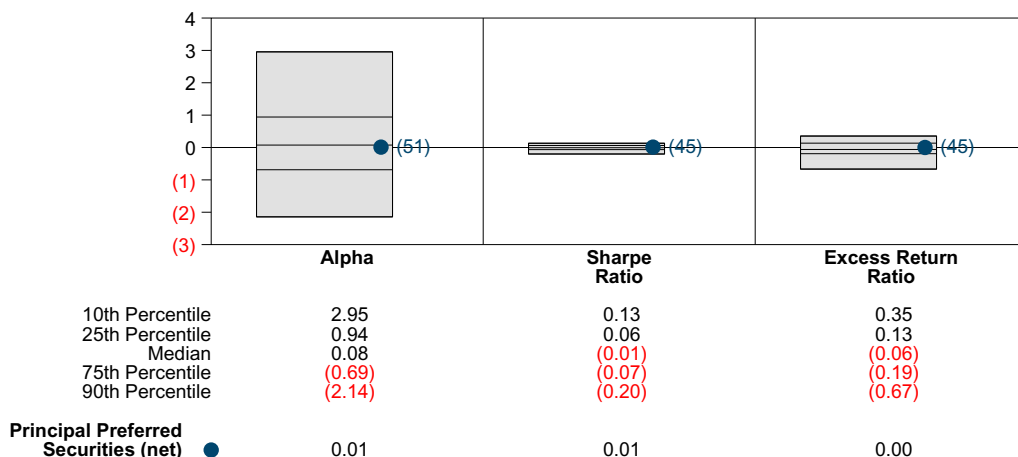
Performance vs Morningstar Preferred Stock Funds (Net)



Cumulative and Quarterly Relative Returns vs ICE BofA US All Cap Secs



Risk Adjusted Return Measures vs ICE BofA US All Cap Secs Rankings Against Morningstar Preferred Stock Funds (Net) Five Years Ended December 31, 2024



Principal Preferred Securities Risk Analysis Summary

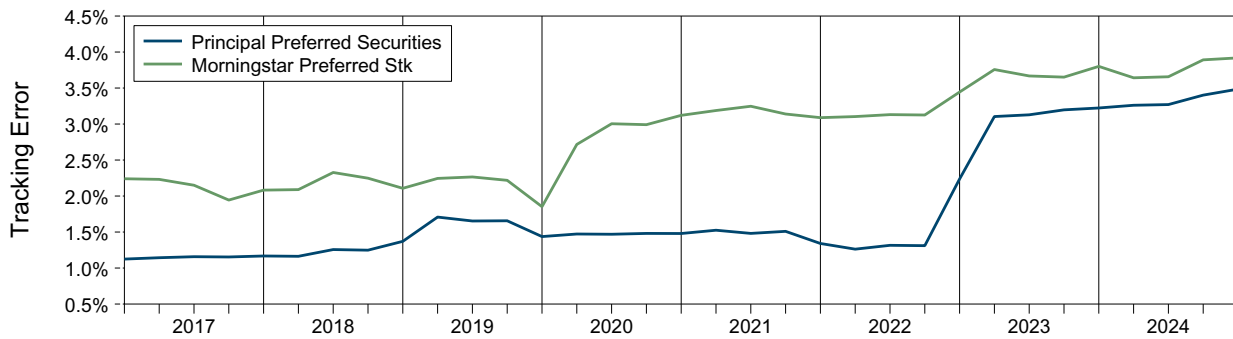
Risk Analysis

The graphs below analyze the risk or variation of a manager's return pattern. The first scatter chart illustrates the relationship, called Excess Return Ratio, between excess return and tracking error relative to the benchmark. The second chart shows tracking error patterns versus the benchmark over time. The last two charts show the ranking of the manager's risk statistics versus the peer group.

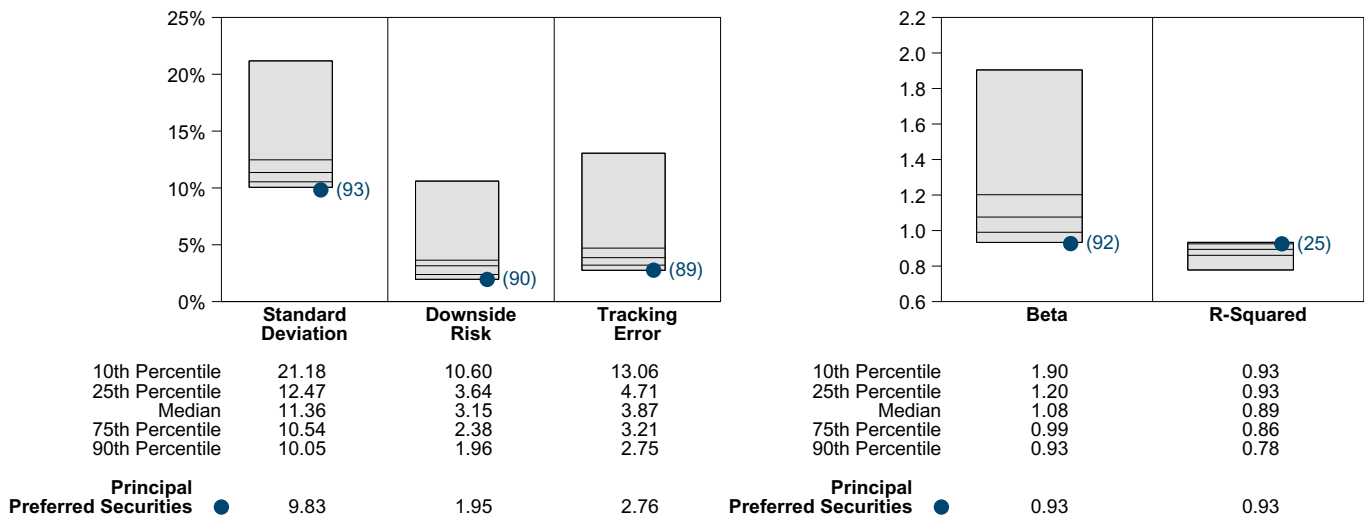
Risk Analysis vs Morningstar Preferred Stock Funds (Net) Five Years Ended December 31, 2024



Rolling 12 Quarter Tracking Error vs ICE BofA US All Cap Secs



Risk Statistics Rankings vs ICE BofA US All Cap Secs Rankings Against Morningstar Preferred Stock Funds (Net) Five Years Ended December 31, 2024

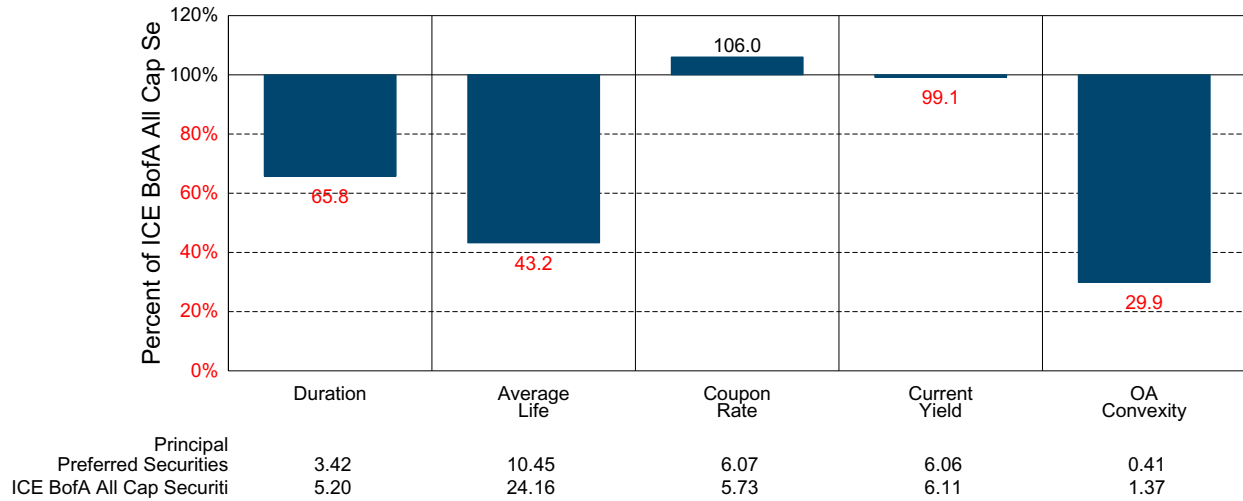


Principal Preferred Securities Bond Characteristics Analysis Summary

Portfolio Characteristics

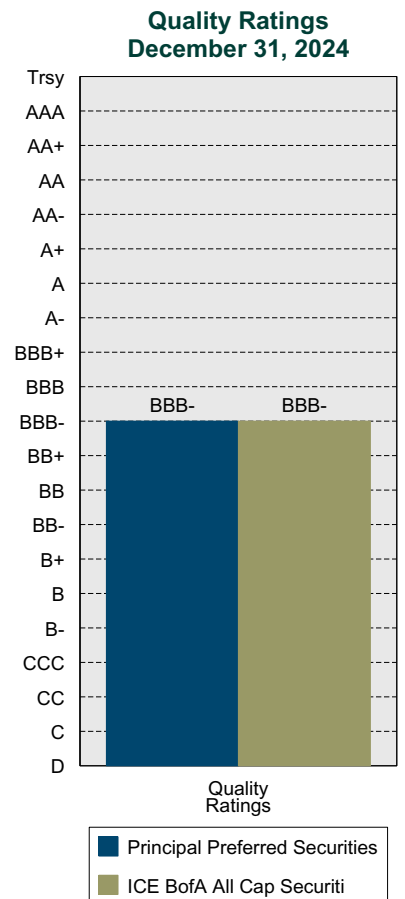
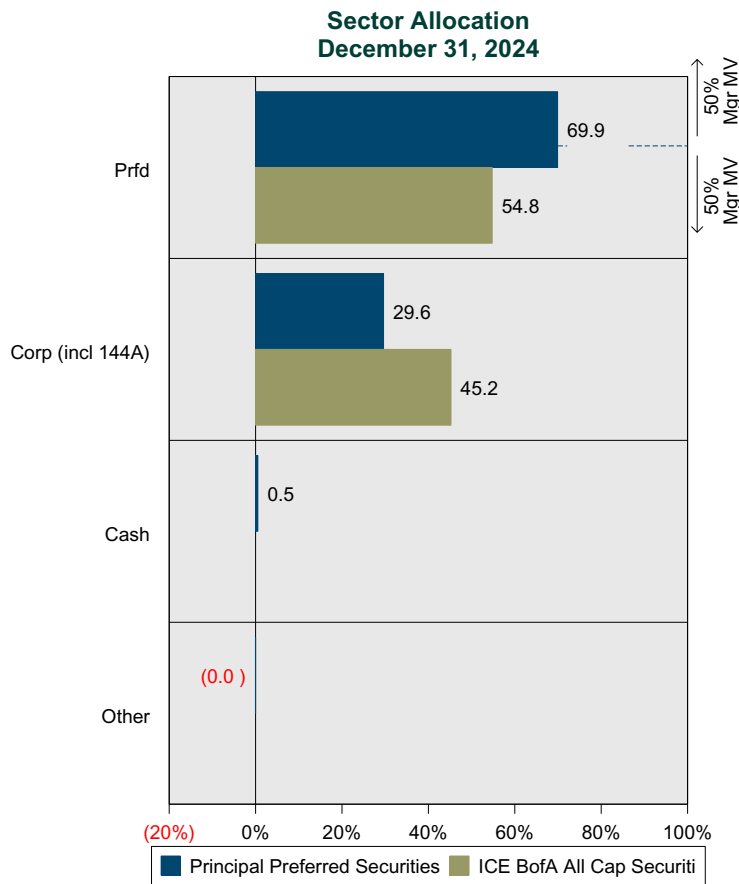
This graph compares the manager's portfolio characteristics with the range of characteristics for the portfolios which make up the manager's style group. This analysis illustrates whether the manager's current holdings are consistent with other managers employing the same style. Fixed Income Portfolio characteristics includes Cash Pool allocation.

Portfolio Characteristics Relative to ICE BofA All Cap Securiti as of December 31, 2024



Sector Allocation and Quality Ratings

The first graph compares the manager's sector weights for the most recent quarter with those of the benchmark. The second graph compares the manager's weighted average quality rating with those of the benchmark.

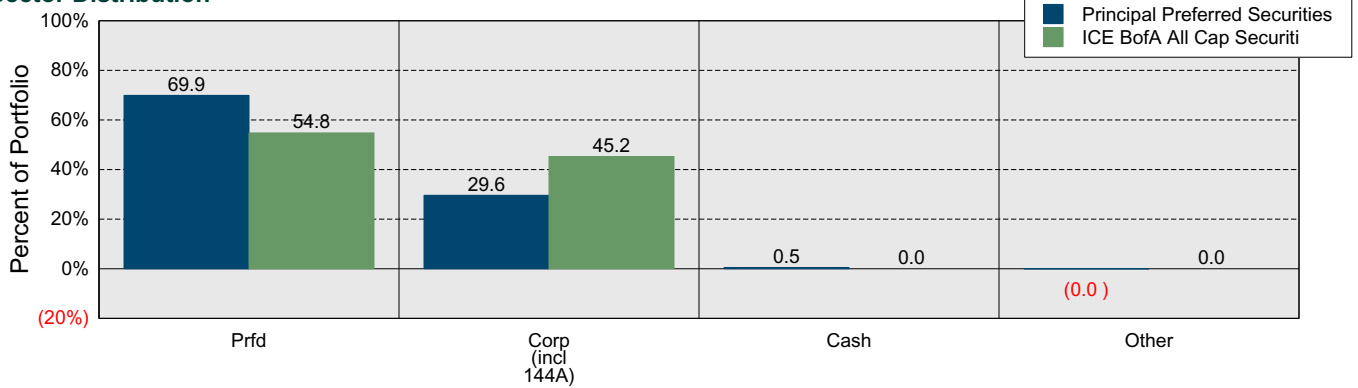


Principal Preferred Securities Portfolio Characteristics Summary As of December 31, 2024

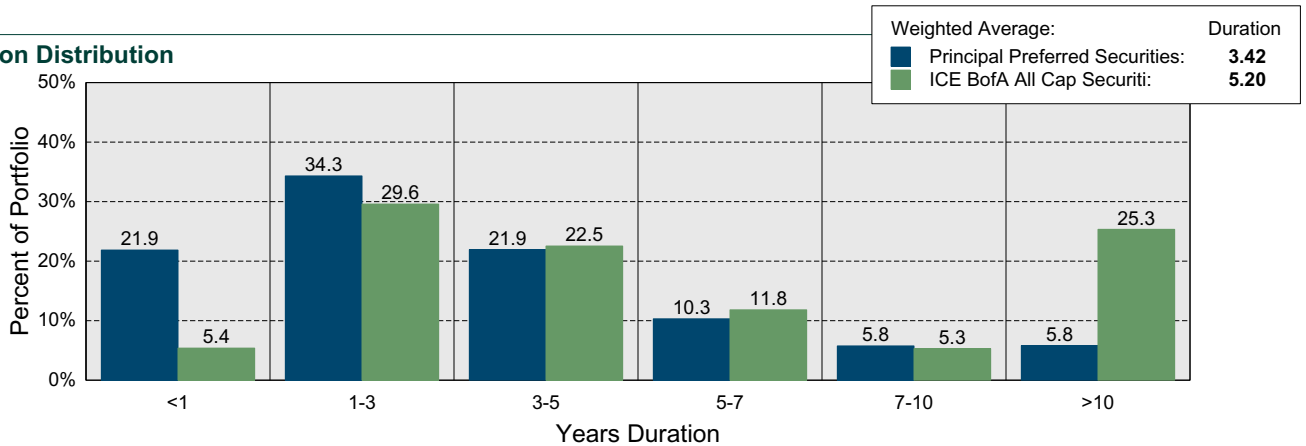
Portfolio Structure Comparison

The charts below compare the structure of the portfolio to that of the index from the three perspectives that have the greatest influence on return. The first chart compares the two portfolios across sectors. The second chart compares the duration distribution. The last chart compares the distribution across quality ratings.

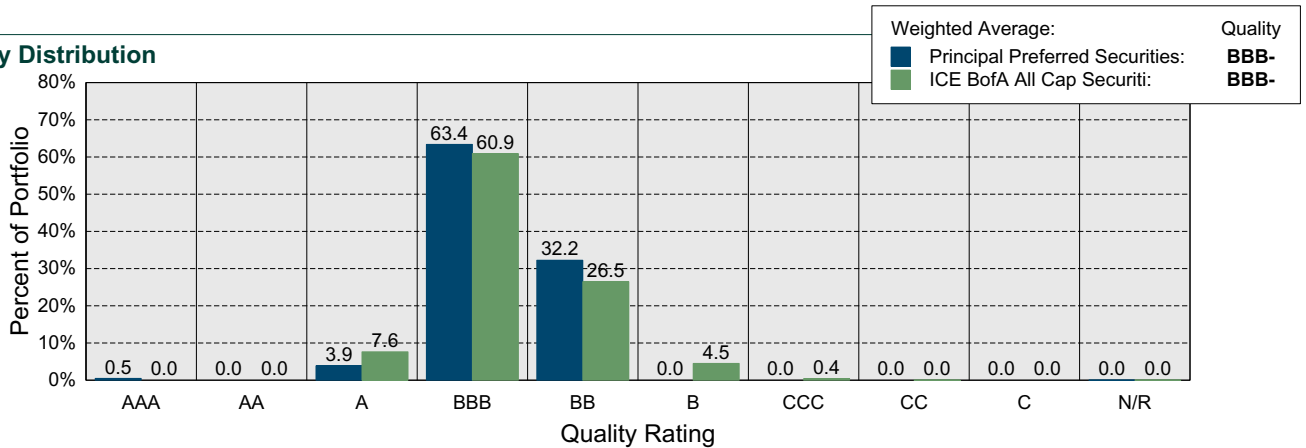
Sector Distribution



Duration Distribution



Quality Distribution



List of Callan's Investment Manager Clients

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The list below is an important component of our conflicts management and disclosure process. It identifies those investment managers that pay Callan fees for educational, consulting, software, database, or reporting products and services. We update the list quarterly because we believe that our fund sponsor clients should know the investment managers that do business with Callan, particularly those investment manager clients that the fund sponsor clients may be using or considering using. Please note that if an investment manager receives a product or service on a complimentary basis (e.g., attending an educational event), they are not included in the list below. Callan is committed to ensuring that we do not consider an investment manager's business relationship with Callan, or lack thereof, in performing evaluations for or making suggestions or recommendations to its other clients. Please refer to Callan's ADV Part 2A for a more detailed description of the services and products that Callan makes available to investment manager clients through our Institutional Consulting Group, Independent Adviser Group, and Fund Sponsor Consulting Group. Due to the complex corporate and organizational ownership structures of many investment management firms, parent and affiliate firm relationships are not indicated on our list.

Fund sponsor clients may request a copy of the most currently available list at any time. Fund sponsor clients may also request specific information regarding the fees paid to Callan by particular fund manager clients. Per company policy, information requests regarding fees are handled exclusively by Callan's Compliance department.

Manager Name

abrdrn Investments

Acadian Asset Management LLC

Adams Street Partners, LLC

Aegon Asset Management

AEW Capital Management, L.P.

AllianceBernstein

Allspring Global Investments, LLC

Altrinsic Global Advisors, LLC

American Century Investments

American Realty Advisors

Amundi US, Inc.

Antares Capital LP

Apollo Global Management, Inc.

AQR Capital Management

Ares Management LLC

ARGA Investment Management, LP

Ariel Investments, LLC

Aristotle Capital Management, LLC

Manager Name

Atlanta Capital Management Co., LLC

Audax Private Debt

AXA Investment Managers

Baillie Gifford International, LLC

Baird Advisors

Barings LLC

Baron Capital Management, Inc.

Barrow, Hanley, Mewhinney & Strauss, LLC

BentallGreenOak

Beutel, Goodman & Company Ltd.

BlackRock

Blackstone Group (The)

Blue Owl Capital, Inc.

BNY Mellon Asset Management

Boston Partners

Brandes Investment Partners, L.P.

Brandywine Global Investment Management, LLC

Brookfield Asset Management Inc.

Manager Name

Brown Brothers Harriman & Company
Brown Investment Advisory & Trust Company
Capital Group
CastleArk Management, LLC
Cercano Management LLC
CIBC Asset Management
CIM Group, LP
ClearBridge Investments, LLC
Cohen & Steers Capital Management, Inc.
Columbia Threadneedle Investments
Comvest Partners
Crescent Capital Group LP
Dana Investment Advisors, Inc.
DePrince, Race & Zollo, Inc.
Diamond Hill Capital Management, Inc.
Dimensional Fund Advisors L.P.
DoubleLine
DWS
EAM Investors, LLC
EARNEST Partners, LLC
Fayez Sarofim & Company
Federated Hermes, Inc.
Fidelity Institutional Asset Management
Fiera Capital Corporation
First Eagle Investment Management, LLC
First Hawaiian Bank Wealth Management Division
Fisher Investments
Franklin Templeton
Fred Alger Management, LLC
GAMCO Investors, Inc.
GlobeFlex Capital, L.P.
Goldman Sachs
Golub Capital
GW&K Investment Management
Harbor Capital Group Trust
Hardman Johnston Global Advisors LLC
Heitman LLC
Hotchkis & Wiley Capital Management, LLC
HPS Investment Partners, LLC
IFM Investors

Manager Name

Impax Asset Management LLC
Income Research + Management
Insight Investment
Intercontinental Real Estate Corporation
Invesco
J.P. Morgan
Janus
Jennison Associates LLC
Jobs Peak Advisors
Kayne Anderson Rudnick Investment Management, LLC
KeyCorp
King Street Capital Management, L.P.
Kohlberg Kravis Roberts & Co. L.P. (KKR)
Lazard Asset Management
LGIM America
Lincoln National Corporation
Longview Partners
Loomis, Sayles & Company, L.P.
Lord, Abnett & Company
LSV Asset Management
MacKay Shields LLC
Macquarie Asset Management
Manulife Investment Management
Manulife | CQS Investment Management
Marathon Asset Management, L.P.
Mawer Investment Management Ltd.
MetLife Investment Management
MFS Investment Management
Mondrian Investment Partners Limited
Montag & Caldwell, LLC
Morgan Stanley Investment Management
MUFG Bank, Ltd.
Natixis Investment Managers
Neuberger Berman
Newmarket Capital
Newton Investment Management
Nikko Asset Management Co., Ltd.
Ninety One North America, Inc.
Northern Trust Asset Management
Nuveen

Manager Name

Oaktree Capital Management, L.P.

Orbis Investment Management Limited

P/E Investments

Pacer Financial Inc.

Pacific Investment Management Company

Parametric Portfolio Associates LLC

Partners Group (USA) Inc.

Pathway Capital Management, LP

Peavine Capital

Peregrine Capital Management, LLC

PGIM DC Solutions

PGIM Fixed Income

PGIM Quantitative Solutions LLC

Pictet Asset Management

PineBridge Investments

Polaris Capital Management

Polen Capital Management, LLC

PPM America, Inc.

Pretium Partners, LLC

Principal Asset Management

Raymond James Investment Management

RBC Global Asset Management

Regions Financial Corporation

Rockpoint

S&P Dow Jones Indices

Sands Capital Management

Schroder Investment Management North America Inc.

Manager Name

Segall Bryant & Hamill

SLC Management

Star Mountain Capital, LLC

State Street Global Advisors

Strategic Global Advisors, LLC

Tilden Park Capital Management LP

Tri-Star Bank

T. Rowe Price Associates, Inc.

TD Global Investment Solutions – TD Epoch

The D.E. Shaw Group

The TCW Group, Inc.

Thompson, Siegel & Walmsley LLC

TPG Angelo Gordon

UBS Asset Management

VanEck

Versus Capital Group

Victory Capital Management Inc.

Virtus Investment Partners, Inc.

Vontobel Asset Management

Voya

Walter Scott & Partners Limited

WCM Investment Management

Wellington Management Company LLP

Western Asset Management Company LLC

Westfield Capital Management Company, LP

William Blair & Company LLC

Xponance, Inc.

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Past performance is no guarantee of future results.

February 10, 2025



Colorado Public School Permanent Fund

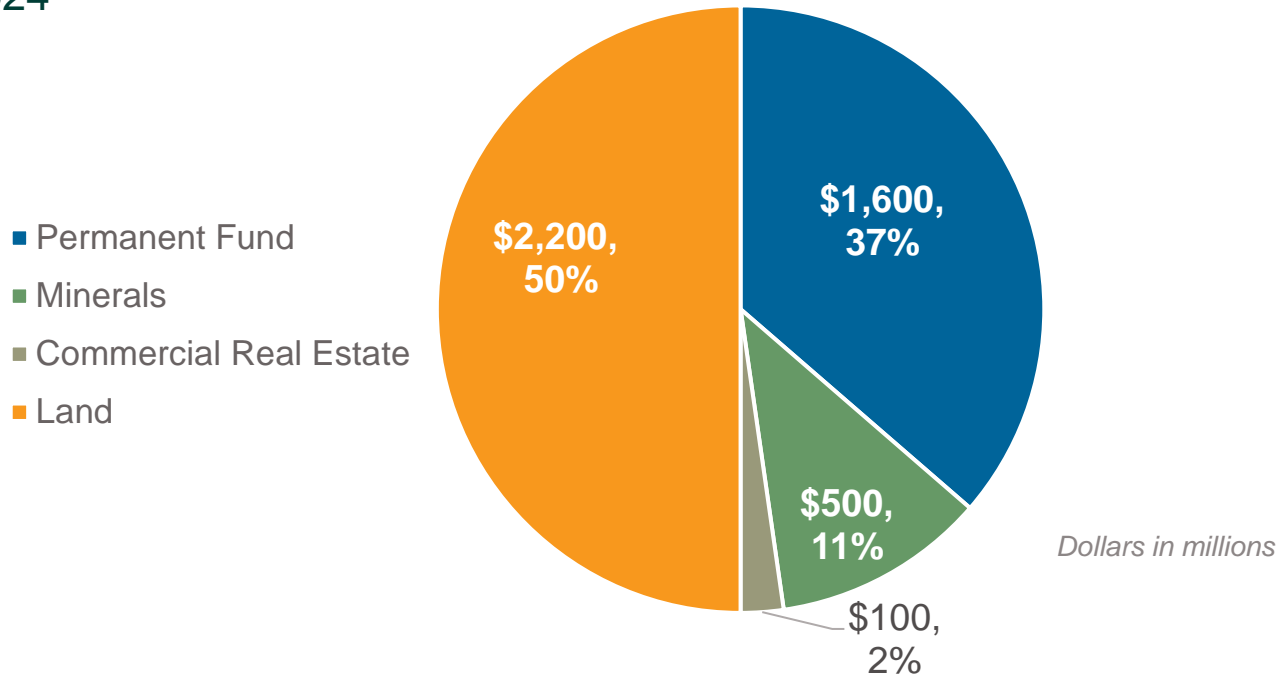
Asset Allocation and Rebalancing
Update

Janet Becker-Wold, CFA
Senior Vice President & Manager

Alex Browning
Senior Vice President

Asset Allocation of Whole Trust

As of June 2024



- Based on June 30, 2024, valuations, the Permanent Fund represents 37% of the Whole Trust assets.
- The purpose of the Permanent Fund is to invest proceeds from the Department of Natural Resources on behalf of the Trust beneficiaries, primarily Colorado Public Schools.
- The investment objective is to grow the Trust at a rate that ensures intergenerational equity (greater than inflation plus student population growth).
- Recent legislation (HB 24-1448) phases out the \$21 million going to the SFA, beginning in FY25, over a three-year period. By FY 2027, \$41 million of income will go directly to BEST. In FY 25, \$11 million to SFA; FY 26, \$5 million.

2024 Board Approved Asset Allocation Changes

- At the September 25th meeting, the Board approved increasing the equity exposure from 30% to 50% over a two-year period.
- A funding to Parametric occurred November 13, 2024, for \$27.2 million. Amount and timing of future fundings will be evaluated throughout the year.
- Source of funds:
 - As of December 31, 2024, cash available for investing is \$71.0 million
 - The Department of Natural Resources (DNR) expects to send \$100 million per year if oil and gas markets stay the same.
 - To the extent the funds necessary for equity to reach 50% of total assets exceeds the current cash available and incoming DNR revenues, cash will need to come from the market duration fixed income portfolio. Current unrealized gains and losses are \$5.3MM and \$72.2MM, respectively.

Asset Class	Current Target	New Long-Term Target
Equity	30%	50%
Core US Fixed Income	52%	32%
Short Duration Fixed Income	8%	8%
High Income Strategies	10%	10%
	100%	100%

Funding Plan

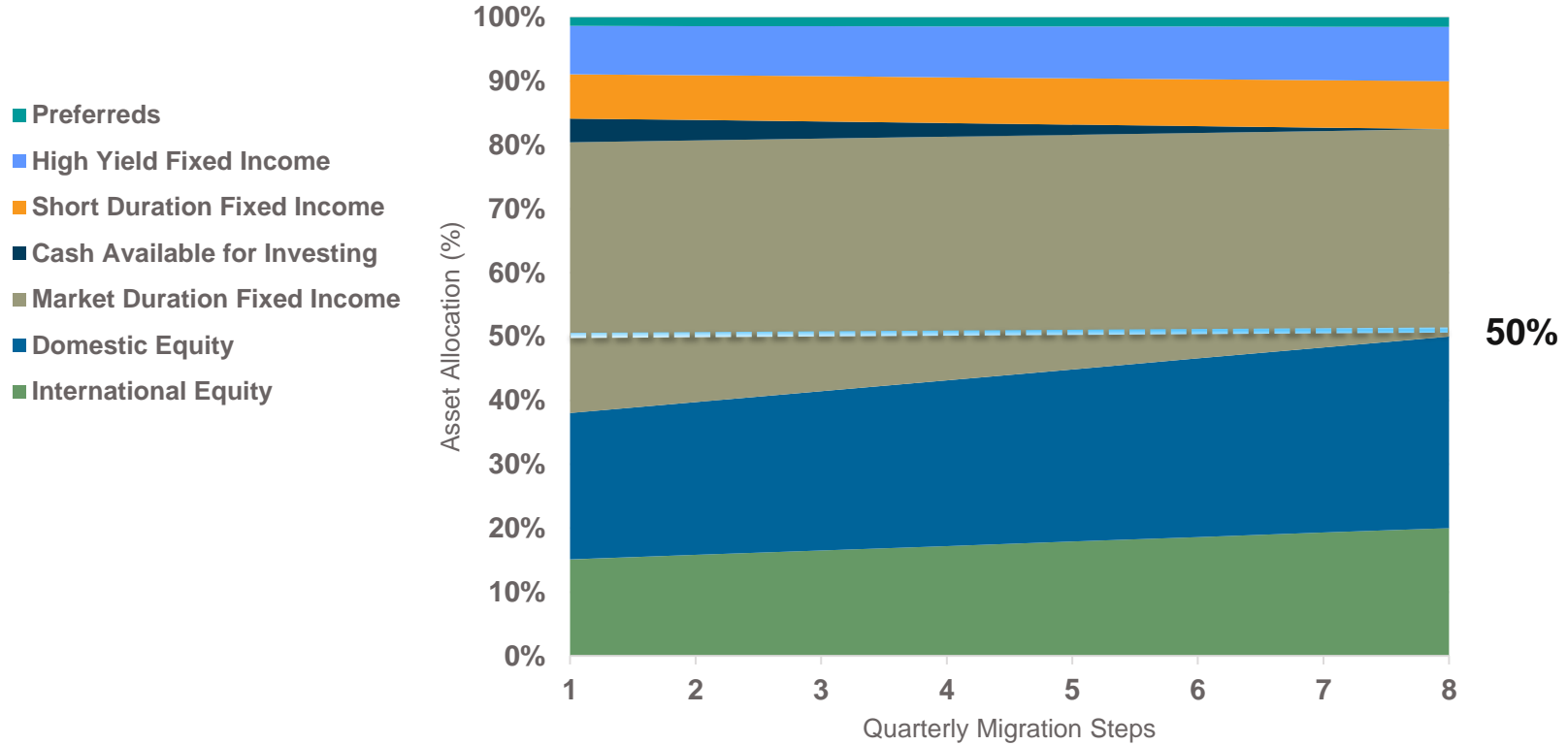
Asset Classes	Market Value 12/31/2024	% Mkt Val Allocation	Rebalancing Transactions 2025 (\$ millions)				Market Value 12/31/2025	% Mkt Val Allocation
			February Rebalance	May Rebalance	August Rebalance	November Rebalance		
Total Equity	\$606.5	36.3%	\$28.6	\$28.6	\$28.6	\$28.6	\$720.7	43.2%
Market Duration Fixed Income	\$731.7	43.8%	\$0.0	\$0.0	-\$26.5	-\$32.5	\$672.7	40.3%
Short Duration Fixed Income	\$114.2	6.8%	\$1.4	\$1.4	\$1.4	\$1.4	\$119.7	7.2%
High Income Strategies	\$146.7	8.8%	\$2.5	\$2.5	\$2.5	\$2.5	\$156.8	9.4%
Cash Available for Investing	\$71.0	4.3%	-\$32.5	-\$32.5	-\$6.0	\$0.0	\$0.0	0.0%
Total	\$1,670.0	100.00%	\$0.0	\$0.0	\$0.0	\$0.0	\$1,670.0	100.00%

- Rebalancing transactions and ending market values are estimates.
- Cash available for investing is utilized as the initial funding source for increasing equity exposure.
- Model does not include DNR cash flows over the year. In practice, those flows will be used for August and November rebalancings and reduce the reliance on the bond portfolio as a source of funds.
- The model also does not include changes in market values due to market movements.
- Model will be updated quarterly to account for additional cash flows and market value changes.

Asset Allocation Migration

Calendar Years 2025 and 2026

8 Quarter Asset Allocation Migration



Callan

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Callan was founded as an employee-owned investment consulting firm in 1973. Ever since, we have empowered institutional investor with creative, customized investment solutions backed by proprietary research, exclusive data, and ongoing education. Today, Callan provides advisory services to institutional investor clients with more than \$3 trillion in total assets, which makes it among the largest independently owned investment consulting firms in the U.S. Callan uses a client-focused consulting model to serve pension and defined contribution plan sponsors, endowments, foundations, independent investment advisers, investment managers, and other asset owners. Callan has six offices throughout the U.S. For more information, please visit www.callan.com.

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San Francisco, CA 94104

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